Altronix LINQ2 Network Communication Module, Control Installation Guide

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LINQ2

Two (2) Port Connectivity

Ethernet/Network Communications Module

Installation and Programming Manual

DOC#: LINQ2 Rev. 060514

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Contents

Overview:

Altronix LINQ2 network module is designed to interface with eFlow Series, MaximalF Series, and Trove Series power supply/chargers. It enables power supply status monitoring and control of two (2) eFlow power supply/ chargers over a LAN/WAN or USB connection. LINQ2 provides values on demand for AC fault status, DC current, and voltage, as well as Battery fault status, and reports conditions via email and Windows Dashboard Alert. LINQ2 can also be used as a standalone network-controlled relay powered from any 12VDC to 24VDC power supply. Two separate networked relays can be used for a variety of applications, such as: resetting an access control system or gate operator, CCTV camera power, triggering the camera to start recording, initiating a remote test sequence of the security system, or triggering the HVAC system.

Features:

Agency Listings:

- UL Listings for US Installations:
  UL 294*Access Control System Units.
  *Access Control Performance Levels:
  Destructive Attack – N/A (sub-assembly); Endurance – IV;
  Line Security – I; Stand-by Power – I.
  UL 603 Power Supplies for Use with Burglar-Alarms Systems.
  UL 1481 Power Supplies for Fire Protective Signaling Systems.
- UL Listings for Canadian Installations:
  ULC-S318-96 Power Supplies for Burglar
  Alarm Systems. Also suitable for Access Control.
  ULC-S318-05 Power Supplies for Electronic Access Control Systems.

Input:

- Current consumption of 100mA is to be subtracted from the eFlow power supply's output.
- [COM1] & [COM0] ports are currently disabled and reserved for future use.
  Visit **www.altronix.com** for the latest software updates.

Outputs:

- Power output(s) can be locally or remotely controlled.

Features:

- Management interface for up to two (2) eFlow power supply/chargers.
- Two (2) network-controlled Form “C” relays (contact rated @ 1A/28VDC resistive load).
- Management interface software included (USB flash drive).
- Includes interface cables and mounting bracket.

Features (cont’d):

- Three (3) programmable input triggers.
  – Control relays and power supplies via external hardware sources.
- Access control and user management:
  – Restrict reading/write
  – Restrict users to specific resources

Status Monitoring:

- AC status.
- Output current draw.
- Unit’s temperature.
- DC output voltage.
- Low Battery/Battery presence detection.
- Input trigger state change.
- Output (relay and power supply) state change.
- Battery service is required.

Programming:

- Battery service date indication.
- Programmable via USB or web browser.
- Automated timed events:
  – Control output relays and power supply via flexible timing parameters.

Reporting:

- Programmable dashboard notifications.
- E-mail notification selectable by the event.
- Event log tracks history (100+ events).

Environmental:

- Operating temperature:
  0°C to 49°C (32°F to 120.2°F).
- Storage temperature:

– 30ºC to 70ºC (– 22ºF to 158ºF).

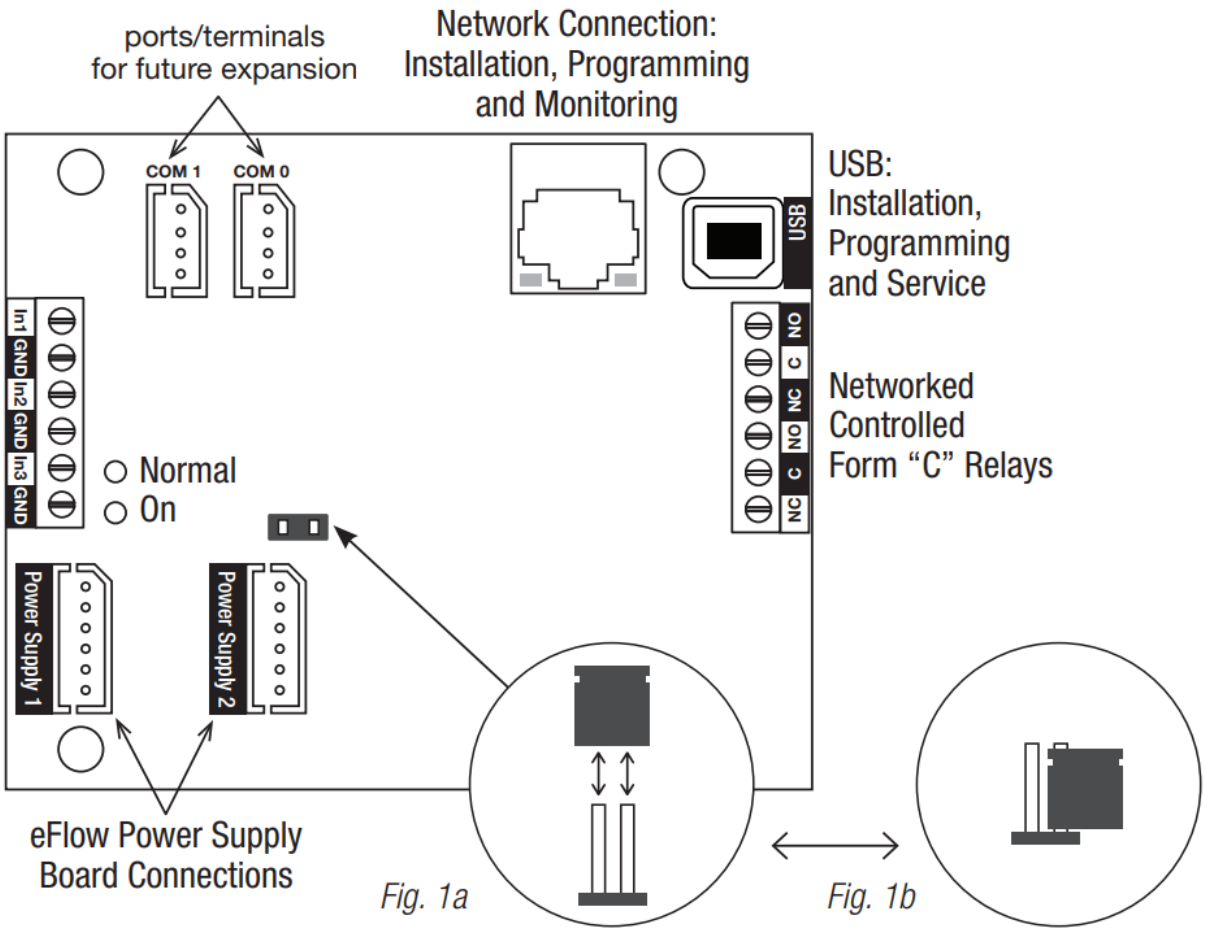
Installing LINQ2 Board:

1. Using the mounting bracket mount the LINQ2 network module to the desired location on the enclosure. Secure the module by tightening the longer screw on the front edge of the mounting bracket (Fig. 2, pg. 5).
2. Connect one end of the supplied interface cable(s) to the ports marked [Power Supply 1] and [Power Supply 2] on LINQ2 (Fig. 1, pg. 4). When connecting to one power supply use the connector marked [Power Supply 1].
3. Connect the other end of the interface cable to the interface port of each eFlow power supply board.
4. Connect the Ethernet cable (CAT5e or higher) to the RJ45 jack on the LINQ2 network module.
   For access control, burglary, and fire alarm signaling applications the cable connection has to terminate is the same room.
5. Refer to the programming section of this manual to set up the LINQ2 network module for proper operation.
6. Connect appropriate devices to [NC C NO] relay outputs.

LED Diagnostics:

LED	Color	State	Status
1	BLUE	ON/STEADY	Power
2		Heartbeat STEADY/Blinking for 1 second	
3		Power Supply 1 ON/OFF	
4		Power Supply 2 ON/OFF	

Fig. 1



Notice to Users, Installers, Authorities Having Jurisdiction, and Other Involved Parties
This product incorporates field-programmable software. In order for the product to comply with the requirements in UL Standards, certain programming features or options must be limited to specific values or not used at all as indicated below:

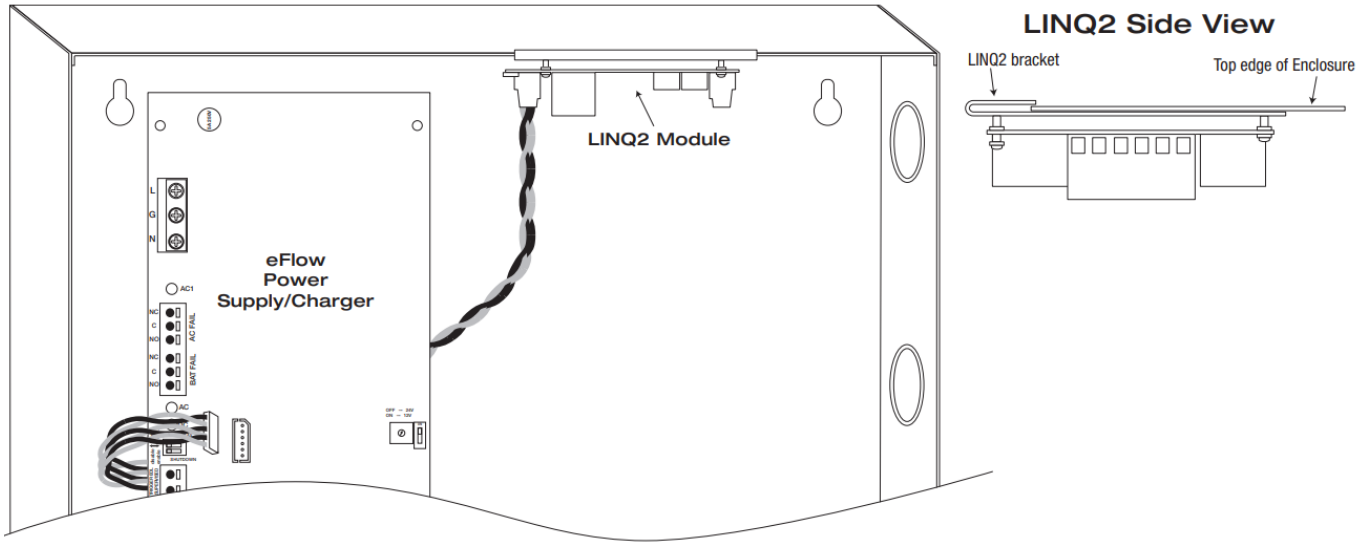
Program Feature or Option	Permitted in UL? (Y/N)	Possible Settings	Settings Permitted in UL
Power outputs that may be remotely controlled.	N	Apply shunt to disable *(Fig. 1a)*; Remove shunt to enable *(Fig. 1b)*	Apply shunt to disable (factory setting, *Fig. 1a*)

Terminal Identification:

Terminal/Legend	Description
Power Supply 1	Interfaces with the first eFlow Power Supply/Charger.
Power Supply 2	Interfaces with the second eFlow Power Supply/Charger.
RJ45	Ethernet: LAN or laptop connection. Enables non-supervised LINQ2 programming and st atus monitoring.
USB	Enables temporary laptop connection for LINQ2 programming. Not to be employed for a pplications requiring UL listing.
IN1, IN2, IN3	Reserved for future use. Not evaluated by UL.
NC, C, NO	Two (2) network-controlled Form “C” relays (contact rated @ 1A/28VDC resistive load). Use 14 AWG or larger.

LINQ2 Installed Inside the eFlow, MaximalF or Trove Enclosure:

Fig. 2



Network Setup:

Please be sure to visit altronix.com for the latest firmware and installation instructions.

Altronix Dashboard USB Connection:

The USB connection on the LINQ2 is used for Network. When connected to a PC via the USB cable the LINQ2 will receive power from the USB port allowing programming of the LINQ2 prior to being connected to the power supply.

1. Install the software supplied with the LINQ2 on the PC being used for programming. This software should be installed on all computers that will have access to the LINQ2.
2. Connect the supplied USB cable to the USB port on the LINQ2 and the computer.
3. Double-click on the Dashboard icon on the desktop of the computer and open the Dashboard.
4. Click on the button marked USB Network Setup in the upper-hand side of the dashboard.

This will open the USB Network Setup screen. In this screen, the MAC Address of the LINQ2 module will be found along with the Network Settings and Email Settings.

Network Settings:

In the IP Address Method field select the method by which the IP Address for the LINQ2 will be obtained: “STATIC” or **“DHCP”,** then follow the appropriate steps.

Static:

a. IP Address: Enter the IP address assigned to the LINQ2 by the network administrator.

b. Subnet Mask: Enter the Subnet of the network.

c. Gateway: Enter the TCP/IP gateway of the network access point (router) being used.
Note: Gateway configuration is required to properly receive emails from the device.
d. Inbound Port (HTTP): Enter the port number assigned to the LINQ2 module by the network administrator to allow remote access and monitoring.
e. Click the button labeled **Submit Network Settings.**
A dialog box will display “New network settings will take effect after the server is rebooted”. Click OK.
DHCP:
A. After selecting DHCP in the IP Address Method field click the button labeled Submit **Network Settings**.
A dialog box will display “New network settings will take effect after the server is rebooted”. Click **OK.**
Next, click on the button labeled Reboot Server. After rebooting the LINQ2 will be set in the DHCP mode.
The IP address will be assigned by the router when the LINQ2 is connected to the network.
It is recommended to have the assigned IP Address reserved to ensure continued access (see the network administrator).
B. Subnet Mask: When operating in DHCP, the router will assign the subnet mask values.
C. Gateway: Enter the TCP/IP gateway of the network access point (router) being used.
D. HTTP Port: Enter the HTTP port number assigned to the LINQ2 module by the network administrator to allow remote access and monitoring. The default inbound port setting is 80. HTTP is not encrypted and unsecure. Even though HTTP can be used for remote access, it is recommended primarily for use with LAN connections.
Secure Network Setup (HTTPS):
In order to set up HTTPS for a Secure Network Connection, a Valid Certificate and Key must be used. Certificates and Keys should be in a “.PEM” format. Self Certifications should only be used for testing purposes as no actual authentication is being performed. In a Self-Certified mode, the connection will still state that it is unsecure. How to upload Certificate and Key to setup HTTPS:

1. Open the Tab Labeled “Security”
2. Select the Tab Labeled “Email/SSL”
3. Scroll to the bottom under “SSL Settings”
4. Click “Select Certificate”
5. Browse and select a valid Certificate to upload from the server
6. Click “Select Key”
7. Browse and select valid Key to upload from the server
8. Click “Submit Files”

Once the Certificate and Key is uploaded successfully you can proceed with setting up HTTPS in Network Settings.
A. HTTPS Port: Enter the HTTPS port number assigned to the LINQ2 module by the network administrator to allow remote access and monitoring. The default inbound port setting is 443.
Being encrypted and more secure, HTTPS is highly recommended for remote access.
B. Click the button labeled Submit Network Settings.
A dialog box will display “New network settings will take effect after the server is rebooted”. Click OK.
Heartbeat Timer:
The heartbeat timer will send a trap message indicating that the LINQ2 is still connected and communicating.
Setting the Heartbeat Timer:

1. Click the button labeled Heartbeat Timer Setting.
2. Select the desired time between heartbeat messaging in the Days, Hours, Minutes, and Seconds in the corresponding fields.
3. Click the button labeled Submit to save the setting.

Browser Setup:
When not using the Altronix Dashboard USB connection for the initial Network setup, the LINQ2 needs to be connected to the low power supply(ies) being monitored (refer to Installing LINQ2 Board on page 3 of this manual) prior to programming.

Factory Default settings

• IP Address:	192.168.168.168
• User Name:	admin
• Password:	admin

1. Set the static IP address for the laptop to be used for programming to the same network IP address as the LINQ2, i.e. 192.168.168.200 (the default address of the LINQ2 is 192.168.168.168).
2. Connect one end of the network cable to the network jack on the LINQ2 and the other to the network connection of the laptop.
3. Open a browser on the computer and enter “192.168.168.168” into the address bar.
   A dialog box Authentication Required will appear requesting both user name and password.
   Enter the default values here. Click on the button labeled Log In.
4. The status page of the LINQ2 will appear. This page displays the real-time status and health of each power supply connected to the LINQ2.

For further device management assistance with the website interface, please click on the **?** button located in the top right-hand corner of the website interface after logging in.

MEMBER

Altronix is not responsible for any typographical errors.
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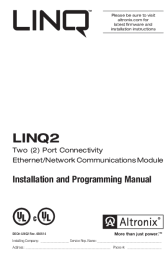
Documents / Resources

	Altronix LINQ2 Network Communication Module, Control [pdf] Installation Guide LINQ2 Network Communication Module Control, LINQ2, Network Communication Module Control, Communication Module Control, Module Control, Control

References

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