



## Masterseal Plus™

Switch Modules, Enclosures,  
Neon Indicator Modules,  
Junction Boxes,  
Rated to IP66\*

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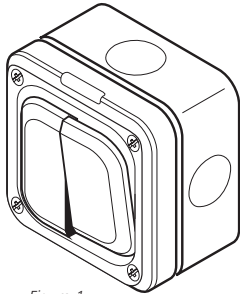


Figure 1

Please leave this leaflet with the end user for future reference

### A. PRODUCT FEATURES

The Masterseal Plus range consists of various surface mounted and flush mounted products and associated bezels and service items.

The Masterseal Plus range of products are robust and made from a tough thermoplastic material suitable for interior and exterior use wherever corrosion resistance, dirt and moisture proofing is required.

All products accept MK push in conduit and cable entries that complement the range. See Service Items.

All enclosures with external switch rockers have a fluoresent neon locator that remains lit regardless of the switch position. Replacement neon locators are available, see Service Items.

If correctly installed, the Masterseal Plus range of products offer an international protection code of IP66\*.

If you are in any doubt regarding this range of products, please contact MK Technical Sales Service Department on:

+44 (0) 1268 563720 or your local MK representative.

All products conform to their relevant National standard as well as the standard for enclosures BSEN60439-1, switches to BSEN60669-1 and junction box to BS6220.

\*Applies to all products except the Grid Plus enclosure K56414

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### B. SERVICE ITEMS

List No.	Description	Dimensions
56890	Neon Locator	31 x 7 dia
56460	Entry Blank	26.9 dia x 5.25
56461	PVC Cable Entry	26.9 dia x 10.15
56462	20 mm Plain Conduit Entry	26.9 dia x 28
56463	20 mm Threaded conduit Entry	26.9 dia x 28
56464	Box Coupler	26.9 dia x 16.5
9933	M20 Earth Lead Adaptor	

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### C. SAFETY INSTRUCTIONS

#### WARNING

**SWITCH OFF AND ISOLATE THE MAINS SUPPLY BEFORE CARRYING OUT INSTALLATION OF THE MASTERSEAL PLUS PRODUCT.**

1. This product must be installed by a competent person in accordance with the current editions of the IEE Wiring Regulations (BS7671) and Buildings Regulations. If in any doubt, consult a qualified electrician.
2. It is essential that all connections are made as instructed that cables are not stressed and terminals are fully tightened.
3. Where an earth terminal is fitted this should be connected to a protective earth conductor.
4. If metal conduit is used in more than one cable entry earth continuity must be maintained between conduits.
5. The neon locator must not be used as a mains status indicator.
6. In junction boxes, four terminal blocks are provided (L, N, E and Loop as required). Ensure only wires of the same polarity are connected in each block. Earth and Loop terminals in the mounting box should not be used.
7. At the end of their useful life, the packaging and product should be disposed of via a suitable recycling centre where facilities exist. DO NOT BURN.

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### D. INSTALLATION

#### NOTES:

1. The enclosure is made from polycarbonate which is a highly durable material, and ideal for most environments. However, if installing in areas where creosote, some chemicals, synthetic oils and harsh cleaners are used, seek advice from MK Technical Sales Service Department
2. The enclosure must be mounted on a flat, vertical surface that is free from grease, dirt and loose material.
3. If the conduit cable entry is from the top or sides the lower drain hole in the mounting box must be drilled out using a 5mm diameter drill bit. This will allow any condensation formed in the conduit system to drain out of the unit. **Note: opening the drain hole will reduce the IP rating; therefore ensure that jetted water is not directed at the unit.**
4. The drain hole should not be drilled out if the enclosure is to be installed in an excessively dusty environment. If the drain hole is not drilled out, only the bottom cable entry must be used.
5. If conduit is used for bottom cable entry, a 5 mm diameter drain hole needs to be drilled in the lowest point of the conduit run.
6. If wiring directly to the enclosure without conduit and the installation is outdoors, ensure that a cable specified for outside use is used.

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7. Please note; the colour codes used rigid cabling in the UK prior to April 2004 are as follows:-  
RED = terminals marked 'L'  
BLACK = terminals marked 'N'  
GREEN / YELLOW = terminals marked '⊕'.

In all other areas of the EU, as well as new build installations in the UK after April 2004, the colour codes used are:-  
BROWN = terminals marked 'L'  
BLUE = terminals marked 'N'  
GREEN / YELLOW = terminals marked '⊕'

8. Use cable with a maximum outside diameter of 17mm.  
9. PVC Cable Entry (see Service Items) must only be used at the bottom cable entry of the enclosure.

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#### INSTRUCTIONS:

##### CAUTION

**Do not allow paint or wood preservative to come into contact with the product. The product can be safely mounted on painted surfaces or surfaces treated with wood preservative when the paint or wood preservative is completely dry.**

1. Read the safety instructions.
2. Mark the position of the fixing holes for the mounting box:

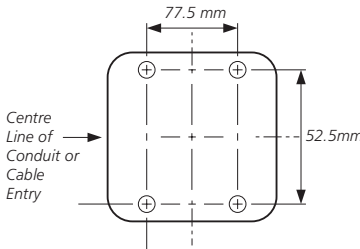


Figure 2

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3. Drill holes and fit wall plugs suitable for a No. 8 wood screw.
4. Prior to fitting the mounting box to the wall, drill out the drain hole if required (see Installation Note 3). File out the complete drain hole profile. Take care not to damage the internal wall.
5. Carefully remove the cable entry blanks, or drill out rear cable entry, as required and fit conduit entry (see Service Items).

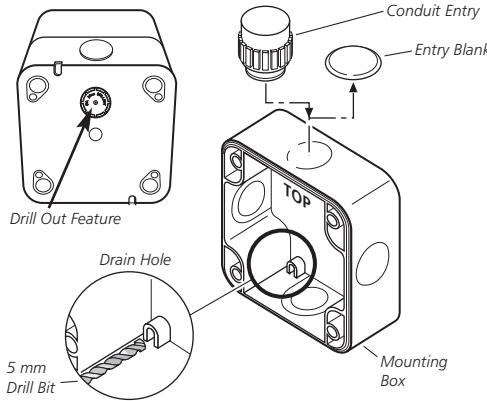


Figure 3

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6. Secure the mounting box to wall with four No. 8 wood screws. Position drain hole at bottom left hand corner.
7. Align and install conduit or conduit entry as required.
8. Seal the conduit and cable entry with a non setting conduit sealant such as Egaweld™ No. 2. Refer to Figure 4.

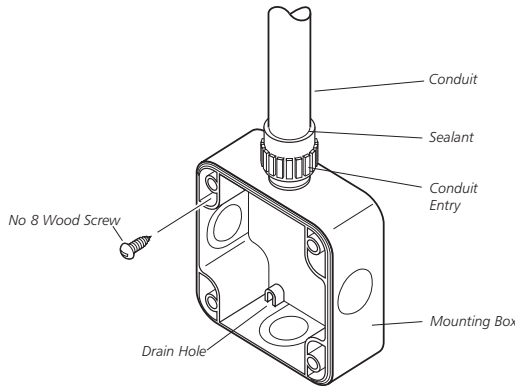


Figure 4

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#### Switch and Neon Modules

9. Locate and clip the appropriate switch modules into position on the front plate as shown in Figure 5.
10. Locate the slots at the TOP of the switch module over the locating lugs at the TOP of the front plate and press the bottom of the switch module firmly to snap it into place. TOP is marked on the moulding of the switch module and the front plate.
11. When a neon module is fitted ensure the module is fitted on the left hand side (i.e. behind the window in the front plate).

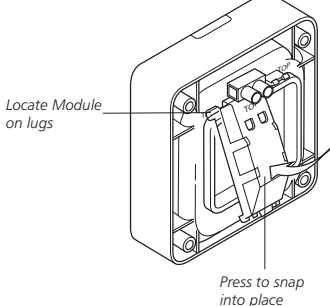


Figure 5

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12. For mains products refer to the wiring diagram in Figure 6.

If there is no neutral supply present, i.e. for lighting applications, wire the neon locator as follows:

**One way switch** – connect wires to L1 and common (COM)

**Two way switch** – connect wires 1, 2 and common (COM)

**Two way switch (used as one way)** – connect wires to 1 and common (COM)

**NB.** With no neutral supply the neon locator is only illuminated when the switch is set to OFF. Also if the light bulb has blown or has been removed the neon indicator will not illuminate.

13. Before wiring and fitting the front plate, position the seal on the mounting box. Ensure the holes are aligned and the slot in the seal is aligned with the ribs on the mounting box and the cables are threaded through the seal.

14. The neon locator wires must be securely located in the peg provided. Refer to Figure 8.

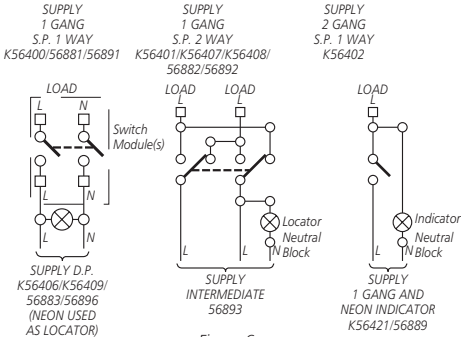
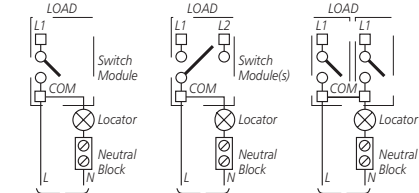


Figure 6

15. Before wiring and fitting the front plate, position the seal onto the front plate. With the front plate correctly orientated, wire and fit the front plate. Ensure that the wires are long enough to allow easy access to the terminals but short enough to fit comfortably in the mounting box. Ensure that the seal is correctly located and that no cables are trapped and that screws are fully tightened.

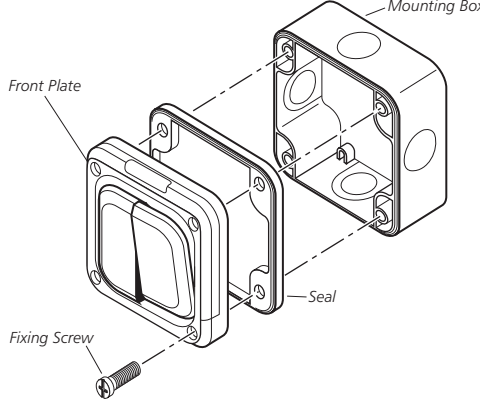


Figure 7

## E. TESTING

Test the completed installation in accordance with the latest edition of the IEE regulations (BS 7671).

## F. SERVICE MAINTENANCE

### CLEANING

1. The exterior of the product must only be cleaned with a solution of mild detergent (e.g. washing up liquid) and warm water.

## NEON LOCATOR REPLACEMENT

### WARNING

**SWITCH OFF AND ISOLATE THE MAINS SUPPLY TO THE UNIT.**

1. Remove the front plate. Note the position and connection of the wires. Disconnect the neon locator wires.
2. Use a flat bladed screwdriver to remove the neon locator. Refer to Figure 8.
3. Install the new neon locator. Route the wires behind the location peg. Connect wires as noted on removal. Refit the front plate.

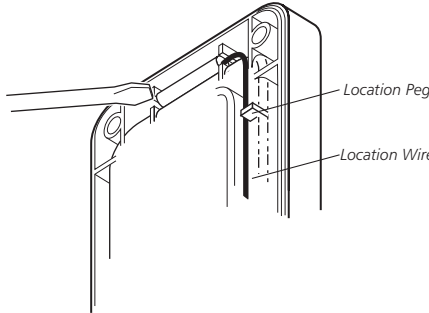


Figure 8

## G. SPECIFICATION



### Compliance with EU Directives

This product complies with the following EU directives:

Low Voltage Directive (73/23/EEC)

Electromagnetic Compatibility Directive (89/336/EEC)

It also complies with the following standard:

Environmental Protection BS EN 60529-IP66

Operating Temperature range -25°C to +55°C

All products are manufactured in accordance with ISO9001: 2008 and where applicable comply with the EMC and/or LV directives 89/336/EEC and 73/23/EEC.

## H. GUARANTEE

The company undertakes to replace or repair at its discretion products that become defective within 20 years in the case of electromechanical Wiring Device products and 10 years in the case of mains related electronic Wiring Device products and all Circuit Protection and Cable Management products solely as a result of faulty materials and or workmanship. Understandably if the product has not been installed or maintained in accordance with the company's instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the guarantee will be invalidated.

This guarantee states the company's entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This guarantee does not restrict or infringe the normal statutory or other rights of the customer.

### Repair of goods after the guarantee period

If the product fails under normal use after expiry of the guarantee period, contact your local dealer or stockist

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