

Tech Tips

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Shore Power Battery Charger

Power Converter, 120 VAC to 12 VDC Shore Power IFS Part # 35003

Component Location

UBB, Under Bed Module, Upper level

Description & Application

The Idle Free power converter converts incoming 120 VAC power (shore power) to 12 VDC power. When shore power is available, the converter maintains the Idle Free AGM battery



voltage. The power converter has a rated amperage output of 55 AMPS DC. The Idle Free air conditioner uses less than 50 AMPs DC and when using the power converter (shore power), the AGM battery voltage level maintains 12.6 VDC or higher. Whenever the power converter's DC voltage rises past 13.2 VDC, the Idle Free battery separator closes and connects the Idle Free battery bank to the truck's battery bank. If the combined voltage of both battery banks remains above 12.8 VDC, both battery banks will remain connected and both battery banks will receive a charge from the converter. The power converter's 120 VAC circuit begins on the truck's exterior with a covered receptacle (male) that is used to receive the female end of an extension cord. The converter's DC circuit begins at the bulkhead DC connection posts on the lower back corner of the UBB.

Potential Issues

- 1. Installer connects a ground power supply cable to the wrong (+ or -) battery post. This action causes the power converter's DC fuses to fail. The two 30 AMP fuses are located on the rear side of the power converter.
- 2. Shore power (plugging in) is perceived to be a direct use of 120 VAC power that directly powers the 120 VAC Idle Free air conditioning circuit. Shore power is only used to convert AC to DC. The inverter is always the 120 VAC power provider for the Idle Free air conditioner.

Remember, we are always just a phone call or email away to help you.

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