

KENWOOD

TK-D240 TK-D240V
TK-D340 TK-D340U
TK-D348R

VHF DIGITAL TRANSCEIVER
UHF DIGITAL TRANSCEIVER

USER MANUAL



JVCKENWOOD Corporation

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CONTENTS

PREPARATION.....	4
INSTALLING THE CHANNEL STOPPER.....	4
INSTALLING THE ANTENNA.....	4
INSTALLING/ REMOVING THE BATTERY PACK.....	5
INSTALLING THE BELT CLIP.....	5
INSTALLING THE CAP OVER THE SPEAKER/ MICROPHONE JACKS.....	6
INSTALLING THE OPTIONAL SPEAKER/ MICROPHONE (OR HEADSET).....	7
ORIENTATION.....	8
PROGRAMMABLE FUNCTIONS.....	9
BASIC OPERATION.....	12
SWITCHING POWER ON/OFF.....	12
Transceiver Password.....	12
ADJUSTING THE VOLUME.....	12
SELECTING A ZONE AND CHANNEL.....	12
TRANSMITTING.....	12
RECEIVING.....	13
Receiving Group Calls.....	13
Receiving Individual Calls.....	13
LED INDICATOR STATUS.....	13
VOICE OPERATED TRANSMISSION (VOX).....	14
FleetSync: ALPHANUMERIC 2-WAY PAGING FUNCTION.....	15
SELCALL (SELECTIVE CALLING).....	15
Transmitting.....	15
Receiving.....	15
Identification Codes.....	15
Paging Call.....	15
SCAN.....	16
PRIORITY SCAN.....	16
TEMPORARY CHANNEL LOCKOUT.....	16
SCAN DELETE/ ADD.....	16

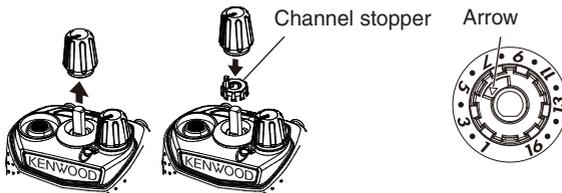
ADVANCED OPERATIONS..... 17
 EMERGENCY CALLS 17
 Lone Worker Mode 17
 SCRAMBLER..... 17
 MONITOR/ SQUELCH OFF 18
DMR..... 19
 INDIVIDUAL/ GROUP CALLS 19
 Receiving 19
BACKGROUND OPERATIONS..... 20
 TIME-OUT TIMER (TOT) 20
 BATTERY SAVER 20
 LOW BATTERY WARNING 20
 BUSY CHANNEL LOCKOUT (BCL)..... 20
 PTT ID 21
 SIGNALING 21
 QT/ DQT 21
 DTMF 21
 2-Tone 21
 5-Tone 21
 COMPANDER 21
 VOICE ANNUNCIATION 21

PREPARATION

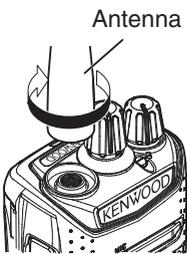
INSTALLING THE CHANNEL STOPPER

You can set the channel stopper position for channels 2, 4, 6, 8, 10, 12, and 14. Inserting the Channel stopper prevents unnecessarily selecting channels which do not exist.

- Selecting a channel which does not exist causes a continuous error tone to sound.
- 1 Set the Channel selector to channel 1, then pull the Channel selector knob off the transceiver.
 - If the Channel selector is not positioned at channel 1, the knob may not install correctly and the channel may be unable to change.
 - 2 Insert the channel stopper.
 - 3 Set the arrow of the Channel stopper to the highest channel number for the transceiver.
 - 4 Reinsert the Channel selector knob.



INSTALLING THE ANTENNA



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.

Note:

- ◆ The antenna is neither a handle, a key ring retainer, nor a speaker/ microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.
-

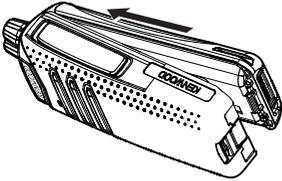
INSTALLING/ REMOVING THE BATTERY PACK

The battery pack is not charged at the factory; charge it before use.

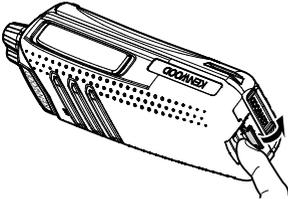


CAUTION

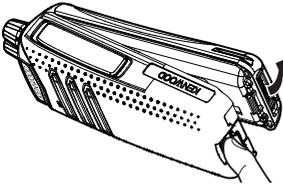
- ◆ Do not short the battery terminals or dispose of the battery by fire.
- ◆ Never attempt to remove the casing from the battery pack.



1 Align the battery pack with the back of the transceiver, then press the battery pack and transceiver firmly together until the release latch on the base of the transceiver locks.

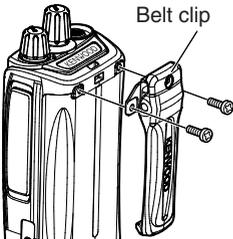


2 To remove the battery pack, lift the safety catch on the base of the transceiver, then press the release latch underneath the safety catch.



3 While pressing the release latch, pull the battery pack away from the transceiver.

INSTALLING THE BELT CLIP



If necessary, attach the belt clip using the two supplied 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

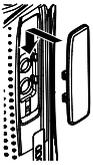
- ◆ Do not use glue which is designed to prevent screw loosening when installing the belt clip, as it may cause damage to the transceiver. Acrylic ester, which is contained in these glues, may crack the transceiver's back panel.

INSTALLING THE CAP OVER THE SPEAKER/ MICROPHONE JACKS

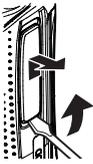
Install the cap over the speaker/ microphone jacks when not using an optional speaker/ microphone or headset.

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.



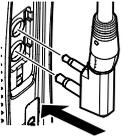
- 2 While holding the cap in place, push it towards the bottom of the transceiver until the tabs on the cap click into place.

- To remove the cap, hold the top of the cap in place with your finger while inserting a 2 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.

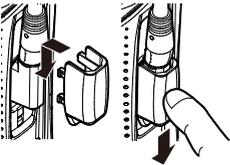
INSTALLING THE OPTIONAL SPEAKER/ MICROPHONE (OR HEADSET)

Note:

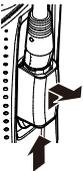
- ◆ The transceiver is not fully water resistant when using a speaker/ microphone or headset.
-



- 1 Insert the speaker/ microphone (or headset) plugs into the speaker/ microphone jacks of the transceiver.

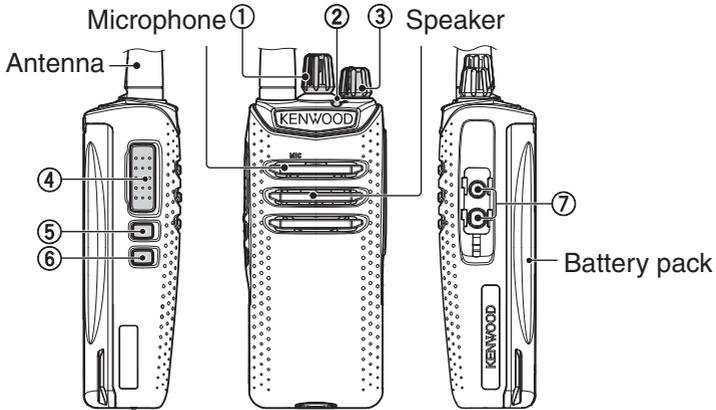


- 2 Place the locking bracket over the speaker/ microphone (or headset) plugs so that the locking tabs insert into the transceiver grooves.
 - Push down on the locking bracket to slide it into place.



- 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



① Selector

Rotate to change the operating channel.

② LED indicator

For the LED indicator status, refer to page 13.

③ Power switch/ Volume control

Turn clockwise to switch ON the transceiver. To switch OFF the transceiver, turn counterclockwise until a click sounds. Rotate to adjust the volume level.

④ PTT (Push to Talk) switch

Press and hold, then speak into the microphone to transmit.

⑤ Side 1 key

Press to activate its programmable function.

⑥ Side 2 key

Press to activate its programmable function.

⑦ Speaker/ microphone jacks

Insert the Speaker/ microphone or Headset plug into this jack.

PROGRAMMABLE FUNCTIONS

The **Selector**, **Side 1** and **Side 2** keys can be programmed with the functions listed below. Ask your dealer for details on these functions.

Note:

- ◆ The duration of pressing a key to activate a function is dependent on your dealer setting. Your dealer may have set some keys to be held down for a short duration instead of being momentarily pressed. Ask your dealer for details on which keys need to be held down to activate their functions.
-

■ None

No function has been programmed.

■ Autodial

Autodial allows you to make a private DTMF call to another party.

■ Broadcast

Toggles the call type between Broadcast Call and Conference Call.

■ Call 1/ Call 2

Initiates a call on the selected channel.

■ Call Interruption

Interrupts a call, stopping it from being received.

■ Channel Down

Decreases the Channel number in steps of 1.

■ Channel Down (Continuous)

Hold down this key to continuously decrease the Channel number.

■ Channel Select

Selects the Channel number.

Note:

- ◆ This function can be programmed only on the Selector.
-

■ Channel Up

Increases the Channel number in steps of 1.

■ Channel Up (Continuous)

Hold down this key to continuously increase the Channel number.

■ Emergency

Places the transceiver into Emergency mode. Emergency mode is used to carry out emergency actions.

Note:

- ◆ This function can be programmed only on the **Side 1** key.
-

■ Home Channel

Press this key to immediately select your home channel (pre-programmed by your dealer).

■ Home Channel Select

Hold down this key to set the current channel as the Home Channel.

■ Key Lock

Press to lock/unlock the transceiver keys.

■ Low Transmit Power

Each channel is programmed with either high or low transmit power. On high transmit power channels, press this key to change the transmit power to low power (you cannot change low transmit power channels to use high power).

■ Lone Worker

Toggles Lone Worker mode ON and OFF.

■ Monitor

Turns the transceiver signaling off, to listen to all calls that are received on the channel. Press this key again to turn the transceiver signaling back on.

■ Monitor Momentary

Turns the transceiver signaling off while holding down this key. Release this key to turn the transceiver signaling back on. While signaling is off, you can listen to all calls that are received on the channel.

■ OVCM

Toggles OVCM (Open Voice Channel Mode) between ON and OFF.

■ Paging Call

To transmit your PTT ID list, to request a call.

■ Priority-channel Select

Press this key in normal mode to set the current channel as the Priority channel.

■ Scan

Press this key to start scanning the transceiver channels.

■ Scan Delete/Add

Adds or removes the selected Channel to or from the scan sequence.

■ Scrambler

Toggles the Scrambler function ON and OFF.

Note:

- ◆ This function cannot be used in certain countries. Contact your **KENWOOD** dealer for further information.
-

■ Squelch Off

Press to hear background noise. Press this key again to return to normal operation.

■ Squelch Off Momentary

Hold down this key to hear background noise. Release this key to return to normal operation.

■ Talk Around

Toggle Talk Around function ON and OFF. Talk Around function allows you to communicate directly with other transceivers, without the use of a repeater.

■ Zone Delete/Add

Toggles the Zone status between deleted and added.

■ Zone Down

Decreases the zone number in steps of 1.

■ Zone Down (Continuous)

Hold down this key to continuously decrease the Zone number.

■ Zone Select

Selects the Zone number.

Note:

- ◆ This function can be programmed only on the Selector.
-

■ Zone Up

Increases the zone number in steps of 1.

■ Zone Up (Continuous)

Hold down this key to continuously increase the Zone number.

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.

Transceiver Password

If your transceiver is password protected, the LED will light blue when you turn the transceiver ON. Enter the password (up to 4 digits) using the following procedure.

- 1 Set the **Selector** to position “1”.
- 2 Press the **Side 1** or **Side 2** key to enter the first digit.
 - The Side 1 key increases the digit value and the Side 2 key decreases it. The transceiver announces the digit number as it changes.
- 3 Repeat step 2 for **Selector** positions 2 ~ 4.
 - If there are less than 4 password digits, repeat for only the number of digits the password contains.
- 4 Press the **PTT** switch to confirm the password.
 - When the correct password is entered, the Blue LED turns 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

- 1 Select the desired zone using the key programmed as [**Zone Up**] or [**Zone Down**].
 - Each zone contains a group of channels.
- 2 Select the desired channel using the Selector (default).
 - Each channel is programmed with settings for transmitting and receiving.

TRANSMITTING

- 1 Select the desired zone and channel.
- 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 at the receiving station, hold the microphone approximately 1.5 inches (3 cm to 4 cm) 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.

Receiving Group Calls

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

Receiving Individual Calls

When you receive an individual call, a ringing tone will sound. To respond to the call, press and hold the **PTT** switch and speak into the transceiver as you would during a normal transmission.

LED INDICATOR STATUS

Indicator Color	Meaning
Lights red	Transmitting
Lights green	Receiving a call
Lights blue	The Transceiver Password function is programmed.
Blinks red	Battery power is low while transmitting
Blinks green	Scanning
Blinks orange or blue *	Receiving an encoded call (signaling, etc.)
Blinks red/orange	The selected channel has not been programmed and cannot be used.

- Your dealer can set the LED to blink either orange or blue for Transceiver operation.

VOICE OPERATED TRANSMISSION (VOX)

VOX operation allows you to transmit hands-free. This feature must first be activated by your dealer, and can only be used if you are using a supported headset. VOX can be turned off for specific channels by your dealer. To activate VOX and set the VOX Gain level, perform the following steps:

- 1 Connect a headset to the transceiver.
 - The VOX function does not activate when a headset is not connected to the accessory terminal of the transceiver.
- 2 With the transceiver power OFF, press and hold the **Side 1** key while turning the transceiver power ON.
- 3 Continue to hold the **Side 1** key until a beep sounds.
 - The LED indicator lights orange.
 - When the **Side 1** key is released, the transceiver will announce the VOX Gain level.
- 4 Press the **Side 1** key to set the VOX Gain level, from 1 (least sensitive) to 10 (most sensitive).
 - Press the **Side 2** key to enable or disable the VOX function for the current channel (you can change this setting for each channel by selecting a channel with the Channel selector). When turned ON, a beep sounds. When turned OFF, a double beep sounds.
- 5 Press the **PTT** switch to save the setting.
 - A beep will sound.
 - The transceiver announces the new VOX Gain level.
- 6 Turn the transceiver power OFF and then ON again to activate VOX.

Note:

- ◆ If key lock or key lock with status memory is ON, you will be unable to enter VOX setup mode.
 - ◆ If a headset is connected to the transceiver while the VOX function is switched ON and the VOX Gain level is configured to a higher, more sensitive level, louder received signals may cause the transceiver to start transmitting.
 - ◆ If no operation is performed for 20 seconds, the transceiver will exit VOX setup mode.
-

FleetSync: ALPHANUMERIC 2-WAY PAGING FUNCTION

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

SELCALL (SELECTIVE CALLING)

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

Transmitting

- 1 Select your desired zone and channel.
- 2 Press the **PTT** switch to transmit your PTT ID list and begin your conversation.

Receiving

If enabled by your dealer, an alert tone will sound and the LED will blink when a Selcall has been received.

To respond to the call, press the **PTT** switch and speak 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 must have its own Fleet and ID number.

Note:

- ◆ The ID range may be limited by programming.
-

Paging Call

- 1 Select your desired zone and channel.
- 2 Press the key programmed as [**Paging Call**] to transmit your PTT ID list, to request a call.

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 matching signal is present.

To start/ stop scanning, press the key programmed as **[Scan]**.

- When a signal is detected, 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.

Note:

- ◆ To use Scan, there must be at least 2 channels added to 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 call is being received on a normal channel.

TEMPORARY CHANNEL LOCKOUT

During scan, you can temporarily remove specific channels from the scanning sequence by pressing the key programmed as **[Scan Delete/Add]** while Scan is paused at the undesired channel.

- The channel is no longer scanned. However, when scanning is ended and restarted, the Scan settings return to normal.

SCAN DELETE/ ADD

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

- 1 Select your desired zone and/or channel.
- 2 Press the key programmed as **[Zone Delete/Add]** (to add/remove zones) or **[Scan Delete/Add]** (to add/remove channels).

ADVANCED OPERATIONS

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.
-

Lone Worker Mode

Lone Worker Mode is a safety feature built into the transceiver. If the transceiver is not operated for a pre-programmed period of time, the transceiver will emit a tone and automatically enter Emergency operation.

Press the key programmed as **[Lone Worker]** to toggle the Lone Worker function ON or OFF.

SCRAMBLER

The Scrambler function allows you to hold a conversation in complete privacy. When activated, any other party listening in on your channel will be unable to understand your conversation.

Press the key programmed as **[Scrambler]** to toggle the Scrambler function ON or OFF.

MONITOR/ SQUELCH OFF

You can use the key programmed as **[Monitor]** or **[Squelch Off]** to listen to weak signals that you cannot hear during normal operation and to adjust the volume when no signals are present on your selected channel.

Your dealer can program a key with one of 4 functions:

- **Monitor:**
Press to deactivate QT, DQT, FleetSync Signaling, or DMR. Press again to return to normal operation.
- **Monitor Momentary:**
Press and hold to deactivate QT, DQT, FleetSync Signaling, or DMR. Release to return to normal operation.
- **Squelch Off:**
Press to hear background noise. Press again to return to normal operation.
- **Squelch Off Momentary:**
Press and hold to hear background noise. Release to return to normal operation.

DMR

DMR is a generic name for a digital communication system protocol utilizing 4-level FSK.

In a DMR Conventional system, communications are realized by sending and receiving digital signals on a DMR digital channel. Using a DMR ID (Unit ID or Group ID) allows the various communications

INDIVIDUAL/ GROUP CALLS

Each channel is set up with an individual or group ID list number. To make a call, select the channel with the ID list number you wish to call, then press the **PTT** switch to start the call.

- Your dealer may also have set Selcall on PTT for Individual or Group calls, allowing you to make an Individual or Group call when pressing the **PTT** switch.
- To page the target transceiver instead of initiating a voice call, press the key programmed as [**Paging Call**].
- If PTT Proceed tone is enabled, the Proceed tone will sound. After the tone ends, you can begin the call.

Receiving

When you receive an individual call, a ringing tone will sound. Respond to the call by pressing the **PTT** switch.

- If the auto reset timer expires before you respond to the call, the call will end. Your dealer can set the duration for the auto reset timer (default is 10 seconds).

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

BACKGROUND OPERATIONS

TIME-OUT TIMER (TOT)

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

BATTERY SAVER

When activated by your dealer, the Battery Saver function decreases the amount of power used after no signal is present and no operations are being performed for 5 seconds. When a signal is received or an operation is performed, Battery Saver turns off.

Note:

- ◆ While the Battery Saver is operating, the LED may flash green when receiving a QT/DQT signal which does not match the QT/DQT tone/code set up in your transceiver.
-

LOW BATTERY WARNING

While operating the transceiver, the Low Battery Warning sounds until the **PTT** switch is released and the LED indicator blinks red when the battery needs recharged or replaced.

BUSY CHANNEL LOCKOUT (BCL)

When activated, BCL prevents you from interfering on a channel that is already in use. Pressing the **PTT** switch will cause a warning tone to sound and the transceiver will not transmit. Release the **PTT** switch to stop the tone.

Note:

- ◆ Ask your dealer for an explanation on how BCL functions when using QT, DQT, or Optional signaling.
-

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.

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.
-

SIGNALING

QT/ DQT

The Encoder/Decoder function uses QT/ DQT to segregate talk groups, so users only hear calls from their own group.

DTMF

A DTMF PTT ID is included for dispatch operations or simple remote control applications. The DTMF decode capabilities include Selective Call ID, Transpond with ID, and “Wild Card” Group Calling.

2-Tone

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

5-Tone

5-tone Signaling opens the squelch only when the transceiver receives the 5 tones programmed in your transceiver. Transceivers that do not transmit the correct tones will not be heard.

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.
-

VOICE ANNUNCIATION

If enabled by your dealer, when changing the zone and channel, an audio voice will announce the new zone and channel number.

KENWOOD

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