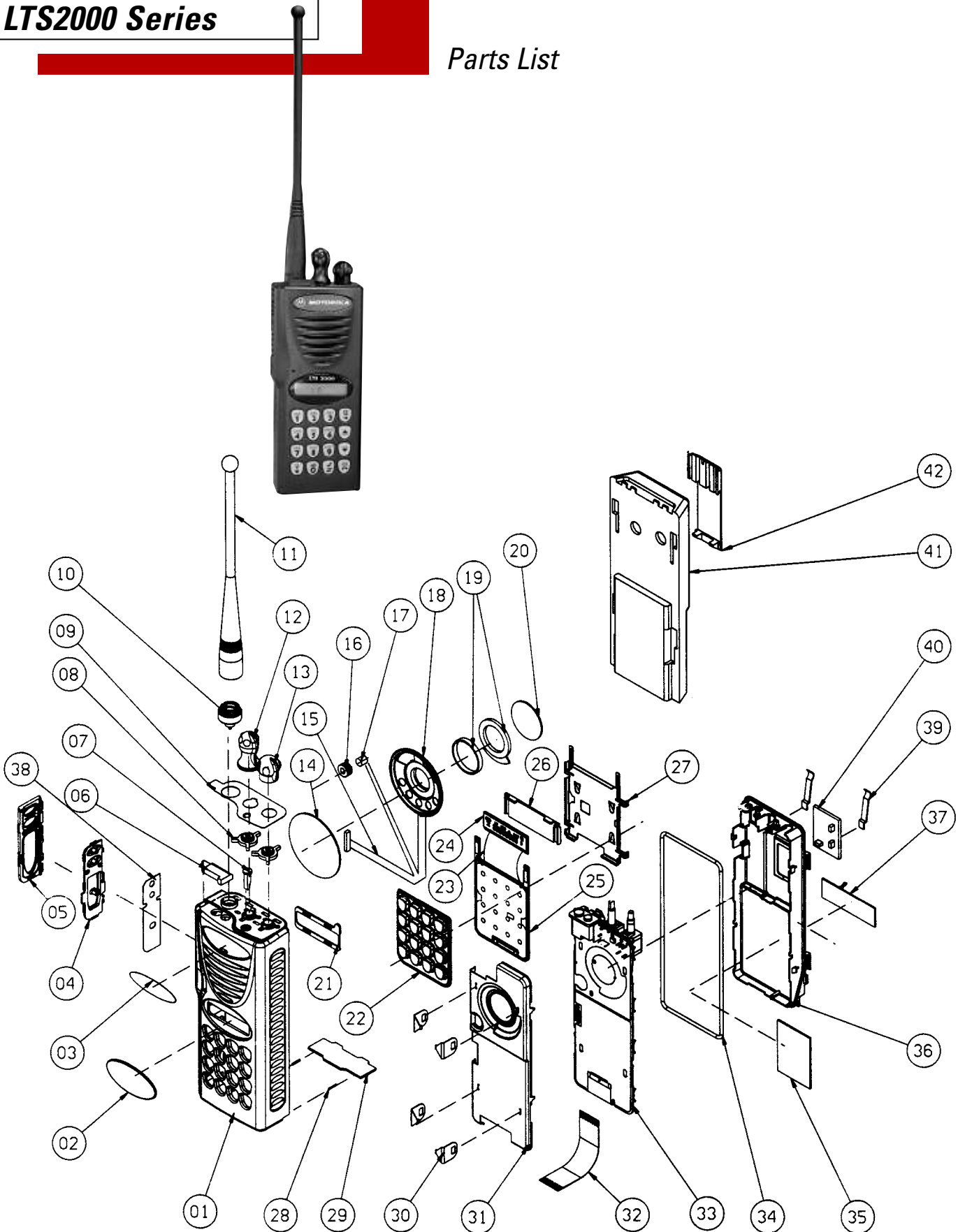


**LTS2000 Series**

*Parts List*



# LTS2000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>1580422K02</b>	Front Housing	25	---	Logic Board, Assembled (see manual depending on frequency)
2	---	LCD Cover, part of 1580422K02 (cannot be ordered separately)	26	<b>6180687K01</b>	Light Pipe
3	<b>3380455K01</b>	Name Plate	27	<b>2680402K01</b>	Logic Board Shield
4	<b>7580430K01</b>	PTT Keypad	28	<b>4105944K01</b>	Battery Latch Spring, 2 used
5	<b>1380431K01</b>	PTT Bezel	29	<b>5580438B01</b>	Latch
6	<b>3880428C02</b>	Dust Cap	30	<b>4380190R04</b>	Shield Clip, 2 used
7	<b>6180687K01</b>	Light Pipe	31	<b>2680532C01</b>	Front Shield
8	<b>3280960Y01</b>	Seal, 2 used	32	<b>8408051Y01</b>	RF-to-Logic Flexible Circuit
9	<b>1380463K01</b>	Escutcheon	33	<b>FUF5690A</b>	RF Board, Assembled
10	<b>5880636V01</b>	Antenna Adapter	34	<b>3286063C01</b>	"O" Ring gasket
11	<b>8505241U03</b>	Antenna Whip	35	<b>1480610B01</b>	Chassis Insulator
12	<b>3680433K01</b>	Frequency Knob	36	<b>2780549B01</b>	Chassis
13	<b>3680432K01</b>	Volume Knob	37*	---	FCC Label
14	<b>3580998Z04</b>	Speaker Felt	38	<b>3286074C01</b>	Pad PTT
15	<b>3080560D01</b>	Speaker/Mic Cable	39	<b>3980188R01</b>	Contact, B+/B-
16	<b>1480577C01</b>	Microphone Boot	40	<b>FLN8517A</b>	Battery Filter Board
17	<b>5013920A03</b>	Microphone	41	<b>HNN9628B</b>	Battery
18	<b>5005589U05</b>	Speaker	42	<b>HLN9724A</b>	Standard Belt Clip
19	<b>7580506C02</b>	Speaker Pad		or	
20	<b>3980546B02</b>	Front-Shield Ground Contact		<b>HLN8255B</b>	Spring Action Belt Clip
21	<b>7580685K01</b>	Pad			
22	<b>7580428K02</b>	Keypad			
23*	---	Heat-Sealed Flexible Cable			
24*	---	LCD, 7 segments, 8 characters, 8 annunciators			

\*Not field repairable

# LTS2000 Series

## Portable Accessories

### Chargers

#### Single Unit Intellichargers, Rapid Rate

The single unit Intellicharger utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries in approximately one hour.

**HTN9042A** Single Unit, intellicharge rapid charger, 110V

**HTN9043A** Single Unit, intellicharge rapid charger, 220V, Euro plug

**HTN9044A** Single Unit, intellicharge rapid charger, 240V, UK plug



HTN9042A

#### Single Chargers, Standard Rate

The single unit standard charger charges NiCd batteries only in approximately 16 hours.

**HTN9702A** Single Unit, standard charger, 110V



HTN9702A

**HTN9804A** Single Unit, standard charger, 220V, Euro plug

**HTN9805A** Single Unit, standard charger, 240V, UK plug

### Chargers

#### Multi-Unit Chargers

Multi-unit chargers can charge up to six batteries in approximately one hour and are available in a variety of voltages

**HTN9748C** 120V, 6 Unit, 1 Hour Rapid Rate Charger (for NiCd batteries)

**HTN9811C** 220V, 6 Unit, 1 Hour Rapid Rate Charger (for NiCd batteries)

**HTN9812C** 240V, 6 Unit, 1 Hour Rapid Rate Charger (for NiCd batteries)

**HTN9060A** 120V, 6 Unit, 90 Minute Rapid Rate Charger (for NiCd and NiMH batteries)

**HTN9061A** 220V, 6 Unit, 90 Minute Rapid Rate Charger (for NiCd and NiMH batteries)

**HLN9944A** Wall Mounting Bracket for multiple unit



HLN9944A

#### Travel Charger

A great traveling companion that ensures constant communication while on the road. Allows the battery to rapid charge while using the radio. Users can receive communication immediately once the charger is connected, and transmit from a previously "dead" battery in just 5 minutes. This light and compact unit includes a voltage regulated lighter adapter, custom charger base, mounting bracket and coil cord. Ideal for public safety, utility and construction markets.

**RLN4833A** Travel Charger



RLN4833A

# LTS2000 Series

## Portable Accessories

### Chargers

#### Travel Charger Mounting Bracket

**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

The vehicular charger is designed to easily charge your batteries in a vehicle by adapting a single unit, rapid rate charger to the cigarette lighter receptacle. This is ideal when a radio is often used in a vehicle.



HLN9719A

**HLN9719A** Vehicular Charger Adapter/Bracket, 12 Volts for use with Rapid Rate Chargers HTN9630, HTN9802, HTN9803, HTN9167, HTN9168, or HTN9169

### Motorola Conditioning Charger (MCC)

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.

**WPPN4002BR** Base Charge Unit with Adapter Plate, 110VAC (order adapter plates separately)



WPPN4002BR

**WPPN4006CR** Base Charge Unit with Adapter Plate, 220V AC (order adapter plates separately)

**WPPN4005CR** Adapter only, 7V

**WPLN4088CR** MCC Kit, 110V AC (includes base unit and 7V adapter)

**WPLN4089CR** MCC Kit, 220V AC (includes base unit and 7V adapter)

**WPPN4065BR** Multi-Unit, four station base, 110V (order adapter plates separately)

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



RLN4814A

## LTS2000 Series

## Portable Accessories

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Increase the useful life of our batteries using interchangeable battery adapters (sold separately). The BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing on NiCd, NiMH, Li-ion batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

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

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

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit or WPLN4079AR, WPLN4080AR, and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

### **BMS<sup>plus</sup> Adapter**

**TDN9437A** Adapter, for use with HNN9628A and HNN9701A batteries

**TDN9438A** Adapter, for use with HNN8308A and HNN9808A batteries

**TDN9662A** Adapter, for use with HNN9628A

### 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 accommodate 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, LTS2000

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

# LTS2000 Series

## Portable Accessories

### Vehicular Holders

The portable radio hanger 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 2-3/4"

**TDN9373A** Portable Radio Hanger for door panels to, 2-3/4" to 3-1/4"



### Carrying Accessories

#### High Activity Swivel Carry Cases

The following carry cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications.

**HLN9421A** DTMF Leather Carry Case with High Activity Swivel Belt Loop for use with standard battery

**HLN9426A** DTMF Leather Carry Case with High Activity Swivel Belt Loop for use with FM Approved 1100 mAh Battery

**HLN9427A** DTMF Leather Carry Case with High Activity Swivel Belt Loop for use with FM approved 600 mAh battery



*HLN9421A*

#### Carry Holder

**HLN9076B** Molded Carry Holder (high capacity battery)

**HLN8044A** Strap for molded carry holder, snap

### Carrying Accessories

#### Carrying Cases

Carrying cases provide a convenient way to carry your radio while protecting it from the environment. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



*HLN9428A*

#### Standard Belt Loop Carry Cases

**HLN9428A** DTMF Leather Carry Case with Belt Loop for use with Standard Battery

**HLN9429A** DTMF Leather Carry Case with Belt Loop for use with FM Approved 1100 mAh Battery

**HLN9431A** DTMF Leather Carry Case with Belt Loop for use with FM Approved 600 mAh Slim Battery

# LTS2000 Series

## Portable Accessories

### Carrying Accessories

#### Belt Loops



NTN8039B

**NTN8039B** 2-1/2" Replacement Swivel Belt Loop for high activity swivel cases



NTN8040B

**NTN8040B** 3" Replacement Swivel Belt Loop for high activity swivel Cases

#### Belt Clips

**HLN9724A** Belt Clip, 2-1/2"

**HLN8255B** Spring Action Belt Clip, 3"

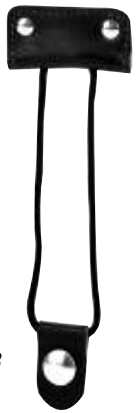
#### Belt

**4200865599** 1-3/4" wide leather belt

#### T-Strap

**HLN9975A** Strap for DTMF carry case, snap

HLN9975B



NTN5243A

#### Carrying Strap

**NTN5243A** Carry Strap, black nylon, adjustable length, attaches to "D" rings on carrying cases

#### Swiveller

**TDN1002A** Swiveller (includes holster, belt and strap)

### Carrying Accessories

#### Waterproof Bag

**HLN9985B** Waterproof Bag, includes large carrying strap

#### Chestpack

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

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

#### 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



RLN4570

#### 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

# LTS2000 Series

## Portable Accessories

### 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 microphone includes: 6.0" coiled cord assembly, and swivel clip

**HMN9030A** Remote Speaker Microphone



HMN9030A

#### RSM Accessories

##### Epaulet Strap

Black leather epaulet strap secures remote speaker to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4295A** Epaulet Strap, Small Clip



RLN4295A

### Audio Accessories

#### Surveillance Kits

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

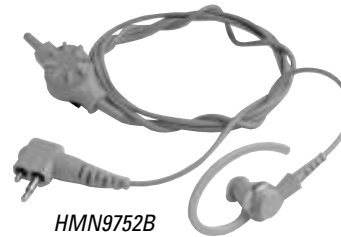
**HMN9727B** Receive-only Surveillance Kit, beige (1-Wire)

**RLN4894A** Receive-only Surveillance Kit, black (1-Wire)

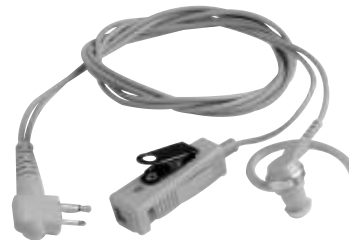
**HMN9752B** Receive-only Surveillance Kit with Volume Control, beige (1-Wire)

**HMN9754D** Surveillance Kit with Microphone and Push-To-Talk Combined, beige (2-Wire)

**RLN4895A** Surveillance Kit with Microphone and Push-To-Talk Combined, black (2-Wire)



HMN9752B



HMN9754D

#### Surveillance Replacement Items

**5080371E73** Standard Rubber Eartips, pack of 25, beige

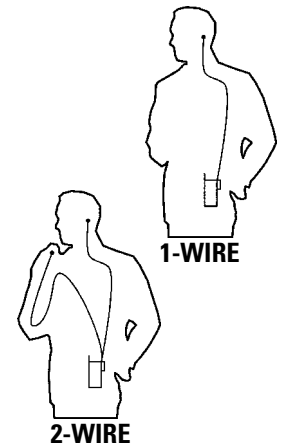
**5080371E75** Standard Rubber Eartips, pack of 25, black

**5080369E40** Earloop, plastic, beige

**5080370E92** Earloop, plastic, black

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), beige





# LTS2000 Series

## Portable Accessories

### Audio Accessories

#### Noise Kits

This lightweight translucent tube attaches to Motorola surveillance accessories to provide additional flexibility and comfort. 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 of noise reduction

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments, does not provide hearing reduction



NTN8370A

**5080384F72**

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



NTN8371A

**5080371E73** Beige Replacement Standard Rubber Eartips; for use with NTN8371A (Pack of 25)

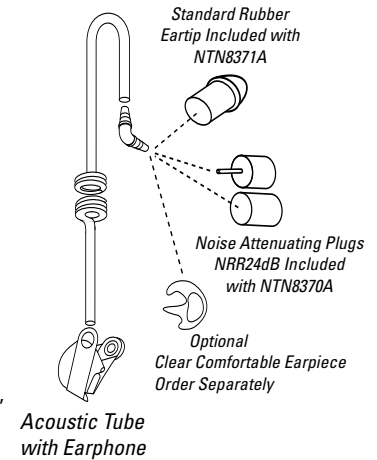
**5080371E75** Black Replacement Standard Rubber Eartips; for use with NTN8371A (Pack of 25)

### Audio Accessories

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371, clear acoustic tube assembly and most surveillance kits (1-, 2-, and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are three items need to make this product work:

- 1) Clear Comfortable Earpiece,
- 2) Clear Acoustic Tube Assembly (NTN8371), and
- 3) Surveillance Kits.



**RLN4760A** Small Custom Earpiece, right ear

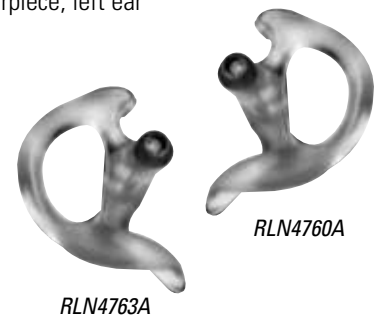
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



# LTS2000 Series

## 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).

**Interface Module needs to be ordered separately for EMS to work.**

**BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



**BDN6641A**  
Requires  
interface module  
sold separately



**BDN6708B**

#### Interface Module For EMS

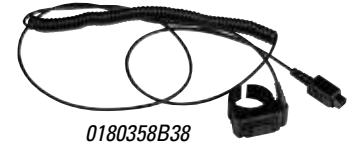
**BDN6708B** Push-To-Talk Interface Module

**BDN6671B** Push-To-Talk or Voice-Activated Interface Module

### Audio Accessories

#### Optional Accessories For EMS

**0180358B38** Remote Push-To-Talk Ring Switch



**0180358B38**

**0180300E25** Earguard with adjustable loop, secures ear mic in ear



**0180358B33**

**0180358B32** Small size black earholder secures microphone in ear

**0180358B33** Medium size black earholder secures microphone in ear

**0180358B34** Large size black earholder secures microphone in ear

**0180358B35** Small size clear earholder secures microphone in ear

**0180358B36** Medium size clear earholder secures microphone in ear

**0180358B37** Large size clear earholder secures microphone in ear

**4280369E44** Replaceable belt clip with screws

**5080358B28** Medium size black eartips (10 per pack)

**5080358B29** Large size black eartips (10 per pack)

**5080358B30** Medium size beige eartips (10 per pack)

**5080358B31** Large size beige eartips (10 per pack)

#### Flexible Ear Receivers

This receiver-only earpiece contains a flexible earloop and speaker which rests external to the ear.

**BDN6720A** Flexible Ear Receiver

**7580372E11** Replacement Foam Ear Cushion for BDN6720

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discreet two-way communications while adding comfort necessary for extended wear in moderate noise environments.

**\*RMN4016A** Lightweight Single Speaker Headset with Swivel Boom Microphone for left or right ear operation and In-line PTT button

**REX4648A** Replacement Foam Earpad and Windscreen for RMN4016A



**RMN4016A**

\* Intrinsicly safe

## LTS2000 Series



## Accessories, Antennas, Batteries

### Audio Accessories

#### Completely Discreet Earpiece

Remain discreetly in touch with the miniaturized Phonak Phonito receiver. All messages received through the user's two-way radio are inductively relayed to the wireless Phonito in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.



RLN4922A

**RLN4922A** Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guard

**RLN4919A** Replacement Ear Wax Guards, 5 per pack

**RNN4005A** Replacement 1.4V Battery, 6 per pack

### Portable Antennas

#### Flexible Whip Antenna

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.

**8505241U03** Flexible Whip, 806-870MHz, 7"

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**\*8505241U06** Stubby, 806-941MHz, 4"



8505241U06

\* 8505241U06 is a broad band antenna that operates in the 800/900MHz band

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN8133C**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: Yes

Part Number: **HNN8308A**

Volts: 7.5

Avg. mAh: 600

Height: 5-1/2"

Intrinsically Safe: No

Slim: Yes

Part Number: **HNN9628B**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: No

Part Number: **HNN9701A**

Volts: 7.5

Avg. mAh: 1100

Height: 5-1/2"

Intrinsically Safe: Yes

Part Number: **HNN9808B**

Volts: 7.5

Avg. mAh: 600

Height: 5-1/2"

Intrinsically Safe: Yes

Slim: Yes



HNN9628B

#### Powerline

Part Number: **WPNN4044AR**

Volts: 7.5

Avg. mAh: 1000

Height: 5-1/2"

Intrinsically Safe: No

# LTS2000 Series

## Service Aids, Manuals

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer.



RLN4008E

**RLN4008E** Radio Interface Box

#### Programming Cable

Connects radio interface box to radio for programming.

**HKN9857A** Programming/Test Cable



0180357A57

#### 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

### Service Aids

#### Computer Interface Cable

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

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

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

**RVN4156N** Programming Software, 3-1/2" diskette (includes manual and storage box)

### Manuals

**6802945C85**

User Manual

**6802945C75**

Service Manual

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM