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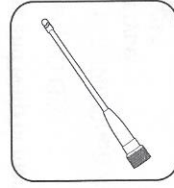
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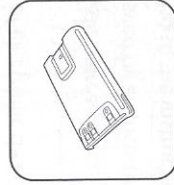
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## Packing List

ITEM	Q'ty
RL-318K Radio	1
Antenna	1
Battery Pack	1
Charger	1
Belt Clip	1
Operation Instruction	1



Antenna



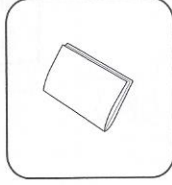
Battery



Charger



Belt Clip

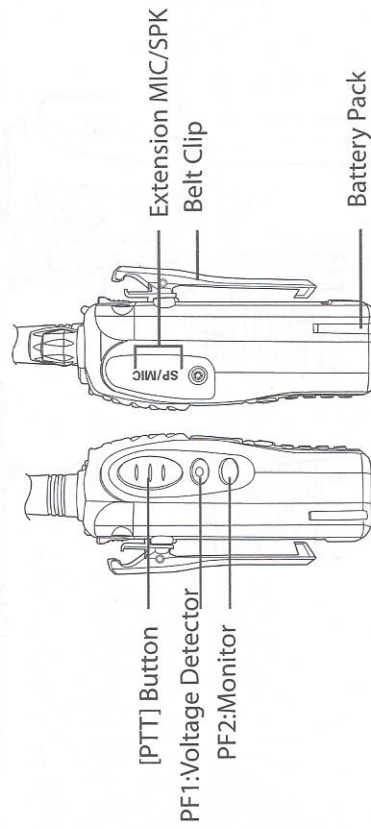
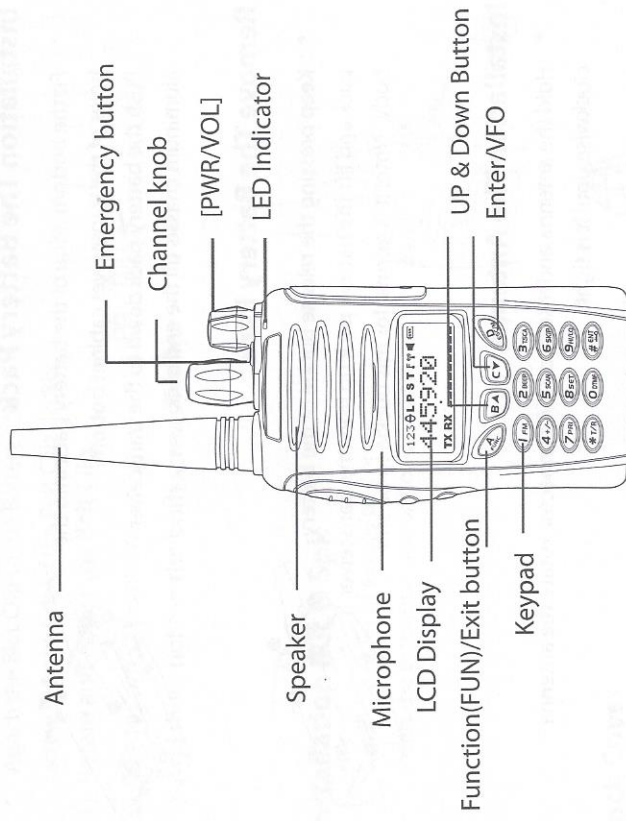


Operation Instruction

## Cautions

- \* **NEVER** transmit without antenna.
- \* **USE** DC power supply, take notice of power voltage must be between 6V and 8V to avoid damaging the unit.
- \* **PLEASE** keep the radio dry. Rainwater or damp will corrode electronic circuits.
- \* **DO NOT** open the unit. Non-expert handling of the unit may damage it.
- \* **DO NOT** forget to remove the radio from the charger when the battery is fully-charged.
- \* **MAKE SURE** the radio is turned off while charging.
- \* **AVOID** storing the radio under the sunshine or in hot areas. High temperature can shorten the life of electronic devices, and warp or melt certain plastics.
- \* **AVOID** storing the radio in dusty, dirty areas.
- \* Risk of explosion if battery is replaced by an incorrect type.
- \* Dispose of used batteries according to the instructions.

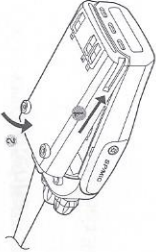
## Parts Name & Functions



## Fitting & Removing the Battery Pack

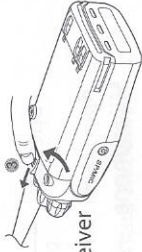
### Installation The Battery Pack

- \* Fit the bottom edge of the battery pack into the holes of the transceiver cabinet bottom.
- \* Push the battery pack down to the transceiver aluminum chassis till the end click.



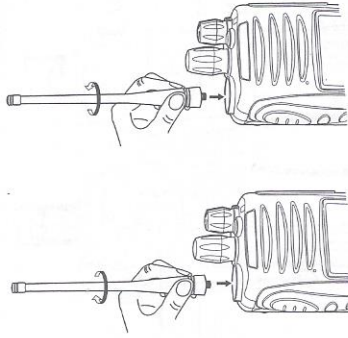
### Remove The Battery Pack

- \* Keep pressing the release buckle of the battery pack and lift the battery pack up from the transceiver body. Note: It is normal for this buckle to be stiff.



### Installation The Antenna

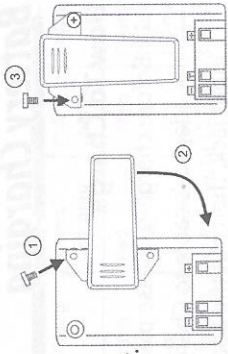
- \* Hold the antenna and insert to SMA connector, rotate the antenna clockwise until it is tight.



### Belt Clip

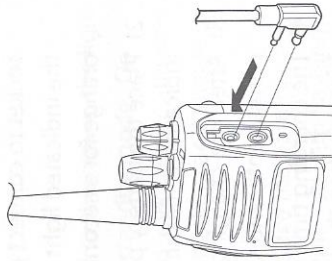
Attach the Belt Clip

- \* Attach the Belt Clip to the Battery and screw the one side of the Belt Clip slackerly.
- 1) Rotate and adjust the Belt Clip.
  - 2) To the correct position.
  - 3) And then, tighten the both screws firmly.



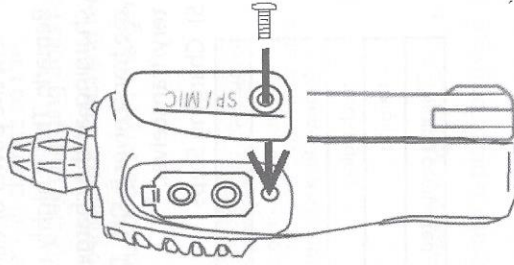
### Installation Mic & Spk

- \* Open the cover of extension connector
- \* Insert the extension microphone & speaker



### Jack Cover

- \* Attach the supplied Jack Cover to radio then tighten the screw.



# Battery Charging

## How To Charge

- 1) Before charging, please place the adaptor's cable to Charger's input jack, then put the adaptor cable to the AC power input socket to connect power, and the indicated light will flash orange for a second.
- 2) Place the battery pack or transceiver in the charger, then the light will indicate as "flashing red" and it is in the "pre-charging" status.
- 3) After "pre-charging" status, the "flashing red" light will turn to "Red" permanently and start to charge.
- 4) The charging time is about 4 hours. The red light will change to "Green" when the battery/transceiver is fully charged. You may now cut the power or take out the battery pack/transceiver.

Remark: This is highly recommended to turn off the transceiver while charging, as the charger is not able to detect the battery status when the transceiver is ON. Thus the charger will continue charge the battery/transceiver.

## 5) Charging Steps

Status	Indicator color
Standby (connect to power will flash "orange" for a second)	None
Pre-charging	Red light with flashing for 5mins
Charging	Red light with permanent for 4 hours
Charging completed	Green light

## 6) Indicator light

Status	Connect to power	No battery	Pre-Charging	Normal Charging	Full charge	Faulty
LED	Flashing Orange for a second	None	Flashing Red for 5mins	Red	Green	Flashing Red for more than 30mins

Note: Faulty indicates the battery is over-heat or short circle, or charger is short circle.

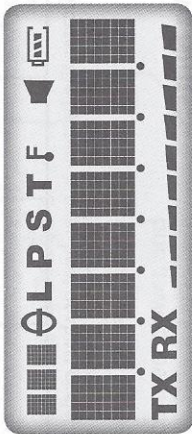
## Normal Charging Hints:

- 1) Self checking: Once the charger is connected to the power, the light will flash "Orange" for a second then become standby mode. On the contrary, if the light indicates "orange" and "red" with continuing flash, then the charger can not pass the self-checking and unable to charge.
- 2) Pre-charging status (trickle charging): When place the battery or transceiver on the charger, the indicator will turn red with flashing which shows the charger is under trickle charging mode. When the red indicator light stops flashing, the charger will change to the normal charging mode. Hints: Pre-charging/trickle charging does not excess more than 30 minutes normally. If the indicator is flashing red more than 30 minutes, please check the status of battery or charger.

## Battery Store Method:

- Need to discharge 50% when store the battery.
  - Must keep the battery at dry and cold under shady.
  - Must keep the battery away from the direct sunlight and over-heat area.
- Warning*
- Please do not cut the circle of the battery pack
  - Please do not open the battery case
  - Please do not install the battery in high risk area, it may cause the fire.
  - Please do not keep the battery at high temperature place or throw it into the fair, this will cause an explosion.

## Symbols Description



	Indicates battery level "Full"
	Indicates the remaining battery power
	Indicates battery level "Empty"
	Indicates CTCSS/DCS Code
<b>F</b>	Indicated while keypad has been locked
<b>T</b>	Indicates TalkAround (Not available in PMR mode)
<b>S</b>	Indicates SCAN Nuisance Channel
<b>P</b>	Indicates Dual Watch (Not available in PMR mode)
<b>L</b>	Indicates Low Power Transmission
	Indicates Scrambler
	Indicates Function Symbol Or memory Channel
	Indicates TX/RSSI Strength
<b>RX</b>	Indicates Receiving Strength
<b>TX</b>	Indicates Transmitting Strength
	Indicates 8 Digits

## Operation Modes

Through its programming software, you can easily tailor the radio to be functioning as an amateur radio or a PMR radio.

### Mode Setting

There are 3 modes for radio's display method. In the "General Setting" of its programming software, you can set the radio's display mode into.

- 1) "Frequency + CH" as memory channel under VFO mode: At this memory channel mode 1, frequency and channel number are shown on LCD. The user can temporarily change radio's settings through keypad. Once the radio is turned off or switched into another channel, those settings will be erased and back to initial settings.



- 2) "Channel name + Channel No." as memory channel under VFO mode: It functions as same as the above 1 but with name tag instead of frequency shown on LCD.



Note: Under the above-two memory channel modes, functioning as an amateur radio, you can press [ ] button to switch into VFO mode. This mode shows only frequency on the display. All menu & channel settings through keypad can be changed & stored as the latest value permanently.



- 3) "CH + Channel No" as Channel /PMR mode : Under this mode, the channel's setting is mainly done through PC programmer. The user can only set up some short cut menu like Scan, Talkaround, DTMF, Beep, & keypad lock.

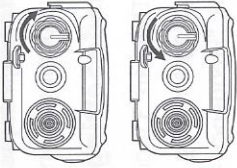


Note: Through PC programmer, once your dealer set the radio into Channel/PMR mode and lock its menu setting, you can not get the radio's mode back to the above 1 & 2 modes.

## Basic Operation

### Turn The Radio ON & OFF

- 1) Rotate the PWR/VOL knob clockwise till the radio is turned on. The radio gets started to auto test for two seconds. During auto testing, all icons will appear on LCD.
- 2) After auto testing is done, LCD will show channel number and what functions have been activated by your dealer.
- 3) Rotate the PWR/VOL knob clockwise to increase its volume or counter clockwise to reduce its volume.
- 4) To turn the radio off, rotate the PWR/VOL knob counter clockwise until the end click.



### Monitor

Press the "PF2" button on the side of the radio to open the squelch. This allows you to override the squelch and the CTCSS or DCS tones. It is useful to monitor the channel before you transmit and ensure there is no one using the channel when you have CTCSS or DCS tones programmed.

### Transmitting

Before transmitting, you can monitor the channel you are using to ensure it is not busy. Keep pressing "PTT" button and start talking at approximately 2 inches from the MIC jack. During transmitting, the LED on the top of the radio will glow red. Release "PTT" button when you have finished talking.

### Receiving

When receiving a signal, the LED indicator will flash green.

- Note: If your radio has set a higher squelch level, you may not be able to receive the call. Also if the current channel is programmed with CTCSS/DCS, then the radio will be unmuted by the same CTCSS/DCS carrier.

### Channel Selection

In Channel mode, or radio mode rotate Channel knob clockwise or counter-clockwise to select desired channel. If group is programmed, then select Group at first then select the desired channel.


In VFO mode, rotate Channel knob/Frequency knob clockwise or counter-clockwise to select desired frequency.

### Frequency Adjustment

In VFO mode, rotate Channel knob/Frequency knob clockwise or counter-clockwise to select desired frequency.

- Note: There are 9 channel steps for you to choose through keypad, including 5k, 6.25k, 10k, 12.5k, 15k, 20k, 25k, 30k, 50k.


### Key In Frequency Through Keypad

In VFO mode or FM radio mode, you can enter the desired frequency directly. If the radio is under Channel mode, press [  ] to switch to VFO mode. Note: When radio is in the Channel mode, the LCD display will indicate the channel number on the top left corner. Enter frequency through keypad: It is invalid when one enters the frequency number is out of the frequency range. The radio will have a "Du" sound and get back to the previous frequency. In FM radio mode, the channel step is 50KHz.




## Key In Channel Number Through Keypad

Press the channel number (001~128) through keypad in Channel mode. If you enter invalid channel number, you will hear a beep sound then the radio will go back to the current channel.

 Note: Enter 001 for Channel 1, 030 for Channel 30 and 125 for Channel 125.

## Scan under FM Radio Mode

Under FM radio mode, press [  ] / [  ] key to scan the radio stations. When the radio receives the FM signal, the LCD display will show the FM radio's frequency.

 Note: Through programmer, you can define scanning per FM frequencies or FM stations in memory list.

## Emergency Alarm Function

Press and hold the Emergency alarm button to activate the emergency alarm under Standby. Turn off the power to cancel the emergency alarm.

 Note: This function must activate through PC programming firstly

## Battery State Display

























Press (PF1) key to check the battery state, it will show battery's voltage on LCD. Press (PF1) key again to exit checking.

## Mode Selection {Channel/Frequency(VFO)}

Press [  ] key to switch between memory Channel and Frequency(VFO) mode.




 Note: This operation is invalid when there is no memory channel.

## Hot key



*		+		Turn FM Radio On/Off
*		+		Turn Beep Sound On/Off
*		+		Start CTCSS/DCS Scanning Setting (Not available in PMR mode)
*		+		Offset Setting (Not available in PMR mode)
*		+		Frequency / Channel Scan
*		+		Skip Channel in Scan mode
*		+		Dual Watch (Not available in PMR mode)
*		+		Menu Operation
*		+		HIGH / LOW Power setting
*		+		DTMF Setting
*		+		Talkaround
*		+		Keypad lock

## Hot Key Operation





### Edit a Channel/Store a Channel

- 1) In Frequency(VFO) mode, enter a desire frequency you want to store into memory channel. Press [  ] key, then the LCD display will show "FUN" on the up-left corner. Keep pressing [  ] key till the "Beep" sound. It will show "001" on the LCD display.
- 2) Rotate the knob to select the channel number you would like to store
- 3) Press and hold [  ] key till it appears two beep sounds. This indicates the channel is successfully saved in the radio.

### Delete a Channel

In channel mode, press [  ] key and you will see the LCD display shows "FUN" on the up-left corner. Then press and hold [  ] key till it appears "beep" sound and jump to another channel. It means you have successfully deleted a channel.

### Turn FM Radio ON/OFF










Press [  ] key and you will see the LCD display shows "FUN" on the up-left corner. Then press [  ] key, it shows the current FM radio frequency on the LCD display. Press [  ] key and then press [  ] key to turn off the FM radio and get back to transceiver mode.




### Beep Setting

Press [  ] key and you will see the LCD display shows "FUN" on the up-left corner. Press [  ] key to turn on or off the beep sound.



### CTCSS Or DCS Scanning

Press [  ] key and you will see the LCD display shows "FUN" on the up-left corner. Press [  ] key to enter CTCSS/DCS scanning. Press [  ] / [  ] key to change scan direction. When scanned a matched code, it will hold for 15 seconds then continue scanning. Press any other key beside [  ] / [  ] / [  ] / [  ] / [  ] to exit scanning.



 Note: This function is invalid under PMR channel mode or when the current frequency/channel is not set up with any CTCSS/DCS code.




### Offset Setting

In Frequency mode, press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to choose either offset+, offset-, or offset off.

- 1) Offset +: TX frequency is higher than RX frequency.
- 2) Offset -: TX frequency is lower than RX frequency.
- 3) Offset off: Offset shut off.

 Note: Offset function is invalid under PMR Channel mode.

### Frequency Or Channel Scanning


In Frequency or Channel mode, press [  ] key and LCD display shows "FUN" on the up-left corner. Then press [  ] key to scan. Press [  ] key again to exit scanning function.







This will scan either full band frequencies or Channels by increase progressively. Please note that the skipped channel will not be scanned (Refer to Skip channel setting).

Moreover through [  ] / [  ] to revise Scan direction. If scan correspond Channel/frequency with CTCSS/DCS will stay at the current

channel/frequency for 5/10/15 seconds (depends on how you program the setting through the computer initially), then go ahead scanning.

-  Note: 1) Scan dwell time can be set through programmer.  
2) PTT during scanning, the radio will transmit on the current scanned channel and stop scanning process.



### Scan Nuisance Channel Setting

In Channel mode, press [  ] till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to set the skip channel when scanning. Press [  ] and then press [  ] key to cancel this function.

- 1) When a channel shows "S" on the LCD display, means this channel will not be scanned.
- 2) When a channel does not shows "S" on the LCD display, means this channel will be scanned.

 Note: This function is invalid under Frequency (VFO) mode.

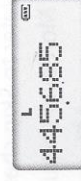
### Dual Watch

In Channel mode, press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to enter Dual Watch Function. The radio will start scanning between the present channel and VFO frequency every 10 seconds. When receiving a matched signal, the radio will stop scanning until the signal is disappear.

 Note: PTT during dual watch, the radio will transmit on the current-watched channel. Dual watch keeps going after TX.

### High/Low Power Switching





In Frequency/Channel mode, press [  ] key till LCD



display appears "FUN" on the up-left corner. Then press [  ] key to activate the HI/LO power function.

- 1) When the LCD display appears "L", the radio is set as low power transmitting.
- 2) When the LCD display does not appear "L", the radio is set as high power transmitting.

### DTMF Encode List



- 1) In Frequency/Channel mode, press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key, the codes will appear on LCD display. There are max 16 groups of DTMF codes to be set in the DTMF encode list through programmer.
- 2) Rotate the Channel Selection Knob to choose from the DTMF encode list and press [ PTT ] key to transmit it. If there is no DTMF encode on the list, it will appear the current encode list as "\_\_\_\_\_".
- 3) When the current encode list appears "\_\_\_\_\_", press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key till the "Beep" sound appears, you can dial DTMF code via keypad.
- 4) After DTMF code setting, press [PF2] to save and transmit the DTMF dial tone code.



### DTMF Manual Transmitting

- 1) Keep pressing [ PTT ] key and enter DTMF code.
- 2) Keep pressing [ PTT ] key and enter the first digit, then release the [ PTT ] key. The radio will transmit for two seconds, in the meanwhile you can enter the remaining DTMF codes without keep pressing [ PTT ].



## Talk Around ON/OFF



Press [  ] key and still LCD display appears "FUN" on the up-left corner. Then press [  ] key for one second till the beep sound, that means you successfully activate talkaround this function. Repeat to dis-activate this function.

This is enable when the operating channel is programmed as Semi-Duplex Frequency (Separate receive and transmit frequencies, utilizing a Repeater system).

- 1) Activate Talk Around will reverse the Tx and Rx frequency as well as the setting of CTCSS/DCS code.
- 2) "T" appears on LCD indicates the Talk Activated is activated RX frequency spot.

## Keypad Lock







Press [  ] key and till the LCD display appears "FUN" on the up-left corner. Press [  ] for two seconds till a key symbol appears on LCD display. To unlock the keypad, repeat the instruction stated above.

 Note: PTT [ PFI ] [ PF2 ] [  ] are able to use when the keypad lock is activated.











## Channel Setting In The Menu List

Channel setting in the menu list is to apply the temporary change to current channel: once the radio is turned off or switched into other channel, the temporary setting will not be stored.

- 1) Press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.
- 2) Press [  ] / [  ] key to select each channel setting in the menu list.
- 3) Rotate the Channel Selection Knob to set up the setting.
- 4) Press [  ] / [  ] key to confirm and exit.

## Subtone CTCSS/DCS Decode Setting

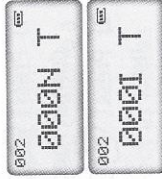
Enable this function will allow you to avoid being disturbed by other radios with different subtone.

- 1) Press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.
- 2) Press [  ] / [  ] key to select "R-CDC" under menu item 001.
- 3) Press [  ] to select CTCSS, DCS or OFF. Under DCS mode, press [  ] key to switch between Normal and Invert.
- 4) Rotate the Channel Selection Knob to choose a CTCSS/DCS code.
- 5) CTCSS: 50 sets, from 67Hz to 245.1Hz.
- 6) DCS: 1024 sets from 000N to 777I. "N" for Normal, "I" for Invert.
- 7) Press [  ] / [  ] key to confirm and exit.



### Subtone CTCSS/DCS Encode Setting

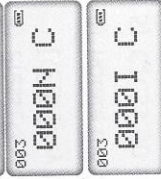
- 1) Press [ ] key till the LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into menu list.
- 2) Press [ ] / [ ] key to select "T-CDC" under menu item 002.
- 3) Press [ ] to select CTCSS, DCS or OFF. Under DCS mode, press [ ] key to switch between Normal and Invert.
- 4) Rotate the Channel Selection Knob to choose a CTCSS/DCS code.
- 5) CTCSS: 50 sets, from 67Hz to 245.1Hz.
- 6) DCS: 1024 sets from 000N to 777I. "N" for Normal, "I" for Invert
- 7) Press [ ] / [ ] key to confirm and exit.



### CTCSS/DCS Encoding/Decoding Simultaneously

This setting can program CTCSS/DCS for Tx/Rx.

- 1) Press [ ] key and till LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] key to select "C-CDC" under menu item 003.
- 3) Press [ ] key to choose CTCSS, DCS or OFF. Under DCS mode, press [ ] key to switch between and I.
- 4) Rotate the Channel Selection Knob to choose a CTCSS/DCS code.
- 5) CTCSS: 50 sets, from 67HZ to 245.1HZ.
- 6) DCS:1024 sets from 000N to 777I, "N" for Normal, "I" for Invert.
- 7) Press [ ] / [ ] key to confirm and exit.



### Offset Interval Setting

This function is to enable you to communicate with other transceivers through a repeater. The repeater use different frequencies to transmit and receive a signal. The interval between the two frequencies called offset.

- 1) Press [ ] key and till LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] key to select "0.100" under menu item 004.
- 3) Rotate the Channel Selection Knob to choose and offset.
- 4) To change offset interval by MHz, you can press [ ] key and you will see the LCD display shows "FUN" on the up-left corner. Rotate the Channel Selection Knob to choose an offset by MHz.
- 5) Offset range from 0 to 1MHz for 245CB, 0-38MHz for VHF, or 0-70MHz for UHF.



### Channel Step Setting







This setting is available only in VFO mode. Channel step is the interval between 2 frequency spot.

- 1) Press [ ] key and till LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] key to select "STEP" under menu item 005.
- 3) Rotate the Channel Selection Knob to choose a channel step: 5K, 6.25K, 10K, 12.5K, 15K, 20K, 25K, 30K or 50K, 9 different settings to choose from.
- 4) Press [ ] / [ ] key to confirm and exit.







## Channel Spacing Setting

Channel spacing is the bandwidth of each channel.


- 1) Press [  ] key and till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.
- 2) Press [  ] / [  ] key to select "W/N" under menu item 006.
- 3) Rotate the Channel Selection Knob to choose 12.5K, 20K, or 25K.
- 4) Press [  ] / [  ] key to confirm and exit.

## Talk Around Setting

- 1) Press [  ] key and till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.
- 2) Press [  ] / [  ] key to select "RV/TA" under menu item 007.





- 3) Rotate the Channel Selection Knob to choose required setting: REV: Revise TX & RX frequencies. TA: TX will be set at the same frequency of RX.

- 4) Press [  ] / [  ] key to confirm and exit.

 Note: Talk Around function can be activated only when you have set up this setting.

## Scrambler Setting


An analog voice inversion scrambler can offer a more confidential communication. Other radios at same frequency will receive only disordered noises.

- 1) Press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.
- 2) Press [  ] / [  ] key till "SCR" appear on LCD display under menu 008.

- 3) Rotate the Channel Selection Knob to choose a setting:

ON: scrambler is enabled;

OFF: scrambler is disabled.

- 4) Press [  ] / [  ] key to confirm and exit.

## Voice Compander Setting

Enable this function will reduce background noise and enhance audio clarity, especially in long distance communication.

- 1) Press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.

- 2) Press [  ] / [  ] key till "COMP" appear on LCD display under menu 009.

- 3) Rotate the Channel Selection Knob to choose a setting:

ON: Voice compander is enabled;

OFF: Voice compander is disabled

- 4) Press [  ] / [  ] key to confirm and exit.

## BCLO/BTLO Setting

BCLO (Busy Channel Lock-Out) is to disable transmitting while RX signal is received. Once the channel is busy and you press PTT, the radio will beep as warning and back to receiving.

BTLO (Busy Tone Lock-Out) is mainly for repeater application. It will not be transmitted until receiving RX carrier with correct sub tone. If the repeater is occupied by other group when you press PTT button, BTLO will stand-by till the using group is leaving.

- 1) Press [ ] key till the LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] till "BUSY" appears on LCD display under menu 010.

- 3) Rotate the Channel Selection Knob to choose a setting:

BCL: is to disable the transmission when RX signal is received

BTL: is to disable the transmission when RX signal but unmatching

CTCSS/DCS tone is received.

OFF: disable this function

- 4) Press [ ] / [ ] key to confirm and exit.

## Optional Signal Function ON/OFF

Optional signal function is working similarly as CTCSS /DCS. Optional signal can fulfill ANI, PTT ID, Group Call, Selective Call, Remote Kill / Stun / Revival.

- 1) Press [ ] key till the LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] till "OPT" appears on LCD display under menu 011.
- 3) Rotate the Channel Selection Knob to choose a setting:



ON: enable to the optional signal.

OFF: disable to the optional signal.

- 4) Press [ ] / [ ] key to confirm and exit.

## Signaling To Unmute Speaker

This function is able to set the un-muting of speaker while in receiving.

- 1) Press [ ] key till the LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] key till "SGN" appears on LCD display under menu 012.

- 3) Rotate the Channel Selection Knob to choose a setting:

OR: Un-mute the speaker when receiving either a matching CTCSS/DCS code or a chosen signaling.

AND: Enable to receive both CTCSS and DCS codes and chosen signal.

- 4) Press [ ] / [ ] key to confirm and exit.

## PTT ID Transmisson Setting

- 1) Press [ ] key till the LCD display appears "FUN" on the up-left corner. Then press [ ] key to get into the menu list.
- 2) Press [ ] / [ ] key till "PTD" appears on LCD display under menu 013.
- 3) Rotate the Channel Selection Knob to choose a setting:

BOT: Transmitting the DTMF code when press the PTT button.

EOT: Transmitting the DTMF code when release the PTT button.

BOTH: Transmitting the DTMF code when press and release the PTT button.



OFF: To disable this function.



- 4) Press [ ] / [ ] key to confirm and exit.



## Transmitting prohibition setting

PTT button is invalid when the function is activated, the radio can only receive signals, but disable to transmit.

- 1) Press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to get into the menu list.

- 2) Press [  ] / [  ] key till "TXHB" appears on LCD display under menu 014.

- 3) Rotate the Channel Selection Knob to choose a setting:



ON: To enable function of no TX.



OFF: To disable function of no TX.

- 4) Press [  ] / [  ] key to confirm and exit.

## Whisper Setting

This function is to set up the sensitivity of microphone's gain. You can talk in whisper but the others still can hear you clearly.

- 1) Press [  ] key till the LCD display appears "FUN" on the up-left corner. Then press [  ] key to enter the menu mode.

- 2) Press [  ] / [  ] till "WHSP" appears on LCD display under menu 015.

- 3) Rotate the Channel Selection Knob to choose a setting:

ON: To enable this whisper.





OFF: To disable this whisper.

- 4) Press [  ] / [  ] key to confirm and exit.










## General Setting

The general setting can be stored until the next set up under any mode, PMR/VFO/channel.

- 1) Hold [ PF2 ] and turn on the radio until the beep sound appears. Release "PF2" button to get into general setting.
- 2) Press [  ] / [  ] to choose once of the general settings.
- 3) Rotate the Channel Selection Knob to choose a setting.
- 4) Press [  ] / [  ] key to confirm and exit.



## Voice Prompt Setting

This function is to have voice announcement to indicate operation is correct or not.

- 1) Hold [ PF2 ] and turn on the power until the beep sound appears.
  - 2) Press [  ] / [  ] till "VOCE" will appear on LCD display under General menu item 001.
- 
- 
- 
- 3) Rotate the Channel Selection Knob to choose.
  - 4) OFF: to disable this function.
  - 5) CHN: Announcement in Chinese.
  - 6) ENG: Announcement in English.
  - 7) Press [  ] / [  ] key to confirm and exit.



## TOT(Time Out Timer)

TOT is the function that prevents from locking up a repeater or frequency by prolonged keying of PTT.

- 1) Hold [ PF2 ] and turn on the power until the beep sound appears.
- 2) Press [  ] / [  ] till "TOT" appears on LCD display under General menu item 002.







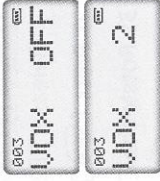


- 3) Rotate the Channel Selection Knob to select from OFF to 240 Seconds.
- 4) Press [  ] / [  ] key to confirm and exit.

## VOX





It is to transmit without pressing [ PTT ] button.

- 1) Hold [ PF2 ] and turn on the power until the beep sound appears.
- 2) Press [  ] / [  ] till "VOX" appears on LCD display under General menu item 003.
- 3) Rotate the Channel Selection Knob to choose.
  - 1: The most sensitive.
  - 3: The least sensitive.
  - OFF: disable this function.
- 4) Press [  ] / [  ] key to confirm and exit.



## VOX Transmitting Delay


To avoid disconnecting voice, it is highly recommended to setup VOX delay time. It is to keep transmitting for a period of time when voice is stopped disconnected. VOX Transmitting Delay function allows you to extend a certain time after transmitting.

- 1) Hold [ PF2 ] and turn on the power till the beep sound appears.
- 2) Press [  ] / [  ] to 004, "VOXD" will appear on LCD display.
- 3) Rotate the Channel Selection Knob to choose a setting. From 0.5S to 5S.
- 4) Press [  ] / [  ] key to confirm and exit.




## DTMF Transmitting Time

- 1) Hold [ PF2 ] and turn on the power till the beepsound appears.





- 2) Press [  ] / [  ] till "DTMF" appears on LCD display under General menu item 005.
- 3) Rotate the Channel Selection Knob to choose a setting.



- 50: Each DTMF signal transmit for 50mS & interval stay for 50mS.
  - 100: Each DTMF signal transmit for 100mS & interval stay for 100mS.
  - 150: Each DTMF signal transmit for 150mS & interval stay for 150mS.
  - 200: Each DTMF signal transmit for 200mS & interval stay for 200mS.
  - 250: Each DTMF signal transmit for 250mS & interval stay for 250mS.
  - 300: Each DTMF signal transmit for 300mS & interval stay for 300mS.
  - 350: Each DTMF signal transmit for 350mS & interval stay for 350mS.
  - 400: Each DTMF signal transmit for 400mS & interval stay for 400mS.
  - 450: Each DTMF signal transmit for 450mS & interval stay for 450mS.
  - 500: Each DTMF signal transmit for 500mS & interval stay for 500mS.
- 4) Press [  ] / [  ] key to confirm and exit.

## Squelch Level Setting

Setting the radio to tight squelch level, you can avoid unwanted signals or noise, but you may not receive a weak signal.

- 1) Hold [ PF2 ] and turn on the power until the beep sound appears.
- 2) Press [  ] / [  ] till "SQL" appears on LCD display under General menu item 006.
- 3) Rotate the Channel Selection Knob to choose. Level of squelch from 0 to 9; 9 is the least sensitive level (for noisy environment). 0 is keep squelch open.
- 4) Press [  ] / [  ] key to confirm and exit.



## Scan Dwell Time Setting

- 1) Hold [ PF2 ] and turn on the power until the beep



sound appears.

2) Press [BA] / [CY] till "SCAN" appears on LCD display under General menu item 007.

3) Rotate the Channel Selection Knob to choose a setting.

5S: stay 5 seconds once scanned a busy channel.

10S: stay 10 seconds once scanned a busy channel.

15S: stay 15 seconds once scanned a busy channel.

4) Press [ENT] / [ENT] key to confirm and exit.

### Backlight Setting

1) Hold [PF2] and turn on the power until the beep sound appears.

2) Press [BA] / [CY] till "LGH" appears on LCD display under General menu item 008.

3) Rotate the Channel Selection Knob to choose.

AT: backlight turn off automatically after a certain of time.

ON: Always turn on. Backlight always turn on.

OFF: Always turn off. Backlight always turn off.

4) Press [ENT] / [ENT] key to confirm and exit.

### Backlight Of LCD Setting

There are three colors available in LCD backlight.

1) Hold [PF2] and turn on the power until the beep sound appears.

2) Press [BA] / [CY] till "COLO" appears on LCD display under General menu item 009.

3) Rotate the Channel Selection Knob to choose.

BLU: blue backlight color.

ORG: orange backlight color.

PUR: purple backlight color.

4) Press [ENT] / [ENT] key to confirm and exit.

### Display Mode Setting

There are three display modes available: PMR channel mode, Frequency mode (VFO) & channel name mode (VFO).

1) Hold [PF2] and turn on the power till the beep sound appears.

2) Press [BA] / [CY] till "DSP" appears on LCD display under General menu item 010.

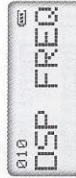
3) Rotate the Channel Selection Knob to choose a setting.

FREQ: frequency number+ channel number (Amateur mode).

CH: channel number (Professional PMR mode).

NAME: channel name; when channel has not been named, the LCD display shows frequency number+ channel number; otherwise it shows channel name (Amateur mode).

4) Press [ENT] / [ENT] key to confirm and exit.



### Burst Tone Setting

Burst tone is an alternative means of accessing the repeater, in addition to CTCSS or DCS tone.

1) Hold [PF2] and turn on the power till the beep sound appears.

2) Press [BA] / [CY] till "TBST" appears on LCD display under General menu item 011.

3) Rotate the Channel Selection Knob to choose a setting.

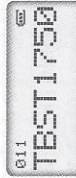
Burst tone: 1000Hz, 1450Hz, 1750Hz and 2100Hz.

4) Press [ENT] / [ENT] key to confirm and exit.

### Battery Saving Setting

1) Hold [PF2] and turn on the power till the beep sound appears.

2) Press [BA] / [CY] till "SAVE" appears on LCD display under General menu item 012.



3) Rotate the Channel Selection Knob to choose a setting.

1:1 Power saving ratio.

1:2 Power saving ratio.

1:4 Power saving ratio.



4) Press [ ] / [ ] key to confirm and exit.

### Beep Volume Level Setting

1) Hold [ PF2 ] and turn on the power till the beep sound appears.

2) Press [ ] / [ ] till "VOL" appears on LCD display under General menu item 013.



3) Rotate the Channel Selection Knob to choose a setting. Volume levels 1~5; Level 5 is the loudest.

4) Press [ ] / [ ] key to confirm and exit.

### Factory Default Setting

This function will reset the current setting back to factory default setting. If your radio seems to be malfunctioning, resetting the microprocessor may solve the problem. When performing the reset, you may lose memory data and stored information. Back up or write down important data before performing the reset.

1) Hold [ PF2 ] and turn on the power until the beep sound appears.

2) Press [ ] / [ ] to 014, "RSET" will appear on LCD display.

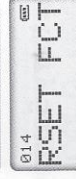
3) Rotate the Channel Selection Knob to choose a setting.

OFF: NO Operation.

FCT: Reset all the functions to factory default setting.

INF: Reset the general settings to initial factory default setting.

4) Press [ ] / [ ] key to confirm and exit.



## Annex I

### CTCSS

1	67.0	11	94.8	21	131.8	31	171.3	41	203.5
2	69.3	12	97.4	22	136.5	32	173.8	42	206.5
3	71.9	13	100.0	23	141.3	33	177.3	43	210.7
4	74.4	14	103.5	24	146.2	34	179.9	44	218.1
5	77.0	15	107.2	25	151.4	35	183.5	45	225.7
6	79.7	16	110.9	26	156.7	36	186.2	46	229.1
7	82.5	17	114.8	27	159.8	37	189.9	47	233.6
8	85.4	18	118.8	28	162.2	38	192.8	48	241.8
9	88.5	19	123.0	29	165.5	39	196.6	49	250.3
10	91.5	20	127.3	30	167.9	40	199.5	50	254.1

### DCS

000	001	002	003	004	005	006	007
010	011	012	013	014	015	016	017
020	021	022	023	024	025	026	027
030	031	032	033	034	035	036	037
040	041	042	043	044	045	046	047
050	051	052	053	054	055	056	057
060	061	062	063	064	065	066	067
070	071	072	073	074	075	076	077
100	101	102	103	104	105	106	107
110	111	112	113	114	115	116	117
120	121	122	123	124	125	126	127
130	131	132	133	134	135	136	137

140	141	142	143	144	145	146	147
150	151	152	153	154	155	156	157
160	161	162	163	164	165	166	167
170	171	172	173	174	175	176	177
200	201	202	203	204	205	206	207
210	211	212	213	214	215	216	217
220	221	222	223	224	225	226	227
230	231	232	233	234	235	236	237
240	241	242	243	244	245	246	247
250	251	252	253	254	255	256	257
260	261	262	263	264	265	266	267
270	271	272	273	274	275	276	277
300	301	302	303	304	305	306	307
310	311	312	313	314	315	316	317
320	321	322	323	324	325	326	327
330	331	332	333	334	335	336	337
340	341	342	343	344	345	346	347
350	351	352	353	354	355	356	357
360	361	362	363	364	365	366	367
370	371	372	373	374	375	376	377
400	401	402	403	404	405	406	407
410	411	412	413	414	415	416	417
420	421	422	423	424	425	426	427
430	431	432	433	434	435	436	437
440	441	442	443	444	445	446	447
450	451	452	453	454	455	456	457
460	461	462	463	464	465	466	467
470	471	472	473	474	475	476	477

500	501	502	503	504	505	506	507
510	511	512	513	514	515	516	517
520	521	522	523	524	525	527	527
530	531	532	533	534	535	536	537
540	541	542	543	544	545	546	547
550	551	552	553	554	555	556	557
560	561	562	563	564	565	566	567
570	571	572	573	574	575	576	577
600	601	602	603	604	605	606	607
610	611	612	613	614	615	616	617
620	621	622	623	624	625	626	627
630	631	632	633	634	635	636	637
640	641	642	643	644	645	646	347
650	651	652	653	654	655	656	657
660	661	662	663	664	665	666	667
670	671	672	673	674	675	676	677
700	701	702	703	704	705	706	707
710	711	712	713	714	715	716	717
720	721	722	723	724	725	726	727
730	731	732	733	734	735	736	737
740	741	742	743	744	745	746	747
750	751	752	753	754	755	756	757
760	761	762	763	764	765	766	767
770	771	772	773	774	775	776	777

## Annex II

### Technical Specifications

GENERAL	
Frequency	136-174MHz/400-470MHz/245MHz
Channel Numbers	128Channels for VHF/UHF radio; 80 Channels (245CB)
Channel Spacing	12.5KHz /20KHz /25KHz
Modulation Mode	F3E (FM)
Supply Voltage	7.2V DC Nominal
Operation Temperature	-20~+55 °C
Frequency Stability	±2.5ppm
Size(mm)	57x105x35 (without antenna)
Weight	250grams
TRANSMITTER	
RF Output Power	VHF 5W/1W; UHF 4W/1W
Max.Freq.Deviation	≤ 2.5KHz@12.5KHz ≤ 5KHz@25KHz
Adjacent Channel Power	≤ -60dB
Audio Distortion	≤ 5%
RECEIVER	
Sensitivity	≤ 0.25uV@12dB SINAD
Adjacent Channel Selectivity	≥ 60dB
Spurious Response Rejection	≥ 60dB
Audio distortion	≤ 5%

**OPERATION INSTRUCTION**

**LUPAX**  
**RL-318K**  
**VHF TRANSCEIVER**

**LUPAX**



**CRoHS**