General
CATALOGUE
2025-2026

FONESTAR

Our vision is...

To be the reference in sound, for any type of building, for fixed installations of any magnitude worldwide.

To be a manufacturer of exclusive and differential solutions, of innovative hardware, software, as well as a provider of services that respond to the needs of installers/integrators, distributors and engineers in PA, sound, voice evacuation and mounts for audiovisual installations.

WE ARE FONESTAR
WE ARE PEOPLE

We listen to the needs of our customers and we develop and manufacture products “Designed and engineered in Europe”; designed by understanding the product from a European standard, in terms of design, usability and quality; to bring value to our customers. Aiming to be the first brand in the mind of installers/integrators, distributors and engineers; we want to be the brand that grows your business.

We invest in engineering, product development, industrial design and R+D; to achieve differentiation and innovation in hardware and software, always trying to satisfy our customers.

We offer sound, public address and voice evacuation solutions; differential, exclusive, customized solutions, that adapt to the needs of each client at all times. We provide services that add value: training, synoptic diagrams, project design, acoustic studies, project design advice, virtual and face-to-face commissioning, assembly, configurations, after-sales service and trainings, as well as a large stock of spare parts.
In addition, we offer an extensive warehouse with 99% of the references from our extensive catalogue available for immediate shipping.

www.fonestar.com

/ fonestarsistemas

European brand,
evolving into a
global brand

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our **values**

1 DIFFERENTIATION AND INNOVATION

We innovate to meet the unresolved needs of our customers. We differentiate ourselves by listening to them and **turning their feedback into competitive solutions.**

2 ETHICS AND INTEGRITY

We create long-term value by building honest, transparent and trustworthy relationships.

3 CLOSENESS AND ORIENTATION TO THE CUSTOMER

Maximum **commitment to our customers;** prompt response and immediate product availability. **Commercial and engineering** team available for comprehensive advice.

4 WE CARE ABOUT PEOPLE

We are committed to the well-being and development of our teams to create **healthy and professional work environments.** This is the "magic" formula to have a team fully committed to our customers and collaborators.

"transforming spaces through sound

We are **manufacturers and developers**

European design and engineering

The best relationship **quality/price**

14.000 m² of warehouses for immediate service

Resolute, close, fast and personalised **customer service**

Extensive experience since **1947**

Extensive product catalogue

110 employees

Our project team
at your disposal

Maximum flexibility
We adapt the solution to your needs

Installations **all over the world**

Value-added services:
training, advice, commissioning

R+D+i **team**
Hardware and Software

Warehouse in **Asia**

> SYSTEMS AND CONTROL

> PUBLIC ADDRESS

> HIGH POWER

> MICROPHONES

> AV INSTALLATION

> CONNECTIVITY

> MOUNTS

> Hi-Fi

> PORTABLE AUDIO

> HEADPHONES

> RACKS AND FLIGHT CASES

> LIGHTING AND EFFECTS

> NEEDLES AND PHONOCAPSULES

Designed by
FONESTAR

We listen and we deliver

We listen to the needs of our customers and we deliver sound solutions, public address, voice evacuation and mounts for audiovisual installations “Designed and engineered in Europe”.

Our product strategy is based on 5 pillars and aims to achieve the highest possible value-added products and a consolidated portfolio with the best solutions.

- **Integrate the latest technology in product development**, but without sacrificing quality to achieve innovation.
- **Involve our partners and users to know their needs, comments and opinions.** There is no one better to make us understand their market and problems.
- **To rely on the economy of scale,** to become more competitive in terms of price and features.
- **Achieve exceptional clarity in the product range to make it easy for customers to choose the product they need,** sharing common as well as distinct features to become more marketable.
- **We work on a product with a clear identity,** based on a clean image, ease of use and avoiding the unnecessary for maximum clarity.

> FONESTAR DESIGN PROCESS

If you tell us **what you need**, we will consider it for selecting new projects.

Start

Definition

BEFORE NEW PRODUCT

- Your needs
- Issues on our current products
- Wishlist
- Market demands

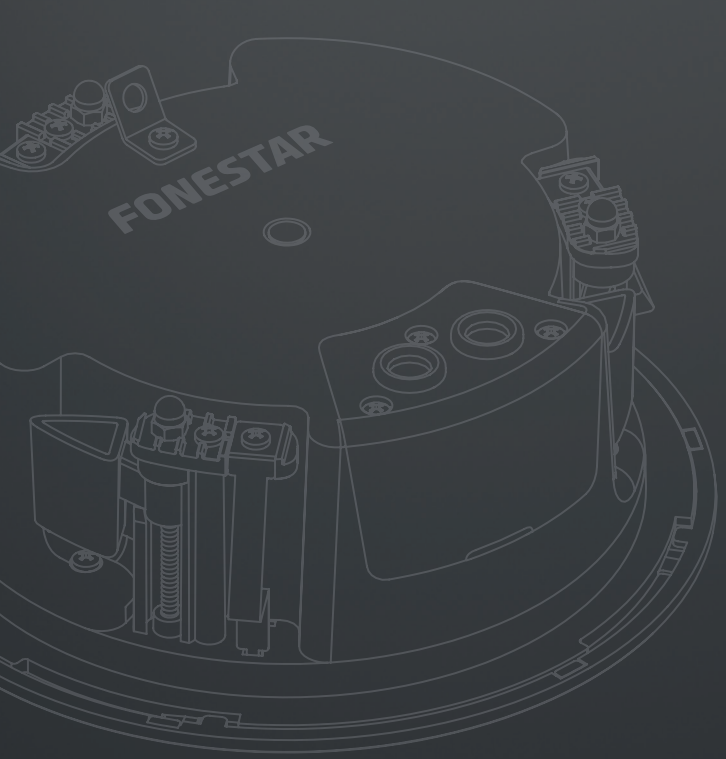
MARKET RESEARCH

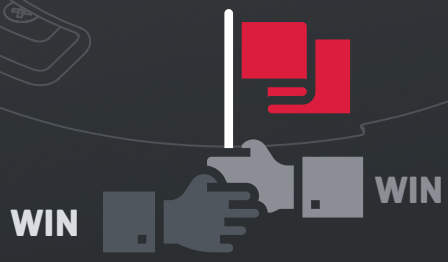
- Focus groups
- Questionaires
- Surveys
- Interviews

- Requirements
- Customer types
- Market definition

Involving our clients is extremely important, in order to understand the different needs and problems that arise

Understanding how they work, how their particular market works or the needs of their installers and customers, helps us to provide competitive answers with our products providing maximum value.





Iterative process

Design → Prototype → Tests → Mass production

PRODUCT DEVELOPMENT

- Testing prototypes
- Evaluate design
- Evaluate specifications

If you help us to know the **requirements from your market**, you will get a more suitable product in the end.

MARKET LAUNCH

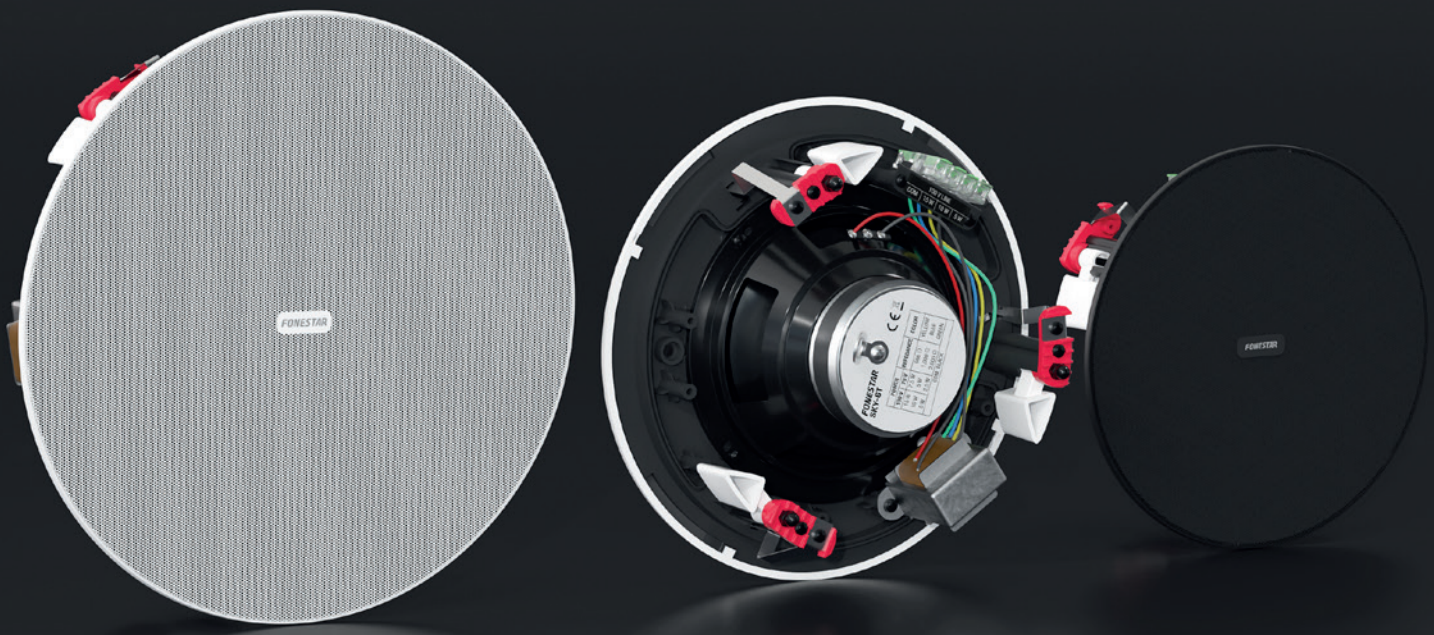
- Product review
- Issues
- Market acceptance
- Customers feedback
- New requests

SKY
series

The ceiling loud speakers series with **better acoustics**

Transforming our customers' valuable feedback into a design that meets their needs has been an exciting challenge, but we have succeeded in developing a diversity of solutions that share a unique look and feel. With the SKY series, we have removed the need to resort to different families of ceiling speakers to address specific needs. Now, within this exceptional series, you will find an appropriate solution for every project.

- Security anchorage point
- Reliable, quick-to-use terminals
- Anti-fall system
- Frameless design
- Resist saline mist
- IP 44/IP 65 protection
- Installation easy and fast
- Turn-lockable grille
- Rust free grille



5”

• SKY-5	12 W RMS	8 Ohm	Double cone	IP 44		
• SKY-5T	3/6/12 W RMS	100 V / 70 V / 8 Ohm				
• SKY-5-DOME	15 W RMS	8 Ohm	Coaxial	IP 65	Power selector	Low dome profile
• SKY-5T-DOME	2,5/5/10/15 W RMS	100 V / 70 V / 8 Ohm				

• **SKY-5N-GR** Black grille compatible with SKY 5’’ versions

6”

• SKY-6	12 W RMS	8 Ohm	Double cone	IP 44		
• SKY-6T	5/10/15 W RMS	100 V / 70 V / 8 Ohm				
• SKY-6-DOME	20 W RMS	8 Ohm	Coaxial	IP 65	Power selector	Low dome profile
• SKY-6T-DOME	2,5/5/10/20 W RMS	100 V / 70 V / 8 Ohm				

• **SKY-6N-GR** Black grille compatible with SKY 6’’ versions

8”

• SKY-8	20 W RMS	8 Ohm	Double cone	IP 44		
• SKY-8T	5/10/20 W RMS	100 V / 70 V / 8 Ohm				
• SKY-8-DOME	30 W RMS	8 Ohm	Coaxial	IP 65	Power selector	Low dome profile
• SKY-8T-DOME	3,75/7,5/15/30 W RMS	100 V / 70 V / 8 Ohm				

• **SKY-8N-GR** Black grille compatible with SKY 8’’ versions

COMING SOON

> SKY 3”

> SKY-ELITE

SKY-5T-ELITE 3,75/7,5/15/30 W RMS

SKY-6T-ELITE 7,5/15/30/60 W RMS

BASS REFLEX CROSSOVER COAXIAL

> SKY-SUB

SKY-8T-SUB 7,5/15/30/60 W RMS

BASS REFLEX SUBWOOFER

SONORA
series

Security cable

Euroblock, secure connection

Precise adjustement

Designed for EN 54

Resist saline mist

Protection IP 66

Easy and fast installation

Two positions

Rust-free grille

ACTIVE models

5”

• SONORA-5AB • SONORA-5AN	25+25 W RMS	Standard
• SONORA-5AWB • SONORA-5AWN	25+25 W RMS	WIFI
• SONORA-5AIPB • SONORA-5AIPN	15+15 W RMS	IP
• SONORA-5AIPXB • SONORA-5AIPXN	15 W RMS	Outdoor IP IP 66 Resists saline mist

The most complete and professional loudspeaker series

The SONORA series has been created to turn the needs of our customers into practical solutions with a coherent design. The SONORA series offers versatile options that suit any project.

PASSIVE models

3”

• SONORA-3TB • SONORA-3TN	1,5/3/06/12 W RMS	100 V / 70 V / 8 Ohm
• SONORA-3B • SONORA-3N	12 W RMS	8 Ohm

4”

• SONORA-4TB-EN EN 54 • SONORA-4TB • SONORA-4TN	3,75/7,5/15/30 W RMS	100 V / 70 V / 8 Ohm
• SONORA-4B • SONORA-4N	30 W RMS	8 Ohm

5”

• SONORA-5TB-EN • SONORA-5TB • SONORA-5TN	5/10/20/40 W RMS	100 V / 70 V / 8 Ohm
• SONORA-5B • SONORA-5N	40 W RMS	8 Ohm
• SONORA-5B • SONORA-5N	40 W RMS	16 Ohm

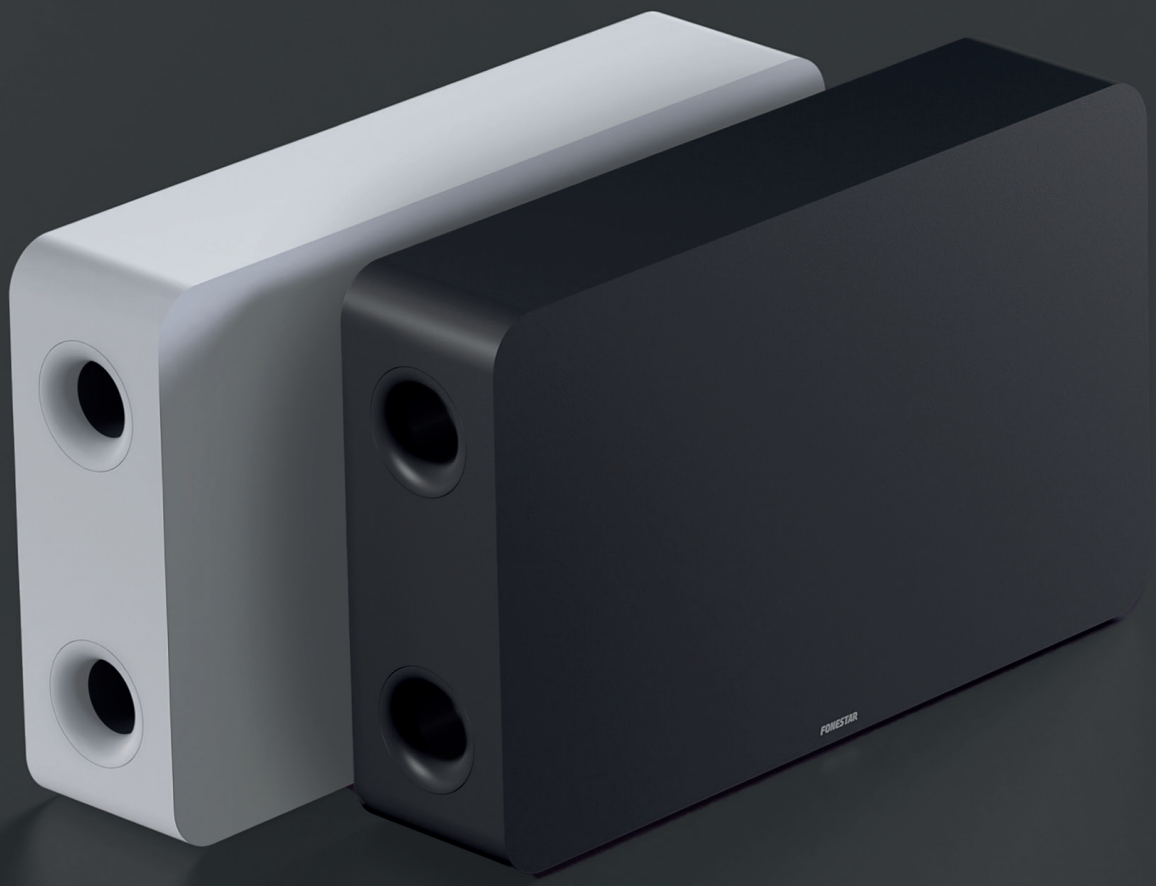
6”

• SONORA-6TB • SONORA-6TN	7,5/15/30/60 W RMS	100 V / 70 V / 8 Ohm
• SONORA-6B • SONORA-6N	60 W RMS	8 Ohm

8”

• SONORA-8TB • SONORA-8TN	10/20/40/80 W RMS @ 100 V (100 W RMS @ 8 Ohm)	100 V / 70 V / 8 Ohm
Subwoofer • SONORA-8TB-SUB Subwoofer • SONORA-8TN-SUB	15/30/60/120 W RMS	100 V / 70 V / 8 Ohm

POWERBASS
series



8“ subwoofer

BASS-REFLEX
reinforcementt

Low pass filter
selector

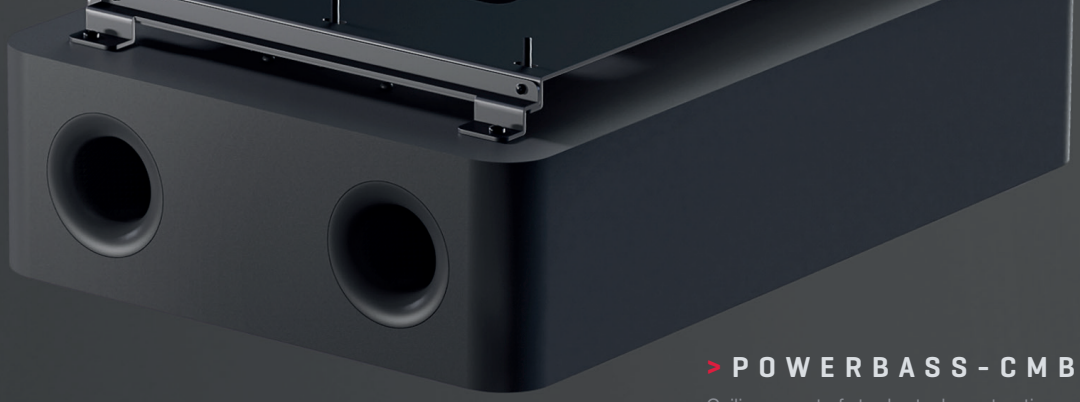
Floor, wall or ceiling
installation

Euroblock,
secure connection

Available in
two colors

Line transformer
100 / 70 Y Low
impedance

Easy and fast
installation

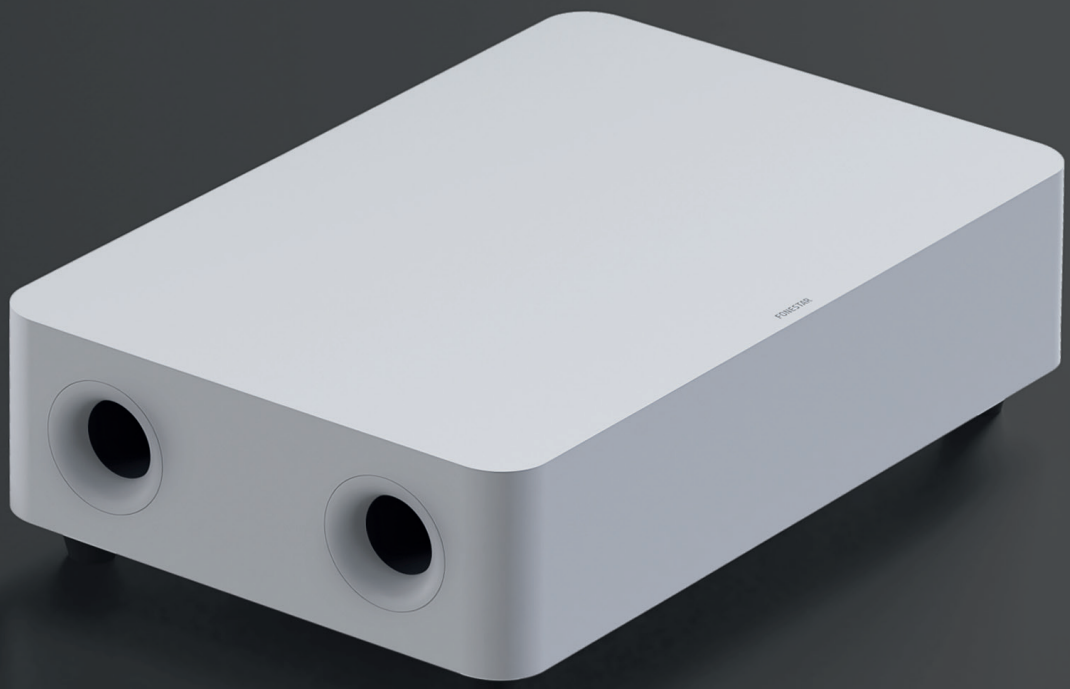


> POWERBASS-CMB

Ceiling mount of sturdy steel construction that provides a firm and secure hold for the POWERBASS loudspeakers.

Powerful bass to carry your sound to the next level

The POWERBASS series has been designed to transform our customers' needs into powerful and effective sound solutions. We are talking about high performance subwoofers, ideal for improving sound quality in ambient music. Its advanced technology delivers deep and powerful bass, ensuring a distortion-free experience. With an exclusive and stylish design, its compact size and black or white finishes are perfect to integrate discreetly into any space. In addition, they are versatile and easy to install, whether on the floor, ceiling or wall, allowing exceptional sound reinforcement without compromising the aesthetics of the place.



PROX
series

AB
Class AB amplifiers

Euroblock, secure connection

100 V and 4 Ω outputs

Input priorities by signal level

Wide power range

Tone controls

PROX

		PROX-15	PROX-30	PROX-60
POWER (RMS)		15	30	60
PLAYER		FM / USB		
INPUTS	*AUX*	1	2	2
	CHANNELS	1 (Gain)	2 (Gain)	2 (Gain)
	EMERGENCY (100 V priority)	1		
	MUTE	1		
VOX CONTROL *(Priority Level)*		1 for each channel		
OUTPUTS	*LINE OUT*	-		
	SPEAKERS	4 Ohm / 100 V		
	100 V ZONES	-		
12 V DC POWER INPUT		Yes	-	-

Power and precision for each project

The PROX series has been created to turn the most demanding requirements into professional amplification solutions. With a robust design and advanced technology, PROX amplifiers deliver high quality performance, ensuring power and clarity in any environment.

		PROX-60S	PROX-120S	PROX-240S	PROX-60Z	PROX-120Z	PROX-240Z
POWER (RMS)		60	120	240	60	120	240
PLAYER		-			Bluetooth/FM/USB (with display)		
INPUTS	AUX	2			2		
	CHANNELS	2 (Mic/LINE/ Ph.48V + Gain)	3 (Mic/LINE/ Ph.48V + Gain)	4 (Mic/LINE/ Ph.48V + Gain)	2 (Mic/LINE/ Ph.48V + Gain)	3 (Mic/LINE/ Ph.48V + Gain)	4 (Mic/LINE/ Ph.48V + Gain)
	EMERGENCY (100 V priority)	1			1		
	MUTE	1			1		
VOX CONTROL (Priority Level)		1 for all channels			1 for all channels		
OUTPUTS	LINE OUT	1			1		
	SPEAKERS	4 Ohm / 100 V			4 Ohm / 100 V		
	100 V ZONES	-			2 zones	3 zones	4 zones

MAX series

Multi-zone amplifiers with maximum power

The MAX series, with Class D amplifiers, offers precise control of dimmers and inputs in complex installations, as well as ringtones, microphone connection for zone management and remote panel input. With up to 600 W of power, it ensures maximum efficiency, flexibility and performance in large and demanding projects.

		MAX-120Z	MAX-240Z	MAX-360Z	MAX-480Z	MAX-600Z
POWER (RMS)		120	240	360	480	600
PLAYER		FM/USB	BLUETOOTH/FM/USB			
INPUTS	*AUX*	3				
	CHANNELS (Mic/Line/ Ph.48V + Chime)	3	4	5		
	EMERGENCY (100 V with max priority)	1				
	MUTE	1				
	AMP IN	1				
	RJ-45 for ZONEMIC-6 zone microphone	-	1			
	RJ-45 for WALLMIX remote panel	-	1			
VOX CONTROL *(Priority Level)*		3 (with 5 priority levels)	3 (with 7 priority levels)			
OUTPUTS	*SPEAKERS*	4 Ohm / 100 V / 70 V				
	100 V ZONES	3	4	5		
	REC OUT (Pre-Master)	1				
	PRE OUT	1				
	24 V ATTENUATORS PRIORITY	1				
	ATTENUATOR PRIORITY 3RD WIRE (100 V)	-	1			

Bluetooth + integrated player

VOX priority levels

24 V / 3-WIRE
Attenuators priority

Tone controls

100 V / 70 V / 4 Ω

Class D amplifiers

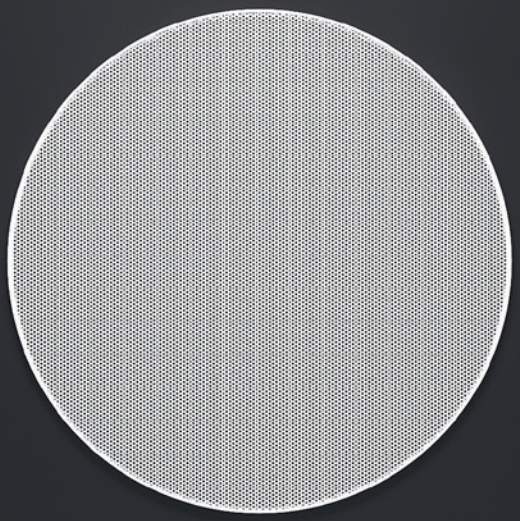
Chime generator

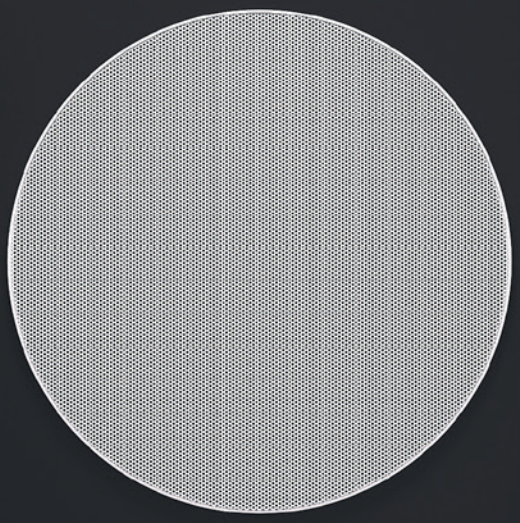
Zone microphone input

Remote wall pannel input

SMPS switched power supply

KS series





KS-AMP
25 + 25 W RMS @ 4 Ohms
15 + 15 W RMS @ 8 Ohms

x2 **KS-WALL**
15 + 15 W RMS @ 8 Ohms | 2 speakers 6'' @ 8 Ohms

x4 **KS-WALL-4**
25 + 25 W RMS @ 4 Ohms | 4 speakers 6'' @ 8 Ohms

Exceptional audio in every corner

KS sound kits are the perfect compact, all-in-one solution to deliver sound to your spaces with full control of local operations. Its discreet design guarantees a balanced and immersive sound, ideal for creating the perfect atmosphere in any environment. Adaptable to your needs, they can be installed in both universal boxes and the exclusive DOT-BOX-B. Bring the professional sound experience to your business with the most complete and versatile option on the market.

Mono/ stereo

Architecturally integrable

USB

AUX 1/AUX 2

FM radio

Bluetooth

For universal standard square and round box

Remote control by touch buttons or remote controller

DOT series

>DOT-BOX

Designed to suit your needs, they can be installed in universal boxes or with the DOT-BOX surface box, offering a sophisticated and practical solution for any environment.

100 V

- DOT-100TR 100 W
- DOT-60TR 60 W
- DOT-30TR 30 W
- DOT-12TR 12 W

4-8

- DOT-100M 100 W
- DOT-60M 60 W
- DOT-30M 30 W
- DOT-12M 12 W
- DOT-210ST 10 W+10 W STEREO

Accesories

- ○ DOT-01N | Black panel
- • DOT-BOX-B | Surface installation boxes
- ○ DOT-BOX-N | Surface installation boxes

Control volume with maximum precision

DOT series dimmers combine a minimalist design with maximum versatility, integrating seamlessly into any space and available in elegant black and white finishes.

For universal standard square box

Slim design

3-wire priority or 4-wire priority with relay

10 dimming positions and off switch

Architecturally integrable

Available in two colors

FON series

Clear communication in every conversation

Our INTERFON-V window intercom amplifies voice in both directions, improving communication in noisy environments and enabling hands-free conversations. With separate volume controls and a mute button for privacy, it is ideal for sales windows, banks and checkpoints.

Complement this solution with the AUDIFON-V loop amplification system, which provides a clear signal for tele-coil hearing aids, eliminating background noise and facilitating communication. This combination guarantees effective and accessible customer service in any space.

- 5 W RMS
- 1'2-20 m² area coverage
- LED operation indicators
- Includes loop induction for 1'2 m²
- Includes unidirectional clip-on microphone
- Complies with IEC 60118-4:2015-A1:2018

T

Facilitates communication through hearing aids (Tele-coil) by transmitting the signal from the auxiliary and microphone inputs in a magnetic field

Internal intercom priority

Intercom with call button

Internal and external microphone

LED operation indicators

Volume control

Headset input

Two-way sound

Anti-feedback

MIC series

Same appearance and quality for all uses

The MIC series offers a complete and flexible solution for all your desktop microphone needs, with base, flexus and microphone options that ensure maximum performance. Available in dynamic capsule and condenser versions, this series allows you to choose the ideal option for each application. All products maintain a unified aesthetic and feature a superior level in SPL, SNR and frequency response, ensuring exceptional sound quality.

BASES

MICBASE	-	-	XLR balanced
MICBASE-M	-	Requires Phantom 3 at 52 V CC	XLR balanced
MICBASE-P	ON-OFF/PTT/PTM	-	XLR balanced
MICBASE-MP	ON-OFF/PTT/PTM	Requires Phantom 3 at 52 V CC	XLR balanced

GOOSENECKS

MICFLEX-C32	Condenser 32 cm	32 cm	Requires Phantom 9 at 52 V CC	XLR balanced
MICFLEX-C45	Condenser 45 cm	45 cm	Requires Phantom 9 at 52 V CC	XLR balanced
LED **MICFLEX-C45LED**	Condenser 45 cm	45 cm	Requires Phantom 3 at 52 V CC	XLR unbalanced
MICFLEX-D45	Dynamic 45 cm	45 cm	-	XLR balanced

COMPATIBILITIES TABLE

	MICFLEX-C32	MICFLEX-C45	MICFLEX-C45-LED	MICFLEX-D45
MICBASE	**Yes** (Requires Phantom 9 at 52 V CC)	**Yes** (Requires Phantom 9 at 52 V CC)	-	**Yes** (Micro level)
MICBASE-M	**Yes** (Requires Phantom 9 at 52 V CC)	**Yes** (Requires Phantom 9 at 52 V CC)	-	-
MICBASE-P	-	-	**Yes** (Requires Phantom 3 at 52 V CC)	**Yes** (Requires Phantom 3 at 52 V CC)
MICBASE-MP	-	-	**Yes** (Requires Phantom 3 at 52 V CC)	**Yes** (Requires Phantom 3 at 52 V CC)

High SNR

High frequency responde

High SPL

Multiple operation modes

Wide range, modular design

DESKTOP MICROPHONES

MICSET-C32	Condenser	32 cm	ON-OFF/PTT/PTM	Requires Phantom 9 at 52 V CC	XLR balanced	HPF 80 Hz
LED **MICSET-C32LED**	Condenser	32 cm	ON-OFF/PTT/PTM	Requires Phantom 9 at 52 V CC	XLR balanced	HPF 80 Hz
MICSET-C45	Condenser	45 cm	ON-OFF/PTT/PTM	Requires Phantom 3 at 52 V CC	XLR balanced	HPF 80 Hz
MICSET-D32J	Dynamic	32 cm	ON-OFF/PTT	Micro level	Jack 6'3 unbalanced mono	-
MICSET-D32XLR	Dynamic	32 cm	ON-OFF/PTT	Micro level	XLR balanced	-
MICSET-D32JSE	Dynamic	32 cm	ON-OFF/PTT	Micro level	63 mm mono jack connection and stripped ends	-

SOUL
series

BASS-REFLEX reinforcement

2 tweeter 1“ + 1 woofer 5“

True Wireless Stereo (TWS)

Digital volume control + EQ

80 W

Standby and AutoWakeUp

Bluetooth

AUX

RCA

Enjoy your favourite music in the warmth of your home

Inspired by classic amplifiers, the SOUL Series delivers high-fidelity sound in a compact design. The SOUL-HOME speaker stands out with 80 W of power, Bluetooth connectivity, 3.5 mm auxiliary input and RCA, plus backlit digital equalization and volume controls for easy management. Its bass-reflex configuration, 5” woofer, two 1” tweeters and crossover network ensure deep bass and crisp integration of treble and mids. Plus, with the TWS function, you can connect two units wirelessly to turn it into a true Hi-Fi stereo in your home.

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N! New product

NEW VERSION Product with new version

NV New version features

QR with link to complete product sheet Designed By FONESTAR

systems
and control

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EN 54 VOICE ALARM
SEVEN

• Advanced system: SEVEN N!

In the event of an alarm or fire, the **SEVEN system** is key to ensuring an orderly and safe evacuation. Through clear messages emitted by loudspeakers, instead of using bells or sirens, the SEVEN system guides people efficiently, avoiding panic situations and facilitating rapid eviction.
Designed in compliance with EN 54, this system is highly recommended for public areas, hospitals and industrial complexes larger than 10,000 m², ensuring compliance with thehighest safety standards in emergency situations.

Different **power and number of zones**

Contact inputs and buttons

Small, medium and large **installations**

Evacuation, messages and **background music**

Error detection and monitoring

VoIP / SIP integration

Monitoring of loudspeaker lines

DSP functions, High audio quality

LCD display for **user-friendly configuration**

Control via PC software

> **Certified in compliance with the European Standard EN 54-16:2008 and EN 60849**, guaranteeing compliance with European standards for emergency public address systems, ensuring reliability and safety.

> The SEVEN system belongs to the family of stand-alone EVAC systems. which **can be connected and expanded with** zone microphones or firefighter microphones via the TCP/IP network.

> It is designed to connect **via CAT5 cables and fibre optic connections.**

> All systems support **up to 45 high quality audio signals** distributed over **254 devices** on the network.

> Management and control of the installation: **a single system is used**, regardless of the number of SEVEN systems in the installation.

> **Scalable** as the installation requires.

> The SEVEN system can be **equipped with up to 5 interfaces** for automatic volume or intelligibility control.

> The automatic volume control function **allows the system to** maintain an appropriate volume level by dynamically adjusting it according to ambient noise.

> Versatile integration **with other systems** via software, or with general purpose inputs and outputs, emergency control inputs for connection to switchboards, outputs to bypass attenuators, etc.

> Perfect for installation with **fire safety systems.**

> **Easy handling and low** maintenance cost.

> The system is fully **configurable** via the intuitive **PC software** (audio channel routing and priority levels).

Railway stations, airports, hotels, shopping centres, stadiums, industrial facilities, etc.

SYSTEM **ELEMENTS**

N!

> Compact

Centrals

All-in-one public address and voice alarm systems, EN 54 compliant. They integrate amplification, zone control and evacuation functions, allowing for easy installation and monitoring.

SEVEN-320
SEVEN-640
SEVEN-640-2
SEVEN-640-82
SEVEN-640R-82 OR
SEVEN-1500R
SEVEN-320N OR
SEVEN-640N OR
SEVEN-640N-2 OR
SEVEN-640N-82 OR
SEVEN-1500N
SEVEN-640NR-2 OR
SEVEN-640NR-82 OR
SEVEN-1500NR
SEVEN-1500NR15 OR
SEVEN-3000NR15 OR

> Modular

Power amplifier

Audio signal amplifiers for public address and alarm systems.
They ensure high sound quality and continuous monitoring.

SMART-PA1650
SMART-PA2650
SMART-PA4160
SMART-PA8080
SMART-PA8160

Control units

They manage the public address system, with independent loudspeaker outputs and switching between main and back up amplifiers.

ABT-ISLE
SMART-CU-11LCD
SMART-CU-11LT
SMART-CU-8LCD OR
ABT-XCTRLINE-2
ABT-XCTRLINE-4
ABT-XCTRLINE-44 OR
ABT-XLOGIN-8C
ABT-XLOGOUT-8C

Chargers

They distribute power to the evacuation system equipment. Its rack format design allows different modules to be housed.

SMART-PS48800
SMART-PSM48
SMART-PF4
SMART-PSM48E OR

> Accessories

SIP server

Provides communication from the world of IP telephony to the world of public address and voice alarm systems.

ISE-VES-SIP-GATEWAY OR

Microphones

They can be used to issue warnings in specific areas and have programmable buttons for various functions. They offer two-way communication and auxiliary audio inputs.

SEVEN-FMIC
SEVEN-MIC
SEVEN-MICEXT
SEVEN-MICP
SEVEN-MIC4

Noise sensors

They measure the ambient level and up to six microphones are connected to one controller. This controller automatically adjusts the volume of music and announcements.

SEVEN-NSMA OR
SEVEN-NSMB OR
SEVEN-NSC6 OR

End of line

Allows for more accurate monitoring of the status of the loudspeaker lines in the installation.

SEVEN-EOL
SEVEN-EOLBOX

Batteries

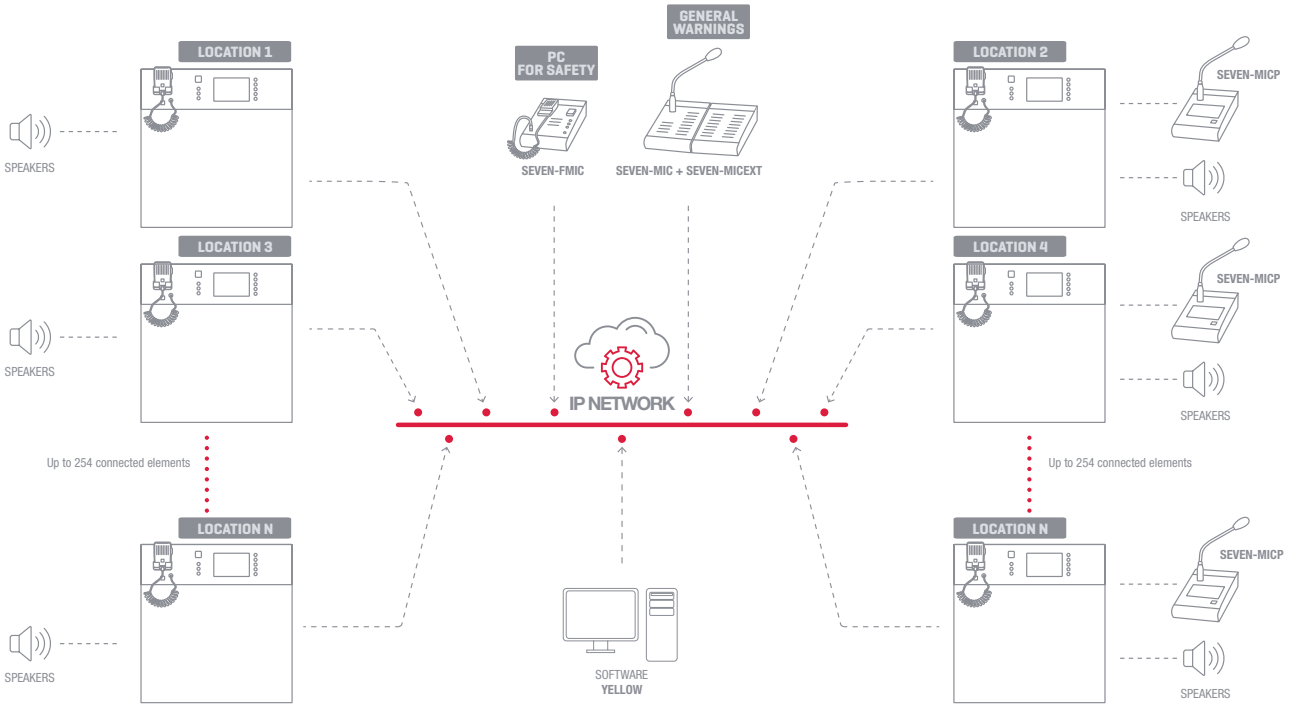
Sealed lead-acid batteries, with a service life of 10 to 12 years.
They ensure safe and efficient operation.

AKU-18-12
AKU-28-12
AKU-35-12
AKU-40-12
AKU-55-12AFT

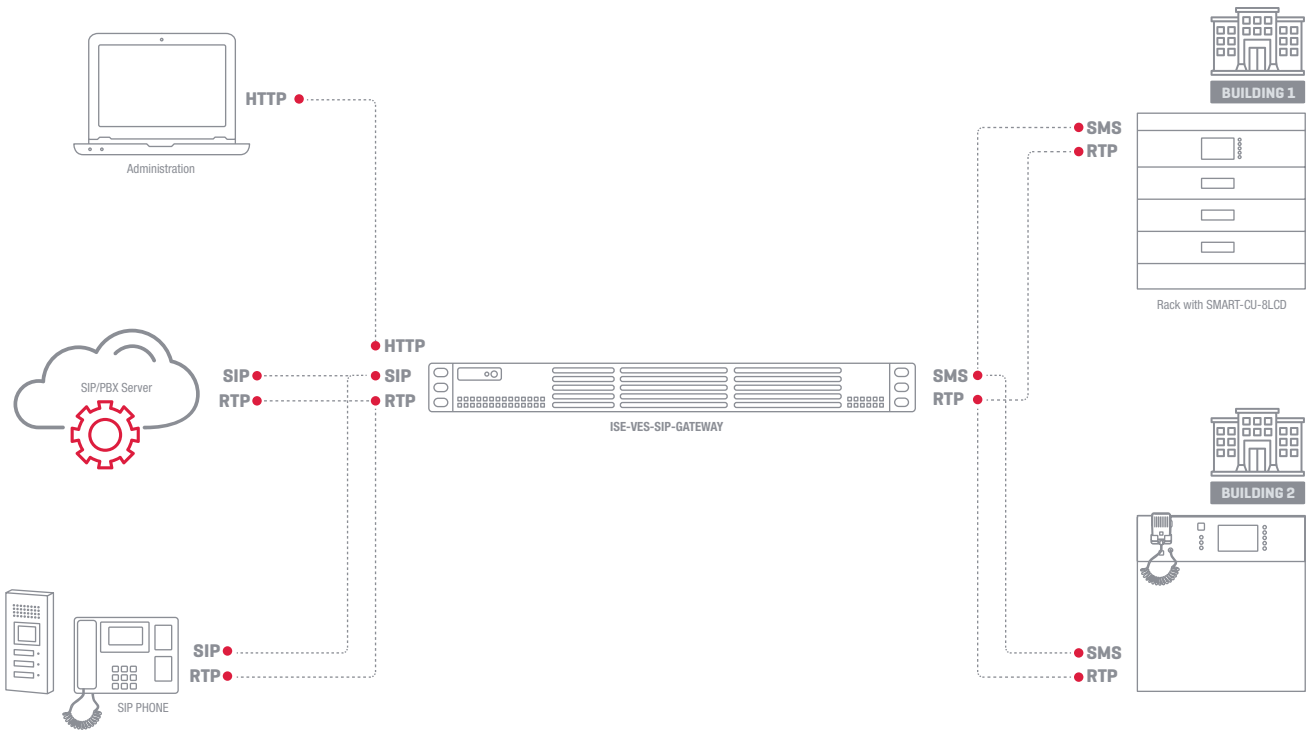
Software

YELLOW offers an intuitive and adaptable visualisation to manage SEVEN and SMART systems. It allows multiple locations to be monitored and managed in real time, with advanced graphics and visual effects. The additional licence 'SISERSTAND' integrates the evacuation system with other software via SNMP protocol.

SYSTEM **GENERAL CONCEPTS**

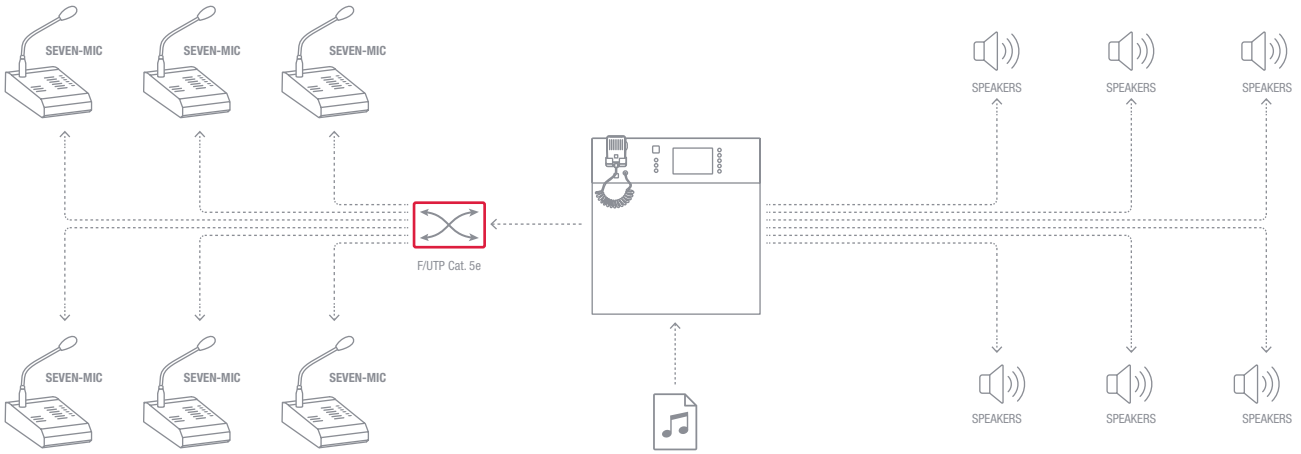


INTEGRATION

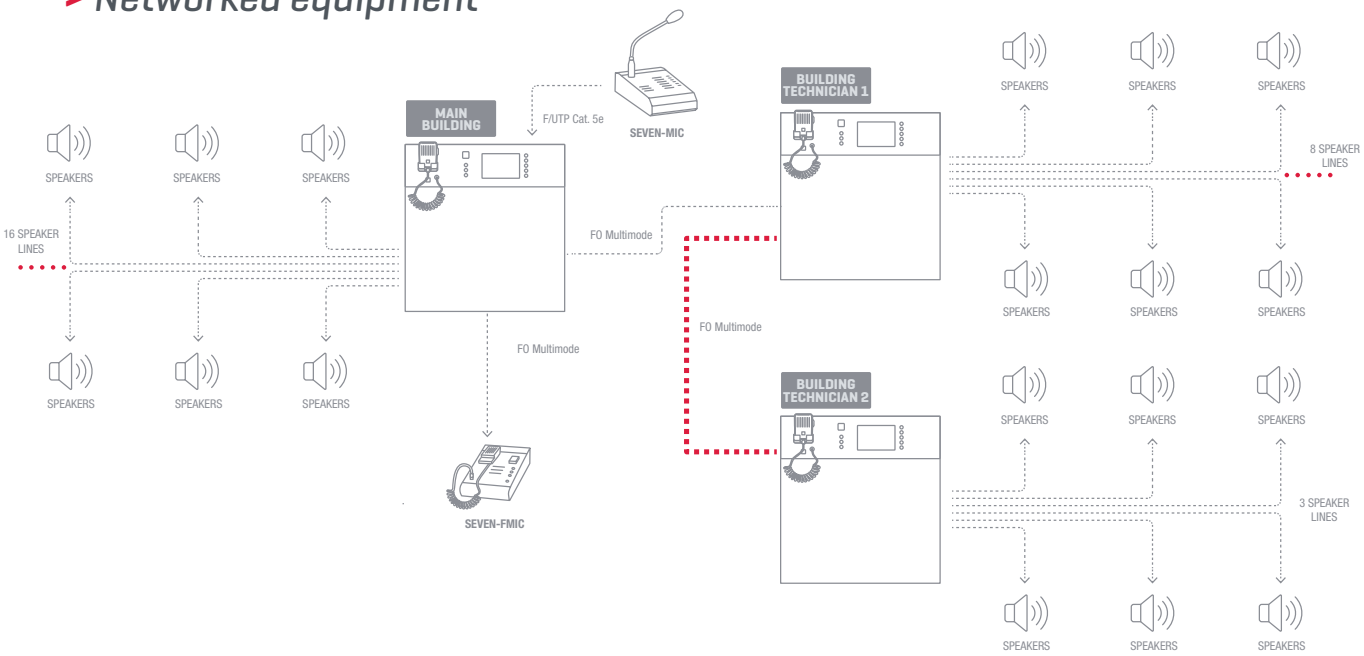


INSTALLATION **EXAMPLES**

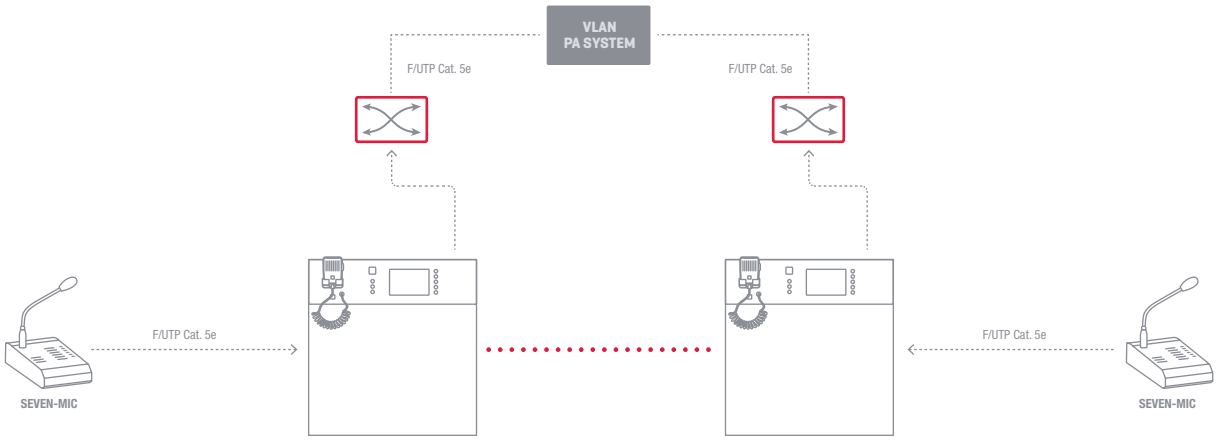
> *Autonomous equipment*



> *Networked equipment*



> *Equipment in different locations*



EN 54 VOICE ALARM

Advanced

> Compact

	GENERAL SEVEN CENTRAL FEATURES
FEATURES	Compact all-in-one public address and voice alarm system EN 54. Based on TCP/IP distributed data network architecture. Integrated DSP, high audio quality. Evacuation functions, alerts, message player and background music. Simultaneous messaging with 512 MB SDHC internal memory (20 minutes) expandable up to 32 GB. Monitoring of speaker line impedance. Monitoring and failure detection. Easy installation and commissioning. Simple and intuitive PC configuration software. In compliance with EN 54-16 and EN54-4.
RESPONSE	20-22,000 Hz (@ 0.5 dB/ -3 dB)
INPUTS *(according to model)*	1 x communications microphone, DIN 5 1 x stereo input, Euroblock, 10 kΩ 3 V RMS GPI, Euroblock 1 x battery temperature sensor, 3.5 mm jack ***Only N models with network board:*** 1 x LAN: interconnection of devices, RJ45 1 x PoE LAN: interconnection of PoE-powered equipment, RJ45 1 x LAN/WAN: network connection, RJ45 2 x FIBER: safety connection (redundant ring) for SC/LC connectors SPF connector
OUTPUTS *(according to model)*	100 V loudspeaker lines, Euroblock 2 x BUS 1 and 2 local audio line outputs for operation of 4-line control board 1 x stereo output, Euroblock, 1 V RMS 2 x auxiliary power supply outputs, 24 V DC, 150 mA and 48 V DC, 350 mA GPO, Euroblock
POWER SUPPLY	230 V AC, 50/60Hz 48 V DC provided by SMART-PSM power supply manager, Euroblock

CENTRALS WITHOUT NETWORK BOARD

SEVEN-320
SEVEN-640
SEVEN-640-2
SEVEN-640-82

SEVEN-640R-82
SEVEN-1500R

ON REQUEST

	SEVEN-320	SEVEN-640	SEVEN-640-2	SEVEN-640-82	SEVEN-640R-82	SEVEN-1500R
POWER	2x160 W	2x320 W	2x320 W	2x320 W	2x320 W	3x500 W
LOUDSPEAKER LINES	4	8	8	16	16	16
NUMBER OF SIMULTANEOUS MESSAGES	1	1	2	2	2	3
GPI INPUTS	7	7	7	7	7	7+2
GPO OUTPUTS	3	3	3	3	3	3
NETWORK BOARD	No	No	No	No	No	
DISPLAY TOUCH SCREEN + PROGRAMMABLE BUTTONS	Yes	Yes	Yes	Yes	No	No
230 V AC CONSUMPTION	600 W	600 W	600 W	600 W	600 W	1,600 W

EN 54 VOICE ALARM

Advanced

> Compact

CENTRALS WITH NETWORK BOARD

SEVEN-320N
SEVEN-640N
SEVEN-640N-2
SEVEN-640N-82
SEVEN-1500N

	ON REQUEST	ON REQUEST	ON REQUEST	ON REQUEST	
	SEVEN-320N	**SEVEN-640N**	**SEVEN-640N-2**	**SEVEN-640N-82**	**SEVEN-1500N**
DISPLAY TOUCH SCREEN + PROGRAMMABLE BUTTONS	Yes	Yes	Yes	Yes	Yes
POWER	2x160 W	2x320 W	2x320 W	2x320 W	3x500 W
LOUDSPEAKER LINES	4	8	8	16	16
NUMBER OF SIMULTANEOUS MESSAGES	1	1	2	2	3
GPI INPUTS	7	7	7	7	7+2
GPO OUTPUTS	3	3	3	3	3+2
NETWORK BOARD	Yes	Yes	Yes	Yes	Yes
230 V AC CONSUMPTION	600 W	600 W	600 W	600 W	1,600 W

	ON REQUEST	ON REQUEST	
	SEVEN-640NR-2	**SEVEN-640NR-82**	**SEVEN-1500NR**
POWER	2x320 W	2x320 W	3x500 W
LOUDSPEAKER LINES	8	8	16
NUMBER OF SIMULTANEOUS MESSAGES	2	2	3
GPI INPUTS	7	7	7+2
GPO OUTPUTS	3	3	3+2
NETWORK BOARD	Yes	Yes	Yes
DISPLAY TOUCH SCREEN + PROGRAMMABLE BUTTONS	Yes	Yes	Yes
230 V AC CONSUMPTION	600 W	600 W	1,600 W

SEVEN-640NR-2
SEVEN-640NR-82
SEVEN-1500NR

EN 54 VOICE ALARM

Advanced

> Compact

CENTRALS WITH NETWORK BOARD

ON REQUEST

	SEVEN-1500NR15
POWER	3x500 W
LOUDSPEAKER LINES	16
NUMBER OF SIMULTANEOUS MESSAGES	3
GPI INPUTS	7+2
GPO OUTPUTS	3+2
NETWORK BOARD	Yes
DISPLAY TOUCH SCREEN + PROGRAMMABLE BUTTONS	Yes
230 V AC CONSUMPTION	1,600 W

ON REQUEST

	SEVEN-3000NR15
POWER	6x500 W
LOUDSPEAKER LINES	32
NUMBER OF SIMULTANEOUS MESSAGES	6
GPI INPUTS	14+2
GPO OUTPUTS	6+2
NETWORK BOARD	Yes
DISPLAY TOUCH SCREEN + PROGRAMMABLE BUTTONS	Yes
230 V AC CONSUMPTION	3,200 W

EN 54 VOICE ALARM

Advanced

> Modular

POWER AMPLIFIERS

GENERAL SMART-PA POWER AMPLIFIERS FEATURES	
FEATURES	Class D power amplifier. Isolated output with transformer. 100 V or 50 V speaker line output. Front panel indicators for Power, Active and Fault. The SMART-PA series is combined with the SMART-PSM48/E Power Manager (charger and back-up power supply).
RESPONSE	75 Hz – 22 kHz (-6 dB)
S/N RATIO	> 85 dB (@1 kHz 22 Hz - 22 kHz)
POWER SUPPLY	48 V DC provided by SMART-PSM power supply manager, screw terminals
DIMENSIONS	482 x 85 x 445 mm depth, 2U 19" rack

	SMART-PA1650	SMART-PA2650	SMART-PA4160	SMART-PA8080	SMART-PA8160
POWER	1x650 W	2x650 W	4x160 W	8x80 W	8x160 W
POWER BRIDGE MODE	-	1x1.300 W	1x320 W + 2x160 W 2x320 W	1x160 W + 6x80 W 2x160 W + 4x80 W 3x160 W + 2x80 W 4x160 W	1x320 W + 6x160 W 2x320 W + 4x160 W 3x320 W + 2x160 W 4x320 W
AUDIO INPUTS (RJ45)	1	2	4	8	8
LOUDSPEAKER LINES (EUROBLOCK)	1	2	4	8	8
WEIGHT	10.8 kg	15 kg	13 kg	15 kg	18.6 kg

CONTROL UNITS

ABT-ISLE	
FEATURES	Connects and monitors audio channels between control units and amplifiers in the SMART system. 4 x analogue audio channels for distribution in the SMART system. Adjustment of the address assigned to each device by potentiometer (16 addresses 0-F). Maximum of 3 audio managers per SMART-CU control unit where only 1 can make use of its 4 analogue audio inputs. Suitable for DIN rail installation.
INPUTS	4 x analogue audio channels, euroblock 1 x port for 4 audio inputs of the SMART-CU control unit, RJ45 2 x RS-485, RJ45 port
OUTPUTS	4 x ports for audio and amplifier management SMART-PA, RJ45 1 x port for routing the 4 local audio inputs to the SMART-CU control unit 1 x control and communication port with SMART-PSM power supply manager, RJ45
POWER SUPPLY	Power supply via SMART-PSM power supply manager, RJ45 connector
DIMENSIONS	10.5 x 9 x 6.5 cm depth
WEIGHT	0.2 kg

EN 54 VOICE ALARM

Advanced

> Modular

CONTROL UNITS

SMART-CU-11LCD
SMART-CU-8LCD

SMART-CU-11LT

ON REQUEST

	SMART-CU-11LCD	SMART-CU-11LT	SMART-CU-8LCD
FEATURES	Fully network-based system allowing configuration, control and diagnostics via Ethernet. Management of up to 254 devices on the network. It features an audio board with 4 inputs and 12 outputs. Up to 32 GB SD flash memory for message playback and recording (48 kHz, 16 bit). Over 20 minutes of messages. Supports up to 12 monitored amplifiers. GPI/O programmable inputs and outputs. Integrated DSP with 3-band parametric EQ implemented on all control unit inputs, 8-band parametric EQ, delay, audio limiter and feedback suppressor on each of the audio outputs. Can be integrated via own protocol or YELLOW software with third-party systems.		
	Up to 12 messages played simultaneously in different zones.	Up to 12 messages played simultaneously in different zones.	Up to 8 messages played simultaneously in different zones.
	4'5" LCD touch screen.	-	4'5" LCD touch screen.
EXPANDABILITY	11 x slots available for control boards	11 x slots available for control boards	8 slots available for control boards and 4 slots available for function boards
RESPONSE	40 Hz - 20 kHz (@1dB) 400 Hz - 8 kHz (@0'1dB)		
INPUTS	4 x audio busses 50/100V of the SMART-PA, euroblock 4 x audio inputs from ABT audio manager, RJ45 2 x GPI, euroblock 1 x LAN: interconnection of devices, RJ45 1 x PoE LAN: interconnection of PoE-powered equipment, RJ45 1 x LAN/WAN: network connection, RJ45 2 x FIBER: safety connection (redundant ring) for SC/LC connectors SPF connector		
OUTPUTS	2 x GPO, euroblock 1 x RS485 control of ABT audio manager, RJ45 1 x supply 48 V DC, euroblock		
	12 x audio outputs to ISLE, 3x RJ45	12 x audio outputs to ISLE, 3x RJ45	8 x audio outputs to ISLE, 2x RJ45
S/N RATIO	> 90 dB		
DISTORTION	THD+IMD: < 0.05%		
POWER SUPPLY	48 V DC provided by SMART-PSM power supply manager, Euroblock Power consumption: up to 100 W (depending on configuration)		
DIMENSIONS	482 x 85 x 325 mm depth, 2U 19" rack		
WEIGHT	8.4 kg	8.4 kg	8 kg

EN 54 VOICE ALARM

Advanced

> Modular

CONTROL UNITS

ON REQUEST

	ABT-XCTRLINE-2	ABT-XCTRLINE-4	ABT-XCTRLINE-44
FEATURES	The board allows switching between the main and backup amplifiers. Loudspeaker line measurement: Impedance, Loop or End of Line (EOL) Module. Detection of opening and ground leakage faults. It is installed in the slots of the SMART-CU control units.		
INPUTS	1 x audio input 50/100 V from SMART-PA amplifier, euroblock 4 x audio buses of the SMART-CU control unit received via the backplane slot		
OUTPUTS	2 x 50/100 V speakers line, euroblock	4 x 50/100 V speakers line, euroblock	4 x 50/100 V independent speakers line, euroblock
DIMENSIONS	70 x 215 x 30 mm depth		
WEIGHT	0.2 kg	0.23 kg	0.23 kg

	ABT-XLOGIN-8C	ABT-XLOGOUT-8C
FEATURES	8 x programmable control inputs. Operating modes: non-potential (short-circuited / open) and voltage. It is installed in the slots of the SMART-CU control units.	8 x programmable relay control outputs. Channels 1 to 4 with NC type relays. Channels 5 to 8 with NO type relays. It is installed in the slots of the SMART-CU control units.
INPUTS	8 GPI 12 V DC, euroblock	-
OUTPUTS	-	8 x GPO, Euroblock
TEMPERATURE	Operation: 0°C to 60°C Storage: -20°C to 70°C (non-condensing)	
HUMIDITY	Operation: 15% to 80% Storage: 5% to 95% (non-condensing)	
DIMENSIONS	70 x 215 x 30 mm depth	
WEIGHT	0.1 kg	

EN 54 VOICE ALARM

Advanced

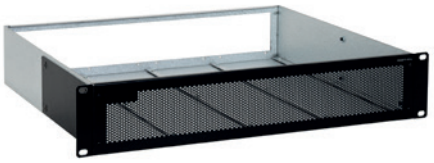
> Modular

CHARGERS

ON REQUEST

	SMART-PSM48	SMART-PSM48E
FEATURES	Power supply manager Manages PS power supplies with a maximum of 60 A. Includes management of back-up batteries (up to 200 Ah). In standby mode it supplies 3.2 kW (48 V). The unit complies with EN 54-4 and also with EN 12101-10 Smoke and Heat Control System. It can manage up to 4 SMART-PS power supply units and 4 AKU batteries in series.	
INPUTS	4 x PS power supplies. Screw terminals 1 x AKU battery (VRLA 12 V 15-200 Ah). Screw terminals.	
OUTPUTS	8 x 48 V DC supply. Screw terminals (1 outlet max. 30 A, all 8 outlets max. 63 A)	
	-	6 x 24 V DC. Euroblock
POWER SUPPLY	230 V CA 50/60 Hz, 885 W	
DIMENSIONS	482 x 85 x 325 mm depth, 2U 19" rack	
WEIGHT	7.2 kg	

	SMART-PS48800
FEATURES	DC power supply
OUTPUTS	1 x supply 52 V DC, max. 15.4 A. Screw terminals
PROTECTIONS	Power supply protection by slow fuse Protection against electric shock: Clase I (EN 60065)
POWER SUPPLY	230 V AC 50/60Hz, 885 W Fuse: 3.85 A
DIMENSIONS	85 x 95 x 395 mm depth
WEIGHT	2.6 kg



	SMART-PF4
FEATURES	Chassis for installing up to 4 SMART-PS power supplies in a 19' rack. Front ventilation grille.

> Accessories

SIP SERVER

ON REQUEST

	ISE-VES-SIP-GATEWAY
FEATURES	SIP access server to public address and voice alarm system. Provide a graphical interface for initial configuration. Group assignment of the loudspeaker zones programmed in the public address and voice alarm system. Assignment of a telephone number / DTMF code to groups. Assignment of access code. The code shall be provided through the DTMF code. Possibility to register with a SIP operator and third party IP PBXs. Ability to call via SIP registration or directly after the IP address (on the same network). Configuration of the connection to public address and voice alarm systems via SMS protocol. Voice transmission with public address and voice alarm systems via RTP protocol.
DIMENSIONS	437 x 43 x 290 mm depth. 1U 19" rack
WEIGHT	5 kg

EN 54 VOICE ALARM

Advanced

> Accessories

MICROPHONES

	SEVEN-FMIC	SEVEN-MIC	SEVEN-MICP
FEATURES	Firefighter microphone. Activation of evacuation, alarm, alert messages and live alerts. LED operating indicator. Interconnected by Cat5 network and SFP fibre.	Paging microphone. General purpose warnings in zones. LED operating indicator. Interconnection via Cat5 network.	Paging microphone. General purpose warnings in zones. LED operating indicator. Interconnection via Cat5 network.
CONTROLS	PTT call button Emergency activation button 3 programmable buttons	PTT call button 9 programmable buttons	PTT call button 9 programmable buttons
SPEAKER	2” Power: 0.5 W SPL: 78 dBA @1 W/1 m		
MICROPHONE	Response: 100-10,000 Hz Sensitivity: -45 dB		
INPUTS	2 x programmable GPI, euroblock	4 x auxiliary (on 2 3.5 mm stereo jacks) 1 x micro, jack 3.5 mm (headset) 1 x balanced micro, XLR	4 x auxiliary (on 2 3.5 mm stereo jacks) 1 x micro, jack 3.5 mm (headset) 1 x balanced micro, XLR
OUTPUTS	1 x keyboard extension, RJ45 2 programmable GPO, Scart	1 x keyboard extension, RJ45 1 x headphones, 3.5 mm jack (headset)	1 x keyboard extension, RJ45 1 x headphones, 3.5 mm jack (headset)
POWER SUPPLY	DC 48 V, 15 W, POE or power adapter (not included), 266 mA		
DIMENSIONS	150 x 65 x 210 mm depth	125 x 55 x 210 mm depth	150 x 55 x 210 mm depth
WEIGHT	1.5 kg	1 kg	1.4 kg

	SEVEN-MICEXT
FEATURES	Microphone extension for public address and voice alarm system EN54. Expansion of the function keys of the microphone mods. SEVEN-MIC and SEVEN-FMIC. 20 functional buttons with RGB LED indicators. Flexible and full configuration of the buttons via software. In compliance with EN 54-16.
DIMENSIONS	125 x 55 x 210 mm depth
WEIGHT	0.85 kg

EN 54 VOICE ALARM

Advanced

> Accessories

MICROPHONES

	SEVEN-MIC4
FEATURES	Microphone with zone selector for public address and voice alarm system EN54. Power on and microphone operating status indicator lights.
CONTROLS	4 x zone buttons Microphone selector or auxiliary input. Selector for activation/deactivation of musical warning tones. Musical alert tone volume control. Microphone volume control.
DIMENSIONS	140 x 475 x 213 mm depth
WEIGHT	0.85 kg

NOISE SENSORS

ON REQUEST

IP 66

ON REQUEST

IP 66

	SEVEN-NSMA	SEVEN-NSMB
FEATURES	Noise-sensing microphone for SEVEN system. It acquires background noise values and provides them to the SEVEN-NSC controller. Connection with 2-wire cable, up to 300 m long.	
	Suitable for indoor installation, IP 32degree of protection.	Suitable for outdoor installation or wide temperature range, IP 66degree of protection.
RESPONSE	150–20,000 Hz	
MEASURING RANGE	57 - 115 dBA	
PROTECTIONS	IP 32	IP 66
TEMPERATURE	-	-40º ~ 70ºC
WEIGHT	1.5 kg	2.5 kg

	SEVEN-NSC6
FEATURES	Sound pressure sensor controller for SEVEN systems. Acquires background noise values for automatic volume setting of zones. Supports 6 microphones. Connection via TCP/IP PoE or local power supply. Up to 24 controllers. Outdoor installation box with IP66 degree of protection.
INPUTS	6 x measuring microphones SEVEN-NSMA or SEVEN-NSMB
OUTPUTS	1 x ethernet, RJ-45
PROTECTIONS	IP 66
POWER SUPPLY	48 V DC, 6 W, PoE or Phoenix connector 5.08 mm
DIMENSIONS	310 mm x 125 x 34 mm depth
WEIGHT	1.2 kg

IP 66

ON REQUEST

EN 54 VOICE ALARM

Advanced

> Accessories

END OF LINE

	SEVEN-EOL
FEATURES	End-of-line module for loudspeaker line supervision in EN54 system. EN 54-16 certificate. Improves the accuracy of loudspeaker line monitoring. For 100 V loudspeaker lines with loads from 10 W up to 480 W. Speaker line monitoring without additional cables. Closed-circuit, open-circuit and ground fault detection.
DIMENSIONS	65 x 13 x 37 mm depth
WEIGHT	0.5 kg
ACCESSORIES	Phoenix 3.5mm 2-pin connector with cable 20 cm

	SEVEN-EOLBOX
FEATURES	Surface mounting box. Cable entry and exit holes. To accommodate a SEVEN-EOL loudspeaker line supervision module. For indoor use. IP20 degree of protection.
COLOUR	Red
DIMENSIONS	15 x 80 x 30 mm depth (Approx.)

BATTERIES

	AKU-18-12	AKU-28-12	AKU-35-12	AKU-40-12	AKU-55-12AFT
FEATURES	Lead-acid battery. Useful life 8 years @ 25ºC, 10 - 12 years @ 20ºC. AGM technology. Maintenance-free. Sealed.				
	12 V / 18 Ah/C20	12 V / 28 Ah/C20	12 V / 35 Ah/C20	12 V / 40 Ah/C20	12 V / 55 Ah/C10
DIMENSIONS	76 x 167 x 181 mm depth	125.5 x 176 x 166 mm depth	131 x 170 x 197 mm depth	166 x 171 x 199 mm depth	106 x 222 x 277 mm depth
WEIGHT	5.67 kg	9.18 kg	10.5 kg	13.4 kg	17.3 kg

SOFTWARE

	FEATURES	CAPACITY	
YELLOW-SI-STAND100	Visualisation and control software.	Up to 100 elements	ON REQUEST
YELLOW-SI-STAND500	Visualisation and control software.	Up to 500 elements	ON REQUEST
YELLOW-SI-STAND1000	Visualisation and control software.	Up to 1,000 elements	ON REQUEST
YELLOW-SI-STAND2000	Visualisation and control software.	Up to 2,000 elements	ON REQUEST
YELLOW-SI-STAND3000	Visualisation and control software.	Up to 3,000 elements	ON REQUEST
YELLOW-SI-STAND4000	Visualisation and control software.	Up to 4,000 elements	ON REQUEST
YELLOWSISERSTAND500	Software for OPC and SNMP integration.	Up to 500 elements	ON REQUEST
YELLOWSISERSTAND1000	Software for OPC and SNMP integration.	Up to 1,000 elements	ON REQUEST
YELLOWSISERSTAND2000	Software for OPC and SNMP integration.	Up to 2,000 elements	ON REQUEST
YELLOWSISERSTAND3000	Software for OPC and SNMP integration.	Up to 3,000 elements	ON REQUEST
YELLOWSISERSTAND4000	Software for OPC and SNMP integration.	Up to 4,000 elements	ON REQUEST

• Standard system: ZS

The **ZS system** is a flexible, reliable and effective solution for public address and voice alarm projects, designed to suit the needs of any installation. In emergency situations, such as fires or evacuations, it is crucial to have a system in place to ensure a rapid and coordinated response. The ZS system delivers clear messages that guide people in an orderly manner, minimising the risk of panic and facilitating a safe evacuation. It also provides full control over communication zones, ensuring that information reaches each affected area accurately and efficiently.

Different power **amplifiers**

Mic and line inputs

Small, medium and large **installations**

Emergency warnings and evacuation with **zone control**

System status check

Playback of pre-recorded messages

Monitoring of loudspeaker lines

Ethernet connection for configuration

Automatic switching of the standby amplifier

Control via PC software

> **Certified in compliance with the European Standard EN 54-16:2008**, guaranteeing its compliance with European regulations for emergency public address systems, ensuring its reliability and safety.

> **Configuration via included PC software,** allowing easy commissioning and adjustment of all system parameters from any computer

> **Management and control via the local network with optional software,** allowing remote operation of the system for greater flexibility and convenience in large installations.

> **Simple installation design and expansion**, facilitating both initial configuration and modular expansion of the system as needs grow.

> **Integrated system monitoring**, ensuringcontinuous monitoring of all components to detect and report faults immediately.

> **Class D multi-channel amplifiers with** 4 x 125 W, 2 x 250 W, and 1 x 500 W, offering high energy efficiency andsufficient power to cover a widerange of areas.

> **Microphone with zone selector and LCD touch screen**,which facilitates quick selection of areas to evacuate or communicate, with intuitive control.

> **User-friendly control interface**, designed so that any user can operate the system quickly and easily, without the need for technical knowledge.

> **Scalable solution** that adapts to large installations with multiple independent areas.

> **Full-duplex intercommunication between microphones**,allowing simultaneous communication between operators without interruptions, ideal for real-time coordination.

Hotels, commercial centres, offices, stadiums, etc

SYSTEM**ELEMENTS**

> *Modular*

Power amplifiers

Digital power amplifiers for public address and alarm systems.

ZS-1500
ZS-2250
ZS-4125

Control units

Performs audio matrix functions. Fully configurable via PC.

ZS-2000M

Extensions

General purpose audio input/output input management system. Extension of the system.

ZS-4328IO

Chargers

Microprocessor-controlled power supply. Battery charging and monitoring process.

ZSA-200PS

> *Accessories*

Microphones

Allow to issue warnings in specific areas and feature user-friendly touch screen.
Direct connection to the control unit or via local area network (LAN).

ZS-200M
ZS-300MIC
ZS-400MIC

Batteries

High discharge AGM lead-acid batteries. They provide internal resistance, low self-discharge rate and long service life.

BAT-1240 OR
BAT-1255 OR
BAT-1290 OR
BAT-12120 OR

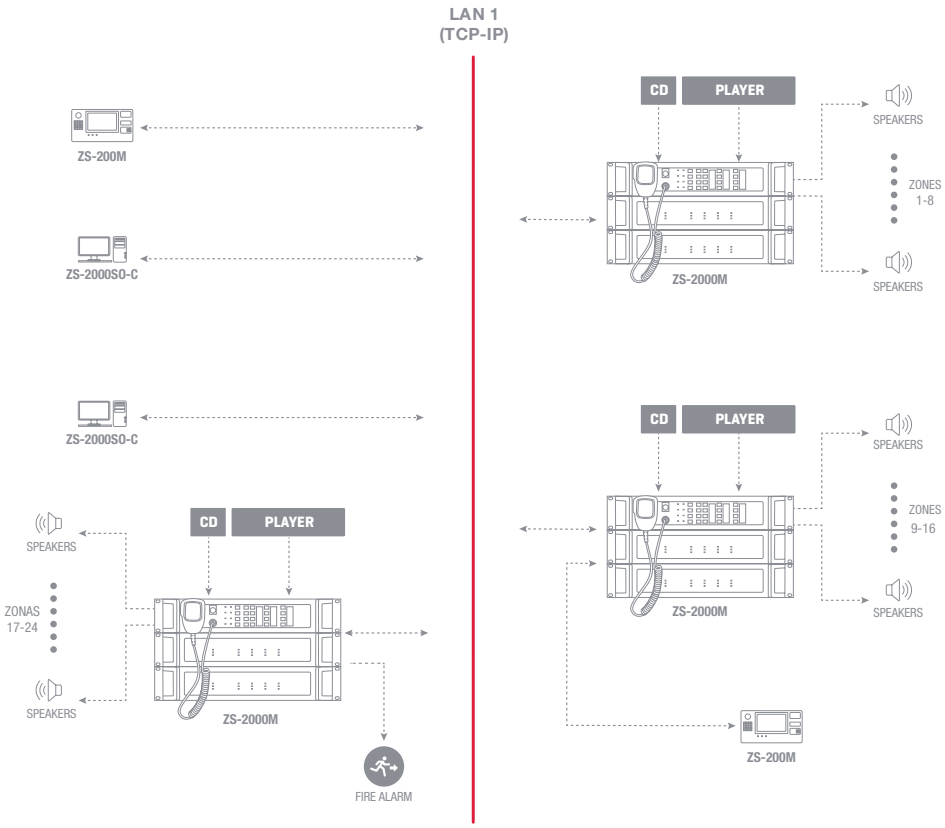
Software

It allows to monitor system status, make voice announcements, play or schedule audio files and log events in the public address system.

ZS-200SO-SP OR
ZS-2000SO-S OR
ZS-2000SO-C OR

INSTALLATION **EXAMPLE**

> *Large installation: hospital*



EN 54 VOICE ALARM

Standard

> *Modular*

CENTRALS

	ZS-2000M
FEATURES	Control unit for public address and voice alarm system EN 54. 8 speaker zones. Expandable to 2,000 zones maximum with ZS-2000M. Monitoring of the 8 loudspeaker lines (A+B). Monitoring of the ZS-200M microphones. 100 V line switching with two operating modes: connection for 1 amplifier per audio source or connection for 1 amplifier per 2 zones, distributed to 8 loudspeaker output zones. Message player with 512 MB storage capacity. Error logging and storage. In compliance with EN 54-16. 8 x inputs and 8 x outputs by contact closure.
POWER SUPPLY	100-240 V AC, 120 W and 24 V DC, 2.5 A
DIMENSIONS	483 x 88 x 425 mm depth. 2 U 19" rack
WEIGHT	9.5 kg

POWER AMPLIFIERS

ZS-1500

ZS-2250

ZS-4125

	ZS-1500	ZS-2250	ZS-4125
FEATURES	1-channel digital power amplifier, 500 W, 100 and 70 V line. In compliance with EN 54-16. RJ-45 audio and control input for connection to the ZS-2000M control unit.	2-channel digital power amplifier, 250 W, 100 and 70 V line. In compliance with EN 54-16. 2 audio and RJ-45 control inputs for connection to the ZS-2000M control unit.	4-channel digital power amplifier, 125 W, 100 and 70 V line. In compliance with EN 54-16. 2 audio and RJ-45 control inputs for connection to the ZS-2000M control unit.
	General front indicators (power, battery and input signal) and status indicators (temperature and overload).		
POWER SUPPLY	100-240 V AC, 700 W and 24 V DC, 10 A		
DIMENSIONS	483 x 92 x 425 mm depth. 2 U 19" rack		
WEIGHT	10.4 kg	11 kg	12.5 kg

EN 54 VOICE ALARM

Standard

> *Modular*

EXTENSIONS

	ZS-4328IO
FEATURES	General purpose audio input/output input management system. Amplification of public address and voice alarm system EN 54. 4 x balanced line inputs that transmit via network to the rest of the system. Message player. 32 x monitored contact opening/closing inputs, euroblock. 8 x general purpose contact opening/closing outputs, euroblock. 512 MB internal memory and 16 GB memory with internal SD board. 4 x ethernet, RJ45 2 x RS-485 communication ports. One ZS-4328IO can control and synchronise 32 x ZS-2000Ms.
POWER SUPPLY	100-240 V AC, 15 W
DIMENSIONS	483 x 92 x 425 mm depth. 2 U 19" rack
WEIGHT	7 kg

CHARGERS

	ZSA-200PS
FEATURES	Microprocessor controlled power supply for EN54 evacuation system. Certified to EN54-4+A1+A2. Software for continuous monitoring of charge current, output voltage, battery resistance and internal temperature. Battery capacity: up to 270 Ah. System status indicator lights. M8 terminals for battery connection. USB port for communication.
OUTPUTS	6 x main outputs (for amplifiers), 40 A, 24 V, euroblock 4 x auxiliary outputs (for control equipment) 5 A, 24 V, euroblock 200 A maximum in total 3 x contact closures for remote fault indication (battery, AC power supply and power supply), euroblock
INPUTS	1 x temperature sensor, euroblock 1 x external equipment fault input, euroblock
PROTECTIONS	Short-circuit, overload, overheat and excessive discharge
POWER SUPPLY	230 V AC, 650 W max.
DIMENSIONS	483 x 43 x 320 mm depth 1 U 19" rack
WEIGHT	4.9 Kg

EN 54 VOICE ALARM

Standard

> Accessories

MICROPHONES

	ZS-200M
FEATURES	Microphone with zone selector for public address and voice alarm system EN 54. TFT colour touch screen. 4'3. Flexible configuration of the on-screen keys. Built-in loudspeaker, for zone monitoring or intercommunication with another ZS-200M microphone. Connection up to 20 microphones.
MICROPHONE	-44 dB ±2 dB
INPUTS	1 x communication with ZS-2000M or switch, RJ45
SIGNAL TO NOISE RATIO	> 85dB
POWER SUPPLY	12/24 V DC, 2/1 A with adapter included
DIMENSIONS	210 x 55 x 110 mm depth
WEIGHT	0.75 kg

	ZS-300MIC	ZS-400MIC
FEATURES	Paging microphone for public address and voice alarm system EN54. Emergency or normal manual warnings. Alerts to zones or groups. Zone monitoring. Intercommunication with other microphones. USB port for storage and playback of audio files. Recording and playback of messages. Configuration via PC control software. Connection up to 250 microphones. It can control up to a maximum of 250 centrals.	
	7" touch screen. Configurable with different access levels and multiple users. Task execution up to 1,024. Voice synthesis messages. Weekly programming. Auxiliary input that can be configured as a Streaming Audio channel for the system. Emergency button. Multilanguage support.	Function buttons and 8 x assignable buttons.
MICROPHONE	-44 dB ±2 dB	
INPUTS	1 x communication with ZS-2000M or switch, RJ45 1 x line 3.5 mm TRS, 1 V RMS	
OUTPUTS	1 x line 3.5 mm TRS, 1 V RMS	
S/N RATIO	>85 dB	
POWER SUPPLY	POE or 24 V DC, 1 A, 11 W Adapter included	
DIMENSIONS	Microphone length: 385 mm 200 x 46.5 x 200 mm depth	
WEIGHT	1.5 kg	

EN 54 VOICE ALARM

Standard

> Accessories

BATTERIES

ON REQUEST

ON REQUEST

ON REQUEST

ON REQUEST

	BAT-1240	BAT-1255	BAT-1290	BAT-12120
FEATURES	Lead-acid battery. AGM VRLA. High discharge. Long service life. Low self-discharge. Maintenance-free.			
	12 V / 40 Ah/C20	12 V / 55 Ah/C20	12 V / 90 Ah/C10	12 V / 120 Ah/C20
DIMENSIONS	198 x 169 x 166 mm depth	229 x 216 x 138 mm depth	306 x 210 x 168 mm depth	407 x 225 x 177 mm depth
WEIGHT	13 Kg	18 Kg	27.5 Kg	35 Kg

SOFTWARE

ON REQUEST ON REQUEST ON REQUEST

	ZS-2000SO-SP	ZS-2000SO-S	ZS-2000SO-C
FEATURES	Control software for public address and voice alarm system EN 54. Supports different user levels. Visual system management interface using maps. Monitoring of all system elements and fault detection. Storing of event log. System information backup function		
	Aimed at medium and small installations. Manages up to 20 x ZS-2000M control units. Generates up to 20 x audio channels.	Aimed at large installations. Manages up to 250 x ZS-2000M control units. Generates up to 60 x audio channels.	Aimed at large installations. Manages up to 250 x ZS-2000M control units. Generates up to 60 x audio channels.
	-	1 license for 1 PC server and client	1 license for 1 PC client

AUDIO OVER IP
AIP

Designed by FONESTAR

The **AIP system** enables audio transmission over IP networks, facilitating sound distribution in a variety of applications, from retail to industrial environments. It uses a proprietary protocol called HYDRA to handle multiple audio channels, ensuring low latency and real-time transmission.

This plug and play system adapts to different environments and specific needs, offering auto-discovery through communications and multicast audio channels. It also includes monitoring functions that allow quick fault detection and alert management to send personalised messages to different zones. In addition, there is no limit to the number of devices and channels, ensuring a 100% scalable solution. Finally, it allows individual volume control per zone, ensuring that messages are heard clearly.

Unlimited channels

Low bandwidth audio channels

Small, medium and large **installations**

Multiple configuration **parameters**

Fault detection

Unlimited **message scheduling**

Minimum latency between devices

SIP protocol compliant players

Update via TCP/IP network or USB

Control via PC software (free of charge)

> **LAN integration**. Shared networks, TCP/IP protocols, modular systems, plug and play, **resource efficiency and cyber security.**

> **We capture any audio** from your computer to **take it to the zone of your choice**. Generate background music from any application on your computer or connect to an online radio station.

> **Scheduled or direct messages** via announcement microphone.

> **All the control on your mobile, tablet or computer.** You can access the system through any web browser to configure the volume and manage the voice messages of the different zones.

> Access to the different sound zones via **telephones or SIP devices.**

> Total flexibility to **model the installation according to your needs,** integrating multiple applications and different audio sources.

> **Unlimited scalability.** You can add as many system elements as you wish, thus expanding the sound space. With the facility that, when a new device is connected, the software automatically detects it.

> **Three levels of integration:**

1. Basic integration. Transmitters capture audio from other systems, transforming it into background music or alarms depending on the opening or closing of contacts.

2. Medium integration. Allows players to act as SIP phone extensions.

3. Professional integration, aimed at engineering companies and integrators for advanced solutions.

Restaurants, schools, cafés, supermarkets, shopping centres, etc.

SYSTEM **ELEMENTS**

Players and sources

Players: plays content from content generators: ambient music sources, scheduled and instant messages, alarms and voice prompts.
Sources: converts analogue audio from external equipment into audio channels and sends them to the network.

AIP-PLAYER
AIP-STREAMER

Control equipment

General purpose input and output equipment for integration with other systems. Up to 16 pre-configured inputs/relays in groups of 4 elements.

AIP-GATE
AIP-IO-4S4R
AIP-IO-4S8R
AIP-IO-4S12R

AIP-IO-8S8R
AIP-IO-8S4R
AIP-IO-12S4R
AIP-IO-4S

AIP-IO-4R
AIP-IO-8S
AIP-IO-8R
AIP-IO-12S

AIP-IO-12R
AIP-IO-16S
AIP-IO-16R

> *Accessories*

Loudspeakers

PoE active loudspeakers for AIP systems with IP audio player and SIP client.

SONORA-5AIPN
SONORA-5AIPB
SONORA-5AIPXN
SONORA-5AIPXB

Microphones

Microphones for IP audio system. Paging and playback of pre-recorded messages.

AIP-1020
MICFLEX-C45-B
SIP-PHONE OR

Sound pressure sensor

Detects ambient noise for automatic volume setting of AIP-PLAYER. C-weighting according to IEC-61672 standard.

AIP-SPL

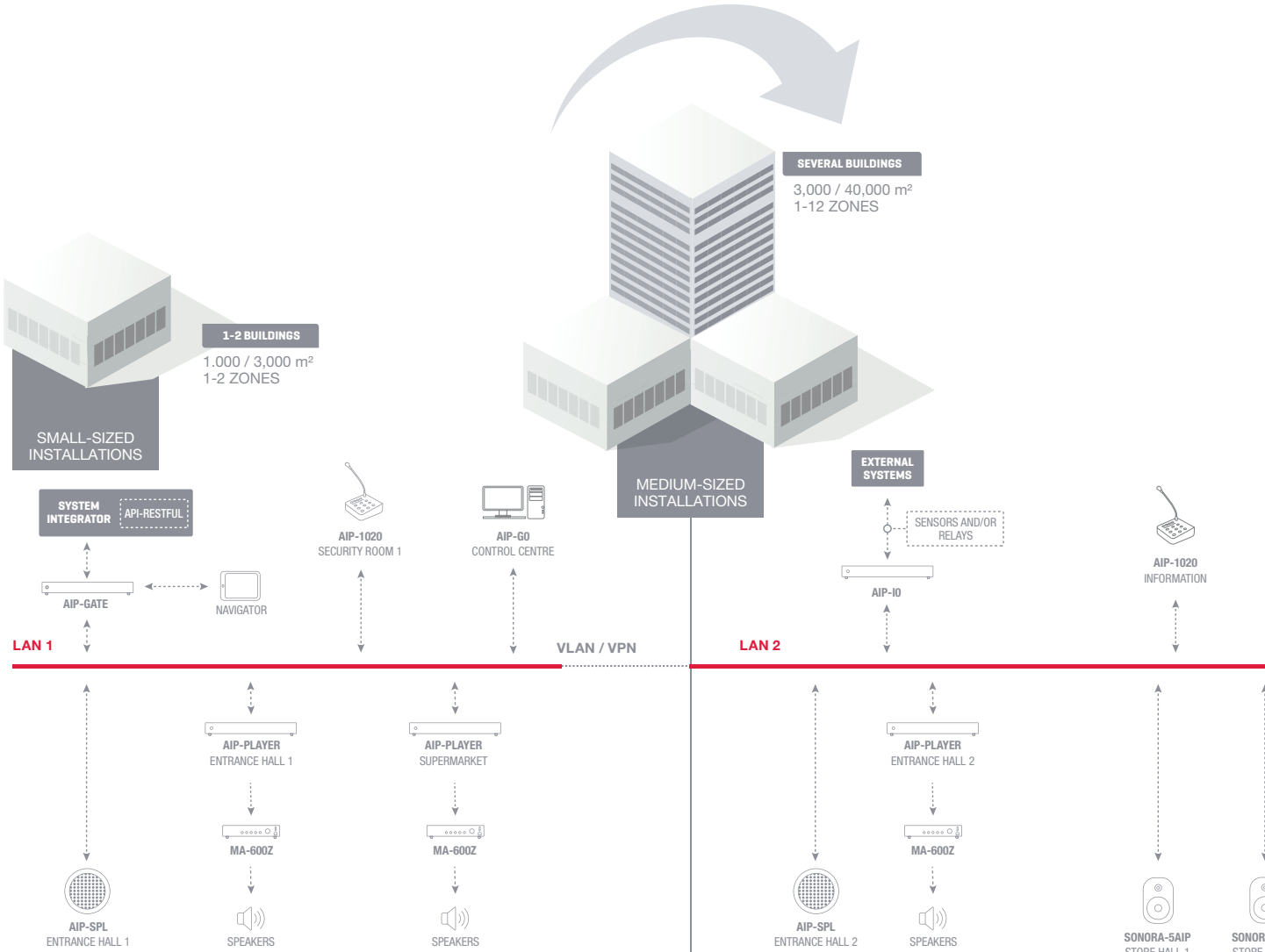
Software

System configuration and control software. It allows the creation, programming and broadcasting of audio channels over IP.

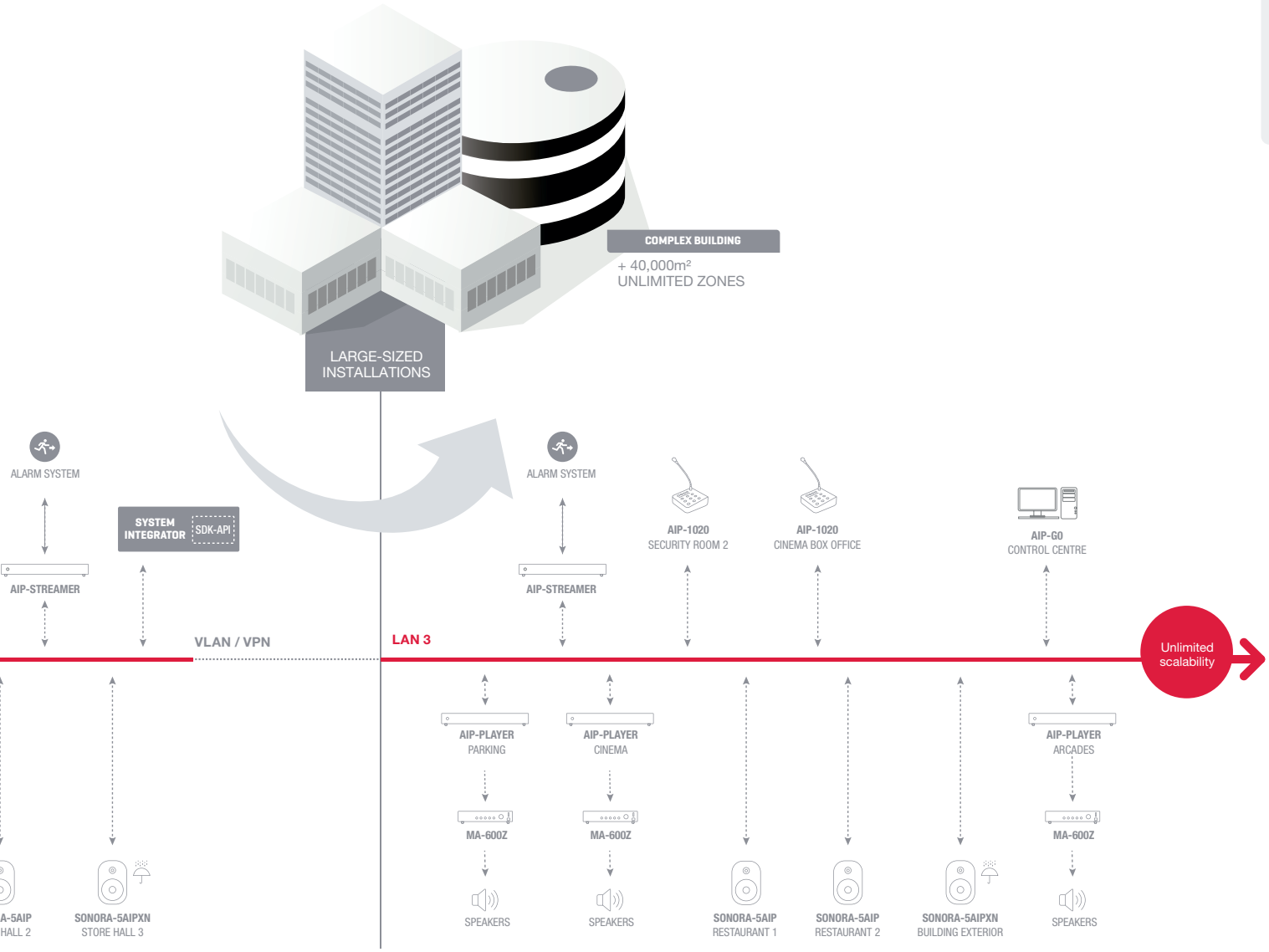
INSTALLATION **EXAMPLES**

> *Small-sized installations*

> *Medium-sized installations*



> *Large-sized installations*



> Public address

PA is integrated at all levels. Background music, messages, events, VoIP and SIP blend seamlessly with the rest of your systems.

> Video surveillance

As a complement to surveillance cameras. From the security room you will be able to issue warnings and communicate with offending users.

> Access control

Use intercoms to manage visitor access and door opening. Wherever you are.

> Air-conditioning

It monitors the ambient temperature and schedules messages according to the environmental situation of the room or office.

> Lighting

Take advantage of the integration of light and sound to dim or boost lighting and music volume, depending on ambient noise.

> Voice and data networks

Take advantage of the installation to bring the PA system wherever you need it.

> Big data

Automates, for example, voice alerts and pre-recorded messages when the venue capacity is exceeded.

> Voice alarm

In emergency or fire situations, it provides clearly understandable voice messages to help people evacuate the premises to safety without panic. System in compliance with EN 54.

AUDIO OVER IP

Players and sources

AIP-PLAYER

AIP-STREAMER

	AIP-PLAYER	AIP-STREAMER
FEATURES	IP audio player and SIP client. Enables streaming audio reception via multicast over a local area network (LAN). Remote audio channel selection and configuration via PC. General purpose isolated inputs and outputs.	IP audio transmitter. Enables audio streaming via multicast over a local area network (LAN). General purpose input.
INPUTS	1 x programmable isolated input for contact closure event activation, euroblock	1 x stereo aux, 2 x RCA 1 V 1 x programmable isolated input for contact closure event activation, euroblock
OUTPUTS	1 stereo line, 2 x RCA 2 Vrms 1 x balanced stereo line, euroblock 4 Vrms 1 x isolated programmable contact opening/closing output, euroblock	-
CONTROLS	1 x Ethernet 10/100 Base T, RJ-45 Remote update via PC software or locally via USB port.	
POWER SUPPLY	100-240 V AC, 10 W	
DIMENSIONS	330 x 45 x 188 mm depth. 1 U 19” rack	
WEIGHT	2 kg	
ACCESSORIES	Brackets for assembly in 19" rack	
SOFTWARE	PC software with auto-detection of AIP series devices Creation of audio channels for distribution Remote audio channel selection on each player Remote adjustment of configuration parameters Background music, instant and scheduled messages, events and speech Firmware update	

AUDIO OVER IP

Loudspeakers

RAL 9003 RAL 9005 RAL 9003 RAL 9005

	SONORA-5AIPB SONORA-5AIPN	SONORA-5AIPXB SONORA-5AIPXN
FEATURES	PoE active loudspeaker for AIP systems with IP audio player and SIP client. Class D amplifier. Great sound quality, clear sound and distortion-free. Integrated microphone for SPL function and self-check, acquires ambient sound pressure values for automatic volume setting of the zones. Enables streaming audio reception via multicast over a local area network (LAN). Operating status indicator.	
	General purpose input Line input for local music Passive loudspeaker output	Suitable for outdoor use and marine environments, IP 66 protection
POWER	25 + 25 W RMS (24V DC, 3.125 A, 75W) 20 + 20 W RMS (POE, 60W)	22 W RMS (POE, 60W)
SPEAKERS	1 x 5¼" polypropylene woofer 1 x 1" tweeter'	
RESPONSE	80-20,000 Hz	
INPUTS	1 x stereo aux, jack 3'5 mm 1 x programmable isolated input for contact closure event activation, euroblock 1 x Ethernet 10/100 Base T, RJ-45 USB port for software update	1 x Ethernet 10/100 Base T, RJ-45
OUTPUTS	1 x passive loudspeaker, 8 Ω, euroblock	-
PROTECTIONS	-	IP-66 IEC 60068-2-11 Environmental Test (Salt mist)
INDICATOR	Operating status	
POWER SUPPLY	1 x ethernet POE 60 W, RJ-45 or 24 V DC, 75 W, euroblock	1 x ethernet POE 60 W, RJ-45
DIMENSIONS	Loudspeaker: 162 x 263 x 147 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 216 mm depth	

AUDIO OVER IP

Microphones

Designed by FONESTAR

	AIP-1020
FEATURES	Microphone for audio over IP system. Capacitive touch keyboard with 12 configurable buttons. 2 integrated microphones Paging from the microphone, playback of pre-recorded messages, etc. Configuration via PC. Audio stream transmission via local area network (LAN). USB port for software updates.
INPUTS	1 x balanced microphone, XLR 600 Ω, 5 mV XLR 1 x link, RJ-11 for extension
OUTPUTS	1 x ethernet, RJ-45 1 x headphones, 3.5 mm jack
POWER SUPPLY	12 V DC, 1.5 A with adapter included
DIMENSIONS	140 x 41.5 x 120 mm depth
WEIGHT	0.4 kg
OPTIONAL	Compatible with MIC-FLEX-C45-B gooseneck.

Designed by FONESTAR

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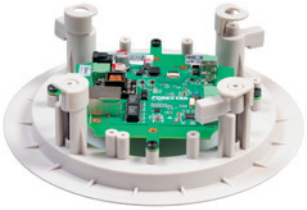
	MICFLEX-C45-B
CAPSULE	Unidirectional electret condenser
RESPONSE	50-20,000 Hz
SENSITIVITY	-35 dB (V/Pa) at 1 kHz
IMPEDANCE	800 Ω
MAX SPL	128 dB
EQUIVALENT NOISE	33 dB
DYNAMIC RANGE	95 dB
THD	<1 %
SNR	61 dB
POWER SUPPLY	Phantom 9 to 52 V DC
CONNECTORS	XLR male 3-pin Balanced line
DIMENSIONS	Total height: 45 cm with tube and flexo
WEIGHT	0.10 kg
COMPATIBILITY	AIP-1020: Microphone for Audio over IP

ON REQUEST

	SIP-PHONE
FEATURES	SIP phone with console-type call microphone. Aesthetic business design. Main display 4'3'' and secondary displays 2 x 3'5'' for the programmable buttons. Gooseneck microphone. Up to 106 programmable buttons, speed dial, group transmission, etc. HD audio with G.722 and Opus codecs. Video calls with H.264 video codec (only the caller receives video) 20 SIP lines Supports various headphone modes. Easy to connect to Wi-Fi (via USB adapter not included, consult for optional supply). Built-in PoE.
AUDIO	Codec G.722, Opus HD Audio 6-way audio conference
ACCESSORIES	Telephone cable Ethernet network cable Mount

AUDIO OVER IP

Accessories



	AIP-SPL
FEATURES	Sound pressure sensor for AIP systems. Acquires background sound pressure values for automatic volume setting of zones. C-weighting according to IEC-61672 standard. Configuration via PC. USB port for software updates. PoE or local power supply.
OUTPUTS	1 x ethernet, RJ-45
DIMENSIONS	202 mm Ø x 77 mm depth
HOLE	163.5 mm Ø
POWER SUPPLY	12 V DC, 150 mA, PoE or Euroblock
WEIGHT	0.3 kg
OPTIONAL	Power adapter mod. AD-1510E

AUDIO OVER IP

Control equipment

Designed by FONESTAR

	AIP-GATE
FEATURES	Audio over AIP channel programmer Generator of background music channels, messages and IP audio events. Web interface for system control. It allows the creation, programming and broadcasting of streaming audio channels via multicast over a local area network (LAN). Audio channel selection and configuration of all system devices via web interface. 32 GB internal storage memory. Web API for Integration (RESTful API) Remote update via PC software or locally via USB.
INPUTS	1 x Ethernet 10/100 Base T, RJ-45 USB port for software update
POWER SUPPLY	100-240 V AC, 10 W
DIMENSIONS	330 x 45 x 188 mm depth. 1 U 19" rack
WEIGHT	2 kg
ACCESSORIES	Brackets for assembly in 19" rack
SOFTWARE	PC software with automatic detection of AIP series devices connected in the LAN Creation of audio channels for distribution Remote audio channel selection on each player Remote adjustment of configuration parameters Background music, instant and scheduled messages, events and speech Firmware update

AUDIO OVER IP

Control equipment

Designed by FONESTAR

	GENERAL AIP-IO FEATURES
FEATURES	Device with general purpose inputs and outputs for IP audio system. It allows the activation of events by contact closure and the control of external devices via relay outputs. With RJ-45 connection for Ethernet control and USB port for software updates.
POWER SUPPLY	100-240 V AC, 10 W
DIMENSIONS	431 x 45 x 197 mm depth. 1 U 19" rack
WEIGHT	2.7 kg
ACCESSORIES	Brackets for assembly in 19" rack
SOFTWARE	PC software with automatic detection of AIP series devices connected in the LAN Remote adjustment of configuration parameters Firmware upgrade remotely via PC software or locally via USB

	AIP-IO-4R	AIP-IO-8R	AIP-IO-12R	AIP-IO-16R	AIP-IO-4S	AIP-IO-8S	AIP-IO-12S
Isolated INPUTS (SENSOR)	0	0	0	0	4	8	12
Relay OUTPUTS	4	8	12	16	0	0	0

	AIP-IO-16S	AIP-IO-4S4R	AIP-IO-4S8R	AIP-IO-4S12R	AIP-IO-8S4R	AIP-IO-8S8R	AIP-IO-12S4R
Isolated INPUTS (SENSOR)	16	4	4	4	8	8	12
Relay OUTPUTS	0	4	8	12	4	8	4

MESSAGE PROGRAMMING
ZSM

Designed by FONESTAR

The **ZSM system** is acomplete solution for the management of announcements and background music, designed to meet the needs of different environments such as shops, offices and institutional spaces. It offers a combination of flexibility and efficiency through its ability to broadcast live and scheduled messages, facilitating accurate and effective communication with employees and customers.

In addition to its ease of installation and autonomous operation, the system stands out for its ability to adapt to different room configurations, providing the possibility to control audio in different zones independently. This allows the creation of specific environments for each area, optimising the user experience and adjusting to the unique characteristics of each place.

Unlimited channels

Stand-alone devices

32 gb internal **memory**

SIP protocol

Status monitoring

Pre-recorded messages

Remote programming

Management via LAN and Internet

Firmware updates

Control via PC software (free of charge)

> **Management of announcements and background music.** Allows management of voice announcements and background music in commercial, corporate and institutional environments.

> **Live broadcasting from SIP terminals**. Broadcasts voice announcements in real time from any SIP terminal, improving communication.

> **Automatic message scheduling.** It includes a scheduler to automatically broadcast messages at specific times.

> **Customised background music.** Built-in music player with organisable channels for adjusting the sound environment.

> **Autonomous operation without intervention.** It operates independently once configured, minimising the need for manual intervention.

> **Remote programming via software.** Remote configuration and programming of the system via PC software and network connection.

> **Remote system monitoring.** Monitor system operation in real time from any location.

> **Connectivity via LAN or internet.** Connects via LAN or internet to upload music and schedule messages.

> **Integration with management systems.** It is easily integrated into wider management systems, making it easier to use and operability.

> **Intuitive and user-friendly interface.** It has a simple control software, which allows an agile and accessible management for users.

> **High audio quality.** It delivers clear and powerful sound for messages and music, ensuring an excellent listening experience.

SYSTEM **ELEMENTS**

> ZSM-1000

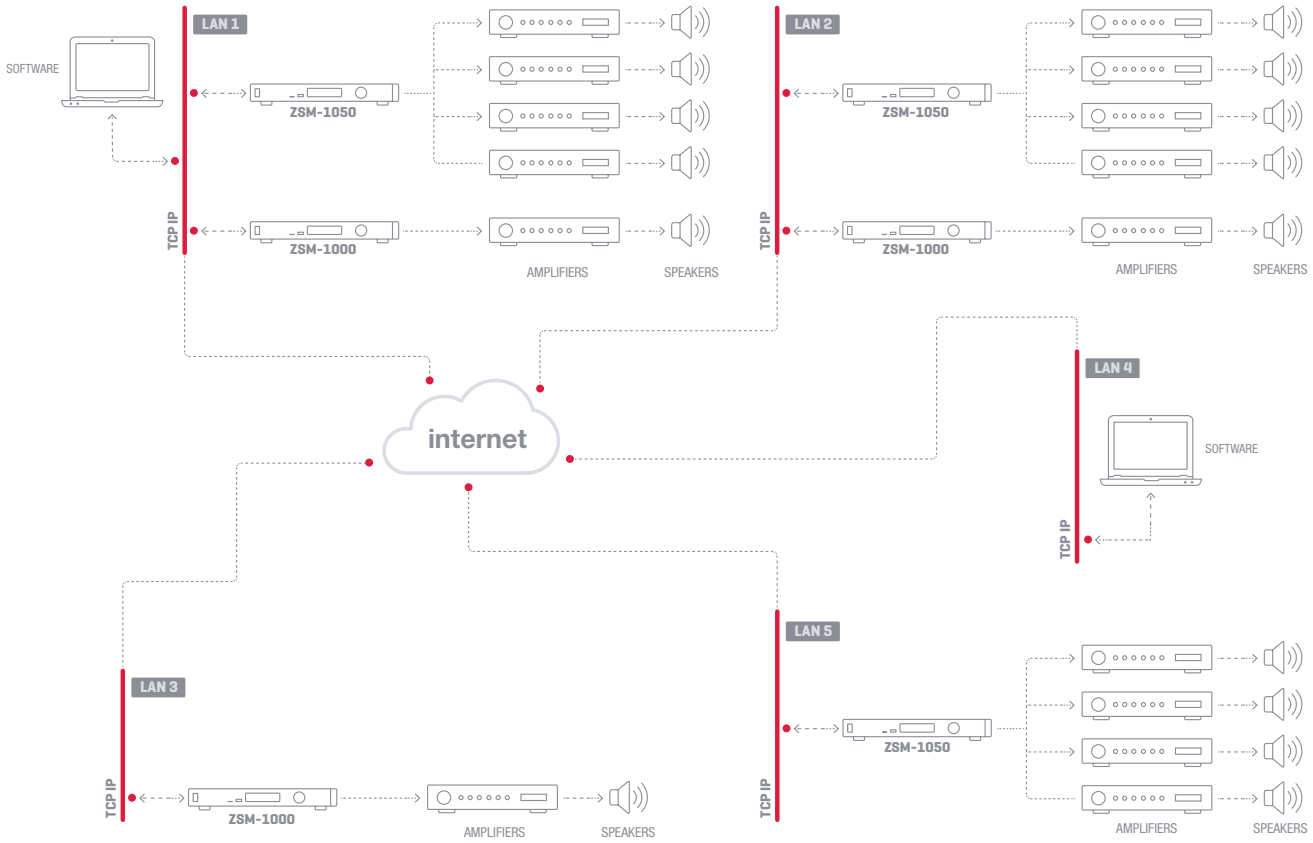
	Background music channels	Unlimited 10 selectable from the front
Programmed Instantaneous	Messages	Unlimited Activated from the ZSM-GO software
	Alarms	NO
	Sensors and relays	NO
	Auxiliary input	NO
	Audio output zones	1 With 2xRCA stereo output
	Audio codecs	1 With 2xRCA stereo output
	SD and USB playback	NO
	SIP Client	YES For voice announcements

Full local control via 5-button navigation keypad for operation and configuration
Unlimited
Unlimited Activated from the ZSM-GO software
YES Euroblock connectors
YES (4 4 x general purpose relays and 4)
YES 1 x stereo auxiliary input 2xRCA
4 With 2xRCA stereo output
2 1 for background music. 1 for messages, alarms and SIP client
YES Playback of background music channels
YES For voice announcements

> ZSM-1050

ZSM GO
MANAGEMENT SOFTWARE

INSTALLATION **EXAMPLE**



MESSAGE PROGRAMMING

Analogue

	MP-121P
FEATURES	Weekly programmer. USB/SD player. LCD display. Priority paging. 9 messages, individually selectable via shortcut buttons or contact closure (push).
RESPONSE	50-18,000 Hz ±3 dB
DISTORTION	Harmonic: < 0.5 % at 1 kHz
INPUTS	2 x balanced microphones/lines, combo (XLR and 6.3 mm jack) 600 Ω 4 mV RMS and 47.000 Ω 360 mV RMS, switchable 2 x aux, 2 x RCA 10,000 Ω 120 mV RMS
OUTPUTS	1 x master, 2 x RCA and 2 x XLR 600 Ω 1 V mono/stereo selectable 1 x rec out, 2 x RCA
CONTROLS	Tone: bass and treble Balance Volume: input 1 and 2, aux 3 and 4, USB/SD and overall volume
PRIORITY	Mic 1 per signal level, selectable
POWER SUPPLY	230/115 V AC, 9 W
DIMENSIONS	483 x 89 x 310 mm depth. 2 U 19" rack
WEIGHT	4.5 kg

MESSAGE PROGRAMMING

Digital

ZSM-1000

Designed by FONESTAR

ZSM-1050

Designed by FONESTAR

	ZSM-1000	ZSM-1050
FEATURES	Message scheduler, background music player, instant messages and SIP client.	Message scheduler, background music player, instant messages and SIP client.
	1 zone	4 zones
	Front panel for direct selection of up to 10 channels of background music and volume control	Front navigation keypad for control of zones, background music channels, messages and settings
	LCD display 32 GB internal memory for audio files	
PRIORITY	Priority of messages on background music	Priority of alarms and messages over background music inputs
PLAYER	Background music player from internal memory with multi-channel creation	Background music player from USB/SD or internal memory with multi-channel creation Dedicated message, alarm (internal memory) and VoIP player. Does not cut off background music in the other areas.
INPUTS	1 x ethernet connection, RJ-45 USB port for software update	
	-	1 x aux background music, 2 x RCA 1 V 4 x programmable inputs for alarm activation by contact closure, euroblock
OUTPUTS	1 line, 2 x RCA, 1 V	4 zones, 2 x RCA 2 V 4 x general purpose relays, euroblock 2 x link for future applications, RJ-45
POWER SUPPLY	100-240 V AC, 8 W	100/240 V AC, 9 W and 24 V DC, 0.4 A
DIMENSIONS	294 x 44 x 158 mm depth. 1 U 19" rack	435 x 45 x 220 mm depth. 1 U 19" rack
WEIGHT	1.8 kg	2.7 kg
ACCESSORIES	Brackets for assembly in 19" rack	
SOFTWARE	ZSM-GO PC Software (included) Access, management and transfer of audio files via local area network (LAN) and internet. Software update remotely or locally via USB port Control and management of multiple ZSMs Creation and control of background music channels Status monitoring Programming of general purpose messages and outputs	

DSP ZONE SYSTEM
NMX

• DSP advanced system: NMX

The **NMX system** is an innovative solution that allows the control and distribution of audio in multiple areas in an efficient and flexible way. It is based on a digital signal processor (DSP) that optimises the sound quality, allowing you to make adapted settings to the needs of each space. It stands out for its ability to control and manage multiple audio zones independently and efficiently.

Its modular and scalable design makes it easy to deploy in commercial facilities, public spaces and events. This system not only guarantees high quality performance, but also stands out for its ability to integrate with other technologies, making it a versatile choice for any audio application.

Solutions for **feedback**

USB sound board

Low bandwidth

Great **scalability**

Customised configuration

DANTE compatibility

UDP, RS-232 and RS-485 protocol

Low latency

Advanced **DSP processor**

Camera tracking

Modular control software

> **Zone control.** It allows multiple areas to be managed independently, making it easy to customise the audio for each space according to the specific needs of the users.

> **Intuitive interface.** User-friendly design for quick and easy configuration, which ensures that both technicians and users can operate the system without complications.

> **Advanced DSP processor.** Improves sound quality through precise adjustments, ensuring a superior listening experience in any environment.

> Support for protocols such as UDP, RS-232 and RS-485 allows easy **integration with other systems.**

> **DANTE compatibility.** It integrates DANTE technology for digital audio transmission over IP networks, which facilitates the interconnection of multiple devices and improves installation flexibility.

> **Scalability.** It adapts to different sizes and installation needs, from small venues to large auditoriums, without losing performance.

> **Custom settings.** Possibility to adjust the audio according to specific requirements, allowing the creation of unique sound environments in each zone.

> **Remote control.** Remote system access and management, providing convenience and flexibility in audio operation in a variety of environments.

> APP for **customised user control interface.**

> **Modular PC-based control software** for routing inputs and outputs, as well as digital signal processing (DSP) functions such as equalisation, compressors and gain controls.

In conference systems or video call rooms, and in music systems in restaurants, hotels, shopping centres, etc.

SYSTEM **ELEMENTS**

Matrix

It allows the management and distribution of audio signals to multiple outputs and inputs in a flexible and controlled manner.

NMX-88
NMX-88D
NMX-1616
NMX-1616D

Microphones

It allows the signal to be transmitted via digital audio over the data network with the DANTE protocol. Connection via Ethernet and POE power.

MCMD-2

Control panels

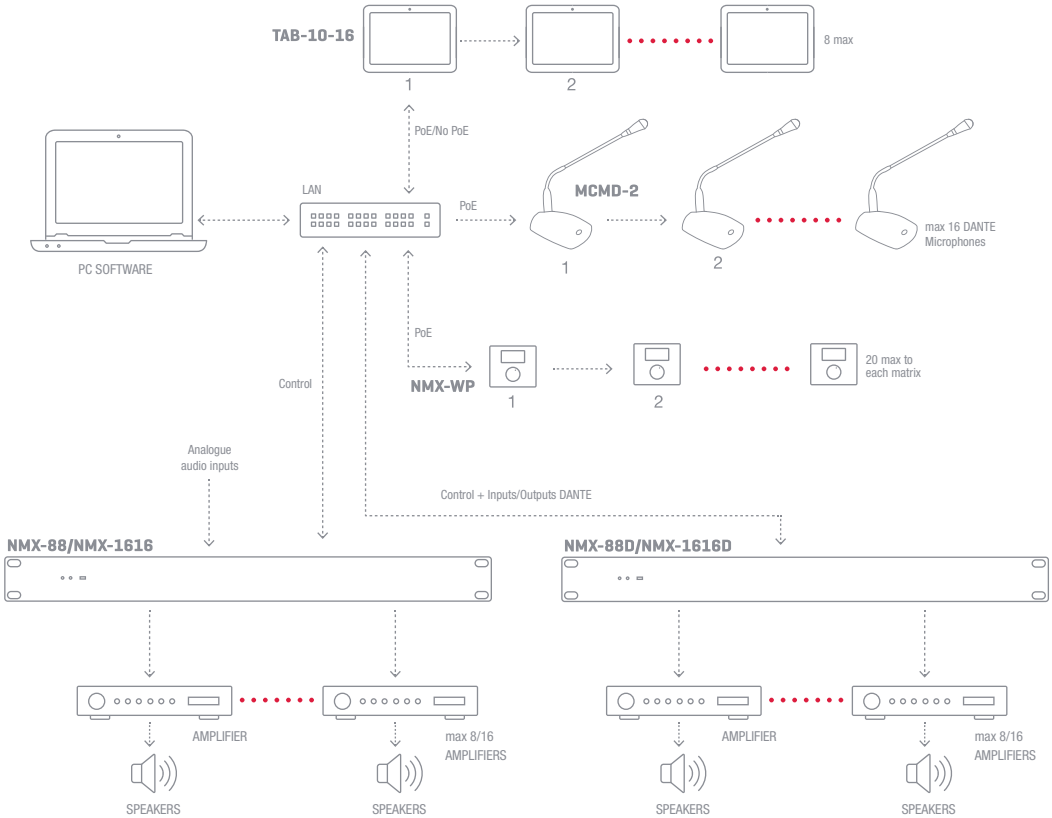
The user will be able to interact with the sound system locally, without the need to access the complex matrix configuration.

TAB-10-16
NMX-WP

Software

System configuration and control software. The user interface APP available for Android and iOS is required.

INSTALLATION **EXAMPLE**



ZONE SYSTEM

Analogue

	ZSC-1110
FEATURES	10-zone switching unit for 100 V line Expandable to 300 speaker zones with additional ZSC-1110 units. Suitable for PA installations of any size. Indicator lights for the status of the switching matrix. Musical alert tones. ZS-11 paging microphone, connection of up to 16 microphones. Cat 5e cable connection, RS-485 communication that can reach up to 1000 metres. Possibility to activate the priority on 24 V attenuators when giving warnings with the ZS-1112R.
INPUTS	2 x unbalanced mic, 6.3 mm jack 600 Ω 5 mV 2 x unbalanced lines, euroblock 10,000 Ω 775 mV 2 x contact closure alarm activation, euroblock 10 x 100 V line for message amplifier, max. 500 W per zone, euroblock 10 x 100 V line for background music amplifier, max. 500 W per zone, euroblock 1 x microphone with zone selector switch, RJ45
OUTPUTS	10 x loudspeaker zones max. 500 W per zone, euroblock 2 x unbalanced lines, euroblock 10,000 Ω 775 mV 2 x contact closure alarms, euroblock 1 x zone extension, RJ45
RESPONSE	Microphones: 100-15,000 Hz Lines: 30-18,000 Hz
CONTROLS	Volume: microphones and musical warning tones Tone: Bass: ±10 dB Treble: ±10 dB Activation of musical warning tones Selection of zones 1 to 10 and general Selection of music and announcements
POWER SUPPLY	230 V AC, 40 W
DIMENSIONS	484 x 88 x 340 mm depth. 2 U 19" rack
WEIGHT	5 kg

ZONE SYSTEM

Analogue

	ZS-1112R
FEATURES	10 zone control unit for priority activation on attenuators with 24 V relay. Expandable to 300 zones. Cat 5e cable connection, RS-485 communication that can reach up to 1000 metres. ZS-1112R Operates in conjunction with the ZSC-1110 alarm centre, activates the 24 V priority for attenuators when there is a message sent from the ZS-11 microphone. The ALARM-IN function has no automatic reset. Needs to be reset manually.
INPUTS	1 x zone extension, RJ45 2 x alarm activation by contact closure, screw terminals
OUTPUTS	10 of 24 V for relay activation in dimmers, screw terminals 1 x zone extension, RJ45 2 x contact-closure alarms, screw terminalss
POWER SUPPLY	230 V AC, 220 W
DIMENSIONS	484 x 88 x 303 mm depth. 2 U 19" rack
WEIGHT	6.2 kg

	ZS-11
FEATURES	Microphone with 10-zone direct selection buttons. Selection of up to 300 zones. Selects the zone for alerts on the ZSC-1110. Selects priority for 24 V dimmers in the ZS-1112R. Microphone volume control and musical warning tones.
MICROPHONE	Electret condenser with gooseneck
INPUTS	1 x balanced mic, XLR 600 Ω 5 mV 1 x unbalanced line, 6.3 mm jack 10.000 Ω 775 mV 1 x mic with zone selector, RJ-45
OUTPUTS	1 x unbalanced line, 6.3 mm jack 10,000 Ω 775 mV 1 x mic with zone selector, RJ-45
CONNECTION	Cat 5e cable, RS-485 communication that can reach up to 1000 metres.
POWER SUPPLY	24 V DC, 2 A with adapter included
DIMENSIONS	Gooseneck microphone: 475 mm high Base: 220 x 52 x 143 mm depth
WEIGHT	1.5 kg
ACCESSORIES	Cat 5e connection cable, RJ45

ZONE SYSTEM
Digital

> Advanced DSP

MATRIX

> NMX-88

NMX-88

NMX-88D

> NMX-1616

NMX-1616

NMX-1616D

	NMX-88	NMX-1616	NMX-88D	NMX-1616D
ANALOGUE INPUTS	8	16	8	16
ANALOGUE OUTPUTS	8	16	8	16
DIGITAL DANTE INPUTS	-	-	8*	16*
DIGITAL DANTE OUTPUTS	-	-	8*	16*
CONSUMPTION	28 W	28 W	30 W	30 W
WEIGHT	2.9 kg	3 kg	3.1 kg	3.1 kg

ZONE SYSTEM

Digital

> Advanced DSP

MATRIX

	GENERAL MATRIX FEATURES
FEATURES	Audio matrix with DSP, ADI SHARC 21489 architecture USB sound card input and output channel. Algorithms: Echo Cancellation (AEC), Feedback Cancellation (AFC), Noise Suppression (ANS), Automatic Gain Control (AGC). Signal processing with 5 modules per input channel including expander, compressor, noise gate, automatic gain control (AGC), priority, parametric filter, graphic filter, priority, acoustic feedback cancellation (AFC) and delay. And 4 modules for each output channel between crossover, parametric filter, graphic filter, delay and limiter. Two-channel stereo linking, Auto Mixing, Echo Cancellation (AEC), Noise Suppression (ANS), Matrix Volume Assignment, 8 GPIOs, 16 scenes, PTZ camera tracking control. Ethernet connection and RS-232, RS-485 control port. UDP, RS-232 and RS-485 protocol. Configuration software and modular user interface with App for touch screens.
INPUTS *(according to model)*	Balanced mic/line lines with selectable 48 V phantom. Euroblock connector ***Only models with DANTE connection:*** DANTE digital input channels 2 x DANTE connection ports (PRIMARY and SECONDARY), RJ45 1 x LAN port for local area network connection, RJ45 1 x RS-232 port, euroblock 1 x RS-485 port, euroblock
OUTPUTS *(according to model)*	Balanced lines. Euroblock connector ***Only models with DANTE connection:*** DANTE digital output channels
CONTROLS	Modular PC control software (input/output routing, DSP functions, equalisation, noise gates, compressor, gain controls, etc.) App for customised user control interface. UDP, RS-232 and RS-485 protocol for integration with other systems. RS-232 and RS-485 for PTZ camera tracking control.
DIGITAL AUDIO	48 KHz, 24 bits
LATENCY	<3 ms
RESPONSE	20-20,000 Hz ±0'3 dB
DISTORTION	THD+N harmonic: <0.002% @4dBu
S/N RATIO	112 dB
POWER SUPPLY	100-240 V AC, 50-60 Hz
DIMENSIONS	482 x 44 x 268 mm depth. 1 U 19" rack
WEIGHT	2.9 kg

ZONE SYSTEM
Digital

> Advanced DSP

MICROPHONES

N!

	MCMD-2
FEATURES	Desktop microphone. DANTE digital audio transmitter. Gooseneck microphone. Push to speak PTL. Call indicator lights. Robust metal construction. Great stability.
CAPSULE	Supercardioid electret condenser
RESPONSE	20-20,000 Hz
SENSITIVITY	-42 dB (V/Pa) at 1 KHz
IMPEDANCE	200 Ω
MAX SPL	118dB, 1 KHz at 1% THD
DYNAMIC RANGE	85 dB
S/N RATIO	>72 dB(A), 1 KHz at 1 Pa
CONTROLS	Push button with PTL function, press to talk (on), and press to close (off) Microphone gain adjustment
OPTIMAL SPEECH DISTANCE	10 - 20 cm
INPUTS	1 x balanced microphone, XLR 600 Ω. 37 V Phantom power supply
OUTPUTS	1 x LAN port (DANTE) for connection to local area network, RJ-45
POWER SUPPLY	POE (IEE 802.3 af standard)
DIMENSIONS	Gooseneck microphone: 38 mm high Base: 125 x 55 x 165 mm depth
WEIGHT	1.23 kg
ACCESSORIES	Wind-shield foam

ZONE SYSTEM

Digital

> Advanced DSP

CONTROL PANELS

	TAB-10-16
FEATURES	10'' touch screen based on Android 2G + 16G tablet. To run the NMX Series Matrix User Interface App. Programmable and customisable with PC control software. The main functions are volume control, gain control, Mute, scene call and UDP, RS-232 or RS-485 commands. Supports multiple touch screens in one installation. Connection via RJ45 Ethernet and POE power supply. Compatible with VESA 75 x 75 mount.
INPUTS	1 x LAN port for local area network connection, RJ-45 2 x USB ports 1 x SD port 1 x USB serial port 1 x Micro USB OTG
OUTPUTS	1 x 3.5 mm Headphones
CONTROLS	Power, home, brightness and volume buttons
POWER SUPPLY	POE and 12 V DC, 1.5 A
DIMENSIONS	255 x 170 x 30 mm depth Compatible with VESA 75 x 75 mounts
WEIGHT	0.8 kg
ACCESSORIES	Wall installation mount

	NMX-WP
FEATURES	Programmable remote control. Neutral design with a selection button and information display. Up to 32 programmable menus. Programmable and customisable with PC control software. The main functions are volume control, gain control, Mute, scene call and UDP, RS-232 or RS-485 commands. Supports multiple controllers in one installation. Simple connection via Ethernet and POE power. Installation in 86 x 86 mm standard box.
INPUTS	1 x LAN port for local area network connection, RJ-45
CONTROLS	Selection and confirmation button UDP control protocol
POWER SUPPLY	POE, consumption <300 mA
DIMENSIONS	Totals: 86 x 86 x 50 mm depth Inset: 57 x 62 x 30 mm depth Distance between screws: 60 mm
WEIGHT	0.25 kg
OPTIONAL	DOT-BOX-B: Surface mounting box

DSP ZONE SYSTEM
MPX

• DSP system: MPX

The **MPX system** is a highly versatile audio matrix, perfect for installations of any size, allowing a multitude of configuration and DSP signal processing options. Designed primarily for signal processing and configuration flexibility.

Its ability to handle multiple audio sources and destinations makes it easy to customise the listening experience to suit different requirements and preferences. It is a comprehensive solution that covers almost any installation need, guaranteeing exceptional performance.

Intuitive interface

Solutions for **feedback**

Great **scalability**

Customised configuration

DANTE compatibility

TCP/ IP and RS-232 protocol

Remote control

DSP processor

High reliability

Control via PC software

> **Versatility of instalation.** Suitable for environments of any size, from small venues to large auditoriums.

> **DSP signal processor.** Improved sound quality by means of equalisation, compression and other advanced settings.

> **Customised settings.** It allows multiple configuration options to adapt to the specific needs of each installation.

> **TCP/IP and RS-232 protocols** for integration with other systems.

> **Handling of multiple inputs and outputs.** Ability to manage multiple audio sources and route them to different destinations simultaneously.

> **Intuitive interface.** Easy to use, allowing efficient operation for both technicians and non-specialist users.

> **Advanced connectivity.** Compatible with various communication protocols, facilitating integration with other audio and video systems.

> **Scalability.** Possibility to expand and adapt the system according to the changing needs of the installation.

> **Remote control.** It offers remote control options, providing flexibility in audio management.

> **Solutions for feedback.** It incorporates tools that help eliminate feedback problems, improving sound clarity.

For installations with multiple audio sources and audience areas such as shopping malls, hotels, conference rooms, stadiums, etc.

SYSTEM **ELEMENTS**

Matrix

They allow a multitude of configuration options. DSPsignal processing. They integrate solutions to common problems such as feedback.

MPX-4088
MPX-440X
MPX-450D

Microphones

Microphone with zone selector for voice output and musical warning tones. Allows selection from 1 to 32 zones.

MPX-400MIC

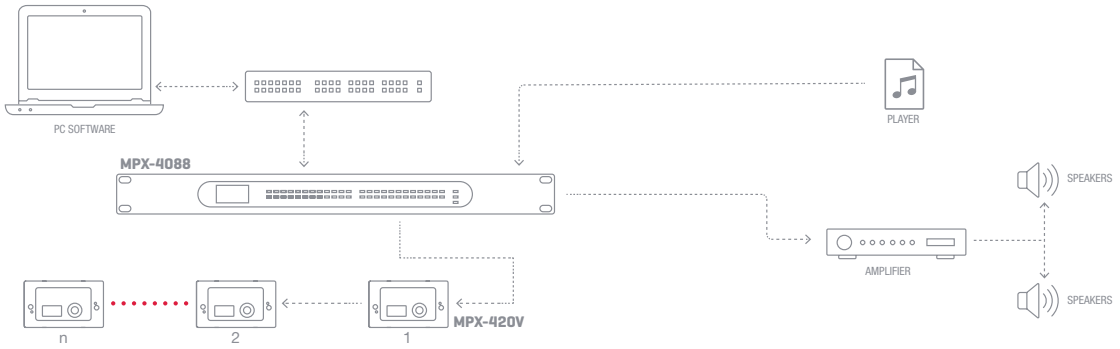
Control panels

Remote control devices designed to manage the audio configuration of the matrix.

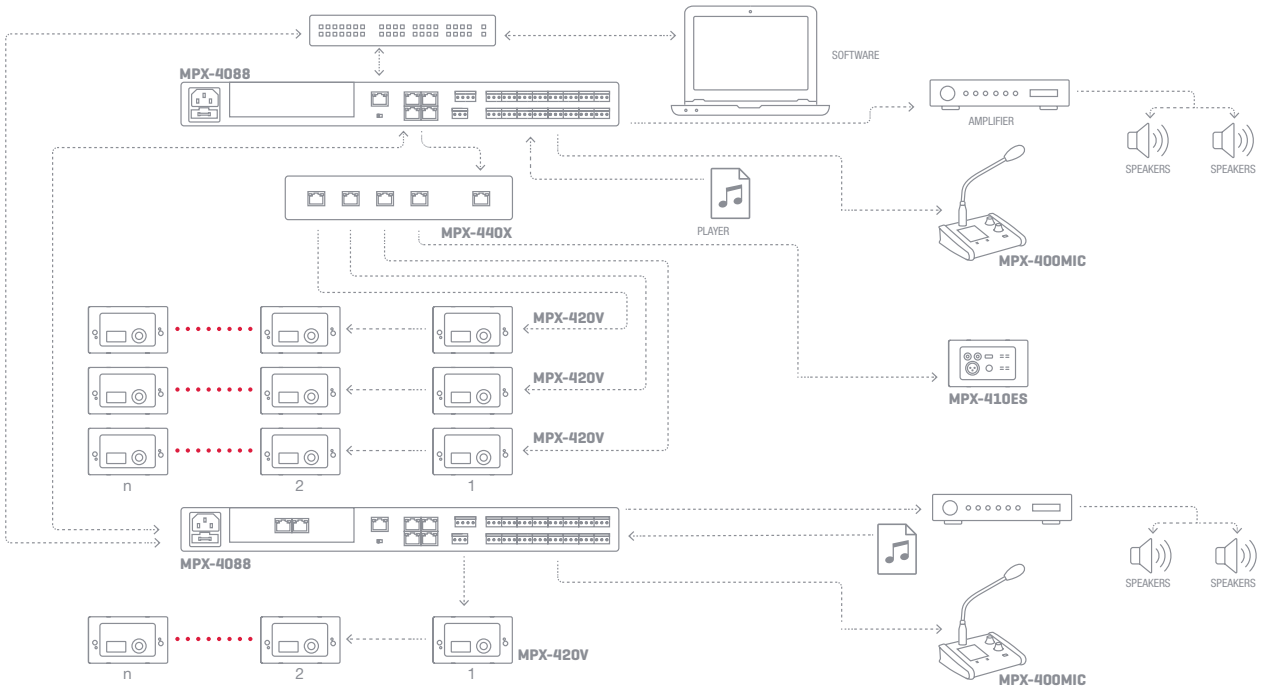
MPX-410ES
MPX-420V
MPX-460P

INSTALLATION **EXAMPLE**

> *Standard installation*



> *Installation with extension and DANTE*



ZONE SYSTEM

Digital

> DSP

MATRIX

	MPX-4088
FEATURES	Audio matrix from 8 analogue input channels to 8 output zones. 4 x configurable digital input/output channels for use with the controllers. PC control software. Power, bus occupancy, signal and fault indicators. LCD information display. DANTE compatible.
INPUTS	8 x balanced lines with sensitivity selection: 4 mV RMS (-48 dBV) / 15 mV RMS (-36 dBV) / 63 mV RMS (-24 dBV) / 250 mV RMS (-12 dBV) / 1 V RMS (0 dBV) 6,800 Ω. Euroblock connector 2 x RD ports, for connection of peripherals 1 x RC-Net port for matrix interconnection, RJ-45 1 x LAN port for local area network connection,RJ-45
OUTPUTS	8 x balanced lines, 1 V RMS (0 dBV) 1,800 Ω / max. output 7.74 V RMS (17 dBV) max. Euroblock connector 2 x RD ports, for connection of peripherals 1 x extension link, RC-Net, RJ-45 RS-232 port, euroblock (for integration with other systems)
RESPONSE	20-20,000 Hz ±1.5 dB
DISTORTION	Harmonic: < 0.01%
S/N RATIO	Microphone > 102 dB Lines > 107 dB
PHANTOM	48 V on inputs 1 to 8, software selectable
PRIORITY	Via accessory microphone. Inputs from 1 to 8 per level, software selectable.
POWER SUPPLY	100-240 V AC, 80 W
DIMENSIONS	483 x 44 x 256 mm depth. 1 U 19" rack
WEIGHT	3.9 kg

	MPX-440X
FEATURES	4-port RD extension for audio matrix. Power and connection indicator lights for each port.
INPUTS	1 x RD port for matrix connection, RJ-45
OUTPUTS	1 x RD audio port, RJ-45 3 x RD control ports, RJ-45
POWER SUPPLY	24 V DC, 1 A, euroblock
DIMENSIONS	196 x 44 x 135 mm depth

	MPX-450D
FEATURES	DANTE expansion module. 8 x 8 digital audio input/output channels For sharing channels between matrix.
INPUTS	2 x DANTE ports, 2 x RJ-45 (Primary and Secondary)
OUTPUTS	2 x DANTE ports, 2 x RJ-45 (Primary and Secondary)
DIMENSIONS	122 x 32 x 120 mm depth

ZONE SYSTEM
Digital

> DSP

MICROPHONES

	MPX-400MIC
FEATURES	Microphone with zone selector. Musical warning tones (MP3 or WAV format). Zone selection and announcement output on the audio matrix. Microphone volume control. Indicator lights for power, signal, saturation and communication status. LCD information display. PC control software.
MICROPHONE	Electret condenser with gooseneck and LED ring (Phantom 12 V)
INPUTS	1 x balanced microphone, XLR 6,800 Ω 1 x mini USB port for charging musical warning tones 1 x RD audio port for connection to matrix, RJ-45
POWER SUPPLY	24 V DC, 100 mA, via RD port
DIMENSIONS	Gooseneck microphone: 430 mm high Base: 176 x 60 x 166 mm depth

CONTROL PANELS

	MPX-410ES	MPX-420V	MPX-460P
FEATURES	Audio input/output remote control 2 input and 2 output zones. Signal presence and saturation indicators for inputs and outputs.	Volume remote control and zone assignment for audio matrix LCD display with volume level information for the selected output.	Volume remote control, zone and scene assignment with touch screen for audio matrix. Capacitive LCD touch screen. Direct surface installation.
INPUTS	1 x balanced mic, XLR 5,100 Ω, assignable to channels 10 or 12. 1 x stereo RCA line, 5,100 Ω, 7.74 V, assignable to channels 9/10 or 11/12. 1 x RD audio port for connection to matrix, RJ 45	1 x RD control port for matrix connection, RJ-45	1 x RD control port for matrix connection, RJ-45
OUTPUTS	2 x balanced lines, euroblock 240 Ω, 7.74 V, assignable to digital channels 9/10 or 11/12	1 x extension link, RJ-45 (connection of up to 8 MPX-420V controllers in series)	1 x extension link, RJ-45 (connection of up to 8 MPX-460P in series)
CONTROLS	Microphone volume control Phantom power (48 V), selectable	Volume control and zone assignment	Volume control, zone and scene assignment
POWER SUPPLY	24 V DC, 100 mA, via RD port	24 V DC, 100 mA, via RD port	24 V DC, 100 mA, via RD port with direct connection from the matrix. 4 V DC, 300 mA, Euroblock, for local power supply when more than one MPX-460P is connected in series
DIMENSIONS	147 x 86 x 47 mm depth	147 x 86 x 47 mm depth	150 x 115 x 25 mm depth
ACCESSORIES	Surface box	Surface box	Screws and mounting accessories

CALL FOR ASSISTANCE
CALL-HELP

Designed by FONESTAR

The **CALL-HELP**: Call for assistance kit, is an integral solution designed to comply with the requirements of the Technical Building code (CTE - DB SUA 3.1.2), which regulates the installation of assistance systems in accessible toilets and changing rooms.

This kit is ideal for new construction or refurbishment of public service facilities, providing security and peace of mind for users in communal spaces.

Its robust design, easy installation and compliance with current regulations make it a reliable and efficient solution to guarantee assistance at any time.

Call button with pull handle and button

Maximum distance of **60 m** between kit elements

Maximum distance of **1000 m** to the central unit

Maximum **6 zones** per central unit

Ultra-slim design that can be architecturally **integrated**

Acoustic and light signals

Euroblocks for ease of installation

Connectivity with **CALL-CENTRAL**

> **FONESTAR exclusive design** The kit has been created with ease of use in mind, with an intuitive and attractive design that adapts to any environment.

> **Complete call for assistance system.** It includes an acoustic and light signal lamp, a call button with 1.95 m pull cord, a cancel button and a power supply.

> **Compatibility.** Fits standard square and round universal boxes, making it easy to install in all types of spaces.

> **Connectivity with CALL-CENTRAL.** It allows up to 6 kits to be connected to a centralised control point, ensuring the reception of the call and providing verification to the user that his request has been correctly transmitted and received.

SYSTEM**ELEMENTS**

CALL-HELP KIT

Call unit
Cancellation unit
Warning light
+
Distinctive adhesive sign
Power Supply

Call unit

Allows the user to make calls by pressing the button or by pulling one of the supplied handles.

Cancellation unit

Allows local cancellation of the call once it has been answered by staff.

Warning light

Lights up and beeps when the user has made a call.

Accessibility projects in areas of public use, such as shopping centres, hospitals, gyms, residences, etc.

CALL-CENTRAL

Control unit
+
Power Supply

Control unit

Control unit designed for use at a nurse's station, reception or information desk.

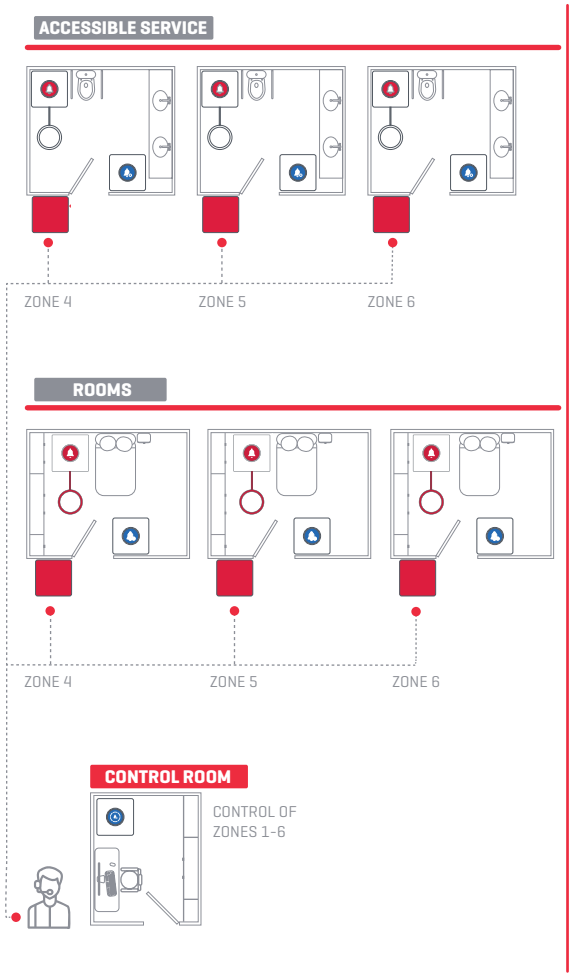
CALL-ONE

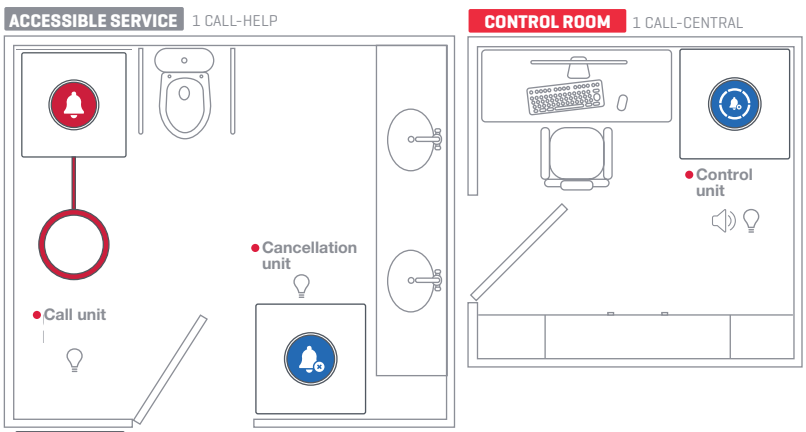
Call unit

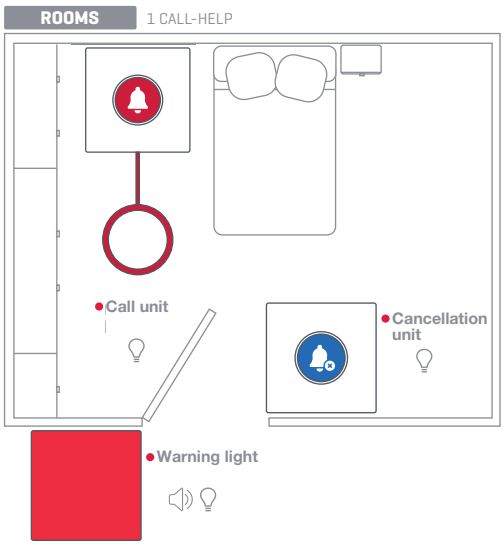
Call unit

The call unit is available separately for connection to the CALL-HELP, so that two callers are available in the same installation.

INSTALLATION **EXAMPLES**

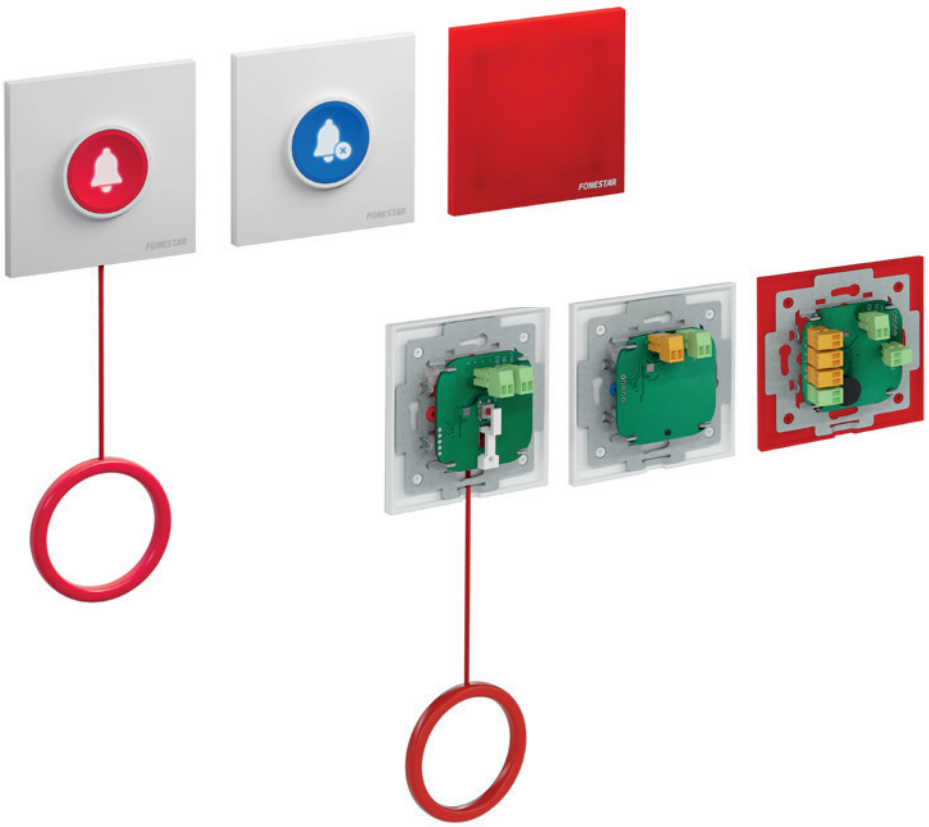






CALL FOR ASSISTANCE

Analogue



Designed by FONESTAR

	CALL-HELP
FEATURES	Call for assistance kit for accessible toilet or accessible changing cabin. In compliance with CTE - DB SUA 3.1.2 standard. Design for intuitive use. Light and acoustic signal lamp. Sound pressure level of acoustic signal 85 dB. Call button with 1.95 m cord. Cancellation button. Maximum distance between lamp and call or cancel button: 60 m Power supply included. Assisted bath sticker. For square and round universal standard case. Possibility of connection to the CALL-CENTRAL call centre.
CONNECTORS	Euroblock for 0.2 - 1.5 mm² cross-section cable
COLOUR	White (RAL 9003)
POWER SUPPLY	100-240 V AC / 12 V DC adapter, 1.250 mA included Consumption in standby: 0.10 W
DIMENSIONS	Exterior: 83 x 83 x 39 mm depth Assembly: 47 x 47 x 27 mm depth Distance between screws: 60 mm AC/DC adapter: 31 x 32 x 76 mm depth
WEIGHT	0.3 kg
OPTIONAL	DOT-BOX-B: Surface mounting case. CALL-CENTRAL: Call central for call for assistance Kit

CALL FOR ASSISTANCE

Analogue

	CALL-CENTRAL
FEATURES	Call central for accessible toilet assistance or accessible changing cabin. Up to 6 CALL-HELP assistance call kits can be connected. In compliance with CTE - DB SUA 3.1.2 standard. Design for intuitive use. Reception and confirmation of the call. Light and acoustic signalling. Sound pressure level of acoustic signal 85 dB. The user can verify that the call has been transmitted and received by changing the sound frequency and illumination on the call kit lamp. The lamp must be installed where the user can see it. Maximum distance between the control panel and the call kit: 1000 m Power supply included. For square and round universal standard case.
CONNECTORS	Euroblock for 0.2 - 1.5 mm² cross-section cable
COLOUR	White (RAL 9003)
POWER SUPPLY	100-240 V AC / 12 V DC adapter, 1.250 mA included Consumption in standby: 0.10 W
DIMENSIONS	Exterior: 83 x 83 x 39 mm depth Assembly: 47 x 47 x 27 mm depth Distance between screws: 60 mm Adapter: 31 x 32 x 76 mm depth
WEIGHT	0.06 kg
OPTIONAL	DOT-BOX-B: Surface mounting case. CALL-HELP: Call for assistance kit

Designed by FONESTAR

	CALL-ONE
FEATURES	Call button with pull handle for accessible toilet or accessible changing room cubicle. Extension of the CALL-HELP call kit In compliance with CTE - DB SUA 3.1.2 standard. Design for intuitive use. For square and round universal standard case.
CONNECTORS	Euroblock for 0.2 - 1.5 mm² cross-section cable
COLOUR	White (RAL 9003)
DIMENSIONS	Exterior: 83 x 83 x 39 mm depth Assembly: 47 x 47 x 27 mm depth Distance between screws: 60 mm
WEIGHT	0.06 kg
OPTIONAL	DOT-BOX-B: Surface mounting case. CALL-HELP: Call for assistance kit

Designed by FONESTAR

PATIENT-NURSING CONTROL
ASSIST

The ASSIST **system** allows for efficient management of the communication between the patient and the nursing control unit through VoIP calls and LED signals. It has been designed with the needs of social and healthcare centres in mind in order to adapt to each one of them. It is a versatile and adaptable system that can be adjusted to the specific characteristics of each centre.

It is a pure IP system, which simplifies installation significantly by making use of the existing data network. This allows functions such as monitoring correct functioning of the equipment in real time or or remote updating of devices.

Both the nursing panel and the room control units are powered via PoE, simplifying installation significantly.

Audible and visual warnings

Customised configuration

Great **scalability**

Fireproof and flame-retardant PC-ABS

Visual interface with **touch screens**

VoIP integration

Intuitive and easy to use sotware

> **Instant and secure communication.** The system allows immediate communication between the patient and the nursing staff. In addition, it integrates accessible call controls in bedrooms and bathrooms, reinforcing security.

> **Customised acoustic and light warnings.** Rooms and common areas have acoustic and luminous signals, with colours that vary according to the type of alert. This facilitates a more efficient staff response.

> **Compatibility with old and new installations.** Easily adaptable to existing or new infrastructure. Installation requires only one cable per element, simplifying the process.

> **Total integration.** It unifies all services in a single software and simplifies management.

> **Great scalability.** Adapt ASSIST to the needs of your centre, from small nursing homes to large hospitals.

> **Integration with VoIP/SIP telephone systems.** Connects to telephone exchanges to improve internal coordination. This facilitates communication between the different teams in the centre.

> **Intuitive and user-friendly software.** Designed specifically to optimise patient care, with personalised alerts and data analysis. Efficient management without the need for complex training.

Perfect for: hospitals, clinics, day care centres, retirement homes, etc.

SYSTEM **ELEMENTS**

Calling devices

They allow assistance to be requested in real time. They facilitate efficient communication, optimise response and streamline processes.

ASSIST-IP1200C
ASSIST-IP1200H
ASSIST-IP1200HTV
ASSIST-IP1200W
ASSIST-IP1200CVK OR
ASSIST-IP1200CBLUE OR
ASSIST-IP1200HVOIP OR

Room management

They control and monitor the status of the rooms in real time. They improve coordination, guarantee availability and ensure smooth management.

ASSIST-VOIP1200P5
ASSIST-IP1200P5M
ASSIST-IP1200P5MS
ASSIST-IP1200LCM
ASSIST-IP1200RFID

Nursing control

They monitor and manage nursing tasks in real time. They facilitate staff coordination, improve operational efficiency and ensure a continuum of care.

ASSIST-VOIP1200PH7
ASSIST-IP1200PHONE OR

Corridor light indicators

They use light signals or screens to reflect conditions such as availability, alerts or operation. They enable rapid decision-making and efficient management.

ASSIST-IP1200L
ASSIST-IP1200LBY OR
ASSIST-IP1200TEXT OR

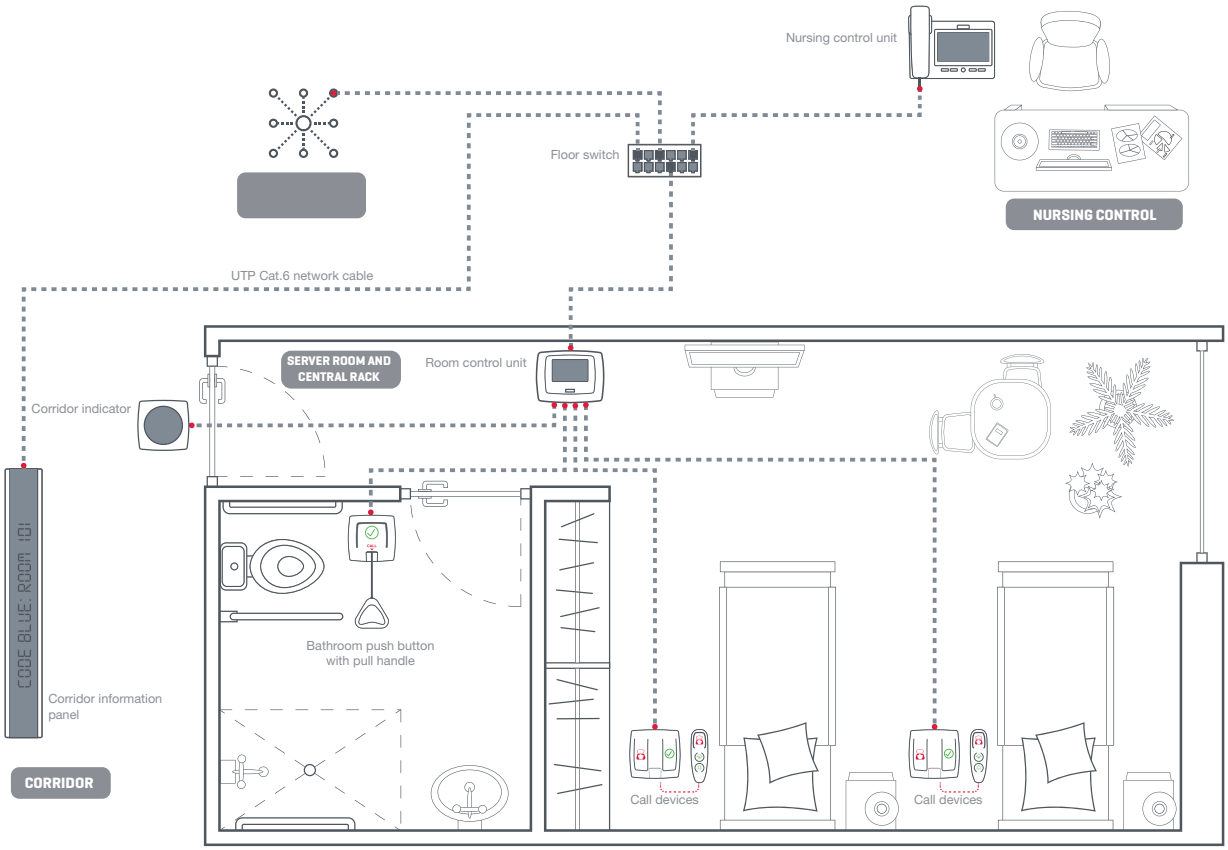
Servers and software

They centralise data and allow for real-time analysis. They facilitate efficient control of operations, quick decisions and optimise productivity.

ASSIST-IP0030SERVER
ASSIST-IP0050SERVER
ASSIST-IP0150SERVER
ASSIST-IP1200LIC5
ASSIST-IP1200LIC10
ASSIST-IP1200LIC50
ASSIST-IP1200LIC100
ASSIST-IP1200MOTV

OR

INSTALLATION **EXAMPLE**



PATIENT-NURSING CONTROL

Nursing control

	ASSIST-VOIP1200PH7
FEATURES	VOIP phone with 7' TFT capacitive touch screen (800 x 480). Hands-free function (RJ-9 for hands-free headset). Monitoring of room conditions. Real-time management of notifications. Telephone communication with patients. Different access levels per user. TCP/IP data network connection. Full-duplex communication with SIP protocol. PoE power supply.
OUTPUTS	1 x video, HDMI
OPERATING SYSTEM	Android
COMMUNICATION	TCP/IP, UDP, TLS
TEMPERATURE RANGE OF OPERATION	0º C to +40ºC Recommended humidity 10%-65%

ON REQUEST

	ASSIST-IP1200PHONE
FEATURES	Ultra-resistant smartphone

PATIENT-NURSING CONTROL

Room management

	ASSIST-VOIP1200P5
FEATURES	VoIP room centre with 5' TFT touch screen (800 x 480), intercom and RFID card reader. Management of patient calls by the healthcare staff. Create emergency codes: Code blue, white, etc. Request for assistance from the rest of the healthcare staff. Setting the call elements of the room. Connection of room elements, up to 8 call units and 1 (RJ-45) light control unit. TCP/IP data network connection. Full-duplex communication with SIP protocol. RFID card reader MIFARE Classic. PoE power supply (12 V DC, 2 A, 24 W max.) Surface or flush mounting.
DISPLAY	5" TFT touch screen 800 x 480 resolution
COMMUNICATION	TCP/IP, UDP, HTTP, RS-485
MATERIALS	ABS fireproof and flame retardant
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%
DIMENSIONS	212 x 165 x 50 mm depth

	ASSIST-IP1200RFID
FEATURES	MiFare RFID card. Single-person use for healthcare staff. Identification, verification of permissions, management of alerts and registration of tasks.
PROTOCOL	ISO14443A

	ASSIST-IP1200P5M
FEATURES	Metal installation box for embedding the 5' screen room control unit.
DIMENSIONS	190 x 142 x 45 mm depth
ACCESSORIES	Accessories for plasterboard wall installation

	ASSIST-IP1200P5MS
FEATURES	Connection cover for room central with 5'' screen.

PATIENT-NURSING CONTROL

Calling devices

	ASSIST-IP1200C
FEATURES	Wall call button to call healthcare staff. Allows the patient to make a call via the call button or pear-type handset. Bulb-type push-button control connection (RJ-45) Direct connection to the room centre (RJ-45) Cancel button to delete the call. Audible tone warning 2,400 Hz 65 dB Backlit buttons. PoC power supply. RS-485 communication. Surface or flush mounting. For square universal standard case. Distance between screws: 60 mm.
MATERIALS	High quality materials, fireproof and flame retardant PC-ABS
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%
DIMENSIONS	Exterior: 80 x 80 x 35 mm depth Assembly: 54 x 50 x 18 mm depth

	ASSIST-IP1200W
FEATURES	WC pull-cord to call healthcare staff and cancel button. Emergency call priority over all other items in the installation. Direct connection to the room centre (RJ-45) Maximum pull handle load 30 kg. Backlit buttons. PoC power supply. RS-485 communication. Audible tone warning 2,400 Hz 65 dB For square universal standard case. Distance between screws: 60 mm.
MATERIALS	High quality materials, fireproof and flame retardant PC-ABS
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%
DIMENSIONS	Exterior: 80 x 80 x 35 mm depth Assembly: 54 x 50 x 18 mm depth Cord length: 1 m

ON REQUEST

	ASSIST-IP1200CBLUE
FEATURES	Wall call button to call healthcare staff. Allows you to give a blue code alarm or notification to the healthcare staff using the call button or the pear-type handset. Bulb-type push-button control connection (RJ-45) Direct connection to the room centre (RJ-45) Allows you to give a blue code alarm or notification to the healthcare staff using the call button or the pear-type handset. Audible tone warning 2,400 Hz 65 dB Backlit buttons. PoC power supply. RS-485 communication. Surface or flush mounting. For square universal standard case. Distance between screws: 60 mm.
MATERIALS	ABS fireproof and flame retardant
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%
DIMENSIONS	Exterior: 80 x 80 x 34 mm depth Assembly: 55 x 55 x 20 mm depth

ON REQUEST

	ASSIST-IP1200CVK
FEATURES	Anti-vandal wall call button to call healthcare staff. Allows the patient to make a call via the call button or pear-type handset. Direct connection to the room centre (RJ-45) Cancel button to delete the call. Audible tone warning 2,400 Hz 65 dB. Backlit buttons. PoC power supply. RS-485 communication. Flush-mounted installation.
MATERIALS	Stainless steel
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%
DIMENSIONS	Exterior: 163 x 52 x 91 mm depth

PATIENT-NURSING CONTROL

Calling devices

	ASSIST-IP1200H	ASSIST-IP1200HTV
FEATURES	Basic bulb-type pushbutton control. Healthcare staff call button and room light control button. Connection to wall-mounted pushbuttons via extendable spiral cable (RJ-45). Backlit buttons. PoC power supply. RS-485 communication. With wall mounting bracket.	Basic pear-type handset with TV control. Healthcare staff call button, room light control and TV control (change channels and volume control). Connection to wall-mounted pushbuttons via extendable spiral cable (RJ-45). Backlit buttons. PoC power supply. RS-485 communication. With hook for hanging.
MATERIALS	High quality materials, fireproof and flame retardant PC-ABS	
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%	
DIMENSIONS	45 x 140 x 20 mm depth	58 x 140 x 20 mm depth

ON REQUEST

	ASSIST-IP1200HVOIP
FEATURES	VOIP call button. Nurse call button with general call or direct call, the patient can call the assigned medical staff directly. TV control. Easy-to-clean anti-bacterial keyboard. High contrast LCD screen. 2 user programmable buttons. Connection via cable (RJ-45). PoE power supply. Integration with other SIP systems. Full duplex communication.
MATERIALS	High quality materials, PC-ABS fireproof and flame retardant
TEMPERATURE RANGE OF OPERATION	-10º C to + 60º C Recommended humidity 30%-80%
DIMENSIONS	65 x 205 x 20 mm depth

	ASSIST-IP1200LCM
FEATURES	Unit for integration of the push button control with the room light control system. One control module is required for each push-button control. RJ-45 input/JJ-45 output and 2 control relays (NO and NC) RS-485 communication.
TEMPERATURE RANGE OF OPERATION	-20º C to +60º C Recommended humidity 30%-80%
DIMENSIONS	98 x 52 x 32 mm depth

PATIENT-NURSING CONTROL

Corridor light indicators

	ASSIST-IP1200L	ASSIST-IP1200LBY
FEATURES	Corridor light.	Corridor light with input/output. Cascading of several lamps (RJ-45) ASSIST-1200LBY.
	Semi-spherical, discreet and modern design. High efficiency, low power RGB LEDs. Multiple colours configurable via software. Direct connection to the room central (RJ-45). PoC power supply. Surface or flush mounting. For square universal standard case. Distance between screws: 60 mm. ABS enclosure for surface mounting included.	
MATERIALS	High quality materials, fireproof and flame retardant PC-ABS	
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%	
DIMENSIONS	84 x 84 x 61 mm depth.	80 x 80 x 60 mm depth

	ASSIST-IP1200TEXT
FEATURES	12-segment call indicator panel. Displays, as text, the information of the room number which called the healthcare staff. Emits sound alerts (60 dB). RJ-45 connection. Power supply 230 V AC. Fixing bracket.
PROTECTIONS	IP-50
TEMPERATURE RANGE OF OPERATION	- 10ºC to + 60º c Recommended humidity 30%-80%
COLOUR	Grey
DIMENSIONS	795 x 100 x 60 mm depth
WEIGHT	1.9kg

ON REQUEST

PATIENT-NURSING CONTROL

Servers and software

	ASSIST-IP0030SERVER	ASSIST-IP0050SERVER	ASSIST-IP0150SERVER
FEATURES	Server and management software for control of the ASSIST patient nurse call system. Robust and reliable infrastructure (Modbus, KNX, analogue inputs/outputs, TCP connections). Notification and reporting of incidents of the modules connected to the system. TCP/IP data network connection.		
	Use in facilities with 1 to 30 rooms.	Use in facilities with 1 to 50 rooms.	Use in facilities with 1 to 150 rooms.
POWER SUPPLY	230 V AC, 25 W		

	ON REQUEST ASSIST-IP1200LIC5	ON REQUEST ASSIST-IP1200LIC10	ON REQUEST ASSIST-IP1200LIC50	ON REQUEST ASSIST-IP1200LIC100
FEATURES	Licences for smartphone app.			
	5 license pack.	10 license pack.	50 license pack.	100 license pack.

	ASSIST-IP1200MOTV
FEATURES	Licence app for monitoring and displaying calls on large format TV.

ON REQUEST

public address

Designed by FONESTAR

92 LOUDSPEAKERS
92 Ceiling
92 EN 54
92 Embedded
93 Surface
94 100 V
94 Full Range
96 Subwoofer
97 Surface
98 LOW IMPEDANCE
98 8 Ohm
100 GRILLES
101 Surface
101 EN 54
103 100 V
103 Full Range
107 Subwoofer
108 LOW IMPEDANCE
108 8 Ohm
110 16 Ohm
111 INVISIBLE
112 ACTIVE
113 Sound projectors
113 EN 54
115 100 V
118 Horns
118 EN 54
119 100 V
122 LOW IMPEDANCE
123 Hanging spheres
123 EN 54
124 100 V
125 Sound columns
125 ANALOGUE
126 DIGITAL
128 Garden

129 AMPLIFIERS
129 Mono
129 MONOZONE
131 MULTIZONE
135 ZONE CONTROL
136 MATRIX
138 INDUCTION LOOP
139 Stereo

141 MIXERS
141 Standard
143 Matrix

144 POWER AMPLIFIERS
144 Single channel
144 ANALOGUE
145 Multi channel
145 DIGITAL

148 AUXILIARY EQUIPMENT
148 Audio processors
148 Selectors
149 Preamplifiers

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153 Audio and video

154 SOUND KITS
154 Wall
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157 ATTENUATORS
157 100 V Line
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158 Accessories

159 PORTABLE SYSTEMS
159 Amplifiers
160 Megaphones
160 Vehicles

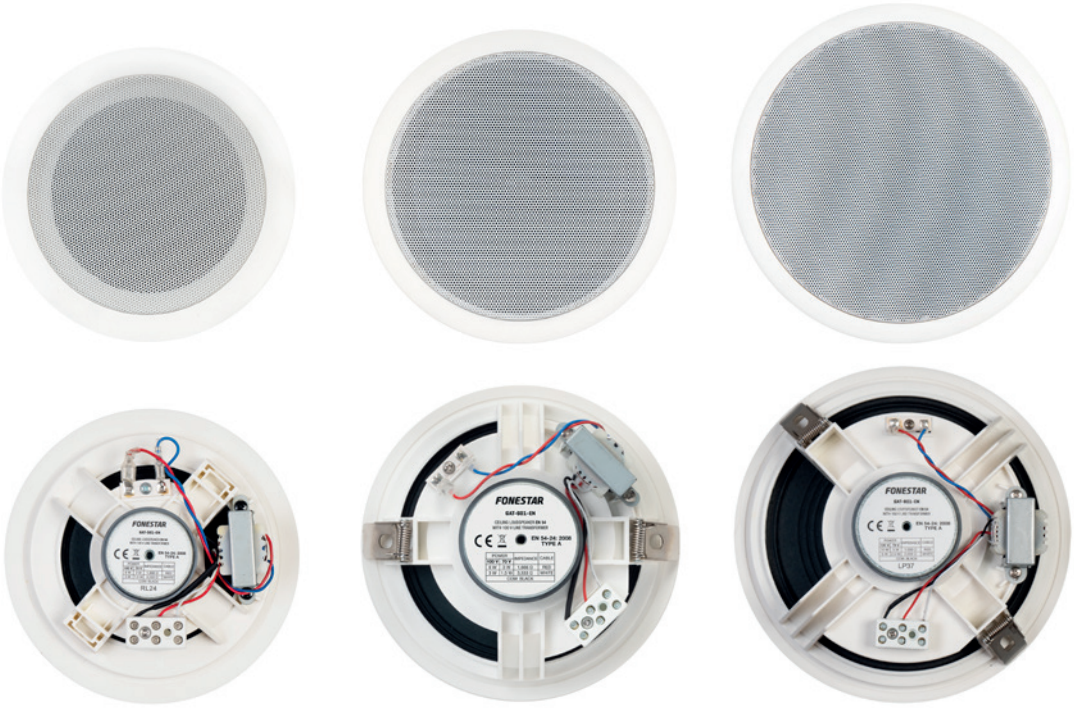
161 PA ACCESSORIES
161 Transformers
162 Diffusers
162 Drivers
162 100 V
163 LOW IMPEDANCE
163 Impedance meter

SPEAKERS

Ceiling

> EN 54

EMBEDDED



EN 54-24
2008 TYPE A

EN 54-24
2008 TYPE A

EN 54-24
2008 TYPE A

	GAT-501-EN	GAT-601-EN	GAT-801-EN
FEATURES	EN 54 ceiling loudspeaker with 100 V line transformer, round grille and fireproof enclosure.		
STANDARD	EN 54-24 Certificate		
POWER	10 W max, 6 W RMS	10 W max, 6 W RMS	20 W max, 10 W RMS
SPEAKER	5”	6”	8”
RESPONSE	300-13,000 Hz	310-12,000 Hz	310-11,500 Hz
IMPEDANCE	6 W RMS@100 V (1,666 Ω) 3 W RMS@100 V (3,333 Ω)	6 W RMS@100 V (1,660 Ω) 3 W RMS@100 V (3,333 Ω)	10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω)
SENSITIVITY	81 dB at 1 W/4 m	83 dB at 1 W/4 m	84 dB at 1 W/4 m
SOUND PRESSURE	87 dB at rated power/4m	90 dB at rated power/4m	93 dB at rated power/4m
COVERAGE ANGLE	180º@500 Hz 175º@1k Hz 150º@2k Hz 80º@4k Hz	180º@500 Hz 175º@1k Hz 150º@2k Hz 70º@4k Hz	180º@500 Hz 165º@1k Hz 95º@2k Hz 65º@4k Hz
OPERATION TEMPERATURE	-20ºC to +55ºC		
MATERIALS	ABS and steel grille		
COLOUR	White (RAL 9016)		
DIMENSIONS	175 mm Ø x 70 mm depth	186 mm Ø x 90 mm depth	226 mm Ø x 106 mm depth
HOLE	155 mm Ø	172 mm Ø	210 mm Ø
WEIGHT	0.65 kg	0.9 kg	1.1 kg
	Quick installation system		

SPEAKERS

Ceiling

> EN 54

EMBEDDED

	GAT-326-EN
FEATURES	EN 54 ceiling loudspeaker with 100 V line transformer, round grille and fireproof enclosure. Suitable for installation in humid environments, clean rooms, food processing rooms, laboratories, operating theatres and similar spaces.
STANDARD	EN 54-24 Certificate
POWER	10 W max, 6 W RMS
SPEAKER	3 ½"
RESPONSE	200-15,000 Hz
IMPEDANCE	6 W RMS@100 V (1,666 Ω) 3 W RMS@100 V (3,333 Ω) 1.75 W RMS@100 V (5,714 Ω)
SENSITIVITY	77 dB at 1 W/4 m
SOUND PRESSURE	90 dB at rated power/4m
COVERAGE ANGLE	180º@500 Hz 180º@1k Hz 175º@2k Hz 80º@4k Hz
PROTECTION	IP-65 Resistant to saline environments (IEC 60068-2-11) Resistant to aggressive environments: acid, alkaline, chlorine and other chemicals (IEC 60068-2-60)
TEMPERATURE RANGE	-25°C to 70°C
MATERIALS	ABS and aluminium grille
COLOUR	White (RAL 9016)
DIMENSIONS	140 mm Ø x 150 mm depth
HOLE	125 mm Ø
WEIGHT	0.98 kg
	Quick installation system

EN 54-24
2008 TYPE B

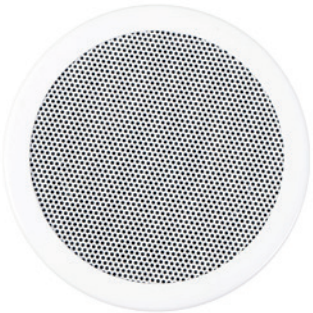
IP 65

SALT MIST
RESISTANCE

HARSH
ENVIRONMENTS
RESISTANCE

SURFACE

	GAT-98S-EN
FEATURES	EN 54 ceiling loudspeaker with 100 V line transformer, round grille and fireproof enclosure.
REGULATION	EN 54-24 Certificate
POWER	10 W max, 6 W RMS
SPEAKER	6"
RESPONSE	85-20,000 Hz
IMPEDANCE	6 W RMS@100 V (1,666 Ω) 3 W RMS@100 V (3,333 Ω) 1.5 W RMS@100 V (6,666 Ω) 0.75 W RMS@100 V (13,333 Ω) 0.25 W RMS@100 V (40,000 Ω)
SENSITIVITY	94 dB at 1 W/1 m
COVERAGE ANGLE	170º
MATERIALS	Steel
COLOUR	White (RAL 9003)
DIMENSIONS	170 mm Ø x 75 mm depth
WEIGHT	1 kg
	Surface mounting system



EN 54-24
2008 TYPE A

SPEAKERS

Ceiling

> 100 V

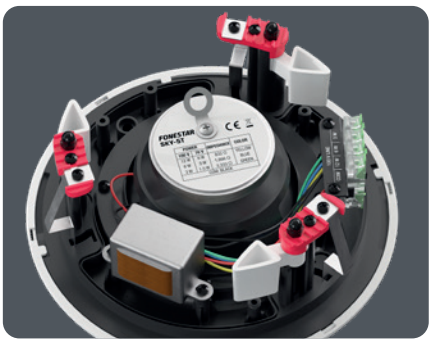
FULL RANGE

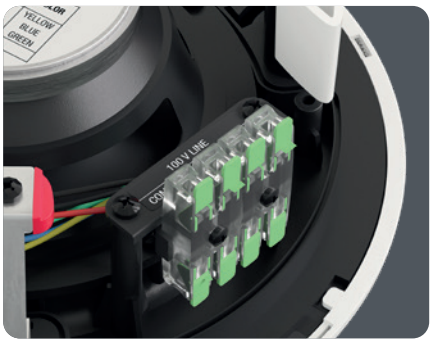
Designed by FONESTAR

COMING SOON
SKY 3" VERSIONS

SALT MIST RESISTANCE | IP 44 | SAFETY ANCHOR POINT | ANTI-DROP SYSTEM | TAP-LOCK TERMINALS | TURN-LOCKABLE GRILLE | FRAMELESS DESIGN | COLOUR RAL 9003

	SKY-5T	SKY-6T	SKY-8T
FEATURES	Ceiling loudspeaker with 100 V line transformer. Low profile frameless grille, constructed from rust resistant aluminium. Detachable, turn-lockable grille. Fast connection terminals and high conductivity. Anti-fall system for installation assistance. Hook for safety cable. Stable, worm-gear ceiling brackets. Protection against dust and water.		
POWER	12 W RMS 16 W MAX.	15 W RMS 20 W MAX.	20 W RMS 27 W MAX.
SPEAKER	5" polypropylene double cone diaphragm	6" polypropylene double cone diaphragm	8" polypropylene double cone diaphragm
RESPONSE	55-20,000 Hz @ -10 dB 70-20,000 Hz @ -3 dB	55-18,000 Hz @ -10 dB 85-7,500 Hz @ -3 dB	40-15,000 Hz @ -10 dB 90-15,000 Hz @ -3 dB
IMPEDANCE	12 W RMS@100 V (833 Ω) 6 W RMS@100 V (1,666 Ω) 3 W RMS@100 V (3,333 Ω)	15 W RMS@100 V (666 Ω) 10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω)	20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω)
SENSITIVITY	85 dB @ 1 W/1 m	88 dB @ 1 W/1 m	88 dB @ 1 W/1 m
SOUND PRESSURE	97 dB @ max. W/1m Continuous 98 dB @ max. W/1m Peak	97 dB @ max. W/1m Continuous 100 dB @ max. W/1m Peak	103 dB @ max. W/1m Continuous 105 dB @ max. W/1m Peak
COVERAGE ANGLE	H/V (-6 dB): 60º@500Hz, 90º@1kHz, 60º@2kHz, 90º@4kHz	H/V (-6 dB): 150º@500Hz, 150º@1kHz, 90º@2kHz, 60º@4kHz	H/V (-6 dB): 70º@500Hz, 90º@1kHz, 70º@2kHz, 50º@4kHz
DIMENSIONS	Full loudspeaker: 214 mm Ø x 85 mm height Grille section: 5 mm Recessed height: 80 mm Installation hole: 180 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 249 mm Ø x 85 mm height Grille section: 5 mm Recessed height: 80 mm Installation hole: 219 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 306 mm Ø x 114 mm height Grille section: 7 mm Recessed height: 107 mm Installation hole: 273 mm Ø Maximum ceiling thickness: 30 mm





SPEAKERS

Ceiling

> 100 V

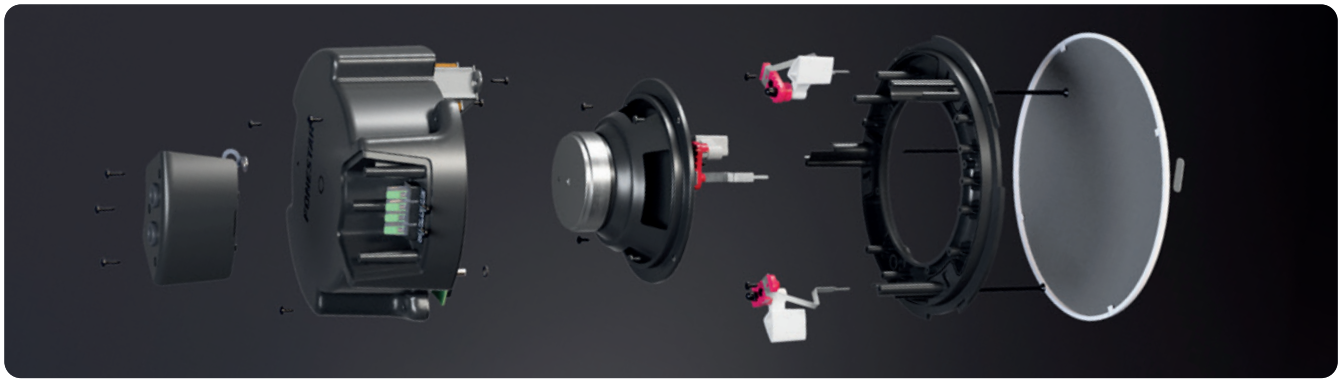
FULL RANGE

Designed by FONESTAR

SALT MIST RESISTANCE · IP 65 · SAFETY ANCHOR POINT · ANTI-DROP SYSTEM · TAP-LOCK TERMINALS · TURN-LOCKABLE GRILLE · DOME · POWER SELECTOR · FRAMELESS DESIGN · COLOUR RAL 9003 · SWIVELLING TWEETER

Black grille available:
SKY-5N-GR
SKY-6N-GR
SKY-8N-GR

	SKY-5T-DOME	SKY-6T-DOME	SKY-8T-DOME
FEATURES	Ceiling loudspeaker with 100 V line transformer and low impedance. Protective dome type back cover. Low profile frameless grille, constructed from rust resistant aluminium. Detachable, turn-lockable grille. Fast connection terminals and high conductivity. Junction box in the rear cover with inlet and outlet port. Anti-fall system for installation assistance. Hook for safety cable. Stable, worm-gear ceiling brackets. Installation in ceilings with limited space. Protection against dust and water.		
POWER	15 W RMS 20 W MAX.	20 W RMS 25 W MAX.	30 W RMS 40 W MAX.
SPEAKER	Coaxial speaker 5” polypropylene woofer 1” adjustable tweeter	Coaxial speaker 6” polypropylene woofer 1” adjustable tweeter	Coaxial speaker 8” polypropylene woofer 1” adjustable tweeter
RESPONSE	100-20,000 Hz @ -10 dB 120-20,000 Hz @ -3 dB	45-20,000 Hz @ -10 dB 60-20,000 Hz @ -3 dB	90-20,000 Hz @ -10 dB 100-20,000 Hz @ -3 dB
IMPEDANCE	15 W RMS@100 V (666 Ω) 10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω) 2.5 W RMS@100 V (4,000 Ω) 8 Ω	20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω) 2.5 W RMS@100 V (4,000 Ω) 8 Ω	30 W RMS@100 V (333 Ω) 15 W RMS@100 V (666 Ω) 7.5 W RMS@100 V (1,333 Ω) 3.75 W RMS@100 V (2,666 Ω) 8 Ω
SENSITIVITY	86 dB @ 1 W/1 m	90 dB @ 1 W/1 m	90 dB @ 1 W/1 m
SOUND PRESSURE	98 dB @ max. W/1m Continuous 99 dB @ max. W/1m Peak	103 dB @ max. W/1m Continuous 106 dB @ max. W/1m Peak	108 dB @ max. W/1m Continuous 109 dB @ max. W/1m Peak
COVERAGE ANGLE	H/V (-6 dB): 60º@500Hz, 90º@1kHz, 60º@2kHz, 60º@4kHz	H/V (-6 dB): 125º@500Hz, 150º@1kHz, 60º@2kHz, 60º@4kHz	H/V (-6 dB): 70º@500Hz, 90º@1kHz, 70º@2kHz, 50º@4kHz
DIMENSIONS	Full loudspeaker: 214 mm Ø x 100 mm height Grille section: 5 mm Recessed height: 95 mm Installation hole: 180 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 249 mm Ø x 95 mm height Grille section: 5 mm Recessed height: 90 mm Installation hole: 219 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 306 mm Ø x 128 mm height Grille section: 7 mm Recessed height: 121 mm Installation hole: 273 mm Ø Maximum ceiling thickness: 30 mm



SPEAKERS
Ceiling

> 100 V

FULL RANGE

	GAT-501	GAT-601	GAT-801
FEATURES	100 V line transformer ceiling loudspeaker and round grille.		
POWER	10 W max, 6 W RMS	10 W max, 6 W RMS	20 W max, 10 W RMS
SPEAKER	5" double cone	6 ½" double cone	8" double cone
RESPONSE	140-15,000 Hz	140-20,000 Hz	75-16,000 Hz
IMPEDANCE	6 W RMS@100V (1,660 Ω) 3 W RMS@100V (3,330 Ω)	6 W RMS@100V (1,660 Ω) 3 W RMS@100V (3,330 Ω)	10 W RMS@100V (1,000 Ω) 5 W RMS@100V (2,000 Ω)
SENSITIVITY	90 dB± 3 dB at 1 W/1 m	92 dB± 3 dB at 1 W/1 m	93 dB± 3 dB at 1 W/1 m
MATERIALS	ABS and steel grille		
COLOUR	White (RAL 9003)		
DIMENSIONS	175 mm Ø x 60 mm depth	188 mm Ø x 80 mm depth	228 mm Ø x 90 mm depth
HOLE	150 mm Ø	168 mm Ø	205 mm Ø
WEIGHT	0.5 kg	0.6 kg	0.8 kg
	Quick installation system		

SUBWOOFER

47-170 Hz

	GAT-1SUB
FEATURES	Subwoofer ceiling loudspeaker with 100 V line transformer and low impedance, round grille, and fireproof case. Bass-reflex radiation system. Bass boost in 100 V line installations.
POWER	90 W max, 60 W RMS
SPEAKER	1 x 8" woofer
RESPONSE	40-170 Hz
IMPEDANCE	High Z 100 V line: 166 Ω (60 W), 333 Ω (30 W), 666 Ω (15 W) Low Z: 8 Ω
SENSITIVITY	86 dB at 1 W/1 m
SUSPENSION POINTS	4 points for hanging from the ceiling
MATERIALS	ABS, steel grille and fireproof enclosure. Ceramic connectors
COLOUR	White (RAL 9010)
DIMENSIONS	350 mm Ø x 320 mm depth
HOLE	309 mm Ø
WEIGHT	7.5 kg
ACCESSORIES	Hanging chain
	Anchorage installation system Safety fastening

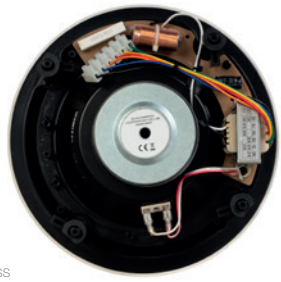
SPEAKERS

Ceiling

> 100 V

SUBWOOFER

55-200 Hz



55-200 Hz

	GAT-80SW	GAT-4860SW
FEATURES	Subwoofer ceiling loudspeaker with 100 V line transformer and round grille. Bass boost in 100 V line installations.	Subwoofer ceiling loudspeaker with 100 V line transformer and low-profile frameless grille. Bass boost in 100 V line installations.
POWER	90 W max, 60 W RMS	
SPEAKER	1 x 8” woofer	
RESPONSE	55-200 Hz -10 dB at 1 W/1 m	
IMPEDANCE	60 W RMS@100V (166 Ω) 40 W RMS@100V (250 Ω) 20 W RMS@100V (500 Ω)	
SENSITIVITY	89 dB at 1 W/1 m	90 dB at 1 W/1 m
CROSSOVER	Low pass filter, 12 dB/oct.	
MATERIALS	ABS and steel grille	
COLOUR	Grey-white (RAL 9003, RAL 7047)	White (RAL 9003)
DIMENSIONS	275 mm Ø x 110 mm depth	281 mm Ø x 110 mm depth
HOLE	240 mm Ø	242 mm Ø
WEIGHT	2.5 kg	2.7 kg
	Anchorage installation system	

SURFACE

	GAT-96S
FEATURES	100 V line transformer surface-mounting ceiling loudspeaker and round grille.
POWER	10 W max, 6 W RMS
SPEAKER	6 ½” double cone
RESPONSE	110-20,000 Hz
COVERAGE ANGLE	130°
IMPEDANCE	6 W RMS@100V (1,650 Ω) 3 W RMS@100V (3,300 Ω) 1.5 W RMS@100V (6,600 Ω) 0.75 W RMS@100V (13,300 Ω) 0.25 W RMS@100V (40,000 Ω)
SENSITIVITY	93 dB at 1 W/1 m
MATERIALS	ABS
COLOUR	White
DIMENSIONS	203 mm Ø x 90 mm depth
WEIGHT	0.9 kg
	Surface mounting system

SPEAKERS

Ceiling

> Low impedance

8 OHM

Designed by FONESTAR

SALT MIST RESISTANCE | IP 44 | SAFETY ANCHOR POINT | ANTI-DROP SYSTEM | TAP-LOCK TERMINALS | TURN-LOCKABLE GRILLE | FRAMELESS DESIGN | COLOUR RAL 9003

COMING SOON
SKY 3" VERSIONS

	SKY-5	SKY-6	SKY-8
FEATURES	Low impedance ceiling loudspeaker. Low profile frameless grille, constructed from rust resistant aluminium. Detachable, turn-lockable grille. Fast connection terminals and high conductivity. Anti-fall system for installation assistance. Hook for safety cable. Stable, worm-gear ceiling brackets. Protection against dust and water.		
POWER	12 W RMS 16 W MAX.	15 W RMS 20 W MAX.	20 W RMS 27 W MAX.
SPEAKER	5" polypropylene double cone diaphragm	6" polypropylene double cone diaphragm	8" polypropylene double cone diaphragm
RESPONSE	55-20,000 Hz @ -10 dB 70-20,000 Hz @ -10 dB	55-18,000 Hz @ -10 dB 85-7,500 Hz @ -3 dB	40-15,000 Hz @ -10 dB 90-15,500 Hz @ -3 dB
IMPEDANCE	8 Ω		
SENSITIVITY	85 dB @ 1 W/1 m	88 dB @ 1 W/1 m	88 dB @ 1 W/1 m
SOUND PRESSURE	97 dB @ max. W/1m Continuous 98 dB @ max. W/1m Peak	97 dB @ max. W/1m Continuous 100 dB @ max. W/1m Peak	103 dB @ max. W/1m Continuous 105 dB @ max. W/1m Peak
COVERAGE ANGLE	H/V (-6 dB): 60º@500Hz, 90º@1kHz, 60º@2kHz, 90º@4kHz	H/V (-6 dB): 150º@500Hz, 150º@1kHz, 90º@2kHz, 60º@4kHz	H/V (-6 dB): 70º@500Hz, 90º@1kHz, 70º@2kHz, 50º@4kHz
DIMENSIONS	Full loudspeaker: 214 mm Ø x 85 mm height Grille section: 5 mm Recessed height: 80 mm Installation hole: 180 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 249 mm Ø x 85 mm height Grille section: 5 mm Recessed height: 80 mm Installation hole: 219 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 306 mm Ø x 114 mm height Grille section: 7 mm Recessed height: 107 mm Installation hole: 273 mm Ø Maximum ceiling thickness: 30 mm

SPEAKERS
Ceiling

> Low impedance

8 OHM

Designed by FONESTAR

SALT MIST RESISTANCE · IP 65 · SAFETY ANCHOR POINT · ANTI-DROP SYSTEM · TAP-LOCK TERMINALS · TURN-LOCKABLE GRILLE · DOME · FRAMELESS DESIGN · COLOUR RAL 9003 · SWIVELLING TWEETER

	SKY-5-DOME	SKY-6-DOME	SKY-8-DOME
FEATURES	Low impedance ceiling loudspeaker. Protective dome type back cover. Low profile frameless grille, constructed from rust resistant aluminium. Detachable, turn-lockable grille. Fast connection terminals and high conductivity. Junction box in the rear cover with inlet and outlet port. Anti-fall system for installation assistance. Hook for safety cable. Stable, worm-gear ceiling brackets. Installation in ceilings with limited space. Protection against dust and water.		
POWER	15 W RMS 20 W MAX.	20 W RMS 25 W MAX.	30 W RMS 40 W MAX.
SPEAKER	Coaxial speaker. 5” polypropylene woofer 1” adjustable tweeter	Coaxial speaker. 6” polypropylene woofer 1” adjustable tweeter	Coaxial speaker. 8”” polypropylene woofer 1” adjustable tweeter
RESPONSE	100-20,000 Hz @ -10 dB 120-20,000 Hz @ -3 dB	45-20,000 Hz @ -10 dB 60-20,000 Hz @ -3 dB	90-20,000 Hz @ -10 dB 100-20,000 Hz @ -3 dB
IMPEDANCE	8 Ω		
SENSITIVITY	86 dB @ 1 W/1 m	90 dB @ 1 W/1 m	90 dB @ 1 W/1 m
SOUND PRESSURE	98 dB @ max. W/1m Continuous 99 dB @ max. W/1m Peak	103 dB @ max. W/1m Continuous 106 dB @ max. W/1m Peak	108 dB @ max. W/1m Continuous 109 dB @ max. W/1m Peak
COVERAGE ANGLE	H/V (-6 dB): 60º@500Hz, 90º@1kHz, 60º@2kHz, 60º@4kHz	H/V (-6 dB): 125º@500Hz, 150º@1kHz, 60º@2kHz, 60º@4kHz	H/V (-6 dB): 70º@500Hz, 90º@1kHz, 70º@2kHz, 50º@4kHz
DIMENSIONS	Full loudspeaker: 214 mm Ø x 100 mm height Grille section: 5 mm Recessed height: 95 mm Installation hole: 180 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 249 mm Ø x 95 mm height Grille section: 5 mm Recessed height: 90 mm Installation hole: 219 mm Ø Maximum ceiling thickness: 30 mm	Full loudspeaker: 306 mm Ø x 128 mm height Grille section: 7 mm Recessed height: 121 mm Installation hole: 273 mm Ø Maximum ceiling thickness: 30 mm

SPEAKERS

Ceiling

> Grilles

Designed by FONESTAR

COLOUR
RAL 9005

N! N! N!

	SKY-5N-GR	SKY-6N-GR	SKY-8N-GR
FEATURES	SKY ceiling loudspeaker grille. Low profile frameless grille, constructed from rust resistant aluminium. Detachable, turn-lockable grille. Black colour.		
	Compatible with SKY-5, SKY-5T, SKY-5-DOME and SKY-5T-DOME	Compatible with SKY-6, SKY-6T, SKY-6-DOME and SKY-6T-DOME	Compatible with SKY-8, SKY-8T, SKY-8-DOME and SKY-8T-DOME
PROTECTIONS	EN ISO 9227:2006 Neutral Salt Spray Test		
MATERIALS	Liquid painted aluminium grille		
DIMENSIONS	214 mm Ø x 5 mm height	249 mm Ø x 5 mm height	295 mm Ø x 5 mm height

> Low impedance

8 OHM

FRAMELESS DESIGN

FRAMELESS DESIGN

	SPEAK-5	SPEAK-6
FEATURES	Low impedance ceiling loudspeaker. Low-profile frameless round grille design. Sturdy aluminium grille. Crisp and clean sound, perfect for musical ambience.	
POWER	10 W RMS	15 W RMS
SPEAKER	5” double cone	6” double cone
RESPONSE	130-15,000 Hz	100-18,000 Hz
IMPEDANCE	8 Ω	8 Ω
SENSITIVITY	90 dB at 1 W/1 m	92 dB at 1 W/1 m
MAXIMUN SOUND PRESSURE	100 dB @ at maximum power/1m	99 dB @ at maximum power/1m
MATERIALS	ABS and aluminium grille	
CONNECTORS	Fast-press quick connection	
COLOUR	White (RAL 9003)	
DIMENSIONS	160 mm Ø x 55 mm depth	185 mm Ø x 75 mm depth
HOLE	145 mm Ø	170 mm Ø
WEIGHT	0.35 kg	0.55 kg
	Quick installation system	

SPEAKERS

Surface

> EN 54

Designed by FONESTAR

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EN 54-24 | SALT MIST RESISTANCE | IP 66 | SAFETY CABLE | PRECISE ADJUSTMENT | EUROBLOCKS | TWO POSITIONS | POWER SELECTOR

RAL 9003

RAL 9005

	SONORA-4TB-EN	SONORA-5TN-EN
FEATURES	Loudspeaker for voice alarm systems EN 54. 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.	
INTENDED USE	Loudspeaker for voice alarm systems	
STANDARD	EN 54-24 certificate Fire detection and fire alarm systems - Part 24: Components of voice alarm systems - Loudspeakers EN 54-24: 2008	
POWER	60 W max, 30 W RMS	80 W max, 40 W RMS
SPEAKER	1 x 4" woofer 1 x 1" tweeter	1 x 5 ¼" woofer 1 x 1" tweeter
RESPONSE	120-20,000 Hz	80-20,000 Hz
IMPEDANCE	30 W RMS@100 V (333 Ω) 15 W RMS@100 V (667 Ω) 7.5 W RMS@100 V (1,333 Ω) 3.75 W RMS@100 V (2,667 Ω) Low Z: 8 Ω	40 W RMS @ 100 V (250 Ω) 20 W RMS @ 100 V (500 Ω) 10 W RMS @ 100 V (1.000 Ω) 5 W RMS @ 100 V (2,000 Ω) Low Z: 8 Ω
SENSITIVITY	83 dB @ 1 W/1 m 72 dB @ 1 W/4 m	86 dB @ 1 W/1 m 74 dB @ 1 W/4 m
MAXIMUN SOUND PRESSURE	96 dB @ max. W/1 m 85 dB @ max. W/4 m	99 dB @ max. W/1 m 89 dB @ max. W/4 m
COVERAGE ANGLE	H/V: 215º/225º @500Hz, 145º/130º@1kHz, 115º/120º@2kHz, 80º/110º@4kHz (-6 dB)	H/V (-6 dB): 200º/200º@500Hz, 135º/135º@1kHz, 100º/120º@2kHz, 60º/80º@4kHz
DIMENSIONS	Loudspeaker: 125 x 202 x 125 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 193 mm depth	Loudspeaker: 162 x 263 x 147 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 216 mm depth

SPEAKERS

Surface

> EN 54

N!

EN 54-24
TYPE A

	BS-106TP-EN
FEATURES	Loudspeaker for voice alarm system EN 54. Wall loudspeaker. 100 V line transformer. Quick installation with various installation possibilities. For indoor PA applications.
STANDARD	EN 54-24 Certificate
POWER	6 W RMS
SPEAKER	1 x 6.5" full range
RESPONSE	184-23,300 Hz (-10 dB)
IMPEDANCE	6 W RMS@100 V (1667 Ω) 3 W RMS@100 V (3333 Ω) 1.5 W RMS@100 V (6667 Ω)
SENSITIVITY	91 dB (1 W/1 m, EN 54-24) 79 dB (1 W/4 m, EN 54-24)
MAXIMUN SOUND PRESSURE	100.8 dB (Max. W/1 m, EN 54-24) 88.8 dB (Max. W/4 m, EN 54-24)
COVERAGE ANGLE	H/V: 180º@500Hz, 160º@1kHz, 125º@2kHz, 89º@4kHz (-6 dB)
PROTECTIONS	IP21 (EN 54-24: Type A)
MATERIALS	Impact and UV esistant ABS Steel grille with magnetic fixing
CONNECTORS	Quick connection terminals 221 for cable 2.3 mm Ø max. Cable grommet for max. 4 mm² hose.
TEMPERATURE RANGE	Operation: -10ºC - +55ºC
COLOUR	White
DIMENSIONS	252 x 182 x 70 mm depth
WEIGHT	0.8 kg

SPEAKERS

Surface

> 100 V

FULL RANGE

Designed by FONESTAR

NV SALT MIST RESISTANCE

NV IP 66

PRECISE ADJUSTMENT

EUROBLOCKS

NV POWER SELECTOR

RAL 9003

RAL 9005

	SONORA-3TB SONORA-3TN
FEATURES	Sound reinforcement loudspeaker with 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.
POWER	20 W max, 12 W RMS
SPEAKERS	1 x 3" polypropylene woofer
RESPONSE	130-20,000 Hz
IMPEDANCE	12 W RMS@100 V (833 Ω) 6 W RMS@100 V (1666 Ω) 3 W RMS@100 V (3333 Ω) 1.5 W RMS@100 V (6666 Ω) Low Z: 8 Ω
SENSITIVITY	84 dB @ 1 W/1 m
MAXIMUN SOUND PRESSURE	94 dB @ max. W/1 m
COVERAGE ANGLE	H/V: 270º/270º@500 Hz, 180º/180º@1 kHz, 120º/120º@2 kHz, 100º/100º@4 kHz (-6 dB)
DIMENSIONS	Loudspeaker: 97 x 110 x 107 mm depth Wall plate mount: 67 x 71 mm Speaker with mount: 150 mm depth

SPEAKERS

Surface

> 100 V

FULL RANGE

Designed by FONESTAR

SALT MIST RESISTANCE · IP 66 · SAFETY CABLE · PRECISE ADJUSTMENT · EUROBLOCKS · TWO POSITIONS · POWER SELECTOR

RAL 9003 · RAL 9005 · RAL 9003 · RAL 9005

	SONORA-4TB SONORA-4TN	SONORA-5TB SONORA-5TN
FEATURES	Sound reinforcement loudspeaker with 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.	
POWER	60 W max, 30 W RMS	80 W max, 40 W RMS
SPEAKERS	1 x 4” polypropylene woofer 1 x 1” tweeter	1 x 5¼” polypropylene woofer 1 x 1” tweeter
RESPONSE	120-20,000 Hz	80-20,000 Hz
IMPEDANCE	30 W RMS@100 V (333 Ω) 15 W RMS@100 V (667 Ω) 7.5 W RMS@100 V (1,333 Ω) 3.75 W RMS@100 V (2,667 Ω) Low Z: 8 Ω	40 W RMS@100 V (250 Ω) 20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω) Low Z: 8 Ω
SENSITIVITY	84.9 dB @ 1 W/1 m	88.3 dB @ 1 W/1 m
MAXIMUN SOUND PRESSURE	97.6 dB @ max. W/1 m	102.2 dB @ max. W/1 m
COVERAGE ANGLE	H/V: 215º/225º @500Hz, 145º/130º@1kHz, 115º/120º@2kHz, 80º/110º@4kHz (-6 dB)	H/V: 200º/200º@500Hz, 135º/135º@1kHz, 100º/120º@2kHz, 60º/80º@4kHz (-6 dB)
DIMENSIONS	Loudspeaker: 125 x 202 x 125 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 193 mm depth	Loudspeaker: 162 x 263 x 147 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 216 mm depth

SPEAKERS

Surface

> 100 V

FULL RANGE

Designed by FONESTAR

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SALT MIST RESISTANCE · IP 66 · SAFETY CABLE · PRECISE ADJUSTMENT · EUROBLOCKS · TWO POSITIONS · POWER SELECTOR

RAL 9003 · RAL 9005 · RAL 9003 · RAL 9005

	SONORA-6TB SONORA-6TN	SONORA-8TB SONORA-8TN
FEATURES	Sound reinforcement loudspeaker with 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.	
POWER	100 W max, 60 W RMS	150 W max, 100 W RMS
SPEAKERS	1 x 6" polypropylene woofer 1 x 1" tweeter	1 x 8" polypropylene woofer 1 x 1" tweeter
RESPONSE	75-20,000 Hz	60-20,000 Hz
IMPEDANCE	60 W RMS@100 V (165 Ω) 30 W RMS@100 V (330 Ω) 15 W RMS@100 V (660 Ω) 7.5 W RMS@100 V (1,320 Ω) Low Z: 8 Ω	80 W RMS@100 V (125 Ω) 40 W RMS@100 V (250 Ω) 20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1,000 Ω) Low Z: 8 Ω
SENSITIVITY	88.4 dB @ 1 W/1 m	89 dB @ 1 W/1 m
MAXIMUN SOUND PRESSURE	103.8 dB @ max. W/1 m	108 dB @ max. W/1 m
COVERAGE ANGLE	H/V: 150º/150º @500Hz, 150º/120º@1kHz, 100º/50º@2kHz, 175º/175º@4kHz (-6 dB)	H/V: 210º/210º@500Hz, 120º/120º@1kHz, 110º/110º@2kHz, 110º/110º@4kHz (-6 dB)
DIMENSIONS	Loudspeaker: 199 x 322 x 181 mm depth Wall plate mount: 102 x 165 mm Speaker with mount: 284 mm depth	Loudspeaker: 235 x 380 x 200 mm depth Wall plate mount: 102 x 165 mm Speaker with mount: 305 mm depth

SPEAKERS

Surface

> 100 V

SUBWOOFER

N!

Designed by FONESTAR

SONORA-8TN

SONORA-8TN-SUB

SALT MIST RESISTANCE

IP 66 (only when installed in vertical position)

SAFETY CABLE

PRECISE ADJUSTMENT

EUROBLOCKS

TWO POSITIONS

POWER SELECTOR

RAL 9003

RAL 9005

	SONORA-8TB-SUB SONORA-8TN-SUB
FEATURES	Subwoofer loudspeaker with 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.
POWER	180 W max, 120 W RMS
SPEAKERS	8” paper cone subwoofer with water-resistant treatment
RESPONSE	50-300 Hz (-10 dB)
IMPEDANCE	120 W RMS@100 V (83 Ω) 60 W RMS@100 V (166 Ω) 30 W RMS@100 V (333 Ω) 15 W RMS@100 V (666 Ω) Low Z: 8 Ω
SENSITIVITY	90 dB @ 1 W/1 m (100 Hz)
MAXIMUN SOUND PRESSURE	110 dB @ max. W/1 m
DIMENSIONS	Loudspeaker: 235 x 380 x 200 mm depth Wall plate mount: 102 x 165 mm Speaker with mount: 305 mm depth

SPEAKERS

Surface

> 100 V

SUBWOOFER

Designed by FONESTAR

RAL 9003

RAL 9005

47-650 Hz | BASS-REFLEX | FLOOR, WALL, OR CEILING MOUNTING | EUROBLOCKS | POWER SELECTOR

	POWERBASS-8TB POWERBASS-8TN
FEATURES	Background music applications subwoofer loudspeaker. Excellent bass response, for reinforcement of musical content. Bass-reflex reinforcement system. 100/70 V line transformer and low impedance. Wall or floor/plinth installation.
POWER	120 W RMS (IEC 60268-5 Average rated power, 100 hours)
SPEAKERS	1 x 8” polypropylene subwoofer
RESPONSE	47-300 Hz (-10 dB) @ FPB 150 Hz 47-400 Hz (-10 dB) @ FPB 400 Hz 47-650 Hz (-10 dB) @ Bypass
IMPEDANCE	120 W RMS @ 100 V (83 Ω) 85 W RMS @ 70 V (57 Ω) 60 W RMS @ 100 V/70 V (166 Ω/83 Ω) 30 W RMS @ 100 V/70V (333 Ω/166 Ω) 15 W RMS @ 100 V/70 V (666 Ω/333 Ω) 7.5 W RMS @ 70 V (666 Ω) Low Z: 6 Ω
SENSITIVITY	85 dB @ 1 W/1 m
SOUND PRESSURE	103 dB @ Rated power/1 m
DIMENSIONS	545 x 150 x 337 mm depth
ACCESSORIES	Wall mounting brackets Screws and mounting accessories

	POWERBASS-CMB
FEATURES	Ceiling mount for subwoofer. Made of steel. Fastening by screws. Powder coating.
COLOUR	Black (RAL 9005)
DIMENSIONS	Subwoofer bars: 2 u of 32 x 24 x 277 mm depth Ceiling plate: 439 x 16 x 279 mm depth

SPEAKERS

Surface

> Low impedance

8 OHM

Designed by FONESTAR

NEW VERSION

SALT MIST RESISTANCE (NV) · IP 66 (NV) · PRECISE ADJUSTMENT · EUROBLOCKS

SALT MIST RESISTANCE · IP 66 · PRECISE ADJUSTMENT · EUROBLOCKS · SAFETY CABLE · TWO POSITIONS

RAL 9003 · RAL 9005 · RAL 9003 · RAL 9005

	SONORA-3B SONORA-3N	SONORA-4B SONORA-4N
FEATURES	Low impedance sound reinforcement loudspeaker. Ideal for outdoor use, IP-66 protection.	
POWER	20 W max, 12 W RMS	60 W max, 30 W RMS
SPEAKERS	1 x 3" woofer	1 x 4" polypropylene woofer 1 x 1" tweeter
RESPONSE	130-20,000 Hz	120-20,000 Hz
IMPEDANCE	8 Ω	8 Ω
SENSITIVITY	84 dB @ 1 W/1 m	84.9 dB @ 1 W/1 m
MAXIMUN SOUND PRESSURE	94 dB @ max. W/1 m	97.6 dB @ max. W/1 m
COVERAGE ANGLE	H/V: 270º/270º@500 Hz, 180º/180º@1 kHz, 120º/120º@2 kHz, 100º/100º@4 kHz (-6 dB)	H/V: 215º/225º @500Hz, 145º/130º@1kHz, 115º/120º@2kHz, 80º/110º@4kHz (-6 dB)
DIMENSIONS	Loudspeaker: 97 x 110 x 107 mm depth Wall plate mount: 67 x 71 mm Speaker with mount: 150 mm depth	Loudspeaker: 125 x 202 x 125 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 193 mm depth

SPEAKERS

Surface

> Low impedance

8 OHM

Designed by FONESTAR

SALT MIST RESISTANCE · IP 66 · SAFETY CABLE · PRECISE ADJUSTMENT · EUROBLOCKS · TWO POSITIONS

RAL 9003 · RAL 9005 · RAL 9003 · RAL 9005

	SONORA-5B SONORA-5N	SONORA-6B SONORA-6N
FEATURES	Low impedance sound reinforcement loudspeaker. Ideal for outdoor use, IP-66 protection.	Low impedance sound reinforcement loudspeaker. Ideal for outdoor use, IP-66 protection.
POWER	80 W max, 40 W RMS	100 W max, 60 W RMS
SPEAKERS	1 x 5¼" polypropylene woofer 1 x 1" tweeter	1 x 6" polypropylene woofer 1 x 1" tweeter
RESPONSE	80-20,000 Hz	75-20,000 Hz
IMPEDANCE	8 Ω	
SENSITIVITY	88.3 dB @ 1 W/1 m	88.4 dB @ 1 W/1 m
MAXIMUN SOUND PRESSURE	102.2 dB @ max. W/1 m	103.8 dB @ max. W/1 m
COVERAGE ANGLE	H/V: 200º/200º@500Hz, 135º/135º@1kHz, 100º/120º@2kHz, 60º/80º@4kHz (-6 dB)	H/V: 150º/150º @500Hz, 150º/120º@1kHz, 100º/50º@2kHz, 175º/175º@4kHz (-6 dB)
DIMENSIONS	Loudspeaker: 162 x 263 x 147 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 216 mm depth	Loudspeaker: 199 x 322 x 181 mm depth Wall plate mount: 102 x 165 mm Speaker with mount: 284 mm depth

SPEAKERS

Surface

> Low impedance

16 OHM

Designed by FONESTAR

SALT MIST RESISTANCE

IP 66 (only when installed in vertical position)

SAFETY CABLE

PRECISE ADJUSTMENT

EUROBLOCKS

TWO POSITIONS

POWER SELECTOR

RAL 9003

RAL 9005

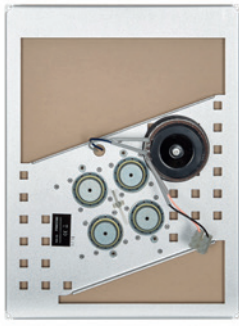
	SONORA-5B16 SONORA-5N16
FEATURES	Low impedance sound reinforcement loudspeaker. Ideal for outdoor use, IP-66 protection.
POWER	80 W max, 40 W RMS
SPEAKERS	1 x 5¼" polypropylene woofer 1 x 1" tweeter
RESPONSE	80-20,000 Hz
IMPEDANCE	16 Ω
SENSITIVITY	88.3 dB @ 1 W/1 m
MAXIMUN SOUND PRESSURE	102.2 dB @ max. W/1 m
COVERAGE ANGLE	H/V: 200º/200º@500Hz, 135º/135º@1kHz, 100º/120º@2kHz, 60º/80º@4kHz (-6 dB)
DIMENSIONS	162 x 262 x 147 mm depth

SPEAKERS
Surface

> Invisibles

	TDO-45
FEATURES	Invisible loudspeaker with 70 and 100 V line transformer. Installation on plasterboard panels, with accessories for installation on 12.5 mm boards. It reproduces sound by vibrating the radiating surface. Non-directional sound. Long service life.
POWER	60 W max, 40 W RMS
DRIVERS	4
RESPONSE	140-20,000 Hz
IMPEDANCE	40 W RMS@100V (250 Ω)
SENSITIVITY	90 dB± 3 dB at 1 W/1 m
COVERAGE ANGLE	180º
MATERIALS	Aluminium
DIMENSIONS	300 x 400 x 50 mm depth
WEIGHT	1.45 kg
ACCESSORIES	1 x cutting template 4 x MDF wood installation plugs with foam 8 x lag screws
OPTIONAL	TDO-45BOX: installation case

Designed by FONESTAR



180º SOUND COVERAGE

SOUND THROUGH RADIATING SURFACE VIBRATION

	TDO-45BOX
FEATURES	Installation case for invisible loudspeaker TDO-45.
DIMENSIONS	304 x 450 x 71 mm depth
WEIGHT	1.5 kg

Designed by FONESTAR

SPEAKERS

Surface

> Active

Designed by FONESTAR

SAFETY CABLE STANDBY MONO/STEREO

WIFI SAFETY CABLE USB AUX STANDBY MONO/STEREO

RAL 9003 RAL 9005 RAL 9003 RAL 9005

	SONORA-5AB SONORA-5AN	SONORA-5AWB SONORA-5AWN
FEATURES	Active speaker. Class D amplifier with passive speaker output. Great sound quality, clear sound and distortion-free. Tone and volume controls. Mono/stereo selector. Automatic standby function.	Wi-Fi active speaker with player. App for control from smartphones and tablets, WIIM and compatible devices. Wi-Fi playback of playlists, online music services and internet radio. Multiroom function (see note). USB player and auxiliary input. Class D amplifier. Output for passive loudspeaker. Great sound quality, defined and distortion-free. Tone and volume controls. Mono/stereo selector. Automatic standby function.
POWER	25 + 25 W RMS	
SPEAKERS	1 x 5¼" polypropylene woofer 1 x 1" tweeter	
RESPONSE	80-20,000 Hz	
INPUTS	1 x stereo auxiliary, 3.5 mm jack (unbalanced) or euroblock (balanced), 750 mV RMSA 1 x RJ-45 (future applications)	1 x stereo aux, 3.5 mm jack, 750 mV RMS 1 x RJ-45 Ethernet (Ethernet data connection)
OUTPUTS	1 x passive loudspeaker, 8 Ω, euroblock	
POWER SUPPLY	230 V AC, 60 W 115 V AC on request	
DIMENSIONS	Loudspeaker: 162 x 263 x 147 mm depth Wall plate mount: 68 x 110 mm Speaker with mount: 216 mm depth	

SPEAKERS

Sound projectors

> *EN 54*

EN 54-24
2008 TYPE B

IP 66

	PF-31T-EN
FEATURES	EN 54 sound projector with diffuser and 100 V line transformer.
STANDARD	EN 54-24 Certificate
POWER	50 W max, 30 W RMS
SPEAKER	1 x 5" woofer 1 x 2 ½" tweeter
RESPONSE	120-20,000 Hz (-10 dB)
IMPEDANCE	30 W RMS@100V (333 Ω) 15 W RMS@100 V (667 Ω) 7.5 W RMS@100 V (1,333 Ω) 3.75 W RMS@100 V (2,667 Ω)
SENSITIVITY	96 dB (1 W/1 m, 1 kHz) 85 dB at (1W/4m, Pink Noise)
SOUND PRESSURE	111 dB (Max. W/1m, 1 KHz) 99 dB (Max. W/4m, Pink Noise)
COVERAGE ANGLE	140ºHx180ºV@500Hz, 60ºHx100ºV@1kHz, 90ºHx95ºV@2kHz, 90ºHx140V@4kHz (-6 dB)
PROTECTIONS	IP-66 (EN54-24: Type B)
MATERIALS	ABS UL94VO Ceramic connectors and thermal fuse
TEMPERATURE RANGE	-25ºC - +70ºC
MATERIALS	Grey (RAL 7035)
COLOUR	315 x 215 x 355 mm
WEIGHT	5 kg
ACCESSORIES	Adjustable fixing mount

SPEAKERS

Sound projectors

> EN 54

	PF-1020T-EN	PF-53T-EN
FEATURES	Loudspeaker for voice alarm systems EN 54. Sound projector. 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.	EN 54 sound projector with 100 V line transformer.
STANDARD	EN 54-24 Certificate	EN 54-24 Certificate
POWER	20 W RMS	30 W max, 20 W RMS
SPEAKER	5” full range	5” Hi-Fi double cone
RESPONSE	120-21,000 Hz (-10 dB)	130-20,000 Hz (-10 dB)
IMPEDANCE	20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1000 Ω) 5 W RMS@100 V (2000 Ω) 2.5 W RMS@100 V (4000 Ω) Low Z: 8 Ω	20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1,000 Ω) 5 W RMS@100 V (2,000 Ω)
SENSITIVITY	87 dB (1 W/1 m, EN 54-24) 75 dB (1 W/4 m, EN 54-24)	91 dB (1 W/1 m, 1 kHz) 80 dB at (1W/4m, Pink Noise)
SOUND PRESSURE	99 dB (Max. W/1 m, EN 54-24) 87 dB (Max. W/4 m, EN 54-24)	103 dB (Max. W/1m, 1 KHz) 90 dB (Max. W/4m, Pink Noise)
COVERAGE ANGLE	H/V: 360º@500Hz, 230º@1kHz, 110º@2kHz, 58º@4kHz (-6 dB)	360º@500Hz, 230º@1kHz, 95º@2kHz, 47.5º@4kHz (-6 dB)
PROTECTIONS	IP66 (EN 54-24: Type B)	IP-66 (EN54-24: Type B)
MATERIALS	ABS plastic Aluminium grille Ceramic connector and thermal fuse Double cable inlet and outlet Stainless steel screws Aluminium mount	Steel with metal grille Ceramic connectors and thermal fuse Double cable inlet and outlet
TEMPERATURE RANGE	Operation: -25ºC - +70ºC	-25ºC to +70ºC
COLOUR	White (RAL 9010)	
DIMENSIONS	137 mm Ø x 222 mm depth	146 mm Ø x 207 mm depth
WEIGHT	1.44 kg	2.5 kg

SPEAKERS

Sound projectors

> EN 54

	PF-55TD-EN
FEATURES	EN 54 two-way sound projector with 100 V line transformer. For use in voice and fire alarm installations. Two-way sound with great coverage, Simple installation with new junction box. Design and construction in compliance with European standard EN 54.
STANDARD	EN 54-24 Certificate
POWER	10 W RMS
SPEAKER	2 x 5" full range 8 Ω
RESPONSE	145-15,900 Hz (-10 dB)
IMPEDANCE	10 W RMS@100 V (1,000 Ω) 6 W RMS@100 V (1,667 Ω) 3 W RMS@100 V (3,333 Ω) 1.5 W RMS@100 V (6433 Ω)
SENSITIVITY	73.1 dB at (1W/4m, Pink Noise)
SOUND PRESSURE	84.6 dB (Max. W/4m, Pink Noise)
COVERAGE ANGLE	360º@500Hz, 360º@1kHz, 120@2kHz, 74º@4kHz (-6 dB)
PROTECTIONS	For indoor use EN54-24: Type A (IP-21)
MATERIALS	Powder-coated aluminium Powder-coated aluminium grille, additional bayonet fastening system Plastic press-fit connector, 2 poles Double cable inlet and outlet
COLOUR	Matte White (RAL 9010)
DIMENSIONS	143 mm Ø x 168 mm depth
WEIGHT	2.5 kg

N!

EN 54-24 TWO-WAY

> 100 V

IP 55

IP 55 TWO-WAY

	PF-24T	PF-25TD
FEATURES	Sound projector with 100 V line transformer.	Two-way sound projector with 100 V line transformer.
POWER	15 W max, 10 W RMS	
SPEAKERS	5" double cone, varnished and mylar paper	2 x 5", varnished paper cone
RESPONSE	150-15,000 Hz	130-15,000 Hz
IMPEDANCE	10 W RMS@100V (1,000 Ω) 5 W RMS@100V (2,000 Ω) 2.5 W RMS@100V (4,000 Ω)	
SENSITIVITY	89 dB at 1 W/1 m	91 dB at 1 W/1 m
SOUND PRESSURE	99 dB at max. W/1m	-
COVERAGE ANGLE	130°@1kHz, 100º@2kHz, 50º@4khz (-6 dB)	Two-way 170°@1kHz, 100°@2kHz, 60°@4kHz (-6dB)
PROTECTIONS	IP-55 in compliance with EN 60529	
MATERIALS	ABS. Hermetic casing. Aluminium grille Aluminium mount Stainless steel screws	
TEMPERATURE RANGE	-25ºC ~ 55ºC	
COLOUR	White (RAL 9016)	
DIMENSIONS	138 mm Ø x 205 mm depth	138 mm Ø x 200 mm depth
WEIGHT	1.6 kg	1.7 kg
ACCESSORIES	Adjustable fixing mount	

SPEAKERS

Sound projectors

> 100 V

IP 55

IP 55

TWO-WAY

	PF-26T	PF-27TD
FEATURES	Sound projector with 100 V line transformer.	Two-way sound projector with 100 V line transformer.
POWER	30 W max, 20 W RMS	
SPEAKERS	6 ½" varnished paper cone	2 x 5", varnished paper cone
RESPONSE	170-16,000 Hz	180-16,000 Hz
IMPEDANCE	20 W RMS@100V (500 Ω) 10 W RMS@100V (1,000 Ω) 5 W RMS@100V (2,000 Ω)	
SENSITIVITY	92 dB at 1 W/1 m	86 dB at 1 W/1 m
SOUND PRESSURE	105 dB at max. W/1m	-
COVERAGE ANGLE	170°@1kHz, 90º@2kHz, 45º@4kHz (-6 dB)	Two-way 2x170, 2x100°@2kHz, 2x60°@4kHz (-6dB)
PROTECTIONS	IP-55 in compliance with EN 60529	
MATERIALS	ABS. Hermetic casing. Aluminium grille Aluminium mount Stainless steel screws	
TEMPERATURE RANGE	-25ºC ~ 55ºC	
COLOUR	White (RAL 9016)	
DIMENSIONS	170 mm Ø x 245 mm depth	138 mm Ø x 200 mm depth
WEIGHT	1.75 kg	1.7 kg
ACCESSORIES	Adjustable fixing mount	

	PF-35T
FEATURES	Sound projector with diffuser and 100 V line transformer.
POWER	80 W max, 50 W RMS
SPEAKERS	1 x 6" weatherproofed woofer 1 x 1" tweeter
RESPONSE	90-20,000 Hz
IMPEDANCE	50 W RMS@100 V (200 Ω) 30 W RMS@100 V (330 Ω) 15 W RMS@100 V (670 Ω)
SENSITIVITY	99 dB at 1 W/1 m
COVERAGE ANGLE	90º H x 80º V
PROTECTIONS	IP-66
MATERIALS	ABS. Hermetic casing. Weatherproofed mount Stainless steel screws
TEMPERATURE RANGE	-25ºC ~ 55ºC
COLOUR	Grey (RAL 7035)
DIMENSIONS	356 x 256 x 292 mm depth, without mount.
WEIGHT	3.5 kg
ACCESSORIES	Adjustable fixing mount

IP 66

SPEAKERS

Sound projectors

> 100 V

Designed by FONESTAR

NEW VERSION

NEW VERSION

IP 66 · SALT MIST RESISTANCE (NV) · POWER SELECTOR · SAFETY CABLE

	AQUA-8TG	AQUA-12TG
FEATURES	Loudspeaker with 100 V line transformer and low impedance 8 Ω. High-powered woofer and a diffuser driver deliver a richly nuanced, defined and distortion-free sound. Sound with great range and coverage. Bass boosted. Robust and compact construction. Weatherproofed grille. Prepared for outdoor use, IP-66 protection against water and anti-corrosion materials.	
POWER	250 W max, 200 W RMS	500 W max, 300 W RMS
SPEAKERS	1 x 8" woofer 1 x 1" compression driver	1 x 12" woofer 1 X 1¾" compression driver
RESPONSE	70-20,000 Hz (-10 dB)	50-20,000 Hz (-10 dB)
IMPEDANCE	200 W RMS@8 Ω 200 W RMS@100 V/70 V (50 Ω/25 Ω) 100 W RMS@70 V (50 Ω) 150 W RMS@100 V (66 Ω) 75 W RMS@100 V/70 V (133 Ω/66 Ω) 37.5 W RMS@70 V (133 Ω)	300 W RMS@8 Ω 300 W RMS@100 V/70 V (33 Ω/16.5 Ω) 150 W RMS@100 V/70 V (66 Ω/33 Ω) 75 W RMS@100 V/70 V (133 Ω/66 Ω) 37.5 W RMS@70 V (133 Ω)
SENSITIVITY	96 dB at 1 W/1 m	99 dB at 1 W/1 m
SOUND PRESSURE	119 dB @ maximum power at 1 m	124 dB @ maximum power at 1 m
COVERAGE ANGLE	80º H x 50º V a 1 kHz/-6 dB	90º H x 80º V a 1 kHz/-6 dB
CROSSOVER	2-way Crossover frequency at 3,000 Hz.	2-way Crossover frequency at 2,000 Hz.
MATERIALS	ABS (UV resistant) Steel grille and mount with weathering treatment Stainless steel screws	
TEMPERATURE RANGE	-25ºC ~ 70ºC	
WEIGHT	11.1 kg	18.7 kg
COLOUR	Grey (RAL 7035)	
DIMENSIONS	319 x 308 x 350 mm depth	427 x 419 x 397 mm depth
ACCESSORIES	Adjustable fixing mount	

SPEAKERS

Exponential

> EN 54

N!

EN 54-24
TYPE B

IP 66

POWER
SELECTOR

	VULKAN-103OT-EN
FEATURES	Loudspeaker for voice alarm systems EN 54. Diffuser with compression motor. 100 V line transformer and low impedance. Prepared for outdoor use, have protection against water and anti-corrosion materials.
STANDARD	EN 54-24 Certificate
POWER	30 W RMS
SPEAKERS	1 x compression driver
RESPONSE	250-15,000 Hz (-10 dB)
IMPEDANCE	30 W RMS@100 V (333 Ω) 20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1000 Ω) 5 W RMS@100 V (2000 Ω) Low Z: 20 Ω
SENSITIVITY	97.9 dB (1 W/1 m, EN 54-24) 85 dB (1 W/4 m, EN 54-24)
MAXIMUN SOUND PRESSURE	108 dB (Max. W/1 m, EN 54-24) 96 dB (Max. W/4 m, EN 54-24)
COVERAGE ANGLE	H/V: 155º@500Hz, 110º@1kHz, 65º@2kHz, 35º@4kHz (-6 dB)
PROTECTIONS	IP66 (EN 54-24: Type B)
MATERIALS	ABS plastic UL94V0 Ceramic connector and thermal fuse Double cable inlet and outlet Stainless steel screws Stainless steel mount
TEMPERATURE RANGE	Operation: -25ºC - +70ºC
COLOUR	Grey (RAL 7035)
DIMENSIONS	235 mm Ø x 351 mm depth
WEIGHT	2.27 kg

SPEAKERS

Exponential

> 100 V

IP 66 STRIPPED ENDS CABLE

IP 66 STRIPPED ENDS CABLE

	VULKAN-15T	VULKAN-30T
FEATURES	100 V line transformer horn loudspeaker. Prepared for outdoor use with anti-corrosion materials. Protection against water. For long-range message playback.	
POWER	15 W RMS	30 W RMS
SPEAKERS	1 x compression driver	
RESPONSE	320-6,000 Hz (-10 dB)	250-7,000 Hz (-10 dB)
IMPEDANCE	15 W RMS@100 V (666 Ω) 7.5 W RMS@100 V (1,333 Ω)	30 W RMS@100 V (333 Ω) 15 W RMS@100 V (666 Ω)
SENSITIVITY	105 dB @ 1 W/1 m	104 dB @ 1 W/1 m
SOUND PRESSURE	116 dB @ at maximum power/1 m	119 dB @ at maximum power/1 m
COVERAGE ANGLE	H/V: 180º/160º@500Hz, 140º/120º@1kHz, 90º/80º@2kHz, 50º/40º@4kHz (-6 dB)	
PROTECTIONS	IP-66 in compliance with EN 60529	
MATERIALS	ABS diffuser and rear cover Aluminium mount A2 stainless steel screws	
TEMPERATURE RANGE	Operation: -25ºC ~ +55ºC Storage: -40ºC ~ +70ºC	
CONNECTION	30 cm cable with stripped ends	
HUMIDITY	<95%	
COLOUR	Grey (RAL 7035)	
DIMENSIONS	222 x 162 x 232 mm depth	285 x 205 x 285 mm depth
WEIGHT	1.36 kg	2 kg

SPEAKERS

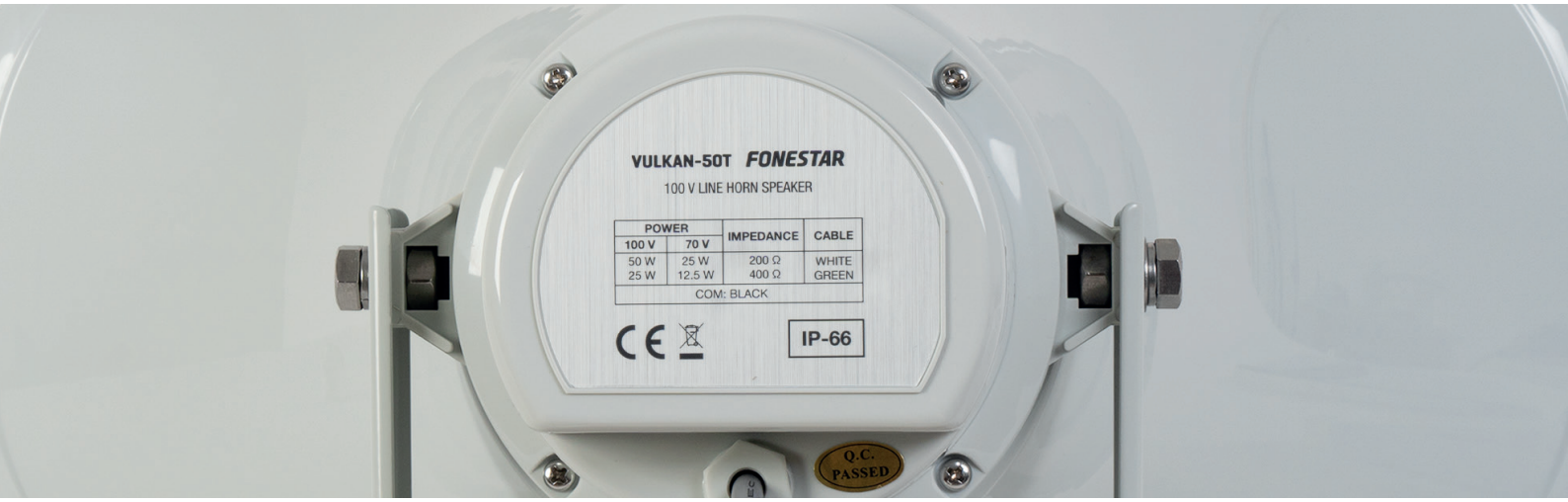
Exponential

> 100 V

IP 66

STRIPPED ENDS CABLE

	VULKAN-50T
FEATURES	100 V line transformer horn loudspeaker. Prepared for outdoor use with anti-corrosion materials. Protection against water. For long-range message playback.
POWER	50 W RMS
SPEAKERS	1 x compression driver
RESPONSE	270-6,000 Hz (-10 dB)
IMPEDANCE	50 W RMS@100 V (200 Ω) 25 W RMS@100 V (400 Ω)
SENSITIVITY	105 dB @ 1 W/1 m
SOUND PRESSURE	122 dB @ at maximum power/1 m
COVERAGE ANGLE	H/V: 180º/160º@500Hz, 140º/120º@1kHz, 90º/80º@2kHz, 50º/40º@4kHz (-6 dB)
PROTECTIONS	IP-66 in compliance with EN 60529
MATERIALS	ABS diffuser and rear cover Aluminium mount A2 stainless steel screws
TEMPERATURE RANGE	Operation: -25ºC ~ +55ºC Storage: -40ºC ~ +70ºC
CONNECTION	30 cm cable with stripped ends
HUMIDITY	<95%
COLOUR	Grey (RAL 7035)
DIMENSIONS	400 x 235 x 320 mm depth
WEIGHT	2.6 kg



SPEAKERS

Exponential

> 100 V

IP 66 · POWER SELECTOR · STRIPPED ENDS CABLE

IP 66 · POWER SELECTOR · STRIPPED ENDS CABLE

	VULKAN-31ST	VULKAN-51ST
FEATURES	100 V line transformer and low impedance horn loudspeaker. Prepared for outdoor use with anti-corrosion materials. Protection against water. For long-range message playback.	
POWER	30 W RMS	50 W RMS
SPEAKERS	1 x compression driver	
RESPONSE	380-10,000 Hz (-10 dB)	380-6,500 Hz (-10 dB)
IMPEDANCE	30 W RMS@100 V (333 Ω) 15 W RMS@100 V (666 Ω) 7.5 W RMS@100 V (1,333 Ω) 3.75 W RMS@100 V (2,666 Ω) Low Z: 8 Ω	50 W RMS@100 V (200 Ω) 25 W RMS@100 V (400 Ω) 12.5 W RMS@100 V (800 Ω) 6.25 W RMS@100 V (1,600 Ω) Low Z: 16 Ω
SENSITIVITY	109 dB @ 1 W/1 m	109 dB @ 1 W/1 m
SOUND PRESSURE	116 dB @ 15 W/1 m	116 dB @ 15 W/1 m
COVERAGE ANGLE	H/V: 125º/125º@500Hz, 85º/85º@1kHz, 50º/50º@2kHz, 30º/30º@4kHz (-6 dB)	H/V: 100º/100º@500Hz, 62º/62º@1kHz, 25º/25º@2kHz, 25º/25º@4kHz (-6 dB)
PROTECTIONS	IP-66 in compliance with EN 60529	
SWITCH	W selector in high Z and low Z	
MATERIALS	Aluminium diffuser ABS rear cover Aluminium mount A2 stainless steel screws	
TEMPERATURE RANGE	Operation: -25ºC ~ +55ºC Storage: -40ºC ~ +70ºC	
HUMIDITY	<95%	
CONNECTION	30 cm cable with stripped ends	
WEIGHT	2.1 kg	2.6 kg
COLOUR	Grey (RAL 7035)	
DIMENSIONS	246 x 246 x 292 mm depth	325 x 325 x 350 mm depth

SPEAKERS
Exponential

> Low impedance

	VULKAN-15	VULKAN-30	VULKAN-50
FEATURES	Low impedance horn speaker. Prepared for outdoor use with anti-corrosion materials. Protection against water. For long-range message playback.		
POWER	15 W RMS	30 W RMS	50 W RMS
SPEAKERS	1 x compression driver		
RESPONSE	300-10,000 Hz (-10 dB)	400-6,000 Hz (-10 dB)	270-6,000 Hz (-10 dB)
IMPEDANCE	8 Ω		
SENSITIVITY	113 dB @ 1 W/1 m	105 dB @ 1 W/1 m	105 dB @ 1 W/1 m
SOUND PRESSURE	126 dB @ 15 W/1 m	118 dB @ 15 W/1 m	122 dB @ at maximum power/1 m
COVERAGE ANGLE	H/V: 180º/160º@500Hz, 90º/80º@1kHz, 50º/40º@2kHz, 40º/30º@4kHz (-6 dB)	H/V: 180º/160º@500Hz, 90º/80º@1kHz, 50º/40º@2kHz, 40º/30º@4kHz (-6 dB)	H/V: 180º/160º@500Hz, 140º/120º@1kHz, 90º/80º@2kHz, 50º/40º@4kHz (-6 dB)
PROTECTIONS	IP-66 in compliance with EN 60529		
MATERIALS	ABS diffuser and rear cover Aluminium mount A2 stainless steel screws		
TEMPERATURE RANGE	Operation: -25ºC ~ +55ºC Storage: -40ºC ~ +70ºC		
CONNECTION	30 cm cable with stripped ends		
HUMIDITY	<95%		
COLOUR	Grey (RAL 7035)		
DIMENSIONS	222 x 162 x 232 mm depth	285 x 205 x 285 mm depth	400 x 235 x 320 mm depth
WEIGHT	1.16 kg	1.7 kg	2.2 kg

SPEAKERS

Hanging spheres

> *EN 54*

EN 54
TYPE A

	EF-322-EN
FEATURES	Hanging sphere for EN 54 voice alarm systems 100 V line transformer and low impedance. 5 m installation cable. Modern design.
INTENDED USE	Loudspeaker for voice alarm systems
STANDARD	EN 54-24 certificate Fire detection and fire alarm systems - Part 24: Components of voice alarm systems - Loudspeakers EN 54-24: 2008
POWER	20 W RMS
SPEAKER	5” full-range, paper diaphragm
RESPONSE	130-20,000 Hz (-10 dB)
IMPEDANCE	20 W RMS @ 100 V/70 V (500 Ω/250 Ω) 10 W RMS @ 100 V/70 V (1,000 Ω/500 Ω) 5 W RMS @ 100 V/70 V (2,000 Ω/1,000 Ω) Low Z: 6 Ω
SENSITIVITY	89 dB @ 1 W/1 m, Pink Noise 100 Hz - 10 kHz, based on EN 54-24 77 dB @ 1W/4m, Pink Noise 100 Hz - 10 kHz, according to EN 54-24
MAXIMUN SOUND PRESSURE	102 dB @ max. 1 W/1m, Pink Noise 100 Hz - 10 kHz, based on EN 54-24 89 dB @ max. W/4m, Pink Noise 100 Hz - 10 kHz, according to EN 54-24)
COVERAGE ANGLE	H/V (-6 dB): 360º@500Hz, 190º@1kHz, 100º@2kHz, 65º@4kHz
PROTECTIONS	Type A (according to EN 54-24 test: IP-21)
MATERIALS	ABS+PC Anti-rust surface treated and painted steel grille Junction box for 6.5 mm outer diameter round cable.
CONNECTORS	Junction box for 6.5 mm outer diameter cable. Connection terminals for 0.25 - 0.75 mm2 cable cross-section
TEMPERATURE RANGE	-10ºC to +55ºC
COLOUR	White (RAL 9010)
DIMENSIONS	154 mm Ø x 222 mm height 5m installation cable
WEIGHT	2 kg

SPEAKERS

Hanging spheres

> 100 V

IP 54

	EF-333
FEATURES	100 V line transformer and low impedance hanging sphere. Coaxial speaker, clear and clean sound. Horizontal uniform coverage. Modern design.
POWER	30 W max, 30 W RMS
SPEAKER	Woofer: 5” Tweeter: ½”
RESPONSE	70-20,000 Hz
IMPEDANCE	High Z 100 V line: 30 W RMS@100/70 V (330 Ω/170 Ω) 20 W RMS@100/70 V (500 Ω/250 Ω) 15 W RMS@100/70 V (660 Ω/330 Ω) 10 W RMS@100/70 V (1,000 Ω/500 Ω) 5 W RMS@100/70 V (2,000 Ω/1,000 Ω) Low Z: 30 W RMS@8 Ω
SENSITIVITY	91 dB at 1 W/1 m
COVERAGE ANGLE	90°
PROTECTIONS	IP-54
MATERIALS	Extra sturdy ABS and aluminium grille
CABLE	4 m
COLOUR	White (RAL 9002)
DIMENSIONS	187 mm Ø x 245 mm height
WEIGHT	2.1 kg

SPEAKERS

Columns

> Analogue

IP 44

IP 44

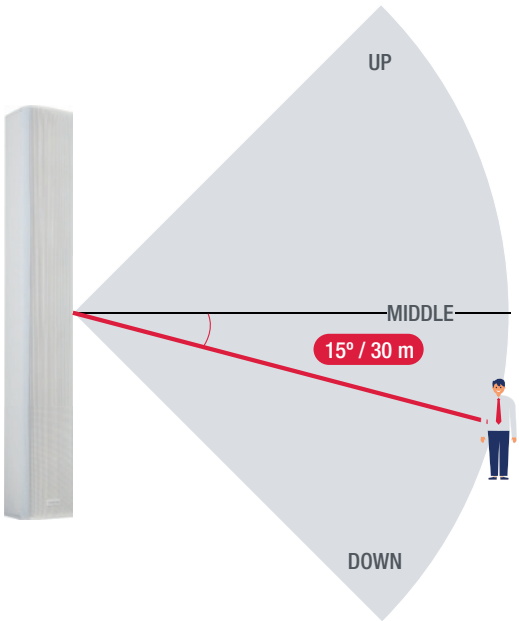
	TOWER-20TB	TOWER-40TB
FEATURES	100 V line transformer sound column.	
POWER	30 W max, 20 W RMS	60 W max, 40 W RMS
SPEAKERS	4 x 2 ½"	8 x 2 ½"
RESPONSE	170-15,000 Hz	
IMPEDANCE	20 W RMS@100 V (500 Ω) 10 W RMS@100 V (1,000 Ω)	40 W RMS@100 V (250 Ω) 20 W RMS@100 V (500 Ω)
SENSITIVITY	91 dB at 1 W/1 m	93 dB at 1 W/1 m
COVERAGE ANGLE	170° H x 95° V (1 kHz) 150° H x 75° V (4 kHz)	155° H x 110° V (1 kHz) 180° H x 70° V (4 kHz)
PROTECTIONS	IP-44	
MATERIALS	Aluminium Housing Aluminium grille	
COLOUR	White (RAL 9016)	
DIMENSIONS	10.6 x 40.5 x 7.5 cm depth	10.6 x 69.5 x 7.5 cm depth
WEIGHT	2 kg	3.4 kg

SPEAKERS

Columns

> Digital

	FCS-8250DS
FEATURES	Weather-ready sound column with configurable directivity pattern. 8-channel Class D amplifier. Digital Signal Processing (DSP). 15-band graphic equaliser. 100 V input. IP configuration via Web browser.
AMPLIFIER	240 W RMS, 8 x 30 W RMS
SPEAKERS	8 x 5”
INPUTS	1 x balanced line, waterproof connector, 1 V 1 x 100 V line, waterproof connector 1 x RJ-45 for Web configuration
OUTPUTS	1 x balanced line, waterproof connector, 1 V
FUNCTIONS	Adjustable sound beam inclination: ±45° Focal length selection: up to 30 m, automatically sets beam width (95° to 5°) 15-band graphic equaliser Automatic noise gate Mute
RESPONSE	80-18,000 Hz
COVERAGE ANGLE	120° H x 50° V (±45°)
SOUND PRESSURE	130 dB AT maximum power at 1 m, Pink Noise
PROTECTION	IP-65
POWER SUPPLY	115/230 V AC (internally selectable), 250 W
MATERIALS	Aluminium grille and body Stainless steel mounts
COLOUR	White (RAL 9003)
DIMENSIONS	17 x 132 x 17 cm depth
WEIGHT	20.5 kg
ACCESSORIES	Stainless steel fixing mounts Waterproof connectors



SPEAKERS

Columns

> Digital

ON REQUEST

ON REQUEST

	FCS-1200D	FCS-1800D
FEATURES	Sound column with configurable directivity pattern. Class D multichannel amplifier. 32-bit Digital Signal Processor (DSP). Software-configurable directivity pattern. Connection to emergency power supply. Remote control through local area network (LAN) via software.	
AMPLIFIER	2 x 6-channel Class D amplifiers 12 x 70 W RMS	3 x 6-channel Class D amplifiers 18 x 70 W RMS
SPEAKERS	12 x 4 ¼" double aluminium cone, moisture resistant	18 x 4 ¼" double aluminium cone, moisture resistant
INPUTS	2 x balanced lines, XLR 600 Ω 775 mV 1 x ethernet, RJ 45 1 x RS-485 control, Sub-D2 x balanced lines, XLR 600 Ω 775 mV 1 x ethernet, RJ 45 1 x RS-485 control, Sub-D	
OUTPUTS	1 x balanced line, XLR 600 Ω 775 mV 2 x contact opening for fault indication	
FUNCTIONS	Adjustable directivity: acoustic centre, coverage angle (5° to 25°), tilt (-25° to 25°), shape (symmetrical/asymmetrical), up to 3 sound beams 7-Band parametric equalisation Noise gate Delay up to 1,000 ms Peak limiter with adjustable level Mute Monitoring of the amplifiers, input signal and emergency power supply Cut-out indicator light, noise limiter and noise gate	
RESPONSE	90-18,000 Hz	
COVERAGE ANGLE	Vertical: from 5° to 25°, adjustable by programming Horizontal: 145°	
S/N RATIO	> 110 dB	
SENSITIVITY	92 dB (±3 dB) 1 W/1m	
SOUND PRESSURE	90 dB ±3 dB at 48 m	
MAXIMUM SPL	93 dB ±1 dB	
POWER SUPPLY	115-240 V AC 211 W, 16-27 V DC 8.5 A	115-240 V AC 277 W, 16-27 V DC 11 A
COLOUR	White (RAL 9016)	
DIMENSIONS	17.7 x 196.8 x 18 cm depth	17.7 x 237 x 18 cm depth
WEIGHT	27 kg	38 kg
ACCESSORIES	Fixing mounts	

SPEAKERS

Garden

IP 66

IP 66

	LAND-30TR	LAND-30TS
FEATURES	100 V line transformer garden loudspeaker. Weatherproof. Prepared for outdoor use, have protection against water and anti-corrosion materials.	
POWER	30 W RMS	
SPEAKERS	1 x 6" polypropylene woofer 1 x 1/2" tweeter	1 x 6" polypropylene woofer 1 x 3/4" tweeter
PROTECTIONS	IP-66 in compliance with EN 60529	
IMPEDANCE	30 W RMS@100 V (333 Ω) 15 W RMS@100 V (666 Ω)	
RESPONSE	100-20,000 Hz	95-20,000 Hz
COVERAGE ANGLE	H/V: 170º/170º @500Hz, 110º/110º@1kHz, 90º/90º@2kHz, 75º/75º@4kHz (-6 dB)	H: 360º
SENSITIVITY	88 dB @ 1 W/1 m	82 dB @ 1 W/1 m
SOUND PRESSURE	102 dB @ max. W/1 m	96 dB @ max. W/1 m
MATERIALS	Fibreglass and resins Aluminium grille Stainless steel brackets for floor anchorage Safety hook 30 cm output cable	Fibreglass and resins Aluminium grille Stainless steel brackets for floor anchorage 30 cm output cable
TEMPERATURE RANGE	Operation: -10ºC ~ 50ºC	
HUMIDITY	<95%	
COLOUR	Granite stone	Green
DIMENSIONS	300 x 256 x 270 mm depth	265 mm Ø x 330 mm height.
WEIGHT	4.62 kg	5.65 kg

AMPLIFIERS

Mono

> Single-zone

Designed by FONESTAR

	PROX-15
POWER	15 W RMS
RESPONSE	20-20,000 Hz ±3 dB
DISTORTION	Harmonic < 1% at 1 kHz
INPUTS	1 x balanced/unbalanced mic, euroblock/jack 6.3 mm, 600 Ω 6 mV RMS 1 x aux, euroblock/2 x RCA, 47,000 Ω 300 mV RMS 1 x 100 V line, euroblock.
FUNCTIONS	1 x VOX control and 4 x priority levels. Indicator lights for power, protection, signal peak, and output signal Fanless induction cooling.
PLAYER	USB player with background music playback mode. FM digital tuner with presets and automatic scanning
IMPEDANCE	4 Ω and 100 V line, euroblock
POWER SUPPLY	230/115 V AC, 50 W and 12 V DC, 15 W
DIMENSIONS	254 x 84 x 225 mm depth

Designed by FONESTAR

	PROX-30	PROX-60
POWER	30 W RMS	60 W RMS
RESPONSE	20-20,000 Hz ±3 dB	
DISTORTION	Harmonic: < 1% at 1 kHz	
INPUTS	1 x balanced/unbalanced mic, euroblock/jack 6.3 mm, 600 Ω 6 mV RMS 1 x balanced microphone, euroblock, 600 Ω 6 mV RMS 2 x auxiliary, euroblock/2 x RCA, 47.000 Ω 300 mV RMS 1 x 100 V line, euroblock	
FUNCTIONS	2 x VOX controls and 5 x priority levels. Indicator lights for power, protection, signal peak, and output signal Fanless induction cooling.	
PLAYER	USB player with background music playback mode. FM digital tuner with presets and automatic scanning	
IMPEDANCE	4 Ω and 100 V line, euroblock	
POWER SUPPLY	230/115 V AC, 100 W	230/115 V AC, 200 W
DIMENSIONS	286 x 84 x 252 mm depth	286 x 84 x 225 mm depth

	PROX-15SP
FEATURES	PROX-15 mount for installation inside the car, van, etc. Easy and quick to mount and dismount on any type of vehicle
DIMENSIONS	53 x 78 x 48 mm depth

AMPLIFIERS

Mono

> Single-zone

Designed by FONESTAR

PRIORITY INPUT CH 1-2

Designed by FONESTAR

PRIORITY INPUT CH 1-3

	PROX-60S	PROX-120S
POWER	60 W RMS	120 W RMS
RESPONSE	60-20,000 Hz (-10 dB)	40-20,000 Hz (-10 dB)
DISTORTION	THD+N: < 1% @ 1 kHz	
S/N RATIO	>77 dB	
PROTECTIONS	Overcurrent, DC and short-circuit at the output	
INPUTS	CH 1 balanced mic/line with 48V Phantom, Combo (XLR + 6.3 mm) and euroblock connectors Remaining CH mic/line balanced with 48V phantom. Euroblock connector Mic signal level: 6 mV RMS (-44 dBV) / 600 Ω Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 2 x AUX. 2 x RCA and euroblock connector. Signal level 300 mV RMS (-10 dBV) / 47,000 Ω 1 x emergency. Euroblock connector. Speaker line signal level 100 V 1 x Mute (Emergency Priority) by contact closure. Euroblock connector	
OUTPUTS	1 x line. 2 x RCA connector. Signal level 1.25 mV RMS (+2 dBV) 100 V or 4 Ω speaker output. Screw terminals connector	
FUNCTIONS	1 x VOX control and 5 x priority levels. Indicator lights for power, protection, signal peak, and output signal Fanless induction cooling.	
POWER SUPPLY	230/115 V AC, 50-60 Hz, 200 W AC fuse 230 V 1.5 A / 115 V 3.15A	230/115 V AC, 50-60 Hz, 320 W AC fuse 230 V 3.15 A / 115 V 6 A
DIMENSIONS	320 x 94 x 281 mm depth	433 x 89 x 360 mm depth. 2 U 19" rack

	PROX-240S
POWER	240 W RMS
RESPONSE	60-20,000 Hz (-10 dB)
DISTORTION	THD+N: < 1% @ 1 kHz
S/N RATIO	>77 dB
PROTECTIONS	Overcurrent, DC and short-circuit at the output
INPUTS	CH 1 balanced mic/line with 48V Phantom. Combo (XLR + 6.3 mm) and euroblock connectors Remaining CH mic/line balanced with 48V phantom. Euroblock connector Mic signal level: 6 mV RMS (-44 dBV) / 600 Ω Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 2 x AUX. 2 x RCA and euroblock connector. Signal level 300 mV RMS (-10 dBV) / 47,000 Ω 1 x emergency. Euroblock connector. Speaker line signal level 100 V 1 x Mute (Emergency Priority) by contact closure. Euroblock connector
OUTPUTS	1 x line. 2 x RCA connector. Signal level 1.25 mV RMS (+2 dBV) 100 V or 4 Ω speaker output. Screw terminals connector
FUNCTIONS	1 x VOX control and 5 x priority levels. Indicator lights for power, protection, signal peak, and output signal Fanless induction cooling.
POWER SUPPLY	230/115 V AC, 50-60 Hz, 480 W Fuse AC 230 V 4 A / 115 V 8 A
DIMENSIONS	433 x 89 x 360 mm depth. 2 U 19" rack

Designed by FONESTAR

PRIORITY INPUT CH 1-4

AMPLIFIERS

Mono

> Multi-zone

Designed by FONESTAR

BLUETOOTH USB RADIO PRIORITY INPUT 2 ZONES (100 V) CH 1-2

Designed by FONESTAR

BLUETOOTH USB RADIO PRIORITY INPUT 3 ZONES (100 V) CH 1-3

	PROX-60Z	PROX-120Z
POWER	60 W RMS	120 W RMS
RESPONSE	60-20,000 Hz (-10 dB)	40-20,000 Hz (-10 dB)
DISTORTION	THD+N: < 1% @ 1 kHz	
S/N RATIO	>77 dB	
PROTECTIONS	Overcurrent, DC and short-circuit at the output	
INPUTS	CH 1 balanced mic/line with 48V Phantom, Combo (XLR + 6.3 mm) and euroblock connectors Remaining CH mic/line balanced with 48V phantom. Euroblock connector Mic signal level: 6 mV RMS (-44 dBV) / 600 Ω Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 2 x AUX. 2 x RCA and euroblock connector. Signal level 300 mV RMS (-10 dBV) / 47,000 Ω 1 x emergency. Euroblock connector. Speaker line signal level 100 V 1 x Mute (Emergency Priority) by contact closure. Euroblock connector	
OUTPUTS	1 x line. 2 x RCA connector. Signal level 1.25 mV RMS (+2 dBV) 100 V or 4 Ω speaker output, or 100 V speaker zones with 5-position volume selector and OFF. Screw terminals connector	
FUNCTIONS	1 x VOX control and 5 x priority levels. Indicator lights for power, protection, signal peak, and output signal Fanless induction cooling.	
PLAYER	USB/Bluetooth/FM player for playback of background music	
POWER SUPPLY	230/115 V AC, 50-60 Hz, 200 W AC fuse 230 V 1.5 A / 115 V 3.15A	230/115 V AC, 50-60 Hz, 320 W AC fuse 230 V 3.15 A / 115 V 6 A
DIMENSIONS	320 x 94 x 281 mm depth	433 x 89 x 360 mm depth. 2 U 19" rack

	PROX-240Z
POWER	240 W RMS
RESPONSE	40-20,000 Hz (-10 dB)
DISTORTION	THD+N: < 1% @ 1 kHz
S/N RATIO	>77 dB
PROTECTIONS	Overcurrent, DC and short-circuit at the output
INPUTS	CH 1 balanced mic/line with 48V Phantom. Combo (XLR + 6.3 mm) and euroblock connector. Remaining CH mic/line balanced with 48V phantom. Euroblock connector. Mic signal level: 6 mV RMS (-44 dBV) / 600 Ω Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 2 x AUX. 2 x RCA and euroblock connector. Signal level 300 mV RMS (-10 dBV) / 47,000 Ω 1 x emergency. Euroblock connector. Speaker line signal level 100 V 1 x Mute (Emergency Priority) by contact closure. Euroblock connector
OUTPUTS	1 x line. 2 x RCA connector. Signal level 1.25 mV RMS (+2 dBV) 100 V or 4 Ω speaker output, or 100 V speaker zones with 5-position volume selector and OFF. Screw terminals connector
FUNCTIONS	1 x VOX control and 5 x priority levels. Indicator lights for power, protection, signal peak, and output signal Fanless induction cooling.
PLAYER	USB/Bluetooth/FM player for playback of background music
POWER SUPPLY	230/115 V AC, 50-60 Hz, 480 W AC fuse 230 V 3.15 A / 115 V 8 A
DIMENSIONS	433 x 89 x 360 mm depth. 2 U 19" rack

Designed by FONESTAR

BLUETOOTH USB RADIO PRIORITY INPUT 4 ZONES (100 V) 120 W RMS/ zone max CH 1-4

AMPLIFIERS

Mono

> Multi-zone

Designed by FONESTAR

CLASS-D USB RADIO PRIORITY INPUT 3 ZONES (100 V) CH 1-3

	MAX-120Z
POWER	120 W RMS
RESPONSE	45-22,000 Hz (-10 dB)
DISTORTION	THD+N: <0.5% a 1 kHz
S/N RATIO	Mic >75 dB, Line >83 dB, Aux >81 dB
PROTECTIONS	Soft start, over-current, overload, over-temperature and short circuit
INPUTS	CH 1 balanced mic/line with 48V Phantom. Combo (XLR + 6.3 mm) and euroblock connector. Contact closure ring tones. Remaining CH mic/line balanced with 48V phantom. Euroblock connector. Contact closure ring tones. Mic signal level: 5.6 mV RMS (-45 dBV) / 600 Ω. Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 3 x AUX. 2 x RCA connector. Signal level 316 mV RMS (-10 dBV) / 47.000 Ω. 1 x emergency. Euroblock connector. Signal level: line 326 mV RMS (-10 dBV) or 100 V line Mute (Emergency Priority) by contact closure. Euroblock connector. 1 Amp-in. RCA connector, signal level 1.2 V RMS (+ 1.5 dBV).
OUTPUTS	1 x REC. 2 x RCA connector. Signal level 316 mV RMS (-10 dBV). Pre-master. 1 Pre-out. RCA connector. Signal level 1.2 mV RMS (+1.5 dBV) 100 V, 70 V or 4 Ω speaker output, or 3 x 100 V speaker zones with 7-position volume selector and OFF. Euroblock connector. 1 Attenuator priority, 24 V 100mA and contact closure. Euroblock connector.
FUNCTIONS	3 x VOX controls with 5 priority levels. Power ring light on volume control, AUX input, zone and player indicators. Power, signal, clip, priority activation and protection indicator lights Fanless induction cooling. Silent and maintenance-free
PLAYER	USB/FM player for background music playback
POWER SUPPLY	230/115 V AC 50-60Hz Power consumption: 175 W Fuse AC 230 V 2 A / 115 V 4 A
DIMENSIONS	430 x 89 x 320 mm depth. 2 U 19" rack

AMPLIFIERS

Mono

> Multi-zone

Designed by FONESTAR | CLASS-D | BLUETOOTH (NV) | USB | RADIO | PRIORITY INPUT | 4 ZONES (100 V) | CH 1-4

Designed by FONESTAR | CLASS-D | BLUETOOTH (NV) | USB | RADIO | PRIORITY INPUT | 5 ZONES (100 V) 240 W RMS/ zone max | CH 1-5

	MAX-240Z	MAX-360Z
POWER	240 W RMS	360 W RMS
RESPONSE	45-22,000 Hz (-10 dB)	
DISTORTION	THD+N: <0.5% a 1 kHz	
S/N RATIO	Mic >75 dB, Line >83 dB, Aux >81 dB	
PROTECTIONS	Soft start, over-current, overload, over-temperature and short circuit	
INPUTS	CH 1 balanced mic/line with 48V Phantom. Combo (XLR + 6.3 mm) and euroblock connector. Contact closure ring tones. (NV) Balanced CH mic/line inputs with 48V phantom. Euroblock connector. Contact closure ring tones. (NV) ZONEMIC-6 zone microphone, RJ45, up to 200 m cable length (NV) Remote wall panel, RJ45, 250 mV RMS (NV) Mic signal level: 5.6 mV RMS (-45 dBV) / 600 Ω. Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 3 x AUX. 2 x RCA connector. Signal level 316 mV RMS (-10 dBV) / 47,000 Ω 1 x emergency. Euroblock connector. Signal level: line 326 mV RMS (-10 dBV) or line 100 V Mute (Emergency Priority) by contact closure. Euroblock connector 1 Amp-in. RCA connector, signal level 1.2 V RMS (+ 1.5 dBV)	
OUTPUTS	1 x REC. 2 x RCA connector. Signal level 316 mV RMS (-10 dBV). Pre-master 1 Pre-out. RCA connector. Signal level 1.2 mV RMS (+1.5 dBV) 100 V, 70 V or 4 Ω speaker output, or 100 V speaker zones with 7-position volume selector and OFF. Euroblock connector 1 Attenuator priority, 24 V 100 mA and contact closure. Euroblock connector 1 x 3rd priority wire for attenuators (100 V) (NV)	
FUNCTIONS	3 x VOX controls with 5 priority levels. Power ring light on volume control, AUX input, zone and player indicators. Power, signal, clip, priority activation and protection indicator lights Fanless induction cooling. Silent and maintenance-free	
PLAYER	Bluetooth/USB/FM player for ambient music playback	
POWER SUPPLY	230/115 V AC 50-60Hz Power consumption: 345 W Fuse AC 230 V 4 A / 115 V 8 A	230/115 V AC 50-60Hz Power consumption: 490 W Fuse AC 230 V 6 A / 115 V 12 A
DIMENSIONS	430 x 89 x 320 mm depth. 2 U 19" rack	

COMING SOON Wall-mounted mixer **WALL-MIX**

AMPLIFIERS

Mono

> Multi-zone

Designed by FONESTAR

CLASS-D · BLUETOOTH · USB · RADIO · PRIORITY INPUT · 5 ZONES (100 V) · CH 1-5

	MAX-480Z	MAX-600Z
POWER	480 W RMS	600 W RMS
RESPONSE	45-22,000 Hz (-10 dB)	
DISTORTION	THD+N: <0.5% a 1 kHz	
S/N RATIO	Mic >75 dB, Line >83 dB, Aux >81 dB	Mic >73 dB, Line >80 dB, Aux >84 dB
PROTECTIONS	Soft start, over-current, overload, over-temperature and short circuit	
INPUTS	ZONEMIC-6 zone microphone, RJ45, up to 200 m cable length Remote wall panel, RJ45, 250 mV RMS CH 1, 2, 3, 4 and 5 mic/line balanced with 48V phantom. Combo (XLR + 6'.3 mm) and euroblock. Contact closure ring tones Mic signal level: 5.6 mV RMS (-45 dBV) / 600 Ω. Line signal level: 250 mV RMS (-12 dBV) / 100k Ω 3 x AUX. 2 x RCA connector. Signal level 316 mV RMS (-10 dBV) / 47.000 Ω. 1 x emergency. Euroblock connector. Signal level: line 326 mV RMS (-10 dBV) or line 100 V Mute (Emergency Priority) by contact closure. Euroblock connector 1 Amp-in. RCA connector. Signal level 1.2 V RMS (+ 1.5 dBV)	
OUTPUTS	1 x REC. 2 x RCA connector. Signal level 316 mV RMS (-10 dBV). Pre-master. 1 Pre-out. RCA connector. Signal level 1.2 mV RMS (+1.5 dBV) 100 V, 70 V or 4 Ω speaker output, or 5 zones of 100 V loudspeakers with 7-position volume selector and OFF (max. 240 W per zone). Euroblock connector 1 Attenuator priority, 24 V 100 mA and contact closure. Euroblock connector 1 x 3rd priority wire for attenuators (100 V)	
FUNCTIONS	3 x VOX controls with 7 priority levels. Power ring light on volume control, AUX input, zone and player indicators. Power, signal, clip, priority activation and protection indicator lights Fanless induction cooling. Silent and maintenance-free	
PLAYER	Bluetooth/USB/FM player for ambient music playback	
POWER SUPPLY	230/115 V AC 50-60Hz Power consumption: 680 W Fuse AC 230 V 4 A / 115 V 12 A	230/115 V AC 50-60Hz Power consumption: 750 W Fuse AC 230 V 6 A / 115 V 16 A
DIMENSIONS	430 x 89 x 320 mm depth. 2 U 19" rack	

AMPLIFIERS

Mono

> Zone control

	ZONE-6
FEATURES	6-zone output switching unit. Connection to the ZONEMIC-6 paging microphone, connection of up to 4 microphones. Possibility of activating the priority in attenuators by contact closure when giving warnings from the ZONEMIC-6 microphone. Status indicator lights for each zone.
INPUTS	1 x microphone with zone selector, RJ45
OUTPUTS	6 x balanced lines, euroblock 500mV
POWER SUPPLY	230 V AC 50/60 Hz, 2,9 W
DIMENSIONS	262 x 44 x 128 mm depth
WEIGHT	1.2 kg

Designed by FONESTAR

N!

	ZONEMIC-6
FEATURES	6-zone one-way electret condenser desktop microphone for ZONE-6 system. Remote playback of instant messages to 6 output zones. 2 pre-recorded message recorder. Musical warning tones (chime). Output gain control. Indicator lights for signal, power, clip limiter and busy status.
CAPSULE	One-way electret condenser
RESPONSE	80-15,000 Hz
SENSITIVITY	-46 dB (V/Pa) at 1 KHz
IMPEDANCE	680 Ω
THD	< 0.05 %
SWITCH	PTT/PTL (configurable)
INPUTS	1 x balanced mic 1 x mic with zone selector, RJ45
OUTPUTS	1 x mic with zone selector, RJ45
CONNECTION	RJ45 cable, max. distance 200 m
POWER SUPPLY	15 V DC, 500 mA, via RJ45 port
DIMENSIONS	Gooseneck microphone: 430 mm high Base: 200 x 60 x 120 mm depth
WEIGHT	0.5 Kg
ACCESSORIES	Wind-shield foam 4 GB internal microSD card

Designed by FONESTAR

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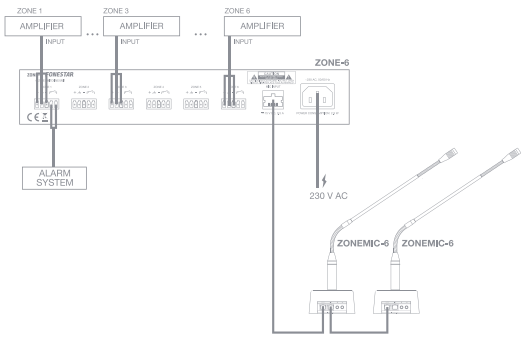
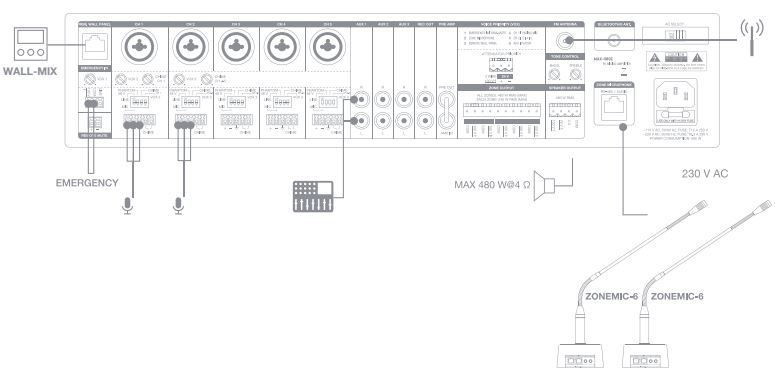


With MAX-240Z, MAX-360Z, MAX-480Z, MAX-600Z



AMPLIFIERS

Mono

> Matrix

PRIORITY INPUT | 4 ZONES | CH 1-5

	MAZ-0604	MAZ-1504
FEATURES	Matrix and multi-channel amplifier. Matrix allocation of 5 input channels to 4 output zones 4 x loudspeaker output zones and line. Zones with independent volume control. Priority of warnings by signal level and contact closure.	
POWER	4 x 60 W RMS	4 x 150 W RMS
RESPONSE	50-20,000 Hz (-3 dB)	
DISTORTION	THD+N: < 1%	
S/N RATIO	Mic >60 dB, Aux/Line >75 dB	
PROTECTIONS	Over-current, overload, over-temperature and short circuit Temperature-controlled ventilation cooling	
INPUTS	CH 1, 2 and 3 balanced mic/line with 15V Phantom. Combo Connector (XLR + 6.3 mm jack). Mic signal level: 2.8 mV RMS (-50 dBV) / 600 Ω Line signal level: 280 mV RMS (-15 dBV) / 15,000 Ω CH 4 and 5 aux. 2 x RCA connector. Signal level: 110 mV RMS (-18 dBV) / 50,000 Ω AUX auxiliary. 3.5 mm jack connector Signal level 25 mV RMS (-24 dBV). Tel. paging. Connector screw terminals. Signal level 316 mV RMS (-30 dBV) / 600 Ω	
OUTPUTS	4 x balanced lines zones 1 to 4. Connector screw terminals. 1 V RMS signal level 1 x headphone monitor. 6.3 mm jack connector. 1 x monitor on rear panel. Connector: screw terminals. Signal level 900 mV RMS / 600 Ω and 1 W / 8 Ω for loudspeaker	
IMPEDANCE	4 zones: 4 and 8 Ω and 100, 70 and 25 V lines, screw terminals	
FUNCTIONS	Input priority: CH 1 input and Tel. paging with priority over all other inputs by signal level Inputs CH 1, 2, 3 and Tel. paging with priority over auxiliary inputs by contact closure	
CONTROLS	CH 1 to 5: gain, bass, treble, volume and zone assignment Tel. paging: volume and zone selector Zones 1 to 4: volume and monitor selector Monitor: volume Auxiliary: volume	
TEMPERATURE	Operation: -20º ~ 45ºC Storage: -20º ~ 40ºC	
MAXIMUM HUMIDITY	70%	
POWER SUPPLY	230/115 V AC 50-60 Hz Power consumption: 380 W Fuse AC 230 V 3.15 A / 115 V 6.3 A	230/115 V AC 50-60 Hz Power consumption: 950 W Fuse AC 230 V 8 A / 115 V 16 A
DIMENSIONS	420 x 133 x 375 mm depth. 3 U 19" rack	
WEIGHT	12.8 kg	17.6 kg

AMPLIFIERS

Mono

> Matrix

	MAZ-6600RU
FEATURES	Matrix and multi-channel amplifier. Matrix allocation of 5 input channels to 6 output zones USB/SD player. Digital FM tuner. 6 zones with independent volume control. Phantom power supply. Musical alert tones. Priority paging. Remote control for USB/SD/FM player.
POWER	6 x 100 W RMS
RESPONSE	80-18,000 Hz ±3 dB
DISTORTION	Harmonic: < 0.5%
S/N RATIO	Microphones: > 65 dB Auxiliary: > 75 dB
INPUTS	1 x balanced mic, 6.3 mm jack, 4 mV RMS 2 x balanced mic./line, combo (XLR and 6.3 mm jack) 4 mV RMS / 400 mV RMS, switchable 1 x stereo auxiliary DVD/CD/AUX, 2 x RCA 220 mV RMS, 160 mV RMS, 110 mV RMS, selectable 1 x stereo aux, 3.5 mm jack, 200 mV RMS
OUTPUTS	1 x stereo monitor, 6.3 mm jack
PHANTOM	48 V on mic 2 and 3, selectable
PRIORITY	Mic 1 per signal level or contact closure, selectable
IMPEDANCE	6 zones: 8 Ω and 100 and 70 V lines, screw terminals
PLAYER	USB/SD player and FM digital tuner with presets and automatic scanning
CONTROLS	6 x zone buttons 1 to 6 for each input channel 2 to 5 and USB/SD/FM player Channels 1 to 4: volume, bass and treble control Zones 1 to 6: volume control, monitor selector switch Monitor volume
POWER SUPPLY	230-115 V AC, 1,000 W max
DIMENSIONS	420 x 133 x 376 mm depth. 3 U 19" rack
WEIGHT	17.5 kg

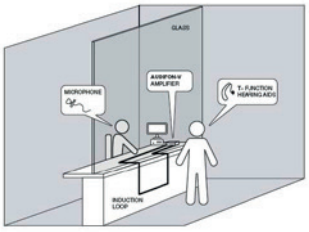
AMPLIFIERS

Mono

> Induction loop

Designed by FONESTAR

Facilitates communication through hearing aids (Tele-coil) by transmitting the signal from the auxiliary and microphone inputs in a magnetic field.



5 W RMS

1.2-20 m² COVERAGE AREA

LOOP FOR COUNTER 1.2 m²

UNIDIRECTIONAL CLIP-ON MICROPHONE

LED INDICATORS

	AUDIFON-V
FEATURES	Tele-coil hearing aid loop amplifier. Complete kit for window or counter installation.
POWER	5 W RMS, THD 2.5%
RESPONSE	35 – 20k Hz, -10 dBA
DISTORTION	THD+N <0.2%, 1 kHz, 1W
INPUTS	1 clip-on microphone, 3.5 mm TS jack, 1.5 mV, Phantom 5 V 1 mA 1 x AUX, jack 3'5 mm TRS, 250 mV
OUTPUTS	1 x Loop, Euroblock
FUNCTIONS	1.2 m² counter loop Extendable up to 20 m² (using a 4.5 x 4.5 m loop in 4 turns) LED operating indicators. Table-top or under-table installation.
PROTECTIONS	Overheating and overloading
LOOP	Counter loop 1.2 m² included. For loop extension use recommended cable 0.22 - 1.5 mm², max. length 70 m, impedance 0.5 - 3 Ohm.
CURRENT	2 A
CONTROLS	On/off Microphone and AUX volume Output volume
POWER SUPPLY	12 V DC, 1 A with adapter included Consumption: 10 W Standby power consumption: 0.5 W
DIMENSIONS	Amplifier: 155 x 35 x 75 mm depth Clip-on microphone cable: 1.40 m 70 x 70 cm loop cable (1.2 m² coverage) with 1.8 m extension cable
WEIGHT	0.3 kg
ACCESSORIES	Unidirectional clip-on microphone Loop cable T adhesive
CERTIFICATION	CE marking For compliance with EN IEC 60118-4:2015-A1:2018 (Electroacoustics. Hearing aids. Part 4: Induction loop systems for hearing aids. System performance requirements).

AMPLIFIERS

Stereo

USB WIFI

	WA-225W
FEATURES	Stereo Wi-Fi amplifier. Play music from your smartphone, tablet, Windows or Mac (DLNA and Airplay compatible). App for control from smartphones and tablets (iOS and Android), which allows connection to online music services and internet radio. Multiroom function. 6 x customisable pre-selection buttons. USB player and auxiliary input. Steel housing for surface mounting. Stereo speaker output.
POWER	20 + 20 W RMS at 4 Ω
RESPONSE	20-17,000 Hz -3 dB
DISTORTION	Harmonic: < 0.04% at 1 kHz
INPUTS	1 x aux, 3.5 mm jack, 7,700 Ω 1 V 1 x Ethernet RJ-45
OUTPUTS	1 x aux line, 2 x RCA Loudspeakers 4-8 Ω, push-in terminals
S/N RATIO	≤ 80 dB
CONTROLS	Playback control and 6 customisable preset buttons
POWER SUPPLY	15 V DC, 3 A with adapter included
DIMENSIONS	227 x 38 x 110 mm depth
WEIGHT	0.8 kg (adapter included)

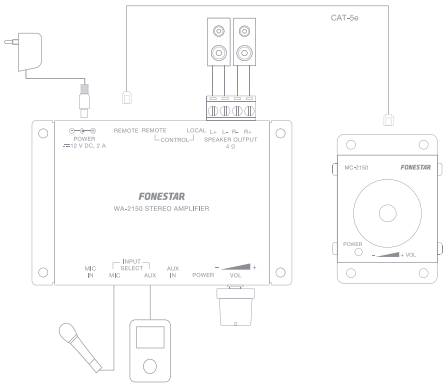
AMPLIFIERS

Stereo

CLASS-D

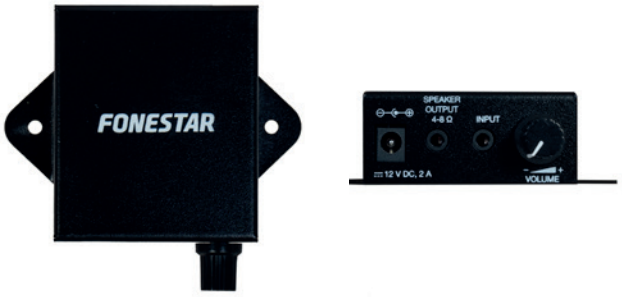
	WA-2150
FEATURES	Class D stereo amplifier. Steel housing for surface mounting. Control knob output for power on and volume adjustment. Stereo speaker output.
POWER	15 + 15 W RMS at 4 Ω
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: 0.06% at 1 kHz
INPUTS	1 x dynamic microphone, jack 6.3 mm mono 1 x aux line, 3.5 mm stereo jack,
OUTPUTS	4-8 Ω speakers, euroblock 1 x control unit, RJ-45
INDICATORS	LED power indicator
PROTECTIONS	Short circuit and temperature
CONTROLS	Master volume Input signal type selector: mic or line Volume control selector: local or remote
POWER SUPPLY	12 V DC, 2 A with adapter included
DIMENSIONS	113 x 31 x 98 mm depth
WEIGHT	0.34 kg (adapter included)
OPTIONAL	Remote control mod. MC-2150

	MC-2150
FEATURES	Remote control knob for switching on and adjusting the volume of the wall-mounted amplifier mod. WA-2150. Cat 5e cable connection
INPUTS	1 x control unit, RJ-45
INDICATORS	LED power indicator
CONTROLS	On/off Master volume
DIMENSIONS	48 x 61 x 41.5 mm depth



AMPLIFIERS

Stereo



	WA-2030
FEATURES	Stereo amplifier. Surface mounting case.
POWER	2 x 1.5 W RMS at 8 Ω
RESPONSE	40-40,000 Hz
DISTORTION	Harmonic: 0.4% at 1 kHz
INPUTS	1 x mic/line, 3.5 mm stereo jack
OUTPUTS	4-8 Ω speakers, 3.5 mm stereo jack
PROTECTIONS	Short circuit
POWER SUPPLY	12 V DC, 1 A with adapter included
DIMENSIONS	100 x 28 x 91 mm depth
WEIGHT	0.2 kg

MIXERS

Standard

	MX-824
FEATURES	Professional 12-channel mixer/preamplifier. Phantom power supply.
INPUTS	12 x balanced mics, XLR, 600 Ω 2.5 mV
OUTPUTS	1X1 x balanced master XLR 600 Ω 7 mV and unbalanced 2 x RCA 4.700 Ω 150 mV
CONTROLS	Volume per master input and output
RESPONSE	50-20,000 Hz
S/N RATIO	> 60 dB
PHANTOM	48 V in mics. 1 to 12, selectable
POWER SUPPLY	230/115 V AC, 10 W
DIMENSIONS	483 x 44 x 225 mm depth. 1 U 19" rack
WEIGHT	2.7 kg
ACCESSORIES	1 x RCA cable 1 x XLR cable

MIXERS

Standard

	MX-848
FEATURES	Mixer/preamplifier. Microphone input with paging priority. Phantom power supply. Output level light indicator.
INPUTS	6 x balanced microphones/lines, combo (XLR and 6.3 mm jack), 1,500 Ω 7.7 mV RMS and 10,000 Ω , 775 mV RMS switchable 3 x stereo auxiliary, 2 x RCA, 10,000 Ω 2.4 V RMS
OUTPUTS	1 x balanced stereo master, XLR 120 Ω 775 mV RMS 1 x balanced mono master, 6.3 mm jack, 120 Ω 775 mV RMS 1 x balanced mono mix out, 6.3 mm jack 120 Ω 775 mV RMS 1 x line out, 2 x RCA 120 Ω 775 mV RMS
CONTROLS	Tone: bass, mid and treble master output Volume: inputs 1 to 12 and overall volume (stereo master and mono)
RESPONSE	20-22,000 Hz
S/N RATIO	Microphones > 103 dB Aux/Line > 103 dB
DISTORTION	Harmonic: < 0.05% at 1 kHz
PHANTOM	18 V in mics. 1 to 6, selectable
POWER SUPPLY	230 V AC, 18 W y 24 V DC, 500 mA 115 V AC on request
DIMENSIONS	483 x 44 x 220 mm depth. 1 U 19" rack
PRIORITY	Mic 1 per signal level, selectable
WEIGHT	3 kg

	MX-875-SR
FEATURES	Mixer/preamplifier. 7 x channels, 6 x microphone channels and 1 x auxiliary line channel. Phantom power for XLR inputs. Feedback suppressor.
INPUTS	6 x balanced XLR and unbalanced mics, 6.3 mm jack 5.000 Ω 2.5 mV 1 x mono line, 2 x RCA, 5,000 Ω 1 V
OUTPUTS	1 x balanced master, 2 x XLR 500 Ω 130 mV RMS 1 x line unbalanced, 2 x RCA 600 Ω 750 mV RMS
CONTROLS	Volume, feedback suppression, phantom power, and master output volume
RESPONSE	20-20,000 Hz without feedback suppression 150-15,000 Hz with feedback suppression
FEEDBACK SUPPRESSOR	Frequency offset 5 Hz ±1 Hz
PHANTOM	48 V in mics. 1 to 6, selectable
POWER SUPPLY	230/115 V AC, 12 W
DIMENSIONS	483 x 44 x 225 mm depth. 1 U 19" rack
WEIGHT	2.6 kg
ACCESSORIES	1 x cable 2 x RCA 2 x cables XLR

MIXERS
Standard

	CB-119
FEATURES	Passive 3-microphone mixer with 1 auxiliary input. Mic level output for connection to 1 microphone input.
INPUTS	3 x unbalanced mic, 6.3 mm jack 1 x aux, 2 x RCA
OUTPUTS	1 x unbalanced mic, 6.3 mm jack
CONTROLS	Volume per input
DIMENSIONS	145 x 31 x 76 mm depth
WEIGHT	0.22 kg
ACCESSORIES	1 x audio cable, male 6.3 mm mono jack to male 6.3 mm mono jack, 1.8 m

MIXERS
Matrix

	MX-867RU
FEATURES	Mixer/preamplifier. Microphone input with paging priority. Matrix allocation of 5 input channels to 4 output zones, with independent volume control
INPUTS	1 x balanced mic, 6.3 mm jack, 12 mV RMS 1 x balanced mic, combo (XLR and 6.3 mm jack), 12 mV RMS 2 x balanced combo mics/lines (XLR and 6'3 mm jack) adjustable, 12 mV RMS and 640 mV RMS 1 x stereo aux, 2 x RCA, 230 mV RMS 1 x stereo aux, 3.5 mm jack, 450 mV RMS
OUTPUTS	4 x balanced zones, XLR, 2.5 V RMS Remote volume control of zones 1 x stereo monitor, 6.3 mm jack, 1 V RMS
CONTROLS	4 x microswitches for zone allocation 1 to 4 Inputs 1 to 4: volume control Inputs 2 and 3: gain control Zones 1 to 4: volume control Monitor: volume control and zone selection USB/SD player FM tuner
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: < 0.2 % at 1 kHz
S/N RATIO	Microphones > 65 dB Aux/Line > 80 dB
PHANTOM	48 V on mic 2 and 3, selectable
PRIORITY	Mic 1 per signal level, selectable
POWER SUPPLY	230/115 V AC, 9 W
DIMENSIONS	483 x 44 x 230 mm depth. 1 U 19" rack
WEIGHT	3.15 kg

POWER AMPLIFIERS

Single channel

> *Analogue*

	FS-1240E	FS-2601E
FEATURES	Mono power amplifier.	
POWER	300 W max, 240 W RMS	700 W max, 600 W RMS
RESPONSE	50-22,000 Hz ±3 dB	
DISTORTION	Harmonic: < 0.5%	
INPUTS	1 x balanced auxiliary line, XLR and 6.3 mm jack 20,000 Ω, 1 V	1 x balanced auxiliary line, XLR and 6.3 mm jack 20,000 Ω, 1 V RMS
OUTPUTS	1 x balanced auxiliary line, XLR and 6.3 mm jack	
FUNCTIONS	Forced ventilation with temperature sensitive speed Automatic input signal compression LED indicators for temperature, protection, signal peak and output signal	
PROTECTIONS	3 circuits: over temperature, short circuit, overload	3 circuits: over temperature, short circuit, overload Soft start. RF filter 500 kHz - 80 MHz
CONTROLS	Tone: bass, mid and treble ±12 dB Master volume	
IMPEDANCE	4 and 8 Ω and 100 and 70 V lines, screw terminals and banana plugs	
TEMPERATURE	Operation: -20ºC ~ 50ºC	
MAXIMUM HUMIDITY	95%	
POWER SUPPLY	230/115 V AC, 600 W max. and 24 V DC, 480 W	230 V AC, 1,000 W max Resettable fuse 6 A
DIMENSIONS	483 x 89 x 329 mm depth. 2 U 19" rack	483 x 89 x 435 mm depth. 2 U 19" rack
WEIGHT	11.8 kg	17 kg

	FS-11000E
FEATURES	Mono power amplifier.
POWER	1,250 W max, 1,000 W RMS
RESPONSE	30-20,000 Hz ±3 dB
DISTORTION	Harmonic: < 1 %
INPUTS	1 x balanced/unbalanced aux line, XLR, euroblock/6.3 mm jack and 2 x RCA 10,000 Ω, 1.4 V RMS/1 V RMS
OUTPUTS	1 x balanced/unbalanced aux line, XLR, euroblock/6.3 mm jack and 2 x RCA
FUNCTIONS	Forced ventilation with temperature sensitive speed Protection, signal peak and output signal LED indicators
PROTECTIONS	2 circuits: overtemperature and short circuit
CONTROLS	Master volume on the rear panel GND lift ground disconnection
IMPEDANCE	4 Ω and 100 and 70 V lines, screw terminals
POWER SUPPLY	230-115 V AC, 1,400 W max
DIMENSIONS	483 x 133 x 440 mm depth. 3 U 19" rack
WEIGHT	21.5 kg

POWER AMPLIFIERS

Multi-channel

> Digital

CLASS-D

Dante

	FSD-2150E	FSD-2500E
FEATURES	2-channel power amplifier. 100 V or 70 V output for public address systems. Class D amplifier with high efficiency and high reliability thanks to low maintenance protection circuits. Secure, easy-to-connect euroblock connectors. Great sound quality and low noise.	
POWER	2 x 135 W RMS (2 channels), 1 x 150 W RMS (1 channel)	2 x 400 W RMS (2 channels), 1 x 480 W RMS (1 channel)
INPUTS	2 x balanced/unbalanced auxiliary lines, euroblock, 20,000 Ω/10,000 Ω, 0.9-1.1 V RMS 1 x emergency/test, euroblock, 1 V RMS (0 dBV)	2 x balanced/unbalanced auxiliary lines, euroblock, 20.000 Ω/10.000 Ω, 1 V RMS (0 dBV) 1 x emergency/test, euroblock, 1 V RMS (0 dBV)
OUTPUTS	1 x GPIO fault signalling output, 5 V DC, euroblock	
PROTECTIONS	Overload, short circuit, open circuit, over temperature, ultrasonic and radio frequency	
FUNCTIONS	Forced ventilation with temperature sensitive speed Power on, protection, priority and signal peak indicator lights Emergency input priority/test by contact closure, euroblock Disabling/muting by contact closure, euroblock	
CONTROLS	Volume of each channel 100/70 V selector switch on rear panel	
S/N RATIO	>95 dB	
IMPEDANCE	100 and 70 V line, euroblock	
RESPONSE	20-20,000 Hz	
DISTORTION	THD+N: <0.04% (1 kHz)	
GAIN	40 dB	
DIAPHONY	>85 dB	
DYNAMIC RANGE	>105 dBA	
DAMPING FACTOR	>200 (1 kHz, 8 Ω)	
TEMPERATURE RANGE	Operation: 0ºC ~ 50ºC	
POWER SUPPLY	230 V AC, 400 W max 115 V AC on request	230 V AC, 1,200 W max 115 V AC on request
DIMENSIONS	483 x 44 x 380 mm depth. 1U 19' rack	
WEIGHT	4.75 kg	5.15 kg

POWER AMPLIFIERS

Multi-channel

> Digital

CLASS-D

Dante®

	FSD-4500E
FEATURES	4-channel power amplifier. 100 V or 70 V output for public address systems. Class D amplifier with high efficiency and high reliability thanks to low maintenance protection circuits. Secure, easy-to-connect euroblock connectors. Great sound quality and low noise.
POWER	4 x 400 W RMS (4 channels), 2 x 480 W RMS (1 channel for each group A/B or C/D)
INPUTS	4 x balanced/unbalanced auxiliary lines, euroblock, 20.000 Ω/10.000 Ω, 1 V RMS (0 dBV) 1 x emergency/test, euroblock, 1 V RMS (0 dBV)
OUTPUTS	1 x GPIO fault signalling output, 5 V DC, euroblock
PROTECTIONS	Overload, short circuit, open circuit, over temperature, ultrasonic and radio frequency
FUNCTIONS	Forced ventilation with temperature sensitive speed Power on, protection, priority and signal peak indicator lights Emergency input priority/test by contact closure, euroblock Disabling/muting by contact closure, euroblock
CONTROLS	Volume of each channel 100/70 V selector switch on rear panel
S/N RATIO	>95 dB
IMPEDANCE	100 and 70 V, euroblock
RESPONSE	20-20,000 Hz
DISTORTION	THD+N: <0.04% (1 kHz)
GAIN	40 dB
DIAPHONY	>85 dB
DYNAMIC RANGE	>105 dBA
DAMPING FACTOR	>200 (1 kHz, 8 Ω)
TEMPERATURE RANGE	Operation: 0ºC ~ 50ºC
POWER SUPPLY	230 V AC, 2,700 W max 115 V AC on request
DIMENSIONS	483 x 44 x 380 mm depth. 1 U 19" rack
WEIGHT	6.4 kg

POWER AMPLIFIERS

Multi-channel

> Digital

	FSD-22D	FSD-44D
FEATURES	DANTE expansion module. Compatible with FSD-2150E and FSD-2500E public address power amplifiers. Connections via RJ-45 cable, Cat 5e. 2 x DANTE ports, 2 x RJ-45 (Primary and Secondary). Device auto-discovery.	DANTE expansion module. Compatible with FSD-4500E public address power amplifier. Connections via RJ-45 cable, Cat 5e. 2 x DANTE ports, 2 x RJ-45 (Primary and Secondary). Device auto-discovery.
CHANNELS	2 x 2 digital audio input/output	4 x 4 digital audio input/output
SAMPLING RATE	44.1 kHz, 48 kHz, 88.2 kHz and 96 kHz	
BIT DEPTH	16, 24 and 32 bits	
CONNECTION	RJ-45, Cat 5e cable	
LATENCY	1 ms	
DIMENSIONS	96 x 20 x 88 mm depth	
WEIGHT	0.12 kg	

AUXILIARY EQUIPMENT

Audio processors

	SR-1590
FEATURES	Feedback suppressor. Frequency offset 5 Hz ±1 Hz. Mono mode.
RESPONSE	20-20,000 Hz without feedback suppression 150-15,000 Hz with feedback suppression
INPUTS	1 x balanced mic, XLR 5.000 Ω 2.5 mV 1 x unbalanced line, 6.3 mm jack 5.000 Ω 1 V 1 x aux, 2 x RCA 5.000 Ω 1 V
OUTPUTS	1 x balanced microphone, XLR 600 Ω, 100 mV 1 x unbalanced line, 6.3 mm jack 600 Ω 1.5 V 1 x aux, 2 x RCA 600 Ω 1.5 V RMS
CONTROLS	GND Lift ground disconnection
POWER SUPPLY	230/115 V AC, 12 W
DIMENSIONS	483 x 44 x 210 mm depth. 1 U 19" rack
WEIGHT	2.4 kg
ACCESSORIES	1 x RCA cable 1 x XLR cable 1 x 6.3 mm jack to RCA cable

AUXILIARY EQUIPMENT

Selectors

	CB-2	CB-4
FEATURES	2-way stereo selector switch for two pairs of baffles. Converts 1 output to 2. Selection by switches. For 4-8 Ω low Z speakers.	4-way stereo selector switch for two pairs of speakers. Converts 1 audio amplifier output to 4. Switch selection (on/off). Maximum power 2x200 W total, 50 W per channel. For amplifiers with 4 Ohm output 8 Ω speaker connection. Adapts the output to load the amplifier correctly (between 16 and 4 Ohm).
WEIGHT	0.45 kg	0.5 kg

AUXILIARY EQUIPMENT

Selectors

	CB-400V	SL-400V
FEATURES	8 Ω 4-line stereo speaker selector with independent volume control and A or B input selection. Attenuation with autotransformer. Each output can be switched on/off individually.	100 V 4-line mono loudspeaker selector with independent volume control and A or B input selector. Attenuation with autotransformer. Each output can be switched on/off individually.
POWER	The CB-400V can handle at the input 100 W RMS per channel L / R, from the inputs A and B. It is recommended to connect amplifiers with a maximum power of 2 x 100 W RMS @ 8 Ohm. At the output it is recommended to use one 8 Ohm loudspeaker in each L / R channel of each zone, which can support at least 50 W RMS / 100 W maximum power.	300 W max, 150 W RMS per output channel
INPUTS	2 x amplifier lines 8 Ω	2 x 100 V line amplifiers
OUTPUTS	4 x loudspeaker lines 8 Ω	4 x loudspeaker lines 100 V, 150 W RMS per output channel
CONTROLS	On/off, A/B input selector and 12-way independent volume control	On/off, A/B input selector and 12-position independent volume control, 42 dB attenuation
DIMENSIONS	430 x 58 x 158 mm depth. 1.5 U 19" rack	432 x 76 x 190 mm depth. 1.7 U 19" rack
WEIGHT	2.8 kg	2.8 kg

AUXILIARY EQUIPMENT

Pre-amplifiers

	TC-6MX
FEATURES	Microphone to auxiliary pre-amplifier. Individual volume control for each channel. Individual or mixed output selection.
INPUTS	2 x mics, 6.3 mm mono jack, 600 Ω 7 mV max.
OUTPUTS	2 x auxiliary, RCA 47,000 Ω 1'6 V
RESPONSE	20-20,000 Hz
INDICATORS	LED power indicator
S/N RATIO	> 80 dB
GAIN	50 dB
POWER SUPPLY	12 V DC, 0.2 A with adapter included
DIMENSIONS	133 x 31 x 85 mm depth
WEIGHT	0.3 kg

	TC-47
FEATURES	Stereo pre-amplifier for line signal. 0 to 15 dB gain.
INPUTS	1 x aux, 2 x RCA, max. level 3 V RMS@0dB, 0.5 V RMS@15dB, 47,000 Ω
OUTPUTS	1 x aux, 2 x RCA, max. 3 V RMS, 100 Ω
RESPONSE	20-20,000 Hz
INDICATORS	LED power indicator
S/N RATIO	> 85 dB
DISTORTION	THD < 0.002%
POWER SUPPLY	12 V DC, 0.5 A with adapter included
DIMENSIONS	73 x 43 x 109 mm depth
WEIGHT	0.16 kg

PLAYERS

Audio

Designed by FONESTAR

BLUETOOTH USB REC RADIO PRIORITY INPUT

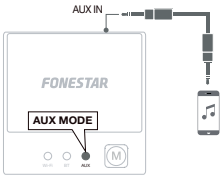
	MIXPLAY-1
FEATURES	Bluetooth/USB/FM player. Recording function. Microphone input mixer with auxiliary or player. Microphone priority by signal level. Optical or coaxial digital audio input. Auxiliary inputs. 3 x master outputs. Stereo/mono selector for outputs. Output for active subwoofer. Bass, midrange, treble and balance control. Remote control of the player.
RESPONSE	20-20,000 Hz
DISTORTION	THD+N: < 0.1% @ 1 kHz
S/N RATIO	Mic >60 dB Aux >70 dB
INPUTS	1 x MIC balanced Micro. Combo (XLR + 6.3 mm) connector. Signal level 30 mV RMS (-30 dBV) / 600 Ω (@ balanced and unbalanced output 1 V RMS) 2 x AUX and LINE. 2 x RCA connector. Signal level: 350 mV RMS (-9 dBV) / 47K Ω (@ balanced output 1 V RMS). Signal level: 750 mV RMS (-2.5 dBV) / 47K Ω (@ unbalanced output 1 V RMS) 1 x digital audio (optical or coaxial). Connectors, TOSLINK and RCA. Priority of the optical input over the coaxial input
OUTPUTS	OUT 1 and OUT 2 unbalanced output. 2 x RCA connectors. Signal level: 1 V RMS (0 dBV), max. 6.5 V RMS (16 dBV) @ THD 1% / 1K5 Ω OUT 3 balanced output. 2 x XLR connectors. Output level: 1 V RMS (0 dBV), max. 6.5 V RMS (16 dBV) @ THD 1% / 1K5 Ω 1 REC. 2 x RCA connectors. Signal level. 1 V RMS (0 dBV) / 1K5 Ω 1 x Subwoofer. RCA connector. Signal level: 1 V RMS (0 dBV) / 1K5 Ω 1 x Headphones. 6.3 mm stereo connector
FUNCTIONS	Microphone priority by signal level over all other inputs, level selectable Mono/stereo output selector for OUT 1, OUT 2 and OUT 3
PLAYER	Bluetooth/USB/FM player Supported MP3, WMA and WAV files USB recorder of the microphone mix and AUX or Line inputs (does not record digital audio input) USB sticks of 64 GB maximum, FAT32 and NTFS format USB flash drive autoplay, starts playback automatically in USB mode on power-up Playback mode memory (random, repeat)
CONTROLS	Microphone volume. Input selector or player Volume of AUX, LINE, DIGITAL and player inputs with balance, bass, mid and treble control Mono/stereo selector for outputs Player/recorder controls GND lift ground disconnection
POWER SUPPLY	230/115 V AC, 7 W
DIMENSIONS	433 x 45 x 155 mm depth. 1 U 19” rack
WEIGHT	1.9 kg

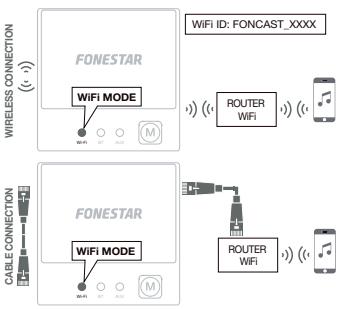
PLAYERS

Audio

	CD-2000UDJ
FEATURES	CD/USB/SD player. CD player mechanism with front slot-in loading system. USB port for memory and hard drive connection FAT32 format. SD card reader. USB/SD memory sticks up to 32 GB. Pitch control playback speed adjustment ±16%. Gapless function, no pause between songs on CD Audio and MP3. Remote control.
OUTPUTS	1 x stereo audio, 2 x RCA, 1 V RMS 1 x stereo balanced audio, 2 x XLR, 1 V RMS
RESPONSE	20-20,000 Hz
POWER SUPPLY	230/115 V AC, 20 W
DIMENSIONS	483 x 44 x 266 mm depth. 1 U 19" rack
WEIGHT	3.25 kg
ACCESSORIES	2 x RCA connection cable Batteries for remote control

	FONCAST
FEATURES	Wi-Fi receiver. APP for control from smartphones and tablets. (WiiM and GGMM-E series recommended). Wi-Fi playback for playlist streaming services, online music services and internet radio. Auxiliary input. Auxiliary and optical output. Remote control.
INPUTS	1 aux, 3.5 mm stereo jack 1 x ethernet, RJ-45
OUTPUTS	1 x digital audio, toslink 1 x aux, 3.5 mm stereo jack
RESPONSE	20-20,000 Hz
POWER SUPPLY	5 V DC, 1 A with adapter included
DIMENSIONS	76 x 19 x 76 mm depth
WEIGHT	0.1 kg
ACCESSORIES	MicroUSB charging cable 3.5 mm stereo to 3.5 mm stereo audio cable 3.5 mm stereo to 2 x RCA audio cable





PLAYERS

Audio and video

	DVD-7900
FEATURES	DVD/CD/USB player. DVD, CD audio and MP3 player with tray loading mechanism. USB host port for connection of USB flash drives with FAT32 file format. Auto-play function on power-on and memory of last file played. Remote control.
OUTPUTS	Audio/Video: VGA, D15 female Stereo audio, 2 x RCA 2 x mono audio, RCA Digital audio coaxial, RCA Component video Y, Pb, Pr, 3 x RCA Composite video, RCA S-Video, DIN 4
FUNCTIONS	USB player for USB memory sticks up to 32 GB
POWER SUPPLY	115-230 V AC, 15 W
DIMENSIONS	482 x 44 x 250 mm depth. 1 U 19" rack
WEIGHT	2.4 kg
ACCESSORIES	2 x RCA connection cable Batteries for remote control

SOUND KITS

Wall

	KS-AMP
FEATURES	Sound kit: compact stereo amplifier. Stereo player with Bluetooth receiver, USB player and FM tuner with 50 presets and auto search. Autoplay, starts playback automatically when switched on. Memory of the last selected mode. Playback mode memory (random, repeat). 2.15" LCD display of mode and playback information. Configurable maximum volume. Shut-off timer. Bass and treble equalization. Mono/stereo output selector of the player. Priority on auxiliary input 2 selectable for emergency messages or announcements. Control via touch buttons or via included remote control. 2 x line level auxiliary inputs (mono). For square and round universal standard case.
POWER	25 + 25 W RMS@4 Ω 15 + 15 W RMS@8 Ω
BLUETOOTH	Bluetooth 5.0 10 m transmission distance
INPUTS	1 x aux line 1, 3.5 mm jack, 200 mV RMS 1 x aux line 2, euroblock, 200 mV RMS, with selectable priority function 1 x FM antenna
OUTPUTS	Loudspeakers: 4-8 Ω, euroblock
POWER SUPPLY	100-240 V AC
DIMENSIONS	Exterior: 83 x 83 x 39 mm depth Assembly: 47 x 47 x 27 mm depth Distance between screws: 60 mm
WEIGHT	0.1 kg
COLOUR	White (RAL 9003)
OPTIONAL	DOT-BOX-B: surface-mounting box

NEW VERSION

Designed by FONESTAR

BLUETOOTH · USB · 2 AUX LINES · RADIO · MONO/STEREO · PRIORITY INPUT (NV) · BATTERIES INCLUDED

NEW VERSION

Designed by FONESTAR

KS-WALL

Sound kit: KS-AMP compact stereo amplifier with 2 x SPEAK-6, 6" ceiling speakers.

BLUETOOTH · USB · 2 AUX LINES · RADIO · MONO/STEREO · SPEAKER CABLE · ANTENNA CABLE · PRIORITY INPUT (NV) · BATTERIES INCLUDED

NEW VERSION

Designed by FONESTAR

KS-WALL-4

Sound kit: KS-AMP compact stereo amplifier with 4 x SPEAK-6, 6" ceiling speakers.

BLUETOOTH · USB · 2 AUX LINES · RADIO · MONO/STEREO · SPEAKER CABLE · ANTENNA CABLE · PRIORITY INPUT (NV) · BATTERIES INCLUDED

SOUND KITS

Ceiling

BLUETOOTH · USB · AUX · MONO/STEREO · FRAMELESS DESIGN · BATTERIES INCLUDED · SPEAKER CABLE · EXTENSION CABLE

	KS-12B
FEATURES	Pair of Bluetooth ceiling loudspeakers. Active loudspeaker with integrated amplifier and passive speaker output. Bluetooth receiver. USB player for mp3 and wav files. Line input. Automatic standby function after 10 minutes without audio signal. Stereo or mono operation mode. Maximum volume limit between 100% and 50%. 5 selectable equalisations. Coaxial speakers with high sound quality. Aluminium protective frameless grille. Remote control included
SPEAKERS	Coaxial: 6” woofer and 1” tweeter (active and passive) @ 8 Ω
BLUETOOTH	Bluetooth 5.3 10 m transmission distance.
INPUTS	1 x stereo aux, euroblock
RESPONSE	60-20,000 Hz
S/N RATIO	92 dB
SENSITIVITY	89 dB at 1W/1m
MAXIMUN SOUND PRESSURE	101 dB at max W/1m
MATERIALS	ABS enclosure Frameless aluminium round grille
CONTROLS	Volume limiter (50% and 100%) Stereo/mono selector 5 equalisations USB play mode (random, repeat all, repeat 1)
AMPLIFIER	2 x 20 W RMS
CONNECTORS	Euroblock
POWER SUPPLY	24 V DC, 3 A with adapter included
DIMENSIONS	Loudspeakers: 185 mm Ø x 75 mm depth Cutting hole: 170 mm Ø
WEIGHT	1.5 kg
COLOUR	White (RAL 9003)

SOUND KITS

Ceiling

BLUETOOTH · WIFI · AUX · SPEAKER CABLE · BATTERIES INCLUDED · FRAMELESS DESIGN

	KS-08WIFI
FEATURES	Pair of Wi-Fi and Bluetooth ceiling loudspeakers. Active loudspeaker with amplifier and output for passive loudspeaker. Play music from your smartphone, tablet, Windows or Mac (DLNA and Airplay compatible). App for control from smartphones and tablets (iOS and Android), which allows connection to online music services and internet radio (WiiM). Bluetooth receiver. Line input. Multiroom function. Frameless, low-profile grille. Remote control.
SPEAKERS	Coaxial: 6 1/2" woofer, kevlar and 1" tweeter (active and passive) @ 8 Ω
BLUETOOTH	Bluetooth 5.0 10 m transmission distance.
INPUTS	1 x stereo aux, 3.5 mm jack, 1 V RMS 1 x RJ-45 Ethernet (Ethernet data connection)
RESPONSE	80-20,000 Hz
S/N RATIO	≤ 92 dB
SENSITIVITY	89 dB @ 1 W/1 m
MATERIALS	ABS enclosure Frameless round grille
AMPLIFIER	2 x 25 W RMS
POWER SUPPLY	24 V DC, 3 A with adapter included
DIMENSIONS	Loudspeakers: 230 mm Ø x 160 mm depth Cutting hole: 203 mm Ø
WEIGHT	4 kg
COLOUR	White

ATTENUATORS

100 V line

Designed by FONESTAR

	NEW VERSION	NEW VERSION	NEW VERSION	NEW VERSION
	DOT-12TR	**DOT-30TR**	**DOT-60TR**	**DOT-100TR**
FEATURES	100 V line attenuator with autotransformer for flush or surface mounting. 2-wire input and 3- and 4-wire (24 v) priority systems.			
POWER	12 W maximum	30 W maximum	60 W maximum	100 W maximum
INPUTS	High Z 100 V line			
OUTPUTS	High Z 100 V line			
CONTROLS	10 dimming and off positions (NV)			
RELAY	24 V, 200 mW, 8 mA.			
DIMENSIONS	Total: 83 x 83 x 50 mm depth Inset: 50 x 50 x 38 mm depth			
WEIGHT	0.15 kg	0.15 kg	0.2 kg	0.2 kg
	For universal standard square box, round box for plasterboard partitions and for surface mounted box mod. DOT-BOX. Distance between screws: 60 mm			

ATTENUATORS

Low impedance

> Mono

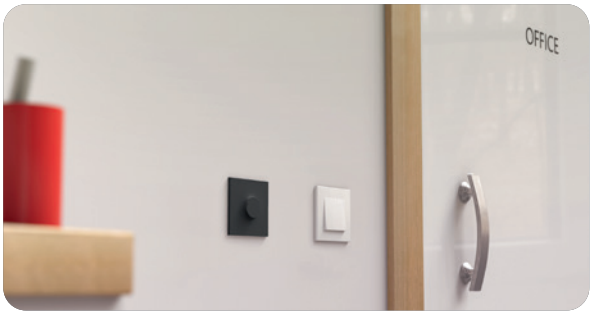
Designed by FONESTAR

	NEW VERSION	NEW VERSION	NEW VERSION	NEW VERSION
	DOT-10M	**DOT-30M**	**DOT-60M**	**DOT-100M**
FEATURES	Low impedance mono attenuator for flush or surface mounting. The transformer provides higher sound quality and precision volume control.			
POWER	10 W maximum	30 W maximum	60 W maximum	100 W maximum
OUTPUTS	Low Z for 4 Ω, 8 Ω speakers			
CONTROLS	10 dimming and off positions (NV)			
DIMENSIONS	Total: 83 x 83 x 33 mm depth Inset: 50 x 50 x 21 mm depth	Total: 83 x 83 x 33 mm depth Inset: 50 x 50 x 21 mm depth	Total: 83 x 83 x 50 mm depth Inset: 50 x 50 x 38 mm depth	Total: 83 x 83 x 50 mm depth Inset: 50 x 50 x 45 mm depth
WEIGHT	0.1 kg	0.1 kg	0.2 kg	0.2 kg
	For universal standard square box, round box for plasterboard partitions and for surface mounted box mod. DOT-BOX. Distance between screws: 60 mm			

ATTENUATORS
Low impedance

> Stereo

Designed by FONESTAR



	DOT-210ST
FEATURES	Stereo low impedance attenuator for flush or surface mounting.
POWER	10 + 10 W maximum
OUTPUTS	Low Z for 4 Ω, 8 Ω speakers
CONTROLS	6 dimming and off positions
DIMENSIONS	Total: 83 x 83 x 43 mm depth Inset: 50 x 50 x 35 mm depth
WEIGHT	0.1 kg
	For universal standard square box, round box for plasterboard partitions and for surface mounted box mod. DOT-BOX. Distance between screws: 60 mm

ATTENUATORS
Accessories

Designed by FONESTAR

NEW VERSION

	DOT-01N	DOT-BOX-B	DOT-BOX-N
FEATURES	DOT series attenuator panel with 10 positions. (NV)	Universal standard square ABS surface mounted enclosure for DOT series attenuators.	
DIMENSIONS	83 x 83 x 13 mm depth	83 x 83 x 50 mm depth Distance between screws: 60 mm	83 x 83 x 50 mm depth Distance between screws: 60 mm
COLOUR	Black	White	Black

PORTABLE SYSTEMS

Amplifiers

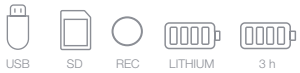
USB MicroSD RADIO AUX REC LITHIUM 9 h TRANSPORT BAG

LITHIUM 2 h UHF

	ALTA-VOZ-30	ALTA-VOZ-W30
FEATURES	Portable waist amplifier. USB/microSD recorder/player. Digital FM tuner. Recording 128 Kbps. Autonomy: 9 h average volume. Great range. Ultra-lightweight.	
	-	UHF wireless microphone. Up to 35 m between microphone and amplifier.
POWER	30 W maximum 10 W RMS	
SPEAKERS	3' with neodymium magnet	
RESPONSE	120-12,000 Hz	
MICROPHONE	1 m cable. 3.5 mm stereo jack connector	One-way electret condenser hands-free head-worn condenser with UHF 600-700 MHz transmitter (60 channels)
INPUTS	1 x electret microphone, 3.5 mm stereo jack 680 Ω 3 mV 1 x aux 3'5 mm stereo jack 22,000 Ω 600 mV	
CONTROLS	On/off volume Recorder/player touchscreens	
POWER SUPPLY	Rechargeable Li-ion battery, 2.000 mAh 3.7V Charging time: 3 h	Amplifier: Rechargeable Li-ion battery, 2,000 mAh 3.7V Charging time: 3 h Wireless microphone: Rechargeable Li-ion battery, 560 mAh 3.7V Charging time: 2 h
DIMENSIONS	90 x 116 x 32 mm depth	
WEIGHT	0.2 kg	0.25 kg
ACCESSORIES	USB to micro USB cable for recharging Transport belt Carrying bag	Wired microphone USB to micro USB cable for recharging Transport belt Carrying bag

PORTABLE SYSTEMS

Megaphones



	MF-114SU	MF-600SGU
FEATURES	Megaphone with siren and USB/SD/MP3 player.	Megaphone with siren, USB/SD player, 15-second recorder, rechargeable Lithium battery and hand-held microphone.
POWER	25 W max, 10 W RMS	25 W max, 10 W RMS
MICROPHONE		Hand-held with extensible cable
POWER SUPPLY	8 x LR14-C batteries Input for 12 V DC, connector 5.5 x 2.1 mm	1,300 mAh rechargeable lithium battery (included) Autonomy with rechargeable battery: over 3 hours at maximum volume Battery charging time: Up to 2 hours approx. 8 x LR14-C batteries Input for 12 V DC, connector 5.5 x 2.1 mm
DIMENSIONS	23 cm Ø x 37 cm length	23 cm Ø x 34 cm length
WEIGHT	0.9 kg	1 kg

PORTABLE SYSTEMS

Vehicles

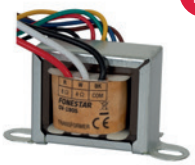
	PEM-15
1 x PROX-15	PA amplifier with USB/FM player, 15 W RMS Microphone input with mix, gain and priority level control Tone controls
1 x PROX-15SP	Amplifier mount for vehicles
1 x MCD-364	Communications microphone
2 x FE-1310	Horn loudspeakers, 30 W RMS
WEIGHT	6.9 kg
ACCESSORIES	Speaker wiring and cigarette lighter socket connection 12 V DC

	SAV-4
FEATURES	Square loudspeaker mount with suction cups and adjustable safety strap, for installation on the roof of a car, van, etc. With holes for horn loudspeaker mods. FE-1210, FE-107, FE-149 or similar. Easy and quick to mount and dismount on any type of vehicle
DIMENSIONS	31 x 5 x 31 cm depth
WEIGHT	1.7 kg

PUBLIC ADDRESS ACCESSORIES

Transformers

	TFL-100
FEATURES	100 V line transformer to auxiliary line signal. Adjustable output level. Isolated DC input and output.
INPUTS	1 x 100 V line, euroblock
OUTPUTS	1 x unbalanced auxiliary line, 1 x RCA and XLR, 0-1.5 V adjustable
DIMENSIONS	173 x 60 x 90 mm depth
WEIGHT	0.55 kg



	CV-1905	CV-1910	CV-1915
POWER	100 V line: 5 W, 3 W, 2 W, 1 W, 0.5 W	100 V line: 10 W, 7.5 W, 5 W, 2.5 W, 1.25 W	100 V line: 15 W, 10 W, 5 W, 2.5 W, 1.25 W
IMPEDANCE	2,000 Ω, 3,333 Ω, 5,000 Ω, 10,000 Ω, 20,000 Ω	1,000 Ω, 1,330 Ω, 2,000 Ω, 4,000 Ω, 8,000 Ω	670 Ω, 1,000 Ω, 2,000 Ω, 4,000 Ω, 8,000 Ω
OUTPUTS	Low Z for 4 Ω, 8 Ω loudspeakers		
DIMENSIONS	A: 65 mm, B: 54 mm, C: 40 mm, D: 35 mm, E: 35 mm	A: 75 mm, B: 62 mm, C: 50 mm, D: 43 mm, E: 40 mm	A: 75 mm, B: 65 mm, C: 50 mm, D: 40 mm, E: 43 mm.
WEIGHT	0.18 kg	0.3 kg	0.33 kg

	CV-1930	CV-1950	CV-19125
POWER	100 V line: 30 W, 20 W, 10 W	100 V line: 50 W, 40 W, 30 W, 20 W	100 V line: 120 W, 60 W, 30 W
IMPEDANCE	333 Ω, 500 Ω, 1,000 Ω	200 Ω, 250 Ω, 333 Ω, 500 Ω	83 Ω, 166 Ω, 333 Ω
OUTPUTS	Low Z for 4 Ω, 8 Ω loudspeakers		
DIMENSIONS	A: 75mm, B: 62mm, C: 50mm, D: 42mm, E: 45mm.	A: 75 mm, B: 62 mm, C: 50 mm, D: 40 mm, E: 45 mm	A: 100 mm, B: 84 mm, C: 65 mm, D: 60 mm, E: 65 mm
WEIGHT	0.38 kg	0.38 kg	1.05 kg

PUBLIC ADDRESS ACCESSORIES

Diffusers

	RD-45	RD-165	RD-205
FEATURES	Multi-driver exponential diffuser. Standard 1 3/8' driver thread. Supports 4 drivers with maximum dimensions of 120 mm Ø x 175 mm depth. Supply with drivers: ENQUIRE	Exponential diffuser with standard 1 3/8' driver thread.	Exponential diffuser with standard 1 3/8' driver thread.
MATERIALS	Aluminium		
COVERAGE ANGLE	H/V (-6 dB): 91º@1kHz	H/V (-6 dB): 40º@1kHz	H/V (-6 dB): 55º@1kHz
COLOUR	Grey (RAL 7004)	Grey (RAL 9006)	Grey (RAL 9006)
DIMENSIONS	46 cm Ø x 47.5 cm depth	41 cm Ø x 30 cm depth	51 cm Ø x 38 cm depth
WEIGHT	7 kg	1.5 kg	1.9 kg

PUBLIC ADDRESS ACCESSORIES

Drivers

> 100 V

IP 66

IP 66

IP 67

	RM-35T	RM-61T	RM-64T
FEATURES	Driver with 100 V line transformer for exponential diffuser with standard 1 3/8' thread. Aluminium cover and plastic base.	Driver with 100 V line transformer for exponential diffuser with standard 1 3/8' thread. Aluminium cover and plastic base.	Driver with 100 V line transformer for exponential diffuser with standard 1 3/8' thread. To be installed on RD-45 diffuser. High efficiency neodymium magnet. Weatherproofed.
POWER	35 W	60 W	60 W
RESPONSE	150-6,000 Hz	200-6,000 Hz	150-7,000 Hz
IMPEDANCE	High Z 100 V line: 285 Ω (35 W), 500 Ω (20 W) 1,000 Ω (10 W)	High Z 100 V line: 166 Ω (60 W), 250 Ω (40 W) 500 Ω (20 W)	60 W RMS@100 V (166 Ω) 40 W RMS@100 V (250 Ω) 20 W RMS@100 V (500 Ω)
SENSITIVITY	114 dB at 1 W/1 m	114 dB at 1 W/1 m	115 dB @ 1 W/1 m
DIMENSIONS	130 mm Ø x 137 mm depth	130 mm Ø x 140 mm depth	110 mm Ø x 154 mm depth Compatible with RD-45
WEIGHT	1.9kg	2.5 kg	1.85 kg
MAXIMUN SOUND PRESSURE	126.9 dB @ max. W/1 m	129.3 dB @ max. W/1 m	132 dB @ max. W/1 m
PROTECTIONS	IP-66	IP-66	IP-67
MATERIALS	Aluminium and ABS	Aluminium and ABS	Aluminium Stainless steel screws

PUBLIC ADDRESS ACCESSORIES

Drivers

> Low impedance

	RM-62	RM-102
FEATURES	Low impedance driver for exponential diffuser with standard thread 1 3/8".	
POWER	40 W maximum	60 W maximum
RESPONSE	180-6,500 Hz	150-6,000 Hz
IMPEDANCE	16 Ω	
SENSITIVITY	107 dB at 1 W/1 m	109 dB at 1 W/1 m
COLOUR	Grey (RAL 7048)	Grey (RAL 9006)
DIMENSIONS	110 mm Ø x 114 mm depth	114 mm Ø x 112 mm depth
WEIGHT	1.5 kg	1.65 kg

PUBLIC ADDRESS ACCESSORIES

Impedance meter

	MI-21
FEATURES	1 kHz impedance meter for loudspeaker lines. Allows the impedance of the loudspeaker line to be checked and the power required in a 100 or 70 V line installation to be estimated in order to choose the right amplifier. 3 measurement scales: 200 Ω, 2 kΩ and 20 kΩ. Easy-to-read LCD display. Power measurement for 70 and 100 V line loudspeakers. Easy handling.
INPUTS	2 x banana terminals for connection of the measuring leads
RESOLUTION (MEASURED ACCURACY)	200 Ω: 0.1 Ω (±1% ±2) 2 kΩ: 1 Ω (±1% ±2) 20 kΩ: 10 Ω (±1% ±2)
POWER SUPPLY	9 V DC, 1 battery 9 V type 6LR61
DIMENSIONS	87 x 188 x 38 mm depth
WEIGHT	0.4 kg
ACCESSORIES	Rubber protector 2 x sets of test leads: with alligator clip terminals and with precision tips

high power

164

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SPEAKERS

Passive

> Mobile installation

	FORCE-X8
FEATURES	High power passive speaker. Durable, lightweight plastic case. Carrying handles. Hole in the base for 35 mm tube.
POWER	600 W Peak 200 W RMS 2-way (bass: 180 W + treble: 20 W)
SPEAKERS	1 woofer 8": coil 50 mm, ferrite magnet 130 x 20 mm 1 compression driver: 1" nozzle, coil 25 mm, ferrite magnet 80 x 12 mm
RESPONSE	55-20,000 Hz
IMPEDANCE	8 Ω
SENSITIVITY	94 dB at 1 W/1 m
SOUND PRESSURE	117 dB at maximum power at 1 m
ANGLE OF COVERAGE	90º H x 60º V
CONNECTORS	2 speaker connectors 4 contacts (1+, 1-)
CROSSOVER	Passive, 2-way Crossover frequency 2,500 Hz, -12 dB/octave
SUSPENSION POINTS	1 point M8
COLOUR	Black
DIMENSIONS	290 x 440 x 260 mm depth
WEIGHT	10 kg

N!

600 W peak
200 W RMS

	FORCE-X12
FEATURES	High power passive speaker. Durable, lightweight plastic case. Carrying handles. Hole in the base for 35 mm tube.
POWER	1.000 W Peak 350 W RMS 2-way (bass: 300 W + treble: 50 W)
SPEAKERS	1 woofer 12" high capacity: coil 75 mm, ferrite magnet 170 x 20 mm 1 compression driver: 1" nozzle, coil 34 mm, ferrite magnet 90 x 15 mm
RESPONSE	50-20,000 Hz
IMPEDANCE	8 Ω
SENSITIVITY	97 dB at 1 W/1 m
SOUND PRESSURE	122 dB at maximum power at 1 m
ANGLE OF COVERAGE	90º H x 60º V
CONNECTORS	2 speaker connectors 4 contacts (1+, 1-)
CROSSOVER	Passive, 2-way Crossover frequency 2,000 Hz, -12 dB/octave
SUSPENSION POINTS	1 point M8
COLOUR	Black
DIMENSIONS	350 x 600 x 350 mm depth
WEIGHT	15 kg

N!

1,000 W peak
350 W RMS

SPEAKERS

Passive

> Mobile installation

	FORCE-X15
FEATURES	High power passive speaker. Durable, lightweight plastic case. Carrying handles. Hole in the base for 35 mm tube
POWER	1.500 W Peak 500 W RMS 2-way (graves: 440 W + treble: 60 W)
SPEAKERS	1 woofer 15" high capacity: coil 75 mm, ferrite magnet 180 x 20 mm 1 compression driver: 1" nozzle, coil 44 mm, ferrite magnet 115 x 15 mm
RESPONSE	45-20,000 Hz
IMPEDANCE	8 Ω
SENSITIVITY	99 dB at 1 W/1 m
SOUND PRESSURE	125 dB at maximum power at 1 m
ANGLE OF COVERAGE	90º H x 60º V
CONNECTORS	2 speaker connectors 4 contacts (1+, 1-)
CROSSOVER	Passive, 2-way Crossover frequency 2,000 Hz, -12 dB/octave
SUSPENSION POINTS	2 points M8
COLOUR	Black
DIMENSIONS	425 x 685 x 385 mm depth
WEIGHT	16 kg

N!

1,500 W peak
500 W RMS

SPEAKERS

Passive

> Mobile installation

	SB-3608
FEATURES	Passive loudspeaker with extra-resistant PP injection-moulded case. Woofer protected by front metal grille. Carrying handles, suspension points, floor feet and monitor shape. Hole in the base for 35 mm tube.
POWER	200 W maximum, 100 W RMS
SPEAKERS	1 woofer 8” 1 compression driver: diaphragm 1 ⅜”
RESPONSE	60-18,000 Hz
IMPEDANCE	8 Ω
SENSITIVITY	96 dB at 1 W/1 m
SOUND PRESSURE	119 dB at maximum power at 1 m
CONNECTORS	2 speaker connectors 4 contacts (1+, 1-)
INDICATORS	Power on the front
CROSSOVER	2-way Crossover frequency at 2,500 Hz
SUSPENSION POINTS	4 M8 points
DIMENSIONS	260 x 420 x 230 mm depth
WEIGHT	5.6 kg

200 W max
100 W RMS

	SB-3612
FEATURES	Passive loudspeaker with extra-resistant PP injection-moulded case. Woofer protected by front metal grille. Carrying handles, suspension points, floor feet and monitor shape. Hole in the base for 35 mm tube.
POWER	300 W maximum, 150 W RMS
SPEAKERS	1 woofer 12”: 50 mm coil and ferrite magnet 1 compression driver: diaphragm 1 ⅜”
RESPONSE	55-18,000 Hz
IMPEDANCE	8 Ω
SENSITIVITY	97 dB at 1 W/1 m
SOUND PRESSURE	128 dB at maximum power at 1 m
CONNECTORS	2 speaker connectors 4 contacts (1+, 1-)
INDICATORS	Of operation in the front
CROSSOVER	2-way Crossover frequency at 2,500 Hz
SUSPENSION POINTS	4 M8 points
DIMENSIONS	375 x 585 x 330 mm depth
WEIGHT	13.2 kg

300 W max
150 W RMS

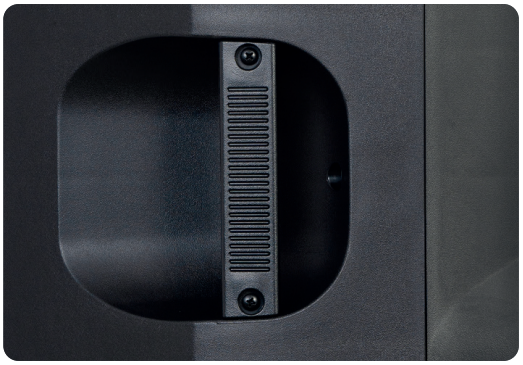
SPEAKERS

Passive

> *Mobile installation*

	SB-3615
FEATURES	Passive loudspeaker with extra-resistant PP injection-moulded case. Woofer protected by front metal grille. Carrying handles, suspension points, floor feet and monitor shape. Hole in the base for 35 mm tube.
POWER	360 W maximum, 180 W RMS
SPEAKERS	1 woofer 15": coil 63.5 mm and ferrite magnet 1 compression driver: diaphragm 1 ⅜"
RESPONSE	42-18,000 Hz
IMPEDANCE	8 Ω
SENSITIVITY	98 dB at 1 W/1 m
SOUND PRESSURE	129 dB at maximum power at 1 m
CONNECTORS	2 speaker connectors 4 contacts (1+, 1-)
INDICATORS	Power on the front
CROSSOVER	2-way Crossover frequency at 2.500 Hz
SUSPENSION POINTS	4 M8 points
DIMENSIONS	460 x 690 x 380 mm depth
WEIGHT	16.3 kg

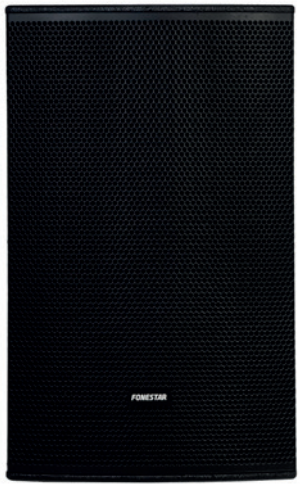
360 W max
180 W RMS



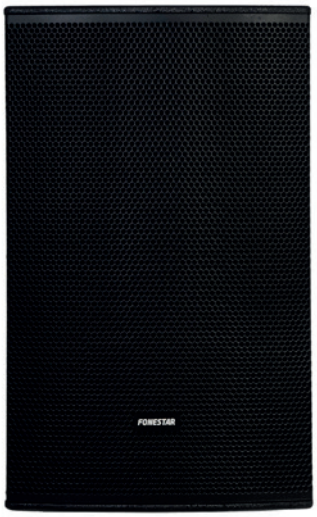
SPEAKERS

Passive

> Mobile installation



360 W max
180 W RMS



500 W max
250 W RMS

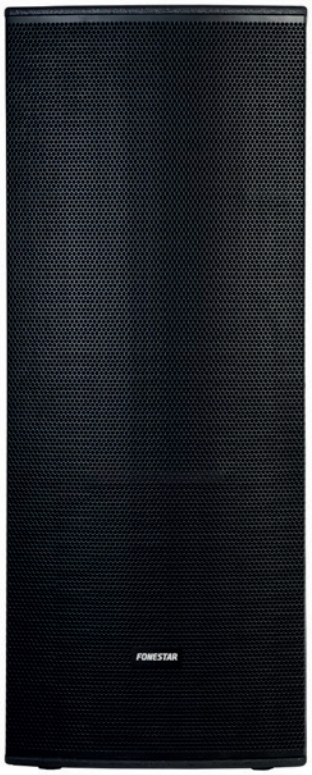
	FPRO-18012	FPRO-25015
FEATURES	Loudspeaker in reinforced DM wood. Granulated paint finish. Protective front metal grid. Suspension points Hole in the base for 35 mm tube.	
POWER	360 W maximum, 180 W RMS	500 W maximum, 250 W RMS
SPEAKERS	1 woofer 12": coil 65 mm and ferrite magnet 120 mm 1 compression driver: 1" diaphragm, 1" mouth, and 25.4 mm voice coil	1 woofer 15": coil 65 mm and ferrite magnet 140 mm 1 compression driver: 1" diaphragm, 1" mouth, and 25.4 mm voice coil
RESPONSE	60-20,000 Hz (±3 dB)	55-20,000 Hz (±3 dB)
IMPEDANCE	8 Ω	
SENSITIVITY	98 dB at 1 W/1 m	100 dB at 1 W/1 m
SOUND PRESSURE	125 dB at maximum power at 1 m	129 dB at maximum power at 1 m
ANGLE OF COVERAGE	90º H x 60º V (-6 dB)	
CONNECTORS	2 speaker connectors 4 contacts (1+/2+, 1-/2-)	
CROSSOVER	Passive, 2-way, cut-off frequency 1'750 Hz, -6 dB/ octave	Passive, 2-way, cut-off frequency 1'700 Hz, -6 dB/ octave
SUSPENSION POINTS	14 points M8	
COLOUR	Black	
DIMENSIONS	340 x 550 x 370 mm depth	430 x 690 x 470 mm depth
WEIGHT	13.2 kg	22 kg

SPEAKERS

Passive

> Mobile installation

	FPRO-60030
FEATURES	Loudspeaker in reinforced DM wood. Granulated paint finish. Protective front metal grid. Suspension points Legs stands.
POWER	1.200 W maximum, 600 W RMS
SPEAKERS	2 woofer 15": coil 65 mm and ferrite magnet 140 mm 1 compression driver: diaphragm 1.34" titanium, nozzle 1" and coil 34 mm
RESPONSE	70-20.000 Hz (±3 dB)
IMPEDANCE	4 Ω
SENSITIVITY	104 dB at 1 W/1 m
SOUND PRESSURE	133 dB at maximum power at 1 m
ANGLE OF COVERAGE	90º H x 60º V (-6 dB)
CONNECTORS	2 speaker connectors 4 contacts (1+/2+, 1-/2-)
CROSSOVER	Passive, 2-way, cut-off frequency 1,700 Hz, -6 dB/octave
SUSPENSION POINTS	14 points M8
COLOUR	Black
DIMENSIONS	430 x 1,080 x 470 mm depth
WEIGHT	36.7 kg



1,200 W max
600 W RMS

SPEAKERS

Active

> Standard

	ASB-880U
FEATURES	Active loudspeaker with extra resistant PP injection box. Wireless receiver, USB/SD player, FM tuner with remote control. Output for passive loudspeaker. Woofer protected by front metal grille. Carrying handles, suspension points, floor feet and monitor shape. Hole in the base for 35 mm tube.
POWER	160 W max, 80 W RMS Bass: 100 W max, 50 W RMS Treble: 60 W max, 30 W RMS
PROTECTIONS	3 protection circuits: short-circuit, overload and temperature
SPEAKERS	1 woofer 8” 1 compression driver: diaphragm 1 ⅜”
RESPONSE	60-18,000 Hz
INPUTS	1 balanced mic, XLR and 6.3 mm jack 1 aux line, XLR and 2 x RCA
OUTPUTS	1 line, 6.3 mm stereo jack (TRS) mono signal 1 amplifier for passive speaker, 8 Ω speaker connector
CONTROLS	Input volume and general volume USB/SD player control Bass and treble control
SUSPENSION POINTS	4 M8 points
POWER SUPPLY	230 V CA, 120 W 115 V CA on request
INDICATORS	Power on the front and on/off and peak on the rear panel
DIMENSIONS	260 x 420 x 230 mm depth
WEIGHT	7.1 kg

160 W max
80 W RMS
USB
SD
RADIO

	ASB-12150U
FEATURES	Active loudspeaker with extra resistant PP injection box. Wireless receiver, USB/SD player, FM tuner with remote control. Output for passive loudspeaker. Woofer protected by front metal grille. Carrying handles, suspension points, floor feet and monitor shape. Hole in the base for 35 mm tube.
POWER	360 W max, 180 W RMS Bass: 300 W max, 150 W RMS Treble: 60 W max, 30 W RMS
PROTECTIONS	3 protection circuits: short-circuit, overload and temperature
SPEAKERS	1 woofer 12”: 50 mm coil and ferrite magnet 1 compression driver: diaphragm 1 ⅜”
RESPONSE	50-18,000 Hz
INPUTS	3 balanced micros, XLR 1 balanced mic, combo (XLR and 6.3 mm jack) 1 auxiliary line, 2 x RCA
OUTPUTS	1 auxiliary line, 2 x RCA mono signal 1 amplifier for passive speaker, 8 Ω speaker connector
CONTROLS	Input volume and general volume Input selector: line/player Player control Effects: echo and delay 5 band graphic equaliser
SUSPENSION POINTS	4 M8 points
POWER SUPPLY	230/115 V CA, 250 w
INDICATORS	Power on the front and on/off and peak on the rear panel
DIMENSIONS	375 x 585 x 330 mm depth
WEIGHT	15.16 kg

360 W max
180 W RMS
USB
SD
RADIO

SPEAKERS

Active

> Standard

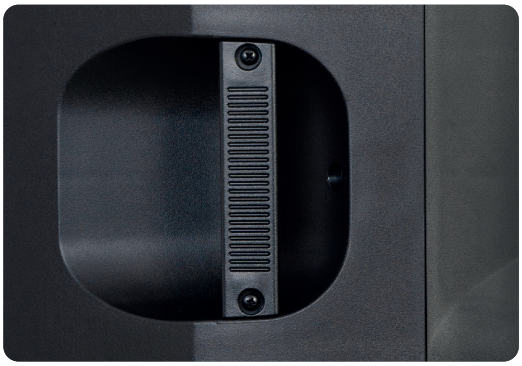
	ASB-15180U
FEATURES	Active loudspeaker with extra resistant PP injection box. Wireless receiver, USB/SD player, FM tuner with remote control. Output for passive loudspeaker. Woofer protected by front metal grille. Carrying handles, suspension points, floor feet and monitor shape. Hole in the base for 35 mm tube.
POWER	440 W max, 220 W RMS Bass: 380 W max, 190 W RMS Treble: 60 W max, 30 W RMS
PROTECTIONS	3 protection circuits: short-circuit, overload and temperature
SPEAKERS	1 woofer 15": coil 63.5 mm and ferrite magnet 1 compression driver: diaphragm 1 ⅜"
RESPONSE	42-18,000 Hz
INPUTS	3 balanced micros, XLR 1 balanced mic, combo (XLR and 6.3 mm jack) 1 auxiliary line, 2 x RCA
OUTPUTS	1 auxiliary line, 2 x RCA mono signal 1 amplifier for passive speaker, 8 Ω speaker connector
CONTROLS	Input volume and general volume Input selector: line/player Player control Effects: echo and delay 5-band graphic equaliser
SUSPENSION POINTS	4 M8 points
POWER SUPPLY	230/115 V CA, 350 w
INDICATORS	Power on the front and on/off and peak on the rear panel
DIMENSIONS	460 x 685 x 380 mm depth
WEIGHT	19.95 kg

440 W max
220 W RMS

USB

SD

RADIO



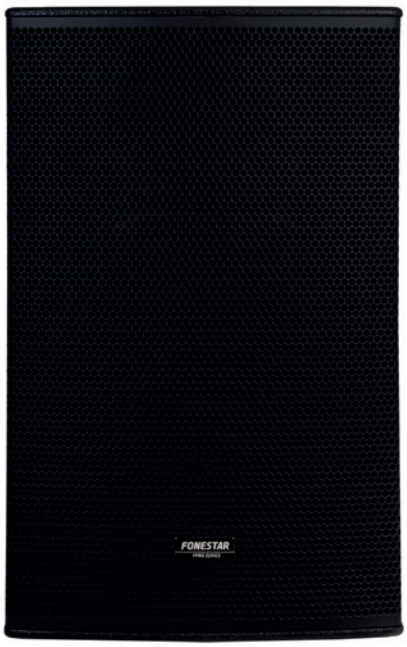
BUSINESS MUSIC
IS COMING...

Designed by
FONESTAR

SPEAKERS
Active

> Standard

	FPRO-28012A
FEATURES	Amplified loudspeaker DM in wood. Granulated paint finish. Protective front metal grid. Transport handles and suspension points. Hole in the base for 35 mm tube.
POWER	400 W maximum, 200 W RMS
PROTECTIONS	Temperature, overload and overcurrent
SPEAKERS	1 woofer 12": coil 50 mm and ferrite magnet 120 mm 1 compression driver: 1" diaphragm, 25.4 mm coil and ferrite magnet
RESPONSE	60-20,000 Hz ±3 dB
INPUTS	1 Balanced line, XLR 1.5 V 1 balanced mic, jack 6.3 mm
OUTPUTS	1 balanced line, XLR
INDICATORS	Power, signal/limiter and protection
CROSSOVER	Active, 2-way Crossover frequency 2,000 Hz
ANGLE OF COVERAGE	Diffuser: 90º H x 60º V
CONTROLS	Master volume Mic volume Tones: Bass and treble
SUSPENSION POINTS	14 points M8
COLOUR	Black
POWER SUPPLY	230/115 V CA, 650 w
DIMENSIONS	340 x 550 x 370 mm depth
WEIGHT	18.2 kg



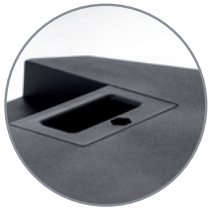
400 W max
200 W RMS

SPEAKERS

Active

> DSP

1,200 W peak
350 W RMS
DSP
BLUETOOTH
CLASS-D
TWS



1,400 W peak
500 W RMS
DSP
BLUETOOTH
CLASS-D
TWS

	FORCE-X12DSP	FORCE-X15DSP
FEATURES	High power active speaker. DSP processor. Display color screen. 4 equalizations: Music, Club, Live and Speech. Bluetooth receiver v5.3 TWS function. Compact and lightweight case. Aluminum rear panel. Front LED with different switching options (On, Off or limiter). Carrying handles. Hole in the base for 35 mm tube.	
AMPLIFIER	1,200 W Peak 350 W RMS 2-way (bass: 300 W + treble: 50 W) Class D	1,400 W Peak 500 W RMS 2-way (bass: 440 W + treble: 60 W) Class D
PROTECTIONS	Temperature (85ºC) and overload	
SPEAKERS	1 woofer 12” high capacity: coil 65 mm, ferrite magnet 170 x 20 mm 1 compression driver: 1” nozzle, coil 34 mm, ferrite magnet 90 x 15 mm	1 woofer 15” high capacity: coil 75 mm, ferrite magnet 180 x 20 mm 1 compression driver: 1” nozzle, coil 44 mm, ferrite magnet 115 x 15 mm
RESPONSE	50-20,000 Hz	45-20,000 Hz
INPUTS	CH 1 balanced mic/line. Combo connector (XLR + jack 6.3 mm), AUX jack TRS 3.5 mm and Bluetooth CH 2 balanced mic/line. Combo Connector (XLR + 6.3 mm jack) Mic signal level: 40 mV RMS (-28 dBV) / 600 Ω Line signal level: 350 mV RMS (-9 dBV) / 100 Ω AUX signal level: 350 mV RMS (-9 dBV) / 100k Ω	
OUTPUTS	1 balanced line. XLR connector. Mix mode (CH 1 + CH 2) or LINK (direct input input input 2)	
SENSITIVITY	97 dB at 1 W/1 m	99 dB at 1 W/1 m
SOUND PRESSURE	122 dB at maximum power at 1 m	125 dB at maximum power at 1 m
ANGLE OF COVERAGE	90º H x 60º V	
SUSPENSION POINTS	2 points M8 (top and side)	
COLOUR	Black	
POWER SUPPLY	230/115 V AC, 300 W Fuse: 230 V AC T3.15 250 / 115 V AC T6.3, 250	230/115 V AC, 500 W Fuse: 230 V AC T3.15 250 / 115 V AC T6.3, 250
DIMENSIONS	350 x 600 x 350 mm depth	425 x 685 x 385 mm depth
WEIGHT	16.6 kg	18 kg

POWER AMPLIFIERS

Analogues

	SA-204	SA-606
FEATURES	Professional stereo power amplifier.	
FUNCTIONS	-	Forced ventilation Light indicators for power, protection and signal peak
POWER	Stereo and parallel mode: 150 + 150 W RMS@4 Ω 100 + 100 W RMS@8 Ω Bridge mode: 200 W RMS@8 Ω	Stereo and parallel mode: 400 + 400 W RMS at 4 Ω 300 + 300 W RMS at 8 Ω Bridge mode: 700 W RMS at 8 Ω
PROTECTIONS	Temperature, short circuit and overload Forced ventilation	3 circuits: temperature, short circuit and overload
CONTROLS	Volume per channel Parallel/stereo/bridge mode selector switch GND lift ground disconnection	Volume per channel GND lift ground disconnection Parallel/stereo/bridge mode selector switch
INPUTS	1 balanced auxiliary line, XLR, 20,000 Ω 1.3 V RMS 1 unbalanced auxiliary line, RCA, 10,000 Ω 0'75 V RMS	CH A and CH B balanced auxiliary line, XLR, 20,000 Ω, 2 V RMS @ 4 Ω, 2.5 V RMS @ 8 Ω and unbalanced auxiliary line, RCA, 10,000, 1 V RMS @ 4 Ω, 1.23 V RMS @ 8 Ω
OUTPUTS	Loudspeakers: 4-8 Ω stereo, screw terminals and banana plug or speaker connector 8 Ω mono bridge, screw terminals and banana plug or speaker connector	Loudspeakers: 4-8 Ω stereo, 6.3 mm mono jack, threaded terminals and bananas or speaker connector 8 Ω mono bridge, threaded terminals and bananas
VOLTAGE GAIN	32 dB	
RESPONSE	10-50,000 Hz	
DISTORTION	Harmonic: < 0.05%	
DAMPING FACTOR	> 150	
SIGNAL/NOISE RATIO	> 85 dB	> 90 dB
CROSSTALK	> 70 dB	
SPEED OF CHANGE	30 V/µs	
POWER SUPPLY	230/115 V CA, 700 W maximum	230/115 V CA, 1,000 W maximum
DIMENSIONS	483 x 88 x 350 mm depth 2 U rack 19"	483 x 89 x 350 mm depth 2 U rack 19"
WEIGHT	7.8 kg	11 kg

POWER AMPLIFIERS

Analogues

	SA-1208
FEATURES	Professional stereo power amplifier.
POWER	Stereo and parallel mode: 1.500 + 1.500 W RMS@2 Ω 900+ 900 W RMS@4 Ω 600+ 600 W RMS@8 Ω Bridge mode: 1,600 W RMS@8 Ω
PROTECTIONS	Soft start, temperature, short circuit, overload, CC and CA Forced ventilation with variable speed
CONTROLS	Volume per channel Parallel/stereo/bridge mode selector switch Limiter and input filter GND lift ground disconnection
INPUTS	CHA and CH B balanced auxiliary line XLR and jack 6.3 mm, 20.000 Ω, 0.9 V RMS @ 2 Ohm, 1.1 V RMS @ 4 Ohm, 1.3 V RMS @ 8 Ohm
OUTPUTS	Loudspeakers: 2-8 Ω stereo, screw terminals and banana plug or speaker connector 8 Ω mono bridge, speaker connector
VOLTAGE GAIN	40 dB
RESPONSE	10-50,000 Hz, -1.5 dB
DISTORTION	Harmonic: < 0.03%
DAMPING FACTOR	> 500
SIGNAL/NOISE RATIO	> 103 dB
CROSSTALK	> 105 dB
SPEED OF CHANGE	70 V/µs
POWER SUPPLY	230 V CA, 3,000 W maximum
DIMENSIONS	483 x 89 x 480 mm depth 2 U rack 19”
WEIGHT	17.6 kg

POWER AMPLIFIERS

Analogues

	SA2-1750	SA2-3400
FEATURES	Professional stereo power amplifier.	
POWER	Stereo and parallel mode: 450+ 450 W RMS@8 Ω 675+ 675 W RMS@4 Ω 880 + 880 W RMS@2 Ω Bridge mode: 1,350 W RMS@8 Ω 1,750 W RMS@4 Ω	Stereo and parallel mode: 850+ 850 W RMS@8 Ω 1,275+ 1,275 W RMS@4 Ω 1,700 + 1,700 W RMS@2 Ω Bridge mode: 2,550 W RMS@8 Ω 3,400 W RMS@4 Ω
PROTECTIONS	Soft start, temperature, short circuit, overload, clip limiter, continuous voltage, ultrasound and RF 2 variable speed fans	
CONTROLS	Volume per channel Stereo/parallel/bridge mode selector Sensitivity selector GND lift ground disconnection 30Hz high pass filter	
INPUTS	2 XLR balanced auxiliary line inputs	
OUTPUTS	2 speaker outputs	
RESPONSE	20-2,.000 Hz	
DISTORTION	Harmonic: < 0.05%	Harmonic: < 0.08%
DAMPING FACTOR	400	
SIGNAL/NOISE RATIO	> 90 dB	> 95 dB
POWER SUPPLY	230 V CA, 990 W maximum	230 V CA, 1,880 W maximum
DIMENSIONS	483 x 89 x 488 mm depth	483 x 89 x 488 mm depth. 2 U rack 19”
WEIGHT	17.6 kg	21.8 kg

POWER AMPLIFIERS

Digital

D

CLASS-D

	DSA-302
FEATURES	Professional digital stereo power amplifier. High efficiency class D amplifier circuit. Switch mode power supply.
POWER	Stereo and parallel mode: 300 + 300 W RMS at 4 Ω 200 + 200 W RMS at 8 Ω Bridge mode: 600 W RMS at 8 Ω
FUNCTIONS	Forced ventilation Power, signal and peak indicator lights
PROTECTIONS	Soft start, temperature, short circuit, overload, VHF, CC and CA Limiter per channel
CONTROLS	Volume per channel Stereo/parallel/bridge mode selector GND lift ground disconnection
INPUTS	CH A and CH B balanced auxiliary lines, combo (XLR and 6.3 mm jack), 20,000 Ω, 650 mV RMS @ 4 Ω, 750 mV RMS @ 8 Ω
OUTPUTS	Loudspeakers: 4-8 Ω stereo, screw terminals and banana plug or speaker connector 8 Ω mono bridge, screw terminals and banana plug or speaker connector
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: < 0.1%
DAMPING FACTOR	> 200
SIGNAL/NOISE RATIO	> 100 dBA
SPEED OF CHANGE	20 V/µs
POWER SUPPLY	230/115 V CA, 900 w
DIMENSIONS	483 x 44 x 200 mm depth. 1 U rack 19”
WEIGHT	2.75 kg

MIXERS

DJ/Studio

	MIX-3DJ
FEATURES	Compact DJ mixer with 3 stereo channels and 1 microphone. USB audio input/output for PC connection as Plug and Play audio card on Windows and Mac, allows simultaneous audio playback from PC and recording. Bluetooth receiver 4.2 USB recorder/player. CUE pre-listen. Output level light indicator. Talk over for microphone level reduction (-15 dB).
PLAYER	Playback formats: WAV and MP3. MP3 recording. USB port for connection of USB sticks or connection to PC as Plug and Play audio card on Windows and Mac. Supports memories up to 128 GB
INPUTS	1 unbalanced mic, 6.3 mm jack, 1.000 Ω 1 mV RMS 1 Bluetooth/USB/PC line/player, 2 x RCA, 10,000 Ω 2 stereo line/phono, 2 x RCA, 10,000 Ω 160 mV RMS/50,000 Ω 4 mV RMS
OUTPUTS	1 stereo master, 2 x RCA, 600 Ω 1.22 V RMS 1 stereo headphone, 6.3 mm jack 8 Ω 200 mW
FUNCTIONS	CUE pre-listen. Output level light indicator. Talk over for microphone level reduction (-15 dB).
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: < 0.04%
SIGNAL/NOISE RATIO	> 80 dB
POWER SUPPLY	V CC, 1 A with adapter included
DIMENSIONS	235 x 55 x 135 mm depth
WEIGHT	0.7 kg

MIXERS

DJ/Studio

	SM-1860U
FEATURES	Professional mixer with 12 inputs, 8 channels, assignable to 2 master outputs with independent volume control. USB/SD player.
PLAYER	Plays MP3 files from USB/SD or from PC USB port for connecting USB sticks and connecting to PC as a USB Audio device SD card reader ID3 tag information
INPUTS	1 balanced combo mic (XLR and 6.3 mm jack), 1,700 Ω 10 mV RMS, 2 balanced XLR mics, 1,700 Ω 10 mV RMS. 7 unbalanced stereo lines 22,000 Ω 200 mV RMS and 2 phono/aux 2 x RCA 47,000 Ω 4 mV RMS / 47,000 Ω 200 mV RMS
CONTROLS	MIC1: volume, bass (±12 dB, 100 Hz), treble (±12 dB, 10,000 Hz), echo effect and talkover MIC2 and MIC3: Volume, bass (±12 dB, 100 Hz), treble (±12 dB, 10,000 Hz) and echo effect Input channels: input selector, sliding volume, mapping to master 1, master 2 and headphone preview, indicator light allocation of each output Master 1 and master 2: volume, bass (+12, -32 dB, 100 Hz), medium (+12, -32 dB, 1,500 Hz) and treble (+12, -32 dB, 10,000 Hz), medium and treble, balance and level light indicator Booth output: volume control Headphone output: volume control USB/SD player: play/pause, access menu, EQ and repeat mode, song forward and reverse and volume control.
OUTPUTS	Master 1 (2 x XLR and 2 x RCA), master 2 (2 x RCA), recording (2 x RCA), booth (2 x RCA) and stereo headphones (6.3 mm jack)
FUNCTIONS	Assignment matrix of 5 input channels to 2 master outputs Headphone prelistening CUE assignable for each channel 3 band equalizer in master outputs Light indicators of output level master 1 and master 2 Talk over for Level Reduction at MIC 1 input
RESPONSE	20-20,000 Hz
SIGNAL/NOISE RATIO	Micro: 75dB Phono: 55 dB Line/Aux: 75 dB
POWER SUPPLY	230/115 V CA, 10 W maximum
DIMENSIONS	483 x 89 x 205 mm depth. 2 U 19” rack
WEIGHT	4 kg

MIXERS

DJ/Studio

	MIX-4LIVE
FEATURES	Stereo mixer with 2 mono channels and 1 stereo channel. Live streaming function, connect your smartphone for live streaming. USB audio input/output for PC connection as Plug and Play audio card on Windows and Mac, allows simultaneous audio playback from PC and recording. Bluetooth receiver 4.2 USB recorder/player. 2 digital effects (delay and repeat).
PLAYER	Plays or records MP3 files from USB USB-C port for PC connection as plug-and-play audio card on Windows and Mac
INPUTS	2 balanced microphones/lines, combo (XLR, 600 Ω 5 mV RMS and 6.3 mm jack, 47,000 Ω 30 mV RMS) 1 balanced line stereo channel /unbalanced, 2 x jack 6.3 mm/ 2 RCA, 47,000 Ω 300 mV RMS 1 live streaming stereo aux, 3.5 mm TRRS jack, 47,000 Ω 300 mV RMS 1 mic, 3.5 mm mono jack, 600 Ω 5 mV RMS 1 USB/PC, stereo
OUTPUTS	1 main stereo balanced/unbalanced, 2 x 6.3 mm jack/2 x RCA, 5 V RMS 1 live streaming stereo aux, 3.5 mm TRRS jack, 500 mV RMS 1 stereo headphone, 3.5 mm jack 1 USB/PC, stereo
FUNCTIONS	2-band equalizer per channel Indicator light for signal overload and master output level Live streaming USB/PC
CONTROLS	4 controls per channel: gain, 2-band equalizer, volume, and clip light indicator Effects level control Headphone volume Independent volume control of main output
PHANTOM	48 V on channel 1, selectable 5 V in jack connector 3'5 mm channel 1
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: 0.05%
SIGNAL/NOISE RATIO	> 68 dB
POWER SUPPLY	5 V CC, 2.1 A with included adapter
DIMENSIONS	175 x 55 x 190 mm depth
WEIGHT	0.6 kg
ACCESSORIES	Audio jack cable 3.5 mm TRRS male-male USB-A to USB-C cable for power supply Power adapter USB

MIXERS

DJ/Studio

USB BLUETOOTH REC PC LIVESTREAM

	MIX-6LIVE
FEATURES	Stereo mixer with 4 mono channels and 1 stereo channel. Live streaming function, connect your smartphone for live streaming. USB audio input/output for PC connection as Plug and Play audio card on Windows and Mac, allows simultaneous audio playback from PC and recording. Bluetooth receiver 4.2 USB recorder/player. 16 digital effects processor
PLAYER	Plays or records MP3 files USB-C port for PC connection as plug-and-play audio card on Windows and Mac Line level stereo auxiliary input
INPUTS	4 balanced mic, combo (XLR, 600 Ω 15 mV XLR and 6.3 mm jack, 47.000 Ω 200 mV RMS) 1 balanced line stereo channel , 2 x jack 6.3 mm, 47,000 Ω 250 mV RMS 1 x stereo aux, 3.5 mm jack, 47,000 Ω 1 V RMS 1 live streaming stereo aux, 3.5 mm TRRS jack, 47,000 Ω 250 mV RMS 1 mic, 3.5 mm TS jack, 600 Ω 15 mV RMS 1 USB/PC, stereo
OUTPUTS	1 main stereo balanced/unbalanced, 2 x 6.3 mm jack/2 x RCA, 2.5 V RMS 1 balanced auxiliary/monitor, 6.3 mm jack, 2 V RMS 1 stereo auxiliary (live streaming), 3.5 mm TRRS jack, 0.5 V RMS 1 stereo headphone, 3.5 mm jack 1 USB/PC, stereo
FUNCTIONS	3-band equalizer per channel Indicator light for signal overload and master output level Live streaming USB/PC
CONTROLS	6 controls per channel: gain, 3-band equalizer, pan, volume, and clip indicator light Selection of effects and level Headphone volume Independent volume control of main and auxiliary/monitor outputs
PHANTOM	48 V on channel 1 and 2, selectable
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: 0.04%
SIGNAL/NOISE RATIO	> 65 dB
POWER SUPPLY	5 V CC, 2.1 A with included adapter
DIMENSIONS	210 x 70 x 24 mm depth
WEIGHT	1.1 kg
ACCESSORIES	Audio jack cable 3.5 mm TRRS male-male USB-A to USB-C cable for power supply Power adapter USB

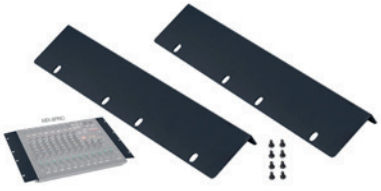
MIXERS

DJ/Studio

USB BLUETOOTH REC PC

	MIX-8PRO
FEATURES	Professional 8-channel, 2-output mixer with independent volume controls. USB audio input for PC connection as plug and play audio card on Windows and Mac, allows audio playback from PC. Bluetooth receiver 4.2 USB recorder/player. 16 digital effects processor
PLAYER	Playback formats: WAV and MP3. MP3 recording. USB port for connection of USB sticks or connection to PC as Plug and Play audio card on Windows and Mac. Supports memories up to 128 GB
INPUTS	8 XLR balanced microphones, 600 Ω 2 mV (LED peak, 1 kHz, 20 mV RMS) 8 unbalanced lines jack 6.3 mm, 47,000 Ω 45 mV (LED peak, 1 kHz, 180 mV RMS) 2 balanced return , 2 x jack 6.3 mm, 47,000 Ω 300 mV RMS
OUTPUTS	1 main stereo (2 x XLR or 2 x jack 6.3 mm), 5 V RMS 1 x stereo line, 2 x RCA, 5 V RMS 1 post-fader send, 6.3 mm jack, 5 V RMS Stereo headphones, 6.3 mm jack plug
FUNCTIONS	Slider controls per channel 3 band equaliser on channels 1 to 8 2-band equalizer in USB recorder/player Indicator light for signal overload and master output level
CONTROLS	Mic/Line: Bass suppression filter (18 dB/octave, 75 Hz), gain, bass (±15 dB, 80 Hz), media (±15 dB, 2,500 Hz), treble (±15 dB, 12,000 Hz), auxiliary/EFX sending, PAN, mute and sliding volume control USB recorder/player: Mode, play/pause/rec, song forward and reverse, bass (±15 dB, 80 Hz), treble (±15 dB, 12,000 Hz) and sliding volume control Main: Sliding volume control Phones: volume control Post-fader auxiliary shipping: volume control Auxiliary returns: volume control DSP effects processor: effect selection, repeat and sliding volume control
PHANTOM	48 V, selectable
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: 0.07%
SIGNAL/NOISE RATIO	> 65 dB
POWER SUPPLY	100-240 V AC, 20 W maximum
DIMENSIONS	390 x 85 x 320 mm depth
WEIGHT	3.8 kg
OPTIONAL	SM-8PRO: 19' rack mounts brackets

	SM-8PRO
FEATURES	Mounting bracket for MIX-8PRO mixer in 7 U of 19' rack.



MIXERS

DJ/Studio

	MIX-12PRO
FEATURES	Professional 12-channel, 2-output mixer with independent volume controls. USB audio input/output for PC connection as Plug and Play audio card on Windows and Mac, allows simultaneous audio playback from PC and recording. Bluetooth receiver 4.2 USB recorder/player. 16 digital effects processor
PLAYER	Playback formats: WAV and MP3. MP3 recording. USB port for connection of USB sticks or connection to PC as Plug and Play audio card on Windows and Mac. Supports memories up to 128 GB
INPUTS	12 XLR balanced microphones, 600 Ω 2 (LED peak, 1 kHz, 20 mV RMS) 12 unbalanced lines jack 6.3 mm, 47,000 Ω 45 mV (LED peak, 1 kHz, 180 mV RMS) 2 balanced return , 2 x jack 6.3 mm, 47,000 Ω 300 mV RMS 1 USB/PC, stereo
OUTPUTS	1 main stereo (2 x XLR or 2 x jack 6.3 mm), 5 V RMS 1 x stereo line, 2 x RCA, 5 V RMS 1 post-fader send, 6.3 mm jack, 5 V RMS Stereo headphones, 6.3 mm jack 1 USB/PC, stereo
FUNCTIONS	Slider controls per channel 3 band equaliser on channels 1 to 12 2-band equalizer in USB recorder/player Indicator light for signal overload and master output level
CONTROLS	Mic/Line: Bass suppression filter (18 dB/octave, 75 Hz), gain, bass (±15 dB, 80 Hz), media (±15 dB, 2,500 Hz), treble (±15 dB, 12,000 Hz), auxiliary/EFX sending, PAN, mute and sliding volume control USB recorder/player: Mode, play/pause/rec, song forward and reverse, bass (±15 dB, 80 Hz), treble (±15 dB, 12,000 Hz) and sliding volume control Main: Sliding volume control Phones: volume control Post fader auxiliary shipping: volume control Auxiliary returns: volume control DSP effects processor: effect selection, repeat and sliding volume control
PHANTOM	48 V, selectable
RESPONSE	20-20,000 Hz
DISTORTION	Harmonic: 0.07%
SIGNAL/NOISE RATIO	> 65 dB
POWER SUPPLY	100-240 V AC, 20 W maximum
DIMENSIONS	500 x 85 x 320 mm depth
WEIGHT	4.7 kg

AUXILIARY EQUIPMENT

Audio processors

DSP

	PDA-1408
FEATURES	Speaker processor 4 inputs and 8 outputs. Flexible matrix of assigning inputs to any output. Digital signal processor. DSP functions. Profit. Noise door and expander. Parametric equalizers. Delay. Filter passes band. Frequency divider (crossover). Compressor/limiter. Power-on mode selection. Front panel lock. Sampling frequency 48 kHz. 24 bits Ethernet port for PC connection. Editor software for PC.
RESPONSE	20-20,000 Hz ±3 dB
CONTROLS	Navigation rotary control and edit menu selection. Input and output mute buttons Editing software for PC TCP/IP and RS-232 protocol for integration with other systems
INPUTS	4 balanced lines, 10.000 Ω 10 V maximum 1 RC-Net port for interconnection with other equipment with RC-Net ports, RJ-45 1 RS-232 port for third party control. 1 LAN port for connection to local area network or PC, RJ-45
OUTPUTS	8 balanced lines, XLR, 150 Ω 10 V maximum 1 extension link port RC-Net, RJ-45
PROCESSED INPUTS AND OUTPUTS	Gain control 5-band parametric equaliser Low pass filter and high pass Delay Phase Compressor/limiter Mute
DISTORTION	Harmonic: < 0.01% at 1 kHz (0 dBu)
SIGNAL/NOISE RATIO	108 dB
TEMPERATURE RANGE	Operation: 0ºC ~ 45ºC
POWER SUPPLY	100-240 V CA, 20 W Fuse: 1.6 A
DIMENSIONS	483 x 45 x 270 mm depth. 1 U rack 19”
WEIGHT	3.4 kg

AUXILIARY EQUIPMENT

Audio splitters

	FDT-110F
FEATURES	Audio splitter 1 mono input to 10 mono outputs on the front. Independent volume control of each output Special for press rooms.
RESPONSE	20-20,000 Hz
CONTROLS	Volume per output Power indicator light
INPUTS	1 balanced line, XLR 215 mV RMS 1 balanced line, XLR 215 mV RMS with 30 cm cable
OUTPUTS	10 balanced lines, XLR 1 V RMS maximum
DISTORTION	Harmonic: < 0.2%
SIGNAL/NOISE RATIO	> 95 dB
POWER SUPPLY	230/115 V CA, 184 w
DIMENSIONS	483 x 88 x 100 mm depth. 2 U 19" rack
WEIGHT	3.2 kg

	FDT-112
FEATURES	Audio splitter 1 mono input to 10 mono outputs or 1 stereo input to 5 stereo outputs. Input level indicator lights.
RESPONSE	20-20,000 Hz
CONTROLS	Volume per output Operating mode selector: mono, stereo GND lift ground disconnection
INPUTS	2 balanced lines, combo (XLR and 6.3 mm stereo jack) 15,000 Ω 775 mV
OUTPUTS	10 balanced lines, XLR 600 Ω 775 mV 2 balanced link output lines, XLR 600 Ω 775 mV
DISTORTION	Harmonic: < 0.05%
SIGNAL/NOISE RATIO	> 90 dB
POWER SUPPLY	230/115 V CA, 10 W maximum
DIMENSIONS	483 x 44.5 x 215 mm depth. 1 U rack 19"
WEIGHT	2.6 kg

AUXILIARY EQUIPMENT

Noise filters

	FAM-80
FEATURES	Ground isolating noise filter for stereo line. Eliminates noise and hum.
RESPONSE	20-20,000 Hz
INPUTS	1 stereo auxiliary, 2 x RCA
OUTPUTS	1 stereo auxiliary, 2 x RCA
DIMENSIONS	42 x 31 x 67 mm depth
WEIGHT	0.1 kg

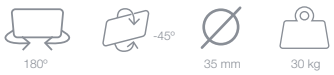
AUXILIARY EQUIPMENT

Power supply

	PD-708
FEATURES	Power sequencer. Sequential on/off. Power delay selectable between outputs. Fixed switch-off delay. Possibility of remote on/off through contact closure.
CONTROLS	Auto on/off Power-on delay selector (0.5 to 4.5 s) Output selectors
OUTPUTS	8 female schuko connectors, 15 A total
INDICATORS	On and auto on/off indicator lights Selected output indicator light Delay display between devices Operating voltage display
POWER SUPPLY	100-240 V AC, 5,000 W maximum
DIMENSIONS	483 x 88 x 210 mm depth. 2 U rack 19”
WEIGHT	3.8 kg

HIGH POWER ACCESSORIES

Wall mounts



	SAL-3504	SAL-623N
FEATURES	Full motion wall mount for loudspeaker with 35 mm tube.	Pair of full motion for loudspeakers
ARM	Horizontally adjustable 180° Vertical inclination -45°	Horizontally adjustable 140° Can be tilted vertically ±20°
MAXIMUM SUPPORTED WEIGHT	30 kg	3.5 kg
COLOUR	Black	Black
DIMENSIONS	Total: 122 x 250 x 335 mm depth Wall plate: 122 x 250 mm High Clamping of the speaker with 35 mm tube Rear support adjustment distance of 170 mm ~ 260 mm from the tube	Total: 49 x 87 x 64 mm depth Wall plate: 49 x 78 mm Support for speaker: 28 x 60 mm with holes of 5.25 mm with screw spacing of approximately 10 mm
WEIGHT	8.1 kg	2 x 0.1 kg
ACCESSORIES	-	Screws for wall installation and assembly of the speaker

HIGH POWER ACCESSORIES

Floor mounts

	RS-505	RS-505-2	RS-506	RS-561
FEATURES	Floor mount for speaker. Standard tube diameter 35 mm. High stability tripod base. Made of heavy-duty steel. Metal connecting parts. Foldable and adjustable in height. Black finish.	Pair of speaker mounts. Constructed of extra-strong steel, black finish. Metal connecting parts. Upper tube 35 mm.	Floor mounts for speaker. Standard tube diameter 35 mm. Speaker adapter with bolt-on base. High stability tripod base. Made of heavy-duty steel. Metal connecting parts. Foldable and adjustable in height. Black finish.	Speaker support to place over subwoofer. Standard tube 35 mm diameter on top and bottom. Height adjustment.
HEIGHT	Adjustable 115 to 175 cm		Adjustable 115 to 175 cm	Adjustable 90 to 130 cm
MAXIMUM SUPPORTED WEIGHT	50 kg		30 kg	50 kg
WEIGHT	2.9 kg	2 x 2.9 kg	3 kg	1 kg

HIGH POWER ACCESSORIES

Loudspeaker installation

	ECA-4	MSQ-70	MSQ-80	CCM-8	CCM-10
FEATURES	Stainless steel safety cable with thimbles.	Zinc plated carabiner with safety catch.	Zinc plated carabiner with safety catch.	Zinc plated eyebolt.	Zinc plated eyebolt.
PAYLOAD	150 kg	-	-	-	-
BREAKING LOAD	765 kg	120 kg	150 kg	85 kg	150 kg
DIMENSIONS	4 x 600 mm Other dimensions (minimum order 10 u): Please ENQUIRE	7 x 70 mm	8 x 80 mm	M8 x 60 mm	M10 x 24 mm

SPEAKER COMPONENTS

Woofer

	UT-410	FPW-100	FPW-200
DIAMETER	4" = 10 cm	6 ½" = 16.5 cm	8" = 20 cm
POWER	30 W maximum, 20 W RMS	100 W maximum, 50 W RMS	200 W maximum, 100 W RMS
RESPONSE	60-12,000 Hz	100-5,500 Hz	55-4,000 Hz
IMPEDANCE	8 Ω		
SENSITIVITY	89 dB at 1 W/1 m	90 dB at 1 W/1 m	91 dB at 1 W/1 m
WINDING	-	25 mm Ø x 12.5 mm height	25 mm Ø x 12.5 mm height
SOUND PRESSURE	99 dB at full power at 1 m	106 dB	108 dB
MAGNET	10 oz	Ferrite 100 mm 20 oz	Ferrite 100 mm 20 oz
MOVING MASS	-	8.2 g	16-2 g
RECOMMENDED BOX VOLUME	-	14 l	36 l
DIMENSIONS	Total: 105 x 105 x 60 mm depth Inset: 103 mm Ø x 56 mm depth	Total: 170 mm Ø x 79 mm depth Inset: 146 mm Ø x 72 mm depth	Total: 202 mm Ø x 90 mm depth Inset: 185 mm Ø x 82 mm depth
WEIGHT	0.68 kg	2.1 kg	3.1 kg

SPEAKER COMPONENTS

Miniature

	EP-36	EP-40
SPEAKER	1 3/8" = 36 mm	1 5/8" = 40 mm
POWER	0.30 W	
IMPEDANCE	8 Ω	
SENSITIVITY	-	-
SOUND PRESSURE	-	-
MAGNET	Alnico	
CONE	Mylar	
DIMENSIONS	Total: 36 mm Ø x 5 mm depth (extra flat) Inset: 33 mm Ø x 3 mm depth	Total: 40 mm Ø x 5 mm depth (extra flat) Inset: 36 mm Ø x 3 mm depth

	FE-385M	FE-3850M	FE-35810M	FE-4815M
SPEAKER	3" = 76 mm	3" = 76 mm	3 ½" = 89 mm	4" = 102 mm
POWER	0.50 W	5 W max	10 W	15 W
IMPEDANCE	8 Ω	8 Ω	8 Ω	8 Ω
SENSITIVITY		91 dB a 1 W/1 m	91 dB a 1 W/1 m	91 dB a 1 W/1 m
SOUND PRESSURE		97 dB a 1 m	99 dB a 1 m	100 dB a 1 m
MAGNET	Ferrite			
CONE	Mylar			
DIMENSIONS	Total: 77 mm Ø x 23 mm depth Inset: 70 mm Ø x 20 mm depth	Total: 77 x 77 x 32 mm depth Inset: 77 mm Ø x 30 mm depth Faston terminals 5.2 mm	Total: 87' 8 x 87' 87 x 35 mm depth Inset: 87 mm Ø x 33 mm depth Faston terminals 5.2 mm	Total: 102 x 102 x 41 mm depth Inset: 101 mm Ø x 38 mm depth Faston terminals 2.8 mm
WEIGHT	-	0.2 kg	0.3 kg	0.4 kg

microphones

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CONFERENCE **SYSTEMS**

SCF-250
MIC-SCF-P
MIC-SCF-D

SCF-550
SCF-560P
SCF-570D
SCF-580EXT

	BASIC	AMPLIFIED
Maximum number of microphones without extension	64	64
Possible number of chairman microphones	Unlimited	Unlimited
Type of connection	8 DIN cable	8 DIN cable
Maximum length	100 m	100 m
Microphones with speaker	No	Yes
Amplifier	No	Yes
USB recorder	No	No
PTZ camera control	No	No
Voting	No	No
PC software configuration	No	No
Expandable	No	Up to 250 microphones **SCF-580EXT** ON REQUEST
Applications	Video conference Sound of meetings	Video conference Sound of meetings Built-in amplifier
Why choose it?	*Simple handling* *Affordable price*	*Integrates amplification to improve listening*

SCI-750
SCI-760P
SCI-770D
SCI-780C
SCI-790C

SCD-600
SCD-610P
SCD-620D
SCD-630EXT
SCD-640DT

	WIRELESS	DIGITAL
Maximum number of microphones without extension	1000	16
Possible number of chairman microphones	1	1
Type of connection	Wireless	Ethernet cable
Maximum length	60 m	100 m
Microphones with speaker	No	Yes
Amplifier	No	No
USB recorder	Yes	Yes
PTZ camera control	No	Yes (1 camera)
Voting	No	Yes
PC software configuration	No	Yes
Expandable	No	Up to 72 microphones (**SCD-360EXT**) DANTE (**SCD-640DT**)
Applications	Video conference Meetings	Video conference Meetings Voting
Why choose it?	*Easy to install system* *No need for cabling*	*Better sound* *Cable easy to install* *PTZ Camera control*

CONFERENCE SYSTEMS

Standard

	SCF-250
FEATURES	Control unit for system power supply. Telephone connection input. Allows connection of up to 64 microphones. Selector of maximum number of microphones in use. Built in compliance with IEC 60914 Conference Systems and IEC 61603-7 Transmission Systems standards.
RESPONSE	20-18,000 Hz
DISTORTION	THD+N: <0.05% at 1 kHz
S/N RATIO	>75 dB
CONTROLS	General volume Bass, mid and treble control Control the number of active microphones
INDICATORS	On/off
INPUTS	1 extension of telephone switchboard, RCA 4 groups of microphones, DIN 8 female for system interconnection
OUTPUTS	1 extension, DIN 8 1 aux line, XLR and 2 x RCA 1 Extension of telephone switchboard, RCA
POWER SUPPLY	230/115 V AC, 100 W
DIMENSIONS	483 x 44 x 345 mm depth. 1 U 19" rack
WEIGHT	5 kg
ACCESSORIES	1 extension cable 13 m for interconnection with microphones, DIN 8 male to DIN 8 female 2 audio cables 1.6 m, RCA to 6.3 mm mono plug 1 audio cable 2 m, XLR 1 terminal connector DIN 8 male
OPTIONAL	560789: Customized extension cable. Please ENQUIRE

	MIC-SCF-P MIC-SCF-D
CAPSULE	Unidirectional cardioid electret condenser
RESPONSE	50-20,000 Hz
SENSITIVITY	-42 dB ±3 dB (V/Pa) a 1 kHz
IMPEDANCE	600 Ω
SPL MAX	128 dB
EQUIVALENT NOISE	33 dB
DYNAMIC RANGE	95 dB
DISTORTION (THD)	<1 %
SNR	61 dB
INDICATORS	LED power indicator LED Operating Ring
TEMPERATURE	Operating temperature: -20 °C- 50 °C STORAGE TEMPERATURE -25 °C- 70 °C Relative humidity: 0 - 90 %
CONNECTORS	Input: XLR 3-pin female Output: DIN male 8 PIN
POWER SUPPLY	18 V DC, supplied by the control unit
CABLE	1.2 m DIN male 8 PIN
DIMENSIONS	Gooseneck: 45 cm high Base: 93 x 46 x 122 mm depth
WEIGHT	0.58 kg
ACCESSORIES	Windshield foam 1 Y interconnect cable, 2 + 0.2 m DIN 8 male to 2 DIN 8 female

CONFERENCE SYSTEMS

Amplified

	SCF-550
FEATURES	Control unit for conference system. Controls the number of active microphones: 1, 2, 3, 5 or no limit. Allows connection of up to 64 microphones in total (extendable up to 250. Please ENQUIRE). Built-in amplifier. It offers great versatility thanks to the variety of inputs and outputs. Simple installation and intuitive to use. Built in compliance with IEC 60914 Conference Systems and IEC 61603-7 Transmission Systems standards.
POWER	50 + 50 W RMS a 4-16 Ω
RESPONSE	40-18,000 Hz
DISTORTION	THD+N: < 0.5%
S/N RATIO	>75 dB
CONTROLS	Mic: Volume Aux: Volume Monitor: volume Speaker monitor microphones: volume Amplifier monitor speaker: volume Bass and treble control General volume Controls the number of active microphones
INPUTS	4 microphone groups, DIN 8 1 unbalanced mic, 6.3 mm jack 1 efx in, jack 6.3 mm 1 aux, RCA
OUTPUTS	1 master balanced, XLR (recording) 2 line out, RCA 1 efx out, jack 6.3 mm
POWER SUPPLY	230/115 V AC, 500 W
DIMENSIONS	483 x 87 x 400 mm depth. 2 U 19” rack
WEIGHT	12 kg
ACCESSORIES	1 extension cable 13 m for interconnection with microphones, DIN 8 male to DIN 8 female. Other lengths, please ENQUIRE 1 2 m XLR audio cable 2 audio cables 1.5 m RCA to 6.3 mm mono plug 1 terminal connector DIN 8 male

CONFERENCE SYSTEMS

Amplified

	SCF-560P	SCF-570D
FEATURES	Chair microphone with speech priority and delegate microphone cancellation function. Built-in monitor speaker. Metal microphone base. Unidirectional electret condenser capsule. Light ring and backlit buttons.	Delegate microphone. Built-in monitor speaker. Metal microphone base. Unidirectional electret condenser capsule. Light ring and backlit buttons.
POWER	2 W RMS	
RESPONSE	40-18,000 Hz	
SENSITIVITY	-44 dB ±2 dB	
DISTORTION	THD+N: < 0.5%	
S/N RATIO	>75 dB	
CONTROLS	Switch button to talk Priority over delegate microphones. Microphone speaker volume	
INPUTS	Power supply and audio, DIN 8 female interconnection 1 mic, 3.5 mm jack	
OUTPUTS	1 headphone, 3.5 mm stereo jack 1 audio, DIN 8 female interconnection	1 headphone, 3.5 mm stereo jack 1 audio, DIN 8 female interconnection 1 recording, 3.5 mm jack

	SCF-580EXT
FEATURES	Microphone extension for conference system SCF-550. Allows connection of up to 250 microphones.
POWER SUPPLY	230 V AC, 500 W
DIMENSIONS	488 x 87 x 400 mm depth. 2 U 19” rack
WEIGHT	10 kg
ACCESSORIES	2 extension cables 13 m for interconnection with microphones, DIN 8 male to DIN 8 female 2 cables for interconnection with microphones, DIN 8 male to DIN 8 male Other lengths, please ENQUIRE 1 terminal connector DIN 8 male

ON REQUEST

CONFERENCE SYSTEMS

Wireless

	SCI-750
FEATURES	Control unit. Carrier frequency range: 610 - 634.75MHz. Data control frequency range: 422.4 - 438.4 MHz. LCD information display. Wireless receiver. USB recorder/player. Priority control with delegate cut-off while president has priority. Maximum number of microphones in use selector. Up to 256 microphones in total, 5 active at a time. Audio and control signal transition between the switchboard and the microphones.
RESPONSE	50-15,000 Hz
OUTPUTS	1 balanced line, XLR 12.000 Ω 200 mV 1 unbalanced line, 6.3 mm jack 200 mV 200 mV RS-232 port
POWER SUPPLY	12-15 V DC, 7 W
DIMENSIONS	483 x 89 x 380 mm depth. 2 U 19" rack
WEIGHT	7 kg
ACCESSORIES	4 antennas 6.3 mm mono cable
OPTIONAL	SCI-760P: wireless desktop microphone chairperson SCI-770D Delegate desktop microphone SCI-780C: Battery charger case SCI-790C: Battery charger case

CONFERENCE SYSTEMS

Wireless

	SCI-760P	SCI-770D
FEATURES	Chairman wireless microphone. Priority and control over delegated microphones. Information display. Gooseneck microphone. Automatic channel selection. Data and audio transmission. Carrier frequency range: 610-. 75MHz. Data control frequency range: 422.4 - 438.4 MHz. Reach up to 60 m under favourable conditions.	Delegate wireless microphone. Information display. Gooseneck microphone. Automatic channel selection. Data and audio transmission. Carrier frequency range: 610-. 75MHz. Data control frequency range: 422.4 - 438.4 MHz. Reach up to 60 m under favourable conditions.
POWER	10 mW maximum	
CAPSULE	Unidirectional electret condenser	
RESPONSE	50 - 20,000 Hz	
SENSITIVITY	-45 dB (V/Pa) a 1 kHz	
DYNAMIC RANGE	110 dB	
DISTORTION	THD+N: <1%	
POWER SUPPLY	Rechargeable battery 3.7 V, 1,950 mAh included or 3 x 1.5 V LR6-AA batteries	
DIMENSIONS	Gooseneck microphone: 430 mm Base: 180 x 58 x 120 mm depth	
WEIGHT	0.7 kg	
ACCESSORIES	Windshield foam Adapter for operation with LR6-AA batteries	

CONFERENCE SYSTEMS

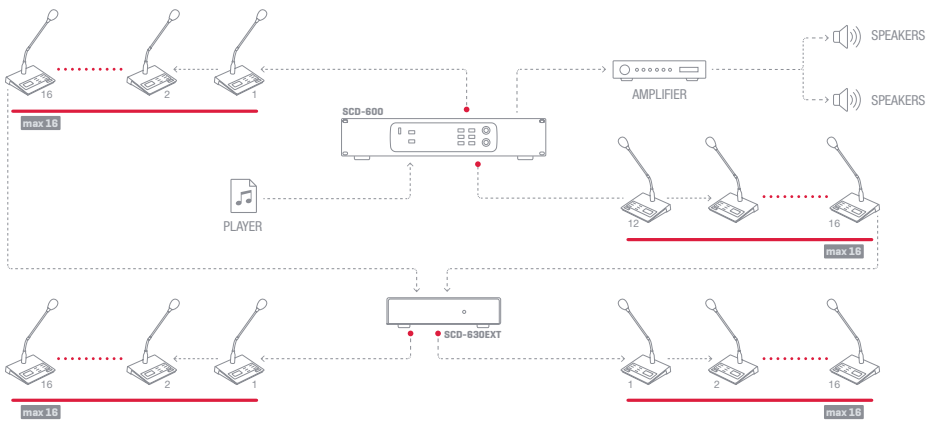
Wireless

	SCI-780C	SCI-790C
FEATURES	Battery charger case for microphones of the wireless conference system SCI-750, SCI-760P and SCI-770D	
	Allows charging of up to 16 batteries.	Allows charging of up to 8 batteries.
POWER SUPPLY	110-240 V AC, 200 W Recharge time 8-10 h	
COLOUR	Black	
DIMENSIONS	620 x 175 x 380 mm depth	400 x 150 x 380 mm depth
WEIGHT	9.8 kg	6 kg

CONFERENCE SYSTEMS

Digital

	SCD-600
FEATURES	Control unit. LCD information display. USB recorder/player. Priority control with delegate cut-off while president has priority. Selector of maximum number of microphones in use. Power supply to 16 microphones (8 in each of the 2 microphone ports). Up to 72 microphones in total with the microphone extension SCD-630EXT. The system supports 1 chairman microphone. Audio and control signal transition between the switchboard and the microphones. Live voting possible. DSP function and feedback suppressor. Connection between system elements with Cat 5, Cat 6 cable. PC software for configuration and control. PTZ Camera control.
RESPONSE	20-20,000 Hz
INPUTS	2 ports of conference microphones, RJ45 1 Ethernet, RJ45 1 RS-485 Controld E PTX cameras, RJ45 1 Alarm-in, activation of alarm status by closing contacts. Euroblock 1 balanced mic, XLR 1 line (Aux and Alarm), 2 x RCA
OUTPUTS	2 recording, 2 x RCA 1 unbalanced line, 2 x RCA
POWER SUPPLY	230/115 V AC, 350 W
DIMENSIONS	483 x 88 x 330 mm depth. 2 U 19” rack
WEIGHT	5.65 kg
OPTIONAL	SCD-610P Chairman desktop microphone SCD-620D Delegate desktop microphone SCD-630EXT Microphone extension SCD-640DT: DANTE Expansion Module



CONFERENCE SYSTEMS

Digital

	SCD-610P	SCD-620D
FEATURES	President microphone. Priority and control over delegated microphones. Information display. Voting buttons. Built-in monitor speaker. Gooseneck microphone. Data and audio transmission. Connection with Cat 5e, Cat 6 cable.	Delegate microphone. Information display. Voting buttons. Built-in monitor speaker. Gooseneck microphone. Data and audio transmission. Connection with Cat 5e, Cat 6 cable.
MICROPHONE	Unidirectional electret condenser with LED ring	
DIMENSIONS	Gooseneck microphone: 440 mm Base: 170 x 39 x 172 mm depth	
WEIGHT	0.7 kg	
ACCESSORIES	Windshield foam Cat 5e / FTP network cable with shielded connectors, 2 m length	

	SCD-630EXT
FEATURES	Extension of delegate and chairman microphones. Connect up to 32 microphones (16 on each of the 2 conference microphone ports). Connection of up to with the possibility to expand up to 72 microphones in total with another microphone extension SCD-630EXT.
INPUTS	2 ports for connection to microphones SCD-610P or SCD-620D, RJ-45
OUTPUTS	2 ports for connection to microphones SCD-610P or SCD-620D, RJ-45
POWER SUPPLY	230/115 V AC, 350 W
DIMENSIONS	196 x 43 x 306 mm depth
WEIGHT	2.5 kg
ACCESSORIES	2 network cables

	SCD-640DT
FEATURES	DANTE expansion module. 2 x 2 digital audio input/output channels. RJ-45, Cat 5e cable connections. 2 DANTE ports, 2 x RJ-45 (primary and secondary).
CONNECTION	Cable RJ-45, Cat 5
DIMENSIONS	122 x 32 x 120 mm depth
WEIGHT	0.2 kg

WIRELESS MICROPHONES

UHF

> Standard

Basic

FREQUENCIES AVAILABLE
557. 2 MHz
578. 4 MHz
636. 5 MHz
652. 1 MHz
680. 2 MHz
687. 5 MHz
685. 3 MHz
691. 5 MHz

UHF

BATTERIES INCLUDED — 8 h

BATTERIES INCLUDED — 10 h

	SONAIR-1M	SONAIR-1P
FEATURES	Compact receiver with RF signal indicator and audio signal. Fixed frequency transmission channels. Transmission distance greater than 30 m. User friendly. Maximum 8 microphones/receivers operating simultaneously on different channels.	
	Wireless hand-held microphone with unidirectional dynamic capsule.	Wireless belt-pack microphone with clip-on microphone with unidirectional condenser capsule.
POWER	30 mW	
RESPONSE	30-20,000 Hz (+/- 2 dB)	
S/N RATIO	> 96 dB	
OUTPUTS	Audio: 1 balanced, XLR, 0 ~ 250 mV, 600 Ω 1 unbalanced, 6.3 mm jack, 0 ~ 250 mV, 1 KΩ	
RECEIVER	Receiving sensitivity: -95 dBm Distribution: < 0.3% Latency: 3 ms	
POWER SUPPLY	Receiver: 12 V DC, 500 mA with adapter included Transmitter microphone: 2 x AA batteries. Supports rechargeable batteries.	
DIMENSIONS	Receiver: 210 x 46 x 156 mm depth	
WEIGHT	0.4 kg	0.35 kg

WIRELESS MICROPHONES

UHF

> Standard

Basic

Available frequencies:
Group 1: 557.2/ 578.4 MHz
Group 2: 636.5/ 652.1 MHz
Group 3: 680.2/ 687.5 MHz
Group 4: 685.3/ 691.5 MHz

UHF

BATTERIES INCLUDED

8 h

BATTERIES INCLUDED

8-10 h

	SONAIR-2M	SONAIR-2MP
FEATURES	Compact receiver with RF signal indicator and audio signal. Fixed frequency transmission channels. Transmission distance greater than 30 m. User friendly. Maximum 8 microphones/receivers operating simultaneously on different channels.	
	Dual hand-held wireless microphone with unidirectional dynamic capsule.	Dual UHF hand-held wireless microphone and belt-pack. Hand-held microphone with unidirectional dynamic capsule. Belt-pack transmitter with clip-on microphone with unidirectional condenser capsule.
POWER	30 mW	
RESPONSE	30-20.000 Hz (+/- 2 dB)	
S/N RATIO	> 96 dB	
OUTPUTS	Audio: 1 balanced, XLR, 0 ~ 250 mV, 600 Ω 1 unbalanced, 6.3 mm jack, 0 ~ 250 mV, 1 KΩ	
RECEIVER	Receiving sensitivity: -95 dBm Distribution: < 0.3% Latency: 3 ms	
POWER SUPPLY	Receiver: 12 V DC, 500 mA with adapter included Transmitter microphone: 2 x AA batteries. Supports rechargeable batteries.	
DIMENSIONS	Receiver: 210 x 46 x 156 mm depth	
WEIGHT	0.4 kg	

WIRELESS MICROPHONES

UHF

> Standard

PRO

N!

ON REQUEST

	SONAIR-PRO-1RACK
FEATURES	Mount 1 U rack 19" for SONAIR-PRO-1M and SONAIR-PRO-1P wireless microphones
WEIGHT	0.1 kg

AVAILABLE FREQUENCIES

Range 640-690 MHz
500 channels

ID PILOT DIVERSITY UHF IR SYNC

BATTERIES INCLUDED 8 h

BATTERIES INCLUDED 10 h

	SONAIR-PRO-1M	SONAIR-PRO-1P
FEATURES	Receiver with colour display of information; transmission channel, battery level in microphone, etc. Radio frequency signal and audio signal indicator. ID pilot function 16 bit pairing code to avoid interference. Diversity reception with antennas. Transmission of the receiver channel to the microphone with SYNC IR. Selectable channels. Transmission distance greater than 50 m. Great vocal quality. Maximum 7 - 8 microphones/receivers operating simultaneously on different channels.	
	Wireless hand-held microphone with unidirectional dynamic capsule.	Wireless belt-pack microphone with clip-on microphone.
POWER	30 mW	
RESPONSE	30-20,000 Hz (+/- 2 dB)	
S/N RATIO	> 96 dB	
OUTPUTS	Audio: 1 balanced, XLR, 0 ~ 250 mV, 600 Ω 1 unbalanced, 6.3 mm jack, 0 ~ 250 mV, 1 KΩ	
RECEIVER	Receiving sensitivity: -95 dBm Distribution: < 0.3% Latency: 3 ms	
POWER SUPPLY	Receiver: 12 V DC, 1 A with adapter included Transmitter microphone: 2 x AA batteries. Supports rechargeable batteries.	
DIMENSIONS	Receiver: 210 x 50 x 175 mm depth	
WEIGHT	0.9 kg	

WIRELESS MICROPHONES

UHF

> Standard

PRO

AVAILABLE FREQUENCIES

Range 640-690 MHz
500 channels

ID PILOT DIVERSITY UHF IR SYNC

BATTERIES INCLUDED 8 h

N!

BATTERIES INCLUDED 10 h

BATTERIES INCLUDED 8-10 h

	SONAIR-PRO-2M	SONAIR-PRO-2P	SONAIR-PRO-2MP
FEATURES	Receiver with colour display of information; transmission channel, battery level in microphone, etc. Radio frequency signal and audio signal indicator. ID pilot function 16 bit pairing code to avoid interference. Diversity reception with antennas. Transmission of the receiver channel to the microphone with SYNC IR. Selectable channels. Transmission distance greater than 50 m. Great vocal quality. Maximum 7 - 8 microphones/receivers operating simultaneously on different channels.		
	Dual hand-held wireless microphone with unidirectional dynamic capsule.	Dual wireless belt-pack microphone.	Dual hand-held and belt-pack wireless microphone
POWER	30 mW		
RESPONSE	30-20,000 Hz (+/- 2 dB)		
S/N RATIO	> 96 dB		
OUTPUTS	Audio: 2 balanced, XLR, 0 ~ 250 mV, 600 Ω 1 unbalanced mix, 6.3 mm jack, 0 ~ 250 mV, 1 KΩ		
RECEIVER	Receiving sensitivity: -95 dBm Distribution: < 0.3% Latency: < 3 ms		
POWER SUPPLY	Receiver: 12 V DC, 1 A with adapter included Transmitter microphone: 2 x AA batteries. Supports rechargeable batteries.		
DIMENSIONS	Receiver: 420 x 50 x 180 mm depth		
WEIGHT	1.6 kg		

WIRELESS MICROPHONES

UHF

> Standard

TRUE DIVERSITY

AVAILABLE FREQUENCIES
Frequency range 512-525 MHz 32 channels
Frequency range 570-582 MHz 32 channels
Frequency range 631-645 MHz 32 channels

UHF IR SYNC

RECHARGEABLE BATTERIES INCLUDED

RECHARGEABLE BATTERIES INCLUDED

	MSH-883-512 MSH-883-570 MSH-883-631	MSH-887-512 MSH-887-570 MSH-887-631
FEATURES	Auto scan function. IR channel to microphone transmission. Detachable antennas. With several receivers, max. 4 - 5 microphones at the same time. For more microphones use other frequency bands.	
	True diversity receiver with unidirectional electret condenser capsule lavalier microphone and wireless bodypack transmitter.	True diversity receiver with hand-held wireless microphone with unidirectional electret condenser capsule.
POWER	10 mW maximum	
RESPONSE	40-18,000 Hz	
S/N RATIO	> 105 dB	
OUTPUTS	Audio: 1 balanced, XLR, 0 ~ 600 mV, 600 Ω 1 unbalanced, 6.3 mm jack, 0 ~ 300 mV, 1 KΩ	
POWER SUPPLY	Receiver: 12. 8 V DC, 250 mA with adapter included Transmitter microphone: 2 LR6-AA batteries Supports rechargeable batteries.	
DIMENSIONS	Receiver: 210 x 45 x 163 mm depth	

WIRELESS MICROPHONES

UHF

> Standard

TRUE DIVERSITY

UHF IR SYNC

AVAILABLE FREQUENCIES
Frequency range 512-525 MHz 32 channels
Frequency range 570-582 MHz 32 channels
Frequency range 631-645 MHz 32 channels

RECHARGEABLE BATTERIES INCLUDED

RECHARGEABLE BATTERIES INCLUDED

RECHARGEABLE BATTERIES INCLUDED

	MSH-892-512 MSH-892-570 MSH-892-631	MSH-895-512 MSH-895-570 MSH-895-631	MSH-898-512 MSH-898-570 MSH-898-631
FEATURES	Auto scan function. IR channel to microphone transmission. Detachable antennas. With several receivers, max. 4 - 5 microphones at the same time. For more microphones use other frequency bands.		
	True Diversity double receiver with 2 clip-on microphones with unidirectional electret condenser capsule and 2 wireless belt-pack transmitters.	True Diversity double receiver with 2 wireless hand-held microphones with unidirectional electret condenser capsule.	True Diversity receiver with 1 hand-held wireless microphone with unidirectional electret condenser capsule and 1 tie-clip microphone with unidirectional electret condenser capsule and wireless belt-pack transmitter.
POWER	10 mW maximum		
RESPONSE	40-18,000 Hz		
S/N RATIO	> 105 dB		
OUTPUTS	Audio: 2 balanced, XLR, 0 ~ 600 mV, 600 Ω 2 unbalanced, 6.3 mm jack, 0 ~ 300 mV, 1 KΩ 1 unbalanced line mixed signal, 6.3 mm jack, 0 ~ 300 mV, 1 KΩ		
POWER SUPPLY	Receiver: 12. 8 V DC, 250 mA with adapter included Transmitter microphone: 2 LR6-AA batteries Supports rechargeable batteries.		
DIMENSIONS	Receiver: 420 x 45 x 206 mm depth		

WIRELESS MICROPHONES

UHF

> Standard

TRUE DIVERSITY

AVAILABLE FREQUENCIES
Frequency range 512-525 MHz 32 channels
Frequency range 570-582 MHz 32 channels
Frequency range 631-645 MHz 32 channels.

	MSHR-45-512 MSHR-45-570 MSHR-45-631
FEATURES	True diversity UHF receiver. Auto scan function. IR channel transmission to microphone. Detachable antennas. For replacement or extension. For mods. MSH-883 and MSH-887.
INPUTS	2 antennas, TNC female, 50 Ω With 8 V DC output for power supply of antenna amplifiers
OUTPUTS	Audio: 1 balanced, XLR, 0 ~ 600 mV, 600 Ω 1 unbalanced, 6.3 mm jack, 0 ~ 300 mV, 1 KΩ
POWER SUPPLY	Receiver: 12. 8 V DC, 250 mA with adapter included
DIMENSIONS	Receiver: 210 x 45 x 163 mm depth
WEIGHT	1.5 kg

AVAILABLE FREQUENCIES
Frequency range 512-525 MHz 32 channels
Frequency range 570-582 MHz 32 channels
Frequency range 631-645 MHz 32 channels

	MSHR-46D-512 MSHR-46D-570 MSHR-46D-631
FEATURES	True diversity UHF dual receiver. Auto scan function. IR channel transmission to microphone. Detachable antennas. For mods. MSH-892, MSH-895 and MSH-898.
INPUTS	2 antennas, TNC female, 50 Ω With 8 V DC output for power supply of antenna amplifiers
OUTPUTS	Audio: 2 balanced, XLR, 0 ~ 600 mV, 600 Ω 2 unbalanced, 6.3 mm jack, 0 ~ 300 mV, 1 KΩ 1 unbalanced line mixed signal, 6.3 mm jack, 0 ~ 300 mV, 1 KΩ
POWER SUPPLY	Receiver: 12. 8 V DC, 450 mA with adapter included
DIMENSIONS	420 x 45 x 187 mm depth
WEIGHT	2.7 kg

WIRELESS MICROPHONES

UHF

> Standard

TRUE DIVERSITY

AVAILABLE FREQUENCIES
Frequency range 512-525 MHz 32 channels
Frequency range 570-582 MHz 32 channels
Frequency range 631-645 MHz 32 channels

UHF RECHARGEABLE BATTERIES INCLUDED

UHF RECHARGEABLE BATTERIES INCLUDED

UHF RECHARGEABLE BATTERIES

UHF BATTERIES INCLUDED

	MSHT-40M-512 MSHT-40M-570 MSHT-40M-631	MSHT-45P-512 MSHT-45P-570 MSHT-45P-631	MSHT-42S-512 MSHT-42S-570 MSHT-42S-631	MSHT-43C-512 MSHT-43C-570 MSHT-43C-631
FEATURES	Hand-held wireless microphone with unidirectional electret condeser capsule and UHF transmitter for replacement or expansion. For mods. MSH-887, MSH-895 and MSH-898.	Wireless lavalier microphone with unidirectional electret condenser capsule and UHF bodypack transmitter for replacement or upgrade. For mods. MSH-883, MSH-892 and MSH-898.	Desktop wireless microphone with unidirectional electret condenser capsule and UHF transmitter for replacement or upgrade. For mods. MSH-883, MSH-887, MSH-892, MSH-895 and MSH-898.	Hands-free wireless head microphone with unidirectional electret condenser capsule and UHF transmitter for replacement or expansion. For mods. MSH-883, MSH-887, MSH-892, MSH-895 and MSH-898.
POWER SUPPLY	2 LR6-AA batteries Supports rechargeable batteries; integrated recharging function	2 LR6-AA batteries Supports rechargeable batteries; integrated recharging function	2 LR6-AA batteries Supports rechargeable batteries; integrated charging function with mini USB connector	1 LR03-AAA battery
DIMENSIONS	257 x 52 mm Ø	64 x 108 x 24 mm depth	470 mm total height with gooseneck 425 mm and base 100 x 42 x 125 mm depth	-
ACCESSORIES	Rechargeable batteries	Windshield foam Tie clip Rechargeable batteries	Antenna Rechargeable batteries	Windshield foam Batteries
WEIGHT	0.4 kg	0.1 kg	0.6 kg	0.06 kg

MSH-883	MSHR-45 + MSHT-45P
MSH-887	MSHR-45 + MSHT-40M
MSH-892	MSHR-46D/2xMSHT-45P
MSH-895	MSHR-46D/2xMSHT-40M
MSH-898	MSHR-46D/MSHT-45P+ MSHT-40M

WIRELESS MICROPHONES

UHF

> Standard

TRUE DIVERSITY

	MSC-2
FEATURES	Wireless microphone recharging station. Allows rechargeable batteries of mods. MSHT-40M, MSHT-45P and RI-840.
POWER SUPPLY	6 V DC, 1 A, with adapter included
INDICATORS	Power indicator light Charging process indicator light Full charge indicator light
DIMENSIONS	178 x 88 x 90 mm depth
WEIGHT	0.55 kg

	MSC-12
FEATURES	Charging station for wireless microphone systems and in-ear monitor. Simultaneous charging capacity of 12 microphones or receivers. It allows rechargeable batteries of the mods.: MSHT-40M, MSHT-45P and RI-840.
POWER SUPPLY	5.5 V DC, 5 A, including adaptor
INDICATORS	Power indicator light Charging indicator lights.
DIMENSIONS	355 x 69 x 202 mm depth
WEIGHT	2.4 kg

	ANG-5L
FEATURES	Mount for mounting in 1 U rack 19" the wireless systems FONESTAR mods. MSH-883 and MSH-887.
WEIGHT	0.2 kg

WIRELESS MICROPHONES

UHF

> *Antenna distributtors*

TRUE DIVERSITY

	AMP-811	ADU-830	ADU-823AMP
FEATURES	Antenna amplifier for improved reception and extended range of wireless microphones. Female TNC connector.	UHF directional antenna to improve reception and extend the range of wireless microphones. 470~ 960 MHz. Female TNC connector. Mount with standard thread 5/8" for installation in microphone or wall.	UHF directional antenna with integrated amplifier. 470~ 960 MHz. Improves reception and extends the range of wireless microphones. Female TNC connector. Mount with standard thread 5/8" for installation in microphone or wall.
GAIN	10 dB	14 dB	30 dB
POWER SUPPLY	9 V DC provided by microphone receivers via antenna input (models MSHR-45, MSHR-46D)		9 V DC provided by microphone receivers via antenna input (models MSHR-45, MSHR-46D)
DIMENSIONS	95 x 26 x 28 mm depth	95 x 26 x 28 mm depth	267 x 30 x 305 mm depth
WEIGHT	0.1 kg	0.22 kg	0.24 kg

	CAB-1M
FEATURES	Antenna cable 1 m TNC male to TNC male for wireless systems FONESTAR mods. AMP-811, MSHR-45 and MSHR-46D.

	7264
FEATURES	TNC female-female adapter for panel mounting

WIRELESS MICROPHONES

UHF

> *In ear monitor*

UHF

RECHARGEABLE BATTERIES INCLUDED

	RI-840-512
FEATURES	Wireless receiver in ear monitor 32 channels selectable PLL UHF 512-525 MHz. Reception with FM modulation mono. For use with the FONESTAR wireless system of monitor in ear. Possibility to use multiple receivers (RI-840-512) with a transmitter in the same channel. For use with MSHT-40M-512, MSHT-42S-512, MSHT-43C-512 and MSHT-45P-512 models.
RESPONSE	50-15,000 Hz
POWER SUPPLY	2 LR6-AA batteries Supports rechargeable batteries; integrated recharging function
DIMENSIONS	64 x 108 x 24 mm depth
WEIGHT	0.12 kg

MSHT-42S-512 | MSHT-40M-512 | MSHT-43C-512 | MSHT-45P-512

Tx

RI-840-512

Rx

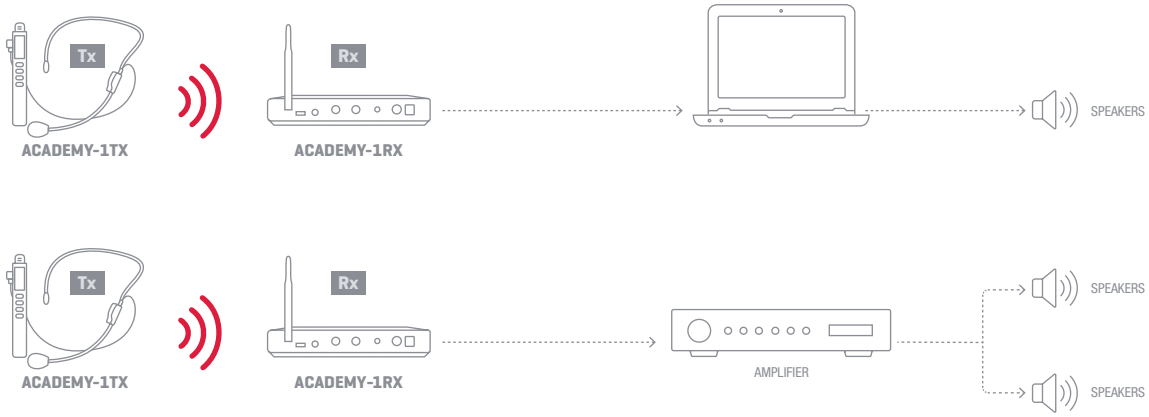
WIRELESS MICROPHONES

UHF

> Education

	ACADEMY-1
FEATURES	Wireless microphone for education and presentations. Wireless hand-held/head-worn microphone with unidirectional electret condenser capsule, rechargeable Li-ion battery, laser pointer and slideshow function. Receiver with audio output and volume control. UHF technology and digital modulation provides noise and interference free sound. Automatic microphone and receiver synchronization. 12 microphones and receivers can operate at the same time. Up to 30 m transmission distance.
RECEIVER/ MICROPHONE	16 channels UHF automatic selection band 720 - 780 MHz, GFSK modulation
RESPONSE	50-16,000 Hz
OUTPUTS	1 microphone/line unbalanced, 6.3 mm mono jack, 715 mVRMS 1 USB for slide presenter function
S/N RATIO	> 90 dB
POWER	10 mW maximum
POWER SUPPLY	Receiver: 5 V DC, 1 A with adapter included Transmitter microphone: Rechargeable Li-ion battery, 120 mAh 3.7 V Battery life: Up to 7 h* Charging time: 2 h *Autonomy for a normal speech level. Depending on the level of sound pressure that the speaker produces when speaking, autonomy may be reduced.
DIMENSIONS	Receiver: 165 x 30 x 105 mm depth Transmitter: 147 x 20 x 22 mm depth
WEIGHT	0.3 kg
ACCESSORIES	6.3 mm mono jack cable USB to micro USB cable for recharging Wind foam

ACADEMY-1 ACADEMY-1TX + ACADEMY-1RX

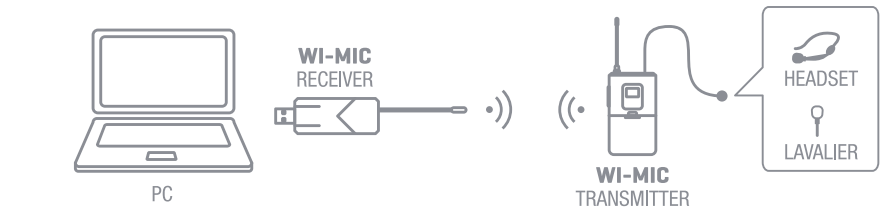


WIRELESS MICROPHONES

UHF

> *Education*

	WI-MIC
FEATURES	Headworn and lavalier microphone with electret condenser capsule, providing excellent sound clarity. Plug and play USB receiver, compatible with Windows/Mac without drivers. Additional audio output for monitoring or amplification. UHF 641-699 MHz 24 channel transmitter. With retaining clip. Up to 24 microphones can be used simultaneously thanks to the ID lock function.
OUTPUT	Receiver: 1 auxiliary, 3.5 mm jack, 215 mV RMS (-13.4 dBV)
POWER SUPPLY	Transmitter: 2 batteries LR6-AA receiver: Via USB, 5 V DC, 120 mA
DIMENSIONS	Receiver: 26 x 76 x 12 mm depth Petaca transmitter: 65 x 111 x 20 mm depth
WEIGHT	0.14 kg



HEAD-WORN MICROPHONE

Dynamic

1 M CABLE

1 cables

SHURE VERSION (MC4S) UPON REQUEST

	FDM-621	FDM-621MC
FEATURES	Unidirectional dynamic microphone head, hands-free. 90º 3.5 mm stereo plug. For FONESTAR wireless equipment or in microphone inputs.	Unidirectional dynamic microphone head, hands-free. 4 pin XLR mini connector. For FONESTAR wireless equipment or in microphone inputs.
GAIN	Unidirectional dynamic	
RESPONSE	50-16,000 Hz	
SENSITIVITY	-63 dB (V/Pa)	
IMPEDANCE	200-600 Ω	

HEAD-WORN MICROPHONE

Condenser

PHANTOM

1 M CABLE

	FCM-613
FEATURES	Unidirectional electret condenser headworn microphone, hands-free. For FONESTAR wireless devices or electret condenser microphone inputs.
CAPSULE	Unidirectional electret condenser
RESPONSE	50-16,000 Hz
SENSITIVITY	-42 dB (V/Pa)
IMPEDANCE	2.200 Ω
POWER SUPPLY	1 to 10 V DC

HEAD-WORN MICROPHONE

Condenser

PHANTOM

1 M CABLE

SHURE

SHURE VERSION (MC4S) UPON REQUEST

	FCM-660-TS	FCM-660-TSM	FCM-660-MC3	FCM-660-MC4
FEATURES	Unidirectional electret condenser capsule. For wireless microphones or electret condenser microphone inputs. Black colour. Adjustable.			
RESPONSE	20-20,000 Hz			
SENSITIVITY	-48 dB ±2 dB (V/Pa)			
S/N RATIO	>65 dB			
IMPEDANCE	680 Ω			
POWER SUPPLY	1 to 10 V DC			
MATERIAL	Steel			
CONNECTOR	3.5 mm mono male plug connector Tip: signal. Body: ground (GND)	3.5 mm mono male plug with male thread Tip: signal. Body: ground (GND)	3-pin mini XLR female connector Pin 1: ground (GND). Pin 3: signal	4-pin mini XLR female connector Pin 1: signal. Pin 2: ground (GND)

PHANTOM

1.2 M CABLE

SHURE

SHURE VERSION (MC4S) UPON REQUEST

	FCM-970-TS	FCM-970-TSM	FCM-970-MC3	FCM-970-MC4
FEATURES	Miniature omnidirectional electret condenser capsule. For wireless microphones or electret condenser microphone inputs. Flesh colour. Adjustable.			
RESPONSE	20-20,000 Hz			
SENSITIVITY	-42 dB ±2 dB (V/Pa)			
IMPEDANCE	1,000 Ω			
POWER SUPPLY	1 to 10 V DC			
MATERIAL	Steel			
CONNECTOR	3.5 mm mono male plug connector Tip: signal. Body: ground	3.5 mm mono male plug with male thread Tip: signal. Body: ground (GND)	3-pin mini XLR female connector Pin 1: ground (GND). Pin 3: signal	4-pin mini XLR female connector Pin 1: signal. Pin 2: ground (GND)

LAVALIER MICROPHONES

Condenser

PHANTOM

1.2 M CABLE

SHURE

SHURE VERSION (MC4S) UPON REQUEST

	FCM-850-TS	FCM-850-TSM	FCM-850-MC3	FCM-850-MC4
FEATURES	Omnidirectional electret condenser capsule. For wireless microphones or electret condenser microphone inputs. 6 x 2.7 mm capsule. Black colour.			
RESPONSE	20-20,000 Hz			
SENSITIVITY	-34 dB ±2 dB (V/Pa)			
S/N RATIO	>65 dB			
IMPEDANCE	2,200 Ω			
POWER SUPPLY	2 to 5 V DC			
MATERIAL	Steel			
CONNECTOR	3.5 mm mono male jack plug. Tip: signal. Body: ground.	3.5 mm mono male jack plug with male thread Tip: signal. Body: ground (GND)	3-pin female Mini XLR connector Pin 1: ground (GND). Pin 3: signal	4-pin female Mini XLR connector Pin 1: signal. Pin 2: ground (GND)

CLIP-ON MICROPHONE

Condenser with preamp

	FCM-400	FCM-410
FEATURES	Condenser microphone and adapter with pre-amplifier and power supply for use in dynamic microphone inputs.	
CAPSULE	Omnidirectional electret condenser	
RESPONSE	50-18,000 Hz	30-18,000 Hz
SENSITIVITY	-45 dB (V/Pa) a 1 kHz	
IMPEDANCE	1,000 Ω	
SWITCH	-	On/off
POWER SUPPLY	1.5 V 1 battery LR-44	
CABLE	6 m with 3.5 mm mono jack connector	
ACCESSORIES	Protective case Tie clip Adapter 3.5 mm mono jack to 6.3 mm mono male plug Windshield foam Batteries	

FCM-400

FCM-410

HAND-HELD MICROPHONE

Dynamic

> Balanced

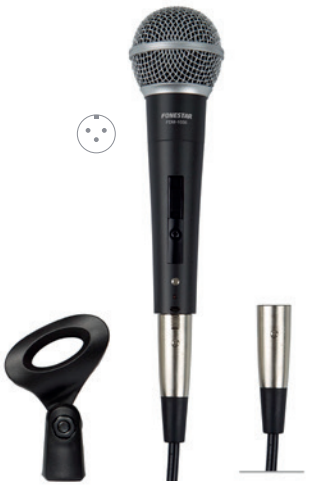
	FDM-9081-B
FEATURES	High-quality dynamic capsule. Unidirectional directivity pattern with feedback suppression. Suspension system with low handling noise. High quality for live voice.
CAPSULE	Unidirectional dynamic
RESPONSE	50-13,000 Hz
SENSITIVITY	-53 dB (V/Pa)
IMPEDANCE	600 Ω
SWITCH	On/off sliding
BODY	Cast metal, streamlined finish
CONNECTOR	XLR male.
WEIGHT	0.3 kg

N!

3 M CABLE

TRANSPORT BAG

	FDM-1036-B
CAPSULE	Cardioid unidirectional dynamic
RESPONSE	40-15,000 Hz
SENSITIVITY	-56 dB (V/Pa) a 1 kHz
IMPEDANCE	600 Ω
SWITCH	On/off
BODY	Metallic cast iron, dark gray
CONNECTOR	XLR male.
WEIGHT	0.2 kg



3 M CABLE

TRANSPORT BAG

HAND-HELD MICROPHONE

Dynamic

> Unbalanced

N!

	FDM-9081-D
FEATURES	High-quality dynamic capsule. Unidirectional directivity pattern with feedback suppression. Suspension system with low handling noise. High quality for live voice.
CAPSULE	Unidirectional dynamic
RESPONSE	50-13,000 Hz
SENSITIVITY	-53 dB (V/Pa)
IMPEDANCE	600 Ω
SWITCH	On/off sliding
BODY	Cast metal, streamlined finish
CONNECTOR	XLR male.
WEIGHT	0.3 kg

3 M CABLE TRANSPORT BAG

4.5 M CABLE MICROPHONE CASE

4.5 M CABLE

3 M CABLE TRANSPORT BAG

3 M CABLE TRANSPORT BAG

4.5 M CABLE MICROPHONE CASE

	FDM-1020	FDM-1050	FDM-1035	FDM-1036	FDM-1060
CAPSULE	Unidirectional dynamic	Unidirectional dynamic	Cardioid unidirectional dynamic	Cardioid unidirectional dynamic	Unidirectional dynamic
RESPONSE	80-12,500 Hz	70-14,000 Hz	40-15,000 Hz	40-15,000 Hz	50-15,000 Hz
SENSITIVITY	-54 dB (V/Pa) a 1 kHz	-54 dB (V/Pa) a 1 kHz	-56 dB (V/Pa) a 1 kHz	-56 dB (V/Pa) a 1 kHz	-56 dB (V/Pa) a 1 kHz
IMPEDANCE	600 Ω				
SWITCH	On/off	On/off	-	On/off	On/off
BODY	Metallic cast iron, dark gray	Metallic, dark gray	Metallic cast iron, dark gray	Metallic cast iron, dark gray	Metallic cast iron, black
CONNECTOR	XLR male.	XLR male.	XLR male.	XLR male.	PF-4 male.
WEIGHT	0.2 kg	0.2 kg	0.2 kg	0.2 kg	0.3 kg

HAND-HELD MICROPHONE

Dynamic

> Bus

	FDM-1060-4	FDM-1060-4B
CAPSULE	Unidirectional dynamic	
RESPONSE	50-15,000 Hz	
SENSITIVITY	-56 dB (V/Pa) a 1 kHz	
IMPEDANCE	600 Ω	
SWITCH	On/off	
BODY	Metal cast iron, black	
CONNECTOR	PF-4 male.	
WEIGHT	0.3 kg	

> USB

	FDM-1090U
FEATURES	Dynamic unidirectional supercardioid hand-held microphone. Self-installing drivers Cable with USB connector for direct connection to PC.
CAPSULE	Supercardioid unidirectional dynamic
RESPONSE	100-15,000 Hz
SENSITIVITY	-54 dB (V/Pa) a 1 kHz
IMPEDANCE	400 Ω
SWITCH	On/off
BODY	Metallic, black
CABLE	3.5 m with USB A male connector
WEIGHT	0.3 kg

HAND-HELD MICROPHONE

Condenser

	FCM-451B
CAPSULE	Unidirectional electret condenser
RESPONSE	100-16,000 Hz
SENSITIVITY	-31 dB (V/Pa) a 1 kHz
IMPEDANCE	200 Ω
SWITCH	On/off
CONNECTOR	XLR male.
POWER SUPPLY	Phantom 44 to 52 V DC or 1 battery 1.5 V LR6-AA
WEIGHT	0.12 kg

DESKTOP MICROPHONE

Microphones

> *Amplified*

	MCH-205
FEATURES	Desktop microphone with musical warning tones and preamplifier.
CAPSULE	Electret condenser
RESPONSE	22-16,000 Hz
SENSITIVITY	-29 dB (V/Pa) a 1 kHz
IMPEDANCE	600 Ω
OUTPUTS	Preamplified: 1 balanced line, XLR 10-230 mV 1 unbalanced line, 6.3 mm jack 10-110 mV
SWITCH	On/off
CONTROLS	Micro volume and volume tones
INDICATOR	Ring and pushbutton luminous operating
GENERATOR	4 tones: 440, 554, 659 and 880 Hz
POWER SUPPLY	15 V DC with adapter included
DIMENSIONS	Height: 385 mm Base: 132 x 155 mm depth
WEIGHT	0.7 kg
ACCESSORIES	1.5 m cable with 6.3 mm mono jack connectors Windshield foam

DESKTOP MICROPHONE

Microphones

> Dynamic

Designed by FONESTAR

N!

DYNAMIC
UNIDIRECTIONAL DYNAMIC

MULTIPLE OPERATING MODES

6.3 mm MALE UNBALANCED CABLE

32 cm GOOSENECK

N!

XLR BALANCED CABLE

32 cm GOOSENECK

N!

6.3 mm MALE UNBALANCED CABLE + STRIPPED TERMINAL

32 cm GOOSENECK

	MICSET-D32J	MICSET-D32XLR	MICSET-D32JSE
CAPSULE	Unidirectional dynamic		
RESPONSE	100-15,000 Hz		
SENSITIVITY	-55 dB ±3 dB (V/Pa) a 1 kHz		
IMPEDANCE	600 Ω		
SPL MAX	110 dB		
EQUIVALENT NOISE	32 dB		
DYNAMIC RANGE	78 dB		
DISTORTION (THD)	<1 %		
SNR	75 dB		
PUSH BUTTON	ON-OFF/PTT		
CONNECTORS	6,3 mm mono male plug	3-pin male XLR	Connection 6.3 mm mono male plug and bare tips for closing contacts
DIMENSIONS	Gooseneck: 32 cm high Desktop base 93 x 46 x 122 mm depth		
CABLE	1.5 m with 6.3 mm mono jack plug Unbalanced line	5 m with male XLR connector 3-pin Balanced line	1.5 m with 6.3 mm mono male plug and bare tips Unbalanced line
WEIGHT	0.62 kg	0.76 kg	0.62 kg

DESKTOP MICROPHONE

Microphones

> Condenser

Designed by FONESTAR

CONDENSER
UNIDIRECTIONAL ELECTRET CONDENSER

LED INDICATOR

MULTIPLE OPERATING MODES

PHANTOM

XLR BALANCED CABLE

	MICSET-C32	MICSET-C32LED	MICSET-C45
CAPSULE	Unidirectional electret condenser		
RESPONSE	55-20,000 Hz		
SENSITIVITY	-32 dB ±3 dB (V/Pa) a 1 kHz		
IMPEDANCE	675 Ω		
SPL MAX	128 dB		
EQUIVALENT NOISE	34 dB		
DYNAMIC RANGE	94 dB		
DISTORTION (THD)	<1 %		
SNR	60 dB		
CLIPPING LEVEL	-6 dBV		
SWITCH	Micro: 3 positions ON-OFF/PTT/PTM Filter: Low cut/ Flat response - Cut in 80 Hz		
POWER SUPPLY	Phantom 3 to 52 V DC		
INDICATORS	LED power indicator		
CONNECTORS	Output: 3-pin male XLR, balanced line		
DIMENSIONS	Gooseneck: 32 cm high Desktop base 93 x 46 x 122 mm depth	Gooseneck: 32 cm high Desktop base 93 x 46 x 122 mm depth	Gooseneck: 45 cm high Desktop base 93 x 46 x 122 mm depth
WEIGHT	0.59 kg	0.6 kg	0.6 kg
ACCESSORIES	Windshield foam 5 m cable with 3-pin female XLR connector to 3-pin male XLR connector		

DESKTOP MICROPHONE

BASES

Designed by FONESTAR

XLR BALANCED CABLE

XLR BALANCED CABLE

LED INDICATOR

MULTIPLE OPERATING MODES

GOOSENECKS WITH INTERNAL PREAMP CIRCUIT

XLR BALANCED CABLE

PHANTOM

LED INDICATOR

MULTIPLE OPERATING MODES

GOOSENECKS WITHOUT INTERNAL PREAMP CIRCUIT

XLR BALANCED CABLE

PHANTOM

GOOSENECKS WITHOUT INTERNAL PREAMP CIRCUIT

	MICBASE	MICBASE-M	MICBASE-MP	MICBASE-P
SWITCH	-	3 positions ON-OFF/PTT/PTM	3 positions ON-OFF/PTT/PTM	-
POWER SUPPLY	-	-	Phantom 3 to 52 V DC for power supply of the internal circuit of the base	
INDICATOR	-	LED power indicator	LED power indicator	-
COLOUR	Black			
CONNECTORS	Input: 3-pin XLR female Output: 3-pin XLR male, balanced line			
DIMENSIONS	93 x 46 x 122 mm depth			
WEIGHT	0.5 kg	0.53 kg	0.54 kg	0.51 kg

TABLE OF COMPATIBILITIES

MICBASE	MICFLEX-C32
	MICFLEX-C45
	MICFLEX-D45
MICBASE-M	MICFLEX-C32
	MICFLEX-C45
MICBASE-MP	MICFLEX-C45LED
	MICFLEX-D45
MICBASE-P	MICFLEX-C45LED
	MICFLEX-D45

DESKTOP MICROPHONE
GOOSENECK

> Dynamic

	MICFLEX-D45
CAPSULE	Unidirectional dynamic
RESPONSE	100-15,000 Hz
SENSITIVITY	-55 dB (V/Pa) a 1 kHz
IMPEDANCE	600 Ω
SPL MAX	110 dB
EQUIVALENT NOISE	32 dB
DYNAMIC RANGE	78 dB
THD	<1 %
SNR	75 dB
CONNECTORS	3-pin XLR male Balanced line
HEIGHT	45 cm
WEIGHT	0.08 kg

Designed by FONESTAR

DYNAMIC
UNIDIRECTIONAL DYNAMIC
45 cm GOOSENECK

> Condenser

Designed by FONESTAR

PHANTOM
32 cm GOOSENECK
CONDENSER
UNIDIRECTIONAL ELECTRET CONDENSER
BASES WITHOUT INTERNAL PREAMP CIRCUIT

PHANTOM
45 cm GOOSENECK
CONDENSER
UNIDIRECTIONAL ELECTRET CONDENSER
BASES WITHOUT INTERNAL PREAMP CIRCUIT

LED RING
PHANTOM
45 cm GOOSENECK
CONDENSER
UNIDIRECTIONAL ELECTRET CONDENSER
BASES WITH INTERNAL PREAMP CIRCUIT

	MICFLEX-C32	MICFLEX-C45	MICFLEX-C45LED
CAPSULE	Unidirectional electret condenser	Unidirectional electret condenser	Unidirectional electret condenser (without preamplifier circuit)
RESPONSE	50-20,000 Hz		
SENSITIVITY	-25 dB (V/Pa) a 1 kHz	-25 dB (V/Pa) a 1 kHz	-42 dB (V/Pa) a 1 kHz
IMPEDANCE	800 Ω	800 Ω	600 Ω
SPL MAX	128 dB		
EQUIVALENT NOISE	33 dB		
DYNAMIC RANGE	95 dB		
DISTORTION (THD)	<1 %		
SNR	61 dB		
POWER SUPPLY	Phantom 3 to 52 V DC	Phantom 3 to 52 V DC	Phantom 3 a 52 V DC
INDICATORS	-	-	Operating light ring
CONNECTORS	3-pin XLR male Balanced line		
HEIGHT	32 cm	45 cm	45 cm
WEIGHT	0.09 kg	0.10 kg	0.08 kg

SURFACE MICROPHONES

Condenser

> Boundary

PHANTOM

3 M CABLE

PHANTOM

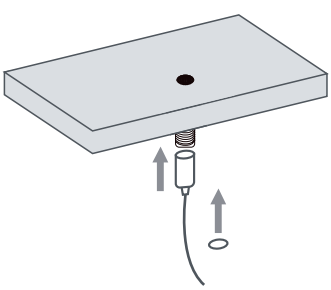
6 M CABLE

	BM-709	BM-704PH-6M
CAPSULE	Electret condenser Selectable directivity pattern: omnidirectional, subcardioid, cardioid, supercardioid, bidirectional	Unidirectional cardioid electret condenser
RESPONSE	50-15,000 Hz	30-20,000 Hz
SENSITIVITY	-32 dB ±3 dB (V/Pa)	-34 dB (V/Pa)
IMPEDANCE	200 Ω	130 Ω
SWITCH	Micro: On/off tactile Filter: Bass cut/flat response Initial state: On/off Operational: PTT/PTL	-
INDICATORS	Light on	Operation indicator light
CONNECTORS	Mini XLR male output	
PHANTOM	48 V DC	11 a 52 V DC
CABLE	3 m with connectors mini XLR female and XLR male Balanced line	6 m with connectors mini XLR female and XLR male Balanced line
DIMENSIONS	92.5 x 26 x 100 mm depth	90 x 16 x 115 mm depth
WEIGHT	0.15 kg	0.28 kg

> Surface mount

	FCM-431
FEATURES	Omnidirectional microphone for surface mounting. Very sharp capture. Use in conferences, churches, congresses, studios, casinos, etc. Ideal for situations where the microphone must go unnoticed.
CAPSULE	Electret condenser omnidirectional, water resistant
RESPONSE	20-20,000 Hz
SENSITIVITY	-43 dB (V/Pa) a 1 kHz
IMPEDANCE	250 Ω
CONNECTORS	XLR male Balanced line
PHANTOM	9 a 52 V DC
TEMPERATURE RANGE	-20ºC ~ + 60ºC
COLOUR	Black
DIMENSIONS	30 mm Ø x 75 mm Installation hole 23 mm Ø Maximum thickness of mounting surface 55 mm
WEIGHT	0.1 kg

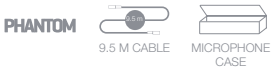
PHANTOM



AERIAL INSTALLATION MICROPHONES

Condenser

	FCM-812
FEATURES	Suspension microphone for hanging with hypercardioid directivity, special for noisy environments or with microphone away from the sound source, for stages, choirs, etc. Capturing ambient sound. Minimal visual impact. Stainless steel hanger. Anti-glare black finish.
CAPSULE	Hypercardioid unidirectional electret condenser
RESPONSE	50-16.000 Hz
SENSITIVITY	-34 dB ±3 dB (V/Pa) a 1 kHz
IMPEDANCE	250 Ω ±30% at 1 kHz
CONNECTORS	Fix cable 9.5 m with male XLR connector (with preamplifier)
PHANTOM	9 a 52 V DC
DIMENSIONS	8 mm Ø x 121 mm length
WEIGHT	0.2 kg



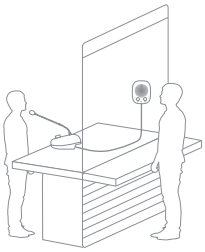
COMMUNICATIONS MICROPHONES

Dynamic

	MCD-364	MCD-364-P
CAPSULE	Omnidirectional dynamic	
RESPONSE	100-6.000 Hz	
SENSITIVITY	-68 dB (V/Pa) a 1 kHz	
IMPEDANCE	500 Ω at 1 kHz	
PUSH BUTTON	PTT (push-to-talk) function	Dual circuit: PTT (push-to-talk) and contact closure function
CABLE	2 m extendable with 6.3 mm mono plug	2 m extendable bare tips with 1 audio shielded conductor and 2 conductors for closing contacts
DIMENSIONS	55 x 75 x 30 mm depth	
WEIGHT	0.2 kg	
ACCESSORIES	Hanger on the back, mount metal clip screw and screws	

INTERCOMMUNICATION

Counter



Designed by FONESTAR

HEADSET ZONE 2 | 2.5 M CABLE | TWO-WAY | ANTI-FEEDBACK | Volume CONTROLS | LED INDICATOR | INTERNAL COMMUNICATOR PRIORITY | INTERNAL AND EXTERNAL MICROPHONE | CALL BUTTON

	INTERFON-V
FEATURES	Counter intercom. Double direction sound.
FUNCTIONS	Automatic control of communication, priority of the internal intercom Anti-feedback. LED light indicators of operation in desktop intercom Optimal distance to speak to the window intercom microphone 20 cm Input for micro-headphone The window intercom can be hung or glued on the glass with supplied double-sided adhesives
CONTROLS	On/off Independent window and intercom volume Window and interior mute button
POWER SUPPLY	12 V DC, 1 A with adapter included
DIMENSIONS	Desktop intercom: 105 x 60 x 139 mm depth Gooseneck microphone: 396 mm high Counter intercom 87 x 109 x 35 mm depth
WEIGHT	0.6 kg
ACCESSORIES	2.5 m window intercom cable, 4-pin 3.5 mm plug. Windshield foam Double-sided adhesive for window intercom installation

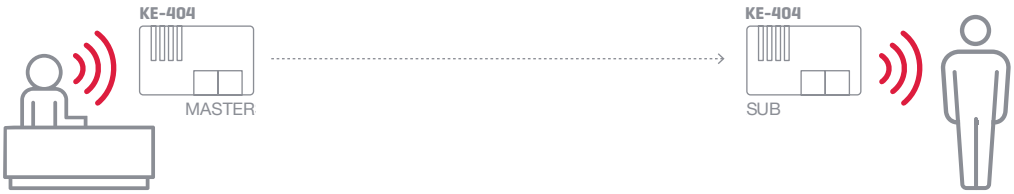
INTERCOMMUNICATION

Counter

NEW VERSION

15.5 M CABLE

	KE-404
FEATURES	Pair of intercoms. Cable connection. Monitor function Main unit with call and activation of audio transmission. Secondary unit with call to the main unit. Volume control. Audio transmission indicator light. Installation desktop or wall.
CONNECTION	Two types of connections, by cable supplied with 2.5 mm plug or via connection terminals. The connection terminals allow connecting the power supply (12 V) and the secondary intercom line to the main intercom. In the secondary intercom only the line is connected.
POWER SUPPLY	Main unit only: Optional AC/DC adapter 9 - 12 V DC (connection by 3.5 mm mono connector or connection terminals)
DIMENSIONS	55 x 75 x 30 mm depth
WEIGHT	0.38 kg
ACCESSORIES	15.5 m cable and staples Installation screws

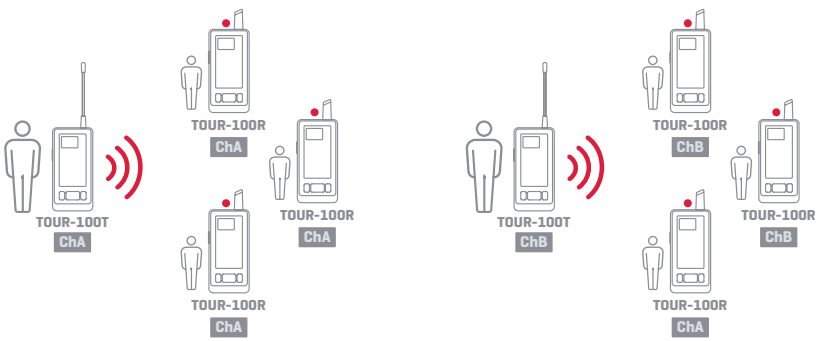


GUIDANCE SYSTEM

Point-to-Multipoint

N!

	TOUR-100T	TOUR-100R
FEATURES	Wireless transmitter. Transmission to as many TOUR-100 receivers as desired on the same channel. Delay of 22 ms. Rechargeable internal battery, up to 13 hours of operation.	Wireless receiver. Rechargeable internal battery, up to 17 hours of operation.
	Small size, lightweight and durable design. 20 channels, GFSK mono modulation. Up to 4 channels can operate simultaneously. Range 100 m. Simple and intuitive use. LCD display, shows the chosen channel, battery level and volume. Automatic shutdown function.	
FREQUENCY	863 - 865 MHz GFSK modulation, 20 channels Sensivity: -88 dBm	
RESPONSE	20-3,000 Hz	
CONTROLS	On/off switch and mute Channel selection and volume control	On/off switch Channel selection and volume control
INPUTS	Micro with flap microphone included, plug 3.5 mm	-
OUTPUTS	-	Headphone, 8mW, 32 Ohm, 3.5 mm jack
POWER SUPPLY	Li-polymer rechargeable battery, 3.7 V 1,300 mAh, micro USB B Recharge time 7 h Autonomy: 13 h	Li-polymer rechargeable battery, 3.7 V 1,300 mAh, micro USB B Recharge time 7 h Autonomy: 17 h
DIMENSIONS	40 x 82.6 x 12 mm depth	

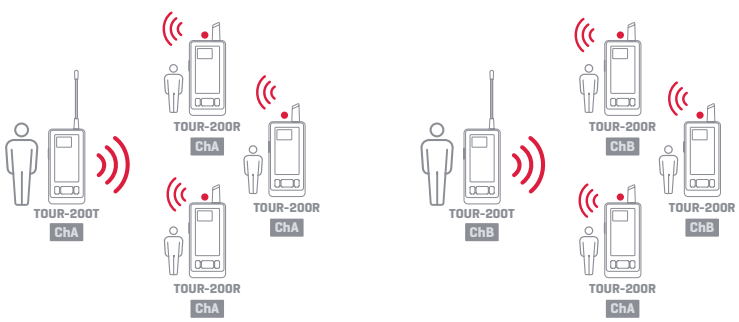


GUIDANCE SYSTEM

Bidirectional

N!

	TOUR-200T	TOUR-200R
FEATURES	Bidirectional wireless transmitter. Bidirectional communication. You can receive audio from any receiver, only one at a time, which will also be heard on all receivers. Two-way transmission control. Transmission to as many TOUR-200 receivers as desired on the same channel. 20 channels, GFSK mono modulation. Up to 4 channels can operate simultaneously. Delay of 35 ms.	Bidirectional wireless receiver. If the transmitter enables the bi-directional function, the receivers can transmit, only one at a time, and it will be received on the transmitter and all receivers. Built-in microphone and PTT pushbutton.
	Small size, lightweight and durable design. 20 channels, GFSK mono modulation. Up to 4 channels can operate simultaneously. Range 100 m. Rechargeable internal battery, up to 17 hours of operation. Simple and intuitive use. LCD display, shows the chosen channel, battery level and volume. Automatic shutdown function.	
FREQUENCY	863 - 865 MHz GFSK modulation, 20 channels RF power: 10 mW	863 - 865 MHz GFSK modulation, 20 channels Sensivity: -88 dBm
RESPONSE	20-3.000 Hz	
CONTROLS	Two-way communication switch. On/off and mute switch Channel selection and volume control	PTT push button On/off switch Channel selection and volume control
INPUTS	Micro with flap microphone and headset included, 3.5 mm jack Line, 3.5 mm jack integrated into the flap microphone	-
OUTPUTS	-	Headset, 3.5 mm jack
POWER SUPPLY	Li-polymer rechargeable battery, 3.7 V 1300 mAh, micro USB B Recharge time 7 h Autonomy: 17 h	
DIMENSIONS	40 x 82,6 x 12 mm depth	



GUIDANCE SYSTEM

Accessories

	TOURC-12
FEATURES	Charger case for transmitters and receivers of tourist guide. It allows charging up to 12 equipment TOUR-100T, TOUR-100R, TOUR-200T, TOUR-200R, TOURKS-1.
POWER SUPPLY	5 V DC, 4 A with adapter included Recharge time 7 h
COLOUR	Black
DIMENSIONS	355 x 130 x 120 mm depth
WEIGHT	1 kg

	TOURC-305
FEATURES	Charger case for transmitters and receivers of tourist guide. It allows charging up to 35 equipment TOUR-100T, TOUR-100R, TOUR-200T, TOUR-200R, TOURKS-1.
POWER SUPPLY	5 V DC, 10 A with adapter included Recharge time 7 h
COLOUR	Black
DIMENSIONS	355 x 130 x 120 mm depth
WEIGHT	3 kg

N!

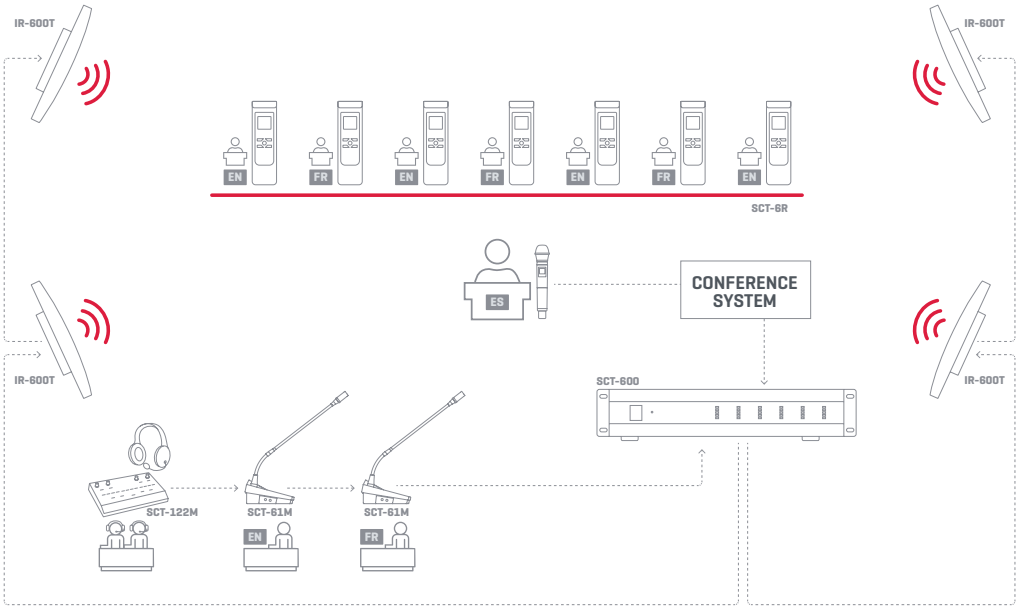
	TOURKS-1
FEATURES	Synchronization kit for tourist guide transmitters and receivers. Modifica automáticamente el canal de funcionamiento de los equipos TOUR-100T, TOUR-100R, TOUR-200T y TOUR-200R conectados a un maletín cargador TOURC-12 o TOURC-305.
CONTROLS	Switch on/off and channel selection
POWER SUPPLY	Li-polymer rechargeable battery, 3.7 V 1.300 mAh, micro USB B Recharge time 7 h
COLOUR	White
DIMENSIONS	355 x 130 x 120 mm depth

N!

TRANSLATION SYSTEM

Simultaneous

	SCT-600
FEATURES	Transmitter of the SCT simultaneous translation system. Up to 5 languages, in addition to the original language. Connection of up to 10 SCT-61M or SCT-122M microphones in cascade. Automatic output volume control. Transmission of the base channel (Channel 0) over the other channels when the translator microphone is turned off. Built in compliance with IEC 60914 Conference Systems and IEC 61603-7 Transmission Systems standards.
RESPONSE	100-14,000 Hz
INDICATORS	Output level of each channel
INPUTS	6 lines, RCA 18,000 Ω 2 V
OUTPUTS	6 lines, RCA 600 Ω 1 V 2 radiators, BNC 50 Ω 2 interpretation units, DB25
S/N RATIO	> 75 dB
POWER SUPPLY	110-240 V AC, 40 W
DIMENSIONS	483 x 89 x 390 mm depth
WEIGHT	7 kg
ACCESSORIES	Interconnecting 10 m cable of interpretation units, DB25 2 audio cables, 6.3 mm mono plug to RCA



TRANSLATION SYSTEM

Simultaneous

	SCT-61M
FEATURES	Desktop microphone with gooseneck for simultaneous translation. Input and output channel selection. Mute (cough) function. Monitor loudspeaker Information display. Cascade connection. Operating light ring.
INPUTS	1 external microphone, 3.5 mm stereo jack 1 Interconnected with control unit, DB25 and DIN 13
OUTPUTS	1 headphone, 3.5 mm stereo jack 1 Interconnected, DB25
DIMENSIONS	Gooseneck microphone: 425 mm Base: 278 x 65 x 140 mm depth
WEIGHT	1.5 kg
ACCESSORIES	Headphones with headset microphone Interconnection 3 m cable, DB25

	SCT-6R
FEATURES	IR radiator for SCT simultaneous translation system. 6 selectable channels. Simple and intuitive use. Horizontal and vertical reception angle 90º Information display.
CONTROLS	On Channel selection Volume
OUTPUTS	1 headphone, 3.5 mm stereo jack
POWER SUPPLY	3 AAA-R03 800 mAh batteries, included Integrated charging function via the SCT-24 charging station
DIMENSIONS	155 x 45 x 20 mm
WEIGHT	0.1 kg
ACCESSORIES	Mono headphones Hanger for receiver

	SCT-122M
FEATURES	Desktop base for 2 simultaneous translation microphones on the same output channel. Input and output channel selection. Mute (cough) function. Cascade connection.
INPUTS	2 microphones, 3.5 mm stereo jack 1 Interconnected, DB25
OUTPUTS	2 headphone, 3.5 mm stereo jack 2 rec out, 3.5 mm stereo jack 1 Interconnected, DB25
DIMENSIONS	330 x 65 x 200 mm depth
WEIGHT	2.2 kg
ACCESSORIES	Interconnection cable 10 m, DB25 2 Headphones with microphone

TRANSLATION SYSTEM

Simultaneous

	IR-600T
FEATURES	IR radiator for SCT simultaneous translation system. Frequency band 1.7 - 4 MHz Covered area up to 600 m² per radiator.
INPUTS	Signal In, BNC, for connection to the transmitter Recommended 50 Ohm shielded coaxial cable, RG-58. Maximum length of a single cable is 100 m. If there are more cables with more radiators, the total length should not exceed 200 m.
OUTPUTS	Signal Out, BNC, for cascade connection with other IR-600 radiators
OUTPUT POWER	25 W
SCOPE	Up to 30 m
ANGLE OF COVERAGE	H/V: 135°
POWER SUPPLY	110-240 V AC, 55 W
DIMENSIONS	440 x 232 x 125 mm depth
WEIGHT	4.3 kg
ACCESSORIES	Wall mounting mount Interconnection cable, BNC

	SCT-24CH
FEATURES	Charging station for 24 SCT-6R receivers Reinforced structure and transport wheels.
RECHARGE TIME	From 3 to 6 hours
POWER SUPPLY	110-240 V AC, 200 W
DIMENSIONS	625 x 285 x 365 mm depth
WEIGHT	11.14 kg

	SCT-16M
FEATURES	Carrying case for 16 receivers SCT-6R.
DIMENSIONS	380 x 110 x 400 mm depth
WEIGHT	1.6 kg

ACCESSORIES

Phantom supply

	PH-3	PH-5
FEATURES	Phantom power supply 48 V.	
INPUTS	2 mics, female XLR	1 mic, XLR female
OUTPUTS	2 mics, XLR male	1 mic, XLR male
PHANTOM	48 V DC ±2 V	48 V DC
POWER SUPPLY	230/115 V AC, 3.5 W	12 V DC, 1 A with adapter included
DIMENSIONS	182 x 46 x 118 mm depth	90 x 39 x 103 mm depth
WEIGHT	0.8 kg	0.3 kg

ACCESSORIES

Capsules

> Ceramic

	2202
FEATURES	Ceramic capsule. Indicated for manufacture and replacement of radio telephones, etc. Immune to extreme temperature and humidity.
RESPONSE	40-8,000 Hz
SENSITIVITY	-36 dB (V/Pa)
IMPEDANCE	1-3 MΩ
DIMENSIONS	44 mm Ø x 13 mm

ACCESSORIES
Capsules

> Dynamic

	2204	2215
FEATURES	Dynamic capsule. Indicated for manufacturing and replacement of dynamic microphones.	Unidirectional dynamic capsule. Suitable for manufacturing and replacement of high quality dynamic microphones.
RESPONSE	100-10,000 Hz	50-13,500 Hz
SENSITIVITY	-58 dB (V/Pa) a 1 kHz	-53 dB (V/Pa) a 1 kHz
IMPEDANCE	600 Ω ±30%	600 Ω
DIMENSIONS	26 mm Ø x 14 mm	29 mm Ø x 23 mm

> Condenser

	2213	2214
FEATURES	Omnidirectional electret condenser capsule. Contacts by welding.	Omnidirectional electret condenser capsule. Contacts by pins.
RESPONSE	50-10.000 Hz	
SENSITIVITY	-40 dB (V/Pa) a 1 kHz	
IMPEDANCE	300-5.000 Ω maximum	
POWER SUPPLY	1.5 to 15 V	
DIMENSIONS	10 mm Ø x 6.8 mm	
OPTIONAL	2230: insulating protector	

ACCESSORIES
Adapters

	RA-72
FEATURES	XLR female to XLR male adapter with switch for gooseneck microphones. Standard thread 5/8" microphone floor of desktop base. Back output by male XLR connector.
SWITCH	On/off
COLOUR	Black
WEIGHT	0.1 kg

	AL-10	AL-11	AL-12
FEATURES	Adapter 3/8" female standard thread to 5/8" male standard thread with stopper.	Adapter 3/8" female thread to 5/8" male standard thread.	Adapter 3/8. male thread to standard 5/8. female thread.

ACCESSORIES

Gooseneck

	GN-6	GN-13	GN-19
FEATURES	Gooseneck 15 cm long. Standard 5/8. female to male thread"	Gooseneck 33 cm long. Standard 5/8" thread.	Gooseneck 48 cm long. Standard 5/8. female to male thread"
WEIGHT	0.13 kg	0.3 kg	0.4 kg

ACCESSORIES

Microphone mounts

> *Bases*

N!

	MS-201N	RS-616N
FEATURES	Desktop base with 3 folding legs. Standard 5/8" male thread.	Desktop base 16 cm Ø. 3/8" standard thread and 3/8" to 5/8" adapter. Metal base.
DIMENSIONS	16 x 15 x 9 cm depth.	Adjustable from 24 to 40 cm

	RS-163	AD-12	RS-74
FEATURES	Round desktop base 4.5 cm Ø screwed by 3 points. With female XLR connector for direct connection of gooseneck microphones with XLR connector. Connection of the cable to the female XLR connector by soldering. Cable output on the side.	Screw-on base by 3 points, round 4.5 cm Ø for microphones and goosenecks. Standard 5/8" male thread.	Anti-vibration base of recessed screwable by 3 points. Installation hole 51 mm Ø. Central hole of 19 mm Ø for microphones with gooseneck. The base is installed in a hole and fastened with screws to the surface. In the central hole there is an anti-vibration rubber tube where the gooseneck microphone is inserted through the tube part of the XLR connector. The microphone is attached. The connection is made below, directly to the microphone connector, with a cable with overhead female XLR connector.

ACCESSORIES

Microphone mounts

> Stands

	RS-9XLR
FEATURES	Microphone floor stand with round base. Special for gooseneck microphones with XLR connector. Input and output via XLR connectors. Metal base. Metal height adjustment piece.
SWITCH	On/off
HEIGHT	Adjustable from 90 to 140 cm.
WEIGHT	4.2 kg

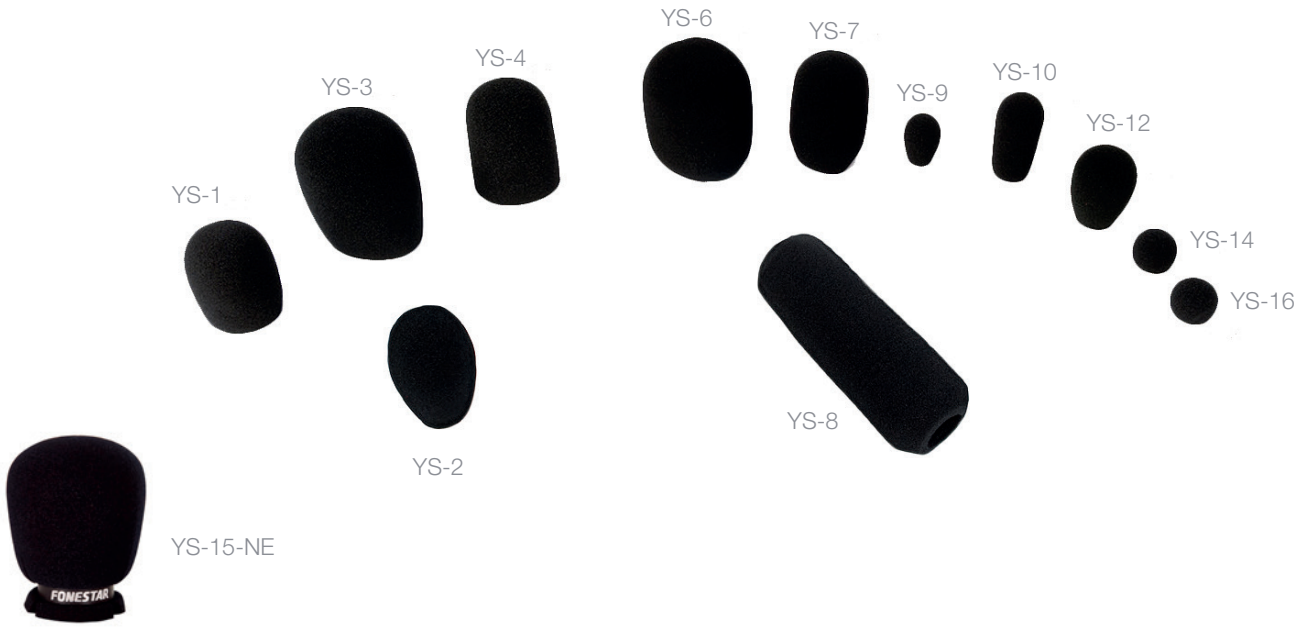
	MS-131N
FEATURES	Microphone floor stand with base of 3 folding legs and arm giraffe 75 cm. 3/8" standard thread and 5/8" thread adapter. Metal reinforcement at the base.
HEIGHT	Adjustable 100 to 155 cm up to the arm in horizontal position
ARM	80. 5 cm
WEIGHT	1.5 kg

> Clips

	YH-4	YH-6	YH-11	YH-16
FEATURES	Microphone clip. 18- 40 mm Ø. Standard 5/8" metallic thread. For all types of microphones.	Microphone clip. 26 mm Ø. Standard 5/8" metallic thread. For hand-held microphones.	Microphone clip. Flexible rubber. 30- 36 mm Ø. Standard 5/8" metallic thread. For hand-held microphones.	Microphone clip. Flexible rubber. 32- 40 mm Ø. Standard 5/8" metallic thread. Special for wireless microphones.

ACCESSORIES

Foams



	FEATURES	DIAMETER	HEIGHT	PACKAGING
YS-1-GR	Windshield foam ball.	Inside: 21 mm Outside: 37 mm	56 mm	Bulk 10 pcs.
YS-2-GR	Windshield foam ball.	Inside: 22 mm Outside: 45 mm	65 mm	Bulk 10 pcs.
YS-3-GR	Windshield foam ball.	Inside: 40 mm Outside: 60 mm	70 mm	Bulk 10 pcs.
YS-4-GR	Windshield foam ball.	Inside: 32 mm Outside: 42 mm	60 mm	Bulk 10 pcs.
YS-6-GR	Windshield foam ball.	Inside: 36 mm Outside: 62 mm	70 mm	Bulk 10 pcs.
YS-7-GR	Windshield foam ball.	Inside: 28 mm Outside: 42 mm	60 mm	Bulk 10 pcs.
YS-8	Windshield foam.	Inside: 20 mm Outside: 39 mm	150 mm	Bulk 10 pcs.
YS-9-GR	Miniature windshield foam.	Inside: 9 mm Outside: 18 mm	30 mm	Bulk 10 pcs.
YS-10-GR	Windshield foam ball.	Inside: 12 mm Outside: 28 mm	53 mm	Bulk 10 pcs.
YS-12-GR	Windshield foam ball.	Inside: 9 mm Outside: 30 mm	45 mm	Bulk 10 pcs.
YS-14-GR	Windshield foam ball.	Inside: 6 mm Outside: 20 mm	20 mm	Bulk 10 pcs.
YS-15-NE	Windshield foam ball.	Inside: 55 mm Outside: 80 mm	100 mm	1 pc.
YS-16-GR	Windshield foam ball.	Inside: 10 mm Outside: 20 mm	20 mm	Bulk 10 pcs.
YS-17-GR	Windshield foam ball.	Inside: 15 mm Outside: 28 mm	31 mm	Bulk 10 pcs.

ACCESSORIES
Promotional

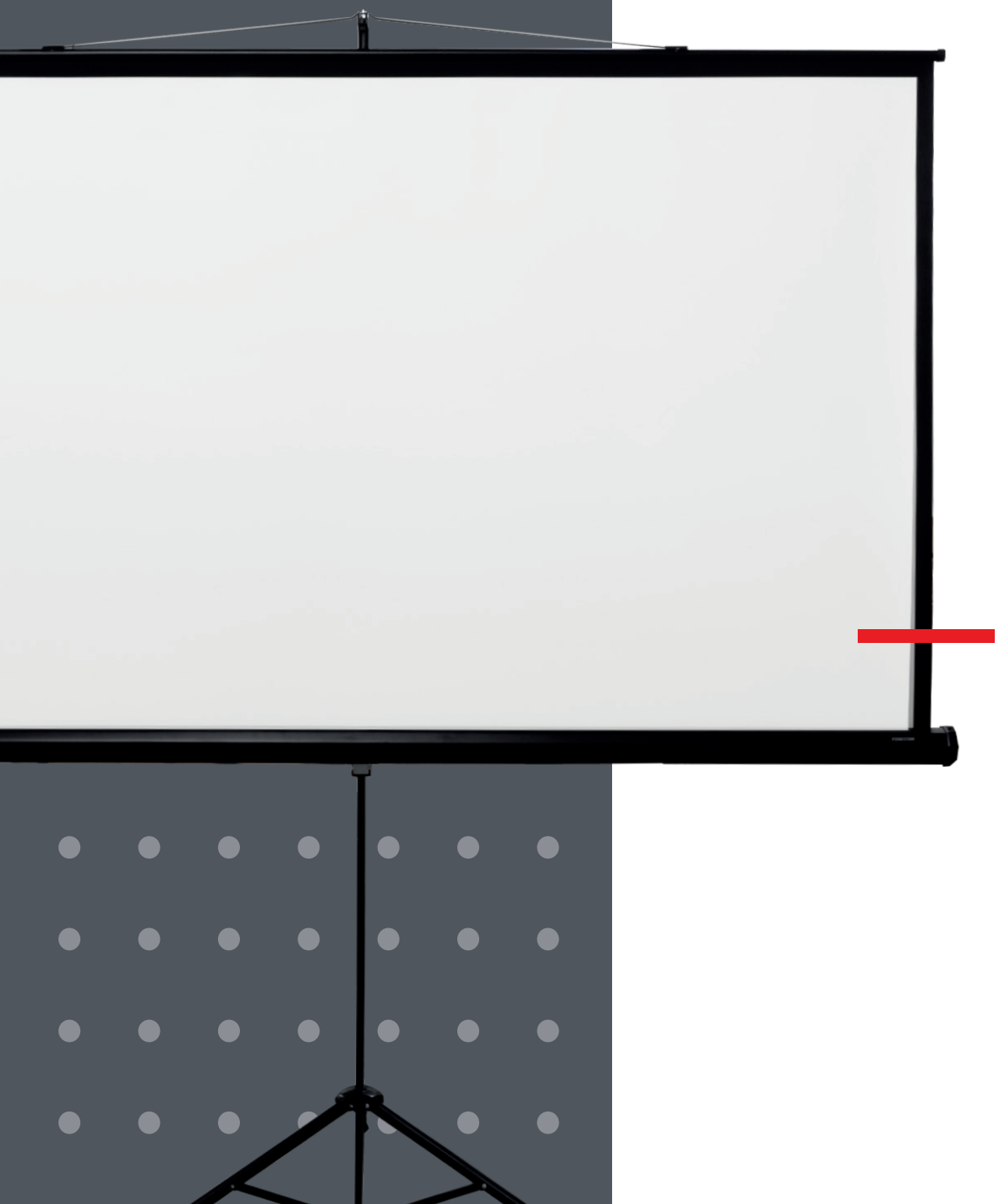
	MT-3	MT-3B	MT-4B
FEATURES	Triangle for hand-held microphone. Flexible interior foam.	Triangle for hand-held microphone. Flexible interior foam.	Cube for hand-held microphone. Flexible interior foam.
DIMENSIONS	82 x 56 x 94 mm depth Adjustable internal Ø from 33 to 44 mm	82 x 56 x 94 mm depth Adjustable internal Ø from 33 to 44 mm.	57 x 56 x 57 mm depth Adjustable internal Ø from 33 to 44 mm.
COLOUR	Black	White	White
OPTIONAL	Possibility of supply and placement of logos (Please ENQUIRE)		

ACCESSORIES
Miscellaneous

	2356
FEATURES	Retractable cable for replacement communications microphones.
CABLE	5 conductors tinsel and shielding
LENGTH	2 m extended

	CLIP-2
FEATURES	Metal clip for miniature clip-on or lavalier microphones" 12 mm Ø ring for microphones, with adjustable spring. Matt black finish.

AV installation



246 SELECTORS
246 HDMI
246 ONE-WAY
246 TWO-WAY

247 SPLITTERS
247 HDMI
247 HDMI
249 CAT6
252 VGA

253 EXTENSORS
253 HDMI
253 CAT6
256 WIRELESS

257 MATRICES
257 HDMI
257 HDMI
260 CAT6

261 MODULATORS
261 HDMI

262 TV AND SATELLITE
262 Receivers

264 PROJECTION SCREENS
264 Manuales
264 4:3
265 16:9
266 Electric
266 4:3
267 16:9
268 With tripod
268 4:3

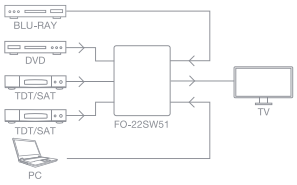
269 CONNECTION PANNELS
269 Integrated
270 Modular
270 SPEAKER
270 HDMI
270 JACK 3.5
271 JACK 6.3
271 RCA
271 XLR
271 RJ-45
272 USB
273 VGA
273 SWITCH
274 SHUCKO
274 CABLE OUTPUT
274 FRAMES, BOXES AND CHASSIS

SELECTORS

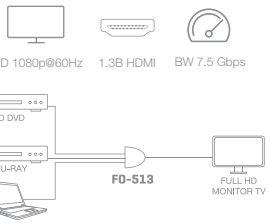
HDMI

> One-way

	FO-22SW51
FEATURES	5 x 1 HDMI selector. UHD 4K@60Hz resolution. 18 Gbps bandwidth. Supports LPCM 7.1, DTS Digital and Dolby Digital. CEC compatible. Remote control.
HDMI	2.0
HDCP	2.2
INPUTS	5 HDMI female gold plated connectors 1 IR extender for remote control
OUTPUTS	1 HDMI female gold plated connector
CONTROLS	Input selection button
INDICATORS	Indicator light for selected input
POWER SUPPLY	5 V DC, 1 A with included adapter
DIMENSIONS	81 x 18 x 58 mm depth
ACCESSORIES	Remote control extender cable

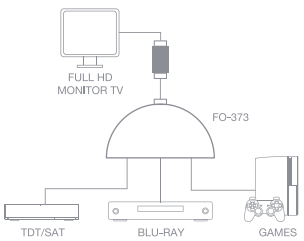


	FO-513
FEATURES	3 x 1 HDMI selector. HD 1080p@60Hz resolution. Bandwidth 7'5 Gbps. Intelligent automatic selection function when detecting an input signal. Manual input selection.
HDMI	1.3b
INPUTS	3 HDMI female gold plated connectors
OUTPUTS	1 HDMI male connector gold with cable 50 cm
CONTROLS	Input selection buttons
INDICATORS	Indicator light for selected input
DIMENSIONS	81 x 16 x 60 mm depth
WEIGHT	0.12 kg



> Two-way

	FO-373
FEATURES	3 x 1 two-way HDMI selector HD 1080p@60Hz resolution. Bandwidth 7.5 Gbps. It can work as a selector for 3 input signals to 1 display or as a selector for 1 input signal to one of the 3 screens connected to the output. Supports LPCM, DTS Digital, Dolby Digital.
HDMI	1.3b
HDCP	1.1
INPUTS/OUTPUTS	3 HDMI female gold-plated connectors 1 HDMI male connector gold with cable 50 cm
CONTROLS	Input/output selection buttons
INDICATORS	Selected input/output indicator light
DIMENSIONS	81 x 14 x 75 mm depth
WEIGHT	0.1 kg



SPLITTERS

HDMI

> HDMI

	FO-14S2UC
FEATURES	1 x 2 HDMI amplifier splitter UHD 4K@30Hz resolution. Bandwidth 10.2 Gbps. Integrated HDMI input cable and power supply through the TV's USB port.
HDMI	1.4
HDCP	1.2
INPUTS	1 HDMI male connector gold with 50 cm cable
OUTPUTS	2 HDMI female gold plated connectors
INDICATORS	Input indicator light Output indicator light
POWER SUPPLY	5 V DC, 0.5 A with 60 cm USB A male cable
DIMENSIONS	60 x 18 x 55 mm depth
WEIGHT	0.1 kg

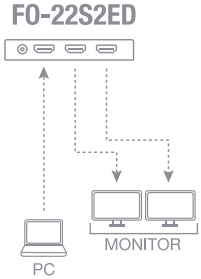
	FO-558
FEATURES	1 x 8 HDMI amplifier splitter. UHD 4K@30Hz resolution. Bandwidth 10.2 Gbps. EDID function to automatically select the optimal resolution for all TVs. Supports LPCM, DTS Digital and Dolby Digital.
HDMI	1.4a
HDCP	1.4
INPUTS	1 HDMI female gold-plated connector
OUTPUTS	8 HDMI Female gold-plated connectors
CONTROLS	Reset splitter button
INDICATORS	Power indicator light Output indicator light
POWER SUPPLY	5 V DC, 2 A with included adapter
DIMENSIONS	211 x 26 x 70 mm depth
WEIGHT	0.35 kg

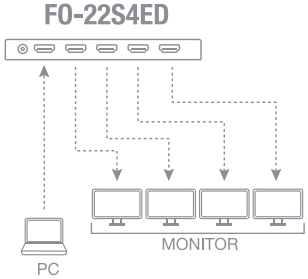
SPLITTERS

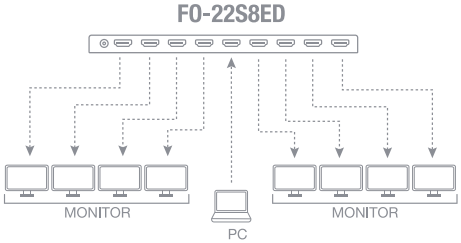
HDMI

> HDMI

	FO-22S2ED	FO-22S4ED	FO-22S8ED
FEATURES	Splitter amplifier HDMI 2.0 1x2. UHD 4K@60Hz resolution. 18 Gbps bandwidth. DOWN-SCALING function on outputs (Auto adjustment for the resolution of each TV. Simultaneously provides 4K and 1080p outputs). Intelligent EDID management, automatic or manual selection. Supports HDR and 12-bit color, 3 video and all audio formats.	Splitter amplifier HDMI 2.0 1x4. UHD 4K@60Hz resolution. 18 Gbps bandwidth. DOWN-SCALING function on outputs (Auto adjustment for the resolution of each TV. Simultaneously provides 4K and 1080p outputs). Intelligent EDID management, automatic or manual selection. Supports HDR and 12-bit color, 3 video and all audio formats.	Splitter amplifier HDMI 2.0 1x8. UHD 4K@60Hz resolution. 18 Gbps bandwidth. DOWN-SCALING function on outputs (Auto adjustment for the resolution of each TV. Simultaneously provides 4K and 1080p outputs). Intelligent EDID management, automatic or manual selection. Supports HDR and 12-bit color, 3 video and all audio formats.
HDMI	2.0, compatible with 1.4		
HDCP	2.2, compatible with 1.4		
DELAY	0 ms		
INPUTS	1 HDMI female gold-plated connector		
OUTPUTS	2 HDMI female gold plated connectors	4 HDMI female gold plated connectors	8 HDMI female gold plated connectors
INDICATORS	Operating LED Output LED Operating mode LED		
POWER SUPPLY	5 V DC, 1 A with included adapter	5 V DC, 1 A with included adapter	5 V DC, 2 A with included adapter
DIMENSIONS	90 x 14 x 44 mm depth	136 x 14 x 61 mm depth	225 x 15 x 83 mm depth
WEIGHT	0.1 kg	0.15 kg	0.4 kg







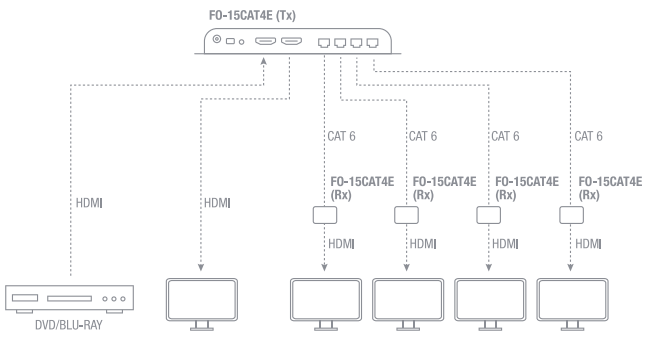
SPLITTERS

HDMI

> Cat 6

HD 1080p@60Hz | 1.3 HDMI | HDCP 1.2 | CAT 6 | BW 4' 95 Gbps | EDID

	FO-15CAT4E
FEATURES	HDMI 1 x 4 extension splitter via Cat 6 cable. HD 1080p@60Hz resolution. Bandwidth 4.95 Gbps. Transmission distance up to 40 m for a resolution of 1080p with Cat 6 cable. HDMI loop output in transmitter for local TV. EDID function, automatically or manually selects optimum resolution in all TVs. 10 level equalizer in each receiver to compensate for transmission losses. Receiver power supply by PoC via Cat 6 cable. In accordance with IEEE-568B regulations. Remote control extenders.
HDMI	1.3
HDCP	1.2
INPUTS	1 HDMI female with gold-plated connector
OUTPUTS	4 RJ-45 HDMI extension over Cat 6 cable 1 HDMI female for local monitor
RECEIVERS	4 receivers with HDMI output
POWER SUPPLY	Splitter: 5 V DC, 3 A with adapter included Receivers: PoC
DIMENSIONS	Splitter: 190 x 24 x 96 mm depth Receiver: 72 x 23 x 67 mm depth
WEIGHT	Splitter: 0.45 kg Receiver: 4 x 0.1 kg
ACCESSORIES	Transmitter and 4 remote control receivers

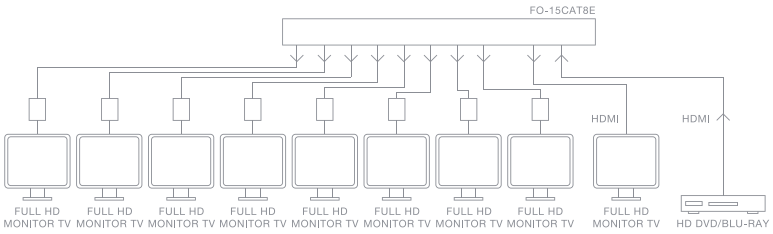


SPLITTERS

HDMI

> Cat 6

	FO-15CAT8E
FEATURES	HDMI 1 x 8 extension splitter for Cat 6 cable. HD 1080p@60Hz resolution. Bandwidth 4'95 Gbps. Transmission distance up to 40 m for a resolution of 1080p with Cat 6 cable. HDMI loop output in transmitter for local TV. EDID function, automatically or manually selects optimum resolution in all TVs. 10 level equalizer in each receiver to compensate for transmission losses. Receiver power supply by PoC via Cat 6 cable. In accordance with IEEE-568B regulations. Remote control extenders.
HDMI	1.3
HDCP	1.2
INPUTS	1 HDMI female with gold-plated connector
OUTPUTS	8 RJ-45 HDMI extension over Cat 6 cable 1 HDMI female for local monitor
RECEIVERS	8 receivers with HDMI output
POWER SUPPLY	Splitter: 12 V DC, 3 A with adapter included Receivers: PoC
DIMENSIONS	Splitter: 276 x 24 x 96 mm depth Receiver: 72 x 23 x 67 mm depth.
WEIGHT	Splitter: 0.63 kg Receiver: 8 x 0.12 kg
ACCESSORIES	Transmitter and 8 remote control receivers



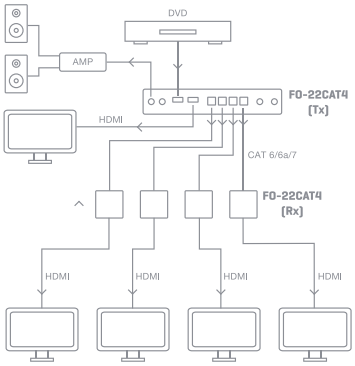
SPLITTERS

HDMI

> Cat 6

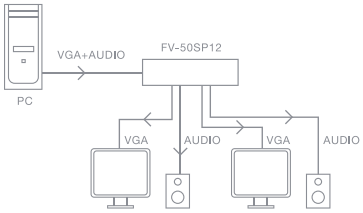
UHD 4k@60Hz | 2.0 HDMI | HDCP 2.2 | Cat 6/6/7 | BW 18 Gbps | EDID

	FO-22CAT4
FEATURES	1 x 4 HDMI extension splitter via Cat 6/6a/7 cable. UHD resolution 4k@60Hz and below. 18 Gbps bandwidth. Up to 60 m transmission distance. HDMI loop output in transmitter for local TV. Analogue and digital audio extractor. EDID function, manually selects the optimal resolution for all TVs. Micro USB port for upgrade and control by serial port. PoC power supply of the receivers. In accordance with IEEE-568B regulations. Remote control extenders
HDMI	2.0
HDCP	2.2
DELAY	60-90 ms
INPUTS	1 HDMI female
OUTPUTS	4 RJ-45 HDMI extension via cable Cat 6/6a/7 1 HDMI female for local monitor 1 coaxial digital audio, RCA 1 stereo audio, 3.5 mm jack
RECEIVERS	4 receivers with HDMI output
POWER SUPPLY	Splitter: 12 V DC, 2.5 A with adapter included Receivers: PoC
DIMENSIONS	Splitter: 210 x 26 x 107 mm depth Receiver: 94 x 18 x 61 mm depth.
WEIGHT	Splitter: 0.6 kg Receiver: 4 x 0.2 kg
ACCESSORIES	Transmitter and 4 remote control receivers

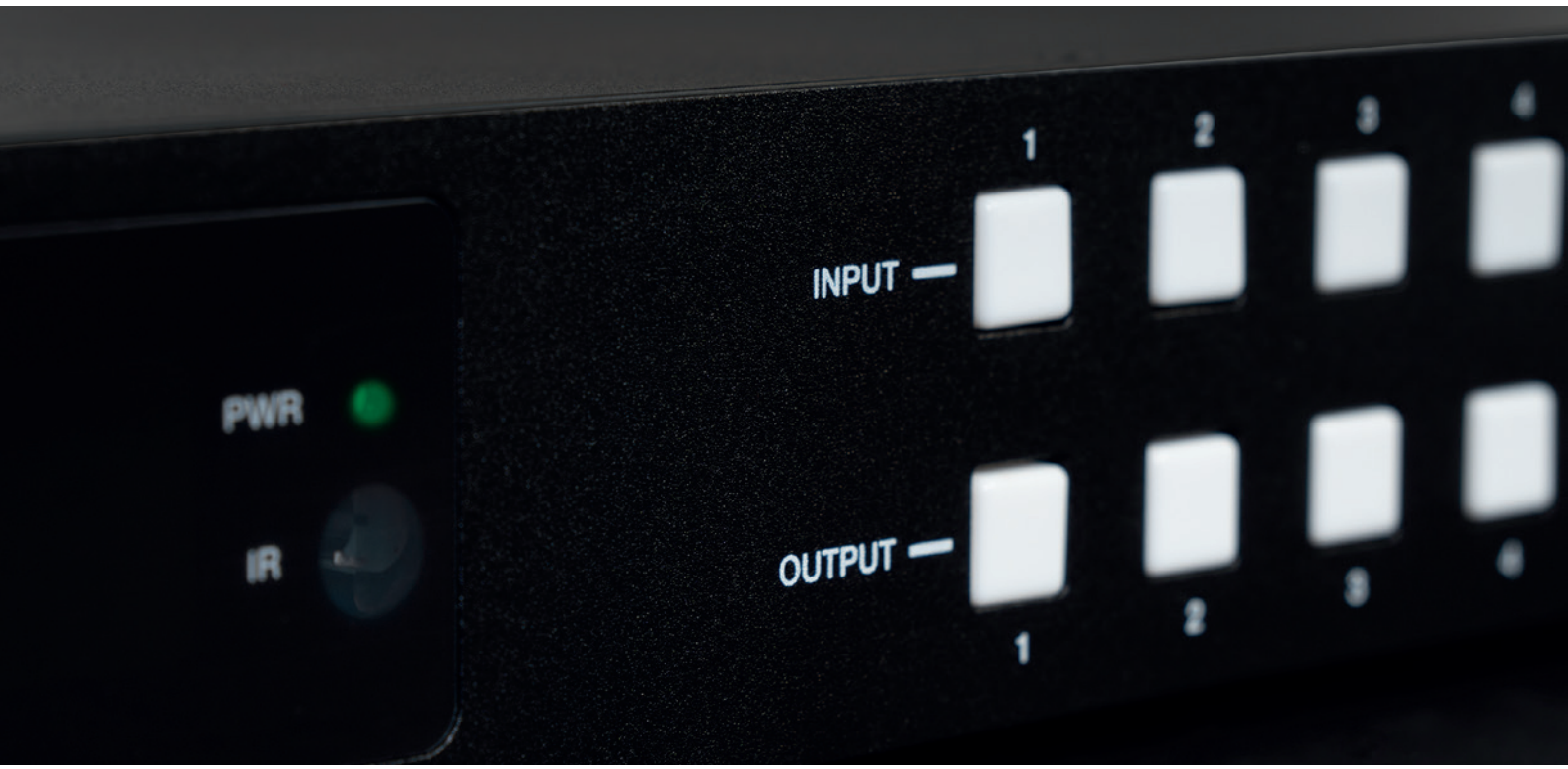


SPLITTERS

VGA



	FV-50SP12
FEATURES	1 x 2 VGA and stereo audio splitter. Compatible up to 1920 x 1200 and 1080p. Bandwidth 500 MHz. Up to 15 m transmission distance. Metal chassis.
INPUTS	1 VGA, D15 female 1 audio, jack 3.5 mm stereo
OUTPUTS	2 VGA, D15 female 2 audio, jack 3.5 mm stereo
INDICATORS	Power indicator light
POWER SUPPLY	5 V DC, 1 A with included adapter
DIMENSIONS	118 x 26 x 71 mm depth
WEIGHT	0.2 kg



EXTENSORS

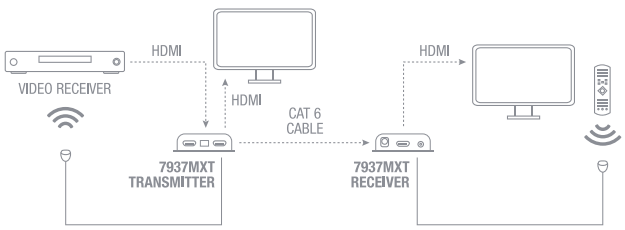
HDMI

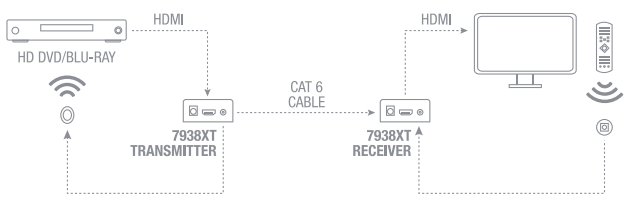
> Cat 6

HD 1080p@60Hz · 1.3 HDMI · HDCP 1.3 · CAT 6 · BW 4' 95 Gbps · EDID

HD 1080p@60Hz · 1.3 HDMI · HDCP 1.3 · CAT 6 · BW 4' 95 Gbps

	7937MXT	7938XT
FEATURES	1.3 HDMI extension over Cat 6 cable. HDMI loop output in transmitter for local TV. HD 1080p@60Hz resolution. Bandwidth 4.95 Gbps. Transmission distance up to 50 m for a resolution of 1080p with Cat 6 cable. EDID function, automatically or manually selects optimum resolution in all TVs. Self-adjusting function of the losses in the cable. IR remote control transmission. No signal compression. No delay. PoC receiver power supply via Cat 6 cable. FTP/STP cable CAT6/6/7 with connection according to IEEE-568 standard	1.3 HDMI extension over Cat 6 cable. Resolution 1080p@60Hz and below. Bandwidth 4.95 Gbps. Supports EDID pass-through. Transmission distance up to 60 m for 1080p@60Hz resolutions with Cat 6 cable. Remote control return transmission function 20 - 60 kHz. Auto-adjustment and re-connection function. ESD electrostatic discharge protection.
HDMI	1.3	
HDCP	1.3	
DELAY	0 ms	1 ms
POWER SUPPLY	Transmitter: 5 V DC, 2 A with adapter included Receiver: PoC (Power supply over Power Cable)	Transmitter: 5 V DC, 1 A with adapter included Receiver: PoC (Power supply over Power Cable)
DIMENSIONS	Transmitter and receiver: 72 x 23 x 67 mm depth.	Transmitter and receiver: 81 x 26 x 48 mm depth.
WEIGHT	2 x 0.1 kg	0.25 kg
ACCESSORIES	Remote control transmitter and receiver	IR remote control transmitter and receiver Mounts for surface anchoring



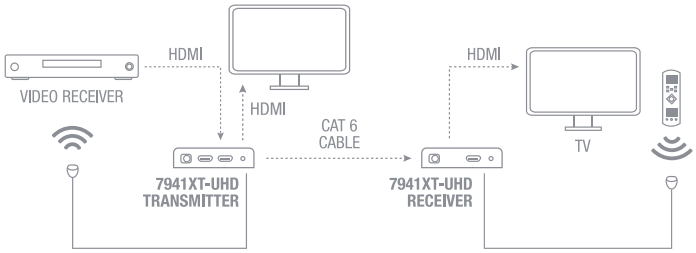


EXTENSORS

HDMI

> Cat 6

	7941XT-UHD
FEATURES	HDMI 2.0 extension over Cat 6 cable. Resolution 4K UHD@ 60Hz and lower. 18 Gbps bandwidth. Compatible with HDR10 and HLG. Compatible with compressed DTS, Dolby Digital and uncompressed LPCM audio. HDMI loop output in transmitter for local TV. Transmission distance up to 70 m for 4K @ 60Hz and FULL HD 1080p resolutions. DOWN-SCALING function to transform 4K resolutions to FULL HD 1080p. Receiver power supply by PoC via Cat 6 cable. Remote control extension function.
HDMI	2.0
HDCP	2.3, compatible with 1.4
DELAY	1 ms
POWER SUPPLY	Transmitter: 12 V DC, 1 A with adapter included Receiver: PoC power supply of the receiver via Cat 6 cable and optional local power supply 12 V DC, 1A.
DIMENSIONS	Transmitter and receiver: 88 x 23 x 100 mm depth.
WEIGHT	0.4 kg
ACCESSORIES	IR remote control transmitter and receiver Mounts for surface anchoring

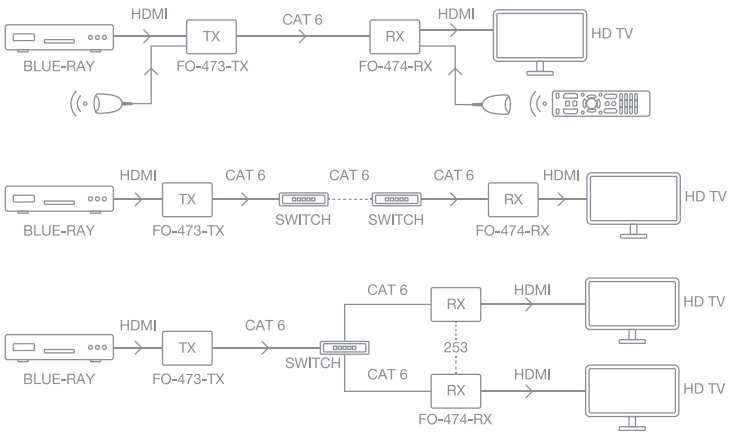


EXTENSORS

HDMI

> Cat 6

	FO-473-TX	FO-474-RX
FEATURES	HDMI 1.3 over IP Transmitter Extension-Splitter 1080p@60Hz resolution. Bandwidth 4.95 Gbps. Transmission distance up to 120 m with direct connection with Cat 6 cable for 1080p resolution. Extendable up to 120 m with each switch level. Direct or ethernet connection with Gigabit switch (1 Gbps) with IGMP Snooping function. Flexible and scalable configuration. Easy HDMI signal distribution. Point-to-multipoint transmission from one FO-473-TX to one or more FO-474-RX receivers. Up to 253 FO-474-RX receivers. Low bandwidth data transmission and compression technology, 18 Mbps. Remote control extension function for source control from the receiver location.	
HDMI	1.3	
HDCP	1.4, compatible with 1.3	
DELAY	100 ms	
INPUTS	1 HDMI female	1 RJ-45 ethernet extension HDMI over Cat 6 cable
OUTPUTS	1 RJ-45 ethernet extension HDMI over Cat 6 cable	1 HDMI female
POWER SUPPLY	5 V DC, 2 A with included adapter	
DIMENSIONS	100 x 25 x 59 mm depth	
WEIGHT	0.15 kg	
ACCESSORIES	Remote control extender cable Mounting mounts	

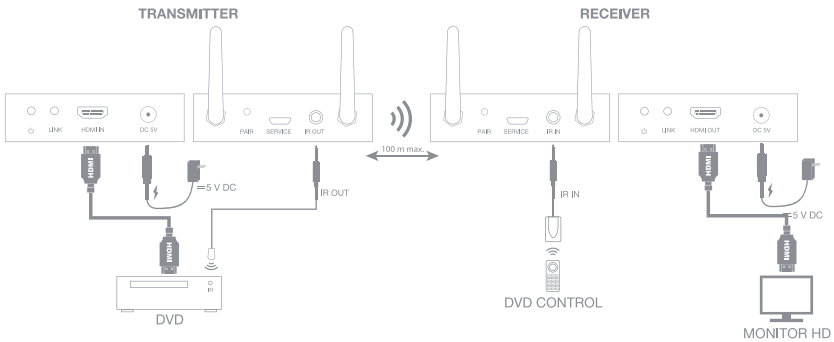


EXTENSORS
HDMI

> Wireless

1080p@60Hz | 1.3 HDMI | HDCP 1.4 | BW 5.8 Gbps

	VS-2490HD
FEATURES	Wireless HDMI extension with H.265 compression technology. Consisting of 1 transmitter and 1 receiver. Transmission distance up to 100 m in direct view for 1080p@60 Hz resolution. Transmission frequency 5.8 GHz. 1080p@60 Hz compatible. Simple installation with no need of configuration. Does not cause interference with Wi-Fi networks. No need for direct vision between the devices (maximum transmission distance is reduced). Remote control extender.
HDMI	1.3
HDCP	1.4
LATENCY	<120 ms
POWER SUPPLY	Transmitter and receiver: 5 V DC, 2 A with included adapters
DIMENSIONS	Transmitter and receiver: 76 x 23 x 103 mm depth.
WEIGHT	2 x 0.12 kg
ACCESSORIES	1 IR remote control transmitter cable, 1.5 m 1 IR remote control receiver cable, 1.5 m



MATRICES
HDMI

> HDMI

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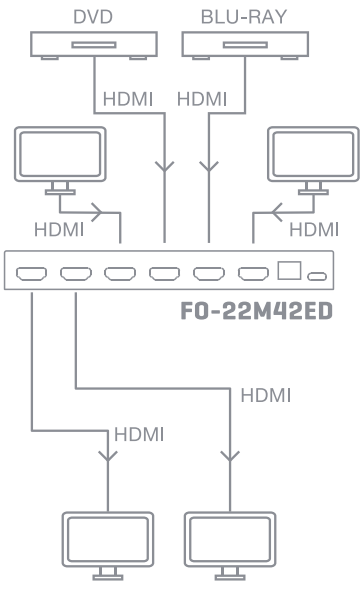
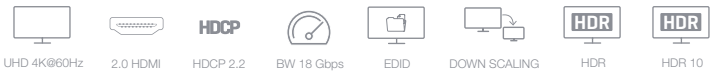
UHD 4K@60Hz | 2.0 HDMI | HDCP 2.2 HDCP 1.4 | BW 18 Gbps | EDID | DOWN SCALING | HDR

	FO-22M42ED
FEATURES	4 x 2 HDMI matrix. Resolution 4K UHD@ 60Hz and lower. 18 Gbps bandwidth. HDR compatible. EDID function, manually selects the optimal resolution for all TVs. DOWN-SCALING function to transform resolutions from 4K to Full HD 1080p and display both resolutions simultaneously. Audio extractor for each output, with simultaneous digital and analogue output (audio extractor compatible with LPCM 2.0 format). Supports HDMI Audio Return Cable (ARC) from TV A output. Remote control.
HDMI	2.0
HDCP	2.2 and 1.4
DELAY	0 ms
INPUTS	4 HDMI female
OUTPUTS	2 HDMI female 2 stereo audio, 3.5 mm TRS jack (LPCM 2.0 audio extractor) 2 audio SPDIF, optical (Toslink)
CONTROLS	Input selection button for each output ARC mode pushbutton on output A DIP-switches for EDID mode selection
INDICATORS	Indicator lights for power on, input selected for each output and ARC.
POWER SUPPLY	5 V DC, 1 A with included adapter
DIMENSIONS	171 x 20 x 67 mm depth
WEIGHT	0.25 kg

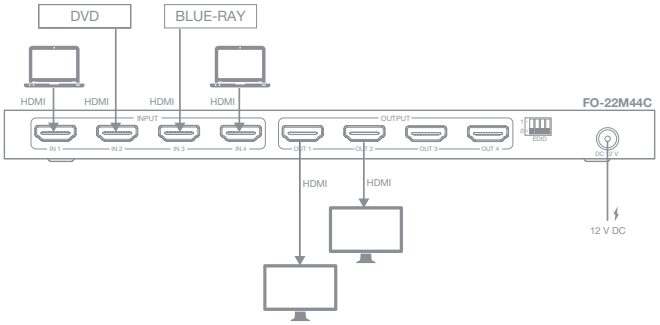


MATRICES
HDMI

> HDMI



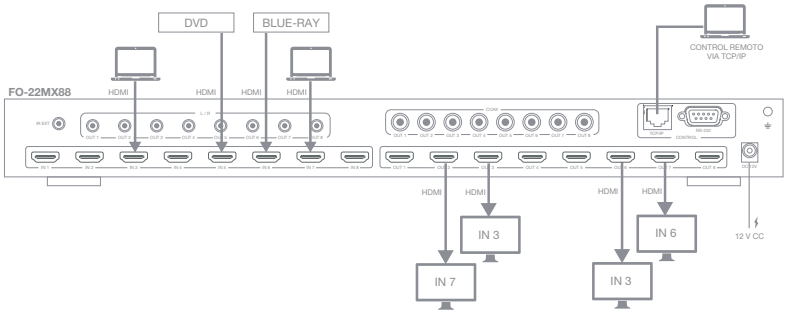
	FO-22M44C
FEATURES	4 x 4 HDMI matrix. UHD 4K@60Hz and Full HD 1080p resolution. 18 Gbps bandwidth. Compatible with HDR, HDR10 and HDR10+. EDID function, selects the optimum resolution and audio mode for all TVs. DOWN-SCALING function to transform 4K resolutions to Full HD 1080p. Memorize the last scene. Remote control.
HDMI	2.0
HDCP	2.2
DELAY	1 ms
INPUTS	4 HDMI female
OUTPUTS	4 HDMI female
CONTROLS	Input selection buttons for each output
INDICATORS	Power indicator light Luminous indicators of selected inputs and outputs
POWER SUPPLY	112 V DC, 2.5 A with adapter included
DIMENSIONS	220 x 19 x 105 mm depth
WEIGHT	0.6 kg
ACCESSORIES	Remote control Fastening mounts for anchoring on table or wall



MATRICES
HDMI

> HDMI

	FO-22MX88
FEATURES	8 x 8 HDMI matrix. Resolution UHD 4K@60Hz, YUV 4:4:4:4. 18 Gbps bandwidth. DOWN-SCALING function to transform 4K resolutions to Full HD 1080p. Digital audio extractor coaxial and stereo analog, for each of the outputs. Compatible with HDR10, HDR10+, Dolby Vision, HLG, ARC, CEC and EDID smart management. Remote control extender. LCD display of assignment information. Selection buttons on the front panel. Remote control via IR remote control protocol. Web interface (Web GUI) via Ethernet. RS-232 communication protocol.
HDMI	2.0b
HDCP	2.3, compatible with 1.4
INPUTS	8 HDMI female 1 RS-232 port, DB9 1 Ethernet, RJ-45
OUTPUTS	8 HDMI female (cable length depending on resolution 4K@60Hz/5m, 4K@30Hz/10m, 1080p@30Kz/15m. Premium High Speed HDMI cable is recommended). 8 audio, jack 3.5 mm stereo 8 digital audio coaxial, RCA
CONTROLS	Input selection buttons for each output Button to lock/unlock the control buttons Navigation buttons through the configuration menu
INDICATORS	Power indicator light LCD display
POWER SUPPLY	12 V DC, 5 A with adapter included Consumption: 43W
DIMENSIONS	440 x 44.5 x 200 mm bottom
WEIGHT	2.8 kg
ACCESSORIES	IR remote control Remote control extension cable with adhesive Cable DB9 female - male 19” rack mounting mounts 4 non-slip feet Battery for remote control

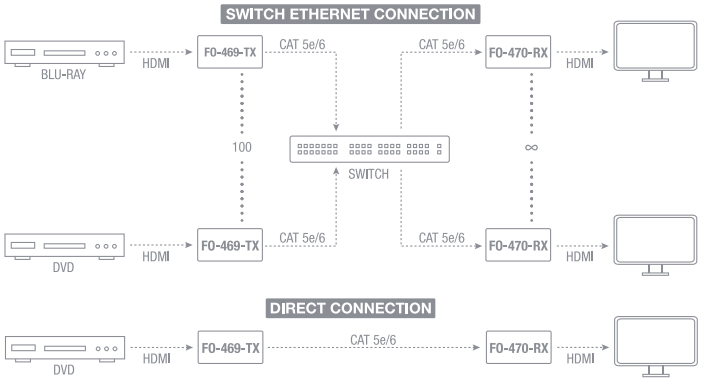


MATRICES
HDMI

> Cat 6

Full HD 1080p@60Hz | 1.3 HDMI | HDCP 1.3 | CAT 6 | ETHERNET | MANY TO MANY

	FO-469-TX	FO-470-RX
FEATURES	HDMI 1.3 matrix transmitter over IP. Control by APP for smartphone or tablet, PC software and remote control. Compatible with Full HD 1080p@60Hz. Supported resolutions: 1080p@50/60Hz, 1080i@50/60Hz, 720p@50/60Hz, 576p@50Hz, 576i@50Hz, 480p@60Hz, 480i@60Hz. Up to 120 m transmission distance. Direct connection or via ethernet with IGMP Snooping switch. Flexible and scalable configuration, up to 100 inputs and as many outputs as required. Up to 100 FO-469-TX transmitters and no LIMTE FO-470-RX receivers. Easy plug and play connection. Low bandwidth data transmission and compression technology, 28 Mbps. Remote control extension function for source control from the receiver location. Cables according to IEEE-568B standard.	
HDMI	1.3	
HDCP	1.3	
DELAY	70 ms	
INPUTS	1 HDMI female	1 RJ-45 ethernet extension HDMI over Cat 5e/6 cable
OUTPUTS	1 RJ-45 ethernet extension HDMI over Cat 5e/6 cable	1 HDMI female
CONTROLS	Channel selection	
POWER SUPPLY	5 V DC, 1 A with included adapter	5 V DC, 2 A with included adapter
DIMENSIONS	134 x 24 x 84 mm depth	
WEIGHT	0.3 kg	
ACCESSORIES	Remote control extender cable Mounting mounts	

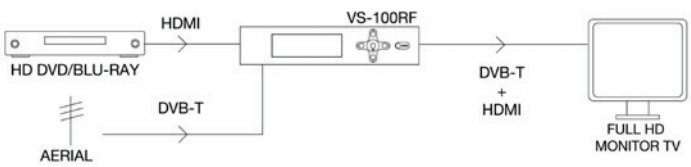


MODULATORS

HDMI

> HDMI

	VS-100RF
FEATURES	DVB-T FULL HD HDMI modulator. Converts HDMI signal into a DVB-T signal that is added to the other DVB-T channels. DVB-T Full HD 1080 output resolution. DVB-T modulation on VHF and UHF channels. It allows to distribute an HDMI signal to several TVs over the antenna cable. Screen for channel configuration. Configurable channel name. HDCP compatible. Great resistance to noise and interference. USB port for software updates.
INPUTS	1 HDMI female gold-plated connector 1 antenna, F female connector
OUTPUTS	1 antenna, F female connector
POWER SUPPLY	5 V DC, 1 A with included adapter
DIMENSIONS	158 x 33 x 115 mm depth
WEIGHT	0.6 kg
ACCESSORIES	Mounting brackets



TV AND SATELLITE

Receivers

N!

	RDS-524HD
FEATURES	DVB-S2 H.265 HEVC HD DVB-S2 satellite receiver. Video recorder (PVR with Timeshift): records and plays back TV programmes. 2 x USB 2.0 ports. Multimedia player of video, audio and images files. Supports high efficiency HD (H.265/HEVC) and HD (H.264/MPEG-4 AVC) video encoding. HD output formats: 1080p, 1080i, 720p, 576p, 576i, 480p and 480i. HD output up to 1080p over HDMI and SD standard definition over europlug. 4:3 and 16:9 screen format. Dolby D+, Dolby Digital, AAC+, AAC, etc. DiSeqC 1.0/1.1/1.2 (USALS). Subtitles, multi-audio channel language selection and teletext. Electronic Program Guide (EPG). Saving and exporting channels and editing (favourites, moving, parental lock, deleting and sorting). Preloaded channel list (German channels). Channel and software updates (OTA). Software update via USB. Multi-language and easy to use menu. Automatic and manual search. Web menu options compatible with the RT5370N USB WiFi adapter. Remote control.
OUTPUTS	Audio/Video: HDMI Euroconnector Digital audio coaxial, RCA
POWER SUPPLY	110-240 V AC, 50/60 Hz, 12 W maximum. Standby: 0.2 W
COLOR	Black
DIMENSIONS	220 x 42 x 140 mm depth
WEIGHT	0.4 kg
ACCESSORIES	Remote control HDMI cable Batteries for remote control

TV AND SATELLITE

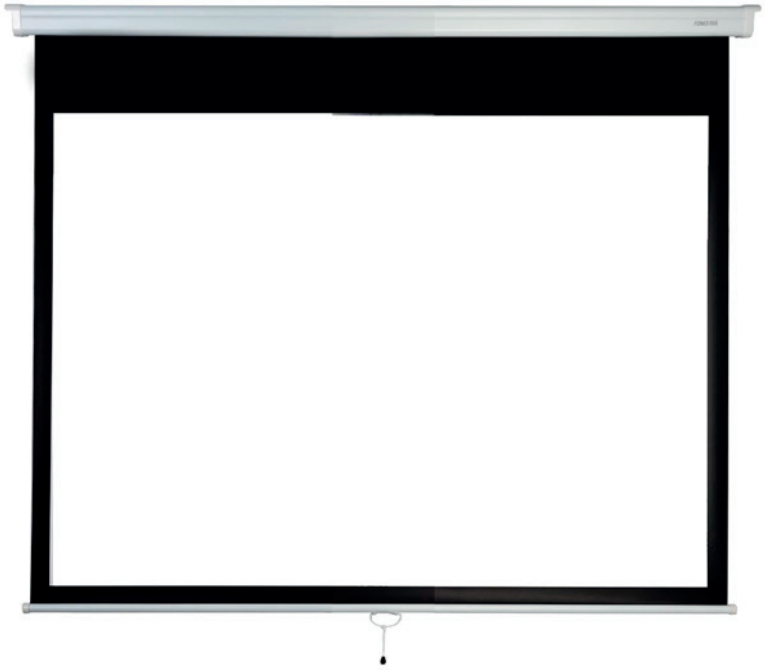
Receivers

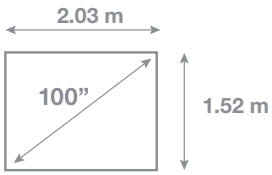
	RDS-585WHD
FEATURES	DVB-S2 HD satellite receiver. DVB-S2/MPEG-4/MPEG-2. HD output formats: 1080p, 1080i, 720p, 576p y 480p. Personal video recorder (PVR with timeshift function). Multimedia player. USB 2.0 port. Wi-Fi and ethernet. DiSeqC 1.0/1.1/1.2/1.3 (USALS). Remote control. Multi-language menu. Automatic and manual search. Edit channels (favourites, sort, edit, show list, move, lock, rename and delete). Software update via USB. Electronic Program Guide (EPG). 4:3 and 16:9 screen.
OUTPUTS	HDMI Composite video, RCA Stereo audio, 2 x RCA
POWER SUPPLY	12 V DC, 1 A with included adapter
COLOR	Black
DIMENSIONS	220 x 44 x 140 mm depth
WEIGHT	0.4 kg
ACCESSORIES	Remote control HDMI cable Batteries for remote control

PROJECTION SCREENS

Manual

> 4:3



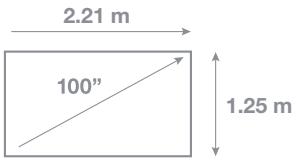


	PPMA-43100-FA
FEATURES	Manual projection screen. Square housing. Self-locking system. Wall or ceiling installation.
FABRIC	PVC reinforced with fiberglass Gain 0.9 White matt Back in black Flame retardant material Thickness 0.42 mm
DIMENSIONS	Viewing area: 100” (2.03 x 1.52 m) Black edges of 5 cm Extra top black edge of 30 cm Rolled-up: 222 x 8.5 x 8.5 cm deep
WEIGHT	9.2 kg

PROJECTION SCREENS

Manual

> 16:9

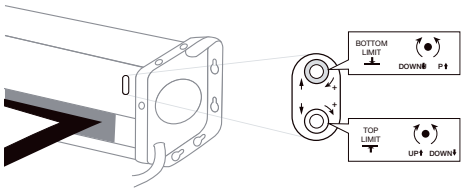


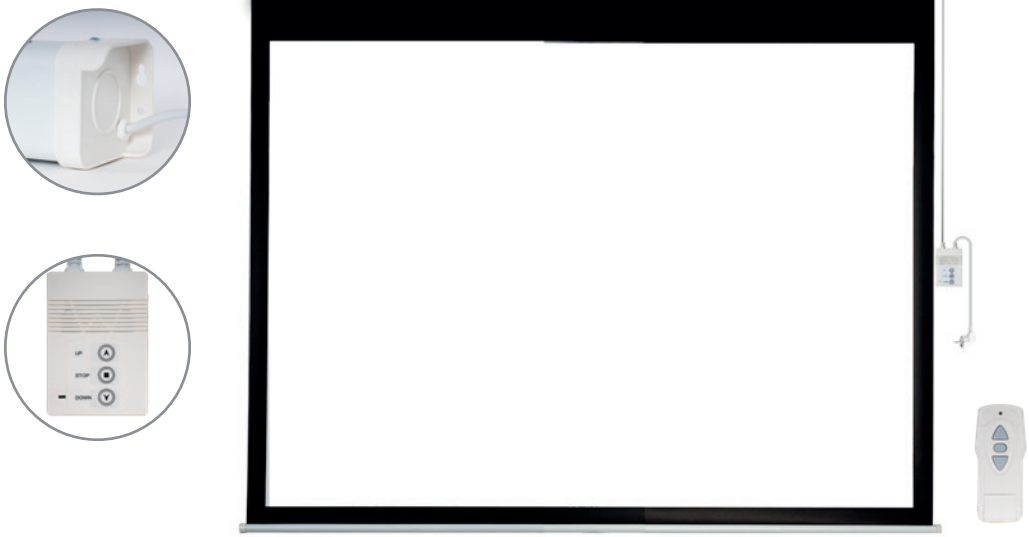
	PPMA-16100-FA
FEATURES	Manual projection screen. Square housing. Self-locking system. Wall or ceiling installation.
FABRIC	PVC reinforced with fiberglass Gain 0.9 White matt Back in black Flame retardant material Thickness 0.42 mm
DIMENSIONS	Viewing area: 100” (2.21 x 1.25 m) Black edges of 5 cm Extra top black edge of 30 cm Rolled-up: 242 x 8.5 x 8.5 cm deep
WEIGHT	9.5 kg

PROJECTION SCREENS

Electric

> 4:3



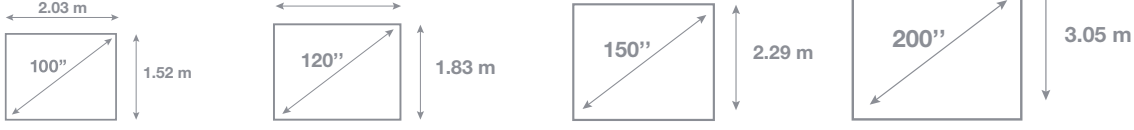


FLAME RETARDANT MATERIAL | WHITE MATT COLOUR | FLOOR OR WALL MOUNTING

	FIBREGLASS REINFORCED PVC	THICKNESS 0.42 mm	SYNCHRONOUS MOTOR	FIBREGLASS REINFORCED PVC	THICKNESS 0.42 mm	SYNCHRONOUS MOTOR	PVC	THICKNESS 0.46 mm	SILENT AND FAST TUBULAR MOTOR	PVC	THICKNESS 0.46 mm	SILENT AND FAST TUBULAR MOTOR
PPEL-43100-FA	●	●	●									
PPEL-43120-FA				●	●	●						
PPEL-43150-FA							●	●	●			
PPEL-43200-FA										●	●	●

	PPEL-43100-FA	PPEL-43120-FA	PPEL-43150-FA	PPEL-43200-FA
FEATURES	Electric projection screen. Up, down and stop push buttons. RF remote control. Gain 0.9. Black rear.			
POWER SUPPLY	230 V AC, 30 W Wall receiver cable 2 m Power supply cable 2.5 m	230 V AC, 30 W Wall receiver cable 2 m Power supply cable 2.5 m	230 V AC, 121 W Wall receiver cable 5 m Power supply cable 2.5 m	230 V AC, 121 W Wall receiver cable 5 m Power supply cable 2.5 m
DIMENSIONS	Black edges of 5 cm Extra top black edge of 30 cm Rolled-up: 236 x 9.5 x 9.5 cm deep	Black edges of 5 cm Extra top black edge of 30 cm Rolled-up: 276 x 9.5 x 9.5 cm deep	Black edges of 6 cm Extra top black edge of 30 cm Rolled-up: 332 x 9.5 x 9.5 cm deep	Black edges of 6 cm Extra top black edge of 30 cm Rolled-up: 430 x 10.5 x 10.5 cm deep
WEIGHT	11.7 kg	14.2 kg	20.5 kg	35.5 kg

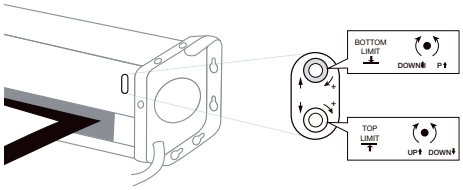
VISUALIZATION AREA



PROJECTION SCREENS

Electric

> 16:9



FLAME RETARDANT MATERIAL | WHITE MATT COLOUR | FLOOR OR WALL MOUNTING

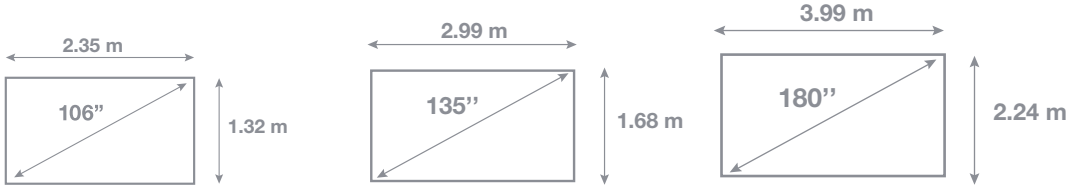
FIBREGLASS REINFORCED PVC | THICKNESS 0.42 mm | SYNCHRONOUS MOTOR

PVC | THICKNESS 0.46 mm | SILENT AND FAST TUBULAR MOTOR

PVC | THICKNESS 0.46 mm | SILENT AND FAST TUBULAR MOTOR

	PPEL-16106-FA	PPEL-16135-FA	PPEL-16180-FA
FEATURES	Electric projection screen. Up, down and stop push buttons. RF remote control. Gain 0,9. Black rear.		
POWER SUPPLY	230 V AC, 32 W Wall receiver cable 2 m Power supply cable 2.5 m	230 V AC, 121 W Wall receiver cable 2 m Power supply cable 2.5 m	230 V AC, 121 W Wall receiver cable 5 m Power supply cable 2.5 m
DIMENSIONS	Black edges of 5 cm Extra top black edge of 30 cm Rolled-up: 276 x 9.5 x 9.5 cm deep	Black edges of 6 cm Extra top black edge of 30 cm Rolled-up: 325 x 9.5 x 9.5 cm deep	Black edges of 6 cm Extra top black edge of 30 cm Rolled-up: 426 x 10.5 x 10.5 cm deep
WEIGHT	13.5 kg	18.5 kg	27.5 kg

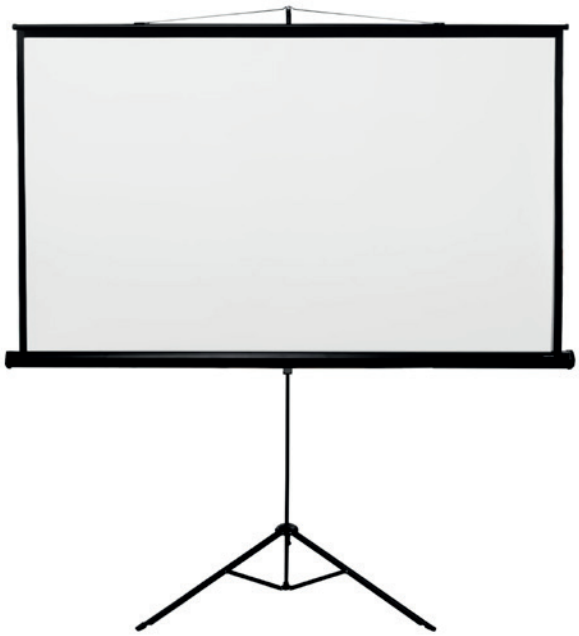
VISUALIZATION AREA

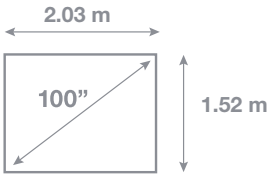


PROJECTION SCREENS

With tripod

> 4:3





	PPTR-43100-FA
FEATURES	Projection screen with tripod. Octagonal housing. Tripod locking system. Adjustable in height and tilt.
FABRIC	Fiberglass Gain 0.9 White matt Back in black Flame retardant material Thickness 0.42 mm
DIMENSIONS	Viewing area: 100” (2.03 x 1.52 m) Black edges of 3 cm Extra lower black edge of 30 cm Rolled-up: 214 x 16 x 8.5 cm depth Tripod (maximum height): 2.5 m
WEIGHT	10 kg

CONNECTION PANELS

Integrated

	WPL-401
FEATURES	Integrated connection panel. Connection via terminal blocks to screw. Surface mounted box.
INPUTS	1 VGA, D15 female 1 USB A female port 1 composite video, RCA 1 stereo audio, 2 x RCA 1 stereo audio, 3.5 mm jack
COLOR	White (RAL 9003)
DIMENSIONS	86 x 86 x 52 mm depth
WEIGHT	0.12 kg

	WPL-403
FEATURES	Multimedia junction box. Double connector for quick and weldless internal connection. Use in multimedia classrooms, centralizes audio, video and data connections. Easy installation. Steel construction, connectors on the front.
INPUTS	Front panel 1 VGA , D15 female 1 x HDMI female 1 audio, 3'5 mm stereo jack female 1 USB B female
OUTPUTS	Internal connectors 1 VGA , D15 female 1 x HDMI female 1 audio, 3.5 mm stereo jack female 1 USB A female.
COLOR	White (RAL 1013)
DIMENSIONS	130 x 50 x 123 mm depth
WEIGHT	0.5 kg

	WP-61VJ
FEATURES	Integrated connection panel with window. Connection via terminal blocks to screw. Window for 1 connection panel.
INPUTS	1 VGA, D15 female 1 stereo audio, 3.5 mm jack
DIMENSIONS	86 x 86 x 24 mm depth

	WP-62CJ
FEATURES	Surface box 86 x 86 mm. For WP-61VJ.
DIMENSIONS	60 mm between screws. 86 x 86 x 42 mm depth.

	WP-55SUC
FEATURES	Integrated connection panel. 2 x USB charger. Two-pole socket outlet with earth connection, 16 A 230 V. For standard recessed box or surface. Connection by means of screw terminals.
INPUTS	5 V DC (2.400 mA)
CONNECTORS	2 x USB A female Schuko socket, safety shutter
POWER SUPPLY	100-240 V CA
COLOR	White (RAL 9003)
DIMENSIONS	86 x 86 x 50 mm depth

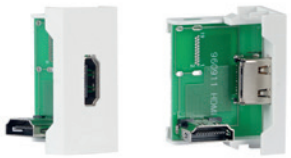
CONNECTION PANELS

Modular

> Speaker

	WP-35T	WP-38K
FEATURES	Snap-on speaker terminals. 1 connection panel. Screw terminals.	4-pin female speaker connector. 1 connection panel. Screw terminals.
COLOR	White (RAL 9003)	
DIMENSIONS	45 x 45 x 33.3 mm depth	45 x 45 x 41.5 mm depth

> HDMI



	WP-37H	WP-46H	WP-62H-02
FEATURES	HDMI female. 1/2 connection panel. Adapter for HDMI female 90º. Supports all HDMI resolutions. The resolution depends on the concected cable.	HDMI female connector. 1/2 connection panel. Quick connection without screws.	HDMI female. 1/2 connection panel. 10 cm cable connection with HDMI female connector. Supports 4K@60Hz, 18.
COLOR	White (RAL 9003)		
DIMENSIONS	22.5 x 45 x 33.3 mm depth	22.5 x 45 x 39.2 mm depth	45 x 22.5 x 38.5 mm bottom

> Jack 3.5

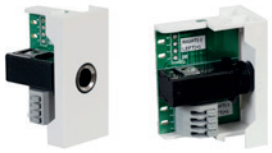
	WP-33J
FEATURES	3.5 mm stereo jack female. 1/2 connection panel. Screw terminals.
COLOR	White (RAL 9003)
DIMENSIONS	22.5 x 45 x 33.3 mm depth

CONNECTION PANELS

Modular

> Jack 6.3

	WP-36J
FEATURES	6.3 mm stereo jack female. 1/2 connection panel. Quick connection without screws or soldering.
COLOR	White (RAL 9003)
DIMENSIONS	22.5 x 45 x 34 mm depth



> RCA

	WP-42R	WP-43R
FEATURES	2 RCA connectors AUDIO L, R. 1/2 connection panel. Screw terminals.	3 x RCA video and audio L, R. 1/2 connection panel. Screw terminals.
COLOR	White (RAL 9003)	
DIMENSIONS	22.5 x 45 x 33.3 mm depth	22.5 x 45 x 33.3 mm depth

> XLR

	WP-39X
FEATURES	XLR female connector. 1 connection panel. Screw terminals.
COLOR	White (RAL 9003)
DIMENSIONS	45 x 45 x 47 mm depth

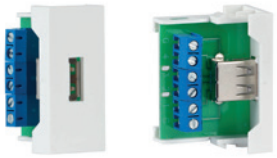
> RJ-45

	WP-49RJ
FEATURES	RJ-45 FTP Cat 6 T568B. 1/2 connection panel. Quick connection without screws.
COLOR	White (RAL 9003)
DIMENSIONS	22.5 x 45 x 32.1 mm depth

CONNECTION PANELS

Modular

> USB



	WP-32U	WP-47U
FEATURES	USB A female. 1/2 connection panel. Screw terminals.	USB A female. 1/2 connection panel. Connection via USB A female 90º. The data transfer rate is not influenced by this adapter, it depends on the cable used.
COLOR	White (RAL 9003)	
DIMENSIONS	22.5 x 45 x 33.3 mm depth	

	WP-63U-02
FEATURES	Female USB A. 1/2 connection panel. 20 cm cable connection with female USB A connector.
COLOR	White (RAL 9003)
DIMENSIONS	45 x 22.5 x 33 mm fondo

	WP-31UC	WP-53UC2
FEATURES	USB charger. 1/2 connection panel. Screw terminals.	USB charger. 1 connection panel. Screw terminals.
COLOR	White (RAL 9003)	
INDICATORS	Power indicator light	Power indicator light
CONTROLS	On/off push-button	2 female USB A connectors with cap
OUTPUTS	5 V DC (1.000 mA)	5 V DC (2 x 1,200 mA)
POWER SUPPLY	100-250 V AC	100-240 V AC
DIMENSIONS	22.5 x 45 x 46 mm depth	45 x 45 x 47 mm depth

CONNECTION PANELS
Modular

> VGA

	WP-34V	WP-51V
FEATURES	VGA, D15 female. 1/2 connection panel. Quick connection without screws.	VGA, D15 female. 1/2 connection panel. Plug-in euroblock connection.
COLOR	White (RAL 9003)	
DIMENSIONS	22.5 x 45 x 42.6 mm depth	22.5 x 45 x 47 mm depth

	WP-51V-5
FEATURES	Plug-in VGA connection panel with pre-installed cable. 1/2 connection panel.
COLOR	White (RAL 9003)
LENGTH	5 m

	WP-61V-02	WP-52JVJ
FEATURES	VGA female. 1/2 connection panel. 20 cm cable connection with female VGA connector	VGA, D15 female. Microphone, 3.5 mm stereo jack female. Headphones, 3.5 mm stereo female jack. 1 connection panel. Quick connection without screws.
COLOR	White (RAL 9003)	
DIMENSIONS	45 x 22.5 x 38.5 mm bottom	45 x 45 x 45 mm depth

> Switch

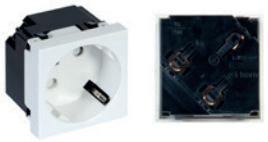
	WP-54I
FEATURES	Switch with indicator light. 230/115 V AC 16 A. 1 connection panel. Fast connection (Fast On) or welding.
COLOR	White (RAL 9003)
DIMENSIONS	45 x 45 x 39 mm depth

CONNECTION PANELS

Modular

> Shucko

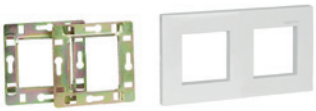
	WP-44S
FEATURES	Two-pole socket outlet with earth connection. 250 V AC, 16 A. 1 connection panel. Screw terminals. Safety shutter.
COLOR	White (RAL 9003)
LENGTH	45 x 45 x 40.6 mm depth

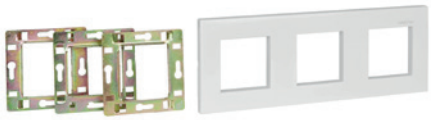


> Cable output

	WP-56P
FEATURES	Cable output. 1 connection panel.
COLOR	White (RAL 9003) Brush: Black
DIMENSIONS	45 x 45 x 16 mm depth

> Frames, boxes and chassis





	WP-89MCH	WP-150MCH	WP-220MCH
FEATURES	Frame and chassis for installation in square universal flush box. Window for 1 connection panel.	Frame and 2 chassis for installation in 2 European standard boxes. 2 windows for 2 connection panels.	Frame and 3 chassis for installation in 3 European standard boxes. 3 windows for 3 connection panels.
COLOR	White (RAL 9003)		
DIMENSIONS	80 x 80 mm	150 x 80 mm	220 x 80 mm

	WP-85CJ	WP-86MCH
FEATURES	Surface box for WP-86MCH frame and chassis.	Frame and chassis for installation in WP-85CJ surface box. Window for 1 connection panel.
COLOR	White (RAL 9003)	
DIMENSIONS	80 x 80 x 41 mm depth	80 x 80 mm

CONNECTION PANELS

Modular

> *Frames, boxes and chassis*

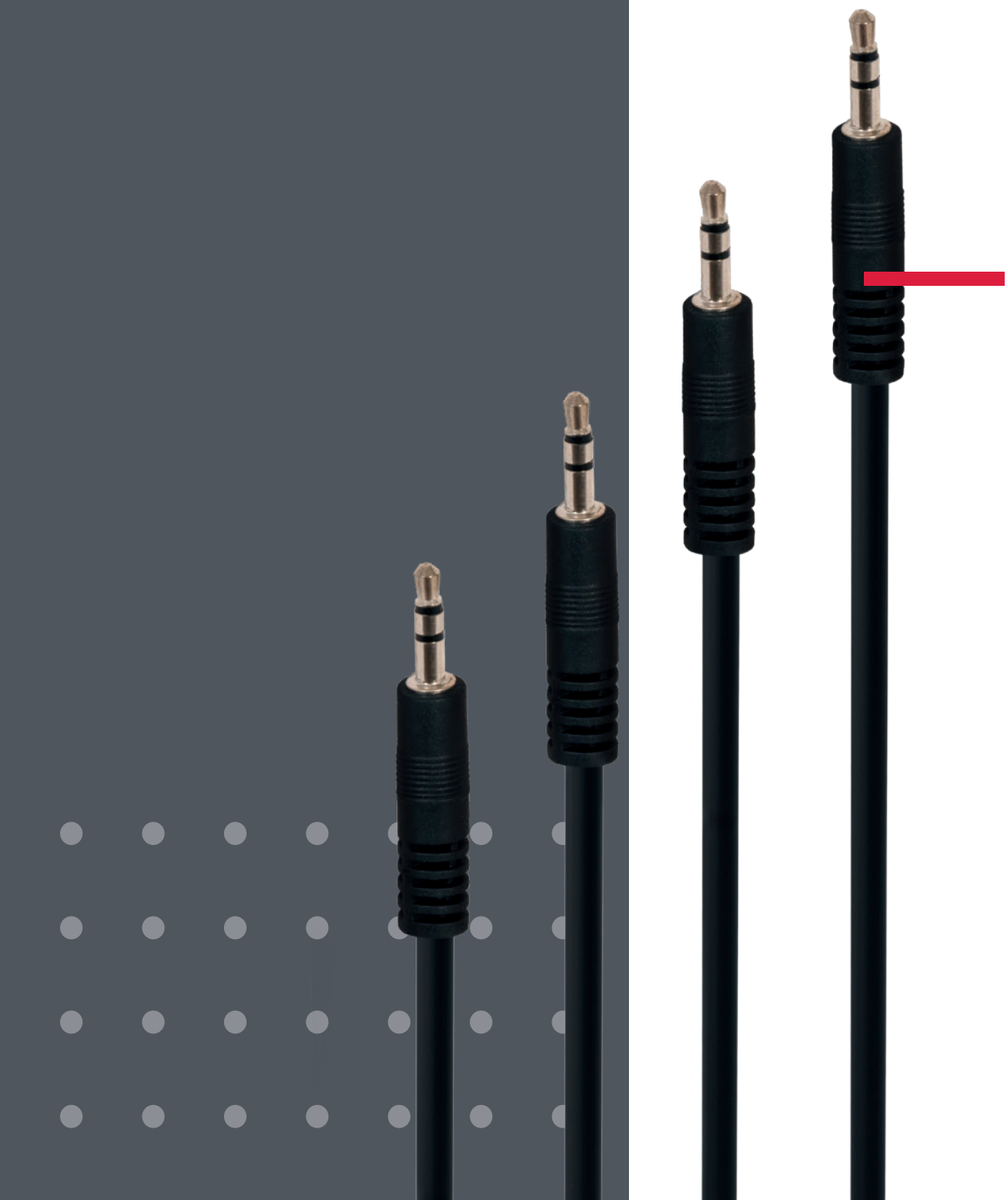
	WP-148CJ	WP-149MCH
FEATURES	Surface box for WP-149MCH frame and chassis.	Frame and chassis for surface mounting box WP-148CJ Window for 2 connection panels.
COLOR	White (RAL 9003)	
DIMENSIONS	148 x 81 x 42 mm depth	148 x 80 mm

	WP-194CJ	WP-195MCH
FEATURES	Surface box for WP-195MCH frame and chassis.	Frame and chassis for installation in WP-194CJ surface box. Window for 3 connection panels.
COLOR	White (RAL 9003)	
DIMENSIONS	194 x 81 x 42 mm depth	195 x 80 mm

	WP-88T2	WP-87T
FEATURES	Blind cover for 1/2 connection panel.	Blind cover for 1 connection panel.
COLOR	White (RAL 9003)	
DIMENSIONS	22.5 x 45 x 33.3 mm depth	45 x 45 x 33.3 mm depth

connectivity

276



278 **AUDIO**
278 Cables
281 Connectors
281 *AERIAL*
281 *MODULAR*
282 Adapters
283 Converters
284 Wireless transmitters

286 **A/V**
286 Cables
286 *HDMI*
286 4K
287 8K
287 *ANTENNA*
288 Adapters
289 Converters
289 *HDMI*
291 Extenders

291 **DATA**
291 Cables
291 *USB*
291 *RJ45*
292 Connectors
292 *RJ45*
292 Adapters
292 *USB*
292 Extenders
292 *USB*

293 **POWER SUPPLY**
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293 USB chargers
294 AC/DC adapters
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297 **CABLE ROLLS**
297 Speaker
297 *EN 54*
299 *STANDARD*
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301 A/V
302 HDMI
302 VGA
303 Data
303 DMX

304 **ACCESSORIES**
304 Testers
304 Tools
305 Cleaning sprays
305 Cleaning kits

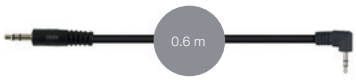
AUDIO
Cables

	AA-425L-2	AA-425L
CONNECTOR A	3.5 mm stereo female jack	
CONNECTOR B	3.5 mm stereo male jack	
LENGTH	1.8 m	4.5 m

	AA-465
CONNECTOR A	3.5 mm stereo male jack
CONNECTOR B	2 x 3.5 mm female stereo jacks
LENGTH	0.18 m

	AA-709N
CONNECTOR A	3.5 mm stereo male jack
CONNECTOR B	3.5 mm stereo male jack
LENGTH	1.5 m

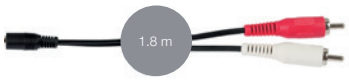
	AA-729	AA-729-3	AA-729-5	AA-729-10
CONNECTOR A	3.5 mm stereo male jack			
CONNECTOR B	3.5 mm stereo male jack			
LENGTH	1.8 m	3 m	5 m	10 m



	AA-729A
CONNECTOR A	3.5 mm stereo male jack
CONNECTOR B	3.5 mm stereo jack 90° male
LENGTH	0.6 m

	AA-707N
CONNECTOR A	3.5 mm stereo male jack
CONNECTOR B	2 male RCA
LENGTH	1.5 m

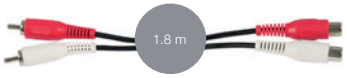
	AA-727	AA-727-3	AA-727-5	AA-727-10
CONNECTOR A	3.5 mm stereo male jack			
CONNECTOR B	2 male RCA			
LENGTH	1.8 m	3 m	5 m	10 m



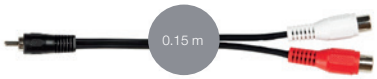
	AA-727H
CONNECTOR A	3.5 mm stereo female jack
CONNECTOR B	2 male RCA
LENGTH	1.8 m

AUDIO
Cables

	AA-203-070	AA-203	AA-203-3	AA-203-5	AA-203-10
CONNECTOR A	2 male RCA				
CONNECTOR B	2 male RCA				
LENGTH	0.7 m	1.8 m	3 m	5 m	10 m



	AA-204
CONNECTOR A	2 male RCA
CONNECTOR B	2 RCA female
LENGTH	1.8 m



	AA-225
CONNECTOR A	RCA male
CONNECTOR B	2 RCA female
LENGTH	0.15 m

	AA-797	AA-797-3	AA-797-5
CONNECTOR A	Toslink		
CONNECTOR B	Toslink		
FEATURES	Fiber optic cable for digital audio connection. Connectors with golden fiber protector. Internal structure composed of, Optical fiber (1 mm Ø). Double protection cover, PE interior (2.2 mm Ø) and PVC exterior (4 mm Ø). Special for connection of Hi-Fi and TV equipment.		
LENGTH	1 m	3 m	5 m

N!

N!

	SM-671
CONNECTOR A	2 x RCA male
CONNECTOR B	2 x XLR male
FEATURES	Connection for stereo signals. Two parallel cables. Internal structure composed of, Cable with copper conductors (30 wires / 0.1 mm Ø) and PE cover (1.8 mm Ø). Structural reinforcement with cotton threads. Shielding with Mylar Aluminum Sheet and braided threads (96 strands / 0.1 mm Ø DCS). PVC outer cover (6 mm Ø). Special for stereo signal connection.
LENGTH	1.5 m

N!

	SM-672
CONNECTOR A	Jack TRS 6.3 mm male
CONNECTOR B	XLR male
FEATURES	Balanced connection. Internal structure composed of, Two cables with copper conductors (30 wires / 0.1 mm Ø) and PE cover (1.8 mm Ø). Structural reinforcement with cotton threads. Shielding with Mylar Aluminum Sheet and braided threads (96 strands / 0.1 mm Ø DCS). PVC outer cover (6 mm Ø). Special for balanced line signal connection.
LENGTH	1.5 m

AUDIO
Cables

	SM-673	SM-673-5	SM-673-10
CONNECTOR A	XLR female		
CONNECTOR B	XLR male		
FEATURES	Balanced connection. Mesh connected to the connector chassis. Internal structure composed of, Two cables with copper conductors (30 wires / 0.1 mm Ø) and PE cover (1.8 mm Ø). Structural reinforcement with cotton threads. Shielding with Mylar Aluminum Sheet and braided threads (96 strands / 0.1 mm Ø DCS). PVC outer cover (6 mm Ø). Special for microphone connection or balanced line signal.		
LENGTH	1.5 m	5 m	10 m

	SP-820-10	SP-820-20
CONNECTOR A	Male speaker connector	
CONNECTOR B	Male speaker connector	
FEATURES	Cable for speakers 2 x 1.5 mm² 7 mm Ø cable and male speaker connectors	
LENGTH	10 m	20 m

AUDIO
Connectors

> Aerial

	S-112
CONNECTOR	3.5 mm stereo male jack Gold contacts High strength metal body Connection terminals by soldering Insulation for protection of soldiers terminals 5 mm Ø cable outlet hole Cable output with rubber adjustment

	7285G-NE	7285G-RO
CONNECTOR	RCA gold metal male with cable output spring. Connection with or without welding with clamping screw. Three black lines. 7 mm Ø cable outlet hole.	RCA gold metal male with cable output spring. Connection with or without welding with clamping screw. Three red lines 7 mm Ø cable outlet hole

	SM-591
CONNECTOR	Mini XLR female 2 mm Ø cable outlet hole

	SM-567	SM-568
CONNECTOR	XLR male 4 - 6 mm Ø cable outlet hole.	XLR female 4 - 6 mm Ø cable outlet hole.

PACK 10 PCS. AVAILABLE

PACK 10 PCS. AVAILABLE

PACK 10 PCS. AVAILABLE

	S-101	S-102	S-101G
CONNECTOR	6.3 mm male stereo jack 6 mm Ø cable outlet hole	6.3 mm mono male jack 6 mm Ø cable outlet hole	6.3 mm male stereo jack 6 mm Ø cable outlet hole

	SP-810	SP-810-8	SP-815
CONNECTOR	4-contact male speaker connector with lock for speaker input/output 5 mm Ø cable outlet hole	8-contact male speaker connector with lock for speaker input/output 5 mm ØVble outlet hole	4-contact female speaker connector with lock for speaker input/output 4 mm Ø cable outlet hole

> Modular

	SM-573	SM-574
CONNECTOR	XLR male	XLR female panel
FEATURES	Fastening to chassis and panel for rack 19". Compatible for mod. FRP-31XLR	

	SP-800
CONNECTOR	4-contact female speaker connector with lock for speaker input/output
FEATURES	Fastening to chassis and panel for rack 19" mod. FRP-32SPK

AUDIO

Adapters

PACK 10 PCS. AVAILABLE

PACK 10 PCS. AVAILABLE

PACK 10 PCS. AVAILABLE

	AA-453	AA-148	AA-151
CONNECTOR A	6.3 mm stereo jack female	3.5 mm stereo jack female	3.5 mm stereo jack socket with threaded plug
CONNECTOR B	3.5 mm stereo male jack	6.3 mm male stereo jack	6.3 mm male stereo jack

PACK 10 PCS. AVAILABLE

PACK 10 PCS. AVAILABLE

PACK 10 PCS. AVAILABLE

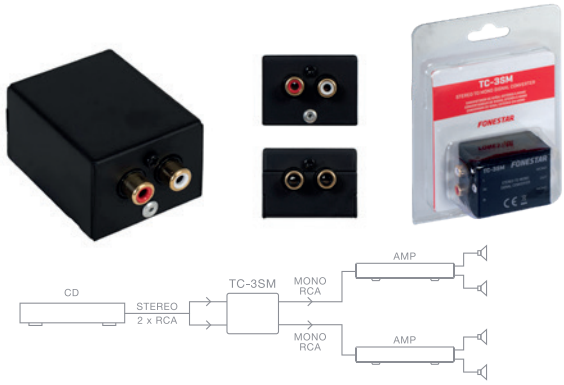
PACK 10 PCS. AVAILABLE

	AA-460-2	AA-411	AA-143	AA-141
CONNECTOR A	2 RCA audio stereo female	RCA female	2 RCA female	2 RCA female
CONNECTOR B	2 RCA audio stereo female	6.3 mm mono male jack	3.5 mm stereo male jack	6.3 mm male stereo jack

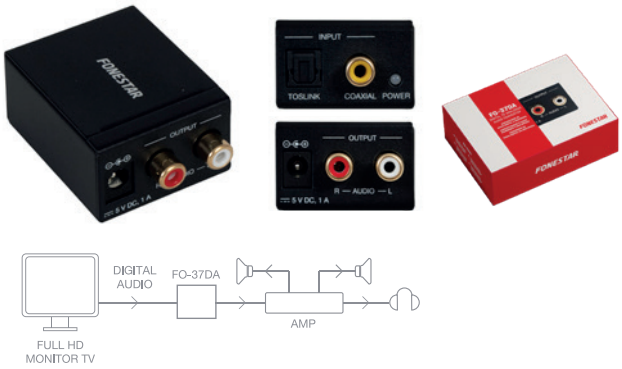
	SM-581	SM-560	SM-571
CONNECTOR A	RCA female	6.3 mm mono male jack	6.3 mm male stereo jack
CONNECTOR B	XLR male	XLR female	XLR male

AUDIO
Converters

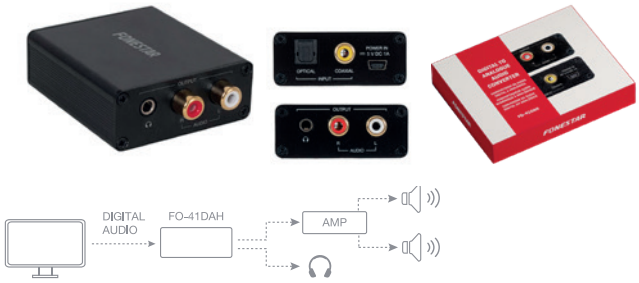
	TC-3SM
FEATURES	Stereo signal converter into 2 mono signals. Adapts impedances and distributes the signal.
INPUTS	1 stereo auxiliary, 2 x RCA 4,700 Ω
OUTPUTS	2 Auxiliary mono, RCA
RESPONSE	20-20.000 Hz
DIMENSIONS	42 x 31 x 67 mm depth



	FO-37DA
FEATURES	Digital to analog audio converter. PCM SPDIF stereo format. 24-bit DAC, 32-96 kHz.
INPUTS	SPDIF stereo optics, toslink 32-96 kHz Coaxial SPDIF stereo, RCA 32-96 kHz
OUTPUTS	Stereo audio, 2 x RCA
POWER SUPPLY	5 V DC, 1 A with adapter included
DIMENSIONS	0.1 kg



	FO-41DAH
FEATURES	Digital to analog audio converter. Headphone output. PCM SPDIF stereo format. 24-bit, 32 kHz, 44.1 kHz, 48 kHz, 96 kHz and 192 kHz DAC
INPUTS	SPDIF stereo optics, toslink 32-192 kHz Coaxial SPDIF stereo, RCA 32-192 kHz
OUTPUTS	Stereo audio, 2 x RCA Headphones, 3.5 mm jack
POWER SUPPLY	Through the mini USB port, 5 V DC, 0.5 A
DIMENSIONS	73 x 21 x 54 mm depth

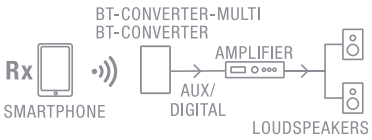


	FO-42DAV
FEATURES	Digital to analog audio converter. Simultaneous headphone and line output for amplifier. Volume control. Bass setting. PCM/LPCM SPDIF stereo format. DAC 16-24-bit, 44.1 KHz, 48 KHz, 96 KHz and 192 KHz
INPUTS	SPDIF stereo optics, toslink 32-192 kHz Coaxial SPDIF stereo, RCA 32-192 kHz
OUTPUTS	Stereo audio, 2 x RCA Headphones, 3.5 mm TRS jack
CONTROLS	Volume control Bass adjustment
POWER SUPPLY	5 V DC, 1 A, via Micro USB port, with adapter included
DIMENSIONS	72 x 19 x 80 mm depth
ACCESSORIES	Adapter and power cable USB to Micro USB, 70 cm

AUDIO

Wireless transmitters

	BT-CONVERTER
FEATURES	2 in 1 wireless audio transmitter and receiver. Auxiliary audio input/output. Connect to 2 devices simultaneously (headphones/speakers/ smartphones, etc.) Operating mode selector: Transmitter/receiver. Compact and portable design. Operation during battery charging.
INPUTS	1 auxiliary, jack 3.5 mm stereo
OUTPUTS	1 auxiliary, jack 3.5 mm stereo
INDICATORS	Status indicator light
POWER SUPPLY	Rechargeable Li-ion battery, 280 mAh, 3.7 V Battery life: Up to 14 h* Charging time: 2 h * Autonomy at 50% of the volume. Depending on the type of music and volume, autonomy may be reduced.
CONTROLS	Operating mode selector: Transmitter/receiver.
DIMENSIONS	49 mm Ø x 13 mm depth
ACCESSORIES	USB to USB-C cable for recharging Audio jack cable 3.5 mm stereo to 3.5 mm stereo jack Audio jack cable 3.5 mm stereo female to 2 RCA male



	BT-CONVERTER-MULTI
FEATURES	2 in 1 wireless audio transmitter and receiver. SPDIF digital audio optical input and output to connect to TV or sound equipment. Auxiliary audio input/output. Connect to 2 devices simultaneously (headphones/speakers/ smartphones, etc.) Operating mode selector: Transmitter/receiver. Compact and lightweight design. Operation during battery charging.
INPUTS	1 auxiliary jack 3.5 mm stereo (input/output depending on selected mode) 1 digital audio, toslink(SPDIF)
OUTPUTS	1 digital audio, toslink (SPDIF)
INDICATORS	Status indicator light
POWER SUPPLY	Rechargeable Li-ion battery, 350 mAh, 3.7 V Battery life: Up to 14 h* Charging time: 2 h * Autonomy at 50% of the volume. Depending on the type of music and volume, autonomy may be reduced.
CONTROLS	Operating mode selector: Transmitter/receiver In receiver mode: Play/pause control, track selection and volume control
DIMENSIONS	70 x 20 x 70 mm depth

AUDIO

Wireless transmitters

BLUETOOTH USB CAR TELEPHONE

	TL-3UB
FEATURES	Bluetooth FM transmitter. It emits audio at the desired frequency to tune it from the car radio. Bluetooth receiver 3.0. Plays music from smartphones, tablets and other Bluetooth devices. Hands-free for calls with integrated microphone. Effective microphone distance between 0.5 and 2 m. Echo cancelation and noise reduction technology. USB/MP3 player. 2 charging ports for smartphones and tablets. Double sided USB connectors, can be plugged in any way. Output by FM or auxiliary. Car battery level indicator. Information display. Designed to fit any vehicle.
OUTPUTS	Assistant 2 x USB, 5 V 2.1 A max.
RESPONSE	20-15.000 Hz
SIGNAL/NOISE RATIO	≥ 60 dB
POWER SUPPLY	12-24 V DC
DIMENSIONS	115 x 21.5 x 29 mm depth
ACCESSORIES	Audio jack cable 3.5 mm stereo to 3.5 mm stereo jack

> HDMI

4K

	7904K-0-75	7904K-1-5	7904K-3	7904K-5
CONNECTOR A	HDMI male			
CONNECTOR B	HDMI male			
CONDUCTIVE MATERIAL	Copper (Cu)			
	Drivers 30 AWG (19+1 conductors)			
FEATURES	High quality HDMI 2.0 A/V digital connection UHD 4K@60Hz resolution. 18 Gbps bandwidth. High transmission speed. Copper cable (Cu) with excellent signal transmission High precision connectors with gold-plated contacts with high corrosion resistance. ethernet function ARC audio return channel. Compatible with 3, HDR, HDCP 2.2 and Dolby True HD compressed audio, DTS-HD, etc.			
EXTERNAL DIAMETER	5.5 mm			
LENGTH	0.75 m	1.5 m	3 m	5 m

	7904K-10	7904K-15	7904K-20
CONNECTOR A	HDMI male		
CONNECTOR B	HDMI male		
CONDUCTIVE MATERIAL	Copper Coated Steel (CCS)		
	Drivers 28 AWG (19+1 conductors)	Drivers 26+28 AWG (19+1 conductors)	Drivers 26+28 AWG (19+1 conductors)
FEATURES	High quality HDMI 2.0 A/V digital connection UHD 4K@60Hz resolution. 18 Gbps bandwidth. High transmission speed. Copper Coated Steel Cable (CCS) with braided mesh with very good signal transmission High precision connectors with gold-plated contacts with high corrosion resistance. ethernet function ARC audio return channel. Compatible with 3, HDR, HDCP 2.2 and Dolby True HD compressed audio, DTS-HD, etc.		
EXTERNAL DIAMETER	7.3 mm	8.3 mm	8.3 mm
LENGTH	10 m	15 m	20 m

N!

	7904K-COPT30	7904K-COPT50
CONNECTOR A	HDMI male	
CONNECTOR B	HDMI male	
FEATURES	High quality HDMI 2.0 optical cable UHD 4K@60Hz resolution. Standard HDCP 2.2. Protection against EMI/RFI interference. 18 Gbps bandwidth. Compatible with HDR, CEC and Audio Return Channel (ARC). Golden contacts. Diameter cable section 4.5 mm. Unidirectional: It is necessary to connect the terminal marked “Source” to the source and the terminal marked “Display” to the TV.	
LENGTH	30 m	50 m

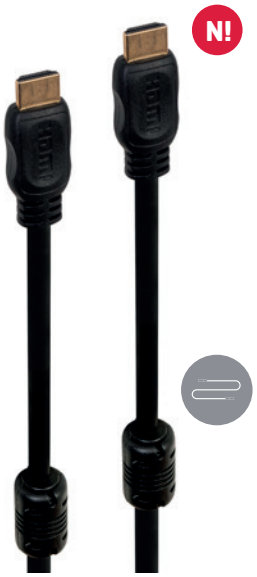
N!

A/V Cables

> HDMI

8K

	7908K-1-5	7908K-3	7908K-5	7908K-10
CONNECTOR A	HDMI male			
CONNECTOR B	HDMI male			
CONDUCTIVE MATERIAL	Copper (Cu)	Copper (Cu)	Copper (Cu)	Copper Coated Steel (CCS)
	Drivers 30 AWG (19+1 conductors)	Drivers 28 AWG (19+1 conductors)	Drivers 26 AWG (19+1 conductors)	Drivers 26 AWG (19+1 conductors)
FEATURES	High quality HDMI 2.1 A/V digital connection 8K@60Hz resolution. 48 Gbps bandwidth. High transmission speed. High precision connectors with gold-plated contacts with high corrosion resistance. ethernet function ARC audio return channel. Compatible with 3, HDR, HDCP 2.2 and Dolby True HD compressed audio, DTS-HD, etc.			
EXTERNAL DIAMETER	6.3 mm	7.3 mm	8.2 mm	8.2 mm
LENGTH	1.5 m	3 m	5 m	10 m

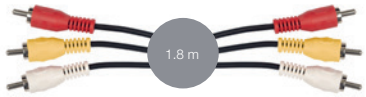


> Antenna

	SV-570
CONNECTOR A	F male
CONNECTOR B	Antenna TV / Video male
FEATURES	TV antenna connection, video, etc. with coaxial cable RG-59 for connection of radio frequency and low-power video signals
LENGTH	1.5 m

	ANT-NE	ANT-NE-3	ANT-BL	ANT-NE-A.	ANT-NE-3A
CONNECTOR A	TV antenna / Video coaxial male				
CONNECTOR B	TV antenna / Video coaxial female				
IMPEDANCE	75 Ω				
MATERIAL	CCS Conductor (Copper Plated Steel) PVC cover Gold straight connectors	CCS Conductor (Copper Plated Steel) PVC cover Gold straight connectors	CCS Conductor (Copper Plated Steel) PVC cover Gold straight connectors	CCS Conductor (Copper Plated Steel) PVC cover Gold layered connectors	CCS Conductor (Copper Plated Steel) PVC cover Gold layered connectors
SECTION	Ø 6 mm				
LENGTH	1.5 m Ferrite Distance: 10 cm	3 m Ferrite Distance: 10 cm	1.5 m Ferrite Distance: 10 cm	1.5 m Ferrite Distance: 10 cm	3 m Ferrite Distance: 10 cm

A/V
Cables



	SV-696-2
CONNECTOR A	RCA Male Video + 2 RCA Male Audio Stereo
CONNECTOR B	RCA Male Video + 2 RCA Male Audio Stereo
FEATURES	Professional connection for video cameras Video + stereo audio
LENGTH	1.8 m

	7909	7909-5
CONNECTOR A	DVI 19 pins male	
CONNECTOR B	HDMI male	
FEATURES	DVI-D single link cable to HDMI A/V digital for high speed and resolution digital signal transfer With interference suppressor ferrites at both ends	
LENGTH	1.8 m	5 m

	7818-5	7818-10
CONNECTOR A	D 15 male	
CONNECTOR B	D 15 male	
FEATURES	SVGA cable for monitors, projectors, etc. with high quality cable and interference suppressor ferrites on both ends	
LENGTH	5 m	10 m

A/V
Converters

	7928
CONNECTOR A	HDMI female
CONNECTOR B	HDMI female

	7933
CONNECTOR A	HDMI female
CONNECTOR B	HDMI male

	7105
CONNECTOR A	BNC female
CONNECTOR B	BNC female

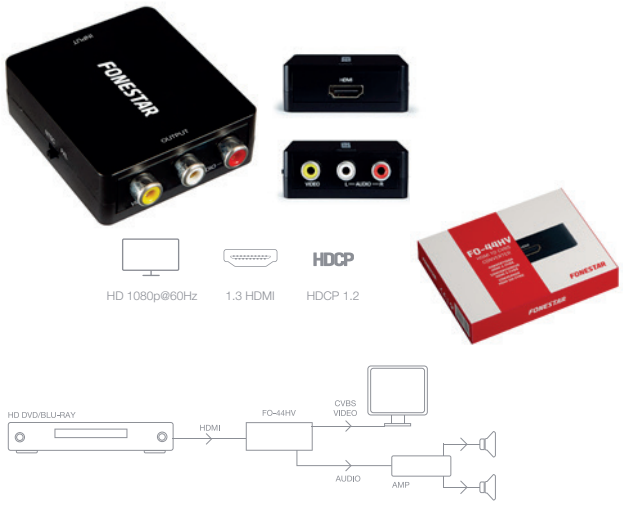
	7926
CONNECTOR A	DVI-D single link 25 pins male
CONNECTOR B	HDMI female

A/V
Converters

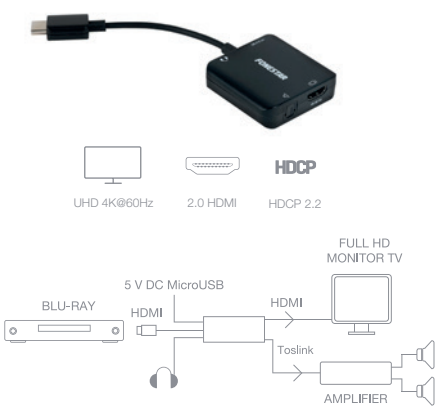
> HDMI

	FO-40VH
FEATURES	Composite video converter or S-Video and stereo audio to HDMI. Allows the connection of devices with composite video or S-Video output and stereo audio to a display with HDMI input. Maximum resolution of HDMI output signal: HD 1080p@60Hz. Selectable resolution: 720p or 1080p. Selection of the video input type: S-Video or composite video. Bandwidth 4.95 Gbps.
HDMI	1.3
HDCP	1.2
INPUTS	1 Composite video, RCA 1 S-Video, MINI DIN 4 1 stereo audio, 2 x RCA
OUTPUTS	1 HDMI female connector gold 1 audio, 3.5 mm jack
CONTROLS	Button selection of the video input type Resolution selection button
POWER SUPPLY	5 V DC, 1 A with adapter included
DIMENSIONS	113 x 24 x 81 mm depth

	FO-44HV
FEATURES	HDMI Converter to Composite Video and Stereo Audio. Allows connection of a player to a screen or projector with composite video input and stereo audio. Maximum resolution 1080. Video output format selection: NTSC or PAL.
HDMI	1.3
HDCP	1.2
INPUTS	1 HDMI female connector gold
OUTPUTS	1 Composite video, RCA 1 stereo audio, 2 x RCA
CONTROLS	Selector of the video output format
POWER SUPPLY	5 V DC, 1 A with USB cable included
DIMENSIONS	67 x 21 x 57 mm depth



	FO-442HA
FEATURES	HDMI audio extractor. UHD 4K@60Hz resolution. 18 Gbps bandwidth. Supports LPCM, DTS Digital 5.1 and Dolby Digital 5.1.
HDMI	2.0
HDCP	2.2
INPUTS	1 HDMI male connector gold
OUTPUTS	1 HDMI female connector gold Optica SPDIF, toslink Headphones, 3.5 mm stereo jack
POWER SUPPLY	5 V DC via micro USB connector
DIMENSIONS	58 x 58 x 16 mm depth

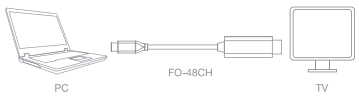


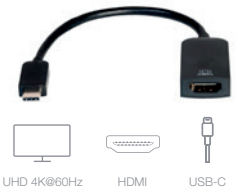
A/V
Converters

> HDMI

	HDMI-CAPTURE
FEATURES	HDMI video capturing machine. It receives video and audio signal from any HDMI source and transmits it to your PC via the USB port. Input resolution 4@30Hz and below. Output resolution up to 1080@60Hz. Bandwidth 10.2 Gbps. Compatible with Windows, Linux and Mac. Automatic recognition of input video format.
HDMI	1.4
HDCP	1.4
INPUTS	1 HDMI female
OUTPUTS	1 USB To 2.0 male
POWER SUPPLY	Via USB, 5 V DC, 350 mA
DIMENSIONS	31 x 13 x 63 mm depth

	FO-48CH
FEATURES	USB C to HDMI cable. UHD 4K@60Hz resolution. 18 Gbps bandwidth. Connect smartphones, tablets, laptops, cameras and other HDMI Alt Mode compatible devices to TV or projectors with HDMI input.
HDMI	2.0
CONNECTOR A	USB 3.1 Type C male
CONNECTOR B	HDMI male connector gold
LENGTH	1.8 m



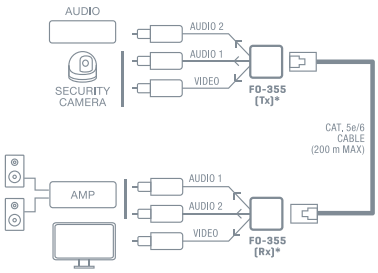


	FO-50CH
FEATURES	Converter USB Type C to HDMI. UHD 4K@60Hz resolution. 18 Gbps bandwidth. Connect smartphones, tablets, laptops, cameras and other HDMI Alt Mode compatible devices to TV or projectors with HDMI input.
HDMI	2.0
CONNECTOR A	USB 3.1 Type C male
CONNECTOR B	HDMI female
LENGTH	21 cm

COMPATIBLE MODELS FO-48 AND FO-50			
2020/2019/2018/2017/2016 MacBook Pro	Surface Pro 7 Go	Huawei Matebook	Pixelbook,Dell XPS 13/15
2020/2018 MacBook Air	Google Pixelbook Go	Phone 15Pro/15ProMax	Galaxy Book
2020/2018 iPad Pro	Chromebook	IPad Air (Latest Style of 2019)	Samsung Galaxy S23 Ultra/S22/S20/S9
2021/2020/2019/2017 iMac, iMac Pro	Pixelbook	IPad mini 6	Note 8/9/10/20 Ultra
2020/2018 Mac mini	Samsung Galaxy Tab Pro S	IPad 10	Huawei P40-P20/P40 Pro-P20 Pro/Mate
2015/2016 / 2017 MacBook	HP Spectre Convertible	Surface Book 2	40/30/20/10
Microsoft Surface Laptop 3	Razer Blade	Lenovo ThinkPad/Yoga	

A/V
Extenders

	FO-355
FEATURES	Analog video and audio balun extension cable Cat 5/6. Transmitter and receiver pair. Maximum transmission distance up to 200 m. Balances/unbalances the signal and adapts impedances. Reversible (can function as a sender and receiver). It does not need food.
INPUT / OUTPUT	1 auxi, 2 x RCA 450 Ω 1 composite video, RCA 65 Ω 1 RJ-45, audio and video
RESPONSE	Audio: 10-50,000 Hz Video: DC-8 MHz
TRANSMISSION PARAMETERS	2Maximum transmission distance 200 m Insertion Losses of less than 2 dB (CC-8 MHz) Return losses greater than 12 dB (CC-8 MHz) Rejection of common mode greater than 32 dB at 8 MHz
DIMENSIONS	60 cm cable



DATA
Cables

> USB

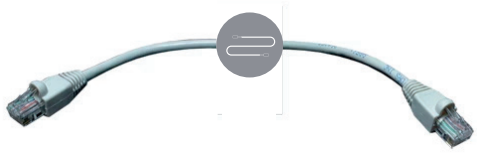
N!

	USB-CC
FEATURES	Cable with USB 2.0 Type C connectors 480 Mbps Fast charging and data transfer, 5 A, 20 V, 100 W Cable with nylon cover Metal Shell connectors Compatible with Android Diameter cable section 4.2 mm.
CONNECTOR A	USB C male
CONNECTOR B	USB C male
LENGTH	1 m

N!

	USB-CA
FEATURES	Cable with USB 2.0 Type C to USB A connectors 480 Mbps Fast charging and data transfer, 3 A, 5 V Cable with nylon cover Metal Shell connectors Compatible with Android Diameter cable section 4.2 mm.
CONNECTOR A	USB C male
CONNECTOR B	USB A male
LENGTH	1 m

> RJ45



	TF-5201-GS	TF-5201-GS-3	TF-5201-GS-6	TF-5201-GS-10
FEATURES	Cat 6 UTP connection, 2 x 8P8C connectors (RJ-45) with protector.			
CONNECTOR	8 contacts			
LENGTH	1 m	3 m	6 m	10 m

DATA
Connectors

> RJ45

	TF-958GR	TF-5120-GR	TF-5145GS-GR
FEATURES	Modular connector 8P8C (RJ-45), 8-pin gold-plated 50 µ, for UTP Cat 5e and 6 cable with multi-core cores	8P8C modular connector (RJ-45) with 8 gold-plated contacts 50 µ, for UTP Cat 5e and 6 cables with rigid conductors	Protective cap for 8P8C (RJ-45) connector and 6.5 mm Ø cable.
PRESENTATION	Bulk 100 pcs.	Bulk 100 pcs.	Bulk 100 pcs.

DATA
Adapters

> USB

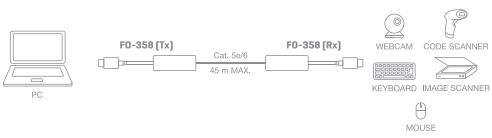
	FO-51CE
FEATURES	USB Type-C to Gigabit Ethernet adapter. USB 3.1.
CONNECTOR A	1 USB Type C male
CONNECTOR B	1 Ethernet RJ-45 female

DATA
Extenders

> USB

	7848-5
FEATURES	USB 2.0 with amplifier
CONNECTOR A	USB To male
CONNECTOR B	USB To female
LENGTH	5 m

	FO-358
FEATURES	USB extension cable Cat 5e/6. Transmitter and receiver pair. Up to 60 m transmission distance. Compatible with USB 1.1, no need for drivers on PC or Mac.
INPUT / OUTPUT	USB A
POWER SUPPLY	Via USB, 5 V DC, 20 mA
DIMENSIONS	Sender and receiver: 65 x 23 x 38 mm depth
WEIGHT	2 x 0.1 kg



POWER SUPPLY
Cables

	SR-420	SR-424	SR-448
FEATURES	Network cable with ground socket 3 x 0.75 mm²	Network cable with ground socket 3 x 0.75 mm²	PVC cable of 2 conductors. External dimensions 5 x 3 mm, conductors Cu 2 x 0.2 mm². 2 A 230 V.
CONNECTOR A	Schuko male	Schuko male	Europlug domestic AC power
CONNECTOR B	IEC 60320 C13 female	IEC 60320 C5 female type mickey/clover	IEC C7/C8 in the form of 8
LENGTH	1.8 m	1.8 m	1.8 m

POWER SUPPLY
Connectors

	S-327	S-330
FEATURES	Connector IEC 60320 C13 female for power connection 2 poles + ground 10 A, 250 V 8 mm Ø cable outlet hole	Connector IEC 60320 C14 male for power connection 2 poles + ground 10 A, 250 V 8 mm Ø cable outlet hole

POWER SUPPLY
USB chargers

COMING SOON

POWER-C-65
POWER-C-100

USB-C FAST CHARGE

Chargers USB C of 65 W and 100 W respectively.
Compact, wall-mounted, with fast charging and with USB-C output
Compatible with USB-DC cable.

POWER SUPPLY

AC/DC adapters

	AD-1220F
FEATURES	AC/DC adapter. 12 V, 2,000 mA, 24 W. Stabilized and with high energy efficiency.
OUTPUT	12 V, 2,000 mA Polarity: + in the center, - exterior
PROTECTIONS	Short-circuit and overcurrent
CONNECTORS	5.5 x 2.1 mm
CABLE	1.2 m
POWER SUPPLY	100-240 V AC, 50-60 Hz
WEIGHT	0.12 kg
PACKAGING	Cardboard box with easy opening and flap for hanging

	AD-520F
FEATURES	AC/DC adapter. 5 V, 2,000 mA, 10 W. 8 Interchangeable connectors, compatible with most common DC connections. Stabilized and with a high energy efficiency.
OUTPUT	5 V, 2,000 mA
PROTECTIONS	Short-circuit and overcurrent
CONNECTORS	Jack 3.5, 5.5 x 2.5, 5.7 x 3.1, 1.4 x 2.5, 5 x 1.5, 5 x 1.5, 2.5 x 1.35, 2.35 x 0.7
CABLE	1.2 m
POWER SUPPLY	100-240 V AC, 50-60 Hz
WEIGHT	0.08 kg
ACCESSORIES	8 interchangeable connectors

	AD-1218
FEATURES	AC/DC adapter for devices with power supply from 3 to 12 V and maximum consumption of 1.5 A, 18 W max. 7 voltage settings. 8 Interchangeable connectors, compatible with the most common DC connections. Reversible polarity. Switched circuit with high energetic efficiency. Low standby power consumption. LED power indicator light.
INPUT	100-240 V AC, 50/60 Hz, 0.5 A max.
OUTPUTS	Manual selection 3 V, 1.5 A, 4.5 W 4.5 V, 1.5 A, 6.75 W 5 V, 1.5 A, 7.5 W 6 V, 1.5 A, 9 W 7.5 V, 1.5 A, 11.25 W 9 V, 1.5 A, 13.5 W 12 V, 1.5 A, 18 W
CONSUMPTION AT REST	100-240 V AC, 0.1 W max.
PROTECTIONS	Short circuit, overload, overcurrent and overvoltage
CONNECTORS	Connectors (mm): 5.5 x 2.5 5 x 2.1 4 x 1.7 3.5 x 1.35 2.35 x 0.7 Jack 3.5 USB A Micro USB B
CABLE	CC 1.2 m
DIMENSIONS	4.5 x 7 (3.5 without plug AC) x 9 cm deep

POWER SUPPLY

AC/DC adapters

COMING SOON New models available soon.

	AD-2436	AD-2490
FEATURES	AC/DC adapter for devices with power supply from 9 to 24 V and maximum consumption of 2 A, 36 W max. 7 voltage settings. 7 Interchangeable connectors, compatible with the most common DC connections. Reversible polarity. Switched circuit with high energetic efficiency. Low standby power consumption. LED power indicator light.	AC/DC adapter battery charger for laptops, monitors and TV with power from 15 to 24 V and maximum consumption of 5 A, 90 W max. 7 different voltage settings. 11 interchangeable connectors, compatible with laptops, Acer, HP, Sony, Samsung, Dell, Asus, Fujitsu, LG, BenQ and Toshiba, and common use on monitors and TV. Switched circuit with high energetic efficiency. Low standby power consumption. LED power indicator light.
INPUT	100-240 V AC, 50/60 Hz, 1 A max.	100-240 V AC, 50/60 Hz, 2.2 A max.
OUTPUTS	Manual selection 9 V, 2 A, 18 W 12 V, 2 A, 24 W 13.5 V, 2 A, 27 W 15 V, 2 A, 30 W 18 V, 2 A, 36 W 20 V, 1.5 A, 30 W 24 V, 1.5 A, 36 W	Manual selection 15 V, 5 A, 75 W 16 V, 5 A, 80 W 18 V, 5 A, 90 W 19 V, 4.74 A, 90 W 20 V, 4.5 A, 90 W 22 V, 4.1 A, 90 W 24 V, 3.75 A, 90 W
CONSUMPTION AT REST	100-240 V AC, 0.1 W max.	100-240 V AC, 0.21W max.
PROTECTIONS	Short circuit, overload, overcurrent and overvoltage	Short circuit, overload, overcurrent and overvoltage
CONNECTORS	Connectors (mm): 5.5 x 2.5 5 x 2.1 4.8 x 1.7 4 x 1.7 3.5 x 1.35 2.35 x 0.7 Jack 3.5	Connectors (mm): 5.5 x 2.1 A: 6.5 x 4.4 (Sony, Fujitsu with inputs 16, 19 and 19.5 V) B: 6.3 x 3 (Toshiba with input 15 V) C: 5.5 x 2.5 (Acer, HP/Compaq, Fujitsu, Toshiba with inputs 16, 18.5, 19, 19.5 V) E: 5.5 x 1.7 (Acer, Dell with 19 V input) G: 4 x 1.7 (HP/Compaq with 19 V input) H: 5.5 x 3 (Samsung with 16, 19 V inputs) I: 3 pins (Dell 20 V) P: 4.8 x 1.7 (Asus, HP/Compaq, LG, Sony, BenQ with 18.5 inputs, 19 V) Dell: 7.4 x 5 (Dell with 19.5 V input) HP: 7.4 x 5 (HP/Compaq with inputs 18.5, 19 V)
CABLE	AC: 0.5m DC: 1.2 m	AC: 1.2 m DC: 1.2 m
DIMENSIONS	5 x 3.5 x 11 cm depth	6 x 3.5 x 14.5 cm depth

POWER SUPPLY

Batteries

> Alkaline

	F-LR03	F-LR6
FEATURES	Blister with 4 alkaline batteries. AAA-LR03. 1,200 mAh. 1.5 V. Alkaline of magnesium dioxide. 0% mercury, lead and cadmium.	Blister with 4 alkaline batteries. AA-LR6. 2,450 mAh. 1.5 V. Alkaline of magnesium dioxide. 0% mercury, lead and cadmium.

	F-LR14	F-LR20	F-6LR61
FEATURES	Blister with 2 alkaline batteries. C-LR14. 7,500 mAh. 1.5 V. Alkaline of magnesium dioxide. 0% mercury, lead and cadmium.	Blister with 2 alkaline batteries. D-LR20. 13,300 mAh. 1.5 V. Alkaline of magnesium dioxide. 0% mercury, lead and cadmium.	Blister with 1 alkaline battery. 6LR61 V. 450 mAh. 9 V . Alkaline of magnesium dioxide. 0% mercury, lead and cadmium.

> Rechargeable

	F-900AAA
FEATURES	Blister with 2 rechargeable Ni-MH AAA-R03 batteries of 900 mAh. Charge maintenance. Loaded and ready to use.

	F-2200AA
FEATURES	Blister with 2 rechargeable Ni-MH AA-R6 batteries of 2,200 mAh. Charge maintenance. Loaded and ready to use.

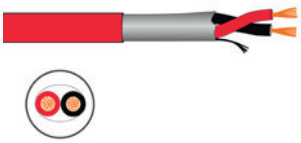
CABLE ROLLS

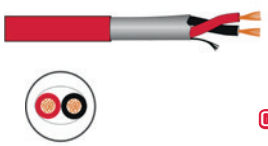
Speaker

> EN 54

ON REQUEST

	CI-25SZ1K	CI-25MSZ1K
FEATURES	AS+ speaker cable for safety circuits. CPR classification DCa-s1b, d1, a1 and fire resistance RF120 OFC cable, 2-wire stranded to avoid inductions and double insulation, for 100 V line loudspeakers. Aluminium mylar shielding. Recommended for long lines in safety installations Outer shell: Halogen-free polyolefin (Z1), LSH0, 8.3 mm Ø, red color. Shield: Aluminium tape screen with flexible drain wire (Cu Sn). 2 cables: Conductor shell: Special RF silicone elastomer CR1, 3 mm Ø, black or red. Braiding >= 25 turns Conductor: Flexible copper polished class V according to UNE 60228, section 2.5 mm²	AS+ speaker cable for safety circuits. CPR classification DCa-s1b, d1, a1 and fire resistance RF120 OFC cable, 2-wire stranded to avoid inductions and double insulation, for 100 V line loudspeakers. Aluminium mylar shielding. Recommended for long lines in safety installations Outer shell: Halogen-free polyolefin (Z1), LSH0, 8.3 mm Ø, red color. Shield: Aluminum tape screen with flexible drainage thread (Cu Sn) (7 threads). 2 cables: Conductor shell: Special RF silicone elastomer CR1, 3 mm Ø, black or red. Braiding >= 25 turns Conductor: Flexible copper polished Class V according to UNE 60228, section 2.5 mm² (50 threads)
ROLL	100 m	500 m
REEL	-	500 m (reel mod. CI-R60 is offered for rent and is returnable)





ON REQUEST

	CI-15SZ1K	CI-15MSZ1K
FEATURES	AS+ speaker cable for safety circuits. CPR classification DCa-s1b, d1, a1 and fire resistance RF120 OFC cable, 2-wire stranded to avoid inductions and double insulation, for 100 V line loudspeakers. Aluminium mylar shielding. Recommended for long lines in safety installations Outer shell: Halogen-free polyolefin (Z1), LSH0, 7.8 mm Ø, red color. Shield: Aluminium tape screen with flexible drain wire (Cu Sn). 2 cables: Conductor shell: Special RF silicone elastomer CR1, 3 mm Ø, black or red. Braiding >= 25 turns Conductor: Flexible copper polished class V according to UNE 60228, section 1.5 mm²	AS+ speaker cable for safety circuits. CPR classification DCa-s1b, d1, a1 and fire resistance RF120 OFC cable, 2-wire stranded to avoid inductions and double insulation, for 100 V line loudspeakers. Aluminium mylar shielding. Recommended for long lines in safety installations Outer shell: Halogen-free polyolefin (Z1), LSH0, 7.8 mm Ø, red color. Shield: Aluminium tape screen with flexible drain wire (Cu Sn). 2 cables: Conductor shell: Special RF silicone elastomer CR1, 3 mm Ø, black or red. Braiding >= 25 turns Conductor: Flexible copper polished class V according to UNE 60228, section 1.5 mm²
ROLL	100 m	500 m
REEL	-	500 m (reel mod. CI-R60 is offered for rent and is returnable)

CABLE ROLLS

Speaker

> Standard

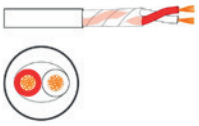
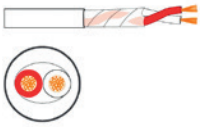
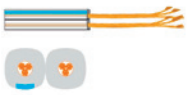
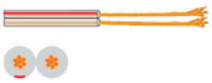
	CI-10	CI-12	CTA-215
FEATURES	Parallel OFC cable of 2 conductors for speakers DIMENSIONS: 4 x 2 mm 2 cables: Conductor shell: 2 mm Ø, black PVC with white polarity line Conductor: 12 threads of Cu of 0.16 mm Ø Section: 0.25 mm²	Parallel OFC cable of 2 conductors for speakers DIMENSIONS: 5.6 x 2.8 mm 2 cables: Conductor shell: 2.8 mm Ø, black PVC with white polarity line Conductor: 24 threads of Cu of 0.2 mm Ø Section: 0.75 mm²	Professional parallel 2-conductor DCA cable for speakers DIMENSIONS: 7 x 3.5 mm 2 cables: Conductor shell: 3.5 mm Ø, transparent PVC Conductor: 3 beams of 28 strands of Al of 0.15 mm Ø Section: 1.5 mm²
ROLL	100 m	100 m	100 m

	CI-14-NE	CI-14-BL
FEATURES	2-conductor parallel OFC cable with double flat insulation, for 100 V line speakers or low impedance Outer shell: 5 x 3 mm, black PVC 2 cables: Conductor shell: 1.8 mm Ø, brown or blue Conductor: 15 threads of Cu of 0.2 mm Ø Section: 0.5 mm²	2-conductor parallel OFC cable with double flat insulation, for 100 V line speakers or low impedance Outer shell: 5 x 3 mm, white PVC 2 cables: Conductor shell: 1.8 mm Ø, brown or blue Conductor: 15 threads of Cu of 0.2 mm Ø Section: 0.5 mm²
ROLL	200 m	200 m

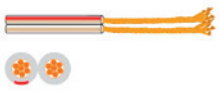
CABLE ROLLS

Speaker

> Standard

	CI-16	CI-16ZH	CT-20	CT-23
FEATURES	2-conductor OFC cable braided to prevent induction and double insulation , for 100 V line speakers Structural paper cover Recommended for long lines Outer shell: 6.8 mm Ø, white PVC (RAL 9001). Insulation 300V. 2 cables: Conductor shell: 2.5 mm Ø, white or red Conductor: 48 threads of Cu of 0.2 mm Ø Section: 1.5 mm² Temperature range: -5ºC/+ 65ºC	Cable with cover in LSZH material for installations in public premises. OFC cable with 2 braided conductors to prevent induction and double insulation for 100 V line speakers Structural paper cover Recommended for long lines Outer shell: 6.8 mm Ø, white TPE.Isolation 300 V 2 cables: Conductor shell: 2.5 mm Ø, white or red Conductor: 48 threads of Cu of 0.2 mm Ø Section: 1.5 mm² Temperature range: -5ºC/ + 65ºC	Professional parallel OFC cable of 2 square conductors for speakers DIMENSIONS: 8 x 4 mm 2 cables: Conductor shell: 4 x 4 mm, transparent PVC with blue polarity line Conductor: 3 beams of 34 threads of Cu of 0.12 mm Ø Section: 1.15 mm²	Professional parallel 2-conductor OFC cable for speakers DIMENSIONS: 5.6 x 2.8 mm 2 cables: Conductor shell: 2.8 mm Ø, transparent PVC with red polarity line Conductor: 7 beams of 13 threads of Cu of 0.12 mm Ø Section: 1 mm²
ROLL	100 m	100 m	91 m (300 ft)	100 m



	CT-24	CT-24-5	CT-24-10	CT-33
FEATURES	Professional parallel 2-conductor OFC cable for speakers DIMENSIONS: 6 x 3 mm 2 cables: Conductor shell: 3 mm Ø, transparent PVC with red polarity line Conductor: 7 beams of 26 threads of Cu of 0.12 mm Ø Section: 2 mm²	Professional parallel 2-conductor OFC cable for speakers DIMENSIONS: 6 x 3 mm 2 cables: Conductor shell: 3 mm Ø, transparent PVC with red polarity line Conductor: 7 beams of 26 threads of Cu of 0.12 mm Ø Section: 2 mm²	Professional parallel 2-conductor OFC cable for speakers DIMENSIONS: 6 x 3 mm 2 cables: Conductor shell: 3 mm Ø, transparent PVC with red polarity line Conductor: 7 beams of 26 threads of Cu of 0.12 mm Ø Section: 2 mm²	Professional 2-conductor OFC cable with double insulation for speakers Outer shell: 8 mm diameter PE black 2 cables: Conductor shell: 2.7 mm diameter PE black or red Conductor: 132 threads of Cu of 0.12 mm diameter Section: 1.5 mm²
ROLL	100 m	5 m	10 m	100 m

CABLE ROLLS

Microphone/line

	CA-90-NE	CA-90-NEZH	CA-91
FEATURES	OFC cable shielded 2 braided conductors for microphones. Structural cover of paper and cotton threads. Special for balanced lines Outer shell: 6 mm Ø, black PVC Shield: 96 Cu threads of 0.12 mm Ø with 85% braided coverage 2 cables: Conductor shell: 1.8 mm Ø, transparent or red PE Conductor: 30 Cu threads 0.12 mm Ø (22 AWG)	Cable with cover in LSZH material for installations according to RBT in public premises. OFC cable shielded 2 braided conductors for microphones. Structural cover of paper and cotton threads. Special for balanced lines Outer shell: 6 mm Ø, black TPE Shield: 96 Cu threads of 0.12 mm Ø with 85% braided coverage 2 cables: Conductor shell: 1.8 mm Ø, transparent or red PE Conductor: 30 Cu threads 0.12 mm Ø (22 AWG)	Professional 2-conductor flexible low noise shielded OFC cable for microphones. Structural cover of cotton threads. Special for balanced lines Outer shell: 6 mm Ø, black PVC Shield: 96 threads of Cu of 0.1 mm Ø braided 2 cables: Conductor shell: 1.5 mm Ø, white or red Conductor: 20 threads of Cu of 0.1 mm Ø
ROLL	100 m	100 m	100 m

	CA-92	CA-93	CA-98
FEATURES	Professional 2-conductor shielded cable for microphones and audio and video connections Outer shell: 4 mm Ø, black PVC Shield: 52 threads of Cu of 0.12 mm Ø in spiral 2 cables: Conductor shell: 1.2 mm Ø, white or red Conductor: 10 threads of Cu of 0.12 mm Ø and 6 threads of DCA of 0.12 mm Ø	Shielded OFC cable with 2 braided conductors for microphones and audio and video connections Outer shell: 4 mm Ø, black PVC Shield: 28 threads of Cu of 0.1 mm Ø in spiral 2 cables: Conductor shell: 1 mm Ø, white or red Conductor: 10 threads of Cu of 0.1 mm Ø	OFC Extra-flex armored cable of 2 braided conductors For spare parts of miniature microphones, flap, etc. Outer shell: 2.5 mm Ø, black PVC Shield: 35 threads of Cu of 0.1 mm Ø in spiral 2 cables: Conductor shell: 0.8 mm Ø, white or red Conductor: 10 threads of Cu of 0.1 mm Ø
ROLL	200 m	100 m	100 m

CABLE ROLLS

A/V

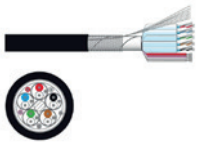
	CW-3	CW-7	CE-47
FEATURES	Parallel OFC cable of 3 individually shielded conductors Special for audio and video connections DIMENSIONS: 8.1 x 2.7 mm 3 cables: Outer shell: 2.7 mm Ø, black PVC Shield: 28 threads of Cu of 0.12 mm Ø in spiral Conductor shell: 1.05 mm Ø, white, red or yellow PVC Conductor: 10 Cu threads 0.12 mm Ø (27 AWG)	Parallel OFC cable of 2 individually shielded conductors Special for audio and video connections DIMENSIONS: 5 x 2.5 mm 2 cables: Outer shell: 2.5 mm Ø, black PVC Shield: 28 threads of Cu of 0.1 mm Ø in spiral Conductor shell: 1.05 mm Ø, white or red PVC Conductor: 10 Cu threads 0.12 mm (27 AWG)	Professional armored cable of 4 conductors and drainage Special for audio and video connections Outer shell: 5 mm Ø, black PVC Shielding: Mylar aluminum tape Drainage: 10 threads of Cu of 0.1 mm Ø 4 cables: Conductor shell: 1.15 mm Ø, red, blue, white or yellow Conductor: 10 threads of Cu of 0.1 mm Ø
ROLL	200 m	100 m	100 m

	CE-56	CE-60-NE	CE-70	CE-70-BL
FEATURES	Professional Extra-flexible armored OFC cable of high conductivity of 1 conductor Special for audio and video connections Outer shell: 6 mm Ø, black PVC Shield: 112 Cu threads of 0.12 mm Ø with 85% braided coverage Conductor shell: 3.7 mm Ø, white PEF Conductor: 7 Cu threads 0.18 mm Ø (25 AWG)	Professional parallel high conductivity OFC cable of 2 individually shielded conductors Special for audio and video connections DIMENSIONS: 8 x 4 mm 2 cables: Outer shell: 4 mm Ø, black PVC Shield: 40 threads of Cu of 0.12 mm Ø in spiral Conductor shell: 1.6 mm Ø, white or red PEF Conductor: 10 Cu threads 0.12 mm Ø (27 AWG)	OFC coaxial cable 3C2V for video, 75 Ω. Special for video signal distribution, antenna extensions, video connections, etc. Outer shell: 5 mm Ø, black PVC Shield: 64 Cu threads of 0.12 mm Ø with 59% braided coverage Conductor shell: 3 mm Ø, transparent PE Conductor: 1 Cu thread 0.5 mm Ø (24 AWG)	OFC coaxial cable 3C2V for video, 75 Ω. Special for video signal distribution, antenna extensions, video connections, etc. Outer shell: 5 mm Ø, white PVC signals (RAL 9003) Shield: 64 Cu threads of 0.12 mm Ø with 59% braided coverage Conductor shell: 3 mm Ø, transparent PE Conductor: 1 Cu thread 0.5 mm Ø (24 AWG)
ROLL	100 m	100 m	100 m	100 m

CABLE ROLLS

HDMI

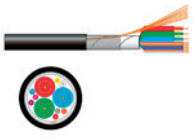
	CH-124
FEATURES	High Speed HDMI cable with Ethernet designed and tested to handle 1080p and up to 4K@30Hz video resolutions with support for up to 10.2 Gbps for lengths of 12-15m. Professional shielded cable for HDMI connections of 5 shielded data cables of 2 braided conductors, 4 switching and drainage cables. Special for connection of monitors, projectors, etc. Outer shell: 7.3 mm Ø, black PVC Shield: 80 aluminum threads of 0.12 mm Ø braided and mylar aluminum tape Drainage: 7 threads of tinned Cu of 0.12 mm Ø 5 shielded data cables of 2 braided conductors: Outer shell: 2 mm Ø, transparent mylar tape Shielding: Mylar aluminum tape Drainage: 7 threads of tinned Cu of 0.12 mm Ø 2 drivers: Conductive cover: 1 mm Ø, red, blue, green, brown, black or white Conductor: 7 threads of 0.12 mm Tinned Cu Ø (28 AWG) 4 switching cables: Outer shell: 0.65 mm Ø, red, pink, white or gray Conductor: 7 threads of 0.12 mm Tinned Cu Ø (28 AWG)
ROLL	100 m



CABLE ROLLS

VGA

	CE-78
FEATURES	Professional shielded OFC cable for VGA connections of 3 individually shielded RGB cables, 8 switching and drainage cables. Special for connection of monitors, projectors, etc. Outer shell: 8 mm Ø, black PVC Shield: 110 aluminum threads of 0.12 mm Ø braided and mylar aluminum tape Drainage: 7 threads of Cu of 0.12 mm Ø 3 cables RGB: Outer shell: 2.6 mm Ø, red, green or blue PVC Shield: 45 threads of Cu of 0.1 mm Ø in spiral Conductor shell: 1.6 mm Ø, red, green or blue PVC Conductor: 7 threads of Cu of 0.12 mm Ø 8 network cables Conductor shell: 0.7 mm Ø, PVC purple, blue, white, gray, orange, red, pink and yellow Conductor: 7 threads of Cu of 0.12 mm Ø
ROLL	100 m

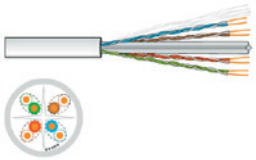


CABLE ROLLS

Data

	TF-5321-GS
FEATURES	Cat 6 UTP 250 MHz cable with 8 solid conductors grouped into 4 twisted pairs with color coded for voice and data Outer shell: 5.5 mm Ø, gray PVC. Footage mark. Structural Fluted Nylon and Ripped Nylon 8 cables: Conductor shell: 1 mm Ø, PE green, green/white, orange, orange/white, brown, brown/white, blue, blue/white Conductor: 1 DCA solid thread (30%) 0.51 mm Ø (24 AWG)
MAXIMUM DISTANCE	<50 m
CONDUCTIVE RESISTANCE	250 Ω / 1000 m
INSULATION RESISTANCE	5 MΩ
CAPACITANCE	330 pF / 100 m
IMPEDANCE	100 Ω / km.
TEMPERATURE	Operation: -20ºC ~ 70ºC Storage: 0ºC ~ 60ºC
ROLL	100 m

N!



CABLE ROLLS

DMX

	CL-26DMX
FEATURES	Balanced OFC cable of 2 conductors with shielding for DMX. Structural cover of cotton and fabric threads. Special for DMX communications. Outer shell: 6.5 mm Ø, black PVC Shield: 128 threads of Cu of 0.1 mm Ø braided 2 cables: Conductor shell: 1.6 mm Ø, white or red HDPE Conductor: 39 Cu wires 0.1 mm Ø + 1 tinsel wire 0.21 mm (23 AWG)
ROLL	100 m
IMPEDANCE	< 90 Ω/km.

ACCESSORIES

Testers

	TH-793
FEATURES	HDMI cable tester. Composed of a transmitter and a receiver. It allows to check the continuity and connectors of HDMI cables. Compatible with HDMI-A to HDMI-A, HDMI-A to HDMI-C (mini) and HDMI-C (mini) to HDMI-C (mini) cables. Checking the connection of the pin to pin cable (19 pins).
CONNECTORS	HDMI-A female HDMI-C female (mini)
INDICATORS	Luminous indicators of check and operation
POWER SUPPLY	1 battery 6LR61 9 V
DIMENSIONS	Transmitter: 66 x 27 x 103 mm depth Receiver: 35 x 27 x 103 mm depth

	TCAT-8
FEATURES	Cable tester RJ-45, RJ-11 and RJ-12. Composed of 1 transmitter and 1 receiver. Allows you to test the continuity and connectors of telephone and voice and data cables (network cables). Normal and slow checking mode.
CONNECTORS	RJ-45, RJ-11 y RJ-12
INDICATORS	Check light indicators
POWER SUPPLY	1 x 9V 6LR61 battery
DIMENSIONS	Transmitter: 66 x 30 x 105 mm depth Receiver: 38 x 30 x 105 mm depth

ACCESSORIES

Tools

	TF-999
FEATURES	Clamp for installation of modular connectors RJ-45 with 8 contacts, RJ-12 with 6 contacts and RJ-11 with 2 and 4 contacts. Tool for cutting and peeling flat cables.

ACCESSORIES

Cleaning sprays

	R-11	G-22
FEATURES	Cleaner Contacts. It cleans and lubricates contacts in electronics and mechanics in general: Potentiometers, switches, diverters, keyboards and in general all components that require cleaning and lubrication. Protects against oxidation and corrosion. Flammable.	Dry cleaner. It cleans the dirt caused by wear: Aged grease, dust, rust, moisture, etc. from contacts in electronic equipment, telephone facilities, remote controls, tuners, computers, fax, relays, microcontacts in general, etc. Leaves no residue. Evaporates completely. Flammable.
CONTENT	200 ml	200 ml
WEIGHT	0.2 kg	0.2 kg
	All products comply with European aerosol laws and regulations, contain no CFCs and are not harmful to the ozone layer. Products manufactured in the EU	

ACCESSORIES

Cleaning kits

	LCD-136
FEATURES	Automatic laser lens cleaner disc for DVD players. It cleans the lens and keeps it in perfect reading condition. Complete test video and audio with spectacular images and sounds for checking and adjusting your DVD equipment. With instructions in 11 languages.

mounts

306

308 **TV MOUNTS**
308 Wall
308 *FIXED*
308 Entry
309 Basic
310 Premium
312 *TILT*
312 Entry
313 Basic
314 Premium
315 *FULL MOTION*
315 Entry
316 Basic
318 Premium
322 *VIDEO WALL*
322 Pop-out
322 Modular
324 Table
324 *ADJUSTABLE*
324 Basic
324 Premium
325 Monitor
325 *ADJUSTABLE*
325 Basic
326 Premium
327 Floor
327 *ADJUSTABLE*
327 Domestic
328 Office
331 Ceiling
331 *ADJUSTABLE*
334 *MOTORIZED*
334 Sound bar

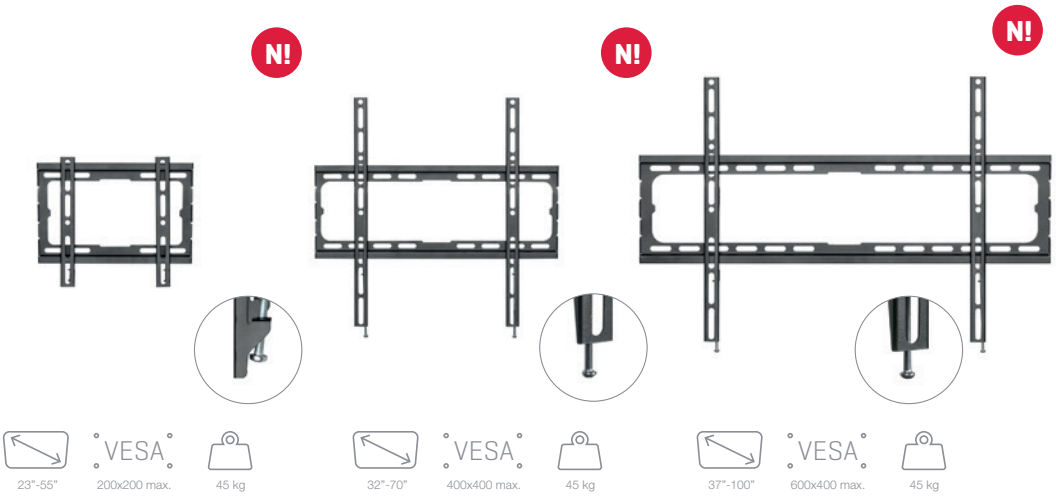
335 **PROJECTOR MOUNTS**
335 Floor
335 Ceiling
335 *ADJUSTABLE*
336 *MOTORIZED*
337 Safety boxes

337 **MICROWAVE MOUNTS**
337 Wall

TV MOUNTS
Wall

> Fixed

ENTRY



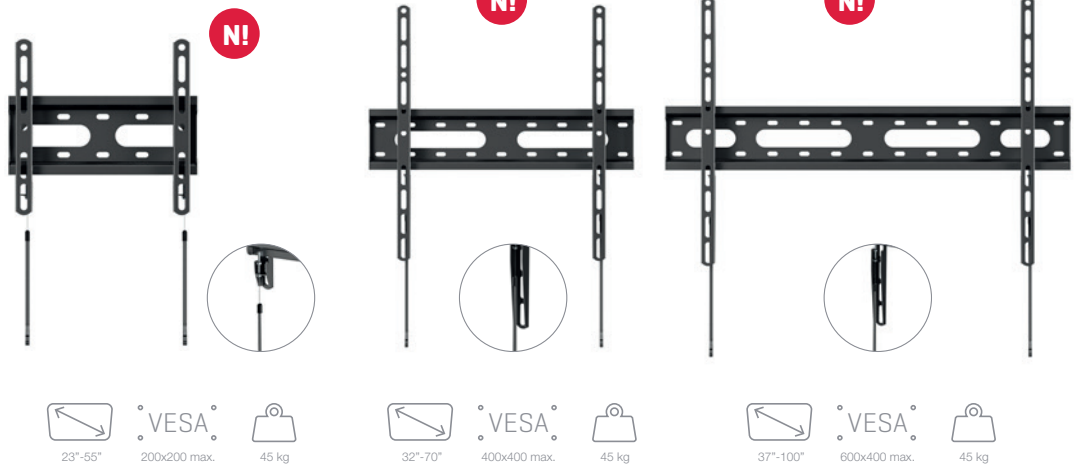
	FIX-022EN	FIX-044EN	FIX-064EN
FEATURES	Extra-flat fixed TV mount		
SCREEN	23" to 55" (58.4 to 139.7 cm)	32" to 70" (81.3 to 177.8 cm)	37. to 100" (94 to 254 cm)
VESA	50 x 50, 75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 200 x 300, 300 x 200, 200 x 400, 400 x 200, 300 x 300, 300 x 400, 400 x 300, 400 x 400	200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	45 kg		
COLOUR	Black		
DIMENSIONS	Distance to wall: 2 cm Wall plate: 26. 5 x 17 cm Adjustable width from 5 to 20 cm x 20 cm high	Distance to wall: 2 cm Wall plate: 44. 5 x 17 cm Adjustable width from 5 to 40 cm x 40 cm high	Distance to wall: 2 cm Wall plate: 65 x 17 cm Adjustable width from 5 to 60 cm x 40 cm high
WEIGHT	0.4 kg	0.7 kg	0.9 kg
ACCESSORIES	Bubble level Security system by screw Installation template Plugs, screws and mounting accessories		

TV MOUNTS

Wall

> Fixed

BASIC



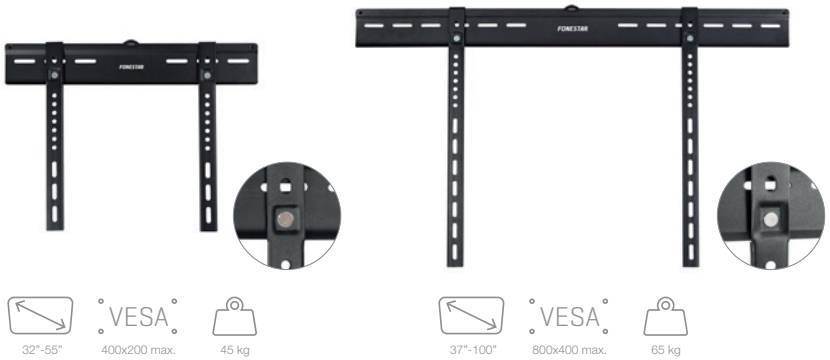
	FIX-022BA	FIX-044BA	FIX-064BA
FEATURES	Extra-flat fixed TV mount		
SCREEN	23" to 55" (58.4 to 139.7 cm)	32" to 70" (91.3 to 177.8 cm)	37" to 100" (94 to 254 cm)
VESA	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400	200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	45 kg		
COLOUR	Black		
DIMENSIONS	Distance to wall: 2. 7 cm Wall plate: 24 x 10 cm Adjustable width from 7.5 to 20 cm x 20 cm high	Distance to wall: 2. 7 cm Wall plate: 43. 5 x 10 cm Adjustable width from 10 to 40 cm x 40 cm high	Distance to wall: 2. 7 cm Wall plate: 63. 5 x 10 cm Adjustable width from 10 to 60 cm x 40 cm high
WEIGHT	0.45 kg	0.85 kg	0.95 kg
ACCESSORIES	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories		

TV MOUNTS

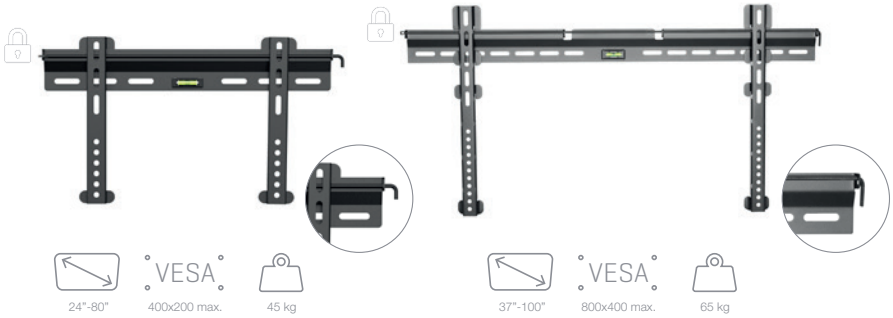
Wall

> Fixed

PREMIUM



	STV-638N	STV-634N
FEATURES	Extra-flat fixed TV mount	
SCREEN	32” to 55” (81 to 140 cm)	37” to 100” (94 to 254 cm)
VESA	100 x 100, 200 x 100, 200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200	200 x 200, 200 x 300, 300 x 200, 400 x 200, 300 x 300, 400 x 400, 600 x 400, 800 x 400
MAXIMUM SUPPORTED WEIGHT	45 kg	65 kg
COLOUR	Black	
DIMENSIONS	Distance to wall: 0. 8 cm Wall plate: 48 x 8 cm Adjustable width from 7 to 42 cm x 36 cm high	Distance to wall: 1 cm Wall plate: 88 x 8 cm Adjustable width from 4 to 81 cm x 52 cm high
WEIGHT	0.95 kg	1.6 kg
ACCESSORIES	Bubble level Installation template Plugs, screws and mounting accessories	



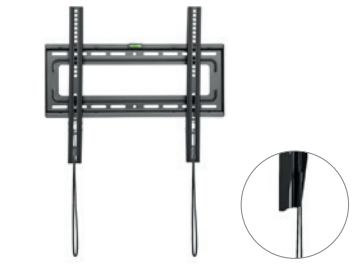
	STV-639N	STV-635N
FEATURES	Extra-flat fixed TV mount	
SCREEN	24” to 80” (61 to 203.2 cm)	37” to 100” (94 to 254 cm)
VESA	100 x 100, 200 x 100, 200 x 200, 300 x 200, 400 x 200	300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 800 x 400
MAXIMUM SUPPORTED WEIGHT	45 kg	65 kg
COLOUR	Black	
DIMENSIONS	Distance to wall: 1. 9 cm Wall plate: 46 x 7 cm Adjustable width from 7 to 42 cm x 23 cm high	Distance to wall: 1. 9 cm Wall plate: 86 x 7 cm Adjustable width from 24 to 82 cm x 41 cm high
WEIGHT	1 kg	1.5 kg
ACCESSORIES	Bubble level Padlock security system (not included) Installation template Plugs, screws and mounting accessories	

TV MOUNTS

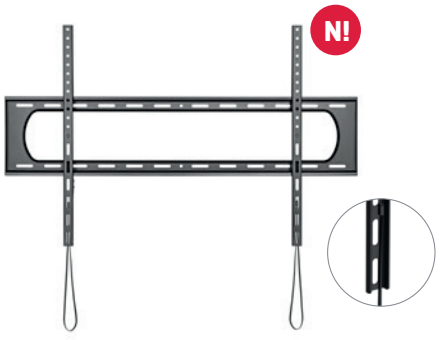
Wall

> Fixed

PREMIUM



	STV-7244N	STV-7264N
FEATURES	Extra-flat fixed TV mount	
SCREEN	32" to 70" (81 to 177.8cm)	37" to 85" (94 to 215.9 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	40 kg	50 kg
COLOUR	Black	
DIMENSIONS	Distance to wall: 2. 8 cm Wall plate: 50.4 x 20.8 cm Adjustable width from 10 to 40 cm x 40 cm high	Distance to wall: 2. 8 cm Wall plate: 65.4 x 20.8 cm Adjustable width from 10 to 60 cm x 40 cm high
WEIGHT	1.7 kg	2.1 kg
ACCESSORIES	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories	

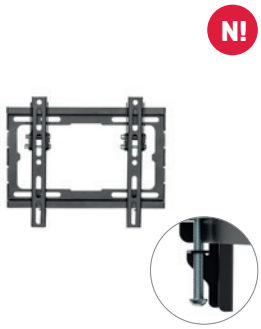


	STV-636N	FIX-096PR
FEATURES	Extra-flat fixed TV mount	
SCREEN	37" to 100" (94 to 254 cm)	60" to 120" (152.4 to 304.8 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 800 x 400, 800 x 600, 900 x 600	50 x 50, 75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 200 x 300, 300 x 200, 200 x 400, 400 x 200, 300 x 300, 300 x 400, 400 x 300, 600 x 200, 400 x 400, 600 x 300, 400 x 600, 600 x 400, 700 x 400, 800 x 400, 600 x 600, 800 x 500, 800 x 600, 900 x 600
MAXIMUM SUPPORTED WEIGHT	100 kg	120 kg
COLOUR	Black	
DIMENSIONS	Distance to wall: 3. 2 cm Wall plate: 100 x 40 cm Adjustable width from 20 to 92 cm x 61 cm high	Distance to wall: 3. 5 cm Wall plate: 100.5 x 22.5 cm Adjustable width from 5 to 97.5 cm x 60 cm high
WEIGHT	4.2 kg	2.92 kg
ACCESSORIES	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories	Bubble level Quick locking system Installation template Fischer plugs, screws and mounting accessories

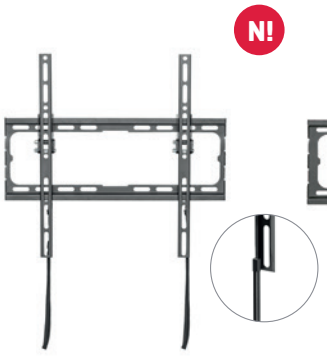
TV MOUNTS
Wall

> *Tilt*

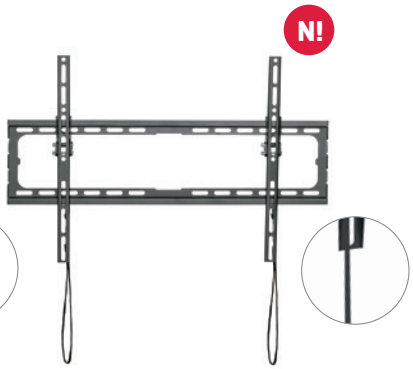
ENTRY



23"-55" VESA 200x200 max. 45 kg



32"-70" VESA 400x400 max. 45 kg



37"-100" VESA 600x400 max. 45 kg

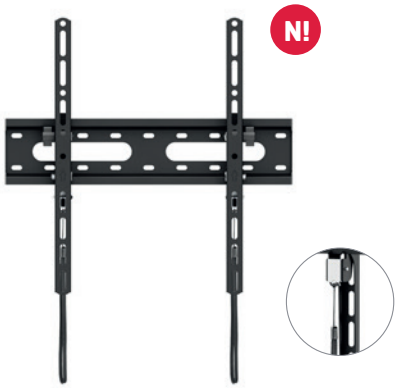
	TILT-022EN	TILT-044EN	TILT-064EN
FEATURES	Tilt TV mount		
SCREEN	23" to 55" (58.4 to 139.7 cm)	32" to 70" (81.3 to 177.8 cm)	37" to 100" (94 to 254 cm)
VESA	50 x 50, 75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 200 x 300, 300 x 200, 200 x 400, 400 x 200, 300 x 300, 300 x 400, 400 x 300, 400 x 400	200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	45 kg		
ADJUSTMENTS	Tilt vertically -8°		
COLOUR	Black		
DIMENSIONS	Distance to wall: 2 cm Wall plate: 26. 5 x 17 cm Adjustable width from 5 to 20 cm x 20 cm high	Distance to wall: 2 cm Wall plate: 44. 5 x 17 cm Adjustable width from 5 to 40 cm x 40 cm high	Distance to wall: 2 cm Wall plate: 65 x 17 cm Adjustable width from 5 to 60 cm x 40 cm high
WEIGHT	0.5 kg	0.75 kg	0.95 kg
ACCESSORIES	Bubble level Security system by screw Installation template Plugs, screws and mounting accessories	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories

TV MOUNTS
Wall

> Tilt

BASIC

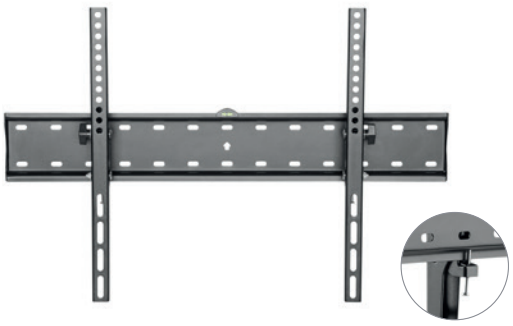
23"-55" VESA 200x200 max. 45 kg



32"-70" VESA 400x400 max. 45 kg

	TILT-022BA	TILT-044BA
FEATURES	Tilt TV mount	
SCREEN	23" to 55" (58.4 to 139.7 cm)	32" to 70" (81.3 to 177.8 cm)
VESA	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400
MAXIMUM SUPPORTED WEIGHT	45 kg	
ADJUSTMENTS	Tilt vertically ±12°	
COLOUR	Black	
DIMENSIONS	Distance to wall: 5. 3 cm Wall plate: 24 x 10 cm Adjustable width from 5 to 20 cm x 20 cm high	Distance to wall: 5. 3 cm Wall plate: 43. 5 x 10 cm Adjustable width from 10 to 40 cm x 40 cm high
WEIGHT	0.75 kg	1.05 kg
ACCESSORIES	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories	

	TILT-64BA
FEATURES	Tilt TV mount
SCREEN	37" to 80" (94 to 203.2 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	40 kg
ADJUSTMENTS	Tilt vertically ±12°
COLOUR	Black
DIMENSIONS	Distance to wall: 5. 3 cm Wall plate: 64. 3 x 10 cm Adjustable width from 10 to 60 cm x 42.5 cm high
WEIGHT	1.6 kg
ACCESSORIES	Bubble level Security system by screw Installation template Plugs, screws and mounting accessories

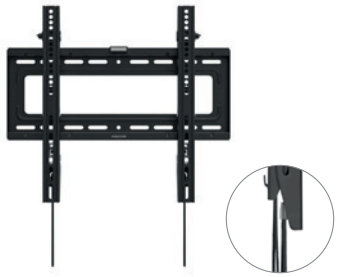


37"-80" VESA 600x400 max. 40 kg

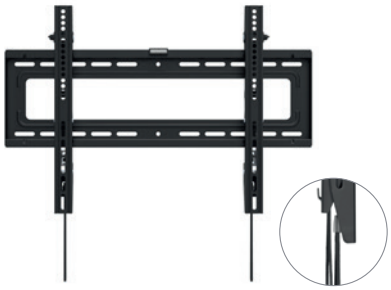
TV MOUNTS
Wall

> Tilt

PREMIUM



32"-70" VESA 400x400 max. 50 kg

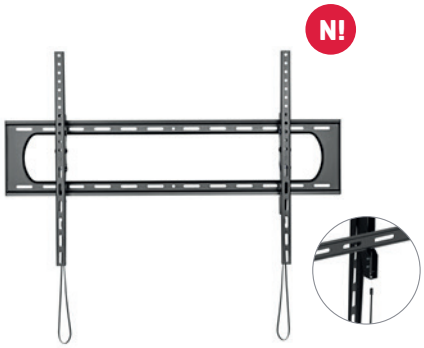


37"-85" VESA 600x400 max. 50 kg

	STV-7344N	STV-7364N
FEATURES	Tilt TV mount	
SCREEN	32" to 70" (81 to 177.8 cm)	37" to 85" (94 to 215.9 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	50 kg	
ADJUSTMENTS	Tilt vertically -12°	
COLOUR	Black	
DIMENSIONS	Distance to wall: 4 cm Wall plate: 50.4 x 20.8 cm Adjustable width from 10 to 40 cm x 40 cm high	Distance to wall: 4 cm Wall plate: 65.4 x 20.8 cm Adjustable width from 10 to 60 cm x 40 cm high
WEIGHT	2.5 kg	2.6 kg
ACCESSORIES	Bubble level Quick locking system Installation template Plugs, screws and mounting accessories	

	TILT-096PR
FEATURES	Tilt TV mount
SCREEN	60" to 120" (152.4 to 304.8 cm)
VESA	50 x 50, 75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 200 x 300, 300 x 200, 200 x 400, 400 x 200, 300 x 300, 300 x 400, 400 x 300, 600 x 200, 400 x 400, 600 x 300, 400 x 600, 600 x 400, 700 x 400, 800 x 400, 600 x 600, 800 x 500, 800 x 600, 900 x 600
MAXIMUM SUPPORTED WEIGHT	120 kg
ADJUSTMENTS	Tilt vertically ±10°
COLOUR	Black
DIMENSIONS	Distance to wall: 8 cm Wall plate: 100.5 x 22.5 cm Adjustable width from 5 to 96.5 cm x 60 cm high
WEIGHT	3.93 kg
ACCESSORIES	Bubble level Quick locking system Installation template Fischer plugs, screws and mounting accessories

N!



60"-120" VESA 900x600 max. 120 kg

TV MOUNTS

Wall

> *Full motion*

ENTRY

13"-32" VESA 100x100 max. 20 kg

13"-32" VESA 100x100 max. 20 kg

	MOV-111EN	MOV-311EN
FEATURES	Full motion TV mount	
SCREEN	13" to 32" (33 to 81.3 cm)	
VESA	75 x 75, 100 x 100	
MAXIMUM SUPPORTED WEIGHT	20 kg	
ADJUSTMENTS	Can be swivelled horizontally 180° Can be tilt vertically -15°/+5° Horizontal correction 5° 90° rotatable, allows the display to be rotated horizontally or vertically	Can be swivelled horizontally 180° Can be tilt vertically ±8° Horizontal correction 5° 90° rotatable, allows the display to be rotated horizontally or vertically
COLOUR	Black	
DIMENSIONS	Distance to wall: 6.2 a 19.4 cm Wall plate: 6 x 12.2 cm TV Plate: 13 x 13 cm	Distance to wall: 6.2 a 37 cm Wall plate: 6 x 21.4 cm TV Plate: 13 x 13 cm
WEIGHT	0.65 kg	1.05 kg
ACCESSORIES	Bubble level Cable clamps Installation template Plugs, screws and mounting accessories	

13"-55" VESA 200x200 max. 20 kg

13"-55" VESA 200x200 max. 20 kg

13"-65" VESA 400x400 max. 25 kg

	MOV-122EN	MOV-322EN	MOV-344EN
FEATURES	Full motion TV mount		
SCREEN	13" to 55" (33 to 139.7 cm)	13" to 55" (33 to 139.7 cm)	13" to 65" (33 to 165.1cm)
VESA	75 x 75, 100 x 100, 100 x 200, 200 x 100, 200 x 200	75 x 75, 100 x 100, 100 x 200, 200 x 100, 200 x 200	75 x 75, 100 x 100, 100 x 200, 200 x 100, 200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400
MAXIMUM SUPPORTED WEIGHT	20 kg	20 kg	25 kg
ADJUSTMENTS	Can be swivelled horizontally 120° Can be tilt vertically -15°/+5° Horizontal correction 5° 90° rotatable, allows the display to be rotated horizontally or vertically	Can be swivelled horizontally 180° Can be tilt vertically ±8° Horizontal correction 5° 90° rotatable, allows the display to be rotated horizontally or vertically	Can be swivelled horizontally 180° Can be tilt vertically -15°/+5° Horizontal correction 5° 90° rotatable, allows the display to be rotated horizontally or vertically
COLOUR	Black		
DIMENSIONS	Distance to wall: 6.6 a 19.8 cm Wall plate: 6 x 12.2 cm TV Plate: 21 x 21 cm	Distance to wall: 6.3 a 37 cm Wall plate: 6 x 21.4 cm TV Plate: 21 x 21 cm	Distance to wall: 6.3 a 37 cm Wall plate: 6 x 21.4 cm TV Plate: 41 x 41 cm
WEIGHT	0.71 kg	1.15 kg	1.5 kg
ACCESSORIES	Bubble level Cable clamps Installation template Plugs, screws and mounting accessories		

TV MOUNTS

Wall

> Full motion

BASIC

13"-42" VESA 100x100 max. 20 kg

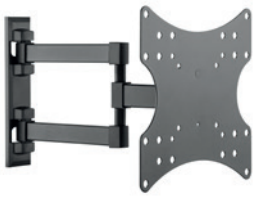
13"-42" VESA 100x100 max. 20 kg

13"-42" VESA 100x100 max. 20 kg

	MOV-011BA	MOV-111BA	MOV-311BA
FEATURES	Full motion TV mount		
SCREEN	13" to 42" (33 to 106.7 cm)		
VESA	75 x 75, 100 x 100		
MAXIMUM SUPPORTED WEIGHT	20 kg		
ADJUSTMENTS	Can be swivelled horizontally 30º Can be tilt vertically -10º/+3º Horizontal correction ±3º	Can be swivelled horizontally 180º Can be tilt vertically -10º/+3º Horizontal correction ±3º	Can be swivelled horizontally 180º Can be tilt vertically -10º/+3º Horizontal correction ±3º
COLOUR	Black		
DIMENSIONS	Distance to wall: 7. 5 cm Wall plate: 4 x 13.2 cm TV Plate: 11.7 x 11.7 cm	Distance to wall: 4.4 a 19.2 cm Wall plate: 4.4 x 13.6 cm TV Plate: 11.7 x 11.7 cm	Distance to wall: 4.4 a 32 cm Wall plate: 4.4 x 20.6 cm TV Plate: 11.7 x 11.7 cm
WEIGHT	0.4 kg	0.5 kg	0.9 kg
ACCESSORIES	Bubble level Installation template Plugs, screws and mounting accessories		

23"-55" VESA 200x200 max. 20 kg

23"-55" VESA 200x200 max. 20 kg



23"-55" VESA 200x200 max. 20 kg

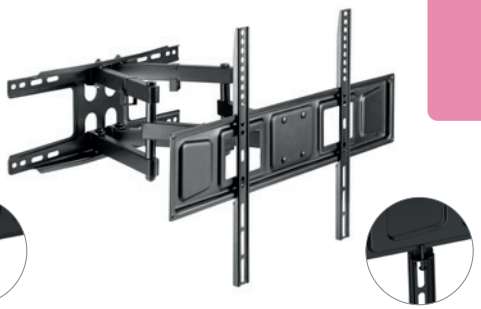
	MOV-022BA	MOV-122BA	MOV-322BA
FEATURES	Full motion TV mount		
SCREEN	23" to 55" (58.4 to 139.7 cm)		
VESA	75 x 75, 100 x 100, 100 x 150, 150 x 100, 150 x 150, 200 x 100, 200 x 200		
MAXIMUM SUPPORTED WEIGHT	20 kg		
ADJUSTMENTS	Can be swivelled horizontally 30º Can be tilt vertically -10º/+3º Horizontal correction ±3º	Can be swivelled horizontally 180º Can be tilt vertically -10º/+3º Horizontal correction ±3º	Can be swivelled horizontally 180º Can be tilt vertically -10º/+3º Horizontal correction ±3º
COLOUR	Black		
DIMENSIONS	Distance to wall: 7. 5 cm Wall plate: 4 x 13.2 cm TV Plate: 22 x 22 cm	Distance to wall: 4.4 a 19.2 cm Wall plate: 4 x 13.2 cm TV Plate: 22 x 22 cm	Distance to wall: 4.4 a 32 cm Wall plate: 4.4 x 20.6 cm TV Plate: 22 x 22 cm
WEIGHT	0.8 kg	0.9 kg	1.4 kg
ACCESSORIES	Bubble level Installation template Plugs, screws and mounting accessories		

TV MOUNTS

Wall

> Full motion

BASIC



	MOV-344BA	MOV-644BA	MOV-664BA
FEATURES	Full motion TV mount		
SCREEN	32" to 65" (81.3 to 165.1 cm)	32" to 70" (81.3 to 177.8 cm)	37" to 80" (94 to 203.2 cm)
VESA	75 x 75, 100 x 100, 100 x 150, 100 x 200, 150 x 100, 150 x 150, 200 x 100, 200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400	75 x 75, 100 x 100, 100 x 150, 150 x 100, 100 x 200, 200 x 100, 150 x 150, 200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400	75 x 75, 100 x 100, 100 x 150, 100 x 200, 150 x 100, 150 x 150, 200 x 100, 200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300 , 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	35 kg	40 kg	40 kg
ADJUSTMENTS	Can be swivelled horizontally 180º Can be tilt vertically -7º/+14º Horizontal correction ±3º	Can be swivelled horizontally 120º Can be tilt vertically -15º/+5º Horizontal correction ±3º	Can be swivelled horizontally 120º Can be tilt vertically -15º/+5º Horizontal correction ±3º
COLOUR	Black		
DIMENSIONS	Distance to wall: 6.2 a 43.1 cm Wall plate: 6.5 x 21.8 cm TV Plate: 45.5 x 13.5 cm Adjustable width from 3 to 40 cm x 42 cm height	Distance to wall: 6.2 a 46.8 cm Wall plate: 47.5 x 18.5 cm TV Plate: 45.5 x 13.5 cm Adjustable width from 3 to 40 cm x 42 cm height	Distance to wall: 6.2 a 46.8 cm Wall plate: 47.5 x 18.5 cm TV Plate: 65.5 x 13.5 cm Adjustable width from 3 to 60 cm x 42 cm height
WEIGHT	2.6 kg	4.52 kg	4.8kg
ACCESSORIES	Bubble level Security system by screw Cable clamps Installation template Plugs, screws and mounting accessories		

TV MOUNTS

Wall

> Full motion

PREMIUM

13"-35" VESA 100x100 max. 15 kg

13"-35" VESA 100x100 max. 15 kg

	STV-648N	STV-649B STV-649N
FEATURES	Full motion TV mount	
SCREEN	13" to 35" (33 to 88.9 cm)	
VESA	75 x 75, 100 x 100	
MAXIMUM SUPPORTED WEIGHT	15 kg	
ADJUSTMENTS	Can be swivelled horizontally 180° Can be tilt vertically ±70°.	Can be swivelled horizontally 180° Can be tilt vertically ±15° 360° rotatable, allows the display to be rotated horizontally or vertically
COLOUR	Black	White Black
DIMENSIONS	Distance to wall: 5 to 36 cm Wall plate: 4. 5 x 17 cm TV Plate: 11 x 11 cm	Distance to wall: 8.8 a 40.8 cm Wall plate: 4 x 16 cm TV Plate: 12 x 12 cm
WEIGHT	1 kg	1.5 kg
ACCESSORIES	Bubble level Installation template Plugs, screws and mounting accessories	Bubble level Padlock security system (not included) Cable clamps Installation template Plugs, screws and mounting accessories

23"-55" VESA 200x200 max. 20 kg

23"-65" VESA 400x400 max. 35 kg

	STV-647N	STV-683N
FEATURES	Full motion TV mount	
SCREEN	23" to 55" (58 to 139.7 cm)	23" to 65" (58 to 165.1 cm)
VESA	75 x 75, 100 x 100, 200 x 100, 200 x 200	75 x 75, 100 x 100, 200 x 100, 200 x 200, 400 x 200, 300 x 300, 400 x 400
MAXIMUM SUPPORTED WEIGHT	20 kg	35 kg
ADJUSTMENTS	Can be swivelled horizontally 180° Can be tilt vertically ±15° 360° rotatable, allows the screen to be rotated horizontally or vertically	Can be swivelled horizontally 180° Can be tilt vertically ±15° Horizontal correction ±3°
COLOUR	Black	
DIMENSIONS	Distance to wall: 9.6 a 45.6 cm Wall plate: 8 x 14 cm TV Plate: 22.5 x 22.5 cm	Distance to wall: 5.6 a 51 cm Wall plate: 6. 5 x 26 cm TV Plate: 22.2 x 23.6 cm
WEIGHT	2 kg	3.5 kg
ACCESSORIES	Bubble level Padlock security system (not included) Cable clamps Installation template Plugs, screws and mounting accessories	Bubble level Cable clamps Installation template Plugs, screws and mounting accessories

TV MOUNTS
Wall

> Full motion

PREMIUM

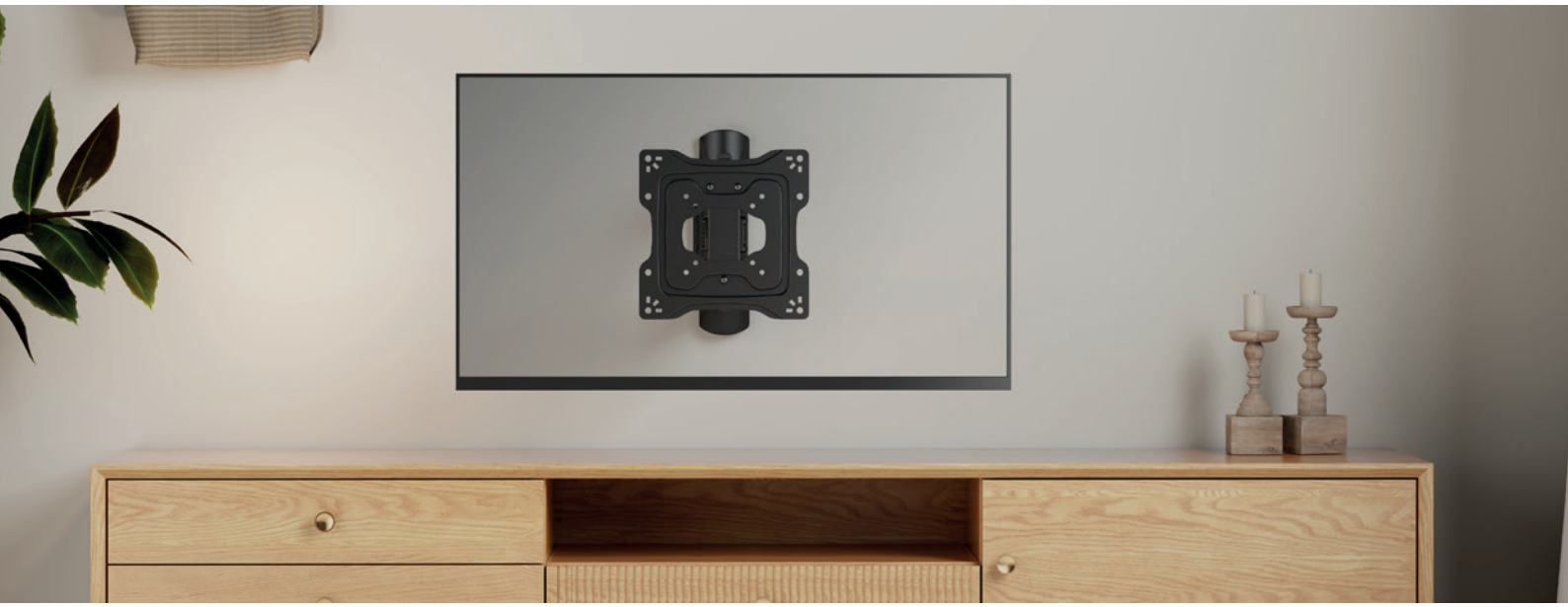
N!

13"-55" VESA 200x200 max. 35 kg

N!

13"-55" VESA 200x200 max. 35 kg

	MOV-122PR	MOV-322PR
FEATURES	Full motion TV mount	
SCREEN	13" to 55" (33 to 139.7 cm)	
VESA	75 x 75, 100 x 100, 100 x 200, 200 x 100, 200 x 200	
MAXIMUM SUPPORTED WEIGHT	35 kg	
ADJUSTMENTS	Can be swivelled horizontally 180º Can be tilt vertically -15º/+5º Horizontal correction ±3º	Can be swivelled horizontally 180º Can be tilt vertically ±8º Horizontal correction ±3º
COLOUR	Black	
DIMENSIONS	Distance to wall: 4.5 a 30 cm Wall plate: 7.2 x 29.2 cm TV Plate: 22.4 x 22.4 cm	Distance to the wall from 4.5 to 51 cm Wall plate: 7.2 x 29.2 cm TV Plate: 22.4 x 22.4 cm
WEIGHT	1.7 kg	2.54 kg
ACCESSORIES	Bubble level Cable clamps Installation template Fischer plugs, screws and mounting accessories	



TV MOUNTS
Wall

> *Full motion*

PREMIUM

	STV-685N
FEATURES	Full motion TV mount.
SCREEN	32" to 65" (81 to 165.1 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400
MAXIMUM SUPPORTED WEIGHT	35 kg
ADJUSTMENTS	Can be swivelled horizontally 180º Can be tilt vertically ±12º Horizontal adjustment ±3º 90° rotatable, allows the display to be rotated horizontally or vertically
COLOUR	Black
DIMENSIONS	Distance to wall: 4 to 61 cm Wall plate: 48 x 17 cm
WEIGHT	5.3 kg
ACCESSORIES	Bubble level Installation template Fischer plugs, screws and mounting accessories

	STV-691N
FEATURES	Full motion TV mount.
SCREEN	37" to 80" (94 to 203.2 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 800 x 400
MAXIMUM SUPPORTED WEIGHT	60 kg
ADJUSTMENTS	Can be swivelled horizontally 120º Can be tilt vertically ±15º Horizontal correction ±5º.
COLOUR	Black
DIMENSIONS	Distance to wall: 12.5 a 51.5 cm Wall plate: 45.5 x 20.5 cm Adjustable width from 5 to 82 cm x 40 cm high
WEIGHT	8.2 kg
ACCESSORIES	Bubble level Security system by screw Installation template Fischer plugs, screws and mounting accessories

TV MOUNTS

Wall

> Full motion

PREMIUM

43"-80" VESA 800x400 max. 50 kg EXTRA-LONG

43"-100" VESA 800x400 max. 75 kg

43"-100" VESA 800x400 max. 80 kg EXTRA-LONG

	MOV-384PR	MOV-684PR	MOV-684PR-L
FEATURES	Full motion TV mount		
SCREEN	43" to 80" (109 to 203 cm)	43" to 100" (109.22 to 254 cm)	43" to 100" (109.22 to 254 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400, 600 x 400, 800 x 400	200 x 200, 400 x 200, 300 x 300, 400 x 400, 600 x 400, 800 x 400	200 x 200, 400 x 200, 300 x 300, 400 x 400, 600 x 400, 800 x 400
MAXIMUM SUPPORTED WEIGHT	50 kg	75 kg	80 kg
ADJUSTMENTS	Orientable horizontally 180 Can be tilt vertically -15º/+5º Horizontal correction ±3º	Can be swivelled horizontally 120º Can be tilt vertically -15º/+5º Horizontal correction ±3º	Can be swivelled horizontally 120º Can be tilt vertically -15º/+5º Horizontal correction ±3º
COLOUR	Black		
DIMENSIONS	Distance to wall: 8.2 a 101.5 cm Wall plate: 64.6 x 28.9 cm Adjustable width from 20 to 81.5 cm x 43 cm high	Distance to wall: 6.9 a 63.5 cm Wall plate: 23. 8 x 52 cm Adjustable width from 20 to 81.5 cm x 43 cm high	Distance to wall: 6.9 a 104.4 cm Wall plate: 28.9 x 64.6 cm Adjustable width from 20 to 81.5 cm x 43 cm high
WEIGHT	11 kg	9.45 kg	14.73 kg
ACCESSORIES	Bubble level Bar locking system Cable clamps Installation template Fischer plugs, screws and mounting accessories		

TV MOUNTS
Wall

> Video wall

POP-OUT

	SVW-1264N
FEATURES	TV video wall mount Pop-out function to access the TV connection easily. Push it to free the TV and push it back to stay in place.
SCREEN	45" to 70" (114 to 178 cm)
VESA	200 x 200, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	70 kg
ADJUSTMENTS	Horizontal adjustable ±20 mm Can be tilt vertically -2°/+4° Vertical linear 25 mm Wall separation 20 mm Horizontal screen tilt correction -3°/+3°
COLOUR	Black
DIMENSIONS	Wall plate: 67 x 41.6 cm Adjustable width from 20 to 60 cm x 41 cm high Distance to wall: 9. 5 cm Distance to wall pop-out: 28.5 cm
WEIGHT	9.65 kg
ACCESSORIES	Mount for cabling access Safety system Installation template, dowels, screws and mounting hardware

MODULAR

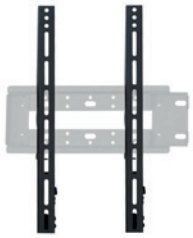
	SVW-56H	SVW-86H
FEATURES	Double horizontal bar. Includes a mount end piece and a link piece. Extendable with other horizontal bars.	
COLOUR	Black	
DIMENSIONS	56 x 14 cm	86 x 14.3 cm
WEIGHT	1.4 kg	2.1 kg
OPTIONAL	SVW-45 or SVW-81: TV bars mount for video wall SVW-75 and SVW-134: Vertical bars for video wall	

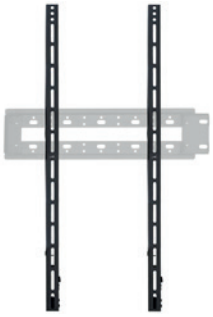
TV MOUNTS

Wall

> *Video wall*

MODULAR





32"-63" VESA 800x400 max. 50 kg

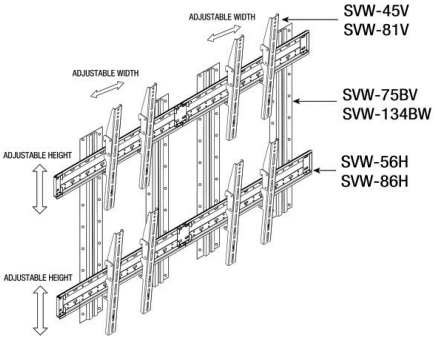
45"-80" VESA 800x700 max. 50 kg

	SVW-45V	SVW-81V
FEATURES	TV bars mount for video wall	
SCREEN	32" to 63" (81 to 160 cm)	45" to 80" (81 to 160 cm)
VESA	200 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 800 x 400	200 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 600 x 600, 800 x 700
MAXIMUM SUPPORTED WEIGHT	50 kg	
ADJUSTMENTS	Can be tilt vertically -5° Regulation of vertical deviation	Regulation of vertical deviation
COLOUR	Black	
DIMENSIONS	45 cm high Distance to wall: 4.2 cm	83 cm high Distance to wall: 4.2 cm
WEIGHT	1 kg	1.7 kg
ACCESSORIES	Mount for cabling access Security system	
OPTIONAL	SVW-56 and SVW-86: Horizontal bars for video wall SVW-75 and SVW-134: Vertical bars for video wall	

MODULAR

2 x 50 kg

3 x 50 kg



	SVW-75BV	SVW-134BV
FEATURES	2 vertical bars of 79 cm. Allows vertical adjustment of the horizontal bars. Possibility to install 2 rows of monitors up to 46". For use with horizontal bars mod. SVW-36H, SVW-56H o SVW-86H.	2 vertical bars of 134 cm. Allows vertical adjustment of the horizontal bars. Possibility to install 3 rows of monitors up to 46". For use with horizontal bars mod. SVW-36H, SVW-56H o SVW-86H.
MAXIMUM SUPPORTED WEIGHT	2 monitors of 50 kg each	3 monitors of 50 kg each
COLOUR	Black	
DIMENSIONS	79 x 7.5 cm	134 x 7.5 cm
WEIGHT	2.5 kg	4.4 kg
OPTIONAL	SVW-45 or SVW-81: TV bars mount for video wall SVW-56, SVW-86: horizontal bars for video wall	

TV MOUNTS

Table

> Adjustable

BASIC

N!

23"-55" VESA 200x200 max. 40 kg

N!

32"-55" VESA 400x400 max. 40 kg

	STM-22BA	STM-44BA
FEATURES	Adjustable table mount	
SCREEN	23" to 55" (58.4 to 139.7 cm)	32" to 58" (81.3 to 147.3 cm)
VESA	100 x 100, 100 x 200, 200 x 100, 200 x 200	100 x 200, 200 x 100, 200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400
MAXIMUM SUPPORTED WEIGHT	40 kg	
ADJUSTMENTS	Horizontal turning angle: ±35° Three height adjustment positions	Horizontal turning angle: ±35° Five height adjustment positions Adjustable height up to 40.5 cm
COLOUR	Black	
DIMENSIONS	TV Plate: 23.3 x 23.3 cm Adjustable height three positions: 29.5, 34.5 y 39.5 cm (TV bar center) Base: 40 x 0.8 x 28 cm	TV plate: 43. 4 x 11 cm Adjustable width from 10 cm to 40 cm Adjustable height five positions: 26, 30.5, 35.5, 40.5 y 45 cm (TV bar center) Adjustable height from 5 cm to 40 cm (center of the VESA plate) Base: 40 x 0.8 x 26 cm
WEIGHT	3.84 kg	4.46 kg
ACCESSORIES	Screws and mounting accessories Cable holder	

PREMIUM

	STM-64PR
FEATURES	Adjustable table mount
SCREEN	43" to 86" (109.2 to 218.4 cm)
VESA	100 x 100, 150 x 100, 200 x 100, 150 x 150, 200 x 200, 300 x 200, 400 x 200, 300 x 300, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	60 kg
ADJUSTMENTS	Horizontal turning angle: ±35° Three height adjustment positions
COLOUR	Black
DIMENSIONS	TV Plate: 46 x 15 cm Adjustable width from 20 cm to 40 cm Adjustable height three positions: 59.1, 65.5, 71.9 cm (TV bar center) Adjustable height up to 81.7 cm (center of the VESA plate) Base: 60 x 0.8 x 32 cm
WEIGHT	9.58 kg
ACCESSORIES	Screws and mounting accessories Cable holder

N!

43"-86" VESA 600x400 max. 60 kg

TV MOUNTS

Monitor

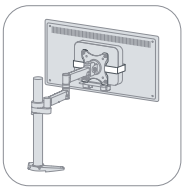
> Adjustable

BASIC

17"-32" VESA 100x100 max. 9 kg

17"-32" VESA 100x100 max. 2 x 9 kg

	SMM-11BA	SMM-112BA
FEATURES	Adjustable table mount for monitor.	Adjustable table mount for 2 monitors.
SCREEN	17" to 32" (43.2 to 81.3 cm).	
VESA	75 x 75, 100 x 100	
MAXIMUM SUPPORTED WEIGHT	9 kg	2 x 9 kg
ADJUSTMENTS	Articulated arm Adjustable height up to 40.7 cm Horizontally adjustable ±90º Tilt ±45º 360º swivel 2 installation possibilities: mounting on the edge of the table or inside the table by drilling a screw hole	Articulated arms Adjustable height up to 40.7 cm Horizontally adjustable ±90º Tilt ±45º 360º swivel 2 installation possibilities: mounting on the edge of the table or inside the table by drilling a screw hole
COLOUR	Black	
DIMENSIONS	TV plate: 11.5 x 11.5 cm Adjustable height up to 40.7 cm (center of the VESA plate) Maximum thickness of the table 8.8 cm Distance to table: 40. 7 cm Maximum length of arms: 44. 1 cm Tube: 40.7 cm x 3.5 cm Ø	TV plate: 11.5 x 11.5 cm Adjustable height up to 44.1 cm (center of the VESA plate) Maximum thickness of the table 8.5 cm Distance to table: 40. 7 cm Maximum length of arms: 37. 6 cm Tube: 40.7 cm x 3.5 cm Ø
WEIGHT	2.48 kg	3.37 kg
ACCESSORIES	Plugs, screws and mounting accessories Cable holder	



	SMM-PC11BA
FEATURES	Multifunctional mount to place the CPU. It can be installed under the desk, on the articulated arm, or on the VESA mount of the monitor.
MAXIMUM SUPPORTED WEIGHT	5 kg
COLOUR	Black
DIMENSIONS	Depth range: 17~70 mm
WEIGHT	0.64 kg
ACCESSORIES	Screws and mounting accessories

5 kg

TV MOUNTS

Monitor

> Adjustable

PREMIUM

N!

17"-32" VESA 100x100 max. 9 kg

N!

17"-32" VESA 100x100 max. 2 x 9 kg

	SMM-11PR	SMM-112PR
FEATURES	Adjustable table mount for monitor.	Adjustable table mount for 2 monitors.
SCREEN	17" to 32" (43.2 to 81.3 cm)	
VESA	75 x 75, 100 x 100	
MAXIMUM SUPPORTED WEIGHT	9 kg	2 x 9 kg
MOUNT	Articulated arm Adjustable height up to 41.5 cm Horizontally adjustable ±90° Tilt ±90° 360° swivel 2 installation possibilities: mounting on the edge of the table or inside the table by drilling a screw hole	Articulated arms Adjustable height up to 41.5 cm Horizontally adjustable ±90° Tilt ±90° 360° swivel 2 installation possibilities: mounting on the edge of the table or inside the table by drilling a screw hole
COLOUR	Black	
DIMENSIONS	TV Plate: 11.5 x 11.5 cm Adjustable height up to 41.5 cm (center of the VESA plate) Maximum thickness of the table 9.4 cm Maximum length of arms: 50. 6 cm Distance to table: 16.5 to 41.5 cm	TV plate: 11.5 x 11.5 cm Adjustable height up to 41.5 cm (center of the VESA plate) Maximum thickness of the table 9.4 cm Maximum length of arms: 50 cm Distance to table: 16.5 to 41.5 cm
WEIGHT	2.04 kg	3.68 kg
ACCESSORIES	Plugs, screws and mounting accessories Cable holder	

TV MOUNTS

Floor

> *Full motion*

DOMESTIC

49"-70" · VESA 600x400 max. · 40 kg

42"-65" · VESA 400x400 max. · 40 kg

37"-70" · VESA 600x400 max. · 30 kg

	STS-4864N	STS-M5044	STS-4364BN
FEATURES	Adjustable TV floor mount Delivered unassembled with instructions and mounting accessories	Wooden TV mount for floor standing TV Tube with grommet Delivered unassembled with instructions and mounting accessories	TV wall and floor bracket. Wall-mounted installation with no drilling required. Easy positioning and repositioning. Base without wheels with non-slip rubber. Tube with grommet. Supplied unassembled with assembly instructions and accessories.
SCREEN	49” to 70” (124 to 177 cm)	42” to 65” (106.7 to 165 cm)	37” to 70” (94 to 178 cm)
VESA	300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400, 600 x 400	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400	100 x 100, 200 x 100, 200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	40 kg	40 kg	30 kg
ADJUSTMENTS	Adjustable width	Horizontally adjustable -45º/+45º.	-
COLOUR	Black	Matt black and walnut	Black and white
DIMENSIONS	Adjustable width from 20 to 60 cm x 61.6 cm max height Height: 134. 5 cm Base: 75 x 53.5 cm depth	Height: 133. 5 cm Base: 76.5 x 54 cm depth	Adjustable width from 20 to 60 cm x 40 cm maximum height Adjustable height 89-109 cm Base: 71.5 x 26.6 cm depth
WEIGHT	6.4 kg	4.3 kg	9.9 kg
ACCESSORIES	Screws and mounting accessories Cable holder	Screws and mounting accessories	Screws and mounting accessories

TV MOUNTS

Floor

> *Adjustable*

OFFICE

32"-65" VESA 400x400 max. 35 kg

32"-65" VESA 600x400 max. 35 kg

37"-70" VESA 600x400 max. 40 kg

	STS-4244N	STS-4464N	STS-4664N
FEATURES	Adjustable TV floor mount Adjustment in manual height. Tilt Tray for multimedia equipment adjustable placement height. Wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.	Floor TV mount. Manually adjustable height. Tray for multimedia equipment included. Wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.	Floor TV mount. Tray for multimedia equipment included. 4 wheels (2 with brakes). Tube with grommet. Supplied unassembled with assembly instructions and accessories.
SCREEN	32” to 65” (81 to 165 cm)	32” to 65” (81 to 165 cm)	37” to 70” (94 to 178 cm)
VESA	100 x 100, 200 x 100, 200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	35 kg	35 kg	40 kg
ADJUSTMENTS	Vertical inclination -10º/+10º, manual adjustment without tools.	Can be tilt vertically -10º/+10º.	Tilt vertically ±10º
COLOUR	Black		
DIMENSIONS	Adjustable width from 10 to 40 cm x 44 cm maximum height Adjustable height (with wheels): 102-132 cm Adjustable height tray for multimedia equipment: 27 to 72 cm Base: 67.7 x 54 cm depth Wheels: 54 mm Ø Tray for multimedia equipment: 30 x 20 cm fondo	Adjustable width from 20 to 60 cm x 50 cm maximum height Adjustable height (with wheels): 120-160 cm Adjustable height media tray (with wheels): 25 to 90 cm Base: 87.5 x 63 cm depth Wheels: 50 mm Tray for multimedia equipment: 42.5 x 33.6 cm depth	Adjustable width from 20 to 60 cm x 40 cm maximum height Adjustable height (with wheels): 133.5, 141.5 or 149.5 cm Adjustable height media tray (with wheels): 47 to 67 cm Base: 70 x 70 cm depth Wheels: 75 mm Tray for multimedia equipment: 48.5 x 29 cm depth
WEIGHT	11 kg	15.8 kg	13.4 kg
ACCESSORIES	Screws and mounting accessories		

TV MOUNTS

Floor

> Adjustable

OFFICE

37"-75" VESA 600x400 max. 50 kg

60"-100" VESA 1000x600 max. 100 kg

N!

60"-100" VESA 1000x600 max. 100 kg

	STS-4264N	STS-42106N	STS-42103N
FEATURES	Adjustable floor TV mount. Compatible with curved TVs. Trays for multimedia equipment and camera (included). Wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.	Adjustable floor TV mount. Trays for multimedia equipment and camera (included). Wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.	Adjustable floor TV mount. Adjustable height manually by hand crank. Media and camera trays. 75 mm wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.
SCREEN	37" to 75" (94 to 190.5 cm)	60" to 100" (152 to 254 cm)	60" to 100" (152 to 254 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 800 x 400, 800 x 600, 1000 x 600	200 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400, 800 x 400, 800 x 600, 1000 x 600
MAXIMUM SUPPORTED WEIGHT	50 kg	100 kg	100 kg
ADJUSTMENTS	Can be tilt vertically -10º/+10º 90° swivel allows the display to be rotated horizontally or vertically	Can be tilt vertically -10º/+5º.	Can be tilt vertically -10º/+5º.
COLOUR	Black		
DIMENSIONS	Adjustable width from 20 to 60 cm x 40 cm maximum height Adjustable height (with wheels): 129-160 cm Adjustable height camera tray (with wheels): 218 cm maximum Adjustable height media tray (with wheels): 70.5 a 104.5 cm Base: 91 x 68 cm depth Wheels: 50 mm Tray for multimedia equipment: 43 x 34 cm depth Metal camera mount tray: 29 x 15 cm depth	Adjustable width from 20 to 100 cm x 60 cm maximum height Adjustable height (with wheels): 134-166 cm Adjustable height camera tray (with wheels): 232.5 cm maximum Adjustable height media tray (with wheels): 68 to 78 cm Base: 135 x 68 cm depth Wheels: 50 mm Tray for multimedia equipment: 43 x 34 cm depth Metal camera mount tray: 29 x 15 cm depth	Adjustable width from 20 to 100 cm x 60 cm maximum height Adjustable height (with wheels): 136.5-168.5 cm Adjustable height camera tray (with wheels): 235 cm maximum Adjustable height media tray (with wheels): 70.5 a 80.5 cm Base: 135 x 68 cm depth Wheels: 75 mm diameter Tray for multimedia equipment: 43 x 34 cm depth Metal camera mount tray: 29 x 15 cm depth
WEIGHT	21.4 kg	33.4 kg	37 kg
ACCESSORIES	Screws and mounting accessories		

TV MOUNTS

Floor

> Adjustable

OFFICE

37"-70" VESA 600x400 max. 50 kg

60"-100" VESA 1000x600 max. 100 kg

37"-70" VESA 600x400 max. 30 kg

	STS-4064P	STS-40106P	STS-5364P
FEATURES	Floor TV mount. Installation in horizontal and vertical position. Mount trays for multimedia equipment and camera (included). Wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.	Floor TV mount. Mount trays for multimedia equipment and camera (included). Wheels with brake. Tube with grommet. Supplied unassembled with assembly instructions and accessories.	Floor and ceiling TV mount Floor and optional ceiling bolt installation. Tray for multimedia equipment included.
SCREEN	37" to 70" (94 to 178 cm)	60" to 100" (152 to 254 cm)	37" to 70" (94 to 178 cm)
VESA	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400	200 x 200, 200 x 300, 300 x 200, 600 x 400, 400 x 200, 400 x 400, 300 x 300, 800 x 400, 800 x 600, 1000 x 600	200 x 200, 200 x 300, 300 x 200, 300 x 300, 400 x 200, 400 x 300, 400 x 400, 600 x 400
MAXIMUM SUPPORTED WEIGHT	50 kg	100 kg	30 kg
ADJUSTMENTS	Can be tilt vertically -12º/+5º 90° rotatable	Can be tilt vertically -10º/+5º.	Rotatable ±180º.
COLOUR	Silver	Silver	Silver and black
DIMENSIONS	Adjustable width from 20 to 60 cm x 40 cm maximum height Adjustable height (with wheels): 120-160 cm Adjustable height camera tray (with wheels): 206.9 cm maximum Adjustable height multimedia equipment tray. Base: 83 x 70 cm depth Wheels: 75 mm Mount tray for multimedia equipment: 45 x 34 cm depth Metal camera mount tray: 29 x 15 cm depth	Adjustable width from 20 to 100 cm x 60 cm maximum height Adjustable height (with wheels): 120-165 cm Adjustable height camera tray (with wheels): 238 cm maximum Adjustable height media tray (with wheels): 30-90 cm Base: 124 x 76 cm depth Wheels: 75 mm Mount tray for multimedia equipment: 43 x 34 cm depth Metal camera mount tray: 29 x 15 cm depth	Adjustable TV height: 87 to 162 cm Adjustable tray height: 50 to 85 cm Adjustable overall height: 220 to 270 cm Floor plate: 13.9 cm Ø Ceiling plate: 13.9 cm Ø
WEIGHT	21.1 kg	27.5 kg	8.1 kg
ACCESSORIES	Screws and mounting accessories		

TV MOUNTS

Ceiling

> Adjustable

23"-42" VESA 200x200 max. 30 kg

17"-37" VESA 200x200 max. 20 kg

	STV-666N STV-666P	STV-667N
FEATURES	Adjustable TV ceiling mount	Folding ceiling TV mount
SCREEN	23" to 42" (58 to 107 cm)	17" to 37" (43 to 94 cm)
VESA	75 x 75, 100 x 100, 200 x 100, 200 x 200	
MAXIMUM SUPPORTED WEIGHT	30 kg	20 kg
ADJUSTMENTS	Can be swivelled horizontally 180° Can be tilted vertically ±20°.	Flip-down 90° Horizontally adjustable ±22° Adjustable height: From 14.5 to 28.5 cm from the ceiling to the center of the TV board
COLOUR	Black Silver	Black
DIMENSIONS	Distance to the ceiling: extendable from 60 to 85 cm TV Plate: 22 x 22 cm with standard holes Ceiling plate: 15 cm Ø	Distance to the folded roof: 8. 7 cm TV Plate: 22 x 22 cm Ceiling plate: 10.5 cm x 16.5 cm
WEIGHT	1.9 kg	1.5 kg
ACCESSORIES	Installation template, dowels, screws and mounting hardware	

TV MOUNTS

Ceiling

> Adjustable

32"-85" VESA 400x400 max. 50 kg

32"-85" VESA 400x400 max. 50 kg

	STT-7144CN	STT-7144LN
FEATURES	Adjustable TV ceiling mount	
SCREEN	32" to 85" (81 to 216 cm)	
VESA	200 x 200, 300 x 300, 400 x 200, 400 x 400	
MAXIMUM SUPPORTED WEIGHT	50 kg	
ADJUSTMENTS	Can be swivelled horizontally 360° Vertically tiltable -20°/+5 Horizontal adjustment ±3° Installation on pitched roofs from -60° to 60°.	
COLOUR	Black	
DIMENSIONS	TV Plate: 48 x 43.5 cm Distance to the ceiling: extendable from 56 to 91 cm Adjustable width from 20 to 40 cm x 40 cm high Ceiling plate: 5. 5 x 20 cm	TV Plate: 48 x 43.5 cm Distance to the ceiling: extendable from 106 to 156 cm Adjustable width from 20 to 40 cm x 40 cm high Ceiling plate: 5.5 x 20 cm
WEIGHT	5 kg	5.9 kg
ACCESSORIES	Installation template, dowels, screws and mounting hardware	

TV MOUNTS

Ceiling

> Adjustable

37"-85" VESA 600x400 max. 50 kg

37"-85" VESA 600x400 max. 50 kg

37"-75" VESA 600x400 max. 2 x 45 kg

	STT-7164CN	STT-7164LN	STT-7164DLN
FEATURES	Adjustable TV ceiling mount	Adjustable TV ceiling mount	Ceiling mount TV mount for 2 screens
SCREEN	37" to 85" (94 to 216 cm)	37" to 85" (94 to 216 cm)	37" to 75" (94 to 190.5 cm)
VESA	200 x 200, 300 x 300, 400 x 200, 400 x 400, 600 x 400		
MAXIMUM SUPPORTED WEIGHT	50 kg	50 kg	2 x 45 kg
ADJUSTMENTS	Can be swivelled horizontally 360° Vertically tilt -20°/+5 Horizontal correction ±3° Installation on pitched roofs from -60° to 60°.		
COLOUR	Black		
DIMENSIONS	TV Plate: 68 x 43.5 cm Distance to the ceiling: extendable from 56 to 91 cm Adjustable width from 20 to 60 cm x 40 cm high Ceiling plate: 6 x 20 cm	TV Plate: 68 x 43.5 cm Distance to the ceiling: extendable from 106 to 156 cm Adjustable width from 20 to 60 cm x 40 cm high Ceiling plate: 5.5 x 20 cm	TV Plate: 68 x 43.5 cm Distance to the ceiling: extendable from 106 to 156 cm Adjustable width from 20 to 60 cm x 40 cm high Ceiling plate: 20 x 6 cm
WEIGHT	5.3 kg	6.2 kg	8.5 kg
ACCESSORIES	Installation template, dowels, screws and mounting hardware		

TV MOUNTS
Ceiling

> Motorized

	STTEL-44N
FEATURES	Motorized ceiling-mounted TV mount
SCREEN	23” to 55” (58.4 to 139.7 cm)
VESA	100 x 100, 200 x 200, 300 x 300, 400 x 200, 400 x 400
MAXIMUM SUPPORTED WEIGHT	30 kg
ADJUSTMENTS	Folding 75º Horizontal correction: ±3º
COLOUR	Black
DIMENSIONS	Distance to the folded roof: 10. 8 cm TV Plate: 43.5 x 43.5 cm (with extensions for VESA 400 x 400) Height: From 10.8 to 44.5 cm (center of the TV plate)
WEIGHT	7.15 kg
POWER SUPPLY	24 V CC, 1.5 A with included adapter
POWER SUPPLY	RF remote control Cable clamps Installation template, fischer dowels, screws and mounting accessories

TV MOUNTS
Sound bar

	SBAR-800
FEATURES	Sound bar mount. Base adjustable in width and depth. Anti-slip and anti-vibration pads. Sound bar placed on or under the TV. Possibility to install directly on the wall. Universal compatibility. Easy and fast assembly.
VESA	800 x 400 maximum
MAXIMUM SUPPORTED WEIGHT	15 kg
MATERIAL	Steel
COLOUR	Black
DIMENSIONS	Horizontal bar: 84.4 x 6.3 cm Vertical bars: 43.5 x 4.4 cm Adjustable width from 15 to 80 cm Adjustable depth from 8.6 to 15.5 cm
WEIGHT	2.1 kg
POWER SUPPLY	Screws and mounting accessories

PROJECTOR MOUNTS
Floor

	SPS-403N
FEATURES	Floor mount for projectors 2 metal trays (upper tray adjustable in height and inclination), for video projectors and laptop or DVD player, etc. Wheels with brake. Easy assembly. Includes instructions and mounting accessories.
MAXIMUM SUPPORTED WEIGHT	10 kg
COLOUR	Black
DIMENSIONS	Adjustable height top tray (with wheels): 95 to 145 cm Lower tray height (with wheels): 68. 5 cm Base: 45 x 50 cm depth Wheels: 50 mm Top tray: 35 x 30 cm depth Tray mount laptop computer: 36 x 30 cm depth
WEIGHT	9.2 kg

PROJECTOR MOUNTS
Ceiling

> Adjustable

	SPR-547N SPR-547B
FEATURES	Adjustable ceiling mount for projectors
MOUNT	Can be swivelled horizontally 360º Can be tilt vertically ±15º Tilt laterally ±15º Distance to ceiling: 15 cm
MAXIMUM SUPPORTED WEIGHT	13.5 kg
COLOUR	Black White
DIMENSIONS	Adjustable to the projector from 54 to 320 mm Ø Ceiling plate: 13 x 11 cm
WEIGHT	1 kg

	SPR-549N SPR-549B SPR-549P
FEATURES	Adjustable and extendable ceiling mount for projectors. Installation on horizontal and sloping ceilings. Tube with cable gland.
MOUNT	Can be swivelled horizontally 360º Can be tilted vertically ±15º Tilt laterally ±15º Installation in sloping ceilings from 0º to 90º Distance to the ceiling: extendable 38 to 58 cm
MAXIMUM SUPPORTED WEIGHT	13.5 kg
COLOUR	Black White Silver
DIMENSIONS	Adjustable to the projector from 54 to 320 mm Ø Ceiling plate: 13 x 11 cm
WEIGHT	1.1 kg
POWER SUPPLY	Installation template, screws and mounting accessories

PROJECTOR MOUNTS

Ceiling

> Adjustable

13.5 kg

35 kg

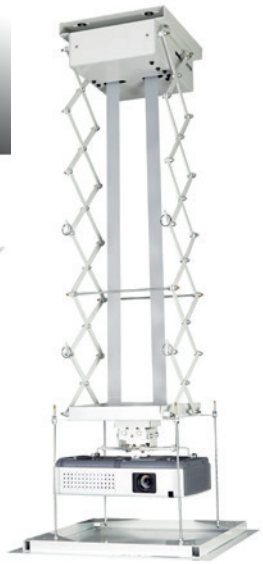
	SPR-567P	SPR-570N
FEATURES	Adjustable and extendable ceiling mount for projectors. Installation on horizontal and sloping ceilings. Tube with cable ducting.	Adjustable and extendable ceiling-mounted projector bracket. Installation on horizontal and sloping ceilings. Tube with cable ducting.
MOUNT	Can be swivelled horizontally 360º Can be tilt vertically ±15º Tilt laterally ±15º Installation in sloping ceilings from 0º to 90º Distance to the ceiling: extendable 55 to 90 cm	Can be swivelled horizontally 360º Can be tilt vertically ±20º Tilt laterally ±8º Installation in sloping ceilings from 0º to 90º Distance to the ceiling: extendable 74.5 to 114.5 cm
MAXIMUM SUPPORTED WEIGHT	13.5 kg	35 kg
COLOUR	Silver	Black
DIMENSIONS	Adjustable to the projector from 54 to 320 mm Ø Ceiling plate: 13 x 11 cm	Adjustable to the projector from 130 to 470 mm Ø Ceiling plate: 21.1 x 8.5 cm
WEIGHT	1.3 kg	3.8 kg
POWER SUPPLY	Installation template, dowels, screws and mounting hardware	

PROJECTOR MOUNTS

Ceiling

> Motorized

	SPREL-1B
FEATURES	Electric ceiling projector mount. Double motor. Wall receiver. Remote control. Concealment plate.
MOUNT	Tilt vertically ±20º Tilt laterally ±15º Horizontally adjustable Maximum descent: 100 cm
MAXIMUM SUPPORTED WEIGHT	20 kg
COLOUR	White grayish (RAL 9002)
DIMENSIONS	Mount collected, distance to ceiling (without projector): 27 cm Ceiling plate: 32 x 29.5 cm Concealment plate: Total 50 x 50 cm. Clamping rods 33.5 x 33.5 cm. Projector mount: 4 arms from 8.5 to 14 cm adjustable to the projector
WEIGHT	15 kg
POWER SUPPLY	230 V CA, 76 W



20 kg

PROJECTOR MOUNTS

Safety boxes

	SPRBOX-568N	SPRBOX-568B	SPRBOX-568P
FEATURES	Metal anti-theft security box for projectors.		
COLOUR	Black	White	Silver
MAXIMUM SUPPORTED WEIGHT	20 kg		
DIMENSIONS	405 x 200 x 485 mm depth		
WEIGHT	7.3 kg		

MICROWAVE MOUNTS

Wall

	SMO-200	SMO-300
FEATURES	Adjustable microwave mount.	
COLOUR	White (RAL 9010)	
MAXIMUM SUPPORTED WEIGHT	35 kg	
DIMENSIONS	Depth from 38.5 to 53.5 cm Wall plate: 43 x 4.3 cm depth	Adjustable depth from 33 to 50 cm
WEIGHT	2.2 kg	1.9 kg
POWER SUPPLY	Installation template, dowels, screws and mounting hardware	

Hi-Fi

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Designed by FONESTAR

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AMPLIFIERS

Stereo

Designed by FONESTAR

BLUETOOTH USB RADIO

	AS-170PLUS
FEATURES	Hi-Fi stereo amplifier. Plays music from smartphones, tablets and other Bluetooth devices. Bluetooth receiver. USB player. FM radio with 40 presets. Bass and treble control Standby with power saving. Remote control.
POWER	80 + 80 W RMS at 4 Ω
INPUTS	3 stereo audio: AUX, 2 x RCA, 500 mV RMS 1 stereo audio: PHONO RIAA, 2 x RCA, 28 mV RMS 1 stereo audio: AMP IN, 2 x RCA, 500 mV RMS 1 digital audio, toslink and RCA 1 micro, jack plug 6.3 mm, 6 mV RMS
OUTPUTS	Loudspeakers 2 selectable A/B stereo groups, A or B 4-16 Ω, A and B 8-16 Ω, screw or banana terminals. 1 1 stereo aux, 6.3 mm jack 1 line, 2 x RCA, 500 mV RMS 1 pre out, 2 x RCA 500 mV RMS 1 SUB line for connection to active subwoofer, 1 x RCA, 2 V RMS
RESPONSE	20-20.000 Hz ±3 dB
S/N RATIO	>85 dB
DISTORTION	Harmonic: < 0'1% (1 kHz, 1 W)
POWER SUPPLY	230 V AC, 50/60 Hz, 300 W max. Switched power supply Standby: 0.5 W Fuse 115 V AC 1.6 A/115 V 3.15 A
COLOUR	Black
DIMENSIONS	436 x 100 x 320 mm depth
WEIGHT	6.5 kg
ACCESSORIES	FM antenna cable Bluetooth antenna. Remote control Batteries for remote control Power cable

AMPLIFIERS

Stereo

Designed by FONESTAR

Designed by FONESTAR

Designed by FONESTAR

BLUETOOTH USB RADIO

	AS-1515	AS-3030	AS-6060
FEATURES	Hi-Fi stereo amplifier. Bluetooth receiver 5.0. USB player. FM Radio Microphone inputs with echo and tone. Aluminium panel. Remote control of the player.		
POWER	15 + 15 W RMS at 4 Ω	30 + 30 W RMS at 4 Ω	60 + 60 W RMS at 4 Ω
INPUTS	1 aux, 2 x RCA, 17,000 Ω 220 mV RMS 2 balanced mics, 6.3 mm jack, 900 Ω 9 mV RMS	3 stereo inputs: DVD/AUX/CD, 2 x RCA 200 mV RMS 1 stereo aux, 3.5 mm jack 200 mV RMS on front panel 2 balanced mics, 6.3 mm jack 900 Ω 6 mV RMS	3 stereo aux: DVD/AUX/CD, 2 x RCA, 17,000 Ω 300 mV RMS 1 stereo aux, 3.5 mm jack, 15,000 Ω 300 mV RMS on front panel 1 digital audio, TOSLINK and RCA 2 balanced mics, 6.3 mm jack, 900 Ω 9 mV RMS
OUTPUTS	Speakers: Main L / R, 4-16 Ω screw terminals or bananas		
RESPONSE	20-20.000 Hz		
S/N RATIO	>70 dB	>70 dB	>85 dB
DISTORTION	Harmonic: <0.5% at 1 kHz		
PROTECTIONS	Temperature, short circuit and overload		
POWER SUPPLY	230 V AC, 90 W	230 V AC, 230 W	230 V AC, 350 W
DIMENSIONS	250 x 90 x 276 mm depth	330 x 92 x 276 mm depth	330 x 92 x 276 mm depth
WEIGHT	2.65 kg	3.15 kg	4.2 kg
ACCESSORIES	FM antenna cable Batteries for remote control		

SPEAKERS

Active

Designed by FONESTAR

COMING SOON
SOUL-HOME-B: cream-coloured

BLUETOOTH · TWS · CLASS-D · BASS-REFLEX · LED INDICATORS

	SOUL-HOME-N
FEATURES	Bluetooth home speaker. Compact Home Audio. Designed from the essence of sound by FONESTAR. 5.3 Bluetooth. TWS function to connect 2 speakers in stereo. Bluetooth and cable connectivity, 3.5 mm jack and 2 x RCA Wooden box with leather coating. Fabric grille. Perfect sound with all the nuances. Configuration 2.1 Stereo with bass channel. High performance Class D amplifier. Bass reflex reinforcement. Controls with LED indicators. Suitable size to be one more element of your home.
BLUETOOTH	TWS function to pair 2 speakers via Bluetooth and transmit the same stereo signal to both speakers. Maximum distance: 10 m
FUNCTIONS	Volume control (syncs with connected Bluetooth device) Controls with LED indicators and automatic shutdown after 40 s. (Except the power LED) Automatic standby after 10 minutes for energy saving. Turn on automatically when receiving a signal or touching a button Bass and treble control Removable grille
POWER	Class D amplifiers 2 x 10 W + 60 W
SPEAKERS	2 Tweeter 1", 8 Ω, silk fabric diaphragm Woofer 5", 4 Ω, paper diaphragm
RESPONSE	55-20.000 Hz @ -10 dB
SOUND PRESSURE	95 dB @ max. W/1m
INPUTS	1 x AUX. 3.5 mm TRS jack plug. Signal level: 750 mV RMS (-9 dBV) / 4.7K 1 LINE. 2 x RCA connector. Signal level: 750 mV RMS (-9 dBV) / 4.7KΩ
MATERIAL	MDF wooden box Leatherette finished leather Fabric grille
WORKING TEMPERATURE	5ºC ~ 40°C
STORAGES TEMPERATURE	2ºC ~ 50°C
MAXIMUM HUMIDITY	90%
POWER SUPPLY	100 - 240 V AC, 50/60 Hz, 2.1 W T3.15 A 250 V fuse
COLOUR	Black
DIMENSIONS	290 x 260 x 160 mm depth
WEIGHT	4.5 kg
ACCESSORIES	Power cable

SPEAKERS

Passive

Designed by FONESTAR

	BLOCK-5
FEATURES	Pair of compact Hi-Fi speakers. Excellent sound quality. MDF wood construction covered with black PVC. Bass-reflex design.
POWER	90 + 90 W max, 60 + 60 W RMS
SPEAKERS	1 x 5" heavy duty woofer with ferrite magnet 1 x 1" silk dome tweeter with neodymium magnet
RESPONSE	65-20.000 Hz ±3 dB
IMPEDANCE	8 Ω
SENSITIVITY	85 dB ±2 dB at 1 W/1 m
CONNECTORS	Screw terminals or gold-plated banana plugs
CROSSOVER	2-way Crossover frequency 3,000 Hz
COLOUR	Black
DIMENSIONS	183 x 296 x 198 mm depth
WEIGHT	2 x 4.1 kg
ACCESSORIES	Rubber feet

PLAYERS

CD

USB CD

	CD-150PLUS
FEATURES	CD/USB player. CD player with front loading slot in system. Plays CD audio and MP3, CD-R and CD-RW. 10-second anti-vibration memory. USB port. White VFD screen. ID3 tag information in MP3 files. Remote control.
OUTPUTS	1 aux, 2 x RCA, 316 mV RMS 1 coaxial digital audio, RCA 1 optical digital audio, toslink
RESPONSE	20-20.000 Hz
S/N RATIO	>77 dB
POWER SUPPLY	100-240 V AC, 25 W Standby: < 0.5 W
DIMENSIONS	430 x 74 x 250 mm depth
WEIGHT	3.3 kg
ACCESSORIES	Audio cable, 2 x RCA Remote control Batteries for remote control

TURNTABLES

Vinyls

33/45 R.P.M.

USB

AUX

REC

33/45/78 R.P.M.

	VINYL-13	VINYL-25AMP
FEATURES	Hi-Fi belt drive turntable. Precision DC servo motor with quick start and stop. Phono/line output selector. Auto-standby function after 20 minutes. Straight arm with slow elevation and descent. Adjustable counterweight. Audio Technica AT-3600 magnetic stylus compatible with FONESTAR 786-DST-W and 4034-DST-W phonocapsule. 2 speeds: 33 and 45 r.p.m Pitch adjustment. Aluminum plate. MDF wood construction. Finished in PVC.	Hi-Fi belt drive turntables. Built-in speakers 2 x 3 W RMS. Wireless receiver. Direct USB recording function. USB player. Precision DC servo motor with quick start and stop. Auto-stop function. Straight arm with slow lifting and lowering. Ceramic needle compatible with FONESTAR 970-DST-W and phonocapsule 2511-DST. 3 speeds: 33/45/78 r.p.m. Line-level output. Headphone output. Auxiliary input. MDF wood construction. Finish in PVC and fabric.
POWER SUPPLY	12 V DC, 200 mA with adapter included	5 V DC, 2 A with adapter included
SPEAKERS	-	2 woofer 2 ¾", 3 + 3 W RMS
RECORDER	-	Supports memory up to 32 GB Recording quality 256 Kbps
COLOUR	Black	
DIMENSIONS	432 x 140 x 349 mm depth	405 x 145 x 330 mm depth
WEIGHT	4.2 kg	4.3 kg
ACCESSORIES	Audio cable 2 x RCA, 1.5 m Centring device for 7" records Protective mat for turntable. Transparent cover	

	MFP-32
FEATURES	Carbon fibre and velvet vinyl record cleaning brush. Anti-static carbon fibres. Velvet for wet and dry use. Eliminates dust, even small particles. Closing system to protect fibres.
DIMENSIONS	44 x 113 x 22 mm fondo

TURNTABLES

Preamplifiers

	TC-2	TC-7
FEATURES	Stereo preamplifier for turntables with magnetic cartridge. Earth connection terminal.	
INPUTS	1 phono, 2 x RCA 50.000 Ω 3 mV	
OUTPUTS	1 auxiliar, 2 x RCA 50.000 Ω 1.8 V	
RESPONSE	30-20.000 Hz	
INDICATORS	LED power indicator	
POWER SUPPLY	1 x 9 V battery	12 V DC, 0.2 A, with adapter included
DIMENSIONS	75 x 30 x 92 mm depth	75 x 30 x 95 mm depth
WEIGHT	0.15 kg	0.13 kg
ACCESSORIES	-	Cable de audio 2 x RCA

portable audio

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PORTABLE SPEAKERS

With trolley

	MALIBU-308	MALIBU-310
FEATURES	Portable speaker. 1 x UHF hand-held wireless microphone (650 MHz). Bluetooth/USB/microSD/FM/LINE player and microphone audio recorder. Bluetooth receiver 5.0. Karaoke function with Voice Canceller, priority, microphone echo control and independent volume control of music and microphones. TWS function for pairing two speakers via Bluetooth and transmitting USB, microSD, FM or LINE IN. Input for microphone with cable. Rechargeable Li-ion battery. BASS REFLEX reinforcement. Remote control of the player. Trolley transport cart. Hole in the base for 35 mm tube.	
POWER	100 W maximum 20 W RMS	
SPEAKERS	1 x 8” woofer 1 x 1” compression driver	1 x 10” woofer 1 x 1” tweeter
INPUTS	1 x micro, 6.3 mm jack, 4,700 Ω, 33 mV RMS 1 x stereo line, 3.5 mm jack, 10,000 Ω, 549 mV RMS	
CONTROLS	Microphone volume with echo. Player volume with bass and treble control. Player with source selection, playback control, recording, TWS (transmits USB, microSD, FM or LINE IN), voice erase, voice priority, playback mode and equalisation. Low battery indicator. Battery charge indicator.	
POWER SUPPLY	110-240 V AC, 24.4 W Battery Li-ion 11.1 V, 2200 mAh Autonomy with rechargeable battery: 8 h* Battery charging time: 3 h *Battery life at 50% of the volume. Depending on the type of music and volume, the battery life may be reduced. Works while recharging Wireless microphone: 2 x LR6-AA batteries Remote control: 2 x LR03-AAA batteries	
DIMENSIONS	250 x 415 x 200 mm depth	310 x 490 x 260 mm depth
WEIGHT	3.9 kg	5.70 kg
OPTIONAL	FAL-M8: transport bag	FAL-M10: transport bag

PORTABLE SPEAKERS

With trolley

	MALIBU-312	MALIBU-315
FEATURES	Portable speaker. 2 x UHF wireless microphones, 1 hand-held and 1 head-worn (650 MHz and 660 MHz respectively). Bluetooth/USB/microSD/FM/LINE player and microphone audio recorder. Bluetooth receiver 5.0. Karaoke function with Voice Canceller, priority, microphone controls (echo, bass and treble) and independent volume control of music and microphones. TWS function for pairing two speakers via Bluetooth and transmitting USB, microSD, FM or LINE IN. Guitar input. Input for microphone with cable. Rechargeable Li-ion battery. BASS REFLEX reinforcement. Remote control of the player. Trolley transport cart. Hole in the base for 35 mm tube.	
POWER	250 W maximum 50 W RMS	
SPEAKERS	1 x 12” woofer 1 x 1” tweeter	1 x 15” woofer 1 x 1” tweeter
INPUTS	2 x micro, 6.3 mm jack, 4,700 Ω 59.6 mV 1 x stereo line, 3.5 mm jack, 10,000 Ω 392 mV 1 x guitar input, 6.3 mm jack, 101 mV	
OUTPUT	1 x line, RCA	
CONTROLS	Microphone volume with echo, bass and treble control. Player volume with bass and treble control. Player with source selection, playback control, recording, TWS (transmits USB, microSD, FM or LINE IN), voice erase, voice priority, playback mode and equalisation. Battery charge indicator.	
POWER SUPPLY	110-240 V AC, 84.5 W Battery Li-ion 7.4 V, 5000 mAh Autonomy with rechargeable battery: 16 h* Battery charging time: 3 h *Battery life at 50% of the volume. Depending on the type of music and volume, the battery life may be reduced. Works while recharging Wireless microphones: 2 x LR6-AA batteries Remote control: 2 x LR03-AAA batteries	
DIMENSIONS	390 x 580 x 300 mm depth	440 x 680 x 370 mm depth
WEIGHT	8.3 kg	11.20 kg
OPTIONAL	FAL-M12: transport bag	FAL-M15: transport bag

PORTABLE SPEAKERS

Transport bags

	FAL-M8	FAL-M10	FAL-M12	FAL-M15
FEATURES	MALIBU 8” speaker transport bag Compatible with some 8‘’ loudspeakers Heavy duty tarpaulin Covers the top and sides of the speaker, leaving the base free.	MALIBU 10” speaker transport bag Compatible with some 10‘’ loudspeakers Heavy duty tarpaulin Covers the top and sides of the speaker, leaving the base free. Top zip opening for trolley case Velcro rear opening for access to controls	Carrying bag for MALIBU 12” loudspeakers Compatible with some 12” loudspeakers Heavy-duty rugged canvas Covers the top and sides of the speaker leaving the bottom free Zippered top opening for trolley Zippered side openings for carrying handles Velcro back opening for access to controls	Carrying bag for MALIBU 15” loudspeakers Compatible with some 15” loudspeakers Heavy-duty rugged canvas Covers the top and sides of the speaker leaving the bottom free Zippered top opening for trolley Zippered side openings for carrying handles Velcro back opening for access to controls
DIMENSIONS	Interior: 250 x 385 x 200 mm depth	Interior: 310 x 490 x 280 mm depth	Interior: 390 x 580 x 300 mm depth	Interior: 450 x 685 x 385 mm depth

PORTABLE SPEAKERS

With trolley

	ASH-1200
FEATURES	Portable speaker. Great power and sound quality. High efficiency class D amplifier. 1 UHF handheld wireless microphone. Wireless receiver. Output for passive loudspeaker. Microphone input with echo effect and tone control to be used as Karaoke. Master output tone controls. Trolley transport cart. Compartment to store two microphones (handheld or pocket). Hole in the base for 35 mm tube.
POWER	150 W maximum, 90 W RMS
SPEAKERS	1 x 12" woofer 1 1 x 1 ⅓" compression driver
RESPONSE	80-18.000 Hz
SENSIBILITY	93 dB at 1 W/1 m
INPUTS	1 balanced mic, combo (XLR and 6.3 mm jack) 1 stereo aux, 2 x RCA 1 balanced line, XLR
OUTPUT	1 balanced line, XLR 1 amplifier for passive display, 6.3 mm jack, 4 Ω
PRIORITY	Microphone input and wireless microphones per signal level, selectable
POWER SUPPLY	110-240 V AC, 150 W Battery Pb 2 x 12 V, 5.5 Ah Autonomy with rechargeable battery: 4-6 h* Battery charging time: approximately 5 hours Operation during recharge* Autonomy at 50% of the volume. Depending on the type of music and volume, the autonomy may be reduced.
DIMENSIONS	360 x 560 x 360 mm depth
WEIGHT	14.8 kg
ACCESSORIES	Transport bag
OPTIONAL	CDM-1200: CD/USB/SD player MSHTM-1200M: Hand-held microphone MSHTM-1200P: Belt-pack microphone MSHRM-1200: UHF microphone receiver module MSHTM-1200L: UHF master output transmitter module MSHRM-1200L: UHF master output receiver module

	MSHTM-1200P	MSHTM-1200M
FEATURES	UHF wireless pouch microphone with electret condenser capsule for ASH-1200 extension. IR channel synchronization. UHF 655-679 MHz 16 channels. Gain adjustment.	Handheld UHF wireless microphone with electret condenser capsule for ASH-1200 extension. IR channel synchronization. UHF 655-679 MHz 16 channels.
POWER SUPPLY	2 pilas LR6-AA	2 pilas LR6-AA
DIMENSIONS	65 x 105 x 23 depth mm	245 x 51 Ø mm
WEIGHT	0.12 kg	0.4 kg
ACCESSORIES	Batteries	Batteries

PORTABLE SPEAKERS

Accessories

	MSHRM-1200	MSHTM-1200L	MSHRM-1200L
FEATURES	UHF microphone receiver module extension of ASH-1200. UHF 655-679MHz 16 channels. For wireless microphones mod. MSHTM-1200M and MSHTM-1200P.	UHF master output transmitter module for ASH-1200 extension	UHF master output receiver module for expansion of ASH-1200.
FREQUENCIES	655-679 MHz 16 canales	823-865 MHz 16 canales	823-865 MHz 16 canales
DIMENSIONS	72 x 36 mm	33 x 56 mm	33 x 56 mm
WEIGHT	0.1 kg	0.06 kg	0.08 kg

	CDM-1200
FEATURES	Módulo reproductor CD/USB/SD para ASH-1200. Reproductor de CD. Puerto USB para conexión de memorias y discos duros. Lector de tarjetas SD/SDHC/SDXC. Acceso rápido a los contenidos multimedia.
RESPONSE	20-20.000 Hz
DIMENSIONS	160 x 70 x 166 mm depth
WEIGHT	1'15 kg
ACCESSORIES	Mando a distancia Pila para el mando a distancia

PORTABLE SPEAKERS

With trolley

	AMPLY-T
FEATURES	Portable speaker. 525.85 MHz UHF wireless handheld microphone. Bluetooth® receiver, USB/MicroSD player and digital FM radio tuner with 40 preset stations. Lithium battery. Echo function and tone control. Transport trolley. Remote control. BASS REFLEX bass boost. Hole in the base for 35 mm tube.
POWER	100 W
SPEAKERS	8” woofer 2” tweeter
INPUTS	1 unbalanced mic., 6.3 mm jack 1 stereo aux, 3.5 mm jack 1 aux, 2 x RCA
POWER SUPPLY	9 V DC with adapter included Lithium battery 2,000 mAh, 7.4 V Battery life: up to 7 h* Charge time: 5 h *Battery life with volume at 50%. Depending on the type of music and the volume, the battery life may be reduced.
DIMENSIONS	300 x 470 x 230 mm depth
WEIGHT	5.1 kg
OPTIONAL	AMPLY-BP: UHF head-worn wireless microphone and body-pack transmitter for AMPLY and AMPLY-T (525’85 MHz)

PORTABLE SPEAKERS

Without trolley

	AMPLY
FEATURES	Portable speaker. 525.85 MHz UHF wireless handheld microphone. Bluetooth® receiver, USB/MicroSD player and digital FM radio tuner with 40 preset stations. Lithium battery. Echo function and tone control. Remote control. BASS REFLEX bass boost. Hole in the base for 35 mm tube.
POWER	100 W
SPEAKERS	8” woofer 2” tweeter
INPUTS	1 unbalanced microphone, 6.3 mm jack 1 stereo aux, 3.5 mm jack
POWER SUPPLY	9 V DC with adapter included Lithium battery 2,000 mAh, 7.4 V Battery life: up to 7 h* Charge time: 5 h *Battery life with volume at 50%. Depending on the type of music and the volume, the battery life may be reduced.
DIMENSIONS	255 x 390 x 175 mm depth
WEIGHT	2.9 kg
OPTIONAL	AMPLY-BP: UHF head-worn wireless microphone and body-pack transmitter for AMPLY and AMPLY-T (525’85 MHz)

PORTABLE SPEAKERS

Accessories

	AMPLY-BP
FEATURES	Wireless headset microphone with unidirectional electret condenser capsule and UHF belt-pack transmitter for model AMPLY and AMPLY-T. 525.85 MHz
POWER SUPPLY	2 LR6-AA batteries
DIMENSIONS	66 x 103 x 24 mm depth
WEIGHT	0.1 kg
ACCESSORIES	Foam windshield

PARTY SPEAKERS

Karaoke

USB RADIO MicroSD AUX

REC KARAOKE LITHIUM 6 h

BLUETOOTH USB MicroSD AUX

UHF KARAOKE LITHIUM 6 h

	PARTY-DUO	SING-BAR
FEATURES	Wireless portable speaker. Wireless receiver. USB/microSD/FM player and microphone audio recorder. Karaoke function, independent control of music and microphones. Echo function and equalisations. Double LED ring with selectable light effects. Up to 6 hours of autonomy. Remote control.	Portable wireless soundbar with Bluetooth® receiver, USB player and 2 UHF wireless microphones (525'85 MHz and 625'25 MHz). Excellent power and sound quality in a compact size. Bluetooth 5.0 receiver Reproduit music from smartphones, tablets and other Bluetooth devices. Transmission distance 10 m. Karaoke function, with echo effect and independent volume control of the music and microphones. It is compatible with karaoke apps. USB player. Aux input to listen to music from external devices. Auxiliary audio output for external amplification. BASS REFLEX boosts bass. Equalisation with manual adjustment and 3 selectable pre-sets. Remote control.
POWER	100 W	30 W
SPEAKERS	2 x 6 ½" woofer 1 x 2" tweeter	2 x 2"
INPUTS	2 mics, 6.3 mm jack 1 stereo aux, 3.5 mm jack	1 x stereo aux, 3.5 mm jack
POWER SUPPLY	9 V DC, 2 A with included adapter Li-ion battery 7.4 V, 3.6 Ah Autonomy with rechargeable battery: 6 h*. Battery charging time: 8 h *Autonomy at 50% volume. Depending on the type of music and volume, autonomy may be reduced. Remote control: 2 LR03-AAA batteries	Rechargeable Li-ion battery, 2,200 mAh, 7.4 V Battery life: up to 6 h* Charge time: 4 h *Battery life with volume at 50%. Depending on the type of music and the volume, the battery life may be reduced. Wireless microphones: 2 x LR6-AA batteries
DIMENSIONS	260 X 590 X 245 mm depth	255 x 60 x 100 mm depth
WEIGHT	5.3 kg	1 kg
ACCESSORIES	Batteries included	USB to USB Type-C charging cable 3.5 mm stereo jack to 3.5 mm stereo jack audio cable Batteries included

PARTY SPEAKERS

Karaoke

BLUETOOTH USB SD AUX RADIO VHF REC KARAOKE LITHIUM 10 h

USB AUX RADIO VHF REC KARAOKE 4 h

	BOX-35LED	CALIFORNIA
FEATURES	Portable karaoke speaker with wireless microphone. Karaoke function with echo effect, equalisations, Voice Canceller function and independent volume control of music and microphones. Plays music from smartphones, tablets and other Bluetooth devices. USB/SD/FM player and microphone audio recorder. VHF wireless microphone (175.5 MHz). Echo function and equalisations, selectable. LED ring with selectable light effects. Remote control.	Portable speaker. 1 VHF handheld wireless microphone. Wireless receiver. USB/FM player and microphone audio recorder. Trolley transport cart. Karaoke function, independent control of music and microphones. Echo function and equalisations. Light effects. Up to 4 hours of autonomy Remote control.
POWER	35 W RMS	200 W
SPEAKERS	1 x 6 ½" woofer	1 x 8" woofer 1 x 3" tweeter
INPUTS	1 mic, 6.3 mm jack 1 stereo aux, 3.5 mm jack	1 mic, 6.3 mm jack 1 stereo aux, 3.5 mm jack
POWER SUPPLY	Rechargeable Lithium battery, 4,400 mAh 7.4 V 9 V DC, 1.5 A with adapter included Battery life: up to 10 h* Charge time: 6 h *Battery life at 50% volume. Depending on the type of music and volume, battery life may be reduced. Wireless microphone: 2 LR6-AA batteries Remote control: 2 LR03-AAA batteries	15 V DC with adapter included Lead acid battery 12 V, 4 Ah Autonomy with rechargeable battery: 4 hours Battery charging time: approximately 10 hours Operation during recharging
DIMENSIONS	250 x 355 x 155 mm depth	336 x 456 x 286 mm depth
WEIGHT	2.5 kg	87 kg
ACCESSORIES	Batteries included	FM Antenna

MICROPHONES

Wireless

	IK-163	IK-166
FEATURES	Wireless hand-held microphone. VHF 19.9 y 194.5 MHz. Receiver with 6.3 mm mono jack output. Direct connection to the Microphone input of the amplifier. Easy installation and use.	Wireless hand-held microphone. UHF 679-694 MHz. Receiver with 6.3 mm mono jack output. Direct connection to the Microphone input of the amplifier. Easy installation and use.
RECEIVER/MICROPHONE	Fixed frequency channel, 2 available channels	16 available channels
OUTPUT	Direct connection to the Microphone input of the amplifier. 1 x 6.3 mm mono jack, 50 mV RMS	Direct amplifier connection, Line input 1 x 6.3 mm mono plug 0.9 V
POWER SUPPLY	Receiver: 1 LR6-AA battery, included Transmitter: 2 LR6-AA batteries, included	Transmitter: rechargeable Li-ion battery, 850 mAh, 3.7 V Battery life: up to 6 h Charge time: 3-4 h Receiver: rechargeable Li-ion battery, 600 mAh, 3.7 V Battery life: up to 6 h* Charge time: 3-4 h
DIMENSIONS	Receiver: 45 x 19 x 110 mm depth	Receiver: 27 x 17 x 100 mm depth
WEIGHT	0.1 kg	0.2 kg

RADIOS

CD radio

	BOOM-ONE-G	BOOM-GO-G
FEATURES	USB CD radio. With light effects. Top-loading CD player. Wireless receiver and USB player. FM radio with 30 presets. Auxiliary input. Headphone output. Selectable repeat and equalisation modes. All sound sources integrated in one device. Portable.	
RESPONSE	100-16.000 Hz	
POWER	2 x 6.5 W maximum, 2 x 2 W RMS	
SPEAKER	2 x 2.5”	2 x 3”
POWER SUPPLY	110-240 V AC, 13 W or 4 LR14-C batteries	
COLOUR	Grey	Grey
DIMENSIONS	215 x 118 x 206 mm depth	261 x 132 x 226 mm depth
WEIGHT	0.85 kg	1 kg

headphones

358

360 IN EAR
360 Wired
360 STEREO
360 Without microphone
360 With microphone
361 MONO
361 Without microphone

362 ON EAR
362 Wired
362 STEREO
362 Without microphone
362 MONO
362 Without microphone
362 REMOTE WORKING
362 With microphone

363 OVER EAR
363 Wired
363 STEREO
363 Without microphone
363 With microphone
364 GAMING
364 With microphone
365 Wireless
365 BLUETOOTH
365 With microphone
366 UHF
366 Without microphone

367 ACCESSORIES
367 Speaker
367 Amplifiers
367 Foams

IN EAR
Wired

> Stereo

WITHOUT MICROPHONE

	FA-310
FEATURES	Mini stereo earphones with volume control.
RESPONSE	20-20,000 Hz
IMPEDANCE	32 Ω
SENSITIVITY	110 dB at 1 kHz ±3 dB
SPEAKERS	15 mm mylar with neodymium magnet
CABLE	1.1 m
CONNECTORS	3.5 mm stereo jack 90°
CONTROLS	Volume on the cable
COLOUR	Black

WITH MICROPHONE

	X3-N	X3-G	X3-NC
FEATURES	In-ear earphone with microphone. Call control and play/pause music on smartphones. Made of aluminium, light and resistant. Anti-knot cable for added convenience. Stylish and attractive design. High sound quality.	In-ear earphone with microphone. Call control and play/pause music on smartphones. Made of aluminium, light and resistant. Anti-knot cable for added convenience. Stylish and attractive design. High sound quality.	In-ear earphone with microphone. 24-bit@384 kHz DAC chipset for high-resolution sound. Call control and play/pause music on smartphones. Made of aluminium, light and resistant. Anti-knot cable for added convenience. Stylish and attractive design. High sound quality.
RESPONSE	20-20.000 Hz		
IMPEDANCE	16 Ω		
SENSITIVITY	88 dB (dB/mW) ±3 dB		
SPEAKERS	10 mm		
CABLE	1.2 m anti-knot		
CONNECTORS	3.5 mm 4-pin jack	3.5 mm 4-pin jack	Active type C
COLOUR	Black	Grey	Black
ACCESSORIES	3 pairs of silicone pads in different sizes		

IN EAR
Wired

> Stereo

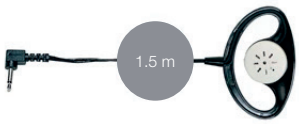
WITH MICROPHONE

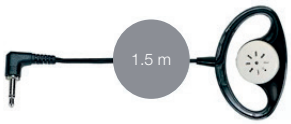
1,2 M CABLE · MIC · TELEPHONE · PLUG 3.5 mm · 1,2 M CABLE · MIC · TELEPHONE · PLUG 3.5 mm

	X5-B	FA-183MB
FEATURES	In-ear with microphone. Call control and play/pause music on smartphones. ABS built, light and resistant. Anti-knot cable for added convenience. Stylish and attractive design. High sound quality.	In-ear headset with microphone. Ergonomic, with silicone pads. Call control and music play/pause on smartphones.
RESPONSE	20-20,000 Hz	
IMPEDANCE	32 Ω	
SENSITIVITY	102 dB (dB/mW) ±3 dB	-
SPEAKERS	14 mm	-
CABLE	1.2 m anti-knots	1.2 m flat anti-knots
CONNECTORS	3.5 mm 4-pin jack	Jack 3.5 mm gold 4 contacts
COLOUR	White	

> Mono

WITHOUT MICROPHONE





1,5 M CABLE · PLUG 2.5 mm · 1,5 M CABLE · PLUG 3.5 mm · 1,2 M CABLE · PLUG 3.5 mm

	FA-225	FA-235	FA-261
FEATURES	Mini mono earphone with support.	Mini mono earphone with support.	In-ear earphone mono. Ergonomic and discreet design that provides a firm and comfortable support. Great sound quality.
RESPONSE	40-18,000 Hz	40-18,000 Hz	20-20,000 Hz
IMPEDANCE	4-32 Ω	4-32 Ω	16 Ω
SENSITIVITY	-	-	110 dB at 1 kHz ±3 dB
SPEAKERS	20 mm with cobalt samarium magnet	20 mm with cobalt samarium magnet	9 mm mylar with neodymium magnet
CABLE	1.5 m	1.5 m	1.2 m
CONNECTORS	2.5 mm mono 90° jack	3.5 mm mono 90° jack	3.5 mm mono jack
COLOUR	Black	Black	White
ACCESSORIES	-	-	3 silicone pads of different sizes

ON EAR
Wired

> Stereo

WITHOUT MICROPHONE

	FA-592
FEATURES	Stereo headphones.
RESPONSE	20-20,000 Hz
IMPEDANCE	32 Ω
POWER	30 mW maximum
SENSITIVITY	110 dB (mW) ±3 dB
SPEAKERS	30 mm mylar with neodymium magnet
CABLE	1.2 m ultra-thin extra flexible, cable outlet on one side
CONNECTOR	3.5 mm stereo jack
ACCESSORIES	Adapter 6.3 mm stereo jack

> Mono

WITHOUT MICROPHONE

	FA-592M
FEATURES	Mono headphones.
RESPONSE	20-20,000 Hz
IMPEDANCE	32 Ω
POWER	30 mW maximum
SENSITIVITY	110 dB (mW) ±3 dB
SPEAKERS	30 mm mylar with neodymium magnet
CABLE	1.2 m ultra-thin extra flexible, cable outlet on one side
CONNECTOR	3.5 mm mono jack

> Remote working

WITH MICROPHONE

	HOME-35
HEADSET	Stereo PC headset with folding microphone for remote working, multimedia and general uses. Response: 20-20,000 Hz. Sensitivity: 111 dB ±3 dB. Impedance 32 Ω. Power: 40 mW maximum. Loudspeakers 40 mm with ferrite magnet. Cushion: High quality foam. Control: volume control on the cable
MICROPHONE	Capsule: Omnidirectional electret condenser. Response: 100-8,000 Hz. Sensitivity: -38 dB (V/Pa) ±3 dB. Impedance 2,200 Ω. Micro folding support
CABLE	1.8 m, cable on one side. Braided coating
CONNECTORS	Jack 3.5 mm gold 4 contacts
WEIGHT	0.1 kg
ACCESSORIES	Adapter jack 3.5 mm female to 2 jack 3.5 mm male for PC

OVER EAR

Wired

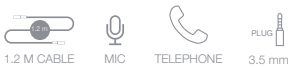
> Stereo

WITHOUT MICROPHONE

	TV-PHONES
FEATURES	TV headphones. Ergonomic design, ultralight weight and foldable. High quality sound. Great freedom of movement. Removable cable of 5 m with textile coating. Volume control integrated in the cable. Cable output on one side (SINGLE-SIDED). Pads in perforated leatherette, improve perspiration for long hours of use.
RESPONSE	30-16,000 Hz @ -20 dB
DISTORTION	THD+N: 0.1% at 1 kHz
IMPEDANCE	32 Ω
POWER	100 mW maximum
SENSITIVITY	110 dB (mW) ±3 dB
SPEAKERS	40 mm
CABLE	5 m, cable output on one side. Textile coating
CONTROLS	Volume on the cable
CONNECTORS	Left earphone: jack 3.5 mm female stereo
COLOUR	Black
WEIGHT	0.16 kg
ACCESSORIES	Carry bag Gold-plated 3.5 mm stereo jack audio cable

WITH MICROPHONE

	X8-B
FEATURES	Stereo headphones with microphone. Call control and play/pause music on smartphones. Advanced and ergonomic design. Comfort of listening. Great sound quality.
MICROPHONE	Capsule: Omnidirectional electret condenser. Response: 100-8.000 Hz. Sensitivity: -38 dB (V/Pa) ±3 dB. Impedance 2,200 Ω
RESPONSE	20-20,000 Hz
IMPEDANCE	32 Ω
POWER	40 mW maximum
SENSITIVITY	111 dB (mW) ±3 dB
SPEAKERS	40 mm
CABLE	1.2 m, anti-knots, cable outlet on one side. Braided coating. Call control and music play/pause on smartphones.
CONNECTORS	Jack connector 3.5 mm with 4 contacts for headset and microphone
COLOUR	White
WEIGHT	0.17 kg



OVER EAR

Wired

> Gaming

WITH MICROPHONE

2 M CABLE MIC GAMING PLUG 3.5 mm VOL CONTROL

2 M CABLE MIC GAMING USB VOL CONTROL

	WIN	WIN-U
FEATURES	Gaming headphones with folding microphone. Great comfort for long-term use. Modern design Controls on the cable. Compatible with PC/MAC, PS4, Xbox One, Nintendo Switch, smartphones, tablets and Xbox 360 with adapter.	Gaming headphones with folding microphone and LED backlight. Great comfort for long-term use. Modern design Controls on the cable. Compatible with PC/MAC, PS4, Xbox One and Nintendo Switch.
MICROPHONE	Capsule: Omnidirectional electret condenser. Response: 100-10,000 Hz. Sensitivity: -38 dB (V/Pa) ±3 dB. Noise cancellation	
HEADSET	Stereo headset Response: 20-20,000 Hz. Sensitivity: 103 dB ±3 dB. Impedance 32 Ω Power: 20 mW maximum. Loudspeakers 50 mm. Cushion: leatherette	
CONTROLS	Control on the cable with headphone volume and microphone mute.	Cable control with microphone and headphone volume, microphone mute and LED switch.
CABLE	2 m	
CONNECTORS	Jack 3.5 mm of 4 contacts for headset and microphone	USB
MEASURES	192 x 210 x 96 mm depth	
WEIGHT	0.4 kg	
ACCESSORIES	Audio jack cable 3.5 mm female to 2 jack 3.5 mm male, 0.25 m	-

OVER EAR

Wireless

> *Bluetooth*

WITH MICROPHONE

	AURIS-BT
FEATURES	Over ear wireless bluetooth headphones. Clear, rich sound. Microphone for function hands-free calls. Adjustable headband, perfect fit. Over ear pads in soft-touch leatherette. Ideal for extended sessions 3.5 mm jack socket for use with cable or if the battery runs out. Rechargeable Li-ion battery.
BLUETOOTH	Bluetooth 5.3. Transmission distance 10 m
RESPONSE	20-20,000 Hz
SENSITIVITY	90 dB
SPEAKERS	40 mm
POWER SUPPLY	Rechargeable Li-ion battery, 3.7 V, 400 mAh. Autonomy: up to 12 h*. Charging time: 2-3 h*. Battery life at 50% of the volume. Depending on the type of music and volume, the battery life may be reduced.
COLOUR	Black
WEIGHT	210 g
ACCESSORIES	USB cable for recharging. Audio jack cable 3.5 mm stereo

OVER EAR
Wireless

> UHF

WITHOUT MICROPHONE

	FA-8060
FEATURES	Wireless UHF radio frequency Hi-Fi stereo headphone system. Transmitter with stereo audio input and 3 selectable transmission channels. Allows total mobility and listening comfort even through walls and ceilings. Maximum transmission distance 100 m under favorable conditions. Up to 3 emitters can be used simultaneously with 3 different programs selectable from the headset. Multiple receiver headphones with the same transmitter can be used.
TRANSMITTER	Emission: by UHF radio frequency. Modulation: FM stereo. Power: < 10 mW. Input: Audio, jack 3.5 mm stereo. Channel selector (3 selectable channels): 863.5, 864 and 864.5 MHz. Luminous indicators: On and audio signal level. Power supply 12 V CC, 150 mA with included adapter
RECEIVER HEADSET	Response: 30-20,000 Hz. Input: 3.5 mm stereo jack for use as a wired headset. Switch: on/off. Controls: Volume and automatic tuning of 3 channels: 863.5, 864 and 864.5 MHz. Light indicators: power and signal reception. Power supply 2 batteries 1.5 V type LR03-AAA
WEIGHT	0.4 kg (without adapter)
ACCESSORIES	1 jack cable 3.5 mm stereo to 3.5 mm stereo jack and 2 x RCA

ACCESSORIES
Speaker

	3360
FEATURES	Pillow speaker.
IMPEDANCE	8 Ω
CABLE	1.8 m
CONNECTOR	3.5 mm mono jack

ACCESSORIES
Amplifiers

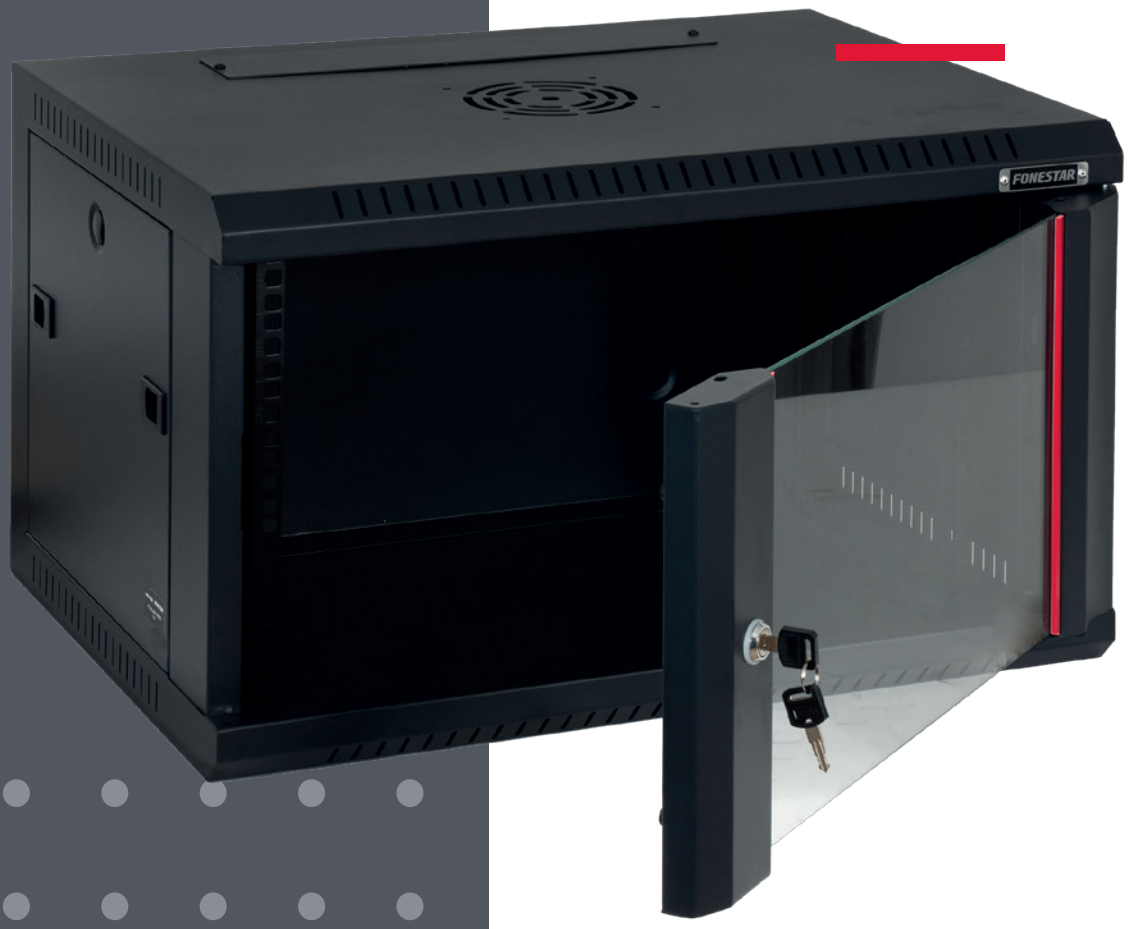
	FDA-1A	FDA-4A
FEATURES	Headphone amplifier with volume control.	Headphone amplifier/distributor. 1 input and 4 outputs with independent volume control.
INPUTS	1 headphone input/stereo line, jack 3.5 mm and 2 x RCA	1 headphone input/stereo line, jack 6.3 mm
OUTPUTS	1 stereo headset output, jack 3.5 mm and jack 6.3 mm, 16 - 32 Ohm, 2 V max	4 stereo headphone outputs, 6.3 mm jack
CONTROLS	On/off general volume	Independent volume control at each output
INDICATORS	Power indicator light	Power indicator light
SIGNAL-TO-NOISE RATIO	85 dB	-
POWER SUPPLY	5 V DC, 500 mA with adapter included or via micro USB connector	12 V DC, 150 mA with included adapter
MEASURES	64 x 30 x 97 mm depth	104 x 47 x 57 mm depth
WEIGHT	< 0.1 kg	0.2 kg

ACCESSORIES
Foams

	ST-6	ST-7	SE-12
FEATURES	Pair of replacement ear sponges.	Pair of replacement ear sponges.	Pair of replacement ear sponges.
DIAMETER	Exterior: 52 mm. Inside: 28 mm	Exterior: 21 mm. Inside: 6 mm	Exterior: 19 mm. Inside: 6 mm
THICKNESS	12 mm	9 mm	6 mm

racks and flight cases

368



370 RACKS 19"
370 Floor cabinets
370 WITH DOOR
370 600 x 600
371 800 x 800
372 600 x 450
372 WITHOUT DOOR
372 600 x 450
373 600 x 600
373 Wall cabinets
373 WITH DOOR
373 600 x 450
374 600 x 600
374 WITHOUT DOOR
375 Flight cases
375 STANDARD
377 WITH TOP MOUNT
379 Accessories
379 TRAYS
379 Lateral
379 Front
380 DRAWERS
380 FRONT PANELS
382 POWER STRIPS
382 WHEELSS
382 THERMOSTATS
383 SCREWS
383 FANS

384 FLIGHT CASES
384 For speakers
385 For TV screens
385 Trunks
385 Trolley

387 BRIEFCASES
387 Flight cases
389 Waterproof

RACKS 19”

Floor cabinets

> With door

600x600

	FRA-10U	FRA-20U
FEATURES	Metallic rack cabinet 19”. Transparent methacrylate door with lock and key, brake wheels, legs and 2 fans (230 V AC) on the ceiling. Removable side and back panels. Front and rear rack frames adjustable in depth, with front and side support. Cable grommets on the side. Black enamelled finish.	
CAPACITY	10 U rack 19” = 44.5 cm	20 U rack 19” = 89 cm
DIMENSIONS	External with wheels: 58.5 x 72 x 58.5 cm depth Between guides: 48.5 cm wide x 41 cm deep Useful depth: 410 mm	With wheels: 58.5 x 117 x 58.5 cm depth Between guides: 48.5 cm wide x 41 cm deep Useful depth: 410 mm
WEIGHT	30 kg	45 kg
ACCESSORIES	Legs, 6 angles, 1 tray, screws and nuts for mounting equipment	
OPTIONAL	T-FRA: Thermostat for activating fans by temperature	

600x600

	FRA-30U	FRA-40U
FEATURES	Metallic rack cabinet 19”. Transparent methacrylate door with lock and key, brake wheels, legs and 2 fans (230 V AC) on the ceiling. Removable side and back panels. Front and rear rack frames adjustable in depth, with front and side support. Cable grommets on the side. Black enamelled finish.	
CAPACITY	30 U rack 19” = 133.5 cm	40 U rack 19” = 178 cm
DIMENSIONS	With wheels: 58.5 x 162 x 58.5 cm depth Between guides: 48.5 cm Ø x 41 cm depth Useful depth: 410 mm	With wheels: 58.5 x 206 x 58.5 cm depth Between guides: 48.5 cm wide x 41 cm deep Useful depth: 410 mm
WEIGHT	55 kg	84 kg
ACCESSORIES	Legs, 6 angles, 1 tray, screws and nuts for mounting equipment	
OPTIONAL	T-FRA: Thermostat for activating fans by temperature	

RACKS 19”

Floor cabinets

> With door

800x800

N!

24 U

33 U

42 U

	FRX-24808-SKD	FRX-33808-SKD	FRX-42808-SKD
FEATURES	Rack cabinet 19” metallic. Reinforced structure. Extra resistant floor. Front and rear rack profiles adjustable in depth, with front and side support, marking U units. Metal side gutters for cable management. Front door with tempered glass, smooth back door, with closure and key. Possibility of changing the sense of openness. Removable side panels. 3 ground connections between equipment, doors and frame. Cable grommets on floor and ceiling. Thermostat and 4 ceiling fans (230 V AC). Wheels for heavy loads, two of them with brakes. Legs for installation in definitive location. Black finish with powder paint of great hardness. It is delivered in mounting kit with accessories and assembly instructions.	Rack cabinet 19” metallic. Reinforced structure. Extra resistant floor. Front and rear rack profiles adjustable in depth, with front and side support, marking U units. Metal side gutters for cable management. Front door with tempered glass, smooth back door, with closure and key. Possibility of changing the sense of openness. Removable side panels. 3 ground connections between equipment, doors and frame. Cable grommets on floor and ceiling. Thermostat and 4 ceiling fans (230 V AC). Wheels for heavy loads, two of them with brakes. Legs for installation in definitive location. Black finish with powder paint of great hardness. It is delivered in mounting kit with accessories and assembly instructions.	Rack cabinet 19” metallic. Reinforced structure. Extra resistant floor. Front and rear rack racks adjustable in depth, with front and side support, marking U units. Metal side gutters for cable management. Tempered glass front door, smooth back door, with closure and key. Possibility of changing the sense of openness. Removable side panels. Ground connections between the doors and frame. Cable grommets on floor and ceiling. Thermostat and 4 ceiling fans (230 V AC). Wheels for heavy loads, two of them with brakes. Legs for installation in definitive location. Black finish with paint of great hardness. Racks, frames and steel floor 2.5 mm thick. Steel envelope 2 mm thick. Door and steel panels 1.5 mm thick. It is delivered in mounting kit with accessories and assembly instructions.
CAPACITY	24 U rack 19” = 106.8 cm	33 U rack 19” = 146.85 cm	42 U rack 19” = 187 cm
MAXIMUM SUPPORTED WEIGHT	With legs 800 kg With wheels 180 kg		
MATERIALS	Rack mounting profiles in 2 mm thick cold-rolled SPCC steel, powder-coated Frames, mounting brackets, top and bottom covers made of 1.2 mm thick cold-rolled SPCC steel, powder-coated Front door in cold rolled SPCC steel 1.2 mm thick, with powder coating and 5 mm tempered glass Rear door in cold rolled SPCC steel 1.2 mm thick, with powder coating Side panels in 1 mm thick cold rolled SPCC steel, with powder coating 4 wheels high load capacity (2 with brake).		
DIMENSIONS	Height with wheels: 1250 mm Width: 820 mm Depth: 820 mm Wheels 50 mm Ø Floor installation legs M10 x 90 mm height	Height with wheels: 1700 mm Width: 820 mm Depth: 820 mm Wheels 50 mm Ø Floor installation legs M10 x 90 mm height	Height with wheels: 2050 mm Width: 820 mm Depth: 820 mm Wheels 50 mm Ø Floor installation legs M10 x 90 mm height
COLOUR	Black (RAL 9011)		
WEIGHT	65 kg	76 kg	110 kg
ACCESSORIES	20 screws and nut M6 for mounting equipment		

RACKS 19”

Floor cabinets

> With door

600x450

	FP-12U	FP-18U
FEATURES	19" metal rack cabinet, transparent methacrylate door with lock and key, free bottom and wheels with brake. Black enamelled finish.	
CAPACITY	12 U rack 19” = 53.4 cm	18 U rack 19” = 80.1 cm
DIMENSIONS	With wheels: 55.5 x 69 x 50 cm depth Rack frame depth: 39.3 cm	With wheels: 55.5 x 95 x 50 cm depth Rack frame depth: 39.3 cm
WEIGHT	23.5 kg	28.8 kg
ACCESSORIES	12 angles, screws and nuts for mounting equipment	18 angles, screws and nuts for mounting equipment

> Without door

600x450

	FRL-12U	FRL-18U	FRL-24U
FEATURES	19” metal rack cabinet, front / free bottom and wheels with brake. Black enamelled finish.		
CAPACITY	12 U rack 19” = 53.4 cm	18 U rack 19” = 80.1 cm	24 U rack 19” = 106.8 cm
DIMENSIONS	With wheels: 55.5 x 69 x 45 cm depth Rack frame depth: 39.3 cm	With wheels: 55.5 x 95.5 x 45 cm depth Rack frame depth: 39.3 cm	With wheels: 55.5 x 124 x 45 cm depth Rack frame depth: 39.3 cm
WEIGHT	19.7 kg	23.8 kg	28.3 kg
ACCESSORIES	12 angles, screws and nuts for mounting equipment	18 angles, screws and nuts for mounting equipment	24 angles, screws and nuts for mounting equipment

RACKS 19”
Floor cabinets

> Without door

600x600

	FRL-15U-F	FRL-24U-F
FEATURES	19” metal rack cabinet, front / free background and wheels. Black enamelled finish. Extra depth, 58 cm total.	
CAPACITY	15 U rack 19” = 66.8 cm	24 U rack 19” = 106.8 cm
DIMENSIONS	With wheels: 56 x 83 x 58 cm depth Rack frame depth: 50 cm	With wheels: 56 x 123 x 58 cm depth Rack frame depth: 50 cm
WEIGHT	28.5 kg	36 kg
ACCESSORIES	15 angles, screws and nuts for mounting equipment	24 angles, screws and nuts for mounting equipment

RACKS 19”
Wall cabinets

> With door

600x450

	FRW-4504	FRW-4506	FRW-4509
FEATURES	19” wall rack cabinet. Front opening with closure and key. Front and rear rack racks adjustable in depth, with front clamping. Made of steel. Black enamelled finish.		
CAPACITY	4 U rack 19” = 17.8 cm	6 U rack 19” = 26.7 cm	9 U rack 19” = 40 cm
MAXIMUM SUPPORTED LOAD	35 kg	40 kg	45 kg
DIMENSIONS	Thickness Guides: 1.2 mm Case thickness and others: 1.1 mm External: 60 x 28 x 46 cm depth Between guides: 48.3 cm wide x 39.5 cm deep Useful depth: 405 mm	Thickness Guides: 1.5 mm Case thickness and others: 1.2 mm External: 60 x 37 x 45 cm depth Between guides: 48.3 cm wide x 40 cm deep Useful depth: 405 mm	Thickness Guides: 1.2 mm Case thickness and others: 1.1 mm External: 60 x 50.5 x 45 cm depth. Between rails: 48.3 cm Ø x 39.5 cm depth Useful depth: 405 mm
WEIGHT	11.3 kg	13.4 kg	16 kg
ACCESSORIES	Screws and nuts for mounting equipment		
OPTIONAL	FRW-FAN: Fan for rack		

RACKS 19”

Wall cabinets

> With door

600x600

	FRW2-6006	FRW2-6009
FEATURES	19” wall rack cabinet. Front and back opening with closures and keys. Front and rear rack racks adjustable in depth, with front clamping. Front rack in the wall section. Made of steel. Black enamelled finish.	
CAPACITY	6 U rack 19” = 26.6 cm	9 U rack 19” = 40 cm
MAXIMUM SUPPORTED LOAD	45 kg	50 kg
DIMENSIONS	Thickness Guides: 1.2 mm Case thickness and others: 1.1 mm External: 60 X 37 x 61.5 cm depth Between rails: 48.3 cm wide x 45 cm deep Useful depth: 564 mm	Thickness Guides: 1.2 mm Case thickness and others: 1.1 mm External: 60 x 50.5 x 61 cm depth Between guides: 48.3 cm Ø x 48.7 cm depth Useful depth: 556 mm
WEIGHT	18 kg	21.2 kg
ACCESSORIES	Screws and nuts for mounting equipment	
OPTIONAL	FRW-FAN: Fan for rack	

> Without door

	FRWL-4
FEATURES	19” wall side rack cabinet. Upper opening. Made of steel. Black enamelled finish.
CAPACITY	4 U rack 19” = 17.8 cm
MAXIMUM SUPPORTED LOAD	30 kg
DIMENSIONS	Thickness Guides: 1.7 mm Case thickness and others: 1.6 mm External: 54 x 57.5 x 23.3 cm depth Between guides: 48.3 cm wide x 46.8 cm deep Useful depth: 468 mm
WEIGHT	11 kg
ACCESSORIES	Screws and nuts for mounting equipment

RACKS 19”

Flight cases

> Standard

	FRS-120	FRS-160
FEATURES	19” anti-shock rack Coated plywood. Shock protection based on 25 mm high density foam. Front and rear covers with airtight closure, transport handles, wheels with brake, metal protection edges. Front and rear rack frame with front and side support. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.	
	Extra depth, 63 cm total.	Extra depth, 60 cm total.
CAPACITY	12 U rack 19” = 53.4 cm	16 U rack 19” = 71.2 cm
DIMENSIONS	External (with wheels): 60 x 80 x 77 cm depth Inside: 48.5 x 55 x 57 cm depth	External (with wheels): 60 x 98 x 77.5 cm depth Inside: 48.5 x 71.2 x 57 cm depth
WEIGHT	41.4 kg	51.3 kg
ACCESSORIES	Screws and nuts for mounting equipment	

	FRE-202	FRE-204	FRE-206
FEATURES	19” rack in coated plywood, front and rear covers with foam protection and airtight closure, transport handles, rubber feet and metal protection edges. Front rack frame with front and side clamping. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.		
CAPACITY	2 U rack 19” = 8.9 cm	4 U rack 19” = 17.8 cm	8 U rack 19” = 35.6 cm
DIMENSIONS	External: 52 x 12.5 x 40.5 cm depth Inside: 48.5 x 8.9 x 26.5 cm depth	External: 54 x 23 x 63 cm depth Inside: 48.5 x 17.8 x 42 cm depth	External: 53 x 39.5 x 49 cm depth Inside: 48.5 x 35.6 x 45 cm depth
WEIGHT	4.7 kg	12 kg	9.2 kg
ACCESSORIES	Screws and nuts for mounting equipment		

RACKS 19”

Flight cases

> Standard

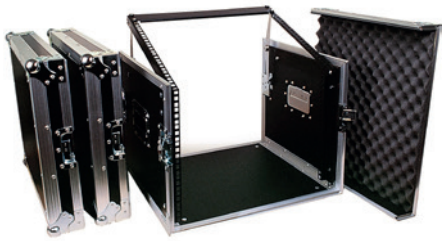
	FRE-208
FEATURES	19” rack with upper department. In coated plywood, top cover with airtight closure, free front / bottom, transport handles, brake wheels and metal protection edges. Front and rear rack frame with front and side support. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.
CAPACITY	12 U rack 19” = 53.4 cm
DIMENSIONS	External (with wheels): 52.5 x 91 x 50.5 cm depth Internals (cover): 48.5 x 17 x 46.5 cm depth Internal (cabinet): 48.5 x 53.4 x 46.5 cm depth
WEIGHT	22 kg
ACCESSORIES	Screws and nuts for mounting equipment

	FRE-210
FEATURES	19” rack with transparent door and lock with key. In coated plywood, door with opening to the left or right, free bottom, transport handles, brake wheels and metal protection edges. Front and rear rack frame with front and side support. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.
CAPACITY	16 U rack 19” = 71.2 cm
DIMENSIONS	External (with wheels): 53 x 90.2 x 54 cm depth Inside: 48.5 x 71.2 x 45 cm depth
WEIGHT	20 kg
ACCESSORIES	Screws and nuts for mounting equipment

RACKS 19”

Flight cases

> With top mount



	FRM-104	FRM-108
FEATURES	19” rack with top mount for sound and lighting equipment. Coated plywood. Caps with foam protection and airtight closure, transport handles, rubber feet and metal protection edges. Front rack frame with front and side clamping. Upper rack frame for mixing table. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.	
CAPACITY	4 U rack 19” = 17.8 cm front 9 U rack 19” = 40.1 cm upper support	8 U rack 19” = 35.6 cm front 9 U rack 19” = 40.1 cm upper support
DIMENSIONS	External: 53 x 31 x 62 cm depth Internals (upper space): 48.5 x 7.5 x 40.1 cm depth Internals (lower space): 48.5 x 17.8 x 45 cm depth	External: 53 x 47 x 62 cm depth Internals (upper space): 48.5 x 15 x 40.1 cm depth Internals (lower space): 48.5 x 35.6 x 45 cm depth
WEIGHT	14.6 kg	18 kg
ACCESSORIES	Screws and nuts for mounting equipment	

	FRM-130	FRM-135
FEATURES	19” anti-shock rack with 2 caps (front and rear) convertible into tables. Coated plywood. Shock protection based on 25 mm high density foam. Front, rear and top covers with airtight closure, transport handles, brake wheels and metal protection edges. Front and rear rack frame with front and side support. Upper rack frame with front clamping for mixing table. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.	
CAPACITY	12 U rack 19” = 53.4 cm front 9 U rack 19” = 40.1 cm upper support	
DIMENSIONS	External (with wheels): 60 x 100.5 x 67.5 cm depth Internals (upper space): 56.5 x 14.5 x 40.1 cm depth Internals (lower space): 48.5 x 53.4 x 50 cm depth	External (with wheels): 60 x 101 x 67.5 cm depth Internals (upper space): 48.5 x 14.5 x 40.1 cm depth Internals (lower space): 48.5 x 53.4 x 50 cm depth Tables: 85.5 x 60 cm depth, height 81.5 cm
WEIGHT	48 kg	54.2 kg
ACCESSORIES	Screws and nuts for mounting equipment	

RACKS 19”

Flight cases

> With top mount

	FRM-170
FEATURES	19” anti-shock rack with top mount for sound and lighting equipment. Coated plywood. Shock protection based on 25 mm high density foam. Front, rear and top covers with airtight closure, transport handles, brake wheels and metal protection edges. Front and rear rack frame with front and side support. Upper rack frame with front clamping for mixing table. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.
CAPACITY	16 U rack 19” = 71.2 cm front 9 U rack 19” = 40.1 cm upper support
DIMENSIONS	External (with wheels): 60 x 118.5 x 67.5 cm depth Internals (upper space): 48.5 x 14.5 x 40.1 cm depth Internals (lower space): 48.5 x 71.2 x 50 cm depth
WEIGHT	51 kg
ACCESSORIES	Screws and nuts for mounting equipment

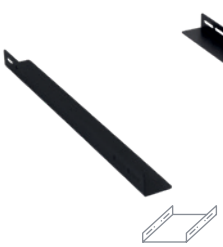
	FRM-175
FEATURES	Rack 19” anti-shock with 2 caps (front and rear) convertible into tables and upper support. Coated plywood Shock protection based on 25 mm high density foam. Front, rear and top covers with airtight closure, transport handles, brake wheels and metal protection edges. Front and rear rack frame with front and side support. Upper rack frame with front clamping for mixing table. Robust construction for transporting and protecting of rack-mounted equipment. Black finish.
CAPACITY	16 U rack 19” = 71.2 cm front 9 U rack 19” = 40.1 cm upper support
DIMENSIONS	External (with wheels): 60 x 119 x 67.5 cm depth Internals (upper space): 48.5 x 14.5 x 40.1 cm depth Internals (lower space): 48.5 x 71.2 x 50 cm depth Tables: 103.5 x 60 cm depth, height 98 cm
WEIGHT	59 kg
ACCESSORIES	Screws and nuts for mounting equipment

RACKS 19”

Accessories

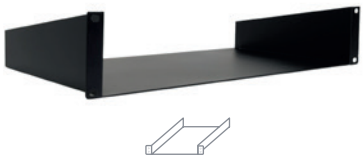
> Trays

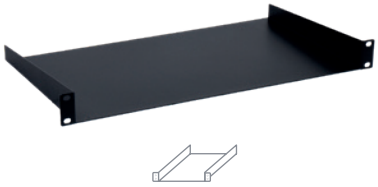
LATERAL

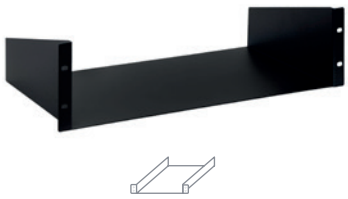


	FRB-1	FRB-2	FRB-7
FEATURES	Metal tray screwable laterally of 1 U for 19” rack. Black finish.	Metal tray screwable laterally of 2 U for 19” rack. Black finish.	Metal tray screwable laterally of 1 U for 19” rack. Guide in the form of an L profile for equipment support. Black finish.
DIMENSIONS	455 x 44.5 x 420 mm depth Internal width: 453 mm	455 x 89 x 420 mm depth Internal width: 453 mm	50 x 35 x 550 mm depth Ripped hole for screws: 10 - 50 mm and 60 - 100 mm from both ends
WEIGHT	2.7 kg	3.1 kg	1 kg
ACCESSORIES	Screws and nuts for mounting		

FRONT

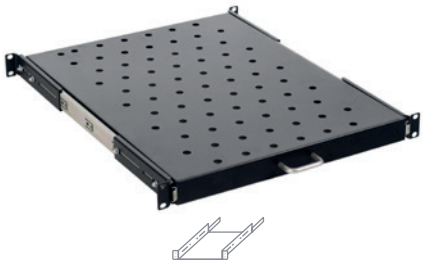






	FRB-3	FRB-4	FRB-6
FEATURES	Front screw-on metal tray of 2 U for 19” rack. Black finish.	Front screw-on metal tray of 1 U for 19” rack. Black finish.	Front screwed metal tray of 3 U for 19” rack. Black finish.
DIMENSIONS	483 x 89 x 255 mm depth Internal width: 442 mm	483 x 44.5 x 255 mm depth Internal width: 444 mm	483 x 133.5 x 255 mm depth Internal width: 444 mm
WEIGHT	1.8 kg	1.5 kg	2 kg
ACCESSORIES	Screws and nuts for mounting		

	FRP-44D
FEATURES	Sliding metal tray with 1 U front clamping for 19” rack. Adjustable bottom for rack up to 800 mm depth. Black finish.
DIMENSIONS	External: 483 x 44 x 565 - 800 mm depth Inside: 419 x 39 x 545 mm depth
WEIGHT	4 kg
ACCESSORIES	Screws and nuts for mounting



RACKS 19”

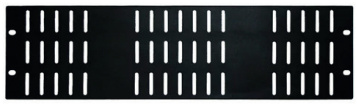
Accessories

> Drawers

	FRP-15	FRP-16
FEATURES	Metal drawer of 3 U for 19” rack, lock with key, front clamping. Suitable for protection of microphones, accessories, etc. Black finish.	Metal drawer of 6 U for 19” rack, lock with key, front clamping. Suitable for protection of microphones, accessories, etc. Black finish.
DIMENSIONS	435 x 133.5 x 350 mm depth	435 x 267 x 350 mm depth
WEIGHT	6.7 kg	9.75 kg
ACCESSORIES	Screws and nuts for mounting	

> Front panels

	FRP-10	FRP-11	FRP-12
FEATURES	Front panel of 1 U for 19” rack. Black finish.	Front panel of 2 U for 19” rack. Black finish.	Front panel of 3 U for 19” rack. Black finish.
DIMENSIONS	483 x 44.5 mm	483 x 89 mm	483 x 133.5 mm
WEIGHT	0.4 kg	0.6 kg	0.8 kg
ACCESSORIES	Screws and nuts for mounting		



	FRP-10VEN	FRP-11VEN	FRP-12VEN
FEATURES	Front panel 1 U with ventilation slots for 19” rack. Black finish.	Front panel 2 U with ventilation slots for 19” rack. Black finish.	Front panel 3 U with ventilation slots for 19” rack. Black finish.
DIMENSIONS	483 x 44.5 mm	483 x 89 mm	483 x 133.5 mm
WEIGHT	0.3 kg	0.5 kg	0.7 kg
ACCESSORIES	Screws and nuts for mounting		

RACKS 19”
Accessories

> Front panels

	FRP-13	FRP-20	FRP-1PC
FEATURES	Front panel of 4 U for 19” rack. Black finish.	Front panel of 7 U for 19” rack. Black finish.	1U cable clamp panel for 19. rack. Black finish.
DIMENSIONS	483 x 178 mm	483 x 310 mm	483 x 44.5 x 60 mm
WEIGHT	1 kg	1.3 kg	0.5 kg
ACCESSORIES	Screws and nuts for mounting		

MECANISMS NOT INCLUDED

	FRP-31XLR	FRP-32SPK	FRP-33M
FEATURES	Machined panel of 1 U for 19” rack, to install 12 XLR sockets. Black finish.	Machined panel of 2 U for 19” rack, to install 4 sockets of speaker connectors. Black finish.	2 U machined panel for 19” rack, to install 8 modular connection panels WP series and electrical mechanisms type Legrand Mosaic II series. Caps for free holes are included. Black finish.
DIMENSIONS	483 x 44.5 mm	483 x 89 mm	483 x 89 mm high Window: 360 x 40 mm high
WEIGHT	0.25 kg	0.6 kg	0.7 kg
ACCESSORIES	Screws and nuts for mounting	Screws and nuts for mounting	Caps, screws and nuts for mounting

MECANISMS NOT INCLUDED

	FRP-34MC	FRP-41G	FRP-42G
FEATURES	Machined panel of 3 U for 19” rack, to install 24 standard single pole electrical mechanisms of symmetrical DIN rail. Caps for free holes are included. Black finish.	Panel covers controls with 1 U window for 19” rack.	Panel covers controls with 2 U window for 19” rack.
DIMENSIONS	483 x 133.5 x 60 mm depth Window: 430 x 45 mm depth	483 x 44.5 x 25 mm depth	483 x 89 x 25 mm depth
WEIGHT	0.5 kg	0.6 kg	1.6 kg
ACCESSORIES	Caps, screws and nuts for mounting	Screws and nuts for mounting	Screws and nuts for mounting

	FRP-45M
FEATURES	Control-cover, panel with 1 U metal grille for 19” rack.
DIMENSIONS	483 x 44.5 x 25 mm depth.
WEIGHT	0.5 kg
ACCESSORIES	Screws and nuts for mounting

RACKS 19”

Accessories

> Power strips

	FRP-8	FRP-8MC14
FEATURES	Power strip of 1 U for 19” rack. 8 bipolar power plugs with schuko type ground socket. Switch and protection for children. Power cable 1.8 m 3 x 1.5 mm² with schuko plug. PVC material. Black finish 230 V, 3,500 W max, 16 A.	Metal power strip of 1 U for 19” rack. 8 bipolar power plugs with schuko type ground socket. Switch and protection for children. Power cable 1.8 m, 3 x 1.5 mm² with plug type C14. Aluminium material. Black finish 230 V, 3,500 W max, 16 A.
DIMENSIONS	483 x 44.5 x 54 mm depth	483 x 44.5 x 45 mm depth
WEIGHT	0.7 kg	0.8 kg

> Wheels

	FRP-23	FRP-24F
FEATURES	Wheel 4” Ø for 19” rack cabinet. Height 13 cm.	Same as mod. FRP-23, with brake.
DIMENSIONS	483 x 44.5 x 54 mm depth	483 x 44.5 x 45 mm depth
WEIGHT	0.78 kg	0.92 kg

> Thermostats

	T-FRA
FEATURES	Thermostat for 19” rack cabinets: FONESTAR series FRA. It allows to select the desired temperature from 0 to 60º, above which the fan of the 19” rack cabinet would be activated. Optimizes the fan, activating exclusively according to the needs of the user. On request, it is already installed on the upper right or left rear of the FONESTAR models: FRA-10U, FRA-20U, FRA-30U and FRA-40U.
MAXIMUM CONNECTION POWER	250 V AC, 10 (2) A 120 V AC, 15 (2) A 24-72 V DC, 30 W
MAXIMUM CONNECTION CURRENT	16 A CA, 10 s
HYSTERESIS	7 °K (ºC) (±4 °K (ºC) tolerance)
FIXATION	35 mm rail, EN 60715
DIMENSIONS	33 x 60 x 43 mm depth
WEIGHT	40 g

RACKS 19”
Accessories

> Screws

	FRP-17
FEATURES	Screw with plastic washer and caged nut for front mounting of equipment in 19” rack. Blister 30 u.

PACK 30 PCS.

> Fans

	FRW-FAN
FEATURES	Axial fan. Special for FONESTAR furniture series FRW and FRW2.
POWER SUPPLY	230 V AC
POWER	30.8 W 2.600 r.p.m.
DIMENSIONS	120 x 120 x 40 mm
WEIGHT	0.44 kg
ACCESSORIES	4 screws for equipment assembly

	VOUT-FRA
FEATURES	Module 2 fans for air outlet Installation at the top of the cabinet rack (OUT TOP)
POWER SUPPLY	230 V AC, 40 W
DIMENSIONS	298 x 45 x 150 mm
WEIGHT	1.7 kg

FLIGHT CASES

For speakers

	FAL-12	FAL-15
FEATURES	Flight case for acoustic screens. In coated plywood with foam inner lining, hermetically sealed lid, carrying handles, wheels with brakes and protective metal corners. Robust construction for transporting and protecting a variety of materials. Black finish.	
	Suitable for transport of 12” acoustic screens with the most common dimensions on the market.	Suitable for transport of 15” acoustic screens with the most common dimensions on the market.
CAPACITY	8 U rack 19” = 35.6 cm front 9 U rack 19” = 40.1 cm upper support	12 U rack 19” = 53.4 cm front 9 U rack 19” = 40.1 cm upper support
DIMENSIONS	External (with wheels): 50 x 89 x 45 cm depth Inside: 44 x 67 x 38.5 cm depth	External (with wheels): 56 x 100 x 52 cm depth Inside: 50 x 77 x 45.5 cm depth
WEIGHT	22.3 kg	26.4 kg
ACCESSORIES	Extra foam sheets	

	FAL-24D	FAL-30D
FEATURES	Flight case with Internal division for 2 acoustic screens. In coated plywood with foam inner lining, hermetically sealed lid, carrying handles, wheels with brakes and protective metal corners. Robust construction for transporting and protecting a variety of materials. Black finish.	
	Suitable for transport of 2 x 12” acoustic screens with the most common dimensions on the market.	Suitable for transport of 2 x 15” acoustic screens with the most common dimensions on the market.
CAPACITY	External (with wheels): 87 x 88 x 50 cm depth Internals (for each acoustic screen): 38.5 x 67 x 44 cm depth	External (with wheels): 101 x 99.5 x 56 cm depth. Internals (for each acoustic screen): 45.5 x 77 x 50 cm depth
DIMENSIONS	External (with wheels): 50 x 89 x 45 cm depth Inside: 44 x 67 x 38.5 cm depth	External (with wheels): 56 x 100 x 52 cm depth Inside: 50 x 77 x 45.5 cm depth
WEIGHT	32.2 kg	40 kg
ACCESSORIES	Extra foam sheets	

FLIGHT CASES

For TV screens

INTERNAL DIVISIONS

INTERNAL DIVISIONS

	FPL-50D	FPL-52XL
FEATURES	Flight case for 2 TVs up to 50". In coated plywood with foam lining, Internal with partitions for 2 plasma monitors and additional lateral space for 2 stands or other material; lid with hermetic seal, carrying handles, wheels with brake and protective metal corners. Robust structure. Black finish.	Flight case for 2 TVs up to 50". In coated plywood with foam lining; Internal with divisions for 2 TVs and additional lateral space for 2 supports or other material; lid with hermetic seal, carrying handles, wheels with brake and protective metal corners. Robust structure. Black finish.
DIMENSIONS	External: 132.5 x 97 x 55 cm depth Internals (for each TV): 125.5 x 76.5 x 12 cm depth Internals (for each support): 95.5 x 76.5 x 10.5 cm depth	External: 141 x 105 x 56 cm depth Internals (for each TV): 134 x 85 x 12.5 cm depth Internals (for each support): 97.5 x 85 x 10.5 cm depth
WEIGHT	61 kg	65 kg
ACCESSORIES	Extra foam sheets with velcro to adapt divisions	

FLIGHT CASES

Trunks

	FRC-261	FRC-262A
FEATURES	Flight case. In coated plywood, with 4 sliding drawers and hermetically sealed door, carrying handles and protective metal corners. Robust construction for transporting and protecting a variety of materials. Black finish.	Stackable transport trunk with cuvettes in top lid to stack trunks with wheels. In coated plywood with foam inner lining, hermetically sealed lid, carrying handles, wheels with brakes and protective metal corners. Robust construction for transporting and protecting a variety of materials. Black finish.
DIMENSIONS	External (with wheels): 53 x 91 x 59.5 cm depth Internals (small drawer): 44.5 x 12 x 46 cm depth Internals (large drawer): 44.5 x 22.5 x 46 cm depth	External (with wheels): 110.5 x 65 x 55.5 cm depth Inside: 106.5 x 46.5 x 51.5 cm depth
WEIGHT	46 kg	34 kg
MAXIMUM SUPPORTED WEIGHT	-	400 kg

FLIGHT CASES

Trunks

	FRC-263	FRC-265
FEATURES	Transport trunk without internal divisions. In coated plywood and foam inner lining, lid with airtight closure, transport handles, wheels with brake and metal protection edges. Robust construction for transporting and protecting a variety of materials. Black finish.	
DIMENSIONS	External (with wheels): 110.5 x 65 x 55.5 cm depth Inside: 106.5 x 46.5 x 51.5 cm depth	External (with wheels): 121 x 75.5 x 61 cm depth. Inside: 116.5 x 56.5 x 56.5 cm depth
WEIGHT	33.4 kg	40 kg
MAXIMUM SUPPORTED WEIGHT	400 kg	

	FRC-269
FEATURES	Transport trunk with internal divisions. In coated plywood and foam inner lining, lid with airtight closure, transport handles, wheels with brake and metal protection edges. Robust construction for transporting and protecting a variety of materials. Black finish.
DIVISIONS	4 Internal divisions of 47 x 35 x 55 cm high
DIMENSIONS	External (with wheels): 100.5 x 74.5 x 75.5 cm depth Inside: 97 x 55.5 x 72 cm depth
WEIGHT	45.5 kg
MAXIMUM SUPPORTED WEIGHT	400 kg

FLIGHT CASES

Trolley

	FRT-101
FEATURES	Trolley case for transporting and protecting a variety of materials. In coated plywood. Resistant wheels, metal protection edges and lid with hermetic closure. Robust structure. Black finish.
DIMENSIONS	External: 71.5 x 50 x 40 cm depth Inside: 67.5 x 37 x 36 cm depth
WEIGHT	16.5 kg

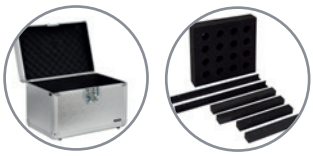
BRIEFCASES

Flight cases

	FRT-113	FRT-113M	FRT-115
FEATURES	Transport case with 4 internal divisions. In coated plywood. Lid with hermetic closure, transport handle and metal protection edges. Robust construction for transporting and protecting a variety of materials. Black finish.	Transport case for FONESTAR wireless microphone systems (not included). In coated plywood. Lid with hermetic closure, transport handle and metal protection edges. Internal foam structure that provides maximum support and protection of the wireless system. Robust structure. Black enamelled finish.	Transport case with 3 internal divisions for CD. In coated plywood. Lid with hermetic closure, transport handle and metal protection edges. Robust construction for transporting and protecting a variety of materials. Black finish
CAPACITY	-	For receiver, handheld microphone, flap microphone, antennas, cables, AC/DC adapter, batteries and handheld microphone caps	-
DIMENSIONS	External: 40 x 12 x 30 cm depth Inside: 37 x 10 x 28.3 cm depth with 4 dividers	External: 39.5 x 11.5 x 29.5 cm depth Inside: 37 x 10 x 28.3 cm depth	External: 44.5 x 19 x 42 cm depth Inside: 42.5 x 16.5 x 36 cm deep with 3 divisions of 13.5 x 15 x 36 cm
WEIGHT	2.1 kg	2.1 kg	3.5 kg

BRIEFCASES

Flight cases



	FRT-116	FRT-117	FRT-119
FEATURES	Transport suitcase. In coated plywood and foam inner lining. Lid with airtight closure, transport handle, rubber feet and metal protection edges. Robust construction for transporting and protecting a variety of materials. Black finish.	Carrying case with 16 holes for microphones and accessories. In coated plywood. Lid with hermetic closure, transport handle and metal protection edges. Robust construction for transporting and protecting of microphones and a variety of materials. Aluminum finish.	Transport suitcase. In coated plywood. Lid with hermetic closure, transport handle and metal protection edges. Robust construction for transporting and protecting a variety of materials. Black finish.
DIMENSIONS	External: 56.5 x 19.5 x 45 cm depth Inside: 53 x 16.2 x 41.5 cm depth	External: 47 x 32 x 31 cm depth Inside: 44.5 x 30 x 28.5 cm depth	External: 63 x 30 x 44 cm depth Inside: 60 x 26 x 41 cm depth
WEIGHT	6.9 kg	5.5 kg	6.5 kg

BRIEFCASES

Waterproof

	FMW-260	FMW-410
FEATURES	Waterproof transport case. Compact and robust, stackable, resistant to shock, dust and water. Lid with hermetic closure, pressure valve and folding transport handle. Degree of protection IP-67. Prepared for padlock. Metal parts in stainless steel. Construction in PP for transporting and protecting a variety of materials. Accepted as hand luggage in cabin. Pre-cut foam. Black finish.	Waterproof transport case. Compact and robust, stackable, resistant to shock, dust and water. Lid with hermetic closure, pressure valve and folding transport handle. Degree of protection IP-67. Prepared for padlock. Metal parts in stainless steel. Construction in ABS for transporting and protecting a variety of materials. Accepted as hand luggage in cabin. Pre-cut foam. Black finish.
PROTECTIONS	IP-67	
MAXIMUM SUPPORTED LOAD	5 kg	25 kg
MAXIMUM CAPACITY	5.72 l 5,720 cm^3	22.65 l 22650 cm^3
DIMENSIONS	External: 28.8 x 13 x 26 cm depth Inside: 26 x 11 x 20 cm depth	External: 44.4 x 19.9 x 36.9 cm depth Inside: 40.8 x 18.2 x 29.8 cm depth
WEIGHT	1.4 kg	3.2 kg

	FMW-450	FMW-520T
FEATURES	Waterproof transport case. Compact and robust, stackable, resistant to shock, dust and water. Lid with hermetic closure, pressure valve and folding transport handle. Degree of protection IP-67. Prepared for padlock. Metal parts in stainless steel. Construction in ABS for transporting and protecting a variety of materials. Accepted as hand luggage in cabin. Pre-cut foam. Black finish.	Waterproof transport case with trolley. Compact and robust, stackable, resistant to shock, dust and water. Lid with hermetic closure, pressure valve and folding transport handle. Degree of protection IP-67. Prepared for padlock. Metal parts in stainless steel. Construction in PP for transporting and protecting a variety of materials. Silent wheels and extendable handle of 35 mm max. Accepted as hand luggage in cabin on most airlines. Pre-cut foam. Black finish.
PROTECTIONS	IP-67	
MAXIMUM SUPPORTED LOAD	40 kg	
MAXIMUM CAPACITY	30.55 l 30550 cm3	27.8 l 27840 cm3
DIMENSIONS	External: 48.4 x 20.9 x 41.9 cm depth Inside: 45.2 x 19.2 x 35.2 cm depth	External: 55.9 x 22.9 x 36 cm depth Inside: 52.1 x 18.3 x 29.2 cm depth
WEIGHT	3.8 kg	5.3 kg

lighting
and effects

390

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DMX CONTROLLERS

Consoles

DMX 512 | SOUND ACTIVATION | AUTO/MANUAL

	DMX-83
FEATURES	DMX 512 controller with 192 channels. Allows independent control of 12 luminaires with up to 16 channels. 8 sliders assignable to channels 1 to 8 or 9 to 16 for each access. 6 chase memories with 184 programmable scenes each. The 184 scenes are divided into 23 memory banks of 8 scenes each. 8 direct selection scenes. Programmable automatic sequence controlled by speed and time faders. Manual control, automatic control or sound activation thanks to the built-in microphone. Blackout function.
OUTPUTS	DMX OUT, XLR 3 pins male
POWER SUPPLY	9-12 V DC, 300 mA with included adapter
DIMENSIONS	482 x 62 x 132 mm depth. 3 U rack 19”
WEIGHT	1.45 kg

DMX CONTROLLERS

Auxiliary equipment

	DTX-25
FEATURES	Wireless DMX 2.4 GHz transmitter. Allows wireless transmission of DMX control signals to the wireless DMX receiver mod DRX-24 (max 80 receivers). Simultaneous operation of up to 7 transmitter. Plug and play connection. Easy to use and install without cables. Operation indicator light.
TRANSMISSION DISTANCE	400 m maximum
INPUTS	DMX IN, XLR 3 pins male
POWER SUPPLY	5 V DC, 1 A with included adapter
DIMENSIONS	20 mm Ø x 220 mm depth
WEIGHT	80 g

	DRX-24
FEATURES	Wireless DMX 2.4 GHz receiver. Enables wireless reception of DMX control signals. Simultaneous operation of up to 80 receivers per DMX transmitter mod DTX-25. Plug and play connection. Easy to use and install without cables. Operation indicator light.
OUTPUTS	DMX OUT, XLR 3 pins female
POWER SUPPLY	5 V DC, 1 A with included adapter
DIMENSIONS	20 mm Ø x 220 mm depth
WEIGHT	80 g

STATIC LIGHTING

LED bars

24 CH DMX | DMX 512 | RGB. | SOUND ACTIVATION | AUTO/MANUAL

	BAR-73L
FEATURES	RGB LED bar. Individually controllable LEDs in groups of 12, 6 or 3. Operation in automatic, manual mode (colour adjustment, white strobe), sound activation, DMX control and master/slave. Colour, strobe and operation mode selection via built-in display. Colour selection, dimmer, strobe, effects and transition speed adjustable via DMX controller. Wall mount or cantilevered mount. Compact metal housing 1 meter long. Ideal for small-medium venues, halls, exhibitions and events. Installation can be extended with cascade connection. Built-in microphone.
LED	24 x 3 W, RGB LED (3 in 1)
DMX CHANNELS	2, 3, 4, 6, 7, 12 or 24 channels
INPUTS	DMX IN, XLR 3-pin
OUTPUTS	DMX OUT, XLR 3 PINS POWER OUT, 4 A MAX
CONTROLS	Configuration screen
POWER SUPPLY	100-240 V AC, 80 W
DIMENSIONS	1,020 x 65 x 65 mm depth
WEIGHT	1.7 kg
ACCESSORIES	Swivelling fixing brackets

STATIC LIGHTING

PAR spotlights

8 CH DMX · DMX 512 · RGBW · SOUND ACTIVATION · AUTO/MANUAL · 8 CH DMX · DMX 512 · RGBW · SOUND ACTIVATION · AUTO/MANUAL

	PAR-BE60L	PAR-70L
FEATURES	PAR Bee Eye LED RGBW 2 in 1 spotlight. LEDS contained in 6 lenses with hexagonal design. Kaleidoscopic effects Movement of the lens assembly in both directions. Operation in automatic, manual mode (colour, dimmer and effect adjustment), sound activation, DMX control and master/slave. Colour selection, strobe, rotation and operating mode via integrated display. Colour selection, dimmer, rotation, strobe, effects and transition speed adjustable via DMX controller. Robust metal housing and fixing bracket with double arc for ground or overhead mounting. Ideal for small-medium stages, halls and events. Installation can be extended with cascade connection. Built-in microphone.	RGBW flat PAR LED spotlight. Operation in automatic, manual (colour and white strobe adjustment), sound activated, DMX control and master/slave mode. Colour, strobe and operation mode selection via built-in display. Colour, dimmer, strobe and transition speed adjustment via DMX controller. Small dimensions and lightweight case. Rubber feet at the bottom for upward illumination. Double-arch mounting bracket for floor placement or overhead anchorage. Ideal for small scenarios and portable parties. Installation can be extended with cascade connection. Built-in microphone.
LED	6 x 10 W, RGBW (4 in 1)	7 x 10 W, RGBW LED (4 in 1)
DMX CHANNELS	5, 6 or 8, selectable	4 or 8, selectable
INPUTS	DMX IN, XLR 3-pin	DMX IN, XLR 3-pin
OUTPUTS	DMX OUT, XLR 3-pin	DMX OUT, XLR 3 PINS POWER OUT, 4.5 A MAX
CONTROLS	Configuration screen	Configuration screen
POWER SUPPLY	110-240 V AC, 70 W	110-240 V AC, 70 W
DIMENSIONS	165 x 165 x 165 x 165 mm depth	176 x 178 x 111 mm depth
WEIGHT	1.75 kg	0.65 kg
ACCESSORIES	Fixing bracket with double arc for ground mounting or overhanging anchorage	Fixation support with double arc

STATIC LIGHTING

PAR spotlights

8 CH DMX · DMX 512 · RGBW · SOUND ACTIVATION · AUTO/MANUAL · IP 65 · 8 CH DMX · DMX 512 · RGBW · SOUND ACTIVATION · AUTO/MANUAL

	PAR-189AL	PAR-192WAL
FEATURES	RGBW extra flat PAR LED spotlight. Operation in automatic, manual (colour and strobe adjustment), sound activation, DMX control, master/slave mode. Colour, strobe and operation mode selection via built-in display. Colour, dimmer, strobe and transition speed adjustment via DMX controller. Extra-flat design and sturdy aluminium housing. Double-arch mounting bracket for floor placement or overhead anchorage. Ideal for small-medium stages, halls and events. Installation can be extended with cascade connection. Built-in microphone.	RGBW flat PAR LED spotlight. Outdoor use, IP-65 protection. Operation in automatic, manual (colour and strobe adjustment), sound activation, DMX control, master/slave mode. Colour, strobe and operation mode selection via built-in display. Colour, dimmer, strobe and transition speed adjustment via DMX controller. Robust aluminium housing. Double-arch mounting bracket for floor placement or overhead anchorage. Ideal for small-medium stages, halls and events. Installation can be extended with cascade connection. Built-in microphone.
LED	18 x 10 W, LED RGBW (4 in 1)	
DMX CHANNELS	4 or 8, selectable	
INPUTS	DMX IN, XLR 3-pin	DMX IN, XLR 3-pin, waterproof cable, 1 m POWER IN, 4 A max, waterproof cable, 1 m
OUTPUTS	DMX OUT, XLR 3-PIN POWER OUT, 4 A MAX	DMX OUT, XLR 3-pin, waterproof cable, 1 m POWER OUT, 4 A max, waterproof cable, 1 m
CONTROLS	Configuration screen	Configuration screen
POWER SUPPLY	100-240 V AC, 200 W, power connector with locking device	100-240 V AC, 180 W, waterproof cable, 1 m
DIMENSIONS	270 x 220 x 70 mm depth	290 x 220 x 140 mm depth
WEIGHT	2.3 kg	4.6 kg
ACCESSORIES	Fixing bracket with double arc for ground mounting or overhanging anchorage	Schuko power cable to POWER connector waterproof 1 DMX cable with XLR to XLR waterproof connector 1 m Fixing bracket with double arc for ground mounting or overhanging anchorage

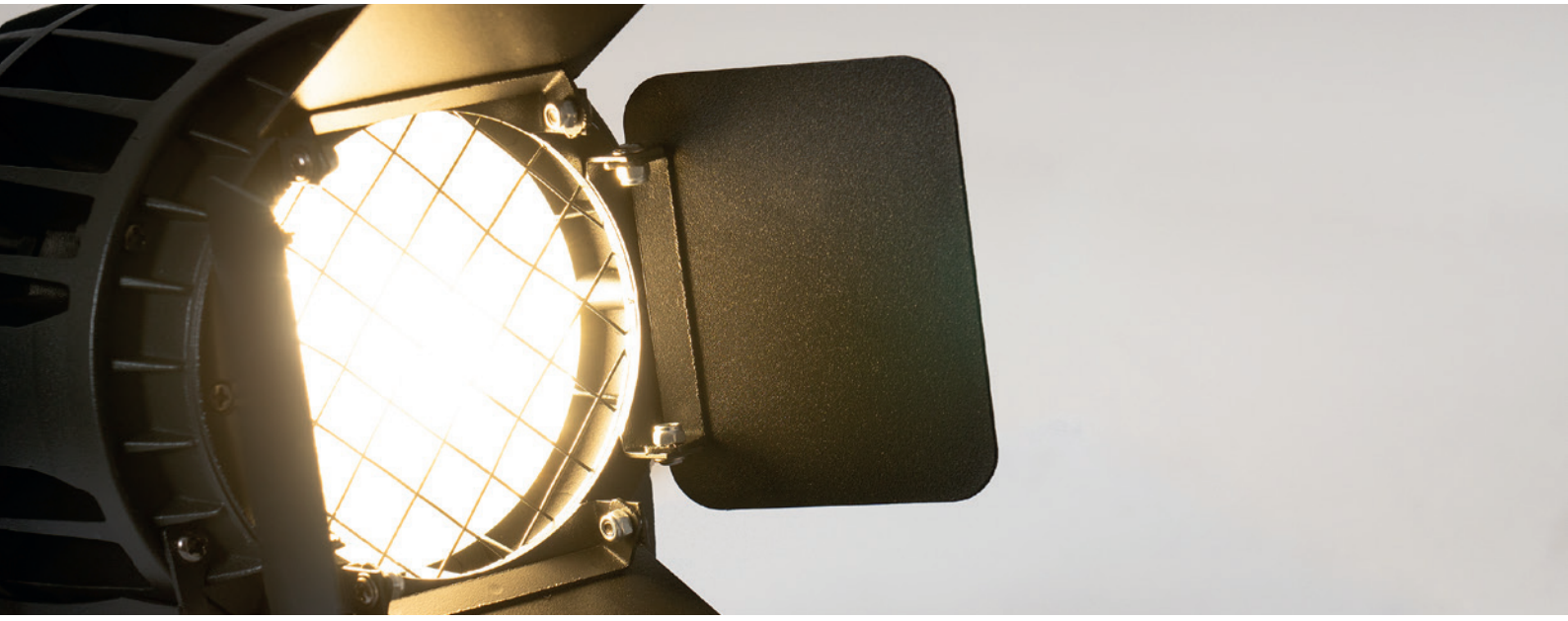
STATIC LIGHTING

PAR spotlights

	PAR-155CL
FEATURES	PAR LED COB WHITE spotlight. COB LED technology, supports long periods of operation, optimal heat management. High power light for professional stage and object lighting. Operation in manual DMX control or master/slave mode. Selection of light intensity, strobe and operating mode via integrated display. Dimmer and strobe selection via DMX controller. Rubber feet on the bottom for installation on flat surfaces. Double-arch mounting bracket for floor placement or overhead anchorage. Includes protective grille and visors to limit the light beam. Ideal for professional installations: stages, theatres, exhibitions, concerts, etc. Extendable installation with cascade connection.
LED	1 x 150 W, LED COB WHITE
COLOUR TEMPERATURE	3,000-3,200 °K
BEAM ANGLE	60
ILLUMINANCE	2,400 lx (3 m)
LIGHT FLOW	8.500 lm
STROBOSCOPE	0-25 Hz
DMX CHANNELS	1 or 3, selectable
INPUTS	DMX IN, XLR 3-pin
OUTPUTS	DMX OUT, XLR 3-pin
CONTROLS	Configuration screen
POWER SUPPLY	100-240 V AC, 150 W, power connector with locking device
DIMENSIONS	180 x 150 x 180 mm depth
WEIGHT	2.7 kg
ACCESSORIES	Swivelling fixing bracket Visors and protective grid

3 CH DMX

DMX 512



MOBILE LIGHTING

Mobile heads

	MOV-6060L	MOV-72L
FEATURES	Moving Head Spot Wash LED 2 in 1 6 RGBW LED and 1 LED White Light. Combines 2 devices in 1 housing. Central LED: 7 colors + white and 7 gobos (patterns). Great amplitude of movement (horizontal and vertical). Indicated for lighting scenarios and performing lighting effects with selectable patterns. Operation in automatic mode, sound activation, DMX control and master/slave. Selection of operating mode and special settings (movements and screen) via integrated display. Colour selection, dimmer, gobos, strobe, tilt and pan movements via DMX controller. Save time and space on stage. Cooling by fan. Black metal and plastic body. Rubber feet for surface mounting and mounting bracket. Built-in microphone.	Wash LED RGBW moving head. Great amplitude of movement (horizontal and vertical). Indicated to illuminate scenarios and perform lighting effects. Operation in automatic mode, sound activation, DMX control and master/slave. Selection of operating mode and special settings (movements and screen) via integrated display. Colour selection, strobe, tilt and pan movements via DMX controller. Robust construction and reduced dimensions. Bright colors. Ideal for exhibitions, stages, halls and events. Cooling by fan. Black metal and plastic body. Installation can be extended with cascade connection. Rubber feet for surface mounting and mounting bracket. Built-in microphone.
LED	6 x 10 W, LED RGBW 1 x 60 W, LED WHITE	7 x 10 W, LED RGBW
HORIZONTAL MOVEMENT PAN	540	540
VERTICAL MOVEMENT TILT	180	180
DMX CHANNELS	13 or 18, selectable	9 or 14, selectable
INPUTS	DMX IN, XLR 3-pin	DMX IN, XLR 3-pin
OUTPUTS	DMX OUT, XLR 3-pin	DMX OUT, XLR 3-pin
CONTROLS	Configuration screen	Configuration screen
POWER SUPPLY	100-240 V AC, 120 W	100-240 V AC, 150 W
DIMENSIONS	160 x 230 x 130 mm depth	180 x 250 x 175 mm depth
WEIGHT	2.15 kg	2.5 kg
ACCESSORIES	Fixing bracket	Fixing bracket

ACCESSORIES

Fog machines

8 minutes. RGB. 3x3) 3.5m 0.25 4 minutes. RGB. 6x3) 3m 1 4 minutes. RGB. 6x3) 5m 2.5

	FOG-4LED	FOG-9LED	FOG-15LED
FEATURES	Fog machine with 3 RGB LEDs. 400 W of power. Combine the lighting effects of its 3 RGB LEDs with fog to create a variety of environments. RF remote control. Constant output volume. Warm-up time: 8 minutes. Automatic thermostat. Use the remote control to select the colour of the lights and to activate the fog Suitable for parties, theatres and small venues.	Fog machine with 6 RGB LEDs. 900 W of power. Combine the lighting effects of its 6 RGB LEDs with fog to create a variety of environments. RF remote control. Constant output volume. Warm-up time: 3 to 4 minutes. Automatic thermostat. Use the remote control to select the colour of the lights and to activate the fog Ideal for small to medium scenarios, themed activities and rooms.	Fog machine with 6 RGB LEDs. 1500 W of power. Combine the lighting effects of its 6 RGB LEDs with fog to create a variety of environments. RF remote control Constant output volume. Warm-up time: 3 to 4 minutes. Automatic thermostat. Use the remote control to select the colour of the lights and to activate the fog Ideal for medium-large theatres, halls and events.
POWER	400 W	900 W	1.500 W
LED	3 x 3 W, RGB LED (3 in 1)	6 x 3 W, LED RGB	6 x 3 W, LED RGB
INPUTS	Remote cable, XLR		
DEPOSIT CAPACITY	0.25 litres	1 liter	2.5 liters
BLAST RANGE	3.5 m	3 m	5 m
OUTPUT VOLUME	60 m³/min	170 m³/min	340 m³/min
POWER SUPPLY	110/230 V AC, 400 W	100-240 V AC, 900 W	100-240 V AC, 1,500 W
DIMENSIONS	122 x 130 x 244 mm depth	260 x 190 x 346 mm depth	300 x 220 x 468 mm depth
WEIGHT	1.4 kg	3.2 kg	5.2 kg
ACCESSORIES	Swivelling fixing bracket RF remote control		

ACCESSORIES

Fog liquids

	FOG-LIQUID22
FEATURES	Bottle of 5 liters of liquid for fog machine. Hig density and long permanence. Odorless, non-toxic, non-flammable and safe liquid.

ACCESSORIES
Bubble machines

	BUBBLE-20
FEATURES	Bubble machine. 20 W of power. Constant and high bubble flow by means of a fan. Automatic or manual operating mode, via RF remote control
DEPOSIT CAPACITY	0.6 liters
REACH	2 m
POWER SUPPLY	230 V AC, 20 W
DIMENSIONS	236 x 210 x 206 mm depth
WEIGHT	1.65 kg
ACCESSORIES	Swivelling fixing bracket RF remote control
OPTIONAL	BUBBLE-FX: Bubble machine liquid

ACCESSORIES
Bubble liquids

	BUBBLE-FX
FEATURES	Bubble machine liquid. Odorless, colorless, non-toxic, non-flammable and safe. Suitable for all types of bubble machines. Ready to use
FORMAT	5 liters

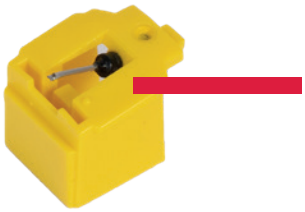
ACCESSORIES
Mounts

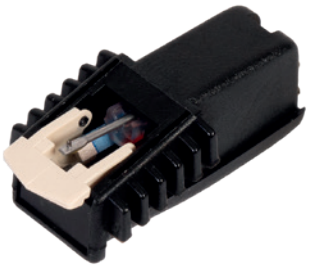
	HK-60
FEATURES	Hook for lights to use with tube of 60 mm Ø max. Built in iron, finished in black.
MAXIMUM SUPPORTED WEIGHT	22 kg
WEIGHT	0.2 kg

	RL-401
FEATURES	Light stand with 3-legged folding base. 35 mm upper tube. 1.2 m horizontal bar with 4 hooks. 30 cm between hooks. Built in iron, black finish.
MAXIMUM SUPPORTED WEIGHT	30 kg
WEIGHT	6.4 kg
HEIGHT	Adjustable 146 to 317 cm
ACCESSORIES	Fixing screws for lights

needles
and phonocapsules

400





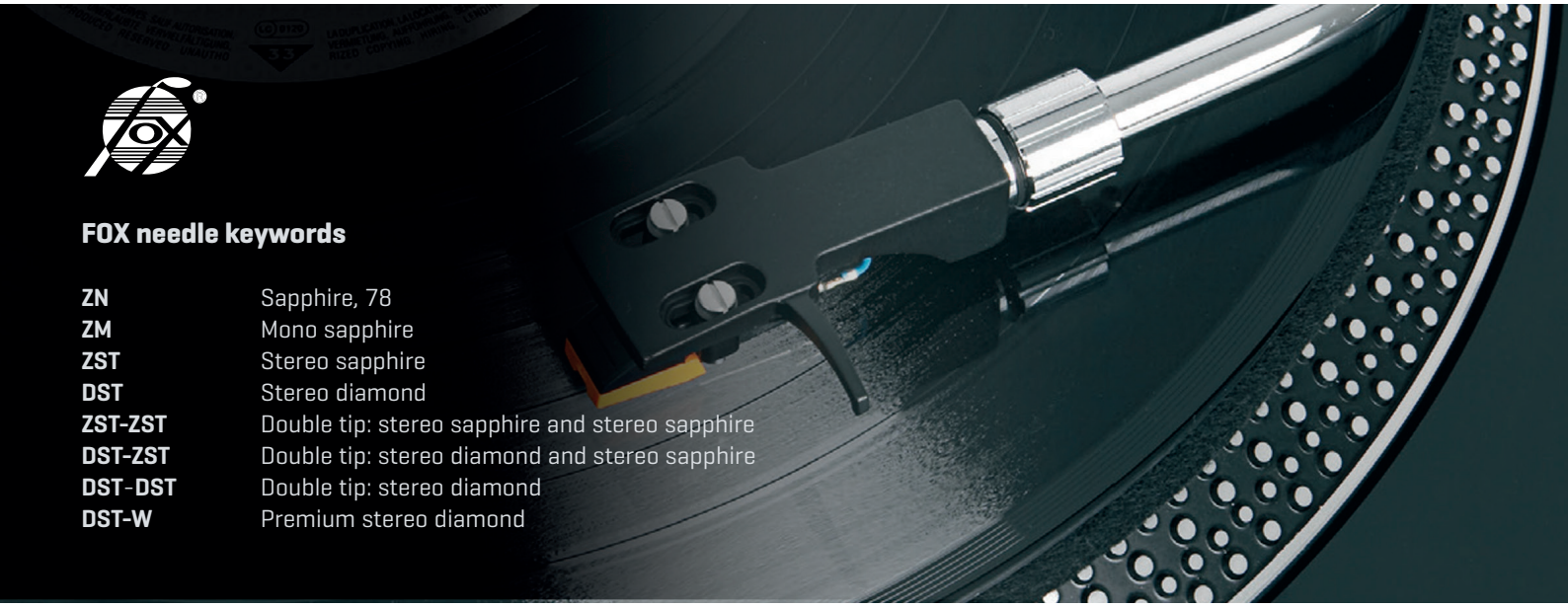
402 TURNTABLE NEEDLES
402 Phonographic and magnetic

414 PHONOCAPSULES
414 Magnetic
414 Ceramics

415 TURNTABLE ACCESSORIES
415 Accessories

TURNTABLE NEEDLES

Phonographic and magnetic



FOX needle keywords

ZN	Sapphire, 78
ZM	Mono sapphire
ZST	Stereo sapphire
DST	Stereo diamond
ZST-ZST	Double tip: stereo sapphire and stereo sapphire
DST-ZST	Double tip: stereo diamond and stereo sapphire
DST-DST	Double tip: stereo diamond
DST-W	Premium stereo diamond

NEEDLE-CAPSULE MODEL	000
	Steel Standard 78 Box 10 u.

> ADC

NEEDLE-CAPSULE MODEL	592
	QLM-30/32/34/36 MK III

> AIWA

NEEDLE-CAPSULE MODEL	518
	AN-6

NEEDLE-CAPSULE MODEL	618
	AN-36, EM-36

NEEDLE-CAPSULE MODEL	666
	AN-71

NEEDLE-CAPSULE MODEL	710
	AT-3410, ATN-3410

NEEDLE-CAPSULE MODEL	712
	AN-7

NEEDLE-CAPSULE MODEL	786
	AN-11

NEEDLE-CAPSULE MODEL	833
	AN-10, AN-20

> AKAI

NEEDLE-CAPSULE MODEL	540
	APN-2, APN-4, APN-5

NEEDLE-CAPSULE MODEL	710
	RS-83

TURNTABLE NEEDLES

Phonographic and magnetic

NEEDLE-CAPSULE MODEL	786
	RS-82

NEEDLE-CAPSULE MODEL	832
	RS-33, RS-35

> AUDIO TECHNICA

NEEDLE-CAPSULE MODEL	540
	AT-VM8, VM8-7D, AT-10/10L, AT-12, ATS-10/10L, ATS-12C, AT-MG35V, CN-2316R

NEEDLE-CAPSULE MODEL	666
	AT-71/71E, ATN-71/71E, AT-770/770L/771, ATN-770/770L/771

NEEDLE-CAPSULE MODEL	710
	AT-3410, ATN-3410

NEEDLE-CAPSULE MODEL	712
	AT-3711/3711E ATN-3711/3711E

NEEDLE-CAPSULE MODEL	786
	AT-3601/3601E, ATN-3601/3601E, AT-3651/3651E, ATN-3651/3651E, AT-3652/3652E, ATN-3652/3652E, ATN-2001/2002/ 2003/2004/ 2005/2006, AT-91, ATN-91

NEEDLE-CAPSULE MODEL	832
	ATN-3472P/3472EP, ATN-3482P, ATN-3492P/3492EP

> B.S.R

NEEDLE-CAPSULE MODEL	168
	ST3, ST4, ST5, ST6

NEEDLE-CAPSULE MODEL	201
	ST16, ST17

NEEDLE-CAPSULE MODEL	786
	ATN-3600L

> CEC CHUO DENKI

NEEDLE-CAPSULE MODEL	540
	MC-12S

NEEDLE-CAPSULE MODEL	666
	VC-10S

NEEDLE-CAPSULE MODEL	786
	MM-8

NEEDLE-CAPSULE MODEL	832
	N-103

NEEDLE-CAPSULE MODEL	833
	MG-1730 CN-213, MG-1930 CN-213, MG-1745 CN-222 Moving magnet

NEEDLE-CAPSULE MODEL	890
	MG-2400 CN-219, MG-2432 CN-232, MG-2461 CN-235, CN-224 Moving magnet

TURNTABLE NEEDLES

Phonographic and magnetic

NEEDLE-CAPSULE MODEL	916
	CZ-800, 6-2339, 6-2362 Plastic stem

NEEDLE-CAPSULE MODEL	963
	MG-2531, CN-234, MG-2571, CN-253

NEEDLE-CAPSULE MODEL	970
	CZ-800-3, 4, 7 Metal stem

> COSMO

NEEDLE-CAPSULE MODEL	242
	MK-23 STEREO (long)

NEEDLE-CAPSULE MODEL	382
	Short Cosmo

> DENON

NEEDLE-CAPSULE MODEL	540
	DSN-28/30

NEEDLE-CAPSULE MODEL	666
	DSN-39/39C

NEEDLE-CAPSULE MODEL	710
	ATN-3400

NEEDLE-CAPSULE MODEL	786
	DSN-72, YM-78K

NEEDLE-CAPSULE MODEL	833
	DSN-66 Moving magnet

NEEDLE-CAPSULE MODEL	916
	SJN-68

> DUAL

NEEDLE-CAPSULE MODEL	123
	CDS-520, CDS-521, CDS-320, DN-3, DN-34, DN-32

NEEDLE-CAPSULE MODEL	191
	DN-5, DN-55, DN-56, CDS-620, CDS-630

NEEDLE-CAPSULE MODEL	303
	D-305/306 (SH-44)

NEEDLE-CAPSULE MODEL	305
	D-325 (SH-71)

NEEDLE-CAPSULE MODEL	308
	FOX 4010, 4012 Mg

NEEDLE-CAPSULE MODEL	375
	DN-6, DN-64, DN-7, CDS-640, CDS-650/656

NEEDLE-CAPSULE MODEL	484
	DN-360/365 (SH-95G), DN-362/370 (SH-105ED)

TURNTABLE NEEDLES

Phonographic and magnetic

	540
NEEDLE-CAPSULE MODEL	D-201

	786
NEEDLE-CAPSULE MODEL	FOX 4034, DN-239, DN-235

	832
NEEDLE-CAPSULE MODEL	DN-450, MMP-450, P-MOUNT

> EMPIRE

	723
NEEDLE-CAPSULE MODEL	800 II, 900 II, 1000 STI

> FOX

	025
NEEDLE-CAPSULE MODEL	GP-200/204/205/224/230/235/300/306/310, AG-3306/3310 2138/2173

	048
NEEDLE-CAPSULE MODEL	FOX 2183, 2185

	076
NEEDLE-CAPSULE MODEL	FOX 2142

	123
NEEDLE-CAPSULE MODEL	FOX 2110

	135
NEEDLE-CAPSULE MODEL	FOX 2505, 2506, 2508, 2517

	168
NEEDLE-CAPSULE MODEL	FOX 2156

	191
NEEDLE-CAPSULE MODEL	DN-5, DN-55, DN-56, CDS-620, CDS-630, 2115/2116/2141

	201
NEEDLE-CAPSULE MODEL	FOX 2122, 2123, 2132

	305
NEEDLE-CAPSULE MODEL	FOX 4024 Mg W

	308
NEEDLE-CAPSULE MODEL	FOX 4010, 4012 Mg

	375
NEEDLE-CAPSULE MODEL	FOX 2198, 2199, 2500, 2501

	381
NEEDLE-CAPSULE MODEL	FOX 2167, 2168 One tip

	401
NEEDLE-CAPSULE MODEL	FOX 2125, 2126

	786
NEEDLE-CAPSULE MODEL	FOX 4034

	832
NEEDLE-CAPSULE MODEL	FOX 4032

	833
NEEDLE-CAPSULE MODEL	FOX 4030 Moving magnet

TURNTABLE NEEDLES

Phonographic and magnetic

NEEDLE-CAPSULE MODEL	890
	FOX 4028, MG-2400 Moving magnet

NEEDLE-CAPSULE MODEL	916
	FOX 2511 Plastic stem

NEEDLE-CAPSULE MODEL	970
	FOX 2511, 2512 Metal stem

> HITACHI

NEEDLE-CAPSULE MODEL	048
	HN-ST2, DS-ST9

NEEDLE-CAPSULE MODEL	168
	DS-ST4

NEEDLE-CAPSULE MODEL	540
	DS-ST26

NEEDLE-CAPSULE MODEL	710
	DS-ST-35, 36, 41

NEEDLE-CAPSULE MODEL	786
	DS-ST7, DS-ST20

NEEDLE-CAPSULE MODEL	832
	DS-ST-12, MT-12, DS-ST14, DS-ST18, RT-8500

> JVC (INVICO)

NEEDLE-CAPSULE MODEL	540
	DT-31

NEEDLE-CAPSULE MODEL	710
	ATN-3400

NEEDLE-CAPSULE MODEL	786
	DT-55, DT-55 II, DT-55W

NEEDLE-CAPSULE MODEL	832
	DT-45/45E, DT-57

> KENWOOD (TRIO)

NEEDLE-CAPSULE MODEL	540
	N-32, N-33

NEEDLE-CAPSULE MODEL	666
	N-48

NEEDLE-CAPSULE MODEL	710
	N-52

NEEDLE-CAPSULE MODEL	832
	N-63

NEEDLE-CAPSULE MODEL	890
	N-68

> LENCO

NEEDLE-CAPSULE MODEL	305
	M-70, M-75

TURNTABLE NEEDLES

Phonographic and magnetic

> LUXMAN

NEEDLE-CAPSULE MODEL	540
	ATS-11

NEEDLE-CAPSULE MODEL	666
	ATN-71E

NEEDLE-CAPSULE MODEL	712
	ATN-3710, ATN-3711

NEEDLE-CAPSULE MODEL	786
	ATN-3601

> MAGNAVOX

NEEDLE-CAPSULE MODEL	540
	560336

NEEDLE-CAPSULE MODEL	592
	560437-0021

NEEDLE-CAPSULE MODEL	666
	560369

NEEDLE-CAPSULE MODEL	710
	560429

NEEDLE-CAPSULE MODEL	786
	251300-71

NEEDLE-CAPSULE MODEL	832
	560437-0111

NEEDLE-CAPSULE MODEL	840
	251300-79, 251300-81

> MARANTZ

NEEDLE-CAPSULE MODEL	666
	500S

NEEDLE-CAPSULE MODEL	710
	CT-55, 1200, 2000, 3000, ATN-3400

NEEDLE-CAPSULE MODEL	712
	CT-6S, ATN-3711E

NEEDLE-CAPSULE MODEL	746
	TT-153, CT-153

NEEDLE-CAPSULE MODEL	832
	TT-140/240, CT-165, TT-430, CT-440

> NEC

NEEDLE-CAPSULE MODEL	540
	LP-7000D

NEEDLE-CAPSULE MODEL	666
	LP-6000D

NEEDLE-CAPSULE MODEL	710
	ATN-3410, LP-335D, LP-355D

NEEDLE-CAPSULE MODEL	832
	LP-444D

TURNTABLE NEEDLES

Phonographic and magnetic

> ONKYO

NEEDLE-CAPSULE MODEL	540
	DN-27ST, DN-32ST

NEEDLE-CAPSULE MODEL	618
	DN-107

NEEDLE-CAPSULE MODEL	666
	DN-35ST

NEEDLE-CAPSULE MODEL	710
	DN-52ST, ATN-3400

NEEDLE-CAPSULE MODEL	712
	DN-201ST

NEEDLE-CAPSULE MODEL	786
	DN-61STE, OC-61VE, DN-63STE, DN-65ST, OC-65V, DN-68ST (without protector)

> PATHE

NEEDLE-CAPSULE MODEL	135
	STC7, STCS, STC41S, STC1000S, STC-2000S

NEEDLE-CAPSULE MODEL	540
	ATS-10, MG-35

NEEDLE-CAPSULE MODEL	666
	ATN-71

NEEDLE-CAPSULE MODEL	710
	ST-35

NEEDLE-CAPSULE MODEL	746
	TT-153, CT-153, EPS-202E

NEEDLE-CAPSULE MODEL	786
	ATN-3600

> PHILIPS

NEEDLE-CAPSULE MODEL	025
	GP-200/204/205/224/230/235/300/306/310, AG-3306/3310

NEEDLE-CAPSULE MODEL	378
	GP-400, GP-401

NEEDLE-CAPSULE MODEL	540
	ST-35VD, ST-36VD

NEEDLE-CAPSULE MODEL	606
	GP-400 Súper M Mark-II

NEEDLE-CAPSULE MODEL	618
	GP-371

NEEDLE-CAPSULE MODEL	710
	GP-499

NEEDLE-CAPSULE MODEL	723
	GP-401 III, AGIIIB

TURNTABLE NEEDLES

Phonographic and magnetic

NEEDLE-CAPSULE MODEL	786
	GP-780, ATN-3626

NEEDLE-CAPSULE MODEL	840
	GP-330, GP-331, GP-350, GP-351

NEEDLE-CAPSULE MODEL	916
	F-1260 Compacto, F-1650, F-1652, P-284 Plastic stem

NEEDLE-CAPSULE MODEL	970
	Compactos. Metal stem

> PIONEER

NEEDLE-CAPSULE MODEL	710
	PN-200, PC-220

NEEDLE-CAPSULE MODEL	786
	PN-210, PN-230, PN-240

NEEDLE-CAPSULE MODEL	832
	PN-250T, PN-295T, PC-295T, PN-305T, PC-305T

> SAMSUNG

NEEDLE-CAPSULE MODEL	916
	SM-Q500 Compact

> SANSUI

NEEDLE-CAPSULE MODEL	540
	SN-43

NEEDLE-CAPSULE MODEL	710
	SN-202

NEEDLE-CAPSULE MODEL	786
	SN-111, ATN-3601, ATN-3361, ATN-3362

NEEDLE-CAPSULE MODEL	832
	SN-P313, P515, SN-323

> SANYO (FISHER)

NEEDLE-CAPSULE MODEL	168
	ST-3D, ST-4D

NEEDLE-CAPSULE MODEL	540
	ST-35VD, ST-36VD

NEEDLE-CAPSULE MODEL	618
	ST-48D, MG-48, ST-107, DCW 4800 VM

NEEDLE-CAPSULE MODEL	666
	ST-26Y

NEEDLE-CAPSULE MODEL	710
	ST-42D

TURNTABLE NEEDLES

Phonographic and magnetic

712
NEEDLE-CAPSULE MODEL: ST-53D, ST-53ZD

786
NEEDLE-CAPSULE MODEL: ST-L5D, ST-40

832
NEEDLE-CAPSULE MODEL: ST-F8D, ST-M11, ST-44J, ATN-3472PS

833
NEEDLE-CAPSULE MODEL: ST-G10 Moving magnet

890
NEEDLE-CAPSULE MODEL: ST-66D, MG-66 Moving magnet

916
NEEDLE-CAPSULE MODEL: ST-W3J, ST-04D, ST-05, ST-141, ST-140D

963
NEEDLE-CAPSULE MODEL: ST-09D, STW-17J

971
NEEDLE-CAPSULE MODEL: SA-111-10D

618
NEEDLE-CAPSULE MODEL: STY-117, CART-117

666
NEEDLE-CAPSULE MODEL: STY-115

710
NEEDLE-CAPSULE MODEL: STY-118

786
NEEDLE-CAPSULE MODEL: STY-138, STY-140, STY-142, N-7900

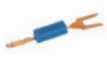
832
NEEDLE-CAPSULE MODEL: STY-131

833
NEEDLE-CAPSULE MODEL: STY-143, STY-147, STY-148

916
NEEDLE-CAPSULE MODEL: STY-146

963
NEEDLE-CAPSULE MODEL: STY-152, STY-153, STY-158

> SHARP



048
NEEDLE-CAPSULE MODEL: STY-134

540
NEEDLE-CAPSULE MODEL: N-20D, STY-202

> SHURE

303
NEEDLE-CAPSULE MODEL: M-44, N-44-5/ 44-7/44C/44G/44E, 24-0044, M98, M98A

TURNTABLE NEEDLES

Phonographic and magnetic

305
NEEDLE-CAPSULE MODEL: M-75, N-75, TM-1S, R7C, M-71/71C/ 71EB/71EMB/71MB/ 71MC, M-71-6, N-71, M-73G/73MG, N-73/ 74C/75C/75-6, M-81CS/81ECS/ 81MC, AV200C, RM930C

308
NEEDLE-CAPSULE MODEL: M-91, N-91/91G/ 91GD/92G, DM-101MG

484
NEEDLE-CAPSULE MODEL: 95-ED, 95-EJ, 95-G, N95ED, M95H, M-95HE, M98, EDT2, 105-ED, M115ED, D362/370, RM950ED, M959ED, M995ED, R9000E, E-LWS

578
NEEDLE-CAPSULE MODEL: M-70, N-70/ 70-3/70B/70EJ, M78EDT2, M110E, ME910EJ

580
NEEDLE-CAPSULE MODEL: SC-35C, SS-35C

> SIEMENS

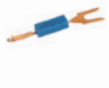
592
NEEDLE-CAPSULE MODEL: QLM-30 MK III

666
NEEDLE-CAPSULE MODEL: ATN-70

710
NEEDLE-CAPSULE MODEL: RW-150

786
NEEDLE-CAPSULE MODEL: RS-326

> SONY



048
NEEDLE-CAPSULE MODEL: ND-116P

540
NEEDLE-CAPSULE MODEL: ND-129G

598
NEEDLE-CAPSULE MODEL: ND-15, XL-15

666
NEEDLE-CAPSULE MODEL: ND-139G

710
NEEDLE-CAPSULE MODEL: ND-138G

712
NEEDLE-CAPSULE MODEL: ND-5G

747
NEEDLE-CAPSULE MODEL: ND-150G, XL-150

786
NEEDLE-CAPSULE MODEL: ND-142G/142EP/ 142EY, VL-24G

832
NEEDLE-CAPSULE MODEL: ND-145G

TURNTABLE NEEDLES

Phonographic and magnetic

844
NEEDLE-CAPSULE MODEL: ND-250G, ND-250E, XL-250E

916
NEEDLE-CAPSULE MODEL: ND-152P

963
NEEDLE-CAPSULE MODEL: CN-234

> STANTON

640
NEEDLE-CAPSULE MODEL: D-6800EL, D-681EL

965
NEEDLE-CAPSULE MODEL: 500 AL, PRO-Disco, D-5107 AL

> EAC

540
NEEDLE-CAPSULE MODEL: ATS-10

666
NEEDLE-CAPSULE MODEL: ATN-71

786
NEEDLE-CAPSULE MODEL: N-707

832
NEEDLE-CAPSULE MODEL: PCS-708

> TECHNICS (NATIONAL) (PANASONIC)

518
NEEDLE-CAPSULE MODEL: EPS 52ST/ 53ST/56ST, EPS-270, EPS-290

540
NEEDLE-CAPSULE MODEL: EPS-31 STSD, EPS-31 SPSD, EPS-34 STSD

666
NEEDLE-CAPSULE MODEL: PS-39 STSD/EPS-74 STSD/STED/STGSD /STGED, EPC-78 SMAD

710
NEEDLE-CAPSULE MODEL: EPS-75STCSD, EPS-75TFSD, EPS-76STED, EPS-77STSD

712
NEEDLE-CAPSULE MODEL: EPS-76 STSD

746
NEEDLE-CAPSULE MODEL: PS-23CS/23ES, EPC-P23CS/P23ES, EPS-24CS, EPC-U24CS/U24ED/ U24E, EPS-25CS/25ES, EPC-U25CS/U25ES/ U25ED, EPS-27CS/27ES/ 28CS/28ED, EPC-P27/P28, EPS-51CS, EPS-53CS/53ES, EPC-P53CS/P53ES, EPS-P202, EPC-P202CB/ P202ED, EPS-22

786
NEEDLE-CAPSULE MODEL: EPS-43STSD

832
NEEDLE-CAPSULE MODEL: EPS-71CS, EPS-91 SMAD, ATN-3462P

> TELEFUNKEN

076
NEEDLE-CAPSULE MODEL: FOX 2142

TURNTABLE NEEDLES

Phonographic and magnetic

NEEDLE-CAPSULE MODEL	540
	ATS-12C

NEEDLE-CAPSULE MODEL	666
	ATN-71

NEEDLE-CAPSULE MODEL	710
	AT-3410, S-50, S-80

NEEDLE-CAPSULE MODEL	786
	ATN-3600, ATN-72

> TEPPAZ

NEEDLE-CAPSULE MODEL	076
	FOX 2142

> THOMSON

NEEDLE-CAPSULE MODEL	540
	ATS-10, AST-11/11E

NEEDLE-CAPSULE MODEL	592
	8151TA

NEEDLE-CAPSULE MODEL	666
	ATN-71

NEEDLE-CAPSULE MODEL	710
	ATN-3400

NEEDLE-CAPSULE MODEL	786
	ATN-3600

> TOSHIBA

NEEDLE-CAPSULE MODEL	540
	N-14DY, C-260M

NEEDLE-CAPSULE MODEL	666
	N-57DY

NEEDLE-CAPSULE MODEL	710
	N-71D

NEEDLE-CAPSULE MODEL	786
	ND-16D

NEEDLE-CAPSULE MODEL	832
	C32M

NEEDLE-CAPSULE MODEL	833
	N-77Y

> YAMAHA

NEEDLE-CAPSULE MODEL	540
	N-6500, CG-6500

NEEDLE-CAPSULE MODEL	710
	N-6700/CG-6700, N-6900/CG-6900

NEEDLE-CAPSULE MODEL	746
	N8300/8400

NEEDLE-CAPSULE MODEL	833
	N-102, N-103

NEEDLE-CAPSULE MODEL	786
	N-7700/CG-7700, N-7800/CG-7800, N-7900/CG-7900

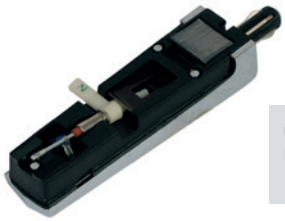
PHONOCAPSULES
Magnetic

	4032-DST-W	
CAPSULE-NEEDLE MODEL	Fox 4032 Audio Technica AT-101P AT-3472P AT-3482P AT-3492P Universal P. mount series Plug-in capsule	STEREO MAGNETIC 20-20.000 Hz 4 mV 1 kHz 5cm/s 1-2 g Diamond: W: 0'6 mil"-15 µ

	4034-DST-W	
CAPSULE-NEEDLE MODEL	Fox 4034 Audio Technica AT-90/91/94 AT-3600/C/L AT-3601/E AT-3650/C/L AT-3651/E AT-3652/E	STEREO MAGNETIC 20-20.000 Hz 3'5 mv 1 KHz 5 cm/s 1'5-2'5 g Diamond: W: 0'6 mil"-15 µ E: 0'3 x 0'7 mil" - 8x18 µ

PHONOCAPSULES
Ceramic

	2142-ZST-ZST 2142-DST-ZST
CAPSULE-NEEDLE MODEL	CRISTAL MONO Teppaz Eco Telefunken



	2173-ZST-ZST 2173-DST-ZST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC GP-200/204/205, GP-314/315

	2159-ZST-ZST 2159-DST-ZST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC Cosmo TB 0020

	2160-ZST-ZST 2160-DST-ZST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC Cosmo TB 0020 CER

	2196-ZST 2196-DST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC GP-214/215 Needle-capsule replacement for GP-314/315, GP-814/815

PHONOCAPSULES

Ceramic

	2500-ZST-ZST 2500-DST-ZST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC Dual CDS-660/670

	2505-ZST 2505-DST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC Pathé STC-S

	2501-ZST-ZST 2501-DST-ZST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC Dual CDS-660/671 With mount

	2511-ZST 2511-DST
CAPSULE-NEEDLE MODEL	STEREO CERAMIC Sharp STY-146 Chuo Denki CZ-800

TURNTABLE ACCESSORIES

Accessories

2322

Centring device-45
Cylindrical centring device for 17 cm discs,
45 r.p.m.
Colour: ivory.
Blister 10 u.

2341

Professional metallic stereo shell.
Specially designed to adapt magnetic
phonocapsules to professional
or semi-professional arms.
EIA standard measures.
Colour: black matte

2361

Set of 4 wires with terminals for installation and replacement of magnetic capsules in a capsule shell.
4 normalised colors.

2360-9/2360-12/2360-16

Sets of 10 screws with nuts and washers for installation and replacement of magnetic capsules in capsule shells.

10 screws of 9 mm length with nuts and washers.

10 screws of 12 mm length with nuts and washers.

10 screws of 16 mm length with nuts and washers.

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> ALPHABETICAL INDEX

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