

Thank you for purchasing the Power Inspired GATEWAY. The GATEWAY is a battery backed AC power supply designed for door access systems. Unlike standard battery backup systems which revert to battery immediately following a power failure, it is intended that the GATEWAY remains off until awoken when needed with an external switch contact. This prevents unnecessary battery discharge and extends power availability from hours to weeks.

The Gateways can be used in standard UPS mode (where no remote contacts are incorporated) or in sleep mode. When in sleep mode the unit is activated using an external switch or relay. Wireless relays or other controllers can also be incorporated using a 24Vdc supply provided by the GATEWAY. The GATEWAY is compatible with leading control equipment incorporating UPS sleep mode on RJ11 connectors.

 **Please read this manual before using the GATEWAY-SX.**

1. SYMBOLS USED IN THIS MANUAL



A Useful Point To Note



A Warning which must be heeded or damage or injury could occur.



Danger of High Voltage

2. CAUTIONS & WARNINGS

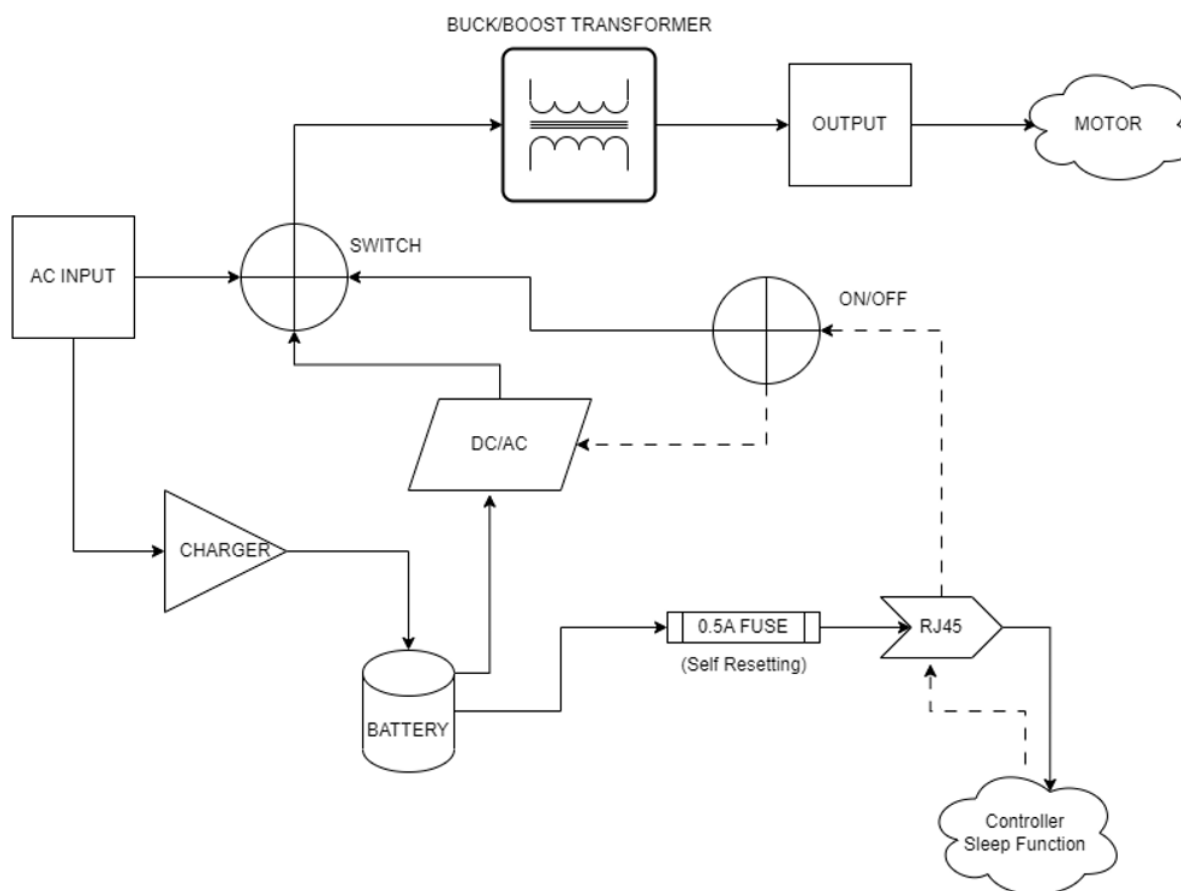
	Indoor Use Only
	Do not operate the GATEWAY without the mains input plug being connected to an earthed socket outlet.
	Do not allow the GATEWAY to come into contact with any liquid.
	Do not open the unit. Hazardous Voltages can exist even though the unit is switched off.
	This unit contains lead acid batteries and must not be discarded in normal waste. Contact your local waste processing centre or return to Power Inspired for disposal.

3. PACKAGING

Upon receipt please inspect your GATEWAY for signs of damage in transit. The package contains:

- The GATEWAY unit
- An RJ11 connection lead.
- This manual.
- IEC mains lead
- Loop through C13/14 IEC – IEC lead

4. GATEWAY BLOCK DIAGRAM

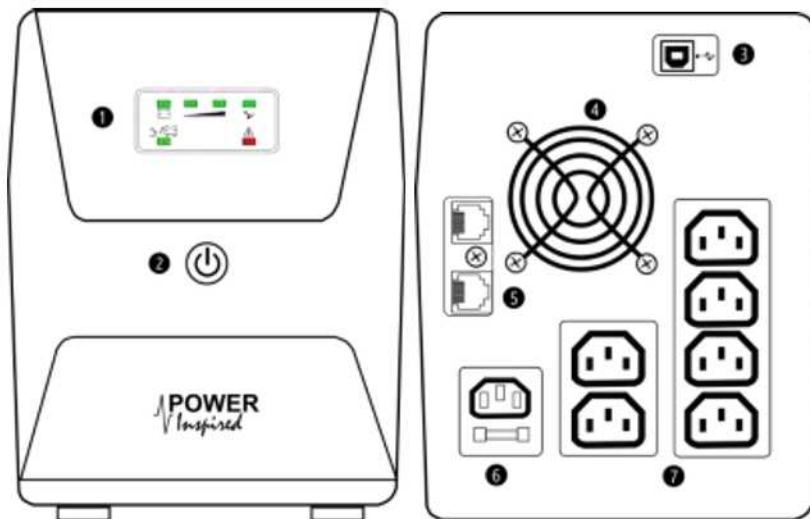


The GATEWAY-SX employs a non-sinewave DC/AC inverter. This style of inverter, although initially not recommended for motor type applications, has been found to work without issue on many door access motors. Note that the inverter is only active when no mains supply is available and the GATEWAY is in battery mode.



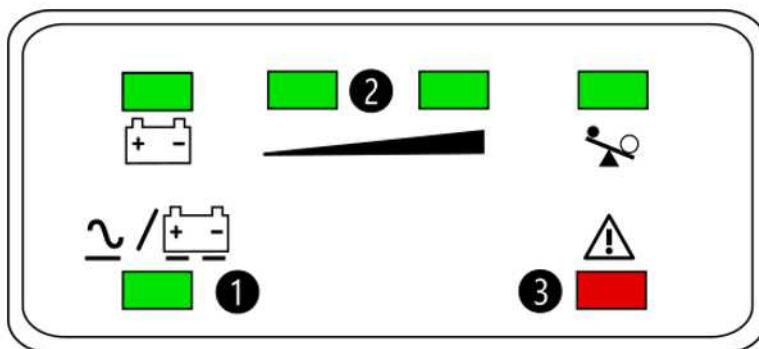
The GATEWAY-SX will charge and maintain charge on the battery when connected to AC power, regardless of whether the unit is switched on or not.

5. IDENTIFICATION



- | | |
|---|---------------------------------|
| ❶ LED Display – see below | ❺ RJ45 Ports for Sleep function |
| ❷ ON/OFF Switch | ❻ Mains input and input fuse |
| ❸ USB Port | ❼ Output IEC connections |
| ❹ Fan – active only when UPS is in battery or buck/boost mode | |

LED Display



- | |
|--|
| ❶ Solid – Mains present and unit is in AC mode.
Flashing – Unit running in battery mode |
| AC mode – Load indicator. |
| ❷ Battery mode – Battery level indicator.
Each LED represents 25% capacity. |
| ❸ Fault LED |

6. INSTALLATION

- If the unit is to be mounted in a ceiling void or at height, please ensure the unit is adequately supported and cannot fall.
- Ensure cables are not loose and cannot snag on moving parts
- The GATEWAY must be installed indoors in an area free from excessive dust, moisture and has adequate air flow. Do not place the GATEWAY next to sources of heat or in direct sunlight.



It is possible to have mains voltages appear with reference to earth on the RJ output connections from the GATEWAY rear panel. These voltages are impedance limited and not hazardous but may be perceived if exposed conductors are touched. Always perform installation with the GATEWAY disconnected from the mains, and ensure all cables and contacts are insulated, not exposed and treated as though they were live conductors.

- An IEC lead is supplied, but may be replaced with a longer lead if necessary. If this is the case ensure the conductor size is in excess of 1mm². Connect the mains lead into a suitable 13A outlet. This outlet must be earthed.
- The output RJ connectors contains a 24V supply to power accessories such as wireless relays. This is fused at 0.5A with a self-resetting fuse. Note that the more power taken increases the drain on batteries and minimises time between recharges.



Utilising the Gateway 24V supply will cause a drain on the batteries when no utility supply is available. This can potentially lead to the batteries becoming discharged to a point of non-recovery and require replacement. This is not covered under warranty. For longer term use without utility power, it is recommended not to use the 24V supply and instead use a remote key-switch if required.

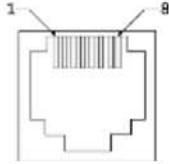


Since the GATEWAY can be started without mains power being present a warning label should be placed on the motor to advise against maintenance without first physically disconnecting the motor plug from the GATEWAY, such as:



CONNECTING TO AN EXTERNAL SWITCH OR CONTROLLER

- On the rear of the GATEWAY are two RJ connectors
- To remote start the unit the SW connections must be shorted together.
- To switch the unit off the SW connection must be opened.



You can use either an RJ45 (network type) connector or an RJ11 (modem type) lead as supplied.

RJ45 pin number	RJ11 pin number	ID	Connection	Colour of RJ11 Lead as supplied	Other RJ11 Colour Schemes*
1	X	X	Not Connected		
2	1	X	Not Connected	N/C	N/C
3	2	SW	Switch Contact	YELLOW	BLACK
4	3	+24Vdc	+24Vdc Output	WHITE	RED
5	4	SW	Switch Contact	BROWN	GREEN
6	5	OV	0V	GREEN	YELLOW
7	6	X	Not Connected	N/C	N/C
8	X	X	Not Connected		



The pin out matches leading controller modules with the UPS Sleep mode function via RJ11 connection.



Either of the RJ connectors can be used. If required two external switches can be connected. This is useful, for example, if you had a wireless relay and a keyswitch. Note however that the connections are not isolated from one another. The unit will be powered ON if either of the SW connections are closed.



The +24V output is current limited and protected with a self-resetting 0.5A fuse.



* Confirm the pin out of the cable you are using before connecting to external devices



Do not connect any of the output connections to earth.



Do not connect the SW contacts to anything other than a switch or relay contact.

7. OPERATION – Remote / Sleep Mode

- Switch on utility power supplying the GATEWAY. It is suggested to ensure the GATEWAY has at least 6 hours of uninterrupted connection to the utility to ensure the batteries are adequately charged.



You can still use the GATEWAY as normal while it is charging.

- Make sure the front panel switch is in the OFF position and the GATEWAY is showing no output.
- Whilst connected to the utility the batteries will be charged or charging.
- To obtain power to the door motor in the event of a power outage, the GATEWAY needs to be switched on. Shorting the SW connections on any of the RJ connectors will start the GATEWAY.



It will take several seconds before the GATEWAY delivers power if requesting start up when no mains power is available. When mains power is present the GATEWAY will switch on within a few seconds.

8. OPERATION – UPS Mode

- Switch on utility power.
- Switch the front panel ON



In the event of a power outage, in this mode the GATEWAY will revert to battery operation immediately. The unit will continue to operate on battery power until either mains power returns, or the batteries become too low.



If the batteries are allowed to discharge under low or no-load conditions, they may become unusable due to deep battery discharge. This may cause issues in restarting the GATEWAY and the unit may require battery replacement.



The +24V supply is still available to use through the RJ connector but it is not advised to use a remote switch contact in UPS mode. This will have no effect, but if the switch contacts are closed this will override the front panel switch e.g. you will not be able to switch the unit off.



In UPS mode power is present at the output sockets at all times.



Note the GATEWAY will provide AC power through a voltage regulator system. This may mean the output voltage is higher or lower than the input voltage.

9. SPECIFICATIONS

Model	GW1200-SX	
Capacity (Max Watts)	1200W	
Input Voltage	230VAC 50Hz Nominal	
Input Voltage Range	162-290VAC	
Output Voltage Regulation	230VAC $\pm 10\%$ (Battery Mode). As input in normal mode	
Output Waveform	Battery Mode	Pseudo-Sine (Square) Wave
	AC Mode	As Input
Internal Battery	2X12V 9Ah	
Charge Time	6-8 hours from depleted to 90% capacity	
Input Connection	IEC C14 input	
Output Connections	6xIEC C13 Outlets	
Operational Connector	2x RJ connectors Each connector comprises 2 switch contacts and a +24Vdc supply via 0.5A internal resettable fuse.	
Dimensions W x D x H	158 x 380 x 198 mm	
Weight	11.5kg	
Operating Environment	Humidity 0-90% RH Non Condensing, Temperature 0-40°C	
Audible Noise	<55dB (Alarm + Fan). Note fan only operates in Battery / Voltage Regulation Mode	

10. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LED Display Blank	No Mains Power	Connect Power. Check Fuse.
	Poor AC input connection	Confirm Connection
Unit starts up on battery but switches off when door is activated	Insufficient Charge On Batteries	Recharge for 6 hours. If problem persists replacement batteries are required.
Alarm continually sounds and warning or fault icon is illuminated	Fan locked	Check Fan
	Unit is overloaded	Confirm motor rating including start up rating is under maximum capacity of the GATEWAY
The fan is constantly spinning in AC mode	Unit is regulating voltage and is in buck or boost mode.	Normal Operation
Alarm sounds intermittently when GATEWAY is activated	Unit is operating from battery power.	Confirm AC input power is present and within specification.
Batteries are depleted after a few days without mains power	Excessive Operation without mains	Try to reduce frequency of door operation
	Power Drain on 24V supply	Check standby current on accessories connected to 24V supply or remove during extended outages.
No DC output via RJ ports	Incorrect Wiring	Confirm wiring as per pin out diagram
	Fuse Activated	Short circuit or overload on 24V output.

11. WARRANTY

1. The Gateway is warranted from defects in material and workmanship under normal use during the warranty period.
2. During the warranty period Power Inspired will repair or replace at no charge, the product or parts of it that proves defective because of improper material or workmanship under normal use or maintenance.
3. The warranty period is 2 years from date of despatch for the unit and 1 year for the internal batteries. Note that dead batteries caused by failure to adhere to the requirements contained in this manual is not covered under warranty.
4. If you suspect your GATEWAY has a problem that is covered under warranty then you must first contact us to obtain an RMA number. Once issued you must securely package the unit and return it to us at the address given under "Contact Information". Power Inspired will inspect, test and repair the unit, and send the unit back to you.
5. This warranty does not cover any problems caused by conditions, malfunctions or damage not resulting from defects in material or workmanship, nor for any losses incurred due to the failure of the product. Please refer to our Terms & Conditions of Sale located at <https://www.powerinspired.com/commercial/trade-terms-conditions-sale/>