



Power is knowledge.™

# NPR Managed Midspan Injectors Installation Manual

## LifeSafety Power®



# NETPOWER®



LifeSafety Power, Inc. | PH 888.577.2898 | [TechSupport@LifeSafetyPower.com](mailto:TechSupport@LifeSafetyPower.com)

# Table of Contents

<b>Notes and Warnings</b> . . . . .	<b>iii</b>
Symbol Definitions . . . . .	iii
Warnings . . . . .	iii
Regulatory Information . . . . .	iii
Conventions Used Within this Manual . . . . .	iii
<b>Introduction</b> . . . . .	<b>iv</b>
Product Description . . . . .	iv
The NPR Series . . . . .	iv
<b>Section 1 – Installation</b> . . . . .	<b>1</b>
1.1 Mounting the NPR Rack Mount Supply into a Standard 19" Rack . . . . .	1
1.2 NPR Rackmount Power Supply Overview . . . . .	2
<b>Section 2 – Initial Configuration</b> . . . . .	<b>4</b>
2.1 Preparing to configure the NPR . . . . .	4
2.2 Logging into PowerComPoE for the first time . . . . .	4
2.3 Configuring the TCP/IP Settings . . . . .	6
2.4 Configuring the Administration Settings . . . . .	7
2.5 Configuring the SNMP Settings . . . . .	7
2.6 Configuring the Email Settings . . . . .	8
2.7 The Programming Page . . . . .	9
2.8 Setting Up the NPR for use with the MSM-200 multi-site manager . . . . .	10
<b>Section 3 – Using the NPR</b> . . . . .	<b>12</b>
3.1 Viewing System Parameters on the NPR Home Page . . . . .	12
3.2 The Tools page . . . . .	14
<b>Appendix 1 – Software Agreement</b> . . . . .	<b>15</b>

 **Manual covers Firmware Rev 1.19**

Older firmware revisions may not have all features described. See the latest firmware release notes at <http://www.lifesafetypower.com/support/software-firmware-downloads>

# Notes and Warnings

## Symbol Definitions

The following symbols are used throughout this manual



This symbol is intended to alert the installer of shock hazards within the enclosure. Service should only be performed by qualified service personnel



This symbol is intended to alert the installer of important information intended to help the installer avoid personal injury or property damage

## Warnings



Installation and service should be performed only by qualified service personnel and should conform to all local codes



To reduce the risk of electric shock or fire, do not expose this equipment to rain or moisture



This equipment shall be installed in a manner which prevents unintentional operation by employees, cleaning personnel, or others working in the premises, by falling objects, customers, building vibration, or similar causes



This equipment is not intended for use within the patient care areas of a Health Care Facility



Replace fuses only with the same type and rating as indicated in the specifications section of this manual.



To prevent impaired operation, ensure that all wiring is routed and secured to prevent accidental open or short circuit conditions



The system and any batteries (if used) should be tested at least once per year to ensure proper operation

## Regulatory Information

The equipment discussed within this manual has been tested to the following standards:

- EN60950 EN55022 CLASS A EN55024
- CSA C22.2 #60950
- CE



## FCC Information

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Conventions Used Within this Manual

Positional information (e.g. top, bottom, up, down, left, right, etc.) is referenced with the board or enclosure in the orientation shown in the illustrations in this manual

# Introduction

## Product Description

The NPR series of multi-port PoE midspan injectors are designed to provide power to PoE compatible IP devices such as IP surveillance cameras, IP phones, door locks, IR illuminators and other PoE compatible access control edge devices with battery backup. The NPR series products provide 32W of power per port and are compliant with the IEEE 802.3at standard.

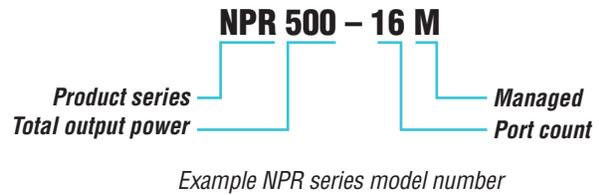
The chart below shows the list of models in the NPR product family:

### NPR Midspan Injectors

Model No.	Description	Notes
NPR500-16M	16 port / 32W per port 540 Watts Managed midspan injector	Programmable port priority battery backup
NPR250-16M	16 port / 32W per port 270 Watts Managed midspan injector	Programmable port priority battery backup
NPR250-8M	8 port / 32W per port 270 Watts Managed midspan injector	Programmable port priority battery backup

The illustration below shows the model numbering convention of the NPR series using an example model number. NPR indicates the model series. The number “500” indicates a total of 500 Watts nominal output power available. Currently, 500W and 250W models are available. The number “16” indicates the number of ports. Currently, 16 port and 8 port models are available. The letter “M” indicates remote management, which is present on all models.

The NPR-M is capable of charging battery sets from 4 to 18 amphotours utilizing an internal float charger.



### Specifications

Input voltage range	100 – 230 VAC
Input frequency	47 – 63 Hz
Max input current (500W model)	9.0 A
Max input current (250W model)	4.5 A
Power factor	>0.92

## Section 1 – Installation

The following pages cover the installation of the NPR Series rack-mountable PoE power supplies.

### 1.1 Mounting the NPR into a Standard 19" Rack

Use the following procedure when mounting an NPR series supply into a standard EIA 19" equipment rack.

1. If not already, securely mount the included ears to the front of the enclosure sides using the eight included countersunk screws (four per ear).
2. Locate the rack-mounting holes in the ears of the enclosure. (Figure 1)
3. Slide the enclosure into an open 1U location in the rack
4. Center the enclosure in the rack and secure with the four 10-32 x 3/4" screws provided.

**NOTE:** Use rails or other appropriate support for heavy enclosures. Keep heavier components near the bottom of the rack to reduce the risk of toppling of a top-heavy rack.

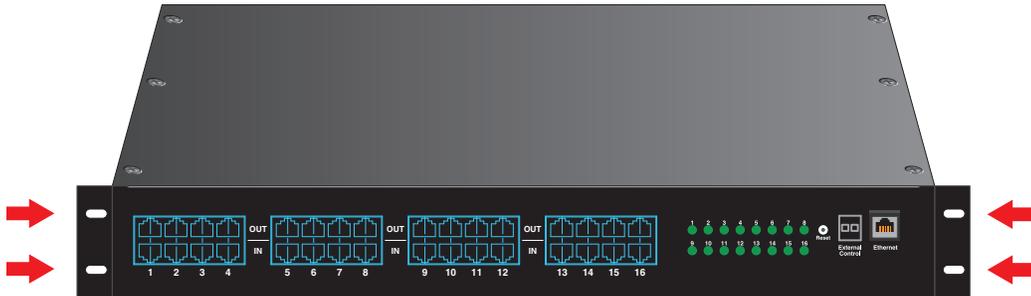


Figure 1: The Enclosure Mounting Holes

## 1.2 NPR Rackmount Power Supply Overview

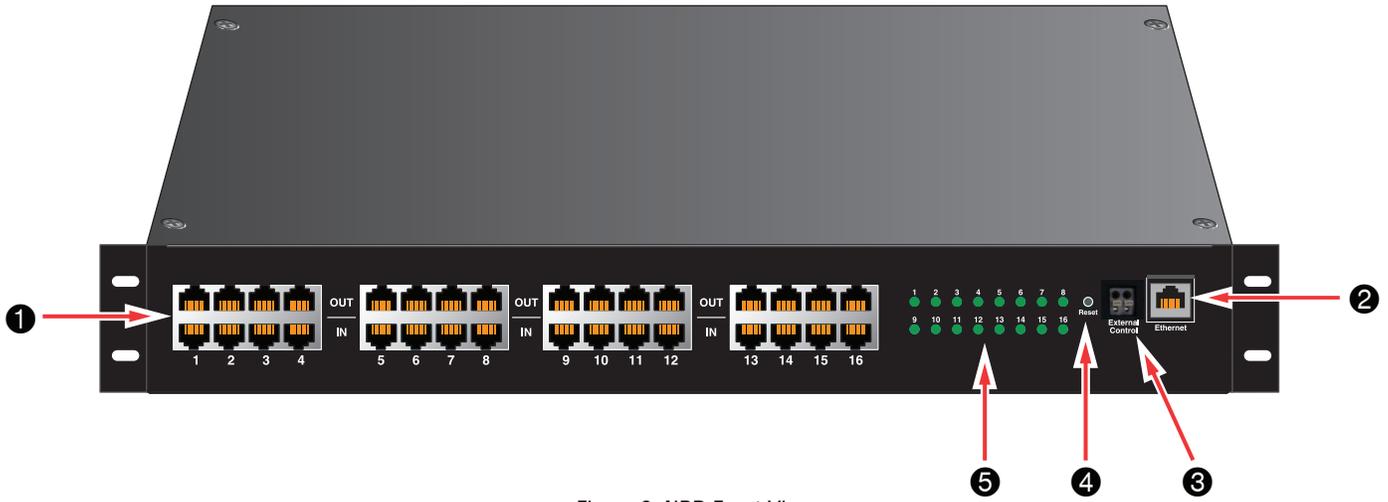


Figure 2: NPR Front View

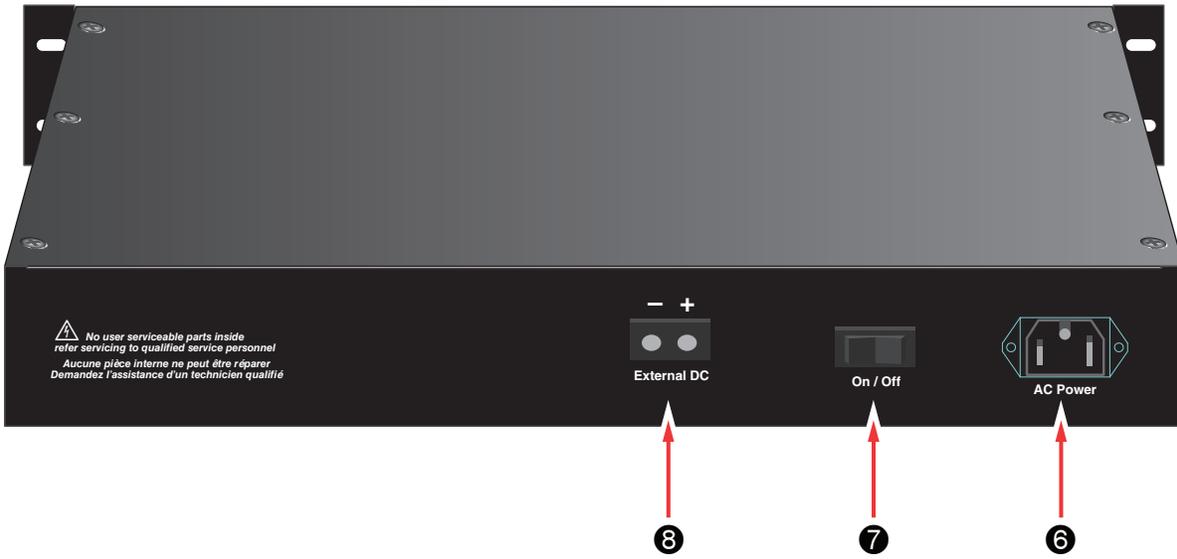


Figure 3: NPR Rear View



The following are basic descriptions. Refer to the appropriate section for more detailed information. Note that the front panel may appear different based on the configuration of your system.

### ① **PoE Input / Output (IN / OUT)**

Depending on model, there are eight or sixteen RJ45 jack pairs (top and bottom pair) labeled sequentially. For each pair, the bottom jack is for network data input. The top jack is the data and power output.

Connect your data only cables to the bottom row of the RJ45 jacks (from a network switch, video server, etc.).

Connect the top jacks to the corresponding PoE compatible devices (e.g. IP cameras).

### ② **Ethernet Input (Ethernet)**

This port allows users to monitor and control the NPR multi-port midspan injector through a computer, over a LAN or the Internet. The management software PowerComPoE is web browser based. You may connect a PC directly to this Ethernet port, or via LAN/Internet.

### ③ **External Control (External Control)**

This connector allows an external trigger voltage to shut-down selected PoE outputs (programmed by user via the PowerComPoE management software).

The trigger voltage is 5 to 24V, AC or DC.

### ④ **Reset Button (Reset)**

Pressing the recessed reset button with a pin for 6 seconds will reset the IP address and password to the factory default values.

The factory default IP address is: **192.168.1.9**

The factory default user name is: **admin**

The factory default password is: **admin**

### ⑤ **Front Panel LEDs (1-8 or 1-16)**

Depending on model, 8 or 16 front panel LEDs (labeled 1 through 8 or 1 through 16) indicate the port status of the corresponding PoE channels. When the output is connected to a valid PoE Powered Device (PD) within the specified current limit, the LED will be green, indicating normal operation. When there is a fault condition, such as when no PD is connected to that port, the LED will be yellow.

The LED will be turned off if the corresponding port is disabled by the PowerComPoE software.

LED Status	Status
Green	Normal Operation
Yellow (Fault)	No Powered Device connected or fault condition present
Off	Port disabled

When the NPR is first powered, these LEDs will light yellow in sequence (1-8 or 1-16 depending on model) six times as the unit performs a self-test

### ⑥ **AC Line Input (AC Power)**

This is the connector for the AC line cord. Plug the included computer-style line cord into this connector. Connect the other end of the cord to the power strip inside the rack or another suitable AC power receptacle. The NPR series accepts 100-240VAC  $\pm 10\%$  ONLY.

### ⑦ **Main AC Power Switch / Circuit Breaker (On/Off)**

This is the main AC power switch for the NPR. This switch lights when power is on and also has a built-in circuit breaker rated at 15A. If the circuit breaker trips, reset it by cycling the switch to off then back to on.

### ⑧ **External DC Voltage Input (External DC +/-)**

This input may be used to either power the NPR via an external 50VDC supply or to provide battery backup to the NPR. The "External DC" input is reverse polarity protected. See below for details:

#### **To Use Battery Backup**

Connect AC power to the NPR unit as normal. In addition, connect a 48V nominal battery set to the "External DC" connector, using the battery cable supplied.

#### **To Use an External 50Vdc Supply**

Connect a 50V power supply to the "External DC" connector at the rear. The ratings requirements for the DC power supply are given below:

Input voltage range	44 –57 VDC
Max input current (500W model)	14.0 A
Max input current (250W model)	7.0 A

Note that if both AC and DC power sources are connected to the unit at the same time, the AC source will supply the power to the output ports. The external DC source will not supply the outputs unless the AC source is missing or the power switch is turned off.

## Section 2 – Initial Configuration

The PowerComPoE management software allows users to configure, as well as monitor and control each output port of the NPR series midspan injector. It is embedded and web browser based and does not require the installation of any dedicated software on the user's PC. Any PC with an Ethernet port and a common web browser may be used to access PowerComPoE.

### 2.1 Preparing to configure the NPR

In order to perform the initial configuration of the NPR, you will need the following:

- A computer (PC or Mac) set to a static IP address in the subnet 192.168.1.xxx, where xxx is a subnet address (0 to 255) not being used by any other device on the network. Do not use 192.168.1.9 or the final IP address you will be using for the NPR. (See Figure 4.)
- A web browser installed on the computer.
- A CAT5 or higher Ethernet cable long enough to reach between the computer and the NPR's Ethernet port.
- The NPR must be powered. After powering the NPR, wait for the NPR to initialize. When ready, the port LEDs will be lit steady.

After the NPR is powered and initialized, connect the ethernet cable between the ethernet ports of the NPR and computer. The green LED on the ethernet port of the NPR should light. A few seconds later, the yellow LED will begin flashing.

### 2.2 Logging into PowerComPoE for the first time

From the factory, the NPR is preset with the following settings:

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

Open a browser on the computer and enter "192.168.1.9" into the address bar (not in a search bar - you may need to disable a "search from the address bar" setting in your browser, if enabled). A window will appear asking for authentication (See Figure 5). Enter "admin" for both the user name and password.

**⚠ If the wrong password is entered three consecutive times, the user will be locked out of the device for 24 hours. Enter the password carefully to avoid lockout.**

The LifeSafety Power NPR License Agreement screen will appear. Read this agreement and if you agree, click "Accept" (See Figure 6). The NPR Home Page should appear (See Figure 7).

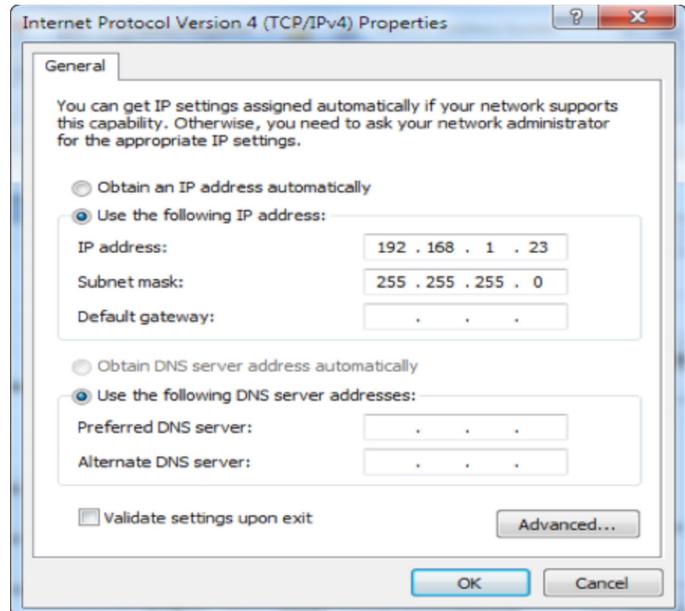


Figure 4: Example of a PC Ethernet port setting window

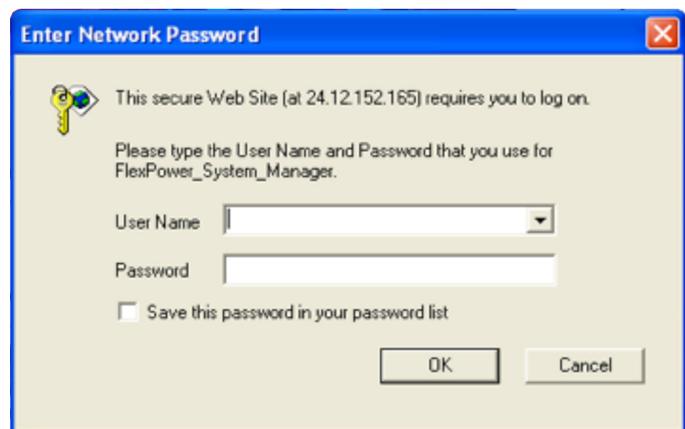


Figure 5: PowerComPoE user login dialog box

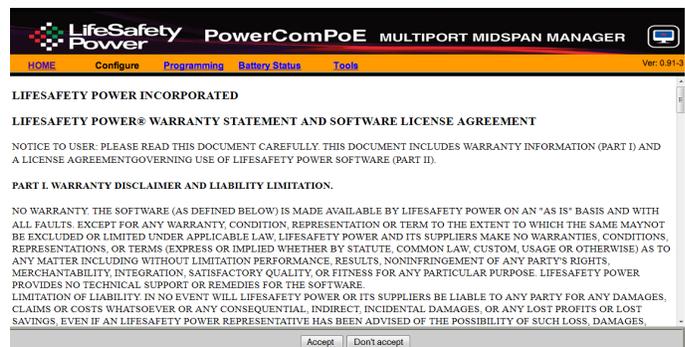


Figure 6: The NPR License Agreement Window

**LifeSafety Power** **PowerCom**® POE MIDSPAN MANAGER

HOME [Configure](#) [Programming](#) [Tools](#) [msmLog Out](#) Ver: 1.19

MODEL: NPR250-16M Site ID: NPR Demo Total Power: 223.76W  
 Date: Thu Mar 28 2019 Time: 09:56:28

Port	Priority	Ext.Control	Device	Enable	Voltage	Current	Power	Class	Status
<input type="checkbox"/> 1	0 ▾	<input type="checkbox"/> 1	Camera #1	On	54.46V	515.3mA	28.06W	4	Normal
<input type="checkbox"/> 2	1 ▾	<input type="checkbox"/> 2	Camera #2	On	54.68V	500.0mA	27.34W	4	Normal
<input type="checkbox"/> 3	2 ▾	<input type="checkbox"/> 3	Camera #3	On	54.50V	504.5mA	27.50W	4	Normal
<input type="checkbox"/> 4	3 ▾	<input type="checkbox"/> 4	Camera #4	On	54.76V	521.1mA	28.54W	4	Normal
<input type="checkbox"/> 5	4 ▾	<input type="checkbox"/> 5	Camera #5	On	54.95V	494.4mA	27.17W	4	Normal
<input type="checkbox"/> 6	5 ▾	<input type="checkbox"/> 6	Camera #6	On	54.90V	521.0mA	28.60W	4	Normal
<input type="checkbox"/> 7	6 ▾	<input type="checkbox"/> 7	Camera #7	On	54.84V	512.8mA	28.12W	4	Normal
<input type="checkbox"/> 8	7 ▾	<input type="checkbox"/> 8	Camera #8	On	54.91V	517.8mA	28.43W	4	Normal
<input type="checkbox"/> 9	8 ▾	<input type="checkbox"/> 9		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 10	9 ▾	<input type="checkbox"/> 10		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 11	10 ▾	<input type="checkbox"/> 11		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 12	11 ▾	<input type="checkbox"/> 12		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 13	12 ▾	<input type="checkbox"/> 13		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 14	13 ▾	<input type="checkbox"/> 14		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 15	14 ▾	<input type="checkbox"/> 15		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 16	15 ▾	<input type="checkbox"/> 16		Off	0.00V	0.0mA	0.00W	N/A	Disabled

MCU VER:1.5 Enable selected ports Disable selected ports Enable all ports Disable all ports Save setting

Figure 7: PowerComPoE opening (HOME) page

## 2.3 Configuring the TCP/IP Settings

In the menu bar at the top of the browser screen, click the "Configure" link. Figure 8 shows the top half of the Configure page.

At the top left of the Configure page is the "TCP/IP Setting" area. The settings in this area include:

### **Site ID**

Entered by user. Enter any meaningful name to identify the NPR midspan unit. This name will be displayed on the HOME page.

### **IP Address**

The factory default IP address is set to 192.168.1.9. This address may be changed to any valid IP address. In the event the IP address is later forgotten, press the "Reset" button on the front panel of the NPR for 6 seconds and the IP address, default user name, and default password will be reset to factory default values.

### **Net Mask**

Should typically be set to 255.255.255.0

### **MAC address**

The MAC Address is factory set and is not programmable by the user.

### **Gateway IP**

The default gateway is 192.168.1.1. This value may be changed by the user - consult with your IT department for more information.

### **DNS0, DNS1**

The default value for DNS0 and DNS1 are 192.168.1.1. These values may be changed by the user - consult with your IT department for more information.

### **Enable DHCP**

Normally, this option is left unchecked, however in some cases you may want to allow the network to assign an IP address to the NPR. However, please note that **once you select this option, you will need a network scanning tool to find the NPR's IP address before you will be able to log into the NPR and that the IP address of the NPR may change periodically.**

You must click the "Submit" button at the bottom right of this area to save the changes in this section. The new setting will take effect after the NPR is power cycled, or rebooted.

## 2.4 Configuring the Administration Settings

The Administration Settings block (See Figure 8) is where the time and date are programmed into the NPR. 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 two 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., 7AM = 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 NPR to match the computer currently being used to access the NPR. The new date and time will take effect immediately.

You must click the "Submit" button to save the time and date settings.

## 2.5 MSM Settings

These settings are used when connecting the NPR to an MSM Enterprise server. Enter the IP address of the MSM Server in the "IP Address" field. Set the Port number as appropriate (typically 9888). Click Submit when done to save the settings. Consult the MSM Enterprise manual for more information.

## 2.6 Configuring the SNMP Settings

In the SNMP Setting block, under the "Basic" heading, set Read and Write Community to "public" and set Location to a meaningful name of your choice. This entry will help you identify the specific NPR when multiple NPRs are installed on the same subnet. This entry will be read by an SNMP system as "syslocation", OID .1.3.6.1.2.1.1.6. The port used for SNMP may also be changed in this section (161 Default). Be sure to open the SNMP port if accessing SNMP outside your firewall. Below the port number setting, select the trap type (Trap or Inform). Click the "Submit" button at the bottom of the "Basic" section to save the settings, otherwise you will lose the settings. These settings will take effect after a reboot of the NPR.

The "Security Name" section of the SNMP Setting block allows you to grant only specified computers (by IP address) SNMP v1 and v2 access. Since v1 and v2 do not have password protection, the Security Name settings add security to v1 and v2 access. The web server is password protected and a user must have the web server password in order to setup a computer in the Security Name settings and gain v1 and v2 access. Multiple source networks can be added to the Security Name Setting block. Be sure to click the "Sub-



mit" button to save the settings. The settings will take effect after a reboot of the NPR.

The "V3 User" section of the SNMP Setting block allows for a user to set up an SNMP v3 user name and password. With a user name and password, the NPR may be accessed from anywhere via the internet by using the SNMP v3 protocol. No security name setup is required for v3 users and multiple v3 users may be set up in the same table. Click the "Submit" button to save the settings, which will take effect after rebooting the NPR.

The SNMP Trap Receiver IP and Port settings should be set to the proper address for the SNMP Trap receiver. Click the "Submit" button and reboot the NPR for the settings to take effect. The SNMP Trap Version may be selected using "Select Trap Version".

The screenshot displays the configuration interface for a PowerCom PoE Midspan Manager. The page is titled "PowerCom® POE MIDSPAN MANAGER" and includes navigation links for HOME, Configure, Programming, and Tools. The current site is identified as "NPR Demo" with a date of "Thu Mar 28 2019" and a time of "07:37:04".

**TCP/IP Setting**

- Site ID: NPR Demo
- IP Address: 192.168.1.36
- Net Mask: 255.255.255.0
- MAC Address: 00:02:AC:55:CB:F9
- Gateway IP Address: 192.168.1.1
- DNS0 IP Address: 192.168.1.1
- DNS1 IP Address: 192.168.1.1
- Port #: 86
- Enable DHCP:
- Disable HTTP:

**Administration Setting**

- Select timezone: (GMT-06:00)Central Time(US&Canada)
- Insert Date: Year 2019, Mon 03, Day 28
- Insert Time: Hour 07, Min 34, Sec 03
- Sync Date/Time with computer:

**MSM Setting**

- IP Address: 54.156.45.89
- Port#: 9888

**SNMP Setting**

Basic	Security Name		V3 User	
Community	Name	Source Network	User Name	Password
public	mynetwork	192.168.1.0/24	lsp	12345678
Location: LSP				
Submit	Submit	Delete	Submit	Delete

**SNMP Trap Receiver**

IP	Port
Submit	Delete

Figure 8: Top half of the PowerComPoE Configure page

## 2.7 Configuring the Email Settings

The NPR 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 (See Figure 9).

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.

Under "Sender", the settings of the account to send the emails should be entered. These settings include:

<b>Sender SMTP Server</b>	This is the address of the SMTP server for the email provider. Consult with your email provider for this address.
<b>Sender's Email</b>	This is the email address which the NPR will use to send emails.
<b>Sender Email Password</b>	This is the password associated with the Sender's Email account
<b>TLS</b>	Check this box if your email provider requires TLS or SSL encryption
<b>SMTP Port #</b>	Enter the port number required by your email provider for sending email. Usually this is "25"
<b>Authentication</b>	Choose the proper authentication method for your email provider from the drop-down list. Usually, this is "login". Select "off" to completely disable authentication.
<b>Send Period</b>	Selects how often the NPR sends a regular email status report. The period can vary from 1 hour to 6 months or, if you do not want the NPR to send periodic reports, select "Never". Note that the "Send Period" setting does not affect the sending of email alerts generated on faults or events selected by the user, only the periodic status report.

**⚠ Note:** *Regarding Microsoft Exchange – By Default, Microsoft Exchange will not accept SMTP connections. To use the NPR'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 NPR.**

**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 NPR, so that the CSV file will still be available via regular email.*

## 2.8 The Email Test Section

Below the Email Settings section is the Email Test section. (See Figure 9) After configuring the email settings, the Email Test button will send a test email to all Email Receive addresses. Please note that it could take an hour or more to receive the email, depending on the speed of your email server. Clicking the Show Email Log button will show the feedback from the email server. This can be useful for diagnosing email problems.

## 2.9 VPN Settings

The VPN Settings section is for the discontinued MSM-200 hardware VPN (See Figure 9). The MSM-200 has been replaced with MSM-Enterprise. If connecting to an existing MSM-200 system, see the MSM-200 manual for more information.



# PowerCom<sup>®</sup> POE MIDSPAN MANAGER

[HOME](#)   [Configure](#)   [Programming](#)   [Tools](#)   [msmLog Out](#)   Ver: 1.19

---

**Email Setting**

**Receive Addresses**

E-Mail Address 1:

E-Mail Address 2:

E-Mail Address 3:

E-Mail Address 4:

**Sender**

Sender SMTP Server:

Sender EMAIL:

Sender EMAIL Password:

TLS:

SMTP Port #:

Authentication:

Send Period:

---

**Email Test**

---

**VPN Setting**

**EnableRemoteVPNServer**

**IP Address**

**User Name**

**Password**

---

**User Setting**

**Authorization**

**User Name**

**Password**

**Verify Password**

**Password Complexity**

Normal complexity: Password must have at least 1 uppercase letter, 1 lowercase letter, 1 number and total length at least 8 characters.

Enhanced complexity: Password must have at least 1 uppercase letter, 1 lowercase letter, 1 special character, 1 number and total length at least 14 characters.

---

**Import and Export Configuration File**

Figure 9: Bottom half of the PowerComPoE Configure page

## 2.10 User Settings

In the User Settings block of the Configure screen (bottom of Figure 9), you can enter the user names, passwords, access levels, and password complexity for the NPR.

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 NPR. There are no restrictions.
- **Manager** - Manager-level users have access to all areas of the NPR except for the Configure page.
- **Guest** - Guest-level users may only view information on the NPR 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.

## 2.11 Import and Export Configuration File

The NPR allows the user to export the settings that are configured in the NPR to a file. This file can be used as a backup or to transfer these settings to other NPR devices that require similar settings. The settings exported include:

- Time Settings, MSM Settings, SNMP Settings, VPN Settings, User Settings, Zone Programming

To export the settings, click the Export Configuration File button (See Figures 9). The exported file saves to the default download location of the browser.

To import a configuration file, click the Import Configuration File button to open the Import Settings screen.

Click the Choose File button and select the configuration file to be imported. Click Download, then Confirm to import the settings.

## 2.12 The Programming Page

Figure 10 shows the Programming page of the PowerCom-PoE management software.

The programming page allows users to set optional upper and lower limits for the measured voltage and current of each port. If any of these limits are exceeded, and the "E-Mail Alert" box is checked for the port, an email will be sent to the address configured in Section 2.8 of this manual. This email includes an attached CSV file containing all of the data in the HOME page. **NOTE:** *The email settings must be configured properly. See Section 2.8 of this manual.*

**"Fill All" Button** (top) - This button will take all settings from Zone 1 and copies them to all other zones.

**"Fill All" Buttons** (column) - Each column has a "Fill All" button. This button takes the setting from Zone 1 of that column only and copies it to all other zones.

**"Import Settings" Button** - This button opens a page allowing you to select an NPR Configuration file to import. Click the Browse button to select the file, then click open. After selecting the file, click "Download" then "Confirm".

**"Export Settings" Button** - This button saves the configuration of the NPR zones to a file, which may be imported to other NPRs. If prompted after clicking, select "Save File".

**NOTE:** *The upper and lower limits entered must be within the allowed range. For voltage limits, the range is 0 to 60V. For current limits, the range is 0 to 638mA.*



# PowerCom<sup>®</sup> POE MIDSPAN MANAGER

[HOME](#)   [Configure](#)   [Programming](#)   [Tools](#)   [msmLog Out](#)   Ver: 1.19

MODEL: NPR250-16M   Site ID:    Date:    Time:

Save Setting   Fill All   Export Setting   Import Setting

Port No.	V-Lower Limit (V)	V-Upper Limit (V)	I-Lower Limit (mA)	I-Upper Limit (mA)	E-Mail Alert
	<span style="background-color: cyan; padding: 2px 10px;">Fill All</span>				
1	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
2	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
3	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
4	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
5	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
6	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
7	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
8	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
9	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
10	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
11	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
12	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
13	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
14	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
15	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>
16	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>

Figure 10: The Programming page of PowerComPoE

## Section 3 – Using the NPR

### 3.1 Viewing System Parameters on the NPR Home Page

The Home Page is shown in Figure 11. To access the Home Page, click "Home" in the menu bar at the top of the page.

The top of the home page shows general information:

**Model Number**

This field displays the model number of the NPR being accessed.

**Site ID**

This field is a descriptive name for the NPR unit being accessed and is set by the user on the Configure page.

**Date and Time**

This field shows the date and time as set up by the user in the Configure page.

Below the general information area is the port information and control area:

**Port**

This column lists the port numbers with a checkbox to the left of each number. The port numbers in this column refer the port numbers on the front panel of the NPR. Click the checkboxes to select one or more ports for enabling or disabling. Click the checkboxes again to deselect the port.

**Priority**

This column allows users to set a priority for each port. For each port there is a corresponding priority drop-down list where a priority between 0 and 15 can be selected (where "0" is the highest priority and "15" is the lowest priority). After the priorities are set, the "Save set-

Port	Priority	Ext.Control	Device	Enable	Voltage	Current	Power	Class	Status
<input type="checkbox"/> 1	0	<input type="checkbox"/> 1	Camera #1	On	54.46V	515.3mA	28.06W	4	Normal
<input type="checkbox"/> 2	1	<input type="checkbox"/> 2	Camera #2	On	54.68V	500.0mA	27.34W	4	Normal
<input type="checkbox"/> 3	2	<input type="checkbox"/> 3	Camera #3	On	54.50V	504.5mA	27.50W	4	Normal
<input type="checkbox"/> 4	3	<input type="checkbox"/> 4	Camera #4	On	54.76V	521.1mA	28.54W	4	Normal
<input type="checkbox"/> 5	4	<input type="checkbox"/> 5	Camera #5	On	54.95V	494.4mA	27.17W	4	Normal
<input type="checkbox"/> 6	5	<input type="checkbox"/> 6	Camera #6	On	54.90V	521.0mA	28.60W	4	Normal
<input type="checkbox"/> 7	6	<input type="checkbox"/> 7	Camera #7	On	54.84V	512.8mA	28.12W	4	Normal
<input type="checkbox"/> 8	7	<input type="checkbox"/> 8	Camera #8	On	54.91V	517.8mA	28.43W	4	Normal
<input type="checkbox"/> 9	8	<input type="checkbox"/> 9		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 10	9	<input type="checkbox"/> 10		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 11	10	<input type="checkbox"/> 11		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 12	11	<input type="checkbox"/> 12		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 13	12	<input type="checkbox"/> 13		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 14	13	<input type="checkbox"/> 14		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 15	14	<input type="checkbox"/> 15		Off	0.00V	0.0mA	0.00W	N/A	Disabled
<input type="checkbox"/> 16	15	<input type="checkbox"/> 16		Off	0.00V	0.0mA	0.00W	N/A	Disabled

Figure 11: Home page of PowerComPoE

ting” button at the bottom right of the HOME page must be clicked to save the priority settings.

When the total power drawn from the NPR exceeds the rated value (ex. 270W for the NPR250), the lowest priority ports will begin disabling to prevent the NPR from overloading. **NOTE:** *Each port can supply a maximum of 30W of power per the IEEE 802.3at standard provided that the total power drawn does not exceed rated power for the NPR model used.*

**NOTE:** *If two or more ports have the same priority selected, the NPR will disable the lowest number port first (i.e. Port 1 will disable, then Port 2 if both are set to the same priority).*

### **Ext. Control**

This column allows users to select which ports will be controlled by the "External Control" input terminals on the front panel of the NPR. When the External Control terminals are activated (by an access control panel, switch, or other device), the ports that are selected will disable. After checking the ports, save the selection by clicking the "Save setting" button at the bottom right of the HOME page.

### **Device**

This column allows the user to enter names for the PoE compatible devices connected to each output port of the NPR. The maximum length of the entry is 20 characters. After entering the names, click the "Save setting" button at the bottom of the HOME page.

### **Enable**

This column shows the enable/disable state of each port. If a port is enabled, the display shows "On". If a port is disabled, the display will show "Off". See the Enable and Disable button sections of this manual for more information.

### **Voltage**

This column displays the measured PoE port output voltage for each port in volts.

### **Current**

This column displays the measured PoE port output current for each port in milliamps.

### **Power**

This column displays the calculated power output of each PoE port in watts.

### **Class**

This column displays the power class of each port. The "power class" information is provided by the connected Powered Device (such as a PoE compatible IP camera) during the power interface between the PoE midspan injector and the Powered Device. When a port is not connected to a load (Powered Device), or when a port is disabled, the class display shows "N/A".

### **Status**

This column displays the status of each output port. When a port is normal (a Powered Device is drawing power within the specified limits), the corresponding status will display "Normal" with a green background. If there are any fault conditions or the port is disabled by the "External Control" signal, the corresponding status will display "Fault" with a yellow background. If a port is disabled by the PowerComPoE GUI, the corresponding status will display "Disabled" with a grey background.

Underneath the data table, there are five buttons. Their functions are described below:

### **Enable selected ports**

Clicking this button enables any ports whose checkbox in the "Port" column is checked. After the button is clicked, any ports selected in the "Port" column will be deselected.

### **Disable selected ports**

Clicking this button disables any ports whose checkbox in the "Port" column is checked. After the button is clicked, any ports selected in the "Port" column will be deselected. This function is useful for momentarily cycling power to frozen PoE cameras or other devices.

### **Enable all ports**

Clicking this button will enable all output ports of the NPR midspan.

### **Disable all ports**

Clicking this button will disable all output ports of the NPR midspan.

### **Save setting**

Clicking this button will save the settings in the Priority, Ext. Control and Device columns.

## 3.2 The Tools page

### Upgrading Firmware

The Upgrade Firmware section is at the top left of the Tools page (See Figure 12). To upgrade the firmware, first ensure that the new firmware file is available on your computer, then click the "Upgrade" button and the Upgrade window will appear.

Click the "Browse..." button and locate the new firmware file with the file extension ".bin" on your computer. Once the file is selected, click "Open". Click the "Download" button to temporarily download the new firmware into the RAM of the NPR. This process will take from 30 seconds to one minute, depending on network speed and traffic and the message box will display "Downloading...". Once the firmware is loaded into the NPR's RAM, it can then be burned to the processor in the NPR. Verify the correct file name and click the "Confirm" button to confirm the upgrade. Next click the "Burn" button to begin burning

the firmware to the NPR's processor. This process may take up to 12 minutes - **DO NOT REMOVE POWER TO THE NPR DURING THIS PROCESS** or the NPR will be rendered nonfunctional.

Once the update is complete, a message will appear in the message box indicating "Update Finished". The NPR must be rebooted in order to start the new firmware.

### Rebooting the NPR

The "Reboot" section is on the top right of the Tools page (See Figure 12). To reboot the NPR, click the "Submit" button.

Once the "Confirm Reboot" message appears in the Message window, click the OK button to Confirm the reboot. The rebooting process will take approximately 1 minute, during which you will lose communication with the NPR. Communication will be restored once the yellow LED lights steady.

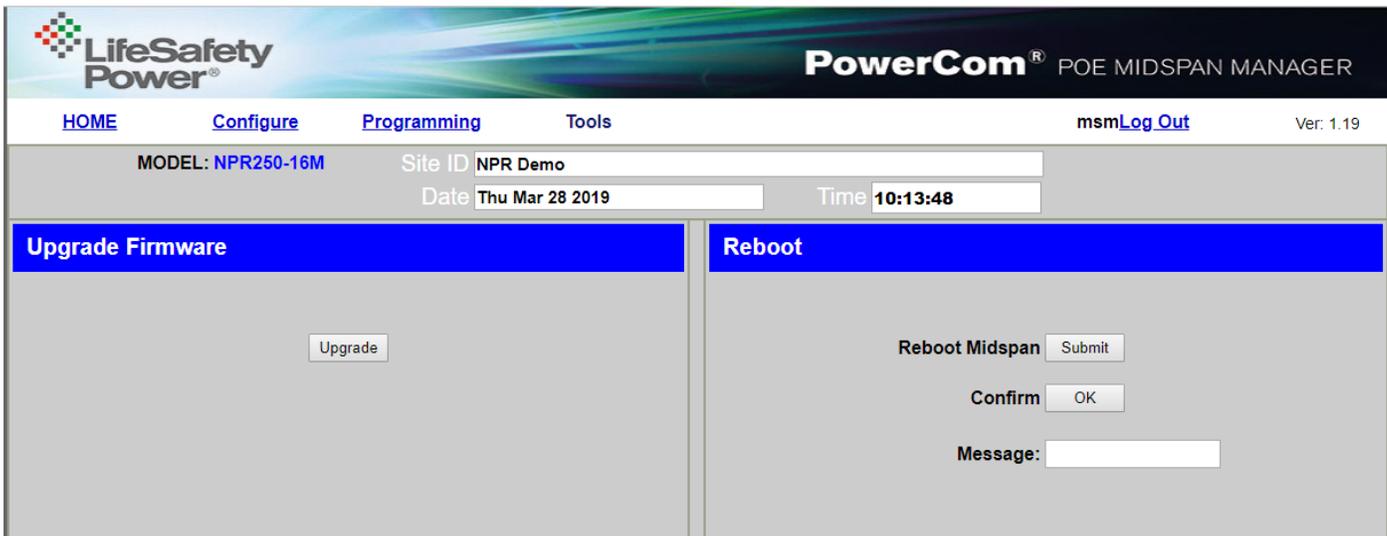


Figure 12: The Tools page of PowerComPoE



# Appendix 1 – Software Agreement

## LIFESAFETY POWER INC. SOFTWARE LICENSE AGREEMENT AND WARRANTY STATEMENT

NOTICE: PLEASE READ THIS DOCUMENT CAREFULLY. This Software License Agreement (“AGREEMENT”) defines and governs use of LIFESAFETY POWER INC. Software and includes WARRANTY DISCLAIMERS. Your acceptance of this AGREEMENT is an acknowledgement, representation and warranty that you have the full right and authority to enter into, execute, and perform obligations under this AGREEMENT, or that you have the authority to enter into and execute this AGREEMENT as an Authorized Representative of a business entity or corporate entity and to bind that business entity or corporate entity to perform obligations under this AGREEMENT by your acceptance, acknowledgment and representation.

### TERMS AND CONDITIONS

#### 1. Definitions.

(a) “Authorized Representative” refers to any person duly authorized by a business entity or corporate entity (i.e. a “legal entity”) to enter into this AGREEMENT and to bind the legal entity to the terms and conditions herein.

(b) “Recipient” refers to any individual or legal entity, entering into and executing this AGREEMENT for purposes of use of LIFESAFETY POWER INC. Software, where “use” is as defined by this AGREEMENT.

(c) “Documentation” refers to any related explanatory written materials or files including, without limitation, any end-user manual, specifications or other written materials provided to Recipient for the Software.

(d) “Facility” refers to any facility where LIFESAFETY POWER INC. Equipment is located and/or where the Software is installed or used under control of Recipient in conjunction with such Equipment.

(e) “Software” refers to all the contents of files provided to Recipient by electronic download, on physical media (including EEPROM or ROM chips etc.) and/or any other method of distribution, disk(s), CD-ROM(s), DVD-ROM(s), or other media with which this AGREEMENT is provided, including, without limitation, fonts, graphics, user-interfaces, Upgrades, updates, additions to, and any copies of the foregoing, provided to Recipient by LIFESAFETY POWER INC.

(f) “Upgrades” refers to new versions, updates, and revisions of the Software provided to Recipient by LIFESAFETY POWER INC.

(g) “Use” refers to actions taken exclusively by Recipient to copy for backup purposes, download, install, access, and to enjoy and benefit from features and functionality of the Software, subject to all restrictions set forth in this Agreement.

#### 2. License and Restrictions.

(a) Grant of Rights. LIFESAFETY POWER INC. hereby grants Recipient a non-exclusive license to have one (1) copy of the Software in Recipient’s possession and control at one (1) facility of Recipient. Recipient may install the Software and may access the Software by concurrent users over a network connection in accordance with the Documentation. Recipient may also make one (1) additional copy for backup or archival purposes at one (1) Recipient facility which may be a different Recipient facility from where the other Software copy is installed and used. Recipient may also Upgrade the Software subject to Upgrades that may be provided from time-to-time by LIFESAFETY POWER INC. at its sole discretion. The Software, subsequent to any Upgrade, shall be subject to the same terms, conditions and restrictions as provided herein, and shall also be subject to any other applicable modifications or amendments to this AGREEMENT that may accompany the Upgrade as provided for herein. Recipient shall comply with all restrictions set forth in this AGREEMENT.

(b) Reservation of Rights. Copies of the Software created or transferred pursuant to this Agreement are licensed, not sold, and Recipient receives no title to, or ownership of, any copy or of the Software itself. The Software is protected by copyright laws, and by international treaty provisions, and includes trade secrets of LIFESAFETY POWER INC., and Recipient shall not disclose it to any third party except to the extent required by law. Furthermore, Recipient receives no intellectual property rights or any other rights to the Software other than those specifically granted in Section 2(a). Any rights not expressly granted in Section 2(a) are reserved by LIFESAFETY POWER INC.

(c) Restrictions. Without limiting the generality of the foregoing, Recipient shall not: (i) modify, create derivative works from, distribute, publicly display, publicly perform, or sublicense the Software; (ii) use the Software for service bureau or time-sharing purposes or in any other way allow third parties to exploit

the Software; or (iii) reverse engineer, decompile, disassemble, or otherwise attempt to derive any of the Software’s source code.

(d) No Distribution, No Modification, No Derivative Works. Recipient shall not network, rent, lend, loan, distribute or create derivative works based upon the Software in whole or in part; or electronically transmit the Software from one computer to another or over a network. Recipient shall not modify, adapt, translate or create derivative works based upon the Software.

(e) No Reverse Engineering. Recipient shall not engage in, or induce a third party to engage in, reverse engineering of the Software. “Reverse Engineering” means i) the disassembly, decompilation, decryption, simulation, debugging or code tracing of microcode; and/or ii) the disassembly, decompilation, decryption, simulation, debugging or coded tracing of object code or executable code, specifically including, but not limited to, any LIFESAFETY POWER INC. supplied or developed libraries or microcode. Regarding any of LIFESAFETY POWER INC.’s software and/or firmware “Reverse Engineering” shall also mean iii) the act of producing computer program “source code” that, when compiled, will generate computer programs that provide the same, or similar functions as the Software, by means of translating the object code, which may be provided by LIFESAFETY POWER INC. under this Agreement, (including object code in ROM memory chips as well as object code provided on computer-readable magnetic media or object code provided by downloading, from the computer binary instructions into equivalent programming language instructions, in assembly language or other computer programming language). This term is also intended to include the development of software that incorporates the methods, techniques, styles and approaches of the Software, while performing similar functions.

(f) No Exportation. Recipient shall not ship, transfer or export the Software into any country or use the Software in any manner prohibited by the United States Export Administration Act or any other export laws, restrictions or regulations (collectively the “Export Laws”). In addition, if the Software is identified as export controlled items under the Export Laws, you represent and warrant that you are not a citizen, or otherwise located within, an embargoed nation (including without limitation Iran, Syria, Sudan, Cuba, and North Korea) and that you are not otherwise prohibited under the Export Laws from receiving the Software. All rights to use the Software are granted on condition that such rights are forfeited if you fail to comply with the terms of this agreement.

(g) Assignment & Successors. The rights and obligations under this AGREEMENT may not be assigned, without the express prior written consent of all the Parties, provided, however, consent to assignment of the rights and obligations hereunder as part of the sale of a Recipient’s entire business relevant to this AGREEMENT shall not be required. Furthermore, either party may assign this AGREEMENT to the surviving party in a merger of that party into another entity. Inure to the extent forbidden above, this AGREEMENT will be binding upon and inure to the benefit of the respective successors and assigns of the parties.

(h) Third Party Interoperability. The Software may interoperate with and allow you to use software applications, information and data not developed or offered by LIFESAFETY POWER INC. (“Third Party Information”). Your use of any Third Party Information is governed by the terms and conditions made available to you by the party from whom you obtained such information. Unless otherwise agreed by LIFESAFETY POWER INC. in writing, Third Party Information is not the responsibility of LIFESAFETY POWER INC. YOUR USE OF THIRD PARTY INFORMATION IS AT YOUR OWN RISK. LIFESAFETY POWER INC. MAKES NO WARRANTIES, CONDITIONS, INDEMNITIES, REPRESENTATIONS OR TERMS, EXPRESS OR IMPLIED, WHETHER BY STATUTE, COMMON LAW, CUSTOM, USAGE OR OTHERWISE AS TO ANY MATTERS, INCLUDING BUT NOT LIMITED TO NON-INFRINGEMENT OF THIRD PARTY RIGHTS, TITLE, INTEGRATION, INTEROPERABILITY, ACCURACY, SECURITY, AVAILABILITY, SATISFACTORY QUALITY, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH RESPECT TO THIRD PARTY INFORMATION.

(i) Notices. Recipient shall not remove or alter any copyright, trademark or other proprietary notice that appears on or in the Software.

(j) Software License Compliance Audit. LIFESAFETY POWER INC. may audit Recipient’s use of the Software on thirty (30) days’ advanced written notice. Recipient agrees to cooperate with the audit, including by providing access to any books, computers, records, or other information that relate or may relate to use of the Software. Such audit will not unreasonably interfere with Recipient’s business activities. In the event that an audit reveals unauthorized use of the Software,

# Appendix 1 – Software Agreement - continued

## LIFESAFETY POWER INC. SOFTWARE LICENSE AGREEMENT AND WARRANTY STATEMENT

NOTICE: PLEASE READ THIS DOCUMENT CAREFULLY. This Software License Agreement (“AGREEMENT”) defines and governs use of LIFESAFETY POWER INC. Software and includes WARRANTY DISCLAIMERS. Your acceptance of this AGREEMENT is an acknowledgement, representation and warranty that you have the full right and authority to enter into, execute, and perform obligations under this AGREEMENT, or that you have the authority to enter into and execute this AGREEMENT as an Authorized Representative of a business entity or corporate entity and to bind that business entity or corporate entity to perform obligations under this AGREEMENT by your acceptance, acknowledgment and representation.

### TERMS AND CONDITIONS

#### 1. Definitions.

- (a) “Authorized Representative” refers to any person duly authorized by a business entity or corporate entity (i.e. a “legal entity”) to enter into this AGREEMENT and to bind the legal entity to the terms and conditions herein.
- (b) “Recipient” refers to any individual or legal entity, entering into and executing this AGREEMENT for purposes of use of LIFESAFETY POWER INC. Software, where “use” is as defined by this AGREEMENT.
- (c) “Documentation” refers to any related explanatory written materials or files including, without limitation, any end-user manual, specifications or other written materials provided to Recipient for the Software.
- (d) “Facility” refers to any facility where LIFESAFETY POWER INC. Equipment is located and/or where the Software is installed or used under control of Recipient in conjunction with such Equipment.
- (e) “Software” refers to all the contents of files provided to Recipient by electronic download, on physical media (including EEPROM or ROM chips etc.) and/or any other method of distribution, disk(s), CD-ROM(s), DVD-ROM(s), or other media with which this AGREEMENT is provided, including, without limitation, fonts, graphics, user-interfaces, Upgrades, updates, additions to, and any copies of the foregoing, provided to Recipient by LIFESAFETY POWER INC.
- (f) “Upgrades” refers to new versions, updates, and revisions of the Software provided to Recipient by LIFESAFETY POWER INC.
- (g) “Use” refers to actions taken exclusively by Recipient to copy for backup purposes, download, install, access, and to enjoy and benefit from features and functionality of the Software, subject to all restrictions set forth in this Agreement.

#### 2. License and Restrictions.

- (a) **Grant of Rights.** LIFESAFETY POWER INC. hereby grants Recipient a non-exclusive license to have one (1) copy of the Software in Recipient’s possession and control at one (1) facility of Recipient. Recipient may install the Software and may access the Software by concurrent users over a network connection in accordance with the Documentation. Recipient may also make one (1) additional copy for backup or archival purposes at one (1) Recipient facility which may be a different Recipient facility from where the other Software copy is installed and used. Recipient may also Upgrade the Software subject to Upgrades that may be provided from time-to-time by LIFESAFETY POWER INC. at its sole discretion. The Software, subsequent to any Upgrade, shall be subject to the same terms, conditions and restrictions as provided herein, and shall also be subject to any other applicable modifications or amendments to this AGREEMENT that may accompany the Upgrade as provided for herein. Recipient shall comply with all restrictions set forth in this AGREEMENT.
- (b) **Reservation of Rights.** Copies of the Software created or transferred pursuant to this Agreement are licensed, not sold, and Recipient receives no title to, or ownership of, any copy or of the Software itself. The Software is protected by copyright laws, and by international treaty provisions, and includes trade secrets of LIFESAFETY POWER INC., and Recipient shall not disclose it to any third party except to the extent required by law. Furthermore, Recipient receives no intellectual property rights or any other rights to the Software other than those specifically granted in Section 2(a). Any rights not expressly granted in Section 2(a) are reserved by LIFESAFETY POWER INC.
- (c) **Restrictions.** Without limiting the generality of the foregoing, Recipient shall not: (i) modify, create derivative works from, distribute, publicly display, publicly perform, or sublicense the Software; (ii) use the Software for service bureau or time-sharing purposes or in any other way allow third parties to exploit

the Software; or (iii) reverse engineer, decompile, disassemble, or otherwise attempt to derive any of the Software’s source code.

- (d) **No Distribution, No Modification, No Derivative Works.** Recipient shall not network, rent, lend, loan, distribute or create derivative works based upon the Software in whole or in part; or electronically transmit the Software from one computer to another or over a network. Recipient shall not modify, adapt, translate or create derivative works based upon the Software.
- (e) **No Reverse Engineering.** Recipient shall not engage in, or induce a third party to engage in, reverse engineering of the Software. “Reverse Engineering” means i) the disassembly, decompilation, decryption, simulation, debugging or code tracing of microcode; and/or ii) the disassembly, decompilation, decryption, simulation, debugging or coded tracing of object code or executable code, specifically including, but not limited to, any LIFESAFETY POWER INC. supplied or developed libraries or microcode. Regarding any of LIFESAFETY POWER INC.’s software and/or firmware “Reverse Engineering” shall also mean iii) the act of producing computer program “source code” that, when compiled, will generate computer programs that provide the same, or similar functions as the Software, by means of translating the object code, which may be provided by LIFESAFETY POWER INC. under this Agreement, (including object code in ROM memory chips as well as object code provided on computer-readable magnetic media or object code provided by downloading, from the computer binary instructions into equivalent programming language instructions, in assembly language or other computer programming language). This term is also intended to include the development of software that incorporates the methods, techniques, styles and approaches of the Software, while performing similar functions.
- (f) **No Exportation.** Recipient shall not ship, transfer or export the Software into any country or use the Software in any manner prohibited by the United States Export Administration Act or any other export laws, restrictions or regulations (collectively the “Export Laws”). In addition, if the Software is identified as export controlled items under the Export Laws, you represent and warrant that you are not a citizen, or otherwise located within, an embargoed nation (including without limitation Iran, Syria, Sudan, Cuba, and North Korea) and that you are not otherwise prohibited under the Export Laws from receiving the Software. All rights to use the Software are granted on condition that such rights are forfeited if you fail to comply with the terms of this agreement.
- (g) **Assignment & Successors.** The rights and obligations under this AGREEMENT may not be assigned, without the express prior written consent of all the Parties, provided, however, consent to assignment of the rights and obligations hereunder as part of the sale of a Recipient’s entire business relevant to this AGREEMENT shall not be required. Furthermore, either party may assign this AGREEMENT to the surviving party in a merger of that party into another entity. Except to the extent forbidden above, this AGREEMENT will be binding upon and inure to the benefit of the respective successors and assigns of the parties.
- (h) **Third Party Interoperability.** The Software may interoperate with and allow you to use software applications, information and data not developed or offered by LIFESAFETY POWER INC. (“Third Party Information”). Your use of any Third Party Information is governed by the terms and conditions made available to you by the party from whom you obtained such information. Unless otherwise agreed by LIFESAFETY POWER INC. in writing, Third Party Information is not the responsibility of LIFESAFETY POWER INC. YOUR USE OF THIRD PARTY INFORMATION IS AT YOUR OWN RISK. LIFESAFETY POWER INC. MAKES NO WARRANTIES, CONDITIONS, INDEMNITIES, REPRESENTATIONS OR TERMS, EXPRESS OR IMPLIED, WHETHER BY STATUTE, COMMON LAW, CUSTOM, USAGE OR OTHERWISE AS TO ANY MATTERS, INCLUDING BUT NOT LIMITED TO NON-INFRINGEMENT OF THIRD PARTY RIGHTS, TITLE, INTEGRATION, INTEROPERABILITY, ACCURACY, SECURITY, AVAILABILITY, SATISFACTORY QUALITY, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH RESPECT TO THIRD PARTY INFORMATION.
- (i) **Notices.** Recipient shall not remove or alter any copyright, trademark or other proprietary notice that appears on or in the Software.
- (j) **Software License Compliance Audit.** LIFESAFETY POWER INC. may audit Recipient’s use of the Software on thirty (30) days’ advanced written notice. Recipient agrees to cooperate with the audit, including by providing access to any books, computers, records, or other information that relate or may relate to use of the Software. Such audit will not unreasonably interfere with Recipient’s business activities. In the event that an audit reveals unauthorized use of the Software,



## Appendix 1 – Software Agreement - continued

Recipient shall reimburse LIFESAFETY POWER INC. for the reasonable cost of the audit, in addition to such other rights and remedies as LIFESAFETY POWER INC. may have. LIFESAFETY POWER INC. will not conduct an audit more than once per year.

(k) Trademarks. No rights whatsoever to use any trademarks, registered or unregistered, are granted by any provision of this AGREEMENT.

### 3. Upgrades.

(a) Upgrades. LIFESAFETY POWER INC. may provide Recipient with copies of Upgrades without additional charge, from time-to-time. Upon delivery to Recipient, Upgrades will become part of the Software and will be subject to all provisions of this AGREEMENT.

(b) Upgrades and Software License Agreement Terms. LIFESAFETY POWER INC. may require additional terms that are additional to this AGREEMENT or that modify or amend this AGREEMENT upon Recipient's installation and use of Upgrades. Any such additional terms, modified or amended terms will require Recipient's execution of a new Agreement which will subsequently replace and supersede this AGREEMENT. Recipient may reject such additional terms, modified or amended terms by not downloading or installing the associated Upgrade(s).

(c) Reservations regarding Upgrades. LIFESAFETY POWER INC. may cease providing Upgrades at any time and/or may cease providing Upgrades without additional charge and may require an additional charge for Upgrades at any point in time without notice. Recipient will be informed of any such additional charges at the time of requesting such Upgrades. Upgrades may be requested by downloading or by requesting other forms of delivery.

### 4. DISCLAIMER OF WARRANTIES.

(a) "AS-IS" SOFTWARE. THE SOFTWARE (AS DEFINED IN THIS AGREEMENT) IS PROVIDED ON AN "AS IS", "AS AVAILABLE" BASIS AND WITH ALL FAULTS.

(b) WARRANTY DISCLAIMERS, NO WARRANTY. LIFESAFETY POWER INC. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, WHETHER BY STATUTE, COMMON LAW, CUSTOM, USAGE OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LIFESAFETY POWER INC. MAKES NO WARRANTIES, CONDITIONS, REPRESENTATIONS, OR TERMS (EXPRESS OR IMPLIED WHETHER BY STATUTE, COMMON LAW, CUSTOM, USAGE OR OTHERWISE) AS TO ANY MATTER INCLUDING WITHOUT LIMITATION PERFORMANCE, RESULTS, NONINFRINGEMENT OF ANY PARTY'S RIGHTS, MERCHANTABILITY, INTEGRATION, SATISFACTORY QUALITY, OR FITNESS FOR ANY PARTICULAR PURPOSE.

(c) LIFESAFETY POWER PROVIDES NO TECHNICAL SUPPORT OR REMEDIES FOR THE SOFTWARE.

(d) LIFESAFETY POWER INC. does not warrant that the Software will perform without error or that it will run without immaterial interruption. LIFESAFETY POWER INC. provides no warranty regarding, and will have no responsibility for, any claim arising out of: (i) a modification of the Software; or (ii) use of the Software in combination with any operating system or Third Party Information not authorized in the Documentation or with hardware or software specifically forbidden by the Documentation.

### 5. LIMITATION OF LIABILITY.

(a) Limitations. Except as provided below: (i) IN NO EVENT WILL LIFESAFETY POWER INC.'S, OR ANY OF ITS OFFICERS', DIRECTORS', SHAREHOLDERS', PARENTS', SUBSIDIARIES', AGENTS', INSURERS', SUCCESSORS', AND/OR ASSIGNS', LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT EXCEED THE AGGREGATE OF FEES PAYABLE TO LIFESAFETY POWER INC. PURSUANT TO THIS AGREEMENT (INCLUDING FEES BOTH PAID AND DUE) AT THE TIME OF THE EVENT GIVING RISE TO THE LIABILITY; AND (ii) IN NO EVENT WILL LIFESAFETY POWER INC. OR ANY OF ITS OFFICERS, DIRECTORS, SHAREHOLDERS, PARENTS, SUBSIDIARIES, AGENTS, INSURERS, SUCCESSORS, AND/OR ASSIGNS BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, INCIDENTAL, OR PUNITIVE DAMAGES. THE LIABILITIES LIMITED BY THIS SUBSECTION 5(a) APPLY: (A) TO LIABILITY FOR NEGLIGENCE; (B) REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, STRICT PRODUCT LIABILITY, OR OTHERWISE; (C) EVEN IF LIFESAFETY POWER INC., AND/OR ANY OF ITS OFFICERS, DIRECTORS, SHAREHOLDERS, PARENTS, SUBSIDIARIES, AGENTS, INSURERS, SUCCESSORS, AND/OR ASSIGNS IS/ARE ADVISED IN ADVANCE OF

THE POSSIBILITY OF THE DAMAGES IN QUESTION AND EVEN IF SUCH DAMAGES WERE FORESEEABLE; AND (D) EVEN IF RECIPIENT'S REMEDIES FAIL OF THEIR ESSENTIAL PURPOSE. If applicable law limits the application of the provisions of this Section 5(a), LIFESAFETY POWER INC.'s liability will be limited to the maximum extent permissible.

(b) Further Limitations. IN NO EVENT WILL LIFESAFETY POWER INC. OR ANY OF ITS OFFICERS, DIRECTORS, SHAREHOLDERS, PARENTS, SUBSIDIARIES, AGENTS, INSURERS, SUCCESSORS, AND/OR ASSIGNS BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, INCIDENTAL, OR PUNITIVE DAMAGES ARISING OUT OF OR RELATED TO ANY OF THE FOLLOWING:

(i) revisions to the Software made without the express, written consent of LIFESAFETY POWER INC.;

(ii) Recipient's failure to incorporate Software Upgrades that would have avoided the alleged liability, provided LIFESAFETY POWER INC. offered such Upgrades without fees or charges and with notice to Recipient thereof;

(iii) use of the Software in combination with hardware or software or Third Party Information not provided by LIFESAFETY POWER INC.: (A) that is specifically forbidden by the Documentation; or (B) that is not designated in the Documentation as available for interface with the Software.

### 6. Term and Termination.

(a) Term. This AGREEMENT shall remain in effect so long as the Recipient continues to use and/or maintain any copies of the Software within Recipient's possession or control in any storage medium without limitation.

(b) Termination for Cause. Either party may terminate this AGREEMENT for material breach by written notice, effective in 30 days unless the other party first cures such breach.

(c) Effects of Termination. Upon termination of this AGREEMENT, the licenses granted herein shall terminate and Recipient shall cease all use of the Software and delete all copies in its possession or control. The following provisions will survive termination of this AGREEMENT: (i) any obligation of Recipient to pay for Software and/or Upgrades rendered before termination; (ii) Sections 4, 5 and 7 of this AGREEMENT; and (iii) any other provision of this AGREEMENT that must survive termination to fulfill its essential purpose.

### 7. Miscellaneous.

(a) Notice and Contact Information. LIFESAFETY POWER INC. may be contacted at the mailing address below or by the LIFESAFETY POWER INC. website. Notices pursuant to this AGREEMENT should be sent to the address below, or to such others as may be provided in writing. Such notices will be deemed received at such addresses upon the earlier of (i) actual receipt or (ii) delivery in person, by fax with written confirmation of receipt, or by certified mail return requested.

(i) Corporate Headquarters, Mailing Address: LIFESAFETY POWER INC., 49 Range Road, Windham, NH, 03087 USA.

(ii) Website Address: [www.lifesafetypower.com](http://www.lifesafetypower.com)

(b) Independent Contractors. The parties are independent contractors and will so represent themselves in all regards. Neither party is the agent of the other and neither may bind the other in any way. Nothing in this AGREEMENT is intended or shall be construed to create between the Parties a relationship of principal and agent, partners, joint venturers, or employer and employee. No Party shall hold itself out to others or seek to bind or commit another Party in any manner inconsistent with this AGREEMENT.

(c) No Waiver. Neither party will be deemed to have waived any of its rights under this AGREEMENT by lapse of time or by any statement or representation other than (i) by an Authorized Representative and (ii) in an explicit written waiver. No waiver of a breach of this AGREEMENT will constitute a waiver of any prior or subsequent breach of this AGREEMENT.

(d) Force Majeure. To the extent caused by force majeure, no delay, failure, or default will constitute a breach of this AGREEMENT.

(e) Choice of Law & Jurisdiction. This AGREEMENT shall be governed solely by the internal laws of the State of Illinois, without reference to such State's principles of conflicts of law. The parties consent to the personal and exclusive jurisdiction of the federal and state courts of Illinois, United States of America.

(f) Severability. All of the provisions of this AGREEMENT are intended to

**LifeSafety Power**  
899 E Park Avenue  
Libertyville, IL 60048 USA

**www.lifesafetypower.com**  
Tel (888) 577-2898  
info1@lifesafetypower.com

LifeSafety Power, FlexPower, NetLink, GreenSmart, FlexConnect, PowerCom, Reliability+, SureCharge, TruWatt, and VSelect are trademarks or registered trademarks of LifeSafety Power or its affiliates.

**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. LifeSafety Power makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. LifeSafety Power's only obligations are those in the LifeSafety Power Standard Terms and Conditions of Sale for this product, and in no case will LifeSafety Power or its distributors be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, LifeSafety Power reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.