digital lightLINK
Lighting Control

Contents

Specifications

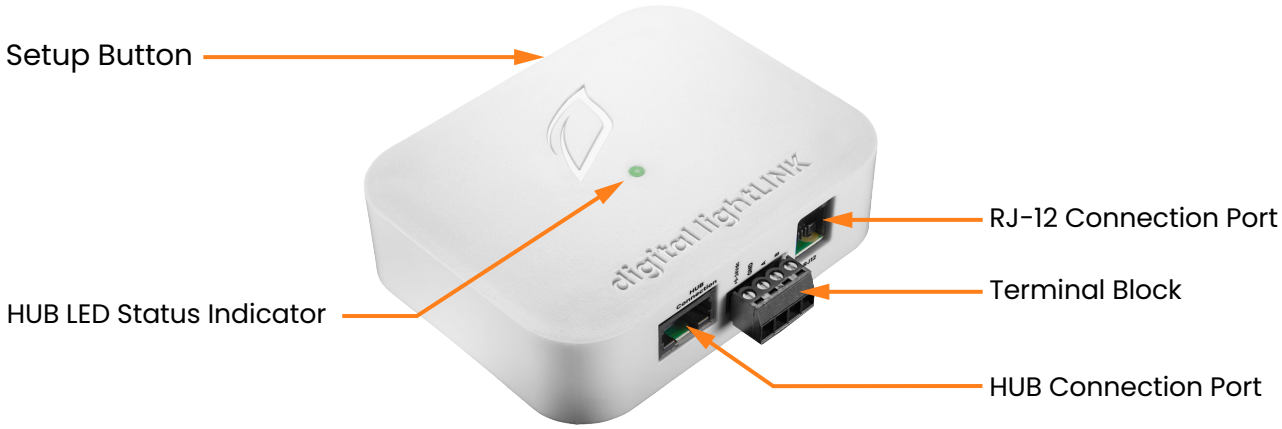
Input Power	1A@24VDC
Typical Power Use	3W
Device Port	RS-485, 2-Wire Screw Terminals & RJ-12
Controller Port	RJ-45 to LINK HUB
Data Indicator	LED
Dimensions	3.563"W x 2.813"H x 1.125"D (90.5mm x 71.5mm x 28.5mm)
Protocals Supported	Thinkgrow®, Dutch Light Innovations® (DLI) Hydrofarm®/Phantom®, Synce®, Fohse®, Revolution Lighting®, Faven®, Iluminar®, Matrix® **This list may be updated periodically.*

⚠ KEEP THESE INSTRUCTIONS

Assembled in the USA

Overview

The digital lightLINK modules connect the Growlink HUB to lighting fixtures from various manufacturers using digital communication protocols. Positioned between the controller and the fixtures, one module is required per lighting zone to act as a communication bridge. The digital lightLINK enables full intensity and spectrum control on compatible fixtures through the LINKS system.



External Features

Setup Button: Readdresses the digital lightLINK module.

HUB LED Status Indicator: Indicates device power and status.

RJ-12 Connection Port: RJ-12 Connector for compatible lighting devices.

Terminal Block: Hardwire terminal for compatible lighting devices.

HUB Connection Port: RJ-45 connector port for power & data.

Supported Manufacturers:

Manufacturer	Connection Type
Thinkgrow®	RJ-12
Dutch Light Innovations®	RJ-12
Hydrofarm®/Phantom®	Terminal
Scynce®	Terminal
Revolution®	Terminal

Manufacturer	Connection Type
Fohse®	Terminal
Faven®	Terminal
Iluminar®	Terminal
Matrix®	Terminal

Note: Devices with compatible RJ-12 connectors can be plugged directly into the RJ-12 digital lighting port. For devices requiring terminal connections, refer to the wiring diagrams.

Warnings and Notices

This is a precision electronic instrument that requires careful handling and maintenance to ensure reliability. Failure to read, understand, and comply with warnings and installation requirements may result in property damage, personal injury, or death.

WARNING

READ & UNDERSTAND THE ENTIRE MANUAL BEFORE INSTALLATION OR OPERATION.

Danger: Electrocution Hazard

Disconnect power before performing maintenance or service on the system or its components to prevent equipment damage or electrical shock. Ensure proper grounding at the marked chassis ground terminal for continued protection against electric shock. All electrical equipment and wiring must be installed in compliance with national and local electrical codes. This product is for indoor use only in dry locations (0-75% RH, non-condensing). Use caution when servicing plumbing and drain the system away from electrical components and connections. Connect the system and components to GFCI fault-protected energy sources to reduce the risk of electric shock. Replace serviceable parts only with manufacturer-recommended components.

IMPORTANT SAFETY INFORMATION

This Product Is Not Intended for Life Safety Applications

Do not install in hazardous locations. Do not rely on this equipment as the sole control mechanism for life safety applications.

Installation Requirements

Follow all applicable plumbing and electrical codes when installing this product. This manual is intended for individuals with adequate electrical and mechanical experience who comply with federal, state, and local laws governing the installation, service, and repair of electrical, HVAC, and related equipment. Incorrect installation, service, or repair may result in personal injury and/or property damage. The manufacturer and seller assume no liability for misinterpretation or improper use of the information provided.

Indoor Use Only

This product is designed for indoor mounting only and must be protected from weather and direct sunlight.

Prevent Overheating

Maintain adequate airflow around the system to prevent overheating of system components.

Power Supply Warning

Only use the intended or included power supply. Do not exceed the maximum ratings specified on the product's serial label or in this manual. Any power supply exceeding specified energy levels must be current-limited or fused to prevent overcurrent damage.

Dielectric Grease Recommendation

In humid environments, apply dielectric grease to RJ-45 HUB connections to prevent moisture-related corrosion. Recommended products include Loctite LB 8423 Grease, DuPont Molykote 4/5, CRC 05105 Di-Electric Grease, Super Lube 91016 Silicone Dielectric Grease, and other silicone or lithium-based insulating greases. Apply a small amount of grease to RJ-45 plug contacts before inserting them into the HUB connection port.

California Proposition 65 Warning

This product may contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Wear skin and eye protection when handling hazardous chemicals.

Installation Instructions

Before Installation

For optimal protection, install the unit with the power connection facing downward to minimize the risk of water entering the enclosure. This product is designed for indoor installation only, as the enclosures are not waterproof.

Before connecting or disconnecting any cables, disconnect power from all devices to prevent potential damage to components.

Mounting the Enclosure

For optimal performance and easy service access, mount the digital lightLINK outside the growing area to reduce exposure to humidity and moisture. If installed in a humid environment, use a sealed or weatherproof enclosure. Mount above plants, benches, and cable runs to prevent water damage to connectors and circuitry. Position centrally to sensor locations with enough space for all connections. Account for rolling benches, and use Growlink cable extensions if needed.

Follow these tips for best results:

- Mount the digital lightLINK away from drips, condensation, and water equipment such as misters, foggers, and humidifiers.
- Ensure space for connections and service access.
- Use a weatherproof enclosure for high humidity conditions (<70% continuous).
- Cover open jacks with masking tape to prevent dust or contamination.

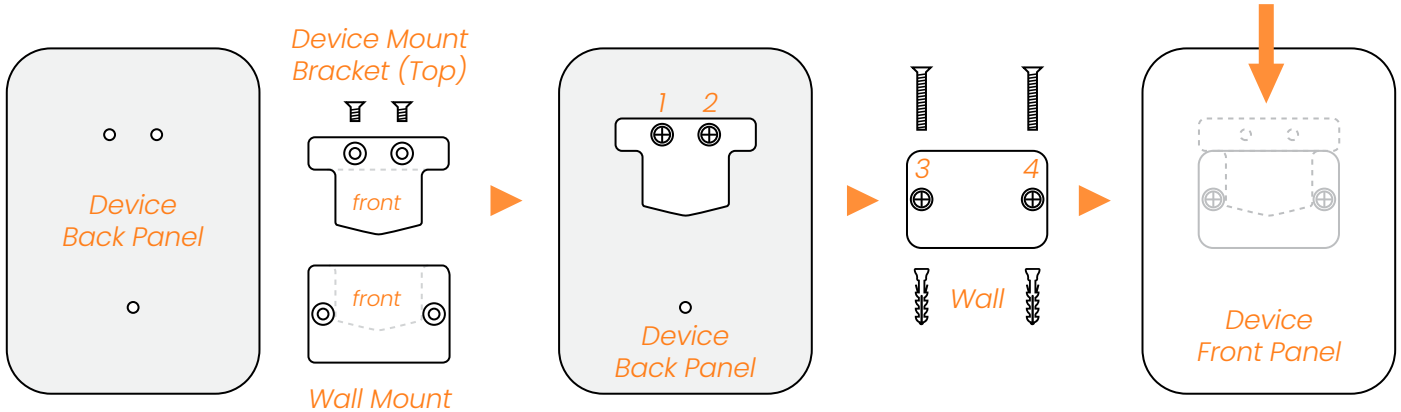
Wall Mounting

See Instructions and Diagram Below

Parts: LINKS Device, LINK Hardware Kit (Mounting Bracket, Screws, Anchors, Mini-Screwdriver).

Tools Needed (if necessary): Level, Marking Tool, Drill

1. Attach the **Device Mount Bracket (Top)** with the provided screws. Ensure the counter-sunk holes face forward. Do not over-tighten.
2. Position the **Wall Mount Bracket (Bottom)** on the wall. Mark the hole locations and install anchors or pre-drill holes if necessary.
3. Slide the **Device** into place, aligning the **(Top) Device Bracket** with the **(Bottom) Wall Mount Bracket**.



DIN rail Mounting

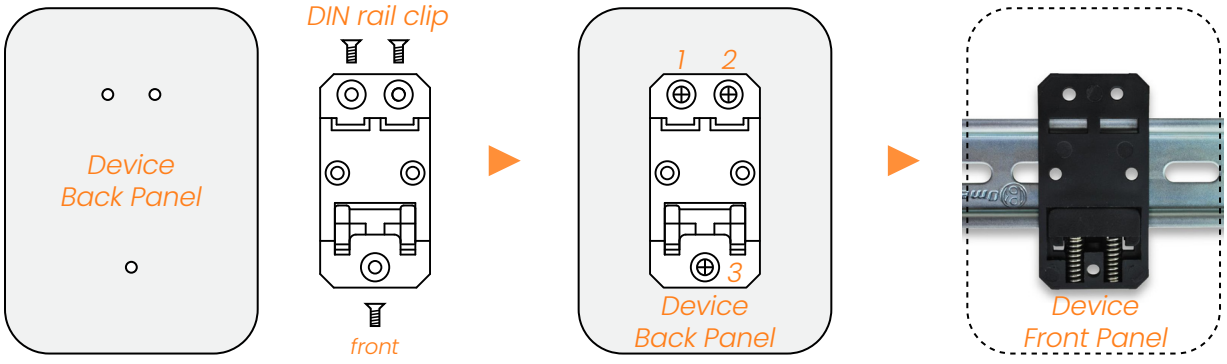
The DIN rail mounting clips come in handy where standard DIN rail is used for mounting devices. The flat mounting surface and a variety of mounting holes make these clips versatile for mounting LINK devices.

See Instructions and Diagram Below

Parts: LINKS Device, DIN rail Clip Kit, (Sold Separately)

Tools Needed (if necessary): Phillips Screwdriver

1. **Position at an Angle**
   Hold the device at a slight angle with the top part of the DIN rail clip hooking onto the top edge of the rail first. Ensure proper alignment to avoid unnecessary force on the clip.
2. **Snap into Place**
   Gently rotate the bottom of the device toward the rail while applying light pressure. The spring-loaded or flexible lower clip should compress slightly and then snap into place once fully engaged.
3. **Verify Secure Fit**
   Check that the device is firmly seated on the rail by giving it a gentle tug. It should not shift or wobble excessively.
4. **Careful Removal: Lift and Pivot**
   To remove, compress the spring of the mount by gently pressing the device upwards. Once spring is compressed, tilt the top of the device outward at an angle. Then, once top is free, guide device downwards to release from DIN rail completely. Do not force or twist to prevent breaking plastic parts.



PARTS **STEP 1** **STEP 2-3**

Device Registration

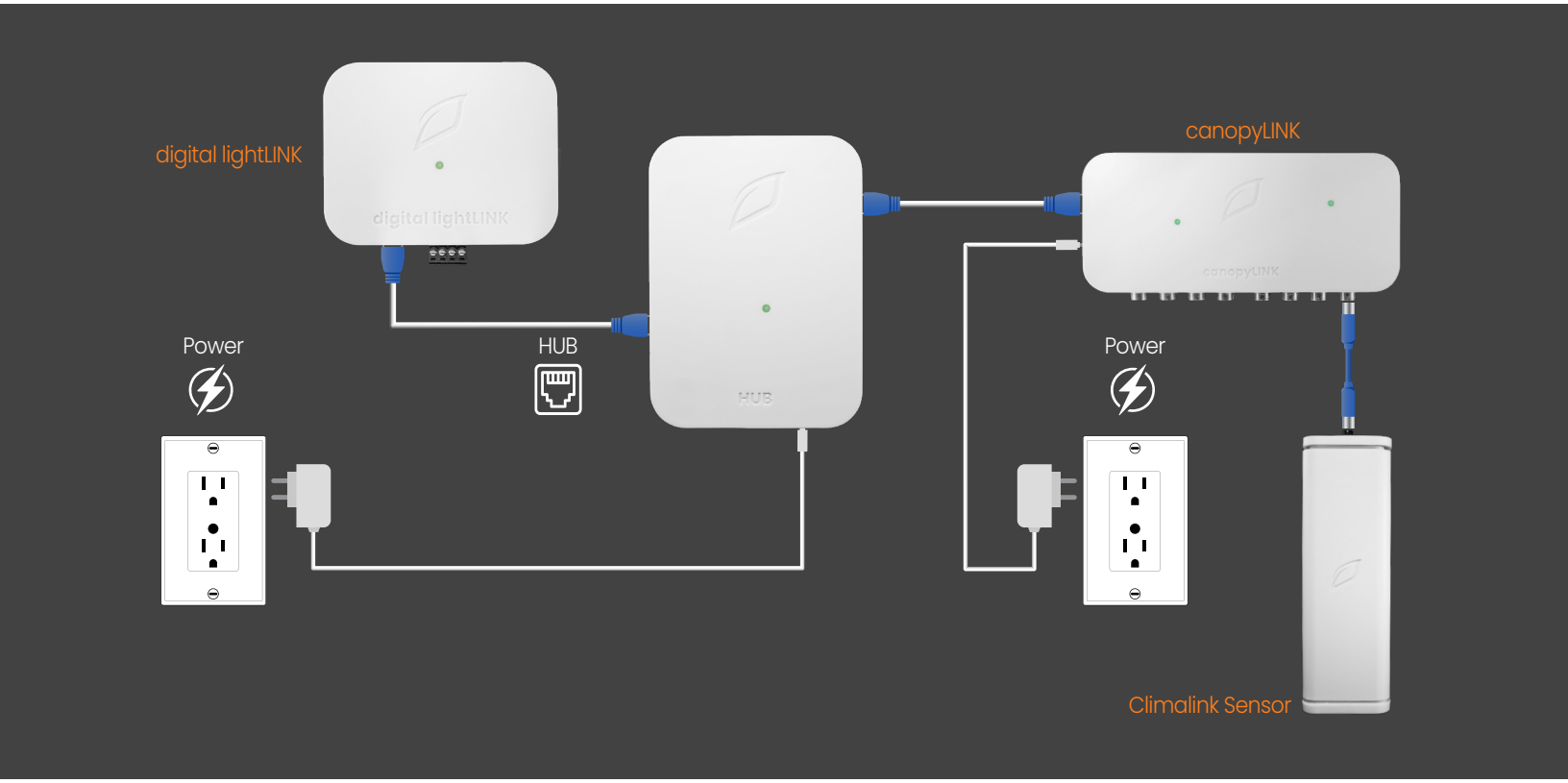
All LINKS devices require an internet connection and must be registered through the Growlink App.

Note: Some LINKS devices can be standalone or require additional modules. **The digital lightLINK requires both a canopyLINK and Climalink sensor for proper operation including High Heat Shutdown.**

HUB Connection Method

Connect the digital lightLINK to an available HUB connection port using an unshielded RJ-45 cable. The device draws power through the network cable upon connection. Ensure the RJ-45 cable is secure, then proceed with manual registration.

Note: A HUB must be registered with the Growlink App before connecting any additional devices. After completing the HUB setup, each device must be connected and registered one at a time to ensure proper addressing and system integrity.



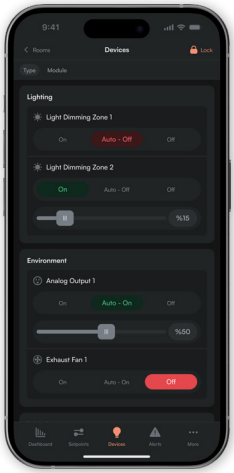
Connection to the Growlink App

The **Growlink Mobile App** provides remote access to your grow operation, allowing real-time monitoring, system adjustments, and automation of climate, lighting, and irrigation. The app features advanced analytics, push notifications for alerts, and an intuitive interface for efficient management.

The **Growlink Mobile App** enables remote control over your LINKS devices for:

- Firmware Updates
- Manual Device Operation
- Creating Automation Rules
- Viewing Data
- Sending Alerts
- Various Other Features

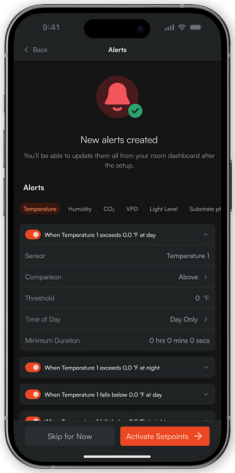
Devices



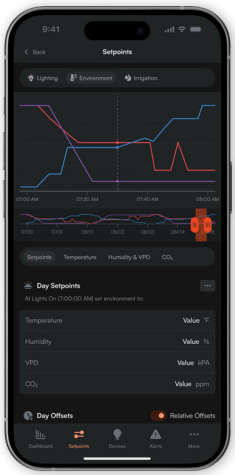
Download on the App Store

GET IN ON Google Play

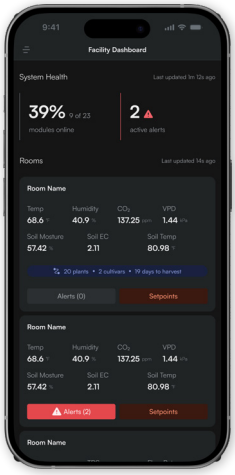
Alerts



Charts & Graphs

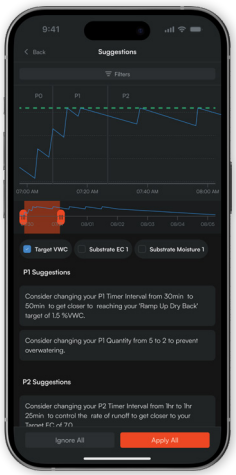


Setpoints



Facility Dashboard

Dashboard



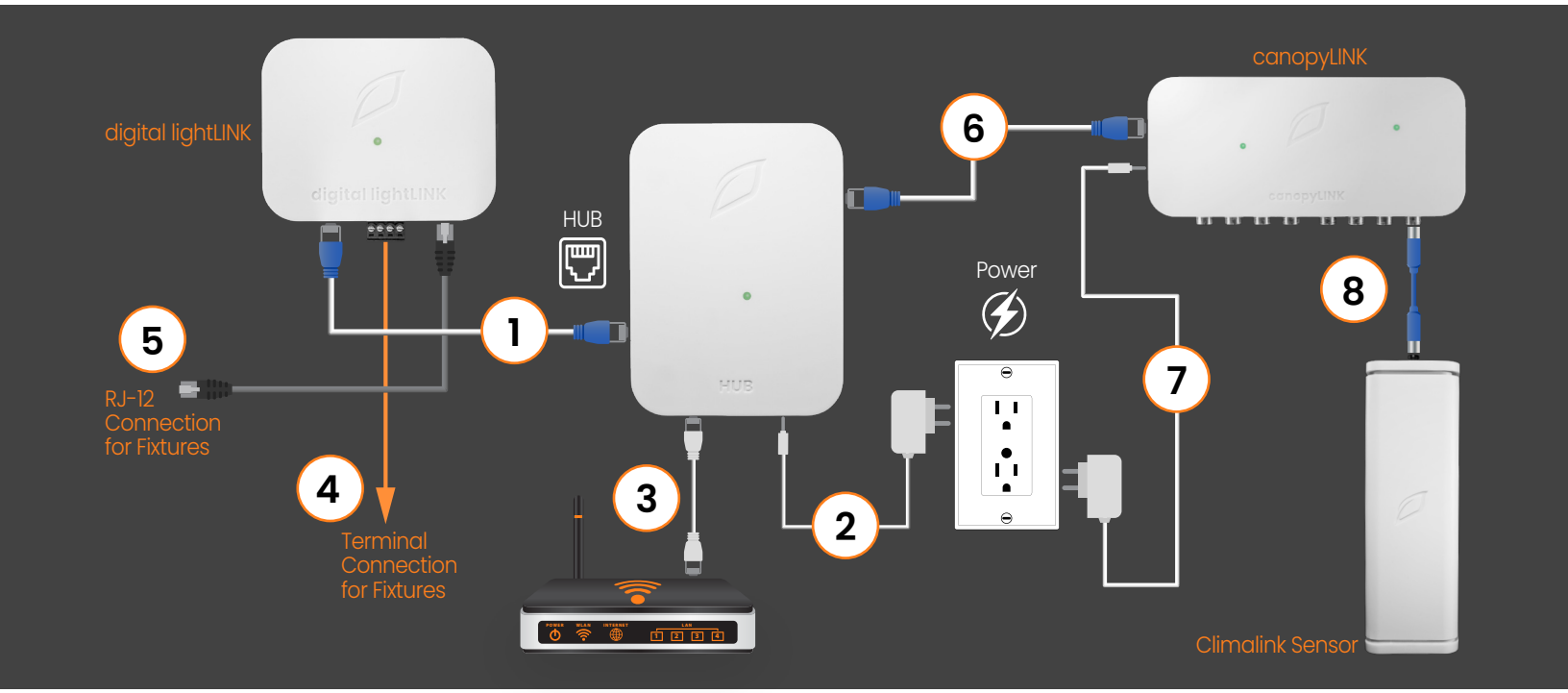
Suggestions

Device Connections

The digital lightLINK acts as a bridge between the LINKS protocol and the light fixture's control language. It can be installed anywhere between the HUB and the fixtures.

Fixtures connect either through the RJ-12 port (see Supported Manufacturers) or manually via the terminal block. Refer to the wiring diagrams for connection details. The HUB LED status indicator will flash when communication with the HUB is active.

The digital lightLINK requires both a canopyLINK and Climalink sensor for proper operation including High Heat Shutdown.



1. **Device Cable:** Connects the digital lightLINK to a HUB connection port.
2. **HUB Power Supply:** 24VDC/1 Amp power supply is required to operate the HUB.
3. **HUB Ethernet Cable:** Connect the HUB to the local network (Optionally, utilize 2.4GHz Wi-Fi).
4. **Terminal Output:** Terminal block for fixture connections.
5. **RJ-12 Output:** RJ-12 port for fixture connections.
6. **canopyLINK Device Cable:** Connect the canopyLINK to the HUB.
7. **canopyLINK Power Supply:** 24VDC Power Supply
8. **Climalink Sensor Connection:** M8 Sensor Port Connection (x8)

All HUB connection cabling uses standard 8-conductor RJ-45 straight-through wiring with no cross-over. T568B pattern recommended.

Assembled in the USA

General Note: Wiring terminals are “pluggable” blocks and can be removed from the module by pulling the terminal block away from the module face. This is convenient for wiring and for replacing a module in the event of a failure without the need to remove wiring from the terminals.

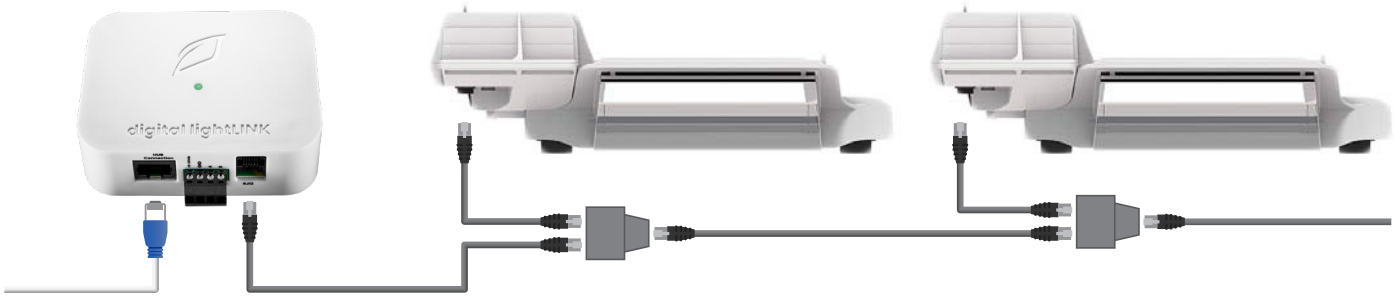
Thinkgrow®

Thinkgrow® fixtures require the ECS-9 Data cable (12ft/ RJ12 to 4-pin IP65 connector cable) available from Thinkgrow®. This cable plugs directly into the digital lightLINK for fixture control.

ECS-9 Thinkgrow® Cable

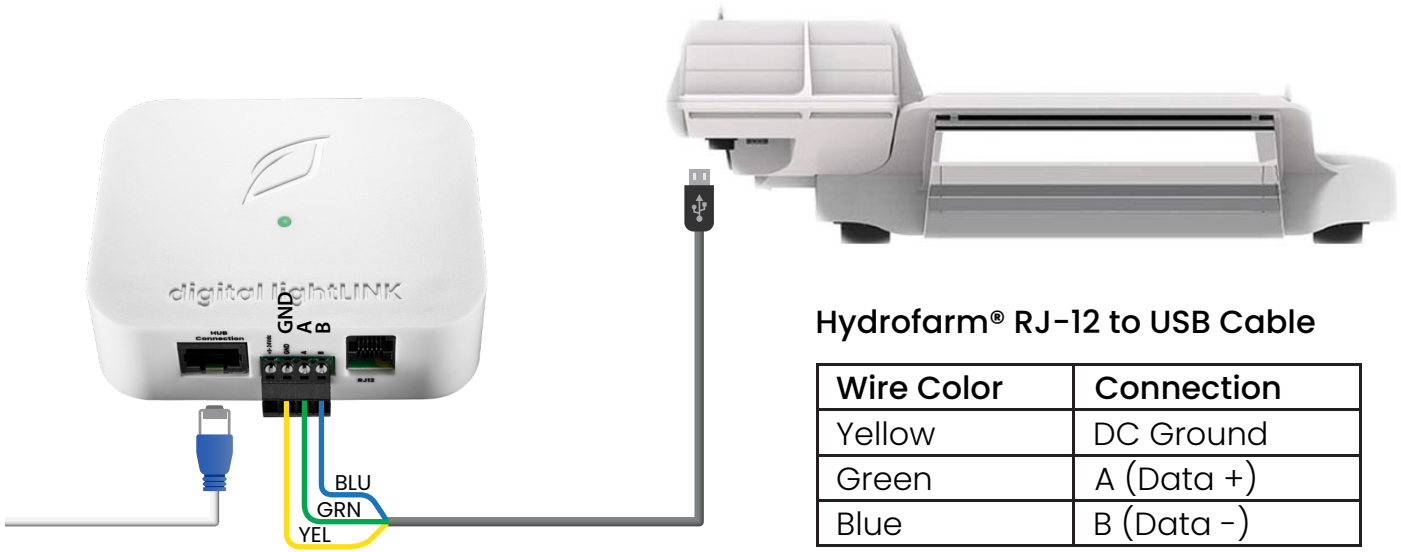
Dutch Light Innovations®

Dutch Light Innovations® (DLI) fixtures require standard RJ-12 phone cables and RJ-12 splitters. This cable plugs directly into the digital lightLINK for fixture control.



Hydrofarm®/Phantom®

Hydrofarm®/Phantom® fixtures that are controlled by the Autopilot series of controllers have a unique wiring configuration despite using the same RJ-12 connectors as the previous manufacturers. These fixtures require wiring to the terminal block by cutting and stripping the wire of the RJ-12 cable.



Hydrofarm® RJ-12 to USB Cable

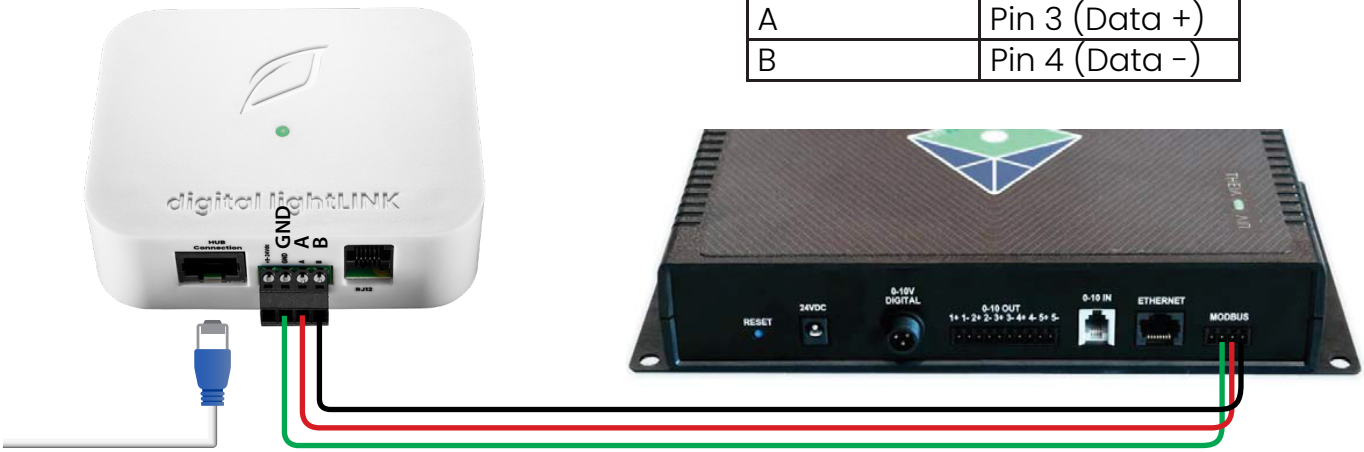
Wire Color	Connection
Yellow	DC Ground
Green	A (Data +)
Blue	B (Data -)

Assembled in the USA

Scynce®

Scynce® fixtures require the use of the Sycnce® gateway device (THEIA Echo Air.) The digital lightLINK is connected to the RS-485 MODBUS port on the gateway, and the gateway is put into remote control mode.

LXD	THEIA Echo AIR
GND	Pin 2 (GND)
A	Pin 3 (Data +)
B	Pin 4 (Data -)

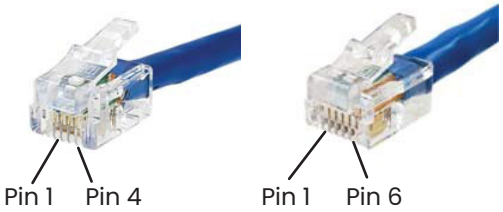


Revolution Lighting®

Revolution Lighting® fixtures use a RJ-11 or RJ-12 cable between fixtures for RS-485 data. Standard RJ-12 couplers allow multiple fixtures to be daisy chained together.

Connection to Revolution Lighting® fixtures requires manually connecting the wires to the terminal block by cutting and stripping one end of the RJ data cable. See connection details below.

RJ-11 (4-Pin)	RJ-12 (6-Pin)	LXD Connection
Pin 1	Pin 2	A (Data +)
Pin 2	Pin 3	B (Data -)



Fohse®

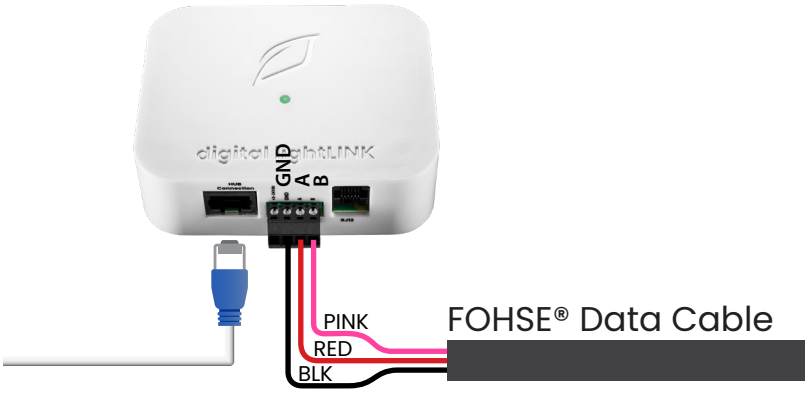
Fohse® fixtures use various methods and cables depending on the model of fixture.

- **Circular Connectors (Legacy Series)**

Fohse® fixtures which have a circular 3-conductor connector are wired as shown below.

Connection to Fohse® fixtures requires manually connecting the wires to the terminal block by cutting and stripping one end of the Fohse® data cable. See connection details below.

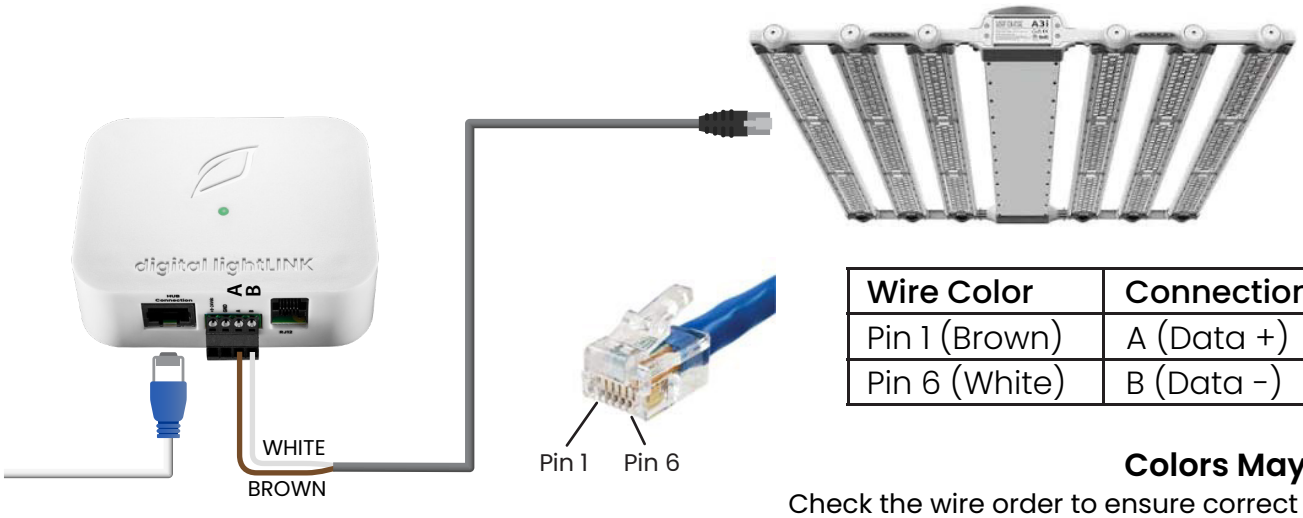
Wire Color	Connection
Red	A (Data +)
Pink	B (Data -)
Black	GND



- **RJ-12 Connectors**

Fohse® fixtures which have a RJ-12 (6 position) connector are wired as shown below.

Connection to Fohse® fixtures requires manually connecting the wires to the terminal block by cutting and stripping one end of the Fohse® data cable. See connection details below.



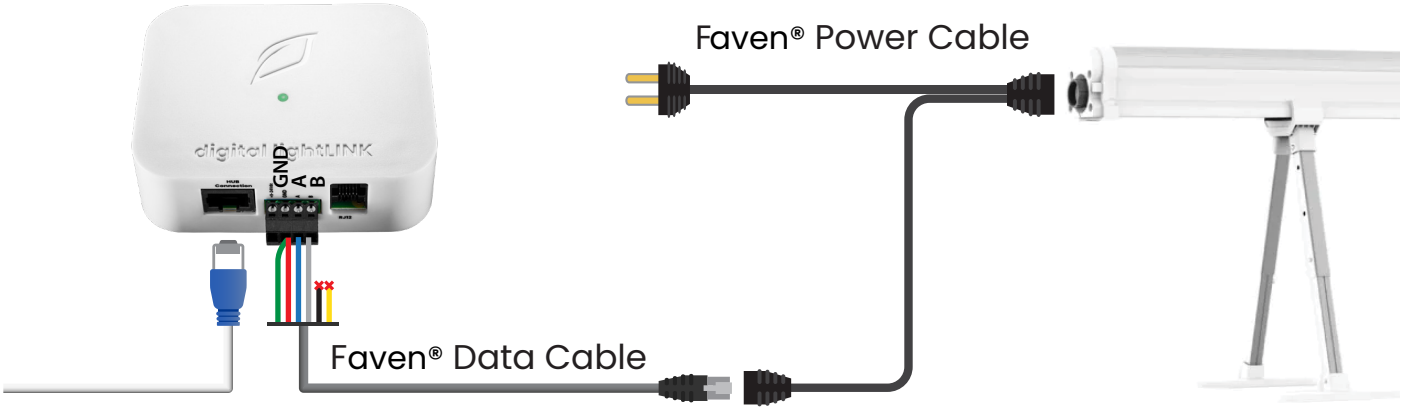
Wire Color	Connection
Pin 1 (Brown)	A (Data +)
Pin 6 (White)	B (Data -)

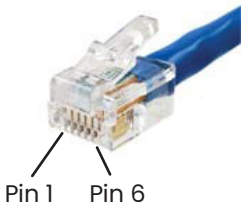
Colors May Vary
Check the wire order to ensure correct wiring.

Faven®

Faven® fixtures with digital spectrum control are equipped with a 6-pin RJ-12 connector. An RJ-12 cable should be supplied with the fixture.

To connect the fixture, one end of the RJ-12 cable must be manually prepared by cutting and stripping the wires for termination into screw terminal blocks. Ensure proper wire polarity and secure connections according to the provided wiring diagram.





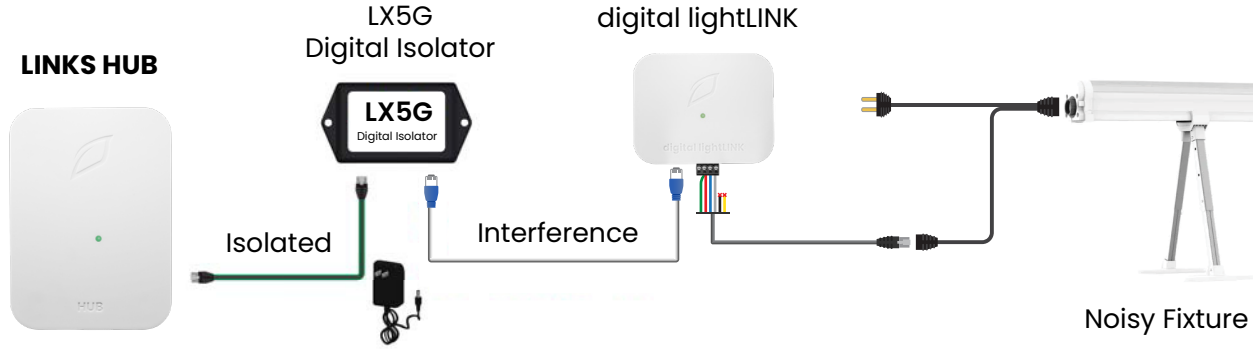
Colors May Vary
Check the wire order to ensure correct wiring.

Pin #	Wire Color	Connection
1	White	B (Data -)
3	Red	GND
4	Green	GND
6	Blue	A (Data +)

- **LX5G Digital Isolater**

Faven® brand fixtures use a floating power supply design that transmits low-voltage communication over the 120–277VAC power line. This can introduce electrical noise that feeds back into the control system, potentially disrupting communication.

To mitigate this, install an LX5G noise isolation device, which effectively blocks interference and helps maintain stable system performance.



Iluminar®

Iluminar® fixtures feature a circular connector with three pins for digital data communication.

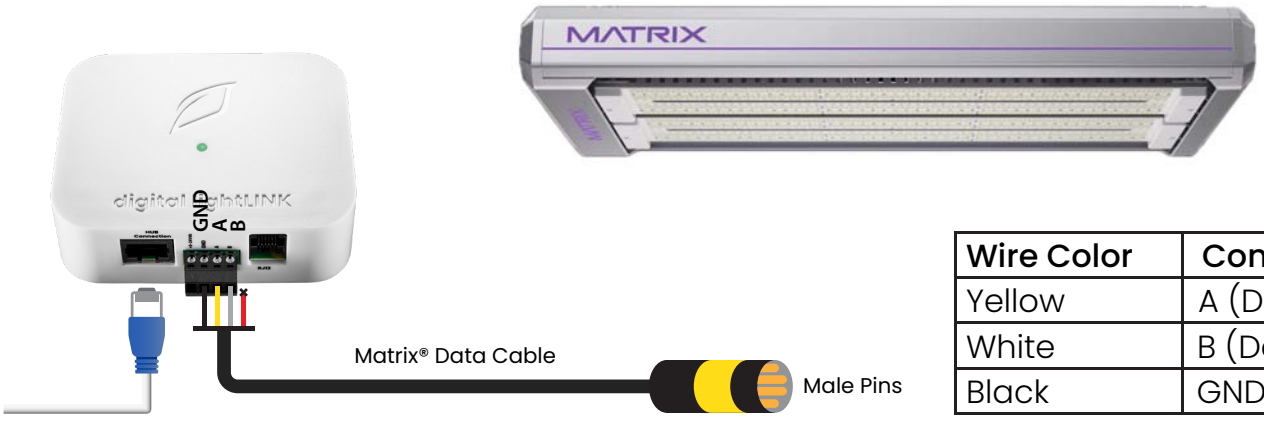
Connection to Iluminar® fixtures requires manually connecting the wires to the terminal block by cutting and stripping one end of the Iluminar® data cable. See connection details below.

Wire Color	Connection
Red	A (Data +)
Black	B (Data -)
Silver (bare)	GND

Matrix®

Matrix® brand fixtures feature a circular connector with three pins for digital data communication.

Connection to Matrix® fixtures requires manually connecting the wires to the terminal block by cutting and stripping one end of the Matrix® data cable. See connection details below.



Wire Color	Connection
Yellow	A (Data +)
White	B (Data -)
Black	GND

Note: If you don't see a component in the wiring diagram that matches your brand of light, contact the manufacturer.

Technical Information

Support

If your device requires troubleshooting beyond what is outlined in this manual, please contact our customer support team at **800.432.0160** or at *support@growlink.com* for assistance with any hardware issues.

You can also visit our knowledge base for additional support and resources. *https://knowledgebase.growlink.ag*

Maintenance & Service

Exterior Cleaning

Wipe the exterior with a damp cloth and mild dish detergent, then dry thoroughly. **Disconnect power before cleaning** to prevent equipment damage.

Storage

Store equipment in a **clean, dry environment** with an ambient temperature between 50-122°F (10-50°C).

Disposal

This industrial control equipment may contain traces of lead, metals, or other environmental contaminants. **Do not discard as municipal waste**. Dispose of the equipment through proper recycling or hazardous waste collection channels. **Wash hands after handling internal components or PCBs.**

Warranty

Growlink Limited Warranty

Growlink warrants that all its manufactured products are, to the best of its knowledge, free from defects in materials and workmanship. This product is warranted for one (1) year from the date of purchase. This warranty is extended to the original purchaser from the date of receipt.

This warranty does not cover damages resulting from abuse, accidental breakage, or modifications, alterations, or installations that do not comply with the provided installation instructions. The warranty applies only to products that have been properly stored, installed, and maintained in accordance with the installation and operation manual and used for their intended purpose.

This limited warranty does not cover products installed or operated under unusual conditions or environments, including but not limited to excessive humidity or extreme temperatures beyond specified limits.

Prior to returning a product, Growlink must be contacted to obtain a return authorization. Returns will not be accepted without prior authorization. For products not purchased directly from Growlink, proof of purchase is required; otherwise, the purchase date will be considered the date of manufacture.

Products that meet the warranty conditions outlined above will be repaired or replaced at Growlink's sole discretion at no charge. This warranty is provided in place of all other warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, and is limited to the specified warranty period.

Under no circumstances shall Growlink be liable to the claimant or any third party for damages exceeding the purchase price of the product. Growlink is not responsible for any loss of use, inconvenience, commercial loss, lost time, lost profits, lost savings, or any other incidental, consequential, or special damages arising from the use or inability to use the product. This disclaimer is made to the fullest extent permitted by law and explicitly states that Growlink's liability under this limited warranty, or any extension thereof, is limited to repairing or replacing the product or refunding the purchase price.