# Se smart switch TECHNOLOGY

# HNS630DT Rotary Digital Dimmer<sup>™</sup> 2-Wire

# HNS630DT OWNER'S MANUAL



PERFECT FOR DIMMABLE LED AND TWO WAY SWITCHING



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# **1. FEATURES**

- Rotary Digital Dimmer<sup>™</sup> perfect for dimmable LED
- Wider range Deep Dimming to Zero on most lamps
- Improved patented ripple tone rejection
- Rugged Over Current, Over Voltage and Over Temperature protection
- Illuminated LED
- Retains settings after power loss
- Trailing Edge dimming with linear response
- Programmable minimum brightness
- Compatible with S-Click 3-Wire Timers and Switches
- Separate ON/OFF Switch required
- Suits both HPM and Clipsal wall plates knobs included
- SUITABLE FOR DUAL SWITCHING
- NOT SUITABLE FOR FANS AND MOTORS

### 2. OPERATING CONDITIONS

- Operating Voltage:
- 230-240Va.c. 50Hz 0 to +50 °C

350W

1W

- Operating Temperature:
  Certified Standard:
- AS/NZS 60669.2.1, CISPR15
- Maximum Load:
- Minimum Load:
- Maximum Current capacity: 1.5A

Note: Operation at temperature, voltage or load outside of the specifications may cause permanent damage to the unit.

# **3. LOAD COMPATIBILITY**

| LOAD TYPE   | LOAD SYMBOL | MAXIMUM LOAD   |
|---|-------------|----------------|
| Dimmable LED Lamps <sup>(1)</sup>   |             | 250W           |
| Incandescent / 240V Halogen / Dichroic Lamps  | -☆-         | 350W           |
| Low Voltage Halogen / Dichroic Lighting with Iron-Core<br>Transformers <sup>(2)</sup> |             | 250W           |
| Low Voltage Halogen / Dichroic Lighting with Electronic<br>Tranformers <sup>(2)</sup> |             | 350W           |
| Dimmable Compact Fluorescent Lamps (1)  |             | 150W           |
| Motors / Fans   | M           | Not Compatible |
| Non-Dimmable Fluorescent / Compact Fluorescent Lamps                                  | =====       | Not Compatible |

<sup>(1)</sup> Refer to lamp manufacturer's guidelines.

<sup>(2)</sup> Compatible with Atco & Clipsal transformers when loaded to at least 75% of their rated output.

Note: This manual was correct at the time of manufacture. For the latest version of the manual and any technical or safety updates refer to the website www.sclick.com.au or scan the QR code with a mobile phone.



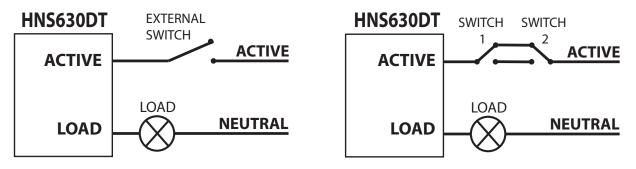
# 4. INSTALLATION INSTRUCTIONS

**WARNING:** The HNS630DT is to be installed as part of a fixed wire electrical installation. By law such installations must be made by an electrical contractor or similarly qualified person.

- No more than one dimmer can be connected to the same lamp.
- The two dimmer connections are not polarity sensitive.

#### 4.1 WIRING

- Disconnect power at the circuit breaker before any electrical work.
- Install the HNS630DT as per the wiring diagram in figure below.



- Affix Instruction Sticker behind wall plate.
- Reconnect power at the circuit breaker and affix Solid State Device Warning Sticker at switchboard.
- Turn ON the lights and adjust the maximum and minimum brightness to ensure the dimmer is operating correctly. Adjust the minimum brightness if required.

NOTE: The HNS630DT is designed for indoor use. It is not rated for outdoor installation. If the dimmer is loose in the wall plate, the wall plate should be replaced.

#### 4.2 DERATING

- In high ambient temperatures, the maximum load rating is reduced according to the the table below.
- If multiple dimmers are in a wall plate, the maximum load rating is reduced according to the table below.

| AMBIENT<br>TEMPERATURE | MAXIMUM LOAD |  |
|------------------------|--------------|--|
| 25°C                   | 100%         |  |
| 50°C                   | 75%          |  |

| NUMBER OF<br>DIMMERS | MAXIMUM LOAD PER<br>DIMMER |
|----------------------|----------------------------|
| 1                    | 100%                       |
| 2                    | 75%                        |
| 3                    | 55%                        |
| 4                    | 40%                        |
| 5                    | 35%                        |
| 6                    | 30%                        |

# **5. OPERATING INSTRUCTIONS**

#### **5.1 DIMMING**

- Turn the knob anti-clockwise to dim the lights (decrease brightness).
- Turn the knob clockwise to brighten the lights (increase brightness).

# **5.2 SETTING THE MINIMUM BRIGHTNESS**

Some lamps do not work well at low brightness settings and will fail to start or flicker. Adjusting the minimum brightness to a higher setting will ensure the lamps start and help eliminate flickering.

**NOTE:** Remove the knob so the LED indicator is visible during programming. Re-install the knob once programming is complete.

- Press and hold the knob for 10 seconds until the LED indicator flashes indicating programming mode. The light brightness will decrease to the factory minimum brightness setting.
- If the lights are not operating correctly, turn the knob clockwise to increase the brightness.
- Continue until the lights are stable and not flickering.
- After 10 seconds without turning the knob, the brightness setting will be stored as the minimum brightness and the dimmer will exit programming mode.
- Turn the dimmer OFF then ON to ensure the lamp starts and doesn't flicker on this setting.
- To set the brightness to the factory minimum brightness, enter programming mode and turn the knob anticlockwise, then wait 10 seconds to exit programming mode.

### 6. OPERATION MODES

| MODE                               | DESCRIPTION  | FACTORY SETTINGS |
|------------------------------------|--|------------------|
| 1. Kick Start                      | Start stubborn lamps   | OFF              |
| 2. Attenuate Maximum<br>Brightness | Reduces maximum brightness for lamps that flicker at maximum | OFF              |

#### **6.1 KICK START**

- Certain lamps can be difficult or slow to start. Try adjusting the minimum brightness to a higher setting. If the minimum brightness is now too high, try resetting the minimum brightness and enabling the Kick Start mode.
- The lamps will quickly turn on before reverting to the previous dimming level. The default setting is OFF.

#### **6.2 ATTENUATE MAXIMUM BRIGHTNESS**

• If the lamps flicker on maximum brightness, this mode will reduce the flickering. The default setting is OFF.

#### **6.3 CHANGING OPERATION MODES**

**NOTE:** Remove the knob so the LED indicator is visible during programming. Re-install the knob once programming is complete.

- i. Hold the knob button down for 10 seconds until the LED indicator starts flashing. Release the knob button.
- ii. Hold the knob button down for 2 seconds until the LED indicator turns OFF.
- iii. Release the knob button the LED indicator will start flashing again.
- iv. Press the knob button 1 or 2 times to toggle the desired Operation Mode see table above.
- v. When the LED indicator stops flashing the operation mode has been toggled.

**NOTE:** Only one mode can be toggled at a time.

#### For example, to change the Kick Start Setting

- i. Hold the knob button down for 10 seconds until the LED indicator starts flashing. Release the knob button.
- ii. Hold the knob button down for 2 seconds until the LED indicator turns OFF.
- iii. Release the knob button the LED indicator will start flashing again.
- iv. Press the knob button 1 time.
- v. When the LED indicator stops flashing the setting is now toggled.

#### To Reset HNS630DT to factory settings

- i. Hold the knob button down for 10 seconds until the LED indicator starts flashing.
- ii. Release the knob button.
- iii. Hold the knob button down for 10 seconds again until the LED indicator turns ON.
- iv. Release the knob button.
- v. The dimmer will turn OFF the dimmer is now reset to factory settings.

# 7. IMPORTANT SAFETY WARNINGS

#### 7.1 LOAD REPLACEMENT

• It should be assumed that even when OFF, mains voltage will still be present at the lamp fitting. Mains power should be disconnected at the circuit breaker before replacing any lamps.

#### 7.2 LOW READING DURING INSULATION BREAKDOWN TEST

• The HNS630DT is a solid state device. Therefore a low reading may be observed when conducting insulation breakdown testing on the circuit.

#### 7.3 CLEANING

• Clean only with a damp cloth. Do not use abrasives or chemicals.

# **8. TROUBLESHOOTING**

#### **8.1 DIMMER AND LIGHTS DO NOT TURN ON**

- Ensure that the circuit has power by checking the circuit breaker.
- Ensure the lamp(s) is not damaged or broken.

#### **8.2 LIGHTS DON'T TURN ON OR LIGHTS TURN OFF BY THEMSELVES**

- If the LED indicator flashes 5 times at turn ON, a fault has occured.
- Over temperature, Over voltage or Overload protection operated.
- Ensure any iron core ballast has sufficient load.
- Ensure the dimmer is not overloaded or operating in high ambient temperature.
- Check the lamp(s) is suitable for dimming.

#### **8.3 LIGHTS FLICKER OR CHANGE IN BRIGHTNESS FOR SHORT PERIODS**

• This is due to fluctuations in the power supply and is normal. If too severe, try another type of lamp.

#### **8.4 LIGHTS STAY ON AT FULL BRIGHTNESS OR FLICKER CONTINUOUSLY**

• The lamp(s) may not be suitable for dimming. Refer to the lamp manufacturer information.

#### 8.5 LIGHTS TURN OFF WHEN A CEILING/ EXHAUST FAN IS TURNED ON OR OFF

- The dimmer is turning the lamps OFF to prevent damage from electrical transients.
- Fit a HNSSUPCAP to suppress transients.

#### 9. WARRANTY AND DISCLAIMER

Legend Corporation Limited warrants the product against manufacturing and material defect from the date of invoice to the initial purchaser for a period of 12 months. During the warranty period Legend Corporation Limited will replace products that prove to be defective where the product has been correctly installed and maintained and operated within the specifications defined in the product data sheet and where the product is not subject to mechanical damage or chemical attack. The warranty is also conditional on the unit being installed by a licensed electrical contractor. No other warranty is expressed or implied.

Legend Corporation Limited shall not be liable for any direct, indirect, incidental or consequential damages.

Note: This manual was correct at the time of manufacture. For the latest version of the manual and any technical or safety updates refer to the website:- www.sclick.com.au or scan the QR code with a mobile phone.