3M[™] Scott[™] Epic 3 RDI



Question

What is the new EPIC 3 RDI voice amplifier?

Answer

EPIC 3 RDI voice amplifier enhances SCBA facepiece voice intelligibility and loudness and provides wireless voice communications with compatible handheld field radios and remote speaker microphones.

RDI stands for radio direct interface, which refers to the EPIC 3 RDI voice amplifier's ability to communicate and operate directly with compatible BluetoothTM enabled field radios and remote speaker microphones.

Question

Why did 3M Scott Fire & Safety develop the new system?

Answer

The lack of clear fire scene voice communications is a leading concern for firefighter situational awareness and safety.

Workers are challenged with compromised voice communications when using their SCBA equipment and handheld field radios within building structures and noisy environments at the incident scene.

The EPIC 3 RDI voice amplifier addresses these challenges by improving voice intelligibility and loudness during near field person-to-person and two way radio communications.

By operating with compatible Bluetooth enabled field radios, remote speaker microphones, and 3M Scott SCBA and personal protection equipment, the EPIC 3 RDI voice amplifier provides new and existing customers with the safety and operational benefits of enhanced voice communications while extending the value of their technology investment.

Question

Which handheld field radios and remote speaker microphones can be used with the EPIC 3 RDI voice amplifier?

Answer

At the time of product launch, the EPIC 3 RDI voice amplifier is compatible for use with the Motorola APX XE series handheld field radios and matching XE series remote speaker microphones. APX radio firmware version 15.00.00 or newer is required for full system operation and is available for download from the Motorola MOL support website.

Support for additional handheld field radios and matching remote speaker microphone will be announced at future dates.

Question

Are there specific Motorola APX radio configuration settings required for operating the APX radio and XE RSM with the EPIC 3 RDI voice amplifier?

Answer

Yes, specific APX radio code plug configuration settings are recommended for optimizing the operation and performance of the APX radio, XE RSM, and RDI voice amplifier communication system. Please refer to the EPIC 3 RDI voice amplifier instruction manual for detailed configuration instructions.

Question

How does the EPIC 3 RDI voice amplifier work?

Answer

The RDI voice amplifier attaches to compatible 3M Scott Fire & Safety SCBA facepieces using a simple-to-use bayonet style mounting bracket. Once attached, the RDI voice amplifier utilizes advanced audio processing and amplification to improve worker voice intelligibility and projection capabilities.

The RDI voice amplifier is also equipped with a Bluetooth radio which provides direct wireless communications with compatible Bluetooth-enabled field radios and matching remote speaker microphones.

Utilizing mechanical noise suppression to cancel environmental ambient noise, the RDI voice amplifier transmits the SCBA operator's voice directly into the field radio audio path to deliver clear, intelligible radio communications. Push-to-talk operation of the RDI voice amplifier radio interface microphone is controlled by the field radio or remote speaker microphone PTT button, providing workers with a familiar, easy to use operation interface. Incoming field radio voice communication audio can be programmatically routed to any of the RDI amp / field radio system speakers - RSM, radio, RDI amp front or rear speakers - to address the specific needs of the worker and use case.

Question

How is the wireless link between the RDI voice amp and handheld field radio established?

Answer

An initial Bluetooth pairing procedure is used to establish and maintain the wireless communications link between the two units. Each RDI voice amplifier communicates a unique four character device identifier to the field radio during the initial Bluetooth pairing process. The unique device identifier is useful in visually identifying paired RDI amp / field radio sets. The initial Bluetooth pairing process is easy to operate and typically can be completed in 20 seconds or less.

Question

Is it necessary to link the RDI voice amplifier and field radio at the start of each use?

Answer

No. Once initially linked, the Bluetooth communications between the two units can be easily and quickly reconnected. Should the user wish to link either unit to a different RDI voice amplifier or field radio, the initial device Bluetooth pairing process is required.

Question

Can the RDI voice amplifier be used for facepiece voice enhancement and projection without being operated with a handheld field radio?

Answer

Yes, the RDI voice amplifier Bluetooth communication feature will automatically shut down after the 60 second Bluetooth connection process (if no field radio is connected) and the RDI voice amplifier will continue operation as a standard voice amplifier.

Question

How is the RDI voice amplifier powered?

Answer

The RDI voice amplifier is powered by three AAA alkaline batteries. This allows the RDI voice amplifier to be operated with a broad range of Scott Safety facepieces, breathing apparatus, and personal protection equipment.

Question

How is the user notified of device low battery status?

Answer

The RDI voice amplifier LED will begin flashing green once per second accompanied by an audio tone to alert the user of low battery life condition.

Question

Which 3M Scott facepieces can be used with the EPIC 3 RDI voice amplifier?

Answer

The EPIC 3 RDI voice amp can be used with all AV-2000, AV-3000, Vision, and Promask facepieces. EPIC 3 facepiece communication mounting brackets are available to adapt the EPIC 3 RI voice amplifier for use on any of the mentioned 3M Scott facepieces.

Question

Which 3M Scott SCBA systems can the EPIC 3 RDI voice amplifier be used with?

Answer

The EPIC 3 RDI voice amplifier can be used with any new or legacy 3M Scott SCBA system that supports use with the 3M Scott AV-2000, AV-3000, Vision, and Promask facepieces.

Question

Can the new EPIC 3 RI wireless communication system also be used with Scott facepieces when using APR and PAPR breathing apparatus?

Answer

Yes. The RDI voice amplifier and radio communication system supports facepiece use with 3M Scott APR, PAPR, supplied air, and SCBA breathing apparatus. This unique facepiece top down convertibility capability allows customers to use a single 3M Scott facepiece model for all emergency first responder tasks requiring facepiece breathing apparatus, simplifying emergency protection equipment logistics while reducing costs.

Question

How is the RDI voice amplifier built and tested to withstand the rigors of firefighting environments and use?

Answer

The RDI voice amplifier is purpose-built using specialized materials and manufacturing processes to meet and exceed rigorous firefighting use and environmental conditions. All devices are tested and certified to meet or exceed NFPA 2002, 2007, and 2013 standards for communications intelligibility, heat and flame resistance, intrinsic safety, water and dust ingress protection, impact resistance, and vibration resistance.

Question

How are the devices serviced if required?

Answer

Devices exhibiting electronics related performance issues must be returned to the 3M Scott Service Center for proper servicing and repair of intrinsically safe electronics. Other non-electronic parts, such as mechanical housing parts and fasteners, are field serviceable by end users. Service is obtained by contacting 3M Scott Authorized Service Centers or the Scott Service Center.

Question

Does the EPIC 3 RDI voice amplifier meet the latest NFPA communications requirements?

Answer

Yes. The EPIC 3 RDI voice amplifier is designed to meet all requirements specified in the NFPA 1981 Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services, 2013 Edition certification.