MOTOROLA SOLUTIONS

ENSURING SAFE COMMUNICATION, NO MATTER THE ELEMENT

APX 4000XH PORTABLE RADIO

Mining and Petrochemical personnel are faced with extreme temperatures and challenging conditions in everyday operations and require an adaptable two-way radio to instantly transmit voice and data communications and collaborate with work partners in real-time.

The APX 4000XH is a purpose-built P25 two-way portable radio delivering loud, clear audio that significantly reduces background noise to ensure the message gets through the first time, in noisy environments. Given that the APX 4000XH is intended for use in extreme operating environments, its purpose-built design has been subjected to extreme testing to simulate harsh usage in field. This unbeatable offering seamlessly connects workers while increasing operational efficiency and employee productivity.

LOUD AND CLEAR

The APX 4000XH leverages the leading attributes of the APX family of P25 TDMA portables like the 2-microphone design. Built to reduce background noise, you can speak and hear clearly over heavy equipment, diesel engines and drilling activities.

- New magnetic speaker grill has reduced magnetic force to deflect metallic dust and fibers from impacting audio quality.
- Dual microphone locates voice and cancels out ambient noise.
- Extreme Audio Profile reduces background noise and improves voice clarity.
- Equipped with the latest AMBE digital voice vocoder.

HAZLOC SAFE

A compact P25 Phase 2 capable portable, the APX 4000XH is built tough –inside and out to withstand harsh environments and tested to the US military standard MIL-STD Rated G. The skeleton design also helps protect the core from shock/impact and submersion.

- Highest hazardous classification rating offered on APX portfolio: CSA -157, IECEx.
- With the bright orange HAZLOC safe standard housing, this radio is easy to identify in hazardous conditions.
- Simplified, 2 knob controls provide easy access to channel switching and volume control when using gloves.
- Enhanced T-grip design provides better grip and control.

FEATURE OVERVIEW

RF BANDS

- 800/900 Mhz
- 9600 Baud Digital APCO P25 Phase 1 FDMA and Phase 2 TDMA Trunking
- 3600 Baud SmartNet®, SmartZone®, SmartZone, Omnilink Trunking
- Digital APCO 25, Conventional, Analog MDC 1200, Quick Call II System Configurations
- Narrow andWide Bandwidth Digital receiver (6.25 kHz equivalent/25/20/12.5 KHz)

STANDARD FEATURES

- CSA -157, IECEx
- IP68 (2m/4hr), Mil Std 512.X Delta - T
- M3 – Orange Housing Standard
- 0.5 W High Audio Speaker with 2-mic Noise Canceling Technology
- ASTRO 25 Integrated Voice and Data
- Mission Critical Wireless Bluetooth®*
- ADP Software

* Compatible with BT 2.1 HSP, PAN, DUN and SPP BT Profiles

- Voice Announcements
- ISSI 8000 Roaming
- Radio Profiles, Dynamic Zone
- Intelligent Lighting
- Single-key ADP Encryption

OPTIONAL FEATURES

- Geoselect
- GPS Outdoor Location Tracking
- Multi-key for 128 Keys and Multi-algorithm Programming Over Project 25 (OTAP)
- Digital Tone Signaling
- Site Selectable
- P25 Authentication
- Man Down Sensor

PROGRAMMING

- Utilizes Windows 7 and 8 Customer Programming Software (CPS) with Radio Management

TYPICAL PERFORMANCE SPECIFICATIONS

RECEIVER SPECIFICATIONS		
Frequency		851-870 MHz 935-940 MHz
Audio output		500mW
Analog Sensitivity		0.247uV
Digital Sensitivity	1% BER 5% BER	0.335uV 0.232uV
Selectivity	25k 12.5k	-76dB -67dB
Intermodulation	12.5k	-75dB
Spurious Rejection	12.5k	-75dB
FM Hum and Noise	12.5k	-46dB
Audio Distortion	12.5k	1.20%

TRANSMITTER SPECIFICATIONS		
Frequency Range/Bandsplits	800 MHz 900 MHz	806-824, 851-870 MHz 896-901, 935-940 MHz
Channel Spacing	800 MHz 900 MHz	25/12.5 kHz 12.5 kHz
Maximum Frequency Separation		Full Bandsplit
Rated RF Output Power Adj	800 MHz 900 MHz	1-3 Watts Max 1-2.5 Watts Max
Frequency Stability (-30°C to +60°C; +25°C Ref.)		±0.00010 %
Modulation Limiting	800 MHz 900 MHz	±5 kHz / ±4 kHz / ±2.5 kHz ±2.5 kHz
Emissions (Conducted and Radiated)		-75 dB
Audio Response		+1, -3 dB
FM Hum & Noise	25 kHz 12.5 kHz	-51 dB -45 dB
Audio Distortion	25 kHz 12.5 kHz	1.00%

DIMENSIONS OF THE RADIO WITHOUT BATTERY

	Length	Width PTT button	Depth PTT button	Width Top	Depth Top	Weight
Inches	5.86	2.60	1.29	2.93	1.39	11.04oz
Millimeter	148.8	66.1	32.8	74.4	35.2	313g

PORTABLE MILITARY STANDARDS 810 C, D, E , F & G

	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Basic Hot	501.5	I/A1, II/A2
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II/C1
Temperature Shock	503.1	I	503.2	I/A1C3	503.3	I/A1C3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	1 Proc	507.5	II/Aggravated
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	1 Proc	509.5	1 Proc
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Blowing Sand	1 Proc	1 Proc	510.2	II	510.3	II	510.4	II	510.5	II
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I/24
Shock	516.2	I, III, V	516.3	I, V, VI	516.4	I, V, VI	516.5	I, V, VI	516.6	I, V, VI
Shock (Drop)	516.2	II	516.2	IV	516.4	IV	516.5	IV	516.6	IV

Note. APX 4000XH radio models are CSA intrinsically safe, when properly equipped with battery NNTN8750A for, Division 1, Class, Groups A, B, C, D, Class, Groups E, F, G, Class III. For more details on all CSA approved accessories refer to APX4000XH CSA manual.

LEADING-EDGE ACCESSORIES

To maintain CSA system certification, it is critical you use Motorola certified batteries and accessories with your APX 4000XH.

INC REMOTE SPEAKER MICROPHONE

Unleash the power of Motorola's Industrial Noise Canceling (INC) Remote Speaker Microphone (RSM) and be heard in loud environments. An innovative dual-microphone design suppresses background noise so you can hear and be heard. Plus, a large 1-watt speaker delivers the loudest, clearest audio available – up to 25% more than MOTOTRBO RSMs – so you can hear above very high level noise

INC REMOTE SPEAKER MICROPHONES

NNTN8382
IMPRES™ INC Remote Speaker Microphone, IP57 Submersible.

NNTN8383
IMPRES INC Remote Speaker Microphone with threaded 3.5mm audio jack.

RECEIVE-ONLY EARPIECES FOR INC RSM

RLN5314
Receive-only one wire earpiece with clear acoustic tube, beige.

RLN5313
Receive-only one wire earpiece with clear acoustic tube, black.

BDN6781
Receive-only one wire earbud, black.

IMPRES REMOTE SPEAKER MICROPHONES

You need the best possible audio quality so your communication remains loud and clear. With these remote speaker microphones you can stay safe in the toughest environments. IMPRES audio ensures your voice is heard clearer, crisper, and louder regardless of level or direction you're speaking into the accessory. Windporting reduces the effect of wind and other outdoor noises so your messages are always heard clearly.

IMPRES REMOTE SPEAKER MICROPHONES

PMMN4050
IMPRES Remote Speaker Microphone with 3.5 mm audio jack (IP54).

PMMN4067
IMPRES Remote Speaker Microphone with volume toggle switch, emergency button and Windporting (IP64).

EARPIECE FOR RSMS WITH NON THREADED JACKS

RLN4941
Receive-only earpiece with translucent tube and rubber eartip. Compatible with PMMN4050 and PMM4062.

HEAVY DUTY HEADSETS

RMN4054
Peltor™ Receive-only dual-muff Heavy-Duty Headset. For use with Remote Speaker Microphone PMMN4050.

PMLN5275
Behind-the-head Heavy Duty Headset with 24dB noise reduction rating. This dual-muff headset includes flexible noise-canceling boom microphone with a push-to-talk switch located on the earcup. Can be worn with or without a helmet.

NNTN8379
Peltor Heavy Duty Headset with helmet attachment and noise-cancelling boom microphone, 24dB noise reduction rating. Requires NNTN8378 or PMLN6368 PTT adapter. Helmet not included.

NNTN8380
Peltor Heavy Duty Headset with helmet attachment and noise-cancelling boom microphone, 26dB noise reduction rating. Requires NNTN8378 or PMLN6368 PTT adapter. Helmet not included.

NNTN8378
Peltor Push-to-Talk Adapter, rugged and easy to operate with heavy gloves.

PMLN6368
Peltor Push-To-Talk Adapter, small.

IMPRES BATTERY MANAGEMENT

With the unique IMPRES Battery Data Reader or IMPRES Battery Fleet Management systems, you can efficiently manage batteries with real-time data. This easy-to-use software application shows you if there is enough capacity for a full shift, alerts you to low capacity batteries, prevents downtime and eliminates throwing batteries out prematurely.

NNTN7676
IMPRES Battery Management Software (download).

NNTN7677
Charger Interface Unit for each Multi-Unit Charger.

HKVN4036
Entitlement ID, each ID is for up to 20 PCs.

NNTN8045
Charger Interface Unit for each Single-Unit Charger.

IMPRES BATTERIES AND CHARGERS

The IMPRES smart energy battery keeps your radio performing on long shifts. Only IMPRES batteries can be charged 150 additional times as compared to a standard battery—a 43% increase in charge cycles.

NNTN8750
IMPRES 2000 mAh Li-Ion battery.

NNTN7616
IMPRES Single-Unit Rapid Rate Vehicular Charger.

WPLN4232
IMPRES Single-Unit Charger.

NNTN8525
Travel Charger with voltage regulated vehicular charger adapter, custom charger base, mounting bracket, and coil cord.

WPLN4219
IMPRES Multi-Unit Charger with 6 displays.

NNTN8169
Insert for NTN1873/WPLN4111 XTS Single-Unit Charger.

WPLN4212
IMPRES Multi-Unit Charger with 1 display.

NNTN8170
Insert for WPLN4108/4130 XTS Multi-Unit Charger (6 per pack).

IMPRES DATA READER

IMPRES Battery Data Reader enables easy and instantaneous read-out of information that is stored in the battery to facilitate battery management. The Battery Reader is a standalone tool that is ideal for a technician's workbench to enable quick, individual battery analysis, while IMPRES Battery Management allows simultaneous analysis of an entire fleet of batteries. Laptop not included.

NNTN7392

CARRY ACCCESSORIES

Swivel belt loop cases have a metal d-ring to help keep the case secure in high activity situations.

PMLN7327
2.5 inch hard leather carry case with swivel belt loop for full keypad radio.

PMLN4651
2 inch hard plastic belt clip.

PMLN5610
2.5 inch replacement leather swivel belt loop.

PMLN6086
2.5 inch hard plastic belt clip.

MISCELLANEOUS

PMAF4020
Whip Antenna 800-900 MHz.

0104067J27
Accessory Connector Dust Cover Assembly.

For more information please visit us at: www.motorolasolutions.com/apx4000XH

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