INVERTERS - LIMITING ELECTRO-MAGNETIC INTERFERENCE (EMI)

The inverter contains internal switching devices which generate conducted and radiated electromagnetic interference (EMI).

The magnitude of EMI is limited to acceptable levels by circuit design but can not be entirely eliminated. The effects of EMI will also depend upon a number of factors external to the power supply 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 can 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 co-axial 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