

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'MJB' RANGE ENCLOSURES – SIRA99ATEX3176



Marking

The marking shown is for an apparatus certified terminal box.

The maximum voltage and power dissipation permitted in this terminal box are marked on the label and identified by VOLTAGE__kV MAX and RATING_____WATTS respectively.

The ambient temperature range for which this product is suitable is marked on the label and identified by Tamb_____.

Installation

- 1) Using the mounting dimensions data provided, either in the product catalogue data sheets or on the drawings supplied (as part of the project documentation) mark out the positions for the mounting holes on the surface where installation is required.
- 2) Drill the mounting holes for either M8 or M9 fixing studs (for size S64 upwards) or for M6 fixing studs for size S45.
- 3) Insert the top two studs leaving 8 to 10mm protruding and lift the enclosure into position using such assistance as may be necessary to avoid injury and hang the top fixing brackets of the box onto the studs. Ensuring that the box is secure, insert and tighten the bottom two studs. Now complete tightening the top two studs.
- 4) Unfasten the lid securing screws and remove the enclosure lid. Put the lid in a safe place.
- 5) Install and secure the cable glands in accordance with the manufacturers instructions.
- 6) Pull the cables into the box leaving trailing leads long enough to reach their respective couplers after routing through any cable clamps that are provided.
- 7) Trim each cable core so that the conductor end will reach the inside stop of the crimp lug on which it is to be terminated.
- 8) Strip each cable core insulation by the length of the crimping barrel plus 2mm.
- 9) Remove each crimping lug in turn from the terminal post and place the securing nuts to one side.
- 10) Crimp each lug onto the respective conductor using Cembre die sets or equivalent. Ensure that the crimp die set used is suitable for the conductor size and is not damaged or excessively worn. The crimp die set may produce either a hexagon type crimp or an indent type crimp. With hexagon die sets execute at least two crimps on each lug.
- 11) Place the hole in the palm of the now attached cable lug on to its respective terminal post. When both cable lugs for a terminal post have been attached secure them in place with the flat washer, spring washer and nut provided. Ensure that the spring washer is fully compressed then apply a further ¼ turn. Where a torque wrench is use, ensure that the spring washer is fully compressed by the first lock nut then, using a spanner to secure the locknut under the lower crimp lug, apply the torque, minimum 17.5Nm, maximum 19.5Nm. Repeat for each terminal post.
- 12) When all the cable lugs have been attached and correctly tightened replace the lid and secure it by closing the lid and tightening the lid fixing screws. Ensure that all gland plate securing screws are tightened.

Earthing/Grounding

All MJB range enclosures are provided with an internal and external earthing/grounding facility. This must be connected to the appropriate earth bonding circuit before electrical power is connected to the contents of the enclosure. If the MJB unit is to be used for three phase distribution any earth/ground conductor brought into the enclosure must be terminated onto the enclosure internal earth/ground stud. If the MJB unit is to be used for single phase or DC distribution any earth/ground conductor entering the enclosure may be terminated onto the otherwise unused post terminal

Operation

1. The lid must be secured using all the lid screws provided in order to maintain the IP rating.
2. No attempt must be made to remove the enclosure lid whilst electrical power is connected to the contents of the enclosure.
3. The earthing/grounding facility must be connected to the earth bonding circuit at all times when electrical power is connected to the enclosure.

Maintenance

Routine maintenance is likely to be a requirement of local Health and Safety legislation. The laws of the applicable country must be considered and maintenance checks carried out accordingly. Additional checks that are advisable to ensure the efficiency of ABTECH 'S' range enclosures are:-

Activity	Frequency
1 Check that the lid seal is not damaged and is in place	Each time the enclosure is opened
2 Check that all lid fixing screws are in place and secured	Each time the enclosure is opened
3 Check that all gland plate fixing screws are in place and secured	Each time the enclosure is opened
4 Check that the mounting bolts are tight and free of corrosion	Annually
5 Check the security of all cable glands	Annually
6 Check the enclosure for damage	Annually

Chemical Attack

The ABTECH MJB units are manufacture from 316 stainless steel. The following additional material are also used :-

Neoprene or silicone rubber,
Brass,
Cast epoxy resin.

Consideration should be given to the environment in which these enclosures are to be used to determine the suitability of these materials to withstand any corrosive agents that may be present.

Static Hazard

MJB units do not present a hazard from static electricity.

Vibration

MJB range terminal boxes are designed for use in areas subject to normal industrial levels of vibration. They are not designed for use in areas subject to intentional or extreme conditions of vibration.

Protection From Foreseeable Faults

Circuits connected in the enclosure must be externally protected using suitable circuit interruption devices to prevent overloading. Provided the enclosure is correctly installed, there should be no foreseeable faults.