IMPRES Battery Care Guidelines

Produced by Bell Mobility Inc. (Radio Division)

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Manitoba Public Safety Communication System (PSCS)

1. Proper IMPRES Battery Care Starts with Initialization

A Motorola IMPRES battery must be initialized by an IMPRES charger the first time it is charged. This process is indicated by a **STEADY YELLOW** light on the charger indicator (the same as if the battery were reconditioning). The process is automatic, includes an initial reconditioning of the battery, and begins charging upon completion of this process.

This process requires approximately 12 hours depending on the capacity. Do not remove the battery from the charger until the **STEADY GREEN** light is on.

2. IMPRES Automatic Battery Conditioning

Motorola IMPRES Adaptive Chargers, when used in conjunction with a Motorola IMPRES battery, have the ability to determine the appropriate time to recondition the battery. When an IMPRES battery is properly inserted into the charger, the charger determines if it is appropriate to recondition the battery. If the battery needs reconditioning, the charger automatically indicates a **STEADY YELLOW**.

This process may take up to 12 hours to complete, depending upon the state of charge and capacity rating of the battery when it is inserted. It is important to note, for this process to be effective, the IMPRES battery must be allowed to complete the recondition/recharge process. Leave the battery in the charger until the charger indicates a **STEADY GREEN**. At the completion of the recondition cycle, the charger automatically recharges the IMPRES battery.

3. How to Terminate the IMPRES Conditioning Process

At any time during the reconditioning process of a Motorola IMPRES battery (**STEADY YELLOW** indication), reconditioning may be terminated by removing and reinserting the battery back into the charger within 5 seconds. This causes the charger to terminate the reconditioning process and begin the charging process. The charger indicator changes to a **STEADY RED**. The charger will attempt to recondition the battery at the next battery insertion.

4. Manually Initiating the IMPRES Reconditioning Process

Within 2-1/2 minutes of the initial insertion of an IMPRES battery (**STEADY RED** indication), remove and reinsert the battery within 5 seconds to manually force reconditioning to occur. The charger indicator changes from a **STEADY RED** to a **STEADY YELLOW**. This forces the charger to recondition and automatically recharge the battery. This is a useful feature to have when IMPRES batteries have been in storage for several months or longer. Two or three manual recondition cycles may be required to rejuvenate the batteries, due to long term storage conditions.

For descriptions of the charge indicators, see **Table 1**.

Table 1. Descriptions of charge indicators.

Charge Indicator	Description
Single Flash Green	Charger has successfully powered up
Steady Red	Battery is in rapid charge mode
Flashing Green	Battery has completed rapid charge (>90% available capacity). Battery is in Top-off charge (Trickle charge)
Steady Green	Battery has completed charging and is fully charged
Flashing Yellow	Battery is recognized by charger but is waiting to charge. (Either the battery voltage is too low or the battery temperature is too low or too high to allow charging. When this condition is corrected, the battery will automatically begin charging.)
Flashing Red	Battery in un-chargeable or not making proper contact
Steady Yellow (IMPRES batteries only)	Battery is in recondition or initialization mode. The length of time the charger remains in this mode depends upon the state of charge remaining in the battery when inserted. (Fully charged batteries require more time to recondition - 8 to 12 hours or more - than fully discharged batteries.)
Flashing Red/Green (IMPRES batteries only)	Battery has completed charging and is fully charged. Battery continues to be usable, but may be nearing the end of its rated service life