AXIOM AXP505 VHF Digital Portable Radio

AXIOM AXP505 VHF Digital Portable Radio User Guide

Contents

AXIOM AXP505 VHF Digital Portable Radio

Product Information

Specifications

- Model: AXP505 VHF Digital Portable Radio
- Programmable Keys: Side key 1, Side key 2, Top key
- Components: PTT key, Side key 1, Side key 2, LED indicator, Microphone, Top key, Antenna, Battery button, Channel selection rotary knob, Accessory interface, Power/Volume rotary knob, Speaker, Battery

Product Usage Instructions

Getting Started

Components: Familiarize yourself with the components of the radio as listed in the manual.

Programmable Keys

Assign functions to the programmable keys to enhance usability. Functions include Keypad lock/unlock, Power level adjustment, Call logs access, Contact list access, Message menu access, Channel selection, Scan on/off, Squelch on/off, and Roaming on/off.

Status Indicator LCD

Understand the various status symbols displayed on the LCD screen including signal strength, message notifications, scanning mode, roaming mode, transmit power level, battery status, and speaker status.

Basic Operations

- **Power On/Off:** Rotate the Power/Volume knob clockwise to power on and counterclockwise to power off.
- **Volume Control:** Adjust the volume by rotating the Power/Volume knob.
- **Select Zone:** Manage channels efficiently by selecting a zone using the Zone menu.
- **Select Channel:** Rotate the Channel selection knob to switch channels.
- **Lock/Unlock Keypad:** Secure or unlock the keypad as needed.

Making Calls

Private Call: Keep the microphone at a distance of 2.5 cm to 5 cm from your mouth for clear communication. Initiate or answer private calls following the provided instructions.

Frequently Asked Questions

Q: How do I know if my radio is in scanning mode?

A: The LED indicator will flash orange when your radio is in scanning status.

Q: How can I adjust the transmit power level quickly?

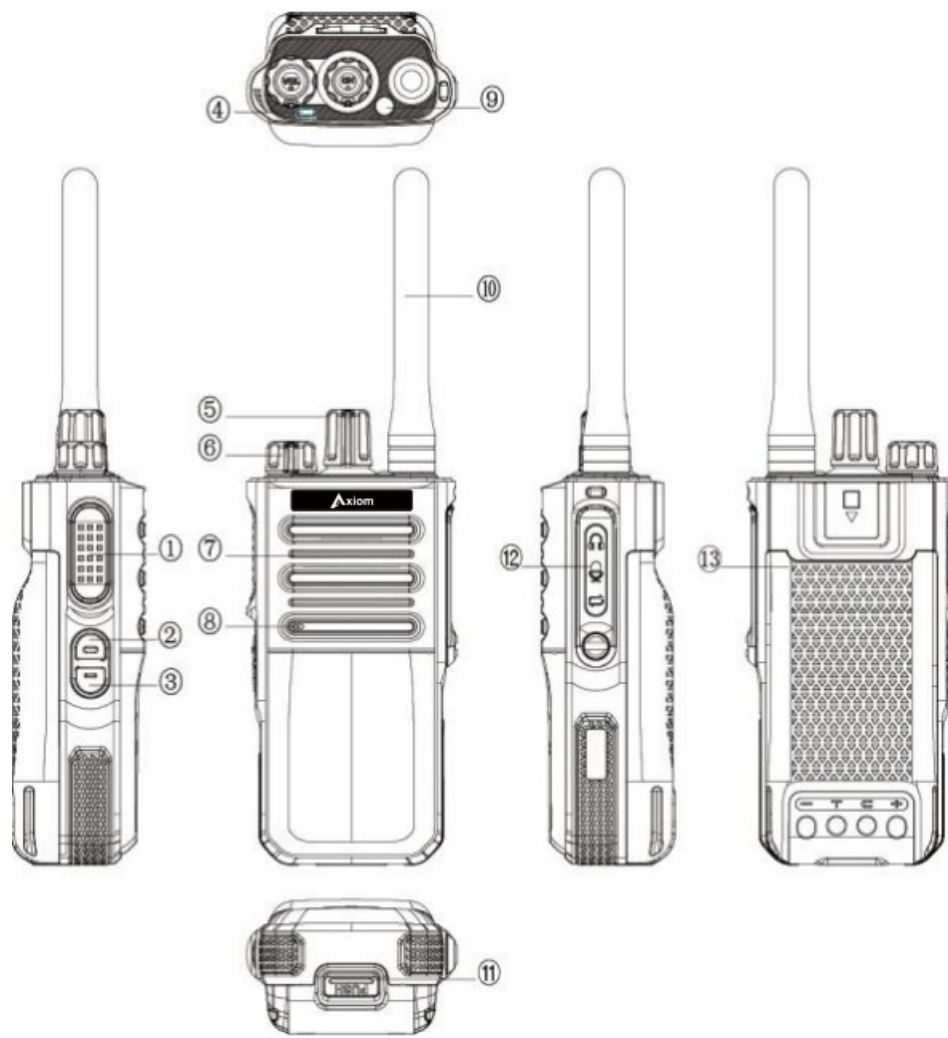A: Use the Power level function assigned to one of the programmable keys for quick adjustment of transmit power.

AXP505 VHF

LEGAL INFORMATION

- Copyright ©Axiom Distribution Solutions 2023
- No part of this publication may be quoted, reproduced, translated or used in any form or by any means, electronic or mechanical, including photocopying and microfilm, without the prior written permission of Axiom Distribution Solutions.
- Violators Will Be Prosecuted.
- Axiom Distribution Solutions reserves the right to make modifications on typographical errors or update specifications in this guide without prior notice.
- The figures in this manual are for reference only. For the product structure and specifications of the battery and charger, please refer to the actual product. The accessories provided with the product may vary with product models and functions.

GET TO KNOW YOUR RADIO

Components

No.	Item Name	No.	Item Name
1	PTT key	8	Microphone
2	Side key 1	9	Top key
3	Side key 2	10	Antenna
4	LED indicator	11	Battery button
5	Channel selection rotary knob	12	Accessory interface
6	Power /Volume rotary knob	13	Battery
7	Speaker		

PROGRAMMABLE KEYS

To facilitate operations, your radio provides three programmable keys (Side key 1, Side key 2, and the Top key), and each programmable key can be assigned with one of the following functions by the product distributor through setting shown as the following table.

No.	Function	Description
1	None	Do not assign function
2	Keypad lock/unlock	Lock or unlock the keypad immediately
3	Power level	Adjust transmit power level quickly
4	Call logs	Open the Call Logs menu directly
5	Contact list	Open the contact list directly
6	Message	Open the text message menu directly
7	Channel up/down	Switch channel through button
8	Scan on/off	Enable or disable scanning function
9	Squelch on/off	Enable or disable squelch function
10	Roaming on/off	Enable or disable roaming function

STATUS INDICATOR

LCD (Status Symbols)

Icon Name	Icon	Status Description
Signal Strength	⍑x	No signal.
	⍑.ıll	The more signal bars, the stronger the signal.
Message	🗩	You have unread message.
	🗩	Message inbox is full.
Scan	⊘	Your radio is in scanning mode.
	⬛	Your radio has stopped scanning.
Roaming	🌐	Your radio is in roaming mode.
	⊕	Your radio has stopped roaming.
Transmit power	L	The transmit power of current channel is low-power mode.
	H	The transmit power of current channel is high-power mode.
Battery	🔋	The more battery bars, the more battery power.
Speaker	🔊	The speaker is on.

LED INDICATOR

Indicator	Radio Status
Lit green	Your radio is receiving voice signals.
Lit red	Your radio is transmitting voice signals.
Flashing orange	Your radio is in scanning status.
Lit orange	After a call is established, there is no voice transmitted or received in the service channel. You can press PTT key to speak.

BASIC OPERATIONS

- **Power On/Off Your Radio**

  To power on your radio, rotate the Power/Volume rotary knob clockwise until a click is heard. To power off your radio, rotate the Power/Volume rotary knob counterclockwise until a click is heard.

- **Turn Up/down the Volume**

  After powering on your radio, rotating the Power/Volume rotary knob clockwise can turn up the volume, and rotating the Power/ Volume rotary knob counterclockwise can turn down the volume.

- **Select a Zone**

  You can add channels in one zone to manage the channels efficiently.

  You can enter the Zone menu after powering on the radio, press Up/Down key to choose your zone, and press OK key to switch to your zone.

- **Select a Channel**

  In standby, you can rotate the Channel selection rotary knob and switch the current working channel. Rotating clockwise can turn down the channel, and rotating counterclockwise can turn up the channel.

- **Lock/Unlock the Keypad**

  If the keypad is unnecessary temporarily, you can lock the keypad to prevent misoperations. You can lock or unlock the keypad through one of the following ways:

- **Key combination**

  Press the OK+* key combination. The keypad can be locked or unlocked.

- **Programmable key**

  If your distributor sets a Keypad Lock shortcut key, you can press the shortcut key to lock or unlock the keypad.

- **Menu**

  Enter the main menu, select Setting > Radio Setting >Keypad Lock, and select Disable or a time option. After you select a time option, if you perform no operation within the specified period, the keypad is locked automatically. If you select Disable, the keypad will not be locked automatically. You can press the key combination or the Keypad Lock shortcut key to lock or unlock the keypad.

- **NOTE:**

  If there is no Keypad Lock in the Radio Setting menu, you can ask your distributor to set the automatic keypad lock function.

Call

To ensure that the called party can hear you clearly, keep the microphone 2.5 cm to 5 cm away from your mouth when speak.

Private Call

Initiate a private call
You can initiate a private call through one of the following ways.

Initiate the call through Contacts or Call Logs

1. Press the OK/Menu key to enter the home menu.
2. Select Contacts > Contact List, or select call logs to enter the Outgoing/Incoming/Missed call list.
3. Press the Up or Down key to select the contact that you want to call.
4. Press the PTT key to initiate the private call.

Dial the number that you want to call

1. On the home screen, enter the private number that you want to call.
2. Press the PPT key to initiate the call.

Initiate a call in Missed calls

In the Missed calls menu, select a missed call, and press the PTT key to initiate the call.

Answer a private call
After receiving a private call, it is not required to press Call/Answer key, your radio shall establish the call automatically. After the call is established successful, your radio plays a reminding tone. If the call is not answered, the icon is displayed on the LCD to notify you the missed call.

Group Call
Initiate a group call
You can initiate a group call through one of the following ways:

Initiate a group call to a preset group contact
In standby, press the PTT key to initiate a group call to the group contact preset for the current channel.

Initiate a group call via the group call contact

1. On the home screen, press the OK/Menu key to enter the main menu.
2. Select Contact > Contact List, or select call logs to enter the Outgoing/Incoming call list.
3. Press the Up or Down key to select the group contact that you want to call.
4. Press the PTT key to initiate the group call.

Dial the number that you want to call

1. On the home screen, enter the group call number that you want to call.
2. Press the PTT key to initiate the group call.

   If your local distributor sets a programmable key for a one touch call, you can initiate a group call via the

   programmable key.

Answer a call

After receiving a group call, it is not required to press Call/Answer key, your radio shall establish the call automatically. After the call is established successful, your radio plays a reminding tone

Late Entry

After the group call is established, it is allowed that the member, which has not joined the group call, to be connected to the group call again during call communication.

The Third Party Application Notice

If you use unlicensed third party software to upgrade the radio firmware and system, there may be security risks that the radio gets unavailable or your personal information gets revealed.
Please use online upgrade or download the official software which matches your radio model to do upgrade.
After your radio upgrade, all your personal information may be removed, please backup personal information before upgrade.

MAIN TECHNICAL SPECIFICATIONS

Frequency Bands	VHF: 136-174MHz
Max. Power Output	Low power mode:1W High power mode: 5W
FM Modulation	12.5KHz: 11K0F3E
4FSK Digital Modulation(Data Only)	12.5KHz: 7K60F1D&7K60FXD
4FSK Digital Modulation(Voice Only)	12.5KHz: 7K60F1E&7K60FXE
4FSK Digital Modulation(Voice and Data)	12.5KHz: 7K60F1W
Sensitivity(Analog)	0.18uV(12dB SINAD)
Sensitivity(Digital)	0.18uV (5% BER)

SAFETY INFORMATION

- Please read all warnings carefully before using the radio:
- Do not use the radio equipment for different uses other than those indicated in this Guide.
- For the correct use of the radio read what is listed in the relative User Guide firstly. Protect the radio from spray of water and/or other liquids and from dust.
- Do not bring the radio close to heat sources.
- Do not place the portable radio above the airbags or in their area of action. If the airbag is activated, it may not swell correctly and/or hurl the portable unit with great force, inside the compartment where are located the passengers.
- Protecting the external antenna connector with proper cover when it isn't used in normal operative conditions.
- It is advisable to cover the connector when it isn't used in normal operative conditions. Replace the batteries with equivalent, which are approved by the manufacture.
- Replace the batteries following the instructions given in the technical manual. Make sure that batteries aren't damaged and don't have liquid leaks or evident gaseous emissions.
- Do not use the radio if the battery is damaged.
- Put the battery charger far from heat resources and in such a way as to guarantee its correct aeration as well as

safe accessibility to the network power supply outlet. Do not use the battery charger outside of the environments for which it was specified (eg. external environment).

- Use only battery chargers recommended by the manufacture and follow the instructions described in the user manual to recharge the battery.
- Do not use the radio if the antenna is damaged.
- Turn off the radio or inhibit transmission, if the equipment allows it, in the electromagnetically sensitive environments (ex. hospitals, airports, etc.).
- The electronic devices are sensitive to electromagnetic interference (EMI) if not adequately shielded, designed or configured differently for electromagnetic fields immunity. If electro medical equipment (ex. pace-makers, acoustical equipment, etc.) is used together with the portable radio, make sure that it is adequately shielded from external electromagnetic fields.
- Carry out the maintenance operations on the portable radio following the instructions given in the technical manual.
- Follow all accident prevention standards when carrying out maintenance operations on the portable radio equipment and use the proper tools (spanners, screwdrivers, etc.). First and second level maintenance operations on the equipment are to be carried out by authorized technicians only.
- Third maintenance level operations are to be carried out by Axiom technicians only. Use only original accessories and spare parts, approved by the manufacturer, suitable for the radio. The use of different accessories and/or spare parts (earphone, antenna, etc.) makes the safety and electromagnetic compatibility certifications to be valid no more and it could lower the user safety level and/or generate electromagnetic fields that exceed the accepted limits.
- Follow the battery charger instructions in order to use it correctly.
- During voice calls, the radio use with its proper bag is not recommended in environments which temperature can be over 45°C.
- The emergency call is a priority type call. The portable radio, like all mobile telephony equipment, operates with radio frequency signals; therefore, the forwarding of the call depends on the network coverage during the call.
- If you need send an emergency call, keep pressing the emergency button for at least 2 seconds, when the radio is switched on.
- Do not cause short circuits between the battery terminals. Do not set the batteries on metal surfaces. Do not set metal tools on the battery terminals. Be careful when handling any battery, when placing it in a pocket, purse/bag or any other.
- Do not use the battery charger if the power supply cable and/or the plug are damaged. If the battery is incorrectly replaced existing the dangerous risk of explosion.
- Even if the battery is discharge, the risk of explosion exists if the battery is disposed on fire. Do not take the radio into environments that have a potentially explosive atmosphere (ex. fuel storage sites, filling stations, etc.). Even when it is off, the radio, being equipped with battery, might casually generate sparks that could trigger fires and/or explosions.
- Do not use the battery charger in environments that have a potentially explosive atmosphere (ex. fuel storage sites, filling stations, etc.). The use of battery charger might generate sparks that could trigger fires and/or explosions.
- In order to further increase the level of user safety, you have to observe the following precautions:
- The radio is equipped with an automatic system to control the power transmitted so that the radio transmits at the maximum power only in exceptional cases (radio coverage limit, emergency call). Avoid touching the antenna when the radio is on and especially during transmission because the ability of transmitting power gets

worse.

- During voice communications in earphone mode hold the portable radio with the antenna straight and above your shoulder and speak directly into the microphone. Hold the portable radio in the vertical position and always at least 2.5 cm away from your head during voice communications in loudspeaker mode.
- Use the approved adapter specified by the manufacturer.
- Please use appointed battery in case of explosion risk; please dispose of lifeless battery under guidance.
- Recycle your device.
- Specified maximum operating ambient:60°C Max 40°C when charged .

COMPLIANCE WITH RF EXPOSURE STANDARDS

- Axiom two-way radio is designed and tested to comply with a number of national and international standards and guidelines for human exposure to radio frequency electromagnetic energy.
- This radio complies with the IEEE (FCC) and ICNIRP exposure limits for occupational/- controlled RF exposure environments at operating duty factors of up to 50% talk-50% listen and is authorized by the IEE/ICNIRP for occupational use only.

Control Guidelines:

- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met. Operating Instructions:
- Transmit no more than the rated duty factor of 50% of the time. To receive calls, release PTT button. Transmitting 50% of the time, or less, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance).
- Hold the radio in vertical position in front of the face with the microphone (and other parts of the radio including the antenna) at least 2.5 cm (1 inch) away from the nose or lips. Antenna should be kept away from the eye. Keeping the radio at a proper distance is important since RF exposures decrease as the distance from antenna increases.

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates 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 or more 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. 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.

   Note: Any Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Axiom Distribution Solutions
Website: **www.AxiomDistributionSolutions.com**
Privacy statement: Axiom Distribution Solutions is a leading provider of comprehensive critical communication solutions; the company is committed to protecting personal data by the use of appropriate technical and organizational measures.

Documents / Resources

AXIOM AXP505 VHF Digital Portable Radio [pdf] User Guide
AXP505 VHF Digital Portable Radio, AXP505 VHF, Digital Portable Radio, Portable Radio, Radio

References

- 🌐 **Axiom Distribution Solutions**
- 🌐 **Axiom Distribution Solutions**
- **User Manual**