

## Technical Note

# Frequently Asked Questions

## Prosine

512-0058-01-01 Rev 1

## FAQ

1. **Q:** How can I connect a generator to my Prosine?

A: A transfer switch selecting either shore or generator power would feed power to the AC input lines of the Prosine.

2. **Q:** Why are there two sets of AC output terminals?

A: One set is to the output cord which feeds your power panel with 115 VAC, the other is to connect the inverter's optional front panel socket.

3. **Q:** Can I extend the remote panel cord?

A: The total length of the cord can be 100 ft (30 m) to the Standard Control Panel, or 50 ft (15 m) to the ACS (Advanced Control Panel). The cord can be replaced with a longer cable available from Xantrex, or use a standard, good quality telephone extension cord (#26AWG wire size or bigger). If your original cable has an EMI shield (a 1" bulge about 5" from the end of the cable), keep the EMI shielded end plugged into Prosine and use the extension cord on the Panel side. For optimum performance, always use the original cable.

4. **Q:** Can I use the Truecharge temperature sensor with the Prosine?

A: Yes, the TC temp sensor will function correctly with the Prosine. However, for optimum performance, particularly in regard to electro-magnetic interference, always use the original Prosine temperature sensor.

5. **Q:** How can I connect a second battery bank to my Prosine?

A: Adding a battery combiner would allow both batteries to receive charge current from the Prosine when in charge mode. The combiner must be rated for 400 amps.

6. **Q:** Why does my 25 W light bulb cycle ON and OFF when my Prosine is in inverter/search mode?

A: An ordinary incandescent light bulb, when cool, will initially appear as a very high load >100 W, which may bring the inverter out of sleep mode. Once the filament heats up and the light is ON, the bulb reverts to the rated 25 W load which falls below the search setting (50 W). The inverter, when in search mode, tests the load level every 10 seconds to determine if it will return to "sleep." A 25 W load may not be high enough to prevent the inverter from going back into sleep mode. Solution: set the search mode DIP switches to the next lower sense wattage (10 W).

7. **Q:** Why do my AC lights flicker and there is clicking sound from the Prosine every 8 seconds when the Prosine is in the invert mode and shorepower is disconnected?

A: The AC distribution panel is wired incorrectly. The Prosine's inverter AC output is connected to the Prosine's AC input. The Prosine's inverter output is confused with shorepower at the Prosine's input. After 8 seconds the transfer relay opens to shut off the inverter. Instantaneously the Prosine senses 0 VAC on the input and the transfer relay is shut activating the inverter (listen for audible relay "click"). Have a certified marine electrician correct the wiring.

8. **Q:** Why is my Prosine unable to provide the full 105 A charging current and charging voltage is lower than 13 V, despite battery size/setting being more than 400 Ah and a deeply discharged state of charge?

A: The Prosine factory default settings are for a 15 A shorepower circuit breaker. Although the battery could accept the 105 A charge current during bulk mode, the 15 A circuit breaker cannot provide sufficient power to the Prosine's charger to accomplish it. To achieve the 105 A charging current you must set the Prosine to "30 A breaker" (see page 16 in "Installation Manual"), and connect to a 30 A power source. The maximum current will also be reduced if another appliance is being used at the same time (air conditioner, large fridge, water heater etc.) as the charger is attempting to provide bulk charge.

9. **Q:** Why does the Prosine 2.5 inverter/charger have to be mounted vertically as stated in Section 2.3.1 of the installation manual?

A: In order to comply with regulatory requirements for drip proof/marine installation the unit must be mounted vertically with the drip shield at the top. Vertical mounting takes advantage of natural warm air convection through the unit's vent openings even before the internal fans turn on. However, the Prosine will operate in any position.

10. **Q:** What conditions make the Prosine 2.5 fans turn on?

A: The Prosine 2.5 fans turn on under these conditions:

- Interior temperatures of the Prosine 2.5 measured at T1(DC1 module), T2(DC2 module), T3(DC-AC module), and T4(Ambient Over Control Board) reach 40 degrees Celsius (104 F). The fans will shut off when T1, T2, T3, and T4 cool below 35 degrees Celsius (95 F).
- AC Utility is present and load current is 15 amps or greater. The fans will turn off when the load current drops lower than 13 amps.
- The Prosine 2.5 fans will come on for about one second whenever the Prosine 2.5 is first connected to battery or AC supply or the system goes from Power Down to Invert mode. The fans consume only 8 W when on.
- The Prosine 2.5 fans will *not* turn on based on temperature sensed by the optional Battery Temperature Sensor.

11. **Q:** What power does the Prosine 2.5 consume when Utility power is available, battery charger is off, and inverter is in standby?

A: 8 watts or 15 W when fans are on (AC load greater than 15 A).

12. **Q:** What is the transfer time from utility to inverter power?

**A:** The maximum transfer time is two cycles or approximately 33 milliseconds. Typical transfer is within 20 mS.

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