

MICROCOM®

863XR

OPERATING MANUAL



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INTRODUCTION

We at Pliant Technologies want to thank you for purchasing MicroCom 863XR. MicroCom 863XR is a robust, two-channel, full-duplex, multi-user, wireless intercom system that operates in the 863MHz frequency band to provide superior range and performance, all without the need for a basestation. The system features lightweight beltpacks and provides exceptional sound quality, enhanced noise cancellation, and long-life battery operation. In addition, the MicroCom's IP67-rated beltpack is built to endure the wear and tear of everyday use, as well as the extremes in outdoor environments.

In order to get the most out of your new MicroCom 863XR, please take a few moments to read this manual completely so that you better understand the operation of this product. This document applies to models PMC-863XR. For questions not addressed in this manual, feel free to contact the Pliant Technologies Customer Support Department using the information on page 9.

PRODUCT FEATURES

- Robust, Two-Channel System
- Dual Listen
- Simple to Operate
- Up to 6 Full-Duplex Users
- Pack-to-Pack Communication
- Unlimited Listen-Only Users
- 863MHz Frequency Band
- Ultra Compact, Small, and Lightweight
- Rugged, IP67-Rated BeltPack
- Long, 12-hour Battery Life
- Field-Replaceable Battery
- Available Drop-In Charger
- Multiple Headset and Earset Options

WHAT'S INCLUDED WITH MICROCOM 863XR?

- BeltPack
- Li-Ion Battery (Installed during shipment)
- USB Charging Cable
- BeltPack Antenna (Attach to beltpack prior to operation.)
- Quick Start Guide
- Product Registration Card

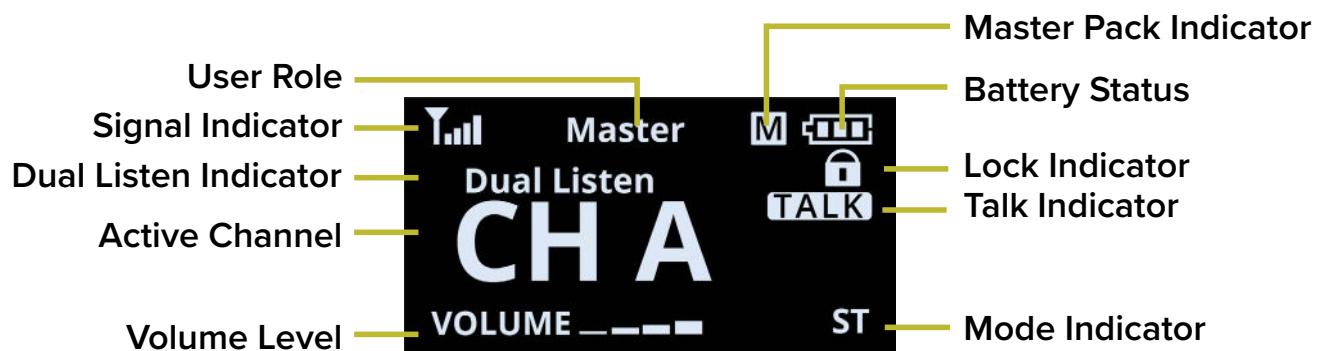
OPTIONAL ACCESSORIES

Part Number	Description
MicroCom Accessories	
PAC-USB6-CHG	MicroCom 6-Port USB Charger
PAC-MCXR-5CASE	IP67-rated MicroCom Hard Carry Case
PAC-MC-SFTCASE	MicroCom Soft Travel Case
PBT-XRC-55	MicroCom XR 5+5 Drop-In BeltPack and Battery Charger
Headsets and Adapter Accessories	
PHS-SB11LE-DMG	SmartBoom® LITE Single Ear Pliant Headset with Dual Mini Connector for MicroCom
PHS-SB110E-DMG	SmartBoom PRO Single Ear Pliant Headset with Dual Mini Connector for MicroCom
PHS-SB210E-DMG	SmartBoom PRO Dual Ear Pliant Headset with Dual Mini Connector for MicroCom
PHS-IEL-M	MicroCom In-Ear Headset, Single Ear Left Only with Single Mini Connector
PHS-IELPTT-M	MicroCom In-Ear Headset with Push-To-Talk (PTT) Button, Single Ear Left Only with Single Mini Connector
PHS-LAV-DM	MicroCom Lavalier Microphone and Eartube with Dual Mini Connector
PHS-LAVPTT-DM	MicroCom Lavalier Microphone and Eartube with Push-To-Talk (PTT) Button with Dual Mini Connector
CAB-DUALXLR-3.5	4-Foot Dual XLR Female and Male to 3.5mm Male Cable
ANT-EXTMAG-01	MicroCom XR 1dB External Magnetic 900MHz / 2.4GHz Antenna
PAC-TRI-6FT	MicroCom 6-Foot Compact Tripod Kit
Adapter Accessories	
PAC-MC4W-IO	4-Wire In/Out Interface and Headset Adapter for MicroCom XR series
PAC-INT-IO	Wired Intercom Interface Cable

CONTROLS



DISPLAY INDICATORS



SETUP

1. **Attach the beltpack antenna.** It is NOT reverse threaded; screw clockwise.
2. **Connect a headset to the beltpack.** Press firmly until it clicks to make sure the headset connector is seated properly.
3. **Power on.** Press and hold the **POWER** button for two (2) seconds until the screen turns on.
4. **Access the menu.** Press and hold the **MODE** button for three (3) seconds until the screen changes to **<SETTING MODE>**. Short-press **MODE** to scroll through the settings, and then scroll through setting options using **VOLUME +/-**. Press and hold **MODE** to save your selections and exit the menu.
 - a. **Select a group.** Select a group number from 00-07.
Important: BeltPacks must have the same group number to communicate.
 - b. **Select an ID.** Select a unique ID number.
 - Standard Mode ID options: M (Master), 01-05 (Full Duplex), S (Shared), L (Listen).
 - One beltpack must always use the “M” ID and serve as the Master for proper system function. An “M” indicator designates the Master beltpack on its screen.
 - Listen-only beltpacks must use the “L” ID. You may duplicate ID “L” on multiple beltpacks.
 - Shared beltpacks must use the “S” ID. You may duplicate ID “S” on multiple beltpacks, but only one shared beltpack may talk at a time.
 - When using “S” IDs, the last full-duplex ID (“05”) cannot be used in the Standard Mode.
 - c. **Confirm beltpack's security code.** BeltPacks must use the same security code to work together as a system.

BATTERY

The rechargeable Lithium-ion battery is installed in the device at shipment. To recharge the battery, either 1) plug the USB charging cable into the device USB port or 2) connect the device to the drop-in charger (PBT-XRC-55, sold separately). The LED in the top right corner of the device will illuminate solid red while the battery is charging and will turn off once the battery is fully charged. The battery charge time is approximately 3.5 hours from empty (USB port connection) or approximately 6.5 hours from empty (drop-in charger). The beltpack may be used while charging, but doing so may lengthen battery charge time.

OPERATION

- **LED Modes** - LED is blue and double blinks when logged in and single blinks when logged out. LED is red when battery charging is in progress. LED turns off when charging is complete.
- **Lock** - To toggle between Lock and Unlock, press and hold the **TALK** and **MODE** buttons simultaneously for three (3) seconds. A lock icon appears on the OLED when locked. This function locks the **TALK** and **MODE** buttons, but it does not lock headset volume control, the **POWER** button, or the **PTT** button.
- **Volume Up and Down** - Use the + and - buttons to control the headset volume. “Volume” and a stair-step indicator display the beltpack’s current volume setting on the OLED. You will hear a beep in your connected headset when the volume is changed. You will hear a different, higher-pitched beep when maximum volume is reached.
- **Talk** - Use the **TALK** button to enable or disable talk for the device. “TALK” appears on the OLED when enabled.
 - » Latch talking is enabled/disabled with a single, short press of the button.
 - » Momentary talking is enabled by pressing and holding the button for two (2) seconds or longer; talk will remain on until the button is released.
 - » Shared users (“S” ID) can enable talk for their device with the momentary talking function (press and hold while talking). Only one Shared user can talk at a time.
- **Mode** - Short-press the **MODE** button to toggle between the channels enabled on the beltpack. Long-press the **MODE** button to access the menu.
- **Dual Listen** - When Dual Listen is on, the user will be able to hear both Channel A and B while talking only on the currently selected channel.
- **Out of Range Tones** - The user will hear three quick tones when the beltpack logs out of the system, and they will hear two quick tones when it logs in.



Figure 2: Lock Indicator



Figure 3: Volume Setting



Figure 4: Talk Indicator



Figure 5: Channel Indicator



Figure 6: Dual Listen Indicator

MENU SETTINGS

The following table lists adjustable settings and options. To adjust these settings from the beltpack menu, follow the instructions below:

1. To access the menu, press and hold the **MODE** button for three (3) seconds until the screen changes to **<Setting Mode>**.
2. Short-press the **MODE** button to scroll through the settings: Group, ID, Side Tone, Mic Gain, Channel A, Channel B, Security Code, Dual Listen, and Top Button.
3. While viewing each setting, you may scroll through its options using the **VOLUME +/-** buttons; then, continue to the next menu setting by pressing the **MODE** button. See the table below for the available options under each setting.
4. Once you have finished your changes, press and hold **MODE** to save your selections and exit the menu.

Setting	Default	Options	Description
Group	N/A	00-07	Coordinates operation for beltpacks communicating as a system. BeltPacks must have the same group number to communicate.
ID	N/A	M 01-05 S L	Master ID Standard Mode ID options Shared Listen-Only
Side Tone	On	On, Off	Allows you to hear yourself while talking. Louder environments may require you to enable your side tone.
Mic Gain	1	1-8	Determines the headset microphone audio level being sent from the microphone pre amp.
Channel A	On	On, Off	
Channel B	On	On, Off	
Security Code ("SEC Code")	0000	4-digit alpha-numeric code	Limits access to a system. BeltPacks must use the same security code to work together as a system.
Dual Listen	Off	On, Off	Allows the user to listen to both Channel A and B while talking on the currently selected channel.
Top Button**	Off	Channel Switch, Channel Switch + Trigger, Trigger Local, Trigger System, Off	Determines the beltpack's top button behavior.

**BeltPack Top Button options for Two-Way Radio integration are not functional with the Pliant Audio I/O Headset Adapter. Off and Channel Switch are functional on the beltpack.

TOP BUTTON - MENU SETTING INFORMATION

The MicroCom XR Top Button can be set to Channel Switch or Off.

- **Channel Switch:** When the beltpack is set to “Channel Switch,” a press and hold of the top button on the beltpack will allow the user to momentarily switch channels to talk and listen on the beltpacks other channel. When the top button is released, the beltpack returns to the channel it was previously on.
- **Channel Switch and Trigger:** Not available
- **Trigger Local:** Not available
- **Trigger System:** Not available
- **Off:** When the pack is set to “Off,” the top button will do nothing when pressed.

RECOMMENDED SETTINGS BY HEADSET

The following table provides recommended MicroCom settings for several common headset models.

Use the diagram of the wiring for the beltpack’s TRRS connector if you choose to connect your own headset. The microphone bias voltage range is 1.9V DC unloaded and 1.3V DC loaded.

Headset Model	Recommended Setting
	Mic Gain
SmartBoom PRO and SmartBoom LITE (PHS-SB11LE-DMG, PHS-SB110E-DMG, PHS-SB210E-DMG)	1
MicroCom in-ear headset (PHS-IEL-M, PHS-IELPTT-M)	7
MicroCom lavalier microphone and eartube (PHS-LAV-DM, PHS-LAVPTT-DM)	5



Figure 7: TRRS Connector

DEVICE SPECIFICATIONS

Specification*	PMC-863XR**
Radio Frequency Type	ISM 863-865 MHz
Radio Interface	GFSK
Maximum Transmit Output Power	10 mW ERP Typical
Frequency Response	50 Hz ~ 4 kHz
Encryption	AES 128
Number of Talk Channels	2
Antenna	Detachable Type Helical Antenna
Charge Type	USB Micro; 5V; 1-2 A
Maximum Full-Duplex Users	6
Number of Shared Users	Unlimited
Number of Listen-Only Users	Unlimited
Battery Type	Rechargeable 3.7V; 2,000 mA Li-ion field-replaceable battery
Battery Life	Approx. 12 hours
Battery Charging Time	3.5 hours (USB cable) 6.5 hours (Drop-in charger)
Dimension	4.83 in. (H) x 2.64 in. (W) x 1.22 in. (D, with belt clip) [122.7 mm (H) x 67 mm (W) x 31 mm (D, with belt clip)]
Weight	6.35 oz. (180 g)
Display	OLED

** Notice about Specifications: While Pliant Technologies makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-centered specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary. Manufacturer reserves the right to change specifications to reflect latest changes in technology and improvements at any time without notice.*

*** PMC-863XR is approved for use in CE-compliant countries and operates within the 863-865 MHz frequency range.*

PRODUCT CARE AND MAINTENANCE

Clean using a soft, damp cloth.

CAUTION: Do not use cleaners that contain solvents. Keep liquid and foreign objects out of the device openings. If the product is exposed to rain, gently wipe off all surfaces, cables, and cable connections as soon as possible and allow unit to dry before storing.

PRODUCT SUPPORT

Pliant Technologies offers technical support via phone and email from 07:00 to 19:00 Central Time (UTC-06:00), Monday through Friday.

1.844.475.4268 or +1.334.321.1160
technical.support@plianttechnologies.com

Visit www.plianttechnologies.com for product support, documentation, and live chat for help. (Live chat available 08:00 to 17:00 Central Time (UTC-06:00), Monday through Friday.)

RETURNING EQUIPMENT FOR REPAIR OR MAINTENANCE

All questions and/or requests for a Return Authorization Number should be directed to the Customer Service Department (customer.service@plianttechnologies.com). Do not return any equipment directly to the factory without first obtaining a Return Material Authorization (RMA) Number. Obtaining a Return Material Authorization Number will ensure that your equipment is handled promptly.

All shipments of Pliant products should be made via UPS, or the best available shipper, prepaid and insured. The equipment should be shipped in the original packing carton; if that is not available, use any suitable container that is rigid and of adequate size to surround the equipment with at least four inches of shock-absorbing material. All shipments should be sent to the following address and must include a Return Material Authorization Number:

Pliant Technologies Customer Service Department
Attn: Return Material Authorization #
205 Technology Parkway
Auburn, AL USA 36830-0500

LICENSE INFORMATION

PLIANT TECHNOLOGIES MICROCOM FCC COMPLIANCE STATEMENT

00004394 (FCCID: YJH-GM-900MSS)

00004445 (FCCID: YJH-GM-24G)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Information: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

The antennas used for this transmitter must be installed to provide a separation distance of at least 5 mm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CANADIAN COMPLIANCE STATEMENT

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Specifically RSS 247 Issue 2 (2017-02) and RSS-GEN Issue 5 (2019-03). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

PLIANT WARRANTY STATEMENT

LIMITED WARRANTY

Subject to the conditions of this Limited Warranty, CrewCom and MicroCom products are warranted to be free from defects in materials and workmanship for a period of two years from the date of sale to the end user, under the following conditions:

- First year of warranty included with purchase.
- Second year of warranty requires product registration on the Pliant web site. Register your product here: <https://plianttechnologies.com/product-registration/>

Subject to the conditions of this Limited Warranty, Tempest® professional products carry a two-year product warranty.

Subject to the conditions of this Limited Warranty, all headsets and accessories (including Pliant-branded batteries) carry a one-year warranty.

Date of sale is determined by the invoice date from an authorized dealer or authorized distributor to the end user.

The sole obligation of Pliant Technologies, LLC during the warranty period is to provide, without charge, parts and labor necessary to remedy covered defects appearing in products returned prepaid to Pliant Technologies, LLC. This warranty does not cover any defect, malfunction, or failure caused by circumstances beyond the control of Pliant Technologies, LLC, including but not limited to negligent operation, abuse, accident, failure to follow instructions in the Operating Manual, defective or improper associated equipment, attempts at modification and/or repair not authorized by Pliant Technologies, LLC, and shipping damage.

Unless applicable state law provides otherwise, Pliant Technologies extends this limited warranty to only the end user who originally purchased this product from an authorized dealer or authorized distributor. Pliant Technologies does not extend this warranty to any subsequent owner or other transferee of the product. This warranty is valid only if the original proof of purchase issued to the original purchaser by an authorized dealer or authorized distributor, specifying the date of purchase, and the serial number, where applicable, is presented with the product to be repaired. Pliant Technologies reserves the right to refuse warranty service if this information is not provided or if a product's serial numbers have been removed or effaced.

This limited warranty is the sole and exclusive express warranty given with respect to Pliant Technologies, LLC products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose. ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. NEITHER PLIANT TECHNOLOGIES, LLC NOR ANY AUTHORIZED RESELLER WHO SELLS PLIANT PROFESSIONAL INTERCOM PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

PARTS LIMITED WARRANTY

Replacement parts for Pliant Technologies, LLC products are warranted to be free from defects in materials and workmanship for 120 days from the date of sale to the end user.

This warranty does not cover any defect, malfunction, or failure caused by circumstances beyond the control of Pliant Technologies, LLC, including but not limited to negligent operation, abuse, accident, failure to follow instructions in the Operating Manual, defective or improper associated equipment, attempts at modification and/or repair not authorized by Pliant Technologies, LLC, and shipping damage. Any damage done to a replacement part during its installation voids the warranty of the replacement part.

This limited warranty is the sole and exclusive express warranty given with respect to Pliant Technologies, LLC products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose. **ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. NEITHER PLIANT TECHNOLOGIES, LLC NOR ANY AUTHORIZED RESELLER WHO SELLS PLIANT PROFESSIONAL INTERCOM PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.**

This warranty does not cover any defect, malfunction, or failure caused by circumstances beyond the control of Pliant Technologies, LLC, including but not limited to negligent operation, abuse, accident, failure to follow instructions in the Operating Manual, defective or improper associated equipment, attempts at modification and/or repair not authorized by Pliant Technologies, LLC, and shipping damage. Any damage done to a replacement part during its installation voids the warranty of the replacement part.

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