

Godman GRID™ Operation

Units ship from factory fully charged!

To operate a Godman GRID™, please follow the steps.

1. **Turn on the main (12V DC) switch** located in the upper right-hand corner of the DC end (Fig. 1).

This switch should be turned "OFF" when the unit is not in use.

Fig. 1 – DC Side of Unit

- Charge controller** (pictured top left)
- Master switch** (large silver switch pictured top right)
- Charging portals** (under switch, aux and solar panel outlets)
- 30-amp fuses (top SOLAR, bottom AUX)
- Large 175-amp red link portals
- 12VDC auxiliary socket**



Fig. 1 – DC End/side of Unit

2. **Turn on the inverter switch** located at the AC end of the Godman GRID™ (Fig. 2). It is on the top left, and labeled as 1 in Fig. 2.

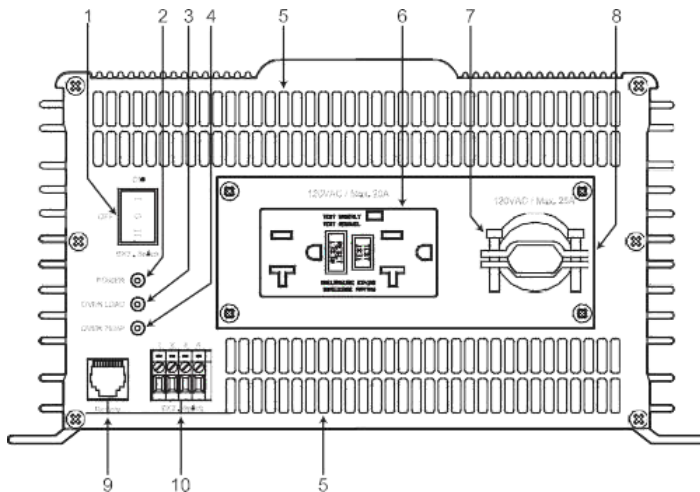


Fig. 2 – AC End/side of Unit, 110VAC/60Hz Inverter (SUN110)

1. Three Position Rocker Switch

- – **ON** - Push top end to switch ON locally (the switch is located at the top left)
- 0 **OFF** – Centered to switch OFF locally
- = **EXT** Switch - Push bottom end to enable switching ON and OFF by external switching control

2. Green LED marked "POWER"
 3. Red LED marked "OVER LOAD"
 4. RED LED marked "OVER TEMP"
 5. Air inlet slots for cooling fan
 6. NEMA5-20R GFCI Duplex AC Outlet, 20A maximum
 7. Metal strain relief clamp for AC output cable (for hardwiring)
 - Size: Trade Size: $\frac{3}{4}$ "
 - Wire size accommodated: 3- Conductor "Loomex" cable - AWG #14/3 to AWG #8/3
 8. Cover plate for compartment containing L, N and G terminals for hardwiring of AC output to 120VAC Panelboard
 9. Modular Jack RJ-50 (10P10C) marked "Remote" for connecting optional wired Remote-Control Model RC-300
 10. Terminal Block marked "EXT Switch" with 4 terminals for ON / OFF switching using external control signals
3. **Ensure any AC appliance(s) are switched off, and simply plug them into the outlets before using as desired.** Try to avoid using extension cords. If an extension cord is required, use a 12 gauge 3-prong grounded extension cord no longer in length than necessary (lessens power loss).

Inverter: The inverter features bar graph displays for AC load (Current Output) and DC status (Volts). When fully charged, battery voltage will be approximately 14V. At 10.7 volts, the inverter's battery voltage bar graph will read in the lower red zone and an audible low battery warning will sound. To extend run time, reduce AC load if possible or connect charging source. The Godman GRID™ will continue to run while beeping until the inverter automatically shuts down for low battery voltage at about 10.0 volts, protecting the AC loads from under voltage and the battery from complete discharge.

If the battery nears overcharge (bar graph in upper red zone), the inverter will beep and shut down until the charging source is removed and the battery voltage is allowed to drop to "normal." The Current Output bar graph indicates AC load being supplied to the devices being run - green for normal operation and upper red zone during temporary surge output. See recommended max output per outlet in Fig. 2. The overload indicator will light when load exceeds limits and inverter will automatically shut down. Turn devices and inverter off, reduce load, and restart.

The inverter also has a cooling fan that is thermally activated and may be heard operating intermittently when in normal use. If thermal limit exceeded, the over-temp indicator will light and the inverter will shut down until cooled.

Charging Via Solar

Place solar panels in best direct sunlight. Plug solar panel cord with small red plug into SOLAR (right) portal on DC end (Fig. 3). Tabs on red plugs ensure proper orientation. When panels are connected and have light, the digital charge controller's LED status lights will activate as electricity flows from solar panels through the charge controller to the Godman GRID™ battery. LED lights on the charge controller give a general indication of battery status ($\frac{1}{4}$ -, $\frac{1}{2}$ -, $\frac{3}{4}$ -full, and fully-charged).



Fig. 3 – Charging plugs/portals

The charge controller's status lights and symbols are described fully under Specifications. The controller's digital LED readout displays regardless of panel connection and indicates battery voltage when the three-position slide switch is set to "Voltage" or incoming charge in amps when set to "Current." The current/amp reading may be used for directing solar panels to maximize charge rate. The LED digital current display will read over 15 amps in bright, direct sunlight with two panels (dropping significantly as the battery approaches full charge) and around 1 amp when charging through clouds. Slide switch to OFF in middle when not in use.

Charging via wind turbine, grid, additional solar, etc.: Connect energy source at small red AUX (left) portal. This portal bypasses the solar charge controller and will not provide power for its LED charge indicator lights. Energy source must be pre-wired with AUX plug and must have its own charge controller. This portal may also be used for 12VDC, 30-amp max output by way of an AUX plug.