

CORSTON Digital Dimmer Module Instructions

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CORSTON Digital Dimmer Module



The Corston dimmer uses digital chips to control dimming of LEDs and incandescent bulbs. The dimmer has a memory function so the lights turn on at the same brightness as they were last used. The dimmer has trailing edge and leading edge modes which treats the bulbs in the best way to ensure long life. It auto-senses which mode is best, but also can be easily programmed. Corston retractive toggle switches must be used with dimmers instead of normal two-way switches.

Features

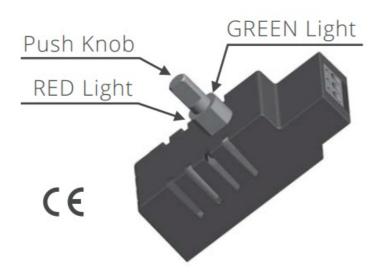
- · Suitable for 1-way or multi-way full digital dimming and switching
- Minimum load down to 3W of capacitive or resistive load, including dimmable LED lighting and incandescent lighting.
- Trailing and leading edge operation. There is an LED backlight to indicate the dimming mode
- The soft-start operation, to extend bulb life
- The minimum brightness level can be programmed
- · Built-in thermal cut-off and short circuit protection
- Complies with IEC EN60669

Setting the Minimum Brightness

 This is important to prevent LED bulbs from flickering at very low levels. With the lamp ON, Press and hold the dimmer knob for 3-5 seconds. It will then appear at half brightness. Release the knob and set the desired minimum level. Press the knob to save the setting.

Mode Setting

- Remove the dimmer knob, so that you can see the clear plastic collar on the dimmer. It includes a colored LED that shows the mode.
- Lamp in an OFF state. Hold in the switch for 3-5 seconds. The indicator light will flash.
- Turn the knob left or right to select the correct mode where the color changes as below;
- GREEN + RED LIGHT = Trailing edge mode
- ED LIGHT = Leading edge mode
- GREEN LIGHT = Auto-sensing mode which uses trailing or leading edge modes. It defaults to Trailing



- Electric shock hazard. Hazardous voltage maybe present at the output of the dimmer despite setting the dimmer to zero brightness level.
- Look out and tag the input circuit before accessing the wiring connections. Failure to follow this warning can result in death or serious injury.
- The dimmer should be protected by a 6A or up to 16A maximum circuit breaker.
- The dimmer must always be connected to the live side of the load.
- Two or more dimmers must not be connected in parallel or series to control the same load from two different locations.
- When connected with steel-core transformers, only Leading Edge mode (LE) should be used. TE mode cannot be used in this case
- Multiple compatible loads can be used as long as the total lamp wattage does not exceed the maximum load rating of the dimmer.
- Some lamps may exhibit unexpected performance characteristics when cold.
- Dimming performance should improve after the lamp warms up, or in case of lamp appears unstable status, it could be changed between TE and LE.

Multi-Gang Derating

• For applications where dimmers are multi-ganged, derate the maximum load rating of the unit according to the derating tables below:

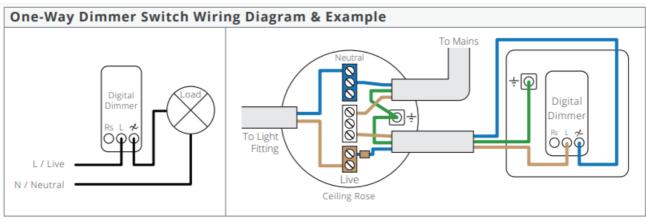
Dimmers	Max Load per Dimmer
x1	400W
x2	330W
х3	250W

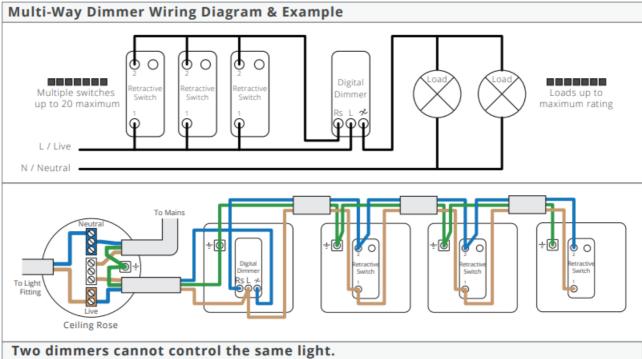
Parameter	Value
Supply Voltage & Frequency	220-240V ~ 50Hz
Rating	10-300W: incandescent lamps, high voltage halogen lamps and electronic step-down converter for extra low-voltage incandescent lamps. 3-200W: dimmable LED lamps.
Dimming Technology R.C.L	Auto Detect Trailing / Leading edge driven control. Leading edge dimming can be set by user manually.
Compatible loads for TE auto mode	Dimmable LED lighting with compatible Electronic Transformers.
	- Incandescent lighting, MV Halogen lamps.
	LV Halogen lighting with electronic transformers.
	LV Halogen lighting with iron-core transformers.
Operating Temp.	0°C - 45°C
Operating Humidity	10 - 90% R.H.

Example Wiring

Multiple Retractive switches can be used with a Corston Two-Way dimmer on the same circuit. Two-way and intermediate switches cannot be used.

Example wiring diagrams are shown below. When finished, there should be no exposed wire. The connections should be secure and tight. Earth sheathing should be used on any exposed earth wire. The switch assembly should push back into the mounting box without forcing or trapping any wires.





- The dimmer must always be connected to the Live side of the load. Multi-way retractive switch or push switch can control up to 20 units for UP/DOWN dim and ON/OFF function.
- Two or more dimmers must not be connected in parallel or series to control the same load from two different locations.
- The Corston dimmer uses digital chips to control dimming of LEDs and incandescent bulbs. The dimmer has a
 memory function so the lights turn on at the same brightness as they were last used. The dimmer has trailing
 edge and leading edge modes which treats the bulbs in the best way to ensure long life. It
 auto-senses which mode is best, but also can be easily programmed. Corston retractive toggle switches must
 be used with dimmers instead of normal two-way switches.

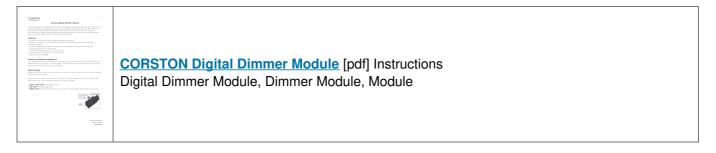
Using Retractive Switches

- The main benefit of the Corston Digital dimmer is that many retractive toggle switches can easily be connected to one dimmer module. Up to 20 switches can be used, so a flexible design can be economically made.
- The retractive toggle switches can control the light On and Off but also the dimming level. A short press and release of the toggle will turn the lights on and off. A press and hold on the toggle will dim the lights. Releasing the toggle and press and holding again will dim the lights in the other direction, either brighter or softer.
- The last used brightness level will be saved and next time the lights are turned on, the same level will be used.

Digital Dimmer Troubleshooting

- The Dimmer must always be connected to the Live side of the load. Multi-way retractive switch or push switch can control up to 20 units for UP/DOWN dim and
- ON/OFF function. Two or more dimmers must not be connected in parallel or series to control the same load from two different locations
- Corston.com/support
- hi@corston.com
- 01249 549332

Documents / Resources



Manuals+,