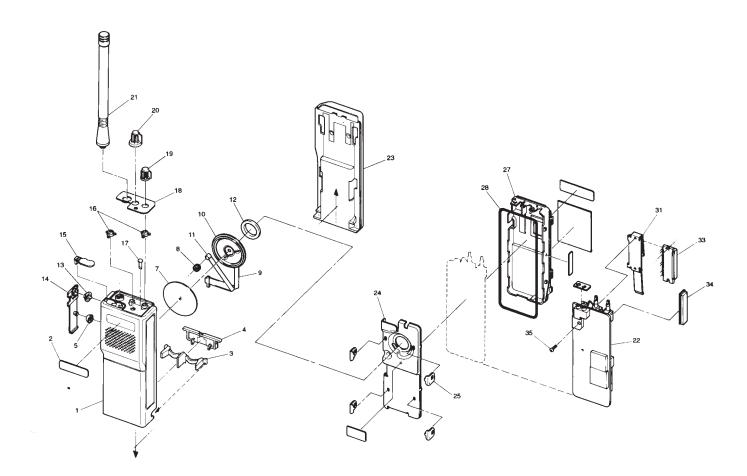




Parts List







Parts List

REF.		
NO.	PART NO.	DESCRIPTION
1	1580576B03	Housing, Radio
2	1380581B01	Label, Name
3	5580577B01	Battery Latch
4	6480585B01	Cover, Plate
5	3805296S01	Actuator, PTT
6		Not used
7	3580998Z04	Felt, Speaker
8	1405874T02	Boot, Mic.
9	3080560D01	Cable, Speaker/Mic.
10	5005589U05	Speaker
11	6880309E50	Microphone
12	7580578B01	Pad, Speaker
13	7580578B01	Monitor Key
14	1380580B01	Bezel, PTT
15	3880627C02	Dust Cap
16	3280960Y01	Seal
17	6180968Y01	Light-Pipe
18	1380582B01	Escutcheon, 2-Channel
	1380582B02	Escutcheon, 4-Channel
19	3680584B01	Knob, Freq., 2-Channel
20	3680584B02	Knob, Freq., 4-Channel
21		Antenna (see accessories)

	REF.		
	NO.	PART NO.	DESCRIPTION
	22		Main BD – not available
	23		Battery (see accessories)
	24	2680532C01	Shield Front
	25	4280190R04	Clip, Locking
	27	2780549B01	Chassis
	28	3280545C01	Gasket, Chassis
	31	4280126S01	Clip, P.A.
	33		P.A. Module
		VHF	
		5105385Y49	146-174 MHz
		UHF	
		5113829D03	403-440 MHz
		5105492X79	403-470 MHz
		5180110R03	465-495 MHz
		5180110R04	490-512 MHz
	34		Receiver Module (for reference only)
	35	0300136783	Screw
NON-REFERENCED ITEMS			
		2113740A41	33pF Chip capacitor soldered across the
			leads of the microphone (item 11).





Portable Accessories

Chargers

Single unit chargers available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. Rapid chargers charge batteries in approximately one hour. Standard chargers charge batteries in approximately 16 hours.

Single Unit Chargers, Rapid Rate

HTN9042A Single Unit, Intellicharge Rapid Charger 110 Volts

HTN9043A Single Unit, Intellicharge Rapid Charger, European Plug, 220 Volts

HTN9044A Single Unit, Intellicharge Rapid Charger, United Kingdom Plug, 240 Volts



HTN9042A

Single Unit Chargers, Standard Rate



HTN9702A

HTN9702A Single Unit, Standard Charger 110 Volts, 10 hour charger

HTN9804A Single Unit, Standard Charger European Plug, 220 Volts, 10 hour charger



Chargers

Multiple Unit Chargers

They can charge up to six batteries in approximately one hour and are available in a variety of voltages for domestic and international applications.

HTN9748C Multiple Unit, One Hour Rapid Charger, 110 Volts (NiCd only)

HTN9811C Multiple Unit, One Hour Rapid Charger, European Plug, 220 Volts (NiCd only)

HTN9812C Multiple Unit, One Hour Rapid Charger United Kingdom Plug, 240 Volts (NiCd only)



HTN9060A

HTN9060A Multiple Unit, 90 minute Rapid Charger 110 Volts (NiCd and NiMH)

HTN9811C

HTN9061A Multiple Unit, 90 minute Rapid Charger European Plug. 220 Volts (NiCd and NiMH)

HLN9293A Wall Mounting Bracket for 90 minute multiunit charger (Use with HTN9060 and HLN9061)



HLN9944A

Charger Conversion Kits

for Multiple Unit Chargers

HLN9405B Six-Unit Charger Conversion Kit, 120V HLN9406A Six-Unit Charger Conversion Kit, 220V HLN9407A Six-Unit Charger Conversion Kit, 240V





Portable Accessories

Chargers

Travel Charger

RLN4833A Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.

0780384K84 Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord



Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

2580600E05 Transformer 120V (US) **2580600E06** Transformer 230V (Euro) **2580600E07** Transformer 230V (U.K.) **2580600E08** Transformer 220V (Argentina)



Vehicular Charger Bracket

HLN9719A Vehicular Charger Adapter/Bracket, 12 Volts for use with Rapid Rate Chargers HTN9630A, HTN9802A, HTN9803A, HTN9167, HTN9168, HTN9169, HTN9042, HTN9043, or HTN9044

Battery Maintenance System Plus (BMS Plus)

Using interchangeable battery adapters (sold separately), the BMS^{plus} is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS^{plus} offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer* port (RS-232)

WPLN4079BR Six-Station, 110V AC, 50/60 Hz **WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



BMS^{plus}**Adapter**

TDN9437A Adapter, belt clip required

TDN9662A Adapter, for battery without belt clip





^{*} Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.





Portable Accessories

Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.



WPPN4002BR 110V AC Base Charge Unit only

WPPN4006AR 220V AC Base Charge Unit only

WPPN4005CR 7 Volt Adapter only

WPLN4088CR MCC Kit, 110V AC; includes both base unit and 7V adapter

WPLN4089CR MCC Kit, 220V AC; includes both base unit and 7V adapter

3080384G15 Cigarette Lighter Adapter Cord

RLN4814A Vehicular Mounting Bracket for Motorola single unit conditioning charger

MCC Multi-Unit Conditioning Charger

WPPN4065BR

Four-station Base, 110V. (Order adapter plates separately)



Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAH to 4 amps per station
- Interchangeable adapters accomodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

WPLN4124AR BOS II, Four-Station, 100-240V AC (US line cord)
WPLN4125AR BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

BOS II Adapter

RL-71883 Standard Adapter,

^{*}Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.





Portable Accessories

Vehicular Battery Eliminator

The battery eliminator helps save battery life by eliminating the need for a battery while in a vehicle. The battery eliminator operates off of a vehicle's electrical system and is ideal when a radio is frequently used in a vehicle.

HKN8036B Battery Eliminator

6580379E53 3 Amp Mini Blade Fuse Replacement for HKN8036



HKN8036B

Housing Kits

HLN3005A 2-Channel P110 Housing Kit

HLN3006A 4-Channel P110 Housing Kit

HLN3044A 6-Channel P110 Housing Kit

Conversion Kit

HLN9578A 25kHz to 12.5kHz conversion kit

Carrying Accessories

Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

Nylon Carrying Cases

HLN9750B Nylon Carrying Case with Belt Loop

HLN9017A Nylon Carrying Case for fully approved FM 1200 mAh battery

Leather Carrying Cases

HLN9873A Standard Leather Carrying Case with Swivel and D-Rings (for use with shoulder strap)

HLN9720A Standard Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)

HLN9721A Slim Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)

HLN9008A Leather Case with Belt Loop for fully approved FM 1200 mAh battery and D-Rings (for use with shoulder strap)

HLN9009A Leather Case with Swivel for fully approved FM 1200 mAh battery and D-Rings (for use with shoulder strap)



HLN9750B



HLN9873A

DTMF Carrying Cases

HLN9970A DTMF Standard Leather Carrying Case with Belt Loop and D-Rings (use with shoulder strap)

HLN8411A DTMF Leather Carrying Case with Swivel and D-Rings (use with shoulder strap)

HLN9011A DTMF Leather Carrying Case with Swivel – fully approved FM 1200 mAh battery and D-Rings (use with shoulder strap)





Portable Accessories

Carrying Accesories

Belt Clips

HLN9724A 2-1/2" Belt Clip

HLN8255B 3" Spring Action Belt Clip

NTN5533A Replacement Belt Clip 3"

Belt

4200865599 1-3/4" wide leather belt for all models

Swiveller

TDN1002A Swiveller; includes holster, belt and strap



HLN9149AR Swivel Belt Loop Adapter (GP300 – for use with HLN9720, HLN972, HLN9750, HLN9011, HLN9970 carrying cases)

HLN9035A Replacement Swivel Belt Loop 2-1/2"

NTN8040B 3" Swivel Belt Loop

TDN1003A Replacement/Spare Swiveller Button

Carrying Holder

HLN9076B Molded Carrying Holder with 3" Spring Action Belt Clip

HLN8414A Chest Pack Carrying Holder

HLN9985B Waterproof Bag, includes large

Carrying strap

Carrying Accesories

Wrist Strap

HLN8052A Wrist Strap

Carry Strap

NTN5243A Shoulder Carrying Strap (GP300—use with leather carrying cases with D-Rings and nylon cases with HLN9149AR)



NTN5243A



Straps

HLN9084A Replacement Strap for molded carrying holder—HLN9076

HLN9973A Replacement Strap for nylon and leather carrying cases (GP300—for leather carrying case)

HLN9975A Replacement Strap for DTMF leather carrying case (HLN8411, HLN9970, and HLN9011)

HLN9974B Replacement Strap for carrying cases (GP300—for leather carrying case)

Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.



HLN6602A Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pouch

1505596Z02

Replacement Strap for HLN6602A



HLN8414A



Portable Accessories

Carrying Accessories

Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.



RLN4570A Break-A-Way Chest Pack

B

RadioPAK™

RLN4815A Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6″ by 8″ zippered pouch for other job necessities.

4280384F89 Universal RadioPAK™ belt lengthener; fits waists larger than 40″

RLN4815A

Vehicular Holder

The portable radio holder slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

TDN9327A Portable Radio Hanger for door panels up to 2.75"

TDN9373A Portable Radio Hanger for door panels up to 3.25"



Audio Accessories

Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and back cover clip.

*HMN9030A Remote Speaker Microphone with Coil Cord and clothing clip on the back cover



HMN9030A

Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

*HMN9727B Receive-only Surveillance Kit, beige (single wire)
RLN4894A Receive-only Surveillance Kit, black (single wire)

***HMN9752B** Receive-only Surveillance Kit with Volume Control, beige (single wire),



HMN9754D Two-wire Surveillance Kit with Microphone and Push-To-Talk Combined, beige



RLN4895A Two-wire Surveillance Kit with Microphone and Push-To-Talk Combined, black (two wire)



^{*} Intrinsically safe



Portable Accessories

Audio Accessories

Replacement Items

5080371E69 Small Rubber Eartips, Pack of 25, Beige

5080371E71 Small Rubber Eartips, Pack of 25, Black

5080371E73 Standard Rubber Eartips, Pack of 25, Beige

5080371E75 Standard Rubber Eartips, Pack of 25, Black

5080369E40 Earloop, Plastic, Beige

5080370E92 Earloop, Plastic, Black

5880377E06 Plastic Earloop Adapter

5080369E38 Standard Earpiece Assembly (includes Earphone,

Earloop, and Eartip), Beige

5080370E90 Standard Earpiece Assembly (includes Earphone,

Earloop, and Eartip), Black

Surveillance Replacement Items

5080386B90 Ear insert tips; pack of 25

Completely Discrete Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic

squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal

when the battery needs to be changed.

Kit includes wireless receiver plus RLN4922A an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.

RLN4922A Completely Discrete Earpiece Kit

Replacement Items

RLN4919A Ear Wax Guards, 5 per pack RNN4005A 1.4 Volt Battery, 6 per pack

Audio Accessories

Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

NTN8370A Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

NTN8371A Low Noise Kit, includes rubber eartip for low noise environments

5080384F72 Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

5080371E69 Small Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

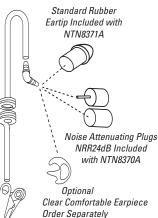
5080371E73 Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-toclean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

- 1. Clear Comfortable Earpiece
- 2. Clear Acoustic Tube Assembly (NTN8371A)
- 3. Surveillance Kits

Acoustic Tube with Earphone



NTN8370A

RLN4763A Small Custom Earpiece, left ear RLN4761A Medium Custom Earpiece, right ear RLN4764A Medium Custom Earpiece, left ear RLN4762A Large Custom Earpiece, right ear RLN4765A Large Custom Earpiece, left ear

RLN4760A Small Custom Earpiece, right ear



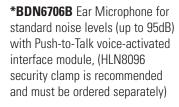
Portable Accessories

Audio Accessories

Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

*BDN6646C Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk interface, (HLN8096 security clamp is recommended and must be ordered separately)





Ear Microphone System (EMS) Accessories

5080371E73 Rubber Ear Inserts for single wire and two wire earpieces – quantity 25

*0180358B38 Finger Push-to-Talk Switch for ear microphone system

0180300E83 Body Switch Push-to-Talk for ear microphone system





0180358B32 Earholder, Black, Size Small
0180358B33 Earholder, Black, Size Medium
0180358B34 Earholder, Black, Size Large
0180358B35 Earholder, Clear, Size Small
0180358B36 Earholder, Clear, Size Medium
0180358B37 Earholder, Clear, Size Large

Audio Accessories

4280369E44 Replaceable Belt clip with Screws

5080358B28 Eartips, Black, Size Medium (10 per pack)

5080358B29 Eartips, Black, Size Large (10 per pack)

5080358B30 Eartips, Beige, Size Medium (10 per pack)

5080358B31 Eartips, Beige, Size Large (10 per pack)

HLN8096A Audio Accessory Security Clamp

Flexible Ear Receiver

BDN6720A Flexible Ear Receiver—earpiece without volume control (flexible earloop and speaker which rests external to ear), (HLN8096 security clamp is recommended and must be ordered separately)

7580372E11 Replacement Foam Ear Cushion for BDN6720

Add-On Retrofit Kits

***HLN3748A** DTMF Retrofit for 16 channel models (applicable on shipments after 3/15/92); Factory Mutual Approved radios must be returned to the depot for retrofitting

Ultra-Light Headset

*RLN5411A Lightweight, behindthe-head style design provides comfort and mobility. Includes flexible boom microphone and in-line Push-to-Talk button



RLN5411A

Lightweight Headset

RMN4016A Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone and In-line PTT button

*HMN9013A Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone (HLN8096 security clamp recommended ordered separately; compatible with Internal VOX)

REX4648A Replacement Foam Earpad and Windscreen Kit for RMN4016A and HMN9013A



HMN9013A







Portable Accessories

Audio Accessories

Medium Weight Headsets



*HMN9021A Medium Weight Dual Muff Headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

*HMN9022A Medium Weight Dual Muff Headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)



Replacement Parts for HMN9021A and HMN9022A

7580376E34 Replacement Foam Earseals (1 pair)

1580376E32 Replacement Cloth Cover for Earseals (1 pair)

5080548E02 Replacement Windscreen for Boom Microphone

3280376E35 Replacement O-ring for windscreen

3080384L77 Replacement Cable

4204004K01 Replacement Adjustable Headstrap for HMN9022A

BDN6647F Medium Weight Single Speaker Headset with Boom Microphone (HLN8096 security clamp recommended – order separately-comp with Internal VOX)

5080371E66 Replacement Earpad for BDN6647

3580371E59 Replacement Windscreen (for boom microphone) for use with BDN6647

Audio Accessories

Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.

RMN4052A Tactical Headband Style Headset, grey; noise reduction rating of 24dB

RMN4053A Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.

RMN4051A Two-Way Hardhat Mount Headset, black



RMN4051A

Adapter Cables

RKN4094A In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.

^{*} Intrinsically safe





Portable Accessories, Antennas

Audio Accessories

Replacement Earseals for Headsets

RLN4923A Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For use with RMN4051, RMN4052, and RMN4053.

Heavy Duty Headset

***BDN6648C** Heavy Duty Headset with Noise Cancelling Boom Microphone, noise reduction rating = 24dB



Portable Antennas

Heliflex

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

HAD9338AR VHF Heliflex, 136-162 MHz, 6"

NAD6502AR VHF Heliflex, 146-174 MHz, 6"

8505816K24 Heliflex Stubby, 403-430 MHz, 3"

8505816K25 Stubby, 440-470 MHz, 3"

8505816K26 Heliflex Stubby, 470-512 MHz, 3"



Flexible Whip

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

NAE6483AR Flexible Whip, 403-520 MHz, 6"

Tunable VHF

HAD9728B VHF Kit, 146-174 MHz, 6"

Stubby

Stubby antennas are ideal when the radio is worn on the belt because the short antenna is non-obtrusive.

HAD9742A Stubby, 146-162 MHz, 3"

HAD9743A Stubby, 162-174 MHz, 3"











Batteries, Service Aids

Portable Batteries

Nickel-Cadmium Premium

Part Number: HNN8148B

Volts: 7.5 Avg. mAh: 1100 Height: 6" Intrinsically Safe:: No

Service Aids

Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6008278J01), order separately.



RLN4008E Radio Interface Box

Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

3080369B71 25 Pin PC Cable connects the RIB to 9 pin computer port

3080369B72 9 Pin PC Cable to connect RIB to computer port



3080369B71





Service Aids, Software, Manuals

Service Aids Software

Programming Cable

Connects radio interface box to radio for programming.

HKN9857A Radio Programming Cable

Cloning Cable

HKN9755A Allows the radio to be duplicated from a master radio by transferring programmed data from one radio to another.

Test Set Cable

RKN4034A Connects radio to RTX4005 Test Box



Wall Mounted **Power Supply**

Used to supply power to radio interface box, RLN4008E

0180357A57 Wall Mounted Power Supply, 110 Volts

0180358A56 Wall Mounted Power Supply, 220 Volts

Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

HVN9852J Programming Software

Instruction Manuals

6880901Z83 Operators Manual P110 Service Manual 6880902Z30 6880902Z28 P110 Owners Manual



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