

SurgeX

Installation Instructions

ICE20-C Cord Connected ICE Box

120 Volt Connections

The SurgeX ICE20-C is designed to be installed onto any flat surface using optional mounting brackets or can be installed in a 19 inch rack using the optional rack mounting kit. Connect power to the unit by plugging the female end of the power cord into the ICE-Box and plugging the three-pin plug into a 20 amp, 120V AC receptacle. If a 120V, 20 amp receptacle is not available, you will need to have one installed by a licensed electrical contractor.

The ICE20-C has one dual receptacle which is rated for a total load of 20 amps. Plug equipment cords into the receptacles as needed. The receptacles provide power only when the remote control input is activated.

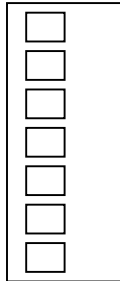
CAUTION: Do not repeatedly turn the unit off—on—off—on with a heavy load connected. The ICE™ circuitry absorbs the inrush energy each time the unit is turned on and may overheat if this is done too many times in a short period of time. Wait one minute between repeated turn-ons.

Indicator Lights

There are two indicator lights on the rear of the unit: a red Power light and a yellow Remote light. The red Power light indicates that power is applied to the unit and the yellow Remote light shows that the remote control is active and the AC power is on.

Remote Control Connections

Remote control connections are wired to the green 7-pin plug-in Phoenix terminal block. The terminal block itself is provided in the accessory bag that you will find in the shipping box. After you have made the connections to the terminal block, plug it into the connector on the rear of the unit. The connections are as follows:



- Pin 1 – Contact Closure
- Pin 2 – Contact Closure / Applied Voltage +
- Pin 3 – Applied Voltage -
- Pin 4 – Remote LED +
- Pin 5 – Remote LED -
- Pin 6 – Aux Relay Contact
- Pin 7 – Aux Relay Contact

Remote Control Input

Control of the receptacles can be accomplished by using a switch (contact closure), another SurgeX product such as the SX2120-SEQ, 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 with the positive connected to pin 2 and the negative connected to pin 3.

Remote Indicator LED

Connecting the Remote LED is optional. When an LED is connected to pins 4 and 5 it will indicate when the switched receptacles are on. 10mA of current is available at this output, but you **must use a series resistor**. 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 close. There is a short ½ 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 on several large loads (such as amplifiers) because of inrush current. SurgeX ICE-Boxes, 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 ICE-Boxes, 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.