

## Universal Dimmer



## Safety Precautions



**CAUTION.** Always consult lighting manufacturer's product documentation before installing, servicing, or operating horticultural lights. Respect all locally applicable laws, codes and regulations.



**CAUTION.** Possibly hazardous optical radiation, including invisible UV and IR light, emitted from horticultural lights. Do not stare at operating lights. Staring at operating lights may be harmful to the eye.

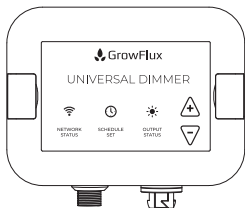
Use proper vision protection when working near lights. Use light blocking protective clothing when working directly below operating lights.

## Safety Precautions

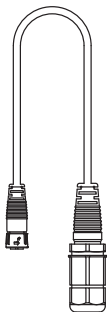


**DANGER.** Risk of lethal or severe electrical shock when servicing or installing horticultural lights. Follow all safety precautions provided by your lighting manufacturer. Do not service wet wiring. Ensure AC power service to lights are connected to (earth) ground.

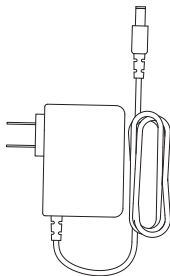
## What's in the box



Universal Dimmer



Screw terminal  
adapter cable



Power Adapter

# Quickstart Guide

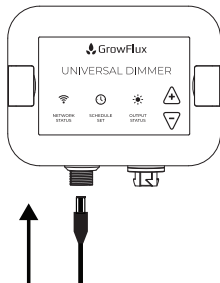
**1**

## STEP 1

### PLUG IN DIMMER

Only use the AC power adapter included with your Dimmer.

Waterproof power connection to the Dimmer requires an IP67 power cable, available separately from GrowFlux.



# 2

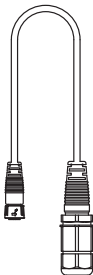
## STEP 2

### CONNECT DIMMER TO LIGHT(S)

Before servicing wiring, disconnect AC power from your lights. Consult your lighting manufacturer's documentation to verify proper signal connections.

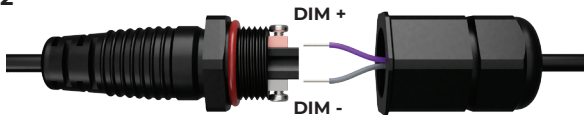
Connect the Dimmer to your light(s) using the supplied adapter cable or dimming signal cabling, sold separately. See the next page for a wiring diagram for the included cable.

Unscrew cable gland from adapter cable, insert dimming signal cable through seal, and connect wires to internal terminals. A Philips screwdriver is required to secure wires in screw terminals on the included cable. The cable gland seal accepts wires 4mm to 6.5mm diameter.



**2**

**STEP 2**



**Copper colored terminal: +10V (DIM +)**

**Silver colored terminal: 0V (DIM -)**

**For most lights:**

Connect Violet wire to copper terminal

Connect Black / Gray / White wire to silver terminal

Consult your lighting manufacturer's documentation



# 2

## STEP 2

### CONNECT AND TEST YOUR LIGHTS

Unused wires on your light should be trimmed or isolated; ensure that unused wires are not short circuited.

Up to 50 lights can be connected to the Universal Dimmer. Use Universal Dimmer signal tees and extension cables to daisy chain dimming signal to many lights, sold separately.

**Test dimming functionality with buttons on Universal Dimmer before proceeding to the next steps for connected control. The buttons should turn your light off, then step through 5 intensity settings in 20% increments to 100% output.**

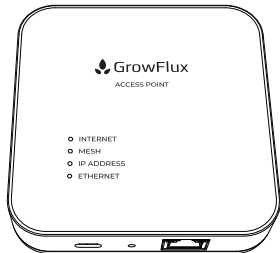


# 3

## STEP 3 ONLY FOR CONNECTED CONTROL

**MAKE SURE YOUR ACCESS POINT IS POWERED ON AND CONNECTED.**

If you have not set up your Access Point, follow the instructions to add the Access Point to your account. See [growflux.com/access-point](https://growflux.com/access-point)



# 4

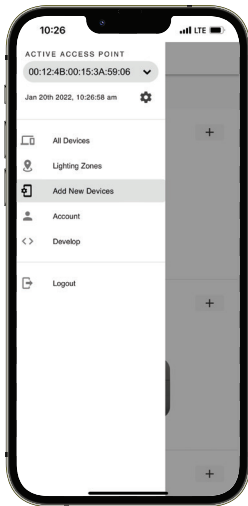
## STEP 4 ONLY FOR CONNECTED CONTROL

### INVITE THE DIMMER TO GROWFLUX MESH

Open the GrowFlux App or web app  
(located at <https://panel.growflux.com>)

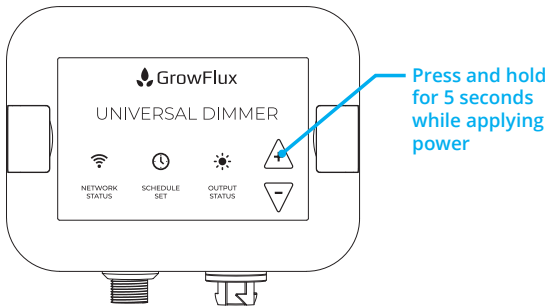
If you have multiple Access Points, first select  
the Access Point on which you would like to  
provision your device.

Navigate to 'Add New Devices'. Follow the  
steps on the interface.



## Factory Reset

Hold the up button while plugging in the DC power cable to the device. Continue holding the up button for about 5 seconds. The Network Status LED will begin flashing red.



## FAQ

### IS THE UNIVERSAL DIMMER COMPATIBLE WITH MY GROW LIGHT?

The Universal dimmer is compatible with any light that accepts analog 0 – 10V dimming. Most horticultural lights support dim-to-off; this feature is supported by the Universal Dimmer.

Pick from a library of compatible lights in the GrowFlux dashboard to estimate the output in horticultural units (micromoles), including photosynthetic photon flux density (PPFD), daily light integral (DLI), and power consumption.

If your light is not already in the light library, input the light's wattage and PPFD measurements to create a custom light model.

## FAQ

### **HOW CAN I GET ACCURATE PPFD CALCULATIONS IN THE INTERFACE?**

PPFD measurements taken at the canopy level can be entered into the interface to calculate PPFd within Light Formulas. See the PAR Calculation Guide at [growflux.com/dimmer](http://growflux.com/dimmer) for more information or ask your lighting designer for these values.

### **IS THE DIMMER WATERPROOF?**

When powered with the included AC adapter with a 2.5mm x 5.5mm barrel jack connector, the Universal Dimmer is NOT waterproof. When connected with an IP67 power cable (available from GrowFlux), the Universal Dimmer is fully waterproof. Contact GrowFlux or your authorized distributor for a waterproof power cable.

## FAQ

### **DOES THE DIMMER WORK WITHOUT AN INTERNET CONNECTION?**

Yes - the Universal Dimmer can be operated without an Access Point with push-button control.

### **WHAT ABOUT THE BUTTONS?**

If the Universal Dimmer is not connected to a GrowFlux Mesh network, dimming level can be adjusted with push-button control. The set light level will stay fixed indefinitely, even through power cycling the Universal Dimmer.

If the Universal Dimmer is connected to a GrowFlux Mesh network, the buttons are disabled. Buttons are enabled if the Universal Dimmer loses Mesh connectivity.

# FAQ

## WHAT DOES THE NETWORK LED COLOR MEAN?



### **Blinking red**

Upon power-on. Dimmer is not bonded to an Access Point



### **Blinking blue**

Upon power-on. Dimmer is currently bonded to an Access Point and is attempting to connect



### **Green**

Dimmer has successfully connected to Access Point



### **Blinking Yellow**

Dimmer could not connect to Access Point. Try moving the Dimmer closer to the Access Point and power cycle the device to establish the GrowFlux Mesh connection for the first time. Once the light turns green, move the Dimmer to your desired location.



### **White**

Dimmer has received invitation and is bonding to Access Point



## Support

See our self help center at  
[support.growflux.com](https://support.growflux.com)

Email: [support@growflux.com](mailto:support@growflux.com)

Phone: (215) 337-3999 Hours: M-F 9am-5pm EST

More resources at  
[growflux.com/dimmer](https://growflux.com/dimmer)

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