

ACCESSORIES FOR A CUSTOMISED COMMUNICATION SOLUTION

FOR MOTOROLA PROFESSIONAL SERIES PORTABLE RADIOS

Compatible for GP328/338, GP329/339 and PTX700/760/780 Professional Radio Series

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Carrying Accessories

Antenna

For Motorola GP328/GP338, GP329/GP339 & PTX700/760/780 **Professional Portable Radio Series**

2-way communication adds value to your work operations by integrating all functions seamlessly and delivering the right information to the right people at the right time.

Turn your professional radio system into a complete communications solution. Adding the proper accessories enhances the utility and productivity of your 2-way radio. Each Motorola original accessory ensures peak performance to match the standards you demand.

Batteries

Motorola original batteries are available in a variety of chemistries and capacities, designed to work hand-in- hand with your 2-way radios to ensure optimised performance and safety for your business.

Nickel Metal-Hydride

Part Number PMNN4008AR (comes with spring clip HLN9844)

Capacity/ Size: Med cap / standard 1450mAH Avg mAH: Dimension: 55 x 123 x 20 mm

Part Number PMNN4045AR (MAG ONE)

Capacity/ Size: High cap / standard Avg mAH: 1200mAH Dimension: 55 x 123 x 20 mm

Part Number PMNN4009AR (comes with spring clip HLN9844)

Ultra-High / standard Capacity/ Size: Avg mAH: 55 x 123 x 22 mm Dimension:

HNN9010AR **Part Number** Capacity/ Size: Ultra-High / standard Avg mAH: 1800mAH 55 x 123 x 22 mm Dimension:

Nickel Cadmium

Part Number PMNN4012AR (comes with spring clip HLN9844)

Capacity/ Size: High cap / standard Avg mAH: 1350mAH 55 x 123 x 20 mm Dimension:

HNN9011AR **Part Number** Capacity/ Size: High cap / standard Avg mAH: 1200mAH 55 x 123 x 20 mm Dimension: FM Rating#:

Lithium-lon

PMNN4023AR (comes with spring clip HLN9844) **Part Number**

Capacity/ Size: High cap / slim 1200mAH Avg mAH: 55 x 123 x 16 mm Dimension:

Important note: PMNN4008_R and PMNN4023_R are NOT APPLICABLE for use with GP328/338 low band radios.

IS - Intrinsically safe (Div 1, Class I, II, III, Groups C, D, E, F, G) # NI - Non-incentive (Div 2, Class I Groups A, B, C, D)



PMNN4008AR* (shown with long clip)



PMNN4045AR



HNN9010AR





Charging Accessories

Designed to work as a total system with the 2-way radio and battery, Motorola original chargers maximise the battery life and keep batteries in tip-top condition. Choose from the single tri-chemistry single/multi unit charger to the sophisticated 6-slot battery maintenance system that provides battery health diagnostic and re-conditioning capabilities.

Single Unit Tri-chemistry, Rapid Rate

Utilise an enhanced charging algorithm that helps maximise the life of your batteries. Compatible for NiCd, NiMH and Lilon batteries. Nickel-based batteries will be fully charged in approximately 90 minutes (depending on battery capacity). Full charging of Lilon batteries may take approximately 3 hours. Allows battery only or radio/battery combination charging.

PMTN4024B Single Unit Rapid Charger

110V – US plug

PMTN4025B Single Unit Rapid Charger

230V – Euro plug

PMTN4026B Single Unit Rapid Charger

230V – UK plug

Single Unit Conditioning Chargers

Utilise enhanced pulse charging interpersed with regular discharge pulse current to minimise "memory-effect" and overheating of NiCd and NiMH batteries. A standard capacity battery takes approximately 90 minutes for a full charge. Pulse maintenance charging after a full charge maintains peak capacity for the battery.

WPLN4107AR Single Unit Conditioning Charger

110V –US plug (Battery adapter included)

WPLN4106AR Single Unit Conditioning Charger

230V - Euro plug (Battery adapter included)

3080384G15 Cigarette Light Adapter

Multi Unit Chargers

Multi unit chargers can charge up to a maximum of six individual batteries or radio/battery combination in approximately 90 minutes. This multiunit charger has a built-in 110V – 230V switching power supply and comes with different power cords for various countries' plug configurations. Ideal for large fleet, shift-work or centrally located work group operations. Besides desktop use, it can also be wall-mounted to save space via an optional bracket.

PMTN4027C Multi Unit Rapid Charger

110V -US cord

PMTN4028C Multi Unit Rapid Charger

230V –Euro cord

PMTN4029C Multi Unit Rapid Charger

230V -UK cord

NLN7967A Wall Mount Bracket

For multi unit chargers (PMTN4027/4028/4029)

4-Slot Conditioning Chargers

Choose also from the four slot multi-conditioning chargers that utilises regular pulse current to minimise "memory-effect" and overheating of Nickel-Based batteries. Full charging in approximately 90 minutes. Batteries must be removed from radios to perform conditioning charging since radio contacts must be used.

WPPN4065AR 4-Slot Multi Conditioning

110V –US cord (Battery adapter not included)

WPPN4076AR 4-Slot Multi Conditioning

230V —Euro cord (Battery adapter not included)

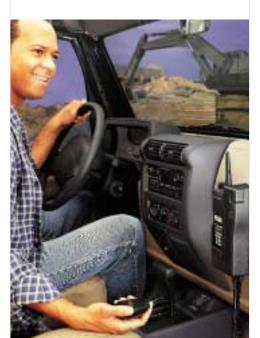
WPPN4082AR GP328 Battery Adapter

(Order separately)





EN1006A



Vehicular Accessories

Mobile Vehicle Adapters

This range of vehicle adapters is specially designed for the use of portable radios in a mobile environment. Once installed in a vehicle, the portable turns into a virtual mobile radio. Key features include in-vehicle charging and power, innovative antenna adapter (frequency dependent) to provide extended coverage, in-vehicle programming capability and hands-free accessibility. For proper installation and software configuration, the ENLN4414 product manual must be ordered separately.

EN1006A VHF Vehicle Adapter (136MHz – 174MHz)
EN1007A UHF Vehicle Adapter (403MHz – 470MHz)
EN1008A UHF Vehicle Adapter (450MHz –527 MHz)

Above vehicle adapter models include ENLN410 (136MHz –174MHz) or ENLN4104 (403MHz–470MHz) or ENLN4111 (450–527 MHz) antenna adapter respectively.

Battery spaces for different radio/battery sizes, installation kit, mounting bracket and user guide are all included in the package.

GMN6146A Handheld Microphone

ENLN4414A Vehicle Adapter Product Manual

GSN6059A External Speaker, 13 W

Travel Charger

This 2-in-1 innovative travel charger combines the function of the battery eliminator and allows you to charge your battery. This keeps your portable working immediately when you need to operate away from the vehicle. With an audio accessory, it can be turned into a hands-free vehicle solution. The travel charger complete kit consists of a charger base, cigarette lighter adapter, a mounting bracket and an instruction manual.

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RLN4883A Travel Charger





Battery Maintenance System Plus (BMS Plus)

Using interchangeable battery adapters (sold separately), the BMS Plus is capable of charging and discharging, analysing, conditioning and performing cycle tests on batteries through tracking the battery's voltage and capacity (mAh).

Latest enhancements include a software upgrade on the equipment to safely charge and analyse Lithium Ion batteries using specified Lilon adapters. This six station BMSPlus can support hundreds of 2-way, cellular and camcorder batteries.

WPLN4079BR Six Station, Battery Maintenance System Plus,

110V AC, 50/60Hz -US cord

WPLN4080BR Six Station, Battery Maintenance System Plus,

230V AC, 50/60Hz - Euro cord

WPLN4081BR Six Station, Battery Maintenance System Plus,

230V AC. 50/60Hz - UK cord

BMS Plus Adapters

WPPN4079AR Battery Adapter (NiCd & NiMH)

WPPN4080AR Battery Adapter (NiCd, NiMH, Lilon compatible)

WPLN4085AR Lilon Field Upgrade Kit

(micro, extraction tool, manual)

For upgrading of WPLN4079AR / WPLN4080AR /

WPLN4081AR.

 $\ensuremath{\textit{\#}}$ Belt clip may need to be removed from the battery to fit the adapters







Audio Accessories

Motorola's range of audio accessories integrates perfectly with the radio to provide a personalised two-way radio solution. Built to highest quality standards, Motorola accessories are specially engineered to ensure maximum performance of your radio.

Designed as a complete solution, our extensive range of audio accessories from remote speaker microphone, headset, covert surveillance kits and special application accessories provide you the flexibility of hands-free operations and personal safety.

Public Safety Microphone (PSM)

These public safety microphones are specially designed to cancel ambient noise during transmission. The integrated antenna provides additional antenna height for a better radiation pattern. Ideal for public safety, eg. Patrol police and emergency services. Plug in the optional receive-only earpiece to enjoy confidential listening without broadcasting the message.

AAHMN9054D UHF Public Safety Microphone

(includes UHF antenna, swivel chip, straight cord, volume toggle switch and 3.5mm jack.)

AAHMN9057D VHF Public Safety Microphone

(includes VHF antenna, swivel chip, straight cord, volume toggle switch and 3.5mm jack)

AARLN4885A Receive-only earpiece with 3.5mm plug

Remote Speaker Microphone

Remote speaker microphone provides greater operational flexibility to transmit and receive messages without removing the radio from the belt or carrying case. It performs even in noisy environments and is suitable for public safety, manufacturing, logistics and service industries. Plug in the optional receive-only earpiece to enjoy confidential listening without broadcasting the message.

PMMN4002B Remote Speaker Microphone

PMLN4393A Receive-only Ear Receiver

Standard Earpiece/Earset

Standard earpiece/earset provides hands-free mobility that matches your business budget. It also enhances the level of professionalism and image that customers expect from any organisation. It is suitable for users in retail, hotel, catering, hospitality and catering services.

PMLN4418A Earbud with combined Microphone / Push-To-Talk (PTT)

Small earpiece that fits comfortably in the ear to ensure private conversations without being overheard. A clip-on thumb style, compact Microphone/PTT allows users easy access to conduct conversations.







PMMN4002 & PMLN4393 (Remote Speaker Mic with Earpiece)



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0180358B38 AZRMN4045A BDN6677A

Remote Ring PTT Switch VOX/PTT Radio Interface Module Standard Ear Microphone (Black)

PMLN4393A

PMMN4002B Remote Speaker Microphone Receive-only Ear Receiver

AZRMN4018A Light Weight Headset with Boom Mic & In-line PTT

AZRMN4022 2-wire Surveillance Kit



AZRMN4018A





Headsets

For moderate/noisy environments in high activity operations, the headset is dsigned to secure firmly on the head, an ideal companion for your hands-free needs. Choose from the light weight headsets that are suitable for use in low noise environment to the heavy duty headsets equipped with hearing protection.

Light Weight Headsets

The light weight headset sits firmly over the ear and ensures user comfort for prolonged communication. It is most suitable for users in entertainment, retail, sports and logistics industries.

AZRMN4031A Light Weight Headset with Swivel Boom
Microphone

(compatible with internal VOX)

AZRMN4018A Light Weight Headset with Boom Microphone

and In-Line PTT

Medium Duty Headsets

Medium duty dual-muff headsets offer hearing protection for consistent and clear two-way communications in harsh and noisy situations. Available in "over-the-head" designs, they are suitable for construction, manufacturing, petrochemical and air transport industries.

AZRMN4032A Medium Weight Dual-Muff Headset with Swivel

Boom Microphone (over the head – 24dB noise reduction

compatible with internal VOX)

AZRMN4019 Medium Weight Dual-Muff Headset with Swivel

Boom Microphone and In-Line PTT (over the head – 24dB noise reduction)

Heavy Duty Headset

The Heavy-duty headset includes a noise-cancelling boom microphone with good hearing protection and external VOX function. This headset allows flexible "over-the-head" or "behind-the-head" fitting, can be worn with or without a hardhat and is suitable for use in noise levels up to 125dB. Suitable for mining, petro-chemical, marine and air transport industries.

AZRMN4020B Heavy Duty Headset with Noise-Cancelling

Boom Microphone



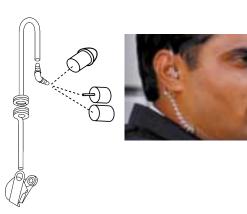


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AZRMN4022A



NTN8371A



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NTN8370A

Surveillance Kits

Surveillance kits are unobtrusively designed, making them the ideal audio accessories for effective communication in covert operations. Most suitable for security forces, special intelligence, military, law enforcement and public safety.

Covert Surveillance Kits

Surveillance kits come in beige or black colours and can be easily concealed and camouflaged to allow discrete communications. The earpiece is designed with expandable flexibility for use with optional accessories (noise kits/wireless discrete earpiece) to enhance discrete and mission critical operations.

1-wire Surveillance Kits provide only listening capability making them suitable for users who only need to receive instructions/messages.

AZRMN4021A 1-wire surveillance earpiece (Biege)

AZRMN4028A 1-wire surveillance earpiece (Black)

2-wire Surveillance Kits are equipped with combine microphone and PTT in a single housing for receiving and transmission of messages.

AZRMN4022A 2-wire surveillance earpiece with combined

microphone/PTT (Biege)

AZRMN4029A 2-wire surveillance earpiece with combined

microphone/PTT (Black)

3-wire Surveillance Kits come with a separate earpiece, microphone and a remote palm PTT that make them versatile and convenient for users to wear and communicate without being seen.

ENMN4017A 3-wire surveillance earpiece with separate

microphone and Palm PTT (Beige)

ENMN4014A 3-wire surveillance earpiece with separate

microphone and Palm PTT (Black)

Optional Accessories for Surveillance Kit Noise Kits

Ultra-light acoustic transparent tube that attaches to the surveillance kits by removing the existing earpiece. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head-rotation.

NTN8371A Low Noise Kit

Includes rubber ear tip for low noise environments.

NTN8370A Extreme Noise Kit

Includes 2 foam ear plugs for noisy environments and provides 24dB of noise reduction. $\label{eq:continuous}$

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Wireless Discrete Earpiece

Enables users to communicate with ease, in full privacy, without any visible devices or wires. This miniature receiver is discretely hidden and fits the ear comfortably for extended use. It offers a full range of audio functions including automatic squelch, gain control and noise filtering.

Available in a kit that includes a wireless receiver and an inductive loop. For use, simply remove the earpiece on any standard 2 or 3-wire Motorola surveillance kit (sold separately) and plug in the neck loop. Spare batteries and earwax guards are also included

RLN4922A Wireless Discrete Earpiece

Ear Microphone System (Voiceducer)

This integrated earpiece/microphone utilises ear bone conduction to transmit voice thereby minimising external noise interference. The miniature earpiece/microphone enables hands-free operations and leaves the user's face unobscured especially when worn by personnel during rescue operations.

Two radio interface modules – PTT radio interface module or VOX/PTT radio interface module must be used with the integrated earpiece/microphone to operate the complete system. The latter VOX/PTT module allows total hands-free without the need to PTT (push-to-talk) by utilising the external VOX (Voice Activated Transmission) feature.

Choose also from optional remote PTTs (ring PTT or body switch PTT) to increase the functionality of the ear microphone system.

Ideal for listening and speaking in high noise environment and applications that require wearing of breathing apparatus and protective masks. Target markets include Armed Forces, Police SWAT team, military defence teams, security teams, chemical rescue and industrial organisations.

Standard Ear Microphone (Black)

For noise levels up to 95dB **BDN6678A** Standard Ear Microphone (Beige) For noise levels up to 95dB BDN6641A High Noise Ear Microphone (Grey) For noise levels up to 105dB AZRMN4044A PTT only Radio Interface Module AZRMN4045A **VOX/PTT Radio Interface Module** 0180300E83 Remote Body PTT Switch (Optional) 0180358B38 **Remote Ring PTT Switch (Optional)**



RLN4922A



AZRMN4045 & BDN6677



AZRM4045 (VOX/PTT Interface module)





Commport Integrated Ear Microphone/ Receiver System

This state-of-the-art Commport system contains a miniature microphone and receiver employing the latest sound wave and digital processing technology. Major benefits are superior sound quality and clarity as well as extreme comfort even for extended wear to hear and speak in high noise backgrounds. Available in different configurations (radio PTT adapter, ring PTT, palm PTT), the Commport system's robust construction is suitable for fire and rescue services, emergency services, police on patrol, military SWAT and critical covert surveillance operations.

NTN1724A Integrated Ear Microphone/Receiver System

(Ring PTT)

Integrated Ear Microphone/Receiver System NTN1723A

(Palm PTT)

NTN1722A Integrated Ear Microphone/Receiver System

(Radio PTT Adapter – AAHLN9717A)

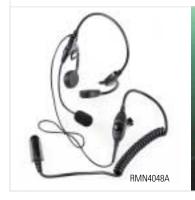
NTN8986A Adhesive pads (qty = 90)

for secure attachment to ear

NTN8988A Ear Straps (qty = 10)

for secure attachment to ear







Hands-Free Accessories for Special **Applications**

Helmet-Com and Noise-Com

The latest helmet-com is specially designed for users wearing any type of helmet (fire rescue, riot police, motorcycle, police troops) operating in harsh and hazardous conditions. Utilising a skull bone conduction microphone and effective speaker via a patented bracket system, it is connected to the 2-way radios via a large rugged fire retardant PTT that provides the electronic "brain" to optimise the amplification and acoustic filtering of the bone conduction microphone. This low profile PTT also meets water (splash) proof (IP55) and intrinsically safe standards.

The noise-com provides a cost effective, flexible, non-personal solution for users with existing hearing protectors/ear muffs operating in noisy environments. The noise-com unit easily fits to any hearing protector muff and can connect directly to the radio. Target markets are aviation, rail transport, heavy industry and manufacturing services.

ENMN4018A **Helmet-com with com-PTT system**

(ENMN4011A + ENLN4135A)

ENMN4011A Helmet-com unit (replacement item)

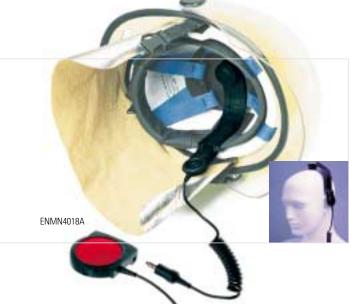
ENLN4135A Com-PTT unit (replacement item)

ENMN4010A Noise-com (direct connection to GP328 radio)

Temple-transducer Headset

Specially engineered for users with hearing loss or hearing impairment, this innovative temple-transducer headset converts receive sound signals to vibration pressure signals, which in turn is converted by the human brain as intelligible, listening messages. Since it no longer uses the human ear canal to receive sound, this headset is ideal for working environments that are subject to extreme high noise as well as for users who need to listen to external background. The "behind-the-neck" headset style makes it comfortable for extended wear and can be worn with hats or helmets.

RMN4048A **Temple Transducer headset with PTT**



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BDN6677A

Carrying Accessories

Carrying accessories are available in varying sizes and materials designed to suit your operational needs. Use them together with the other accessories for added convenience and hands-free mobility. Tested to EME compliance.

Carrying Cases for Radio with NiMH, NiCd and FM **Batteries**

HLN9676A Hard Leather, swivel loop, non-keypad HLN9694A Hard Leather, swivel loop, keypad

*HLN9665A Head Leather, belt loop, D-Ring, non-keypad

Hard Leather, belt loop, D-Ring, keypad *HLN9689A

Carrying Cases for Radio with Slim Lithium Ion Battery

HLN9670A Hard Leather, swivel loop, non-keypad HLN9690A Hard Leather, swivel loop, keypad *HLN9652A Hard Leather, Belt loop, D-Ring, non-keypad *HLN9677A Hard Leather, Belt loop, D-Ring, keypad

Carrying cases for Radio with ALL Battery sizes

PMLN4280A Soft Leather, Swivel chip, keypad PMLN4281A Soft Leather, Swivel Chip, non-keypad *HLN9701B Hard Nylon, Belt loop, D-Ring, non-keypad

Universal Carrying Accessories

HLN6602A **Universal Carrying Accessories Chest Pack** Designed with a radio holder, pen holder, and velcro secured pocket.

Break-Away Chest Pack

Breakaway tabs allow the entire pack to be pulled off with approximately 4.5kg of pressure. Perfect for users in rail, manufacturing and military agencies as well as anywhere where safety is a concern.

RadioPak™ Radio/Utility Case RLN4815A

Comfortable, useful and stylish, it can be worn round the waist to hold the radios. Includes a separate 6" x 8" zippered pouch to hold the other on-thejob necessities. Adjustable nylon weave belt is suitable for both men and

Optional Carrying Accessories

HLN8414A **Chest Pack Carry Holder** HLN9985A Waterproof Bag

HLN9844A Spring Belt clip (for 1.5in Belt Width) HLN9714A Spring Belt clip (for 2.0in Belt Width)

NTN5243A **Shoulder Carrying Strap** (use with carrying cases with D-Rings)

HLN9149AR **Swivel Belt Loop Adapter**

(for use with HLN9652, HLN9677, HLN9665,

HLN9689, HLN9701)





HLN9694A

HLN9665A

















Antenna

Injection molded for rugged environments. Each antenna is tested and tuned to give maximum power and performance.

Flexible Whip and Helical/Stubby Antenna

Flexible antenna has a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn with belt.

Helical antennas are sturdy and reliable for years of safe communication. Each antenna is designed and optimised for best coverage and EMC compliance. The skirt at the base of the connector helps to seal out damaging elements and it is made of brass material for maximum durability.

The stubby quarter wave antenna is ideal when the radio is worn with the belt, as the short antenna is non-obtrusive.

UHF

NAE6483AR UHF Whip, 14cm

403 – 520mHz (standard package)

UHF Whip, 13cm PMAE4008A

470 – 520mHz

PMAE4003A **UHF Stubby Helical, 9cm**

430 - 470mHz

PMAE4006A **UHF Stubby Helical, 9cm**

465 – 495mHz

PMAE4007A **UHF Stubby Helical, 9cm**

490 – 527mHz

PMAE4002A UHF Stubby Helical, 9cm

403 – 433mHz

VHF

PMAD4014A VHF Helical, 14cm

136 - 155mHz

PMAD4015A VHF Helical, 14cm

155 – 174mHz

PMAD4012A VHF Stubby Helical, 9cm

136 — 155mHz

PMAD4013A VHF Stubby Helical, 9cm

155 – 174mHz

Low Band

NAB6064A LB Helical, 30cm

(length of antenna can be cut to desired frequency band)

29 - 50mHz

Other Band

PMAD4009A Stubby Helical, 9cm

336 - 368mHz

PMAD4020A Stubby Helical, 9cm

370 – 400mHz

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^{*}can be used with shoulder strap NTN5243A







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