Securitron® Netlink™ Power Monitoring Module

Quick Start Guide

ASSA ABLOY

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Product Description

This Securitron Netlink (NL) Quick Install manual gives the basic information needed to install a 2nd Generation NL4 module.

The Securitron NL is used to monitor power supply system status over a local or wide area network. When used with a Securitron AQL DC system, the Securitron NL will allow limited control of the power system and provide values on demand for power supply output voltage, operational fault status, battery charging voltage, battery charging current, and fire alarm input status. In addition, the Securitron NL's may be used with any 8-30 VDC power supply in a limited fashion.

Specifications and more details found in the full manual here. *(Downloadable pdf)*

Manual covers Firmware Rev 8.07l-45
Older firmware revisions may not have all features described. See the latest firmware release notes at ***www.lifesafetypower.com/support/software-firmware-downloads***

Resetting the Securitron Netlink
If the user name or password is unknown for a Securitron Netlink board, press and hold the Reset button located next to the backup battery for 10 seconds to return these values to default. Pressing the Reset button for 30 seconds will also reset the IP address, certificate, and Cipher Suite to default.

Upgrading Securitron Netlink Firmware
The browser history/cache should be cleared after performing the firmware upgrade and before accessing the Securitron Netlink again to prevent any cached pages from giving outdated information. *See page 23 for detailed steps for firmware upgrades*

Consult your IT department for information on these settings.

Specifications

Certifications

- UL 294 Listed
- UL603 Listed
- UL1076 Listed
- ULC-S318 Listed
- ULC-S319 Listed
- CSA C22.2 #205

Electrical

- **Input**
  - » Operating Voltage: 8 to 30 VDC
  - » Operating Current: 60 mA nominal
- Network Data Rate: 10/100 Mbps
- Voltage Measurement Range: 0 to 30 VDC ±3%
- Current Measurement Range: 0 to 20 A ± 0.1 A + 5% of reading
- **Event**
  - » Input: 9 to 30 VDC
  - » Current: 15 mA Max

Output 1 & 2 Current: 50 mA maximum

Shipping Weight

- .25 lbs

Dimensions

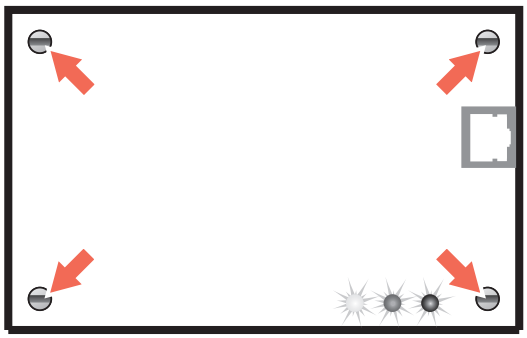
- 4" x 2.5" x 1.5" [101.6mm x 63.5mm x 38.1mm]

Mounting Power Boards to the Enclosure

Mounting a Securitron Intelligent Power Board to an enclosure is via the four snap-in standoffs supplied.

1. Locate the appropriate mounting holes in the enclosure and snap the standoffs into the holes.
2. Align the board mounting holes with the standoffs (be sure the PC board is properly oriented) and snap the board onto the standoffs.

Diagram 1: Snap-in standoffs



Module Overview

The following are basic Securitron Netlink board descriptions. Refer to the appropriate section for more detailed information.

1. **C1 and C2 Inputs (J12 & J16)** – These are the connectors for the current sensors. Only NL4 current sensor should be plugged into this connector. The sensors have a range of +/-20 A and are typically used to monitor battery discharge current.
2. **Event 1 Input (J14)** – This is the connector for the Event1 input. This input will accept 9-30 VDC to initiate an event alert. This input will only indicate an active or inactive condition and will not measure the voltage level.
3. **ADC1 Input (J15)** – This is the Analog to Digital Converter (ADC) input, which acts as a voltmeter. It accepts 0-30 V and is used to measure positive or negative system voltages which are common grounded with the Securitron Netlink board. The ADC cable wiring must be routed away from high voltages.
4. **Input V+ & V- (J1 & J3)** – This is the power input for the Securitron Netlink board. This input accepts 8 to 30 VDC ONLY from any power supply.

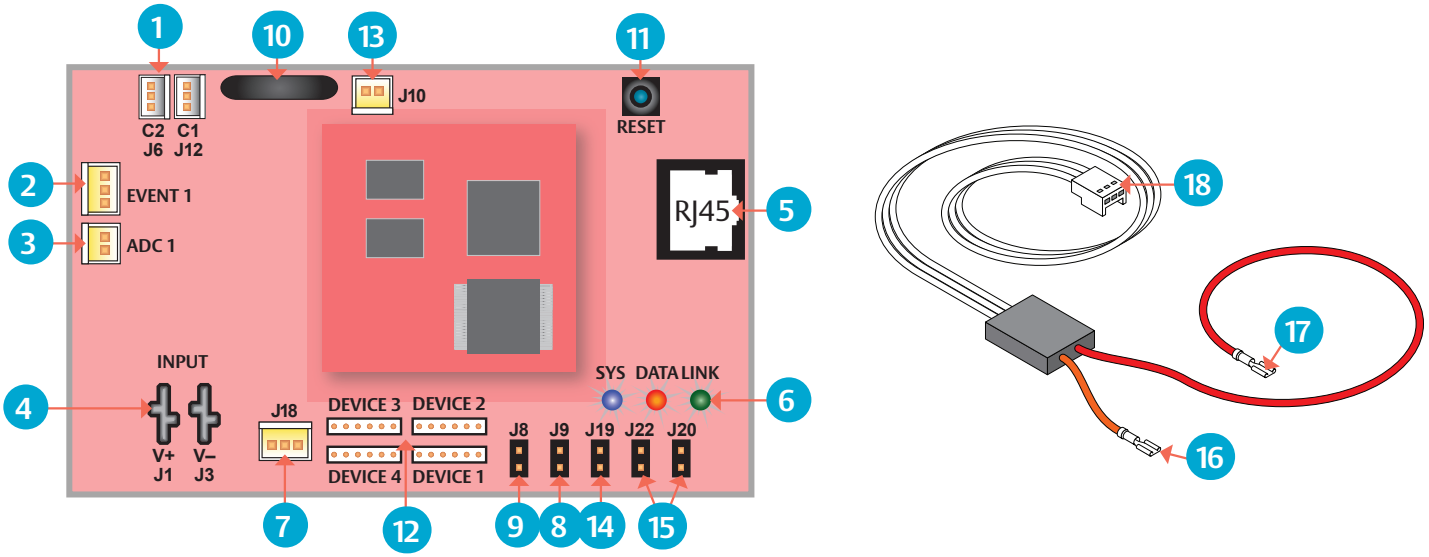
> **NOTE**: The voltage input of the Securitron Netlink must be connected directly to the main or aux output of the power supply.

5. **Ethernet Connection (SK1)** – This is the RJ45 jack for the network connection. The ethernet cable is plugged into this jack.
6. **Status LED Indicators (D2, D3, D4)** – These LEDs indicate the status of the Ethernet link to the Securitron Netlink board.

   LED Indicator:
   - **GREEN (LINK)** Lights when Securitron Netlink is connected to a network
   - **RED (DATA)** Flashes during data transfer
   - **BLUE (SYS)** Lights when the Securitron Netlink is fully booted up and running. During the bootup process, this LED may flash on and off several times. The Securitron Netlink will not be able to be accessed until this LED lights steady.
7. **External Temperature Sensor (J18)** – This connector is for the external temperature sensor.
8. **Future use (J9)** – This jumper is reserved for future use and should be left OFF.
9. **Event1 Input Invert Jumper (J8)** – This jumper inverts the action of the Event 1 Input.

   Jumper Position:
   - **OFF** Event 1 active when voltage is applied
   - **ON** Event 1 active when voltage is removed
10. **Backup Battery (BT1)** – This is the coin cell battery for maintaining the clock when all power is removed from the Securitron Netlink. The battery type is CR2032.
11. **Factory Reset Button (SW1)** – This button resets the User Name, Password, and IP Address settings back to factory default. Typically used when IP and/or login information has been lost.
12. **Device 1 – Device xx (J4, J5, J11, J17)** – Data is passed between the Securitron Netlink board and it's connected devices through these Device serial port links. The NL4 has four serial links to monitor up to four devices (maximum combination of two AQL). AQL must connect to Device 1 and 2 respectively.
13. **Control Outputs (J10)** – This connector is for the two control outputs. These outputs are open collector (transistor) low-current outputs for use with LifeSafety Power RB Relay Boards or other low-current inputs. The Control Output cable wiring must be routed away from high voltages.
14. **Enable 100Mbps (J19)** – If present, this jumper enables 100Mbps speed for the network connection.
15. **Future Use (J20 & J22)** – If present, these jumpers are reserved for future use and should be left OFF.
16. **Current Sensor – Current Lead 1** (SHORT) – The short orange lead connects in-line with the current to be measured toward the more negative side of the current flow. Positive current is measured when current flows from Current Lead 2 (Long Lead) to Current Lead 1 (Short Lead). When using to measure battery discharge current, this lead goes to the BAT+ terminal on the power supply.
17. **Current Sensor – Current Lead 2** (LONG) – The long red lead connects in-line with the current to be measured toward the more positive side of the current flow. Positive current is measured when current flows from Current Lead 2 (Long Lead) to Current Lead 1 (Short Lead). When using to measure battery discharge current, this lead goes toward the positive battery terminal.
18. **Current Sensor – Data Connector** – This connector connects to the Securitron Netlink board's C1 or C2 input (J12 or J16) to provide the current reading to the Securitron Netlink.

Diagram 2: Overview



Logging into the Securitron Netlink for the first time

From the factory, the Securitron Netlink is preset with the following settings:

- **IP Address: 192.168.1.9**
- **Username: admin**
- **Password: admin**

Open a browser on the computer and enter the IP address into the address bar. When propted, enter the user name and password. Note that BOTH are case sensitive (See image right). The Securitron Netlink License Agreement and one or more Cybersecurity windows will also appear. Read these and click OK (next page). The home page for the Securitron Netlink should appear in the browser window.

NOTE: If the wrong password is entered three consecutive times, the user will be locked out of the device for the programmed lockout time (24 Hours by default). Enter the password carefully to avoid lockout. This time period may be changed on the configure page.

Securitron Netlink Login Window
(may appear different , depending on browser)

Configuring the TCP/IP Settings

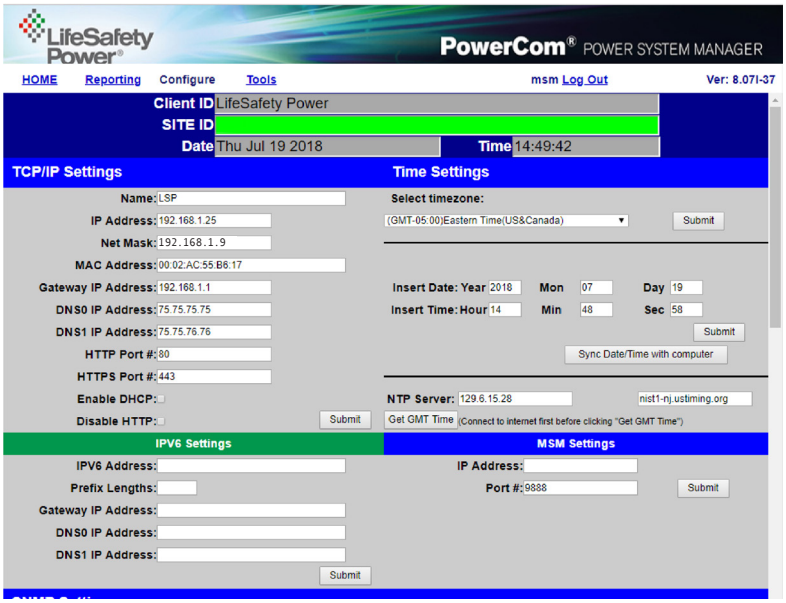
1. In the menu bar at the top of the browser screen, click the Configure link.
2. In the TCP/IP Settings block of the Configuration screen, set the TCP/IP settings to the desired values for the network to which the Securitron Netlink will be connected.

Consult your IT department for information on these settings.

- After completing the TCP/IP settings, click the Submit button in the bottom right corner of the TCP/IP Settings box. Note that the new TCP/IP settings will not take effect until the Securitron Netlink is rebooted or power to the Securitron Netlink is cycled.
- If the Securitron Netlink is connected to a DHCP network and DHCP is enabled, the DHCP server will automatically configure the TCP/IP settings. Note that you will need the Network Scan tool available at http://www.lifesafetypower.com/support/software-firmware-downloads to locate the Securitron Netlink's IP address before logging into the Securitron Netlink board.

NOTE: The port number used by the Securitron Netlink can also be set in the Port# field. By default the Securitron Netlink is set to use port 80. To disable HTTP access and only allow access via HTTPS, check the "Disable HTTP" selection.

NOTE: To access the Securitron Netlink board from outside the installation site's firewall, the firewall must have the ports used by the Securitron Netlink for http/https, and SNMP (if used) open. See your IT department for firewall port opening details.



Time Settings

The Time Settings block on Configuration Page is where the time and date are programmed into the Securitron Netlink. First, select the correct time zone from the drop down list and click Submit. After the time zone is set, the time and date can be set one of three ways:

Manual Entry

Enter the correct time and date in the following format and click the Submit button:

- For Date: **YYYY MM DD**
- For Time: **HH MM SS**

ALWAYS enter two digits in time field (ie. 7 AM = 07, not 7). The new date and time will take effect immediately.

Sync With Computer

The Sync Date/Time with computer button will set the date and time of the Securitron Netlink to match the computer currently being used to access the Securitron Netlink. The new date and time will take effect immediately.

Using an NTP Server

The NTP Server fields allow you to enter one or two NTP servers for automatic setting of the time and date via the internet. The Securitron Netlink must be configured for internet access before this setting will work. Either the IP address of the server or the DNS name of the server may be entered. After entering at least one server, click the Get GMT Time button to set the Securitron Netlink time and date. Depending on server traffic, it could take several seconds for the time setting to complete.

Configuring the Email Settings

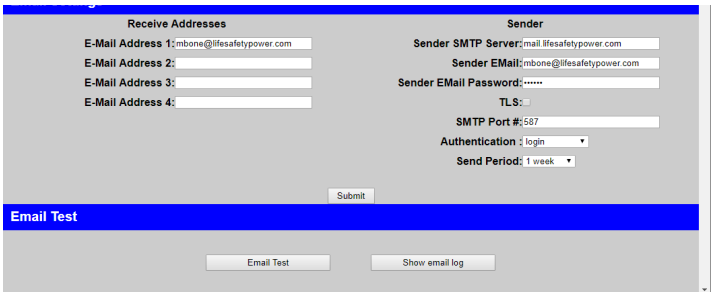
The Securitron Netlink can be configured to send email alerts on user-specified conditions and periodic status reports. Underneath the SNMP Settings block on the Configure page is the Email Settings block.

Under "Receive Addresses", the email address or addresses to receive the alerts and reports should be entered. Up to four recipient email addresses may be entered.

NOTE: Regarding Microsoft Exchange – By Default, Microsoft Exchange will not accept SMTP connections. To use the Securitron Netlink's email functions through Microsoft Exchange, the Exchange service must be configured to allow SMTP connections. Consult with the administrator of your Microsoft Exchange Server.

NOTE: Click the Submit button to save the settings, which will take effect after rebooting the Securitron Netlink.

TIP: Most mobile phone providers have an email address available which will convert an email into an SMS text message. This email address is usually in the form of: (the mobile phone number)@xxxxxx. Consult with your mobile provider for more information. The CSV attachment will be removed, since SMS text messages are not compatible with attachments. Because of this, it is recommended that the SMS email be entered as an ADDITIONAL "Receive Address" on the Securitron Netlink, so that the CSV file will still be available via regular email.



User Settings

In the User Settings block of the Configure screen, you can enter the user names, passwords, access levels, and password complexity for the Securitron Netlink board.

The default user is "admin" and the password for this account is also "admin". It is highly recommended to change this user name and password for security reasons. Click Submit when done. Note that there must ALWAYS be at least one admin-level user.

Adding a New User

To add another user, first select the Authorization level desired for the user. Three authorization levels are available:

- **ADMIN** Admin-level users have full control over the Securitron Netlink. There are no restrictions.
- **MANAGER** Manager-level users have access to all areas of the Securitron Netlink except for the Configure page.
- **GUEST** Guest-level users may only view information on the Securitron Netlink screens. No changes can be made and none of the control features are available.

After selecting the Authorization level, enter the new user name in the User Name column and enter the password into the Password column. Passwords must meet the complexity level setting requirements. Re-enter the password into the Verify Password column.

After clicking Submit, the new user will be active and another blank row will appear for entering the next user name.

Configuring the Securitron Netlink Network Module Settings

Below the VPN Settings block is the Network Module Settings block, where application-specific parameters of the Securitron Netlink can be set.

Client ID	Enter any meaningful name to help identify the site or customer. The Client ID will appear at the top of the home page.
Site ID	Enter any meaningful name to help identify the installation site. The Site ID text will appear at the top of the Home page, as well as in the subject line of email alerts and reports.
Data Buffer Interval	This selects the time period between "snapshots" of the data for the email/CSV reports. Typically, this value should be set to 24 hours.
Next Service Due	Enter a date indicating the next service due date. If "Service Due" is selected as an email alert condition, an alert email will be sent out to the specified email recipient(s) when the system time matches the due date time.
Reminder Message	Enter a brief message to indicate the type of service which is due in the email alert. This message will appear in the subject line of the alert email.

In addition, this section contains fields to name the various Securitron Netlink inputs and to set upper and lower limits for many of the measured parameters, among other settings. See the full Securitron Netlink manual for more information on setting these parameters.

Setting up the Parameters for the Email Reports

The Securitron Netlink can send email alerts based on selectable conditions. If enabled, when the selected conditions are met, the Securitron Netlink will send an email with an attached report file (in CSV format). To set up the email alert conditions, click the Reporting link in the top menu.

- The **Alert Enable On** section, allows you to select which parameters on the Securitron Netlink will trigger an email alert.
- The **Select Occurrences to Report** section allows you to select how many events are included in the CSV report in the email. Selecting 1000 will include the entire Securitron Netlink buffer. Selecting 10 will include the ten most recent events only.

The sections below the above settings allow you to select which parameters are included in the CSV report. By default, all fields are selected, and it is usually best to leave them all selected. However if you are, for example, not using the external temperature sensor, you can deselect this parameter so it is not included in the report.

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