

PELTOR®

POWERCOM PLUS
POWERCOM
LITECOM



PowerCom Plus PowerCom Lite-Com

ENG	Instruction manual
ESP	Instrucciones de uso
FRA	Mode d'emploi

PowerCom Plus

**462-467 MHz (FRS)
14 channels, 38 sub-channels
FCC and Industry Canada (IC) approved**

Model Numbers:

MT53H7A4610 Headband model
MT53H7B4610 Neckband model
MT53H7P3E4610 Slotted hardhat mount model

PowerCom

**462-467 MHz (FRS)
14 channels, 38 sub-channels
FCC and Industry Canada (IC) approved**

Model Numbers:

MT53H7A4600 Headband model
MT53H7B4600 Neckband model
MT53H7P3E4600 Slotted hardhat mount model

LiteCom

**49.830-49.890 MHz
5 channels
FCC and Industry Canada (IC) approved**

Model Numbers:

MT53H7A4900 Headband model
MT53H7B4900 Neckband model
MT53H7P3E4900 Slotted hardhat mount model

PELTOR 2-WAY RADIO HEADSETS

THANK-YOU for your purchase of Peltor's latest self-contained 2-way radio headset product.

PowerCom Plus, PowerCom, and LiteCom all offer reliable, efficient communication between two or more people in noisy environments.

Although these products are very user-friendly, please take the time to read this instruction manual carefully to ensure proper set-up and use of all features

- **PowerCom Plus** and **PowerCom** are 2-way radio headsets pre-programmed to 22 or 14 channels in the FRS and/or GMRS frequency band with 38 privacy sub-channels. These units have up to 0.15 watts of transmitting power with a range of 2 km outdoors. The range will vary depending on local surrounding environmental conditions.
- **LiteCom** is a 2-way radio headset pre-programmed to 5 channels in the 49 MHz frequency band. This unit has up to 0.1 watts of transmitting power with a range of 1000m outdoors. The range will vary depending on local surrounding environmental conditions.
- The **PowerCom Plus/PowerCom** headsets will not communicate with the **LiteCom** headsets. However, **PowerCom Plus** headsets will communicate with **PowerCom** headsets.
- All models feature advanced ghost voice confirmations of mode and level selections. As an added bonus, the ghost voices are selectable by the user in every model. Language options are English, French or Spanish.

Depending on the product purchased, they will communicate with other similar license-free radio products in the FRS, GMRS and 49 MHz frequencies.

These devices comply with part 15 of the FCC rules and regulations. Operation of these devices are subject to the following two conditions:

- 1) These devices may not cause harmful interference, and
- 2) These devices must accept any interference received, including interference that may cause undesired operation

Headset basics....

Refer to figure H.

1. (MT53H7A****) **Wide padded headband** – for over-the-head use
(MT53H7B****) **Neckband** - for use under a hardhat
(MT53H7P3E****) **Slotted hardhat mount** – snaps into slots of hardhats
2. **Stainless steel headband wires** – special bending processes ensure an even distribution of pressure around the ears.
3. **Guide arms** – slide assembly for easy height adjustment.
4. **Ear seals** – foam with liquid bladder for all day comfort, built-in pressure-relief canals ensure low pressure and effective sealing. See page 12 for replacements.
5. **Antenna** – flexible with fixed mount design and high reception quality
6. **Audio jack** - for external audio accessories including 2-way radios, cell phones, personal entertainment devices, see page 13
7. **Battery cover** – requires 2 standard 1.5-volt AA alkaline batteries, optional rechargeable battery pack available, see page 12
8. **Key pad** - for easy changing of modes, settings and levels.
9. **Lip microphone** – quick positioning metal boom assembly with an electret noise canceling condenser, see page 12 for replacements.
10. **Cup microphones** – amplify and reproduce in stereo inside the headset ambient noises and voices allowing the user to be fully aware of surrounding environment. (Only available with **PowerCom Plus** models). See page 12 for foam replacements.
11. **Headset Push-To-Talk (PTT)** – will key up lip microphone and activate the radio inside headset to start transmitting.



Getting Started...

BATTERIES

Open the battery cover (#7, Fig. H) and place two 1.5 Volt AA size batteries inside the compartment. Ensure that the + and – poles of the batteries are in the correct positions (refer to figure inside the battery cover). The headset is polarity protected in the event batteries are incorrectly inserted.

When the batteries get low in power, a voice message saying “low battery” will be heard inside the headset. This message will be repeated in 2 minute intervals until the batteries are completely depleted, at which point the headset will have a voice confirmation saying “battery empty” and will shut off.

Note(s):

- 1) Battery life span/operating time varies greatly depending on the type of batteries and how the headset is used. For example, with an alkaline battery with at least 2000 mAh, the operating time in low-power mode is about 30 hours at 10 % transmission, 10 % reception and 80 % stand-by. In high-power mode, the operating time under the same conditions decreases by about 10 %. At 20 % transmission, 20 % reception and 60% stand-by, the operating time is about 20 hours.
- 2) The headset has an automatic shut-off feature to save on batteries. It will turn itself off automatically after 2 hours if one of the following keys is not activated in that timeframe: (O) (+) (-) (PTT/VOX). A triple tone signal will be emitted every 30 seconds for 5 minutes prior to final shut down.

ADJUSTING THE CUPS FOR FIT (Fig. J)

1. The cup guide arms (#3, fig H) slide up and down the metal wires.
2. For headband and neckband models, place the headset on your head, with one hand, hold the band (#1, fig H) in place and with the other slowly move the cup up/down the wire arms until they are in the comfortable and snug fit position.
3. For hardhat mount position (fig. K) snap the headset helmet attachment into the slot of the helmet. Place the hardhat with headsets in place on your head and refer to 2. above for cup placement instructions.

(J)



(K)



The hardhat mounted headset can be used in two positions: working position (1) and ventilation position (2).

When in use, the cups must be placed in working position. Press the headband wires inwards until you hear a click on both sides. To ensure proper noise attenuation while in the working position do not press against the lining or edge of the helmet.

Tip: At the end of the day, do not leave the headset in the upright position on top of the helmet, leave it in the ventilation position allowing the foam on the inside of the cups to dry out.

Operating Instructions.....

PowerCom Plus, PowerCom and **LiteCom** all operate on the same simple 3 key touch pad configuration (#8 fig H) and 1 PTT button.

1. On/Off/Mode Selection (O)

This button will turn the headset on or off by holding it down for more than 2 seconds. Once the headset is turned on, it reverts to a mode menu selection button, see below for mode menu details.

Step-by-step mode menu selection

Simply press the (O) key and the headset will confirm via a voice message what mode menu has been selected. Every time the (O) key is pressed it continues onto the next mode menu item followed by a voice confirmation. Once in the mode of choice, refer to instructions below on the (+) and (-) keys.

Quick step mode menu selection

By pushing (O) key several times in a row, it will quickly scroll down the modes the equivalent number of times the (O) was pushed, followed by a voice confirmation of the menu item selected.

The headset will revert back to Surround Volume Mode (in PowerCom Plus headsets) and Radio Volume mode (in PowerCom and LiteCom headsets) if the (O) or (+) (-) keys are not activated within 5 seconds while making selections. A beep will be heard in the headset indicating mode has automatically reverted.

2. **UP (+)** Increases the steps within the mode selected, followed by a voice confirmation of step selected.
3. **DOWN (-)** Decreases the steps within the mode selected, followed by a voice confirmation of step selected.
4. **PTT** Located on the backside of the right ear cup. The thumb activated push-to-talk button will key up the lip microphone and activate the radio inside the headset to start transmitting.

Operating Details...

Turn the unit on by pressing the (O) key for more than 2 seconds and promptly let go, the headset will emit a raising series of 3 tones confirming the headset is turned on. To turn the unit off, again hold the (O) button for 2 seconds and promptly let go, the headset will emit a decending series of 3 tones confirming the headset is off.

Once the headset is on and ready to be used, the (O) key becomes the mode menu selection button:

Mode Menu Selections

SURROUND

Applicable for **PowerCom Plus** headset models only.

This mode adjusts the volume level of the cup microphones (#10 fig H). Pressing the (+) (-) keys while in this mode will either increase or decrease the surrounding ambient noise level being reproduced inside the headset. A voice message confirms each new setting as the (+) (-) keys are pressed. There are 5 volume levels and an off level. Off can be activated by scrolling down to level 1 then hold the (-) key down for 1 second and release, a voice message confirmation will follow saying "surround off". To reactivate push the (+) key once and the mode will revert back to the level 1 surround volume setting.

VOLUME

This mode adjusts the headset radio incoming receive volume level. By pressing the (+) (-) keys while in this mode the volume adjusts up and down accordingly. A voice message confirms each new setting as the (+) (-) keys are pressed. There are 5 volume levels and an off level. Off can be activated by scrolling down to level 1 then hold the (-) key down for 1 second and release, a voice message confirmation will follow saying "volume off". To reactivate push the (+) key once and the mode will revert back to the level 1 volume setting.

CHANNEL

This mode changes the main radio channel selections. By pressing the (+)(-) keys while in this mode the channels scroll up and down accordingly. A voice message confirms each new channel number selected as the (+) (-) keys are pressed. The number of channels available in this mode depends on the headset model purchased (see page 2). The channels are in a rolling configuration, that is, when the top channel has been reached, pressing (+) again will revert back down to the first channel available, followed by a voice confirmation.

VOX

This mode will adjust the voice activation (VOX) sensitivity. By pressing the (+)(-) keys while in this mode the lip microphone is made more or less sensitive to activation via the user's voice and/or surrounding noise levels.

Tip(s):

- 1) Press (+) as the noise becomes louder (therefore making the microphone less sensitive to outside noise) and viceversa as noise levels drop.
- 2) Setting 1 is for low noise applications. Setting 5 is for extreme noise applications. Try different settings until the optimum setting is found.
- 3) Setting 1 requires minimal voice level to activate the microphone. Setting 5 requires maximum voice level to activate the microphone.
- 4) Do not pause when talking during transmissions, VOX will turn off during pauses
- 5) Ensure lip microphone is no more than 5mm away from the mouth.

A voice message will confirm each new setting as the (+)(-) keys are pressed. There are 5 VOX sensitivity levels and an off position. Off can be activated by scrolling down to level 1 then hold the (-) key down for 1 second and release, a voice message confirmation will follow saying "vox off". To reactivate push the (+) key once and the mode will revert back to the level 1 vox setting. (i.e. the most sensitive microphone setting). When in the off position, the headset radio transmit can only be operated via the PTT on the right earcup (#11, Fig H), or remote finger ptt accessory, see page 13.

SQUELCH

This mode changes the antenna sensitivity level. By pressing the (+)(-) keys while in this mode it will help filter out unwanted incoming RF noise between transmissions. A voice message confirms each new setting as the (+)(-) keys are pressed.

Tip(s)

- 1) Normal mode is 1
- 2) Level 5 has most filtering
- 3) Level 1 has least amount of filtering
- 4) Off level has no filtering with squelch wide open
- 5) Try different levels in order to settle on the lowest possible setting for the specific application.

There are 5 squelch sensitivity levels and an off squelch position. Off can be activated by scrolling down to level 1 then hold the (-) key down for 1 second and release, a voice message confirmation will follow saying "squelch off". To reactivate push the (+) key once and the mode will revert back to the level 1 squelch setting.

SUB CHANNEL

Applicable for **PowerCom Plus** and **PowerCom** headset models only. This mode changes the privacy/sub-

channel selections. By pressing the (+)(-) keys while in this mode the channels scroll up and down accordingly. A voice message confirms each new channel number selected as the (+) (-) keys are pressed. There are 38 sub channels plus an open 0 channel. The channels are in a rolling configuration, that is, when the top channel has been reached, pressing (+) again will revert back down to the first channel available, followed by a voice confirmation.

Tip(s)

- 1) PowerCom Plus and PowerCom headsets are compatible and will transmit to each other.
- 2) In order to communicate properly, all headsets in the group must be on the same main channel and same sub-channel.

POWER

Applicable for only **PowerCom Plus** and **PowerCom** headset models.

This mode allows the selection of two transmitting power levels. When (+) is pressed, a voice confirmation will follow and the headset will be in the maximum (high) output power transmitting mode. When the (-) is pressed, a voice confirmation will follow and the headset will be in the lowest (low) output power transmitting mode.

Tip(s)

- 1) This mode can be used as a battery conservation feature
- 2) Depending on distance transmitting, high power setting is not always required for good coverage. Evaluate units in environment to be used for optimum setting.
- 3) The high setting will consume more battery power than the low setting.

LANGUAGE

This mode allows the selection of voice confirmations in the headset to be in one of three languages: English, French or Spanish. By pressing the (+) (-) keys while in this mode the languages will scroll up and down accordingly. A voice message will confirm language selected.

Notes:

- 1) The mode will revert back to Surround Volume Mode (in PowerCom Plus headsets) and Radio Volume mode (in PowerCom and LiteCom headsets) if the (0) or (+) (-) keys are not activated within 5 seconds while making selections. A beep will be heard in the headset indicating mode has automatically reverted.
- 2) The headsets will also automatically shut-off if one of the following buttons (0) (+) (-) (PTT/VOX) is not pressed within a span of 2 hours. Three tones are emitted every 30 seconds for 5 minutes prior to shut down.

PUSH-TO-TALK (PTT) BUTTON FUNCTIONALITY

Located on the backside of the right ear cup, pressing this button keys up the lip microphone and enables radio transmission manually. The radio will transmit, and the lip microphone will stay open as long as the button is pressed.

VOX DISABLE FEATURE-Short cut

Double clicking the PTT button quickly will disable the vox feature, confirmed by a long beep signal in the headset. To reactivate, double click the PTT button again and the vox will be enabled, confirmed by a short double beep signal in the headset.

Tip: Excellent feature to use if operator moves from low to high noise periodically during the work day.

ALTERNATE BELT RADIO OR CELL PHONE ACCESSORY USE

Double click on the PTT button prior to plugging in the external 2-way communication accessories (FL6R + FL50 belt PTT combination, or FL6S) into the audio jack on the bottom of the headset (#6, fig H, page 4).

When using this feature, the PTT on the headset will activate the headset radio into transmit mode, and the FL50 belt PTT will activate the alternate belt radio into transmit mode.

Note, these instructions do not apply when using receive-only accessories. Simply plug in the receive only accessories into the audio jack (#6, fig H, page 4)

MAINTENANCE

Clean the outside of the headset regularly with soap and warm water.

Note: Do not immerse in fluids.

If the headset is exposed to internal moisture, remove the hygiene kit and let the unit dry out.

Do not store the headset in temperatures exceeding +55°C, for example in on a car dashboard or behind the windshield.

The ear seals deteriorate over time, inspect them regularly to ensure that there are no cracks. New earseals ensure optimum comfort and proper noise attenuation. Refer to page 15 for ordering information.

Certain chemical substances may be harmful to this product. Contact the manufacturer for more information.

When changing batteries, protect the electronics from being damaged by always turning off the unit manually prior to replacing batteries. Refer to page 5 for proper battery replacement procedure.

Always wear, adjust, clean and maintain the headset according to these instructions. If not, noise attenuation characteristics and other electronic functions may be compromised.

CAUTION

When set to full gain the earphones can produce an equivalent sound level of up to 87dB(A). This is considered safe for daily 8-hours use, as long as the time spent in receiving mode does not exceed 2,5 hours. If the time spent listening to the earphones exceeds 2,5 hours per day the gain setting must be reduced below maximum. One step below maximum gain produces an equivalent sound level of 82 dB(A), considered safe even if used in the listen mode, in noise, for a full 8-hours day. If after wearing this device, tinnitus (ringing or buzzing in the ears) is heard, or your hearing seems muffled or dulled, or for any other reason you suspect a hearing problem, the volume levels should be reduced and the fit, condition, and adequacy of this device should be checked for the noise in which it is being worn. If the condition persists see an audiologist or physician for a professional review.

FCC Regulations and Licensing Application Information

Peltor (General Mobile Radio Service) Two-way Radio headsets

The FCC requires operators on the GMRS and Private Land Mobile (PLM) frequencies to obtain an FCC license prior to use. To apply and learn more about licenses, please visit the FCC website at www.fcc.gov.

A GMRS license requires Form 605 and Form 159. A (PLM) license requires Form 601 and Form 159 Schedule D and H. Please note that application fees will be applicable. You can obtain a copy of the FCC Forms mentioned above by calling 1-800-418-3676. Further detailed instructions are available by calling the FCC at **1-888-225-5322**. In addition, you can download the forms, register on-line, and obtain further information at the FCC's Web site: www.fcc.gov/formpage.html

Safety information

Your wireless transceiver contains low power transmitter. When the transmitter is activated it sends out radio frequency (RF) signals. This device is authorized to operate at a duty factor not exceed 50%. Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and violate FCC regulations

GMRS License :

Use of GMRS radios within the United States requires a FCC GMRS license. An individual 18 years of age or older, who is not a representative of a foreign government is eligible to apply for a GMRS system license. You will need two forms from the FCC, FCC Form 159 and FCC Form 605 Main Form and Schedule F. You can find the forms online at <http://www.fcc.gov/formpage.html>, or call 1-800-418-3676.

NRR

The NRR attenuation data are displayed on page 11.

Improper fit of this device will reduce its effectiveness in attenuating noise. Consult this manual for proper fitting instructions. For further information, please write Aearo Company, 8001 Woodland Drive, Indianapolis, Indiana 46278. The level of noise entering a person's ear, when a hearing protector is worn as directed, is closely approximated by the difference between the A-weighted environmental noise level and the NRR.

Example:

1. The environmental noise level as measured as the ear is 92 dBA
2. The NRR is 22 decibels (dB)
3. The level of noise entering the ear is approximately equal to 70 dBA.

The NRR used in the above example was achieved under laboratory conditions. Although hearing protectors can be recommended for protection against the harmful effects of impulsive noise, the noise reduction rating (NRR) is based on the attenuation of continuous noise and may not be an accurate indicator of the protection attainable against impulsive noise such as gunfire.

Attenuation

PowerCom Plus

Model	Frequency ¹	125	250	500	1000	2000	3150	4000	6300	8000	NNR	CSA
MT53H7A4610	Mean att. ²	18.6	23.6	31.8	36.6	31.2	36.4	39.5	38.3	39.0	25	B
PowerCom Plus	Stand. dev. ³	4.3	3.1	2.8	2.2	2.4	3.6	2.7	3.6	2.6		

PowerCom

Model	Frequency ¹	125	250	500	1000	2000	3150	4000	6300	8000	NNR	CSA
MT53H7A4600	Mean att. ²	17.3	22.1	31.9	37.1	33.2	36.1	38.7	37.4	38.0	25	A
PowerCom	Stand. dev. ³	4.0	2.6	2.4	2.4	2.4	3.5	2.7	2.3	3.4		

LiteCom

Model	Frequency ¹	125	250	500	1000	2000	3150	4000	6300	8000	NNR	CSA
MT53H7A4900	Mean att. ²	17.3	22.1	31.9	37.1	33.2	36.1	38.7	37.4	38.0	25	A
LiteCom	Stand. dev. ³	4.0	2.6	2.4	2.4	2.4	3.5	2.7	2.3	3.4		

SPARE PARTS



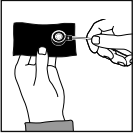
HY79 Hygiene kit

Consists of two snap-in ear cushions and foam pads. Replace at least twice a year to ensure proper attenuation, hygiene and comfort. Sold as a pair, enough for one headset replacement.



HY100A Ear seal comfort pad

A single-use sweat absorbing pad that is placed on the ear seals. Sold in packages of 100 pair.



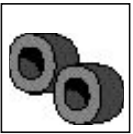
HYM1000 Lip microphone hygiene tape

Tape wraps around the lip microphone to protect against moisture and harsh environmental conditions. Wind and water resistant, great for hygienic purposes when headsets are shared. Sold in boxes of 5 metres, good for approximately 50 replacements.



M995 Lip microphone foam wind screen

Effective protection from wind noise, also protects against dirt and increases the life span and of microphone element. One per package.



M60/2 Cup microphone foam windsock (#10, Fig H)

Applicable for PowerCom Plus only products. One pair per package.



1173 SV Battery cover

Replacement battery cover.



MT53-02 Boom microphone assembly

Replacement boom microphone with plug-in connector

SPARE PARTS cont.

88009-00000 Rechargeable battery pack

Peltor AA rechargeable battery pack includes wall transformer.

Audio accessory jack (#6, Fig H) connections

FL6S Cell phone patch-cord

2.5 mm stereo contact plug assembly for use with cell phones.

FL6T Listen-only patch-cord

3.5 mm stereo plug, wired in mono for use with personal entertainment devices.

FL6BT Listen-only patch-cord

3.5 mm mono plug, for use with 2-way radios and accessories with a 3.5 mm audio jack

FL6BS Listen-only patch-cord

2.5 mm mono plug, for use with 2-way radios and accessories with 2.5 mm audio jack

TK56 Remote ring finger PTT

Remote finger push-to-talk button with 48" lead cable

FL6R – External 2-way radio patch-cord

Cable assembly for adapting PC+, PC, LC to an alternate 2-way radio. Comes with Nexus TP-120 connector which mates with standard Peltor FL50 radio PTT patchcords (sold separately). For a complete list of FL50 2-way radio accessory cables, please contact customer service.

FREQUENCY AND CHANNEL ALLOCATIONS BY PRODUCT

Frequency MHz	Licence Band	PowerCom	PowerCom	LiteCom
		PowerCom Plus FRS/GMRS models Channel Allocation*	PowerCom Plus FRS only models Channel Allocation*	Channel Allocation
49.830	Free			1
49.845	Free			2
49.860	Free			3
49.875	Free			4
49.890	Free			5
462.5625	FRS/GMRS	1	1	
462.5875	FRS/GMRS	2	2	
462.6125	FRS/GMR	3	3	
462.6375	FRS/GMRS	4	4	
462.6625	FRS/GMRS	5	5	
462.6875	FRS/GMRS	6	6	
462.7125	FRS/GMRS	7	7	
467.5625	FRS only	8	8	
467.5875	FRS only	9	9	
467.6125	FRS only	10	10	
467.6375	FRS only	11	11	
467.6625	FRS only	12	12	
467.6875	FRS only	13	13	
467.7125	FRS only	14	14	
462.550	GMRS only	15		
462.5750	GMRS only	16		
462.6000	GMRS only	17		
462.6250	GMRS only	18		
462.6500	GMRS only	19		Not to be used along Canadian boarder disclaimer
462.6750	GMRS only	20		Nationwide emergency and road information channel
462.7000	GMRS only	21		Not to be used along Canadian boarder disclaimer
462.7250	GMRS only	22		
467.550	GMRS only	23		
467.5750	GMRS only	24		
467.6000	GMRS only	25		
467.6250	GMRS only	27		
467.6750	GMRS only	28		
467.7000	GMRS only	29		
467.7250	GMRS only	30		

*individual channels also have 38 privacy/sub-channels – see next page

PRIVACY/SUB-CHANNEL FREQUENCY ALLOCATION LIST .

Chart below is only applicable to **PowerCom Plus** and **PowerCom** headset models.

Frequency Hz	Sub- Channel Allocation	Frequency Hz	Sub- Channel Allocation	Frequency Hz	Sub- Channel Allocation
67.0	01	107.2	14	167.9	27
71.9	02	110.9	15	173.8	28
74.4	03	114.8	16	179.9	29
77.0	04	118.8	17	186.2	30
79.7	05	123.8	18	192.8	31
82.5	06	127.3	19	203.5	32
85.4	07	131.8	20	210.7	33
88.5	08	136.5	21	218.1	34
91.5	09	141.3	22	225.7	35
94.8	10	146.2	23	233.6	36
97.4	11	151.4	24	241.8	37
100.0	12	156.7	25	250.3	38
103.5	13	162.2	26	off	00

Address information for warranty/repair work:

Please contact customer service prior to returning any products for servicing.

Customer Service Contact Information:

WebSite: www.aearo.com

E-mail peltor_communications@aearo.com

Phone 1-800-665-2942

For Canada:

Peltor Communications
546 Bryne Drive, Unit C
Barrie, ON L4N-9P6

For USA and Mexico:

Aearo Company
Attn: Peltor Warranty Center
90 Mechanic Street
SouthBridge, MA 0155



For Canada:

Peltor Communications
546 Bryne Drive, Unit C
Barrie, ON L4N-9P6

For USA and Mexico:

Aearo Company
90 Mechanic Street
SouthBridge, MA 0155