



## INSTALLATION GUIDE

LEDsmart™  
Push Dimmer / Switch  
Part Number: MEDM/DGPB

DIGINET  
CONTROL SYSTEMS

## INTRODUCTION

Designed in Australia to provide optimised dimming of LED based lamps and drivers, this high quality two-wire phase control wall plate dimmer and switch has a minimum load rating of 1W.

Although optimised for LED loads, the dimmer also provides excellent compatibility with common lamp types such as incandescent, 12V halogen and CFL's.

## FEATURES

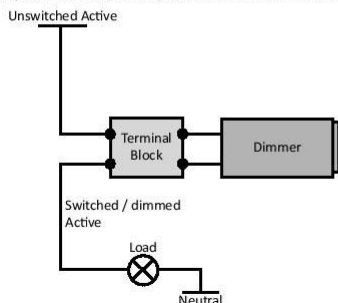
- Integrated Tap on / Tap off switch
- Push and hold to dim up/down
- White LED, illuminated bezel
- Flush and rocker style button options
- Quiet, soft press button – no harsh click
- Dim to OFF with most LED light sources
- Capable of driving non-dimmable CFL loads
- Kids Bedroom feature – double tap when on to dim down over 30mins
- Wake up mode – double tap when off to dim up over 30mins
- Programmable minimum level, maximum level, kick start and off state indicator
- Simple 3-step programming
- Settable off-state indicator
- 1W minimum load
- Separately switched mode for some low wattage LED's and non-dim CFL's
- Terminal block included for AS3000 compliance
- Easy-fit terminal block

## WIRING DIAGRAMS



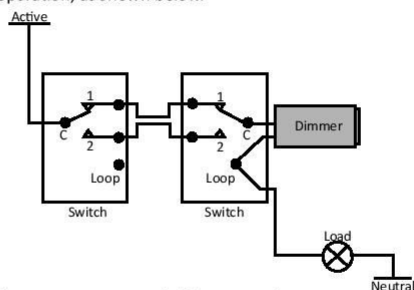
This product must be installed by a suitably qualified installer who must work in accordance with standard safety procedures for mains-powered electrical equipment.

**Standard wiring using the built in tap on/tap off switch**  
The push dimmer has a built in tap on / tap off switch, as well as the push and hold to dim function. Therefore, no separate switch is required for on/off control.



## Two way switching operation

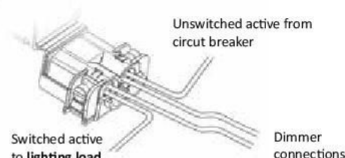
The dimmer can be installed for two-way switched operation, as shown below.



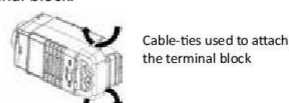
## Notes on two-way switching operation

- The dimmer must be setup in Separate Switch Mode when used with a separate switch. See **PART F** for how to setup the dimmer in separate switch operation.
- In this configuration, the lighting can be dimmed from one location and switched from two separate locations.

The terminal block included with the dimmer should be used to make the dimmer connections, as shown below.



The terminal block can then be cable-tied to the rear of the dimmer housing utilising the loop holes on the case and terminal block.



## SPECIFICATIONS

Nominal Line Voltage	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

## 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	0.7
4	0.55
5	0.4
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 =  $400W \times 0.85 = 340W$  per dimmer

## COMPATIBLE LOAD TYPES

Load Symbol	Load Type	Max. Load	Notes
	Dimmable LED Lamps	400W	The LED driver must be dimmable. Maximum permitted number of drivers is 400W divided by driver nameplate power rating. Due to variety of LED lamp designs, maximum number of LED lamps is also dependent on power-factor result when connected to dimmer
	Electronic Transformers	400W	
	Standard iron-core transformers	250W	Due to the variety of transformer designs, max LV lighting load is also dependent on transformer efficiency
	Toroidal iron-core transformers	300W	
	Incandescent	350W	
	Dimmable CFLs	400W	Due to the variety of CFL designs, the maximum number is make/model dependent

## INCOMPATIBLE LOAD TYPES

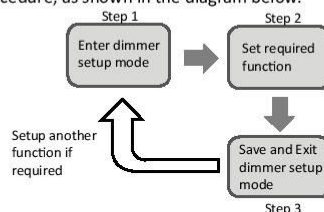
Ceiling Sweep Fans and Exhaust fans

## DIMMER SETUP

The digital push dimmer / switch has a number of useful functions which can easily be set up by entering setup mode and following the easy steps in this guide.

**It is recommended that the MINIMUM and MAXIMUM BRIGHTNESS are always set. The other settings are optional, depending on the dimmer application.**

All setup functions follow the same simple 3-step procedure, as shown in the diagram below.



## DIMMER SETUP FUNCTIONS

All setup functions are covered in this Installation Guide. See below for the relevant part of the guide.

Function	See Part
Entering <b>Setup Mode</b>	A
Setting <b>Minimum Brightness</b>	B
Setting <b>Maximum Brightness</b>	C
Setting the <b>Kick Start Feature</b>	D
Setting <b>Off State LED feature</b>	E
Setting <b>Separate Switch Mode</b>	F
Setting <b>The Memory Dimmer</b>	G
Factory Default <b>Reset</b>	H



Once in Setup Mode, options are selected by a series of 'clicks' of the push button. Each 'click' should be approximately 1 second after the previous click.

## A ENTERING SETUP MODE

If the dimmer has been powered up for **LESS THAN 30 MINUTES** see **A1** below.

If the dimmer has been powered up for **MORE THAN 30 MINUTES** see **A2** below.

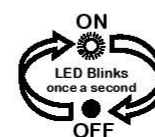
### A-1 Dimmer has been powered up via mains 240Vac for LESS THAN 30 MINUTES

1. Push and hold the button for **10 seconds**  
*Note: connected lights will dim up or down, this is normal*

Push & Hold!



2. The white LED Indicators will blink ON/OFF with 1 second intervals. This indicates that **the dimmer is now in Setup Mode**



3. The dimmer is ready for the settings to be adjusted as required. Go to the relevant setup function instructions

Dimmer Setup!



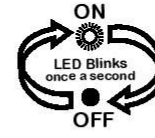
### A-2 Dimmer has been powered up via mains 240Vac for MORE THAN 30 MINUTES

1. Push and hold the button for 30 seconds  
*Note: This resets the Setup Entry time back to 10 seconds (for the next 30 minutes)*  
*Note: Connected lights will dim up or down, this is normal*

Push & Hold!



2. The white LED Indicators will blink ON/OFF with 1 second intervals. This indicates that **the dimmer is now in Setup Mode**



3. The dimmer is ready for the settings to be adjusted as required. Go to the relevant setup function instructions

Dimmer Setup!



## B SETTING MINIMUM BRIGHTNESS

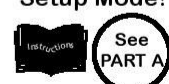
The minimum brightness level provided by the dimmer can be set to suit specific lamps and/or customer requirements.

For the majority of lamps a minimum level as low as 0% can be set if required. However, some lamps can become unstable at low dimming levels, in particular CFL's.

If lamps become unstable at low dimming levels, they typically flicker or pulse on/off. The dimmer allows the minimum brightness to be set to a level above the point at which the lamp flickers/pulses.

1. Enter into the dimmer **Setup Mode** - See **PART A**

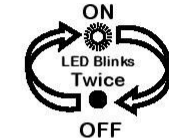
Setup Mode!



2. Click the push button **2 times**



3. LED will **blink 2 times**



*Note: To cancel/exit do nothing for 10 seconds*

4. Push and hold the button to adjust to required **MINIMUM** brightness level  
*Note: To cancel/exit do nothing for 10 seconds*



5. Click once to save & exit



Please turn over for  
**Setup PARTS C to H**



For further information contact:

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## C SETTING MAXIMUM BRIGHTNESS

The maximum brightness level provided by the dimmer can be set to suit customer requirements.

Note that when lamps are dimmed near to full brightness, it is difficult to see changes in dimming level. Therefore, when setting up maximum brightness, it is recommended that the lamp is slowly dimmed up to a point where no further changes in brightness can be seen, and the maximum level set at this point.

1. Enter into the dimmer **Setup Mode** - See **PART A**



2. Click the push button **3 times**



3. LED will **blink 3 times**



*Note: To cancel/exit do nothing for 10 seconds*

4. Push and hold the button adjust to required maximum brightness level



*Note: To cancel/exit do nothing for 10 seconds*

5. Click once to save & exit



## D SETTING THE KICK START FEATURE

The 'kick-start' feature is only required to be enabled when dimming loads such as compact fluorescent lamps. These lamps require the dimmer output to be set to 50% for 0.2 of a second when the lamp is turned on. This ensures the lamp strikes successfully. The result is a short bright 'blink' when a compact fluorescent lamp turns on.

**As the bright blink caused by the kick start feature can be undesirable for the user, it is highly recommended that this feature remains disabled (the default) when using LED's and other light sources which do not require the kick-start to operate.**

By default Kick Start is **Disabled**. To Enable Kick Start Mode, follow the steps below.

1. Enter into the dimmer **Setup Mode** - See **PART A**



2. Click the push button **4 times**



3. LED will **blink 4 times**



If Kick start is currently **Disabled**, lamp(s) connected to the dimmer will now turn OFF

If Kick start is currently **Enabled**, lamp(s) connected to the dimmer will now turn ON

4. **To Enable Kick Start Mode**  
Push and hold the button to adjust the level until the lamp(s) turn ON



**To Disable Kick Start Mode (Default)**  
Push and hold the button to adjust the level until the lamp(s) turn OFF

5. Click once to save & exit



## E SETTING OFF STATE INDICATION

When the dimmer is switched off, the white LED indicators in the dimmer can be set to glow on or turn off.

By default, the white LED indicators are set to glow on when the dimmer is turned off. This can be useful as a nightlight.

To set the LED indicators to turn off when the dimmer is off, follow the steps below.

1. Enter into the dimmer **Setup Mode** - See **PART A**



2. Click the push button **5 times**



3. LED will **blink 5 times**



*Note: To cancel/exit do nothing for 10 seconds*

4. **To set Indicator to glow on when dimmer is off (default)**  
Push and hold the button to adjust the level until the lamp(s) turn ON



**To set Indicator to turn off when dimmer is off**  
Push and hold the button to adjust the level until the lamp(s) turn OFF

5. Click once to save & exit



## F SETTING SEPARATE SWITCH MODE

The dimmer is designed to operate as a combined switch and dimmer, taking up only one gang in a wall plate.

However, some lamps (for example, non-dimmable CFL's) can flicker when switched OFF by pressing the dimmer's push button.

In these cases it is recommended that the dimmer is used in 'Separate Switch Mode' and combined with a standard mechanical switch. Note this also applies where two way switching operation is required.

When used in the Separate Switch Mode, the dimmer turn-on level needs to be set. This is covered in step 4 below.

1. Enter into the dimmer **Setup Mode** - See **PART A**



2. Click the push button **6 times**



3. LED will **blink 6 times**



*Note: To cancel/exit do nothing for 10 seconds*

4. **To Enable Separate Switch Mode**  
Push and hold the button to adjust the level until the lamp(s) turn ON  
*Note the level the lamp(s) are adjusted to during this step will be the turn on level when the separate switch is used during normal operation*



**To Disable Separate Switch Mode**  
Push and hold the button to adjust the level until the lamp(s) turn OFF (or pulses ON/OFF)

5. Click once to save & exit



### Note for Separate Switch Mode

- Clicking the push button will toggle between min and max level if the memory dimmer is disabled
- Clicking the push button will toggle between min level and previous level if the memory dimmer is enabled
- 'Wake up' mode cannot be used
- LED indicators are off when the separate switch is off
- When the separate switch is turned on, the lamps will always go to the level set in step 4 above

## G SETTING THE MEMORY DIMMER

The dimmer has the option to turn on at the brightness level set when the lights were turned off (memory dimmer), or to turn on at the maximum brightness level.

By default, the memory dimmer option is disabled. Then, by default, when the connected lights are off and the button is tapped, the lights will switch on at maximum brightness. However, pushing and holding the button when the connected lights are off will dim the lights up from the minimum level.

To enable or disable the memory dimmer function, follow the steps below.

1. Enter into the dimmer **Setup Mode** - See **PART A**



2. Click the push button **7 times**

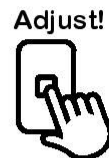


3. LED will **blink 7 times**  
If the memory dimmer function is **Disabled**, lamp(s) connected to the dimmer will now turn OFF



If the memory dimmer function is currently **Enabled**, lamp(s) connected to the dimmer will now turn ON

4. **To Enable the memory dimmer**  
Push and hold the button to adjust the level until the lamp(s) turn ON



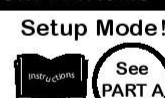
**To Disable the memory dimmer (Default)**  
Push and hold the button to adjust the level until the lamp(s) turn OFF

5. Click once to save & exit



## H RESETTING TO FACTORY DEFAULTS

1. Enter into the dimmer **Setup Mode** - See **PART A**



2. Click the push button **ten times**



The dimmer will automatically exit Setup Mode