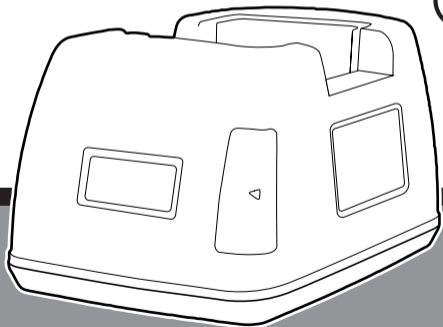


*Waveband*

**Single Unit Rapid Charger**  
**USER MANUAL**



BC

# Waveband Single Unit Charger

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## **Introduction**

Thank you for purchasing a Waveband single unit charger. This model is for desktop use, but may also be installed in a vehicle with optional accessories.

The charger is designed for charging two-way radio batteries whether on or off a radio. Based on the charging pod installed, it will rapid charge these battery chemistries: lithium ion (Li-Ion), lithium polymer (LiPo), nickel-metal hydride (NiMH), or nickel cadmium (NiCd).

If you wish to replace the charging pod in the future, check with Waveband customer service to ensure the replacement pod selected is compatible with your model. For a complete list of charging pods available, call toll free 800-806-1076.

## **Important**

1. Read all Caution statements below and this User Manual before attempting to charge a battery.
2. Check to make sure a charging pod compatible with your battery is properly installed before charging a battery or installing the charger in a vehicle.
3. Always charge new batteries completely before initial use. Recycle batteries when they can no longer be used. Do not discard unwanted batteries in the trash or incinerate. Batteries exposed to fire or excessive heat may explode.
4. For best battery performance, charge NiCd and NiMH batteries when they are fully discharged.

## Caution

1. Based on the pod selected, the charger may be used with Li-Ion / LiPo and NiMH / NiCd batteries. If the pod is designed for Li-Ion / LiPo only, do not attempt to charge NiMH / NiCd batteries. If the pod is designed for NiMH / NiCd only, do not attempt to charge Li-Ion / LiPo batteries. Do not charge batteries with other chemistries or batteries that do not have overcharge protection.
2. Use charger in areas protected from the weather. Do not expose the charger to rain, any liquids, or excessive moisture.
3. Do not attempt to charge a battery without first installing the appropriate charging pod. Use only charging pods designed for this Waveband charger. Disconnect charger from the power source before installing, adjusting, or removing the charging pod.

### **Caution** (continued)

4. Make sure contacts in charging pod and on the battery are clean. Do not allow wire or metal objects to touch contacts in charging pod or any internal part of the charger.
5. Do not remove the charger's housing or make any modification to the charger.
6. Use only the power supply provided with the charger. If a replacement is required, see section **Accessories**. Use of other power supplies may damage the charger or batteries you may be attempting to charge.

### **Replacing A Charging Pod**

The charging pod is made from quality materials and designed to provide years of service when properly used. In most cases, the charging pod will only be replaced when you want to use the charger with a different battery.

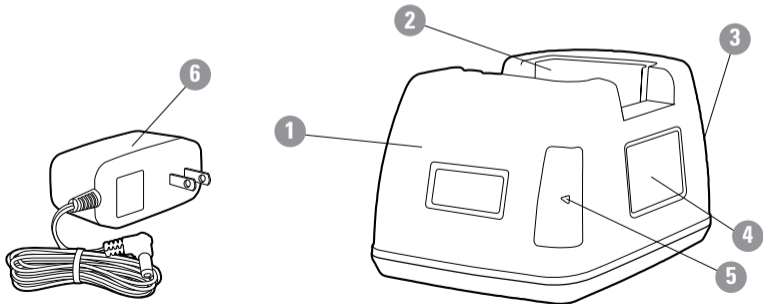
## Replacing A Charging Pod (continued)

Follow these steps to change the charging pod:

1. Obtain a charging pod made specifically for this Waveband charger. Confirm that the charging pod is compatible with the battery you want to charge.
2. Unplug the charger from its power source.
3. The charging pod is secured to the base with a single screw. To remove, turn the locking screw on the bottom of the charging pod counter-clockwise until it no longer holds the pod. Lift the charging pod from the charging base.
4. Insert the replacement charging pod into the charger base and secure with the locking screw. Do not over tighten the screw.
5. Inspect the charging contacts to ensure they are clean and unobstructed.
6. Connect the power supply or vehicle power adapter to the charger. You are now ready to charge a battery compatible with the charging pod.

## Charger Features

1. Charger base.
2. Removable charging pod.
3. DC power connection – back of charger.
4. Status LED information – also see bottom label.
5. Charge status LED – illuminates green, red, or orange.
6. AC to DC power supply.





## Charging A Battery

1. Confirm that the charging pod and battery are compatible.
2. Connect the charger to power with the power supply included.
3. Place the battery to be charged in the charging pod. The battery may also be charged while attached to the radio.
4. When a battery is placed in the charging pod and while charging, the status LED will illuminate RED with no flashing to indicate normal charging.
5. If the status LED is red and flashes, a fault has been detected. The flash pattern represents a specific fault condition. If the status LED is orange (solid or flashing), an advisement is being provided. See section **Fault Conditions & Advisements** for details.
6. When the battery is charged to 80% of capacity, the status LED will change to GREEN and begin to flash. It is recommended that the battery be charged to at least 80% capacity before use.

## Charging A Battery (continued)

7. The charge status LED will illuminate GREEN with no flashing when the battery is fully charged.
8. After removing a fully charged battery, the charge status LED will illuminate ORANGE for a few seconds. Allow the charge status LED to go off before placing another battery in the charging pod.
9. The charger is designed to charge batteries with a temperature monitoring circuit when the battery temperature is between 0°C and 45°C (32° F – 113° F); batteries outside this temperature will not be charged. The ambient temperature should be 5°C - 40°C (41° F - 104° F) while charging a battery.

## Fault Conditions & Advisements

When the charge status LED flashes RED, a fault condition exists. A fault condition requires immediate attention. When the status LED is solid or flashes ORANGE, you are receiving an advisement about the battery.

The flash patterns for fault conditions are as follows:

LED Pattern	Fault Description
Flashes RED 1 Time	Indicates (A) low voltage battery failure or (B) battery has a short circuit. If (A), the battery's voltage is below the minimum level required and cannot be charged. If (B), the battery is defective and should be recycled. This warning is provided after the pre-charge stage is completed.
Flashes RED 2 Times	Indicates battery contact is "open" and current is not passing through the (+) and (-) contacts on the battery. This warning is provided after the initial diagnostic stage is complete. Check charging pod to confirm compatibility with battery.

## Fault Conditions & Advisements (continued)

LED Pattern	Fault Description
Flashes RED 3 Times	Battery temperature is 45°C (113° F) or above. Charging has terminated, remove battery from charger. Have battery checked by a qualified technician.

The flash patterns for advisements are as follows:

LED Pattern	Advisement
Solid ORANGE (Battery removed.)	Brief reset period for charger after battery is removed. Allow the LED to go off before inserting another battery.

## Fault Conditions & Advisements (continued)

LED Pattern	Advisement
Solid ORANGE (Battery inserted.)	Indicates (A) battery is too cold or (B) charger is performing a temperature diagnostic when the battery is inserted. If (A), the battery temperature is 0°C (32° F) or below and charging is delayed for up to two hours. Battery is monitored and charging resumes once it is above freezing. Monitoring terminates if the battery temperature remains below freezing for two hours. Remove battery and reinsert once battery reaches room temperature. If (B), battery type requires additional time to determine its temperature. This is generally completed within a few minutes after insertion.
Flashes ORANGE 1 Time	Battery temperature remains at 0°C (32° F) or below after two hours of monitoring. Remove battery from charger and allow it to warm.
Flashes ORANGE 2 Times	Indicates charging complete, but battery is under charged. Battery voltage is below minimum level required. This warning is provided after the rapid charging stage is complete.

## Warranty And Service During Warranty

The Waveband single unit charger is made from high quality materials and designed to provide years of reliable service. The following warranty applies:

Waveband warrants this product to be free from defects in workmanship and materials for one-year from date of purchase by the end user. This warranty applies to the original purchaser and is void if the product has been altered, misused, damaged, neglected, or if repair is required because of normal wear and tear. This is the only warranty made by Waveband. In no event will Waveband, its affiliates, subsidiaries, related entities, or their respective directors, officers, or employees, be liable for any damages beyond repair or replacement as described above, including without limitation, indirect, incidental, or consequential damages. For service under warranty, return the product along with dated proof of purchase to Waveband Communications, 1912 Liberty Road, Unit 14, Eldersburg, MD 21784.

For your protection, we recommend you obtain proof of delivery for your shipment. Include with your product, dated proof of purchase, your name and daytime telephone number, and return address.

## Specifications

Dimensions (W x L x H)	96 x 131 x 77 mm / 3.8 x 5.2 x 3.0 inches
Weight	0.25 kg / 0.55 lbs. (charger only)
Compatible Chemistries	Li-Ion / LiPo / NiMH / NiCd (based on pod selected)
Ambient Operating Temperature	5° C - 40° C / 41° F - 104° F
Power Supply	Input 100V – 240V AC / 50 Hz – 60 Hz / 0.5A
Charger Input	12V-24V DC / 1.0A (minimum)
Charge Rate	900 mA (10.6V-13.5V)
Approvals	FCC <sup>A</sup> / BC <sup>B</sup> / DOE <sup>C</sup> / CE

Specifications subject to change without notice.

(A) Complies with FCC Rules, Part 15, Subpart B, Class B 2016, ANSI C63.4:2014. (B) Complies with California Energy Commission CEC-400-2011-005. (C) Complies with U.S. Department of Energy 10 CFR, Part 430, PC3 and 4.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Accessories

Part Number	Description	Information
PS-SSDCH	Power supply. (Included with charger.)	UL listed. Input: 100-240V, 50-60Hz, 0.5A. Output: 15.0V, 1.0A.
PS-SSCC	Vehicle power adapter. (For in-vehicle use.)	Length: 20.0" (cord relaxed). Replaceable fuse, 2A.
PA-SSCC	Heavy duty vehicle power adapter. (For in-vehicle use.)	Length: 24.0" (cord relaxed). Replaceable fuse, 6A.
HWKIT-6SCharger	Hardwire kit for in-vehicle installation. (For in-vehicle use.)	Length: 13.0'. Components and cable rated to 15A.
SSCHGMTGBRAC	Mounting bracket. (For in-vehicle use.)	Dimensions: 4.6" x 3.9" x 2.8" (L x W x H).





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