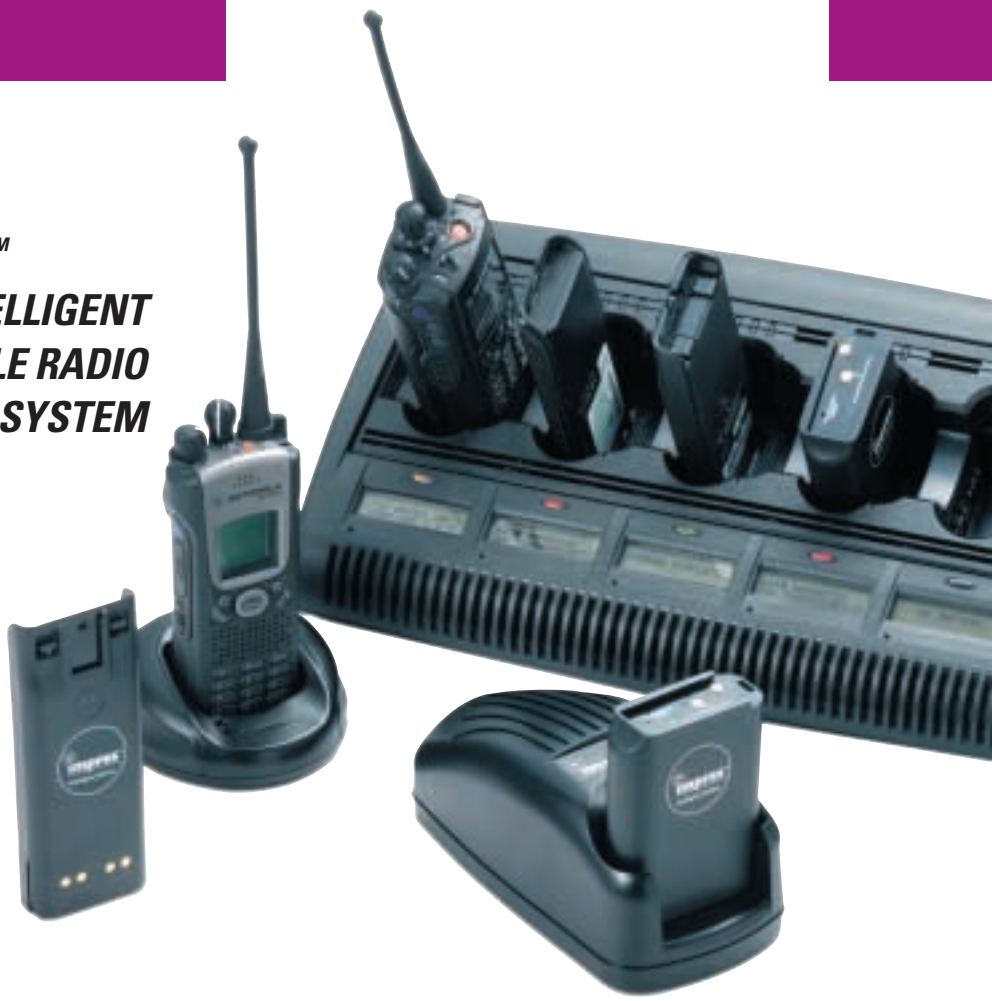
MOTOROLA
intelligence everywhere™

impres

IMPRES™ THE INTELLIGENT PORTABLE RADIO ENERGY SYSTEM



NEW!
Display impres Multi-Charger Avaliable

impres Lite Single Charger for Tetra MTP700/MTP750

Let's talk about saving time and money

With the impres system, there's no need to guess when a battery needs to be reconditioned. There's no worry about wasting unused power or shortening battery life by reconditioning too often. Get the most life out of every battery so:

- *You and your crew spend less time swapping batteries*
- *You can reduce your need to keep spares on the hand*
- *Each battery works longer All of which can help you save time and money.*

What your batteries know can help you save time and money

This patented Motorola technology for two-way radio power combines a "smart" battery, a "smart" charger, and a system that lets the battery, charger and other accessory devices communicate over a singlewire. The battery itself has the intelligence to store information such as elapsed usage time, charge and discharge current, voltage and temperature. The charger then uses the battery information to control battery maintenance automatically. So the impres system automatically manages battery reconditioning and gauges fuel use to extend battery pack life, extend talk time and improve performance. This innovative, intelligent technology helps to make sure your two-way radios are working when you need them most: in high-risk public safety applications, remote field operations and anytime reliable operation is critical.

The impres system works with nickel-cadmium, nickel-metal hydride and lithium-ion batteries.

The brains of the outfit

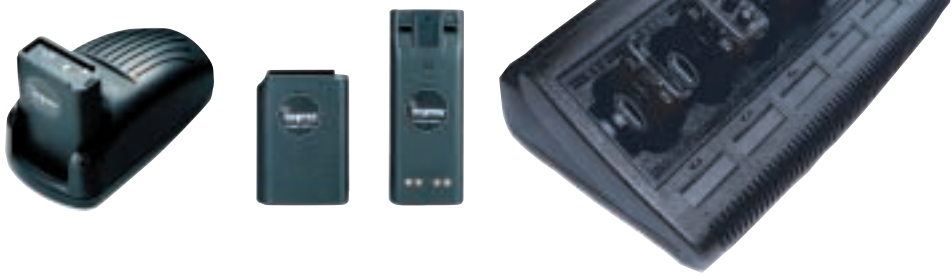
The impres system is an advanced tri-chemistry energy solution including a smart battery pack, an adaptive single- or multi-unit charger provide automatic, adaptive reconditioning and charging through Motorola's patented hardware and software battery management algorithms. And all you do is put the battery in the charger pocket.

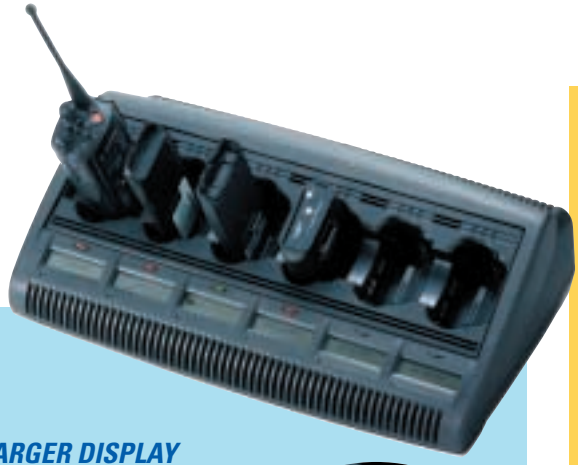
The impres adaptive charger is actually three units in one: **a rapid charger, a conditioning charger and a reconditioner.** The battery pack features unique smart circuitry that sends data to the charger. Based on previous charge history stored in the battery, the charger decides whether to charge or to recondition the battery, effectively eliminating memory build-up. The charger only reconditions the battery when needed, maximizing talk time and ensuring the most possible charge cycles for the battery pack. And it provides a Friendly Charge Algorithm that can minimize heat build and maintenance mode, to maximum the life of the battery pack while letting you keep batteries on the charger longer than ever before.

Impres chargers can both charge and discharge compatible rechargeable batteries. They can charge lithium ion rechargeable batteries and can discharge and recondition both nickel cadmium and nickel metal hydride rechargeable batteries. The charger uses information from battery to automatically and adaptively determine the proper interval for nickel-based battery reconditioning. It can also charge conventional compatible batteries, providing an optimal charge without overheating.

When you use impres batteries with an impres charger, you can even charge or recondition them while they're still in the radio they power.

Compatible radios equipped with digital displays can display specific battery data- and even send to data to your PC. The impres system is designed to support future accessory display and battery management systems, including a custom battery pack usage profile that will calculate and project and end-of-life date.

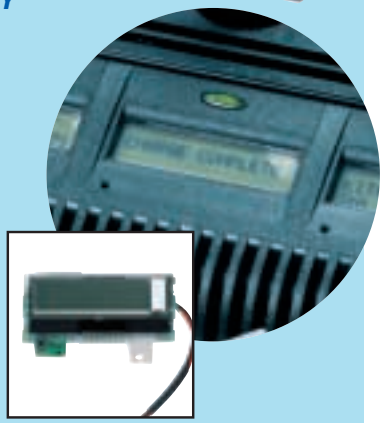




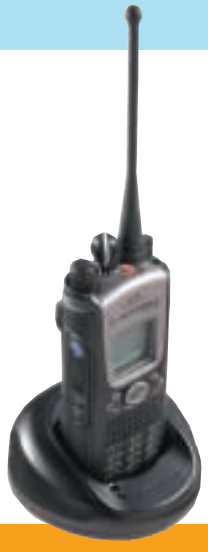
impres MULTI-UNIT CHARGER WITH CHARGER DISPLAY MODULES PROVIDES BATTERY ANALYZER FEATURES

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status including the version of the charger and display modules. impres charger supports NiCd, NiMH and Li-ion battery chemistries, and can charge legacy (non-impres) batteries as well as impres batteries for ease in managing mixed radio fleets. Patented impres circuitry charges and conditions impres batteries, reconditions them if necessary, and keeps them fully charged over time while controlling damaging heat build-up. Reconditioning can also be manually initiated. impres batteries can be left attached to Motorola Two-way radios if users prefer and will automatically recondition. A handy End of Life LED alert provides notification when impres batteries may need to be removed from service.

Individual LCD display module is also available to retrofit to non-display multi-unit model providing customisation depending on budget and operational needs. This allow scalability to a full-6 LCD displays at different procurement cycles.



- Record of date of manufacture
- Unique battery serial number
- Periodic battery fuel tank recalibration
- Record of battery charge cycles: “smart”, approximated, and reconditioned
- Record of initial and present “fuel tank” size
- Battery end-of-service-life indicator
- Log battery data to a personal computer via a serial interface.



The impres™ Lite is specially designed for the Tetra MTP700/MTP750 to provide a more affordable alternative while still retaining most of the desired user-friendly impres™ features. The major exception is that it does not perform the re-conditioning function, hence impres Smart batteries must be calibrated in a full-featured impres charger to ensure they accurately record, store, and display impres battery usage data. This impres™ Lite is a single unit compact charger consisting of a charger base and a wall-mount transformer that tracks “usage” information with the battery such as battery unique ID, number of charge cycles, end of service life, time to re-condition and alert to the user via LED indicators.

impres: The Intelligent Motorola Portable Radio Energy System Features:

- 24 month warranty for NiCD battery when used with an impres adaptive charger.
- Charger/Conditioner/ Reconditioner – three chargers in one.
- Automatic Adaptive Reconditioning – reconditions only when necessary based on the customer 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 the batteries fully charged.
- Revert to Rapid Charging – keeps battery fully charged at all times.
- Charge Resume – resumes rapid charge on batteries briefly removed from the charger.
- Dual LED Alert – Full Charge / End of Service Life – alerts users when a battery is fully charged, but may be near its end of life. This ensures that good batteries are being 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 its charge characteristics.
- Charges batteries while on or off the radio.
- Smart batteries and chargers operate with older as well as newer Motorola radio platforms.

impres™ BATTERIES Portfolio

BATTERY MODEL	DESCRIPTION	NON-SMART EQUIVALENT	RADIO COMPATIBILITY
HNN9028	impres NiCD 1500mAh 7.5V	NTN7144	HT1000/MTS2000/MTX838/MTX8000
HNN9029	impres NiCD 1500mAh 7.5V FM Approved	NTN7341	HT1000/MTS2000/MTX838/MTX8000
HNN9031	impres NiCD 1525mAh 7.5V	NTN8294	XTS3000/XTS3500/XTS5000
HNN9032	impres NiCD 1525mAh 7.5V FM Approved	NTN8295	XTS3000/XTS3500/XTS5000
NNTN4435	impres NiMH 1800 mAh 7.5V	NTN8923	XTS3000/XTS3500/XTS5000
NNTN4436	impres NiMH 1725 mAh 7.5V FM Approved	NTN8299	XTS3000/XTS3500/XTS5000
NNTN4437	impres NiMH 1725 mAh 7.5V FM App Ruggeddized		XTS3000/XTS3500/XTS5000
HNN9033	impres NiCD 1800mAh 7.5V	NTN4595	Saber/ASTRO Saber
HNN9034	impres NiCD 1800mAh 7.5V FM Approved	NTN4596	Saber/ASTRO Saber
PMNN4047	impres LiIon 1500mAh 7.2V		Tetra MTP700/MTP750
PMNN4048	impres NiMH 1200mAh 7.2V		Tetra MTP700/MTP750
PMNN4049	impres NiMH 1200mAh 7.2V FM Approved		Tetra MTP700/MTP750

impres™ CHARGERS Portfolio

CHARGER MODEL	DESCRIPTION	NON-SMART EQUIVALENT	RADIO COMPATIBILITY
Single Unit - impres Lite			
AZWPLN4149	110V US Plug	PMTN4063	Tetra MTP700/MTP750
AZWPLN4150	230V EU Plug	PMTN4064	Tetra MTP700/MTP750
AZWPLN4151	240V UK Plug	PMTN4065	Tetra MTP700/MTP750
Single Unit - impres			
WPLN4117	110-230V US Cord	NTN1168	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4112	110-230V EU Cord	NTN1169	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4113	110-230V UK Cord	NTN1170	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4115*	110-230V AUST Cord	–	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
Multi-Unit - Non Display impres			
WPLN4120	110-230V US Cord	NTN1177 NTN4796	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4109	110-230V EU Cord	NTN1178 NTN4797	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4110	110-230V UK Cord	–	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4118**	110-230V AUST Cord	NTN1178 NTN4797	HT1000/MTS2000 XTS3000/3500/Saber/ASTRO
Multi-Unit - Display impres			
WPLN4135	110-230V US Cord	–	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4131	110-230V EU Cord	–	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4132	110-230V UK Cord	–	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO Saber
WPLN4133**	110-230V AUST Cord	–	HT1000/MTS2000 XTS3000/3500/Saber/ASTRO
WPLN4136	110-230V KOREA Cord	–	MTP700/MTP750/HT1000/MTS2000 XTS3000/3500/Saber/ASTRO
RLN5382	Display Module Only	–	Retrofit to Multi-Unit Non-Display models

OPTIONAL ACCESSORIES/REPLACEMENT KITS (MULTI-UNIT)	
NLN7967	Wall mount bracket
RLN4325	Main board replacement kit
RLN5330	Top housing replacement kit
6880309L66A	Service Manual

IMPRES CHARGER SPECIFICATION			
	impres Lite	**Single Unit**	**Multi-Unit**
Input Voltage	13Vdc	100 to 220Vac ±10%, 50/60Hz	100 to 220Vac ±10%, 50/60Hz
Size (L x W x H)	ø114mm x 51mm	200mm x 90 mm x 83 mm	200mm x 90 mm x 83 mm
Weight (gm)	640	626	4177
DC Current to battery	1.25A ±15%	1.5A ±15%	1.25A ±15% per slot
Operating Temperature	0 – 50˚C	0 – 50˚C	0 – 50˚C

All specifications are subject to change without notice.
*Package excludes MTP700 battery insert (RLN5211).
**Package excludes MTP700 battery inserts - 6 per (RLN5212).

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Malcolm Baldrige National Quality Award 2002 Award Recipient

MOTOROLA ORIGINAL accessories

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