

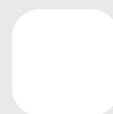


EZDim

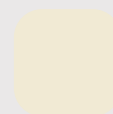
Dimmer + Driver

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

COLORS & FINISHES



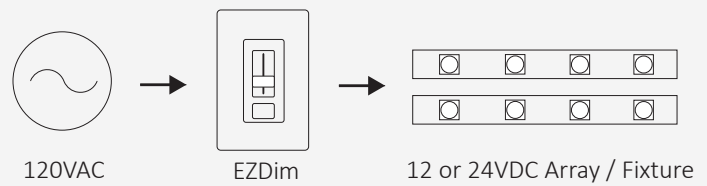
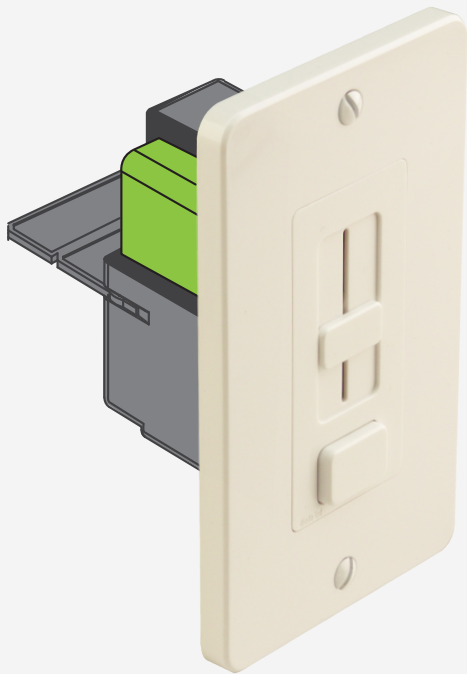
Glossy
White



Glossy
Light
Almond



Glossy
Dark
Brown



FEATURES AND BENEFITS

First 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.
- 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 in same switch box.
- No derating required when ganging units.
- Power failure memory: If power is interrupted, EZDim will return to setting prior to interruption.
- 3x included face plates: Glossy White, Glossy Light Almond and Glossy Dark Brown
- Warranty: 6 years

SPECIFICATIONS



INPUT

- Input Voltage: 120VAC (108 ~ 132VAC), 50/60Hz (47 ~ 63Hz)
- Power Factor: >0.9 @ 120VAC 60Hz max load.
- Total Harmonic Distortion (THD): ≤20% @ 120VAC 60Hz max load. Tested to comply in accordance with IEC 61000-3-2.
- Stand-by Power: ≤0.5W.
- 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 6100-4-4, level 3 & IEC 6100-4-5, level 3.

OUTPUT

- Dimming: Output voltage is adjustable via sliding lever
- Voltage Adjustment Dial: Increases output +1V to compensate for voltage drop from control to luminaire.
- Startup Time: The main supply output voltages remain within the regulation limit of +/- 3%.
- Protections: Short circuit, thermal runaway, and over voltage.
- Output Ripple Current: ≤20% of the rated output current @ 120VAC max load.

ENVIRONMENTAL REQUIREMENTS

- Indoor use only.
- Ambient Operating Temperature: 0°C to 40°C
- Humidity: 8 ~ 90% relative humidity, non-condensing.

SAFETY AND WARNINGS

**UNLIKE TRADITIONAL DIMMING CONTROLS, EZDim REQUIRES UNIQUE WIRING STEPS.
READ ALL WARNINGS AND INSTALLATION INSTRUCTIONS THOROUGHLY.**

1. Install in accordance with national and local electrical code regulations.
2. This product is intended to be installed and serviced by a qualified, licensed electrician.
3. 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.
4. Only install compatible 12 V or 24 V Constant Voltage DC fixtures or warranty will be void.
5. Do not modify product beyond instructions or warranty will be void.

APPROVED LED FIXTURES

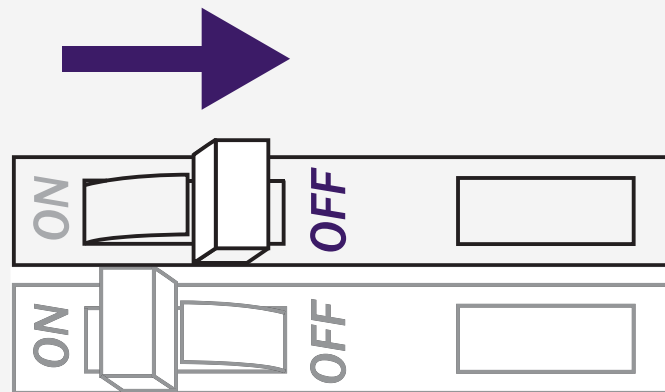
Compatible with LED solid color 12V and 24V tape light and fixtures.

INSTALLATION

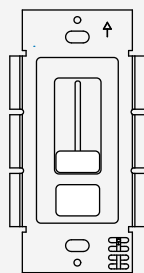
1. TURN ON POWER AT CIRCUIT BREAKER



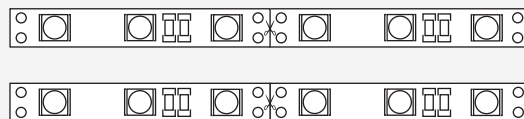
SHOCK HAZARD! May result in serious injury or death.
Turn power OFF at circuit breaker prior to installation.



2. DETERMINE LOCATION TO INSTALL COMPONENTS



EZDim



Low Voltage Tape Light/Fixture

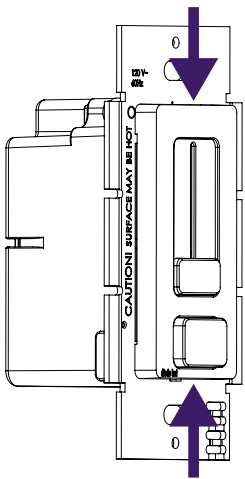
INSTALLATION GUIDE



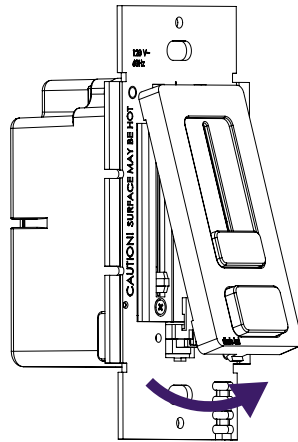
3. REMOVE EXISTING SWITCH (IF NECESSARY)

- a. Remove trim plate and switch mounting screws.
- b. Pull switch from wall.
- c. Identify wires connected to switch and mark wires if desired.
- d. Disconnect wires from switch.

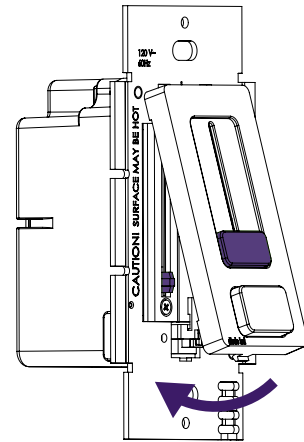
4. CHOOSE PLATE FINISH (IF NECESSARY)



a. Gently squeeze top and bottom of face plate.



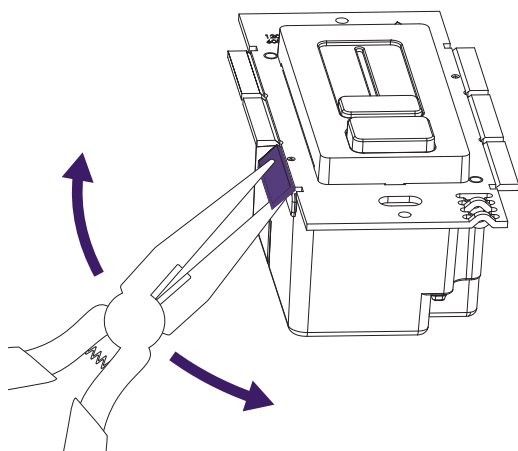
b. Lift face plate from housing.



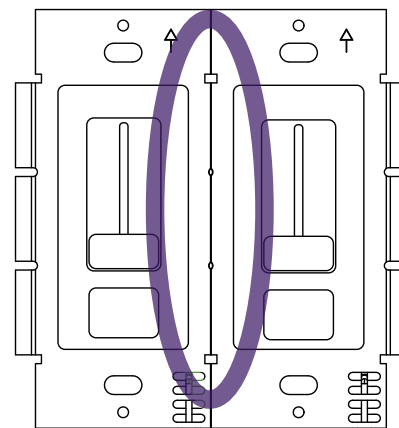
c. Insert replacement face plate into top housing groove. Position housing slider and face plate slider at min brightness (bottom level) and pop on face plate.

5. REMOVING FINS (IF NECESSARY)

It's required to break off dimmer fins when ganging multiple dimmers in same wall box.



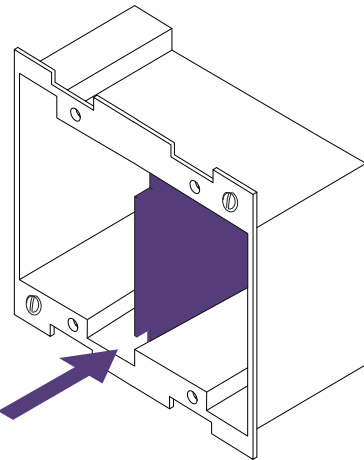
Grip with pliers. Bend back and forth until fin breaks off



Fins have been removed.

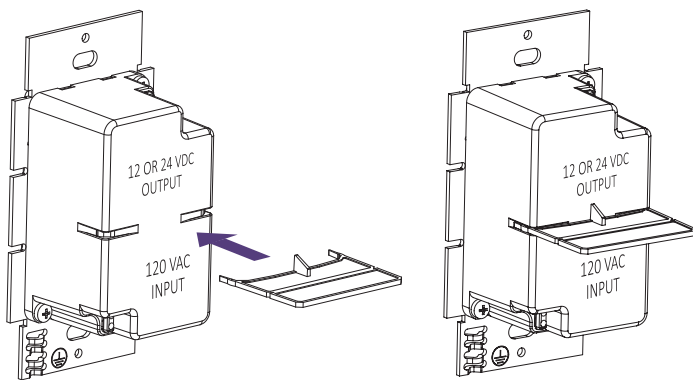
ZERO LOAD DERATING

Unlike standard high voltage AC controls, removing EZDim fins does not reduce the dimmer's maximum watt age rating.



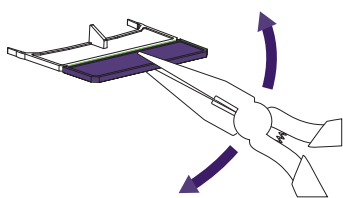
Removable Partition

Install gang boxes that include vertical partitions (available at local electrical distributor) unless Class 2 circuit conductors are installed in accordance with 725.41 Class 1 Circuits.

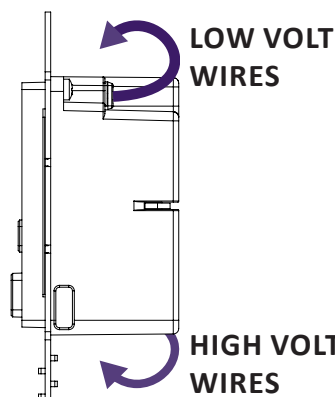


6. ATTACH VOLTAGE PARTITION (BARRIER)

A voltage barrier is provided, which separates high voltage and low voltage wires in the wall box. Attach before mounting.



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



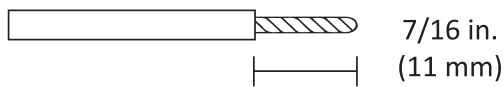
For extra shallow wall boxes it's acceptable to use the dimmer housing as a barrier. Tuck wires on top and bottom sides of dimmer housing.

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.

SPECIAL WIRING INSTRUCTIONS
EZDim requires unique wiring steps. Read thoroughly.

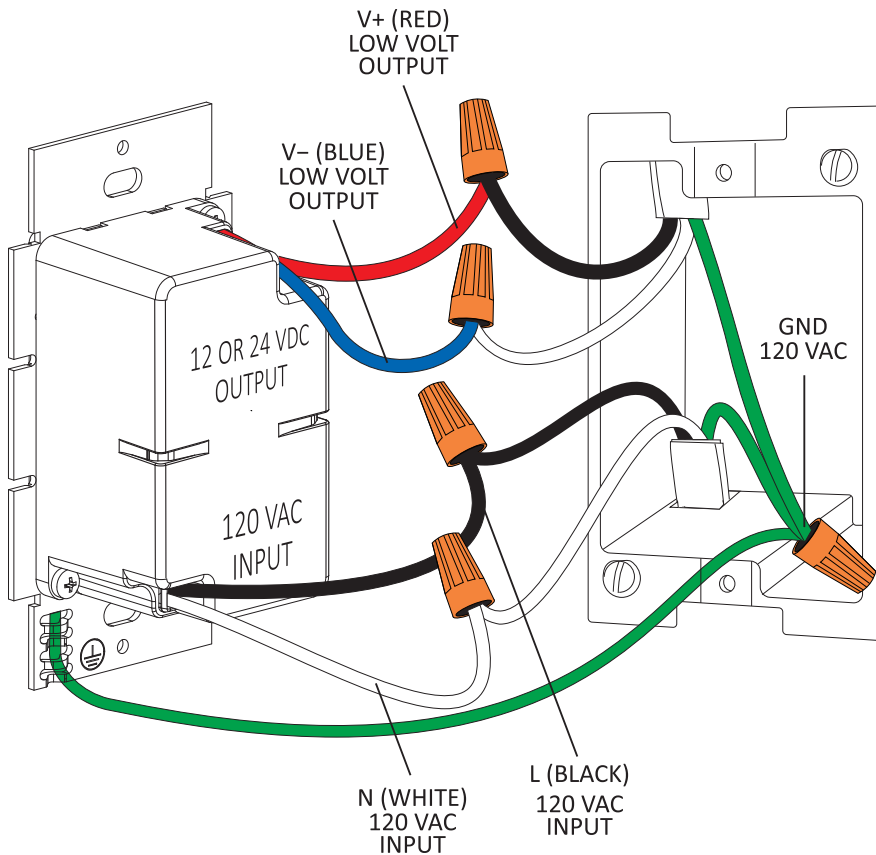
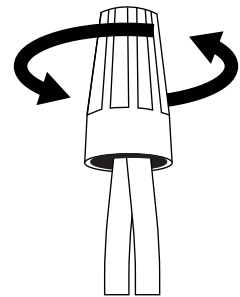
7. WIRE DIMMER

a. Strip wires on dimmer



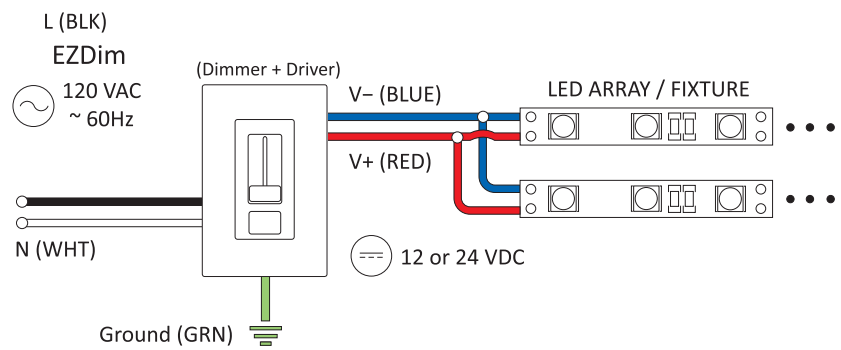
b. Wire dimmer. Ensure main power is OFF.

- GND (GREEN): To ground wire in box.
- V+ (RED): To low voltage V+.
- V- (BLUE): To low voltage V-.
- N (WHITE): To 120 V Neutral.
- H (BLACK): To 120 V Line Hot.

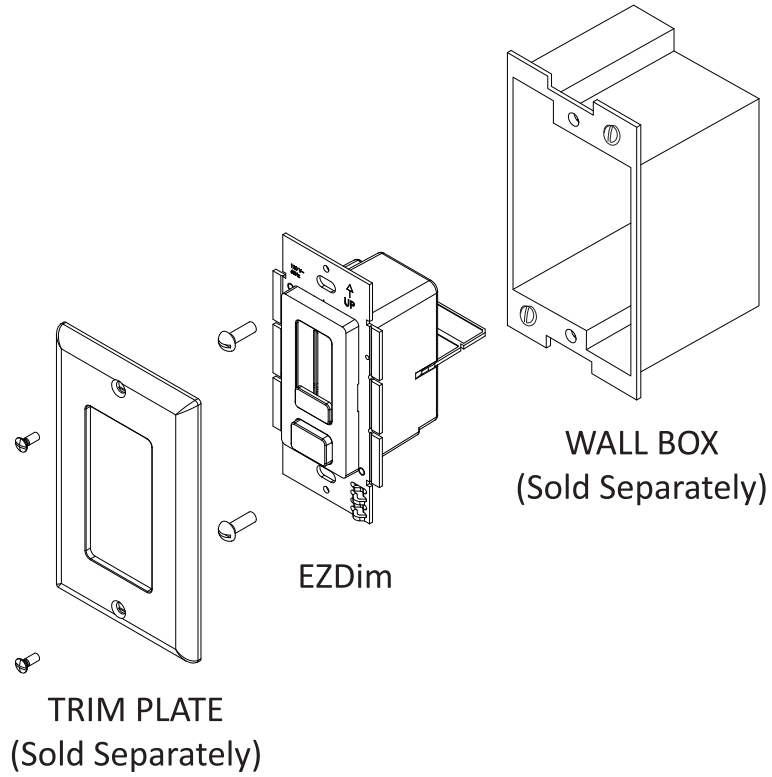


VOLTAGE DROP
See VOLTAGE DROP CHARTS
at end of this guide for wire
gauge recommendations installed
between dimmer and fixture.

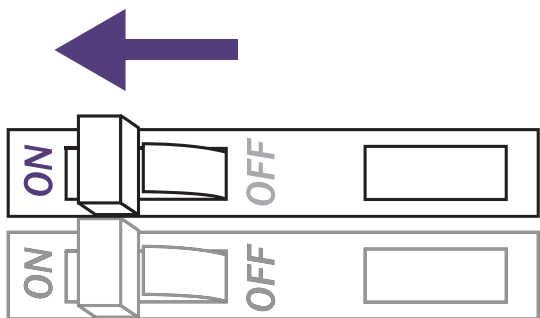
SYSTEM DIAGRAM



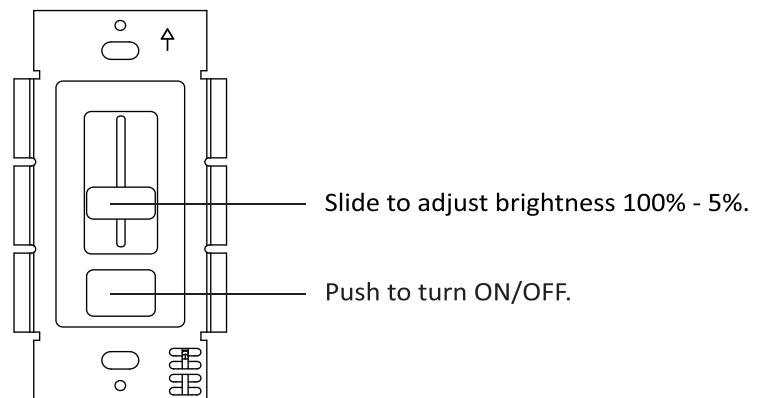
8. MOUNT DIMMER TO WALLBOX AND ATTACH TRIM PLATE



9. TURN POWER ON AT THE CIRCUIT BREAKER



OPERATION



TROUBLESHOOTING

Symptom	Common Cause
<p>Fixture does not illuminate</p>	<ul style="list-style-type: none"> ▪ Incorrect wiring. Polarity of Low Voltage V+ and V- are reversed. ▪ Circuit breaker is OFF or tripped. ▪ Incorrect voltage pairing of dimmer and fixture. 12 V dimmer models will not power a fixture with a higher voltage rating.
<ul style="list-style-type: none"> ▪ Different fixtures do not dim in sync. ▪ Fixture turns off at low dim level. ▪ Fixture strobos/fl ickers at low dim level. ▪ Dimmer buzzes excessively 	<ul style="list-style-type: none"> ▪ Only install 12V or 24V DC tape lights on the compatibility list.
<p>Fixture heats up excessively</p>	<ul style="list-style-type: none"> ▪ Incorrect voltage pairing of dimmer and fixture. Do not attach a 12V fixture to a 24V dimmer. ▪ Fixture is not compatible.

SYSTEM WORKING IMPROPERLY?

Turn power OFF at circuit breaker and verify all connections.
 Review WIRING and TROUBLESHOOTING or call
HitLights Technical Support at +1 (855) 768-4135

VOLTAGE DROP CHARTS

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

Example: 12V Voltage Drop & Wire Length Distance Chart

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

1. Determine load size.
Let's assume load is 55 W.
Round up to nearest load.

2. Determine distance from EZDim to load. Let's assume the distance is 20 ft.

3. It's recommended to install 12 AWG to eliminate excess voltage drop.

12V Voltage Drop & Wire Length Distance Chart

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

24V Voltage Drop & Wire Length Distance Chart

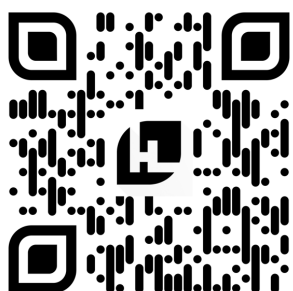
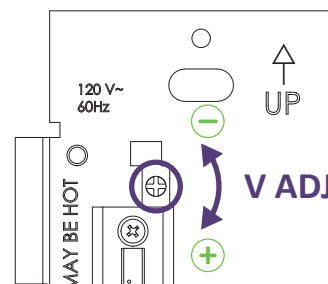
Wire Gauge	10 W .42 A	20 W .83 A	30 W 1.3 A	40 W 1.7 A	50 W 2.1 A	60 W 2.5 A	70 W 2.9 A	80 W 3.3 A	100 W 4.2 A
18 AWG	134 ft.	68 ft.	45 ft.	33 ft.	27 ft.	22 ft.	19 ft.	17 ft.	14 ft.
16 AWG	215 ft.	109 ft.	72 ft.	54 ft.	43 ft.	36 ft.	31 ft.	27 ft.	22 ft.
14 AWG	345 ft.	174 ft.	115 ft.	86 ft.	69 ft.	57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

VOLTAGE ADJUSTMENT

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

a. Pop off face plate as shown in Step 4 of INSTALLATION.

b. Use a small screwdriver to adjust output voltage by turning adjustment dial clockwise.



hitlights.com
+1 (855) 768-4135
customerservice@hitlights.com