FLUENCE

BY OSRAM



DIMMER

USER MANUAL

OVERVIEW

The Fluence Dimmer provides uniform control, via a 0-10V or PWM signal, of light intensity delivered to your crops. A maximum of 25 light fixtures (or 80% dimming load of 32 mA) over a total of 200 feet of signal wire is recommended. Extending the signal wire more than 200 feet will weaken the signal strength and may reduce the total number of light fixtures that can be dimmed. If more than 200 feet of total signal wire or dimming of 25 light fixtures is needed, please contact a Fluence representative at support@fluencebioengineering.com.

Please note: the Fluence Dimmer is meant to control the overall light intensity of your Fluence light fixture(s). It is not meant to act as a timer to control photoperiod. Please use a switch or AC power timer to power light fixtures on/off for photoperiod control.

INCLUDED IN THE BOX

DIMMER



0-10V/PWM MODE BUTTON

DIMMING SIGNAL OUTPUT PORT

12V DC INPUT POWER PORT

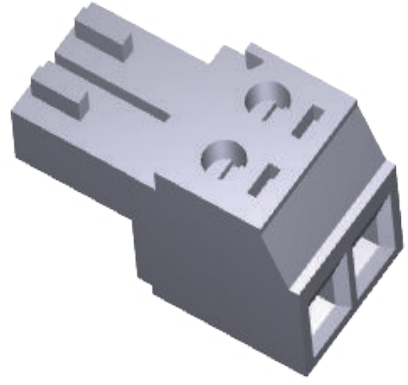
AC POWER ADAPTER

U.S. Plug AC Power Adapter provides 12VDC power for the Dimmer. 120V wall outlet or power strip is required.



SIGNAL WIRE CONNECTORS

Two 2-position terminal connectors are included to connect the dimming signal wires. Use one and keep the second as a spare.



WARNING

SHOCK HAZARD. May Result In Serious Injury Or Death! Turn Off Power At The Circuit Breaker Before Installation.

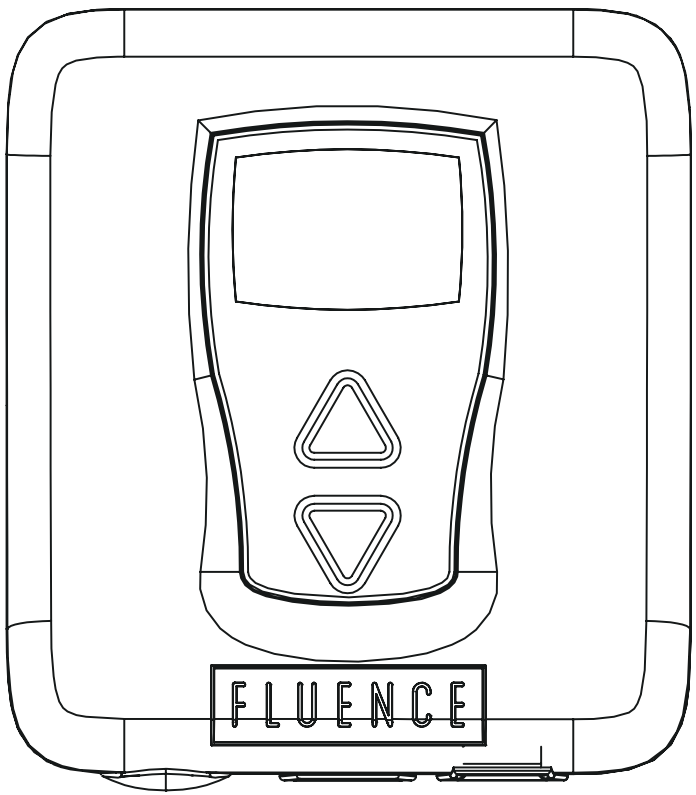
WARNING

Must Be Installed And Used In Accordance With All Applicable Building And Electrical Codes And Regulations.

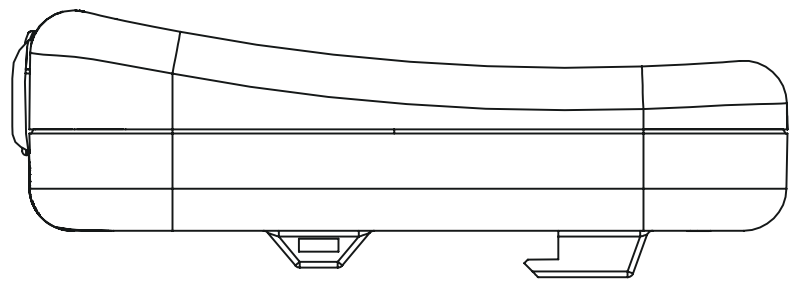
CAUTION

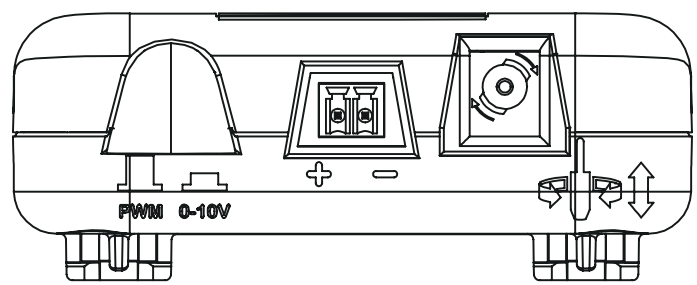
Installation By Qualified Personnel Or A Licensed Electrician Is Highly Recommended.

DIMENSIONS & WEIGHT



3.9″ L x 3.4″ W x 1.3″ H | 5 oz
9.9cm L x 8.7cm W x 3.4cm H | 142 g





SPECIFICATIONS

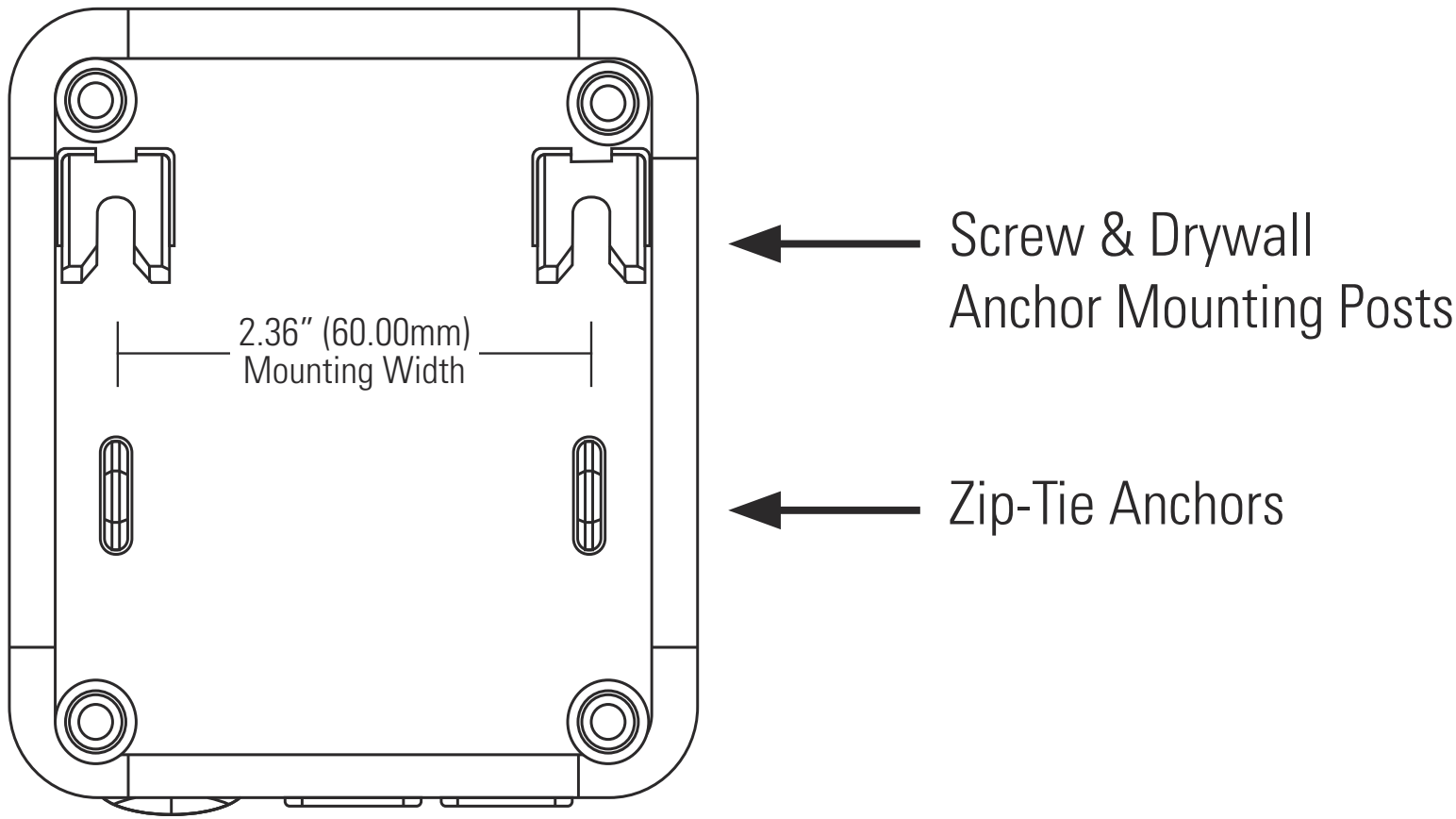
Number of Channels	1
Signal Type	0-10V or PWM
Signal Strength	Source/Sink 40 mA DC
Max # of Fixtures Controlled	25 units, or 80% max loading (32 mA) recommended
Max Signal Wire Length	200 feet max | 61 meters max
10V Output Control	0-10V ± 0.1V
PWM Output Control	0-100% ± 1%
Adapter AC Input Power	120 VAC | 60 Hz
Dimmer DC Input Power	+12 VDC at 0.5A, sourced Wall Power
Warranty	1-year
Light Control	0%-100% Light Intensity
Relative Humidity	Less than 80%+
User Interface	Two Push Buttons

FAMILY		MODEL		OPTIONS	
C	Controller	**W**	Dimmer	**U**	2 Signal Wire Connectors & AC/DC Power Adapter

*Please refer to the Dimmer specification sheet for available accessories.

1 MOUNT THE DIMMER

Use the included screws and drywall anchors to mount your Dimmer to the wall near your fixture, or use zip-ties and zip-tie anchors to mount to the side of a rack or table. Install away from areas that may get wet. Do not install in environments with 80%+ humidity.



2 SET THE SIGNAL TYPE

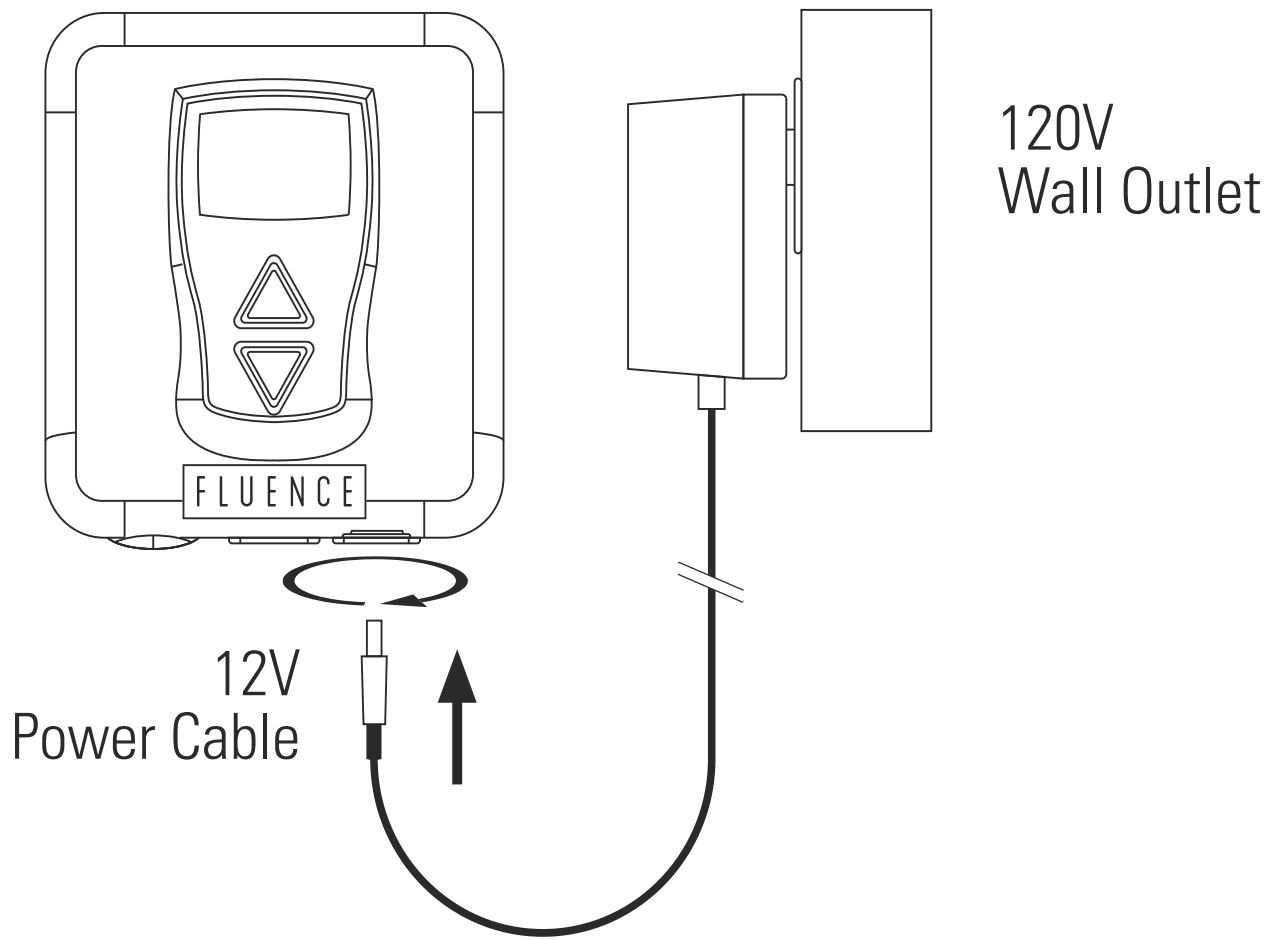
Dimmer has been pre-set to output a 0-10V signal since all current Fluence fixtures require a 0-10V signal. If you have a fixture that requires a PWM dimming signal, leave the cover in place and push the button marked “PWM 0-10V” to change the signal type.



Press the button in for 0-10V,
or leave out for PWM

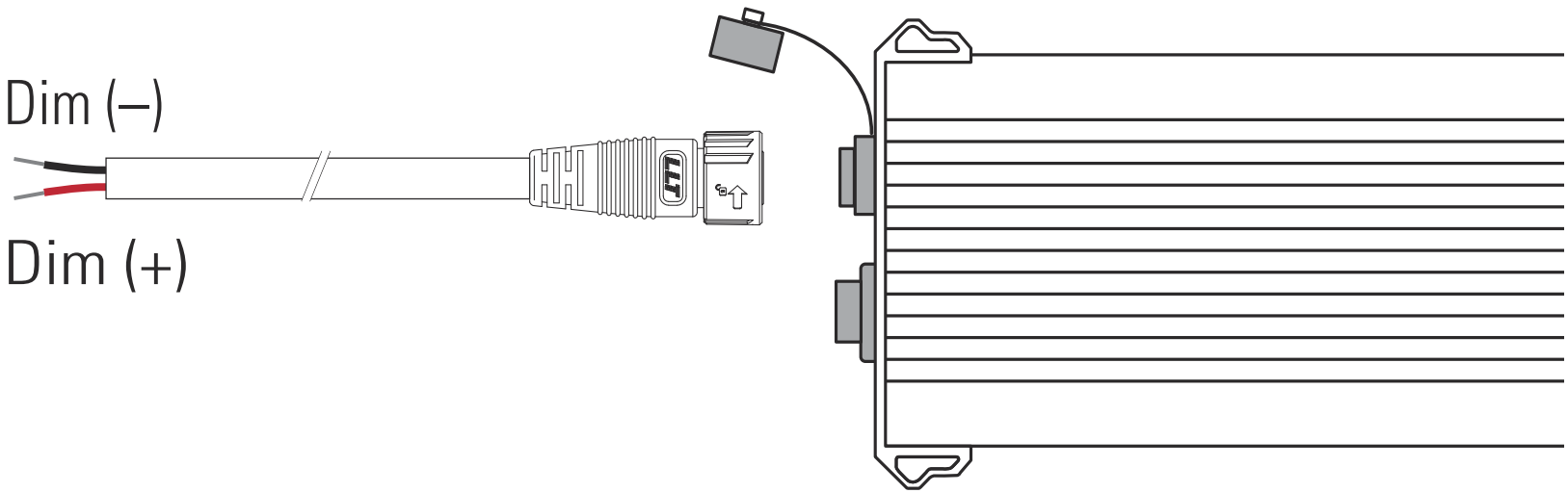
3 CONNECT THE POWER CORD

Insert the barrel connector into the 12V DC Input Power Port on the bottom-right side of the Dimmer and twist the connector clockwise to lock into place. Plug the AC Power Adapter into a 120V AC wall outlet or power strip.



4 CONNECT DIMMING CABLES TO THE LIGHT FIXTURES

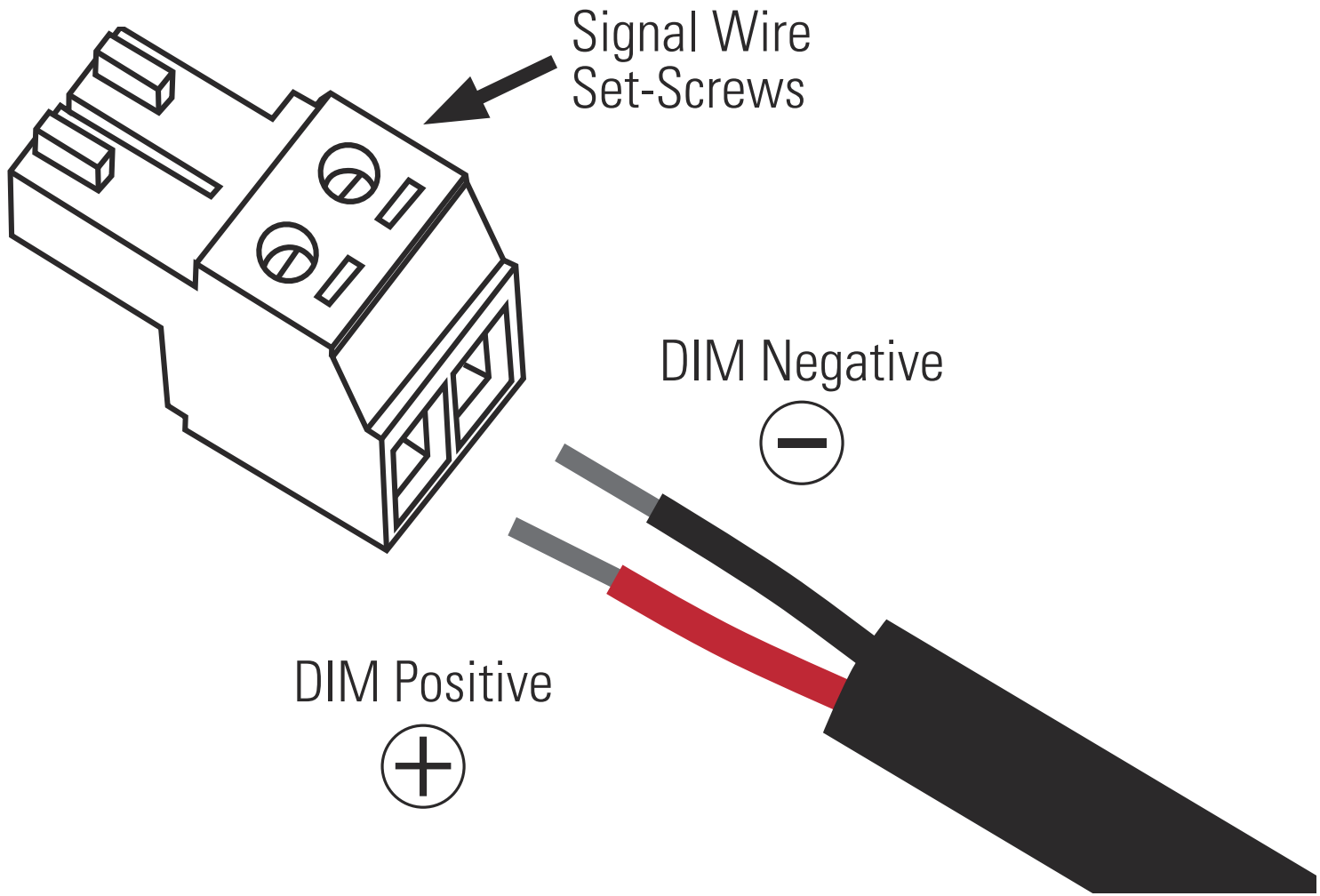
Connect the dimming cables to each light fixture to be controlled, and a leader cable to the Dimmer from the first light fixture in the chain.



Connect custom 2-conductor cable to the appropriate short push-lock or threaded pigtail connector for the light fixture power supply, or use the DC Flex Dimming Wiring System. Please refer to the wiring diagrams in the Dimmer specification sheet, and the Install and Usage Guidance section in this manual for details. Test the control line integrity before connecting to the dimmer.

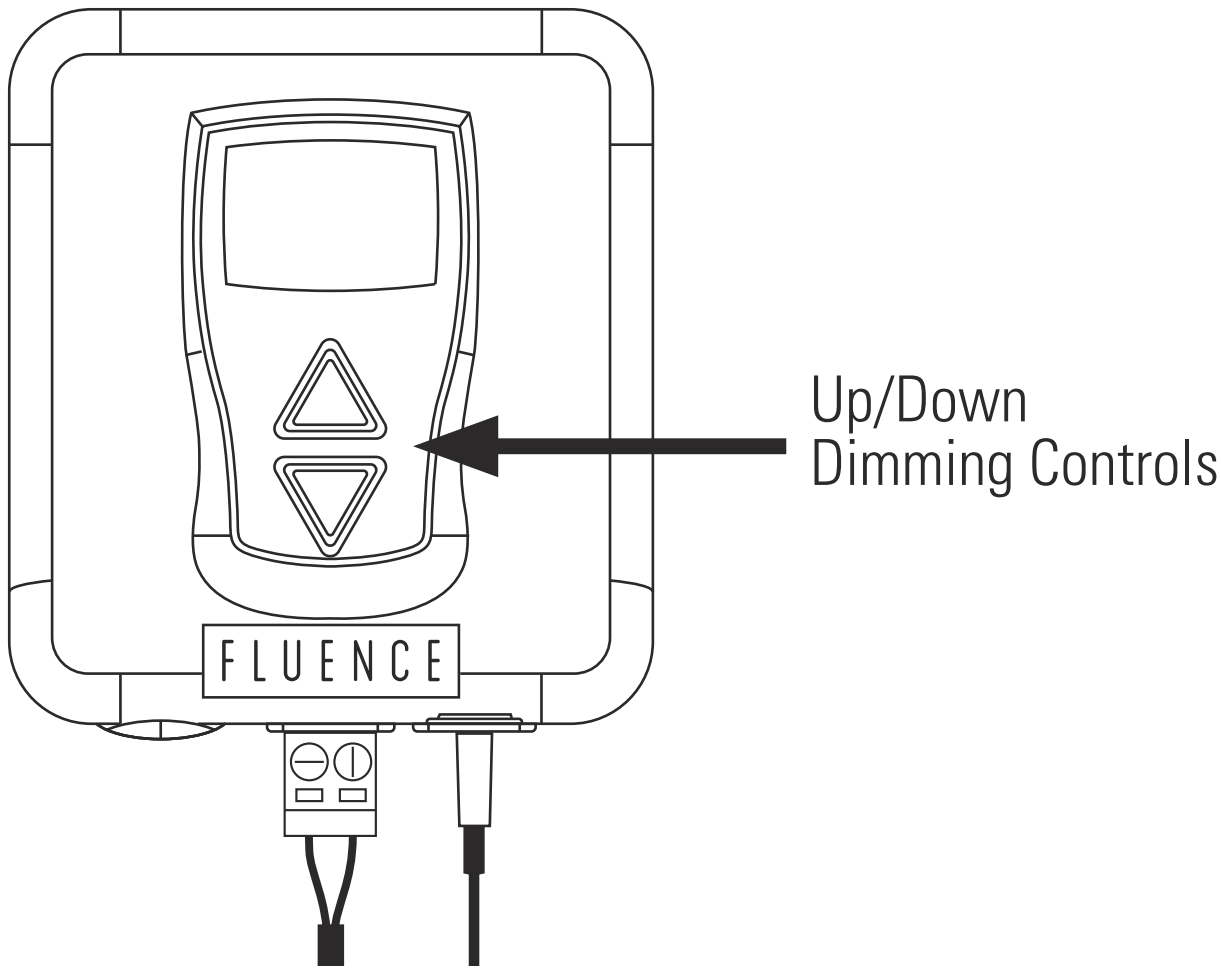
5 CONNECT THE DIMMING LEADS

Strip custom cable 0.25 inch (6.5 mm) and tin stranded wire. Insert the pigtail leads into the correct connector position and tighten the set screws until secure. Insert the connector into the Dimmer Dimming Signal Output Port.



6 ADJUST THE LIGHT INTENSITY

Use the up/down buttons to adjust the light intensity (0%-100%) to the desired level. If the Dimmer is unplugged from the wall or you experience a power outage, the backup battery will preserve the intensity setting for up to 24hrs.



INSTALL & USAGE GUIDANCE

- Mount your Dimmer away from wet environments, and always dry hands throughly before using.
- Do not install the Dimmer in environments with 80%+ humidity, or in areas likely to be splashed with water.
- If your light fixture(s) appears to reach peak brithness when the Dimmer intensity level is at or below 50%, you may need to change the 10V/PWM setting.
- Some light fixtures may emit a faint hum or buzz when dimmed.
- The light output associated with the lowest Dimmer setting is governed by the power supply that drives the light fixture. If multiple models of light fixtures are connected to the same dimmer, they may power off at slightly different intensity levels.
- If the Dimmer becomes unplugged and the battery losses all charge, light fixtures with Sink drivers will have zero light intensity, and light fixtures with Source drivers will go to 100% intensity.
- This product is covered by a 1 year warranty.
  For more information please visit: **https://fluence.science/warranty/**
  For technical support please email**: support@fluencebioengineering.com**

www.fluence.science

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