

FLUENCE

B I O E N G I N E E R I N G

DIMMER USER MANUAL

OVERVIEW

The Fluence Dimmer can dim up to 50 fixtures over a total of 200 feet of signal wire via a 0-10V or PWM signal to provide uniform control of light intensity delivered to your crops. Extending the signal wire more than 200 feet will weaken the signal strength and may reduce the total number of fixtures that can be dimmed. If more than 200 feet of total signal wire is needed, please consult an electrician or contact a Fluence representative at support@fluencebioengineering.com.

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

Intensity
Level



100

Intensity
Control



FLUENCE



Signal
Type
Switch



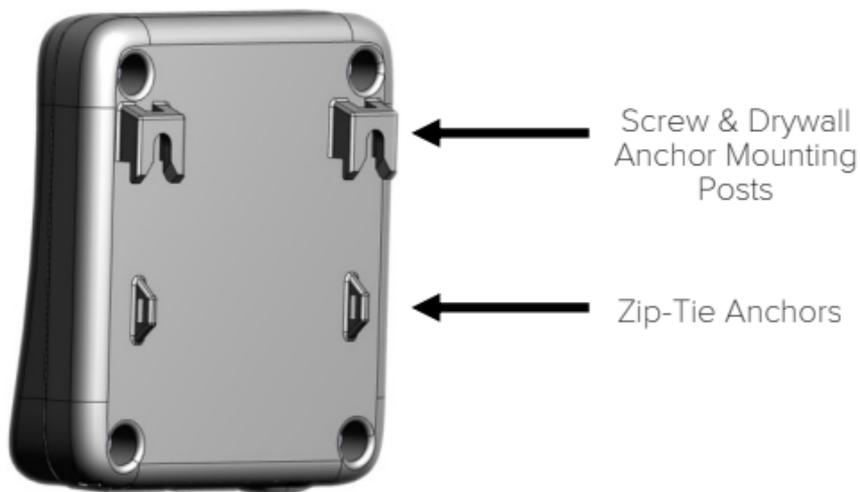
Signal
Ports



12V
Power
Port

1 Mount 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 Signal Type

This Dimmer has been pre-set to output a 0-10V signal, and 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 switch marked "PWM 0-10V" to change the signal type.



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

3 Connect the Power Cord

Insert the 12V barrel connector into the AC port on the bottom-right side of the Dimmer and twist the connector clockwise to lock into place.



12V Power Cable →



If your power cord is separate from the dimming signal cable, plug the AC power into the wall.



If you have a combined power & dimming signal cable, the Dimmer will draw power from the fixture.



4 Connect the Dimming Signal Cable

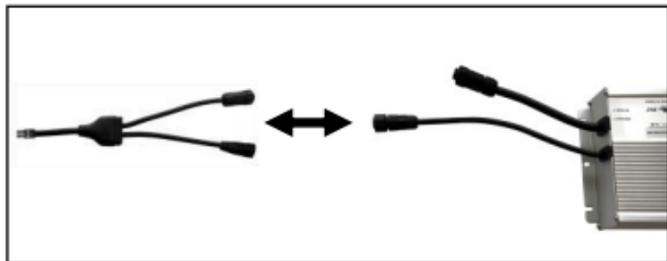
Orient the dimming connector so the pin-screws are facing toward you and insert into the center dimming port on the bottom of the Dimmer.



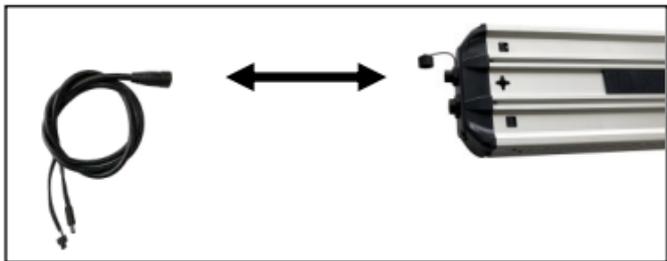
5 Connect Dimmer to Fixture

Connect the Dimmer to the dimming port on your fixture's power supply using the included dimming cable.

If using the dual-connector cable, connect the Pushlock or Threaded connector to your fixture's dimming port. Both connectors may be used at the same time to control separate fixtures.

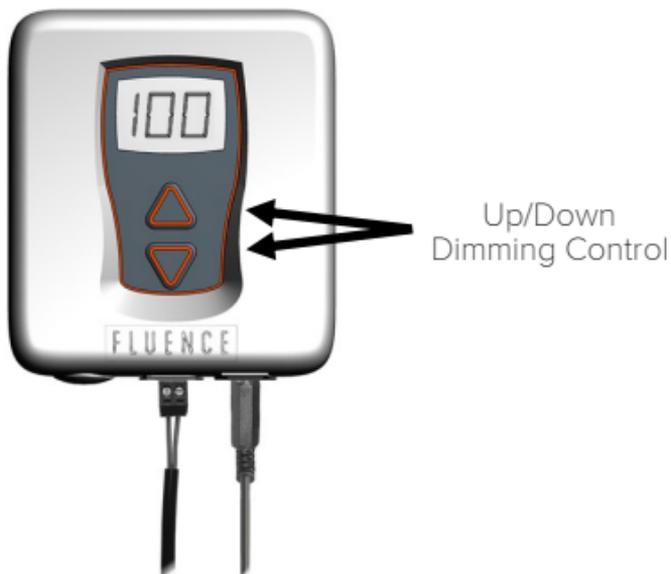


If using the combined power and dimming cable, insert the Pushlock connector into the Power Supply Enclosure's dimming port to power the Dimmer and dim the fixture.



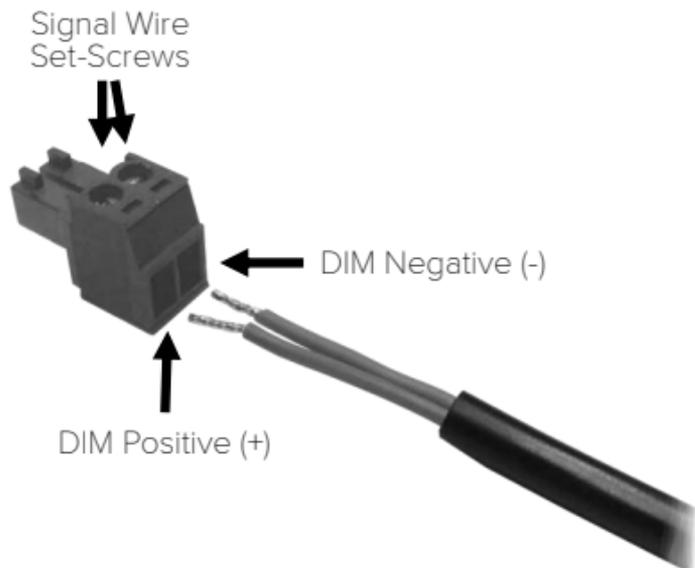
6 Adjust Light Intensity

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.



Changing the Dimming Leads

To use pigtails or your own dimming signal wires instead of the supplied dimming cable, disconnect the dimming leads from the connector by loosening the set-screws using a small flat-head screw driver. Remove the existing leads and replace with pigtails before tightening the set-screws again.



Install & Usage Guidance

- ⇒ Mount your Dimmer away from wet environments, and always dry hands thoroughly before using.
- ⇒ Do not install this dimmer in environments with 80%+ humidity, or in areas likely to be splashed with water.
- ⇒ If your fixture(s) appears to reach peak brightness when the Dimmer intensity level is at or below 50%, you may need to change the 10V/PWM setting.
- ⇒ Some 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 fixture. If multiple models of fixtures are connected to the same dimmer, they may power off at slightly different intensity levels.
- ⇒ If the dimmer becomes unplugged and the battery loses all charge, SPYDR series fixtures will have zero light intensity, and VYPR series fixtures will go to 10% intensity.
- ⇒ This product comes with a 1 year warranty. For more information please visit: <https://fluence.science/warranty/>

Technical Specifications

0-10V Dimming

Voltage: 0-10V +/- .1V
Source/Sink: 40mA DC

PWM Dimming

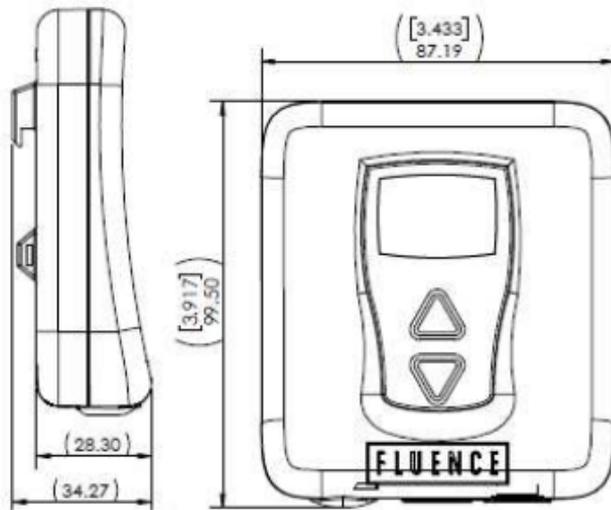
Signal: 0-100% +/- 1%
Source/Sink: 40mA DC

Backup Battery

LiPo: 600mA (Fully Charged)

12V AC Charger

Input: 120-240VAC 50/60Hz
Output: 12V at 1A



| Family | Model | Wiring Options |
|---------------|----------|--|
| C Controllers | W Dimmer | 2 PWR & DIM Cable U US Power Plug E EU Power Plug |