# **INSTRUCTION MANUAL**

# TK-5400:

# THANK YOU!

We are grateful you chose **KENWOOD** for your land mobile radio applications. We believe this easy-to-use transceiver will provide dependable communications to keep personnel operating at peak efficiency.

**KENWOOD** transceivers incorporate the latest in advanced technology. As a result, we feel strongly that you will be pleased with the quality and features of this product.

# NOTICES TO THE USER

#### **WARNING:**

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 QUALIFIED TECHNICIANS ONLY.

DO NOT OPERATE YOUR TRANSCEIVER IN EXPLOSIVE ATMOSPHERES (GASES, DUST, FUMES, ETC.). TURN OFF YOUR TRANSCEIVER WHILE TAKING ON FUEL, OR WHILE PARKED IN GASOLINE SERVICE STATIONS.

#### 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.

### 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 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 to an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer for technical assistance.



## **ATTENTION (U.S.A. Only):**

The RBRC Recycle seal found on **KENWOOD** nickel-cadmium (Ni-Cd) battery packs indicates **KENWOOD**'s voluntary participation in an industry program to collect and recycle Ni-Cd batteries after their operating life has expired. The RBRC program is an alternative to disposing Ni-Cd batteries with your regular refuse or in municipal waste streams, which is illegal in some areas.

For information on Ni-Cd battery recycling in your area, call (toll free) 1-800-8-BATTERY (1-800-822-8837). **KENWOOD**'s involvement in this program is part of our commitment to preserve our environment and conserve our natural resources.

# UNPACKING AND CHECKING EQUIPMENT

#### Note:

The following unpacking 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 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.

#### **Accessories**

Item	Dout Novelean	Quantity		
IICIII	Part Number	K	K2	
Instruction Manual	B62 – 1606 - *0	1	1	
Warranty Card	B46 - 0470 -*0	1	1	
Belt Hook	J29 – 0652 - *5	1	1	
Screw Set	N99 - 2004 - *5	1	1	
Dressing Plate	B03-0594-*4	1	1	
Сар	B09 - 0363 - *3	1	1	
Stopper	D32 – 0421 - *4	1	1	

# Installing/ Removing the Optional Battery Pack

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

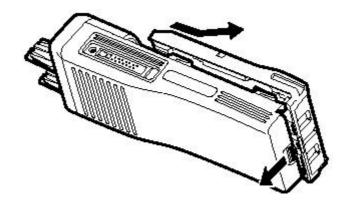
## **CAUTION:**

DO NOT RECHARGE THE BATTERY PACK IF IT IS ALREADY FULLY CHARGED. DOING SO MAY CAUSE THE LIFE OF THE BATTERY PACK TO SHORTEN OR THE BATTERY PACK MAY BE DAMAGED.

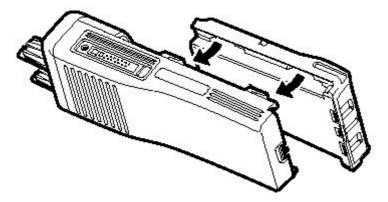
AFTER RECHARGING THE BATTERY PACK, DISCONNECT IT FROM THE CHARGER. IF THE CHARGER POWER IS RESET (TURNED ON AFTER BEING TURNED OFF), RECHARGING WILL START AGAIN AND THE BATTERY PACK WILL BECOME OVERCHARGED.

DO NOT SHORT THE BATTERY TERMINALS OR DISPOSE OF THE BATTERY BY FIRE. NEVER ATTEMPT TO REMOVE THE CASING FROM THE BATTERY PACK.

1 Match the four grooves of the battery pack with the corresponding guides on the back of the transceiver.



2 Slide the battery pack along the back of the transceiver until the release latch on the base of the transceiver locks.



3 To remove the battery pack, pull back on the release latch and slide the pack away from the transceiver.

# **Installing the 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.

# **Installing the Belt Clip**

If necessary, attach the belt clip using the two supplied  $3\,\mathrm{x}\,6\,\mathrm{mm}$  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.

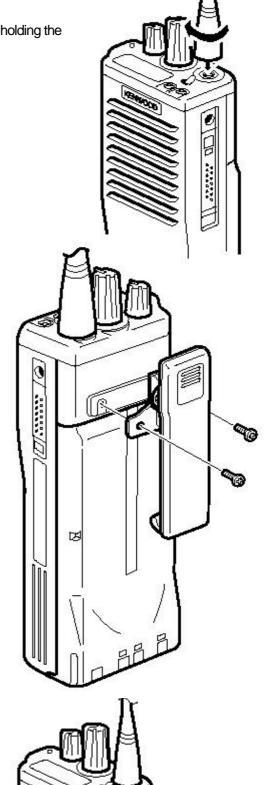


# Connector

If you are not using the optional KMC-25 speaker/ microphone, install the cap over the universal connector using the supplied  $4 \times 6$  mm screw.

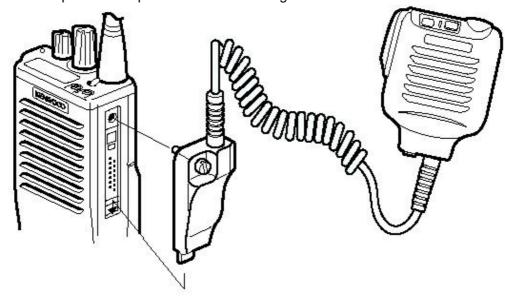
#### Note:

To keep the transceiver water resistant, you must cover the universal connector with the cap or the speaker/ microphone connector.



# Installing the Optional KMC-25 Speaker/ Microphone

1 Insert the guide of the speaker/microphone connector into the groove of the universal connector.



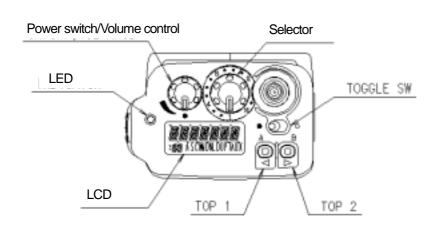
2 Secure the connector in place using the attached screw.

# **GETTING ACQUAINTED**

### Knob

NO .	Name	Lock/ Non Lock	Description
1	Power switch/ Volume control	Lock/ Non Lock	Power SW (CCW : Power OFF) Audio Volume adjuster
2	Selector	Lock	Mechanical stopper

#### Switch



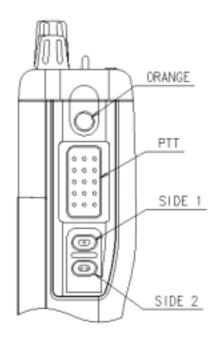


Fig. 1 Top Fig.2 Left

# < Top >

NO .	Name	Lock/ Non Lock		Description
1	Toggle SW	Lock	Programmable	default: No Function
2	Top 1	Non Lock	Programmable	default: No Function
3	Top 2	Non Lock	Programmable	default: No Function

## < Left side >

NO .	Name	Lock/ Non Lock		Description
1	PTT	Non Lock	TX ON/OFF	
2	Side 1	Non Lock	Programmable	default: No Function
3	Side 2	Non Lock	Programmable	default: No Function
4	Orange	Non Lock	Programmable	default: No Function

## <Front>

NO .	Name	Lock/ No Lock	Description
1	12 Key Pad	Non Lock	To select code of DTMF encode and operator selectable tone . Only K2 destination .

# DISPLAY LED

NO .	Name	Description
1	LED	The LED is three colors . Lights green while receiving at user mode .Light red while transmitting , flashes red when the battery power is low while transmitting . Lights orange when individual called .

# 4.3.2 LCD

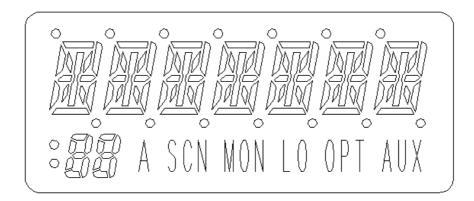


Fig. 3 LCD

Indicator	Details		
Alphanumeric display	Displays the operating zone or channel number, or the zone or channel name. Also displays various menu functions.		
7 Segment display	Displays the operating zone or channel number, or the zone or channel name. Also displays various functions.		
:	The upper dot indicates, when the hundreds digit of channel number is 2.  The lower dot indicates, when the hundreds digit of channel number is 1.		
А	The channel of indicating become an object of scan , the ${}^{\Gamma}A_{\perp}$ display comes up .		
SCN	The 「SCN」 indicates when the radio is scanning.		
MON	When the radio cancel signaling and use carrier squelch , the ${}^\Gamma \text{MON} {}_J$ display comes up .		
LO	Low power indicator .		
ОРТ	When Operator Selectable Tone is to be ON , the $\ ^\Gamma \text{OPT}  _J \ $ display comes up .		
AUX	Encryption is to be ON , the $\ ^{\Gamma}$ AUX $\ _{\Box}$ display comes up .		

## **TERMINAL**

Universal connector

connector cover for blindfold mode of resin is possible.

NO .	Name	Description	I/O
1	SSW	EXT/INT SP switch input	1
2	SP+	BTL output + for external speaker	0
3	SP-	BTL output - for external speaker	0
4	MSW/CTS	EXT/INT MIC switch input Clear To Send	I
5	EMC	External microphone input	I
6	EME	External microphone earth	
7	PTT	PTT input	I
8	REM	Programmable function key input	I
9	RTS	Request To Send	0
10	E	Earth	
11	5M	5V output	0
12	TXD	Serial data output	0
13	RXD	Serial data input	I
14	DSR	Data Set Ready	I

# **Battery Terminal**

It's type of spring plate. The minus terminal connect to chassis ground It's mounted rear side of radio and mounting instruction is slide method .

## **OTHER**

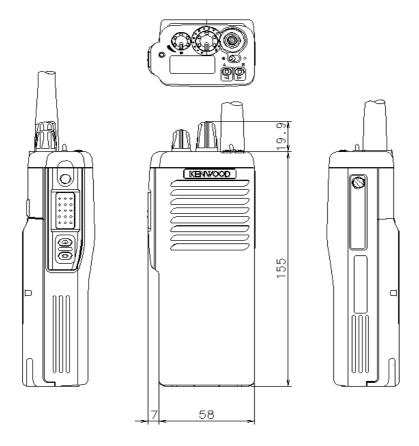
# Rear

A rail and a hook for battery installation . Space which affixes name plate . Model name plate Screw hole for belt hook installation .

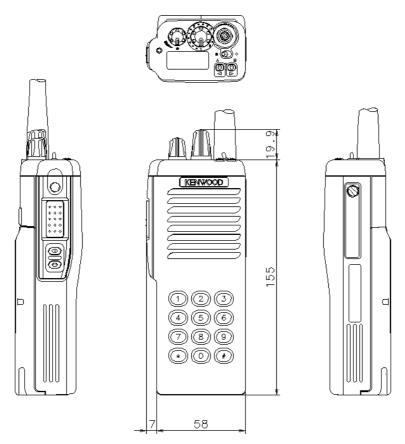
# **Bottom**

Battery release lever

# Appearance



Appearance without 12key Pad (with KNB-17A)



Appearance with 12key Pad (with KNB-17A)

## **OPERATING BASICS**

## **Switching Power ON/OFF**

Turn the **Power** switch/ **Volume** control clockwise to switch the transceiver ON.

Turn the **Power** switch/ **Volume** control counterclockwise to switch the transceiver OFF.

#### Adjusting the Volume

Rotate the **Power** switch/ **Volume** control to adjust the volume. You can adjust the volume to one of six levels.

Clockwise increases the volume and counterclockwise decreases it.

• The selected volume level appears on the display.

### Selecting a Channel

Rotate the **Channel selector** to select a channel.

Clockwise increases the channel number and counterclockwise decreases it.

### Making a Call

- 1 Select the desired channel.
- 2 Press and hold the **Monitor** key to determine whether or not the current channel is being used.
- If the channel is busy, wait until it becomes free.
- 3 Press and hold the PTT switch, then speak into the microphone in your normal voice.
- For best results, hold the microphone approximately 3 to 4 cm (1 1/2 inches) from your lips.
- 4 Release the PTT switch to receive.

## **AUXILIARY FEATURES**

## **Key Lock**

This is a useful function to avoid accidentally pressing a key and changing the transceiver settings.

Use the key or switch programmed as **Key Lock** to active the Key Lock function. Most keys will be locked.

### Time-out Timer (TOT)

The TOT is used to automatically inhibit transmission after a specified time elapse. If the PTT switch is held down for longer than 2 minutes, the transceiver will stop transmitting and a tone will sound. Release the PTT switch, then press it again to continue transmitting.