

# TECHNICAL INFORMATION

## Switch Interiors

Series 2 switches (Patent 2185632) are designed to standards BS 3676 and IEC 669-1 and are fully tested to their rated capacity for both inductive and fluorescent loads.

The double insulated Series 2 switch has been independently tested and certified to BS 3676: Part 1: 1989 by ASTA for 250V 20AX rating (certificate number 11690). The push-to-make/push-to-break retractive switch (catalogue number 15) and the 2 way & off retractive switch (catalogue number 17) are both rated at 250V 6amps.

The switch body is a glass reinforced polyester moulding. The rockers are manufactured from brass or aluminium finished to either complement or match the cover plate finish.

Brass terminals are pillar screw type with silver switch contacts and 3mm contact gap. Angled terminal screws make connection easier.

Palace toggle switches are designed to BS3676 and IEC 669-1 standards and are fully tested to their rated capacity, 250V 20amps AC, for both inductive and fluorescent loads. The switches are independently tested by ASTA, (certificate number S11844). The bell push is rated at 250V 6amps AC.

## Rotary Dimmers

Rotary dimmers, suitable for use with tungsten lighting are push on/off switch dimmers, which act at any pre-selected brightness setting. They have two-way switching that may be used with a normal two-way switch elsewhere.

### Rotary dimmer references

For dimming 240V tungsten lamps

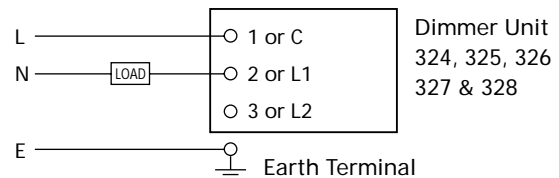
| Unit | Description     | Rating        |
|------|-----------------|---------------|
| 324  | Dimmer interior | 40-250 watt   |
| 325  | Dimmer interior | 60-400 watt   |
| 327  | Dimmer interior | 150-1000 watt |

For dimming transformer supplied low voltage tungsten halogen lamps.

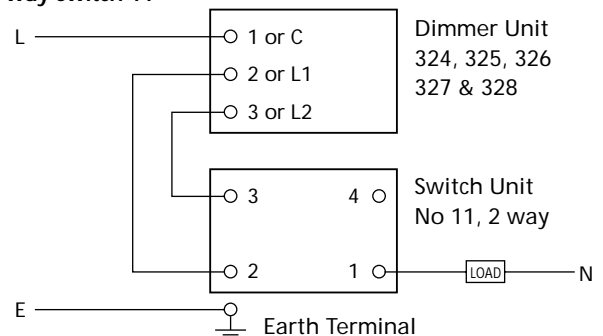
| Unit | Description     | Rating     |
|------|-----------------|------------|
| 326  | Dimmer interior | 20-200 VA  |
| 328  | Dimmer interior | 150-500 VA |

Note that transformers supplying low voltage lamps should be toroidal or laminate construction. Some electronic transformers are not compatible, please check with the transformer manufacturer which types of dimmers are compatible with their electronic transformers.

Wiring diagram for 324, 325, 326, 327 & 328



Wiring diagram for 324, 325, 326, 327 & 328 dimmer units with 2 way switch 11



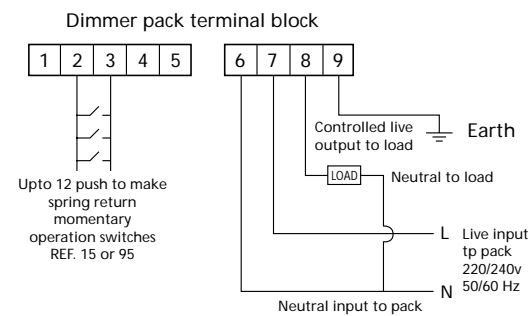
## Remote Dimmer Packs

The range of hard fired, remote dimmer packs are available in 1 KW, 2.5 KW and 5 KW ratings for controlling 240 volt tungsten lighting. They are operated by a retractive switch (catalogue number 15), or a push to make switch (catalogue number 95).

When the switch is pushed the light will operate on or off and if held the light level will vary. The dimmer will latch at the selected light level when the switch is released. A maximum of 12 switches may be used with each dimmer pack. Only push to make switches must be used with this system.

The remote dimmer packs may also be used to control transformer (inductive) loads for low voltage Tungsten Halogen lamps providing a de-rating factor of 20% is allowed. Further information is available from our technical services department.

### Typical dimmer pack wiring diagram



Note that transformers supplying low voltage lamps should be toroidal or laminate construction. Some electronic transformers are not compatible, please check with the transformer manufacturer which types of dimmers are compatible with their electronic transformers.

The size of each transformer should be limited to a maximum recommended rating of 200 VA.

### Dimmer pack references

| Unit | Description | Rating             | External size (mm)      |
|------|-------------|--------------------|-------------------------|
| 305  | Dimmer pack | 1 KW @ 240 volts   | } 310 H x 185 W x 100 D |
| 306  | Dimmer pack | 2.5 KW @ 240 volts |                         |
| 307  | Dimmer pack | 5 KW @ 240 volts   |                         |

## Socket Outlets

### 2amp & 5amp

2amp and 5amp socket outlets are designed to BS 546

### 13amp

Switched socket outlets have double insulated rockers. All units will fit boxes to BS4662 with a minimum depth of 35mm. All 13amp socket outlets comply with BS1363.

Independent test certificates are held as follows:

- Single unswitched socket 13200 – BSI Report No. 188165
- Single unswitched socket 13270 – BSI Report No. AC000013
- Single switched socket A378 – ASTA Certificate No. 11319
- Twin switched socket A354 – BSI Report No. AC000699

## Socket Outlets

### NON-STANDARD 13AMP SOCKET OUTLETS

For use where a non-interchangeable facility is required, such as mixed voltages in computer installations. Non-standard socket outlets are also available with an isolated earth. Non-standard socket outlets are rated at 240V 13amps AC.

**For non-domestic use only. Units supplied less plugs.**

### AMERICAN SOCKETS

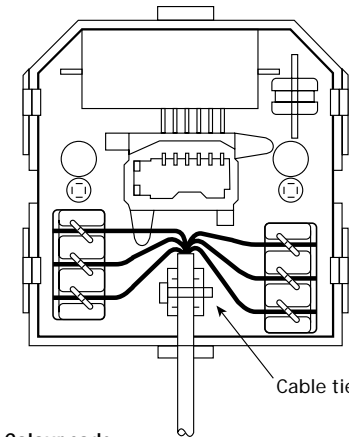
Socket outlet 1 gang American type 2 pole 3 wire grounding 15amp 125V NEMA line 5-15R. Socket outlet 2 gang American type 2 pole 3 wire grounding 15amp 125V NEMA line 5-15R. Interiors available in Brown (BW) only.

### GERMAN SOCKET

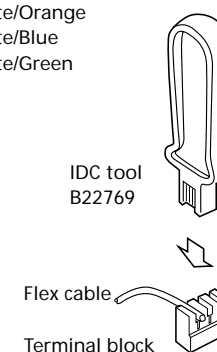
Socket outlet 1 gang German type Schuko 2 pole + earth 10/16amp 250V to DIN 49440 and VDE 0620. Interiors are available in Black (B) or White (W).

## Telecom Outlets (B.T. Standard)

### Installation data



| Terminal | Colour code  | Base/Stripe |
|----------|--------------|-------------|
| 1        | Green/White  |             |
| 2        | Blue/White   |             |
| 3        | Orange/White |             |
| 4        | White/Orange |             |
| 5        | White/Blue   |             |
| 6        | White/Green  |             |

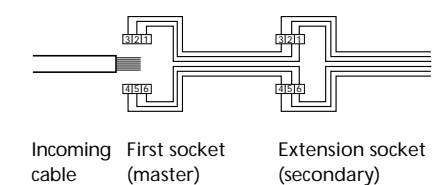


The shuttered telephone line jack outlets are designed to British Telecom standards and are suitable for connecting to the following: Master unit for connection as first socket to direct exchange lines and private branch exchange lines (PBX or PABX). Secondary units as extension sockets for connecting on the same line and in parallel to master units. All units have integral printed circuits and are suitable for up to 6 way connections, they also include a cable tie and termination tool. These units should be earthed in accordance with IEE regulations. Grids are provided with a flying earth lead for connection to the earth system of the installation.

It should be noted that unauthorised connection of a master telephone socket to a public exchange or direct telephone line owned by British Telecom or other telephone service provider is not allowed. Contact your local telephone area sales office to make arrangements for connections to any public exchange line. Interiors are available in White (W) or Black (B). BT approval number NS/3044/3/H/452593,4,5,6.

The units are fitted with a 601A jack socket compatible with 431A and 631A plugs, which have a right hand locking latch.

### Typical wiring diagram



A comprehensive installation leaflet with wiring diagrams is provided with each line jack unit

Connection to the terminal blocks of the line jack units is by the IDC (insulation Displacement Connection) method. An IDC tool is provided with each line jack unit.

## Data/Comms Outlets

D connectors are 25 pin sockets incorporating female screwlock assemblies for plug retention (plugs not supplied). Data outlets can contain the following interior modules: 31/W: RJ11 (USA/Telecom Erin) shuttered jack socket with Krone IDC terminations, White (W) only. 35/W or 35/B: RJ45 Category 5 shuttered jack data socket, White (W) or Black (B), compliant with EIA/TIA 568 TSB40. Supports up to 100 Mbps data transmission speeds, IDC terminations. 36/W: RJ45 Category 5 shielded shuttered jack data socket, White (W) only, compliant with EIA/TIA 568 TSB40. Supports up to 100 Mbps data transmission speeds, IDC terminations.

## Shaver Supply Unit

Shaver supply units are dual voltage: 115 – 230V output, designed to BS3535: 1990 and will accept UK, European, USA and Australian shaver plugs. Interiors are available in White (W) or Black (B).

## 45amp Double Pole Switch

The 45amp double pole switch complies with BS419: 1977 and BS3676: 1989. Interiors are available in White (W) or Brown (BW) with an amber neon indicator.

## 100amp Isolators

Isolator switches are rated at 100A 500V, 50/60Hz to BS5419: 1977 and are available in satin stainless steel.

## Fused Connection Units

Switched fused connection units have a double pole switch that has a 3mm contact gap for isolation. The units have a retained fuse carrier that is not removed during fuse replacement. The unswitched fuse connection unit has a neon indicator lamp incorporated in the fuse carrier to show when the output is energised. Patent 2186447. The fused connection unit complies with BS1363: Part 4: 1995.

## TV/FM/Satellite Outlets

TV/FM outlets (catalogue numbers A2955 and A2949) are for use on existing systems. They are safety isolated for use on multi outlet communal systems. FM/TV outlet (catalogue number A944) and FM/TV/Satellite outlet (catalogue number A944) are fully screened to BS EN 50083-2:1995 for new multi outlet installations. Socket connector to IEC169-2 for FM. Pin connector to IEC169-2 for TV. Type F connector for satellite with through line powering capacity.

### SINGLE 'F' TYPE CONNECTOR (2981)

Primarily for new satellite installations where the building has existing UHF (MATV) television distribution in place.

### TV/FM DIPLEXED OUTLET (2982)

Used where the TV and FM signals have been combined on a single coaxial cable by an amplifier. The unit then splits (Diplexes) the signals out to the relevant socket.

### TV/FM/SAT TRIPLEXED OUTPUT (2983)

Used on a system where all of the signals have previously been combined onto a single coaxial cable.

### TV/FM/SAT TRIPLEXED WITH RETURN AND SECONDARY LINE JACK (2984)

To be used in conjunction with a 'loft box' (not supplied). The 'loft box' has all of the aerial and satellite inputs, and feeds them down to the lounge (for example) on a single coaxial cable. The signals are split out by the unit and fed to the relevant equipment (TV, satellite receiver, FM tuner).

The 'return' socket on the unit feeds the RF signals, TV, satellite channel and video channel back up to the 'loft box' for distribution.

The TV/FM diplexed outlet (2982) is used in all other rooms.

### SAT/TV/FM/SAT TRIPLEXED WITH RETURN AND SECONDARY LINE JACK + 'F' CONNECTOR (2985)

This outlet has the same features as the 2984 outlet with the addition of a single 'F' type connector.

This outlet is required for installations utilising the Sky+ system. Sky+ is the latest satellite receiver with additional functionality. It requires 2 satellite IF feeds.

Note: Catalogue numbers in brackets refer to Series 2 products only. For equivalent Series 3 or Decorative products please refer to the relevant pages (page 46 and page 54).