

INSTALLATION INSTRUCTIONS



HU10 HORIZONTAL BEDHEAD SERVICE SYSTEM



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SECTION 1: SAFETY

Before unpacking and installing the equipment, carefully read these instructions.

Installation / commissioning, operation and servicing / maintenance of this equipment is to be carried out by suitably competent personnel only.

Do not use oil or grease on any of the gas terminal units or pipe-work for any reason as this could lead to a fire or an explosion. Use only approved oxygen compatible lubricants. If in any doubt, contact Hutz Medical's Service Department (Refer to cover page for contact details).

Prior to carrying out any maintenance on the equipment, and before opening the access panels ensure that the electrical circuits have been de-energised and isolated, to avoid an electrical shock.

The following symbols apply to this product and are used in these instructions and on the product in question. The meaning of these symbols is as specified below:



CAUTION!

Failure to comply with this warning could result in serious or fatal injury



CONSULT INSTRUCTIONS FOR USE!

Failure to comply with this notification could result in injury or damage to product



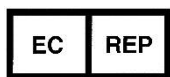
Type B Applied Part



LOT Number



Manufacturer



Authorised Representative in the European Community



European Conformity



Maximum Payload

SECTION 2: DESCRIPTION

The HU10 horizontal bed-head service system comprises of an extruded aluminium section which provides up to 240 volt electrical power, as well as gas, vacuum and scavenging services if specified by the customer, from an external source through another device to the patient.

Certain other services can be provided for the direct use of the user or patient, such as internal lighting, nurse call, communication services and data services.

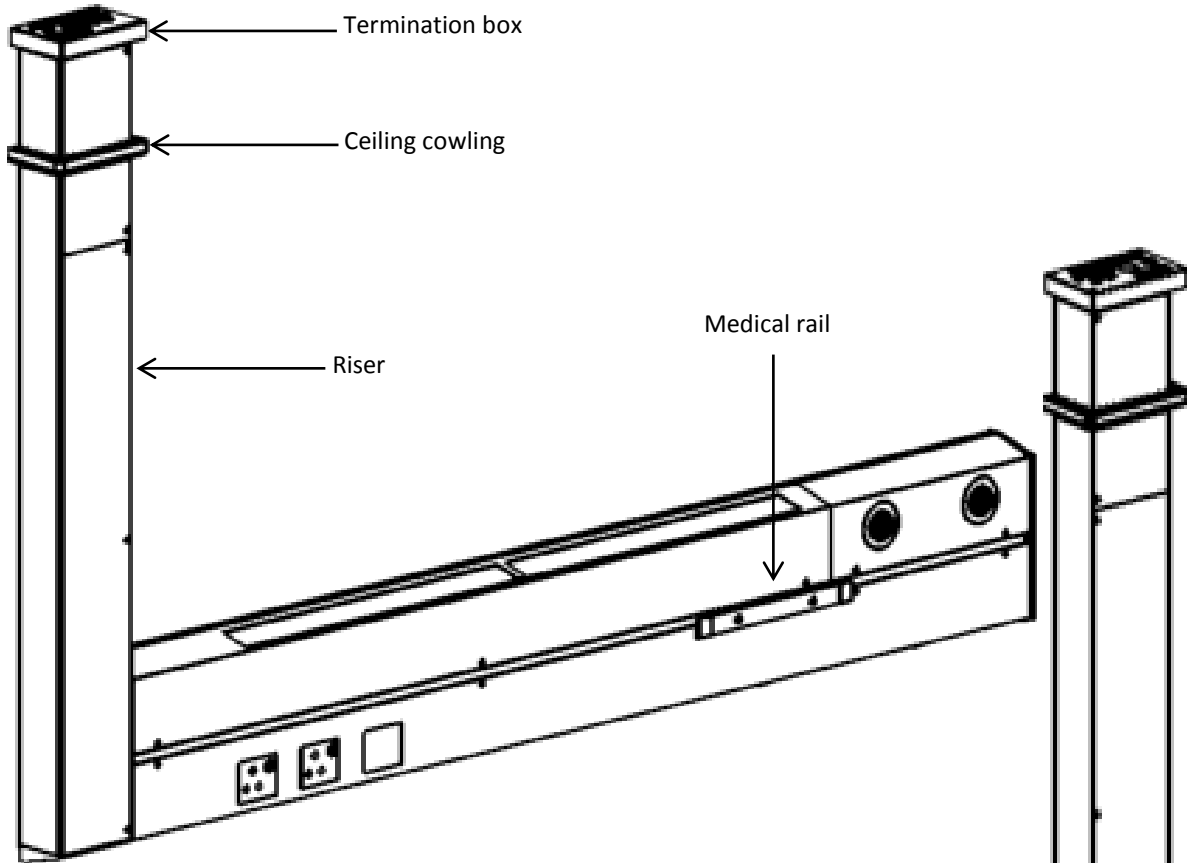
Access panels are provided for installation, maintenance, servicing purposes.

Where specified by the customer, a medical rail can be fitted, on which various attachments can be mounted.

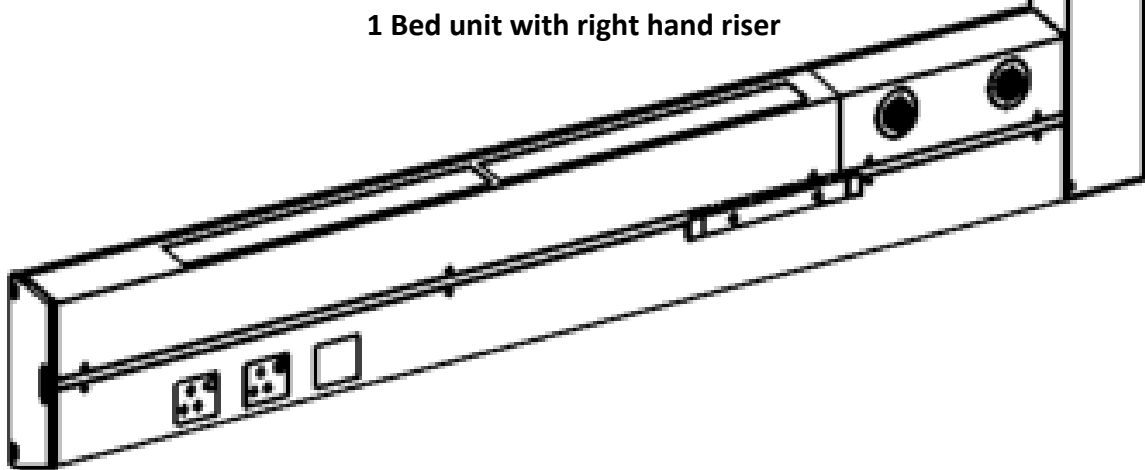
SECTION 3: PRODUCT IDENTIFICATION

SUPPLY SERVICE: Ceiling Entry

1 Bed unit with Left hand riser



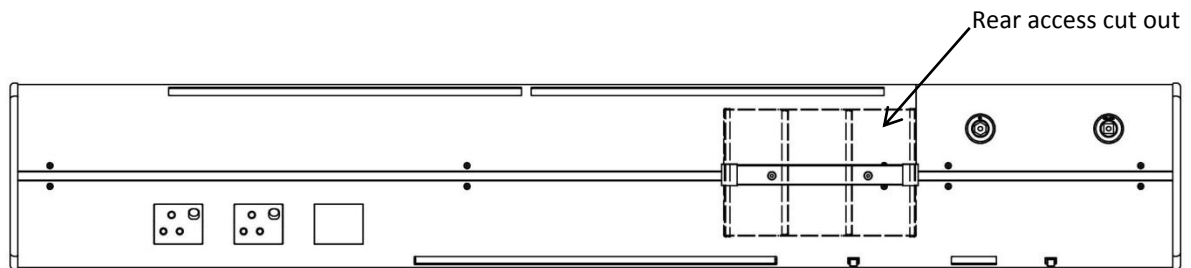
1 Bed unit with right hand riser



SECTION 3: PRODUCT IDENTIFICATION

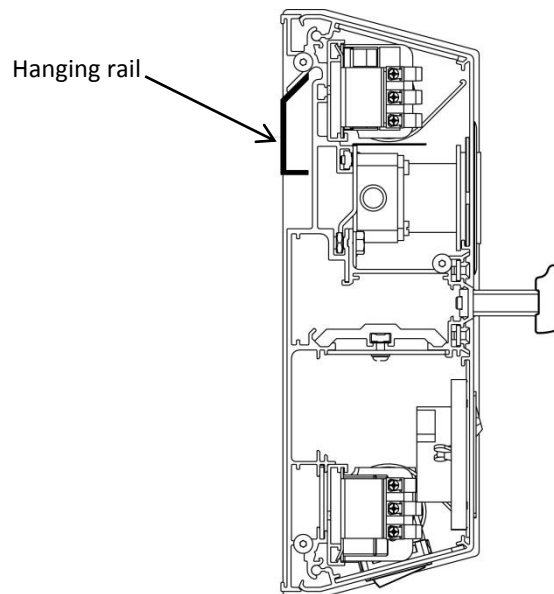
SUPPLY SERVICE: Rear Access Box

1 Bed Unit with Right hand riser



MOUNTING

The HU10 unit is attached to the wall by being supported by means of a hanging rail as illustrated below.



For more information, refer to the product catalogue – obtainable from HUTZ Medical Sales Department (Refer to cover page for contact details).

SECTION 4: CLEANING AND MAINTENANCE

The equipment should always be kept clean. An alkaline cleaning agent with a pH range of 12 to 13 is recommended.

As the unit is not fully protected from ingress of liquid, use only a slightly damp cleaning cloth to avoid electrical shock.

No special maintenance of the equipment is required, other than to replace consumables.

A separate Service / Maintenance Manual will be issued on handover of the project.

Contact HUTZ Medical Service Department if there are any queries relating to maintenance of the equipment (Refer to cover page for contact details)

SECTION 5: PROTECTION AGAINST FLAMMABLE MIXTURES



Not protected – not suitable for use with flammable gases

SECTION 6: MODE OF OPERATION

Continuous, i.e. equipment may be left on indefinitely

SECTION 7: POWER SOURCE

Mains operated 110V / 130V, 220V / 240 V, 50 / 60 Hz alternating current.



Electrical connections are only to be carried out by competent persons.

Protection against shock

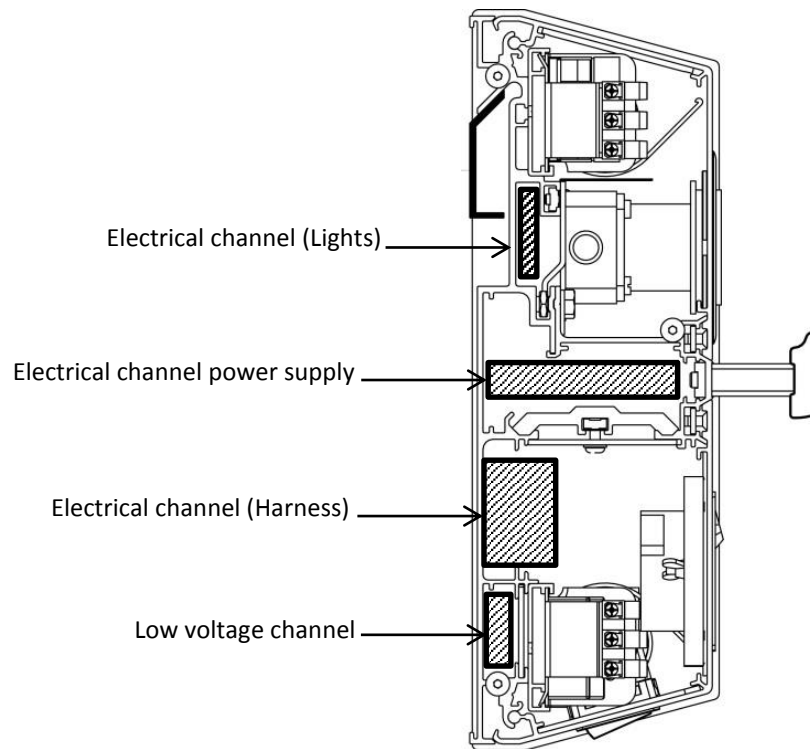
Class 1, Type B equipment (mains supplied equipment using a protected earth).

Wiring

The wiring legend is affixed to the inside of the unit.

Electromagnetic Interferences

In the event that data cables are required in the equipment, ensure that the data cables are fed through a flexible self-extinguishing conduit to shield them from the possible effects of electromagnetic interferences.



SECTION 8: DISPOSAL

Used lamps are to be disposed of according to the applicable regulations of the region or country involved.

Any other materials should be disposed of in such a way that they can be recycled.

The equipment does not contain any hazardous substances.

SECTION 9: TRANSPORT, STORAGE AND OPERATING CONDITIONS

Ambient temperature: 0 - 40°C

Relative humidity (non-condensing): 10 – 95%

Atmospheric pressure: 70 – 110 kPa

SECTION 10: TOOLS REQUIRED

The following tools are required for the HU10 unit installation:

- High impact drill;
- Hammer;
- Rubber mallet;
- Chalk line;
- Spirit level;
- Tape measure;
- Ø6.0 Masonry drill (for concrete wall mount);
- Ø4.0 HS Drill (for dry-wall mounting; using a coach screw);
- Ø16.0 HS Drill (for dry-wall mounting; using a butterfly screw);
- Ø6.5 HS Drill (for drilling additional mounting holes in unit where required);
- Star screwdriver / cordless drill with star end bit;
- 1.5mm Allen key (where units are joined);
- 10mm Open end / ring spanner (where units are joined);
- 3mm Allen key (where a riser is fitted);
- 4mm Allen key (where Medial Rails are fitted);
- Torque wrench 9Nm with 4mm Allen key end bit (where medical rails are fitted);
- Socket set.

SECTION 11: PRE-INSTALLATION

11.1 Remove the HU10 from all the packing and place the unit on a flat surface or table. The packaging is to be discarded for recycling purposes according to respective National Environmental Regulations.

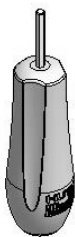
11.2 The following components are included with the HU10 Unit

- 11.2.1 2.5mm Allen key (taped to the back of the unit);
- 11.2.2 Medical rail (if medical rail is supplied);
- 11.2.3 Medical rail spacers (if medical rail is supplied); *
- 11.2.4 M6 x 55mm Countersunk screws (if medical rail is supplied); *
- 11.2.5 Hanging rail (taped to the back of the unit) – See diagram in Section 3;
- 11.2.6 M6 x 60mm impact anchor (suitable for solid brick or concrete walls only); *
- 11.2.7 M6 x 80mm butterfly screw (suitable for dry walls only); *
- 11.2.8 M6 Oversize washer (used with the M6 x 80 Butterfly screw);
- 11.2.9 Ø6 x 50mm Coach Screw (suitable for wood beams only). *

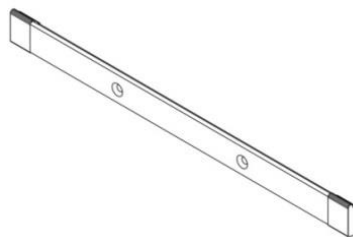
Note: Quantity supplied according to the unit length.

*** Pre-packed items inside the unit – Refer Section 11.7**

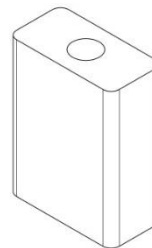
11.2.1



11.2.2



11.2.3



11.2.4



11.2.5



11.2.6



11.2.1



11.2.7

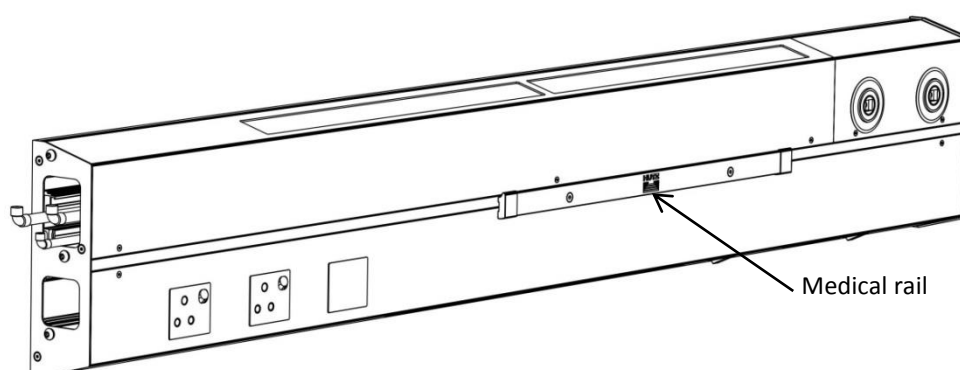


If any of the above mentioned items have not been packed with the unit or any items have been damaged, contact HUTZ Medical immediately (Refer to cover page for contact details).

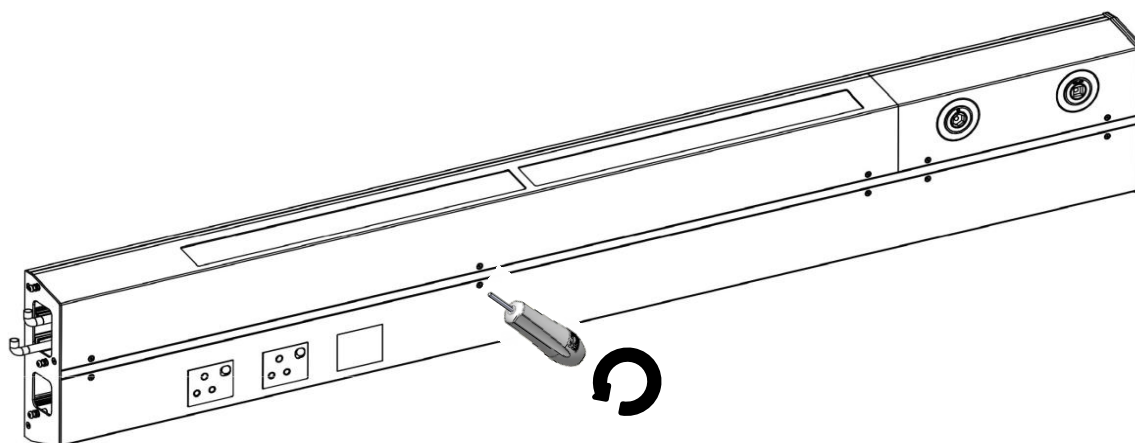
Additional components may be included on customer request.

SECTION 11: PRE-INSTALLATION

- 11.3 Determine whether the HU10 unit requires a riser or has a rear access cut-out as per the HUTZ Medical drawing supplied (refer to Section 3). In the latter case, if no access hole is provided in the wall, notify the main contractor.
- 11.4 Refer to the hospital floor plan (obtainable from the main contractor or architect) to ensure that the correct area and / or room number corresponds with the identification label on the unit and confirm that the HU10 unit length corresponds to the HUTZ Medical drawing supplied.
- 11.5 Remove and set aside the hanging rail.
- 11.6 To open the HU10 lids, the medical rail (when provided) has to be removed from the centre rail by loosening the countersunk Allen cap screws using a 4mm Allen key. These screws are for temporarily fixing the medical rail whilst in transit, and may be discarded.

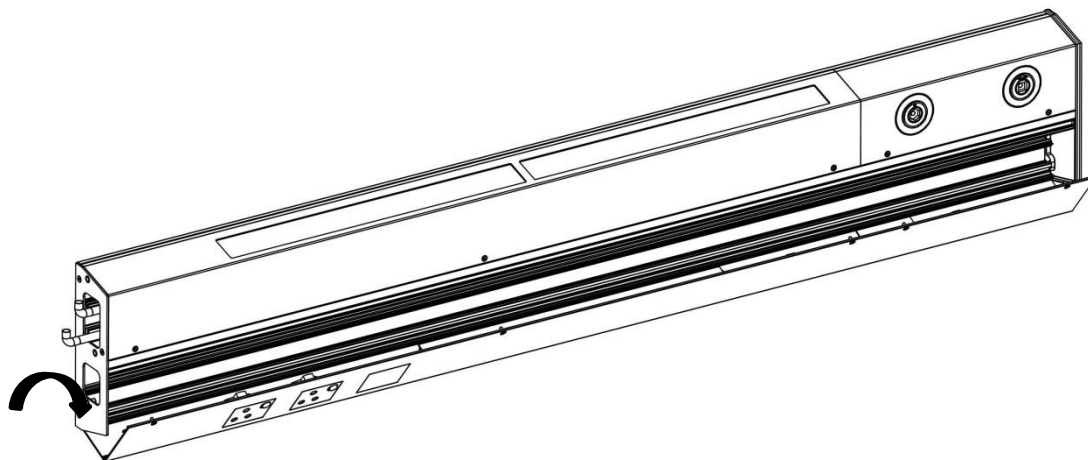


- 11.7 Use the 2.5 mm Allen key (refer to # 11.2.1) to loosen the bottom lid screws only. This will allow you to have access to remove the pre-packed items located inside the bottom lid (refer to # 11.2) NB: Screws are not to be removed from the holes; secured with retainers to prevent losing them.



SECTION 11: PRE-INSTALLATION

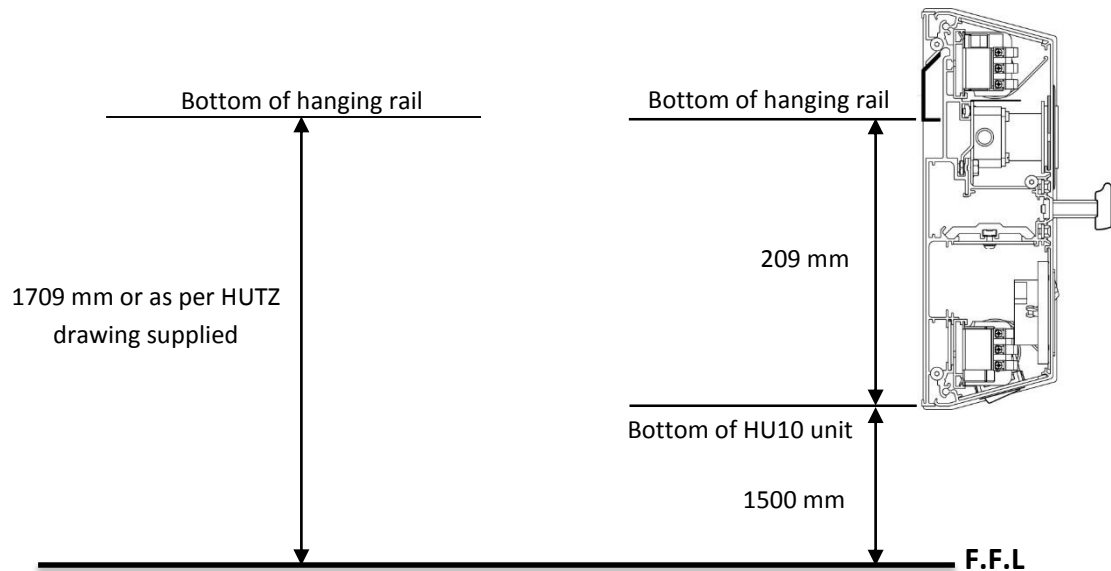
11.8 Open the bottom lid as illustrated below to remove the pre-packed items.



11.9 It is recommended to secure the bottom lid after the pre-pack has been removed to prevent any damage to the HU10 unit during final fitment.

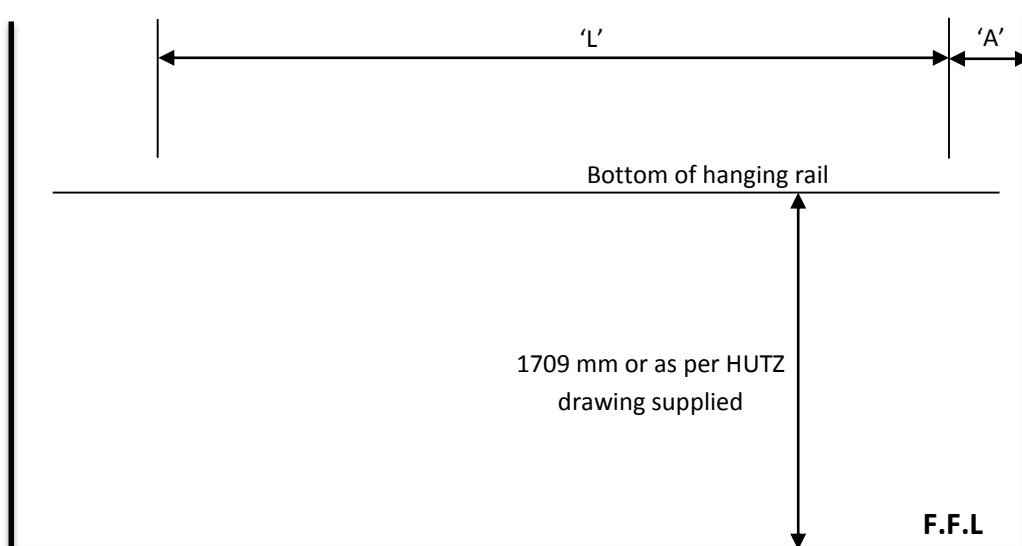
SECTION 12: MARKING OFF

- 12.1 To determine the position of the HU10 unit in the ward, refer to the HUTZ Medical drawing supplied and the hospital floor plan. (Obtainable from the main contractor or architect). Using a measuring tape and spirit level, mark-off the required height from the Finished Floor Level (F.F.L.) on the wall, i.e. 1709mm (1500 mm to bottom of HU10 unit + 209 mm to bottom of hanging rail) or as specified on the HUTZ Medical drawing supplied.



For Single Joint Units

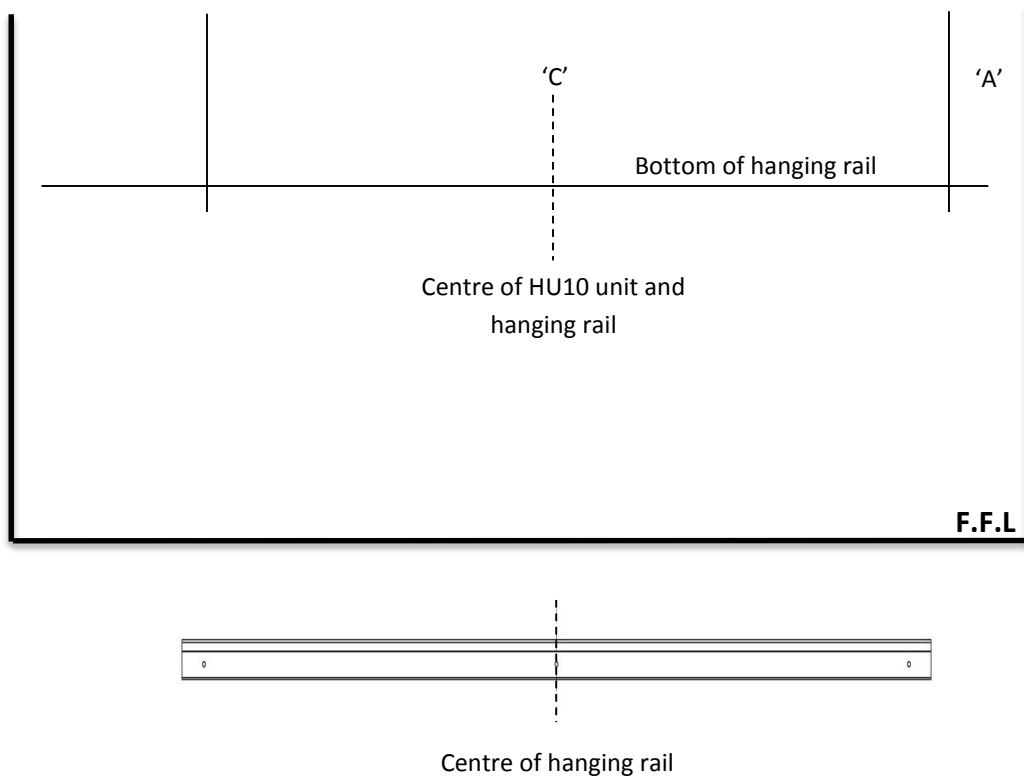
- 12.2 Using a measuring tape; mark-off the clearance distance, "A" between the wall and the side of the HU10 Unit (refer to the Hutz Medical drawing supplied) and then the length of the HU10 Unit, "L". For multi-joint units, refer to 12.5.



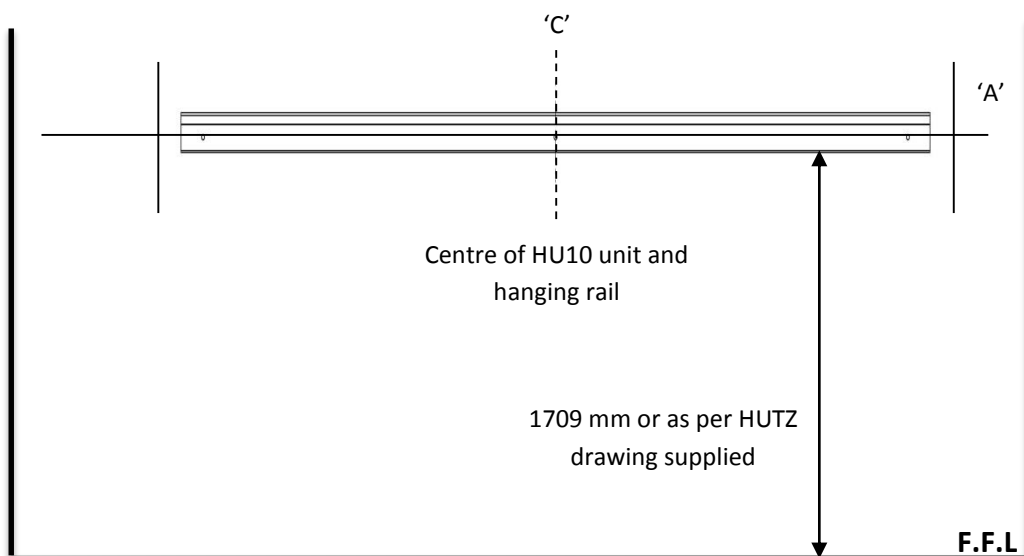
SECTION 12: MARKING OFF

- 12.3 Determine the centre of the Hanging Rail supplied and mark off the centre of the HU10 Unit length, "C" on the horizontal line.

NOTE: The Hanging Rail has been cut (100mm) shorter than the actual HU10 Unit length.



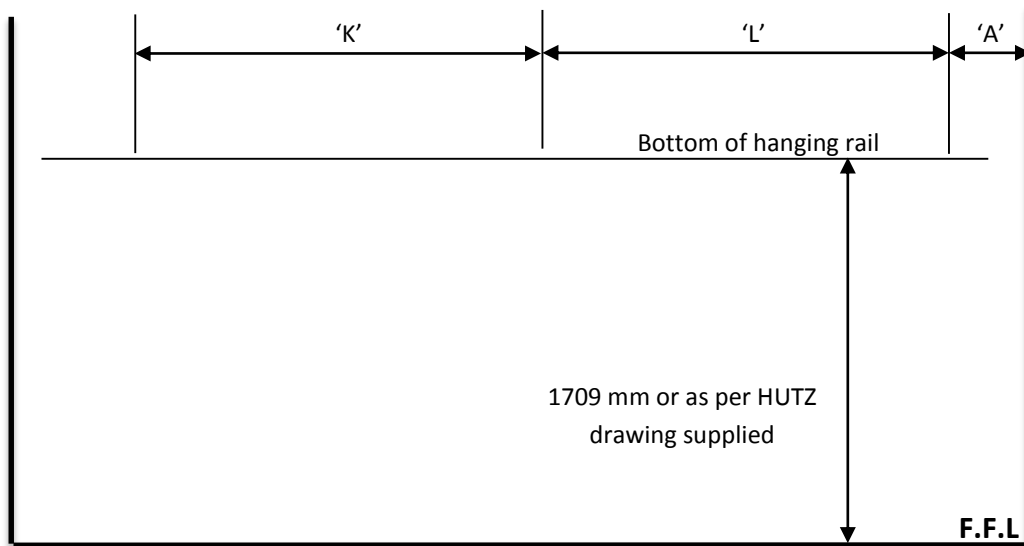
- 12.4 Ensure that the centre of the hanging rail corresponds with marked-off centre 'C', on the horizontal line; to mark the pre-drilled holes in the hanging rail.



SECTION 12: MARKING OFF

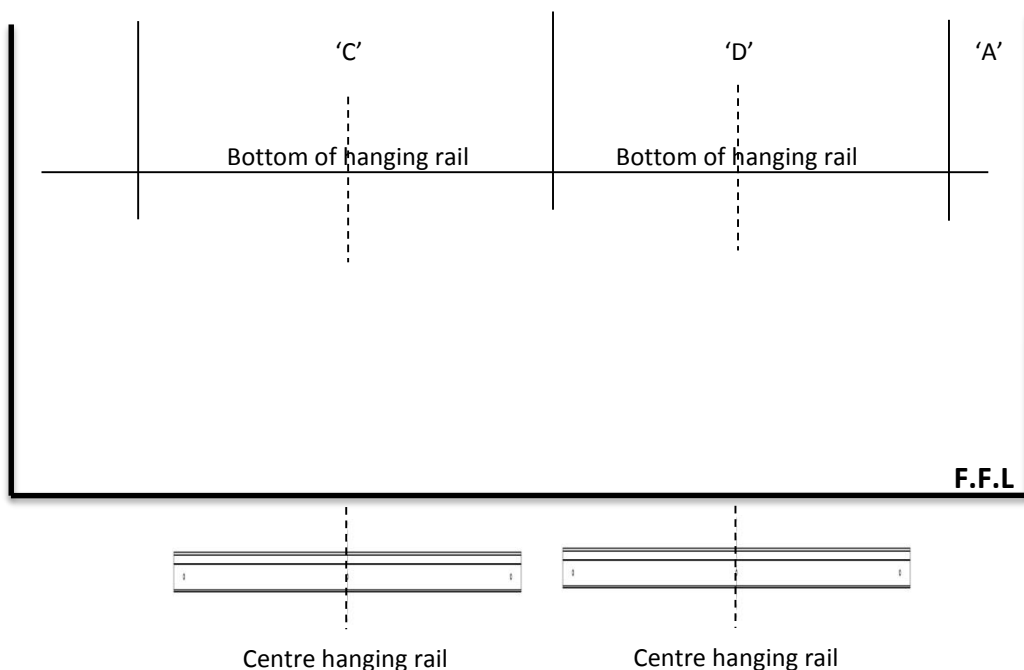
For 2-off and more Joint Units

- 12.5 Using a measuring tape; mark the clearance distance, 'A' between the wall and the side of the HU10 unit (refer to the HUTZ Medical drawing supplied) and then the length of the HU10 unit, 'L'. Thereafter, for a multi-joint HU10 unit, each unit length has to be marked-off accordingly, 'K'. Over the total length of the HU10 unit mark a chalk line to indicate the bottom of the hanging rail.



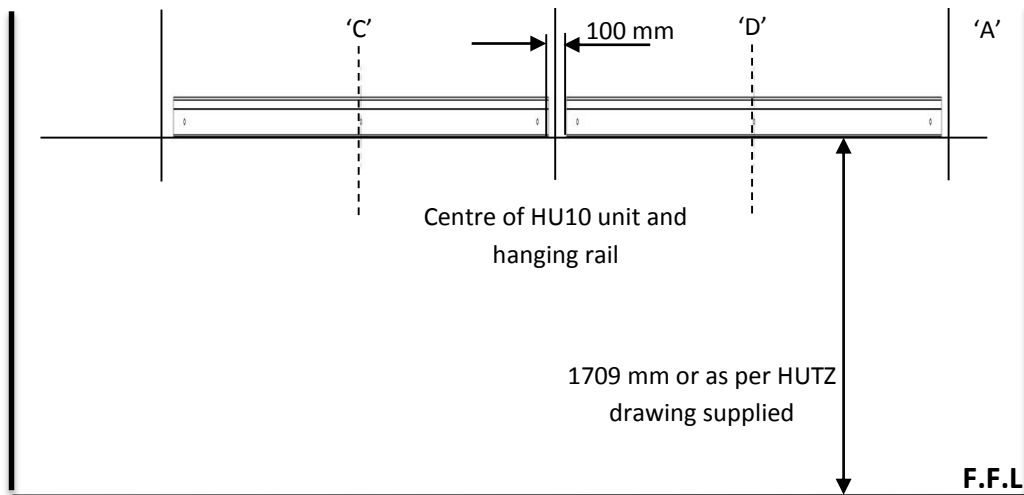
- 12.6 Determine the centre of the hanging rails supplied and mark-off the centre of the HU10 unit lengths, 'C' and 'D' on the horizontal line.

NOTE: The Hanging Rail has been cut (100mm) shorter than the actual HU10 Unit length.



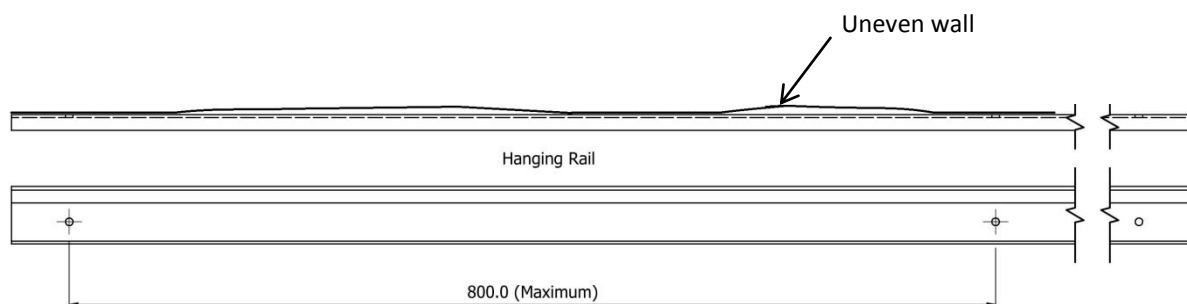
SECTION 12: MARKING OFF

- 12.7 Ensure that the centre of the hanging rails corresponds with marked-off centre 'C' and 'D', on the horizontal chalk line; to mark-off the pre-drilled holes in the hanging rail with a gap between the hanging rails of 100mm.

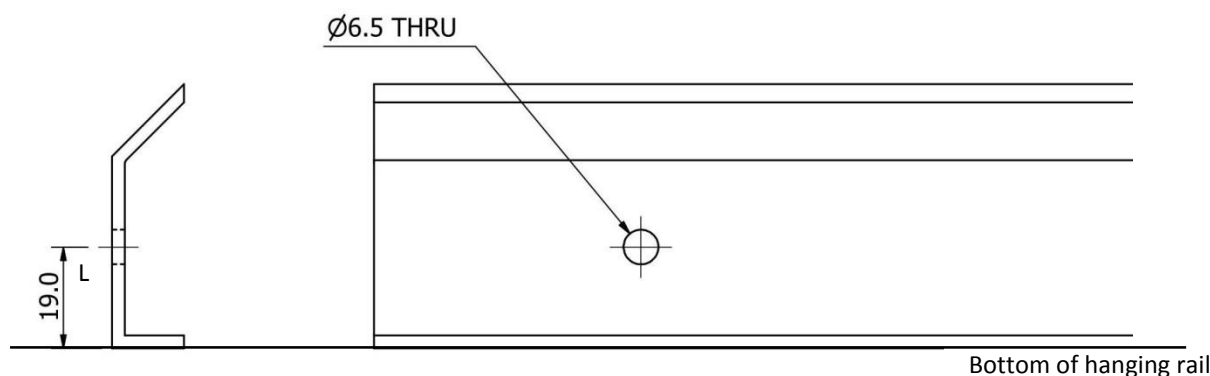


SECTION 13: FASTENING THE HANGING RAIL

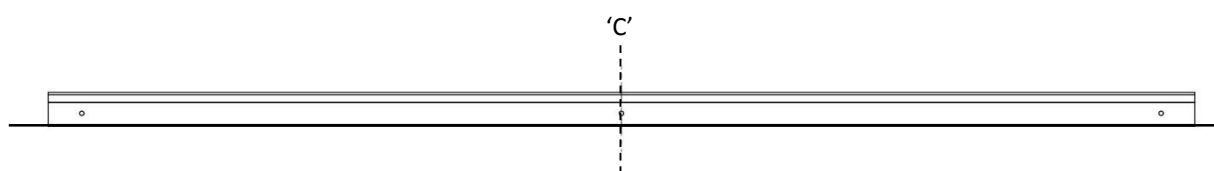
- 13.1 Before fastening the hanging rail to the wall, ensure that the wall is even. In the event of an uneven wall, ensure that the mounting holes are spaced and drilled to meet with the highest points on the wall surface; maximum pitch 800 mm.



- 13.2 For the additional mounting holes required in the case above, refer to the diagrams below.



- 13.3 To obtain the hole positions on the wall, place the bottom of the hanging rail on the marked horizontal line and position the rail horizontally according to the centre line marked as in Section 12.



- 13.4 Drill the holes required for the appropriate anchor to a minimum depth of 70mm for solid brick or concrete walls or through dry walls, as applicable. The following fasteners are to be used for the different types of applications:

Note: **M6 x 60mm Impact anchor - for solid brick or concrete walls only**
M6 x 80mm Butterfly screw and M6 oversize washer - for dry walls only
Ø6 x 50mm Coach Screw for wood beams

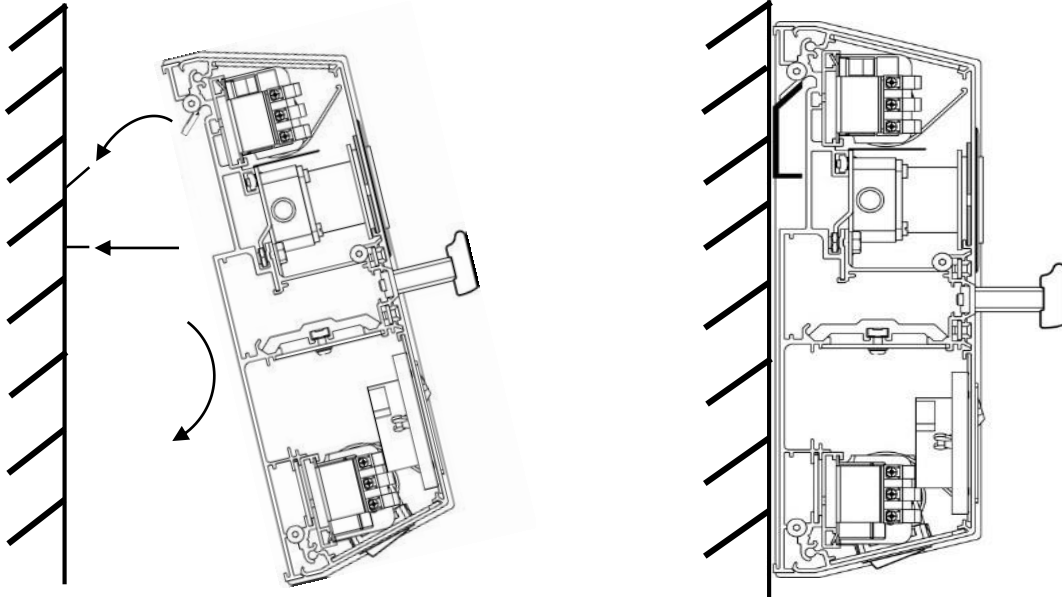
- 13.5 Fasten the hanging rail to the wall using the anchors provided (refer to # 11.2). Check that the hanging rail is level using a spirit level; rectify if required.

Contact Hutz Medical Service Department for assistance if required (Refer to Cover Page for Contact Details).

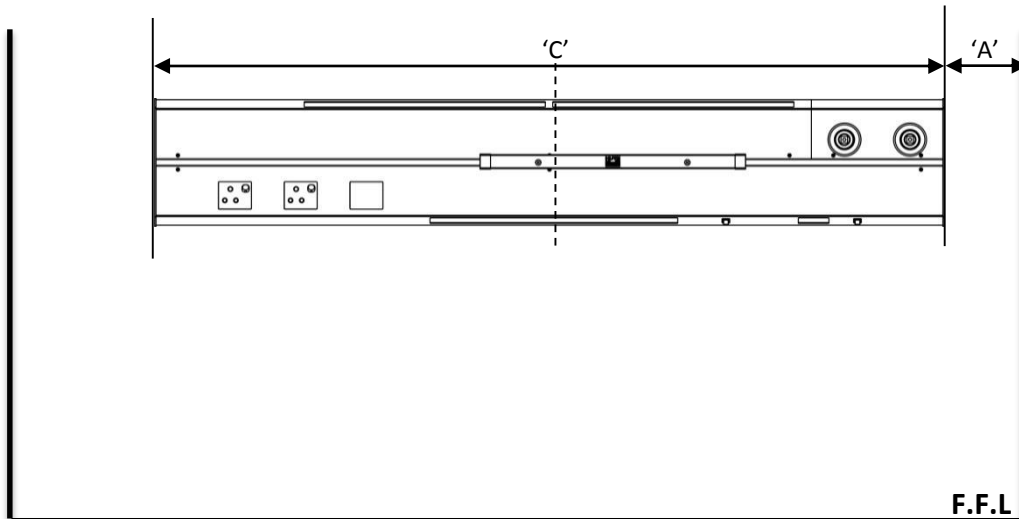
SECTION 14: FITTING THE HU10 UNIT INTO POSITION

For Single Joint Units

- 14.1 After the hanging rail is securely fastened, guide the HU10 unit onto the hanging rail and check that the unit is level using a spirit level; rectify if required.

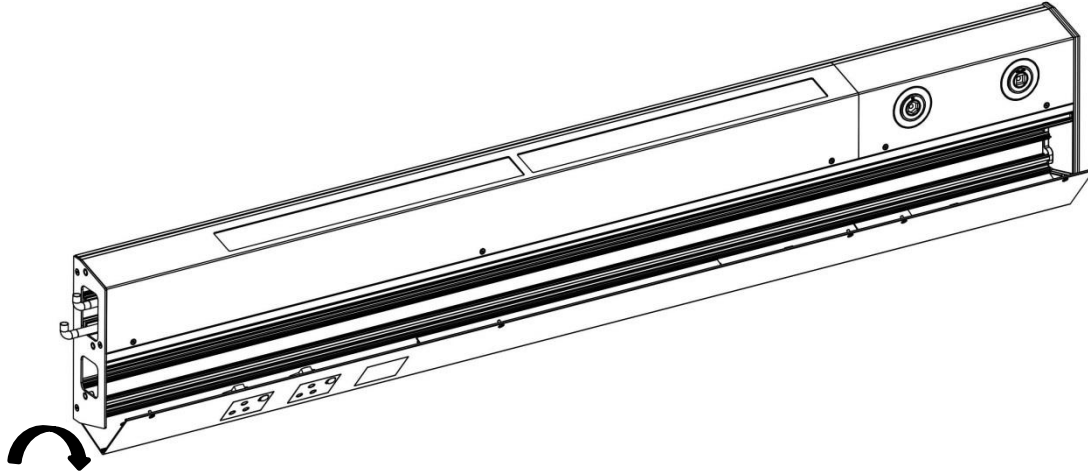


- 14.2 After hanging the HU10 unit, position the Unit to the marked vertical lines; 'C' and 'A'. In the case of HU10 units that have a rear access cut-out; check that it aligns with rear access box installed in the wall. If not, inform the main contractor.



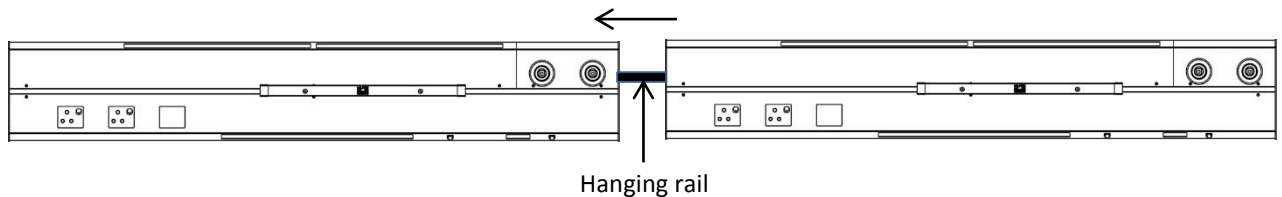
SECTION 14: FITTING THE HU10 UNIT INTO POSITION

- 14.3 Open the bottom lid outward, as illustrated below. This will allow access to the pre-drilled mounting holes in the HU10 unit in order for it to be fastened to the wall. This will prevent the HU10 unit from lifting off the hanging rail and from any sideward movement.

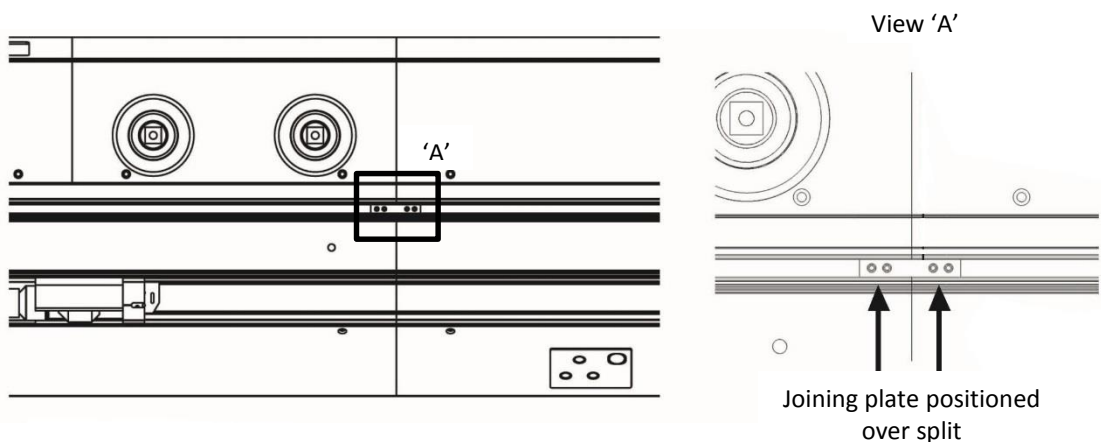


For 2-off and more Joint Units

- 14.4 Once the HU10 units have been placed on the hanging rail; end to end, open the top and bottom lids with the 2.5mm Allen key provided.

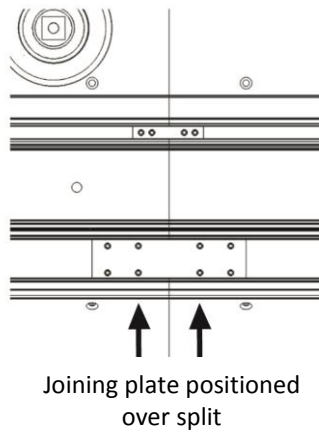


- 14.5 In the bottom section of the HU10 unit; move the joining plate so that it bridges the two HU10 units and is positioned in the centre. Tighten the grub screws on the joining plate with a 1.5mm Allen key.

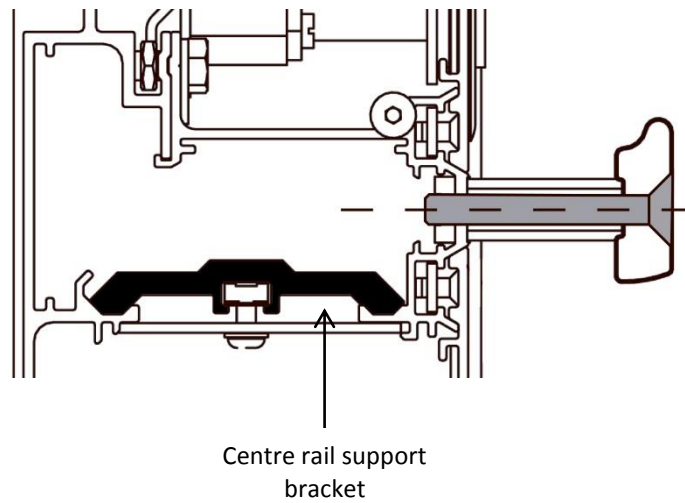


SECTION 14: FITTING THE HU10 UNIT INTO POSITION

- 14.6 In the top section of the HU10 unit position the 2nd joining plate, so that it bridges the two HU10 units. Tighten the grub screws on the 2nd joining plate with a 1.5mm Allen key.

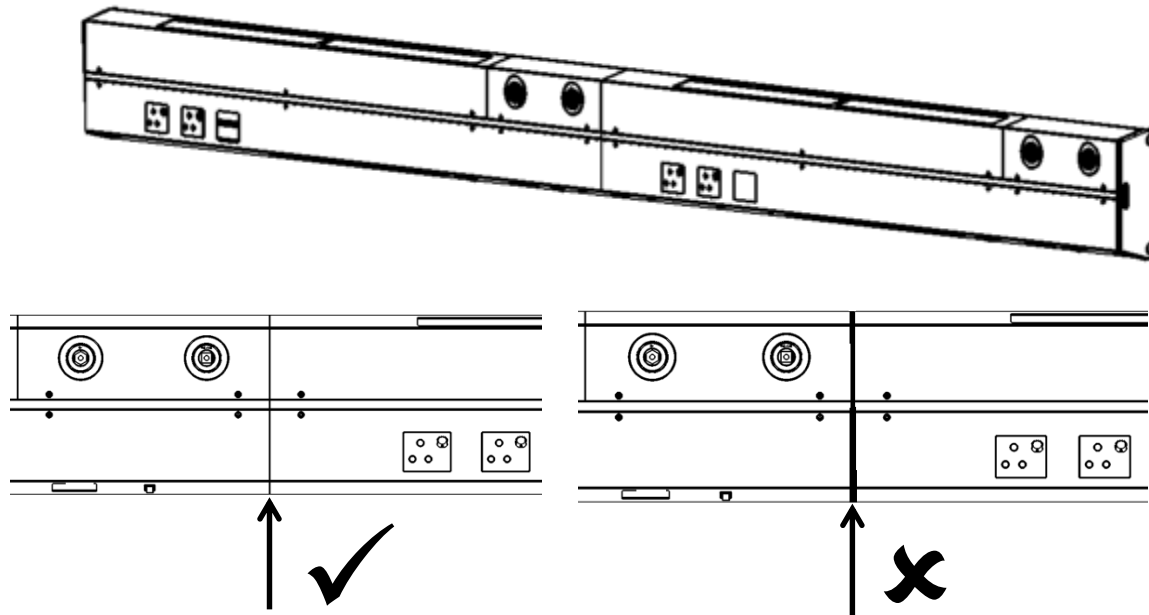


- 14.7 In the top section of the HU10 unit, behind the centre rail, position the 200mm centre rail support bracket in the centre, so that it bridges the two HU10 units. Tighten the centre rail support bracket with a 10mm open end spanner.



SECTION 14: FITTING THE HU10 UNIT INTO POSITION

14.8 Once joined, there should be no gap between the joints of a multi-joint HU10 unit.

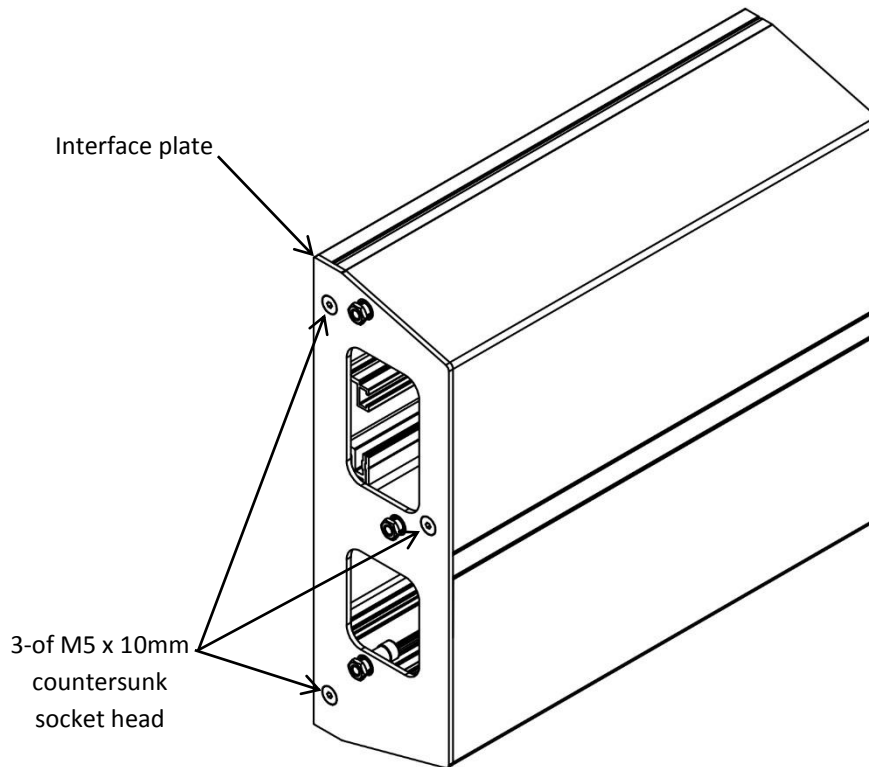


- 14.9 Ensure that the mounting holes coincide with the high spots on the wall to prevent unit distortion (refer to #12.5). Drill additional $\varnothing 6.5\text{mm}$ holes in the unit, if required to coincide with the high spots at a maximum pitch of 80mm.
- 14.10 Ensure all dust is cleaned from unit.
- 14.11 Check that the unit is level using a spirit level, rectify if required.
- 14.12 For drilling and fastening instructions refer to #13.2

SECTION 15: RISER FITMENT (WHERE PROVIDED)

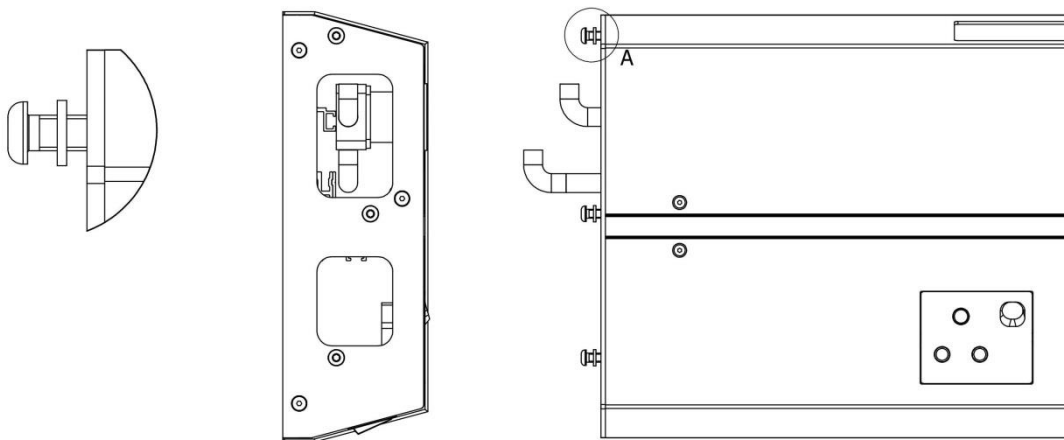
The Riser is supplied in a separate box which includes the riser cowling.

- 15.1 The riser interface plate is pre-fitted onto the end of the HU10 unit. Use a 3mm Allen key to check that the interface plate is secured to the HU10 unit with the 3-off M5 x 10mm countersunk socket head screws.



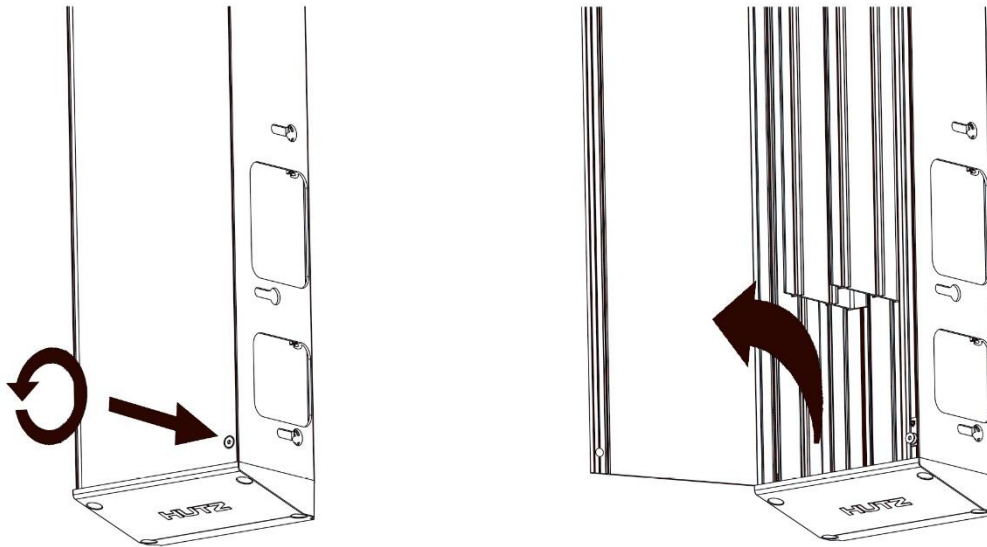
- 15.2 The riser interface plate has 3-off M6 hex nuts loosely fitted; these are used to fasten the HU10 unit to the riser and should only be removed before assembling onto the riser. Remove and set aside.

View: A

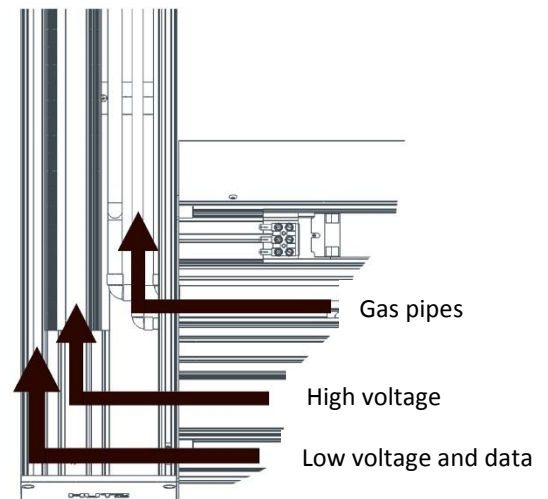
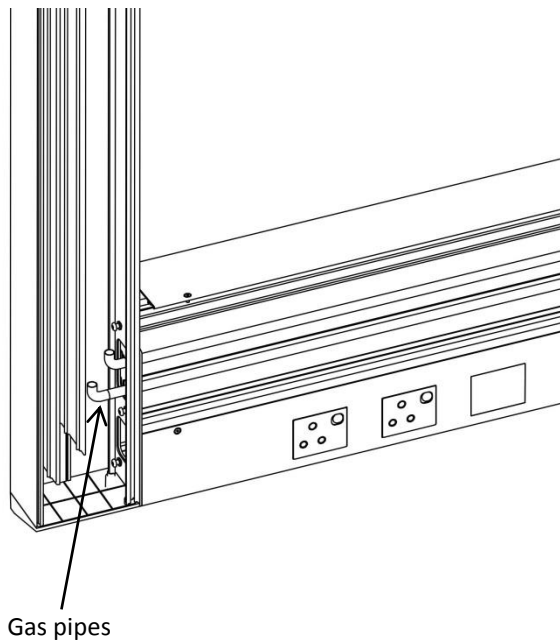


SECTION 15: RISER FITMENT

- 15.3 Loosen the riser lid screws using the 2.5mm Allen key provided (Refer to # 10.2.1). Rotate the lid outwards as indicated below.

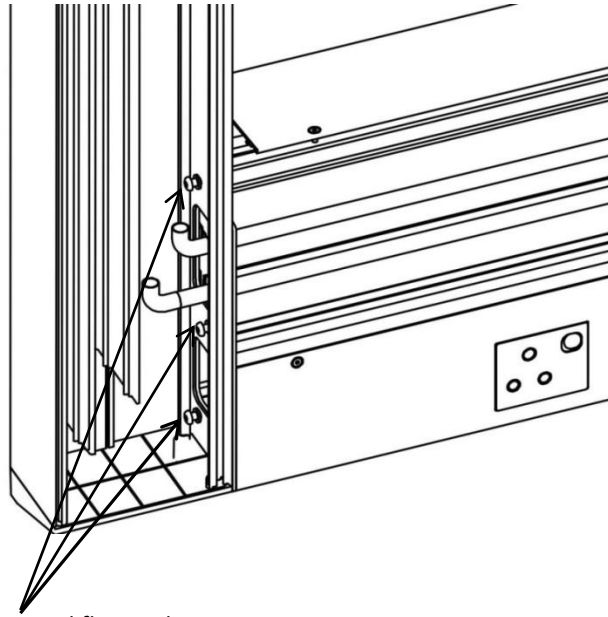


- 15.4 Feed the gas pipes, if pre-installed, from the HU10 unit through the top opening in the riser side wall (the bottom opening will be used for channelling the power and data supply). Align the pre-drilled holes on the inside of the riser with the HU10 unit until the HU10 interface plate is flush against the riser.



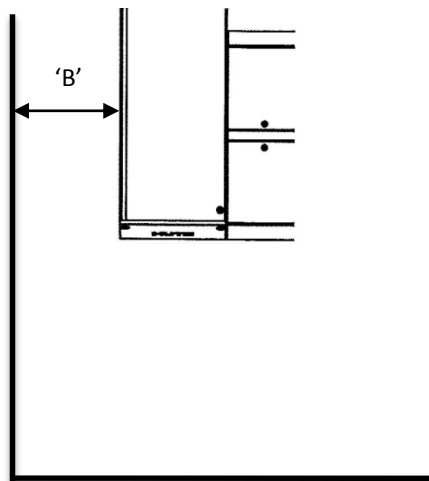
SECTION 15: RISER FITMENT

- 15.5 Secure the riser to the HU10 unit with the 3-off M6 hex nuts and flat washers and tighten with a 10mm open ended spanner.



3 Of M6 hex nuts and flat washers

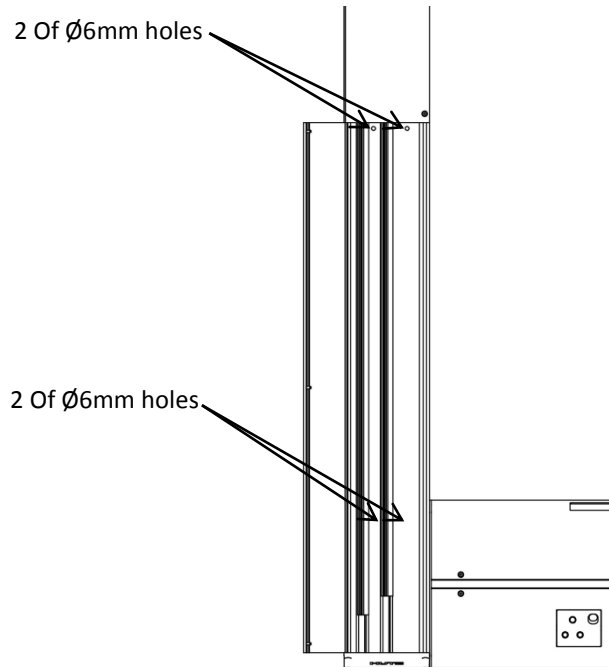
- 15.6 To confirm the final position of the HU10 unit relative to the walls; refer to the HUTZ Medical drawings supplied. Using a measuring tape to check the clearance gap between the wall and the riser.



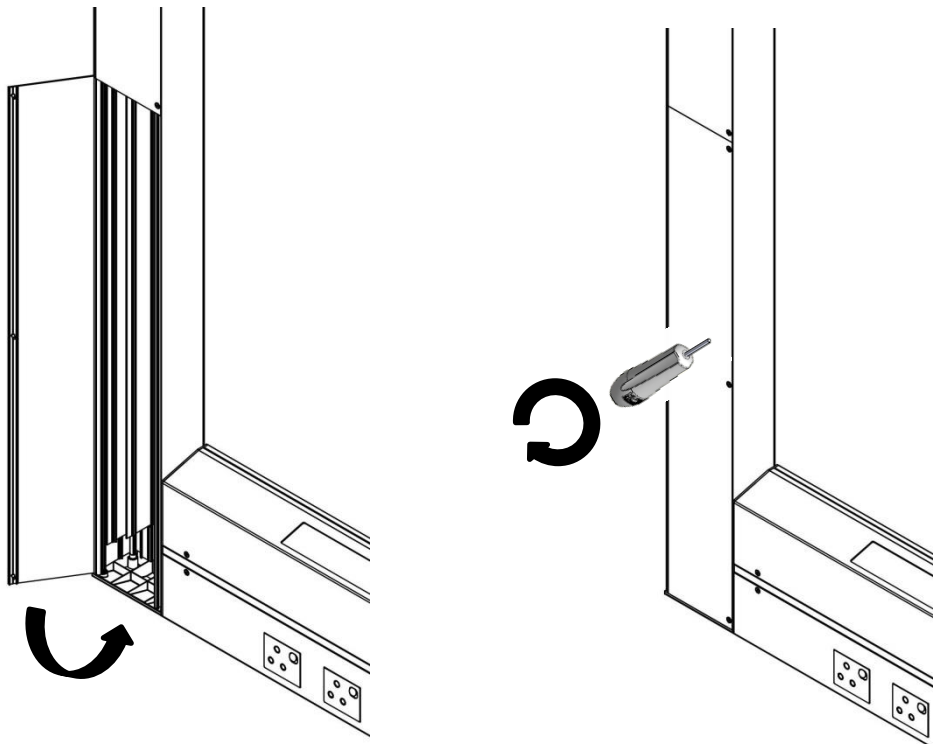
'B' = Clearance gap between riser and wall as per the HUTZ Medical drawings supplied

SECTION 15: RISER FITMENT

- 15.7 To secure the riser to the wall, drill 4-off holes for the anchors through the pre-drilled holes in the riser. For drilling and fastening instructions, refer to #13.2.

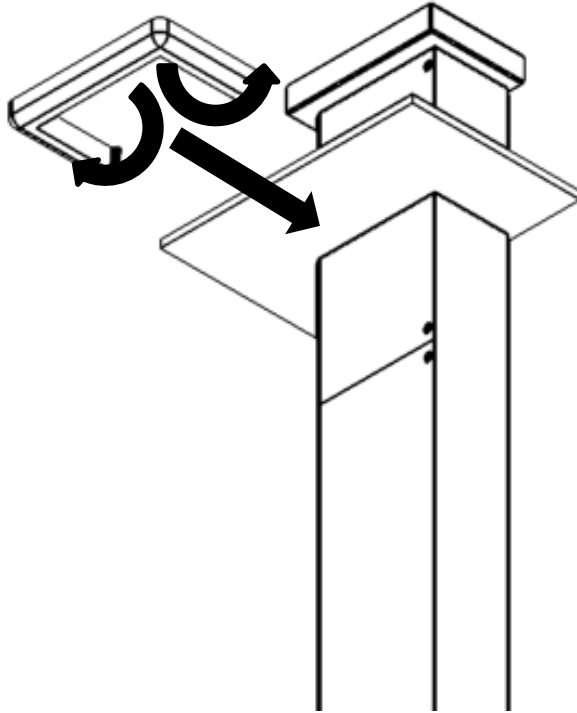


- 15.8 Now that the riser is secured to the wall, close the riser lids and fasten the screws with the Allen key provided (refer to # 11.2.1).

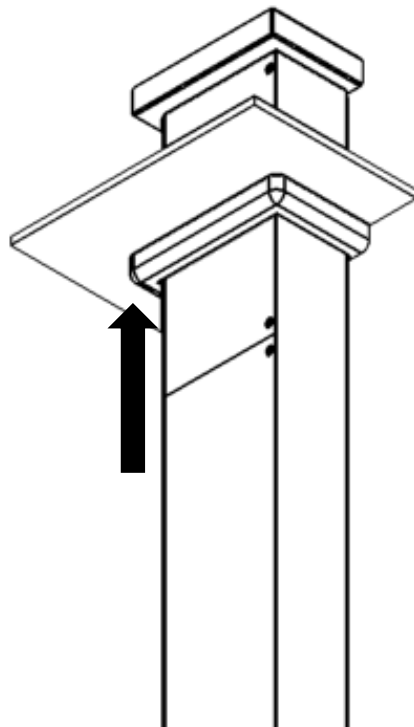


SECTION 15: RISER FITMENT

15.9 To fit the cowl, place the cowl over the riser by flexing the sides outwards and around the riser.



15.10 Push the cowl up the riser until it meets the ceiling panel.



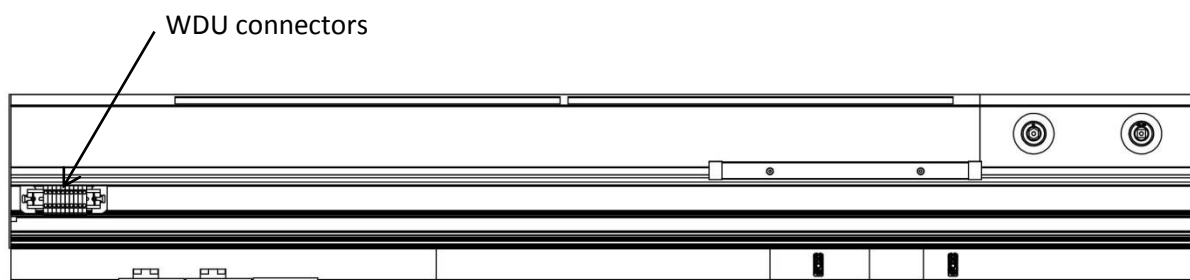
SECTION 16: INSTALLATION OF SERVICES




All installations shall be performed by competent persons.

16.1 Electrical

16.1.1 Electrical terminations are made directly to the WDU connectors situated behind the bottom lid, as illustrated below.



16.1.2 Refer to the wiring legend as per specimen below; which is fixed to the bottom lid opposite the WDU connectors, to indicate the circuit/s allocated to the respective WDU connectors.

	WIRING LEGEND		Drawing No.:
Job No:	Project:		Date:

16.1.3 Attach the electrical circuit wires to the respective circuits as indicated on the WDU connectors or connector blocks, as indicated on the wiring legend.

SECTION 16: INSTALLATION OF SERVICES

16.2 Gas Installation



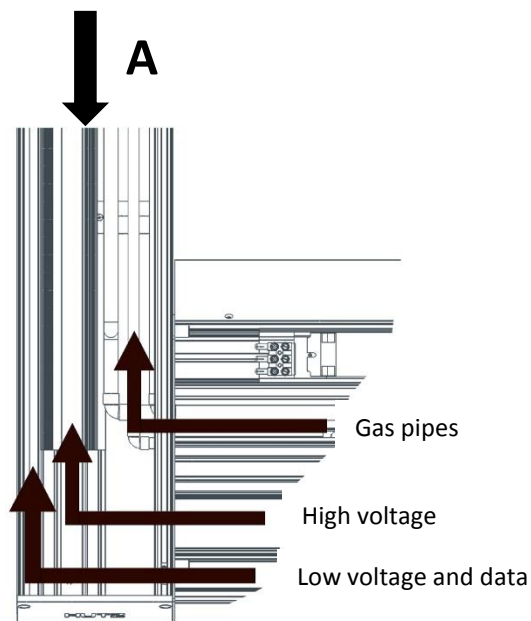
Gas connection and testing to be carried out only by certified gas installer.

Cross-connection of medical gas pipelines could prove fatal.

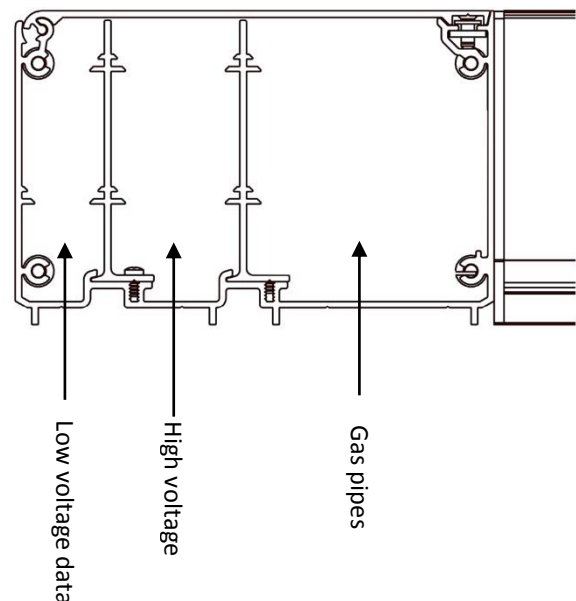
- 16.2.1 Where specified the equipment is fitted with medical grade copper pipe conforming to BS EN 1412.
- 16.2.2 Recommended copper to copper onsite jointing process: Silver / copper / phosphorus brazing alloy type CP1 or CP04 to BS 1845 (or equivalent) using a clean, dry, oil and oxygen free nitrogen inert gas shield with no flux.
- 16.2.3 Ensure that the gas pipeline system is bonded to the earth system.
- 16.2.4 The gas terminal units and pipeline system in the unit have been fully factory leak tested. After connection to the mains supply, the entire gas pipeline system is to be tested to BS EN ISO 7396-1 before being commissioned for use. Refer any queries in this regard to Hutz Medical Service Department (Refer to cover page for contact details).

16.3 Electrical and Gas when Riser is provided

- 16.3.1 Ensure that the electrical, low voltage cables and gas pipes are routed into the correct channels within the riser as illustrated below.



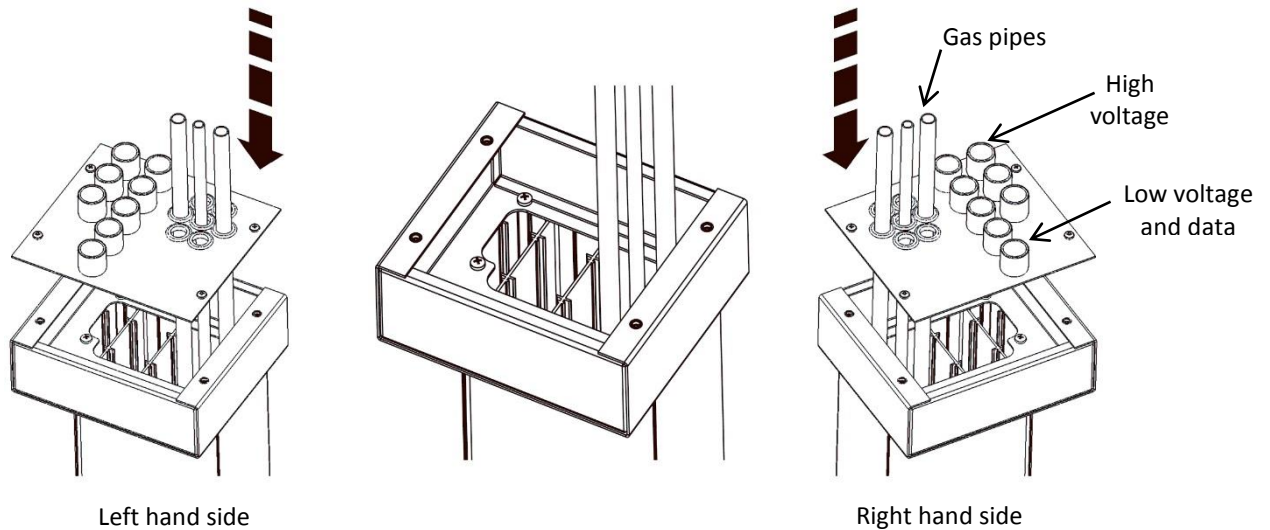
VIEW A



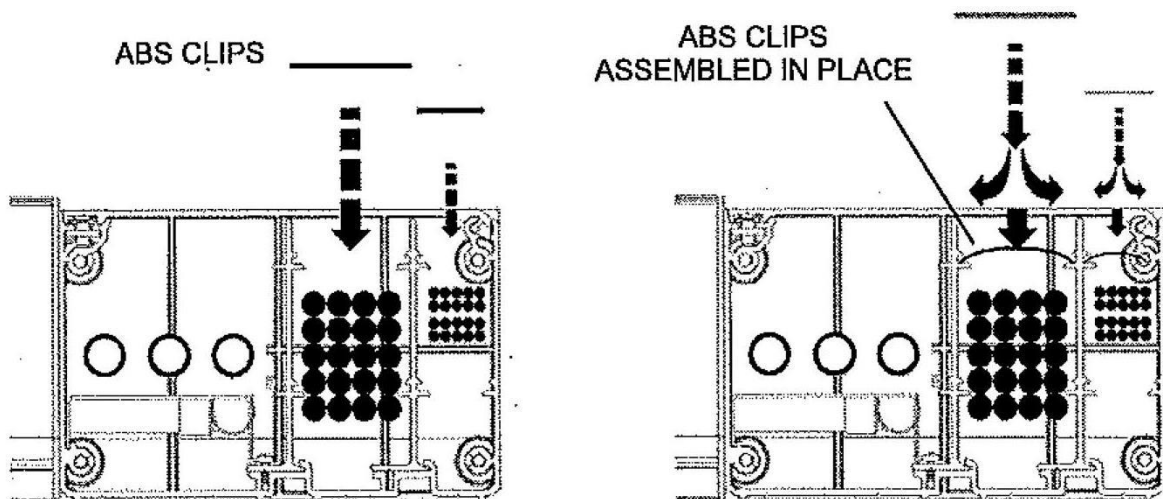
SECTION 16: INSTALLATION OF SERVICES

16.3.2 Unscrew the termination box lid and feed the gas pipes, data, high and low voltage cables through the termination box lid and down the riser, making sure to use the specific holes provided. Screw the termination box lid onto the termination box.

***Note:** The difference in positioning the left and right hand side termination box lid dictates the entry of the various services.

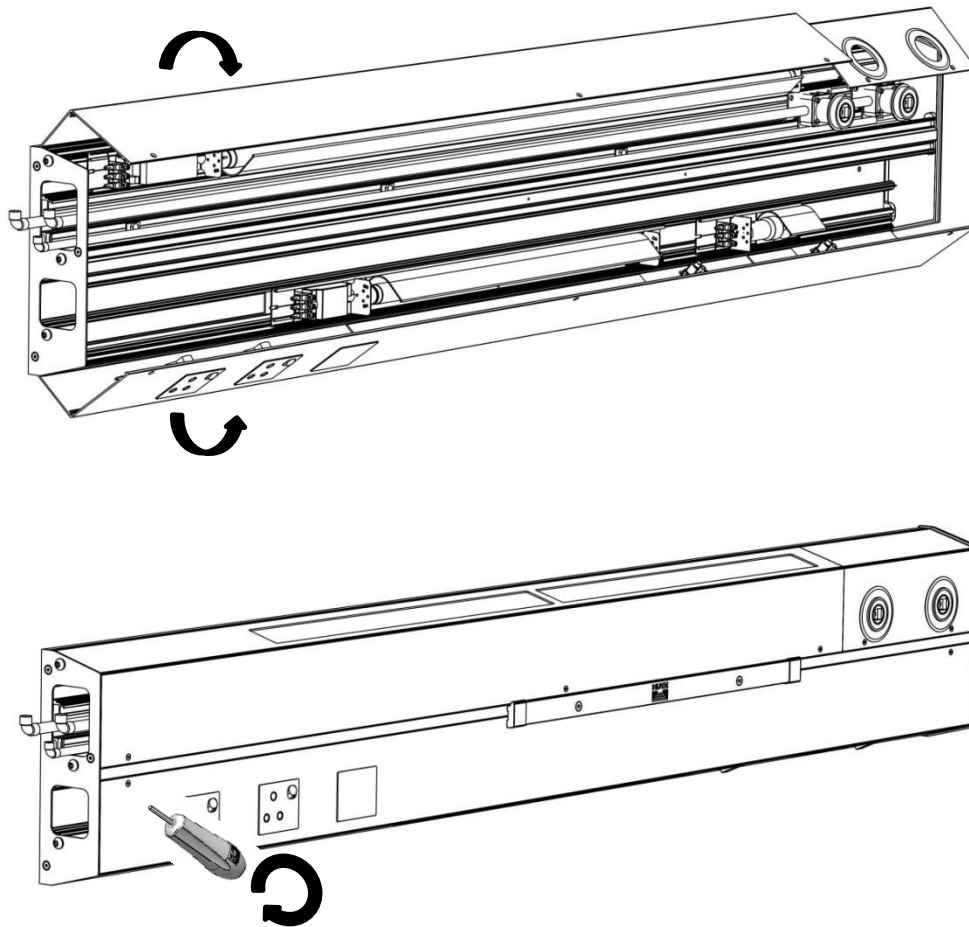


16.3.3 Use the ABS clips provided to secure the data, high and low voltage cables into the specific channels as illustrated below.



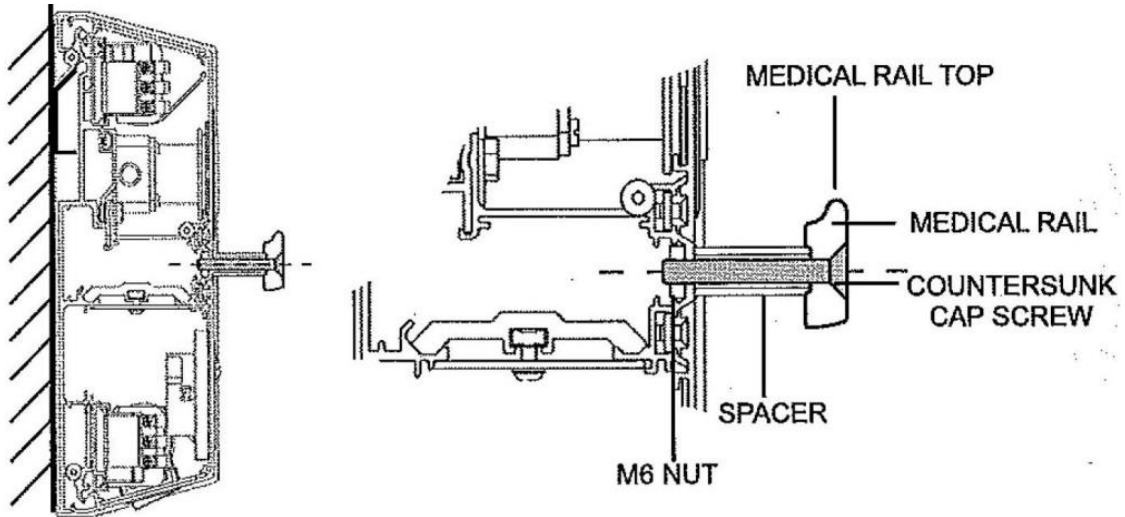
SECTION 16: INSTALLATION OF SERVICES

- 16.3.4 Ensure that the inside of the unit and the top and bottom lid channels are dust free before closing the lids and fastening the screws with the Allen key provided (Refer to # 11.2.1).



SECTION 17: MEDICAL EQUIPMENT RAIL FITMENT (WHERE PROVIDED)

- 17.1 Secure the medical equipment rail/s, where provided, onto the unit by inserting the countersunk screws provided, (Refer # 11.2.4) through the medical equipment rail and the spacer respectively, (Refer to # 11.2 and 11.6). Use a 4mm Allen key to tighten the countersunk screws. Torque the countersunk screws to 9 Nm.



NOTES

Handwritten notes area with horizontal lines.