

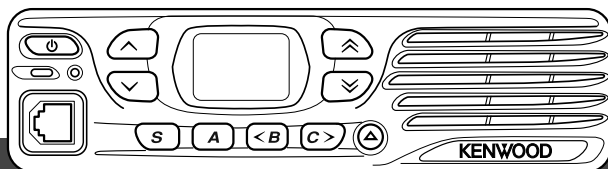
KENWOOD

TK-D740H
TK-D740HV
TK-D840H
TK-D840HU

USER GUIDE

GUIDE DE L'UTILISATEUR

GUÍA DEL USUARIO



JVCKENWOOD Corporation

B5A-0922-00 (K)



VHF DIGITAL TRANSCEIVER

TK-D740H

TK-D740HV

UHF DIGITAL TRANSCEIVER

TK-D840H

TK-D840HU

USER GUIDE

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

http://manual2.jvckenwood.com/en_contents/search/



THANK YOU

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

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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.



- **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.

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 KENWOOD. 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.

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. #6,199,037, #6,912,495, #8,200,497, #7,970,606, and #8,359,197

Firmware Copyrights

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

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**.
- Do not put the plastic bag used for packing of this equipment on the place which reaches a small child's hand. It will become a cause of suffocation if it wears flatly.
- Do not place the transceiver on unstable surfaces.
- Keep the volume as low as possible to protect your hearing.
- 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.

TERMINAL DESCRIPTIONS

ACC (D-SUB 15 Pin Connector)

| Pin No. | Name | I/O | Description | Specification |
|---------|-----------|-----|---|--|
| 1 | SB | O | DC Power (Switched B) Output | 13.6 V \pm 15% Max. 1 A |
| 2 | IGN | I | Igintion Signal Input | Min. Input: 10.8 V Max. Input: 16.0 V |
| 3 | SP2/PA | O | Loudspeaker Output/ Public Address Output | 4 Ω |
| 4 | DETO | O | RX Detected Audio Output | 280 mV _{p-p} (typ.) |
| 5 | DATAI | I | TX Data Input | 100 k Ω |
| 6 | FNC1/ TXD | I/O | Programmable/ PC Serial Data from Radio | High Impedance |
| 7 | FNC2/ RXD | I/O | Programmable/ PC Serial Data to Radio | High Impedance |
| 8 | FNC3 | I/O | Programmable | High Impedance |
| 9 | FNC4 | I/O | Programmable | High Impedance |
| 10 | FNC5 | I/O | Programmable | High Impedance |
| 11 | FNC6 | I/O | Programmable | High Impedance |
| 12 | 50MC | O | DC Power Output | 5 V, Max 100 mA |
| 13 | HR1 | I | Horn Alert Signal Input | Max 2 A |
| 14 | HR2 | O | Horn Alert Signal Output | Max 2 A |
| 15 | GND | — | Ground | Ground |

Speaker Jack (3.5 mm Phone Jack) 4 W/ 4 Ω

| Pin No. | Name | I/O | Description | Specification |
|---------|------|-----|-------------------------|---------------|
| 1 | SPO | O | External Speaker Output | 4 Ω |
| 3 | GND | — | Ground | Ground |

DC Input Connector

| Pin No. | Name | I/O | Description | Specification |
|---------|------|-----|----------------|------------------|
| Red | B | I | DC Power Input | 13.6 V \pm 15% |
| Black | GND | I | Ground | Ground |

Microphone Jack

| Pin No. | Name | I/O | Description | Specification |
|---------|-----------|-----|--------------------------------|------------------|
| 1 | MBL | O | MIC Backlight Control | High Impedance |
| 2 | SB | O | DC Power (Switched B) Output | 13.6 V \pm 15% |
| 3 | GND | — | Ground | Ground |
| 4 | PTT/ TXD | I/O | PTT/ PC Serial Data from Radio | High Impedance |
| 5 | ME | — | Mic Ground | Ground |
| 6 | MIC | I | Mic Signal Input | 600 Ω |
| 7 | HOOK/ RXD | I | Hook/ PC Serial Data to Radio | High Impedance |
| 8 | DM | I/O | Mic Data Detection | High Impedance |

Antenna Terminal

50 Ω impedance

UNPACKING AND CHECKING EQUIPMENT

Note:

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

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

SUPPLIED ACCESSORIES

| | |
|--|---|
| DC power cable (with fuses) | 1 |
| • 15 A fuse | 2 |
| Mounting bracket | 1 |
| Screw set | |
| • 5 x 16 mm self-tapping screw | 4 |
| • M4 x 6 mm hex-headed screw with washer | 4 |
| • Spring washer | 4 |
| • Flat washer | 4 |
| Microphone (with cable) | |
| • KMC-30 <TK-D740H/ TK-D840H> | 1 |
| • KMC-35 <TK-D740HV/ TK-D840HU> | 1 |
| • Microphone hanger (with 4 x 16 mm self-tapping screws) | 1 |
| User guide | 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.

■ Connecting the power cable



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:

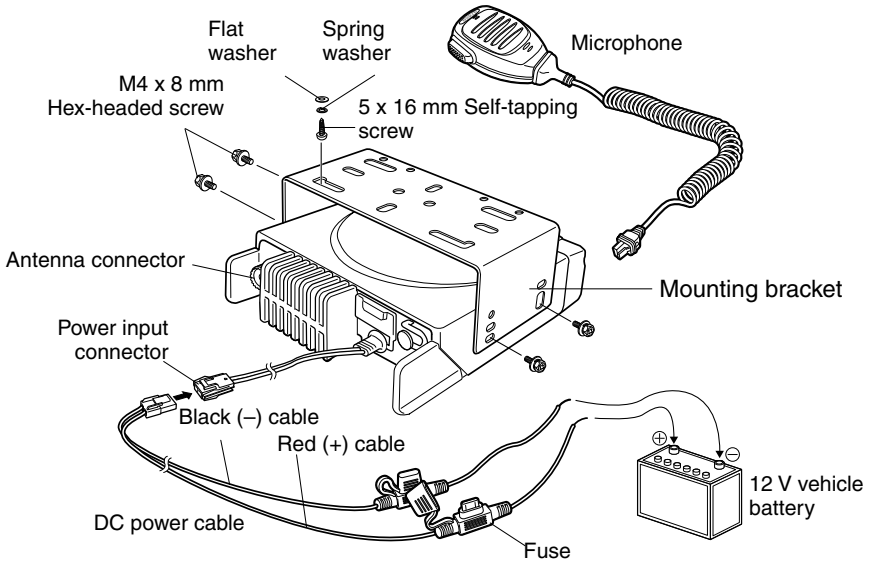
- Before installing the transceiver, check how far the mounting screws will extend below the surface. When drilling mounting holes, be careful not to damage vehicle wiring or parts.
- 1 Mark the position of the holes in the dash, using the mounting bracket as a template. Using a 4.2 mm (5/32 inch) drill 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 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.



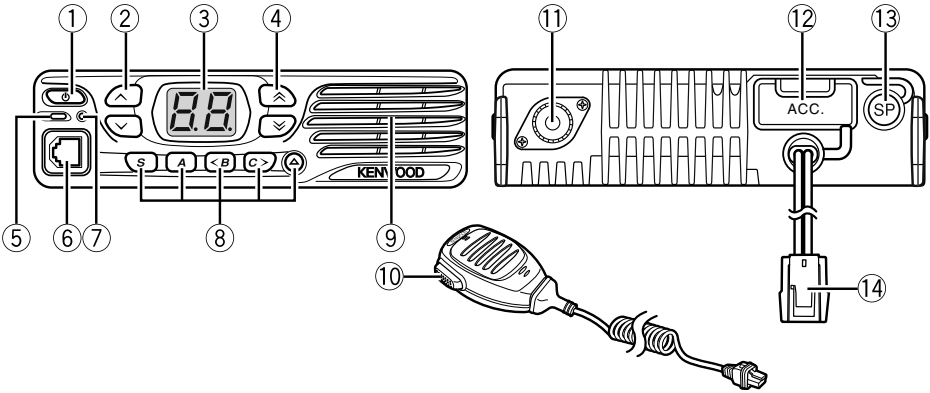
CAUTION

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.



ORIENTATION

FRONT/ REAR PANEL























- ① **⏻ (Power) switch**
Press to switch the transceiver ON or OFF.
- ② **^ / v keys**
Press to activate their programmable functions.
- ③ **Display**
Refer to page 9.
- ④ **^ / v keys**
Press to activate their programmable functions.
- ⑤ **TX/RX Indicator**
Lights red while transmitting. Lights green while receiving a signal. Flashes orange when receiving an optional signaling call.
- ⑥ **Microphone jack**
Insert the microphone plug into this jack.
- ⑦ **Status Indicator**
Lights during a specified mode, based on dealer programming.
- ⑧ **S / A / <B / C> / Δ keys**
Press to activate their programmable functions.
- ⑨ **Speaker**
Internal speaker.
- ⑩ **PTT switch**
Press this switch, then speak into the microphone to call a station.
- ⑪ **Antenna connector**
Connect the antenna to this connector.
- ⑫ **ACC connector**
Connect the ACC to this connector, via the KCT-60.
- ⑬ **External speaker jack**
Connect an external speaker to this jack.

⑭ Power input connector

Connect the DC Power Cable to this connector.

DISPLAY

The display shows the zone/ channel number and the 2 dots show various modes of operation.

| Display | Description | Display | Description |
|--|--|---|--|
|  | Zone Display (Zone 1) |  | Appears when a channel is added to the scan list. (cA) |
|  | Channel Display (Channel 16) |  | Appears when a channel is removed from the scan list. (cd) |
|  | Appears during Scan. (Sc) |  | Appears when the Lone Worker function is activated. (Ln) |
|  | Appears during the transceiver is stunned. (St) |  | Appears during Send Data (dt) |
|  | Appears when switch the transceiver ON. The Transceiver Password function is programmed. (PS) |  | Appears during the channel is busy. |
|  | Appears when the Squelch Level setting is activated. (SL) |  | The selected channel is the Priority channel. (P) |
|  | Appears when the Talk Around function is activated. (tA) |  | Appears when the Scrambler function is activated. (Sr) |
|  | Appears when the Horn Alert function is activated. (HA) |  | Appears when the Scrambler code mode is activated. (co) |
|  | Appears when the Public Address function is activated. (PA) |  | Appears when the Scrambler code mode is activated. (co) |
|  | Appears when the AUX function is activated. (AU) |  | Appears when the Message is completed. (Ed) |

BASIC OPERATION

SWITCHING POWER ON/ OFF

Press [⏻] to switch the transceiver ON.

Press [⏻] again to switch the transceiver OFF.

ADJUSTING THE VOLUME

Press the key programmed as [Volume Up] to increase the volume. Press the key programmed as [Volume Down] to decrease the volume.

SELECTING A ZONE AND CHANNEL

Select the desired zone and channel using the keys programmed as [Zone Up]/ [Zone Down] and [Channel Up]/ [Channel Down].

- “G1” (Zone 1)/ “16” (Channel 16) appears on the display.

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.
 - 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 and the caller's ID will appear on the display. To respond to the call, press and hold the **PTT** switch and speak into the transceiver as you would during a normal transmission.

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MANDATORY SAFETY INSTRUCTIONS TO INSTALLERS AND USERS

- Use only manufacturer or dealer supplied antennas.
- Antenna Minimum Safe Distance: 40 cm (16 inches), 50% duty Cycle.
- Antenna Gain: 0 dBS referenced to a dipole.

The Federal Communications Commission has adopted a safety standard for human exposure to RF (Radio Frequency) energy which is below the OSHA (Occupational Safety and Health Act) limits.

- Antenna Mounting: The antenna supplied by the manufacturer or radio dealer must not be mounted at a location such that during radio transmission, any person or persons can come closer than the above indicated minimum safe distance to the antenna, i.e. **40 cm (16 inches), 50% duty Cycle.**
- To comply with current FCC RF Exposure limits, the antenna must be installed at or exceeding the minimum safe distance shown above, and in accordance with the requirements of the antenna manufacturer or supplier.
- Vehicle installation: The antenna can be mounted at the center of a vehicle metal roof or trunk lid, if the minimum safe distance is observed.
- Base Station Installation: The antenna should be fixed-mounted on an outdoor permanent structure. RF Exposure compliance must be addressed at the time of installation.

Antenna substitution: Do not substitute any antenna for the one supplied or recommended by the manufacturer or radio dealer.

You may be exposing person or persons to excess radio frequency radiation. You may contact your radio dealer or the manufacturer for further instructions.



Maintain a separation distance from the antenna to person(s) of at least **40 cm (16 inches), 50% duty Cycle.**

"This transmitter is authorized to operate with a maximum duty factor of 50%, in typical push-to-talk mode, for satisfying FCC RF exposure compliance requirements."

You, as the qualified end-user of this radio device must control the exposure conditions of bystanders to ensure the minimum separation distance (above) is maintained between the antenna and nearby persons for satisfying RF Exposure compliance. The operation of this transmitter must satisfy the requirements of Occupational/Controlled Exposure Environment, for work-related use, transmit only when person(s) are at least the minimum distance from the properly installed, externally mounted antenna. Transmit only when people outside the vehicle are at least the recommended minimum lateral distance away from the antenna/vehicle.

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