# LEDsmart+™ Rotary Dimmer

With built in on / off switch and multi-way control

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Powered by MultiMate TECHNOLOGY

## Range

MMDM / RT

## Overview

Designed in Australia to provide optimised dimming of LED based lamps and drivers, this high quality, two-wire phase control dimmer can be connected in parallel to other LEDsmart+ devices to provide a simple solution to multi-way control.

Although optimised for LED lighting loads, the dimmer also provides excellent compatibility with other common lamp types such as incandescent lamps, 12V halogen (dichroic) lamps and dimmable CFL's.

## Features

**Suitable for one-way**, two-way, three-way and multi-way dimming

**MultiMate™ technology** allows multi-way dimming / switching with no extra wires

**Suitable for both retrofit** and new installations

**Programmable minimum** level, maximum level, kick-start, off state indicator and more

**Active only 'two wire'** connection - no neutral required

**No separate switch** required - built in switch

**Quick flick' dim** to maximum or minimum dimming level

**Illuminated halo** with interchangeable coloured rings (blue/green/orange/clear)

**Dim to OFF** with most LED light sources

**Kid's bedroom mode** – double tap when on to dim down over 30 minutes

**Wake up mode** – double tap when off to dim up over 30 minutes

**Selectable fall-back** LED Indicator level

**1W minimum** load



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## Specifications

| Compatible Load Types | | | |
|---|---|---|---|
| **Load Symbol** | **Load Type** | **Maximum Load** | **Notes** |
| | Dimmable LED Drivers | 400W | The LED driver must be dimmable. Maximum permitted number of drivers is 400W divided by driver nameplate power rating.<br>Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power-factor result when connected to dimmer. |
| | Electronic Transformers | 400W | |
| | Standard Iron-Core Transformers | 250W | Due to variety of transformer designs, maximum LV lighting load is further dependent on transformer efficiency. |
| | Toroidal Iron-Core Transformers | 300W | |
| | Incandescent | 350W | |
| | Dimmable CFLs | 400W | Due to variety of CFL designs, maximum number of CFL lamps is dependent on particular CFL make/model. |

**Multi-gang de-rating**

In applications where multiple dimmers are installed in a multi-gang plate, a de-rating factor is applied to the maximum load as follows

| Number of dimmers per plate | De-rating factor |
|---|---|
| 1 | No de-rating |
| 2 | 0.85 |
| 3 | 0.70 |
| 4 | 0.55 |
| 5 | 0.40 |
| 6 | 0.25 |

**De-rating example**

Two Dimmers (and associated switches) installed in a wall plate. The maximum LED load which can be connected to each dimmer = 400W x 08.5 = 340W per dimmer

**Incompatible Load types**

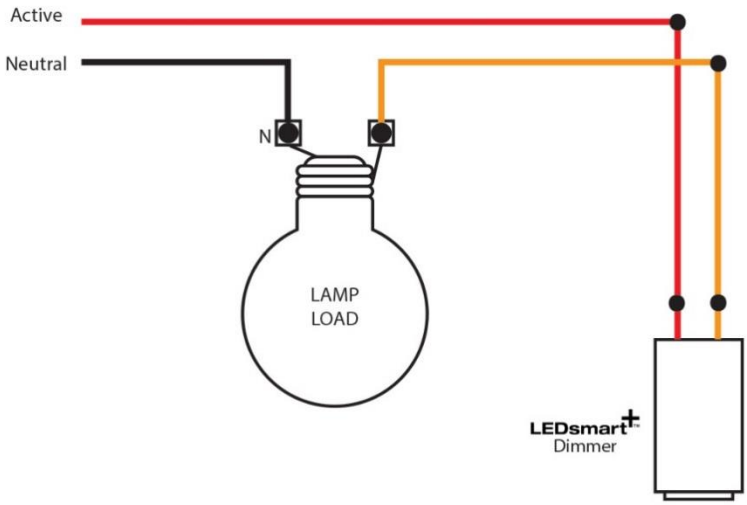
Ceiling Sweep Fans and Exhaust fans

| Electrical Specifications | |
|---|---|
| Nominal Line Voltage Amplitude Range | 220-240Vac |
| Line Voltage Frequency | 50Hz Nominal (47-53Hz) |
| Load Brightness Control Range | 0% to 100% (typical for LED loads) |
| Rated Load | Refer Compatible Loads |
| Minimum Load | 1W |
| Maximum cable distance from any LEDsmart+ device to the parallel junction point | 50m (for example, two dimmers can be separated by up to 100m provided that the maximum distance from the furthest dimmer to the parallel junction point is no more than 50m) |

## Wiring for one-way dimming and switching

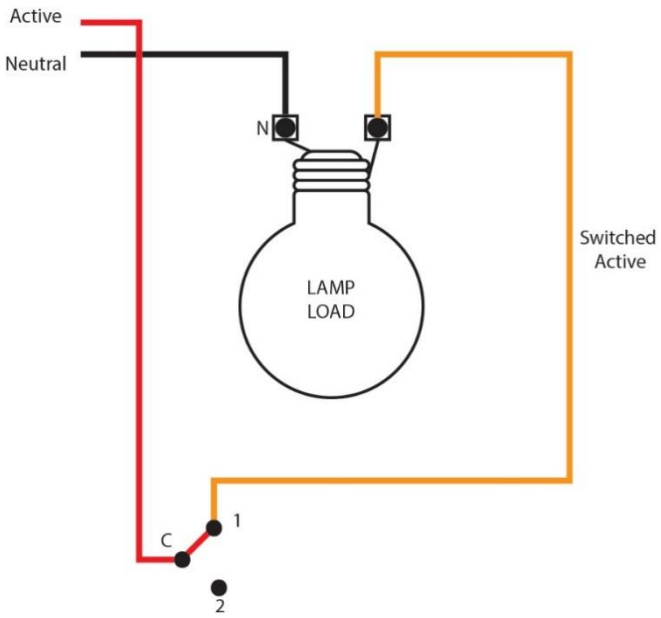
The dimmer has a built in tap on / tap off switch. Therefore, to provide both dimming and on/off control, no separate switch is required.

### New Installation – one-way dimming and switching

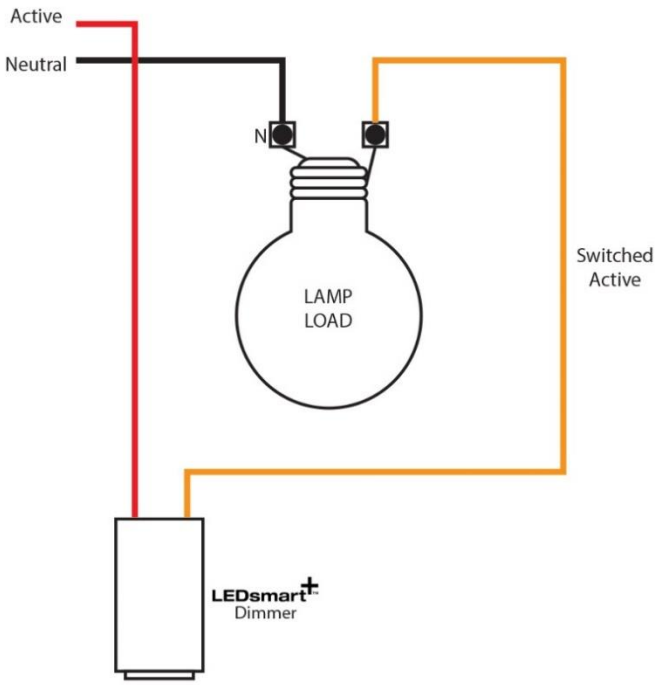



### Replacing existing one-way switch with one-way switching/dimming

**Existing one-way switching**



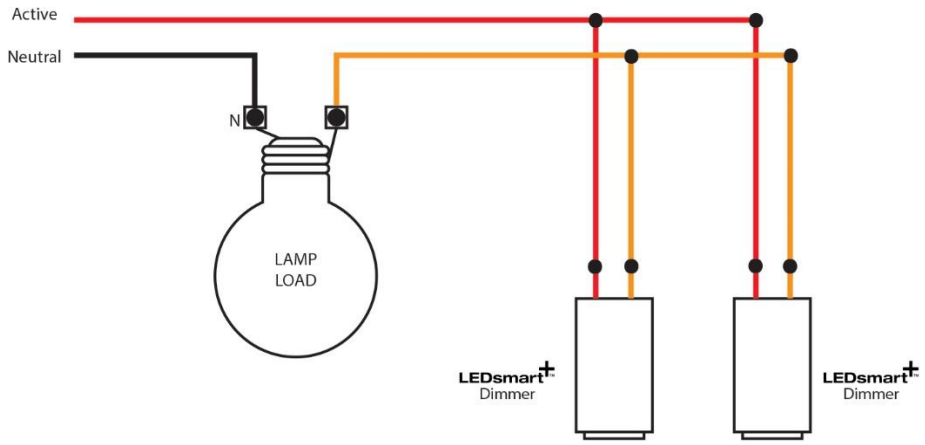

**Replacement one way dimming/switching**



## Wiring for two-way dimming and switching

To achieve two-way dimming and switching using LEDsmart+ dimmers, the two dimmers are connected in parallel. Note that the dimmers have an integrated switch, therefore no separate switches or additional strappers are required for two-way on/off control.

### New Installation – two-way dimming and switching

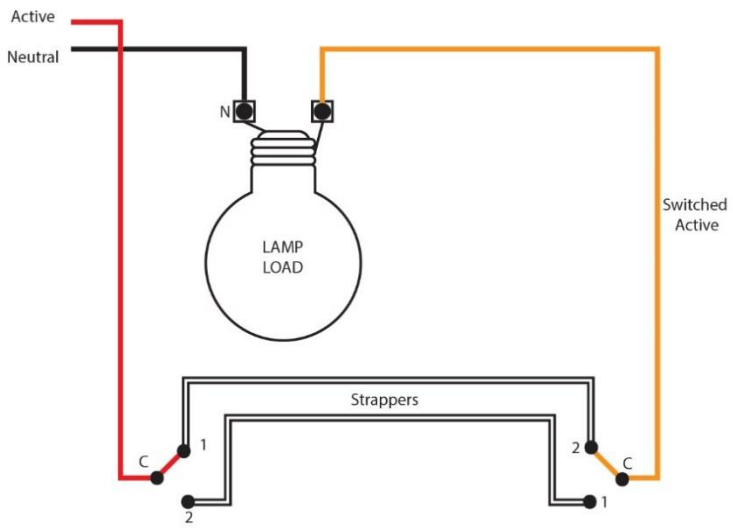



Two-way dimming and switching using LEDsmart+ dimmers. Note the two-wire dimmers are simply wired in parallel.

### Replacing existing two-way switching with two-way dimming/switching

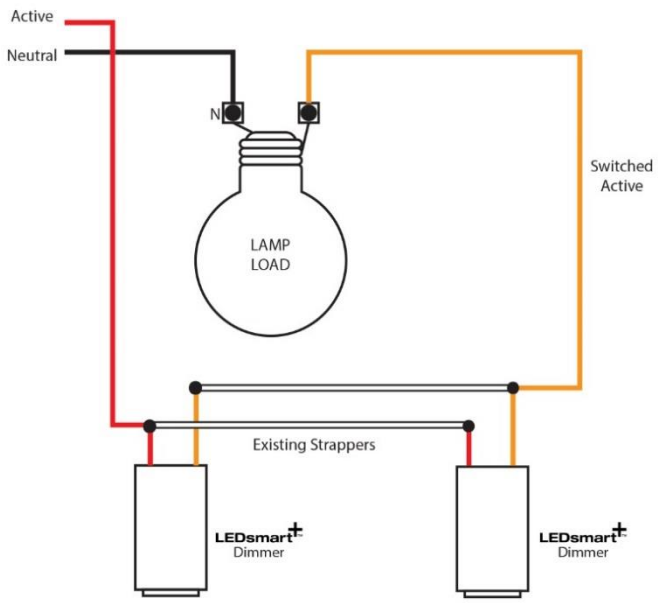
When replacing existing two-way switching with two-way dimming/switching using LEDsmart+, the existing two-way 'strapper' wires can be re-used. No new wiring is required. See the wiring diagrams below.

**Existing two-way switching**




Traditional two-way switching using standard rocker switch mechanisms and strappers between the switches.

**Replacement two-way dimming/switching**



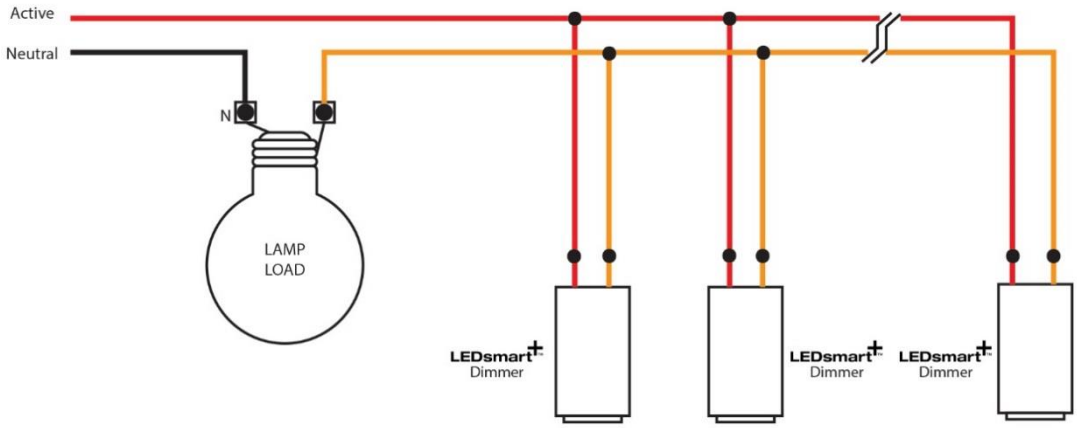

Rocker switches replaced with LEDsmart+ dimmers using the existing strapper wires. No new wiring required.

## Wiring for multi-way (three-way or more) dimming and switching

To achieve multi-way dimming and switching using LEDsmart+ dimmers, the required number of dimmers can be connected in parallel. Note that each LEDsmart+ dimmer has an integrated switch, therefore no separate switches or additional strappers are required to provide multi-way dimming and on/off control.

The diagram below shows the required wiring for three-way dimming and switching using LEDsmart+ dimmers. If more than three-way control is required, further LEDsmart+ devices are simply wired in parallel.

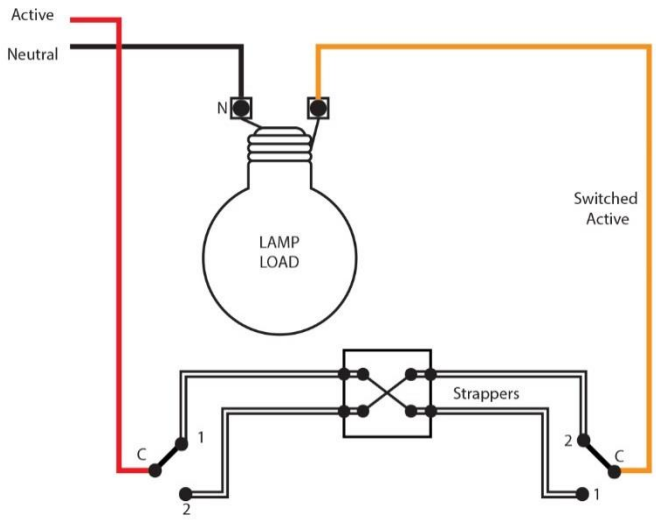
### New Installation – multi-way (three-way or more) dimming/switching




Three-way dimming and switching using **LEDsmart+** dimmers. Note that each two-wire **LEDsmart+** dimmer is simply wired in parallel.

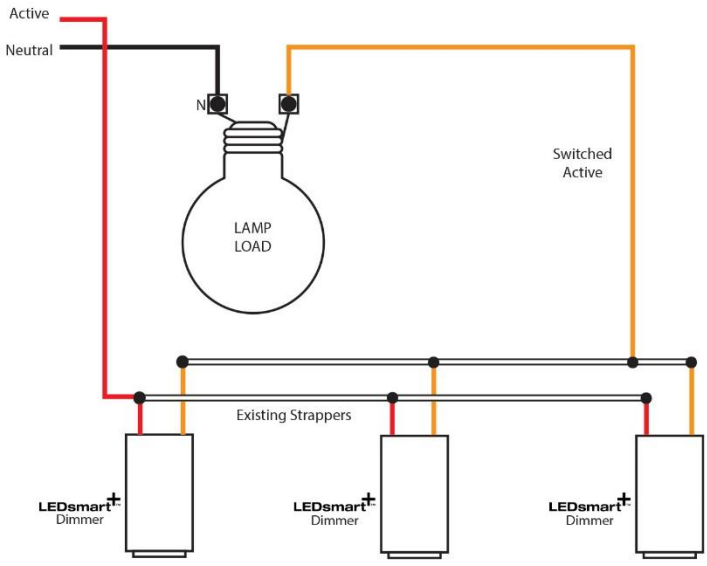
### Replacing existing multi-way switching with multi-way dimming and switching

**Existing three-way switching**




Traditional three-way switching using two rocker switches and one intermediate switch, with strappers between the switches.

**Replacement three-way dimming/switching**



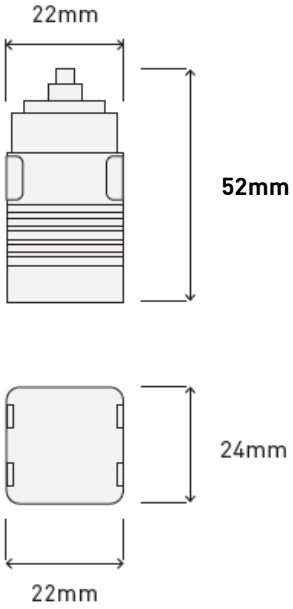

Rocker switches and intermediate switch replaced with LEDsmart+ dimmers. The existing strappers are used to connect the dimmers in parallel. No new wiring is required.



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## Dimensions




## Approvals & Compliance

IP20

**CONTACT INFORMATION**

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