KENWOOD

NX-3200/ NX-3220
NX-3300/ NX-3320

VHF DIGITAL TRANSCEIVER
UHF DIGITAL TRANSCEIVER

USER GUIDE

This User Guide covers only the basic
operations of your radio. Ask your dealer for
information on any customized features they
may have added to your radio. For using
details User Manual, refer to the following URL.

http://manual.kenwood.com/en_contents/search/keyword

JVCKENWOOD Corporation

B5A-2073-00 (C)

THANK YOU

We are grateful you have chosen **KENWOOD** for your Digital Transceiver applications.

CONTENTS

NOTICES TO THE USER

- Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.
- Illegal operation is punishable by fine and/or imprisonment.
- Refer service to qualified technicians only.

Safety: It is important that the operator is aware of, and understands, hazards common to the operation of any transceiver.

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Firmware Copyrights

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PRECAUTIONS

- Do not charge the transceiver and battery pack when they are wet.
- Ensure that there are no metallic items located between the transceiver and the battery pack.
- Do not use options not specified by **KENWOOD**.
- If the die-cast chassis or other transceiver part is damaged, do not touch the damaged parts.
- If a headset or headphone is connected to the transceiver, reduce the transceiver volume. Pay attention to the volume level when turning the squelch off.
- Do not place the microphone cable around your neck while near machinery that may catch the cable.
- Do not place the transceiver on unstable surfaces.
- Ensure that the end of the antenna does not touch your eyes.
- When the transceiver is used for transmission for many hours, the radiator and chassis will become hot. Do not touch these locations when replacing the battery pack.
- Always switch the transceiver power off before installing optional accessories.
- When water gets into the microphone opening or the speaker grill, the voice level may become incoherent or distorted. Lightly shake the transceiver to remove the water from the speaker and/or microphone before operating the transceiver.
- The charger is the device that disconnects the unit from the AC mains line. The AC plug should be readily accessible.
- To dispose of batteries, be sure to comply with the laws and regulations in your country or region.

⚠ WARNING ─────────────────────────────────────

Turn the transceiver power off before entering the following locations:

- Near explosives or blasting sites.
- In aircrafts. (Any use of the transceiver must follow the instructions and regulations provided by the airline crew.)
- Where restrictions or warnings are posted regarding the use of radio devices, including but not limited to medical facilities.
- Near persons wearing pacemakers.
- In explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.).
- While pumping on fuel or while parked at gasoline service stations.

⚠ WARNING ─────────────────────────────────────

- Do not remove the black sheet from the reverse side of the transceiver (refer to the illustration below). Removal of this sheet decreases the waterproof efficiency of the transceiver and may cause malfunctions if water seeps into the transceiver.
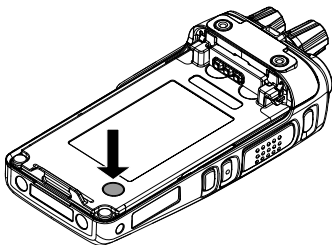
⚠ CAUTION

- Do not disassemble or modify the transceiver for any reason.
- Do not place the transceiver on or near airbag equipment while the vehicle is running. When the airbag inflates, the transceiver may be ejected and strike the driver or passengers.
- Do not transmit while touching the antenna terminal or if any metallic parts are exposed from the antenna covering. Transmitting at such a time may result in a high-frequency burn.
- If an abnormal odor or smoke is detected coming from the transceiver, switch the transceiver power off immediately, remove the battery pack from the transceiver, and contact your **KENWOOD** dealer.
- Use of the transceiver while you are driving may be against traffic laws. Please check and observe the vehicle regulations in your area.
- Do not expose the transceiver to extremely hot or cold conditions.
- Do not carry the battery pack (or battery case) with metal objects, as they may short the battery terminals.
- Danger of explosion if the battery is incorrectly replaced; replace only with the same type.
- When attaching a commercial strap to the transceiver, ensure that the strap is durable. In addition, do not swing the transceiver around by the strap; you may inadvertently strike and injure another person with the transceiver.
- If a commercially available neck strap is used, take care not to let the strap get caught on nearby machine.
- When operating the transceiver in areas where the air is dry, it is easy to build up an electric charge (static electricity). When using an earphone accessory in such conditions, it is possible for the transceiver to send an electric shock through the earphone and to your ear. We recommend you use only a speaker/microphone in these conditions, to avoid electric shocks.
- Do not expose the transceiver to long periods of direct sunlight, nor place it near heating appliances.

Information concerning the battery pack:

The battery pack includes flammable objects such as organic solvent. Mishandling may cause the battery to rupture producing flames or extreme heat, deteriorate, or cause other forms of damage to the battery. Please observe the following prohibitive matters.

⚠ DANGER

- **Do not disassemble or reconstruct the battery!**
  The battery pack has a safety function and protection circuit to avoid danger. If they suffer serious damage, the battery may generate heat or smoke, rupture, or burst into flame.
- **Do not short-circuit the battery!**
  Do not join the + and – terminals using any form of metal (such as a paper clip or wire). Do not carry or store the battery pack in containers holding metal objects (such as wires, chain-necklaces or hairpins). If the battery pack is short-circuited, excessive current will flow and the battery may generate heat or smoke, rupture, or burst into flame. It will also cause metal objects to heat up.
- **Do not incinerate or apply heat to the battery!**
  If the insulator is melted, the gas release vent or safety function is damaged, or the electrolyte is ignited, the battery may generate heat or smoke, rupture, or burst into flame.
- **Do not leave the battery near fires, stoves, or other heat generators (areas reaching over 80°C/ 176°F)!**
  If the polymer separator is melted due to high temperature, an internal short-circuit may occur in the individual cells and the battery may generate heat or smoke, rupture, or burst into flame.
- **Avoid immersing the battery in water or getting it wet by other means!**
  If the battery becomes wet, wipe it off with a dry towel before use. If the battery's protection circuit is damaged, the battery may charge at extreme current (or voltage) and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

⚠ DANGER

- **Do not charge the battery near fire or under direct sunlight!**
  If the battery's protection circuit is damaged, the battery may charge at extreme current (or voltage) and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Use only the specified charger and observe charging requirements!**
  If the battery is charged in unspecified conditions (under high temperature over the regulated value, excessive high voltage or current over regulated value, or with a remodeled charger), it may overcharge or an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not pierce the battery with any object, strike it with an instrument, or step on it!**
  This may break or deform the battery, causing a short-circuit. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not jar or throw the battery!**
  An impact may cause the battery to leak, generate heat or smoke, rupture, and/or burst into flame. If the battery's protection circuit is damaged, the battery may charge at an abnormal current (or voltage), and an abnormal chemical reaction may occur.

- **Do not use the battery pack if it is damaged in any way!**
  The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not solder directly onto the battery!**
  If the insulator is melted or the gas release vent or safety function is damaged, the battery may generate heat or smoke, rupture, or burst into flame.

- **Do not reverse the battery polarity (and terminals)!**
  When charging a reversed battery, an abnormal chemical reaction may occur. In some cases, an unexpected large amount of current may flow upon discharging. The battery may generate heat or smoke, rupture, or burst into flame.

⚠ DANGER

- **Do not reverse-charge or reverse-connect the battery!**

  The battery pack has positive and negative poles. If the battery pack does not smoothly connect with a charger or operating equipment, do not force it; check the polarity of the battery. If the battery pack is reverse-connected to the charger, it will be reverse-charged and an abnormal chemical reaction may occur. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not touch a ruptured and leaking battery!**

  If the electrolyte liquid from the battery gets into your eyes, wash your eyes with fresh water as soon as possible, without rubbing your eyes. Go to the hospital immediately. If left untreated, it may cause eye-problems.

⚠ WARNING

- **Do not charge the battery for longer than the specified time!**

  If the battery pack has not finished charging even after the regulated time has passed, stop it. The battery may generate heat or smoke, rupture, or burst into flame.

- **Do not place the battery pack into a microwave or high pressure container!**

  The battery may generate heat or smoke, rupture, or burst into flame.

- **Keep ruptured and leaking battery packs away from fire!**

  If the battery pack is leaking (or the battery emits a bad odor), immediately remove it from flammable areas. Electrolyte leaking from battery can easily catch on fire and may cause the battery to generate smoke or burst into flame.

- **Do not use an abnormal battery!**

  If the battery pack emits a bad odor, appears to have color changes, is deformed, or seems abnormal for any other reason, remove it from the charger or operating equipment and do not use it. The battery may generate heat or smoke, rupture, or burst into flame.

NOTIFICATION OF WATER-RESISTANT MODEL

Water Resistance and Maintenance

Water-Resistant Model transceiver conforms to the following standards.

IP67: The IP standard is the protection level specified by the international standard IEC 60529. The first numeral indicates the "dust-resistant level" and the second numeral indicates the "water-resistant" level.

Note:

· Initial water-resistant tests and procedures are performed products upon being ordered from **KENWOOD**.

PRECAUTIONS

· The applicable standards listed above do not assure that the transceiver can be used in water. The transceiver may be damaged in a situation in which the maximum depth is over 1 meter or the maximum submersion time exceeds 30 minutes.

· Observe the following precautions to maintain the transceiver's water-resistant performance:
  a) Do not drop or apply strong physical shocks to the transceiver.
  b) Do not disassemble or attempt to modify the transceiver. (If it is disassembled or modified, its performance is not guaranteed.)
  c) Do not soak the transceiver in water that contains a solvent or surfactant, such as detergent or alcohol.

· If it is soaked in muddy water or salt water (including sea water), it may become corroded. Immediately flush with fresh water and then wipe dry with a soft cloth.

· If water is splashed onto the microphone, the battery, or the antenna terminal, clean and dry them with a soft cloth before reconnecting to the transceiver.

· When water gets into the microphone opening or the speaker grill, the voice level may become low or distorted. Lightly shake the transceiver to remove the water from the speaker and/or microphone before operating the transceiver.

· Use of any option on the transceiver not specified by **KENWOOD**, may reduce or void the water resistant and dust resistant performance.

UNPACKING AND CHECKING EQUIPMENT

Note:
- The following unpacking instructions are for use by your **KENWOOD** dealer, an authorized **KENWOOD** service facility, or the factory.

Carefully unpack the transceiver. We recommend that you identify the items listed below before discarding the packing material. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

SUPPLIED ACCESSORIES

Belt clip 1
- Screws for belt clip (M3 x 8 mm) 2
Universal connector cap <NX-3200/ NX-3300 only> 1
Speaker/ microphone jacks cap <NX-3220/ NX-3320 only> 1
Speaker/ microphone locking bracket <NX-3220/ NX-3320 only> 1
Stopper <Full Button Model and Standard Button Model only> 1
User Guide 1

PREPARATION

INSTALLING/ REMOVING THE (OPTIONAL) BATTERY PACK

⚠️ CAUTION

- Do not short the battery terminals or dispose of the battery by fire.
- Never attempt to remove the casing from the battery pack.
- Install the battery pack after cleaning the battery pack contacts and the transceiver terminals.
- Before charging a battery pack that is attached to the transceiver, ensure that the safety catch is firmly closed.
- If the release latch is tilted and the battery pack is not attached to the transceiver, return the release latch to its original position using your finger.

Release latch

1 Match the guides of the battery pack with the corresponding grooves on the upper rear of the transceiver, then firmly press the battery pack to lock it in place.

2 Lock the safety catch to prevent accidentally pressing the release latch and removing the battery pack.

3 To remove the battery pack, lift the safety catch, press the release latch, then pull the battery pack away from the transceiver.

1

2

3 Safety catch

Release latch
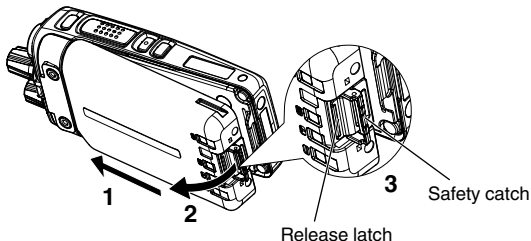
INSTALLING/ REMOVING ALKALINE BATTERIES (OPTIONAL BATTERY CASE)

> ⚠️ WARNING
>
> - Do not install batteries in a hazardous environment where sparks could cause an explosion.
> - Never discard batteries in fire; extremely high temperatures can cause batteries to explode.
> - Do not short circuit the battery case terminals.
> - Do not use rechargeable batteries.

Note:
- If you do not plan to use the transceiver for a long period, remove the batteries from the battery case.
- This battery case has been designed for transmitting at a power of approximately 1 W (the low power setting on your transceiver). If you want to transmit a stronger signal (using the high power setting on your transceiver), use an optional rechargeable battery pack.

1 To open the battery case, press on the two tabs on the upper rear of the case, then pull the two halves apart.
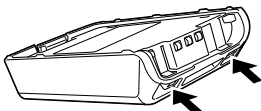
2 Insert 6 AA (LR6) Alkaline batteries into the battery case.
- Be sure to match the polarities with those marked in the bottom of the battery case.
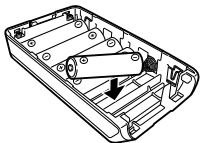
3 Align the tabs of the cover with the base, then push down on the cover until it locks in place.

INSTALLING THE (OPTIONAL) ANTENNA

Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

Optional antenna
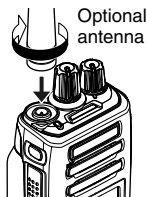
INSTALLING THE BELT CLIP

If necessary, attach the belt clip using the two supplied M3 x 8 mm binding screws.

Belt clip

M3 x 8 mm screws

Note:
- If the belt clip is not installed, its mounting location may get hot during continuous transmission or when left sitting in a hot environment.
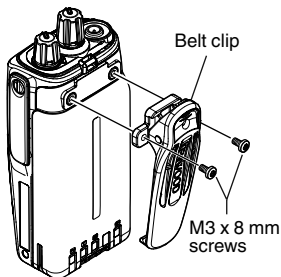
⚠ CAUTION

Do not use glue which is designed to prevent screw loosening when installing the belt clip, as it may cause damage to the transceiver. Acrylic ester, which is contained in these glues, may crack the transceiver's back panel.

INSTALLING THE CAP OVER THE UNIVERSAL CONNECTOR <NX-3200/ NX-3300>

1 If you are not using an optional speaker/ microphone or headset, install the cap over the universal connector.
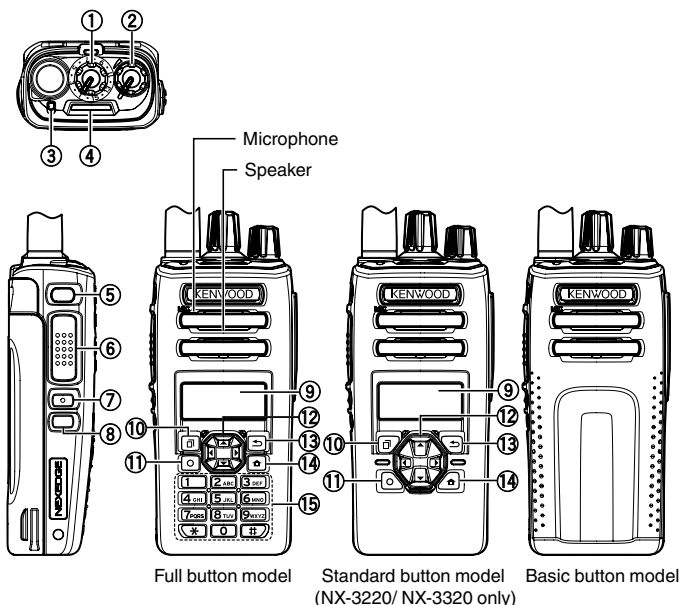
2 Secure the cap in place using the dressing screw.

Universal connector cap
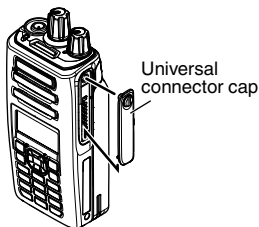
INSTALLING THE (OPTIONAL) SPEAKER/ MICROPHONE OR HEADSET <NX-3200/ NX-3300>

1 Insert the guide of the speaker/ microphone or headset connector into the groove of the universal connector.

2 Secure the connector in place using the attached screw.

Optional speaker/ microphone
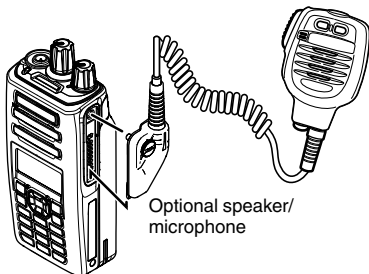
Note:
- When not using an optional speaker/ microphone or headset, install the cap over the universal connector.
- The noise canceling function on KMC-54WD Speaker Microphone works using the built-in DSP of the transceiver, and can be used only with the NX-3000 series Portable models.

INSTALLING THE CAP OVER THE SPEAKER/ MICROPHONE JACKS <NX-3220/ NX-3320>

Note:
- To keep the transceiver water resistant, you must cover the speaker/ microphone jacks with the supplied cap.

1 If you are not using an optional speaker/ microphone or headset, install the cap over the speaker/ microphone jacks.

2 Secure the cap in place using the dressing screw.

Speaker/ microphone jacks cap
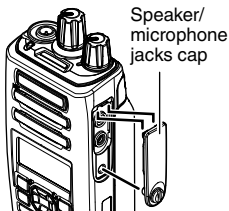
INSTALLING THE (OPTIONAL) SPEAKER/ MICROPHONE OR HEADSET <NX-3220/ NX-3320>

1 Insert the speaker/ microphone plugs into the speaker/ microphone jacks of the transceiver.

2 Place the locking bracket over the speaker/ microphone plugs so that the locking tabs insert into the transceiver grooves.

3 Secure the locking bracket in place using the dressing screw.

Speaker/ microphone locking bracket
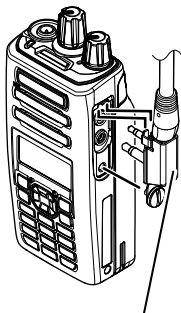
ORIENTATION

BUTTONS AND CONTROLS

Full button model   Standard button model   Basic button model
(NX-3220/ NX-3320 only)

① **Selector**
Rotate this control to activate its programmable function. The default setting is **[Channel Select]**.

② **Power switch/ Volume control**
Turn clockwise to switch the transceiver ON. To switch the transceiver OFF, turn counterclockwise fully. Rotate to adjust the volume level.

③ **Transmit/ Receive/ Battery low indicator**
The indicator lights in different colors to indicate the current status of the transceiver.
Lights red while transmitting and green while receiving.
Flashes red when the battery power is low while transmitting. Replace or recharge the battery pack when the battery power is low.

Note:
- This indicator can be disabled by your dealer.

④ **Light bar**
Lights up when selecting or receiving a channel.

Note:
- This indicator can be disabled by your dealer.

⑤ **Auxiliary (orange) button**
Press to activate its programmable function.

⑥ **PTT (Push To Talk) switch**
Press and hold, then speak into the microphone to call a station.

⑦ **Side 1 button**
Press to activate its programmable function. The default button setting is **[Squelch Off Momentary]**.

⑧ **Side 2 button**
Press to activate its programmable function. The default button setting is **[Backlight]**.

⑨ **LCD display**
Refer to the display. {p. 20}

⑩ **[▯] button**
Press to activate its programmable function. The default button setting is **[Menu]**.

⑪ **[○] button**
Press to activate its programmable function. The default button setting is **[Function]**.

⑫ **4-way D-pad (Full Button Model/ Standard Button Model)**
Press to activate its programmable function.
[◄] : The default setting is **[None]**.
[►] : The default setting is **[None]**.
[▲] : The default setting is **[Zone Up]**.
[▼] : The default setting is **[Zone Down]**.

⑬ **[⤺] button**
Press to activate its programmable function. The default button setting
is **[None]**.

⑭ **[⌂] button**
Press to activate its programmable function. The default button setting
is **[Clear]**.

⑮ **Keypad (Full button model only)**
Press the buttons on the keypad to send DTMF tones. The keypad
buttons can also be programmed with secondary functions if a
programmable function button is programmed as Function.

For details on programming functions to the buttons on your
transceiver, please contact your dealer or refer to the "User
Manual" available from the following URL.

http://manual.kenwood.com/en_contents/search/keyword

DISPLAY

Basic Frame

Function Indicator Area

Main Area

Button Guide Area
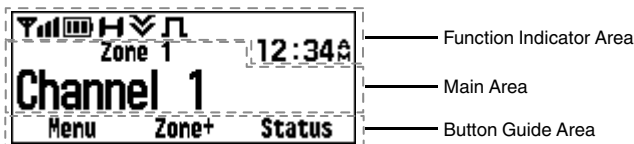
Display Area	Description
Function Indicator Area	Displays the various function indicators, signal strength indicator, battery power indicator and clock.
Main Area	Displays the information of the transceiver such as Channel number and Zone number.
Button Guide Area	Displays the button functions for [🗇], [▲] and [↩].

Function Indicator

Indicator	Description
Yᵢᵢ	Displays the signal strength.
▥	Displays the battery power.
H	The channel is using high transmit power.
M	The channel is using medium transmit power.
L	The channel is using low transmit power.
Ⴂ	In Digital mode (Digital Channel)
⌁	In Analog mode (Analog Channel)
Ⴂ	In Digital mode (Mixed Channel)
⌁	In Analog mode (Mixed Channel)
❀	Connected to a Bluetooth device. (NX-3200/ NX-3300 only)

Indicator	Description
⌁	The Bluetooth function is activated. Blinks in the process of turning on Bluetooth. (NX-3200/ NX-3300 only)
⌖	The GPS position is determined. Blinks when the GPS is unable to determine the position. (NX-3200/ NX-3300 only)
⟳	Scan, Priority Scan or Voting/ Site Roaming is in progress. Blinks when the scan is paused.
P1	Indicates Priority channel 1 or Priority Monitor ID 1.
P2	Indicates Priority channel 2 or Priority Monitor ID 2.
P3	Indicates Priority Monitor ID 3.
P4	Indicates Priority Monitor ID 4.
⩔	The current channel is added to the scanning sequence.
▼	The current zone is added to the Multi-Zone scanning sequence.
◇	The Scrambler function is activated.
◆	The Encryption function is activated. Blinks when receiving an encrypted carrier.
A◆	The Encryption (AES) function is activated. Blinks when receiving an encrypted carrier.
D◆	The Encryption (DES) function is activated. Blinks when receiving an encrypted carrier.
E◆	The Encryption (ARC4) function is activated. Blinks when receiving an encrypted carrier.
▤	The Talk Around function is activated.
◀	The Monitor or Squelch Off function is activated.
▷▪	The External Speaker is activated.
♪	Blinks when an incoming call matches your Optional Signaling.
▓	The Vibrator function is activated. Blinks when the Vibrator is not functioning.

Indicator	Description
✉	A message is stored in the memory. Blinks when a new message is received.
🎧	The VOX function is activated.
▷	The Site Lock function is activated.
👥	The Broadcast Call function is activated.
⊘	The Surveillance function is activated.
▶◀	The System Lock function is activated.
⊡	The auxiliary port is activated.
↰	Appears when the selected group is programmed as telephone IDs.
T	The Tactical Zone is activated.
⚹	The Lone Worker function is activated.
👥	The OVCM function is activated.
✦	The Activity Detection function is activated.
O	The Operator Selectable Tone function is activated.
📼	Blinks during Auto Recording.

BASIC OPERATIONS

SWITCHING POWER ON/ OFF

Turn the **Power** switch/ **Volume** control clockwise to switch the transceiver power ON.

Turn the **Power** switch/ **Volume** control counterclockwise to switch the transceiver power OFF.

ADJUSTING THE VOLUME

Rotate the **Power** switch/ **Volume** control to adjust the volume.

SELECTING A ZONE AND CHANNEL

1 Select the desired zone using the **Selector**, **4-way D-pad** or the buttons programmed as **[Zone Up]**/ **[Zone Down]**. Each zone contains a group of channels.

2 Select the desired channel using the **Selector**, **4-way D-pad** or the buttons programmed as **[Channel Up]**/ **[Channel Down]**. Each channel is programmed with settings for transmitting and receiving.

- The default setting for the **Selector** is **[Channel Select]**.
- The transceiver may have names programmed for zones and channels. The zone name and channel name can contain up to 12 and 14 characters respectively. While selecting a zone, the zone name will appear above the channel name.
- If programmed by your dealer, your transceiver will announce the zone and channel numbers as you change them.

TRANSMITTING

1 Select the desired zone and channel using the **Selector** or **4-way D-pad** and the **[Zone Up]**/ **[Zone Down]** or **[Channel Up]**/ **[Channel Down]** buttons.

2 Press the **PTT** switch and speak into the microphone. Release the **PTT** switch to receive.

- The LED indicator lights red while transmitting and green while receiving a signal. This indicator can also be disabled by your dealer.
- For best sound quality at the receiving station, hold the microphone approximately 3 cm to 4 cm (1.5 inches) from your mouth.

RECEIVING

Select the desired zone and channel. If signaling has been programmed on the selected channel, you will hear a call only if the received signal matches your transceiver settings.

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Mark Adler (madler@alumni.caltech.edu)

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Glenn Randers-Pehrson
Willem van Schaik

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A "png_get_copyright" function is available, for convenient use in "about" boxes and the like:

    printf("%s",png_get_copyright(NULL));

Also, the PNG logo (in PNG format, of course) is supplied in the files "pngbar.png" and "pngbar.jpg" (88x31) and "pngnow.png" (98x31).

Libpng is OSI Certified Open Source Software. OSI Certified Open Source is a certification mark of the Open Source Initiative.

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December 19, 2013

*Md5

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KENWOOD

NX-3200/ NX-3220
NX-3300/ NX-3320

VHF 数字手持对讲机
UHF 数字手持对讲机

用户指南

本用户指南只涵盖了您收音机的基本操作。关于经销商可能给您的收音机添加的任何定制功能的信息，请询问您的经销商。关于使用说明书（用户手册）的使用详情，请参阅以下 URL。

http://manual.kenwood.com/en_contents/search/keyword

JVCKENWOOD Corporation

鸣谢惠购

我们感谢您选择 **KENWOOD** 作为您的数字对讲机应用程序。

目录

用户注意事项

- 政府法律禁止在政府控制的区域内使用未经当局许可的无线电发射机。
- 非法使用将会受到罚款或监禁处罚。
- 只能由有资格的技术人员进行维修。

安全性： 操作人员应该知道并了解对讲机操作的一般危险。

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3

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
框架	×	○	○	×	○	○
安装基板	×	○	○	○	○	○
电缆	○	○	○	○	○	○
扬声器	○	○	○	○	○	○
其他(附件)	×	○	○	×	○	○

本表格依据 SJ/T 11364 的规定编制。

○：表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

×：表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

此图标表示了中华人民共和国的法律所规定的环保使用期限。只要用户在使用本产品时遵守注意事项中的各项规定，从制造日期开始到此图标标出的期限为止（环保使用期限）既不会污染环境也不会产生对人体有害的物质。

环保使用期限

注意事项

- 对讲机和电池潮湿时请勿对其充电。
- 对讲机和电池之间应确保无金属物品。
- 请勿使用非 **KENWOOD** 指定的选件。
- 如果压铸底盘和对讲机的其他部件损坏,请勿接触损坏的部件。
- 如果头戴式耳麦或头戴耳机连接到对讲机上,请减小对讲机的音量。当打开静噪时,一定要注意音量。
- 在电线可能被卷入机器的附近,请不要将麦克风的电线挂于颈部。
- 请勿将对讲机放置在不稳定的表面上。
- 应确保天线的末端不会碰到您的眼睛。
- 对讲机长时间用于发射时,散热器和底座会变热。更换电池时,请勿接触这些位置。
- 在连接选件前,请务必关闭对讲机的电源。
- 当水进入麦克风开口或扬声器格栅时,语音声级可能变得不连贯或失真。在操作对讲机之前,轻轻摇动对讲机,去除扬声器和/或麦克风中的水。
- 充电器是将装置与交流电源线断开的设备。应随时提供交流插头。
- 若处理电池,一定要符合您所在国家或地区的法律和法规。

⚠ 警告
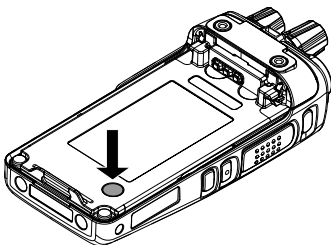
在进入下列场所之前要关闭对讲机的电源：

- 在易爆场所附近。
- 在飞机上。(对讲机的使用必须遵循机组人员的指示和规定。)
- 在粘贴有关于无线电设备的限制或警告的场合,包括但不限于医疗设施。
- 在使用心脏起搏器的人员附近。
- 易爆环境(易燃气体、粉尘、金属粉末以及粒状粉末等)。
- 加油时或停在加油站时。

⚠ 警告

- 请勿去除对讲机背面的黑色薄片(参见下图)。去除些薄片会降低对讲机的防水效果,如果水渗入对讲机,可能会导致故障。

⚠ **注意**

- 请勿因任何理由拆卸或改装对讲机。
- 汽车正在行驶时,请勿将对讲机放在安全气囊上或其附近。安全气囊打开时,对讲机可能会弹出,击中驾驶员或乘客。
- 当接触天线端时或天线罩露出任何金属部件时,请勿发射。此时发射可能会引起高频灼伤。
- 如果对讲机发出异常气味或冒烟,请立即关闭对讲机的电源,从对讲机中取出电池,并与 **KENWOOD** 经销商联系。
- 驾车时使用对讲机可能违反交通方面的法律。请查阅并遵守您所在地区的驾车法规。
- 请勿将对讲机暴露于极热或极冷的气候条件下。
- 请勿将电池(或电池盒)与金属物体放在一起携带,因为金属物体可能会使电池端子短路。
- 如果更换的电池不正确,会有爆炸的危险。请务必更换相同类型的电池。
- 对讲机安装了市场销售的条带时,请不要拿着条带挥舞对讲机。打着人可能会造成伤害,碰着物品可能会损坏对讲机。
- 如果使用市售的颈带,小心不要让带子夹在附近的机器上。
- 在空气干燥地区操作对讲机时容易产生电荷(静电)。在这样的情况下使用耳机附件时,可能会使对讲机通过耳机与您的耳朵之间发生放电。在这种场合下我们建议您只使用扬声器/麦克风,以避免放电。
- 切勿将收发器长时间暴露在阳光直射的地方,也不要将其放置在加热设备附近。

有关电池组的信息：

电池含有有机溶剂等易燃物体。错误操作可能会造成电池裂开，从而着火或产生过热，使电池失效或造成电池其它形式的损坏。请遵守以下禁止事项。

⚠️ **危险**

- **请勿拆卸或改造电池！**

  电池具有保护功能以及一个保护电路，防止危险。若遭受严重损坏，电池可能会产生热量或烟雾、破裂、或起火。

- **请勿造成电池短路！**

  请勿使用任何金属（如回形针或电线）连接 + 极和 − 极。勿用装金属物体（如电线、链式项链或发夹）的容器放置或储存电池。如果电池短路，将会产生过大电流，电池可能会发热或冒烟、破裂或着火。还将造成金属物体发热。

- **请勿焚烧或加热电池！**

  若绝缘体熔化，则气体排放出口或安全功能会受损，或者若电解液点燃，电池可能会产生热量或烟雾、破裂或起火。

- **请勿将电池放置在火、炉或其他发热器附近（达到 80°C 以上的区域）或在上述环境下使用电池！**

  如果聚合物隔离器由于高温而熔化，个别电池可能会内部发生短路，电池可能会产生热量或烟雾、破裂或起火。

- **避免将电池浸入水中或通过其他方式将其弄湿！**

  如果电池潮湿，使用前用干燥的毛巾将其擦干。如果电池保护电路受损，电池可能会在过大电流（或电压）下充电，可能会发生异常化学反应。电池可能会产生热量或烟雾、破裂或起火。

⚠ 危险

- **请勿在炉火或直接阳光照射下给电池充电!**

  如果电池保护电路受损,电池可能会在过大电流(或电压)下充电,可能会发生异常化学反应。电池可能会产生热量或烟雾、破裂或起火。

- **仅使用指定的充电器并遵守充电要求!**

  如果不在规定的条件(超过规定值的高温,超过规定值的过高电压或电流,或使用经过改装的充电器)下对电池充电,则可能会过度充电或发生异常化学反应。电池可能会产生热量或烟雾、破裂或起火。

- **请勿用任何物体刺入电池、用工具打击或踩踏电池!**

  这有可能破坏电池或使电池变形,造成短路。电池可能会产生热量或烟雾、破裂或起火。

- **请勿震动或抛扔电池!**

  一次冲击可能会造成电池泄露、产生热量或烟雾、破裂或起火。如果电池保护电路受损,电池可能会在过大电流(或电压)下充电,可能会发生异常化学反应。

- **若电池损坏,请勿使用!**

  电池可能会产生热量或烟雾、破裂或起火。

- **请勿直接在电池上焊接!**

  如果绝缘体熔化、或气体排放出口或安全功能受损,电池可能会产生热量或烟雾、破裂或起火。

- **请勿颠倒电池极性(和端子)!**

  当反向给电池充电时,可能会发生异常化学反应。在某些情况下,放电时可能会有大的意想不到的电流流过。电池可能会产生热量或烟雾、破裂或起火。

⚠ 危险

- **请勿反向给电池充电或反向连接！**
  电池具有正负极。如果电池未能轻易地与充电器或操作设备连接，请勿强迫连接；检查电池极性。如果电池反向连接到充电器上，将会反向充电，可能会发生异常化学反应。电池可能会产生热量或烟雾、破裂或起火。

- **请勿接触破裂以及漏液的电池！**
  如果电池电解液流入眼中，尽快用清水冲洗眼睛，不得揉擦眼睛。立即去医院救治。如果未及时处理，可能会造成眼部疾病。

⚠ 警告

- **电池充电请勿超过规定的时间！**
  如果超过规定时间后电池还在充电，请立即停止充电。电池可能会产生热量或烟雾、破裂或起火。

- **请勿将电池放入微波容器或高压容器中！**
  电池可能会产生热量或烟雾、破裂或起火。

- **请将破裂和泄露的电池远离明火！**
  如果电池发生泄露（或电池发出难闻的气味），立即将其远离易燃区。电池中的电解液泄露能轻易引发火灾，并可能会产生热量或烟雾、破裂或起火。

- **请勿使用异常电池！**
  如果电池散发出难闻的气味、看起来颜色发生变化、变形或由于其他原因而看起来异常，将其与充电器或操作设备断开并不再使用。电池可能会产生热量或烟雾、破裂或起火。

防水型号通告

防水和维护

防水型号对讲机符合以下标准。

IP67： IP 标准是国际标准 IEC 60529 规定的防护等级。第一个数字表示"防尘等级"，第二个数字表示"防水"等级。

注：
・ **KENWOOD** 订购产品后便进行初始防水试验和程序。

注意事项

- 上面列出的适用标准不能保证对讲机可以在水中使用。在最大深度超过 1 米或最大浸没时间超过 30 分钟的情况下，对讲机可能会被损坏。
- 请遵守以下注意事项以保持对讲机的防水性能
   a) 请勿坠落对讲机或向其施加强烈物理冲击。
   b) 不要拆开或试图改装对讲机。（如果拆开或改装，则无法保证其性能。）
   c) 请勿将对讲机浸入含有溶剂或表面活性剂（如洗涤剂或酒精）的水中。
- 如果浸在泥水或盐水（包括海水）中，则可能会腐蚀。立即用清水冲洗，然后用软布擦干。
- 如果水溅到麦克风、电池或天线端子上，请用软布清洁并擦干后重新连接至对讲机。
- 当水进入麦克风开口或扬声器格栅时，语音声级可能变低或失真。在操作对讲机之前，轻轻摇动对讲机，去除扬声器和/或麦克风中的水。
- 使用 **KENWOOD** 未规定的对讲机上的任何选项均可能会降低或失去防水和防尘性能。

拆开包装箱并检查设备

注:
- 以下的拆包说明供 **KENWOOD** 经销商、经授权的 **KENWOOD** 服务机构或工厂使用。

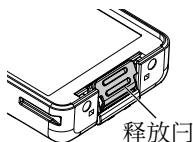小心拆开通信机的包装。在丢弃包装材料前，建议您先验明以下所列的物品。如果有物品缺失或在运输过程中损坏，请立即向承运人提出书面要求。
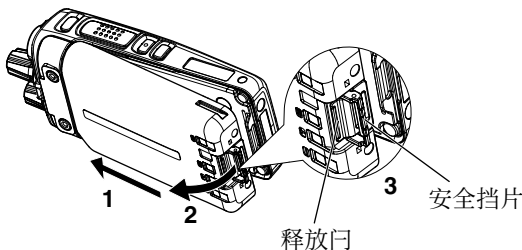
随机附件

准备工作

安装/拆卸(可选)电池组

⚠️ **注意**

- 请勿短接电池端子或用焚烧方式处置电池。
- 切勿尝试除掉电池组的外壳。
- 清洁电池组触点和对讲机端子后,请安装电池组。
- 在对连接至对讲机的电池组充电之前,请确保安全挡片已关紧。
- 如果释放闩倾斜并且电池组未连接至对讲机,请使用手指将释放闩返回到其原始位置。

释放闩

1 将电池组的导片与对讲机后面上部的相应凹槽对齐,然后将电池组用力压入以锁定到位。

2 锁定安全挡片,以防止意外按下释放闩而取下电池组。

3 要取下电池组,请提起安全挡片,按下释放闩,然后将电池组从对讲机中拉出。

1

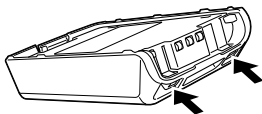**2**

释放闩

3

安全挡片

13

安装/拆卸碱性电池(可选电池盒)

⚠ **警告**
- ・ 请勿在火花可能导致爆炸的危险环境中安装电池。
- ・ 切勿将电池丢弃在火中; 极高的温度会导致电池爆炸。
- ・ 请勿使电池盒端子短路。
- ・ 请勿使用可充电电池。

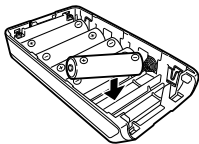**注:**
- ・ 如果打算长时间不使用对讲机,请从电池盒中取出电池。
- ・ 该电池盒设计用于以大约 1 W 的功率(对讲机上的低功率设置)进行发射。如果要(使用对讲机上的高功率设置)发射更强信号,请使用可选的可充电电池组。

1 若要打开电池盒,请按电池盒后面上部的两个簿片,然后将两半分开。

2 将 6 节 AA (LR6) 碱性电池插入电池盒。
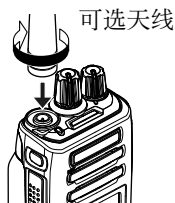- ・ 确保极性与电池盒底部标记的极性相符。

3 将盖子的簿片与底座对齐,然后向下按压盖子,直到其锁定到位。
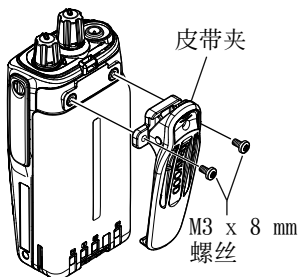
安装(可选)天线

握住天线底座并顺时针转动,直至拧紧,以此将天线固定到通信机顶端的连接器上。

可选天线

安装皮带夹

必要时,请利用附带的两颗 M3 x 8 mm 螺丝安装皮带夹。

注:
· 如果不安装皮带夹,在连续发射或长时间置于炎热环境的情况下,其安装位置可能会变热。

皮带夹

M3 x 8 mm 螺丝

⚠ **注意**

安装皮带夹时,切勿使用胶水来防止螺丝松脱,否则可能导致通信机损坏。胶水中所含的丙烯酸酯会引起通信机的后面板开裂。

安装通用连接器上的盖子 <NX-3200/ NX-3300>

1 如果您没有使用可选的扬声器/麦克风或耳机，请将盖子安装在通用连接器上。

2 使用修整螺钉将盖子固定到位。

通用连接器盖

安装扬声器/麦克风（选件）或头戴式耳机 <NX-3200/ NX-3300>

1 将扬声器/麦克风或耳机连接器的导片插入通用连接器的凹槽中。

2 使用附带的螺钉将连接器固定到位。
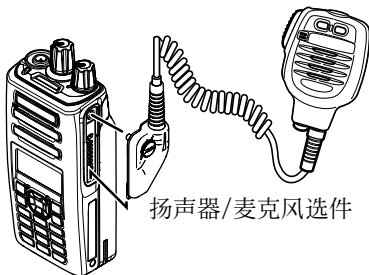
扬声器/麦克风选件

注:

- 不使用可选的扬声器/麦克风或耳机时，请将盖子安装在通用连接器上。
- KMC-54WD 扬声器麦克风的降噪功能通过使用对讲机的内置 DSP 工作，只能与 NX-3000 系列便携式机型配合使用。

安装扬声器/麦克风插孔盖 <NX-3220/ NX-3320>

注:
- 为保持通信机的防水效果,请务必用随带的插孔盖将扬声器/麦克风插孔盖好。

1 如果您没有使用可选的扬声器/麦克风或耳机,请将盖子安装在扬声器/麦克风插孔上。

2 使用修整螺钉将盖子固定到位。

扬声器/
麦克风插孔盖
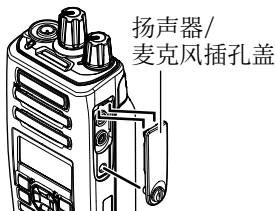
安装扬声器/麦克风(选件)或头戴式耳机 <NX-3220/ NX-3320>

1 将扬声器/麦克风插头插入通信机的扬声器/麦克风插孔中。

2 将锁定架置于扬声器/麦克风插头上,使锁定突起插入通信机凹槽内。

3 使用修整螺钉将锁定支架固定到位。

扬声器/麦克风锁定架

介绍

按钮和控制器

麦克风
扬声器

全按钮型号
标准按钮型号
（仅限 NX-3220/
NX-3320）
基本按钮型号
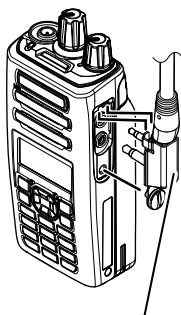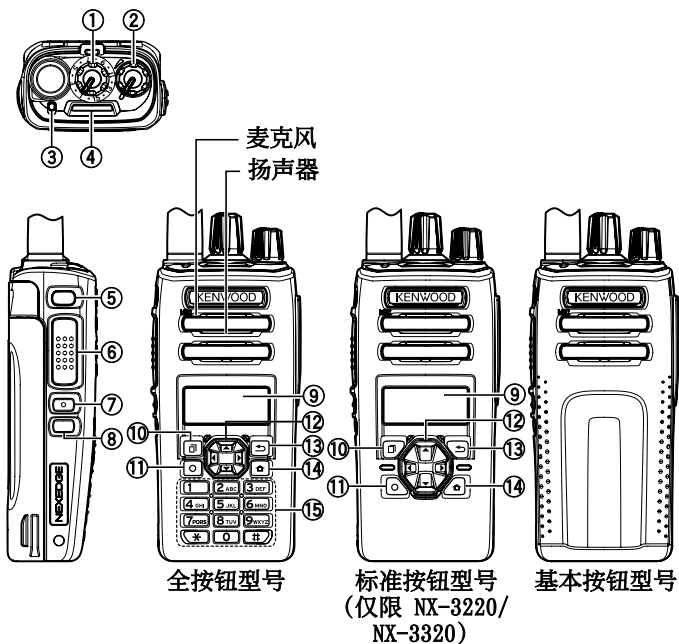
① **选择器**

旋转此控制器可启动其可编程功能。默认设置为**[信道选择]**。

② **电源开关/音量控制**

顺时针转动可打开通信机电源。若要关闭通信机电源，请逆时针转动到底。旋转可调整音量。

③ **发射/接收/电池电量不足指示灯**
指示灯以不同颜色亮起，指示对讲机的当前状态。
发射时为红色，接收时为绿色。
当发射时电池电量不足，则闪烁红色。当电池电量不足时，请更
换电池组或充电。

注:
・ 您的经销商可以禁用此指示灯。

④ **灯条**
选择或接收信道时亮起。

注:
・ 您的经销商可以禁用此指示灯。

⑤ **辅助（橙色）按钮**
按下可启动其可编程功能。

⑥ **PTT（按下通话）开关**
按住，然后对着麦克风说话，呼叫一个对讲机站。

⑦ **侧面 1 按钮**
按下可启动其可编程功能。默认按钮设置为**[瞬时静噪取消]**。

⑧ **侧面 2 按钮**
按下可启动其可编程功能。默认按钮设置为**[背光照明]**。

⑨ **LCD 显示屏**
请参阅显示屏。{p. 21}

⑩ **[ㅁ] 按钮**
按下可启动其可编程功能。默认按钮设置为**[菜单]**。

⑪ **[〇] 按钮**
按下可启动其可编程功能。默认按钮设置为**[功能]**。

⑫ **四向方向键（全按钮型号/标准按钮型号）**

按下可启动其可编程功能。

[◀]: 默认设置为**[无]**。

[▶]: 默认设置为**[无]**。

[▲]: 默认设置为**[区域上调]**。

[▼]: 默认设置为**[区域下调]**。

⑬ **[⇆] 按钮**

按下可启动其可编程功能。默认按钮设置为**[无]**。

⑭ **[⬠] 按钮**

按下可启动其可编程功能。默认按钮设置为**[清除]**。

⑮ **键盘（仅限全按钮型号）**

按键盘上的按钮以发送 DTMF 音。如果可编程功能按钮被编程为功能，则也可以为键盘按钮编程辅助功能。

有关对讲机上按钮功能编程的详情，请联系您的经销商或参考以下 URL 中提供的"用户手册"。

http://manual.kenwood.com/en_contents/search/keyword

显示屏

基本框架

功能指示灯区 —— 显示屏顶部区域

主区

按钮指南区

显示区	说明
功能指示灯区	显示各种功能指示灯、信号强度指示灯、电池电量指示灯和时钟。
主区	显示对讲机的信息,如信道号和区域号。
按钮指南区	显示 [⯗]、[▲] 和 [↰] 按钮功能。

功能指示灯

指示灯	说明
Ƴ..l	显示信号强度。
[Ⅲ]	显示电池电量。
H	该信道正在使用高发射功率。
M	该信道正在使用中发射功率。
L	该信道正在使用低发射功率。
Π	数字模式(数字信道)
Ⴑ	模拟模式(模拟信道)
Ⴇ	数字模式(混合信道)
Ⴑ	模拟模式(混合信道)
✿	已连接至蓝牙设备。(仅限 NX-3200/ NX-3300)

指示灯	说明
✳	蓝牙功能已启动。在开启蓝牙的过程中闪烁。(仅限 NX-3200/ NX-3300)
✗	GPS 位置已确定。当 GPS 无法确定位置时闪烁。(仅限 NX-3200/ NX-3300)
✿	正在进行扫描、优先扫描或判选/站点漫游。当扫描暂停时闪烁。
P1	指示优先信道 1 或优先监听 ID 1。
P2	指示优先信道 2 或优先监听 ID 2。
P3	指示优先监听 ID 3。
P4	指示优先监听 ID 4。
∨	当前信道已添加至扫描序列。
▼	当前区已添加至多区扫描序列。
◇	扰频器功能已启动。
◆	加密功能已启动。当接收加密载波时闪烁。
A◆	加密 (AES)功能已启动。当接收加密载波时闪烁。
D◆	加密 (DES)功能已启动。当接收加密载波时闪烁。
E◆	加密 (ARC4)功能已启动。当接收加密载波时闪烁。
📟	脱网通信功能已启动。
🔊	监听或静噪取消功能已启动。
📢	外部扬声器已启动。
♪	当来电与您的可选信令匹配时闪烁。
🔊	振动器功能已启动。当振动器不起作用时闪烁。

指示灯	说明
✉	消息已存储在内存中。当接收到新消息时闪烁。
✿	VOX 功能已启动。
➤	基站锁定功能已启动。
🚍	广播呼叫功能已启动。
⊘	监控功能已启动。
▶◀	系统锁定功能已启动。
▣	辅助端口已启动。
➤	当选定组编程为电话 ID 时显示。
T	战术区域已启动。
▲	单独工作者功能已启动。
👥	OVCM 功能已启动。
✦	活动检测功能已启动。
O	操作者可选亚音功能已启动。
▦	在自动录制期间闪烁。

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基本操作

切换电源开/关

顺时针转动**电源**开关/**音量**控制可打开通信机电源。
逆时针将**电源**开关/**音量**控制转到底可关闭通信机电源。

音量调节

旋转**电源**开关/**音量**控制可调节音量。

选择区域和信道

1   利用**选择器**，**四向方向键**或设置为**[区域上调]**/**[区域下调]**的按钮选择想要的区域。每个区域可包含多个信道。
2   利用**选择器**，**四向方向键**或设置为**[信道上调]**/**[信道下调]**的按钮选择想要的信道。每个信道均可进行发射和接收设置。
   ・   **选择器**的默认设置为**[信道选择]**。
   ・   对讲机可能有为区和信道编程的名称。区名和信道名最多可分别包含 12 和 14 个字符。选择区时，区名会显示在信道名上方。
   ・   如果您的对讲机由经销商编程，当您变更区号和信道号时，对讲机会发出通知。

发射

1 利用**选择器**或**四向方向键**和**[区域上调]/ [区域下调]**或**[信道上调]/ [信道下调]**按钮选择想要的区域和信道。

2 按 **PTT** 开关并对着麦克风讲话。松开 **PTT** 开关将转换到接收状态。
- 发射信号时 LED 指示灯亮起红色，接收信号时 LED 指示灯亮起绿色。您的经销商也可以禁用此指示灯。
- 为获得最佳的音质，嘴和麦克风之间应保持约 3~4 厘米的距离。

接收

选择想要的区域和信道。如果在所选信道上设置了信令，则只有在接收到符合通信机设置的信令时，您才能听到呼叫。