

**Digital Device Communication Hub**  
**8-Port Buffered Hub with POC**

**Specifications**

Input Power	1A@12-24Vdc $\overline{\text{---}}$ Class II / Limited Energy Power Supply
Max Device Current	1A per port / 1A combined
Master (Input) Ports	1x RJ-45
Device (Outputs) Ports	8x RJ-45
Power Indicator	Red LED
Power Jack	2.1x5.5mm
Power Terminals	Optional, DC input terminals
Protocols Supported	GrowNET™, MODBUS RTU



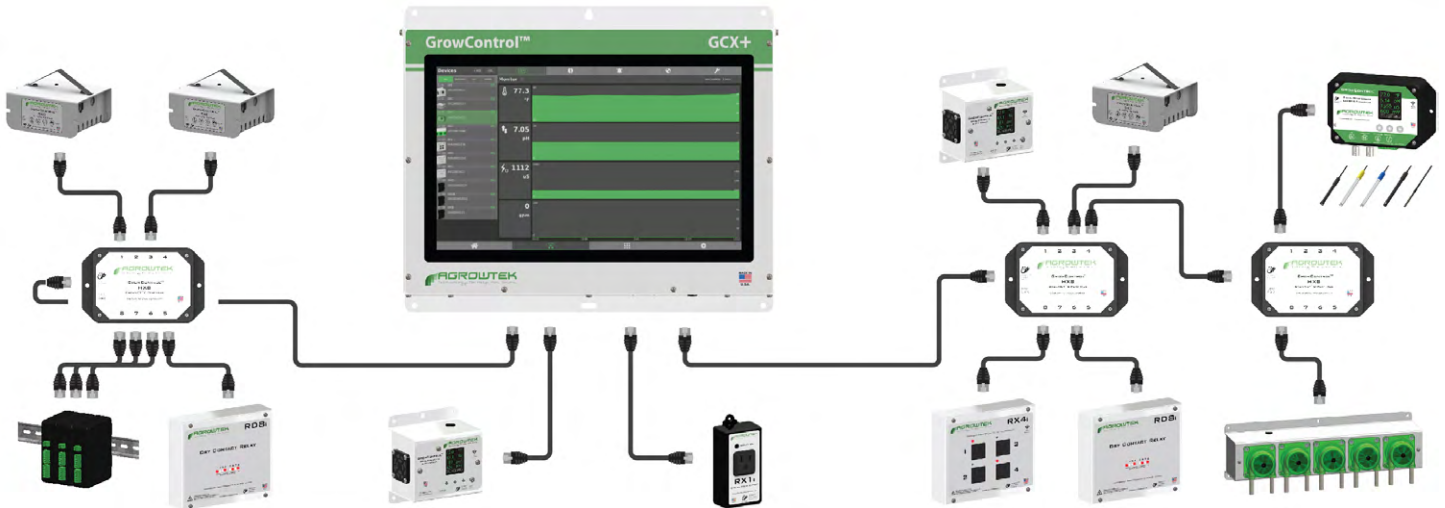
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**KEEP THESE INSTRUCTIONS**

# Overview

HX8 GrowNET™ hubs expand a single GrowNET™ port from a GrowControl™ cultivation controller into eight more ports in order to connect many GrowNET™ devices to the controller and reduce cabling. HX8 hubs can also be daisy-chained to form a network of up to 100 devices per GrowNET™ bus. It is typical to locate hubs centrally in hall ways and rooms for simplified cabling back to the controller.



## POC (Power Over Cable)

Hubs provide up to 1A of power for operating sensors and most relays directly over the CAT5 cable. A DC jack on the hub provides 24Vdc power to the ports from the included wall power supply. *A terminal block power option is also available.*

## Industrial Signal Integrity

All GrowNET™ devices are connected using standard CAT5 Ethernet cable with RJ-45 connections. Individually buffered port transceivers provide excellent signal integrity and extended communication strength and range up to 1000ft.

# Installation Instructions

HX8 hubs are “transparent” on the GrowNET™ network. Hubs do not consume a device address on the controller or appear in the controller’s device list. There is nothing to configure; just connect devices.

## Mounting the Enclosure

The HX8 hub enclosure includes two wall-mounting flanges with a pre-drilled hole in each flange.

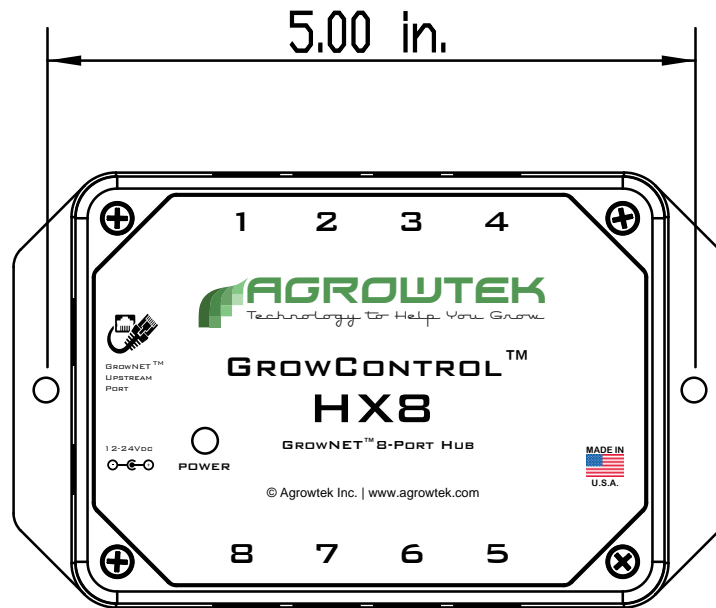
Follow these tips for best results:

- Install the hub in a dry location away from drips or condensation.
- Ensure the hub is accessible for service.
- Use a weather proof enclosure for high humidity conditions (>70% continuous.)

1. Place the hub in the area intended for mounting. Ensure there is adequate space for connections.
2. Mark the hole locations and install anchors or pre-drill holes if necessary.
3. Mount the enclosure to the wall or ceiling using screws (not provided.)

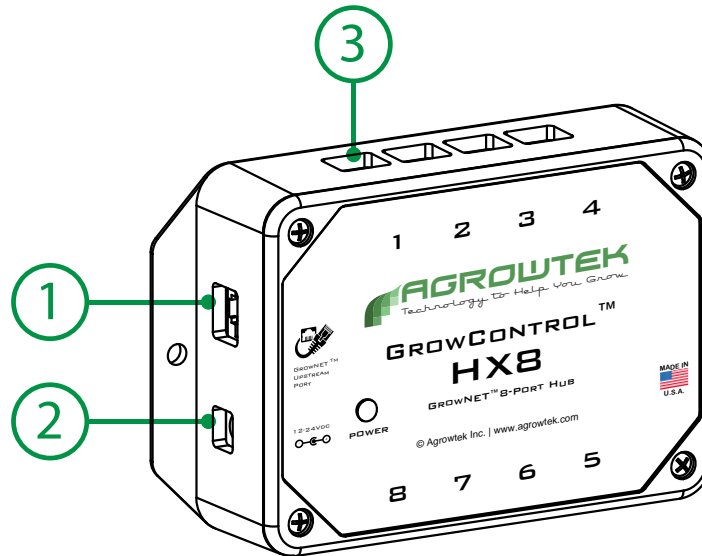
Ensure all dust and contaminants have been blown out of the enclosure.

*Hardware is not provided. Drywall screws are recommended.*



## Connections

The HX8 hub features a “master’ upstream port on the left side which is to be connected to an up-stream master port such as a GrowNET™ port on a GCX controller, or another HX8 numbered port (daisy chained.) Eight (8) down stream ports are provided for connecting devices or additional hubs. A power jack provides power to the hub and eight device ports from a wall power supply.



1. Master Port
2. Power Jack
3. Device Port

Connects to a GCX controller port or numbered hub port from another hub.  
Plug in the 24Vdc 1A power supply to provide power to the hub and 8 ports.  
Connects to GrowNET™ devices.

### NOTICE

GrowNET™ ports use standard RJ-45 connections but are NOT compatible the Ethernet network equipment. *Do not connect GrowNET™ ports to Ethernet ports or network switch gear.*

### DIELECTRIC GREASE

Dielectric grease is recommended on RJ-45 GrowNET™ connections when used in humid environments. Place a small amount of grease onto the RJ-45 plug contacts before inserting into the GrowNET™ port. *Non-conductive grease is designed to prevent corrosion from moisture in electrical connectors.*

- Loctite LB 8423
- Dupont Molykote 4/5
- CRC 05105 Di-Electric Grease
- Super Lube 91016 Silicone Dielectric Grease
- Other Silicone or Lithium based insulating grease

# Technical Information

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## Storage

Store equipment in a clean, dry environment with ambient temperature between 10-50°C.

## Disposal

This industrial control equipment may contain traces of lead or other metals and environmental contaminants and must not be discarded as unsorted municipal waste, but must be collected separately for the purpose of treatment, recovery and environmentally sound disposal. Wash hands after handling internal components or PCB's.

## Warranty

Agrowtek Inc. warrants that all manufactured products are, to the best of its knowledge, free of defective material and workmanship and warrants this product for 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 from abuse, accidental breakage, or units that have been modified, altered, or installed in a manner other than that which is specified in the installation instructions. Agrowtek Inc. must be contacted prior to return shipment for a return authorization. No returns will be accepted without a return authorization. This warranty is applicable only to products that have been properly stored, installed, and maintained per the installation and operation manual and used for their intended purpose. This limited warranty does not cover products installed in or operated under unusual conditions or environments including, but not limited to, high humidity or high temperature conditions. The products which have been claimed and comply with the aforementioned restrictions shall be replaced or repaired at the sole discretion of the Agrowtek Inc. at no charge. This warranty is provided in lieu of all other warranty provisions, express or implied. It is including but not limited to any implied warranty of fitness or merchantability for a particular purpose and is limited to the Warranty Period. In no event or circumstance shall Agrowtek Inc. be liable to any third party or the claimant for damages in excess of the price paid for the product, or for any loss of use, inconvenience, commercial loss, loss of time, lost profits or savings or any other incidental, consequential or special damages arising out of the use of, or inability to use, the product. This disclaimer is made to the fullest extent allowed by law or regulation and is specifically made to specify that the liability of Agrowtek Inc. under this limited warranty, or any claimed extension thereof, shall be to replace or repair the Product or refund the price paid for the Product.