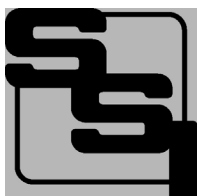


# SOLAR POWER SUPPLY INSTRUCTION SHEET

The diagram illustrates the electrical connections for the FTC-1 BOARD. Key components and their connections are as follows:

- Charge Controller (CHARGE CNTRL):** Features terminals for NC, Battery, and Solar In. It is connected to the solar panels and the main battery bank.
- Solar Panels:** Two panels are shown on the left. The top panel's positive terminal is connected to the CHARGE CNTRL's Solar In (+) terminal via a red wire. The bottom panel's positive terminal is connected to the CHARGE CNTRL's Solar In (+) terminal via a red wire. Both panels' negative terminals are connected to the common ground.
- FTC-1 BOARD:** Contains a 5VDC Converter (U1) and a 5A fuse. It has terminals for PANEL 1, PANEL 2, and a common ground. The positive terminal of the 5VDC Converter is connected to the 5V AUX Output. The 5A fuse is connected between the 5VDC Converter and the 5V AUX Output.
- Battery Bank (12VDC 50Ah BATTERY):** The positive terminal is connected to the positive terminal of the CHARGE CNTRL. The negative terminal is connected to the common ground.
- RTU (customer supplied):** The positive terminal is connected to the positive terminal of the CHARGE CNTRL. The negative terminal is connected to the common ground.
- Grounding:** A common ground is established, connected to the negative terminal of the battery bank, the negative terminal of the RTU, and the negative terminal of the 5VDC Converter.

**NORMAL OPERATION** - Under normal circumstances the solar panel will output between 10 and 17 volts to the charge controller. The length of time that the battery will hold up the RTU or similar load is directly related to the discharge rate. The lower the discharge rate the longer the battery's charge will last. The hold-up time without any recharge from the solar panel for a 200mA load is approximately 7 days. Limit the load current to the lowest possible level for the best results.



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