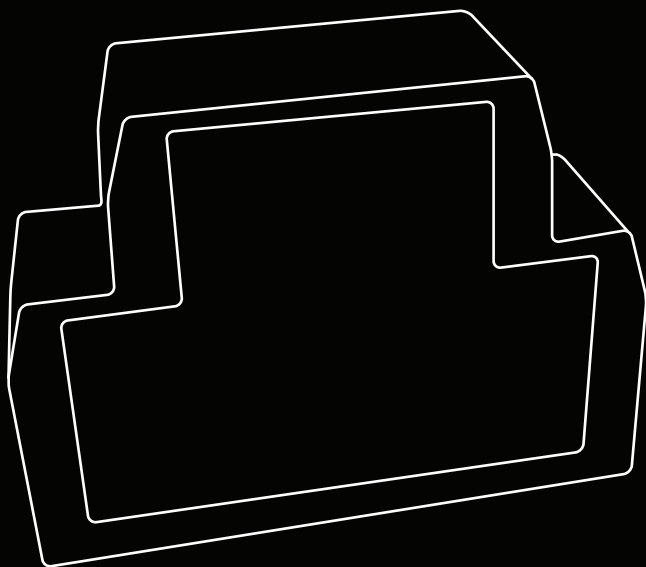




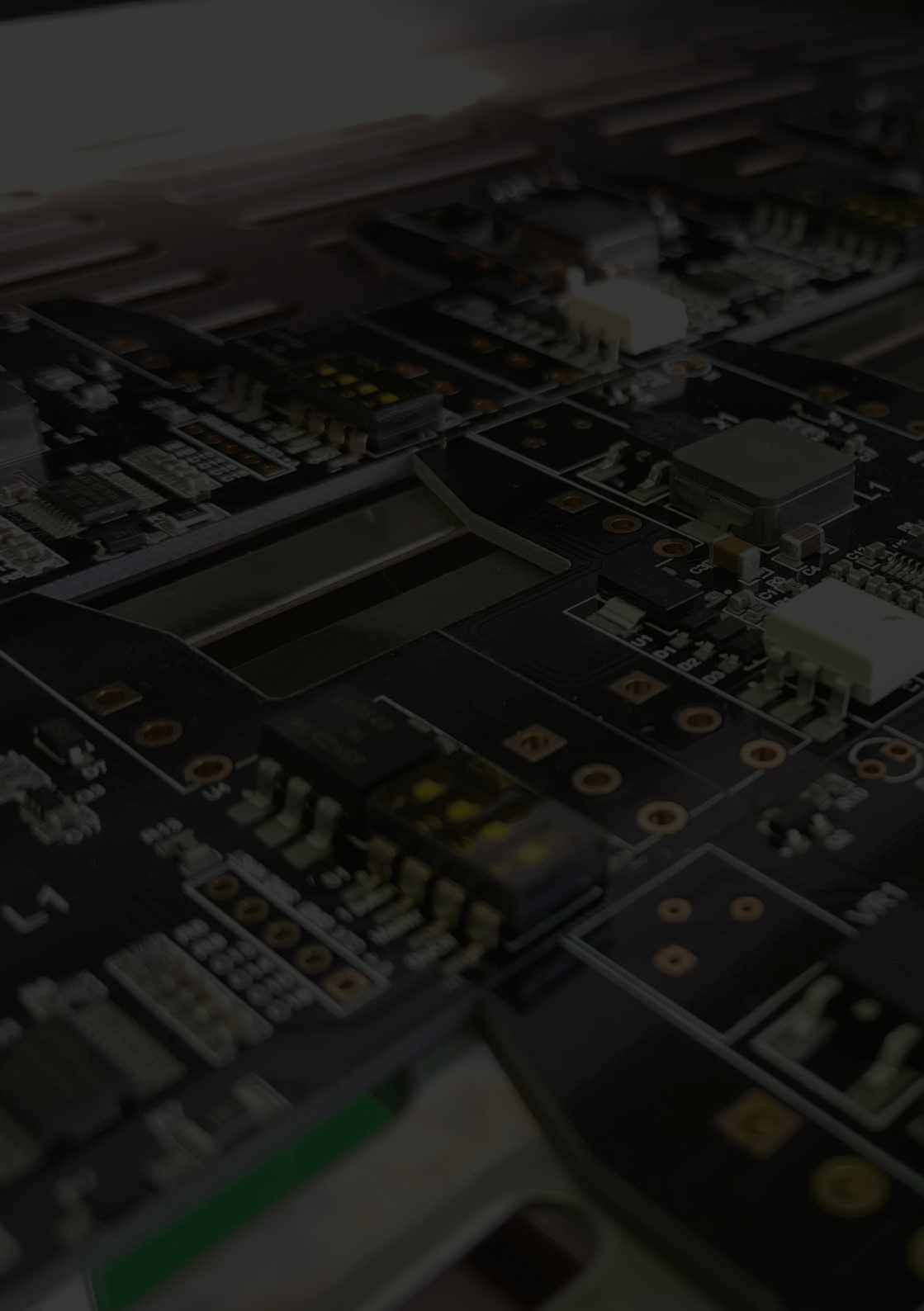
Electrical Solutions & Control Stations

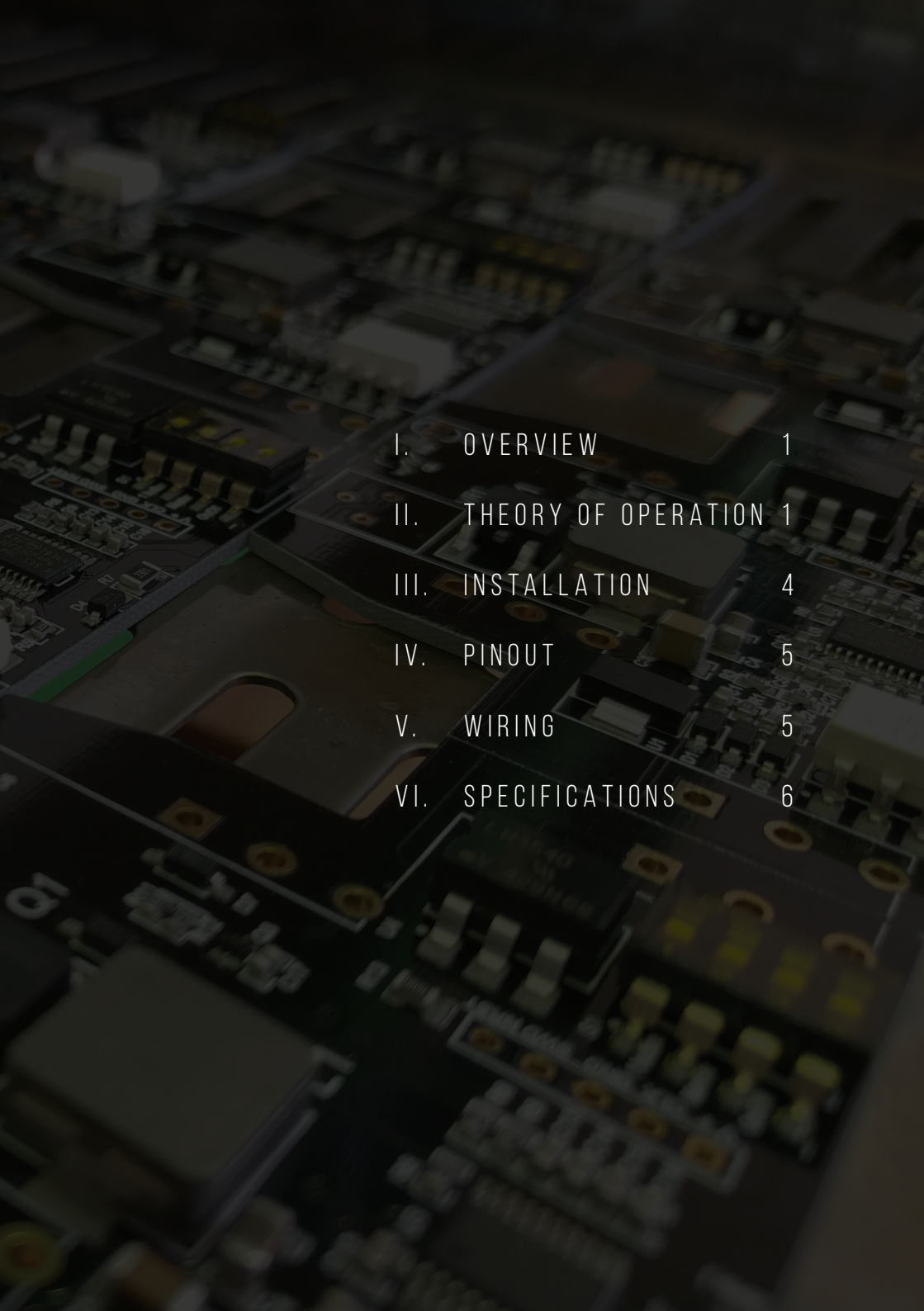
# MULTI LED LIGHTING DIMMER

v2.0



*User Manual*





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# I. OVERVIEW

The IMED Multi LED Lighting Dimmer is designed as an integrated dimming solution for controlling helm dash status lights and RGB backlighting. It comes with IMED UltraDIM technology, industry's lowest minimum brightness levels for improved night time visibility.

Two control buttons allow easy and seamless brightness and colour control.

# II. THEORY OF OPERATION

Colour and brightness are controlled independently of each other by pressing and holding the "Dim" or the "Colour" button.

Changing Brightness

To change system brightness, press and hold the "Dim" button. The Status brightness will slowly ramp from 0.1% - 100% or vice versa. The RGB backlighting outputs are automatically enabled for brightness levels below 90% which is where the transition into night mode occurs.

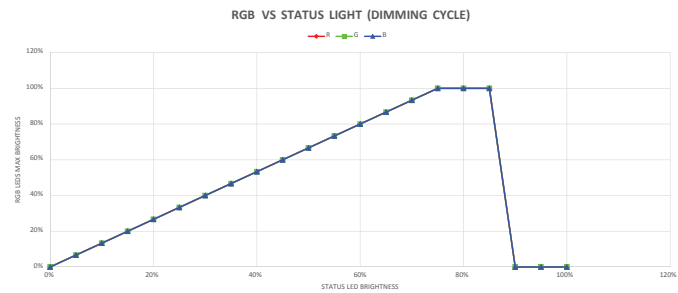


Figure 1.  
Backlight vs status light  
Dimming curve

*Changing Colour*

To change RGB colour, press & hold the "Colour" button. The dimmer now starts to slowly cycle through the full colour spectrum from red over green and blue back to white.

A quick tap on the "Colour" button quickly moves on to the next major colour. The major colours are listed in Figure 2 (bold, underlined>).

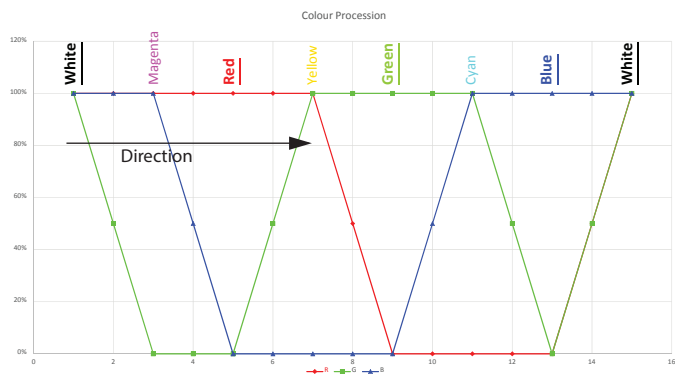


Figure 2.  
Output colour progression

*Setting minimum brightness* To set the minimum brightness level, first dim the status lights down to the absolute minimum. Then, using a small flathead screddriver, rotate the dial located inside the *Min Dim Setpoint* hole on top of the case until the desired intensity is achieved.

Figure 3.  
Dimmer setpoint  
potentiometer.



The "Status" indicator on the top side of the dimmer shows the current status brightness and the "Colour" indicator shows current brightness and colour for the RGB backlighting channels.

### III. INSTALLATION

The IMED Multi LED Lighting Dimmer is DIN rail mounted and can be mounted in any orientation.

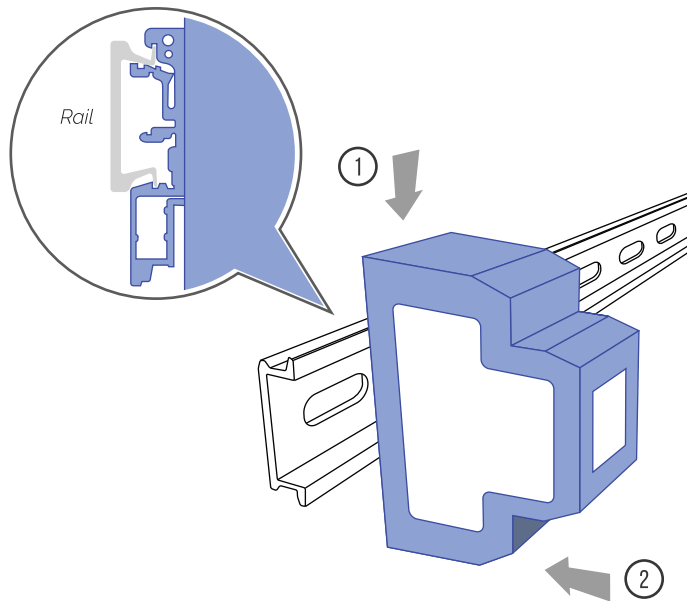
Dimmer supply must be protected by adequately rated fuses - do not use fuses in excess of 8 A.

Min wire diameter is 0.75 mm<sup>2</sup> (21 AWG).

Max wire diameter is 2.5 mm<sup>2</sup> (13 AWG).

Install dimmer in a dry location.

Figure 4.  
Mounting dimmer  
on din rail.



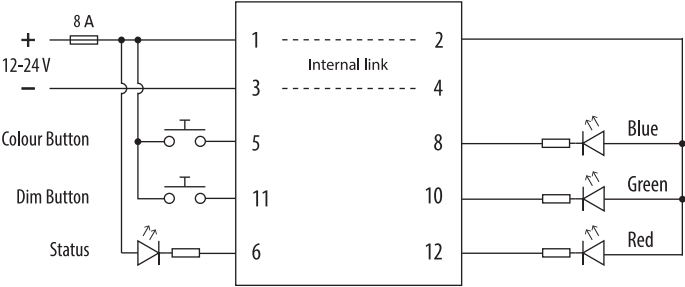
IV. PIN DESCRIPTION

Pin	Name	Function
1	V+	Supply voltage: 9 - 30V.
2	V+	Supply voltage. Internally linked to pin 1.
3	V-/Com	Ground/Common.
4	V-/Com	Ground/Common. Internally linked to pin 3.
5	Colour Button	Colour control button input. Single tap for next major colour.
6	Status LED	Dim control for status lights channel.
7	NC	Not Connected.
8	Blue LED	Dim control for blue channel.
9	NC	Not Connected.
10	Green LED	Dim control for green channel.
11	Dim Button	Brightness control button input.
12	Red LED	Dim control for red channel.

V. WIRING EXAMPLE

Figure 5  
Wiring example.

(\*) - buttons can be  
connected in parallel  
for access from  
multiple locations.





# VI. SPECIFICATIONS

Nominal ratings	Supply voltage:	9 - 30 VDC
	Output:	4 x 2 A (rated)
	Input type:	N/O Pushbutton
	Operating temperature:	-20 to 65 °C
	Case material:	ABS
	Dimension:	80 mm x 70 mm x 25 mm
	Installation:	35 mm din rail

Maximum ratings	Max voltage:	35 V
	Max current:	4 x 3 A

*Note -  
Exceeding could risk  
damage to device*

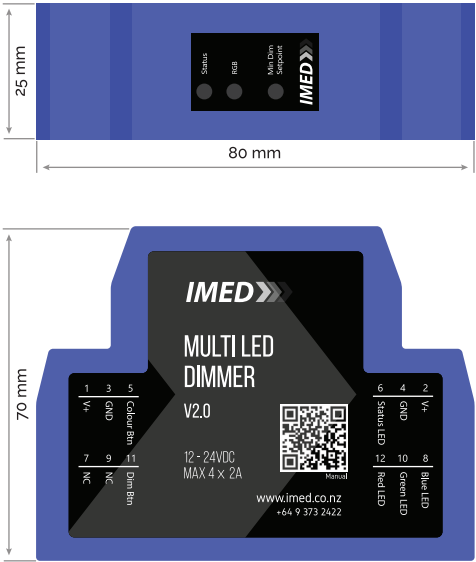


Figure 6  
Dimmer top  
and side view.







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