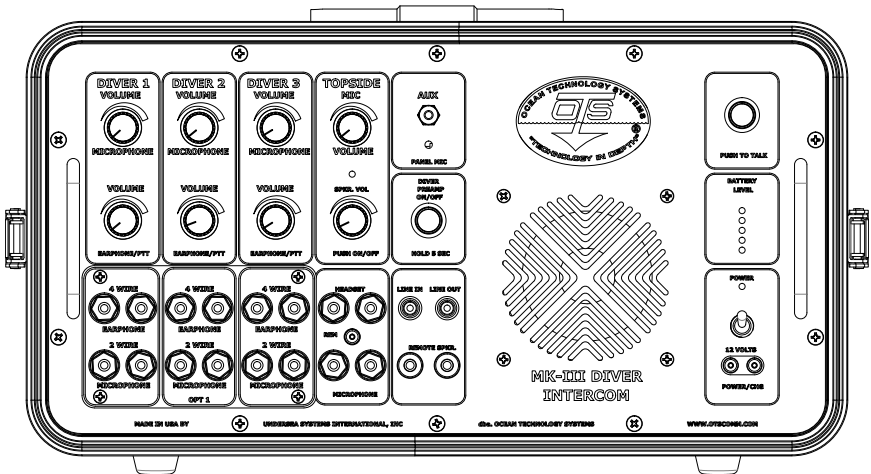




AQUACOM MK-III 3-DIVER INTERCOM

Full-Duplex Surface Station for
Underwater Communications



“Technology In Depth”®

- NOTICE -

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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; and 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, the user shall determine the suitability of the product for intended use, and the 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 it is in an agreement signed by officers of the Seller and Manufacturer.

- IMPORTANT SAFETY NOTICE -
(Please read before using product.)

It is absolutely essential that all operators are properly trained and equipped and fully understand this user's manual before attempting to use the MK-III 3-Diver Intercom.

While the MK-III 3-Diver Intercom provides good underwater communications, it does not change or eliminate the potential hazards of diving!

Refer to the Library page of our Web site, www.otscmm.com, for a list of any changes made to this manual since its publication.

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SECTION 1

Introduction

In this manual, you will find all of the information you will need to know regarding the Aquacom MK-III 3-Diver Intercom system. Start with Section 2 which contains a list of specifications and information about MK-III hardware. Once you've read this section, please read the operation instructions contained in section 4. These sections will instruct you in the vital functions of the MK-III 3-Diver Intercom.

Before operating the MK-III 3-Diver Intercom, read this entire manual. In addition to the information presented on functions and operation, there are some important safety issues all users must be familiar with before using the MK-III. If you have any questions, contact your local OTS dealer, or feel free to contact OTS directly (See page 20 for OTS contact information.)

SECTION 2 EQUIPMENT DESCRIPTION

2.1 SPECIFICATIONS

Input Voltage:	12VDC (Minimum 3 amps) or 90–240 V AC, 50–60 Hz
Idle Current:	300 mA
Audio Frequency:	300-4000 Hz
Battery Type:	Nontoxic Lead Acid, 12v, 7.2Ah
Battery Life:	20 hours idle, 12 hours Working
Operating Temperature:	-40°C to 50°C (-40°F to 122°F)
Storage Temperature:	-40°C to 40°C (-40°F to 104°F)
Cabinet Material:	Molded ABS
Front-Panel Material:	Stainless Steel
Housing Dimensions(HxWxD):	10-3/4in x 16-3/4in x 8-3/4in
Weight:	19.5 lbs (8.84kg)
Latches:	Stainless Steel
Case:	Designed to meet IP65

2.2 INCLUDED WITH THE MK-III

The following items are provided with the MK-III:

- RCS-20US battery charger
- RB-12 rechargeable battery

2.3 ADDITIONAL COMPONENTS, SOLD SEPARATED

All additional components can be sourced from OTS or your local OTS dealer.

2.3.1 COMMUNICATIONS CABLES

Each diver requires an intercom cable to connect to the MK-III. Be sure to obtain cables that mate with the Diver Earphone-Microphone Assembly and the corresponding MK-III mating connectors. The MK-III panel mounted Diver Earphone-Microphone connectors are available in Banana, Amp, and 5-pin MS styles.

2.3.1.1 COMMROPES

OTS offers CommRopes consisting of communication cables bundled inside a durable yet flexible rope for connecting Ear/Microphone assemblies to the MK-III.

2.3.1.1 FLOATING COMM CABLE

Floating Communications Cables were made with Public Safety and Aquarium divers in mind. This buoyant cable helps minimize entanglement hazards by keeping the bulk of the cable on the surface.

2.3.2 EARPHONE-MICROPHONE (EM) ASSEMBLIES

Each diver will require an Earphone-Microphone Assembly in order to communicate. OTS offers a wide range of options and styles to match your Full Face Mask. The MK-III supports the use of pre-amplified microphones, which tend to be more durable, rugged and require less maintenance than dynamic(unpowered) microphones—although they often have lower fidelity, range, and speech intelligibility.

2.3.3 UMBILICAL ADAPTERS

OTS offers adapters to interface to your current umbilical/communications cables and the intercom cable that you've chosen to use.

2.3.4 THB-MK-III HEADSET (900465-000)

OTS offers an optional tender headset designed to support all MK-III features, including a headset mounted Push-to-talk button.

2.3.5 HHM-2 MICROPHONE (910193-000)

OTS offers an optional hand-held microphone designed to support all MK-III features.

2.4 MK-III PANEL MAP

Figure 1 depicts the MK-III panel. Use the numbered key to familiarize yourself with the locations and functions of each control before attempting to dive with the MK-III Intercom.

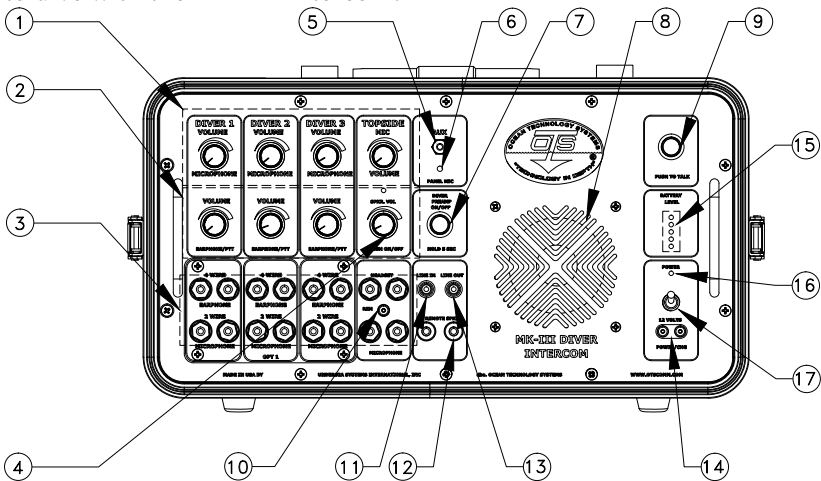


Fig. 1

1. **Diver and Tender Microphone Controls:** These knobs control the microphone volumes from each diver and for the tender.
2. **Diver Earphone Volume Controls/PTT:** These knobs control the output volume to each diver and to the Tender, and can be depressed to control the Push-To-Talk functions.
3. **Diver Umbilical Receptacles:** Connects Diver intercom cables to the MK-III. This sub-panel is available in Amp and a 5 pin MS connector version. The banana connectors can be used with bare wire, in the event that your earphone-microphone cables do not have a mating connector.
4. **Topside Volume And Panel Speaker Control on/off:** Controls the diver unit speaker volume
5. **Aux Jack:** An 8mm audio jack that can be used to connect accessories and to play external audio from another device.

6. **Panel Microphone:** The panel mounted Microphone.
7. **Diver Pre-amp:** Powered Mic on/off switch with LED.
8. **Panel Mounted Speaker:** The panel mounted speaker.
9. **Push to Talk:** The push to talk button toggles the panel mounted microphone.
10. **REM:** Remote Tender Headset PTT connection.
11. **Line In:** The Line In input allows for external audio playback to the divers, such as a music or another MK-III.
12. **Remote Speaker:** Remote speaker receptacles. Can be used to connect a two-pin unpowered speaker.
13. **Line Out:** The Line Out input can be used to connect recording equipment, allowing recording at the line level, but not at the speaker level. And to connect another MK-III.
14. **12 Volts Power/CHG:** The connector for an external 12VDC power supply and for charging the battery.
15. **Battery Level:** Indicator for the charge level of the battery.
16. **Power:** The power indicator. This light indicates if the unit is powered on.
17. **Power Switch:** A two position toggle switch for turning on and off the power to the MK-III

2.5 MK-III CASE MAP

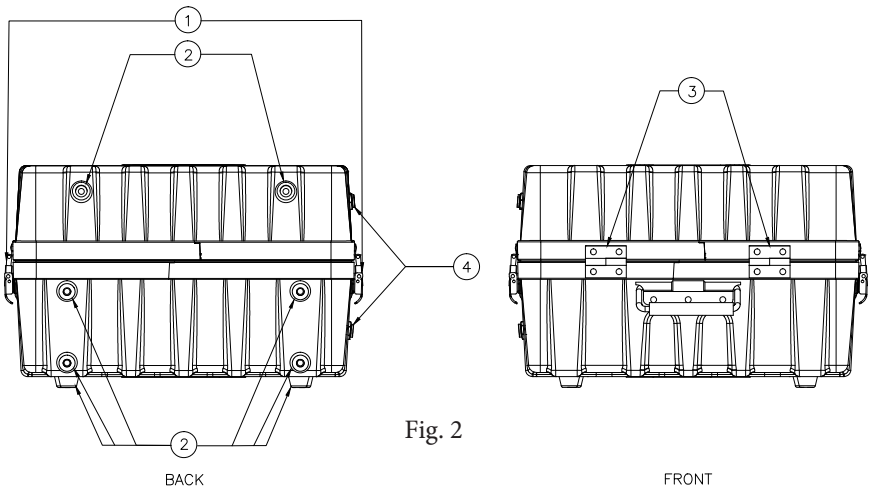


Fig. 2

1. **Case Latches:** The stainless-steel latches on either side of the case are used to close and seal the MK-III case.

When the latches are closed and the unit is sealed, the MK-III is protected from ocean spray. While the MK-III has been tested against an overboard scenario, it is not guaranteed to be protected against full submersion.

- 2. Bumper Feet:** The MK-III has an additional set of Bumper Feet, allowing the unit to be used from either a face up (vertical) or face out/horizontal orientation. The face out (horizontal) orientation is especially useful when utilized on a work station or in rain or spray conditions to prevent water from accumulating on the panel.
- 3. Lid hinges:** The hinges on the back of the unit are designed to allow the lid to be removed from the unit. While the lid is removed, the unit can be operated while rotated 90°.
- 4. Safety Vents:** The Safety vents can be opened by rotating counterclockwise. These vents must be opened if the MK-III is transported by air, or when the unit is charging.
- 5. Accessory Net:** Inside the lid hangs the Accessory Net. (See fig 3.) Elastic loops mount the net to hooks built into the lid. The net can be used to store MK-III accessories, such as the AC charger. If stowing a headset, ensure that it is not pressing against the umbilical binding posts when the lid is closed.

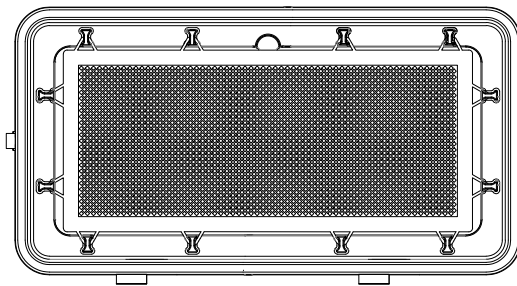


Fig. 3

SECTION 3 SUPPLYING ELECTRICAL POWER

The MK-III 3-Diver Intercom provides three options for supplying power: the internal Battery, 90-240 Volts AC, or a 12-Volt DC external power supply. The best option for you will depend on your application profile.

3.1 Internal Battery, RB-12, Non-spillable

Inside the MK-III is a lead-acid battery, which supplies 12 volts at 7.2amp-hours. Once the battery has reached less than 11.4Vdc, The unit will shut off after 1 minute of the LED blinking red. The power shut off occurs to prevent sudden battery malfunction or shortened battery life.



DANGER

WHILE RECHARGING THE BATTERY AND THE SAFETY VENTS ARE OPEN, THE UNIT MUST BE KEPT AWAY FROM WATER AND OCEAN SPRAY. FAILURE TO KEEP THE UNIT FREE FROM WATER MAY CAUSE INJURY OR DEATH

LED BATTERY CONDITION INDICATOR

Charge Remaining	LED	Audio Tone
100%	3 Green	No Tone
80%	2 Green	No Tone
60%	1 Green	No Tone
40%	Yellow	1 beep / 1minute
25%	Red	2 beep / 30 second

At startup, if the LED is solid red, the battery is no longer holding a charge and must be replaced.

3.1.1 BATTERY CHARGING

To charge the MK-III using AC power, connect the supplied charger/maintainer AC power cable to the Charger/Maintainer input (Fig 1, #14). Connect the Charger/Maintainer power plug to an AC power outlet that supplies 90–240 volts at 50/60 Hz.

Safety Precautions:

While charging the battery it is very important to open the 2 safety vents. Allow at least 20 minutes after charging for any gasses to dissipate before returning the unit to its operating position and closing the ventilation valve (by rotating fully clockwise to prevent water entry).

A fully depleted battery can be recharged completely in about 3–5 hours. While the battery is being charged and its voltage is below maximum, the charge indicator LED located on the RCS-20US will illuminate *red* in color. When the battery has been completely recharged, the charger will enter trickle-charge mode to maintain maximum battery voltage and the charger LED will illuminate green.

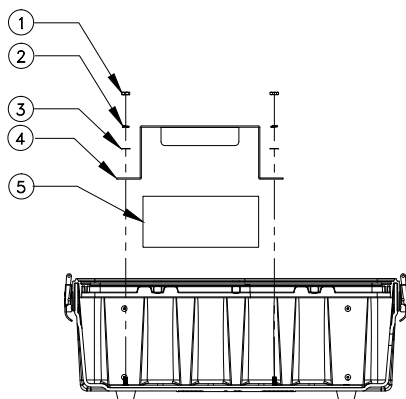


Fig. 4

Do not allow a battery to remain discharged for long periods of time. While in storage or long periods of non-use, charge the battery at least every 60-90 days. Failure to maintain a charge on the battery will result in a failure to take and maintain a charge.

Ensure that the RCS-20US is operated in a dry area and connected to a GFI protected circuit.

3.1.2 BATTERY REPLACEMENT:

The battery should provide a long lifetime of service through many depletion and recharging cycles. Nevertheless, eventually the battery may cease maintaining an adequate charge; in this event you will have to replace the battery. Replacement batteries (part no. 392016-000) are available from OTS or your local dealer.

Follow these instructions to replace the battery:

1. Ensure the power switch (Fig. 1, #17) is toggled to the *off* position. If the unit is connected to an external power source, unplug the power cable from it.
2. Disconnect all devices attached to the front panel.
3. Using a Phillips screwdriver, remove and set aside the ten panel screws and nylon washers.
4. Using the two handles, remove the front panel. The MK-III's internal hardware and electronics are attached to the panel, so care must be taken when handling the panel.
5. Disconnect the battery wire connector on the PCB by pulling connector away from the mating connector.

6. Remove and set aside the four hex nuts, washers, lock washers (#1,2, and 3) and battery bracket (#4) that secures the battery to the base.
7. Lift the battery (#5) and turn it so that the terminals are facing upwards. Remove the connectors from the terminals and lift the battery away from the unit.
8. Replace the battery with the new one. The terminals should be oriented upwards. Reconnect the battery connectors to battery, connecting the red right angle connector to the + Terminal and connecting the straight clear connector to the - Terminal.
9. Secure the battery with the bracket and hex nuts. Tighten the hex nuts securely without overtightening.
10. Reconnect the battery wire harness to the PCB.
11. Reinstall the MK-III panel using the screws and washer previously removed.
13. Reconnect all devices to the front panel.

3.2 AC POWER

To operate the MK-III using AC power, connect the supplied charger/maintainer AC power cable to the Charger/Maintainer input (Fig 1, #14). Connect the Charger/Maintainer power plug to an AC power outlet that supplies 90–240 volts at 50/60 Hz.

Operation of the unit with AC power will supply charging current to the battery. See Section 3.1.1 for safety precautions. While operating the unit with AC power, you do not have to open the safety valves.

Note: The standard AC power cable has a plug compatible with the standard electrical outlets used in the U.S.A. However, if you need a plug for a different region of the world, appropriate power cords are available from OTS or your OTS dealer.

3.3 EXTERNAL DC POWER

To operate the MK-III using an external 12-volt DC power source (such as a lead-acid battery of 5.0 Ah or other DC power supply of at least 3A), connect electrical cables via a mini double banana plug to the DC power receptacle (Fig. 1, #14) on the MK-III front panel. Be sure to connect the negative lead to the black socket and the positive to the red.

If the voltage of the external DC power source falls below that of the internal battery, the MK-III will begin to draw current from both power sources. Therefore, the battery level indicator (Fig. 1, #15) will monitor the voltage of both the internal battery and the external DC source.

SECTION 4 OPERATION

4.1 CONTROLS AND ADJUSTMENTS

4.1.1 System settings

System power: The MK-III's system power switch is a 2-position toggle that turns the unit on and off. Allow 2 seconds for the unit to fully power up.



WARNING

WHILE OPERATING THE MK-III, ENSURE THE DIVER'S MOUTH/LIPS ARE NOT IN DIRECT CONTACT WITH THE MOUNTING SCREWS OF THE MICROPHONE. FAILURE TO DO SO MAY CAUSE A MILD SHOCK WHEN THE MK-III PUSH-TO-TALK (PTT) BUTTON IS PRESSED. TO AVOID SHOCKING, DO NOT PLACE MOUTH/LIPS ON THE SCREWS OF THE MICROPHONE AND/OR INSULATE THE SCREWS WITH A RUBBER BOOT.

PLEASE CONTACT OTS IF YOU REQUIRE A RUBBER BOOT FOR YOUR APPLICATION

Two-Wire or Four-Wire selection: Only for banana connector versions.

To select Two-wire transmit mode, plug the earphone banana connector into the microphone banana connector. (See Fig. 5 on the next page) This allows for a diver to transmit or receive, but never both at the same time.

To select Four-wire mode, plug the microphone connector into the microphone jack and the earphone connector into the earphone jack. (See Fig. 6) This will allow the divers to both listen and talk at the same time.

Two-Wire Operating Instructions: *Note: Do not connect divers' ear/mic assembly in the two wire configuration if you intend to use the Diver Pre-Amp option. Additionally, Pre-Amplified microphones cannot be used in two wire mode. Do not engage the Pre-Amp option in two wire mode.*

While in the Two-wire configuration, any diver can talk to the Tender, but not to other divers. If the Tender wishes to talk to the divers, the Tender must press the PTT button on either their headset or on the panel.

While the PTT button is depressed, the divers cannot communicate with the Tender; they must wait until the Tender has let go of the PTT button.

In the case that the Tender wants a Diver to talk to the other Divers, the Tender must depress the Earphone/PTT knob of the talking diver.

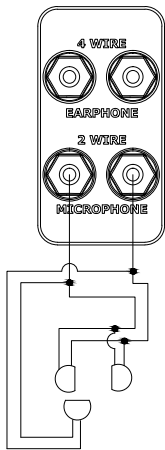


Fig. 5

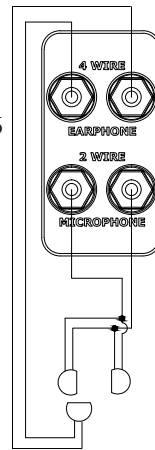


Fig. 6

Four-Wire Operation Instructions: While in the Four-Wire configuration, the Tender and Divers can communicate freely without the need to press any buttons.

Diver Pre-Amp: Do not connect non-powered earphone / microphone assemblies when the pre-amp is activated. Doing so will damage the earphone / microphone assembly. To turn on the Diver Microphone Pre-Amplifier, press and hold the Diver Pre-Amp button for 5 seconds. When the Pre-Amp is activated, a blue ring light around the button will activate. Turning on the Pre-Amplifier is required if the divers are using powered microphones. You cannot connect a combination of Powered and Unpowered microphones while the Pre-Amplifier is on. Doing so may cause damage to an unpowered microphone.

4.1.2 TOPSIDE CONTROLS

Topside Mic Volume: Adjusts the volume of both the panel and headset microphone.

Speaker Volume: Adjusts the volume of both the panel mounted speaker and the headset earphones. Pressing on the knob will turn on and off the panel mounted speaker and the connected LED, but not the headset earphones.

Push-To-Talk: *WARNING: pressing the push-to-talk button could shock the divers in the event that the diver microphone mounting screws are in direct contact with the diver's mouth. Ensure that the microphone is placed away from the Diver's mouth or the screws are insulated with a rubber boot.*

Pressing the PTT button will mute the panel speaker and activates the panel microphone for as long as the button is depressed. Pressing the PTT button also mutes all the diver microphones.

Panel Mic: The Panel Mic is normally deactivated. Pressing the PTT button will activate the Microphone. The Panel Mic LED will confirm the microphone is active. Communication should be clear as long as the Tender is a foot or less away from the panel microphone.

REM Jack: When using the Remote jack, pressing the headset PTT button mutes the panel mounted speaker, allowing the tender to more clearly hear the divers. *WARNING: pressing the push-to-talk button could shock the divers in the event that the diver microphone mounting screws are in direct contact with the diver's mouth. Ensure that the microphone is placed away from the Diver's mouth or the screws are insulated with a rubber boot.*

Topside headset Microphone and Earphone Jacks: Used to connect the Tender earphone and/or microphone to the MK-III.

Line In: The line in jack allows the Tender to connect an RCA cable from an external audio source to MK-III. It also allows “daisy chaining” MK-IIIs and / or playing music from a player to the divers.

Line Out: The Line Out jack allows the Tender to connect an RCA cable from the MK-III to an external device such as an audio recorder or for “daisy chaining” MK-IIIs together.

AUX: The aux jack can be used to connect optional accessories and to connect an audio player of your choice. The initial audio level of the player must be set on the player itself, then can be adjusted for each diver by using the MK-III's panel controls.

4.1.3 DIVER CONTROLS

Diver Microphone Volume: Allows the tender to control the microphone volume from each diver.

Diver Earphone Volume: *WARNING: pressing the push-to-talk button could shock the divers in the event that the diver microphone mounting screws are in direct contact with the diver's mouth. Ensure that the microphone is placed away from the Diver's mouth or the screws are insulated with a rubber boot.* Allows the Tender to control the earphone volume of each diver. Pressing down on the knob activates the PTT for that diver, which mutes all the microphones of all the other divers. (But not the tender.)

Diver Earphone and Microphone Connectors: Used to connect diver intercom cables to the MK-III. Diver earphone and microphone are available in banana, 5-pin MS, and AMP connector configurations.

4.2 DAISY CHAINING

In the event that you have more than three divers, it's possible to connect two MK-III surface units together, allowing for up to six divers to communicate.

To connect two units together, connect an RCA cable from the Line In connector from one unit to the Line Out connector to the second unit. Repeat this process for the Line Out connector to the Line In connector.

4.3 AFTER THE DIVE

After each use, be sure to disconnect all connectors from the MK-III panel. If you have been using the battery for power, recharge the battery for the next use. Follow the preventive maintenance instructions presented in Section 5.1 to maintain your MK-III in optimal condition

If the MK-III is going to be transported airborne, **OPEN BOTH SAFETY VENTS TO DEPRESSURIZE THE UNIT'S INTERIOR DURING FLIGHT.** Failure to do so will cause the unit to seal shut. The valves are located on the upper and lower halves of the case's front with the panel facing upward and are opened by fully rotating counterclockwise. Before using the MK-III again, close the ventilation valves (by rotating fully clockwise) to prevent water from entering the case.

4.3 HELPFUL HINTS

These guidelines are provided to help you understand how best to use the MK-III 3-Diver Intercom.

1. Before diving operations begin, check to ensure the microphone, earphone, and wiring connections are secure and operating properly. Ninety percent of all problems in underwater communications are due to a connection problem.
2. If you will use battery power, always check the battery power level before the dive, and recharge the battery if necessary.
3. Secure the MK-III if using it on a vessel that is rolling about. Strain-relieve the umbilical(s) (diver intercom cables) so they will not pull on the MK-III.
4. Ensure the umbilicals are dressed out so as not to trip anyone.
5. When talking to divers, keep in mind they have many things happening while underwater. It is best to get the diver's attention before giving him a message (e.g., "Red Diver, Red Diver, this is Topside, come in Red Diver"). The diver should then respond to inform you that he is listening (e.g., "Topside, this is Red Diver, go ahead").
6. 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.
7. Speak slowly in one brief, continuous sentence. Speaking in short sentences gives divers a chance to take a breath and still receive a clear message.
8. When communicating with divers, it is a good idea to have the divers repeat your messages to ensure they understood what you said. Also, repeat what you heard the divers say to ensure everyone is communicating accurately.
9. If this is the first time anyone on your team is using underwater communications, the team should get together to talk about the system. Practice alternative communications in the event the communications system fails to function.

SECTION 5

MAINTENANCE AND SUB-PANEL REPLACEMENT

5.1 PREVENTIVE MAINTENANCE

Although the Aquacom® MK-III 3-Diver Intercom has a rugged design, it should be treated with care, as with any quality electronic equipment. The following should be done regularly or before every dive to prevent malfunction of the MK-III:

1. Clean the MK-III by wiping it free of dirt, debris, and water with a clean, soft cloth. Warm water with a small amount of nonabrasive soap is the recommended cleaning solution. Do not saturate the cloth or sponge; doing so may allow water to flow inside the case and cause damage. To clean the headset or optional hand-held microphone, use a mild soap solution, and wipe it dry.
2. Examine the exterior of the MK-III to assure there is no damage.
3. Inspect the connectors and controls on the panel for signs of damage.
4. Check the connectors for bent or corroded pins.
5. Check the power cables for cuts and abrasions.
6. With the unit's power on, test the indicator LEDs to ensure they illuminate when they should.
7. Inspect the case gasket (underneath the panel) and the O-ring seal between the case and lid to assure they are clean and show no signs of deterioration.
8. Inspect the washer that are under the main, options, and umbilical panel for signs of damage. Replace them as necessary.
9. If the battery has not been used for a long time (we suggest monthly), recharge it to maintain its life.

If your organization has established a formal Preventive Maintenance System (PMS) program, the preceding steps can be incorporated into your regular scheduled maintenance program but should be done frequently.

5.2 SUB-PANEL REPLACEMENT

In the event that the intercom connector sub-panel requires replacement or you would like to swap the connector style for another, follow the listed step to remove and then replace the intercom connector sub-panel.

1. Ensure that the unit is powered down.
2. Remove the 10 panel screws and washers.

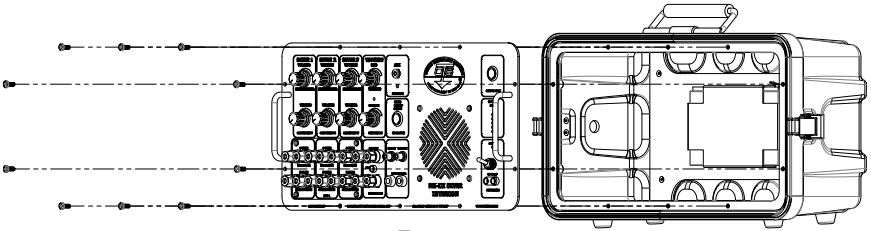


Fig. 7

3. Gently lift the panel away from the case and disconnect the panel from the battery.
4. Turn the panel over so that you can get easy access to the electronics side of the panel. Gently rest the panel on your work area, allowing the weight of the panel to rest on the handles.
5. Gently unplug the Sub-panel from the main PCB. In the event that it is hard to remove, gently rock the connector back and forth until you can wiggle the connector free.
6. Lift the panel and place it back into place in the case, then remove the 4 sub-panel mounting screws.

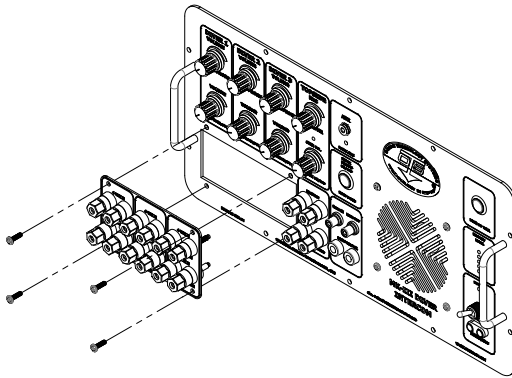


Fig. 8

7. Lift the sub-panel free from the panel and place the new sub-panel into position.
8. Replace the sub-panel mounting screws.
9. Flip the panel over and connect the subpanel to the main PCB.
10. Flip the panel over and reconnect the battery wires to the panel.
11. Position the panel into the case, ensuring that no wires are being crushed.
12. Replace the 10 panel screws and washers, tightening in directly opposite screw locations first.
13. Ensure that the unit powers back on.

5.3 TROUBLESHOOTING

The MK-III was designed as high-quality communications equipment. Nevertheless, as with any electronic equipment, failures occasionally may occur. The table below provides a list of some problems that might occur, possible causes, and our recommended solutions to attempt. If you are experiencing a performance failure of the MK-III that is not mentioned below, or if you have attempted the suggested solutions and the failure persists, contact OTS or your local OTS dealer for consultation or repair. If you need to replace any components or parts, refer to the Spare parts section for a list of parts and components available from OTS.

Problem	Probable Cause	Remedy
No power	Battery exhausted	Recharge battery
		Replace battery
	Battery leads loose	Check battery connections
Battery does not charge	Damaged power cable	Check power cord
	Defective battery	Replace battery
No diver voice	Microphone type Incompatibility	Check for correct Dynamic/powered microphone selections.
	Poor headset connections	Check diver and headset connections.
No tender voice	Poor tender headset connection	Check tender headset connection

5.4 SPARE PARTS

Name of Part	OTS part number
Accessory Net	200051-000
Panel Screw	244042-000
Panel Washers	245047-000
Panel Handles	243002-000
Panel Speaker	110065-000
Control knobs	242026-000
Control knob cap	242026-001
Power/charge panel connector	J020
HMM-2 Handheld Microphone	910193-000
THB-MK-III Headset	900465-000
Charger	910501-000
Battery	392016-000
Case	134194-000
Case Vents	242006-000
Case Gasket	282042-000
Case lid O-ring	283055-000
Diver umbilical banana connectors	912160-000
Diver umbilical MS connectors	912160-001
Diver umbilical connectors.	912160-002

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LIMITED WARRANTY

Ocean Technology Systems' Aquacom® MK-III is fully warranted against defects in materials and workmanship for a period of 1 year from the time of purchase. Our obligation under this warranty is limited to the replacement of any part or parts which prove to our satisfaction to have been defective, and which have not been misused or carelessly handled. Labor is warranted for 1 year from time of purchase. The complete unit and/or part must be returned to our factory, transportation charges pre-paid. We reserve the right to decline responsibility where repairs have been made or attempted by other than an Ocean Technology Systems factory-trained service center or properly trained personnel. In no event shall Ocean Technology Systems be liable for consequential damages.

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