MOTOTRBO™ HEADSETS AND EARPIECES

BUYER'S GUIDE

MOTOROLA SOLUTIONS

HEADSETS AND EARPIECES

EVERY USER OF A MOTOROLA SOLUTIONS RADIO HAS A DIFFERENT SET OF REQUIREMENTS, WHICH IS WHY WE OFFER MANY TYPES OF AUDIO ACCESSORIES. BY ADDING HEADSETS AND EARPIECES TO THEIR RADIO, OPERATIVES CAN HAVE EXACTLY THE SETUP THEY WANT TO SUIT THEIR ROLE.

RELIABILITY YOU CAN TRUST

Motorola Solutions' Headsets and Earpieces are built and rigorously tested to the same quality standards as Motorola Solutions' radios.

With over 90 years of communications experience, at Motorola Solutions we know what makes a robust and high-quality radio. Quality is built into everything we do; every process, every component, and every product we ship to our customers that all adds up to reliable, high-performing solutions that can withstand the environments encountered in the field.

DESIGNED TO COMPLY

In addition to Motorola Solutions' exceptional design, all our accessories are tested with our radios as a complete system to ensure they comply with relevant regulatory standards set out by ETSI, the European Union and local laws. These tests include RF energy exposure, conducted emissions and Restriction of Hazardous Substances (RoHS).

This guide explains the features of Motorola Solutions headsets and earpieces, helping you to choose the accessory that fits your requirements best.

WHAT ARE HEADSETS?

A headset is the combination of headphones and a microphone which connect to a Motorola Solutions radio.

Headsets have either a single- or double-earpiece, and allow the user to listen privately to their radio without disturbing others or being overheard. Headsets are ideal for those on the move who will be working in an environment where loud audio messages would disrupt others.

Speaker

Headband

Boom Swivel

Comfort pad

Radio connector

Flexible boom

Microphone

Press-To-Talk PTT*

HEADSETS EXPLAINED
*Selected models only

TYPES OF HEADSET

Headsets come in different formats to deliver the right set up for every user who needs one. They vary from ultra-lightweight models designed for desk use, all the way up to heavy-duty versions rated to work in noisy and explosive environments.

ULTRA-LIGHT AND LIGHT-WEIGHT

Ultra-lights come in two types: ear-sets consist of a single on-ear speaker with boom microphone, while headsets offer a flexible band that fits snugly around the back of the head and are worn like a pair of glasses in reverse. Both of these types are ideally suited for long periods of stationary work such as till operators.

Light-weight headsets provide a more conventional solution worn over the top of the head. With the earpiece close to the ear providing discreet reception of audio, they prevent others from overhearing or being disturbed by messages – this is especially useful in public areas where you want to listen to transmissions but do not want the general public to overhear them.

HEAVY-DUTY

In loud environments such as smelting plants, shunting yards, construction sites or heavy manufacturing, noise levels can be very high and require workers to wear hearing protection. Heavy-duty headsets have two ear cups to provide improved auditory isolation from the surroundings and enhanced audio performance, allowing wearers to hear radio audio and protect their hearing.

The user listens to radio transmissions through both ears and talks through the flexible boom microphone which is more robust and delivers better performance than light-weight designs.

Heavy-duty headsets provide excellent noise attenuation of up to 24dB. The ear cups fit comfortably over the ears to provide a protective seal to shield the user's ears from harmful noise and, if a second layer of protection is required, earplugs can also be used.

When extended use and comfort is essential, extra padding is fitted around the ear cups and across the headband, reducing user fatigue.

ULTRA-LIGHT

LIGHTWEIGHT

HEAVY-DUTY

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WHAT ARE EARPIECES?

Earpieces connect to Motorola Solutions radios and can be as simple as just a single receive-only earpiece for private audio, or advanced multi-wire kits with separate wires for the earpiece, microphone, and push-to-talk (PTT) button.

Because of their design, earpieces are a varied category of accessory and can be used in a variety of situations where headsets are impractical or too bulky for the user, such as front-of-house staff and security personnel.

Clip

Press-To-Talk PTT*

Microphone

Programmable Button*

Earpiece

Accessory connector

EARPIECES EXPLAINED
*Selected models only

TYPES OF EARPIECE

When choosing an earpiece, you have the option of receive-only and receive-transmit earpieces. Receive-only systems have just an earpiece and no microphone, whereas receive-transmit earpieces have both an earpiece and a microphone. Most receive-transmit earpieces also have a push-to-talk (PTT) button which allows the user to send a message without needing to press buttons on their radio.

Earpieces can be either in-ear, where part of the device fits into the ear canal, or over-the-ear where the earpiece sits on top of the ear. Some users find in-ear devices to be uncomfortable for long periods of time while others find over-the-ear earpieces to suffer from background noise issues.

EARPIECE CONFIGURATIONS

Earpieces come in 3 basic types; 1-, 2-, and 3-wire.

1-wire earpieces are used when the user requires discreet audio. The 1-wire configuration is usually receive-only but can include an in-line microphone and PTT to allow calls to be made without reaching for the radio.
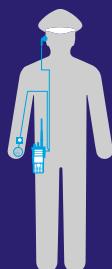
2-wire earpieces add a second wire with a combined microphone and PTT. The user can make and receive calls through the earpiece without the need to remove the radio from their belt. With separate wires for the earpiece and the microphone/PTT, the wires can be routed through the user's clothing, concealing their presence and enhancing a professional appearance, ideal for front of house staff and security personnel concerned about wires being snagged or grabbed. All 2-wire earpieces include a programmable button on the PTT.

3-wire earpieces offer the highest level of flexibility and discretion — they have one wire for receiving communications through an earpiece, one wire for the microphone, and one wire for a separate PTT button. The microphone can be pinned to your tie or collar while the PTT button can be routed inside your sleeve and located at the cuff of your shirt or jacket — within easy reach of your fingers without having to raise your arm or make obvious hand movements.
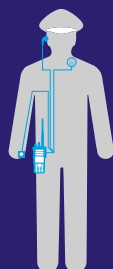
1-WIRE

2-WIRE

3-WIRE

IMPRES™ AUDIO

Motorola Solutions' IMPRES audio technology optimises the performance of your radio microphone by suppressing background noise and improving voice intelligibility, even in noisy situations. IMPRES technology automatically compensates for changes in voice level, whether you are speaking softly or loudly, turning your head, or moving the microphone further away from your mouth. By using IMPRES accessories, the quality and consistency of audio communications between team members are improved.

BONE CONDUCTIVE TECHNOLOGY HEADSETS

Sometimes personnel need more specialist solutions than the standard headset because of the task at hand. Bone conduction headsets transmit sound to the wearer through the bones and soft tissue in the wearer's head which is picked up as sound in the inner ear. The benefit of this technology is that there is nothing placed over or in the ear, allowing all ambient noise to be heard when it matters, such as during security patrols.

HEARING DEFENCE

Some headsets are designed for noisy environments and implement hearing-defence technology. Ambient noise reduction is achieved through the use of engineered padding around the user's ears. The padding in these headsets reduces the ambient noise level by up to 24dB allowing messages received to be heard over machinery, traffic, or other loud environments where the wearer might normally struggle to clearly hear messages.

HAZARDOUS AND POTENTIALLY EXPLOSIVE ENVIRONMENTS

If your radio operatives will be visiting potentially explosive and hazardous environments then they will need intrinsically safe certified radios and accessories. Motorola Solutions offer a selection of TIA4950 intrinsically safe headsets and earpieces for use with MOTOTRBO radios.

Within the European Union, radio equipment used within potentially explosive environments must meet the ATEX directives. Only Motorola Solutions ATEX headsets and earpieces have been tested and certified with the radio as a system to ensure compliance with the requirements: using third-party headsets and earpieces means that the user must apply for certification for the complete pairing of radio and accessory themselves.

VOICE-ACTIVATED TRANSMIT (VOX)

In many circumstances, such as users working at height, it is not ideal or possible for personnel to take their hands away from the task they are performing to use their radio. With Motorola Solution's Voice-Activated Transmit functionality enabled, a user can activate their radio without needing to press the Push-To-Talk (PTT) button.

VOX is not an ideal feature in noisy environments where the background noise can trigger the radio; to mitigate this issue Motorola Solutions radios allow users to switch between VOX and PTT modes.

HEADSETS - DP1400 / DP2000e SERIES / DP3000e SERIES

RADIO FAMILY	DESCRIPTION	AUDIO CONNECTOR	CONFIGURATION	IMPRES	NOISE CANCELLING	PTT	INTRINSIC SAFETY	VOX
DP1400								
PMLN6537	Earset with Boom Microphone and In-Line PTT	2 prong	Over-the-ear	No	No	In-Line	No	Yes
PMLN6538	Lightweight Headset with Swivel Boom Mic	2 prong	Over-the-head	No	No	None	No	Yes
PMLN6541	Ultra Lightweight Temple Transducer Headset	2 prong	Over-the-head	No	No	In-Line	No	Yes
PMLN6542	Headset with Boom Microphone and in-line PTT	2 prong	Behind-the-head	No	No	In-Line	No	No
PMLN6854	Heavy-Duty Headset with Mic	2 prong	Over-the-head	No	Yes	On Ear-Cup	No	Yes
DP2000e SERIES								
PMLN5732	Earset with Boom Microphone and In-Line PTT	M11 Multi Pin XPR	Over-the-ear	No	No	In-Line	TIA4950	Yes
PMLN6635	Lightweight Headset with Swivel Boom Mic	M11 Multi Pin XPR	Over-the-head	No	No	In-Line	TIA4950	Yes
PMLN6759	Lightweight Temple Transducer Headset	M11 Multi Pin XPR	Behind-the-head	Yes	No	In-Line	No	Yes
PMLN6760	Heavy-Duty Headset with Mic	M11 Multi Pin XPR	Over-the-head	No	Yes	On Ear-Cup	No	Yes
DP3000e SERIES								
PMLN5732	Earset with Boom Microphone and In-Line PTT	M11 Multi Pin XPR	Over-the-ear	No	No	In-Line	TIA4950	Yes
PMLN6635	Lightweight Headset with Swivel Boom Mic	M11 Multi Pin XPR	Over-the-head	No	No	In-Line	TIA4950	Yes
PMLN6759	Lightweight Temple Transducer Headset	M11 Multi Pin XPR	Behind-the-head	Yes	No	In-Line	No	Yes
PMLN6760	Heavy-Duty Headset with Mic	M11 Multi Pin XPR	Over-the-head	No	Yes	On Ear-Cup	No	Yes
PMLN6761	Single Ear Headset with In-Line PTT and Boom Microphone	M11 Multi Pin XPR	Behind-the-head	No	No	In-Line	TIA4950	Yes
PMLN6763	Heavy-Duty, Behind-the-Head Headset with Noise-Canceling Boom Microphone	M11 Multi Pin XPR	Behind-the-head	No	Yes	On Ear-Cup	TIA4950	Yes
PMLN7464	Heavy-Duty, Over-the-Head Headset with Noise-Canceling Boom Microphone	M11 Multi Pin XPR	Over-the-head	No	Yes	On Ear-Cup	No	Yes
PMLN7465	Heavy-Duty, Over-the-Head Headset with Noise-Canceling Boom Microphone	M11 Multi Pin XPR	Over-the-head	No	Yes	On Ear-Cup	TIA4950	Yes

HEADSETS - DP4000e SERIES / DP4000Ex SERIES

RADIO FAMILY	DESCRIPTION	AUDIO CONNECTOR	CONFIGURATION	IMPRES	NOISE CANCELLING	PTT	INTRINSIC SAFETY	VOX
DP4000e SERIES								
PMLN5101	IMPRES Temple Transducer with Boom Microphone and Inline Push-to-Talk	M83 MF x83	Behind-the-head	Yes	Yes	In-Line	FM	Yes
PMLN5102	Ultra-Lightweight Single Ear Headset with Boom Microphone	M83 MF x83	Behind-the-head	No	No	In-Line	TIA4950	Yes
PMLN6852	Heavy-Duty, Behind-the-Head Headset with Noise-Canceling Boom Microphone	M83 MF x83	Behind-the-head	No	Yes	On Ear-Cup	No	Yes
PMLN6853	Heavy-Duty, Behind-the-Head Headset with Noise-Canceling Boom Microphone	M83 MF x83	Behind-the-head	No	Yes	On Ear-Cup	TIA4950	Yes
PMLN7466	Heavy-Duty, Over-the-Head Headset with Noise-Canceling Boom Microphone	M83 MF x83	Over-the-head	No	Yes	On Ear-Cup	No	Yes
PMLN7467	Heavy-Duty, Over-the-Head Headset with Noise-Canceling Boom Microphone	M83 MF x83	Over-the-head	No	Yes	On Ear-Cup	TIA4950	Yes
RMN5058	Lightweight Single Ear Headset with Swivel Boom Mic	M83 MF x83	Over-the-head	No	No	In-Line	FM + TIA4950	Yes
PMLN5974	Mag One Lightweight Single Ear Headset with PTT	M83 MF x83	Over-the-head	No	No	In-Line	No	Yes
PMLN5979	Mag One Breeze Single Ear Headset with Boom Mic & PTT	M83 MF x83	Behind-the-head	No	No	In-Line	No	Yes
DP4000Ex SERIES								
PMLN6087	Heavy-Duty ATEX Headset	Nexus	Over-the-head	No	Yes	Requires RSM	ATEX	No
PMLN6089	Tactical ATEX Hard Hat Mount Headset	Nexus	Helmet Mount	No	Yes	Requires RSM	ATEX Ma/M1	No
PMLN6090	Tactical Heavy-Duty ATEX Headset	Nexus	Over-the-head	No	Yes	Requires RSM	ATEX Ma/M1	No
PMLN6092	ATEX Hard Hat Mount Headset	Nexus	Helmet Mount	No	Yes	Requires RSM	ATEX	No
PMLN6333	Twin-cup ATEX Hard Hat Mount Headset	Nexus	Helmet Mount	No	Yes	Requires RSM	ATEX	No

RADIO FAMILY		DESCRIPTION
DP1400		
BDN6720		Receive-Only Flexible Ear Receiver
PMLN6445		2-Wire Surveillance Kit with Translucent Tube, Beige
PMLN6530		2-Wire Surveillance Kit, Black
PMLN6531		Mag One Ear Receiver with In-Line Microphone and PTT, VOX
PMLN6532		Mag One Swivel Earpiece with In-Line Microphone and PTT
PMLN6533		Earpiece with Combined Microphone and PTT
PMLN6534		Mag One Earbud with In-Line Microphone and PTT, VOX
PMLN6535		D-Style Earpiece with Microphone and PTT
DP2000e SERIES		
PMLN5727		Mag One Swivel Earpiece with In-Line Microphone and PTT
PMLN5733		Mag One Earbud with In-Line Microphone and PTT
PMLN6754		IMPRES 3-Wire Surveillance Kit, Black
PMLN6755		3-Wire Surveillance Earpiece with Combined Microphone / PTT, Beige
PMLN6757		Adjustable D-Style Earpiece with In-Line Microphone and PTT
PMLN7269		2-Wire Surveillance Kit, Black
PMLN7270		2-Wire Surveillance Kit with Translucent Tube, Beige
DP3000e SERIES		
PMLN5727		Mag One Swivel Earpiece with In-Line Microphone and PTT
PMLN5733		Mag One Earbud with In-Line Microphone and PTT
PMLN6754		IMPRES 3-Wire Surveillance Kit, Black
PMLN6755		3-Wire Surveillance Earpiece with Combined Microphone / PTT, Beige
PMLN6757		Adjustable D-Style Earpiece with In-Line Microphone and PTT
PMLN7269		2-Wire Surveillance Kit, Black
PMLN7270		2-Wire Surveillance Kit with Translucent Tube, Beige

AUDIO CONNECTOR	NUM WIRES	MICROPHONE	IMPRES	EARPIECE TYPE	PTT	INTRINSIC SAFETY	VOX
2 prong	1	No	No	Over-ear	None	FM	No
2 prong	2	Yes	No	In-Ear	On-Mic	No	No
2 prong	2	Yes	No	In-Ear	On-Mic	No	No
2 prong	1	Yes	No	Over-ear	In-Line	No	Yes
2 prong	1	Yes	No	Over-ear	In-Line	No	No
2 prong	2	Yes	No	In-Ear	On-Mic	No	No
2 prong	1	Yes	No	In-Ear	In-Line	No	Yes
2 prong	2	Yes	No	Over-ear	On-Mic	FM	No
M11 Multi Pin XPR	1	Yes	No	Over-ear	In-Line	TIA4950	Yes
M11 Multi Pin XPR	1	Yes	No	In-Ear	In-Line	TIA4950	Yes
M11 Multi Pin XPR	3	Yes	Yes	In-Ear	Own wire	TIA4950	No
M11 Multi Pin XPR	3	Yes	No	In-Ear	Own wire	TIA4950	No
M11 Multi Pin XPR	1	Yes	No	Over-ear	In-Line	TIA4950	No
M11 Multi Pin XPR	2	Yes	No	In-Ear	On-Mic	TIA4950	No
M11 Multi Pin XPR	2	Yes	No	In-Ear	On-Mic	No	No
M11 Multi Pin XPR	1	Yes	No	Over-ear	In-Line	TIA4950	Yes
M11 Multi Pin XPR	1	Yes	No	In-Ear	In-Line	TIA4950	Yes
M11 Multi Pin XPR	3	Yes	Yes	In-Ear	Own wire	TIA4950	No
M11 Multi Pin XPR	3	Yes	No	In-Ear	Own wire	TIA4950	No
M11 Multi Pin XPR	1	Yes	No	Over-ear	In-Line	TIA4950	No
M11 Multi Pin XPR	2	Yes	No	In-Ear	On-Mic	TIA4950	No
M11 Multi Pin XPR	2	Yes	No	In-Ear	On-Mic	No	No

RADIO FAMILY	DESCRIPTION
DP4000e SERIES	
NNTN8459	1-Wire Surveillance Kit, Black
PMLN5973	Mag One Ear Receiver with inline Mic & PTT
PMLN5975	Mag One Swivel Earpiece with MIC/PTT
PMLN5976	Mag One Earset with In-Line Microphone and PTT
PMLN6069	Mag One Earbud with In-Line Mic and PTT
PMLN6123	IMPRES 3-Wire Surveillance Kit, Black
PMLN6124	IMPRES 3-Wire Surveillance Kit with Beige Transducer Tube
PMLN6125	Receive-Only Surveillance Kit, Black
PMLN6126	1-Wire Surveillance Kit, Beige
PMLN6127	IMPRES 2-Wire Surveillance Kit, Black
PMLN6128	IMPRES 2-Wire Surveillance Kit with Programmable Button, Beige
PMLN6129	IMPRES 2-Wire Surveillance Kit
PMLN6130	Smart 2-Wire Surveillance Kit, Beige
SL SERIES	
PMLN7156	Mag One Earbud with In-Line Microphone and PTT
PMLN7157	2-Wire Surveillance Kit, Black
PMLN7158	Surveillance Earpiece with In-Line Microphone and PTT
PMLN7159	Adjustable D-Style Earpiece with In-Line Microphone and PTT
PMLN7189	Swivel Earpiece with In-Line Microphone and PTT

AUDIO CONNECTOR	NUM WIRES	MICROPHONE	IMPRES	EARPIECE TYPE	PTT	INTRINSIC SAFETY	VOX
M83 MF x83	1	Yes	No	In-Ear	In-Line	TIA4950	Yes
M83 MF x83	1	Yes	No	In-Ear	In-Line	No	Yes
M83 MF x83	1	Yes	No	In-Ear	In-Line	No	Yes
M83 MF x83	1	Yes	No	Over-ear	In-Line	No	Yes
M83 MF x83	1	Yes	No	In-Ear	In-Line	No	Yes
M83 MF x83	3	Yes	Yes	In-Ear	Own wire	TIA4950	Yes
M83 MF x83	3	Yes	Yes	In-Ear	Own wire	TIA4950	Yes
M83 MF x83	1	No	No	In-Ear	None	TIA4950	No
M83 MF x83	1	No	No	In-Ear	None	TIA4950	No
M83 MF x83	2	Yes	Yes	In-Ear	On-Mic	TIA4950	Yes
M83 MF x83	2	Yes	Yes	In-Ear	On-Mic	TIA4950	Yes
M83 MF x83	2	Yes	Yes	In-Ear	On-Mic	TIA4950	Yes
M83 MF x83	2	Yes	No	In-Ear	On-Mic	TIA4950	Yes
Sealed 3.5mm	1	Yes	No	In-Ear	In-Line	No	Yes
Sealed 3.5mm	2	Yes	No	In-Ear	On-Mic	No	Yes
Sealed 3.5mm	1	Yes	No	In-Ear	In-Line	No	Yes
Sealed 3.5mm	1	Yes	No	Over-ear	In-Line	No	Yes
Sealed 3.5mm	1	Yes	No	Over-ear	In-Line	No	Yes

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