



# Installation and Safety Instructions

## 12V Recessed Downlight Kit

Single: 29746  
46982  
89392  
10 Pack: 47130  
58456  
90377



**These instructions are for your safety. Please read through them thoroughly before use and retain for future reference.**

### Tools Required (not supplied)

3mm Flat Blade Screwdriver  
6mm Cross Headed Screwdriver  
Power Drill  
62mm Hole Saw / Keyhole Saw  
File  
Pencil


### Sundries / Extras (not supplied)

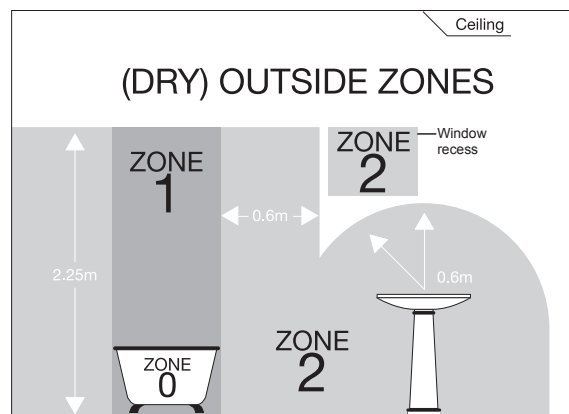
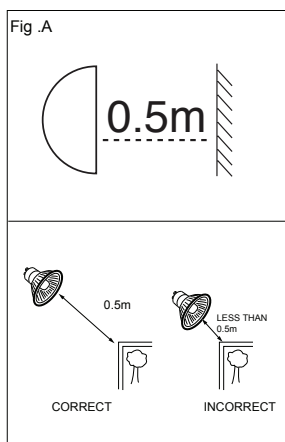
Insulating Tape  
Earth Sleeving

### Before You Start

- Check the pack and make sure you have all of the parts listed above. If not, contact your local Trade counter who will be able to help you.
- Decide on an appropriate location for your product (see siting instructions below).
- This product is not suitable for single-handed installation. An assistant will be required during fitting.
- **If you are in any doubt about installing this product, consult a qualified electrician.**

### Siting Instructions

- 1) This product is suitable for indoor use only.
- 2) Do **not** attach to surfaces which are damp, freshly painted or otherwise electrically conductive (e.g. metallic surfaces).
- 3) Fittings marked with this symbol are **not** suitable for mounting on Flammable surfaces, (eg Polystyrene ceiling tiles and Wood based materials) 
- 4) The lamp must be positioned so that there is at least 0.5m between the bulb and any illuminated surface (see Fig.A below). Spotlights should be positioned well away from curtains and beds to ensure this distance is maintained.
- 5) The chosen location should allow for the product to be securely mounted and safely connected to the mains supply (lighting circuit).
- 6) Expert advice should be sought before installing downlighters in any ceiling forming a fire barrier e.g. ceilings between flats etc.
- 7) For bathroom use see diagram below. This product is **only** suitable for use in dry, outside zones.
- 8) If mounting in the outside zone of a bathroom a 30mA RCD must be used in accordance with the current IEE wiring regulations.



## Ceiling Preparation

Hole Diameter: 62mm

Minimum Ceiling Depth:

140mm

- 1) Ensure a minimum depth of ceiling void of 140mm is available See Fig. 1 on page 3.
- 2) When more than one down light is to be installed, the distance between units must be at least 0.3m (30cm). Keep transformers as far from the lamp heads as possible to avoid overheating.
- 3) Cut the mounting holes (shown above) in the ceiling taking care not to foul any pipes, mains cables or joists beneath the surface.
- 4) All measurements are based on a ceiling with a 12mm thickness. If your ceiling thickness is less than 12mm, deduct approximately 5mm from the ceiling diameter shown above. If the ceiling is thicker than 12mm, gradually increase the hole until a snug fit is achieved. It is always recommended to cut the hole slightly smaller than the size specified, and then file the hole until the recessed unit fits snugly.
- 5) Ensure free movement of air around the fitting by removing any roof void insulation from at least 100mm around the hole. Under no circumstances must these fittings be covered with insulating matting or similar material.



**These units are Safety Extra Low Voltage and must not be earthed. If there are any incoming earth cables, they must be joined together and well insulated with good quality insulation tape. This is to ensure earth continuity throughout your property.**

## Wiring

\*Refer to Electrical change sheet for old and new wiring cable colours

**IMPORTANT.** Always switch off the electricity supply at the mains during installation and maintenance. We recommend that the fuse is withdrawn or circuit breaker switched off at the distribution board whilst work is in progress (turning off the lightswitch is not sufficient). All fittings must be installed by a competent person in accordance with current IEE Wiring Regulations (BS7671) and local Building Regulations. If in doubt, consult a qualified electrician.

- 1) Working from above the ceiling, connect each junction box to the mains supply cable (Use minimum 1.0 mm<sup>2</sup> core cable H03VV-F or equivalent). Terminate your Earth and Loop cables as necessary.
- 2) Open junction box by loosening screw. Remove cover and fit supply wiring to terminals with corresponding cable from transformer. Live supply to terminal with brown cable connected and Neutral supply to terminal with blue cable connected. (See Fig 2.)
- 3) Check all connections are tight. Refit cover and tighten screw.  
These units must not be earthed. If there are any incoming earth cables, they must be joined together and well insulated with good quality insulation tape. This is to ensure earth continuity throughout your property.
- 4) Feed bracket through hole in ceiling then fit to downlight by sliding end of bracket into spring coil. (see Fig. 3)

## Installation

Ensure the ceiling surface is flat and smooth to ensure a good seal.

- 1) Always switch off or disconnect from the mains before installation.
- 2) Feed the junction box and transformer through the mounting hole. Squeeze the spring clips upwards towards the ceiling and fit the long arms into the ceiling hole.
- 3) Ensure the transformer is kept a MINIMUM of 300MM away from the lamp body to ensure the cables and transformer are not subjected to excess heat from the lamp.
- 4) Push the unit upward until firmly in position, ensuring that the cable is not trapped.
- 5) Remove circlip from the front of recessed unit.
- 6) Fit supplied bulb. See "Bulb replacement" section below on how to fit.
- 7) Replace the circuit fuse and switch on the mains to test.

Fig.1

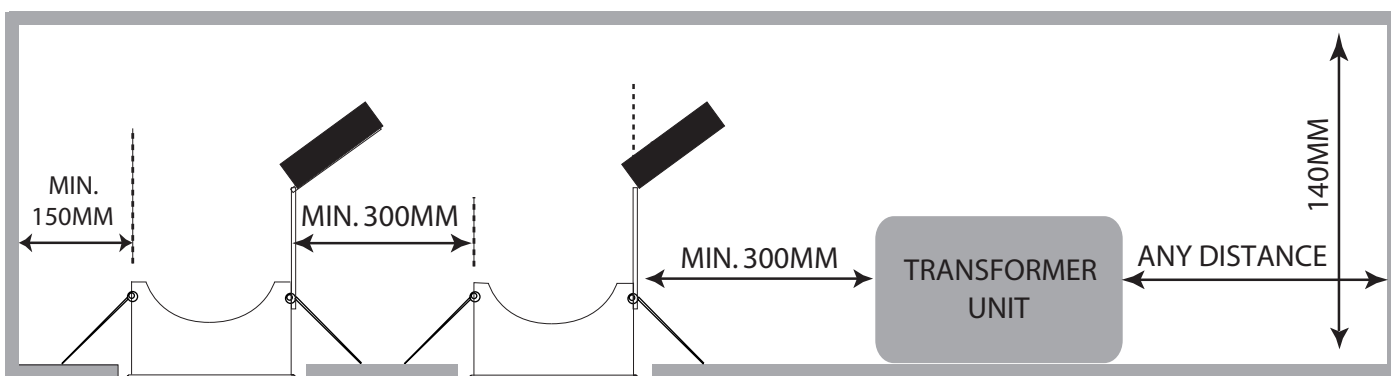


Fig. 2

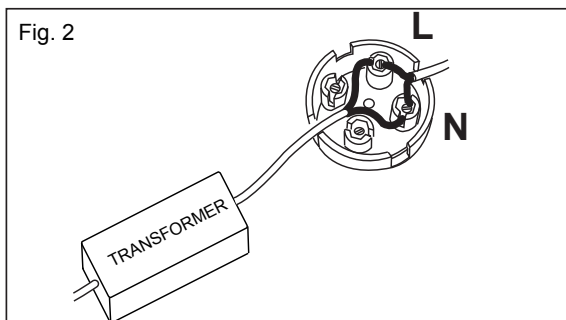


Fig. 3

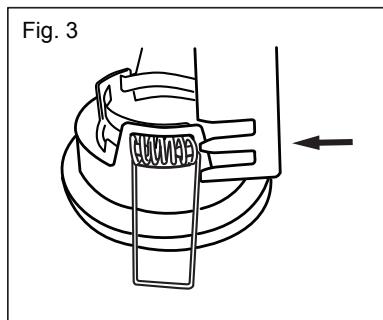
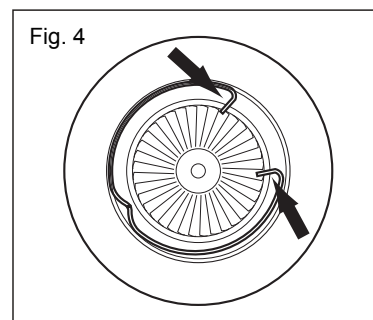


Fig. 4



## Bulb replacement

- 1) Switch off and allow bulb to cool before replacing.
- 2) Remove circlip from the front of recessed unit. (Fig.4)
- 3) Remove old bulb by holding lampholder and pulling bulb away.

Replace with bulb type 50W MAX. GU5.3 MR16 12V Halogen. Only use self-shielded halogen bulbs marked with the symbol shown on the right. Alternatively, use 12V GU5.3 MR16 lamps of a lower wattage - but check minimum loading of transformer.

- 4) Refit the new bulb into the lampholder, fit back into product and refit circlip.



## Care & Use

- Always switch off or disconnect from the mains when cleaning the product.
- Wipe clean with a soft dry cloth. Never use scourers, abrasives or chemical cleaners. Do not allow moisture to come into contact with electric parts.
- The transformer can be dimmed using most types of resistive and low voltage inductive dimmer switches. If the dimmer does not operate correctly or a pronounced buzzing or flickering occurs - a different dimmer switch will need to be used.

# Important- Electrical Changes

## Please Read

### Changes to Building Regulations

As of 1 January 2005, changes to the Building Regulations affected domestic electrical installations in **England** and **Wales**. You don't need to be a qualified electrician to make changes to your home's electrical system, but the work must be done in accordance with the standards in the Regulations.

You do not need to notify your Local Authority if you do **minor** electrical work such as:-

- replacing or repairing a socket, light or cable in any room
- adding extra spurs, sockets or lights to an existing circuit (except in a kitchen, bathroom or outdoors)
- adding lights to an outdoor wall on an existing circuit (provided there are no exposed outdoor connections, and the circuit is not extended from a kitchen/bathroom).

However, the work must be done to the standards in the Wiring Regulations and you should consider having the work checked by a competent electrician to make sure it is safe.

Before you start **other** electrical work such as:-

- adding new circuits to your existing installation
- any work (other than repairs / replacements) in a room where there is water (e.g. kitchen, bathroom, etc.)
- any work (other than repairs / replacements) outdoors (e.g. installing outdoor sockets, or non-pre-wired garden lighting etc.)

you must **notify** your Local Authority Building Control Department, which has responsibility for ensuring the work is inspected and tested.

Where you have any work done by an electrician who is a member of a competent person self-certification scheme, the electrician will be able to certify the work complies with the Regulations and you do not need to notify your Local Authority.

We recommend that you make yourself aware of the Regulations before you undertake any work and if you require any clarification you should contact your Local Authority Building Control Department.

#### Changes to Wiring Cable Colours in UK

The IEE Wiring Regulations (BS 7671) have changed the colours in cable used for fixed wiring for all new electrical installations.

The old and the new colours are shown in the table below.

Core colour	OLD	NEW
LIVE	Red	Brown
SWITCHED LIVE	Red, or Black with red sleeve	Brown, or Blue with brown sleeve
NEUTRAL	Black	Blue
EARTH	Bare, with green/yellow sleeve	Bare, with green/yellow sleeve (no change)
2-WAY SWITCHED LIVE	Red, blue and yellow	Brown, black and grey

For new installations after 31st March 2006, only the **new** colours are permitted. Where new cable is added to an existing installation of the old type, special precautions must be taken (including fixing a warning notice at the distribution board or consumer unit).

When installing this product, please note therefore that you may encounter either of the above types of cable.

**If you are in any doubt whatsoever regarding the above, please consult a qualified electrician.**