

## Model 34930

### 30A Surge Guard\* Portable Device with LCD Display

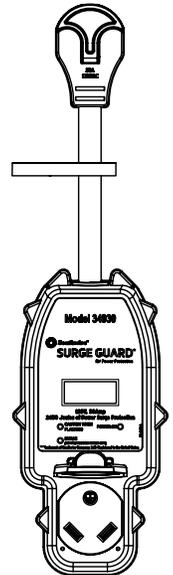
**Surge Guard devices protect your RV from low quality or incorrect shore power.**

Normally, shore power should be around 115 –120 Volts AC. When power falls too far outside this range, it represents a poor or hazardous condition to your RV's electrical system. This device provides protection to your RV by turning off power when the line voltage L1 falls below 102 Volts AC or goes above 136 Volts AC.

Surge Guard devices also help protect your electrical system from a reverse polarity condition which indicates that the hot and neutral lines of shore power are swapped or reversed. This can be hazardous to equipment and safety. Surge Guard devices will not connect power to your RV until the reverse polarity fault is corrected.

In the event your Surge Guard device is not functioning as expected, perform the following troubleshooting steps in order to determine and correct any malfunctions. Note: Testing should be performed with AC units and electrical appliances turned off, then verified with appliances turned on.

Connect the shore power cord to a 120V, 30A power source. The LCD screen will display "DELAY" for 10 seconds while the device is monitoring the incoming power. The device will take 128 seconds to reset if the power is shut off due to a high/low voltage fault.



PROBLEM	TROUBLESHOOTING STEPS
Coach powers up after 10 seconds, but then turns off after another 8-10 seconds.	The device may be operating properly, and you may have a low voltage condition. In this case, turn off as many loads as possible. It is not safe to operate some equipment with low voltage. Verify that the input voltage is greater than 102VAC with loads turned on and off.
Coach does not power up after 10 seconds after connecting to shore power.	Check the LCD display and the Caution When Flashing light (Red LCD). Check voltage with voltmeter at connection.
LCD shows a fault such as "L1 LOW" or "L1 HIGH" and the "CAUTION WHEN FLASHING" light is blinking.	There could be an open conductor or unsafe power. Check the input connections and shore power cord.
L1 is within range (102 – 136VAC) and there is no power.	Call Southwire Technical Support at 1-800-780-4324.
LCD screen displays "REVERSE POLARITY" and the "CAUTION WHEN FLASHING" light is blinking	Shore power connections are reversed and you have an unsafe condition. In this case, notify your park of the condition in order to correct the fault.
A fault occurs such as a "L1 LOW" or "L1 HIGH" during normal operation when shore power is within good operating range	The device will turn off power to the RV and will display a fault message on the LCD display. If the power returns to normal, the device will display "DELAY" on the LCD screen and will wait 128 seconds before turning power to the RV back on.

1. Low Voltage – If the input voltage drops below 102VAC for more than 7 seconds, the power will be removed protecting your electronics. This condition may be caused by overloading the park's power grid. Try reducing your loads. Otherwise, do not operate until power is restored to safe levels. Once the voltage returns to the acceptable range, the unit will take 128 seconds to restore power.
2. High Voltage – If the input voltage increases above 136VAC for more than 8 seconds, power will be removed. Do not operate until power is restored to safe levels. Once the voltage returns to the acceptable range, the unit will take 128 seconds to restore power.
3. Neutral Open – Check all input wiring to the Surge Guard device. Check the shore power cord and wiring from the generator if applicable. Check/replace adapter if reducing down to 120V, 20A service. Notify park for shore power problems if applicable.
4. Caution When Flashing Light – If the caution light is on, read the LCD indicator for any possible fault.

**For technical assistance, please call 1-800-780-4324 x 20311**

## Model 34930

### 30A Surge Guard\* Portable Device with LCD Display

#### TROUBLESHOOTING ERROR CODES

ERROR MESSAGE	DESCRIPTION
REPLACE SURGE	<b>Surge Expended</b> The Surge Guard* built-in surge protection has been sacrificed to protect your equipment and is no longer functioning properly. The unit is recommended to be replaced.
OPEN GROUND	<b>Open Ground</b> Disconnect unit. Use a voltmeter to check the ground and neutral. Voltage should read -0-. If not, finding another power source is recommended.
REVERSE POLARITY	<b>Any Line Wired to Neutral</b> Use a voltmeter to check for voltage on ground or neutral. Voltage should read -0-. If not, finding another power source is recommended.
L1 HIGH WAS 137V	<b>High Voltage</b> Voltage is over recommended operation, check with power source to lower voltage to >132V.
L1 LOW WAS 99V	<b>Low Voltage</b> Voltage is under recommended operation, check with power source to raise voltage to <102V.
L1 AMPS WAS	<b>Current High</b> Current exceeds the recommended operation. Check connection with voltmeter and verify voltages are within normal operation. If not, it is recommended to find another power source.
RECEPT OVERHEAT	<b>Over-Temperature</b> Temperature exceeds the recommended operation. Check connection with voltmeter and verify voltages are within normal operation. If temperature exceeds, disconnect unit, allow to cool completely and it is recommended to find another power source.

**For technical assistance, please call 1-800-780-4324 x 20311**