

KENWOOD

INSTRUCTION MANUAL



NEXEDGE

VHF DIGITAL TRANSCEIVER

NX-220

UHF DIGITAL TRANSCEIVER

NX-320

JVCKENWOOD Corporation

© B62-2320-20 (C)

THANK YOU

We are grateful you have chosen **KENWOOD** for your land mobile radio applications.

This instruction manual covers only the basic operations of your NEXEDGE portable radio. Ask your dealer for information on any customized features they may have added to your radio.

NXDN™

NXDN™ is a protocol name for a new digital communications system using 4-level FSK technology which has been co-developed by JVC KENWOOD and Icom.

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.

The AMBE+2™ voice coding Technology embodied in this product is protected by intellectual property rights including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc. This voice coding Technology is licensed solely for use within this Communications Equipment. The user of this Technology is explicitly prohibited from attempting to extract, remove, decompile, reverse engineer, or disassemble the Object Code, or in any other way convert the Object Code into a human-readable form. U.S. Patent Nos. #5,826,222, #5,754,974, #5,701,390, #5,715,365, and #5,649,050

Firmware Copyrights

The title to and ownership of copyrights for firmware embedded in KENWOOD product memories are reserved for JVC KENWOOD Corporation.

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.
- Do not immerse the transceiver in water.
- Always switch the transceiver power off before installing optional accessories.
- 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 in the following locations:

- In explosive atmospheres (flammable gas, dust particles, metallic powders, grain powders, etc.).
- While taking on fuel or while parked at gasoline service stations.
- 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 using pacemakers.

**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 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 round 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.
- To dispose of batteries, be sure to comply with the laws and regulations in your country or region.
- 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.
- When attaching a commercial strap to the transceiver, ensure that the strap is durable. In addition, do not swing the transceiver round 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.

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

- **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 different coloring, 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.

CONTENTS

UNPACKING AND CHECKING EQUIPMENT	1
PREPARATION	2
ORIENTATION	6
PROGRAMMABLE AUXILIARY FUNCTIONS	9
BASIC OPERATIONS	11
SCAN	14
FleetSync: ALPHANUMERIC 2-WAY PAGING FUNCTION	16
TRUNKING CALLS (ANALOG).....	19
ADVANCED OPERATIONS	21
BACKGROUND OPERATIONS	26

UNPACKING AND CHECKING EQUIPMENT

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

Carefully unpack the transceiver. If any items are missing or damaged, file a claim with the carrier immediately.

SUPPLIED ACCESSORIES

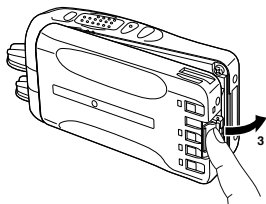
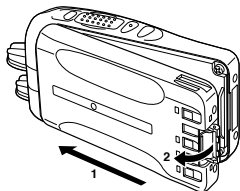
Belt clip	1
Speaker/ microphone jacks cap.....	1
Speaker/ microphone locking bracket.....	1
Stopper (type I only)	1
Instruction manual	1

Note: Inquire at your dealer for a stopper.

PREPARATION

INSTALLING/ REMOVING THE (OPTIONAL) BATTERY PACK

- 1 Match the guides of the battery pack with the grooves on the upper rear of the transceiver, then firmly press the battery pack in place.
- 2 Lock the safety catch to prevent accidentally releasing 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.



Note:

- ◆ For battery pack charging procedures and usage, refer to the battery charger Instruction Manual.
- ◆ The battery pack is not charged at the factory; charge it before use.
- ◆ Before charging a battery pack that is attached to the transceiver, ensure that the safety catch is firmly closed.

INSTALLING/ REMOVING ALKALINE BATTERIES (OPTIONAL BATTERY CASE)



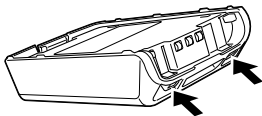
WARNING

- ◆ 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.

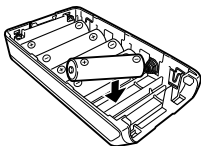
Note:

- ◆ 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.
-

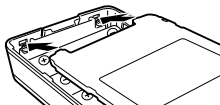
- 1** To open the battery case, press on the two tabs on the upper rear of the case, then pull the two halves apart.



- 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.

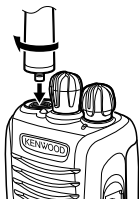


- 3** Align the tabs of the cover with the base, then push down on the cover until it locks in place.



INSTALLING THE (OPTIONAL) ANTENNA

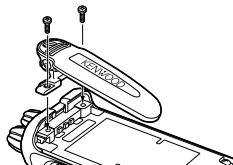
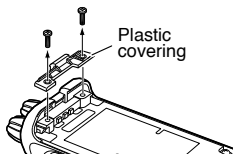
Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.



INSTALLING THE BELT CLIP

Note: When first installing the belt clip, you must remove the battery pack from the rear of the transceiver.

- 1 Remove the 2 screws from the rear of the transceiver, then remove the small plastic black covering that was held in place.
- 2 Insert the belt clip mount into the space on the rear of the transceiver.
- 3 Using the 2 screws, affix the belt clip in place.



CAUTION

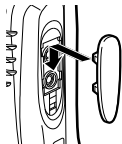
- When the belt clip is not installed, leave the plastic covering in place.
- Do not use glue which is designed to prevent screw loosening when installing the belt clip, as it may cause damage to the transceiver. Acrylic ester, which is contained in these glues, may crack the transceiver's back panel.

INSTALLING THE CAP OVER THE SPEAKER/ MICROPHONE JACKS

Install the cap over the speaker/ microphone jacks when not using an optional speaker/ microphone.

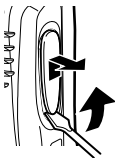
Note: To keep the transceiver water resistant, you must cover the speaker/ microphone jacks with the supplied cap.

- 1 Place the cap over the jacks so that the locking tabs insert into the transceiver grooves.



- 2 While holding the cap in place, push it towards the bottom of the transceiver until the tabs on the cap click into place.

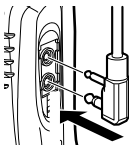
- To remove the cap, hold the top of the cap in place with your finger while inserting a 3 mm or smaller flat blade screwdriver under the bottom of the cap. Slowly slide the screwdriver in until its tip touches the tab inside the cap, then gently pry the cap up (handle of screwdriver moving away from the transceiver) to remove the cap.



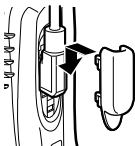
INSTALLING THE (OPTIONAL) SPEAKER/ MICROPHONE

Note: The transceiver is not fully water resistant when using a speaker/ microphone or headset.

- 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.



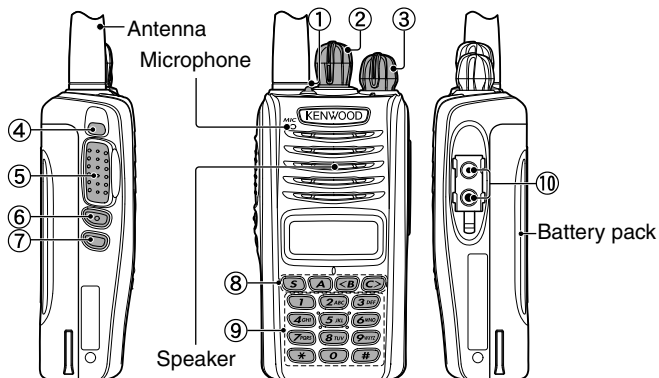
- 3 While holding the locking bracket in place, push it towards the bottom of the transceiver until the tabs on the bracket click into place.

- To remove the locking bracket, push the bracket up from the base.

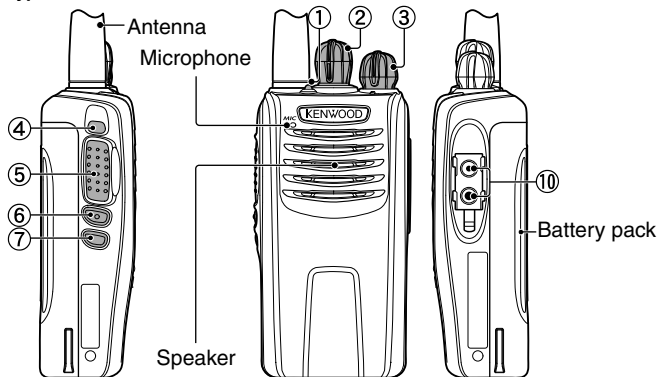


ORIENTATION

Type I

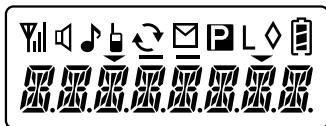


Type II



- ① **Transmit/ Receive/ Battery low indicator**
If enabled by your dealer, lights red while transmitting, green while receiving a call (Conventional channels only), and orange when receiving an optional signaling call. Blinks red when the battery power is low while transmitting.
- ② **Selector knob**
Rotate to select a zone or channel/group ID (default).
- ③ **Power switch/ Volume control**
Rotate to turn the transceiver ON/OFF and to adjust the volume.
- ④ **Auxiliary (orange) key**
Press to activate its programmable function {page 9}.
- ⑤ **PTT (Push-To-Talk) switch**
Press and hold this switch, then speak into the microphone to call a station.
- ⑥ **Side 1 key**
Press to activate its programmable function {page 9}.
The default is **[Squelch Off Momentary]**.
- ⑦ **Side 2 key**
Press to activate its programmable function {page 9}.
Type I: The default setting is **[Backlight]**.
Type II: The default setting is **[None]** (no function).
- ⑧ **S, A, <B, C> keys (Type I only)**
Press to activate their programmable functions {page 9}.
S and **A** key: The default setting is **[None]** (no function).
<B key: The default setting is **[Zone Down]**.
C > key: The default setting is **[Zone Up]**.
- ⑨ **Keypad (Type I only)**
Press these keys to send DTMF tones. These keys can also be programmed with secondary functions {page 9} if a programmable function key is programmed as **[Function]**.
- ⑩ **Speaker/ Microphone jacks**
Insert the Speaker/ Microphone or Headset plug into this jack {page 5}.

DISPLAY (TYPE I ONLY)



Indicator	Description
	Signal strength indicator {page 27}.
	Monitor or Squelch Off is activated.
	Blinks when an incoming call matches your Optional Signaling.
	Talk Around is activated.
	Scan is in progress. Blinks while scan is paused.
	A message is stored in memory. Blinks when a new message has arrived.
	The current channel is a Priority channel.
	The channel is using low transmit power.
	Scrambler/ Encryption is activated.
	Battery power indicator {page 26}.
	The current zone (left icon) or CH/GID (right icon) is added to scan.
	VOX is activated.
	Not used.

PROGRAMMABLE AUXILIARY FUNCTIONS

The **Selector, Auxiliary (orange), Side 1, Side 2, S, A, <B,** and **C>** keys, as well as the **Keypad**, can be programmed with the functions listed below. Please contact your dealer for further details on these functions.

- None
- 2-tone ^{1, 10}
- Activity Detection
- Activity Reset
- Autodial ¹
- Autodial Programming ¹
- Auto Telephone ²
- Backlight ¹
- Battery Indicator ³
- Broadcast ⁴
- Call 1 ~ 6
- CH/GID Down
- CH/GID Recall
- CH/GID Select ⁵
- CH/GID Up
- Channel Entry ¹
- CW Message ⁶
- Direct CH/GID 1 ~ 5
- Direct CH/GID Select 1 ~ 5
- Display Format ¹
- Emergency ⁷
- Fixed Volume
- Forced Search ⁴
- Function
- GPS Position Display ¹
- Group ^{1, 6}
- Group + Short Message ^{1, 8}
- Group + Status ^{1, 8}
- Home CH/GID
- Home CH/GID Select
- Individual ^{1, 8}
- Individual + Short Message ^{1, 8}
- Individual + Status ^{1, 8}
- Key Lock
- Lone Worker
- Low Transmit Power
- Maintenance ¹
- Monitor ⁹
- Monitor Momentary ⁹
- Operator Selectable Tone (OST) ^{1, 10}
- Priority-channel Select ^{1, 11}
- Scan
- Scan Delete/Add
- Scrambler/ Encryption
- Selcall ^{1, 12}
- Selcall + Short Message ^{1, 12}
- Selcall + Status ^{1, 12}
- Send the GPS data
- Short Message ¹
- Site Down ⁴
- Site Lock ⁴
- Site Select ^{4, 5}
- Site Up ⁴
- Squelch Level ^{1, 10}
- Squelch Off ¹⁰
- Squelch Off Momentary ¹⁰
- Stack ¹
- Status ¹
- Talk Around ⁹
- Telephone Disconnect ²
- Transceiver Password ¹

- VOX ¹¹
- Zone Delete/Add
- Zone Down
- Zone Select ⁵
- Zone Up

¹ Available only for Type I.

² Available only for Analog Trunking operation.

³ Available only for Type II.

⁴ Available only for NXDN Trunking operation.

⁵ Can be programmed only on the Selector.

⁶ Available only for NXDN Conventional operation.

⁷ Can be programmed only on the Auxiliary (orange) key.

⁸ Available only for NXDN Conventional operation and NXDN Trunking operation.

⁹ Available only for Analog Conventional, Analog Trunking, and NXDN Conventional operation.

¹⁰ Available only for Analog Conventional operation.

¹¹ Available only for Analog Conventional and NXDN Conventional operation.

¹² Available only for Analog Conventional and Analog Trunking operation.

BASIC OPERATIONS

SWITCHING POWER ON/OFF

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

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

■ Transceiver Password (Type I Only)

If your transceiver is password protected, you must first enter the password before you can use the transceiver.

- 1 Rotate the **Selector** to select the first digit of the password.
- 2 Press the **S** or ***** key to accept the entry and move to the next digit.
 - Press the **A** or **#** key to delete an incorrect digit.
- 3 Repeat steps 1 and 2 to enter the entire password.
 - The password can contain a maximum of 6 digits.
- 4 Press the **S** or ***** key to confirm the entered password.
 - If you enter an incorrect password, an error tone sounds and the transceiver remains locked.

ADJUSTING THE VOLUME

Rotate the **Power** switch/ **Volume** control to adjust the volume. Clockwise increases the volume and counterclockwise decreases it.

SELECTING A ZONE AND CHANNEL/GROUP ID

Select the desired zone using the key programmed as [**Zone Select**] or [**Zone Up/Down**]. Each zone contains a group of channels.

Select the desired channel/group ID using the **Selector** knob (default). Each channel/group ID is programmed with settings for transmitting and receiving.

TRANSMITTING

- 1 Select the desired zone and channel/group ID.
- 2 Press the key programmed as **[Monitor]** or **[Squelch Off]** to check whether or not the channel is free.
 - If the channel is busy, wait until it becomes free.
- 3 Press the **PTT** switch and speak into the microphone. Release the **PTT** switch to receive.
 - For best sound quality, hold the transceiver approximately 1.5 inches (3 ~ 4 cm) from your mouth.

■ Making Group Calls (Digital) (Type I Only)

If a key has been programmed with **[Group]**, you can select a group ID from the list to make a call to those parties on a Conventional channel.

To select a group ID:

- 1 Press the key programmed as **[Group]**.
- 2 Press the **<B** or **C>** key to select a group ID/name from the list.
- 3 Press and hold the **PTT** switch to make the call.
 - Speak into the transceiver as you would during a normal transmission.

■ Making Individual Calls (Digital) (Type I Only)

If a key has been programmed with **[Individual]**, you can make calls to specific persons.

- 1 Press the key programmed as **[Individual]**.
- 2 Press the **<B** or **C>** key to select a unit ID from the list.
 - You can also enter a unit ID directly.
- 3 Press and hold the **PTT** switch to make the call.
 - Speak into the transceiver as you would during a normal transmission.

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.

Note: Signaling allows your transceiver to code your calls. This will prevent you from listening to unwanted calls. Refer to “SIGNALING” on page 23 for details.

■ Receiving Group Calls (Digital)

When you receive a group call on a Conventional channel and the received group ID matches the ID set up on your transceiver, you can hear the caller's voice.

When you receive a group call on a Trunking channel, the transceiver automatically switches to the communications channel to receive the call.

■ Receiving Individual Calls (Digital)

When you receive an individual call, a ringing tone will sound and the caller's ID will appear on the display (type I only). To respond to the call, press and hold the **PTT** switch and speak into the transceiver as you would during a normal transmission.

SCAN

Scan monitors for signals on the transceiver channels. While scanning, the transceiver checks for a signal on each channel and only stops if a signal is present.

To begin scanning, press the key programmed as **[Scan]**.

- The ↻ indicator appears (type I only).
- The LED blinks green (type II only).
- When a signal is detected on a channel, Scan pauses at that channel. The transceiver will remain on the busy channel until the signal is no longer present, at which time Scan resumes.

To stop scanning, press the **[Scan]** key again.

Note: To use Scan, there must be at least 2 channels in the scan sequence.

TEMPORARY CHANNEL LOCKOUT

During scan, you can temporarily remove specific channels from the scanning sequence by selecting them and pressing the key programmed as **[Scan Delete/Add]**.

- The channel is no longer scanned. However, when scanning is ended and restarted, the channels are reset and deleted channels will again be in the scanning sequence.

PRIORITY SCAN

If a Priority channel has been programmed, the transceiver will automatically change to the Priority channel when a call is received on that channel, even if a call is being received on a normal channel.

- The **[P]** indicator appears when the selected channel is the Priority channel (depending on dealer setting) (type I only).

SCAN REVERT

The Scan Revert channel is the channel selected when you press the **PTT** switch to transmit during scan. Your dealer can program one of the following types of Scan Revert channels:

- **Selected:** The last channel selected before scan.
- **Selected + Talkback:** Same as “Selected”, plus you can respond to calls on the channel at which scan is paused.
- **Priority:** The Priority channel.
- **Priority + Talkback:** Same as “Priority”, plus you can respond to calls on the channel at which scan is paused.
- **Last Called + Selected:** The last channel on which you receive a call.

SCAN DELETE/ADD

You can add and remove zones and/or channels/group IDs to and from your scan list.

- 1 Select your desired zone and/or channel/group ID.
- 2 Press the key programmed as **[Zone Delete/Add]** (to add/remove zones) or **[Scan Delete/Add]** (to add/remove channels/group IDs) (type I only).
 - You can also press and hold the key programmed as **[Scan Delete/Add]** to add/remove zones.

FleetSync: ALPHANUMERIC 2-WAY PAGING FUNCTION

FleetSync is an Alphanumeric 2-way Paging Function, and is a protocol owned by JVC KENWOOD Corporation.

Note: This function is available only in analog operation.

SELCALL (SELECTIVE CALLING)

A Selcall is a voice call to a station or group of stations.

■ Transmitting (Type I Only)

- 1 Select your desired zone and channel.
- 2 Press the key programmed as [**Selcall**] to enter Selcall mode.
- 3 Press the <**B** or **C**> key to select the station you want to call.
 - If Manual Dialing is enabled, you can directly enter the station ID.
- 4 Press the **PTT** switch and begin your conversation.

■ Receiving

An alert tone will sound and the transceiver will enter Selcall mode. The calling station's ID will appear when a Selcall is received (type I only). You can respond to the call by pressing the **PTT** switch and speaking into the microphone.

■ Identification Codes

An ID code is a combination of a 3-digit Fleet number and a 4-digit ID number. Each transceiver has its own ID.

- Enter a Fleet number (100 ~ 349) to make a group call.
- Enter an ID number (1000 ~ 4999) to make an individual call in your fleet.
- Enter a Fleet number to make a call to all units in the selected fleet (Fleet call).

STATUS MESSAGE (TYPE I ONLY)

You can send and receive 2-digit Status messages which may be decided in your talk group. Messages can contain up to 16 alphanumeric characters. Status messages range from 10 to 99 (80 ~ 99 are reserved for special messages).

A maximum of 15 received messages (combined status messages and short messages) can be stored in the stack memory of your transceiver.

■ Transmitting

- 1 Select your desired zone and channel.
- 2 Press the key programmed as [**Status**] to enter Status mode (proceed to step 5) or [**Selcall + Status**] to enter Selcall mode (proceed to step 3).
- 3 Press the **<B** or **C>** key to select the station you want to call.
 - If Manual Dialing is enabled, you can enter a station ID by using the DTMF keypad, or by using the **Selector**. When using the **Selector**, cycle through the digits to select a digit, then press the **S** key to set the digit and move the cursor to the right. Repeat this process until the entire ID is entered.
- 4 Press the **S** or ***** key to enter Status mode.
- 5 Press the **<B** or **C>** key to select the status you want to transmit.
 - If Manual Dialing is enabled, you can enter a status ID by using the DTMF keypad, or by using the **Selector** (refer to step 3, above).
- 6 Press the **PTT** switch or **Side 2** key to initiate the call.
 - “COMPLETE” appears on the display when the status has been successfully transmitted.

■ Receiving

A calling ID or text message will appear when a Status call is received. Press any key to return to normal operation.

■ Reviewing Messages in the Stack Memory

- 1 Press the key programmed as [**Stack**], or press and hold the key programmed as [**Selcall**], [**Status**], or [**Selcall + Status**] to enter Stack mode.
 - The last received message is displayed.
- 2 Press the **<B** or **C>** key to select the desired message.
 - Message types are identified as follows:
ID: Caller ID, ST: Status Message, ME: Short Message
 - Press and hold the **S** key for 1 second to cycle the display information as follows:
ID Name > Status/Short Message > CH/GID
- 3 Press the **Side 1** key to return to normal operation.
 - To delete the selected message, press the **A** key. To confirm the deletion, Press the **S** key.
 - To delete all messages, press and hold the **A** or **#** key for 1 second. To confirm the deletion, Press the **S** or ***** key.

SHORT MESSAGES

This transceiver can receive short data messages which contain a maximum of 48 characters.

- Received short messages are displayed the same as Status messages. A maximum of 15 received messages (combined status messages and short messages) can be stored in the stack memory of your transceiver.

GPS REPORT

To send your location data, you must first connect a GPS unit to the transceiver. GPS data can be manually transmitted by pressing the key programmed as [**Send the GPS data**]. If set up by your dealer, GPS data may be automatically transmitted at a preset time interval.

TRUNKING CALLS (ANALOG)

PLACING A DISPATCH CALL

- 1 Select the desired zone and group ID using the selector and the Zone or CH/GID keys.
- 2 Press and hold the **PTT** switch.
- 3 If the “PTT Proceed” tone sounds, communication is possible; start speaking into the microphone. Release the **PTT** switch to receive.
 - For best sound quality at the receiving station, hold the microphone approximately 1.5 inches (3 ~ 4 cm) from your mouth.
 - Your dealer can deactivate the Proceed PTT tone, if necessary. Ask your dealer for details.

RECEIVING A DISPATCH CALL

- 1 When a dispatch call is received, the transceiver will automatically change to the correct group ID and you will hear the call.
- 2 Readjust the volume as necessary.

PLACING A TELEPHONE CALL

- 1 Select the desired zone and group ID using the selector and the Zone or CH/GID keys.
 - Alternatively, you can press the key programmed as [**Auto Telephone**] to automatically search for a Telephone Repeater.
- 2 Press and hold the **PTT** switch for approximately 1 second to ensure a connection.
 - Confirm that there is a dial tone after you release the **PTT** switch.
- 3 Place the call, following the instructions for making a DTMF call, starting on page 21.

- 4 When the called party responds, press the **PTT** switch and speak into the microphone. Release the **PTT** switch to receive.
 - Only one person can speak at a time.
- 5 To end the call, press and hold the **PTT** switch, then press the # key or the key programmed as [**Telephone Disconnect**].

RECEIVING A TELEPHONE CALL

- 1 When a telephone call is received, the transceiver will automatically change to the correct group ID and you will hear the call.
 - A ringer tone will sound when a call is received.
- 2 Press and hold the **PTT** switch to speak, and release it to receive.
 - Only one person can speak at a time.
- 3 To end the call, press and hold the **PTT** switch, then press the # key or the key programmed as [**Telephone Disconnect**].

ADVANCED OPERATIONS

DTMF (DUAL TONE MULTI FREQUENCY) CALLS

■ Making a DTMF Call (Type I Only)

Manual Dialing

- 1 Press and hold the **PTT** switch.
- 2 Enter the desired digits using the DTMF keypad.
 - If you release the **PTT** switch, transmit mode will end even if the complete number has not been sent.
 - If the Keypad Auto PTT function has been enabled by your dealer, you do not need to press the **PTT** switch to transmit; you can make the call simply by pressing the DTMF keys.

Store & Send

- 1 Press the key programmed as [**Autodial**].
- 2 Enter up to 30 digits using the DTMF keypad.
 - Alternatively, you can enter digits by using the **Selector**.
- 3 Press the **PTT** switch to make the call.

■ Autodial (Type I Only)

Autodial allows you to quickly call DTMF numbers that have been programmed onto your transceiver.

- 1 Press the key programmed as [**Autodial**].
 - The first entry in the Autodial list appears on the display.
- 2 Press the **<B** or **<C>** key to select your desired Autodial list number, or enter the list number directly (01 ~ 32).
 - The stored entry appears on the display.
- 3 Press the **PTT** switch to make the call.

■ Stun Code

This function is used when a transceiver is stolen or lost. When the transceiver receives a call containing a stun code, the transceiver becomes disabled. The stun code is cancelled when the transceiver receives a call with a revive code.

EMERGENCY CALLS

If your transceiver has been programmed with the Emergency function, you can make emergency calls.

- 1 Press and hold the key programmed as **[Emergency]**.
 - Ask your dealer for the length of time necessary to hold this key before the transceiver enters Emergency mode.
 - When the transceiver enters Emergency mode, it will change to the Emergency channel and begin transmitting based on how it is set up by your dealer.
- 2 To exit Emergency mode, press the **[Emergency]** key again.
 - If the Emergency mode completes a preset number of cycles, Emergency mode will automatically end and the transceiver will return to the zone and channel that was in use before Emergency mode was entered.

Note:

- ◆ Your dealer can set the transceiver to emit a tone when transmitting in Emergency mode.
- ◆ Your dealer can set the transceiver to emit tones and received signals as normal, or mute the speaker during Emergency operation.

■ Activity Detection

Press the key programmed as **[Activity Detection]**, to toggle Activity Detection ON and OFF. If an event occurs while Activity Detection is enabled, the transceiver enters Emergency mode.

Note:

- ◆ When Activity Detection has been turned off, and the transceiver power is then turned off and back on, Activity Detection is automatically enabled.
 - ◆ When using this function, verify that it operates before taking the transceiver.
-

■ Activity Reset

While Activity Detection is active, press the key programmed as **[Activity Reset]** to reset the Activity Detection countdown timer. This will allow you to remain in a tilted or stationary position, etc., without the Emergency mode activating unnecessarily.

SCRAMBLER

Press the key programmed as **[Scrambler/ Encryption]**, to switch the transceiver to secure (encrypted) transmission.

- Pressing the **PTT** switch after the Scrambler function has been turned ON encrypts the transmitted signal.

SIGNALING

■ Quiet Talk (QT)/ Digital Quiet Talk (DQT)

Your dealer may have programmed QT or DQT signaling on your transceiver channels. A QT tone/ DQT code is a sub-audible tone/code which allows you to ignore (not hear) calls from other parties who are using the same channel.

Operator Selectable Tone (Type I Only)

If a key has been programmed with **[OST]**, you can reprogram the QT/DQT settings on each of your channels.

- 1 Select your desired channel.
- 2 Press and hold the key programmed as **[OST]** for 1 second.
- 3 Press the **<B** or **C>** key to select your desired tone or code.
 - Your dealer can set up to 40 tones/codes.
- 4 Press the **S** or ***** key to save your new setting.

- 5 When you have finished operating using OST, press the [OST] key again to turn the OST function OFF.

■ Radio Access Number (RAN)

RAN is a new signaling system designed for digital radio communications.

When a channel is set up with a RAN, squelch will only open when a call containing a matching RAN is received. If a call containing a different RAN is made on the same channel you are using, you will not hear the call. This allows you to ignore (not hear) calls from other parties who are using the same channel.

■ Optional Signaling

Your dealer may also program several types of optional signaling for your transceiver channels.

2-tone Signaling: 2-tone Signaling opens the squelch only when your transceiver receives a call containing matching 2 tones.

DTMF Signaling: DTMF Signaling opens the squelch only when the transceiver receives a call containing a matching DTMF code.

FleetSync Signaling: Refer to “SELCALL (SELECTIVE CALLING)” on page 16.

NXDN ID Signaling: NXDN ID is an optional signaling system available only for digital communications.

VOICE OPERATED TRANSMISSION (VOX)

VOX can be activated or deactivated by your dealer. VOX operation allows you to transmit hands-free.

Note: To operate VOX, you must use an optional headset.

■ VOX Gain Level (Type I Only)

- 1 Connect the headset to the transceiver.
- 2 Press the key programmed as **[VOX]**.
 - The current VOX Gain level appears on the display.
- 3 Press the **<B** or **C>** key to increase or decrease the VOX Gain level.
 - The VOX Gain can be adjusted from levels 1 to 10.
- 4 While adjusting the level, speak into the headset microphone to test the sensitivity level. (Your voice is not transmitted during this test procedure.)
 - When sound is recognized, the LED lights orange.
- 5 Press the **S** or ***** key to save the setting.

■ VOX Operation

- 1 Connect the headset to the transceiver.
- 2 Press and hold the key programmed as **[VOX]** for 2 seconds.
- 3 To transmit, simply speak into the microphone.
 - The transceiver recognizes sound levels depending on the VOX Gain level. If it is too sensitive, it will transmit when there is noise in the background. If it is not sensitive enough, it will not pick up your voice when you begin speaking.
- 4 When you finish speaking, transmission ends.
- 5 To turn the VOX function OFF, press and hold the **[VOX]** key again, for 2 seconds.

Note: If a speaker/ microphone is connected to the transceiver while VOX is ON, and the VOX Gain Level is set to a sensitive level, louder received signals may cause the transceiver to transmit.

BACKGROUND OPERATIONS

Your dealer can activate a variety of transceiver functions to perform without any additional operation on your part.

TIME-OUT TIMER (TOT)

The Time-out Timer prevents you from using a channel for an extended duration. If you continuously transmit for a preset time, the transceiver will stop transmitting and an alert tone will sound. Release the **PTT** switch.

BATTERY SAVER

The Battery Saver can be activated only on Conventional channels. This function decreases the amount of power used when a signal is not being received and no operations are being performed.

KEY LOCK





Press the key programmed as [**Key Lock**] to lock and unlock the transceiver keys.

- The following keys still function when Key Lock is activated: Emergency, Backlight, Monitor, Monitor Momentary, Squelch Off, Squelch Off Momentary, Function, Key Lock, and PTT.

LOW BATTERY WARNING

■ Battery Power Icon (Type I Only)

Your dealer can set an alert tone to sound and the LED indicator to blink red when the battery power is low. The battery power icon displays the battery power remaining, as described in the table below. When the battery power is very low, recharge or replace the battery pack.

			
High	Sufficient	Low	Very low





■ Battery Indicator (Type II Only)


Press the key programmed as **[Battery Indicator]**. The LED lights for 2 seconds, displaying the battery power remaining, as described in the table below. When the battery power is very low, recharge or replace the battery pack.

Lights Green	Lights Orange	Lights Red	Blinks Red
High	Sufficient	Low	Very low

SIGNAL STRENGTH INDICATOR (TYPE I ONLY)

The signal strength indicator displays the strength of received calls. No icon appears when no signal is available.

			
Strong	Sufficient	Weak	Very weak

 flashes when out of range (NXDN Trunking only).

COMPANDER

If programmed by your dealer for a channel, the compander will remove excessive noise from transmitted signals, to provide higher clarity of signals.

Note: The compander is used only in analog operation.

BUSY CHANNEL LOCKOUT (BCL)

On Conventional channels, if BCL is set up by your dealer, you will be unable to transmit if the channel is already in use. Use a different channel or wait until the channel becomes free.

If BCL Override has been programmed, you can transmit over the current signal:

- 1 Press and hold the **PTT** switch.
 - If the channel is already in use, a warning tone will sound.
- 2 Quickly release and then press the **PTT** switch again.
- 3 Speak into the transceiver as you would during a normal call.

CONTROL CHANNEL HUNT

On digital Trunking channels, the transceiver automatically searches for a control channel.

- While searching for a control channel, the antenna icon will flash (type I only) and no signals can be received.

PTT ID

PTT ID is the transceiver unique ID code which is sent each time the **PTT** switch is pressed and/or released.

Note: PTT ID can be made only in analog operation.

VOICE ANNUNCIATION

When changing the zone, channel, and/or group, an audio voice will announce the new zone, channel and group number.

KENWOOD

使用说明书



NEXEDGE

VHF 数字模拟双模手持对讲机

NX-220

UHF 数字模拟双模手持对讲机

NX-320

JVCKENWOOD Corporation

鸣谢惠购

感谢您选择 KENWOOD 产品用于您的陆地移动无线电应用。

本使用说明书仅包含该 NEXEDGE 便携式无线电设备的基本操作。
对于设备上可能添加的定制化功能，请咨询经销商。

NXDN™

NXDN™ 是使用 4 级 FSK 技术的新型数字通信系统的一个协议名称，由 JVC KENWOOD 和 Icom 共同开发。

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。


本产品所采用的 AMBE+2™ 语音编码技术受 Digital Voice Systems, Inc.（数字语音系统公司）知识产权（包括专利权、商标权和商业机密）的保护。此语音编码技术仅授权使用于本通信设备。该技术的使用人员明确禁止尝试提取、移除、破译、反向编译或拆除该技术编码，或以其他方式将技术编码转换为可供阅读的格式。美国专利编号 #5, 826, 222、#5, 754, 974、#5, 701, 390、#5, 715, 365、#5, 649, 050 以及 #5, 630, 011。

固件版权

JVC 建伍株式会社保留 KENWOOD 产品存储器内嵌固件的产权和版权的所有权。

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）	×	○	○	×	○	○
○：表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T26572-2011 标准规定的限量要求以下。						
×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 GB/T26572-2011 标准规定的限量要求。						

	<p>此图标表示了中国《电子信息产品污染控制管理办法》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。</p> <p>附件和消耗性零件的环保使用期限如下所示：</p>
---	--

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。
- 靠近各种机械和电器时，请勿将麦克风电缆挂在颈部周围，因为机械和电器可能会使电缆缠住。
- 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。
- 请勿将对讲机浸入水中。
- 安装选件前，一定要关闭对讲机的电源。
- 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。
- 请遵从国家或地方的有关法律法规废弃电池。



警告

在下列场合要关闭对讲机的电源：

- 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。
- 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。



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。
- 如果使用市场销售的脖子挂件时，请注意不要让挂件被附近的机器夹住。
- 在空气干燥地区操作对讲机时容易产生电荷（静电）。当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。

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。



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。 请勿用装金属物体（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。

- **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。

- **仅使用规定的充电器并遵守充电要求！**

如果电池在规定以外的条件下（超过规定值的高温， 超高压或超过规定值的电流条件下， 或者使用改造过的充电器）充电， 可能会过充或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。



危险

- **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。
- **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。

目录

拆开包装箱并检查设备.....	1
准备工作.....	2
介绍.....	6
可编程辅助功能.....	9
基本操作.....	11
扫描.....	14
FleetSync : 数字字母双向寻呼功能.....	16
集群呼叫 (模拟).....	19
高级操作.....	21
后台操作.....	26

拆开包装箱并检查设备

注：以下拆箱说明供 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。如果有物品缺失或损坏，请立即向承运人提出书面要求。

随机附件

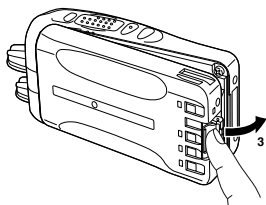
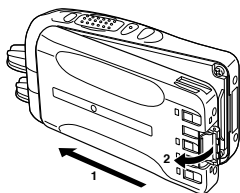
皮带夹.....	1
扬声器 / 麦克风插孔盖.....	1
扬声器 / 麦克风锁定架.....	1
止动器 (仅限 I 型).....	1
使用说明书.....	1

注：请向经销商咨询有关止动器的事宜。

准备工作

安装 / 拆卸电池组（选件）

- 1 使电池组导向装置对准通信机背面上部的凹槽，然后将电池组牢牢地按压到位。
- 2 锁定安全锁，以防电池组意外松脱。
- 3 若要取出电池组，请上提安全锁，按压释放闩，然后将电池组从通信机中抽出。



注：

- ◆ 有关电池组的充电过程及用法，请参阅电池充电器的使用说明书。
- ◆ 电池组在出厂时未充电。使用前请为其充电。
- ◆ 在为通信机中安装的电池组充电之前，请确保安全锁已锁紧。

安装 / 取出碱性电池（电池盒为选件）



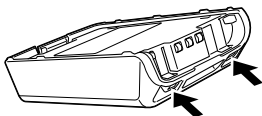
警告

- ◆ 请勿在危险环境中安装电池，以免因火星引起爆炸。
- ◆ 切勿将电池丢弃在火中；超高温可导致电池爆炸。
- ◆ 请勿短接电池盒端子。
- ◆ 请勿使用充电电池。

注：

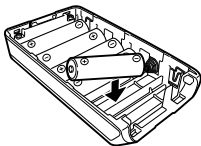
- ◆ 如果打算很长时间不使用通信机，请将电池从电池盒中取出。
- ◆ 本电池盒采用约 1 瓦的发射功率设计（通信机上的低功率设置）。如果想发射更强的信号（使用通信机的高功率设置），请使用充电电池组选件。

1 若要打开电池盒，请按压电池盒后端上部的两个突起，然后将两部分拉开。

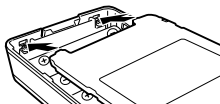


2 将 6 节 AA (LR6) 碱性电池装入电池盒。

- 确保电池的极性与电池盒底端标记的极性相符。

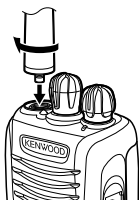


3 让盒盖的突起与底座对齐，然后下压盒盖，直至其锁定到位。



安装天线（选件）

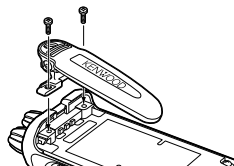
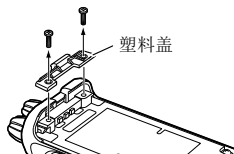
握住天线底座并顺时针转动，直至拧紧，以此将天线固定到通信机顶端的连接器上。



安装皮带夹

注：初次安装皮带夹时，必须先从通信机的背面将电池组取出。

- 1 将通信机背面的两颗螺丝拧下，然后取下上面的小黑色塑料盖条。
- 2 将皮带夹卡座插入通信机背面的空位内。
- 3 利用两颗螺丝将皮带夹固定就位。



注意

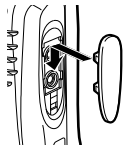
- 未安装皮带夹时，请保持塑料盖条不动。
- 安装皮带夹时，切勿使用胶水来防止螺丝松脱，否则可能导致通信机损坏。胶水中所含的丙烯酸酯会引起通信机的后面板开裂。

安装扬声器 / 麦克风插孔盖

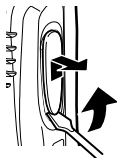
不使用扬声器 / 麦克风选件时，请安装扬声器 / 麦克风插孔盖。

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 盖好插孔盖，使锁定突起插入通信机凹槽内。



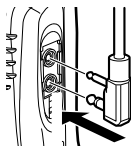
- 2 将插孔盖放好，然后向通信机底端方向按压，直至插孔盖上的突起咔哒一声就位。
 - 若要取下插孔盖，请用手指握住插孔盖的顶端，同时在插孔盖的底部插入一把厚度不超过 3 mm 的平刃螺丝刀。将螺丝刀缓慢滑入，直至其尖端触及插孔盖内的突起，然后轻轻将插孔盖上撬（螺丝刀的手柄向通信机外移动），从而将插孔盖取下。



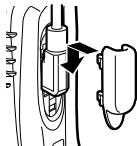
安装扬声器 / 麦克风（选件）

注：使用扬声器 / 麦克风或头戴式耳机时，通信机不具备完全防水性能。

- 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。

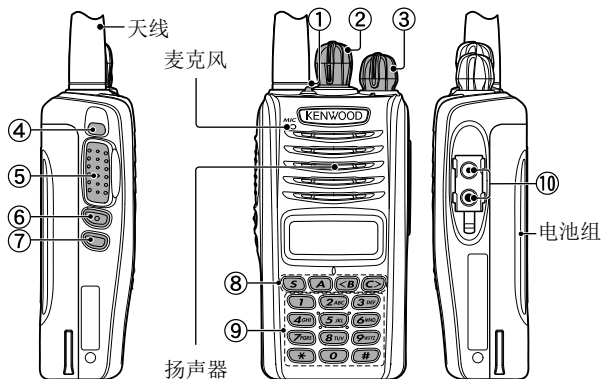


- 3 将锁定架放好，然后向通信机底端方向按压，直至锁定架上的突起咔哒一声就位。
 - 若要取下锁定架，请沿底座上推锁定架。

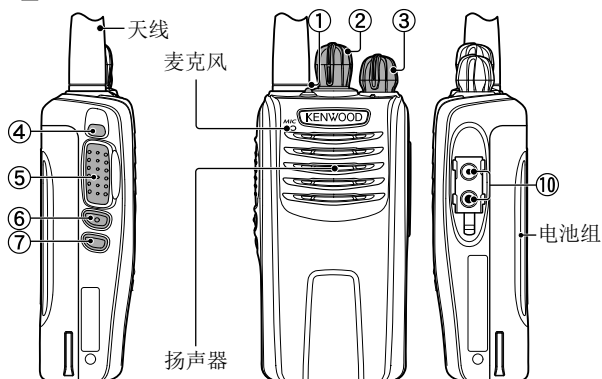


介绍

I 型

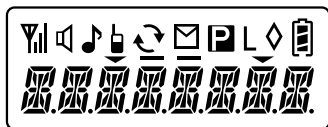


II 型



- ① **发射 / 接收 / 电池不足指示灯**
在经销商启用的情况下，发射时将亮红色，接收呼叫时将亮绿色（仅限常规信道），而接收可选信令呼叫时则亮橙色。若在发射时出现电池电量不足的情况，则闪烁红色。
- ② **选择器旋钮**
旋转可选择区域或信道 / 组 ID（默认）。
- ③ **电源开关 / 音量控制**
旋转可开 / 关通信机及调节音量。
- ④ **辅助（橙色）键**
按下可启动其可编程功能 { 第 9 页 }。
- ⑤ **PTT（按下通话）开关**
按住此开关，然后对着麦克风讲话，可呼叫某个电台。
- ⑥ **侧面按键 1**
按下可启动其可编程功能 { 第 9 页 }。
默认为 [瞬时静噪打开]。
- ⑦ **侧面按键 2**
按下可启动其可编程功能 { 第 9 页 }。
I 型：默认设置为 [背光照明]。
II 型：默认设置为 [无]（没有功能）。
- ⑧ **S、A、<B、C> 键（仅限 I 型）**
按下可启动其可编程功能 { 第 9 页 }。
S 和 A 键：默认设置为 [无]（没有功能）。
<B 键：默认设置为 [区域下调]。
C> 键：默认设置为 [区域上调]。
- ⑨ **键盘（仅限 I 型）**
按这些键可发送 DTMF 音。如果有某个可编程功能键被设置为 [功能]，则也可以将这些键设置为第二功能 { 第 9 页 }。
- ⑩ **扬声器 / 麦克风插孔**
将扬声器 / 麦克风插头或头戴式耳机插头插入该插孔中 { 第 5 页 }。

显示屏（仅限 I 型）



指示	说明
	信号强度指示 { 第 27 页 }。
	启动监听或静噪打开。
	在来电与可选信令匹配时闪烁。
	启动脱网通信。
	正在扫描。暂停扫描时闪烁。
	存储器中存有信息。当有新信息到达时闪烁。
	当前信道为优先信道。
	信道使用的是低发射功率。
	启动扰频器 / 加密功能。
	电池电量指示 { 第 26 页 }。
	当前区域（左侧图标）或信道 / 组 ID（右侧图标）被添加到扫描中。
	启动 VOX。
	未用。

可编程辅助功能

选择器、辅助（橙色）、侧面按键 1、侧面按键 2、S 键、A 键、<B 键和 C> 键以及键盘可设置为以下所列的功能。有关这些功能的详情，请向经销商咨询。

- 无
- 2 音^{1,10}
- 活动检测
- 活动复位
- 自动拨号¹
- 自动拨号编程¹
- 自动电话²
- 背光照明¹
- 电池指示灯³
- 广播⁴
- 呼叫 1 ~ 6
- 信道 / 组 ID 下调
- 信道 / 组 ID 调出
- 信道 / 组 ID 选择⁵
- 信道 / 组 ID 上调
- 信道输入¹
- CW 信息⁶
- 直接信道 / 组 ID 1 ~ 5
- 直接信道 / 组 ID 选择 1 ~ 5
- 显示格式¹
- 紧急报警⁷
- 固定音量
- 强制搜索⁴
- 功能
- GPS 位置显示¹
- 组呼^{1,6}
- 组呼 + 短信息^{1,8}
- 组呼 + 状态^{1,8}
- 归属信道 / 组 ID
- 归属信道 / 组 ID 选择
- 单呼^{1,8}
- 单呼 + 短信息^{1,8}
- 单呼 + 状态^{1,8}
- 键盘锁定
- 单独工作者
- 低发射功率
- 维护¹
- 监听⁹
- 瞬时监听⁹
- 操作者可选亚音 (OST)^{1,10}
- 优先信道选择^{1,11}
- 扫描
- 扫描删除 / 添加
- 扰频器 / 加密
- 选择呼叫^{1,12}
- 选择呼叫 + 短信息^{1,12}
- 选择呼叫 + 状态^{1,12}
- 发送 GPS 数据
- 短信息¹
- 基站下调⁴
- 基站锁定⁴
- 基站选择^{4,5}
- 基站上调⁴
- 静噪级别^{1,10}
- 静噪打开¹⁰
- 瞬时静噪打开¹⁰
- 堆栈¹
- 状态¹
- 脱网通信⁹

- 电话挂断²
- 通信机密码¹
- 声控发射¹¹
- 区域删除 / 添加
- 区域下调
- 区域选择⁵
- 区域上调

¹ 仅可用于 I 型。

² 仅可用于模拟集群操作。

³ 仅可用于 II 型。

⁴ 仅可用于 NXDN 集群操作。

⁵ 只能设置在选择器上。

⁶ 仅可用于 NXDN 常规操作。

⁷ 只能设置在辅助（橙色）键上。

⁸ 仅可用于 NXDN 常规操作和 NXDN 集群操作。

⁹ 仅可用于模拟常规操作、模拟集群操作和 NXDN 常规操作。

¹⁰ 仅可用于模拟常规操作。

¹¹ 仅可用于模拟常规操作和 NXDN 常规操作。

¹² 仅可用于模拟常规操作和模拟集群操作。

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。

■ 通信机密码（仅限 I 型）

如果通信机有密码保护，则在使用通信机之前，必须先输入密码。

- 1 旋转**选择器**，选择密码的第一个数字。
- 2 按 **S** 或 *** 键** 确认输入并移到下一数字。
 - 按 **A** 或 **# 键** 可删除错误的数字。
- 3 重复步骤 1 和 2，输入完整密码。
 - 密码最多可包含 6 位数字。
- 4 按 **S** 或 *** 键**，确认输入的密码。
 - 如果您输入了不正确的密码，会发出错误音提示，并且通信机保持锁定。

音量调节

旋转**电源开关 / 音量控制**可调节音量。顺时针旋转可提高音量，逆时针旋转则降低音量。

选择区域和信道 / 组 ID

利用设置为 [**区域选择**] 或 [**区域上调 / 区域下调**] 的键可以选择所需的区域。每个区域可包含多个信道。

利用**选择器**旋钮（默认）选择想要的信道 / 组 ID。每个信道 / 组 ID 均可进行发射和接收设置。

发射

- 1 选择想要的区域和信道 / 组 ID。
- 2 按下设置为 [监听] 或 [静音打开] 的键，检查信道是否空闲。
 - 如果信道繁忙，请等待直至信道空闲。
- 3 按 PTT 开关并对着麦克风讲话。松开 PTT 开关则转换到接收状态。
 - 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。

■ 组呼（数字）（仅限 I 型）

如果某个键设置为 [组呼]，则可从列表中选择 一个组呼 ID，并在常规信道上向它们发出呼叫。

选择组呼 ID：

- 1 按下设置为 [组呼] 的键。
- 2 按 <B 或 C> 键，从列表中选择 一个组呼 ID/ 名称。
- 3 按住 PTT 开关进行呼叫。
 - 像在常规发射期间那样对着通信机讲话。

■ 单呼（数字）（仅限 I 型）

如果某个键设置为 [单呼]，则可向特定的人发出呼叫。

- 1 按下设置为 [单呼] 的键。
- 2 按 <B 或 C> 键，从列表中选择 一个单呼 ID。
 - 也可直接输入单呼 ID。
- 3 按住 PTT 开关进行呼叫。
 - 像在常规发射期间那样对着通信机讲话。

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。

注：信令允许通信机对呼叫进行编码。这样可以避免听到不想要的呼叫。详情请参阅第 23 页上的“信令”。

■ 接收组呼（数字）

在常规信道上接收到组呼且接收到的组 ID 与通信机设置的 ID 匹配时，即可听到呼叫者的声音。

在集群信道上接收到组呼时，通信机会自动切换至通信信道来接收呼叫。


■ 接收单呼（数字）

接收到单呼时，会响起振铃，呼叫者的 ID 会出现在显示屏上（仅限 I 型）。若要响应呼叫，请按住 PTT 开关并像在常规发射期间那样对着通信机讲话。

扫描

扫描功能可监听通信机信道上的信号。扫描时，通信机将检查每个信道的信号，并仅在某个信号存在的情况下才会停止。

若要开始扫描，请按下设置为 [扫描] 的键。

- 将出现  指示（仅限 I 型）。
- LED 将闪烁绿色（仅限 II 型）。
- 当在某个信道上检测到信号时，扫描就会暂停在该信道上。通信机将处在繁忙信道上，直至信号消失，之后扫描继续。

若要停止扫描，请再次按 [扫描] 键。

注：若要使用扫描功能，在扫描序列中至少要有 2 个信道。

信道暂时锁定

在扫描过程中，您可以选择特定的信道并按下设置为 [扫描删除 / 添加] 的键，以此将特定的信道从扫描序列中删除。

- 相应的信道将不再予以扫描。但是，当扫描停止，然后重新开始时，将重设信道，删除的信道会再次出现在扫描序列中。

优先扫描

如果设置了优先信道，当在优先信道上接收到呼叫时通信机将自动切换到优先信道，即使正在一个普通信道上接收呼叫。

- 当所选信道为优先信道时（取决于经销商设置），将出现 **P** 指示（仅限 I 型）。

扫描返回

扫描返回信道就是扫描期间按下 PTT 开关进行发射时所选的信道。经销商能够在以下扫描返回信道类型中设置一种信道：

- **选择**：扫描前所选的最后一个信道。
- **选择 + 当前通话**：同“选择”，此外还可以在扫描暂停的信道上响应呼叫。
- **优先**：优先信道。
- **优先 + 当前通话**：同“优先”，此外还可以在扫描暂停的信道上响应呼叫。
- **最后呼叫 + 选择**：您收到呼叫的最后一个信道。

扫描删除 / 添加

用户可以向扫描列表中增删区域和 / 或信道 / 组 ID。

- 1 选择想要的区域和 / 或信道 / 组 ID。
- 2 按下设置为 [**区域删除 / 添加**] (添加 / 删除区域) 或 [**扫描删除 / 添加**] (添加 / 删除信道 / 组 ID) 的键 (仅限 I 型)。
 - 也可以按住设置为 [**扫描删除 / 添加**] 的键来添加 / 删除区域。

FleetSync : 数字字母双向寻呼功能

FleetSync 是一种数字字母双向寻呼功能，它是一个所有权归属 JVC 建伍株式会社的协议。

注：该功能仅可用于模拟操作。

选择呼叫

选择呼叫是对某一无线电台或一组无线电台的语音呼叫。

■ 发射（仅限 I 型）

- 1 选择想要的区域和信道。
- 2 按下设置为 [选择呼叫] 的键，进入选择呼叫模式。
- 3 按 <B 或 C> 键，选择要呼叫的无线电台。
 - 如果启用了手动拨号，则可以直接输入该无线电台的 ID。
- 4 按 PTT 开关并开始对话。

■ 接收

此时会响起提示音，通信机将进入选择呼叫模式。当接到选择呼叫时，会显示来电无线电台的 ID（仅限 I 型）。若要响应呼叫，请按 PTT 开关并对着麦克风讲话。

■ 识别码

识别码是一个由 3 位队号和 4 位 ID 号组成的代码。每台通信机都有自己的 ID 号。

- 输入队号 (100 ~ 349) 可进行组呼。
- 输入 ID 号 (1000 ~ 4999) 可在您所在的队中进行单呼。
- 输入队号可对选中的队的所有成员进行呼叫（队号呼叫）。

状态信息（仅限 I 型）

您可以发射和接收 2 位的状态信息，该状态信息可在您的通话群组中确定。信息最多可包含 16 个字母数字字符。状态信息的取值范围为 10 到 99（80 ~ 99 是为特殊信息而保留的）。

通信机的堆栈存储器最多可存储 15 个收到的信息（包括状态信息和短信息）。

■ 发射

- 1 选择想要的区域和信道。
- 2 按下设置为 [状态] 的键进入状态模式（转到步骤 5），或按下设置为 [选择呼叫 + 状态] 的键进入选择呼叫模式（转到步骤 3）。
- 3 按 <B 或 C> 键，选择要呼叫的无线电台。
 - 如果启用了手动拨号，您可以使用 DTMF 键盘或选择器输入无线电台 ID。使用选择器时，在循环显示的数字中选择一个，再按 S 键设置此数字，同时将光标右移。重复上述过程，直至整个 ID 全部输入。
- 4 按 S 或 * 键，进入状态模式。
- 5 按 <B 或 C> 键，选择要发射的状态。
 - 如果启用了手动拨号，您可以使用 DTMF 键盘或选择器输入状态 ID（参阅上面的步骤 3）。
- 6 按 PTT 开关或侧面按键 2，发起呼叫。
 - 状态成功发射后，显示屏上会出现“COMPLETE”字样。

■ 接收

当收到状态呼叫时，会出现呼叫 ID 或文本信息。按任意键将返回正常操作状态。

■ 查看堆栈存储器中的信息

- 1 按下设置为 [堆栈] 的键,或按住设置为 [选择呼叫]、[状态] 或 [选择呼叫 + 状态] 的键,进入堆栈模式。
 - 显示最后收到的信息。
- 2 按 <B 或 C> 键,选择所需的信息。
 - 信息类型如下:
ID: 呼叫方 ID; ST: 状态信息; ME: 短信息
 - 按住 S 键并保持 1 秒钟,滚动查看以下信息:
ID 名 > 状态 / 短信息 > 信道 / 组 ID
- 3 按侧面按键 1,返回正常操作状态。
 - 若要删除所选的信息,请按 A 键。若要确认删除,请按 S 键。
 - 若要删除所有信息,请按住 A 或 # 键并保持 1 秒钟。若要确认删除,请按 S 或 * 键。

短信息

本通信机可接收最多包含 48 个字符的短数据信息。

- 接收到的短信息与状态信息的显示方式相同。通信机的堆栈存储器最多可存储 15 个收到的信息 (包括状态信息和短信息)。

GPS 报告

若要发射您的位置数据,首先必须将一部 GPS 装置连接到通信机上。按下设置为 [发送 GPS 数据] 的键,可以手动发射 GPS 数据。如果经过经销商设置, GPS 数据可以以预置的时间间隔自动发射。

集群呼叫（模拟）

进行调度呼叫

- 1 用选择器和区域或信道 / 组 ID 键选择想要的区域和组 ID。
- 2 按住 PTT 开关。
- 3 如果发出“PTT Proceed” PTT 进行音，说明可以进行通信。请对着麦克风讲话。松开 PTT 开关转换到接收状态。
 - 为使接收电台获得最佳的音质，嘴和麦克风之间应保持约 3 ~ 4 厘米的距离。
 - 必要时，经销商可以停用“Proceed PTT” PTT 进行音。详情请向经销商咨询。

接收调度呼叫

- 1 收到调度呼叫时，通信机会自动切换到正确的组 ID，此时会听到呼叫。
- 2 必要时可重新调整音量。

进行电话呼叫

- 1 用选择器和区域或信道 / 组 ID 键选择想要的区域和组 ID。
 - 也可以按下设置为 [自动电话] 的键，从而自动搜索电话中继站。
- 2 按住 PTT 开关约 1 秒钟，确保连接好。
 - 松开 PTT 开关后，确认有拨号音。
- 3 遵照进行 DTMF 呼叫的有关说明进行呼叫（第 21 页）。

- 4 当被叫方响应时，请按 **PTT** 开关并对着麦克风讲话。松开 **PTT** 开关转换到接收状态。
 - 同一时间只能一个人说话。
- 5 若要结束呼叫，请按住 **PTT** 开关，然后按 **#** 键或按下设置为 [电话挂断] 的键。

接收电话呼叫

- 1 收到电话呼叫时，通信机会自动切换到正确的组 ID，此时会听到呼叫。
 - 收到呼叫时，会响起振铃。
- 2 按住 **PTT** 开关讲话，松开开关则接收呼叫。
 - 同一时间只能一个人说话。
- 3 若要结束呼叫，请按住 **PTT** 开关，然后按 **#** 键或按下设置为 [电话挂断] 的键。

DTMF（双音多频）呼叫

■ 进行 DTMF 呼叫（仅限 I 型）

手动拨号

- 1 按住 PTT 开关。
- 2 用 DTMF 键盘输入想要的数字。
 - 如果松开 PTT 开关，即使未发送完数字，发射模式也将终止。
 - 如果经销商已启用键盘自动 PTT 功能，则无需按 PTT 开关进行发送；您只需按下 DTMF 键即可进行呼叫。

存储并发送

- 1 按下设置为 [自动拨号] 的键。
- 2 用 DTMF 键盘输入最多 30 个数字。
 - 也可利用选择器输入数字。
- 3 按下 PTT 开关进行呼叫。

■ 自动拨号（仅限 I 型）

自动拨号允许您快速呼叫已在通信机上进行了编程的 DTMF 号码。

- 1 按下设置为 [自动拨号] 的键。
 - 显示屏上将出现自动拨号列表的第一个条目。
- 2 按 <B 或 C> 键选择您希望拨打的自动拨号号码，或直接输入号码 (01 ~ 32)。
 - 显示屏上将出现已存储的条目。
- 3 按下 PTT 开关进行呼叫。

■ 遥毙码

本功能用于通信机被盗或丢失时。当通信机接收到包含了遥毙码的呼叫时，通信机即变为不可用。当收到含有恢复码的呼叫时，遥毙才会被取消。

紧急呼叫

如果通信机对紧急报警功能已进行了编程，则可进行紧急呼叫。

1 按住设置为 [紧急报警] 的键。

- 咨询经销商在通信机进入紧急报警模式前，需按住该键的时间长度。
- 进入紧急报警模式后，通信机将切换到紧急报警信道，并根据经销商的设置情况开始发射。

2 若要退出紧急报警模式，请再次按 [紧急报警] 键。

- 当紧急报警模式完成预设次数的循环后，紧急报警模式会自动终止，通信机将自动返回在进入紧急报警模式之前正在使用的区域和信道。

注：

- ◆ 经销商可以对通信机进行设置，使其在紧急报警模式下发射时发出某种提示音。
- ◆ 经销商可以对通信机进行设置，使其在紧急报警操作中像平常一样发出提示音和接收信号，或使扬声器静音。

■ 活动检测

按下设置为 [活动检测] 的键可以打开 / 关闭活动检测功能。如果在启用活动检测的情况下有事件发生，通信机就会进入紧急报警模式。

注：

- ◆ 关闭活动检测后，如果关闭通信机电源又重新打开，就会自动启用活动检测功能。
 - ◆ 使用该功能时，请在使用通信机之前确认该功能是否正常。
-

■ 活动复位

当启用活动检测时，按下设置为 [活动复位] 的键可复位活动检测的倒数计时器。这样即可保持倾斜或静止状态，而不会启动紧急报警模式。

扰频器（语音加密）

按下设置为 [扰频器 / 加密] 的键可以将通信机切换到安全(加密)发射状态。

- 扰频器（语音加密）功能打开后，按下 PTT 开关可对发出的信号进行加密。

信令

■ 亚音频 (QT)/ 数字亚音频 (DQT)

经销商可能已将 QT 或 DQT 信令预编程在通信机信道上。QT 亚音 / DQT 代码是一种亚音频 / 代码，使您可以忽略（听不到）来自正在使用同一信道的其他人的呼叫。

操作者可选亚音（仅限 I 型）

如果某一按键设置为 [OST]，则可在各信道上重新对 QT / DQT 设置进行编程。

- 1 选择想要的信道。
- 2 按住设置为 [OST] 的键 1 秒钟。
- 3 按 <B 或 C> 键，选择所需的亚音或代码。
 - 经销商可以设置多达 40 种亚音 / 代码。
- 4 按 S 或 * 键，保存新的设置。
- 5 利用 OST 完成操作后，再次按 [OST] 键关闭 OST 功能。

■ 无线电接入号 (RAN)

RAN 是一种设计用于数字无线电通信的新信令系统。

当信道设置 RAN 时，只有在收到包含匹配 RAN 的呼叫时才会打开静噪。如果在所用的同一信道上进行含有不同 RAN 的呼叫，则不会听到此呼叫。这样即可忽略（听不到）来自正在使用同一信道的其他人的呼叫。

■ 可选信令

经销商也可能为通信机信道编程了若干类型的可选信令。

2- 音信令：只有当通信机收到包含匹配的 2 音的呼叫时，2- 音信令才会打开静噪。

DTMF 信令：只有当通信机收到包含匹配的 DTMF 代码的呼叫时，DTMF 信令才会打开静噪。

FleetSync 信令：请参阅第 16 页上的“选择呼叫”。

NXDN ID 信令：NXDN ID 是一个可选信令系统，仅可用于数字通信。

声控发射 (VOX)

经销商可以启动或停用 VOX 功能。VOX（声控）操作允许进行免提发射。

注：若要操作 VOX，必须使用选购的头戴式耳机。

■ VOX 增益电平（仅限 I 型）

- 1 将头戴式耳机连接至通信机。
- 2 按下设置为 [VOX] 的键。
 - 显示屏上将出现当前的 VOX 增益电平。
- 3 按 <B 或 C> 键可增大或减小 VOX 增益电平。
 - VOX 增益电平可在 1-10 级的范围内进行调节。
- 4 在调节电平的同时，对着头戴式耳机麦克风讲话，以此测试灵敏度（在此测试过程中不会将您的声音发射出去）。
 - 识别出声音时，LED 将亮橙色。
- 5 按 S 或 * 键，保存设置。

■ VOX（声控）操作

- 1 将头戴式耳机连接至通信机。
- 2 按住设置为 [VOX] 的键 2 秒钟。
- 3 若要进行发射，只需对着麦克风讲话。
 - 通信机会根据 VOX 增益电平来识别声级。如果它非常灵敏，就会在背景有噪音的情况下进行发射。如果它还不够灵敏，则在开始讲话时不会拾取您的声音。
- 4 讲完话时，发射即告结束。
- 5 若要关闭 VOX 功能，请再次按住 [VOX] 键 2 秒钟。

注：在打开 VOX 功能的情况下，如果通信机上连接有扬声器 / 麦克风，而且 VOX 增益电平设为灵敏水平，则过大声音的接收信号可导致通信机开始发射。

后台操作

无需您的额外操作，经销商可激活通信机的许多功能。

超时定时器 (TOT)

超时定时器可以防止一个用户过久地使用某一信道。如果用户连续发射超过了规定时间，通信机将停止发射并发出警告提示音。此时请松开 PTT 开关。

电池省电

只有在常规信道上才能启动电池省电功能。该功能可以减少未接收信号及未执行操作时的耗电量。

键盘锁定





按下设置为 [键盘锁定] 的键可锁定和解锁通信机上的按键。

- 在启用键盘锁定的情况下，仍可以使用以下按键功能：紧急报警、背光照明、监听、瞬时监听、静噪打开、瞬时静噪打开、功能、键盘锁定及 PTT。

低电池警告

■ 电池电量图标（仅限 I 型）

经销商可以设置在电池电量不足时发出警告提示音并使 LED 指示灯闪烁红色。电池电量图标显示了电池的剩余电量，如下表所述。当电池电量非常低时，请为电池组充电或更换电池组。

			
高	中	低	非常低





■ 电池指示灯（仅限 II 型）


按下设置为 [电池指示灯] 的键。LED 将点亮 2 秒钟，上面显示电池的剩余电量，如下表所述。当电池电量非常低时，请为电池组充电或更换电池组。

亮绿色	亮橙色	亮红色	闪烁红色
高	中	低	非常低

信号强度指示（仅限 I 型）

信号强度指示显示了接收到的呼叫的强度。无信号时没有图标出现。

			
强	中	弱	非常弱

超出服务区时， 会闪烁（仅限 NXDN 集群）。

压扩器

如果经销商针对某一信道进行了编程，压扩器将从发射的信号中去除多余的噪音，从而提供更清晰的信号。

注：压扩器仅可用于模拟操作。

繁忙信道锁定 (BCL)

在常规信道中，在经销商已设置 BCL 的情况下，如果信道处于使用状态，则无法进行发射。请换用其他信道或者等待该信道空闲。

如果已设置为“忽略 BCL”，则可在当前信号上进行发射：

- 1 按住 PTT 开关。
 - 如果该信道已在使用中，则会发出警告提示音。
- 2 快速松开然后再次按住 PTT 开关。
- 3 像在常规呼叫期间那样对着通信机讲话。

控制信道搜索

在数字集群信道上，通信机会自动搜索控制信道。

- 搜索控制信道时，天线图标将闪烁（仅限 I 型），这时不能接收任何信号。

PTT ID

PTT ID 是通信机特有的 ID 代码，每次按下和 / 或松开 PTT 开关时将发送该代码。

注：PTT ID 仅可用于模拟操作。

语音通告

当更改区域、信道和 / 或组时，有一个语音将播报新的区域、信道和组号。