



Pre Installation guideline for Ray Alpha 3D CBCT

Room Dimensions

The Minimum room space required: 5 ft × 5 ft.

Entry/Exit Point

Single door Entry and Exit Point.

Door Width:

The door's internal measurements must be at least 36 inches, and should be lead shielded

Windows/Ventilation:

There shall be no windows. Ventilations shall be above 2.0m from the floor. Do not allow any windows in the examination room below at a height of 2.0 meters

Patient Waiting Area:

Patient Waiting Area Should Be as far as possible.

Machine inside Room:

There should not be install more than one x ray equipment in a single room.

Shielding:

The required shielding for wall or door of any material shall be provided at least up to the height of 2.0 meters from the external finished floor of the examination room

The minimum wall thickness of the X-ray room should be 9 inch or 23cm solid brick, Or 2.0 mm thick lead. (As per the Atomic Energy Regulatory Board, Govt of India.)

Door should has shielding of 2 mmLead with Window on Door must be enclosed by Lead Glass.

Operating Condition:

Air Conditioner and fan must be installed in the CBCT Room

Operation Conditions: Temperature: 10°C ~ 30°C - Humidity: 30% ~ 75% RH (non-condensing) - Air pressure : 800 ~ 1060hP

- Install in a location where water damage is unlikely to occur.
- Install in a location not subject to variations in air pressure, temperature, humidity, ventilation, direct sunlight, excessive dust, salinity, ion levels, etc. - Maintain safe working conditions by not subjecting the system to tilt, vibration, or shock. –
- Do not install in a location where chemical substances are stored or where gas is generated.
- Device not suitable for use in the presence of a flammable anesthetic mixture, especially in the presence of high oxygen or nitrous oxide levels.

Ground

The condition of Floor should be flat for system balance.

Earthing

(0v to 5v) Proper Earthing point should be there.

Power Supply:



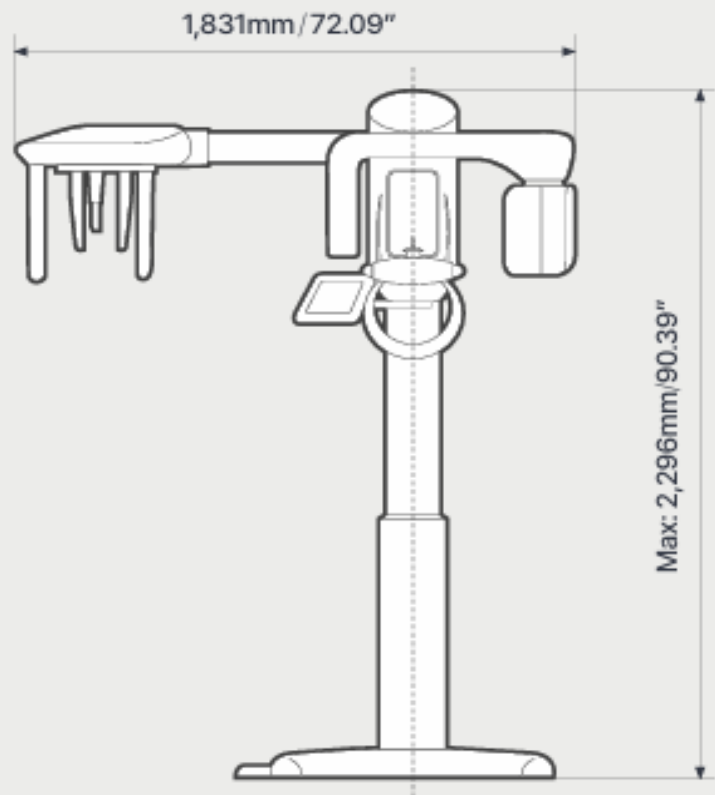
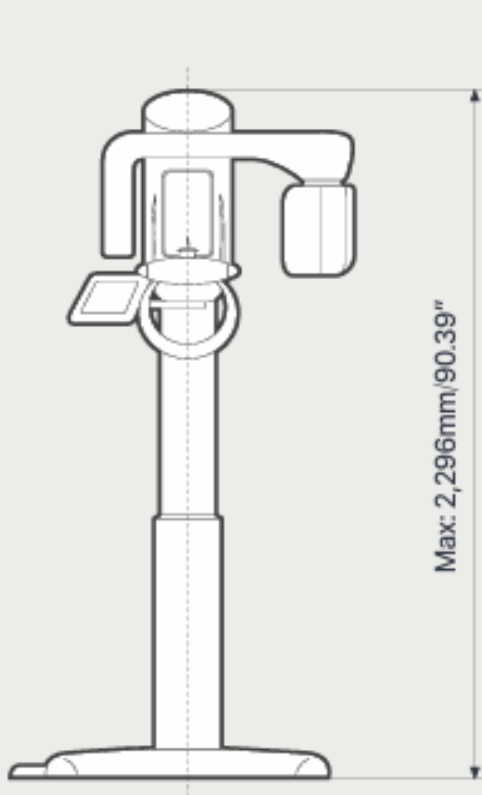
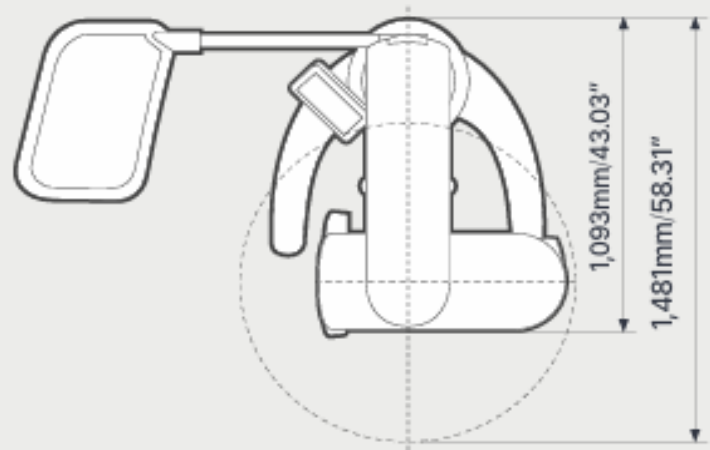
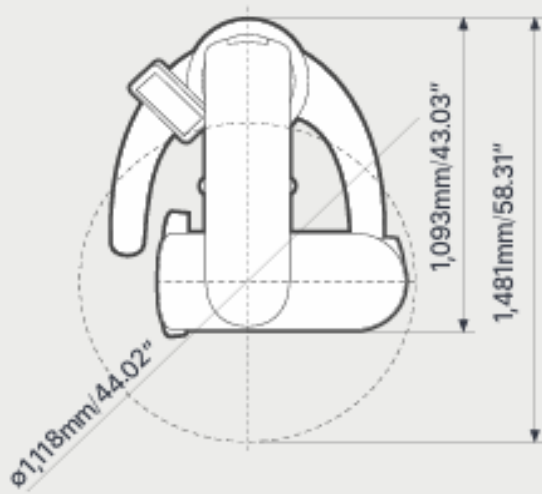
The Electricity should be supplied by an Online UPS of 3Kva. The output voltage should be 220V, the Frequency should be 50 hertz, and two Electric points in Room 15 Amp (3 Pin) for the Online UPS.

3KVA **Online UPS** with Minimum 20 Minutes Power Backup

Dimensions

Without Ceph

With Ceph



AERB room layout requirements

Dental CBCT/OPG (Ref:-ReportofHPAworkingpartyondentalCBCT(HPA-RPD-065)

Shielding Material	Distance from centre of patient Table			
	0.5m*	1.0m	1.5 m	2.0m
Brick (cm)	22	17	15	12
Concrete (cm)	15	11	9.5	8
Baryte Plaster (cm)	1.5	1.0	--	--
Lead (cm)	0.22	0.17	0.15	0.12
**Any other material	2.6 TVT	2 TVT	1.72 TVT	1.4TVT
*Considered at this distance as the foot print of this equipment is small 100cm X 150cm Floor (if installation is not on ground floor) and ceiling thickness of 6-8 inch concrete is adequate.				

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