

The Corston dimmer uses digital chips to control dimming of LED's 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 in conjunction 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 back light to indicate the dimming mode
- 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 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

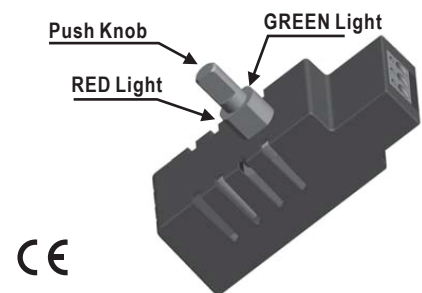
Remove the dimmer knob, so that you can see the clear plastic collar on the dimmer. It includes a coloured LED which shows the mode.

Lamp in 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 colour changes as below;

GREEN + RED LIGHT = Trailing edge mode

RED LIGHT = Leading edge mode

GREEN LIGHT = Auto sensing mode which uses trailing or leading edge modes. It defaults to Trailing edge



Warning & Installation information

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 Line side of the load.

Multi-way retractive switch or push switch can control up to 20 units. 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 De-rating

For applications where Dimmers are multi-ganged, derate the maximum load rating of the unit according to the derating table show as below;

Dimmers	Max Load per Dimmer
x1	200W
x2	150W
x3	100W

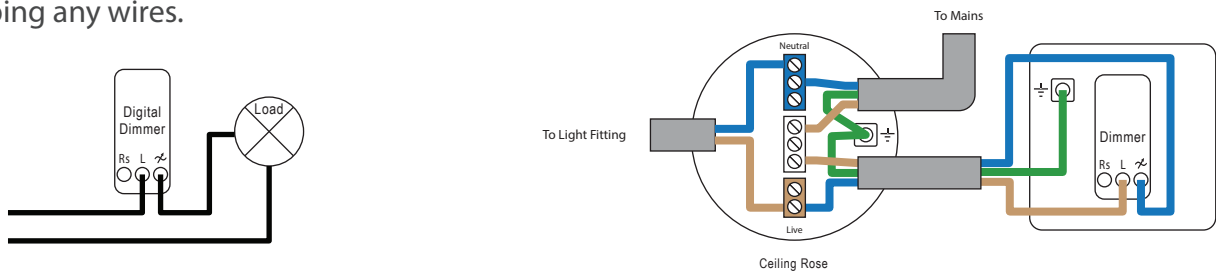
Parameter	Value
Supply voltage & Frequency	220-240V ~ 50Hz
Rating	10-300W: incandescent lamps, high voltage halogen lamps and electronic step-down converter for extra low-voltage incandescent lamps. 3-200W: dimmable LED lamps.
Dimming Technology 	Auto Detect Trailing / Leading edge driven control Also, Leading edge dimming mode can be set by user manually.
Compatible loads for TEauto 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 Temperature	0° - 45°C
Operating Humidity	10 - 90% R.H.

Example Wiring for Corston Digital Dimmer Switches 3

Example wiring diagrams have are shown for common installations. Consult an electrician if in any doubt.

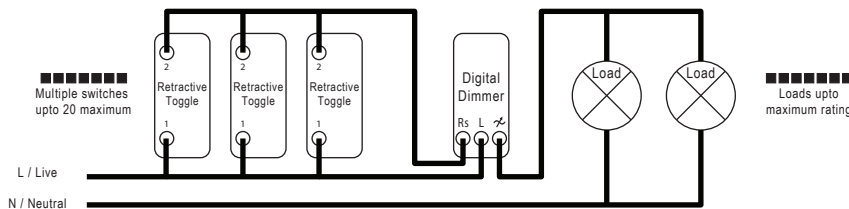
Multiple Retractive switches can be used with a Corston two-way dimmer on the same circuit. Two-way and intermediate switches cannot be used.

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.



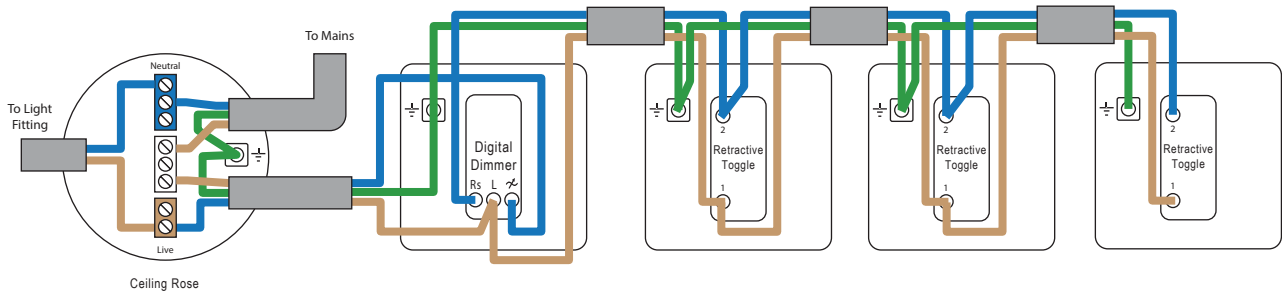
Multi-Way Dimmer Diagram

The Dimmer must always be connected to the Line 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.



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.

Multi-Way dimmer actual wiring example



Using Retractive Switches

The big benefit of the Corston Digital dimmer is that many retractive toggle switches can easily be connected to one dimmer module. Up to 20 switches is no problem, so a flexible design can be economically made.

The retractive toggle switches can also 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.