

TKR-751/ TKR-851

INSTRUCTION MANUAL

KENWOOD

KENWOOD CORPORATION

© B62-1775-00 (K)
09 08 07 06 05 04 03 02 01 00

THANK YOU!

We are grateful you purchased this **KENWOOD** repeater. We believe this easy-to-program repeater will be highly effective in your communications system, and will keep personnel operating at peak efficiency.

KENWOOD incorporates the latest in advanced technology into all of our products. As a result, we feel strongly that you will be pleased with the quality and features of this product.

FEATURES

- Easily program channel data using the KPG-91D software on a PC.
- Recall 1 of 16 preset channels using either a PF key or the external control line.
- Write the firmware to the Flash memory through an external source.
- Program QT/DQT signalling on each channel to simultaneously decode up to 16 different QT tones/DQT codes.
- Operate the repeater with the air remote control function.
- Use the interface port with external equipment, such as a repeater controller.
- Multi-mode capable:
TKR-751: Wide: 30 kHz/ 25 kHz/ Narrow: 15 kHz/ 12.5 kHz
TKR-851: Wide: 25 kHz/ Narrow: 12.5 kHz
- Adjust the following functions using a PC:
 - Battery operating tone deviation
 - Battery warning tone deviation
 - Courtesy tone deviation
 - CW ID deviation
 - DTMF deviation
 - DQT balance
 - DQT deviation
 - Maximum deviation
 - QT deviation
 - Repeat gain
 - RF output power
 - RF power down detect
 - RX audio signal output (RA)
 - RX detector signal output (RD)
 - RX frequency
 - Squelch
 - Test tone deviation
 - TX audio signal input (TA)
 - TX frequency
 - TX signalling deviation (TD)

PRECAUTIONS

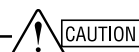
- Do not expose the unit to rain or moisture; to prevent fire or electric shock.
- Do not open the unit under any circumstances; to avoid risk of electric shock.
- Do not expose the unit to long periods of direct sunlight, nor place it close to heating appliances.
- Do not place the unit in excessively dusty and/or humid areas, nor on unstable surfaces.
- If you detect an abnormal odor or smoke coming from the unit, disconnect the power from the unit immediately. Contact your **KENWOOD** service center or dealer.

NOTICES TO THE USER

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 in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

- ◆ 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.



This repeater is intended for use as a fixed base station with the antenna located outdoors on the rooftop or on an antenna tower.

UNPACKING AND CHECKING EQUIPMENT

Note: The following unpacking information is for use by your **KENWOOD** dealer, an authorized **KENWOOD** service center, or the factory.

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

Item	Part Number	Quantity
Hardware fixture	J21-8402-XX	1
Front glass	B10-2635-XX	1
Filter	B11-1259-XX	1
Cushion	G13-1801-XX	4
Cushion	G13-1802-XX	4
Foot	J02-0475-XX	2
Foot	J02-0492-XX	2
Grommet	J59-0302-XX	2
Handle	K01-0418-XX	1
Screws	N35-3006-XX	5
Screws	N30-4006-XX	2
DC cord	E30-3427-XX	1
Connector cable	E31-3228-XX	1
Fuse	F06-1032-XX	1
Warranty card (K type only)	—	1
Instruction manual	B62-1775-XX	1

INSTALLATION

To install the handles onto the front panel of the repeater, align the handles with the holes on the front panel, then secure the handles using the supplied screws.

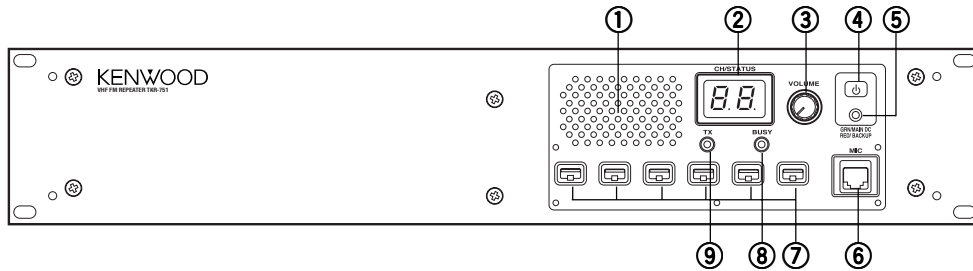
Please consult your dealer for installing the repeater and antenna.

MICROPHONE

Connect an optional KMC-27A, KMC-27B, or KMC-9C **KENWOOD** microphone to the **MIC** jack on the front panel.

CONTROLS AND FUNCTIONS

■ Front Panel

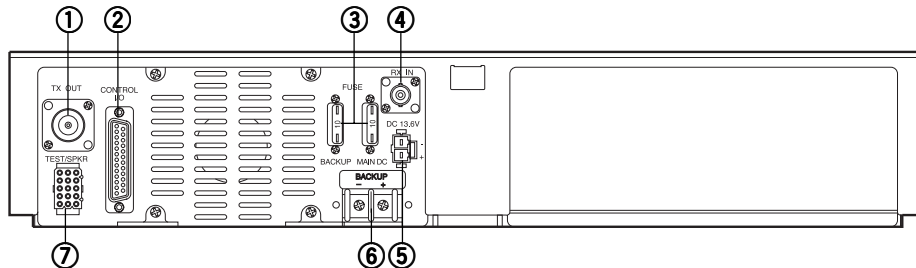


* The TKR-751 is shown in this diagram.

- ① **Speaker**
- ② **CH/STATUS Display**
Two 7-segment digits display the channel number, name, or status.
- ③ **VOLUME control**
Rotate to adjust the volume.
- ④ **DC SOURCE switch**
- ⑤ **Power indicator**
Lights green when power is applied from the **DC 13.6V** jack. Lights red when power is applied from the **BACK UP** battery terminal.

- ⑥ **MIC jack**
Connect a microphone to this 8-pin modular jack.
- ⑦ **Programmable Function keys**
Press these keys to activate their programmable functions.
- ⑧ **BUSY indicator**
Lights green while a signal is being received.
- ⑨ **TX indicator**
Lights red while transmitting.

■ Rear Panel



- ① **TX OUT jack**
Connect a TX antenna or a duplexer to this receptacle.
- ② **CONTROL I/O jack**
Connect an external programming device or repeater controller to this DB-25 interface.
- ③ **FUSE**
Insert 10 A blade fuses into these fuse holders.

- ④ **RX IN jack**
Connect a RX antenna or a duplexer to this BNC receptacle.
- ⑤ **DC 13.6V jack**
Connect a 13.6 V DC power supply to this jack.
- ⑥ **BACKUP battery terminal**
- ⑦ **TEST/SPKR jack**
Test input/output jack. Connect an external speaker to this jack.

REPEATER OPERATION

Note: Please consult your dealer for programming the repeater.

When power is applied to the unit, the **Power** indicator lights:

- Green when using the main DC jack.
- Red when using the Backup terminal.

Rotate the **VOLUME** control to adjust the volume.

The **BUSY** indicator lights green while receiving a signal and the **TX** indicator lights red while transmitting.

TRANSCEIVER OPERATION

■ Receive

Adjust the volume to your desired level. You may need to readjust the volume when you receive a message from your dispatcher or another member in your fleet.

- The **BUSY** indicator lights green while a signal is being received.

■ Transmit

- 1 Listen to the channel before transmitting, to make sure it is not being used.
- 2 Press the microphone **PTT** switch, then speak in your normal speaking voice.
 - The **TX** indicator lights red while transmitting.
- 3 When you finish speaking, release the **PTT** switch.