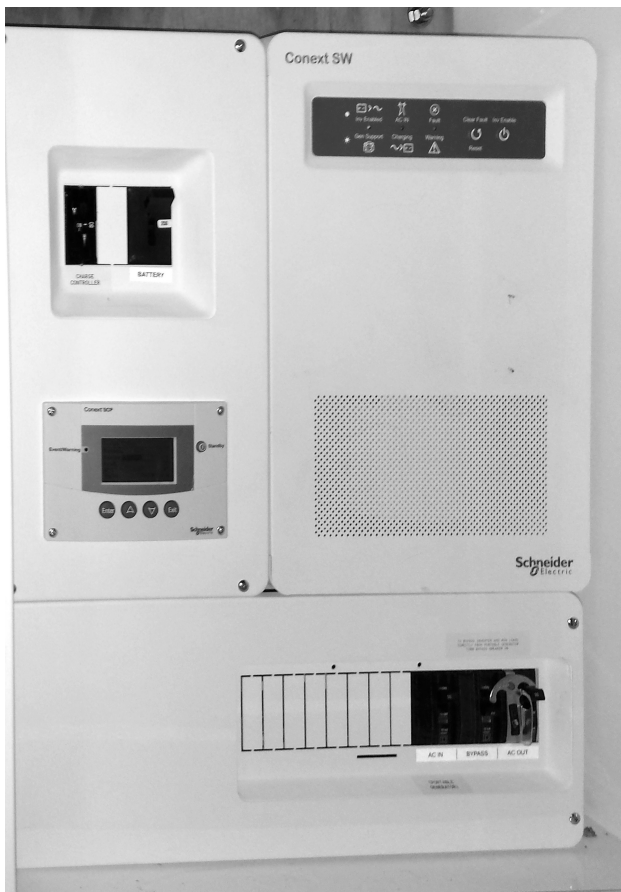




Super Critical Loads System Owner's Guide

For Schneider Conext SW Systems
Prepared by Cevyn L Miles-Monaghan, Off-Grid & IT Specialist, Nov 2015

Super Critical Loads Off-Grid System System Overview





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Safety Information

In the case of an emergency, call 911 first and then contact

MTVSolar:

Mountain View Solar, LLC
11500 Valley Road
Berkeley Springs, WV 25411

(304) 258-4733 or 877-96-SOLAR

Ground Faults:

Use extreme caution any time an electrical fault is indicated by the system!

The inverters will shut-down if a ground-fault is detected. **This will not necessarily eliminate the fault.** Refrain from touching metal system components if a ground fault is indicated.

In the event of a ground fault warning:

CALL US IMMEDIATELY!

Always contact us if you have any concerns regarding the system. Do not open any electrical enclosures within the system; there are no user serviceable components inside. Doing so may void the manufacturer's warranty.



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Circuit Breakers

Circuit breakers are intended to protect wiring and components from dangerous meltdown due to overload or short circuit. A correctly functioning breaker will not trip unless an overload condition has occurred for a period of time. A tripped breaker can be re-set by the owner to resume operation.



The image above shows two breakers. The top one is ON and normal, the bottom one is tripped. The handle will be more centered and orange can be seen through the window to indicate that it had tripped. To reset a tripped breaker, correct the overload situation, and then switch it all the way to the OFF position, and then back ON.

Fuses

Fuses are also protection devices but they can not be reset. The fuses in a solar PV or battery backup system are often large and can carry high voltages and current. Fuses are generally hidden behind a cover secured with a screw and/or locked. If proper procedure is not followed during fuse replacement, electrocution and/or burns can result. Therefore it is **strongly advised** to contact mtvSolar for service if a fuse is suspected to have blown.





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Batteries

The batteries used in your system are AGM type sealed lead acid batteries unless otherwise specified. They require no user servicing or ventilation. If at any time you smell a foul "rotten egg" odor or see evidence of leaking around the battery, call Mountain View Solar immediately.



Loads

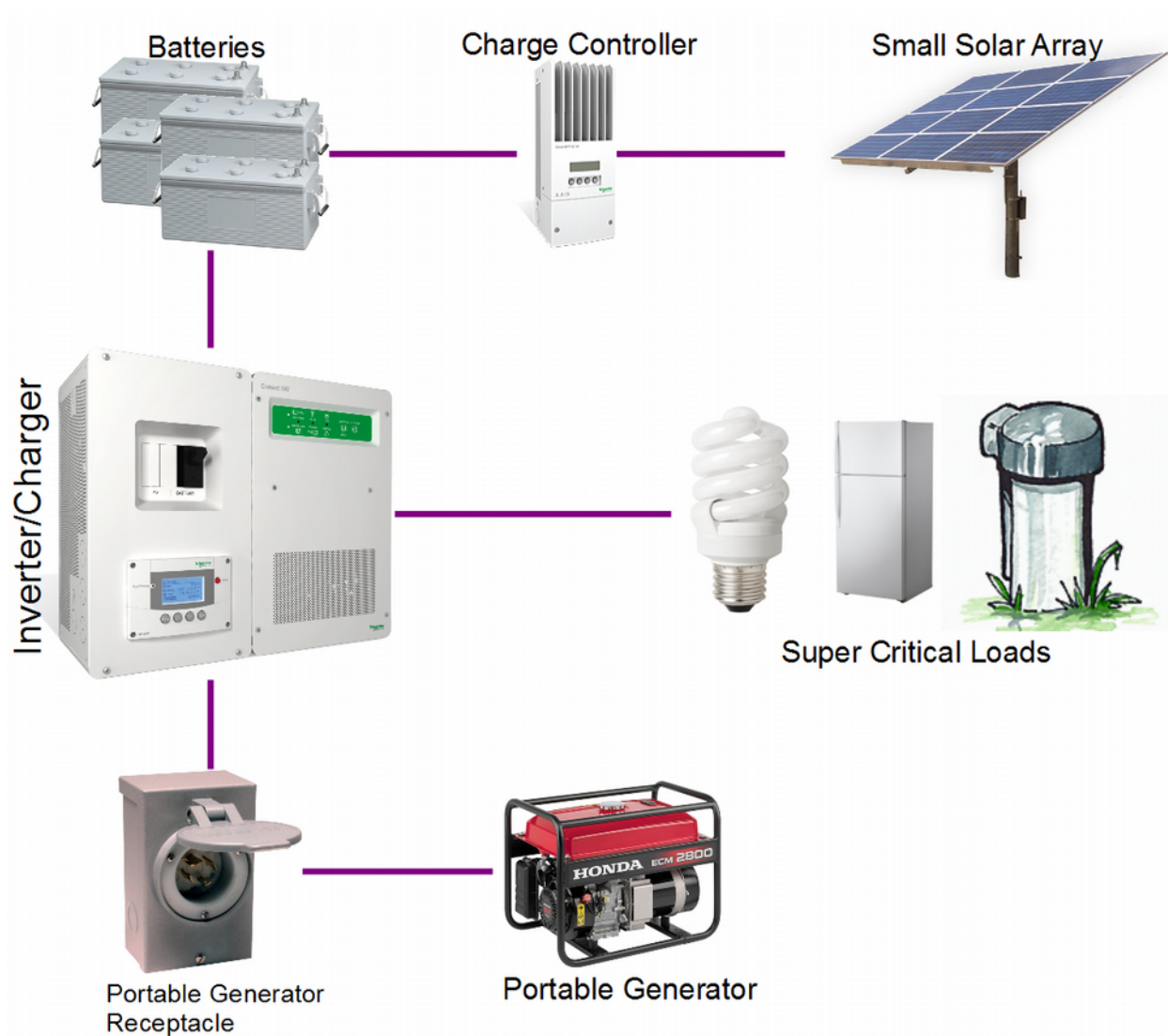
Your system is sized to properly run certain loads located in your "critical loads" panel:





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A super critical loads system is designed to run a few intermittent loads, such as a well pump, small refrigerator and energy efficient lighting.

It does not have the solar or battery capacity to run large appliances, heaters, big air circulators and other large loads. The inverter output is limited to 3kW and if exceeded for a long period of time, it will shut down to protect itself.

It is important to modify the use of items to match solar production. For example, on a bright sunny day the solar power can run loads longer while the batteries charge. During the night, loads should be kept minimal.



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Generator & Battery Monitoring

Your system is equipped with a portable generator plug. This can accommodate most portable generators up to 7.2kW in size. Generator requirements are:

1. Steady 60Hz power output
2. 120/240 split phase output
3. Have an L14-30 power receptacle
4. Customer supplied generator cord

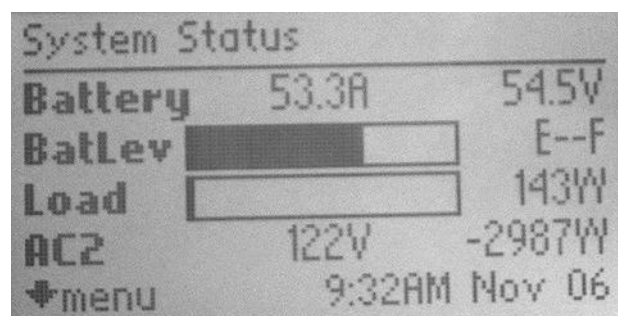
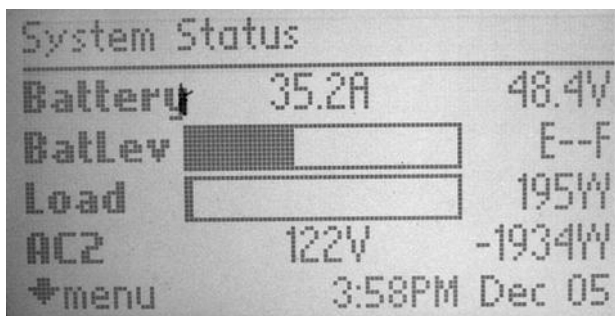
NOTE - A generator in which the engine doesn't settle and constantly speeds up and down may not work properly as the output will boost and sag constantly, preventing a lock to the power signal by the inverter.



The generator cord plugs into your generator's L14-30 socket and the other end plugs into your battery system's generator plug. You can obtain these at most home improvement stores.

To use a portable generator with these systems, plug it in as described above and fire it up. No other actions necessary other than standard safe generator operating practices.

When your batteries are approaching 50%, we recommend turning loads off and/or starting your generator. The battery level is displayed on the control panel home screen:



The generator should be started immediately based on the battery level on the left. The one on the right is under charge from a generator for a period of time and has risen in voltage and charge level.