

The Patriot® DC Travel Charger

GTS GLOBAL
TECHNOLOGY
SYSTEMS

Tri-Chemistry Compatible

(Li-Ion, NiCD or NiMH) with Motorola® Two-Way Radios



Global Technology Systems, Inc.



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Introduction

The Patriot® DC Travel Charger is a charger for the Motorola® XTS3000, XTS3500 and XTS5000 radio and batteries. The product is designed for Tri-Chemistry (Li-Ion, Ni/CD or Ni/MH) operation.

The Patriot® DC Travel Charger has the capability of charging the specified GTS Batteries as well as batteries provided by other suppliers (as approved by GTS Battery Services).

The Patriot® DC Travel Charger is user friendly and does not require manual setting for charging or battery maintenance parameters. The product is designed for in-vehicle charging with the appropriate car power adapter, which is supplied.

The Motorola® radios listed can be placed in the charger in the 'off' mode, standby mode, operating-receiving mode, or operating-transmitting mode.

This reference guide provides basic instructions on the set-up and use of the Patriot® DC Travel Charger. Unless otherwise noted, the term DC charger refers to the in-vehicle DC Travel version of the Patriot® Charger series of products.

Many of the parameters discussed in this document may be updated in the field as required.

Global Technology Systems Inc. reserves the right to change, update and modify procedures and specifications without notice.

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■ Equipment Supplied

The equipment supplied is:

- One single bay version Patriot® DC Travel Charger
- One operation manual
- One mounting kit (optional): contains one mounting bracket, mounting screws (4), retainer cord and clip

■ Safety Guidelines

Before using the Patriot® DC Travel Charger, please read all instructions and cautionary notations on the DC charger, the GTS Battery, and on the radio host device.

■ Warning

- To reduce risk of injury only use authorized battery products with this charger. Other non-approved batteries may cause personal injury and or damage to the equipment.
- Do not expose the charger to excessive moisture, temperature extremes or direct sunlight.
- Place charger in a well ventilated area which is free of foreign materials.
- To reduce risk of electric shock, unplug charger from power source before cleaning.
- Dispose of used batteries in accordance with your state or local hazardous material laws.
- Do not disassemble, incinerate, modify or short circuit the charger any battery or related components.

■ Product Specification

Input Voltage:	12Volt DC
Temperature:	Operating: -5 °C to 55 °C (4 °F to 130 °F)
Battery:	0 °C to 50 °C (32 °F to 122 °F)
Storage:	0 °C to 70 °C (32 °F to 158 °F)
Charge Time:	2.5-5 hrs maximum, depending on battery capacity
Charge Current:	1300 mA in Constant Current Charge phase
Charge Method:	Constant Current - Constant Voltage with multiple end-of-charge termination methods, temperature controlled
Dimensions:	Length: 3" (76 mm)
	Width: 2.6" (66 mm)
	Height: 2.25" (57 mm)
	Weight: ~½ lbs (193 kg) (without batteries)

■ Operation

The Patriot® Dc Travel Charger will only charge the GTS Batteries and authorized GTS Batteries listed in table 1. Other batteries may not charge.

It is recommended that a new battery should be charged using the Patriot® DC Travel Charger before operating your radio for the first time.

The Patriot® DC Travel Charger will provide battery recharging and allow the radio battery to be maintained at an optimum performance level.

It is suggested to avoid decreased battery performance, that you do not leave nickel chemistry batteries in the charger for extended periods of time (1 week).

1. Charging inside a Vehicle:
 - a. Plug the cigarette lighter or accessory plug adapter into the vehicle's cigarette lighter or accessory receptacle
 - b. Please note that some vehicles cigarette/accessory receptacles may not maintain an electrical current when the vehicle has been turned off.
It is not recommended for the Patriot® DC Travel Charger to be used in conjunction with an AC to DC transformer
2. Insert the battery or radio with a battery into the charger pocket, ensuring that the charging terminals make physical contact with the battery. The unit will begin to charge when it detects the presence of a battery.
3. The Patriot® DC Travel Charger is equipped with a single three color LED to indicate charging status (See Figure 1)

Figure 1 - LED Indicators

Green	Comment
Flashing Green	Charger is powered and ready to start charging, No battery inserted
Steady Green	Charging complete Battery in monitor/maintenance mode
Orange	Comment
Steady Orange	Battery is charging
Flashing Orange	Battery pack being topped-off or balanced
Red	Comment
Rapid Flashing Red	Temperature out of specification
Steady Red	Fault indication
Other	Comment
Strobe Red, Orange, Green to steady Orange	On battery insert
Flashing Orange & Red	Warm battery charging

■ Mounting the bracket (optional accessory)

Select a location for the bracket that will not interfere with air bag deployment or vehicle operation.

Using the metal mounting bracket as a template, mark the location of the 4 fasteners holes. The mounting bracket allows for side or bottom mount options.

Using a drill bit, drill the selected mounting holes.

Using a screwdriver or hex nut driver, secure the mounting bracket with screws.

■ Securing the radio, Patriot® DC Travel Charger into the mounting bracket

Due to the possibility of sudden braking and impact, which could propel the DC Travel Charger or radio with force and cause serious injury to the vehicle occupants... It is highly recommended to secure the Patriot® DC Travel Charger and radio into the mounting bracket when used inside a moving vehicle.

1. Insert the front of the Patriot® DC Travel Charger into the bracket in a downward angle.
2. Push the back of the DC Travel Charger into the bracket until it is securely in place.
3. Insert the radio into the Patriot® DC Travel Charger.
4. Extend the elastic strap over both sides of the select knob and hook the clip to the front ledge of the mounting bracket.

Caution

The elastic strap will be very tight. Be sure to keep your face away from the strap as you are securing it in place.



■ Compatible Batteries

The following list is the list of batteries that are approved for use with the Patriot® DC Tri-Chemistry Travel Charger.

GTS Batteries for Motorola® XTS3000, XTS3500, XTS5000

Battery Model	Capacity	Chemistry
H8299-M(21)	2100 mAh	NiMH
H8299-M(27)	2700 mAh	NiMH
H8299-M(40)	4000 mAh	NiMH
H8294-C(17)	1700 mAh	NiCd
H8294-C	1500 mAh	NiCd
H8610-Li(38)	3800 mAh	Li-Ion

Motorola® Batteries for Motorola® XTS3000, XTS3500, XTS5000

Battery Model	Capacity	Chemistry
NTN9862A	2000 mAh	Li-Ion
NTN8610B (IP)	1650 mAh	Li-Ion
NNTN4435B (IP)	2000 mAh	NiMH
NNTN4436B (IP)	2000 mAh	NiMH
NNTN4437B (IP) (RG)	2000 mAh	NiMH
NTN8299BR	1700 mAh	NiMH
NTN8923AR	1800 mAh	NiMH
RNN4006B	3500 mAh	NiMH
RNN4006AR	3500 mAh	NiMH
RNN4007AR (IS)	3500 mAh	NiMH
HNN9031B (IP)	1525 mAh	NiCd
NTN9032B (IP)	1525 mAh	NiCd
NTN8294BR	1525 mAh	NiCd
NTN9295AR	1525 mAh	NiCd
NTN8297AR (RG)	1525 mAh	NiCd

■ Troubleshooting

If the Patriot® Charger does not operate after you have followed these operating instructions:

- Check the system power - including the fuse for the lighter plug
- Check for loose cable connections
- Check to ensure radio or battery are properly inserted into charger

■ Cleaning

Periodically wipe the charger with a dry lens tissue or other cleaning materials suitable for optical applications: such as eyeglasses

CAUTION

Do not pour, spray or spill any liquid into or onto the charger.

■ Replacement Parts

Please contact:

Global Technology Systems, Inc.,
551 Cochituate Road, Framingham,
MA 01701 ■ 800.267.2711,
In Europe call: 00800.5390.5390,
www.GTSpower.com

■ Warranty and Support

For warranty and service information call 1-508-650-1172. Outside North America, please contact your local Global Technology Systems representative.

Global Technology Systems, Inc. products and devices are warranted against defects in workmanship and materials for a period of one year from the date of shipment. The product or device must remain unmodified and must be operated under normal and proper conditions.

The warranty is limited to repair or replacement at Global Technology Systems, Inc. option, with reasonable promptness after being returned and received by Global Technology Systems, Inc. These provisions do not extend the original warranty term for any product or device which was repaired or replaced.

This warranty applies to the original owner and does not extend to any product or device which was subject to misuse, neglect, accidental damage, unauthorized repair or tampering. Preventive maintenance activities are not covered by this warranty.



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