Schneider Electric

Exclusive

Instructions for :

IP55 Weatherproof

AR1634 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 IP55 in accordance with BS EN 60529 when the cover flaps are in the closed position. This IP rating does not apply when the flaps are in the open position, i.e. when the plug of an appliance is inserted into a weatherproof socket outlet.
For this reason THEY ARE NOT SUITABLE FOR APPLICATIONS WHERE A 13AMP PLUG IS LEFT PERMANENTLY PLUGGED INTO THE SOCKET WHILST EXPOSED TO ADVERSE WEATHER CONDITIONS, E.G. FOR PROVIDINGA POWER TO POND PUMPS, GARDEN LIGHTING ETC.

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 IP55 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 1 1/2 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 Ensure cable of the correct size and type is used for the installation. Typically this will be 3 core 1.0mm^2 or 1.5mm^2 (or twin and earth) for lighting applications.

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

3.8 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

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

WARNING: In switch lighting circuits the black insulated conductor may be used as a Live or Switched Live.

3.9 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.

3.10 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.

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

4. SPECIFIC WIRING REQUIREMENTS

4.1 Switches

- **1 gang 2 way switch**

  These can be wired as a simple 1 way switch or 2 way switches for controlling a light from two separate locations. Refer to the wiring diagram showing the wiring arrangement required.

- **2 gang and 3 gang 2 way switches**

  For the wiring of these switches these are to be treated as individual 1 gang switches. Therefore refer to the wiring diagrams.

  When installing switches the earth conductors of the incoming and outgoing cables (as applicable) must be connected together to the earth terminal provided in the enclosure.

- **1 gang intermediate switch**

  Intermediate switches are normally wired as part of a 2way switch circuit to provide an additional switch to control a light from a third location. Refer to the wiring diagram showing the wiring arrangement required.

  When installing switches the earth conductors of the incoming and outgoing cables (as applicable) must be connected together to the earth terminal provided in the enclosure.

- **1 gang Double Pole switch (with/without neon indicator)**

  These switches are 1 way double pole switches which provide complete electrical disconnection from the incoming supply to the connected out going load. Refer to the wiring diagram showing the wiring arrangement required.

  When installing switches the earth conductors of the incoming and outgoing cables (as applicable) must be connected together to the earth terminal provided in the enclosure.

4.2 Sockets

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

It should be noted that in the case of the 1 gang switched socket outlet, it will be necessary to fit link wires between the switch and socket outlet.

NOTE: All link wires must be single insulated conductors of same size (cross-sectional area) as the supply conductor(s).

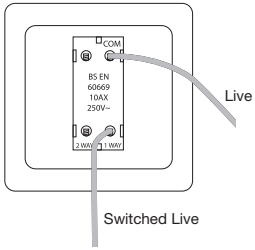
Link wires should be approximately 90mm long with 10mm removed from each end to expose bare conductors for termination.

- **1 gang socket outlet** - Refer to wiring diagram.
- **1 gang switched socket outlet** - Refer to wiring diagram:
  - Connect incoming Live conductor(s) to switch terminal L1
  - Connect incoming Neutral conductor(s) to switch terminal N1
  - Connect Live link wire between switch terminal L2 and socket terminal L
  - Connect Neutral link wire between switch terminal N2 and socket terminal N
  - Connect incoming Earth conductors) to socket terminal ⏚
- **2 gang unswitched and switched socket outlets**

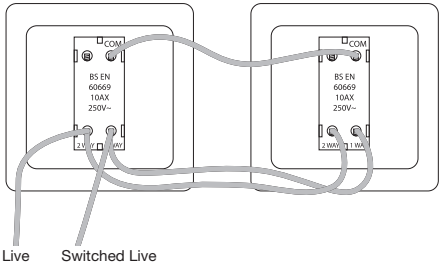
  Refer to wiring diagram.

5. WIRING DIAGRAMS :

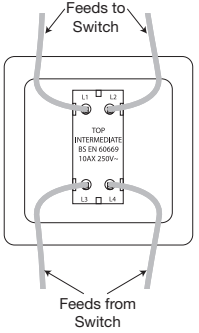
1 Gang 10A Switch (1 way switching)



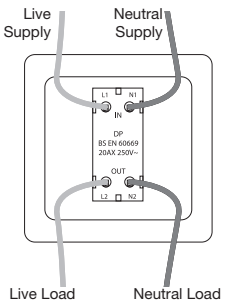
1 Gang 10A Switch (2 way switching)



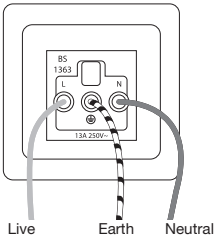
1 Gang 10A Intermediate Switch



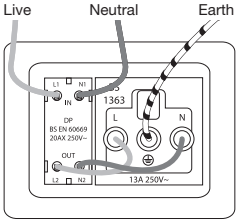
1 gang 20A Double Pole Switch



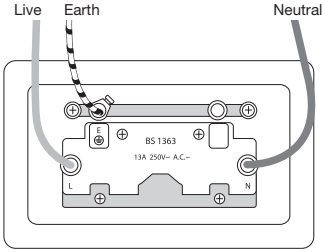
1 Gang 13A unswitched Socket-Outlet



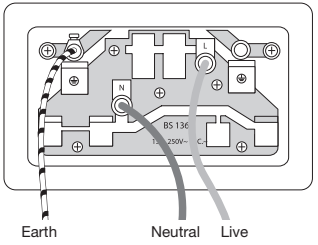
1 Gang 13A switched Socket-Outlet



2 Gang 13A Unswitched Socket-Outlet



2 Gang 13A switched Socket-Outlet



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