



## Recharging Instructions 11/12

Updates beginning in 08/09

Fall and Winter of 2011/2012

The following **highlighted, new and/or updated sections** are from the FootWarmer e Series Operating Instructions 11/12 (first updated in 2008/2009 as the m Series). All of the following Instructions are pertinent to both the e Series and m Series FootWarmers (e4, m4, e3, m3). They are here for your reference when and as needed. Please note, the following is NOT a complete set of the Operating Instructions!

### RECHARGING BATTERY PACKS

- **CAUTION - WARRANTY:** Use Hotronic's White Plug Recharger ONLY for Power Plus e / m Series Battery Packs (e4, e3, m4, m3). Using other than Hotronic's White Plug Recharger voids Warranty.
  - **CONDITIONING CHARGE:** When Battery Pack is new or has not been used for 2 months or more, it is recommended to charge Battery Pack for 24 to 72 hours uninterrupted. Conditioning Charge brings new, unused, or unconditioned Battery Pack to full duration and temperature potential.
  - **RECOMMENDED OVERNIGHT RECHARGING PROMPTLY AFTER EACH USE:** Hotronic's Recommended Process of Recharging Promptly After Each Use helps maintain properly conditioned Battery Pack throughout season and during long periods of non-use. To further optimize charge levels after a week or more of non-use, repeat Overnight Recharging Process the night before next use.
  - **FULLY CHARGED IN APPROXIMATELY 3 HOURS OR LESS:** Hotronic's White Plug Recharger detects when one or more batteries within Battery Pack are fully charged and automatically switches to trickle current recharging (Recharger LED is green) after approximately 3 hours or less of full current recharging. Fully charged, properly conditioned Battery Pack reaches full duration and temperature potential. Fully charged, unconditioned Battery Pack does NOT reach full duration and temperature potential. (See Conditioning Charge.)
  - **SUMMER AND LONG TERM STORAGE:** Recharge Battery Pack as per instructions for Recommended Overnight Recharging Process, turn Battery Pack off, and store without Recharger or Heating Element plugged in. **RECOMMENDED BEST STORAGE TEMPERATURES** range from 5°-25°C (40°-80°F).
  - **ELECTRIC INPUT:** Recharger accepts electric input ranging from 100-240VAC, 50-60Hz.
  - **OCCASIONAL FULL DISCHARGE:** While not required of NiMH batteries, Hotronic recommends an occasional full discharge before fully recharging to help maintain optimal strength. Plug Heating Element into Battery Pack and use "continuous setting 4" for quickest discharge. Battery Pack is fully discharged when Heating Element is no longer warm and all LEDs are off.
- RECHARGE WHEN BATTERY PACK IS OFF:** Hotronic recommends recharging when Battery Pack is off. (Battery Pack is off when all LEDs are off.) However, Battery Pack MAY be recharged at any setting. If recharging while on setting 1, 2, 3, or 4, DO NOT CHANGE SETTING DURING RECHARGING as this may cause recharging process to stop.
1. **Plug Recharger into wall outlet** using correct plug adapter (North American, European, or other).
    - a. **Recharger performs short self-test** with brief red LED followed by brief green LED and then LED off.
  2. **Attach each Battery Pack** to Recharger.



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3. **Recharger LED is continuous red** when detecting Battery Pack status and during initial current and full current recharging.
  - a. **If Battery Pack status is not okay or is not compatible, Recharger LED will blink red** within 20 minutes of continuous red.
  - b. **Maximum duration for continuous red is approximately 3 hours** at which time Recharger LED becomes green.
4. **Recharger LED is green** once **one or more batteries** within Battery Pack are fully charged and indicates trickle current recharging. (See **Conditioning Charge**.)
  - a. One Battery Pack may reach full charge before other.
5. **Battery Pack may be removed at any time** during recharging process **and may be re-attached** to Recharger at any time.
6. **Once Recharging Process is complete:**
  - a. Unplug Battery Pack from Recharger.
  - b. Unplug Recharger from wall outlet.
7. **To maintain maximum charge after recharging**, turn Battery Pack off and store without Recharger or Heating Element plugged in.
5. **Any combination of Power Plus e / m Series Battery Packs (e4, e3, m4, m3) may be recharged simultaneously on same Recharger.**
6. **Hotel room razor outlets** (and other Ground Fault Current Interrupter outlets) are not recommended.

### TIPS ON SUMMER & LONG TERM STORAGE

1. **For summer and long term storage**, recharge Battery Pack as per Recommended Overnight Recharging Process instructions, turn Battery Pack off, and store without Recharger or Heating Element plugged in.
2. **Prior to use after summer and long term storage**, perform Battery Pack Conditioning Charge for 24 to 72 hours uninterrupted.
3. **Do not store (or keep overnight) Battery Pack at temperatures above 105°F (40°C)** as this will harm batteries.
4. **Do not store (or keep overnight) Battery Pack at temperatures at or below freezing (32°F) (0°C)** as it may harm batteries.
5. **Do not store (or keep overnight) Recharger at temperatures below -4°F (-20°C) or above 149°F (65°C)** as this may harm Recharger.

### TIPS ON RECHARGING

1. **When Recharger green LED is on** (trickle current recharging), Battery Pack may remain on Recharger indefinitely.
2. **However, as further protection against possible battery damage, Hotronic DOES NOT recommend leaving Battery Pack on Recharger for extended periods of time** such as 24 hours or more (except during **Conditioning Charge**). Damage may result from power outage, surge, or brownout.
3. **To confirm wall outlet is NOT controlled by switch**, plug in Recharger, attach Battery Pack, and confirm continuous red LED status. Recharger's red LED is on continuously when outlet current is active and goes off within seconds when outlet is turned off by switch.
4. **One or two Battery Packs may be recharged on one Recharger** per above instructions.