APC DC to AC Power Inverter
User Guide

PNOTEAC150-EC - for use in car, RV, boat
PNOTEAC150-ECA - for use in airplane, car, RV, boat

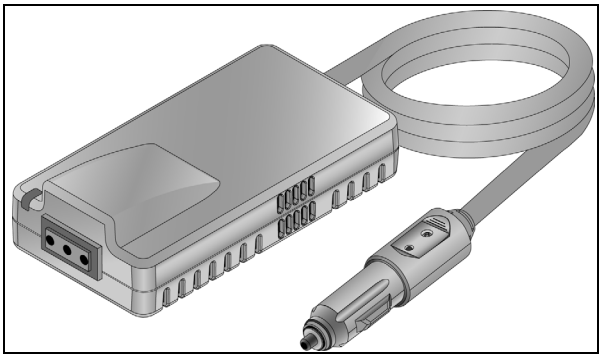

Figure 1. APC DC to AC Power Inverter

Congratulations on selecting the APC DC to AC Power Inverter. Please complete the enclosed warranty card and return it to APC, or fill out an on-line warranty card at http://www.apc.com.

Safety

Before using the APC DC to AC Power Inverter, read the following safety precautions:

- Do not operate the APC DC to AC Power Inverter near flammable materials, fumes or gases.
- Provide adequate ventilation and refrain from placing items on or around the inverter during operation.
- Proper cooling is essential when operating the inverter. Refrain from placing the inverter near the vehicle's heat vent or in direct sunlight.
- Keep the case dry at all times.
- Check the warning labels on battery chargers or adapters before connecting them to the inverter. Do not connect battery chargers or adapters displaying or having dangerous voltage warnings.

Features

Low Battery Protection: If the input voltage drops below 10.5 volts, the inverter will automatically shut down. The unit will automatically turn back on once the battery voltage increases above 10.5 Vdc.

Note: Turn off connected equipment before recharging the vehicle battery.

Status Indicator-located on the inverter: The LED located near the receptacle on the inverter unit is a dual-color LED indicator:

- Green indicates the power source is sufficient for proper inverter operation.
- Yellow indicates the power source is insufficient for operation (voltage is less than 10.5V or greater than 20V), or that thermal protection has taken place due to an output short circuit or overload.

Status Indicator-located on the lighter adapter: The lighter adapter is equipped with a blue LED that indicates when the adapter has been pushed firmly into the 12 volt socket in your vehicle.

AC Outlet: The AC outlet provides power suitable for any electronic piece of equipment requiring up to 150 watts of continuous power.

Note: Ensure the wattage of equipment plugged into the APC DC to AC Power Inverter does not exceed 150 watts (maximum) continuous.

WARNING: As with all accessories that use power from your vehicle's 12-volt socket, ensure the Cigarette Lighter Assembly plug (CLA) is pressed firmly into the socket to prevent overheating of the CLA while your inverter is in use. APC has provided a blue indicator light on the CLA to show when it has been pushed sufficiently into the socket to prevent overheating. If the blue light is not lit, push the CLA firmly into the 12-volt socket until the indicator is illuminated. Failure to comply may result in personal injury or equipment damage.

Airline Use: An Airline Adapter is included with the PNOTEAC150-ECA. You may use it with the inverter unit to provide AC power on airplanes equipped with an in-flight power outlet. If equipped, this outlet is located in the armrest of the seat, near the headset plug, or under the seat. Attach the airline adapter as shown in Figure 2.

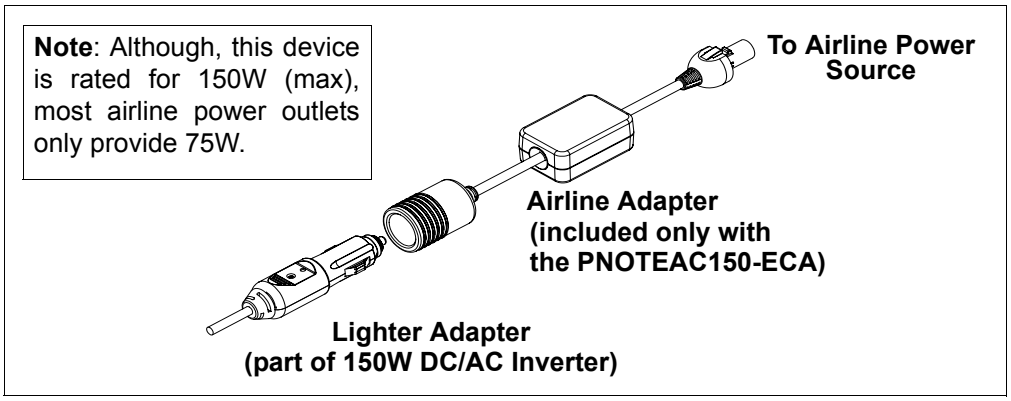

Figure 2. Airline Adapter Installation (Airline Use Only)

Installation and Operation

1. Plug the APC DC to AC Power Inverter's 12 volt Lighter Adapter plug (Figure 1) into the power source:
   a) In an automobile, ensure that the Lighter Adapter is installed. Insert the Lighter Adapter into any 12 volt socket in your vehicle.

   WARNING: As with all accessories that use power from your vehicle's 12-volt socket, ensure the Cigarette Lighter Assembly (CLA) plug is pressed firmly into the socket to prevent overheating of the CLA while your inverter is in use. APC has provided a blue indicator light on the CLA to show when it has been pushed sufficiently into the socket to prevent overheating. If the blue light is not lit, push the CLA firmly into the 12-volt socket until the indicator is illuminated. Failure to comply may result in personal injury or equipment damage.

   b) In an airplane, install the Airline Adapter in the end of the Lighter Adapter, as shown in Figure 2. Then insert the Airline Plug into the airplane's in-flight power outlet.
   Note: The Lighter Adapter has a blue LED that will light when plugged properly into the socket.
2. The indicator on the APC DC to AC Power Inverter should illuminate green. This signifies the inverter it is operating properly and is ready for use.
3. Plug AC powered equipment (laptop computer, mobile printer, fax, cell phone recharger or other AC powered equipment) into the APC DC to AC Power Inverter 150 AC outlet.

Specifications

Output Power	**150 watts continuous; 225 watts peak**
Output Voltage	**230 volts +10/-8%**
Output Frequency	**50 Hz**
Output Waveform	**Modified Square Wave**
Input Voltage Protection	**Below 10.5V: Unit shuts off (restarts once voltage rises above 10.5V)** **Above 20V continuous: Unit shuts off** **The unit also withstands:** **Overvoltages of 25V for 5 seconds, once per hour (airline requirement)** **Overvoltages of 24V for 1 minute (automotive requirement)**
Input Voltage Requirement	**10.5 Vdc to 16.0 Vdc**
Efficiency	**> 85%**
Low Voltage Shutdown	**< 10.5 volts**
Operating/Storage Temperature	**Operating 0° to 40° C (32° to 104° F) / Storage -20° to 80° C (-4° to 176° F)**
Operating /Relative Humidity	**95% maximum, non-condensing**
EMI Classification	**FCC Class B**
Dimensions	**6.18 x 3.19 x 1.65 inches (157 x 81 x 42 mm)**
Weight	**353 grams (0.78 pounds)**
Agency Approvals	**CE, RTCA/DO-160D Sections 21 and 22, Nemko approval to IEC60950**

Troubleshooting

Problem	Reason	Suggested Solutions
No AC output power	Poor contact with lighter socket (indicator is not illuminated).	Ensure that the inverter is securely plugged into the lighter, replace the lighter socket if necessary. Check that the blue LED on the lighter adapter is lit.
	Automotive electrical system requires ignition to be on. (indicator is not illuminated).	Turn the vehicle ignition key to the "Accessory" position.
	Battery below 10.5 volts (indicator is yellow).	Unplug the inverter and charge the vehicle battery.
	Over-heating (indicator is yellow).	Allow the inverter to cool. Ensure that there is adequate ventilation.
	The Inverter is overloaded and/or short-circuited (indicator is yellow).	Unplug load from the Inverter and see if the indicator is green. If green, check the power rating of the load. It must be less than or equal to 150 watts.
	Battery above 20 volts (indicator is yellow)	Unplug the Inverter and find a power source that is within the 10.5 - 16 volt dc input range.
Inverter output power is intermittent.	Loose connection (indicator may flicker or be green).	Check and secure all connections. Check that the blue LED on the lighter adapter is lit.

Warranty

APC offers a 1 year product warranty (worldwide) on the APC DC to AC Power Inverter. APC warrants its products to be free from defects in materials and workmanship under normal use and service for 1 year of the original purchase. APC's obligation under this warranty is limited to repairing or replacing, at APC's sole option, any such defective products. To obtain service under warranty, a Return Material Authorization (RMA) number must be obtained from APC (www.apc.com, 800-800-4APC) or an APC service center. The APC DC to AC Power Inverter must be returned with an RMA number accompanied by a brief description of the problem and proof of date and place of purchase. The customer pays shipping charges to APC. Shipping charges back to the customer are paid by APC. This warranty applies only to the original purchaser.

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