



# **INTEK®**

## **KT-950EE**

**DUAL BAND AMATEUR RADIO  
VHF / UHF FM POCKET SIZE  
HANDHELD TRANSCEIVER**

**144-146 MHz / 99CH / 2W  
430-440 MHz / 99CH / 2W  
PC PROGRAMMABLE**

**INSTRUCTION MANUAL**

# Declaration of Conformity

EC Certificate of Conformity  
(to EC Directive 2006/95, 2004/108, 99/5)

## DECLARATION OF CONFORMITY

With the present declaration, we certify that the following products :

### INTEK KT-950EE

comply with all the technical regulations applicable to the above mentioned products in accordance with the EC Directives 2006/95/EC, 2004/108/EC, 99/5/EC.

<b>Type of product :</b>	Amateur Radio Equipment VHF/UHF
<b>Details of applied standards :</b>	EN 300 086-1 V1.3.1, EN 300-086-2 V1.2.1 EN 301 489-1 V1.8.1, EN 301 489-5 V1.3.1 EN 60950-1+A11
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Segrate, 04/11/2011

dr. Vittorio Zanetti

(C.E.O.)



## GENERAL DESCRIPTION

The transceiver is a micro-miniature multiband FM transceiver with extensive receive frequency coverage, providing local-area two-way amateur communications along with unmatched monitoring capability.

We appreciate your purchase of our transceiver, and encourage you to read this manual thoroughly, and learn about many exciting features.

## SAFETY TRAINING INFORMATION



**warning**

Your KT-950EE radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only", meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

### **Electromagnetic Interference/Compatibility**

During transmissions, your radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

### **Occupational/Controlled Use**

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

## NOTICE !

It is recommended to carefully read this owner's manual before using the product. This will also help the user to prevent using the radio in violation of the regulations valid in the country where the product is used, as well as to avoid any possible interferences with other services.

## NOTICE !

This transceiver has been factory programmed, in order to use the product immediately after purchase. The programming includes the activation of channels/frequencies in the VHF and UHF FM Amateur Bands, according to the technical rules in force for the use of this bands.

## NOTICE !

This transceiver is programmable via PC, using the dedicated software and the PC interface cable (optional items). Any programming or modification of the original default setting must be made by a specialised technician or by an authorised service centre. Some functions of this transceiver might be programmed in violation of the technical rules in force for the use of the VHF and UHF FM bands. It is the user's responsibility to check that any modification to the programming will be done in compliance with the current regulations. Any modification to the product, alteration of the internal circuit, of the external structure of the radio or any programming in violation of the current regulations will automatically void the product certification and your right to use the product. INTEK S.R.L. declines any responsibility concerning any modification of the product, made by the user or by a third party, after delivery of the product.

CE 0678 !



## PRECAUTIONS

- Refer service to qualified technicians only.
- Do not disassemble or modify the transceiver for any reason.
- Do not expose the transceiver under direct sunlight long or to extremely hot condition.
- Do not place the transceiver on the unstable surface.
- Keep the transceiver out of dust, moisture, water.
- Do not operate the transceiver or charge the battery pack under explosive conditions.

## SAFETY

It is important that the operator is aware of and understands hazards common to the operation of any transceiver.



### WARNING

**Please turn the transceiver off at the following locations:**

- ▶ In explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.).
- ▶ While taking on fuel or while parking at gasoline service stations.
- ▶ Near explosives or blasting sites.
- ▶ In medical institutes or aircrafts.

**changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

# CONTENTS

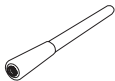
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## UNPACKING AND CHECKING EQUIPMENTS

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, please contact the dealers immediately.

### Standard Accessories

ITEM	QUANTITY
Dual Band Antenna	1
Li-Ion Battery	1
Hand Strap + Belt Clip	1
12-24VDC Car Adaptor	1
Desk Charger	1
USB Charging Cable	1
User Manual	1



Antenna



Li-ion  
Battery



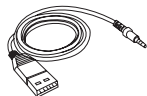
Hand Strap  
+ Belt Clip



Car Adaptor



Desk Charger



USB Charging Cable

## Optional Accessories

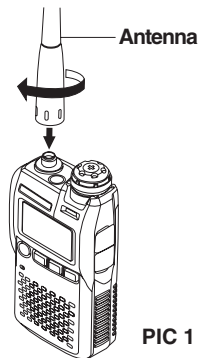
- EM-950 External Earset-Microphone with tie clip
- CDKT-0950-USB Programming Kit (PC interface cable and software CD)

## INSTALLATION OF ACCESSORIES

### ANTENNA INSTALLATION

The supplied antenna provides good results over the entire frequency range of the transceiver. However, for enhanced based station medium-wave and shortwave reception, you may wish to connect an external antenna, as the supplied antenna is very small and can not be expected to provide high performance at these frequencies.

To install the supplied antenna, hold the bottom end of the antenna and screw it onto the mating connector on the transceiver until it is snug. Do not over-tighten by use of extreme force. (See PIC 1)



PIC 1



**Note:**

Never transmit without having an antenna connected. When installing the supplied antenna, never hold the upper part of antenna while screwing it onto the mating connector on the transceiver.

If using an external antenna for transmission, ensure that the SWR presented to the transceiver is 1.5:1 or lower, to avoid excessive feed line loss.

**BELT CLIP INSTALLATION**

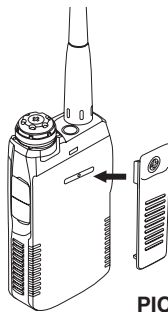
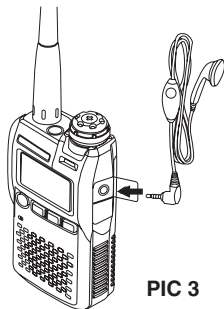
If necessary, install the belt clip into the location on the back of the battery. (See PIC 2)

**Note:**

Do not use the glue to fasten the screw, while installing the belt clip. Otherwise, the acrylic acid of the glue may damage the battery panel.

**EXTERNAL EAR-MIC INSTALLATION**

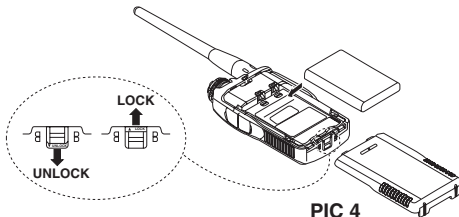
Insert the optional earset/microphone plugs into the SP.&MIC. Jacks of the transceiver. (See PIC 3)

**PIC 2****PIC 3**

## BATTERY PACK INSTALLATION

The battery pack is a high-performance Li-ion battery providing high capacity in a very compact package. Under normal use, the battery may be used for approximately 400 charge cycles, after which operating time may be expected to decrease. If you have an older battery that is displaying diminished capacity, you should replace the battery with a new one. Installation of the battery is easy and quick:

1. Slide the Battery Cover to the Unlock position and then slide the Battery Cover toward the bottom to remove it.
2. Install the battery into the Battery Compartment.
3. Replace the Battery Cover and then slide the Battery Cover Latch into the Lock position.

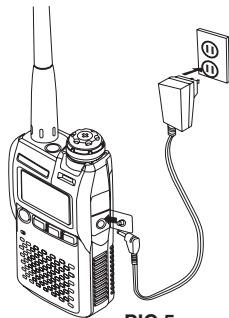


## BATTERY CHARGING

If the battery has never been used, or its charge is depleted, it may be charged by connecting the Battery Charger, as shown in the illustration, to the EXT DC Jack. If only 12-16 Volt DC power

is available, the optional DC Adapter (with its cigarette lighter plug) may also be used for charging the battery. While the battery is being charged, the display will indicate ( See PIC 5), this S-meter will deflect according to the charging status, and the TX/BUSY indicator will glow red. When the charging is finished, the TX indicator will glow green.

The charger is only designed for the charging of our battery, and is not suitable for other purposes. Please be advised that the charger may contribute noise to TV and radio reception in the immediate vicinity, so we do not recommend its use adjacent to such devices.

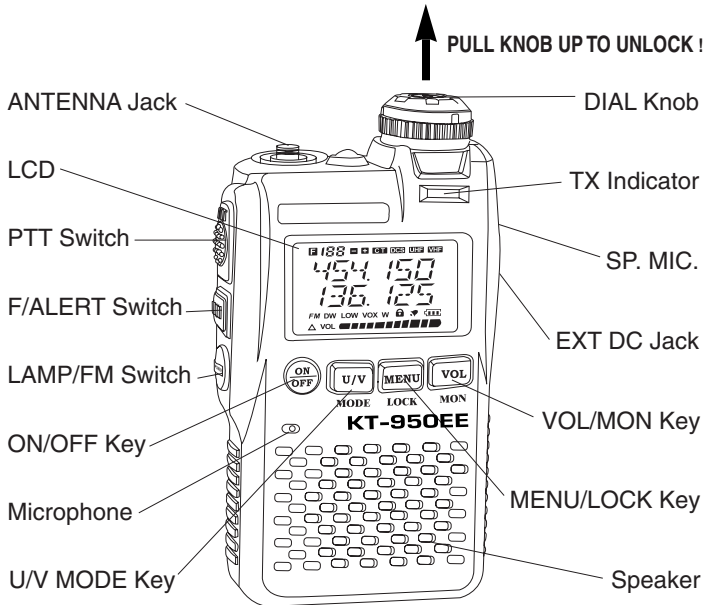


**PIC 5**

**Important Note:**

- 1) Perform the battery charging where the ambient temperature range is  $+5^{\circ} \sim +35^{\circ}$ . Charge out of this range could cause damage to the battery pack.
- 2) If the charge is not completed in several hours, the battery may be deteriorated. Do not attempt to forcibly charge the battery, please contact the dealer.
- 3) If you do not use the transceiver for a long time, remove the battery pack from the transceiver, as battery leakage could cause damage to the transceiver and the battery pack.
- 4) While in storage, the charge will drain slightly over time and the battery should be recharged 50% each six months.

## GETTING ACQUAINTED

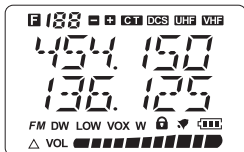


## THE DEFINITION OF THE CONTROL

[DIAL]Knob	The main tuning Dial is used for setting the operating frequency, and is used for audio volume level, menu selections, and other adjustments. To rotate this Dial knob, pull the knob to unlock the mechanical dial lock, and then rotate the Dial knob.
[PTT]Switch	Press this switch to transmit, and release it to receive, after your transmission is completed.
[VOL/MON]Key	Press and Hold the key to disable the noise squelching action, allowing you to hear very weak signals near the background noise level. Just press the key, then rotate the DIAL knob to adjust the audio
[ON/OFF]	Press and hold this key for two seconds to toggle the transceiver's power on and off.
[F/ALERT]	Just press to activate the 'Alternate' key function, such as setting Scanning, Memory Write Mode etc. Press and hold the switch to activate the Alarm function.
[MENU/LOCK]	Just press the key, entering into the MENU. Rotate the DIAL knob, will see different functions setting under the MENU. Press and Hold the key, activate the Key Lock or disable the Key Lock. (Note: After the keypad is locked, the operations of the [F/ALERT], [UV MODE], [LAMP/FM] will be invalid.)
[UV/MODE]	Just press to switch the VFO UHF Mode and VHF Mode. Press and Hold to switch frequency control between VFO and Memory Systems.
[LAMP/FM]	Just press to light the Torch. Press and Hold to activate the FM Radio Function.
F+[MENU/LOCK]	Press the [F/ALERT], then press [MENU/LOCK] to Activate the Scanning Function.
F+[UV/MODE]	Press the [F/ALERT], then press [UV/MODE] to Activate the 'Memory Write' mode (for memory channel storage).
F+[DIAL]	Press [F/ALERT], then rotate the [DIAL] knob, to increase or decrease the frequency at 1MHz.
[VOL/MON]+ [DIAL]	Press [VOL/MON], then rotate the [DIAL] knob, to adjust the volume level.

## LCD DISPLAY

The display icons appear when certain operations are performed or certain specific features are activated. It will help you to know the meaning of the indicator and know how to set functions.



ICON	DESCRIPTION
	Secondary Keypad Active ( Press [F/ALERT] )
<b>188</b>	Operating Band Number or Memory Channel Number
<b>CT</b>	CTCSS Operation
<b>DCS</b>	DCS Operation
<b>UHF</b>	UHF 400-470MHz
<b>VHF</b>	VHF 136-174MHz
<i>FM</i>	FM Radio(87-108MHz)
<b>LOW</b>	Low/High Output Power
<b>VOX</b>	VOX Function Active
<b>W</b>	Wide/Narrow Bandwidth
	Keypad Lock Active
	Keypad Beeper ON
	Battery Indicator
	Repeater Shift Direction
<b>DW</b>	Dual Watch Active
	Audio Volume Level

## COMBINATION KEY FUNCTION

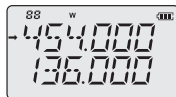
### 1750Hz Tone Calling:PTT+VOL/MONI for 1 second

Press and hold in the button 【 PTT 】 and 【 VOL/MONI 】 to enter the Tone Calling Mode(1750Hz) The transceiver send out the signal (1750Hz). Release the button 【 VOL/MONI 】 to exit.

### Restore to Default Factory Setting:ON/OFF + VOL/MON for 5 seconds

Press and hold the key 【 ON/OFF 】 + 【 VOL/MON 】 ,then Power ON, the transceiver will restore to the default factory setting.

Factory Default Setting as:454.000MHz, No CTCSS/DCS, Low Output power, Battery Save, Volume Level 5, SQ 5, Key Tone ON, other settings OFF.



## MENU DESCRIPTION

Menu Item	Description	Settings
1	RXCODE	OFF/CTCSS, DCS
2	TXCODE	OFF/CTCSS, DCS
3	SQL (Squelch)	0---9
4	LIGHT (LCD Illumination)	OFF/ON /Key
5	BEEP (Keypad Beeper)	OFF--ON
6	VOX	OFF/1---9
7	POWER (RF Output Power)	HIGH/LOW
8	DW(Dual Watch/UHF&VHF)	ON/OFF
9	STEP	5/6.25/10/12.5/20/25 KHz
10	OFFSET	0--37.995/0--69.995MHz
11	SHIFT	0/-/+
12	STE (Tail Tone Elimination)	ON/OFF
13	W/N (Wide Band/Narrow Band)	WIDE/NARROW
14	SAVE (Battery Saver)	ON/OFF
15	TOT (Time out Timer)	OFF/30/60/90/120/150/180S
16	SCANM (Scan Mode)	TO/CO
17	RELAYM (Repeater Sound Response)	ON/OFF
18	BCLO (Busy Channel Lock-out)	ON/OFF
19	PRI(Priority Channel Scanning)	ON/OFF



## MENU SETTING

Press 【MENU/LOCK , come to MENU  
[01]RXCODE



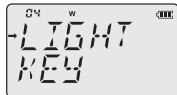
Press 【MENU/LOCK , turn clockwise or  
counterclockwise 【DIAL】 , come to MENU  
[02]TX CODE.



Press 【MENU/LOCK , turn clockwise or  
counterclockwise  
【DIAL】 , come to MENU [03] SQL.



Press 【MENU/LOCK , turn clockwise or  
counterclockwise  
【DIAL】 , come to MENU [04] LIGHT.



Press **【 MENU/LOCK 】** , turn clockwise or counterclockwise

**【 DIAL 】** , come to MENU [05] BEEP.



Press **【 MENU/LOCK 】** , turn clockwise or counterclockwise

**【 DIAL 】** , come to MENU [06] VOX.



Press **【 MENU/LOCK 】** , turn clockwise or counterclockwise

**【 DIAL 】** , come to MENU [07] POWER.



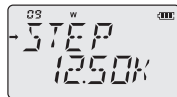
Press **【 MENU/LOCK 】** , turn clockwise or counterclockwise

**【 DIAL 】** , come to MENU [08] DW.



Press 【MENU/LOCK】 , turn clockwise or counterclockwise

【DIAL】 , come to MENU [09] STEP.



Press 【MENU/LOCK】 , turn clockwise or counterclockwise

【DIAL】 , come to MENU [10] OFFSET.



Press 【MENU/LOCK】 , turn clockwise or counterclockwise

【DIAL】 , come to MENU [11] SHIFT.



Press 【MENU/LOCK】 , turn clockwise or counterclockwise

【DIAL】 , come to MENU [12] STE.



Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU [13] W/N.



Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU[14] SAVE.



Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU [15] TOT..



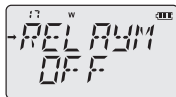
Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU[16] SCANM.



Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU [17] RELAYM.



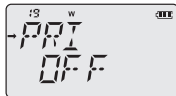
Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU [18] BCLO.



Press **【MENU/LOCK】**, turn clockwise or counterclockwise

**【DIAL】**, come to MENU [19] PRI.



- Press the key **【UV/MODE】**, confirm the setting, and EXIT the functions setting.

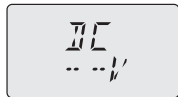
- Battery Save, Time-out Limit, Width/Narrow, only be changed via program software.

- Under the VFO mode, turn clockwise or counterclockwise **【DIAL】** to increase or decrease the frequency.

## OPERATION

### POWER ON/OFF

1. Be sure the Battery Pack is installed, and the battery is fully charged. Connect the antenna to the top panel ANTENNA jack.
2. Press and hold the key **【ON/OFF】**, the current DC supply voltage will appear on the LCD for 2 seconds, and beeps will be heard, the display will resume its normal indication of the operating frequency.
3. To turn the transceiver off, press and hold the key **【ON/OFF】** again for one second.



### ADJUSTING THE VOLUME LEVEL

**Pull the **【DIAL】** knob to unlock the mechanical dial lock**, then rotate the **【DIAL】** knob after press the key **【VOL/MON】**, to set the desired audio level. Clockwise rotation increased the volume level.

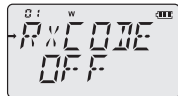
## ADVANCED OPERATION

### RXCODE

You may sometimes want to hear calls from only specific persons or groups. In this case, use the selective call allows you to ignore unwanted calls from other persons who are using the same frequency.

**Set the receiving signal according to the below instructions:**

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [1]: RXCODE
- 2) Then press **【U/V】** key, enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select from OFF /67.0-754N, press **【MENU/LOCK】** again, to select the code (Positive or negative), such as 023N---023I.  
→OFF →67.0 →023N →023I



**NOTE:**

[CTCSS:67Hz---254.1Hz(50 groups);

DCS:023N-754N(104 groups)]

- 4) Press **【U/V】** key to save the setting and EXIT. Press **【MENU/LOCK】** or **【PTT】** ,EXIT to normal operation.

## TXCODE

Set the transmitting signal according to the below instructions:

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [2]: TXCODE
- 2) Then press **【U/V】** key, enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select from OFF / 67.0-754N, press **【MENU/LOCK】** again, to select the code (Positive or negative), such as 023N---023I.  
→OFF →67.0 →023N →023I



## NOTE:

[CTCSS:67Hz---254.1Hz (50groups); DCS: 023N-754N(104 groups)]

- 4) Press **【 U/V 】** key to save the setting and EXIT. Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.

## SQL (SQUELCH ADJUSTMENT)

Squelch System allows you to mute the background noise when no signal being received. The Squelch system make 'Standby' operation more pleasant, and significantly reduces battery current consumption. Please adjust the Squelch level according to the following instructions:

- 1) Press **【 MENU/LOCK 】** , rotate the **【 DIAL 】** knob, come to MENU [3]: SQL
- 2) Then press **【 U/V 】** key, come to the default setting level SQL 5
- 3) Clockwise or counterclockwise rotation of **【 DIAL 】** knob to adjust between 0/1/2/3/4/5/6/7/8/9 (Default Squelch level as 5).
- 4) Select the level at which the background noise is just eliminated when there is no signal. Press **【 U/V 】** key to save the setting.
- 5) Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.





## LIGHT (LCD ILLUMINATION ON/KEY/OFF)

Radio includes a reddish illumination lamp which aids in nighttime operation. The red illumination yields clear viewing of the display in a dark environment, with minimal degradation of your night vision. Three options for activating the lamp are provided:

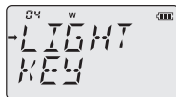
**Key:** Illuminates the LCD when any key pressed.

**ON:** Illuminates the LCD continuously.

**OFF:** Disables the LCD lamp.

**Here is the procedure for setting up the Lamp mode:**

- 1) Press **【 MENU/LOCK 】** , rotate the **【 DIAL 】** knob, come to MENU [4]: LIGHT.
- 2) Then press **【 U/V 】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【 DIAL 】** knob to set ON/OFF/KEY
- 4) Press **【 U/V 】** key to save the setting.
- 5) Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.



## BEEP (KEYPAD BEEPER ON/OFF)

If the Keypad Beeper will inconvenience you (especially being operated in the silent room), you may disable the Beeper according to the following instructions:

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [5]: BEEP
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to set ON/OFF
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **PTT** , EXIT to normal operation.  
(ON-The beeper being activated, LCD displays icon. OFF-The beeper being disabled.)



## **VOX (VOICE OPERATED TRANSMISSION)**

VOX eliminates the necessity of manually switching to the transmission Mode each time you want to transmit. The transceiver automatically switches to transmission mode when the VOX circuitry senses that you have begun speaking into the microphone. Please set according to the following instructions:

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [6]: VOX
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to set: OFF/1/2/3/4/5/6/7/8/9
- 4) Press **【U/V】** key to save the setting.



5) Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.

**NOTE:**

- Grade 7-9: the Most Sensitive VOX Gain Level-Set under silent conditions.
- Grade 4-6: the Medium Sensitive VOX Gain Level-Set under common conditions.
- Grade 1-3: the Least Sensitive VOX Gain Level-Set under too much noise conditions.
- When VOX function is activated, the LCD will display the ICON 'VOX'.

## **POWER (HIGH/LOW RF OUTPUT POWER SELECTION)**

Select the High/Low RF Output Power, please set according to the following instructions:

- 1) Press **【 MENU/LOCK 】** , rotate the **【 DIAL 】** knob, come to MENU [7]:  
POWER
- 2) Then press **【 U/V 】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【 DIAL 】** knob to set: HIGH/LOW
- 4) Press **【 U/V 】** key to save the setting.
- 5) Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.



When set the LOW output power, the LCD will display the ICON **【 LOW 】** , and not display the ICON **【 HIGH 】** , when set the HIGH output power.

## DW (DUAL WATCH FEATURE)

The transceiver's Scanning features include a two-channel scanning capability, which allows you to operate between UHF channel and VHF channel in the VFO mode, while periodically checking a user-defined channel for activity. If one channel is received the signal, the scanner will pause on that channel.

Please activate the DW feature according to the following instructions:

- 1) Press **【MENU/LOCK】**, rotate the **【DIAL】** knob, come to MENU [8]: DW
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to set: OFF (disables the Dual Watch feature)/ON (activates the Dual Watch feature)
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】**, EXIT to normal operation.



## STEP (Channel Spacing Selection)

Radio's frequency synthesizer provides the option of utilizing channel steps of 5/6.25/10/12.5/25KHz per step (optional values differ depending on the band selected). If you need to change the channel step increments, the procedure to do is very easy.

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [9]: STEP
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the new frequency step size 5/6.25/10/12.5/20/25 KHz.
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## **OFFSET (Repeater Operation)**

KT-950EE includes a number of features which make repeater operation simple and enjoyable.

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [10]: OFFSET
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to set the offset frequency (0-37.995M/0---69.995M).
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## **SHIFT (Repeater Shifts)**

Depending on the part of the band in which you are operating, the repeater shift may be either

downward (-) or upward (+). One of these icons will appear at the top of the LCD when repeater shifts have been enabled.

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [11]: SHIFT
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the repeater shifts: 0/-/+
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## **STE (Tail Tone Elimination)**

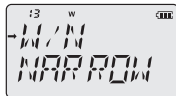
To eliminate the annoying audio caused by carrier wave disappearing after the transmitter ends the communication. You should enable the Tail Tone Elimination. On the contrary, if you want communication via the repeater, you should disable the Tail Tone Elimination.

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [12]: STE
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the STE: ON/OFF
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## W/N (Wide/Narrow Band Selection)

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [13]: W/N
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the WIDE/NARROW:
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## SAVE (Battery Saver)

The radio includes a useful Transmit Battery Saver, which will automatically lower the power output level when the last signal received was very strong. For example, when you are in the immediate vicinity of a repeater station, there generally is no reason to use the high power output in order to achieve full quieting access to the repeater. With the transmit battery saver, the automatic selection of Low Power operation conserves battery drain significantly.

To activate the Transmit Battery Saver:

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [14]: SAVE
- 2) Then press **【U/V】** key to enter the set mode.



- 3) Clockwise or counterclockwise rotation of **【 DIAL 】** knob to select the SAVE: ON/OFF
- 4) Press **【 U/V 】** key to save the setting.
- 5) Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.

### **TOT (Time-out Timer)**

The TOT Feature provides a safety switch, which limits transmission time to a preprogrammed value. This will conserve battery power by limiting the length of transmissions . The TOT default is 180s. To adjust the timer, see the instructions below:

- 1) Press **【 MENU/LOCK 】** , rotate the **【 DIAL 】** knob, come to MENU [15]: TOT
- 2) Then press **【 U/V 】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【 DIAL 】** knob to select the TOT: OFF/30S/60S/90S/120S/150S/180S
- 4) Press **【 U/V 】** key to save the setting.
- 5) Press **【 MENU/LOCK 】** or **【 PTT 】** , EXIT to normal operation.



### **SCANM (Scan Mode)**

Radio allows you to scan the memory channels, entire operating band or a portion of that band. It will halt on signals encountered, so you can talk to the station on that frequency if you like.



To select the scanning mode, please see below:

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [16]: SCANM
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the SCANM: TO/CO
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## **ELAYM (Repeater Sound Response)**

Radio comes with the Repeater Sound Response feature.

When the feature is activated, the handheld transceiver will hear the sound from the repeater, that means the handheld transceiver is working via the repeater. Please see below to activate the features:

- 1) Press **【MENU/LOCK】** , rotate the **【DIAL】** knob, come to MENU [17]: RELAYM
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the RELAYM: ON/OFF
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】** , EXIT to normal operation.



## BCLO (Busy Channel Lock-out)

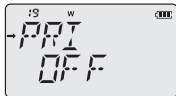
The BCLO feature prevents the radio's transmitter from being activated if a signal strong enough to break through the 'noise' squelch is present. On a frequency where stations using different CTCSS or DCS codes may be active. BCLO prevents you from disrupting their communications accidentally (because your radio may be muted by its own Tone Decoder). The default setting for the BCLO is OFF. The below instruction is the procedure to activate the BCLO:

- 1) Press **【MENU/LOCK】**, rotate the **【DIAL】** knob, come to MENU [18]: BCLO
- 2) Then press **【U/V】** key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to select the BCLO: ON/OFF
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MENU/LOCK】** or **【PTT】**, EXIT to normal operation.



## PRI (Priority Channel Scanning)

- 1) Press **【MENU/LOCK】** button, then rotate the **【DIAL】** knob, coming to MENU [19]: PRI.
- 2) Then press **【U/V】** key to enter the setting mode.
- 3) Clockwise or counterclockwise rotation of **【DIAL】** knob to set PRI:ON/OFF
- 4) Press **【U/V】** key to save the setting.
- 5) Press **【MODE】** or **【PTT】** button to the normal operation.



## ADDITIONAL FUNCTIONS AND SETTINGS

### MEMORY CHANNEL STORAGE (Memory Channels 01-99)

Store the Memory Channel according to the following instructions:

- Select the desired frequency while operating in the VFO mode. Be sure to set up any desired CTCSS or DCS tones, as well as any repeater offset.
- Press **【 F/ALERT 】** button, then press **【 U/V 】** key, Channel 01-99 will flash on the LCD, rotate **【 DIAL 】** knob to store the channel between channel 01-99.
- Press **【 U/V 】** key to save the setting.
- Repeat the process above, to store other channels.

(Note: Repeater offset frequency should be set via programming software.)

### EMERGENCY ALARM FEATURE

Press and hold the **【 F/ALERT 】** button about 1/2 seconds, come to the Emergency Alarm Mode, emergency alarm will be heard, press **【 PTT 】** button, EXIT to normal operation .

### FM RADIO FUNCTION: L/R button on side for 2 seconds

- 1) Press and hold the button **【 L/R 】** , come to the FM Radio Mode.
- 2) Rotate the **【 DIAL 】** knob to adjust the frequency. (The FM broadcast coverage is 87.0MHz to 108.0MHz, Frequency step as 100KHz).
- 3) Then press and hold the **【 L/R 】** button, EXIT the FM Radio Mode.
- 4) Press and hold the **【 U/V 】** to switch the FM radio frequency mode and the FM radio save channel mode.

**Saving broadcast frequencies:**

**In broadcast VFO-Mode: 1.U/V for 3 seconds 2.Select a memory 3.U/V again until the "Beep"**

- 1) Under the FM radio frequency mode, set the frequency you want to save.
- 2) Press the **【 F/ALERT 】** button, and then press the **【 U/V 】** button, 01-15 flashes on the LCD display, rotate the **【 DIAL 】** knob to save it.
- 3) Press the **【 U/V 】** button to confirm saving.

In the FM radio mode, the communication between the transceivers is priority. That means in the FM radio mode, when the signal come, the transceiver will automatically exit the FM radio mode.

## FM RADIO SCANNING

In the FM Radio mode, press **【 F/ALERT 】** button, then press **【 MENU/LOCK 】** key to scan the complete band. Clockwise or counterclockwise rotation of **【 DIAL 】** knob to scan the band from low to high or from high to low. When searches the certain channel, the scanning will stop at the channel. Rotate the **【 DIAL 】** knob, continuously to scan from low to high or from high to low. Press any key to exit the scanning.

## TROUBLESHOOTING GUIDE

PROBLEMS	SOLUTIONS
No Power	Check battery installation and/or replace batteries.
Voltage Capacity Quickly Goes Out	The battery life is over, replace new one.
Can't Communicate with Other Group Members	Verify that the frequency and the CTCSS you are using are the same as those of your group members.
Hear the Voice from Other Groups	Change your CTCSS for the channel. You also need the CTCSS for all the radios in your group.

## SPECIFICATIONS

### General

Frequency	VHF 144-146 MHz (136-174 MHz) (*) UHF 430-440 MHz (400-470 MHz) (*)
Channels	99
Channel spacing	5, 6.25, 10, 12.5, 25 KHz
DC input voltage	3.7 VDC
Standard Battery	1500mAh
Operating temperature	-20/+60°
Dimensions / Weight	mm 47 x 81 x 23 (main body) / 130 gr.
Current Drain (Stand-By)	≤75mA

### Receiver

Sensitivity (12dB Sinad)	0.2 $\mu$ V
Audio output	500mW

### Transmitter

RF output power	2W
Modulation	F3E
Spurious & Harmonics	in compliance with the R&TTE regulations
Maximum deviation	≤ +/- 5KHz / ≤ +/- 2.5KHz
Current Drain	≤1.4A

### FM Radio

Frequency range	87.5 - 108 MHz WFM
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(\*) KT-950EX (INTERN. VERSION) 136-174 MHz / 400-470 MHz (not available for Europe)

## General Information

### Important notice !

The use of VHF and UHF FM transceivers is subject to the regulations applied in the country where the product has to be used. As regulations are usually subject to possible modifications, please check the current regulations in your country with your dealer or local supplier. INTEK does not take any responsibility for illegal use and operation of this product not in accordance with the regulation of the country where the product is used.

### User Information

in accordance with art. 13 of the Legislative Decree of 25th July 2005, no. 15 "Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, relative to reduction of the use of hazardous substances in electrical and electronic equipment, in addition to waste disposal".



The crossed bin symbol shown on the equipment indicates that at the end of its working life the product must be collected separately from other waste.

The user must therefore take the above equipment to the appropriate differentiated collection centres for electronic and electro technical waste, or return it to the dealer when purchasing a new appliance of equivalent type, in a ratio of one to one.

Appropriate differentiated waste collection for subsequent recycling, treatment and environment-friendly disposal of the discarded equipment helps to prevent possible negative environmental and health effects and encourages recycling of the component materials of the equipment.

Illegal disposal of the product by the user will be punished by application of the administrative fines provided for by the legislative decree no. 22/1997 (article 50 and following of the legislative decree no. 22/1997).

## *Notes*

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**INTEK<sup>®</sup>**