



**LIMITING ELECTRO
MAGNETIC
INTERFERENCE (EMI)
INVERTERS**

Excerpt from Inverter
Charger Series Manual

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LIMITING ELECTRO MAGNETIC INTERFERENCE (EMI) INVERTERS



INFO

The Inverter Charger contains internal switching devices that generate conducted and radiated electromagnetic interference (EMI). The EMI is unintentional and cannot be entirely eliminated. The magnitude of EMI is, however, limited by circuit design to acceptable levels as per limits laid down in FCC Part 15(B) for Class A Digital devices.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference and the user may take necessary steps as necessary to correct the RF interference as necessary.

The effects of EMI will also depend upon a number of factors external to the inverter like proximity of the inverter to the EMI receptors, types and quality of connecting wires and cables etc. EMI due to factors external to the inverter may be reduced as follows:

- Ensure that the inverter is firmly grounded to the ground system of the building or the vehicle
- Locate the inverter as far away from the EMI receptors like radio, audio and video devices as possible
- Keep the DC side cables between the battery and the inverter as short as possible.
Twist the DC side cables. This will partially cancel out the radiated noise from the cables
Shield the DC side cables with metal sheathing / copper foil / braiding
- Use coaxial shielded cable for all antenna inputs (instead of 300 ohm twin leads)
- Use high quality shielded cables to attach audio and video devices to one another
- **DO NOT** operate other high power loads when operating audio / video equipment

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