Strobe-Horn Alarm Module

Specifications

Power	24Vdc, ~5W
Max Cable Distance	1000 ft
	6cfm Fan with Foam Filter
Temperature Range	-20 - 60℃ (0 - 140℉)
CO2 Range	400-10,000ppm (optional)
CO2 Accuracy	±50ppm + 3% of reading
Protocols	GrowNET™ or MODBUS RTU

Contents
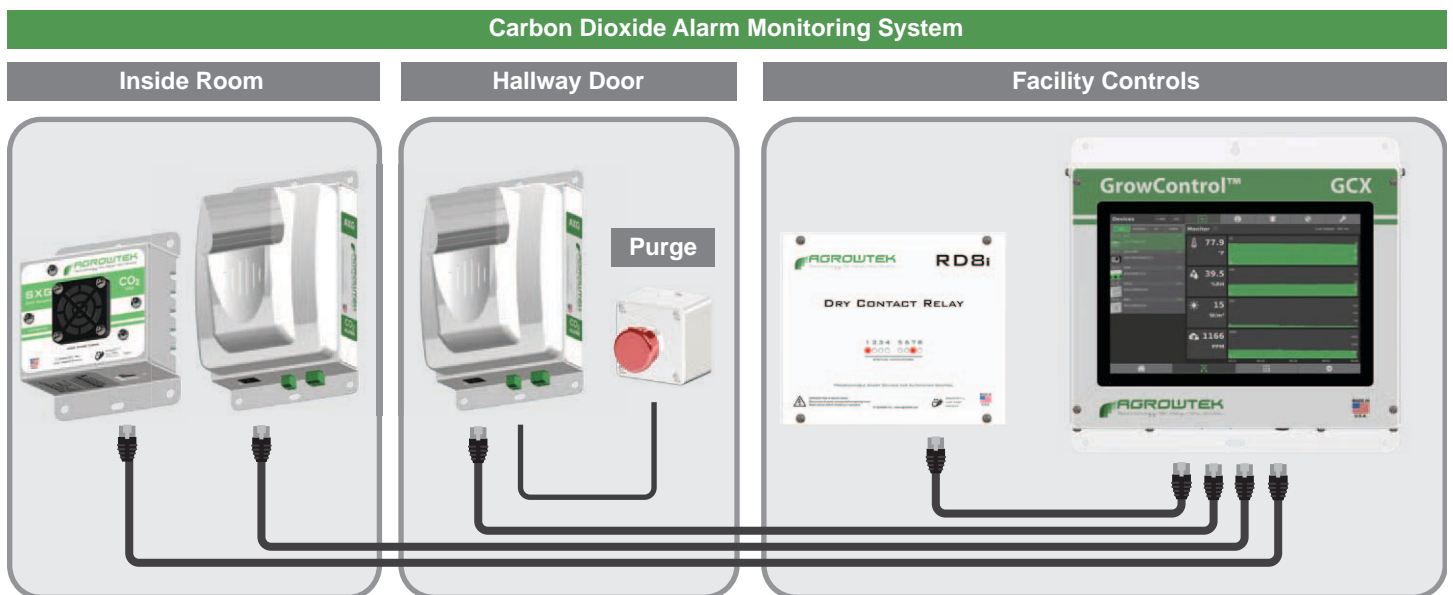
KEEP THESE INSTRUCTIONS

REV 11/22

Features

AXG horn-strobe alarm modules are designed for wall mounting inside and outside of growing spaces to notify of high CO2 gas concentrations (or other alarm conditions depending on the model.) AXG alarm modules feature a bright strobe and loud horn with multiple tone options. A switch input can be used to activate a purge function in the GCX control system to evacuate a room before entering. A dry contact output can be used to connect additional horn-strobe alarms.

Strobe

Horn

Bezel

RJ-45 GrowNET Port

Purge Button Input   Dry Contact Output
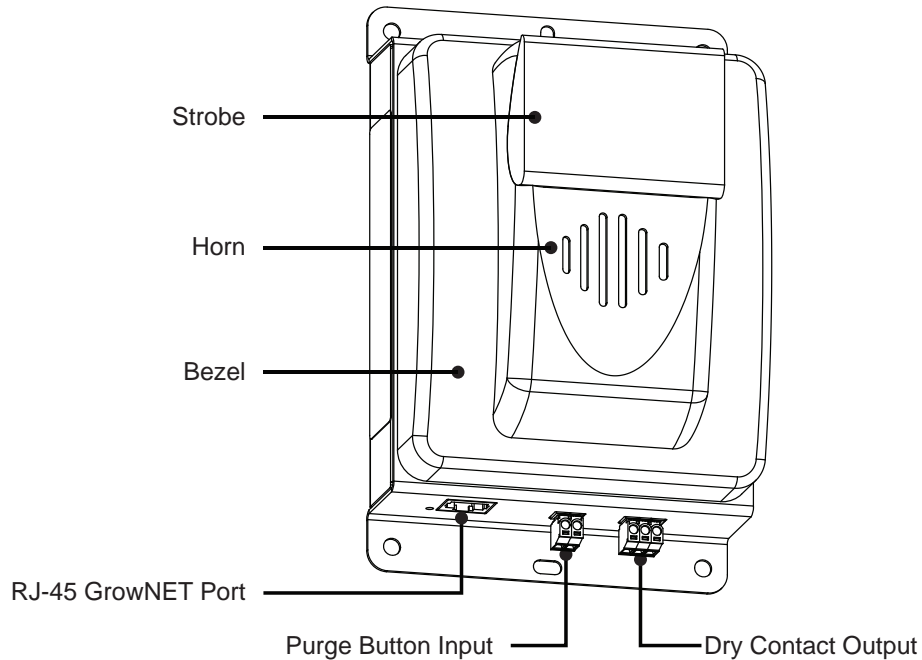
CO2 Alarm System

A complete, integrated CO2 alarm and control system can be operated by GrowControl GCX control systems using SXG gas sensors, AXG alarm modules and standard relay modules. Integrated control functions in the GCX control system make it easy to configure the alarm control by select the different components on the system to integrate.

Carbon Dioxide Alarm Monitoring System

| Inside Room | Hallway Door | Facility Controls |

Purge

GrowControl™   GCX

Installation Instructions

AXG sensors are designed for indoor wall mounting near ceiling level for notification of carbon dioxide concentration limits. Consult your local authority for the quantity and location requirements for sensors and alarm modules. Typical requirements are outlined below.

Installation Location Requirements:

• Compliant with NFPA70; 80-96" from floor, 6" from ceiling
• Locate the sensor on the wall furthest from the entry way.
• Locate the sensor near the center of the wall.
• Avoid areas with condensation or water spray.
• Always mount the RJ-45 connection on the bottom to avoid water ingress through the connection.

CEILING

6" Min.

80-96"

FLOOR
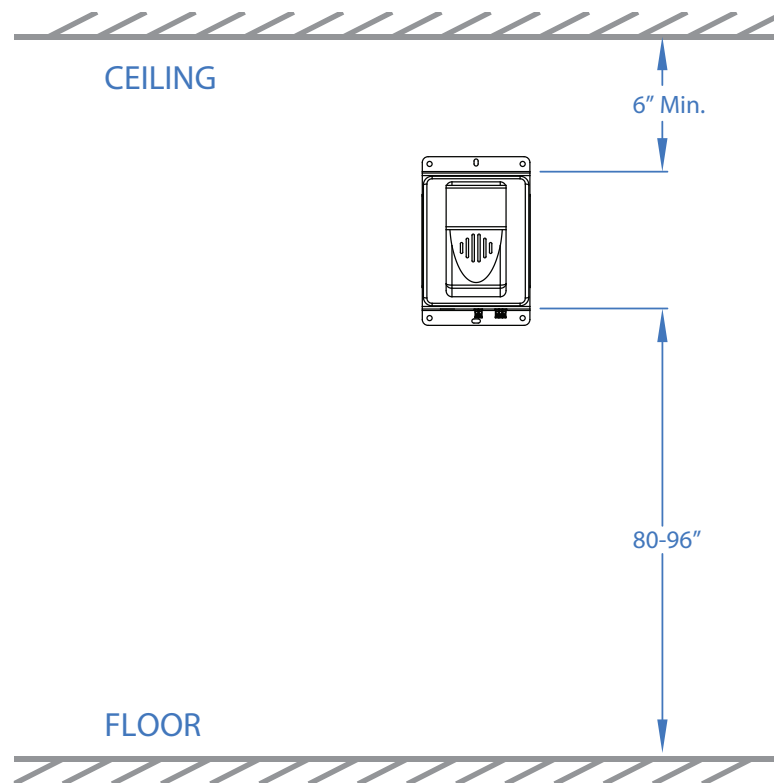
Installation Notes

⚠ 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

Purge Switch Connection

A push button switch is available from Agrowtek Inc. or users can provide their own to connect to the AGX alarm module switch input terminals. The push button contact must be "normally closed" when in the un-pressed position. When activated, the input will activate specific operations in the GCX control system to purge the environment of excess carbon dioxide levels.

The switch terminals provide +5Vdc and a sinking input to detect the switch condition.

⚠ **NOTICE**
A jumper is required to bypass the purge switch if it is not installed, or the input detection can be inverted/disabled by momentarily pressing the reset button with a pin.
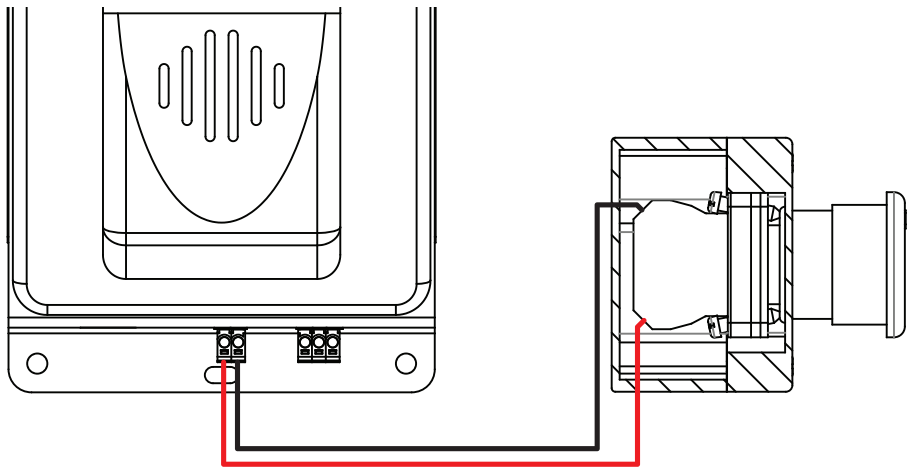
Horn Tone Switches

Multiple horn tone options and intensity levels are available by configuring the DIP switches beneath the cover bezel. Remove the cover bezel by prying outward from the center of the bezel at the bottom.

⚠ **IMPORTANT**
Switches 1 & 2 must always be set at factory position: 1 = OFF, 2 = ON.
Modifying switch positions 1 or 2 can prevent the unit from operating correctly.

| HORN TONE	SWITCH POSITION		
	3	4	5
Mechanical Temporal 3	ON	ON	ON
Mechanical - Continuous	OFF	ON	ON
2400Hz - Temporal 3	ON	OFF	ON
2400Hz - Continuous	OFF	OFF	ON
Chime - Temporal 3	ON	ON	OFF
Chime - Continuous	OFF	ON	OFF
Whoop	ON	OFF	OFF
Whoop	OFF	OFF	OFF

Switch position 6 sets the horn output: ON = High DBA, OFF = Low DBA

Factory switch positions shown in the graphic above. The dark area represents the switch knob.

Connection to GrowControl™ GCX

All GrowNET™ devices are connected using standard CAT5 Ethernet cable with RJ-45 connections.

Devices can be connected directly to the GrowNET™ ports on the bottom of the controller, or through HX8 GrowNET™ hubs. It is typical to simplify cabling by locating hubs centrally in hall ways and rooms allowing single runs from an 8-port device hub back to a central hub or back to the controller.
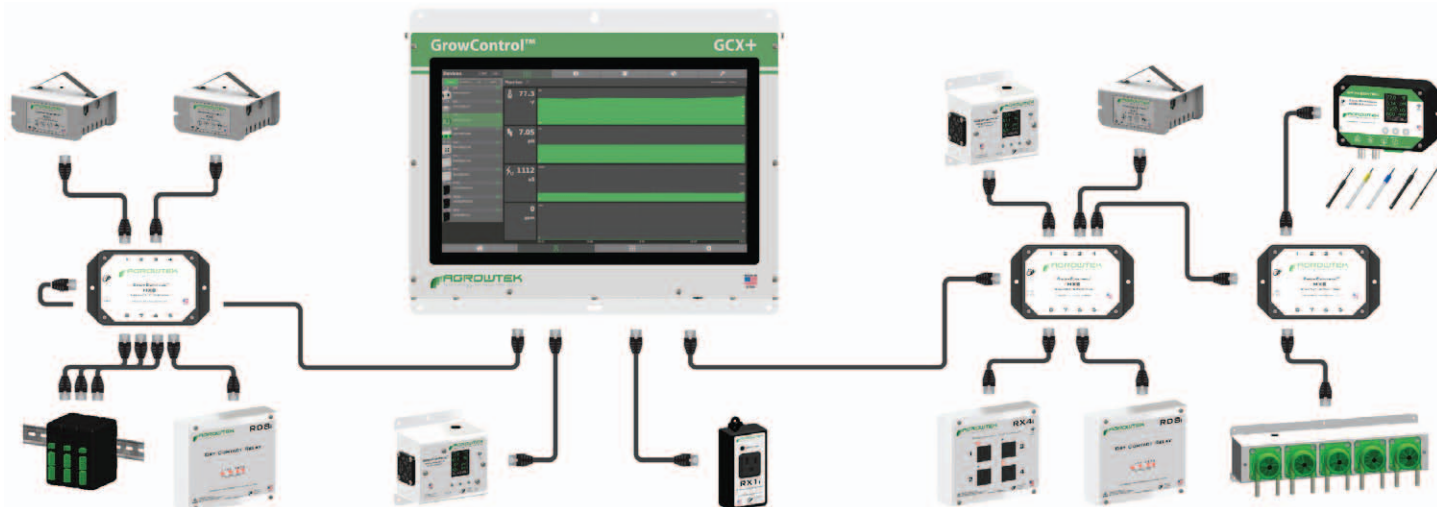
Refer to the GCX controller manual for details on adding the device to the system.

Connection to MODBUS RTU

Use the LX2 ModLINK to connect RS-485 MODBUS devices to the GrowNET™ port.
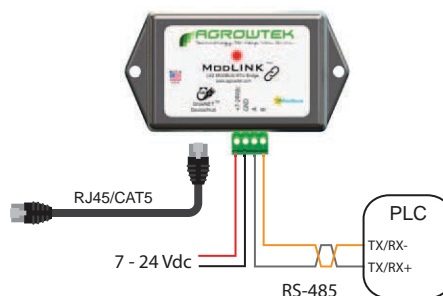
See MODBUS manual for more information.

MODBUS Manual

3.3/5Vdc Serial Bus Compatible.
Include required bus terminating resistors per EIA standard.

GrowNET™ Hubs

HX8 GrowNET ™ hubs expand a single port into eight more ports. Hubs can be daisy-chained to form a network of up to 100 devices per GrowNET™ bus. Individually buffered port transcievers provide excellent signal integrity and extended communication strength and range.

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.

Maintenance & Service

Sensors require periodic maintenance to ensure proper performance.

Cleaning

Exterior and label surfaces may be wiped with a damp cloth wish mild dish detergent, then wiped dry. Avoid spraying the sensor with chemicals or water spray.

Storage and Disposal

Storage
Store equipment in a clean, dry environment with ambient temperature between10-50°C.

Disposal
This indsutrial 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 manufacture. 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.

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