

SurgeX SX-20NE-RT

SurgeX SX20 NE/RT Industrial Grade Surge Suppressor Power Conditioner User Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the SurgeX SX20 NE/RT Industrial Grade Surge Suppressor Power Conditioner. The SX20 NE/RT is designed to protect sensitive electronic equipment from power surges and electrical disturbances, ensuring reliable performance and longevity of connected devices. Please read this manual thoroughly before installation and operation to ensure proper use and safety.

2. SAFETY INFORMATION

Adherence to the following safety precautions is essential to prevent injury and damage to the unit or connected equipment.

- Installation must be performed by qualified personnel in accordance with all national and local electrical codes.
- Ensure the main power supply is disconnected before performing any wiring or maintenance.
- The unit is designed for indoor use in a dry environment. Avoid exposure to moisture or extreme temperatures.
- Do not attempt to open or service the unit. There are no user-serviceable parts inside. Refer all servicing to qualified service personnel.
- Verify that the voltage and current ratings of the connected equipment do not exceed the unit's specifications.

3. PRODUCT OVERVIEW

The SurgeX SX20 NE/RT is a robust 20-amp surge suppressor and power conditioner housed in a magnetic shielding NEMA steel enclosure. It features True Series Mode technology for superior surge protection and EMI/RFI filtering. The unit also includes remote turn-on capabilities and a self-test circuit with visual indicators.

Key Features

- NEMA rated magnetic shielding steel enclosure.
- 20 Amp load rating at 120 volts AC.
- True Series Mode surge suppression technology.
- Inrush current elimination.

- EMI/RFI filtering.
- Remote turn-on and turn-off via contact closure or applied DC voltage.
- Self-test circuit with visual indicator.
- Output voltage source for remote LED status indicator.
- Relay output for control and cascading.



Figure 1: SurgeX SX20 NE/RT Front Panel

This image displays the front panel of the SurgeX SX20 NE/RT unit. Visible elements include the SurgeX logo, 'True Series Mode' and 'Industrial Grade Surge Suppressor Power Conditioner' text, and the model number 'SX20 NE/RT'. Two indicator lights are present: a yellow 'REMOTE' light and a green 'SELF-TEST' light. A circular red-outlined opening is also visible on the lower right side of the front panel. The unit is housed in a grey metallic enclosure with multiple knock-outs on the top and right sides for wiring.

4. SETUP AND INSTALLATION

The SurgeX SX20 NE/RT is designed for hardwired installation. Ensure all power is disconnected before proceeding.

4.1 Unpacking

Carefully remove the unit from its packaging. Inspect for any signs of shipping damage. Report any damage to your supplier immediately.

4.2 Mounting

Mount the NEMA enclosure securely to a wall or suitable surface using appropriate fasteners. Ensure adequate ventilation around the unit.

4.3 Wiring Connections

The unit features a barrier strip accessible through knock-outs for hardwiring power input and output connections. Follow these steps:

1. Select appropriate knock-outs for incoming and outgoing power cables.
2. Route the 120V AC input power cable to the designated input terminals on the barrier strip.
3. Route the output power cable(s) for the protected equipment to the designated output terminals.
4. Ensure all connections are secure and properly torqued according to electrical code requirements.
5. Verify correct polarity (Line, Neutral, Ground) for all connections.

4.4 Remote Turn-On Connection

The SX20 NE/RT supports remote turn-on and turn-off. A separate terminal block within the enclosure is provided for this functionality. Connect a contact closure or an applied DC voltage source to activate the remote control feature. Refer to the wiring diagram provided with the unit for specific terminal assignments.

5. OPERATING INSTRUCTIONS

Once installed and wired, the SurgeX SX20 NE/RT operates automatically to protect connected equipment.

5.1 Indicator Lights

The front panel features two indicator lights:

- **REMOTE (Yellow):** This indicator illuminates when the unit is in remote control mode and is awaiting a signal for turn-on or turn-off.
- **SELF-TEST (Green):** This indicator illuminates when the unit has successfully completed its internal self-test and is operating normally. If this light is off, it may indicate a fault or power issue.

5.2 Self-Test Function

The unit performs an automatic self-test upon power-up and continuously monitors its internal components. The green SELF-TEST indicator confirms proper operation. If this light is not illuminated, consult the troubleshooting section.

6. MAINTENANCE

The SurgeX SX20 NE/RT requires minimal maintenance. Periodically inspect the unit and its connections for any signs of wear, damage, or loose wiring. Ensure the enclosure remains free of dust and debris. Do not use liquid cleaners directly on the unit. No internal user-serviceable parts are present.

7. TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
No power to connected equipment.	No input power; tripped circuit breaker; faulty wiring.	Check main power supply; reset circuit breaker; verify all wiring connections.
SELF-TEST indicator is off.	Internal fault; unit not receiving power.	Verify input power. If power is present and light remains off, contact SurgeX support.
REMOTE indicator is on, but unit does not turn on/off.	Incorrect remote control signal; faulty remote connection.	Verify remote control wiring and signal type (contact closure or DC voltage).

8. SPECIFICATIONS

Detailed technical specifications for the SurgeX SX20 NE/RT.




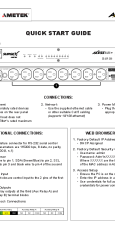
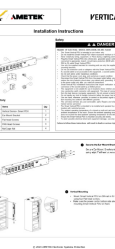
Feature	Specification
Model Number	SX-20NE-RT
Input Voltage	120 Volts AC
Load Rating	20 Amps
Enclosure Type	Magnetic Shielding NEMA Steel Enclosure
Product Dimensions (H x W x D)	12.0 x 12.0 x 4.0 inches
Item Weight	14.47 pounds
Surge Protection	True Series Mode, withstands 1000 occurrences of surge pulse voltages up to 6000 volts
Filtering	EMI/RFI Filtering
Remote Control	Contact closure or applied DC voltage
Manufacturer	SurgeX
Date First Available	July 26, 2010

9. WARRANTY AND SUPPORT

For information regarding the product warranty, please refer to the warranty card included with your SurgeX SX20 NE/RT or visit the official SurgeX website. For technical support, service, or replacement parts, please contact SurgeX customer service directly. Ensure you have your model number and purchase date available when contacting support.

Manufacturer: SurgeX

Website: www.surgex.com (Example link, please verify official website)

	<p>SurgeX Axess+ Switched IP Controllable Surge Protected PDU Quick Start Guide</p> <p>This Quick Start Guide provides essential information for installing and setting up the SurgeX Axess+ Switched IP Controllable Surge Protected Power Distribution Unit (PDU). It covers unit identification, rack installation procedures, component descriptions, and methods for accessing the web interface. Compatible models include SX-AP-129, SX-AP-169, SX-AP-109i, and SX-AP-169i.</p>
	<p>SurgeX DisplayPak+ Switched IP-Controllable Surge Protected PDU User Manual</p> <p>User manual for the SurgeX DisplayPak+ series of Switched IP-Controllable Surge Protected PDUs, detailing installation, configuration via web server, power management, security features, troubleshooting, and specifications.</p>
	<p>SurgeX Axess Elite Firmware Upgrade Utility User Manual</p> <p>This user manual provides instructions for using the SurgeX Axess Elite Upgrade Utility (AEUU) to manage and upgrade the firmware of SurgeX Axess Elite devices. It covers installation, network setup, prerequisites, firmware upgrades, and additional operations like applying configuration files and setting factory defaults.</p>
	<p>SurgeX Axess Elite+ SX-AEP-209 Quick Start Guide</p> <p>Quick start guide for the SurgeX Axess Elite+ SX-AEP-209 power distribution unit, covering setup, connections, and web browser access.</p>
	<p>SurgeX Vertical Series+ Smart PDU Installation Instructions and Quick Start Guide</p> <p>Comprehensive installation and quick start guide for the SurgeX Vertical Series+ Smart PDU. Covers safety precautions, inventory, physical connections, AC power, Ethernet, USB-OTG, LED indicators, button functions, and accessing the web interface for setup and configuration.</p>



Security Plus



Online Uninterruptible Power Supply

UPS-22100-88R

UPS-22150-69R

User Manual

[SurgeX Security Plus Online UPS User Manual - UPS-22100-88R, UPS-22150-69R](#)

Comprehensive user manual for the SurgeX Security Plus line of online, double-conversion uninterruptible power supplies (UPS), models UPS-22100-88R and UPS-22150-69R. Covers safety instructions, product features, installation, operation, maintenance, troubleshooting, and specifications.