KENWOOD

KENWOOD

TK-630
TK-730
TK-830 series

LOW BAND FM TRANSCEIVER
VHF FM TRANSCEIVER
UHF FM TRANSCEIVER

INSTRUCTION MANUAL

EMETTEUR-RECEPTEUR LOW BAND FM
EMETTEUR-RECEPTEUR VHF FM
EMETTEUR-RECEPTEUR UHF FM

MODE D'EMPLOI

TRANSCEPTOR LOW BAND FM
TRANSCEPTOR VHF FM
TRANSCEPTOR UHF FM

MANUAL DE INSTRUCCIONES

KENWOOD CORPORATION

Notice to the user:
One or more of the following statements may be applicable to this equipment.

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.

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 into an outlet on a circuit different from that to
        which the receiver is connected.
--   Consult the dealer for technical assistance.

CONTENTS

1. INTRODUCTION

Your two-way radio has been designed to provide dependable communications, and is simple and easy to operate.
All KENWOOD radios incorporate the latest in advanced technology, providing communications that can be counted on to keep vehicles and personal operating at peak efficiency.
This instruction manual covers the following radios.

TK-630H   :   LOW BAND FM TRANSCEIVER
TK-730 TK-730H :   VHF FM TRANSCEIVER
TK-830 TK-830H :   UHF FM TRANSCEIVER

When there are differences in operation, separate instructions will be given for each model.

IMPORTANT
GOVERNMENT LAW PROHIBITS THE OPERATION OF UNLICENSED
RADIO TRANSMITTERS WITHIN THE TERRITORIES UNDER
GOVERNMENT CONTROL. ILLEGAL OPERATION IS PUNISHABLE BY FINE
OR IMPRISONMENT OR BOTH. REFER SERVICE TO A QUALIFIED
LICENSED OR CERTIFIED TECHNICIAN ONLY.

2. SAFETY

It is important that the operator understands and is aware of hazards common to the operation of any two-way radio.

WARNING
1. EXPLOSIVE ATMOSPHERES (GASES, DUST, FUMES, etc.)
Turn off and do not operate your radio 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 radio is mounted in the trunk area.

2. INJURY FROM RADIO FREQUENCY TRANSMISSIONS
Do not operate your radio when anyone is touching the antenna, or when anyone is standing within two to three feet of your antenna, to avoid the possibility of radio frequency burns or related physical injury.

3. DYNAMITE BLASTING CAPS
Dynamite blasting caps may explode by the operation of two-way radio transmitters, if such operation occurs within 500 feet of the blasting caps. Turn off and do not operate your radio 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 certain they are carried in a closed metal box having a padded interior. Do not transmit during the time that caps are being placed into or removed from this container.
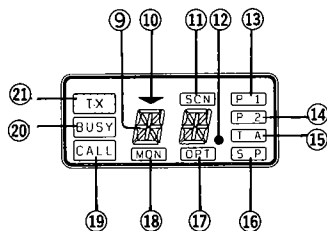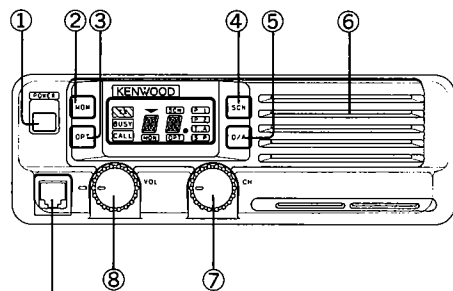
3. UNPACKING AND CHECKING EQUIPMENT

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

Carefully unpack the two-way radio. If any damage has occurred to the equipment during shipment, immediately file a claim with the carrier.

4. OPERATION

4-1. CONTROLS AND FUNCTIONS

● BASIC FRONT PANEL
  KCH-3

Microphone input
receptacle

① POWER switch
   Press to turn the power ON and OFF.
② MON (MONITOR) switch
   If the MON switch is pressed once while the radio is waiting for reception, the coded squelch is canceled. If the switch is pressed for two seconds, the noise squelch is disabled and speaker audio unmutes.
③ OPT (OPTION) switch
   Can be programmed for and operate any of the following: the PA (public address), HA (horn alert), TA (talk-around), AN (alphanumeric), IC (intercom), SP (external speaker), D/A (delete/add), OPT (option), or AUX (auxiliary) function programmed by the FPU (KPG-7D).
   (FPU: P.C. Field Programming Unit)
④ SCN (SCAN) switch
   Pressing this switch toggles the system scan function.
⑤ D/A (DELETE/ADD) switch
   (See section 4-5 and 4-6 for additional operations.)
   If you hold down the SCN key and press this key, the selected channel can be added to or deleted from the scan list (Non-priority channels).
⑥ INTERNAL SPEAKER
   Front mounted for best sound quality.
⑦ CH (CHANNEL) selector
   Rotary control knob for channel selection.
⑧ VOL (VOLUME) control
   Audio level control knob: for receive, PA, IC volume.
⑨ 13 SEGMENT display
   Displays operating channel number.
   Alphanumeric data for each channel is displayed, if applicable.

⑩ ▼ (CHANNEL ADD) indicator
   If the selected channel is in the scan list, the indicator lights at that channel.
⑪ SCN (SCAN) indicator
   Indicates when scan mode is enabled.
⑫ ● (DOT) indicator
   Lights when the programmed AUX switch is pressed.
⑬ P1 (PRIORITY 1) indicator
   Lights when a PRIORITY 1 channel is shown on the display.
⑭ P2 (PRIORITY 2) indicator
   Lights when a PRIORITY 2 channel is shown on the display.
⑮ TA (TALK AROUND) indicator
   Lights when the transceiver is in talk around mode (TA switch).
⑯ SP (EXTERNAL SPEAKER) indicator
   Lights when the received signal is output to the PA speaker.
⑰ OPT (OPTION) indicator
   Lights when the programmed OPT switch is pressed.
⑱ MON (MONITOR) indicator
   Lights when the MON switch is pressed and the coded squelch is disabled.
⑲ CALL indicator (An optional SIGNALING unit is required: 2-tone or DTMF decoder)
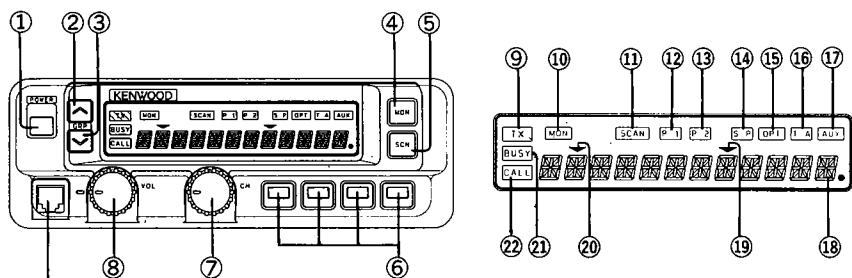   Lights when called individually.
⑳ BUSY indicator
   Indicates when channel is in use.
㉑ TX indicator
   Indicates when the transmitter is keyed.

● FULL FEATURED FRONT PANEL
KCH-4

Microphone input receptacle

① **POWER switch**
Press to turn the power ON and OFF.

② **GRP (GROUP) UP switch**
GROUP UP switch for group selection. Holding the switch causes the function to repeat.

③ **GRP (GROUP) DOWN switch**
Group down switch for group selection. Holding the switch causes the function to repeat.

④ **MON (MONITOR) switch**
If the MON switch is pressed once while the radio is waiting for reception, the coded squelch is canceled. If the switch is pressed for two seconds, the noise squelch is disabled and speaker audio unmutes.

⑤ **SCN (SCAN) switch**
Pressing this switch toggles the system scan function.

⑥ **KEY 1~4 switches**
Can be programmed for and operate any of the following: PA (public address), HA (horn alert), TA (talk around), IC (intercom), AN (alphanumeric), SP (external speaker), D/A (delete/add), OPT (option) or AUX (auxiliary) function (programmed by the FPU (KPG-7D)).

⑦ **CH (CHANNEL) selector**
Rotary control knob for channel selection.

⑧ **VOL (VOLUME) control**
Audio level control knob: for receive, PA, IC volume.

⑨ **TX indicator**
Indicates when the transmitter is keyed.

⑩ **MON (MONITOR) indicator**
Lights when the MON switch is pressed and the coded squelch is disabled.

⑪ **SCAN indicator**
Indicates when scan mode is enabled.

⑫ **P1 (PRIORITY 1) indicator**
Lights when a PRIORITY 1 channel is shown on the display.

⑬ **P2 (PRIORITY 2) indicator**
Lights when a PRIORITY 2 channel is shown on the display.

⑭ **SP (EXTERNAL SPEAKER) indicator**
Lights when the received signal is output to the PA speaker.

⑮ **OPT (OPTION) indicator**
Lights when the programmed OPTION switch is pressed.

⑯ **TA (TALK AROUND) indicator**
Lights when the transceiver is in talk around mode (TA switch).

⑰ **AUX (AUXILIARY) indicator**
Lights when the programmed AUX switch is pressed.

⑱ **13 SEGMENT display**
Displays operating group number and channel number (Channel display), or channel name (12-character Alphanumeric display) programmed by the FPU (KPG-7D).

⑲ **⌐ (CHANNEL ADD) indicator**
If the selected channel is in the scan list, the indicator lights at that channel.

⑳ **⌐ (GROUP ADD) indicator**
If the selected group is in the scan list, the indicator lights at that group.

㉑ **BUSY indicator**
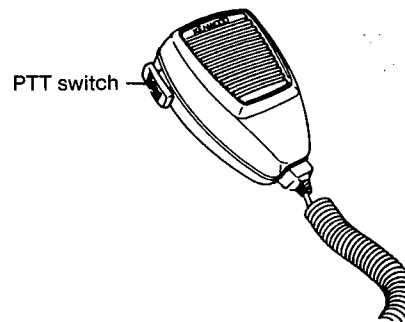Indicates when channel is in use.

㉒ **CALL indicator (An optional SIGNALING unit is required: 2-tone, DTMF decode)**
Lights when called individually.

MICROPHONE
PTT(Push-To-Talk) switch:
Press this switch to transmit, and speak into the microphone.

PTT switch

4-2. RECEIVE

● To turn on the radio.
  (1) Press the power switch in the upper left corner of the control unit once. The display and graphics illuminate to indicate the radio is on.
  (2) When turned on, all the indicators light, a confirmation tone sounds for about a second, and the transceiver checks itself.
● To set volume.
  (1) To unsquelch the radio, press the MON switch for 2 seconds. This unmutes the speaker.
  (2) Adjust the volume by using the VOL control.
● To change channels.
  KCH-3
  Turn the CH (channel) selector to your regular operating channel.
  KCH-4
  Turn the CH (channel) selector to your regular operating channel on the currently displayed group.
● To change groups. (only KCH-4)
  Select the group by pressing either the GROUP UP or GROUP DOWN switch. When the group number is changed, the channel display indicates the revert channel number (channel displayed when the group was last selected).
● To enter carrier squelch mode.
  If you wish to monitor (carrier squelch) a channel, press the MON switch.
  You may also enter the monitor mode by taking the microphone off hook.
  This function can be turned on or off by the F.P.U.

4-3. TRANSMIT

First, lift the microphone from its hook, (If scanning, the scanning stops temporarily, and the off hook revert channel is displayed.) and listen for a few seconds to make certain the channel is not being used. Now, hold the microphone about one and one half inches from your lips, press the PTT (Push-To-Talk) switch, and speak in your normal speaking voice.
The TX display will light during transmission. When you are through speaking, release the PTT switch, and you are automatically back in the receive mode.
When the conversation is finished, place the microphone back on its hook.

4-4. SCAN OPERATION

4-4-1. General

(1) Before press the SCN switch, the microphone must be on hook.
(2) The scan feature is enabled by pressing the front panel SCAN (or SCN) switch.
(3) An single confirmation tone sounds, and scanning starts. (If there is one or less added channels, an error tone sounds, and scanning does not start.)
(4) The display shows SCAN (or SC) and the SCAN (SCN) indicator lights.
(5) If the transceiver receives a signal during scanning, the scanning stops temporarily, the audio is unmuted, and the channel is displayed.
  1. If the channel is not the priority channel and there is the priority channel, the radio receives the signal alternately between the channel and the priority channel.
  2. If the channel is the priority 2 channel and there is the priority 1 channel, the radio receives the signal alternately between the priority 2 and the priority 1.
  3. If there is no priority channel, the scanning stops at that channel and receives only that channel.
(6) If the SCN switch is pressed again, an operation confirmation tone sounds, and the scanning ends (scan mode is exited). (The channel selected immediately before the scanning began returns.)

4-4-2. To transmit while scan is on.

(1) Taking the microphone off hook. The radio goes to the off hook revert channel.
(2) When the PTT switch is pressed, transmission takes place on the displayed revert channel.

4-4-3. To delete nuisance channels while scan is on.

(1) To temporarily delete undesirable channels, press D/A switch 2 seconds while the channel is active (indicated by the display).
  A confirmation tone sounds, the currently displayed channel is deleted, and the scanning resumes. The last channel in the scan sequence cannot be deleted. (The priority channel can only be deleted if the "priority temporarily delete" feature is enable in the "scan information" programming.)
(2) To restore the original scan list, either turn scan off and on or turn the radio off and on.

4-4-4. To enter carrier squelch scan while scan is on.

If you have pressed the MON switch momentarily, MON indicator is turned on and the radio operates carrier squelch scan.

4-5. ADDING CHANNELS AND GROUPS TO THE SCAN LIST

(1) Non-priority channel (A switch is programmed for D/A)
To add a channel to the scan list with the CHANNEL ADD indicator off, hold down the SCN switch, and press the D/A switch. The CHANNEL ADD indicator (➤) lights and the channel is added to the scan list.

(2) Second-priority (P2) channel (P2=Fixed-operator selectable)
To add the currently displayed channel to the scan list as a priority 2 channel on a radio in which the second priority is operator selectable, hold down the SCN switch and press the MON switch twice.
The CHANNEL ADD (➤) indicator and P2 indicator light, and the channel is added to the scan list as P2.

(3) First-priority (P1) channel (P1=Fixed-operator selectable)
To add the currently displayed channel to the scan list as priority 1 channel on a radio in which the first priority is operator selectable, hold down the SCN switch and press the MON switch three times.
The CHANNEL ADD indicator (➤) and P1 indicator light, and the channel is added to the scan list as P1.

(4) Groups (KCH-4: Full featured front panel / Group lock out=operator selectable / Group scan=multi)
To add the currently displayed group of channels to the scan list, hold down the SCN switch and press the GROUP UP switch. The GROUP ADD indicator (➤) lights, and the group is added to the scan list.

4-6. DELETING CHANNELS AND GROUPS FROM THE SCAN LIST

(1) Non-priority channel (A switch is programmed for D/A)
To delete a channel from the scan list with the CHANNEL ADD (➤) indicator on, hold down the SCN switch, and press the D/A switch. The CHANNEL ADD indicator (➤) goes off and the channel is deleted from the scan list.

(2) Second-priority (P2) channel (P2=Fixed-operator selectable)
To delete the currently displayed channel from the scan list as a priority 2 channel on radio in which the second priority is operator selectable, hold down the SCN switch and press the D/A switch twice.
The P2 indicator goes off. Then hold down the SCN switch, and press the D/A switch. The CHANNEL ADD indicator (➤) goes off and the channel becomes a non-priority channel.

(3) First-priority (P1) channel (P1=Fixed-operator selectable)
To delete the currently displayed priority 1 channel from the scan list on a radio in which the first priority is operator selectable, hold down the SCN switch and press the D/A switch three times.
The P1 indicator goes off and the channel becomes a non-priority channel. Then hold down the SCN switch, and press the D/A switch. The CHANNEL ADD indicator (➤) goes off.

(4) Groups (KCH-4: Full featured front panel / Group lock out=operator selectable / Group scan=multi)
To delete the currently displayed group of channels from the scan list, hold down the SCN switch and press the GROUP DOWN switch. The GROUP ADD indicator (➤) goes off, and all the channels in that group are deleted from the scan list.

4-7. REPEATER TALK-AROUND (TA)

TALK-AROUND is useful when you are close to other mobiles wish whom you wish to talk, or are outside the range of your repeater system.
If you are using the repeater, press the TA switch momentarily. A confirmation tone sounds, and the TA indicator lights. The transceiver can the transmit without using the repeater.
To use the repeater, press the TA switch momentarily again. A confirmation tone sounds, and the TA indicator goes off.

4-8. HORN ALERT FUNCTION (HA)

An option for calling is required to use this function.
If you are called from the base station while you are away from your transceiver, you are alerted by the vehicle horn or some other type of external alert. To turn the horn alert function on when you go away from your transceiver, press the HA switch momentarily. A confirmation tone sounds, and the display shows HORN ALERT (or HA).
If the HA switch is pressed horn alert function is turned off.

4-9. PUBLIC ADDRESS FUNCTION (PA)

A PA speaker (more than 20 W) is required to use this function.
When you talk into the microphone while holding down the PTT switch, your voice is amplified and output from the PA speaker. If you are inside the car and want to speak to a person having no transceiver outside, press the PA switch momentarily. A confirmation tone sounds, and the display shows PUBLIC ADRS (or PA).
The volume can be varied with the VOL control. (Radio transmission or reception do not operate while PA is on.)
If the PA switch is pressed momentarily again, a confirmation tone sounds, the display shows the channel, and the public address function is turned off.

4-10. EXTERNAL SPEAKER FUNCTION (SP)

A PA speaker (more than 20 W) is required to use this function.
The function outputs the receive audio from the PA speaker when you are away from the transceiver. To turn the function on when you go away from your transceiver, press the SP switch momentarily. A confirmation tone sounds, and the display shows SP.
The receive audio is output from the PA speaker. If the SP switch is pressed momentarily again, a confirmation tone sounds, SP disappears from the display, and the external speaker function is turned off.

4-11. ALPHANUMERIC FUNCTION (AN)

This function switches the 13-segment display between alphanumeric display and channel display.
If you want to change from alphanumeric display to channel display, press the AN switch momentarily. A confirmation tone sounds, and the alphanumeric display changes to the channel display.
If the AN switch is pressed momentarily again, a confirmation tone sounds, and the channel display changes back to the alphanumeric display. (Requires optional KCH-5 for alphanumerics on the Basic front (KCH-3).)

4-12. INTERCOM FUNCTION (IC)

This function is available if the dual control head option kit (KRK-3DH) is installed.'
It enables communication between two control heads.
If you want to talk to the other control head, press the IC switch momentarily. A confirmation tone sounds, and the display shows INTERCOM (or IC). If you talk into the microphone while holding down the PTT switch, your voice is output from the other control head speaker.
If the IC switch is pressed momentarily again, a confirmation tone sounds, the display shows the channel, and the intercom function is turned off. (Radio transmission or reception do not operate while IC is on.)

4-13. OPERATOR SELECTABLE TONES/CODES (OS T/C)

If your dealer has assigned the OPERATOR SELECTABLE TONES/CODES function to the OPT key, you can use it as follows:
If you press the OPT key while a channel is being displayed, the signaling code set for each channel is changed to the code preset by your dealer for this transceiver, and the OPT indicator flashes. If you press the OPT key again, the signaling code returns to the code set for each channel, and the OPT indicator goes off.
You can change the signaling code set by your dealer for this transceiver as follows:
While in channel display mode, hold down the SCAN key, and press the OPT key. You will enter code selection mode, and can then select from 1 to 16 with the channel selector. Press the OPT key to return to channel display mode. Your dealer presets the code in the range 1 to 16.
You can program the OPERATOR SELECTABLE TONES/CODES function with the AUX key by means of the F.P.U. The AUX indicator lights.

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