Schneider Electric

Exclusive

Instructions for :

IP66 Weatherproof

AR1637 Ed B

Please read these instructions fully before commencing installation and retain for future reference.

1. Safety and Usage Instructions

1.1 Switch OFF the mains supply and remove the appropriate fuse or switch off the appropriate circuit breaker before commencing installation. Ensure that no one else has access that would enable the supply to be inadvertently reconnected.

1.2 These accessories must only be installed by a competent person and in accordance with the current edition of the IEE Wiring Regulations (BS 7671: Requirements for Electrical Installations) and any applicable statutory regulations.

NOTE: IF YOU ARE IN ANY DOUBT ON HOW TO PROCEED, CONSULT A QUALIFIED ELECTRICIAN.

1.3 If the accessories are to be mounted remote from the house, as opposed to being mounted on the external house walls, they must be wired to a separate circuit taken from the house consumer unit.

1.4 A fuse or circuit breaker of the appropriate rating must be used to protect the new circuit at the consumer unit. In addition, it is a requirement of the IEE Wiring Regulations that any circuit used to supply power to outdoor accessories must be protected by an RCD (Residual Current Device) having a maximum sensitivity of 30mA.

1.5 These weatherproof accessories have an International Protection (IP) Code of IP66 in accordance with BS EN 60529 when the cover is in the closed position. This IP rating does not apply when the cover is open.

2. Cable Application Notes

2.1 For the majority of installations where the wiring is directly exposed to water or U.V. radiation flexible rubber sheathed cables of type H05RN-F must be used. This may be used with the stepped cable gland supplied provided that a suitable (RTV silicone or acrylic) sealing compound is placed around the cable at the point of entry.

Note: To maintain IP66 ensure only one cable is used with this gland.

2.2 For additional protection the use of compression fitting cable glands are recommended.

2.3 The use of unprotected PVC flat twin and earth cable is not recommended for use in locations likely to be exposed to weather, corrosive atmosphere or other adverse conditions.

2.4 For installations in particularly dusty or adverse weather conditions the use of PVC conduit together with the appropriate conduit fittings is recommended.

2.5 All weatherproof accessory enclosures are provided with 20mm cut-outs for the installation of compression cable glands. These cut-outs also incorporate a drill centre guide when using 20mm conduit adaptors. This centre guide ensures the correct conduit height is maintained from the enclosure mounting surface when using conduit fixing saddles and clips.

3. Installation and Wiring Instructions (General)

3.1 With the cover flap open remove the four cover fixing screws taking care not to damage the soft plastic gasket fitted between the front cover and the back box. Note the position of the gasket which is important for reassembly.

3.2 Select mounting screws that are suitable to securely fix the back box on whatever surface it is to be mounted. (Typically 4mm or No.8 x 11⁄2 inch).

3.3 If the supply cable is required to enter the enclosure through the rear, then a suitable hole will need to be cut.

3.4 Cut the stepped gland supplied to ensure a tight fit on the cable. If using flat (oval section) twin and earth, make a single cut on the end face of the gland.

For installations where the cable(s) are fed through the back of the enclosure via conduit it is necessary to provide a drain hole (5mm diameter minimum) in the blank provided in the rear surface of the enclosure at the lower edge. This ensures any condensation which may collect in the conduit can drain away.

3.5 Mount the back box in the chosen position using suitable screws and wall plugs as required. Wherever possible mount the back box so that the gland/cable entry point is pointing downwards.

3.6 For sockets, 1 gang sockets would normally be connected by 3 core 2.5mm² (or twin and earth) but 2 gang sockets require 4mm² if connected on a radial circuit. If in a ring circuit connect 2 x 2.5mm² twin and earth.

3.7 When bringing cables into the enclosure allow sufficient length to reach the furthest diagonal corner of the enclosure. Remove the outer sheath to the point where the cable just enters the enclosure. Remove 10mm of insulation from the ends of the individual conductors and connect to the appropriate terminals in accordance with the following diagrams and specific notes.

IMPORTANT: These instructions are applicable to installations within the UK and Eire. Please observe the following wiring conventions;

UK: Twin & Earth cable;		**Flexible cable;**	
RED	= LIVE	BROWN	= LIVE
BLACK	= NEUTRAL	BLUE	= NEUTRAL

IMPORTANT NOTICE: Wiring Colour Changes

As from 1st April 2004 new installations could be wired using the new EU Harmonised colours for the supply conductors:

New colours		**Old colours**	
Brown	= Live	Red	= Live
Blue	= Neutral	Black	= Neutral

The old colours will cease to be used from 1st April 2006.

EIRE: Twin & Earth cable;		**Flexible cable;**	
BROWN	= LIVE	BROWN	= LIVE
BLUE	= NEUTRAL	BLUE	= NEUTRAL

3.8 The soft plastic gasket that locates between the back box and the front cover should be placed over the conductors emerging from the back of the enclosure before connecting to the accessory terminals. Where applicable, bare earth conductors must be sleeved with green/yellow PVC sleeving.

3.9 It is recommended where cables enter the enclosure via the stepped cable gland and the back of the enclosure that a suitable (RTV silicone or acrylic) sealing compound is placed around cables at their point of entry to ensure a watertight seal.

3.10 Care must be taken to ensure that all terminals are tightened firmly onto the bared cable conductors and not the conductor insulation.

4. Specific Product Requirements

4.1 Sockets – Wiring Instructions

These should be wired in accordance with the appropriate wiring diagram showing the wiring arrangement required.

- 1 gang unswitched socket outlet - Refer to wiring diagram
- 2 gang unswitched socket outlets - Refer to wiring diagram
- 2 gang switched socket outlets - Refer to wiring diagram

When all connections have been made, the front covers should be fitted onto the back boxes, ensuring that the gasket is located correctly.

The circuit connections should be checked before the mains power is turned on.

4.2 RCD Protected Sockets

General Description

These devices will automatically trip if the mains supply is interrupted, and are therefore recommended for use with power tools lawn mowers, hedge trimmers etc, in order to ensure complete safety.

The RCD device provides protection against electric shock in the event of a fault developing within the appliance or an accident such as cutting through the mains lead when using a lawn mower. The double pole device within the unit provides complete isolation from the mains when tripped.

Note: These devices are non-latching and the contacts will open if there is an interruption in the mains supply. For this reason they are not recommended for appliances such as freezers.

To ensure a long and efficient working of these products, they should not be subjected to mistreatment or abnormal conditions such as smoke, chemical fumes, salt spray or long term high humidity.

Important Note

Electricity can be dangerous and an RCD socket should not be relied upon to provide safety in am otherwise unsafe installation.

Wiring Instructions

The RCD socket should be wired in accordance with the appropriate wiring diagram, showing the wiring arrangement required.

When all connections have been made, the front covers should be fitted onto the back boxes, ensuring that the gasket is located correctly.

The circuit connections should be checked before the mains power is turned on.

Operation

The RCD socket should be tested (as below) each time before use.

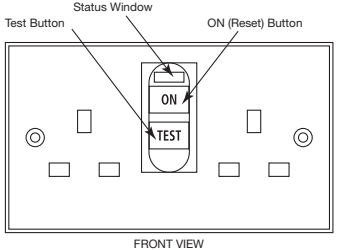
Testing Procedure

Remove appliance plugs from sockets.

If the red signal flag is not visible in the status window, press the grey (ON) button.

The red flag should appear in the status window. If the red flag does not appear it may mean that there is no mains supply feed to the socket. If the mains supply is being fed to the socket and the red flag does not appear, see 'Safety Notes' below.

Reset the device by pressing the grey (ON) button. The red flag should reappear in the window.



FRONT VIEW

Safety Notes

If the device does not operate in the way described in the 'TEST Procedure' above, do not use. It is likely that the RCD device is faulty and should be returned to the vendor from whom it was purchased.

No attempt should be made to repair the RCD socket. The units are sealed to prevent tampering and any damage to this seal will invalidate the guarantee.

Using the RCD Socket

Insert the plug(s) of the appliance(s) you wish to use.

The RCD socket should remain set and the appliances should work normally. The red flag will remain visible in the status window. If the action of plugging in the appliance causes the devices to trip (the red flag will disappear from the window), it is likely that there is a fault with the appliance, and you should consult a qualified electrician (see following note).

Note

The circuit, to which the RCD socket is connected, may be protected by another backup RCD somewhere else in the circuit.

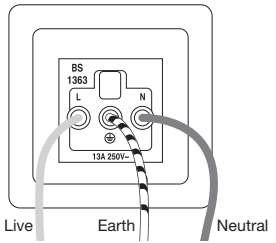
In the event of a fault developing, the backup RCD may trip before the RCD socket.

Technical Specification

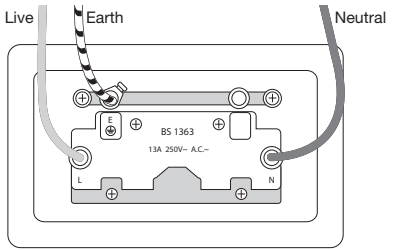
RCD Type:	Non-Latching
Voltage Rating:	250V a.c.
Current Rating:	13A (Complies with the requirements for BS 7288 & BS 1363)
Rated Tripping Current:	30mA
Breaking Capacity:	250A
Short Circuit Withstand:	1500A
Ambient Operating Temp:	-5°C to + 40°C
Operating Speed:	<40ms at a residual current of 150mA
Contact Break:	Double Pole
Specifications:	RCD Module – BS 7288
	Socket – BS 1363

5. Wiring Diagrams

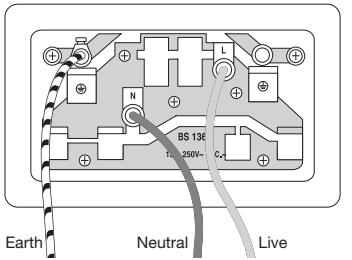
1 Gang 13A unswitched Socket-Outlet



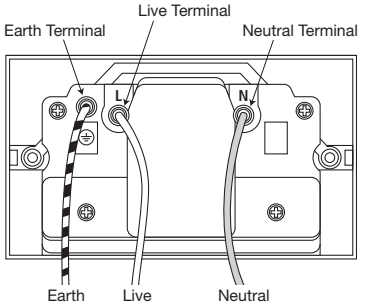
2 Gang 13A unswitched Socket-Outlet



2 Gang 13A switched Socket-Outlet



2 Gang RCD Socket-Outlet



Schneider Electric Ltd,
Stafford Park 5, Telford, Shropshire TF3 3BL

Helpline Telephone 0870 608 8608 / Fax 0870 608 8606

www.schneider-electric.co.uk