# Schneider Electric

Instructions for:

**Electrical Accessories** 

ΔR1612 Ed E

#### FITTING INSTRUCTIONS FOR WHITE ACCESSORIES

Read these instructions fully before commencing work and retain them for future reference.

#### Safety Instructions

2 GANG 2 WAY SWITCH

These accessories are to be installed in accordance with the current edition of the IEE Wiring regulations (BS 7671: Requirements for Electrical Installations) and appropriate statutory regulations

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

(See also fitting instructions for Decorative Metal Plate Accessories - panel 3.)

- . 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
- . Remove the existing accessory from the wall (if using the new accessory to replace an old one).
- 3. Remove any plaster debris and dust from the inside of the mounting box (wall box). Ensure that the heads of any box fixing screws do not protrude into the box.

- 4. Always use cable of the correct rating and type.
- 5. The layout of the terminal connections may differ between fittings, carefully check the location of the terminal connections before wiring.
- 6. Connect the new accessory as shown in the appropriate wiring diagram ensuring that only the copper core(s) enter the terminals and that there are no stray strands. If necessary trim and strip the cable to suit. The terminal screws must be tightened firmly.
- 7. Where necessary connect the fixed earth wire to the earth terminal on the accessory and then connect a short length of wire from the accessory earth terminal to the earth terminal in the wall box. If the earth wire is bare it should be sheathed with a length of green/yellow
- 8. Secure the accessory to the wall by means of the fixing screws provided, positioning the cables in the box so as to avoid them being trapped.
- 9. Replace the appropriate fuse, or switch on the appropriate circuit breaker. Switch on the mains isolator switch.

#### FITTING INSTRUCTIONS FOR DECORATIVE METAL PLATE AND METALCLAD ACCESSORIES

Read these instructions fully before commencing work and retain them for future reference.

#### Safety Instructions

These accessories are to be installed in accordance with the current edition of the IEE Wiring regulations (BS 7671) Requirements for Electrical Installations) and appropriate statutory regulations.

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

- 1. Follow points 1 to 5 under the Fitting Instructions for White Accessories (page 1) as these also apply to the installation of Decorative Metal Plate Accessories.
- 2. Decorative Metal Plate Accessories are supplied with a clear plastic gasket that must be positioned between the wall and the metal plate of the accessory. This gasket must therefore be placed over the wires before they are connected to the accessory. This is particularly important on freshly decorated or plastered surfaces.

3. Follow points 6 to 9 under the Fitting Instructions for White Accessories (pages 1 and 2) as these also apply to the installation of Decorative Metal Plate Accessories.

IMPORTANT: The metal plates of Decorative Metal Plate or Metalclad Accessories must be correctly earthed. This is achieved by connecting the fixed earth wire to the earth terminal provided on the accessory or on the metal plate and then connecting a short length of wire from this terminal to the terminal in the box. If the earth wire is bare it should be sheathed with a length of green/yellow sleeving.

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

EIRE: Twin & Earth Cable Brown = Live Flexible Cable Blue = Neutral

#### UK: 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 of twin and earth cable:

NEW COLOURS OLD COLOURS

Brown = Live Red = Live Black = Neutral Blue = Neutral

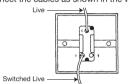
The old colours will cease to be used from 1st April 2006.

Flexible cable colours remain unchanged;

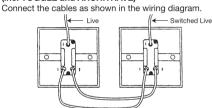
Brown = Live Blue = Neutral

For lighting circuits, use sleeving of the appropriate 'live' colour, to identify switched live connections.

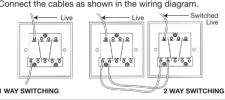
1 GANG 1 WAY SWITCH (inc. ARCHITRAVE) Connect the cables as shown in the wiring diagram.



#### 1 GANG 2 WAY SWITCH (inc. TOGGLE and ARCHITRAVE)

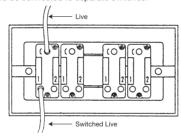


(inc. TOGGLE and ARCHITRAVE) Connect the cables as shown in the wiring diagram. ✓ Switched Live 1 WAY SWITCHING 3 GANG 2 WAY SWITCH (inc. TOGGLE) Connect the cables as shown in the wiring diagram. 0,000,0 9,00,00 8/8 8/8



#### 4 GANG 2 WAY SWITCH

For one way switching connect the cables as shown in the wiring diagram. Each light fitting, or group of light fittings, which are to be controlled separately from any other should be connected to separate switches.



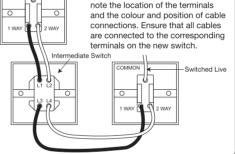
For 2 way switching, note the location of the terminals and the colour and position of cable connections before removing the existing accessory. Consult previous wiring diagrams (pages 6 and 7) for 2 way wiring.

#### 1 GANG INTERMEDIATE SWITCH

Live —

Intermediate switches are used if more than two switches are required to control a two way lighting circuit They should be fitted between the first and last switches on the circuit. One particular wiring arrangement, which

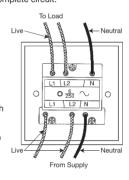
> may be used is shown in the following diagram. If replacing an existing switch, note the location of the terminals connections. Ensure that all cables terminals on the new switch.



#### 3 POLE ISOLATOR SWITCH

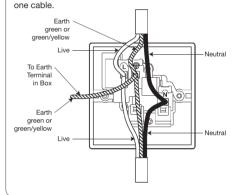
One of the main applications for isolator switches is to fully disconnect the power supply (permanent live, switched live and neutral) to timer controlled extractor fans. The isolator switch also allows maintenance work to be carried out without switching off the complete circuit.

Connect the conductors of the incoming (supply) and outgoing (load) cables as shown in the diagram. The earth conductors of the incoming and outgoing cables must be connected together in the earth terminal fitted in the wall box. When the isolator switch is fitted with an earth terminal this must also be connected to the earth terminal in the box. All bare earth conductors must be sleeved with green/yellow sleeving.



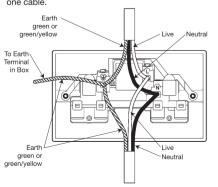
#### 13 AMP SINGLE SWITCHED SOCKET

Connect the cables as shown in the wiring diagram. The diagram shows connections for a ring main circuit. For radial circuits or a spur off a ring main there will only be



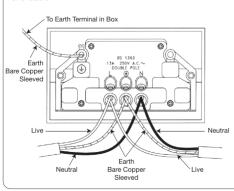
#### 13 AMP 2 GANG SWITCHED SOCKET

Connect the cables as shown in the wiring diagram. The diagram shows connections for a ring main circuit. For radial circuits or a spur off a ring main there will only be one cable



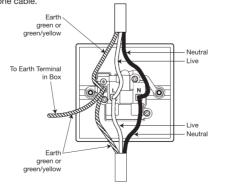
#### 13 AMP 2 GANG DOUBLE POLE SWITCHED SOCKET

Connect the cables as shown in the wiring diagram. The diagram shows connections for a ring main circuit. For radial circuits or a spur off a ring main there will only be



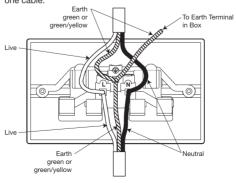
#### 13 AMP SINGLE UNSWITCHED SOCKET

Connect the cables as shown in the wiring diagram. The diagram shows connections for a ring main circuit. For radial circuits or a spur off a ring main there will only be one cable



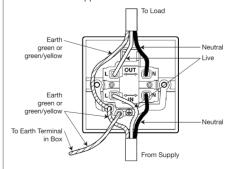
#### 13 AMP DOUBLE UNSWITCHED SOCKET

Connect the cables as shown in the wiring diagram. The diagram shows connections for a ring main circuit For radial circuits or a spur off a ring main there will only be one cable.



## 13 AMP UNSWITCHED FUSED CONNECTION UNIT

Fitted with a 13 Amp fuse. Connect the cables as shown in the wiring diagram. Ensure that the load cable is connected to the appliance.



When used on a ring main there will be two supply cables. Connect both of the cables to the same terminal.

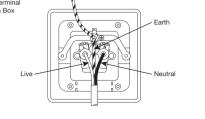
#### SINGLE SOCKET ROUND PIN

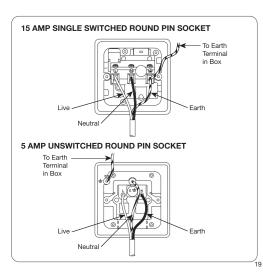
rating.

Connect the cables as shown in the wiring diagram. Do not connect this socket directly to a ring main circuit.

It should only be connected to either a radial circuit, protected by a MCB/fuse of the appropriate rating at the consumer unit/fuseboard, or spurred from a ring main and protected by a fused connection unit fitted with a fuse of the appropriate

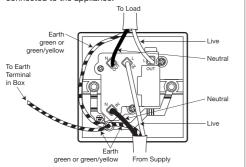
To Earth in Box





#### 13 AMP SWITCHED FUSED CONNECTION UNIT

Fitted with a 13 Amp fuse. Connect the cables as shown in the wiring diagram. Ensure that the load cable is connected to the appliance



When used on a ring main there will be two supply cables. Connect both of the cables to the same terminal.

#### 20 AMP FLEX OUTLET PLATE

The product must be earthed. Connect the cables as shown in the wiring diagram.

If required carefully remove the cable cut-out, on the side of the frontplate so that the load cable fits neatly within it. Note: Ensure that all sharp edges are removed. Before fitting frontplate, ensure that the load cable is securely

retained by the cable clamp. Check that the load cable is connected to the appliance Bare Copper

From Supply

When used on a ring main there will be two supply cables. Connect both of the cables to the same terminal. BARE COPPER MUST BE SHEATHED IN GREEN/YELLOW SLEEVING.

20 AMP DOUBLE POLE SWITCHES

To Earth

Terminal in Box

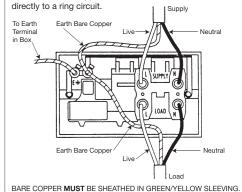
To Earth Termina Connect the cables as shown in the wiring diagram.

Ensure that the load cable is connected to the appliance.

## 50 AMP 1 GANG AND 2 GANG SWITCHES The product must be earthed. Connect the cables as shown in the wiring diagram. Ensure that the load cable is connected to the appliance. Do not connect this switch directly to a ring circuit. Earth Bare Coppe BARE COPPER MUST BE SHEATHED IN GREEN/YELLOW SLEEVING.

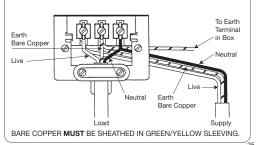
#### 45 AMP COOKER CONTROL UNIT

The product must be earthed. Connect the cables as shown in the wiring diagram. Ensure that the load cable is connected to the appliance. Do not connect this switch



#### 45 AMP COOKER CONNECTION UNIT

The product must be earthed. Connect the cables as shown in the wiring diagram. Fit the cooker connection unit to the back box, and ensure that the load cable is securely retained by the cable clamp. Check and ensure that the load cable is connected to the appliance. Before re-fitting the front cover of the cooker connection unit, carefully remove the cable cut-out so that it fits neatly around the load cable. Note: Ensure that all sharp edges are removed.



#### TELEPHONE SOCKETS

- . Master sockets should only be fitted by on authorised
- 2. Secondary sockets are for adding extensions. These may be from a Master socket or from another Secondary socket. The procedure is the same for both arrangements. The maximum number of extension sockets is normally 5.
- 3. The unit is mounted on a 1 gang flush mounting box (wall box) with a minimum depth of 25mm
- 4. On the reverse side of the socket there are two rows of connectors each having 3 slots/connectors numbered as shown in fig 1. Terminals are connected using 4 core telephone cable. Terminals 2, 3, 4 and 5 on the master socket are connected to terminals 2, 3, 4 and 5 on the secondary socket. As long as the same cable colour is used for the same terminal on each socket, the actual colours used are not important.
- Terminals will either be screw connectors, push-in connectors or insulation displacement connectors (IDC).

For screw connectors and push-in connectors:

1. Remove 50mm of outer insulation and strip back 6mm from the ends of each conductor.

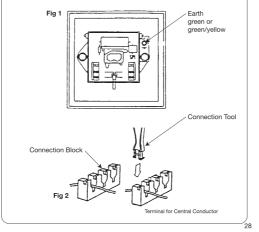
2. For screw connectors, terminate in the normal way. For push-in connectors, carefully push the end of the exposed wire into the appropriate numbered conductor hole.

To attach the wire to IDC type terminals, position the wire as shown in Fig. 2, leaving 12mm over-hanging.

Press the wire into the connector using a IDC termination tool and remove any excess wire.

6. Telephone sockets fitted with metal front plates are fitted with earth terminals. The earth terminals on the socket should be connected to the earth terminal in the wall box by means of a short length of copper wire. If the wire is bare, it could be sleeved with green/yellow sleeving.

#### WIRING DIAGRAM FOR TELEPHONE SOCKETS



#### CO-AXIAL SOCKET

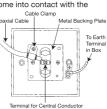
Connect the cables as shown in the wiring diagram. Carefully slit the outer cable sheath and peel back to the required length. Remove the excess sheath and expose the underlying

copper braided screen. Roll back the screen over the top of the outer sheath and trim back a short length of the inner insulation to expose the inner core. Fit

the inner core to the centre terminal and tighten the screw. Position the section of cable, covered with the braided screen.

beneath the cable clamp and fully tighten the screw. Ensure that the braided screen is securely held by the cable clamp, and is in contact with the metal backing plate. Do not allow the outer braided screen to come into contact with the central terminal

In the case of accessories having metal front plates and fitted with earth terminals, the earth terminal on the accessory should be connected to the earth terminal in the wall box by means of a short length of copper wire. If this wire is bare, it should be sleeved with green/yellow sleeving.



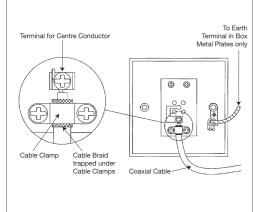
#### SATELLITE SOCKET

Connect the cable as shown in the diagram. Carefully slit the outer cable sheath and peel back to the required length. Remove the excess and expose the underlying copper braided screen.

Roll the braided screen over the top of the outer sheath and trim back a short length of inner insulation to expose the centre conductor. Slacken the screws that retain the cable clamp and also the screw that clamps the centre conductor. Position the cable so that the section covered by the braided screen sits beneath the cable clamp and the centre conductor sits under the head of the screw in the centre conductor terminal. Tighten the screws on the cable clamp and the centre conductor terminal screw. Ensure that the braided screen does not come into contact with the centre conductor terminal.

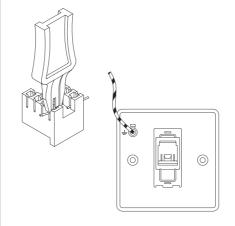
In the case of accessories having metal front plates and fitted with earth terminals, the earth terminal on the accessory should be connected to the earth terminal in the wall box by means of a short length of copper wire. If this wire is bare, it should be sleeved with green/yellow sleeving.

#### SATELLITE SOCKET DIAGRAM



#### **RJ11 AND RJ45 DATA OUTLETS**

These accessories require a minimum box depth of 35mm. On the reverse of the accessory, remove the top cover to expose the terminal connectors. There are two rows of terminals, each having a number of colour coded connectors. Determine whether the wiring scheme is T568A or T568B and use the appropriate colour code guide to identify the correct position of each of the cables. To attach the wire to the terminal connectors, position the wire as shown in Fig 2. Press the wire into the connector using the tool provided. Once all cables are connected, remove any excess wire and replace the top cover. In the case of accessories having metal front plates and fitted with earth terminals, the earth terminal on the accessory should be connected to the earth terminal in the wall box by means of a short length of copper wire. If this wire is bare, it should be sleeved with green/yellow sleeving.

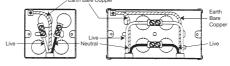


### 1 AND 2 GANG BLANK PLATES

If using the blank plate to cover the position of an existing accessory, ensure that any remaining cables are isolated and terminated at a convenient junction. Where possible remove the cables from inside the wall box.

If the cable cannot be isolated, ensure that the bare ends of the live and neutral cables are terminated separately, within suitably sized terminal blocks. The terminal blocks should then he covered with insulating tape for additional safety. Any earth cables must be sheathed in green/yellow sleeving and connected to the earth terminal in the wall box. In all instances, it is important that the earthing circuit is maintained when removing an accessory.

If the accessory to be removed is on a ring main it is important that, after removal, the connections for the ring circuit are maintained. This can be achieved by connecting all the live



cables together, and then all the neutral cables together with suitably sized terminal blocks. The terminal blocks should then be covered with insulating tape for additional safety. All earth cables must be sheathed in green/yellow sleeving and connected to the earth terminal in the wall box.

In the case of metal blanking plates fitted with earth terminals, the earth terminal on the plate should be connected to the earth terminal in the wall box by means of a short length of copper wire

BARE COPPER MUST BE SHEATHED IN GREEN/YELLOW SLEEVING.

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#### International Customer Care Centre Numbers

+966 920011101

Saudi Arabia

yprus	+357 24812649
aq	+962 65166260
ordan	+962 65166465
ebanon	+961 1321645
ong Kong	+852 2579 9699
igeria	+234 (0)14483381
AE/Pakistan/Yemen	+971 4 7099333
ahrain	+973 17 213277
uwait	+965 22494604
man	800 73666
atar	+974 44553010
K	+44 (0)870 608 8608

Schneider Electric Ltd. Stafford Park 5, Telford, Shropshire TF3 3BL, UK www.schneider-electric.com