



AxTALK 3-RM – Rack-Mounted Communication System

Instruction Manual

Revision 1

November 2024



General Notice

This manual and the information contained herein are provided for the use as a maintenance and operation guide. No license or rights to manufacture, and/or sell either the manual or articles described herein are given. AXSUB Inc. reserves the right to change specifications without notice. We recommend that all users read and fully understand this manual before using the AxTALK 3-RM.

All statements, technical information, and recommendations herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: Seller's and Manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for intended use, and user assumes all risk and liability whatsoever in connection therewith. Neither Seller nor Manufacturer shall be liable either in tort or in contract for any loss or damage—direct, incidental, or consequential—arising from the use of or the inability to use the product. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of the Seller and Manufacturer.

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Safety Information

General Safety Summary

Do not attempt to use the AxTALK 3-RM without reading this instruction manual in its entirety. If the equipment is used in a manner not specified in this manual, the protection provided by the equipment may be impaired. Make sure that you fully understand the use, displays and limitations of the product. Any confusion resulting from neglecting to follow this instruction manual or from improper use of the product may cause a diver to commit errors that may lead to serious injury or death. If you have any questions about the manual or the product, contact your AXSUB dealer before using the product.

Safety Guidelines – General

To avoid personal injury and prevent damage to this product or any equipment connected to it, follow these guidelines:

- **Use the product only as specified in this manual or the protection provided by the product might be impaired.**
- **Do not operate with suspected failures.** Do not use the product if it appears damaged, a foreign object is inside the product, smoke is emitted, unusual smell is emitted, it is unusually hot or if the product is not operating properly.
- **Do not disassemble the product.** There are no serviceable parts inside. You may receive an electric shock, or foreign matter may enter and result in a fire.

Safety Guidelines – Power

- **Use proper power cord.** For AC main power, use only a power cord with an IEC-320 C13 plug, a maximum of 6ft and with rated current of at least 10A.
- **Use proper voltage setting.** Before applying power, ensure that the voltage from the source being used is within the limits specified for the product (100 ~ 240 VAC for AC power, 24V for battery backup).
- **Ground the product when using the main AC power supply.** This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.
- **Do not pull or insert the AC plug if your hands are wet.** Electric shock may result.
- **Clean dust and other debris of the AC plug regularly.** If dust or other debris accumulates on the plug, humidity, etc. may cause a defect in the insulation which may result in a fire.
- **Insert the AC plug completely.** If the plug is not inserted completely, fire due to overheating or electric shock may result.
- **Do not do anything that may damage the AC cord or the AC plug.** Do not damage or modify the cord, place it near hot tools, bend, twist, or pull it forcefully, place heavy objects on it, or bundle it tightly. Continuing to use a damaged cord may result in fire, short circuit or electric shock.
- **Hold the plug when unplugging the AC plug.** Pulling on the cord may damage the cord, resulting in a fire or electric shock.
- **Keep access to power disconnect.** Unplugging the AC plug disconnects the product from the main power source. Do not block access to this terminal; it must remain accessible to the user at all times

Safety Guidelines – Environmental

- **Do not expose opened system to water, rain, snow or direct sunlight.** When operating outside of a building, use the system in a closed trailer, a cargo container, a dive vessel, a tent or other covered environment preventing rain and water splashes from all directions.
- **Only use the AC power inlet indoor.** Always use battery power if there is a risk of condensation or high humidity.
- **Always cover the unmated AC inlet connector with protective cap**
- **Do not store drinks or liquids on the product.**
- **Keep the product surfaces clean and dry.**
- **Do not use the product around explosive gas or vapor.**
- **Do not use the product in pressurized air environment.**
- **Do not use the product above 2000m in altitude.**
- **Do not touch the product in a thunderstorm if connected with AC cable or any other cable.**
- **Do not leave this product in high temperature environment for a long period of time.** Leaving this product where it will be exposed to extremely high temperatures such as near fire or in direct sunlight may cause trouble in the internal parts. Continued use in such a resulting condition may lead to short-circuiting or insulation defects, etc. which may in turn lead to a fire or electric shocks.

Safety Guidelines – Handling and Installation

- **Do not place the system on unstable surface.** If balance is lost, this product may fall over or drop, resulting in an injury.
- **Make sure there is no tension in the cables between the system and the surface anchor system.** All divers' umbilical must always be secured at the surface at an anchor point by fixing the D-Ring installed on the strength member of the umbilical to the anchor point. Take care to run the cables from the anchor point to the system in such a way that it is not possible to trip on the cables and that no excessive tension is applied on the cables.
- **Handle the product with care during transport.** Rack-mount systems must always be carried by the rack handle when it's necessary.

Safety Guidelines – Terminals and Equipment


- **Observe all terminal ratings.** To avoid fire or shock hazard, observe all ratings and markings on the product. Consult the product manual for further ratings information before making connections to the product.
- **Do not use open ended cables.** Always protect open ended cables with appropriate dummy plugs.


Safety Guidelines – Usage

- **For professional use.** The product is intended for professional use only.
- **Only qualified personnel trained in the proper use of Surface Supplied diving equipment should use the product.** No system can replace the need for proper Supervisory and Diver training. Insufficient or improper training may cause divers to commit errors that may lead to serious injury or death.
- **Perform pre-checks.** Always start the product and conduct a functionality check before diving.
- **Use backup instruments.** Make sure that you use backup instrumentation in case of emergency.

Terms in this Manual







These terms may appear in this manual:

 **WARNING.** *Warning statements identify conditions or practices that could result in injury or loss of life.*

 **CAUTION.** *Caution statements identify conditions or practices that could result in damage to this product or other property.*

Symbols on the Product

The following symbols may appear on the product:

	Caution; Refer to manual		AC (Alternating current)
	Hazardous voltage		DC (Direct current)
	Mains disconnected; OFF (Power)		
	Mains connected; ON (Power)		

Section 1: Introduction

Congratulations! You have just purchased the finest, state-of-the-art hardwired intercom in the world. Your new AxTALK three-diver air intercom represents state-of-the-art technology and innovation—the choice of discriminating divers throughout the world. Please take the time to read this owner’s manual. With proper care and use, your AXSUB product will provide you with the ultimate in high-quality communications and reliability.

The AxTALK 3-RM is a compact, self-contained three-diver air intercom providing clear communications between the operator and divers. The AxTALK 3-RM offers two- or four-wire communications.

This manual will cover specifications, operating instructions, two- or four-wire communications, batteries, helpful hints, and warranty information.

These guidelines and illustrations are presented to assist you. If you need additional information, do not hesitate to confer with your local dealer or representative. If you require service, contact AXSUB Inc.:

Address: 112 Montée Industrielle-et-Commerciale #200, Rimouski (Québec) Canada G5M 1B1

Telephone: +1.418.731.1539

Fax: +1.418.731.1557

E-mail: sales@axsub.com

Section 2: Specifications

Battery Life:	20 hours continuous use
Battery Type:	One rechargeable 12-volt battery (spill-proof type)
Power Output:	20 watts
Voltage Input:	90 ~ 264 VAC
Frequency Range:	47 ~ 63 Hz
Alternative Current (Max):	4.1 A / 110 VAC 2.4 A / 240 VAC
Frequency Response:	600 to 12,000 Hz
Cabinet Material:	0,081" aluminum, chemically treated and powder coated.
Front Panel:	0.12" cold rolled steel, chemically treated and powder coated.
Size:	Height: 5.00" (12.7 cm) (3U) Width: 19.00" (48.26 cm) Depth: 11.00" (27.94 cm)
Weight:	16.6 lbs (7.6 kg)

Operating Requirements

1. Install the product in a server rack or an appropriate cabinet.
2. Before operating, ensure that the ambient temperature is between -20°C and +50°C



WARNING. *Observe all safety precautions listed in this manual before using this product and any associated equipment. This product is intended for use by qualified personnel who recognize shock hazards and are familiar with the safety precautions required to avoid possible injury. Read and follow all installation, operation, and maintenance information carefully before using the product. Refer to this manual for complete product specifications. Before performing any maintenance, disconnect the power line cord and all cables.*



WARNING. *Use properly rated cables and equipment.*



WARNING. *Do not loosen any screw on this product. There are no user serviceable components inside.*



WARNING. *Before applying power, ensure that the voltage from the source being used is within the limits specified for the product.*

Installing the System

This section contains information on how to install your AxTALK 3-RM.

- Unpack the product and check that you received all the items listed as standard accessories.
- Check that you also received any other equipment that you ordered with your product.



WARNING. *Always carry the product by the case handle and carefully until it is install in the proper cabinet or server rack.*

Powering the System On and Off

To verify that the AxTALK 3-RM is ready to use, follow these procedures:

Power On

1. When battery needs to be recharged, connect the power cord that was provided with the instrument to the power inlet on the main panel. Connect the power cord plug to a properly grounded electrical outlet.
2. Make all the connections to additional equipment and cables.
3. Turn the main switch ON to activate the system and recharge the internal battery.



WARNING. *The main switch must be ON to activate the internal charger inside the AxTALK 3-RM. If the switch remains at OFF, the battery will NOT recharge.*



WARNING. *Before powering up the AxTALK 3-RM, always wait at least 20 minutes for any gasses expelled during charging to dissipate. While charging batteries, avoid smoking, open flames, or striking a match around the unit.*

Power Off

1. Put the power switch on the main panel to the OFF position.



WARNING. *A short circuit on any of the equipment power terminals will cause the main power supply of the AxTALK 3-RM to trip. Since the AxTALK 3-RM main power supply has a hiccup mode protection, it will automatically recover after fault condition is removed. Switching the faulted equipment to the OFF position will then allow other equipment to keep operating while the diver is returning to the surface to change or repair the faulted equipment. The diver must always return to the surface immediately when a fault condition is detected.*

Cleaning

Inspect the product as often as operating conditions require. To clean the surfaces, perform the following steps:

1. Remove loose dust on the surfaces with a lint-free cloth. Use care to avoid scratching the surface.
2. Use a soft cloth dampened with water to clean the product. Use an aqueous solution of 75% isopropyl alcohol for more efficient cleaning.



CAUTION. *To avoid damage to the surface of the product, do not use any abrasive or chemical cleaning agents.*



CAUTION. *Avoid getting moisture inside the unit during external cleaning. Use only enough cleaning solution to dampen the cloth or swab.*

Section 3: Operating Instructions

System Components

See Figure 1 for the front panel description.

See Figure 2 for the back panel description.



FIGURE 1 – AxTALK 3-RM FRONT PANEL DESCRIPTION

- | | |
|---------------------------|---|
| 1) Earphone: | Diver #1 earphone connection (banana plugs or bare wires). |
| 2) Cross-talk to diver 1: | Push to talk – cross-talk divers 2 and 3 to diver 1 (must be pressed and held so D2 and D3 can talk to D1). |
| 3) Microphone: | Diver #1 microphone connection (banana plugs or bare wires). |
| 4) Earphone: | Diver #2 earphone connection (banana plugs or bare wires). |
| 5) Cross-talk to diver 2: | Push to talk – cross-talk divers 1 and 3 to diver 2 (must be pressed and held so D1 and D3 can talk to D2). |
| 6) Microphone: | Diver #2 microphone connection (banana plugs or bare wires). |
| 7) Earphone: | Diver #3 earphone connection (banana plugs or bare wires). |
| 8) Cross-talk to diver 3: | Push to talk – cross-talk divers 1 and 2 to diver 3 (must be pressed and held so D1 and D2 can talk to D3). |
| 9) Microphone: | Diver #3 microphone connection (banana plugs or bare wires). |
| 10) Earphone volume: | Diver #3 earphone volume control. |
| 11) Microphone gain: | Diver #3 microphone gain control. |
| 12) Earphone volume: | Diver #2 earphone volume control. |
| 13) Microphone gain: | Diver #2 microphone gain control. |
| 14) Earphone volume: | Diver #1 earphone volume control. |
| 15) Microphone gain: | Diver #1 microphone gain control. |

- 16) 2/4 wire: Two- (up) or four-wire (down) mode selector.
- 17) Panel speaker: Front panel speaker for the tender.
- 18) Panel microphone: Front panel microphone for the tender.
- 19) Record volume: Volume control for recording.
- 20) AUX input volume: Line-level input gain control to divers and main speaker.
- 21) Power on LED: Green coloured LED that lights up when power is applied and the system is turned on.
Recording LED: When equipped with a COMREC-64GB, the green coloured LED will blink during recording.
- 22) Low battery LED: Orange coloured LED that lights up when the battery needs to be recharged.
Low recorder battery: When equipped with a COMREC-64GB, the orange coloured LED will blink when the recorder battery needs to be replaced.
- 23) Power on: Turns the power and internal charger ON or OFF.
- 24) Earphone: Tender-worn earphones connected over banana jacks.
- 25) PTT microphone: Tender microphone used for handheld/boom push-to-talk over banana jacks.
- 26) Microphone: Tender microphone used for handheld/boom microphone over banana jacks.
- 27) Earphone volume: Tender earphone and main speaker volume control.
- 28) Microphone gain: Tender microphone gain control.
- 29) AUX input (music): Line-level input (typical 1/8" jack) to share music with the divers (fades out while someone is talking).
- 30) Push-to-talk: Push button used in two-wire mode by the tender to talk to all divers.
- 31) Speaker: Switch to turn the front panel speaker ON or OFF.

Figure 2 : BACK PANEL

- 32) Wireless: Bluetooth wireless adapter connector.
- 33) Record out: Permits tender to record diving operations (line level) using a BNC plug to RCA binding post adapter.
- 34) Diver 1: 6-pin Amphenol connector for diver 1 connections.
- 35) Diver 2: 6-pin Amphenol connector for diver 2 connections.
- 36) Diver 3: 6-pin Amphenol connector for diver 3 connections.
- 37) Tender: 6-pin Amphenol connector for tender connections.
- 38) External power: IEC 320 C14 type connector for 90-264 VAC 47-63 Hz power source can be used (a IEC 320 C13 cable connector is delivered with the AxTALK for battery charging).
- 39) Fuse holder: Fuse 3AG 8R.

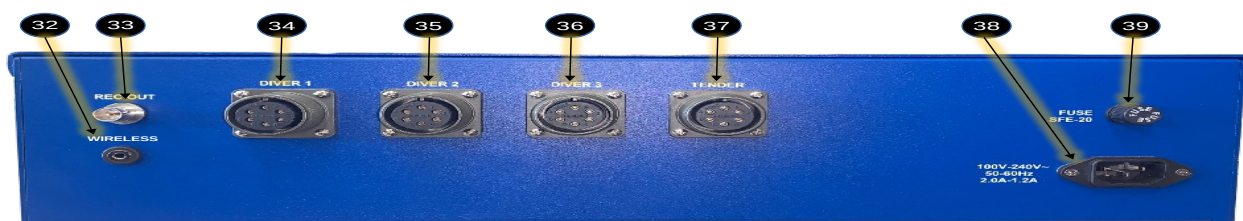


FIGURE 2 – AxTALK 3-RM BACK PANEL DESCRIPTION

Diver and Tender Amphenol Pinouts

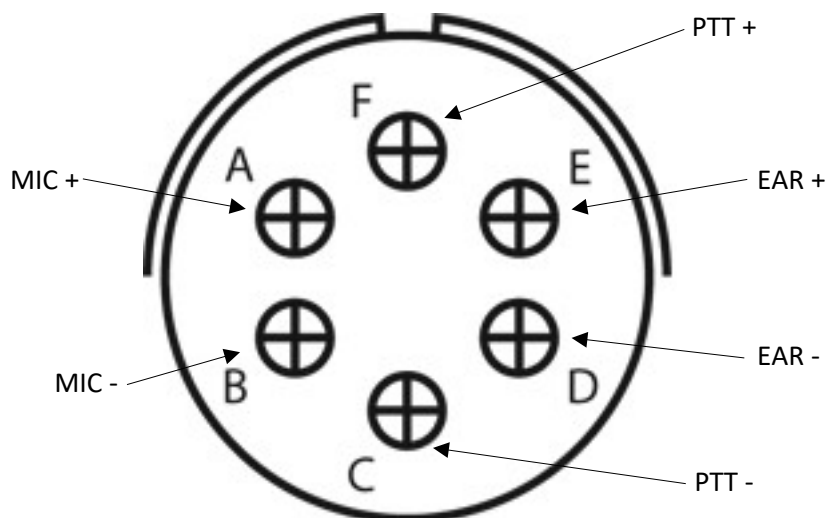


FIGURE 3 – Amphenol pinout, exterior view

- | | |
|---------------------|--|
| A)Microphone +: | Diver or tender microphone + connection |
| B)Microphone -: | Diver or tender microphone – connection |
| C)PTT microphone -: | Tender microphone – used for handheld/boom push-to-talk over banana plug connector |
| D)Earphone -: | Diver or tender earphone – connection |
| E)Earphone +: | Diver or tender earphone + connection |
| F)PTT microphone +: | Tender microphone + used for handheld/boom push-to-talk over banana plug connector |

Two-Wire Mode

In normal two-wire operations, the two wires within the diver communication cable are connected to the corresponding RED microphone binding post (Divers #1 and #2) on the surface unit. The BLACK earphone posts are not used. If a four-wire cable is used, two wires are normally twisted together for one side of the microphone binding post, and the remaining two wires twisted together for the other microphone binding post.

This configuration allows the tender to talk to the divers individually or both divers simultaneously. The diver(s) may also communicate with each other when the tender engages the cross-talk switch. The divers' speaker and the surface unit speaker both function as speaker and microphone. If required, a separate microphone and earphone can be used with the divers' masks or helmets. If a speaker is located in a diving bell or recompression chamber, the AxTALK 3-RM can be used as the communications link between the divers and the outside. When the system is used where conditions are noisy, the tender can switch off the speaker and use a headset and boom microphone. However, when using a headset with a boom microphone, the tender must use a push-to-talk (PTT) button to communicate. Our headset with a boom microphone has a PTT button located on one side of the headset. The AxTALK 3-RM also has a PTT. The divers' communication is the primary signal. When the tender uses the PTT button, his signal becomes the primary signal. If the diver is trying to say something while the tender is talking, the tender will not hear the diver until he releases the PTT button.

The divers' helmets and/or full-face masks typically are wired with the earphones and microphones tied together. When wired like this, the divers' earphones and microphones function together. Bubbles passing by the earphones while the diver is talking will be picked up via the earphones, causing the communications to be noisy. When the tender is talking to the diver, his voice is heard not only from the diver's earphone, but also from the microphone!

Four-Wire Mode

The four-wire mode provides continuous open-line communications between the tender and all the divers, or any combination of recompression chambers or diving bells. The four-wire mode will give you optimum performance and intelligibility by the AxTALK 3-RM. Using this method, everyone hears each other simultaneously. Therefore, the earphones, speakers, and microphones must be isolated to prevent feedback. All earphones are connected in parallel.

A four-wire cable is required for all stations. Two of the wires are used for the microphone and two for the headset(s) and earphone(s). The diver earphones should be connected to the BLACK "EARPHONE" binding post on the surface unit for both divers (Fig 1 #2 and #4). The banana plug on the tender's headset should be connected to the BLACK "EARPHONE" banana plug (Fig 1 #6). The tender's microphone should be connected to the RED banana plug labeled "MICROPHONE" (Tender's section). The diver's microphone should be connected to the "MICROPHONE" RED banana plug in the Diver's section of the AxTALK 3-RM. When in the four-wire mode, everyone is online together. It is similar to a telephone conference call.

If the Tender prefer use the Push-to-talk switch on the AxTALK 3-RM (Fig 1 #10) when need to talk to the divers, he must connect his microphone AND headphone to the BLACK binding posts only (Fig 1 #6). If the Tender prefer use the Push-to-talk switch on the external microphone (hand microphone or headset with integrated PPT button), then he must connect his microphone on the YELLOW banana plug labeled "PPT" (Tender's section). AND headphone to the BLACK binding posts (Fig 1 #7).

NOTE: If you experience feedback from the headset's microphone, turn off the front panel speaker.

Automatic Audio Recorder (COMREC-64GB)

Our AXSUB Communication systems can be delivered with a BLACKBOX type audio recorder. The COMREC-64GB is recording the communications between the supervisor and the divers in automatic mode. The recorder is turned ON when the AxTALK switch is turned ON and can't be switch OFF unless the AxTALK is switched OFF.

Product Code	Product Description
COMREC-64GB	AXSUB® Optional Audio Recorder for AxTALK Systems on an internal 64GB TF Card

The option board must be installed by factory when the AxTALK is ordered.

OPERATION:

Automatic recording at power up. While booting up, RED LED is static. It starts blinking when recording starts.

STORAGE:

Audio files are stored on a 64GB micro SD card. When the maximum capacity is attained, oldest files are automatically deleted to continue recording. To access the files, remove the AxTALK from the Rack-mount or cabinet and locate the recorder

Then, you can plug a micro USB to USB cable (not supplied) from the recorder to your computer to transfer the files to your preferred location.

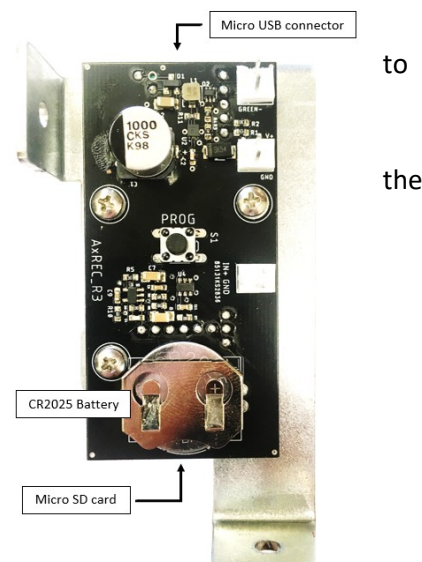
It is also possible to pull-out the microSD card to hook it up through an adapter to the computer. This methods yields faster transfer time.

CONFIGURATION:

To configure the recorder, follow the previous step to plug the device a computer with the USB cable. Then, open the *COMREC Configuration* software and follow the directions to update the firmware and/or change recorder settings. The software is present on USB thumb drive along with this manual. It can be found on AXSUB website: www.axsub.com .

BATTERY LOW:

To function properly, the recorder has a CR2025 battery. When this battery gets low, the YELLOW LED will start blinking. Remove the AxTALK from the Rack-mount or cabinet to get access to the device to replace the battery. You will need to update the time through the *COMREC Configuration* software after the battery have been successfully changed. Remember, a static YELLOW LED means the radio battery is low, not the recorder's battery.



Section 4: Helpful Hints

- 1) Before diving operations begin, check to be sure the microphone, earphones, and wire connections are secure and operating properly. About ninety percent of all problems in communications turn out to be a problem with one of the above.
- 2) When in the four-wire mode, you must use a headset with a boom microphone, and the Diver Select switch must be in the “4 Wire” position. If feedback is present, switch of the front panel speaker (Fig. 1, #7).
- 3) Avoid excessive tender-to-diver volume. Most of the time, when there is too much volume, the diver will hear distortion and ask for more volume!
- 4) Before diving operations, always check the battery power level, and recharge the batteries if necessary.
- 5) Make certain the headphone and remote PTT plugs are securely inserted into the proper receptacle.
- 6) When in the four-wire mode and a wire breaks, try setting the system up in the two-wire communication mode (Fig. 2), and continue diving operations.
- 7) Secure the AxTALK 3-RM if using the unit on a vessel that is rolling about. Also strain-relief the umbilical(s) so they will not pull on the AxTALK 3-RM. Ensure the umbilicals are dressed out so as not to trip anyone.

Section 5: Eartech Wireless Adapter



Hub

This Full Duplex Wireless Intercom System provides full duplex wireless communication to larger production staffs that need to stay in constant voice contact while working with their hands. This versatile hub allows crews to talk simultaneously within a 900ft (275m) range (line of sight, terrain dependent). Two operating channels are built-into the hub circuitry so that separate groups of four can talk privately, and pressing the conference button can create an eight-person channel. The hub's battery can be charged externally and is field replaceable.

Headset

EARTEC's UltraLITE are revolutionary headsets that eclipse all other full duplex systems for performance and convenience because the transceiver is built right inside the ear cup. This self-contained, "All in One" design eliminates wires and belt worn radios.

Standard UltraLITE intercoms provide instantaneous wireless communications for crews that need to communicate without pushing buttons. All UltraLITE headsets include EARTEC's Auto Mute Mic boom technology. These specialty microphone assemblies feature an internal switch that automatically mutes the headset mic gain when set to the UP position. Using AutoMUTE is a simple and efficient way to mute your microphone signal.

A terrific feature of UltraLITE systems is that the Lithium Polymer batteries (included) charge externally and are field replaceable. This allows you to purchase and keep spare batteries on hand extending the run time of your system indefinitely. A multi-port charger is included with each new complete UltraLITE intercom that features positive LED indicators. When the batteries reach full charge the corresponding LED turns from red to green indicating that the battery is ready to go.

Specifications

Enclosure – Hub: Pelican 1150
Headsets: Up to 8 headsets per hub
Standard: DECT 6.0
Frequency: 1920 – 1930MHz (USA)
Euro Frequency: 1880 – 1900MHz (EURO)
Maximum Power: 100mW
Channel Bandwidth: 1.728 GHz
Transmission Speed: 1.152 Mbps (Baud Rate)
Duplexing: Time Division Duplex (TDD)
Speech Encoding: ADPCM / 32bit/s
RF Accessing: Time Division Multiple Access (TDMA)
Range: 900ft / 275m (line of sight, terrain dependent)
Power: Rechargeable Lithium 3.7V / 800mAh 3.0Wh
Charge Time: 3 Hours
Operation Time – Hub: 3 Hours
Operation Time – Headset: 5 Hours
Normal Conditions of Use: 0°C to 40°C
Storage Temperature: -10°C to 50°C
No FCC License Required

Instructions

Battery

The HUB and all UltraLITE headsets are powered by a Lithium Polymer battery that will operate 6 hours when fully charged.

Charging

1. Batteries are charged via the multi-charger.
2. Insert the batteries making sure the contacts are properly aligned.
3. RED: Charging; GREEN: Fully Charged.

Installation

1. The HUB: Slide battery compartment open, insert battery, click closed.
2. Headsets: Press the release button located on the bottom of the battery compartment.
3. Insert the battery into the compartment (arrow indicates proper direction) and snap door closed.

Low Indicator

A repetitive beep (every 20 seconds) indicates low power – battery should be charged or replaced. to turn off.

Battery Care

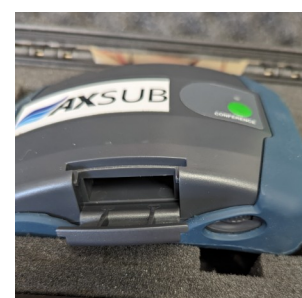
To preserve optimum charge level remove battery from headsets when not in use.



The HUB Battery Slot



Release Button



Operations

System Startup

1. Select AC adapter or battery, then **power up The HUB by rotating the ON/OFF/Volume dial clockwise**. LED confirms power is on.
2. Turn ON each UltraLITE headset by pressing the power button located above the volume controls. A flashing blue LED on the earcup confirms the headset is in search mode.
3. Flashing LEDs change to solid blue to indicate that headsets have successfully connected.

Set Volume

UltraLITE headsets feature 5 volume settings. Select the desired volume by slowly clicking the up or down buttons. An audible tone reflects volume level. A double tone indicates max volume.

Note: If using a wired headset with the HUB, adjust sound level with volume dial.

Conference Mode

Each time The HUB is turned on the default setting will be dual channel. Up to 4 headsets can communicate privately on Ch 1 & Ch 2. Pressing the green conference button connects the channels to link all 8 headsets (LED turns red).

Shut Down

Rotate The HUB on/off/vol dial until it clicks off. Press and hold power button on the UltraLITE headsets for 4-5 seconds to turn off. To preserve optimum charge level remove battery from headsets when not in use.



Headset Adjustements



Position microphone one- finger width from your mouth. Speak into the front- indicated by TALK.



Boom swivels so headset can be worn on left or right.



Microphone mutes when boom is in "UP" position.

Pairing Hub and Headsets

Wireless hubs are programmed by AXSUB before shipping to pair with the headsets that are purchased in the same order. If you need to pair new headsets or reset the pairing between HUB and headsets, please use method below:

HUB HD Mini-Base Programming Instructions

1. Start with all "Remote" UltraLite / UltraPaks powered "ON".
2. Remove belt clip on HUB Mini-Base to expose channel buttons "1" and "2". Install battery in the HUB Mini-Base and turn power switch "ON".
3. Press and hold programming button "1" (to program to channel 1) or "2" (to program to channel 2) on HUB for five seconds. Red LED will begin flashing. This indicates that the HUB is ready to link to a "Remote" UltraLite / UltraPak.
4. To program a "Remote" UltraLite / UltraPak press the volume "Down arrow" 3 times and then press and HOLD the volume "UP arrow". Once the LED on the Remote unit flashes blue/red, release the volume UP arrow.
5. The pairing process can take from 5-30 seconds. Once the UltraLite / UltraPak links, the LED will turn solid blue. The HUB will turn from a flashing LED to a solid red LED. When both LED's are solid "Blue" the UltraLite / UltraPak are paired to the HUB.
6. To program additional UltraLite / UltraPaks, to the HUB repeat steps 3-5 for each remaining unit.

*Each HUB can have up to 4 remote UltraLite / UltraPaks linked to each channel.

Clearing the HUB HD Mini-Base

When programming a new or repaired UltraLite / UltraPak, the HUB mini-base needs to be "CLEARED" before a remote unit can be linked. All remote units should be "OFF" before starting this process. Follow the steps below to clear the HUB.

1. Install battery in HUB and turn power switch "ON".
2. Press and hold programming button "1" on the HUB for five seconds the red LED will begin flashing.
3. Press the #1 programming button 7 times. The red LED will turn off and now the HUB has no remotes programmed to channel 1.
4. Press and hold programming button "2" on the HUB for five seconds the red LED will begin flashing.
5. Press the #2 programming button 7 times. The red LED will turn off and now the HUB has no remotes programmed to channel 2.
6. The HUB is ready to link to "Remote" UltraLite / UltraPaks. Follow the instructions under "HUB Mini-Base Programming Instructions" to link UltraLite / UltraPak.

AXSUB Limited Warranty

This Limited Warranty is valid as of August 1st, 2012.

AXSUB Inc. (“AXSUB”) provides this limited warranty to those who have purchased the AxVIEW and/or AXSUB diving accessories and equipment. AXSUB warrants that during the Warranty Period, AXSUB or an AXSUB Authorized Service Center will, at its sole discretion, remedy defects in materials or workmanship free of charge either by a) repairing the Product or the parts, or b) replacing the Product or the parts, or c) refunding the purchase price of the Product, subject to the terms and conditions of this Limited Warranty. Your mandatory legal rights under your applicable national laws relating to the sale of consumer products are not affected by this Limited Warranty.

This Limited Warranty is only valid and enforceable in the country in which you purchased the Product, provided that AXSUB intended to sell the Product in that country. If, however, you purchased the Product in a member state of the European Union, Iceland, Norway, Switzerland or Turkey, and AXSUB originally intended to sell the Product in one of these countries, this Limited Warranty is valid and enforceable in all of these countries. The warranty service may be limited due to possible country-specific elements in the Products. Any service made during and after warranty is subject to service fee and compensation for the shipment costs incurred by AXSUB or an AXSUB Authorized Service Centre. You can have warranty service in a country other than the country in which you purchased the Product.

Warranty Period

The Warranty Period starts at the date of retail purchase by the original end-user purchaser. The Product may consist of several different parts, and the different parts may be covered by a different warranty period (hereinafter “Warranty Period”). The different Warranty Periods are:

- 1) One (1) year for the AxVIEW and AxTALK systems
- 2) Three (3) months for the consumable parts and accessories, including (but not limited to) rechargeable batteries, chargers, cameras, lamps, depth meters, cables, power supply (whether included in the AxVIEW sales package or sold separately).

To the extent your national laws permit, the Warranty Period will not be extended or renewed or otherwise affected due to subsequent resale, AXSUB authorized repair or replacement of the Product. However, part(s) repaired or replaced during the Warranty Period will be warranted for the remainder of the original Warranty Period or for three (3) months from the date of repair or replacement, whichever is longer.

Exclusions and Limitations

This Limited Warranty does not cover:

- 1) a) normal wear and tear, b) defects caused by rough handling (including, without limitation, defects caused by sharp items, by bending, compressing or dropping, etc.), or c) defects or damage caused by misuse of the Product, including use that is contrary to the instructions provided by AXSUB (e.g. as set out in the Product’s user guide and/instruction manual), and/or e) other acts beyond the reasonable control of AXSUB;

- 2) User manuals or any third-party software (even if packed or sold with the AXSUB hardware), settings, content or data, whether included or downloaded in the Product, or whether included during installment, assembly, shipping or at any other time in the delivery chain or otherwise and in any way acquired by you;
- 3) Defects or alleged defects caused by the fact that the Product was used with, or connected to, any product, accessory, software and/or service not manufactured or supplied by AXSUB, or was used otherwise than for its intended use;
- 4) Usage with a power supply other than AXSUB product PS-24V-001;
- 5) Usage with a battery different than an AXSUB Battery Pack B05Ah-24VDC or B15Ah-24VDC;
- 6) Usage with a power source different outside limits of the power supply: 100-240VAC 50/60Hz.

This Limited Warranty is not enforceable if:

- 1) The Product has been opened, modified or repaired by anyone other than AXSUB or a AXSUB Authorized Service Centre;
- 2) The Product has been repaired using unauthorized spare parts;
- 3) The Product's serial number has been removed, erased, defaced, altered or made illegible in any way - and this shall be determined at the sole discretion of AXSUB;
- 4) The Product has been used when surrounding temperature exceed the limits of -20...50°C;
- 5) The Product has been exposed to influence from chemical products including (but not limited to) mosquito repellents;
- 6) The Product has been cleaned with a high pressure air jet or with any other procedure than the one described in this User Manual

AXSUB does not warrant that the operation of the Product will be uninterrupted or error free or that the Product will work in combination with any hardware or software provide by a third party.

[Access to AXSUB Warranty Service](#)

Please access and review the online help resources available at support.axsub.com or refer to the User Manual before seeking warranty service.

If a claim under this Limited Warranty appears to be necessary, please contact your local authorized AXSUB retailer – for contact information please visit the AXSUB website www.axsub.com or call the AXSUB Help Desk (national or premium rates may apply) for further details on how to make a claim. You will then be advised on how to bring your Product for warranty service. Should you wish to return the Product by shipping it to your local authorized AXSUB retailer, please use prepaid freight. When making a claim under this Limited Warranty you are required to include your name and address, proof of purchase and/or service registration card (AXSUB warranty registration at www.axsub.com is considered adequate for this purpose), as required in your country, which clearly indicates the serial number, name and address of the seller, the date and place of purchase, and the product type. The claim will be honored and the Product repaired or replaced at no charge and returned in a reasonable amount of time. This shall be determined at the sole discretion of AXSUB or an AXSUB Authorized Service Center. If the Product is found not to be covered by the terms and conditions of this Limited Warranty, AXSUB or an AXSUB Authorized Service Centre reserve the right to charge a handling fee.

Any claim under this Limited Warranty is subject to you notifying AXSUB or a AXSUB Authorized Service center of the alleged defect within a reasonable time of it having come to your attention, and in any event no later than before the expiry of the Warranty Period.

Other Important Notices

Please remember to take backup copies of all important content and data stored in your Product (if applicable) because content and data may be lost during repair or replacement of the Product. AXSUB or a AXSUB Authorized Service Centre is not responsible for any damage or loss of any kind whatsoever resulting from loss of, damage to, or corruption of content or data during repair or replacement of the Product. When the Product or a part is replaced, any replaced item becomes the property of AXSUB. If a refund is given, the Product for which the refund is given must be returned to an AXSUB Authorized Service Centre as it becomes the property of AXSUB and/or AXSUB Authorized Service Centre. When repairing or replacing the Product, AXSUB or an AXSUB Authorized Service Centre may use products or parts that are new, equivalent to new or re-conditioned.

Limitation of Liability

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE MANDATORY LAWS, THIS LIMITED WARRANTY IS YOUR SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. AXSUB SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF DATA, PUNITIVE DAMAGES, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF AXSUB KNEW OF THE POSSIBILITY OF SUCH DAMAGES. AXSUB SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE TIME THE PRODUCT IS BEING REPAIRED.

Disposal of the Device

Production of this equipment required the extraction and use of natural resources. The equipment may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. To avoid release of such substances into the environment and to reduce the use of natural resources, we encourage you to recycle this product in an appropriate system that will ensure that most of the materials are reused or recycled appropriately.

Treat this product as electronic waste; do not throw it in the garbage. If you wish, you may return the device to your nearest AXSUB dealer.

