



XLR Series 2 Way Radio

2 Watt / 6 Channels



HME Wireless, Inc.

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FCC Licensing Information

XLR Series professional two-way radios operate on radio frequencies that are regulated by the Federal Communications Commission (FCC). In order to transmit on these frequencies, you are required to have a license issued by the FCC.

Application is made available on FCC Forms 601, schedules D and H, and remittance form 159. If ordering the forms by mail, phone, or from the FCC website, please request document number **000601**, which includes all forms and instructions. If using the FCC Fax-on-Demand system, use the 7-digit order numbers listed below. You can contact the FCC to obtain the forms through the following methods:

To Receive by Mail	To Receive via the Web	For Assistance by Phone
Call the FCC forms hotline at:	Search the FCC website	Or for questions regarding FCC license contact the FCC at:
(800)418-3676	www.fcc.gov	(888)225-5322
Request document 000601	Search Form 601	Request document 000601

Before filling out your application, you must decide which frequency(ies) you can operate on. See Frequencies and Bandwidths on page 14. For questions on determining your radio frequency, please call HME Wireless at 1-800-919-9903.

Changes or modifications not expressly approved by HME Wireless may void the user's authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

Note: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Getting Started

Radio Components



XLR Radio



Battery



Belt Clip



Antenna's



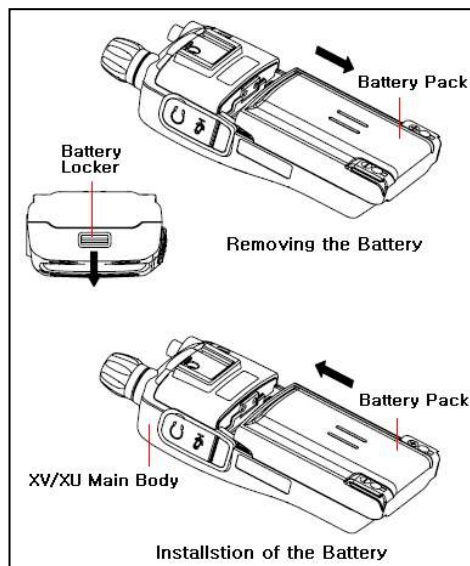
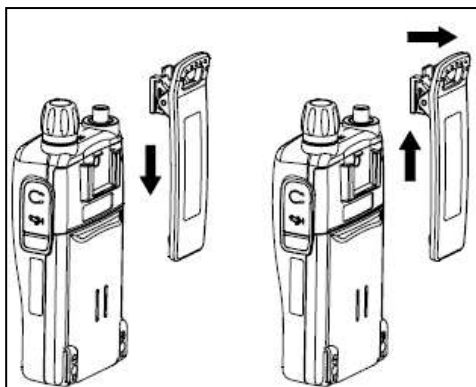
Charger

Radio Setup

Step 1

BATTERY INSTALLATION

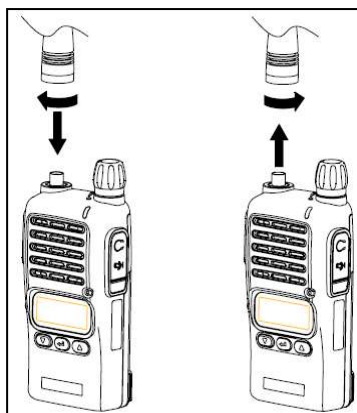
- Install the rechargeable Lithium Ion (Li Ion) battery provided.
- Slide the battery from the bottom up and snap the battery door into place.
- Slide the belt clip onto the back of the radio pushing from the top down until it locks.



Step 2

ANTENNA INSTALLATION

- Screw on the button antenna to the top of the radio.



Step 3

CHARGING THE BATTERY

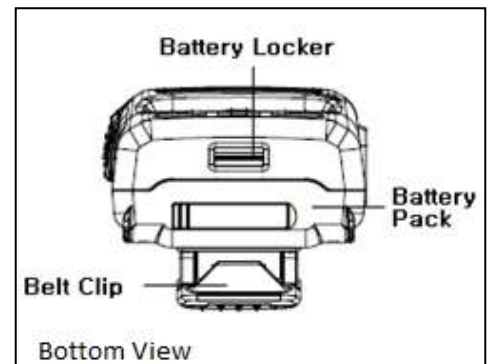
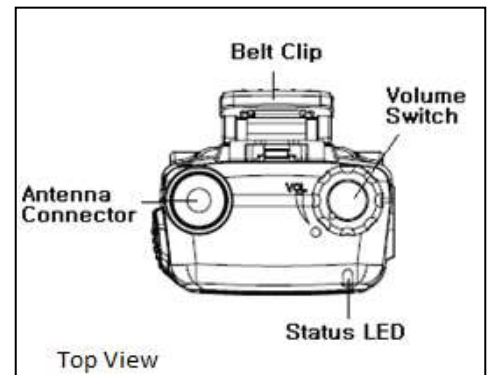
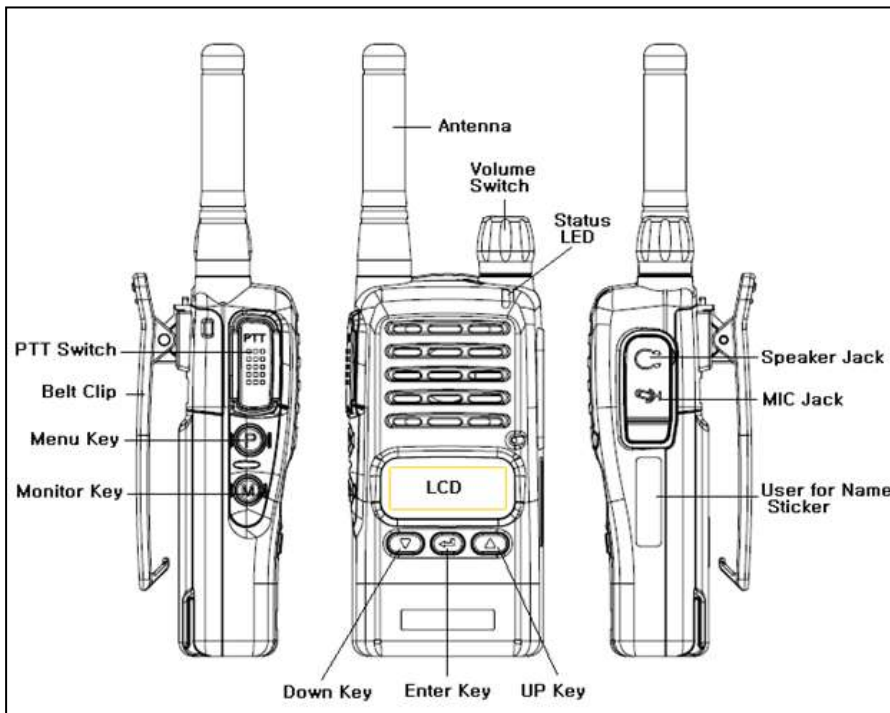
- Place the charger on a flat surface.
- Insert the plug of the power cord into the jack of the charger.
- Plug the cord into an AC outlet.
- Turn the radio off.
- Insert the radio (with battery installed) into the charging slot. The status LED will light up. The LED is solid red when battery is charging and solid green when charging is complete.
- Charge the radios at least 4-6 hours prior to use.

Step 4

BASIC RADIO OPERATION

- Your XLR radios have been preprogrammed at the factory to work together once powered on. Should you require additional programming please see page 5 of this instruction manual or call HME tech support at 800-919-9903.
- Turn the radio on. The on button also controls the volume. The channel number will be displayed.
- To talk, press and hold the “Push to Talk” button on the radio or earpiece and speak into the microphone. Hold the radio 2-3 inches away from your mouth. *When transmitting the Status LED light on top of the radio will illuminate red.
- To listen, release the “Push to Talk” button.

Radio Description



Headset Connector

The XLR radio is compatible with all Motorola CLS headset earpieces.

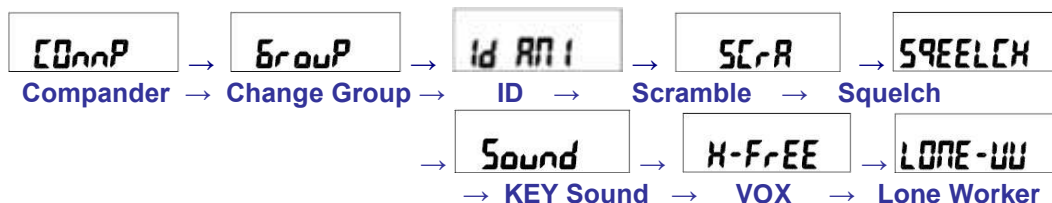
- Open the connector cover.
- The wire should face the top of the radio.
- Insert the plug all the way into the radio.
- When using a headset, use the push to talk on the headset, not the radio.



Menu Button

Menu mode is activated by pressing the Menu button (P) for 2 seconds.

Press again to step through the menu items. The sequence of menu mode selections is as follows:



Monitor Button

The monitor mode is enabled and disabled by pressing the Monitor button (M) on the radio's side.

Normal Mode: During pressing the (M) button for less than 2 seconds, it is possible to check the receiving status.

Continuous Mode: If the (M) button is pressed for more than 2 seconds, the radio will make a “Beep” tone, which means the monitor function is maintained and if you press the (M) button again, the monitor function will be released.

TX LED

This LED indicates the current status of the radio as below:

- Red Light: Lights during transmit.
- Green Light: Lights during receive.
- Blinking Green Light: Indicates a privacy tone error.
- Blinking Red Light with a “beep” sound: Indicates a low battery condition.

Charging

The XLR series radios receive power from a high-performance 1800 Li-Ion battery pack designed specifically for this radio.

- Charge the battery for at least 4 hours before using the radio for best performance.
- When you charge the battery, turn off the radio first to speed charging.
- Charging is needed when:
 - The red TX LED blinks (every 0.5 second) during transmission or reception
 - When the battery icon blinks
 - When a “beep” sounds while the radio is in use.

- How to charge:
 - Plug the charger into the wall power outlet.
 - When charging the radio with the battery installed, please turn off the power of the radio and place the radio in the charger (The battery has side slots to mate to the charger).
 - Red LED indicates charging.
 - If the LED turns off or blinks with a battery in the charger indicates a bad battery.
 - A Green LED indicates charging is complete.

Note: Charging the radio with other than the supplied charger can cause damage to the battery and radio and is an extreme safety risk: Warranty does not cover charging with other than a charger supplied by this manufacturer.

Operating Instructions

Power On/Off

Turn the Power Switch clockwise. As soon as power is supplied, the LCD Window backlight will be turned on, the radio will self check its condition and a beep sound is generated.

*****Caution***** Please ensure none of the buttons are pressed when turning on the radio. Turning on the radio while also pressing any button on it may place the radio into a special mode in which transmission and reception is impossible.

Transmission Method

To transmit, press the PTT button on the left side of the radio. The red LED will light indicating transmission. It is recommended to talk 1 to 2 inches away from the microphone for the best voice communication.

*****Caution***** If the current selected channel has been programmed as “Receive Only”, the radio will not transmit even if the PTT is pressed.

Reception Method

The user should not press the PTT button during reception. The user can adjust the volume using the Volume switch. During reception, the green LED will be turned on.

Changing Channels

The Channel buttons (▼,▲) will change the selected channel. If pressing the Up button (▲), a “beep” sound will be generated and the channel number will be increased. If pressing the Down button (▼) the channel number will be decreased. If the user presses the Up or Down button while only one channel is set, the channel will not be changed and a different sounding “beep” will be generated. For fast increase or decrease of channel numbers, “press-and-hold” one of the Channel buttons (▼,▲). In this case, however, the “beep” sound will not be generated.

Operation of the Scan function (if activated)

Press and hold the **Menu Button (P)** and press the **Enter Button**, to activate the Scan function. After the Scan function is activated, the radio will automatically search for transmissions on preselected channels. To deactivate the Scan function, press the **Menu Button (P)** once.

Normal Scan

In the Scan mode, the LCD displays the 'SCAN' icon. When the scan list is S1, S2, S3, the radio proceeds through the channel scan in the sequence of S1, S2, S3, S1, S2, and if receiving an unwanted signal, if you press the UP(▲) or DOWN (▼) button, you can delete the receiving channel temporarily from the scan list and at that time, you can move to the next channel.



Priority Scan

In the Priority Scan mode, the LCD displays the 'SCAN' and 'P-' icons. The radio scans the channels in the sequence of P, S1, P, S2, P, S3, ... during the priority scan mode. During receiving on a scanned channel, the radio scans the priority channel periodically and if the radio detects activity on the Priority channel, it moves to receive the Priority channel. During receiving the signal, you can move to the following scan channel by pressing the UP or DOWN button. If you press the **Enter** button, you can erase the current receiving channel temporarily from the scan list and at that time, you can move to the next channel. But in the course of receiving the Priority channel signal, you cannot change or erase the Priority channel using the UP/DOWN buttons (▲, ▼).



Key Lock function

Press the "P" button and the "▲" button at the same time and the Key Lock function will be activated (a beep tone will sound and the "Key" icon of LCD will appear). In "locked" mode, all the radio's buttons are locked except for the PTT and the Monitor buttons. In order to release the Lock function, press the "P" button and the "▼" button at the same time until a beep sounds.

Cloning function

The CLONING function is used to copy the programming of one radio to another radio so that they will work together identically. The cloning function requires an optional "cloning cable" sold separately.

- The radio to be cloned should be turned on while pressing the **PTT button** and the target radio should be turned on while pressing the "**P**" button .
- The radio to be cloned will display the **-CLON-** message, and the target radio displays the **-Prog-** message.
- Connect the Cloning cable to the Ear/Mic Jack of the 2 radios.
- Press the "enter" button of the radio to be cloned: The LED of each radio will blink for a few seconds. When the LEDs stop blinking, the cloning procedure is finished. Turn both radios off and then back on to verify their correct operation.



Menu description

The radio can be placed into "Menu" mode by pressing the "P" button on the side for 2 seconds. The Menu mode consists of 9 Menus and you can use your desired Menu after selection.

Note: After entering into the Menu, if you don't operate the Menu for more than 8 seconds, the Menu mode will be terminated automatically and the radio will resume its normal standby mode.

Componder selection

The Componder function can be turned on or off by the user if it is enabled in the radio's internal programming. Componder aids in compatibility with other radios and if used, it should be used on all radios at any one location.

- Enter into the Menu mode.
- Using the channel button(▲, ▼), choose the "Comp" menu and press the "Enter" button.



- Using the channel buttons (▲, ▼), choose the ON ("y") or the OFF ("n") selection and press the "Enter" button to store your setting.
- Exit the menu mode, the Componder ICON will show on the LCD display as below if turned "on".



Changing Groups

The radio is set with a total 6 channels and 3 Groups. The user can move between group selections as follows:

- Enter into the Menu mode.
- By using the channel buttons (▲, ▼), choose "Group" and press the "Enter" button.



- Using the channel buttons again (▲, ▼), choose the desired Group number and press the "Enter" button to store your selection.
- Exit the Menu mode.

Scrambling

Scrambling can protect your communications from being heard by persons using similar radios or scanners. With scrambling enabled, others would only hear a garbled sound. This feature can be enabled by the factory or by your dealer. To turn on the function:

- Enter into Menu mode.
- Select “SCrA” by pressing Channel buttons (▼,▲), and press the **Enter** button.

A rectangular LCD display showing the text "SCrA" in a digital font.

- Select On (y) or Off (n) by pressing the Channel buttons (▼,▲), and save the selected status by pressing the **Enter** button.
- Exit Menu mode.

Two rectangular LCD displays side-by-side. The left display shows "SCrA y" with "SCR" above the "y". The right display shows "SCrA n".

Set Squelch

Squelch sensitivity levels are selectable in 5 steps. If enabled by the factory or your dealer, the user can select the Squelch setting as follows:

- Enter into Menu mode.
- Select “SQUELCH” by pressing the Channel buttons (▼,▲), and press the **Enter** button. Then, the message of the squelch sensitivity will be displayed.

A rectangular LCD display showing the text "SQUELCH" in a digital font.

- Select squelch sensitivity 0 to 5 by pressing the Channel buttons (▼,▲), and press the **Enter** button to save your setting.

A rectangular LCD display showing the text "SQUE 00" in a digital font.

- Exit Menu mode by pressing the Menu Button (P).

Key Button sound: On or Off

You can set whether or not a sound is made when pressing any of the Key buttons if the function is set up by your dealer.

- Enter into Menu mode.
- Select “Sound” by pressing the Channel buttons (▼,▲), and press the **Enter** button.

A rectangular LCD display showing the text "Sound" in a digital font.

- Select On (y) or Off (n) by pressing the Channel buttons (▼,▲), and save the selected status by pressing the **Enter** button.

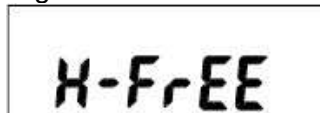


- Exit Menu mode by pressing the Menu Button (P). A musical note icon will show on the LCD only if Key Button sound is turned on.

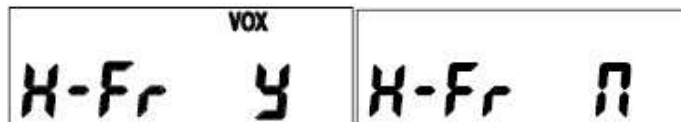
Set VOX

VOX is to enable users to transmit automatically by simply speaking without pressing the PTT button if the function is enabled by the factory or your dealer. VOX requires an optional headset to function. The user can turn it on and off as follows:

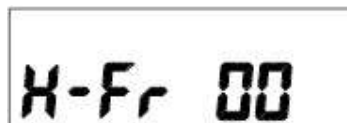
- Enter into Menu mode.
- Select “H-FrEE” (Hands-Free) by pressing the Channel buttons (▼,▲), and press the **Enter** button.



- Select On (y) or Off (n) by pressing the Channel buttons (▼,▲), then press the **Enter** button.



- After the “VOX, H-Fr 05” symbol appears on the LCD, set the desired VOX sensitivity by pressing the Channel buttons (▼,▲), then press **Enter** button.



- If you select “Off”. Then, the “vox” symbol will disappear from the LCD window.
- Exit Menu mode by pressing the Menu Button (P).

Set Lone Worker or “Wandering Radio” alarm

The Lone Worker function is for transmission of an emergency alarm sound if the PTT button is not pressed within a period of time. If a radio with this function is lost on premises, after the same period of time it would sound an alarm at the radio making the radio easy to recover. This function can be activated at the factory or by your dealer.

- Enter into Menu mode.
- Select “LONE W” by pressing the Channel buttons (▼,▲), then press the **Enter** button.



LONE-UU

- Select On (y) or Off (n) by pressing the Channel buttons (▼,▲), and save the selected status by pressing the **Enter** button.



LONE Y LONE n

- Exit Menu mode by pressing the Menu Button.

UHF Radio Specification

General

Frequency Range	UHF: 440 ~ 470 MHz
Frequency Stability	±2.5PPM (-30 to +60°C)
Programmable Channels	6 Channels/ 3 Groups
Channel Spacing	Dual Channel Spacing 12.5 KHz
Dimensions	3.8 x 1.95 x 1 inches
Weight	6 Ounces (with Battery pack & Antenna)
Power Source	3.7V rechargeable Li-ion 1800mAH battery pack
Duty Cycle (5/5/90)	12 Hours (High power), 15 Hours (Low power)

Receiver

Squelch Sensitivity	.282uV 12 dB SINAD
Selectivity	.25uV 10dB SINAD
Spurious and Harmonic	60dB
Rejection	70dB
Inter-modulation	60dB
FM Hum and Noise	40Db
Audio Output Power	1 Watt across an 8-ohm load
Audio Distortion	Less than 5% at rated output
Speaker Impedance	8 ohms
Input Impedance	50 ohms

Transmitter

RF Power Output	2 Watts
Spurious and Harmonic	60dB
FM Hum and Noise	40dB
Audio Distortion	5% maximum with 1KHz modulation
Output Impedance	50 ohms

Frequencies

These charts provide frequency information and are useful when using XLR Series radios with other business radios.

Channel Number	Frequency (MHz)
1	462.8875
2	462.9125
3	464.5375
4	464.6525
5	466.5625
6	466.0625

Safety Precautions

When using the XLR Series Radios

- Don't remove the antenna from the radio, don't modify the antenna, make any change to the antenna, or use the radio if the antenna is bent or damaged. The strong electromagnetic field emitted from the radio can have an effect on the performance of the radio and can damage the radio.
- Don't use accessories (such as rechargeable battery, adaptor, external speaker microphone and earphone, etc) from other manufacturers. This may cause damage to the battery or the cause the radio to malfunction.
- Don't disassemble or attempt to repair the radio. The disassembly or modification of the radio by unauthorized persons voids the warranty and may be a violation of FCC regulations.
- Use this product only on frequencies and in a manner permitted for your use by law.
- Don't expose the radio to excessive shock.
- Don't place the radio in direct sunlight or otherwise expose it to high temperatures.
- If the radio is placed for a long time in a car in summer, the hot temperature in the car may cause an explosion of the battery.
- Don't damage the battery with a sharp object or an excessive shock.

Influences to the operation of this Radio

The radio emits a strong electromagnetic field which may have an effect on the operation of other electronic equipment and it can also be influenced by other electronic devices.

- Please turn off the radio before boarding an airplane. If you want to use the radio in an airplane, please follow the rules of the airplane or the instructions of its crew.
- In medical equipment areas, please use the radio only after discussion with the equipment maker or the related medical staff.
- Please don't use the radio in close proximity to computers or other electronic devices, as the strong electromagnetic field from the radio can have an effect on other equipment.

Safety Notes

Please make sure to read the following for safe and effective use of the radios.

- Please keep the radio away at least 1 inch from the body.
- If the outside surface of antenna gets stripped, contact with the bare metal can cause skin burns.
- If you contact a conductive metal to the battery terminals, the battery may heat up to the point of fire or explosion. Be especially careful when putting the battery in a pocket or a bag.
- When using an earphone, please don't listen to the sound at a high level. High sound levels may damage your hearing.
- After setting the volume of the radio at a low level, please adjust the volume incrementally to the level you want. A sudden high sound may damage the ear.
- Don't remove, replace or charge the battery in a dangerous area where a small spark might ignite a fire.
- Please be sure to turn off the power on the radio, when in an area with strong electromagnetic fields.

FCC Information

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE CONDITION THAT THIS DEVICE DOES NOT CAUSE HARMFUL INTERFERENCE.

MODIFICATION OR CHANGES NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOICE THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

IMPORTANT NOTE: To maintain compliance with Radio Frequency exposure guidelines, hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face. If you wear the handset on your body while using approved accessories and only the manufacturers supplied belt clip, ensure that the antenna is at least 1.5 centimeters from your body when transmitting.

Your radio generates radio frequency electromagnetic energy during transmission mode. The radio is designed for and classified as "Occupational Use Only" and must be used by individuals who are properly trained and aware of these hazards and the means in which to minimize such hazards. This radio is NOT intended for use by the "General Population" or in uncontrolled environments.

To ensure that your exposure to radio frequency electromagnetic energy is with the FCC allowable limits for occupational use, always follow these guidelines.

DO NOT transmit for more than 50% of the total radio use time (this is a maximum 50% duty cycle radio). Transmitting more than 50% can cause FCC Radio Frequency Exposure compliance requirements to be exceeded.

Pressing the PTT switch enables the radio to transmit. Use ONLY authorized accessories with the equipment. Use of unauthorized accessories can cause the FCC Radio Frequency Exposure compliance requirements to be exceeded.