



OVERVIEW

TRCDIM simplifies LED array lighting systems by combining an in-wall LED dimmer switch and power supply into a single integrated unit. TRCDIM mounts in a standard in-wall switch box, accepts 120Vac, and converts to low voltage DC. TRCDIM is compatible with most solid color 12Vdc and 24Vdc tape lights and fixtures.

FEATURES

- LED driver + in-wall dimmer switch in one unit
- Simplifies LED installation by eliminating compatibility issues between driver and dimmer
- Fits in a standard recessed electrical box
- 100% - 5% smooth dimming
- No minimum load
- Class 2 output
- Single pole preset dimmer with On/Off push switch
- Adjustable voltage output dial to address voltage drop
- Includes voltage barrier partition to install high and low voltage circuit
- No derating required when ganging units
- Power failure memory: If power is interrupted, TRCDIM will return to setting prior to interruption
- Included face plates: glossy white, glossy light almond, and glossy dark brown (wall plates not included nor sold by TRC)
- TRCDIM is compatible with solid color 12Vdc and 24Vdc tape light and fixtures
- 5 Year Warranty

COLORS & FINISHES



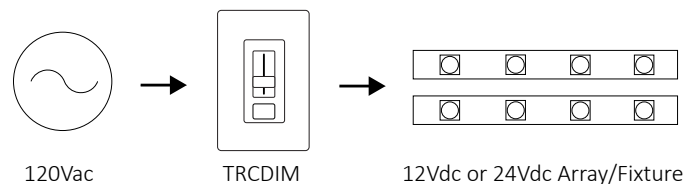
Glossy
White



Glossy
Light Almond



Glossy
Dark Brown



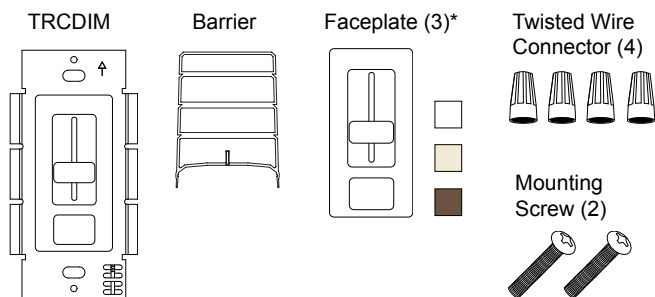
TRCDIM SPECIFICATIONS

OUTPUT	Model	TRC-12V60WDIM	TRC-24V100WDIM
	DC Voltage	12Vdc	24Vdc
	Rated Current	5A	4.16A
	Rated Power	60W	100W
	Voltage Adjustment Dial	Increases output +1V to compensate for voltage drop from control to luminaire	
	Output Ripple Current	≤20% of the rated output current @ 120Vac max load	
	Startup Time	The main supply output voltages remain within the regulation limit of +/- 3%	
	Dimming	Output voltage is adjustable via sliding lever	
INPUT	Input Voltage	120Vac (108 ~ 132Vac), 50/60Hz (47 ~ 63Hz)	
	Power Factor	>0.9 @ 120Vac 60Hz max load	
	Stand-by Power	≤0.5W	
	Total Harmonic Distortion (THD)	≤20% @ 120Vac 60Hz max load	
	Efficiency	≥91% @ 120Vac max load	
	Input Current	<1.0A @ 120Vac max load	
	In-Rush Current	Meets NEMA-410 requirement at any nominal input full sine wave voltage and maximum load at 25°C	
	Leakage Current	<500μA @ 120Vac	
	Surge/Transient	Tested to meet transients defined in IEC 61000-4-4, level 3 & IEC 61000-4-5, level 3	
PROTECTIONS		Short Circuit/Thermal Runway/Over Voltage	
ENVIRONMENT	Ambient Operating Temperature	0°C to 40°C (indoor use only)	
	Humidity	8 ~ 90% relative humidity, non-condensing	
SAFETY & EMC	Safety Standards	cULus Listed (US & Canada) Low Voltage Lighting System. File No. E511695	
	EMC Emission	Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. FCC approved. CE Certified. Tested to comply in accordance with IEC 61000-3-2	
	NEC Code	Conforms to NEC Code 725.136: Class 1 and Class 2 circuit in same enclosure must be separated by a barrier (partition) unless Class 2 circuit conductors are installed in accordance with NEC 725.41 Class 1 Circuits. See Installation guide.	
	Other	RoHS Certified	
SPECIFICATIONS	Dimension	69.40mm (2.73in) x 69.16mm (2.72in) x 111.14mm (4.37in) [L x W x H]	
	Weight	Qty: 1 Box Unit 0.63lb (10.08oz) / Qty: 1 Case of 25 Box Units 19lb (304oz)	

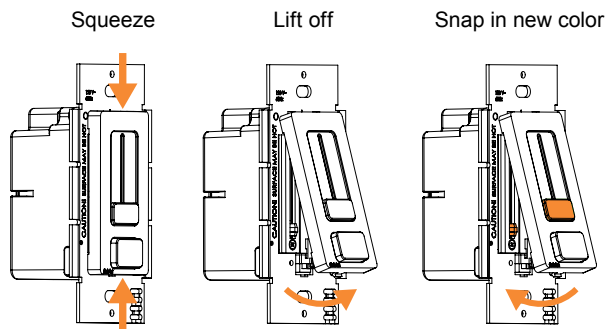
DIMMER MODELS

Item # †	Input Voltage	Output Voltage	Max. Load
TRC-12V60WDIM	120Vac	12Vdc	60W
TRC-12V100WDIM		24Vdc	100W

† Each item # includes the following accessories:



FACEPLATE INSTALLATION

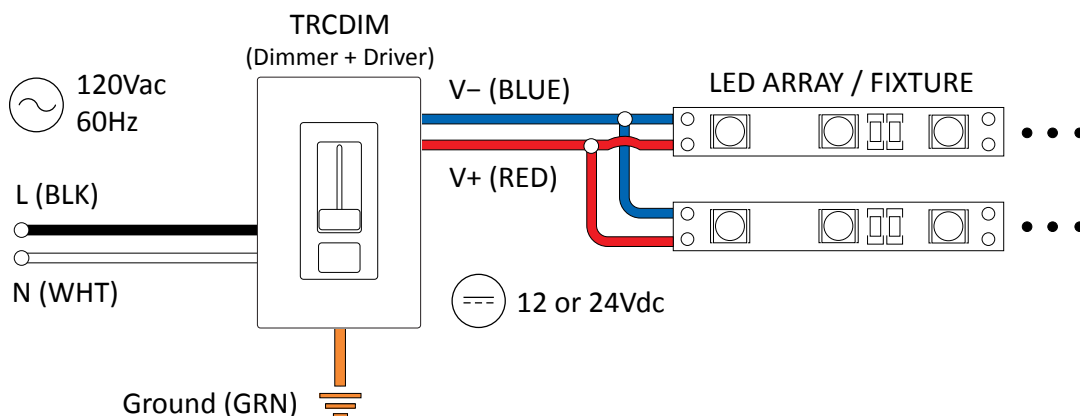


*Each TRCDIM ships with 3 interchangeable faceplates:
 (glossy white/glossy light almond/glossy brown)

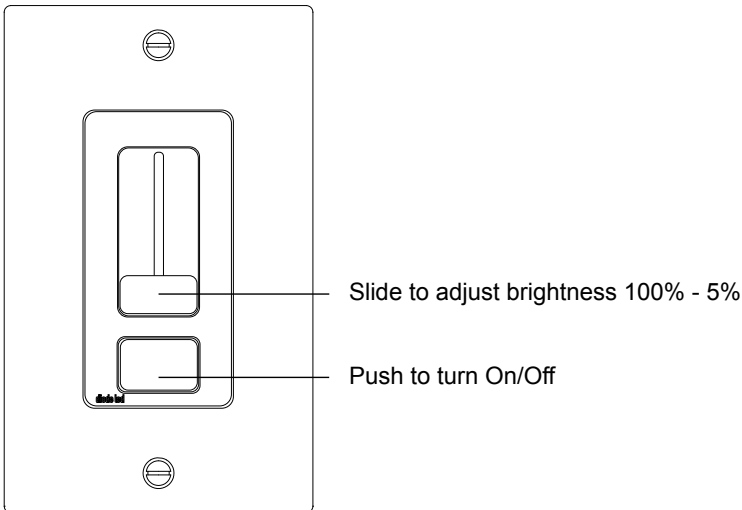
Wall plates are not included.



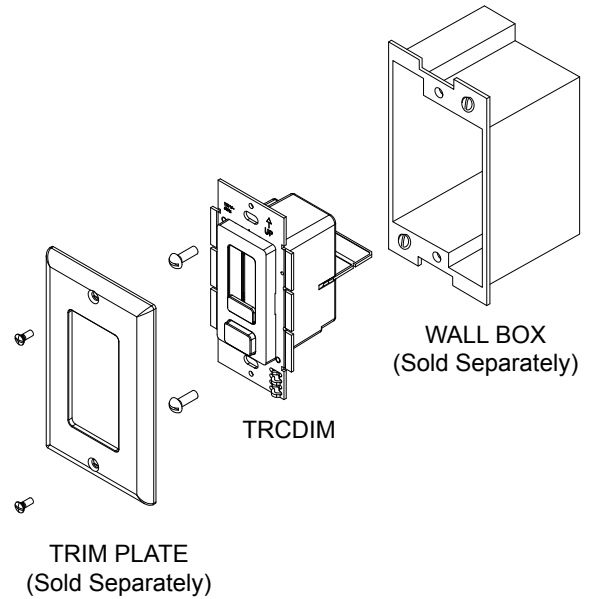
TRCDIM shown mounted with included white faceplate.



OPERATION

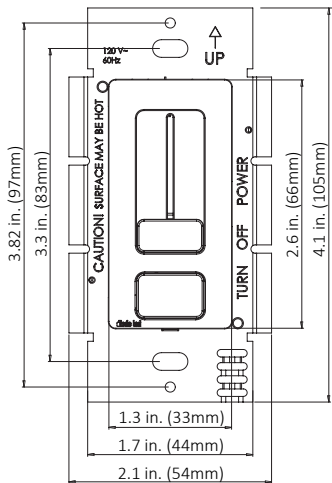


MOUNTING

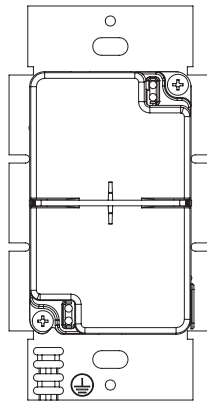


MECHANICAL DIAGRAM

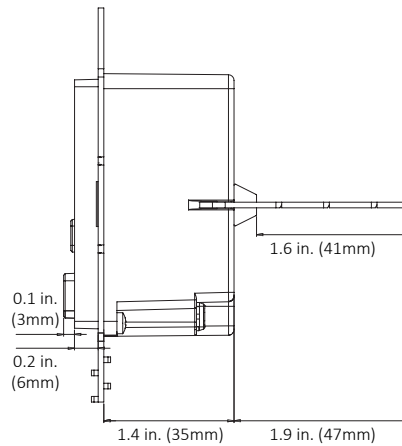
TRCDIM Front



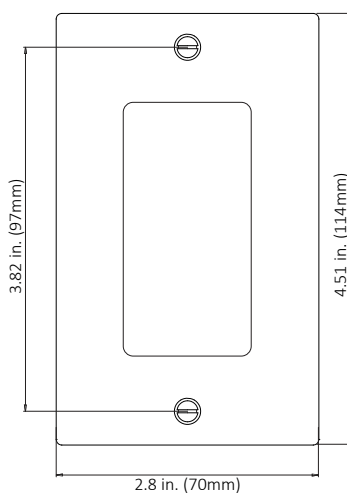
Back



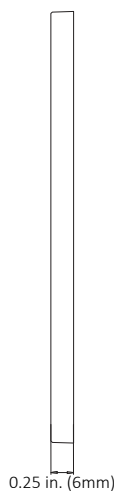
Side with Voltage Barrier



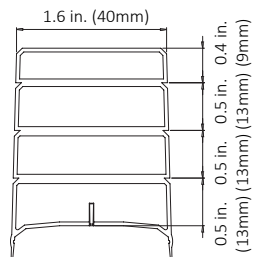
Trim Plate Front



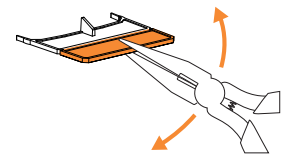
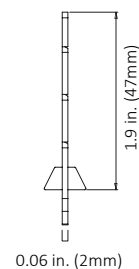
Side



Barrier Top



Side



For shallow boxes, barrier can be shortened. Grip with pliers. Bend back and forth until fin breaks off.

VOLTAGE DROPS CHARTS

For best performance and lumen output, ensure proper wire gauge is installed to compensate for voltage drop of low voltage circuits.

Wire Gauge	10W .83A	20W 1.7A	30W 2.5A	40W 3.3A	50W 2.1A	60W 4.2A
18 AWG	34ft	17ft	11ft	8ft	6ft	5ft
16 AWG	54ft	27ft	18ft	13ft	10ft	9ft
14 AWG	86ft	43ft	29ft	21ft	17ft	14ft
12 AWG	134ft	68ft	45ft	34ft	27ft	22ft
10 AWG	199ft	99ft	66ft	49ft	39ft	33ft

1. Determine load size. Let's assume load is 55W. Round up to the nearest load.
2. Determine distance from TRCDIM to load. Let's assume the distance is 20ft.
3. It's recommended to install 12 AWG to eliminate excess voltage drop.

12V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10W .83A	20W 1.7A	30W 2.5A	40W 3.3A	50W 2.1A	60W 4.2A
18 AWG	34ft	17ft	11ft	8ft	6ft	5ft
16 AWG	54ft	27ft	18ft	13ft	10ft	9ft
14 AWG	86ft	43ft	29ft	21ft	17ft	14ft
12 AWG	134ft	68ft	45ft	34ft	27ft	22ft
10 AWG	199ft	99ft	66ft	49ft	39ft	33ft

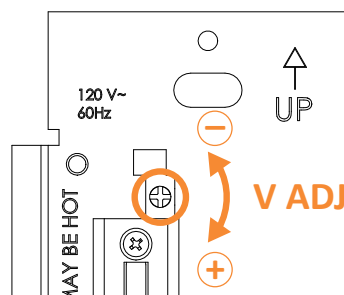
24V Voltage Drop & Wire Length Distance Chart

Wire Gauge	10W .42A	20W .83A	30W 1.3A	40W 1.7A	50W 2.1A	60W 2.5A	70W 2.9A	80W 3.3A	100W 4.2A
18 AWG	134ft	68ft	45ft	33ft	27ft	22ft	19ft	17ft	14ft
16 AWG	215ft	109ft	72ft	54ft	43ft	36ft	31ft	27ft	22ft
14 AWG	345ft	174ft	115ft	86ft	69ft	57ft	49ft	43ft	36ft
12 AWG	539ft	272ft	181ft	135ft	108ft	90ft	77ft	68ft	56ft
10 AWG	784ft	397ft	263ft	197ft	158ft	131ft	112ft	98ft	82ft

VOLTAGE ADJUSTMENT

TRCDIM can provide a 1V boost if the fixture is receiving noticeable light degradation.

- a. Pop off face plate.
- b. Use a small screwdriver to adjust output voltage by turning adjustment dial clockwise.



SAFETY/WARNINGS/DISCLOSURES

1. UNLIKE TRADITIONAL DIMMING CONTROLS, TRCDIM REQUIRES UNIQUE WIRING STEPS.
READ ALL WARNINGS AND INSTALLATION INSTRUCTIONS THOROUGHLY.
2. Install in accordance with national and local electrical code regulations.
3. This product is intended to be installed and serviced by a qualified, licensed electrician.
4. NEC Code 725.136: Class 1 and Class 2 circuits in same enclosure must be separated by a barrier unless Class 2 circuit conductors are installed in accordance with 725.41 Class 1 Circuits.
For example, Non-Metallic (NM) cable is considered a Class 1 circuit conductor.
Therefore, if both high voltage and low voltage circuits are installed with NM cable then the voltage barrier is not required for installation.
5. Only install compatible 12Vdc or 24Vdc Constant Voltage DC fixtures or warranty will be void.
6. Suitable for indoor/dry installation.
7. To compensate for voltage drop, ensure applicable gauge in-wall rated wire is installed between control and fixture.
8. Do not modify product beyond instructions or warranty will be void.