KENWOOD
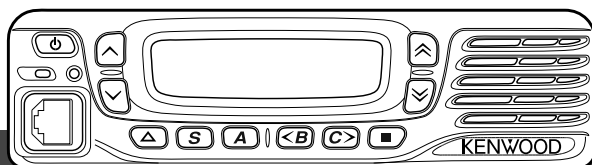
TK-8360

UHF FM TRANSCEIVER

INSTRUCTION MANUAL

JVC KENWOOD Corporation

THANK YOU

We are grateful you have chosen **KENWOOD** for your Citizen Band mobile radio applications

CONTENTS

NOTICES TO THE USER

◆ 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.

⚠ WARNING

◆ **EXPLOSIVE ATMOSPHERES (GASES, DUST, FUMES, etc.)**

Turn OFF your transceiver while taking on fuel or while parked in gasoline service stations. Do not carry spare fuel containers in the trunk of your vehicle if your transceiver is mounted in the trunk area.

◆ **INJURY FROM RADIO FREQUENCY TRANSMISSIONS**

Do not operate your transceiver when somebody is either standing near to or touching the antenna, to avoid the possibility of radio frequency burns or related physical injury.

◆ **DYNAMITE BLASTING CAPS**

Operating the transceiver within 500 feet (150 m) of dynamite blasting caps may cause them to explode. Turn OFF your transceiver when in an area where blasting is in progress, or where "TURN OFF TWO-WAY RADIO" signs have been posted. If you are transporting blasting caps in your vehicle, make sure they are carried in a closed metal box with a padded interior. Do not transmit while the caps are being placed into or removed from the container.

PRECAUTIONS

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

• Do not attempt to configure the transceiver while driving; it is too dangerous.

• Do not disassemble or modify the transceiver for any reason.

• Do not expose the transceiver to long periods of direct sunlight, nor place it near heating appliances.

• If an abnormal odor or smoke is detected coming from the transceiver, switch the transceiver power off immediately, 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 use options not specified by **KENWOOD**.

• Always switch the transceiver power off before installing optional accessories.

⚠ CAUTION

◆ The transceiver operates in 12 V negative ground systems only! Check the battery polarity and voltage of the vehicle before installing the transceiver.

◆ Use only the supplied DC power cable or a **KENWOOD** optional DC power cable.

◆ Do not cut and/or remove the fuse holder on the DC power cable.

◆ Do not place the microphone cable around your neck while near machinery that may catch the cable.

⚠ WARNING

For passenger safety, install the transceiver securely using the supplied mounting bracket and screw set so the transceiver will not break loose in the event of a collision.

GETTING STARTED

SUPPLIED ACCESSORIES

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

DC power cable (with fuses) 1
- 10 A fuse 2

Mounting Bracket 1

Screw set
- 5 x 16 mm self-tapping screw 4
- Hex-headed screw with washer 4
- Spring washer 4
- Flat washer 4

Instruction manual 1

PREPARATION

⚠ WARNING

Various electronic equipment in your vehicle may malfunction if they are not properly protected from the radio frequency energy which is present while transmitting. Typical examples include electronic fuel injection, anti-skid braking, and cruise control. If your vehicle contains such equipment, consult the dealer for the make of vehicle and enlist his/her aid in determining if they will perform normally while transmitting.

■ Power Cable Connection

⚠ CAUTION

The transceiver operates in 12 V negative ground systems only! Check the battery polarity and voltage of the vehicle before installing the transceiver.

1 Check for an existing hole, conveniently located in the firewall, where the power cable can be passed through.
- If no hole exists, use a circle cutter to drill a hole, then install a rubber grommet.

2 Run the power cable through the firewall and into the engine compartment.

3 Connect the red lead to the positive (+) battery terminal and the black lead to the negative (–) battery terminal.
- Place the fuse as close to the battery as possible.

4 Coil the surplus cable and secure it with a retaining band.
- Be sure to leave enough slack in the cables so the transceiver can be removed for servicing while keeping the power applied.

■ Installing the Transceiver

⚠️ **WARNING**

For passenger safety, install the transceiver securely using the supplied mounting bracket and screw set, so the transceiver will not break loose in the event of a collision.

Note: Before installing the transceiver, check how far the mounting screws will extend below the surface. When drilling mounting holes, be careful not to damage vehicle wiring or parts.

1 Mark the position of the holes in the dash, using the mounting bracket as a template. Using a 4.2 mm drill bit, drill the holes, then attach the mounting bracket using the supplied screws.

  • Mount the transceiver within easy reach of the user and where there is sufficient space at the rear of the transceiver for cable connections.

2 Connect the antenna and the supplied power cable to the transceiver.

3 Slide the transceiver into the mounting bracket and secure it using the supplied hex-headed screws.

4 Mount the optional microphone hanger in a location where it will be within easy reach of the user.

  • The microphone and microphone cable should be mounted in a place where they will not interfere with the safe operation of the vehicle.
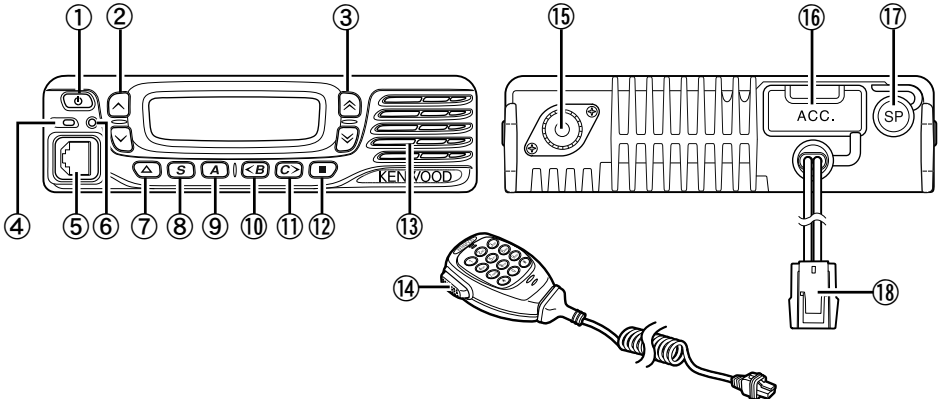
⚠️ **CAUTION**

When replacing the fuse in the DC power cable, be sure to replace it with a fuse of the same value. Never replace a fuse with one that is rated with a higher value.
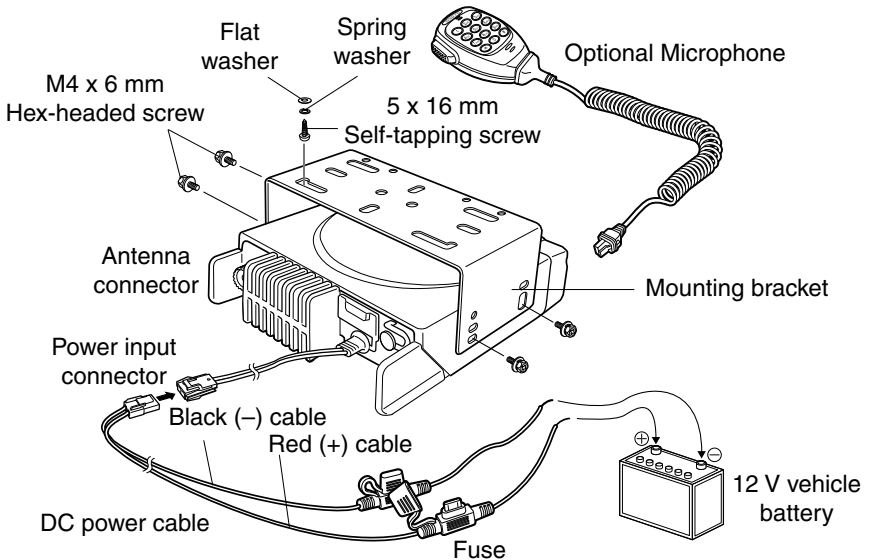
GETTING ACQUAINTED

FRONT AND REAR VIEWS

① ⏻ **(Power) switch**
Press to switch the transceiver ON or OFF.

② ∧ **/** ∨ **keys**
Press the ∧ key to increase the volume. Press the ∨ key to decrease the volume.

③ ≽ **/** ≼ **keys**
Press the ≽ key to increase the channel number. Press the ≼ key to decrease the channel number.

④ **TX/RX Indicator**
Lights red while transmitting and green while receiving a signal.
Flashes orange when receiving an optional signaling call.

⑤ **Microphone jack**
Insert the microphone plug into this jack.

⑥ **Status Indicator**
Lights blue while the Squelch City/Country is selected to "Country mode".

⑦ **[△] key (Squelch Off)**
Press this key to hear background noise. Press the key again to return to normal operation {page 9}.

⑧ **[S] key (Scan)**
Press this key to start Channel scanning {page 11}.

⑨ **[A] key (Scan Delete/Add)**
Press this key to remove an undesired channel from the scanning sequence {page 9}.
Press and hold this key for 1 second to remove an undesired zone from the scanning sequence {page 9}.

⑩ **[<B] key (OST: Operator Selectable Tone)**
Press this key to turn the OST (Operator Selectable Tone) function ON and OFF.
Press and hold this key for 1 second to enter the OST setup mode {page 9}.

6

⑪ **[C>] key (Duplex)**
Press this key to change between Simplex and Duplex operation {page 8}.

⑫ **[■] key (Squelch City/Country)**
Press this key to change between level 8 as "City mode" and 3 as "Country mode" {page 9}.

⑬ **Speaker**
Internal speaker.

⑭ **PTT switch**
Press this switch, then speak into the microphone to call a station.

⑮ **Antenna connector**
Connect the antenna to this connector.

⑯ **ACC connector**
Connect the ACC to this connector, via the optional KCT-60.

⑰ **External speaker jack**
Connect an external speaker to this jack.

⑱ **Power input connector**
Connect the DC Power Cable to this connector.

DISPLAY
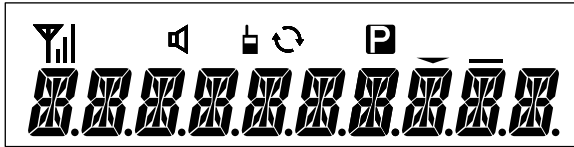
Icon	Description
▼ᵢₗ	Displays the strength of received signals {page 11}.
◁	Appears while Squelch Off.
▐	Appears when the transceiver is operating in Duplex mode.
↻	Appears while Scanning.
▣	The selected channel is the Priority channel.
🮲🮲🮲🮲🮲🮲🮲🮲🮲🮲	The current Channel is added to the scan sequence.
🮲🮲🮲🮲🮲🮲🮲🮲🮲🮲	The OST function is turned ON.

BASIC OPERATIONS

SWITCHING POWER ON/ OFF

Press **[⏻]** to switch the transceiver ON.

• A beep sounds and the display illuminates.

Press **[⏻]** again to switch the transceiver OFF.

ADJUSTING THE VOLUME

Press the **[∧]** key to increase the volume. Press the **[∨]** key to decrease the volume.

• If you are not receiving a signal, press the **[△]** key to unmute the speaker, then adjust the volume control to a comfortable audio output level.

SELECTING A CHANNEL

Select the desired channel using the **[⌃]** and **[⌄]** keys. Press the **[⌃]** key to increase the channel number. Press the **[⌄]** key to decrease the channel number.
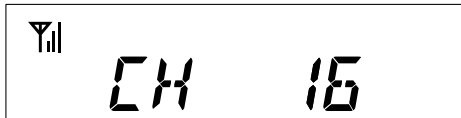
$$CH \quad 1$$

TRANSMITTING/ RECEIVING

To make a call, press and hold the **PTT** switch, then speak into the microphone using your normal speaking voice.

• The LED lights while Transmitting.

• Hold the microphone approximately 3 to 4 cm from our mouth.

Release the **PTT** switch to receive.

• The LED lights while receiving a signal.

$$CH \quad 16$$

SIMPLEX/ DUPLEX SELECT MODE

Press the key programmed as **[C>]** to change between Simplex mode and Duplex (repeater) mode.

• Only channels 1 to 8 and 41 to 48 can be set to Duplex mode. All other channels can be used only in Simplex mode.

• The 🔋 indicator appears while using Duplex mode.

$$CH \quad 8$$
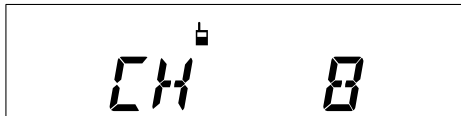
SQUELCH OFF

Press the **[△]** key 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.

• The 📢 indicator appears when the Squelch Off function has been activated.

```
      ◁
  CH    16
```
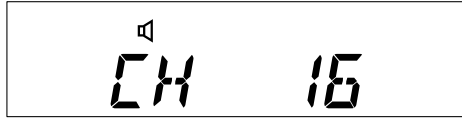
SQUELCH CITY/COUNTRY MODE

Press this **[■]** key to toggle the selected Squelch level at level 8 (City mode: Squelch is open when receiving a strong signal) or level 3 (Country mode: Squelch is open even in weak signal).

• The Status Indicator lights blue while the Squelch City/Country is selected to "Country mode".

CTCSS/DCS

A CTCSS tone is subaudible and is selectable from among 50 CTCSS tone frequencies.

Digital Coded Squelch (DCS) is another application which allows you to ignore (not hear) unwanted calls. It functions the same way as CTCSS. The only differences are the encode/ decode method and the number of selectable codes. For DCS, you can select from 104 different codes.

1 Select the desired channel using the **[⋀]** and **[⋁]** keys.

2 Press the **[<B]** key to turn the OST (Operator Selectable Tone) function ON and OFF.
   • A bar appears in the right side of the display when the OST function is turned ON.

```
  CH    16‾
```
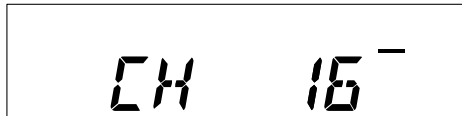
3 Press and hold the **[<B]** key for approximately 1 second to enter OST setup mode.
   • The current setting is displayed.

```
  TONE  OFF‾
```

4 Press the **[<B]** or **[C>]** key to select the desired CTCSS frequency or DCS code.

```
    67.0‾          D023N‾
```

5 Press the **[S]** key to set the selected CTCSS frequency or DCS code, and exit OST setup mode.

6 Operate the transceiver as normal to make and receive calls.

- Ensure that all other members in your group are operating on the same CTCSS/DCS setting.

Note:

◆ The OST function will not work on channels 5 and 35 (emergency channels).

◆ If the OST function is used on channels 22 and 23, only the decoding values will be set. Encoding values will not be set, as transmission is inhibited on these channels (data channels).

Available CTCSS Frequencies (Hz)

67.0	94.8	131.8	171.3	203.5
69.3	97.4	136.5	173.8	206.5
71.9	100.0	141.3	177.3	210.7
74.4	103.5	146.2	179.9	218.1
77.0	107.2	151.4	183.5	225.7
79.7	110.9	156.7	186.2	229.1
82.5	114.8	159.8	189.9	233.6
85.4	118.8	162.2	192.8	241.8
88.5	123.0	165.5	196.6	250.3
91.5	127.3	167.9	199.5	254.1

Available DCS Codes

D023N	D072N	D152N	D244N	D311N	D412N	D466N	D632N
D025N	D073N	D155N	D245N	D315N	D413N	D503N	D645N
D026N	D074N	D156N	D246N	D325N	D423N	D506N	D654N
D031N	D114N	D162N	D251N	D331N	D431N	D516N	D662N
D032N	D115N	D165N	D252N	D332N	D432N	D523N	D664N
D036N	D116N	D172N	D255N	D343N	D445N	D526N	D703N
D043N	D122N	D174N	D261N	D346N	D446N	D532N	D712N
D047N	D125N	D205N	D263N	D351N	D452N	D546N	D723N
D051N	D131N	D212N	D265N	D356N	D454N	D606N	D731N
D053N	D132N	D223N	D266N	D364N	D455N	D612N	D732N
D054N	D134N	D225N	D271N	D365N	D462N	D624N	D734N
D065N	D143N	D226N	D274N	D371N	D464N	D627N	D743N
D071N	D145N	D243N	D306N	D411N	D465N	D631N	D754N

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 **[S]** key.

- "SCAN" appears and the ↻ indicator appears during Scan.

$$\circlearrowright$$
$$SCAN$$

- 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

Press and hold the **[S]** key for approximately 2 seconds to set displayed channel to Priority channel. If a Priority channel has been set, 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 ▣ icon appears on the display when the Priority channel is selected.

SCAN DELETE/ADD

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

1 Select your desired channel.

2 Press the **[A]** key to remove a channel.
- When a channel is added to scan, the ▦▦▦▦▦▦▦▦▦ icon appears on the display

$$CH \quad 16$$

BACKGROUND OPERATIONS

SIGNAL STRENGTH

The Signal Strength indicator shows the strength of received signals:

Strong	Sufficient	Weak	Very Weak

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.

UHF CB CHANNELS & FREQUENCIES

CH No.	Frequency (MHz)	Remark
1	476.4250	Duplex Transmit Freqency CH No. 31
2	476.4500	Duplex Transmit Freqency CH No. 32
3	476.4750	Duplex Transmit Freqency CH No. 33
4	476.5000	Duplex Transmit Freqency CH No. 34
5	476.5250	Duplex Transmit Freqency CH No. 35 (Emergency use only)
6	476.5500	Duplex Transmit Freqency CH No. 36
7	476.5750	Duplex Transmit Freqency CH No. 37
8	476.6000	Duplex Transmit Freqency CH No. 38
9	476.6250	
10	476.6500	
11	476.6750	(Call Channel)
12	476.7000	
13	476.7250	
14	476.7500	
15	476.7750	
16	476.8000	
17	476.8250	
18	476.8500	
19	476.8750	
20	476.9000	
21	476.9250	
22	476.9500	(RX Only)
23	476.9750	(RX Only)
24	477.0000	
25	477.0250	
26	477.0500	
27	477.0750	
28	477.1000	
29	477.1250	
30	477.1500	
31	477.1750	
32	477.2000	
33	477.2250	
34	477.2500	
35	477.2750	(Emergency Use Only)
36	477.3000	
37	477.3250	
38	477.3500	
39	477.3750	

CH No.	Frequency (MHz)	Remark
40	477.4000	
41	476.4375	Duplex Transmit Freqency CH No. 71
42	476.4625	Duplex Transmit Freqency CH No. 72
43	476.4875	Duplex Transmit Freqency CH No. 73
44	476.5125	Duplex Transmit Freqency CH No. 74
45	476.5375	Duplex Transmit Freqency CH No. 75
46	476.5625	Duplex Transmit Freqency CH No. 76
47	476.5875	Duplex Transmit Freqency CH No. 77
48	476.6125	Duplex Transmit Freqency CH No. 78
49	476.6375	
50	476.6625	
51	476.6875	
52	476.7125	
53	476.7375	
54	476.7625	
55	476.7875	
56	476.8125	
57	476.8375	
58	476.8625	
59	476.8875	
60	476.9125	
61	–	Reserved for Future Expansion
62	–	Reserved for Future Expansion
63	–	Reserved for Future Expansion
64	477.0125	
65	477.0375	
66	477.0625	
67	477.0875	
68	477.1125	
69	477.1375	
70	477.1625	
71	477.1875	
72	477.2125	
73	477.2375	
74	477.2625	
75	477.2875	
76	477.3125	
77	477.3375	
78	477.3625	
79	477.3875	
80	477.4125	

UHF CB Channel Guidelines

• Use of the citizen band radio service is licensed in Australia by the ACMA Radiocommunications (Citizens Band Radio Stations) Class Licence and in New Zealand by the Ministry of Business, Innovation and Employment (MBIE) General User Radio Licence (GURL) for Citizens Band Radio. CB Radio operation is subject to the conditions contained in those licences.

• Channels 5 and 35 (Australia only) are Emergency channels. Use these channels only for emergencies. CTCSS/DCS will not operate on these channels.

• Channels 22 and 23 (Australia only) are data (telemetry/telecommand) channels. Voice transmissions are inhibited on these channels. The ACMA reserves the right to add additional channels for telemetry/telecommand, should they be necessary.

• Channel 11 (Australia only) is designated as the normal Call channel.

• Channel 40 (Australia only) is designated as the Road Vehicle channel.

• Channels 31 to 38 and 71 to 78 are repeater input channels. Channels 1 to 8 and 41 to 48 are repeater receiving channels. Do not use these channels unless long distance communication is specifically required.

• Before transmitting on a channel, ensure that the channel is not in use by listening on the channel or observing the channel busy indicator.

Note:

◆ The ACMA has implemented a changeover in CB channel capacity. The current wideband system is being replaced with a narrowband system. Thus, newly purchased CB radios will have a larger channel capacity than older CB radios. You can obtain a list of currently authorized channels from the ACMA website in Australia and the MBIE website in New Zealand.

◆ Transmitting and receiving between old wideband radios and new narrowband radios is possible, although you may experience poor audio quality. When receiving a call on a new narrowband radio, from an old wideband radio, the sound level may be higher than normal. When receiving a call on an old wideband radio, from a new narrowband radio, the sound level may be lower than normal. This is not a malfunction of the CB radios, but a result of differing bandwidths of the radios. Adjust your volume levels accordingly, for best use.

◆ Interference may occur on some channels, when receiving a call from an old wideband radio. The wideband radio uses a larger bandwidth, which may in turn cause cross-channel interference. With a larger number of channels being available, the new channel bandwidth size has been reduced. As more people shift from old wideband radios to new narrowband radios, this chance of cross-channel interference will be reduced.

SPECIFICATIONS

General		
Frequency Range		476.4250 ~ 477.4125 MHz
Channel Spacing (Narrow)		12.5 kHz
Operating Voltage		13.6 V DC±15 %
Current Drain	Standby	0.4 A
	Receive	1.0 A
	Transmit	5.0 A
Operating Temperature Range		−30°C ~ +60°C
Frequency Stability		Within ± 2.5 ppm (−30°C ~ +60°C)
Antenna Impedance		50 Ω
Dimensions W x H x D (projections not included)		160 mm x 43 mm x 136 mm
Weight (net)		Approx. 2.0 kg

Receiver	
Sensitivity (12 dB SINAD)	0.35 µV
Selectivity	65 dB
Intermodulation Distortion	65 dB
Spurious Respone	75 dB
Audio Output (4 Ω impedance)	4 W

Transmitter	
RF Power Output	5 W
Spurious Response	70 dB
Type of Emission	11K0F3E
FM Hum & Noise	40 dB
Microphone Impedance	600 Ω
Audio Distortion	5 %

Specifications are subject to change without notice due to advancements in technology.

KENWOOD