

VHF DIGITAL TRANSCEIVER

NX-3210R

USER GUIDE



JVCKENWOOD Corporation

B5A-4497-00 (K)



This user guide only describes the basic operation of your radio. For detailed instructions on how to use the instruction manual and the information on software license, please refer to the URL .



<https://manual.kenwood.com/files/B5K-1150-00.pdf>

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.

JVCKENWOOD Corporation shall be free from any responsibilities for any incidental losses or damages, such as missing communications or call opportunities caused by a failure or performance error of the 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. #7,970,606, #8,359,197, #8,315,860, and #8,595,002.

Firmware Copyrights

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

PRECAUTIONS

Observe the following precautions to prevent fire, personal injury, and transceiver damage.

- 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 low 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

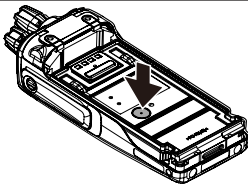
Turn the transceiver power off before entering the following locations:

- 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.

Turn the transceiver power off before entering the following locations, unless the model is specifically qualified for such use (Intrinsically Safe such as approved by CSA):

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

Do not remove the black sheet from the reverse side of the transceiver (refer to the illustration right). 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.
- In case of condensation, let it dry naturally or leave it in the same environment for a long time before using it.
- 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 battery.
- Do not short-circuit the battery.
- Do not incinerate or apply heat to the battery.
- Do not leave the battery near fires, stoves, or other heat generators (areas reaching over 80°C/ 176°F).
- Do not immerse the battery in water or get it wet by other means.
- Do not charge the battery near fires or under direct sunlight.
- Use only the specified charger and observe charging requirements.
- Do not pierce the battery with any object, strike it with an instrument, or step on it.
- Do not jar or throw the battery.
- Do not use the battery pack if it is damaged in any way.
- Do not solder directly onto the battery.
- Do not reverse the battery polarity (and terminals).
- Do not reverse-charge or reverse-connect the battery.
- Do not touch a ruptured and leaking battery. If the electrolyte liquid from the battery gets into your eyes, wash your eyes out 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.
- Do not place the battery pack into a microwave or high pressure container.
- Keep ruptured and leaking battery packs away from fire.
- Do not use an abnormal battery.
- Do not change or charge the battery in hazardous locations.

SUPPLIED ACCESSORIES

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

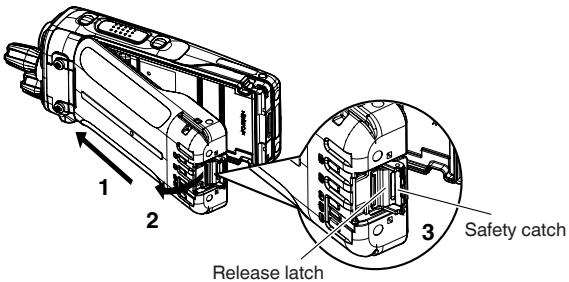
Item	Quantity
Universal connector cap	1
Screw for universal connector cap	1
Channel stopper	1
Belt clip (KBH-11)	1
Screw for belt clip	2
User guide	1

Note:

- ◆ For the universal connector, waterproof performance is guaranteed by connecting an optional KENWOOD speaker/ microphone or by securing the supplied cap.

INSTALLING/ REMOVING THE 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.

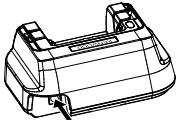


CHARGING THE BATTERY PACK

ATTENTION:

- ◆ Always switch OFF a transceiver equipped with a battery pack before inserting the transceiver into the charger.

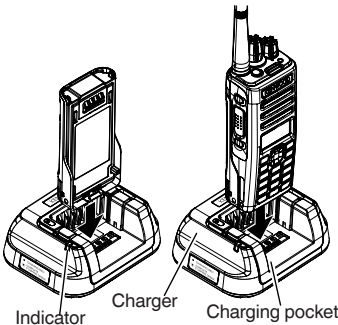
- 1 Connect the DC plug of the AC adapter to the DC IN jack on the rear of the charger.
- 2 Plug the AC adapter into an AC outlet.
 - When the charger is turned on, the indicator lights as follows: Red > Green > Off



- 3 Slide a battery pack or a transceiver equipped with a battery pack into the charging slot.

- Make sure the metal contacts of the battery pack mate securely with the charger terminals.
- The indicator lights red and charging starts.

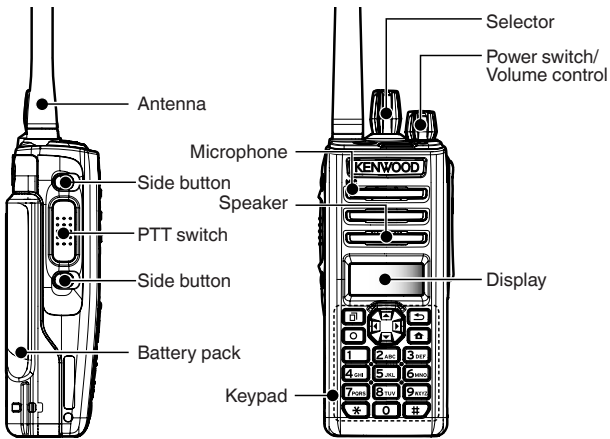
- 4 When charging is completed, the indicator flashing green. Remove the battery pack or the transceiver from the charging slot.



Note:

- ◆ When the indicator will flashing red or will not light, the battery pack is either defective or the battery pack contacts are not properly mated with those of the charger.
- ◆ When the indicator flashes green and orange, the battery pack has not satisfied the charging start temperature. Remove the battery pack from the charger and wait until it reaches a normal temperature before charging it again.
- ◆ The ambient temperature should be between 5°C and 40°C (41°F and 104°F) while charging is in progress. Charging outside this range may not fully charge the battery.
- ◆ The battery pack life is over when its operating time decreases even though it is fully and correctly charged. Replace the battery pack.
- ◆ When the charger will not be used for a long time, unplug the AC adapter from the AC outlet.

BASIC OPERATION



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.

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

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

Select the desired channel using the **Selector** or the buttons programmed as **[Channel Up]/ [Channel Down]**. Each channel is programmed with settings for transmitting and receiving.

TRANSMITTING

- 1 Select the desired zone and channel.
- 2 Press the button 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 to the microphone. Release the **PTT switch** to receive.
 - For best sound quality, hold the transceiver approximately 3 ~ 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.

RADIO FREQUENCY ENERGY SAFETY INFORMATION

This **KENWOOD** transceiver has been tested and complies with the standards listed below, in regards to Radio Frequency (RF) energy and electromagnetic energy (EME) generated by the transceiver.

- FCC RF exposure limits for Occupational Use Only. RF Exposure limits adopted by the FCC are generally based on recommendations from the National Council on Radiation Protection and Measurements, & the American National Standards Institute.
- FCC OET Bulletin 65 Edition 97-01 Supplement C
- American National Standards Institute (C95.1 – 1992)
- American National Standards Institute (C95.3 – 1992)

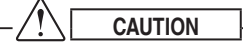


This **KENWOOD** transceiver generates RF EME while transmitting. RF EME (Radio Frequency Electric & Magnetic Energy) has the potential to cause slight thermal, or heating effects to any part of your body less than the recommended distance from this radio transmitter's antenna. RF energy exposure is determined primarily by the distance to and the power of the transmitting device. In general, RF exposure is minimized when the lowest possible power is used or transmission time is kept to the minimum required for consistent communications, and the greatest distance possible from the antenna to the body is maintained. The transceiver has been designed for and is classified for Occupational Use Only. Occupational/controlled exposure limits are applicable to situations in which persons are exposed to RF energy as a consequence of their employment, and such persons have been made aware of the potential for exposure and can exercise control over their exposure. This means you can use the transceiver only if you are aware of the potential hazards of operating a transceiver and are familiar in ways to minimize these hazards. This transceiver is not intended for use by the general public in uncontrolled environments. Uncontrolled environment exposure limits are applicable to situations in which the general public may be exposed to RF energy, or in which the persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

The following list provides you with the information required to ensure that you are aware of RF exposure and of how to operate this transceiver so that the FCC RF exposure limitations are not exceeded.

- While transmitting (holding the PTT switch or speaking with VOX enabled), always keep the antenna and the radio at least 3 cm (1.18 inches) from your body or face, as well as from any bystanders. A LED on the top of the radio shows red when the transmitter is operating in both PTT and VOX modes.
- Do not transmit for more than 50% of the total transceiver use time; transmitting over 50% of the total use time may exceed the limits in accordance to the FCC RF exposure requirements. Nominal transceiver operation is 5% transmission time, 5% reception time, and 90% stand-by time.
- Use only the specified antenna for this transceiver; this may be either the antenna provided with the transceiver or another antenna authorized by **KENWOOD**.

Use only **KENWOOD** authorized accessories (antennas, battery packs, belt clips, Speaker/ Mics or headsets etc.): When worn on the body, always place the radio in a **KENWOOD** recommended clip or carrying case meant for this product. The use of other than recommended or approved body-worn accessories may result in RF exposure levels which exceed the FCC's occupational/ controlled environment RF exposure limits.



To ensure that your exposure to RF EME is within the FCC limits for occupational use, you must observe and adhere to the above points.

Electromagnetic Interference Compatibility

Electronic devices are susceptible to electromagnetic interference (EMI) if they are not adequately shielded or designed for electromagnetic compatibility. Because this transceiver generates RF energy, it can cause interference to such equipment.

- Turn OFF your transceiver where signs are posted to do so. Hospitals and health care facilities use equipment that is sensitive to electromagnetic radiation.
- Turn OFF your transceiver while on board an aircraft when so instructed. Use of the transceiver must be in accordance with airline regulations and/or crew instructions.

One or more of the following statements may be applicable:

FCC WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved by the party responsible/ JVCケンウッド. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

INFORMATION TO THE DIGITAL DEVICE USER REQUIRED BY THE FCC

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

This equipment generates, uses and can generate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer for technical assistance.

SUPPLIER'S DECLARATION OF CONFORMITY

47 CFR § 2.1077 Compliance Information

Trade name: KENWOOD

Model(s): NX-3210R-K3

Responsible party: JVCKENWOOD USA Corporation 1440 Corporate Drive,
Irving, TX 75038 USA

Telephone number: 972-819-0700



The RBRC Recycle seal found on KENWOOD lithium-ion (Li-Ion) battery packs indicates KENWOOD's voluntary participation in an industry program to collect and recycle Li-Ion batteries after their operating life has expired. The RBRC program is an alternative to disposing Li-Ion batteries with your regular refuse or in municipal waste streams, which is illegal in some areas.

For information on Li-ion battery recycling in your area, call (toll free) 1-800-8-BATTERY (1-800-822-8837).

KENWOOD's involvement in this program is part of our commitment to preserve our environment and conserve our natural resources.