

*impres™*  
The Intelligent Motorola  
Portable Radio Energy System



**MOTOROLA**  
intelligence everywhere™

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*impres™*  
BATTERIES AND CHARGERS  
HELP SOLVE EVERYDAY  
BATTERY CHALLENGES

*The impres system:*

- *Virtually eliminates memory effect*
- *Saves you time and money*
- *Preserves your investment*
- *Can be tailored to your operations*



***Multi-Unit  
Charger with  
Display Now  
Available!***



WPLN4130AR



*Multi-unit charger  
with battery analyzer  
features.*



## ***Maximize talk time and battery life with advanced impres technology . . .***

In today's fast-changing times, there's no room for yesterday's battery technology. Today, there's impres — the Intelligent Motorola Portable Radio Energy System that helps solve everyday challenges like memory effect, overheating, improper maintenance and cross-platform compatibility. The impres system — smart batteries and smart chargers — automatically keep batteries at their peak of performance.

Now there are three smart impres chargers to choose from including a new multi-unit adaptive charger with display modules. impres chargers automatically customize operation to the user's unique charging habits. The system will charge, recondition if necessary, keep fully charged over time and control damaging heat build up. It also notifies you when the battery is beyond its useful life. Plus, patented impres circuitry now allows for conditioning and reconditioning of a battery in the smart charger while it is still attached to the radio.

Best of all, impres NiCd batteries are covered under a 24 month workmanship and 24 month capacity warranty when used with an impres adaptive charger. And impres NiMH and Li-ion batteries are covered under a 24 month workmanship and a 18 month capacity warranty when use with an impres adaptive charger.

*impres charging systems deliver these impressive features . . .*



### ***virtually eliminates memory effect***

Nickel based batteries can suffer memory effect when recharged before the battery's energy has been fully consumed.

#### ***SOLUTION:***

impres™ smart chargers help maximize battery operating time between charge cycles — virtually eliminating memory effect in nickel-based chemistries — by automatically customizing operation to the user's unique charging habits. Special patented circuitry assesses the battery condition and charges it . . . reconditions it if necessary . . . keeps it fully charged over time while controlling heat build-up . . . and even notifies you if the battery is beyond its useful life. You can charge and recondition batteries individually, or while still attached to the radio.

### ***save time and money***

Even with trained personnel, battery maintenance can be a guessing game: how long to charge, when to recondition, when to replace.

#### ***SOLUTION:***

impres batteries and chargers help provide a complete system that automatically assures batteries are providing the greatest possible power during work shifts. The impres smart charger charges and optimizes batteries, performing a reconditioning cycle only when required so there's no guesswork and no wasted cycle life. Because this system is automated, it helps reduce the need to manually track and record battery usage.

### ***preserve investments***

Adopting new technologies often means having to scrap existing hardware.

#### ***SOLUTION:***

impres batteries and chargers are engineered to work with existing Motorola two-way radio systems. The batteries and chargers are compatible with HT1000, JT1000, MT2000, MTS2000, MTX8000, MTX9000, XTS3000, XTS3000R, XTS3500, XTS3500R, XTS5000, XTS5000R, Saber and ASTRO Saber two-way radios. And standard Motorola batteries can be charged in all impres smart chargers; they will not overheat even if left in the charger pocket for an extended period of time.

### ***customize operations***

Different users in mixed fleets have different charger needs — one size won't fit all.

#### ***SOLUTION:***

The impres system gives you a choice of smart chargers for mixed fleets. A single-unit charger. A multi-unit charger. And an advanced multi-unit charger with LED displays providing battery analyzer features. All are backwards compatible; supporting legacy batteries as well as impres smart batteries which makes it easy to migrate to this technology.



WPLN4130AR

***Multi-unit charger  
with battery analyzer  
features.***



## Now There are Three Styles of Chargers to Choose From!

### **Choose the impres charger that best matches your needs.**

Each impres adaptive charger is actually three units in one: a rapid charger, a conditioning charger, and when necessary, a battery reconditioner. The impres system keeps batteries fully charged over time while controlling damaging heat built-up. NiCd, NiMH and Li-ion batteries are supported.

impres chargers provide automatic ongoing battery maintenance when used with impres batteries. In addition, they can be used with existing legacy batteries in cross-platform environments.\* Advanced algorithms keep batteries cooler during charging; chargers automatically switch to a low-current trickle charge mode, and a zero-current maintenance mode with top-off bursts. Batteries can be charged on or off the radio.

Compatible with impres batteries for HT1000, JT1000, MT2000, MTS2000, MTX8000, MTX9000, XTS3000, XTS3000R, XTS3500, XTS3500R, XTS5000, XTS5000R, Saber and ASTRO Saber Two-way radios.

## impres Multi-Unit Charger With Display Modules

### **Provides a host of battery analyzer features.**

This charger has a two-line LCD screen for each of its six pockets that displays vital battery information when an impres battery is inserted. It provides "real-time" battery capacity available by displaying actual mAh and the percentage of rated capacity. When the battery is charging, the time remaining to charge is displayed for (NiCd and NiMH.) Other data readings include unique battery serial and part number information, battery chemistry, voltage reading, charging status, and software version of the charger and display modules.

## impres Standard Multi-Unit Charger

### **Ideal for mixed fleets – and upgradable.**

This six-pocket charger handles multiple batteries, both impres and legacy, at the same time. Optional display modules can be purchased for each charging pocket to provide battery analyzer features.

## impres Single-Unit Charger

### **Durable charger fits almost anywhere.**

This single unit charger is a rapid charger, a conditioning charger, and when necessary, a battery reconditioner. . . just like the larger models.



WPLN4108B

*impres™ multi-unit chargers are available with or without display modules.*



*Display modules give you vital battery information. They may be ordered separately for each charging pocket and installed into an existing impres multi-unit charger.*



RLN5382A



*A single-unit charger makes sense for users who need to conserve on space or move the charger between locations.*

WPLN4111AR

\* Supports other Two-way radio families and batteries but with limited feature sets.

## impres Batteries

Part Number	Description	Compatible With
HNN9028AR	NiCd 1500 mAh 7.5V	HT1000, JT1000, MT2000, MTS2000, MTX8000, MTX9000
HNN9029AR	NiCd 1500 mAh 7.5V Intrinsically Safe (FM)	HT1000, JT1000, MT2000, MTS2000, MTX8000, MTX9000
HNN9031B	NiCd 1525 mAh 7.5V	XTS3000, XTS3000R, XTS3500, XTS3500R, XTS5000, XTS5000R
HNN9032B	NiCd 1525 mAh 7.5V Intrinsically Safe (FM)	XTS3000, XTS3000R, XTS3500, XTS3500R, XTS5000, XTS5000R
HNN9033AR	NiCd 1800 mAh 7.5V	Saber, ASTRO Saber
HNN9034AR	NiCd 1800 mAh 7.5V Intrinsically Safe (FM)	Saber, ASTRO Saber
NNTN4435B	NiMH 2000 mAh (1800 min) 7.5V	XTS3000, XTS3500, XTS5000, XTS3000R, XTS3500R, XTS5000R
NNTN4436B	NiMH 2000 mAh (1750 min) 7.5V, Intrinsically Safe (FM)	XTS3000, XTS3500, XTS5000, XTS3000R, XTS3500R, XTS5000R
NNTN4437B	NiMH 2000 mAh (1750 min) 7.5V, Intrinsically Safe (FM) Rugged	XTS3000, XTS3500, XTS5000, XTS3000R, XTS3500R, XTS5000R
NTN9862A	Li-ion 2000 mAh 7.2V	XTS3000, XTS3500, XTS5000, XTS3000R, XTS3500R, XTS5000R

## impresChargers

Part Number	Description	All Chargers Compatible With
WPLN4111AR	impres Single-unit Charger	HT1000, JT1000, MT2000, MTS2000, MTX8000, MTX9000, XTS3000, XTS3000R, XTS3500, XTS3500R, XTS5000, XTS5000R, Saber and ASTRO Saber radios.
WPLN4108BR	impres Multi-unit Charger	
WPLN4130A	impres Multi-unit Charger with Display Modules	

## impres Display Modules

Part Number	Description
RLN5382A	Display Module for Charger Version 1.3* or later.
RLN5591A	Display Module for Charger Version 1.2* or earlier. . . . . Requires software flash update from the Radio Support Center.

\*The version number is referenced on the label located on the bottom of the impres Multi-Unit Charger. If no version is shown, it is version 1.2 or earlier. For example, version 1.3 will appear as V1.30. Detailed installation instructions included.

## impres Single-unit Bundles

Includes two impres batteries and one impres single-unit charger (WPLN4111AR.)

Part Number	Description
RLN5261A	Consists of 2 HNN9033AR batteries and 1 charger
RLN5262B	Consists of 2 HNN9032B batteries and 1 charger
RLN5263B	Consists of 2 HNN9031B batteries and 1 charger
RLN5264A	Consists of 2 HNN9034AR batteries and 1 charger
RLN5265A	Consists of 2 HNN9029AR batteries and 1 charger
RLN5266A	Consists of 2 HNN9028AR batteries and 1 charger
RLN5485B	Consists of 2 NNTN4435B batteries and 1 charger
RLN5486B	Consists of 2 NNTN4436B batteries and 1 charger
RLN5487B	Consists of 2 NNTN4437B batteries and 1 charger



Comes with two impres batteries!

## impres Multi-unit Bundles

Includes six impres batteries and one impres multi-unit charger (WPLN4108BR.)

Part Number	Description
RLN5439B	Consists of 6 HNN9029AR batteries and 1 charger
RLN5440B	Consists of 6 HNN9028AR batteries and 1 charger
RLN5441C	Consists of 6 HNN9032B batteries and 1 charger
RLN5442B	Consists of 6 HNN9034AR batteries and 1 charger
RLN5443C	Consists of 6 HNN9031B batteries and 1 charger
RLN5444B	Consists of 6 HNN9033AR batteries and 1 charger
RLN5488C	Consists of 6 NNTN4435B batteries and 1 charger
RLN5489C	Consists of 6 NNTN4436B batteries and 1 charger
RLN5490C	Consists of 6 NNTN4437B batteries and 1 charger



Comes with six impres batteries!

Radios not included.

## **impres:**

### **The Intelligent Motorola Portable Radio Energy System Features:**

- 24 month workmanship/24 month capacity on NiCd and 24/18 month warranty on NiMH/Li-ion impres batteries when used with an impres adaptive charger.
- Charger/Conditioner/Reconditioner even Analyzer for multi-unit models — Up to four functions in one unit.
- Automatic Adaptive Reconditioning — Reconditions only when necessary based on individual usage pattern.
- Advanced Charging/Trickle/Maintenance Modes — advanced algorithms keeps batteries cooler during charging...trickle charge is low current and maintenance mode is zero current with top off bursts keeping the battery fully charged at all times.
- Tri-Chemistry Charging — Supports NiCd, NiMH, and Li-ion battery chemistries.
- Universal Charging — Supports multiple two-way radio models in one charger.
- “Safe” Battery Stand — Batteries can be safely left on the charger for extended periods of time without damage from overheating while keeping batteries fully charged.
- Revert to Rapid Charging — Keeps batteries fully charged at all times.
- Charge Resume — Resumes charge on batteries briefly removed from charger from the point it left off.
- Dual LED Alert — Full Charge/End of Service Life...alerts users when a battery is fully charged, but may be near end of life. This ensures good batteries are used in the field.
- Motorola Battery ID Recognition — Smart batteries contain unique IDs and store a multitude of information about the battery, its usage, and charge characteristics.
- Charges and reconditions batteries while on or off the radio.
- Smart batteries and chargers operate with older as well as newer Motorola radio platforms.



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