

SurgeX

Installation Instructions

SX1200 Series

Mounting

The SurgeX SX1200 series are designed to be installed in a 19 inch equipment rack and require one unit (1-U) of rack space. Remove the product from its packaging and slide it into place in the rack being careful to feed the power cord into the rack first and guide it so that it does not get caught or jammed as the product is installed.

230 Volt Connections

Connect power to the unit by plugging the cord into a 230V ac receptacle. The SX1220 must be plugged into a 20 amp receptacle. If a 230V, 20 amp receptacle is not available, you will need to have one installed by a licensed electrical contractor. The SX1210 can be plugged into any domestic 10A receptacle.

The SX1200 series have a total of 10 rear receptacles: eight switched and two always on. The SX1200 series also feature a front panel courtesy receptacle, which is always on. Each receptacle is rated for a maximum load of 10 amps, but the total load must not exceed 10 amps for the SX1210 series and 20 amps for the SX1220. Plug the equipment cords into the always-on and switched receptacles as needed to power the equipment.

The always-on and courtesy receptacles (where fitted) provide power as long as power is supplied to the SurgeX. The eight switched rear receptacles provide power only when the front panel switch is on and, in the case of RTi products, when the remote control input is also activated.

Indicator Lights

The SX1200 series have two, three or four indicator lights on the front panel:

Red Power Light (All products): indicates that power is applied to the unit and the power switch is turned on.

Green Self-Test Light (All products): indicates that power is applied to the unit and the internal surge protection circuitry is fully functional.

Orange Over/Under Voltage Protection Light (RTi & RLi products): indicates that the AC voltage is below 190 volts or above 280 volts.

Yellow Remote Light (RTi products): indicates that the remote control is active and the rear switched receptacles are on. (The power switch must also be on).

Littlite® Connectors (RLi Only)

The RLi version has provision for one or two Littlites. Plug the Littlites into the two three-pin XLR connectors on the front panel and use the dimmer to set a suitable brightness. Standard or HI brightness Littlites can be used. Each connector can supply up to 5 Watts maximum. LED type Littlites can be used with the RLi but the dimmer must be set fully clockwise.

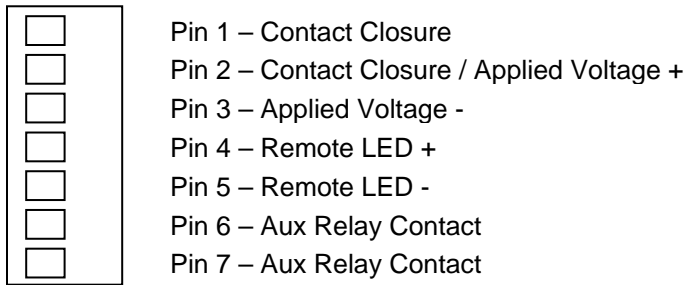
CAUTION: Do not repeatedly turn an SX1210RTi/RLi or an SX1220RTi on—off—on—off with a heavy load connected. The ICE® circuitry absorbs the inrush energy each time the unit is turned on and may overheat if this is done repeatedly in a short period of time. Wait one minute between repeated turn-ons.

Remote Control (RTi Products Only)

Remote control connections are wired to the green 7-pin plug-in Phoenix terminal block on the rear of the unit next to the power cord. The terminal block is shipped with a jumper wire between pins 1 & 2 so that the unit can be used without a remote control connection. If you will be using remote control you will first need to remove this jumper wire. You can unplug the terminal block to make connections and after you have made the connections to the terminal block, plug it back into the

connector on the rear of the unit. Never solder (tin) wires before inserting into a terminal block – solder cold flows and you will eventually have loose connections!

The connections are as follows:



Control Connections

Control of the switched receptacles can be accomplished by using a switch (contact closure), another SurgeX RTi product, or by an applied voltage (5 to 30 volts DC). When using a switch, choose a switch with gold contacts for the best long-term reliability.

Connections are made to terminal block pins 1, 2 & 3 as follows:

- Connect switch contacts, a contact closure, or SurgeX control to pins 1 and 2.

Or:

- Connect an applied DC voltage to pins 2 and 3. The positive must be connected to pin 2 and the negative must be connected to pin 3.

Remote Indicator LED

Connecting the Remote LED is optional. An LED connected to pins 4 and 5 will indicate when the switched receptacles are on. 10mA of current is available at this output, but you **must use a series resistor** if you are using your own LED. For most LEDs a 1K resistor will provide suitable brightness. If you need less brightness use a larger value of resistor, and if you need more brightness use a smaller value of resistor.

- Connect the LED positive wire to Pin 4
- Connect the LED negative wire to pin 5

Auxiliary Relay Contacts

The auxiliary relay contacts, pins 6 & 7, provide a way to cascade units or to provide confirmation feedback to a central controller. When the switched receptacles are on, the aux relay contacts are closed. There is a 1 second delay before the aux relay closes which gives time for the SurgeX Inrush Current Elimination (ICE®) circuit to operate. This short delay in combination with the SurgeX ICE® makes it unnecessary to sequence the power to several large loads (such as amplifiers) because of inrush current. SurgeX RTi products, when cascaded, can turn on a bank of large amplifiers with no inrush current, and therefore no risk of blowing a circuit breaker.

To cascade two or more RTi products, connect the aux relay contacts of one unit to the contact closure input of the next unit. To provide confirmation feedback, connect the aux relay contacts to an input on the central controller.

The relay contacts are rated for 1 amp at 30 V DC.