



LED Dimming Control with DZ4G450MULT, DZ3G450DIAL, DZ1G1TEN

DZ4G450MULT is a 450W LED Dimmer Switch designed to operate based on a Single Live wire (No Neutral wire), which is suitable for **Retrofit installation**, where new installation must be based on existing wiring.

Each **DZ4G450MULT** has 2 types of connection for

- Standalone Operations
- Multi-Locations Operations

Standalone Operations

The single button allows

- Light On/Off
- Brightness Control (Dim Up/Down)
- High/Low Pre-set Brightness Select

Technical Details

- Complies with EN60669-2-1:2004+A12:2010, EN60669-1:1999+A2:2008, EN55015:2013+A1:2015, EN55015:2006+A1:2007+A2:2009, EN61547-2009, EN61000-3-2:2014, EN61000-3-3:2013

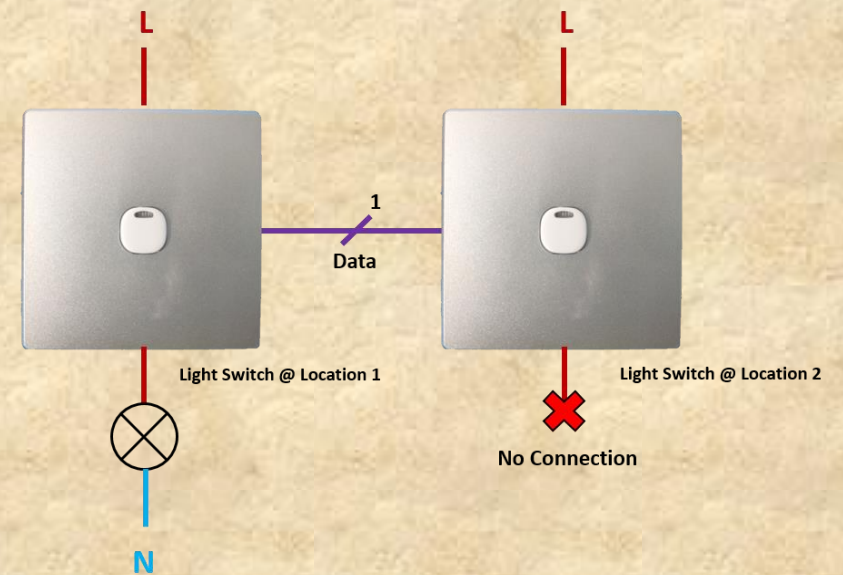


Multi-Locations Operations

Each **DZ4G450MULT** has 3 terminals for connection. By connecting the dimmers together as follow, the standalone operations can be extended to control the **same set** of lighting fixtures at more locations.

Under this configuration, at each location users can perform

- Light On/Off
- Brightness Control (Dim Up/Down)
- High/Low Pre-set Brightness Select

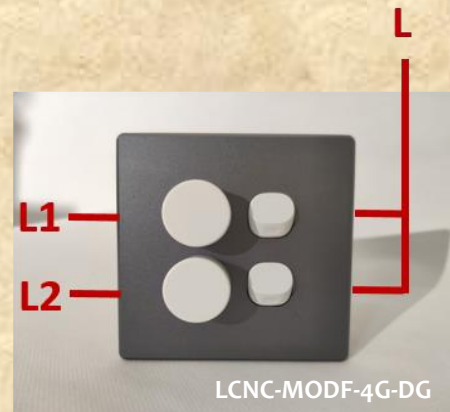
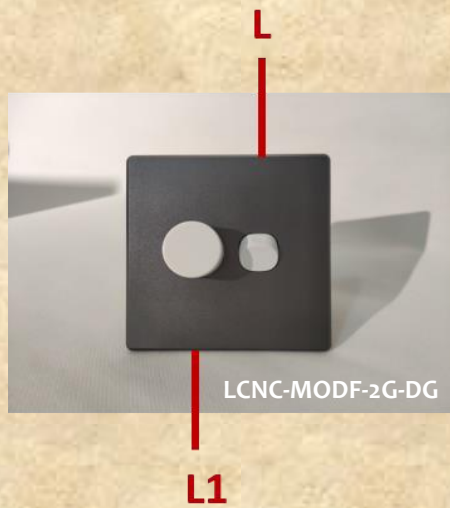


A LCNC-MODF-2G-SV plate with 2x 450W LED Dimmers



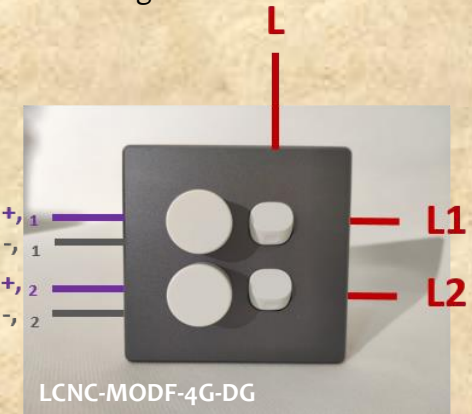
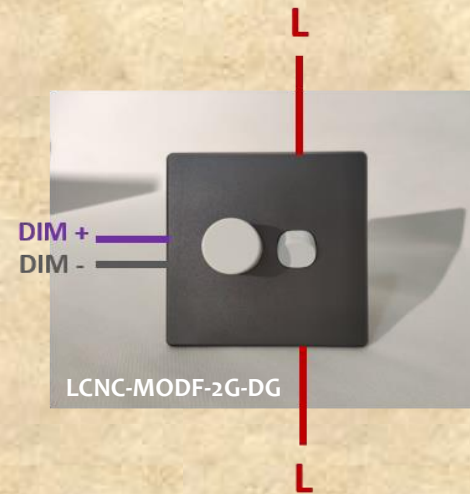
Two-Locations Dimming Demo with SORAA® SP30LW-18-25D-930-03-S3

DZ3G450DIAL is another 450W LED Dimmer designed for general public users. It also provides Trailing-edge Phase-Cut Dimming Signal dedicated for LED dimmable lamps (GU10, E27, PAR, MR16 etc.) or dimmable fixtures.



- **L** is Live
- **L1 / L2** is Phase-Cut Output

DZ1G1TEN is a 1-10V Controller to provide control signal to a 0/1-10V dimmable LED driver for dimming. A DZ1G1TEN Controller can connect several 0/1-10V dimmable LED drivers for a wide area dimming.



- **L** is Live
- **L1 / L2** is Live to LED Driver
- **DIM+/-** is Polarity Sensitive

Technical Details

- Restores Last Dimming Level at Next Power-Up
- Built-in Restrike & Minimum-Brightness Memory
- Complies with IEC/EN60669-2-1 (LVD), IEC/EN55015, EN61547, EN61000-3-2, EN61000-3-3 (EMC)



DZ3G450DIAL is officially listed as SORAA® Compatible.

TRIAC Dimmer & Flickering with LED Dimmable Bulbs

TRIAC Dimmers are designed for Incandescent & Halogen Light Bulbs dimming. Common phenomenon for using TRIAC Dimmers on LED Dimmable Fixtures, including **Flickering**, **Dimming Range**, **Noise**, **Product Lifespan**, & **Inconsistent Results**.



Min Trim Option

Our DZ1G1TEN Controller has Min Trim option to limit overall dimming range from **Minimum Brightness** (0.8V – 3.5V) to **Full Brightness** (10V).



Technical Details

- Operating Range: Adapter / 100 – 240Vac, 50/60Hz, Controller / MAX 60Vdc
- Complies with IEC/EN 55015:2013+A1:2015, EN 61547:2009, EN 61000-3-2:2014, EN 61000-3-3:2013

(Left) The lowest brightness level achieved when dimming SORAA® SP30LW-18-25D0930-03-S3 by a TRIAC dimmer. By contrast, see the difference made by our Trailing-edge LED dimmer shown on page 1.

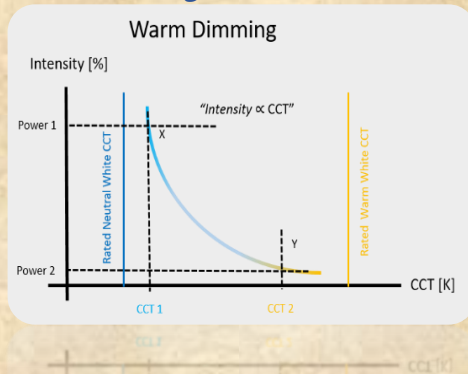
Warm Dimming (aka Dim-to-Warm)

Besides light intensity, it's often desired to also change the **colour temperature**. However, one may find that the colour temperature of a dimmable LED light source can't be changed by manipulating the current flowing through the light.



Above shows a **Warm Dimming** Downlight connected to our **DZ2G300TUNE Controller** exhibiting different colour temperature values. A close observation finds that **colour temperature changes with its brightness level**.

Warm Dimming Limitation



The fact that the colour temperature of a Warm Dimming Light Fixture changes along a **Pre-defined Dimming Curve**, limits users not getting a **“Brighter” Warm White** or **“Dimmed” Cool White**.

In order to achieve these kind of lighting effects, Dynamic Lighting Solutions would be required.

For project inquiry, sales@LegendTech.com.hk / www.LegendTech.com.hk

Dynamic Lighting Solutions

Dynamic Lighting is about changing the **Colour Temperature & Light Intensity** of a **Tune-able White LED light source freely**. Interested prospects may refer to our **Dynamic Lighting Solutions Brochures** for our solution details.



Implementation by **DZ4G450MULT & DZ1G300TUNE Controller**