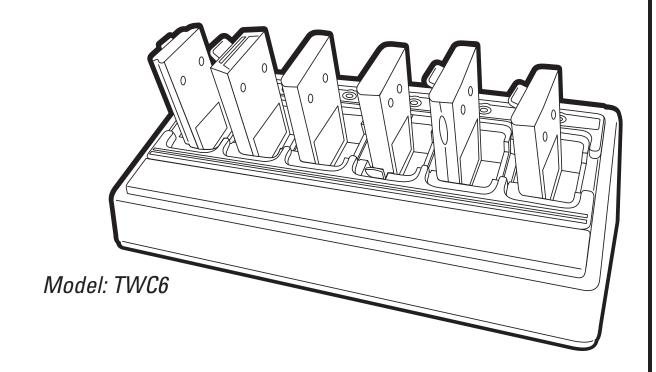


Six Unit Rapid Charger

FOR RECHARGEABLE LMR BATTERIES



User Manual



Introduction

Thank you for purchasing an ENDURA™ TWC6, Six Unit Rapid Charger. This high quality product is designed for use with up to six rechargeable LMR batteries. With the appropriate charging pod installed, it can charge batteries with:

- Lithium ion (Li-Ion), nickel metal hydride (NiMH), or nickel cadmium (NiCd) chemistry.
- Different capacities.

For a complete list of charging pods available for this charger, contact your Power Products dealer or call customer service at 800-529-1618.

▲ Important Safety Information

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the plug provided does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- 10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
- 11. Use only attachments / accessories specified by the manufacturer.
- 12. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when there has been damage to the power supply, cord, or plug; when liquid has been spilled on, or objects have fallen into the apparatus; when the apparatus has been exposed to rain or moisture; when it does not function normally, or when it has been dropped.
- 14. The apparatus shall not be exposed to dripping or splashing, and no objects filled with liquid, such as vases, shall be placed on the apparatus.
- 15. Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

A Caution

- 1. User must not make any modification to the unit.
- 2. User must not replace the battery adaptor or the power adaptor with similar parts in the market. Such actions can cause damage to the charger unit or to the rechargeable batteries and will void the warranty.
- 3. Never attempt to charge alkaline or dry cell batteries. They may burst causing damage and personal injury.
- 4. Never let metal, wire, etc. touch any internal part of the charger.
- 5. Make sure battery and charger contacts are always clean, otherwise batteries may not fully charge.
- 6. Never incinerate used batteries. This may cause an explosion.
- 7. Keep the charger away from TV sets or radios to prevent interference.
- 8. Avoid overcharging. Batteries must be removed from the charger to stop charging. Batteries must not charge for more than 15 hours after the LED indicator turns green.
- 9. If your batteries seem to have no capacity even after being fully charged, completely discharge them, then fully charge them again. If they still do not retain a charge (or very little), new batteries must be purchased.
- 10. There is danger of explosion if a battery is incorrectly replaced. Replace only with the same or equivalent battery. A Li-lon battery must have a protection circuit.
- 11. The battery pack or batteries installed shall not be exposed to excessive heat, such as sunshine, fire, or the like.
- 12. Disconnect power to the charger by turning off the main Power On / Off Switch.



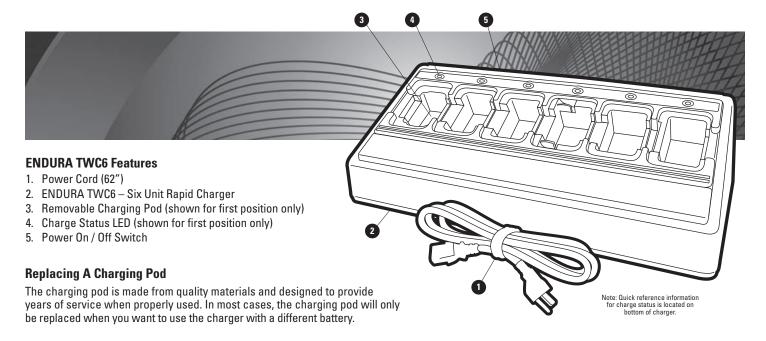
The lighting flash and arrowhead within the triangle is a warming sign alerting you of 'dangerous voltage' inside the product.



CAUTION: TO REDUCE THE RISK OF THE ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICABLE PARTS ARE INSIDE. REFER ANY SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within the triangle is a warming sign alerting you of important instructions accompanying the product.



Follow these steps to change the charging pod:

- 1. Obtain a charging pod made specifically for the ENDURA™ TWC6. Confirm that the charging pod is compatible with the battery you want to charge.
- 2. Unplug the power cord connected to ENDURA™ TWC6 from the wall outlet.
- 3. Turn the locking screw on the bottom of the charging pod counter-clockwise several rotations. Lift the charging pod and the screw from the charging base.
- 4. Insert the replacement charging pod into the charging 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 cord to the the wall outlet. You are now ready to charge a battery compatible with the charging pod.

Charging A Battery

- 1. Confirm that the charging pod and battery are compatible.
- Place battery to be charged in the charging pod. The battery may be charged while attached to the radio. Note: If the battery is attached to radio, turn the radio off while in the charger.
- 3. Connect the power cord to ENDURA™ TWC6 and a wall outlet (120V AC).
- 4. When a battery is placed in the charging pod, the charge status LED will illuminate ORANGE for a short period while the charger performs a battery diagnostic. Once completed, the charge status LED will change to RED. This indicates the battery is charging.
- 5. While a battery is charging, the charge status LED will illuminate RED with no flashing. If the charge status LED is red and flashes, a fault has been detected. The flash pattern represents a specific fault condition. See section Fault Conditions for details.
- When the battery is charged to 80% of capacity, the charge 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.
- 7. The charge status LED will illuminate GREEN with no flashing when the battery is fully charged. Note: Remove battery from charger within 15 hours after charging is complete.
- After removing a fully charged battery, the charge status LED may remain illuminated for a few seconds. Allow the charge status LED to go off before placing another battery in the charging pod.
- The ENDURA™ TWC6 is designed to operate at room temperatures between 15°C and 30°C. Charging batteries at temperatures outside this range
 may result in under charging of batteries.

Fault Conditions

When the charge status LED flashes RED, a fault condition exists. There are five different flash patterns, each indicating a specific type of fault. The flash patterns and fault conditions are as follows:

LED Flash Pattern	Fault Type
Flashes 1 Time	Indicates over-current condition caused by battery short circuit. Check battery contacts. Do not attempt charging the battery if short circuit exists.
Flashes 2 Times	Indicates battery diagnostic has "timed out" and cannot be completed due to excessively low battery voltage. Charge battery with charger supplier with radio, then resume use of ENDURA™ TWC6.
Flashes 4 Times	Indicates over-heat condition for a Li-Ion battery. Battery temperature is over 43°C and charging has stopped. Battery protection circuit may be defective.
Flashes 5 Times	Indicates battery contacts are "open" and current is not passing through the (+) and (-) contacts on the battery. Check charging pod to confirm compatibility with battery.
Flashes 6 Times	Indicates charging complete, but battery is under charged. Battery voltage is below minimum level required.



ENDURA™ TWC6 Specifications

445 x 230 x 295 mm / 17.5 x 9.1 x 11.6 inches **Dimensions** Weight (Charger Only) 4.2 kg / 9.3 lbs. Compatible Chemistries NiCd / NiMH / Li-Ion Operating Temperature 15° C - 30° C Storage Temperature $0^{\circ} C - 65^{\circ} C$ **Power Input** 120V - 60Hz @ 2.5A Charge Rate 700 mA (10.6V-12.4V) **Product Listings** UL / CUL / FCC

Specifications subject to change without notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.

Important: Any changes or modifications to this device by the user not expressly approved by Power Products could void the user's authority to operate this device.



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Warranty And Service During Warranty

The ENDURATM TWC6 is made from high quality materials and designed to provide years of reliable service. The following warranty applies:

Power Products Unlimited, Inc. (PPU) 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, purchased outside the United States, or if repair is required because of normal wear and tear. This is the only warranty made by PPU. In no event will PPU, 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 the retailer where purchased or to Power Products. If returning directly to Power Products, follow these instructions:

- Send to Power Products Warranty Service Department, 2170 Brandon Trail, Alpharetta, GA 30004. 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 (street address only; return shipments cannot be made to a P.O. Box).
- All items sent become the property of Power Products and will not be returned.