



PowerLED Dimming Control Reference Manual

□ **ILIM80110**

Imtra PowerLED Dimmer

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□ **ILIM80102**

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Overview

In order to provide control of our PowerLED lighting fixtures to support various lighting applications, Imtra offers a range of dimming control solutions.

For typical applications, an ILIM80110 dimmer module may be used with any number of normally open momentary pushbuttons to control up to 30* PowerLED lights.

Lighting circuits that include one or more Captiva PowerLEDs require an ILIM80102. This dimmer module can also be controlled by any number of normally open momentary pushbuttons and it can control up to 50* PowerLED lights.

For applications where it is necessary to integrate with a third party automated control system, one of two solutions may be employed.

1. A 0-10V analog signal may be used to control the PowerLEDs via our ILIM80200 dimmer module. This dimmer module requires a 0-10V analog signal source and can control up to 30* PowerLED lights.
2. A Pulse Width Modulating signal may be used to control the PowerLEDs directly via the white and grey dimming signal wires.

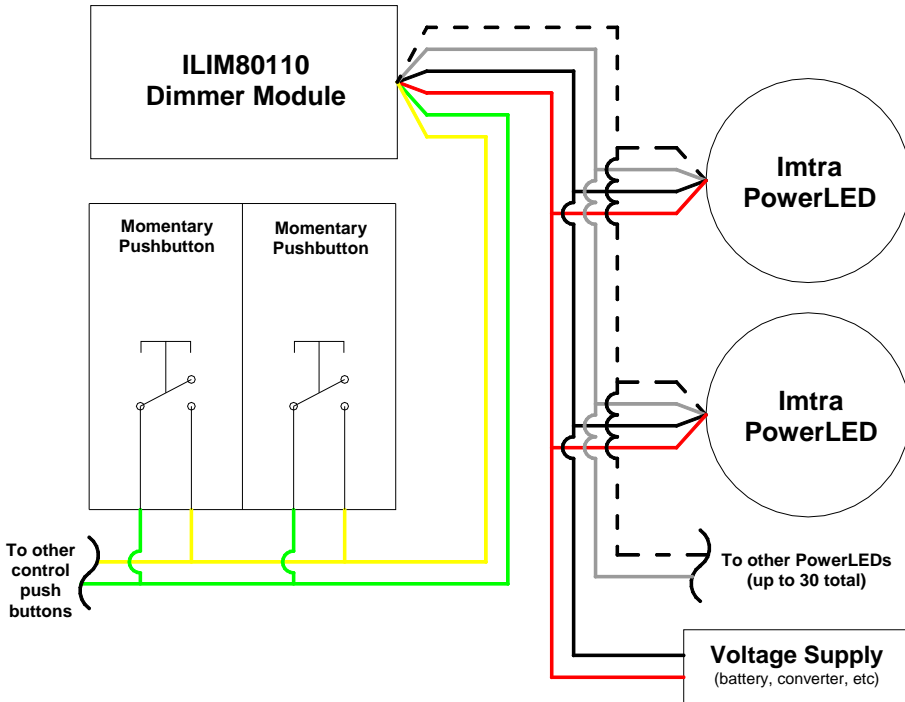
Specifications

	ILIM80110	ILIM80102	ILIM80200
Height	0.90" (23mm)	0.84"(21mm)	0.63" (16mm)
Width	3.86" (98mm)	2.53"(64mm)	2.63" (67mm)
Depth	2.10" (52mm)	1.47"(37mm)	1.38" (35mm)
Input Voltage Range	10-30VDC		
Max. Output Current	0.03A	0.05A	0.03A
Capacity	30 Fixtures*	50 Fixtures*	30 Fixtures*
Control Interface	N.O. Contacts	N.O. Contacts	0-10V Analog
IP Rating	IP40		

***Note:** Exceeding maximum number of fixtures can permanently damage dimmer module.

Imtra PowerLED Dimmer

The ILIM80110 PowerLED Dimmer Module is used to manually operate a circuit of PowerLED Lights with on/off and dimming control. Before making any connections, be sure all power in the circuit is turned off at the breaker. To install your PowerLED dimmer, connect the wires according to the following wiring schematic. Failure to follow the wiring schematic exactly as shown will result in failure & permanent damage to the dimmer.



To operate your PowerLED Dimmer Module and Lights:

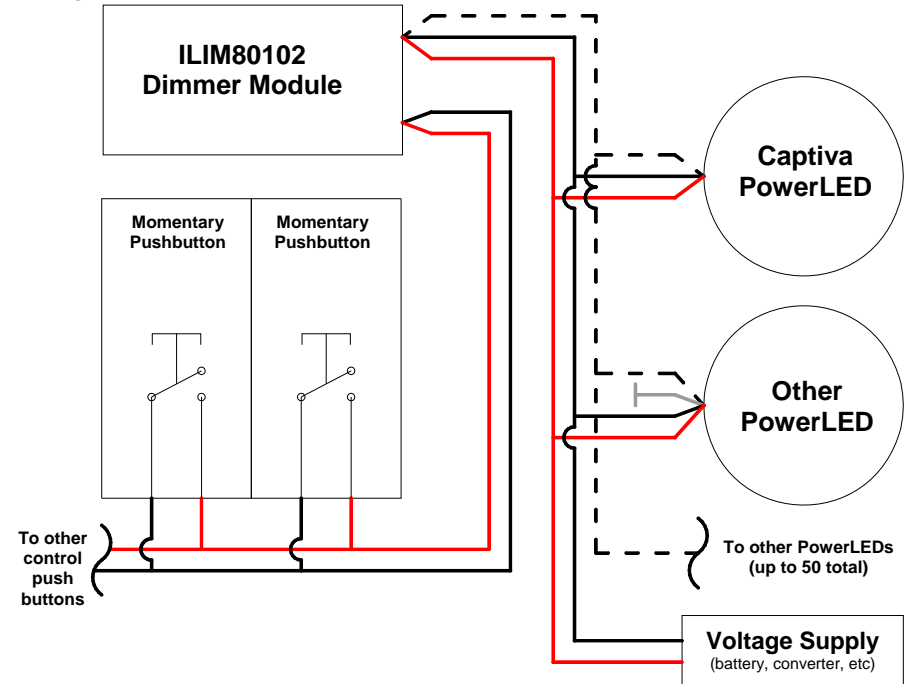
- Tap any one of the momentary pushbuttons to turn on or off.
- Press and hold any one of the momentary pushbuttons to dim up or down.

Note:

- When DC voltage to the PowerLED Dimmer and Lights is lost, the default setting when powered up again is always off.
- A tap of the momentary pushbutton will always turn the PowerLED Dimmer and Lights on to the previous setting.

Captiva PowerLED Dimmer Module

The ILIM80102 Captiva PowerLED Dimmer Module is specifically designed to control the Captiva PowerLED down spot. However, it may also be used to control a circuit which contains both Captiva and Hatteras PowerLED down spots. Before making any connections, be sure all power in the circuit is turned off at the breaker. To install your dimmer, connect the wires according to the following schematic. Failure to follow the wiring schematic exactly as shown will result in failure & permanent damage to the dimmer.



To operate your Captiva PowerLED Dimmer Module and Lights:

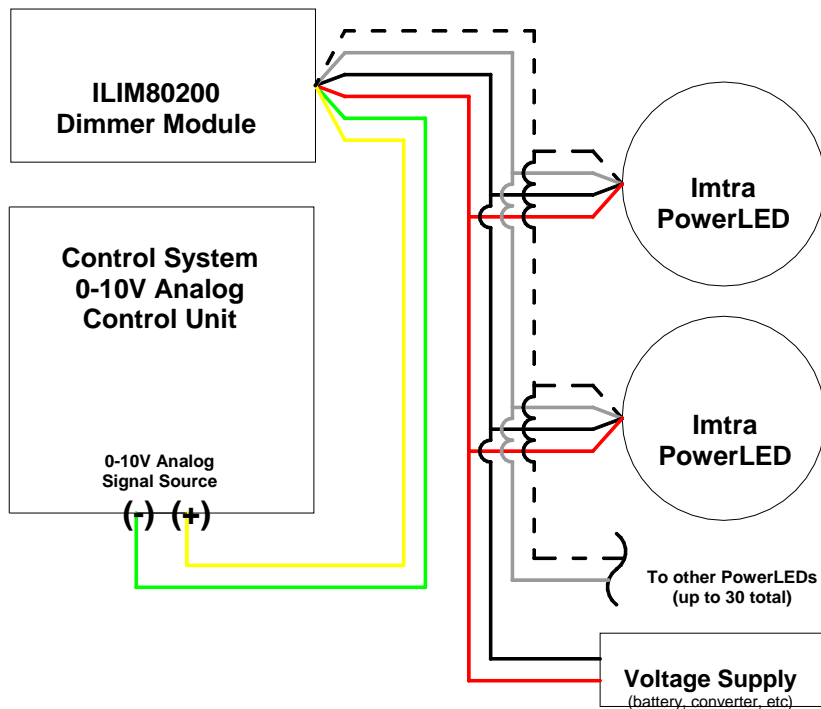
- Tap any one of the momentary pushbuttons to turn on or off.
- Press and hold any one of the momentary pushbuttons to dim up or down.

Note:

- When DC voltage to the PowerLED Dimmer and Lights is lost, the default setting when powered up again is always off.
- A tap of the momentary pushbutton will always turn the PowerLED Dimmer and Lights on to the previous setting.

PowerLED Analog Dimmer Module

The ILIM80200 PowerLED Analog Dimmer Module is used for automated control of a circuit of PowerLED Lights. The ILIM80200 PowerLED Dimmer Module can interface with any control system that can provide a 0-10VDC Analog signal. Before making any connections, be sure all power in the circuit is turned off at the breaker. To install your PowerLED dimmer, connect the wires according to the following schematic. Failure to follow the wiring schematic exactly as shown will result in failure & permanent damage to the dimmer.

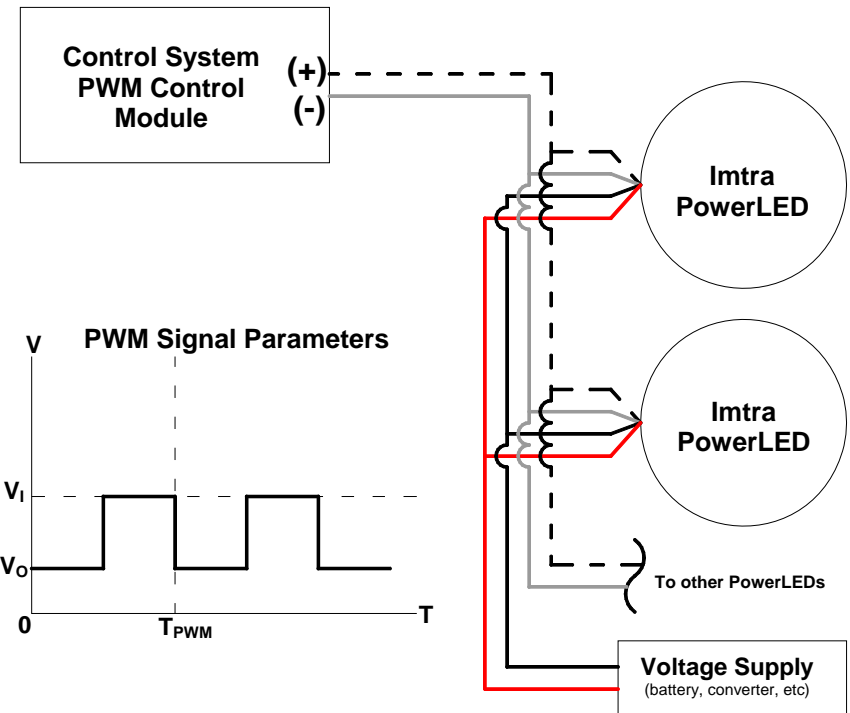


Note:

- The ILIM80200 PowerLED Dimmer Module requires a 0-10VDC signal source. It does not provide a 10VDC voltage to be modulated and returned.
- A 0V signal input will render a 0% light output.
- A 10V signal input will render a 100% light output.

PWM Control of PowerLED Lights

Imtra PowerLED Lights can also be controlled with a Pulse Width Modulating signal. Many centralized lighting automation systems use this type of control. To control your PowerLED using a PWM signal, the wiring and signal parameters should be configured according to details below.



Note:

- $5.0\text{ms} < T_{\text{PWM}} < 8.33\text{ms}$ (PWM Frequency=120-200Hz)
- Dim signal voltage to be $0\text{VDC} < V_0 < 1.7\text{VDC}$ & $2.1\text{VDC} < V_1 < 30\text{VDC}$
- Current Sink $I=1\text{mA}$

Limited Warranty

Imtra warrants these dimming control products for 1 year from the date of purchase. If the dimmer module should cease to function within 1 year, return it to Imtra for repair or replacement.

This warranty does not apply to damage resulting from actions of the user such as misuse, improper wiring/installation, operation outside of specification, improper maintenance or repair, unauthorized modification, lightning strike or damage from a power surge.

Imtra specifically disclaims any implied warranties, merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Imtra's total liability is limited to repair or replacement of the product.

The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

If it should become necessary to return a fixture for service during or beyond the warranty period, please refer to Imtra's standard Return Policy as detailed on Imtra's website (www.imtra.com) or call Imtra customer service at (508) 995-7000.

No returns are accepted without a Return Authorization (RA) number.



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