AnyTone®

Qixiang Electron Science & Technology Co., Ltd
www.anytone.net

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Radio
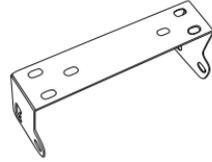
Microphone

Install bracket

Screws

Pads
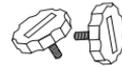
Adjusting screws

Microphone
Hanger

Adhesive Case
Protectors


Fuse(15A 250V)

Choose the most appropriate location from a simple and practical point of view. If installed in a vehicle, care should be taken to ensure your radio does not obstruct the driver or passengers.

1. Use the Self-tapping Screws and Pads to fix the Bracket to a suitable location.

2. Attach the Adhesive Case Protectors to the inside ends of the Mounting Bracket and insert the Radio. Fit the Adjusting Screws loosely, and choose a suitable angle by moving the Adjusting Screws to one of the 3 positions on the Mounting Bracket.

3. Tighten the Adjusting Screws firmly by hand. Make sure the radio and all accessories are securely mounted.
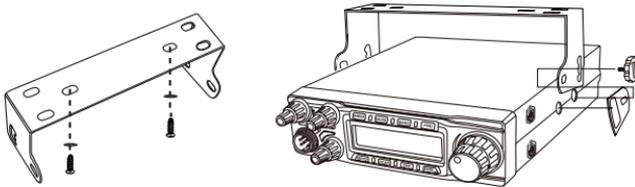
3.1 Antenna Installation ....

Before using this radio, please install an efficient and resonant antenna. Using an antenna that is correctly installed and tuned will enable excellent communication performance.

This radio requires an antenna impedance of 50 ohms, unbalanced.

1. Screw the antenna connector into the antenna jack.

2. Grounding of the antenna system is recommended to ensure best performance.
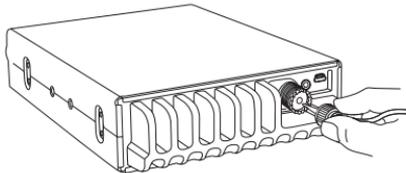
WARNING:

▲ NEVER transmit without a connected resonant antenna, or a suitable 50 ohm load being connected. Damage to the radio may result.

▲ To reduce the risk of electric shock, or radio damage, base station installations should include lightning protection devices.

▲ Ask your authorized dealer or an authorized service center for available antenna options.

3. A mobile antenna can be mounted in various locations, for example:

3.2 Power Connection ....

This radio requires a 13.8V (12V) DC power supply. Never connect the radio directly to a 24V DC battery system, as can be found in some vehicles. Please refer to the radio Specifications to ensure your 13.8V DC power supply can provide enough current (amps), otherwise poor performance may occur.

1. Connect the positive (red) power cable to the + terminal of the battery.

2. Connect the negative (black) power cable to the - terminal of the battery.

▲ Locate the power cable away from high temperature, moisture, and other electrical systems. Ensure it is installed where it cannot be damaged.

▲ It is not recommended to use a vehicle cigar/cigarette lighter socket to power the radio, as it may not supply the correct voltage or current.

▲ Do not remove the fuse holder from the cable.

3.3 Replacing Fuse ....

This radio requires a 15A, 250V fuse.
If the fuse blows, determine the reason, then correct the problem.
After the problem is resolved, replace the fuse. If newly installed fuses continue to blow, disconnect the power cable and contact your authorized dealer or an authorized service center.

1. Pull the two fuse cover in opposite directions and open it.

2. Replace the blown fuse with a new one, and close the fuse holder.

3. Be sure to only use the correct fuse type, otherwise damage may occur.
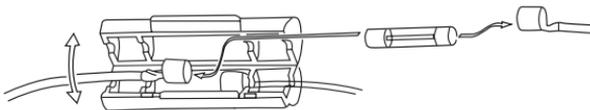
3.4 Install Microphone Hanger ....

Choose a location which will not interfere with the driver. Use the supplied self-tapping screws and pads to install the hanger.
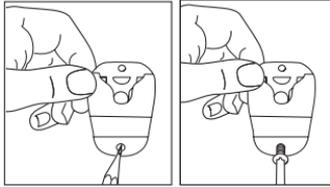
3.5 Install External Speaker ....

If using an external speaker, please choose an 8 ohm speaker with a 3.5mm mono (double cable) TS type plug.

    1. Locate the external speaker in a suitable place.

    2. Plug into the speaker jack.
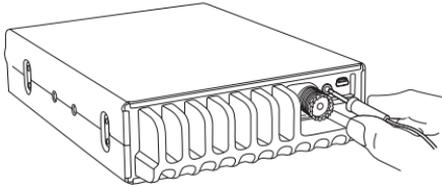
4.1 Front Panel..
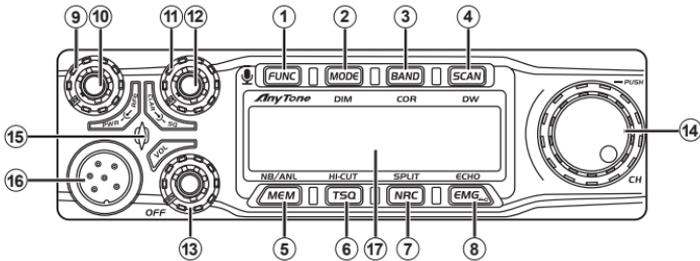
No.	Key	Functions
1	FUNC	Function / Menu key
2	MODE	Switch Mode: FM, AM, USB, LSB, CW, PA
3	BAND	Switch Band: A-I / VFO mode
4	SCAN	Scan / Scan add / Scan delete
5	MEM	Use, Store or Delete memory channels
6	TSQ	Activate / deactivate the CTCSS/DCS function
7	NRC	Activate / deactivate the NRC function
8	EMG	Emergency Channel; Keypad lock
9	PWR	RF Power Control
10	RFG	RF Gain Control
11	SQ	Squelch Control
12	CLAR	SSB/CW Clarifier Control
13	VOL / OFF	Power On/Off; Volume Control
14	CH / PUSH	Channel Switch; PUSH key
15	--	RX/TX Indicator
16	--	Microphone Jack
17	--	LCD Display

4.2 Rear Panel ....
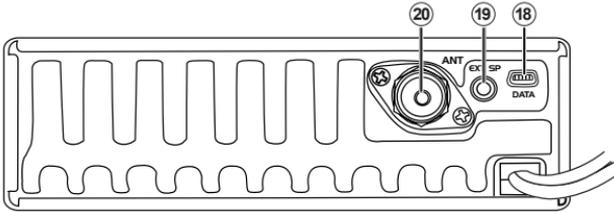
No.	Functions
18	PC Cable Jack
19	External Speaker Jack
20	Antenna Jack

4.3 Microphone ....

PF (User defined)

DOWN ——————— UP

PTT

6-Pin Connector ———— Mic

Microphone cable

1. MIC
2. EXT.AF
3. PTT
4. MIC.KEY
5. GND
6. +DC
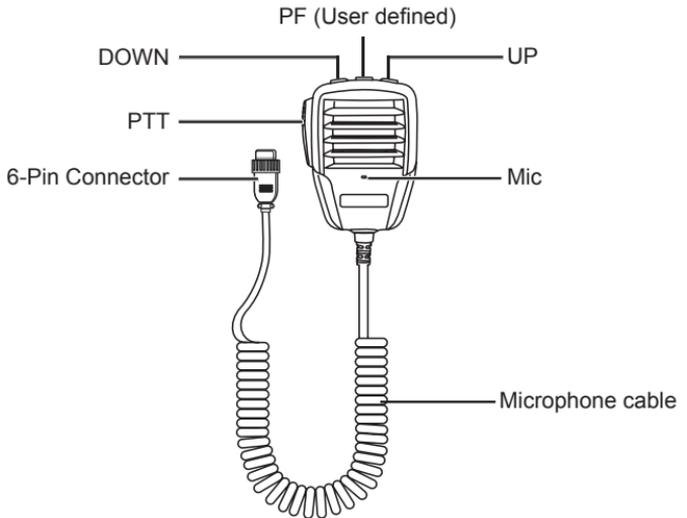
4.4 LCD Display ....
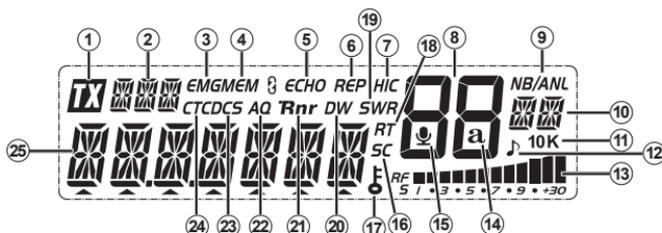
| 1	**TX**	Appears during transmit (TX)
2		Displays the working mode
3	*EMG*	Appears when using Emergency channels
4	*MEM*	Appears when using Memory channels
5	*ECHO*	Appears when Echo function is ON
6	*REP*	Appears when Repeater Offset function is ON
7	*HIC*	Appears when Hi-Cut function is ON
8	**88**	Displays the channel number
9	*NB/ANL*	Appears when Noise Blanker / ANL is ON
10		Displays the Band name
11	**10K**	Appears when +10Khz function is ON
12	♪	Appears when the Roger Beep function is ON
13	*RF* ▮▮▮▮▮▮▮▮ 5 1 ·3 ·5 ·7 ·9 ·+30	Display of the TX/RX signal strength
14	**a**	Not in use
15	🎤	Appears when the VOX function is ON
16	*SC*	Appears when the Scan function is ON
17	🔒	Appears when the Keypad Lock function is ON
18	*RT*	Appears when the SSB/CW clarifier is enabled
19	*SWR*	Appears when the SWR level indication is enabled
20	*DW*	Appears when Dual Watch function is ON
21	*Rnr*	Appears when NRC Noise Reduction function in ON
22	*AQ*	Appears when ASQ is enabled
23	*DCS*	Appears when DCS is enabled
24	*CTC*	Appears when CTCSS is enabled
25		Displays the Frequency and Channel information

5. HOW TO USE YOUR RADIO

5.1 OFF/ON Radio ....

1. Turn **VOL** clockwise to switch the radio ON, the radio may emit a beep (if the BEEP Prompt function is enabled). The LCD display will show a frequency or a channel number.

2. Turn **VOL** anti-clockwise to switch off the radio OFF.

5.2 Volume Control ....

When the radio is turned on, turning **VOL** clockwise will increase the Volume level. Turning **VOL** anti-clockwise will reduce the Volume level. Adjust the volume during communication to get suitable level.

Note: On-screen display of the level can be enabled/disabled with PC software.

5.3 RF Power Control ....

When the radio is transmitting, turn **PWR** outer shaft to adjust power. Turn it clockwise to increase power, anti-clockwise to reduce power.

Note: On-screen display of the level can be enabled/disabled with PC software.

5.4 RF Gain Control ....

When the radio is receiving, turn **RFG** inner shaft to adjust RF gain. Turn it clockwise to increase gain, anti-clockwise to reduce gain.

Note: On-screen display of the level can be enabled/disabled with PC software.

5.5 SQUELCH Control ....

When the radio is standby, turn **SQ** outter shaft clockwise to adjust squelch level. The LCD displays **SQ: XX**. (XX represents the squelch level, total 1-36 levels).

Note: On-screen display of the level can be enabled/disabled with PC software.

5.6 SSB Clarifier Control ....

When the radio is transmitting or receiving, turn **CLAR** inner shaft to adjust USB/LSB/CW TX or RX frequency. Turn it clockwise to increase frequency, or anti-clockwise to reduce frequency.   *Note: See Menu items #15 and #16 for CLAR settings.*

5.7 Channel Selection ....

When the radio is in channel mode, turn channel knob to select desired channel. Clockwise to increase, and anti-clockwise to reduce the channel number.

5.8 Frequency Control ....

1. When in channel mode, press **[PUSH]** key to temporarily adjust the VFO frequency.

2. When the frequency is flashing, press [PUSH] again to adjust frequency step size.

3. When the desired frequency digit/step is flashing, turn **CH** clockwise to increase frequency, or anti-clockwise to reduce frequency.

Note: In channel mode, changing the VFO frequency is temporary, and is not saved to memory. The frequency will return to the default programmed channel after after changing channels.

6.1 MEM or ANL/NB ....

6.1.1 Using memory channels:

1. Short press 〔MEM〕 to enter memory channel, turn **CH** to choose memory channel. M1-M99, (total of 99 memory channels).

2. Short press 〔MEM〕 again to exit memory channel mode.

6.1.2 Store/Delete memory channels:

1. Store memory channel:

When the radio is not in memory channel mode, choose the frequency to be stored, and hold 〔MEM〕 enter storage mode, the channel number flashes. Turn the CH switch to choose the location to be stored (M1-M99), then hold 〔MEM〕 until the channel number stops flashing. The memory is stored.

2. Delete memory channel:

In memory mode, hold 〔MEM〕 for over 2 seconds, the memory channel number flashes, turn the **CH** switch to choose the memory to be deleted, then hold 〔MEM〕 until the channel number stops flashing. The memory is deleted.

6.2 ANL/NB ....

Press 〔FUNC〕 +**[NB/ANL]** key to enable NB/ANL function. The "**NB/ANL**" icon will appear on the LCD display. Press the key repeatedly to switch on/off the function.

6.3 MODE or DIM..

6.3.1 MODE

Short press 〔MODE〕 key to choose the mode FM-AM-USB-LSB-CW-PA.

Note: Modes can be enabled and disabled using the PC software

6.3.2 DIM

Press FUNC+MODE key to adjust the backlight dimmer / brightness.

6.4 BAND or COLOR...

6.4.1 BAND

Short press 〔BAND〕 key to choose band A-B-C-D-E-F-G-H-I.

6.4.2 COLOR

Press 〔FUNC〕 + 〔BAND〕 key switch LED backlight color, repeat this operation to switch between different color backlights.

6.4.3 VFO

Long press 〔BAND〕 key to turn on the VFO function. The LCD displays "**VF**"

6.5 FUNC...

1. Long press [FUNC] for 2 seconds to enter the main Background Function menu (See section "9. BACKGROUND FUNCTION MENU OPERATION").

2. Short press [FUNC], **"FUN"** will appear at the top left of LCD display. Press **[PUSH]** to enter the Function menu list. (See section "7. CHANNEL FUNCTION MENU OPERATION").

6.6 SCAN or DW..

6.6.1 SCAN

1. Short press [SCAN] to start scan function, "*SC*" flashes in the LCD.

2. In scan mode, turning the Channel switch will change the scan direction.

3. Short press [SCAN] again to exit scan.

Add/delete scan list

In channel mode, Long press [SCAN] for over 2 seconds to add or delete a channel from scan list.

1. When LCD displays "*SC*", the present channel is added to the scan list.

2. When LCD does not display "*SC*", the present channel is not added to the scan list.

Note: This function is equal to the CHANNEL FUNCTION menu item, No.06.

6.6.2 DW

Press [FUNC] + [SCAN] key to turn on Dual watch function, LCD displays "*DW*"; Repeat this operation to switch ON/OFF the DW function.

6.7 TSQ or HI-CUT ....

6.7.1 TSQ

Short press [TSQ] key to start the CTCSS/DCS function, repeat this operation to switch ON/OFF the function. Long press [TSQ] key to quickly enter the CTCSS/DCS function setting.

6.7.2 HI-CUT

Press [FUNC] + [TSQ] key to turn on HI-CUT function, LCD displays "*HIC*"; Repeat this operation to switch ON/OFF the function.

6.8 NRC or SPLIT ....

6.8.1 NRC

Short press [NRC] key to start the RX noise reduction function. Repeat this operation to switch ON/OFF the function.

Short press **[PTT]**+ [NRC] key to start the TX noise reduction function. Repeat this operation to switch ON/OFF the function.

Long press [NRC] key to quickly enter the noise reduction level setting menu.

6.8.2 SPLIT

Press [FUNC] + [NRC] key to turn on SPLIT function, LCD displays "*REP*"; Repeat this operation to switch ON/OFF the function.

Note: Refer to Menu items for additional TX Repeater SPLIT / Offset settings.

6.9 EMG ....

Choose EMG channel:

Short press [EMG] to use Emergency channel, LCD displays "*EMG*".

1. Short press [EMG] once to choose CH9;

2. Short press [EMG] again to choose CH19;

3. Short press [EMG] again to return to last normal channel.

Note: See Menu item #20 and #21 for EMG channel settings.

Keypad Lock Function:

1. Long press [EMG] to lock keys, LCD displays " 🔒 ";

2. Long press [EMG] again to unlock the keys.

Note: When this function is turned on, only the [PTT] button is valid.

1. Press FUNC, the top left of LCD displays "**FUN**", Press **[PUSH]** to enter the menu list.

2. Turn Channel switch to select menu No.1- No.7.

3. Press **[PUSH]** to choose the menu to modify.

4. Turn the Channel switch to modify the menu options.

5. Press **[PUSH]** to return to the previous menu. Press any other key or wait 5 seconds, and the menu will exit and the modified settings will be stored.

No.	Function	LCD Display	Values and Descriptions
1	Busy Channel Lockout	*01* BUSY	**OFF:** Disable Busy Channel Lockout function; **ON:** Enable Busy Channel Lockout function; **Default:** OFF.
2	Repeater Offset Direction	*02* REP	**REP+:** Enable offset + direction function, TX frequency > RX frequency; **REP-:** Enable offset - direction function, TX frequency < RX frequency; **OFF:** Disable offset direction function. **Default:** OFF.
3	R-CDC	*03* R--CDC	CTCSS/DCS: RX setup **OFF:** Turn off CTCSS/DCS function; **CTCSS:** 67.0Hz~250.3Hz, Total 38 tones; **DCS:** D023N~D754N, Total 104 codes; **Default:** OFF *Note: Press SCAN key to start CTCSS/DCS scanning.*
4	T-CDC	*04* T--CDC	CTCSS/DCS: TX setup **OFF:** Turn off CTCSS/DCS function; **CTCSS:** 67.0Hz~250.3Hz, Total 38 tones; **DCS:** D023N~D754N, Total 104 codes; **Default:** OFF
5	C-CDC	*05* C--CDC	CTCSS/DCS: RX+TX setup **OFF:** Turn off CTCSS/DCS function; **CTCSS:** 67.0Hz~250.3Hz, Total 38 tones; **DCS:** D023N~D754N, Total 104 codes; **Default:** OFF *Note: Press SCAN key to start CTCSS/DCS scanning.*
6	Add/delete Scan list	*06* SCAN	**ADD:** LCD displays "SC", present channel is added to scan list. **DEL:** LCD does not display "SC", present channel is not added to scan list. **Default:** OFF

7	Public Data	 07 PD	**OFF:** Choose independent channel menu; **ON:** Choose public channel menu; **Default:** ON Note: When OFF is selected, additional hidden public channel menu items 8-13 will appear. These are the same as shown in 'Section 8'.

Note: **Public Data** settings can be used to enable saving of individual settings (e.g. Mode, NB, etc) per individual channel.

For example:

- Channels with **PD=OFF** will remember the last used mode and settings, individually. When you return to the channel later, the last used mode and settings will be recalled.

- Channels with **PD=ON** will use the mode and settings from the global PUBLIC settings (e.g. if the radio is set to FM mode and NB, then all channels with PD=ON will follow this last used global PUBLIC mode and setting.

PC Software can also be used to configure the PUBLIC DATA option for individual channels, bands, or to apply these settings globally.

8. PUBLIC DATA FUNCTION MENU OPERATION

1. Hold **[PUSH]** for 2 seconds to enter the Public Data menu list;

2. Turn the Channel switch to select menu 1-6;

3. Press **[PUSH]** to choose the menu to modify;

4. Turn the Channel switch to modify the menu options.

5. Press **[PUSH]** to return to the previous menu. Press any other key or wait 5 seconds, and the menu will exit and the modified settings will be stored.

No.	Function	LCD Display	Values and Descriptions
1	HI-CUT	01 HICUT	**OFF:** Disable HI-CUT function; **ON:** Enable HI-CUT function; **Default:** OFF.
2	NB/ANL	02 NBANL	**OFF:** Disable NB/ANL function; **ON:** Enable NB/ANL function; **Default:** OFF.
3	ECHO	03 ECHO	**OFF:** Disable ECHO function; **ON:** Enable ECHO function; **Default:** OFF
4	10KHz	04 10KHZ	**OFF:** Disable +10KHz function; **ON:** Enable +10KHz function; **Default:** OFF
5	ROGER	05 ROGER	**OFF- 5,** Total 6 options. **Default:** OFF, (RB Disabled)
6	DTMF PTT ID	06 DTMF	**BOT:** Press PTT to send DTMF encode; **EOT:** Release PTT to send DTMF encode; **CALL:** Hold PTT+EMG to send DTMF encode; **Note:** If the M1-M16 memory storage has no PTT ID's set, the DTMF function will be defaulted to OFF. DTMF groups can only be selected once they have been programmed.
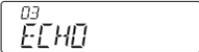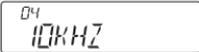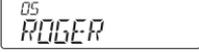
9. BACKGROUND FUNCTION MENU OPERATION

1. Hold **[MENU]** for 2 seconds to enter the Background Function menu list;

2. Turn the Channel switch to select menu 1-37;

3. Press **[PUSH]** to choose the menu to modify;

4. Turn the Channel switch to modify the menu options;

5. Press **[PUSH]** to return to the previous menu. Press any other key or wait 5 seconds and the menu will exit and the modified settings will be stored.

No.	Function	LCD Display	Values and Descriptions
1	KEY.BEEP	*01* KEYBEEP	**1-5,OFF,** Total 6 levels available. **Default:** 03.
2	LCD TX DISPLAY	*02* INDIC	**OFF:** Displays TX frequency when in TX; **SWR:** Displays SWR value when in TX; **TOT:** Displays TOT remaining time when in TX; **DC:** Displays DC voltage when in TX; **Default:** OFF.
3	STEP	*03* STEP	Adjust the default step size in VFO mode. **Options:** 10Hz, 100Hz, 1KHz, 5KHz, 10KHz, 100KHz, 1MHz; **Default:** 1KHz.
4	MIC.GAIN	*04* MICGAIN	**1-45,** Total 45 levels of Microphone Gain available. **Default:** 33.
5	MIC.TYPE	*05* MIC.TYPE	**ELEC:** Electret Microphone **DYNA:** Dynamic Microphone **Default:** ELEC.
6	AM.NPC	*06* AMNPC	**OFF:** Disable AM NPC function. **ON:** Enable AM NPC function. **Default:** OFF.
7	VOL.PATH	*07* VOLPATH	**MAIN:** The VOL knob controls the internal speaker volume; **MIC.JACK:** The VOL knob controls the microphone jack output volume; **BOTH:** The VOL knob controls both the internal speaker and microphone jack output volume; **Default:** MAIN
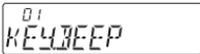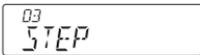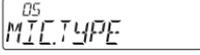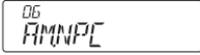
8	Monitor Gain (Talkback)	*08* NOGSET	**1-32, OFF,** Total 33 levels available; **Default:** OFF (Disable NOG function)
9	ECHO volume level setting	*09* ECHO-L	**1-32,** Total 32 levels available; **Default:** 28
10	ECHO delay time setting	*10* ECHO-T	**1-32,** Total 32 levels available; **Default:** 28
11	TOT	*11* TOTSET	**1-600s, OFF,** Total of 10 minutes available; **Default:** 180s
12	SWR Protection	*12* TX SWR	**OFF:** Disable the SWR Protection function; **ON:** Enable the SWR Protection function; **Default:** ON
13	Voltage Protection	*13* TJLSET	**OFF:** Disable the Voltage Protection function; **ON:** Enable the Voltage Protection function; **Default:** ON
14	Scan Type	*14* SCNTYPE	**SQ:** Squelch based scan function; **TI:** Time based scan function; **Default:** SQ
15	Clarifier	*15* CLASET	**OFF:** Disable clarifier adjustment; **R:** Enable RX frequency adjustment; **T:** Enable TX frequency adjustment; **RT:** Enable both RX and TX frequency adjustment; **Default:** R
16	Clarifier Freq Range	*16* CLAFRQ	**500Hz:** adjustable range ±500Hz; **5KHz:** adjustable range ±5KHz; **Default:** 500Hz
17	Dimmer	*17* DIMSET	**1-5,** 5 backlight dimmer levels available; **Off:** Turn off the backlight; **Default:** 5
18	Backlight Color	*18* COLOR	WHITE, BLUE, GREEN, YELLOW, RED, PURPLE, CYAN **Default:** WHITE
19	DW Channel	*19* DWSET	Set the Dual Watch channel, mode and band: Turn channel knob to change channel, press MODE to choose the mode, press BAND to choose the band.
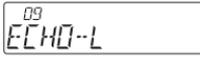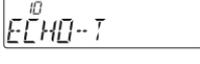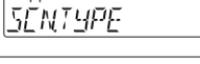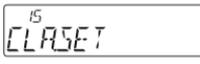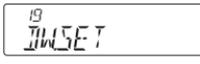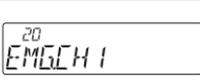
20	EMG1 Channel	$\boxed{\begin{array}{c} 20 \\ EMGCH1 \end{array}}$	Set Emergency Channel 1 and its mode. Turn channel knob to choose the channel, press MODE to choose the mode.
21	EMG2 Channel	$\boxed{\begin{array}{c} 21 \\ EMGCH2 \end{array}}$	Set Emergency Channel 2 and its mode. Turn channel knob to choose the channel, press MODE to choose the mode.
22	TX Repeater Shift	$\boxed{\begin{array}{c} 22 \\ TxREP \end{array}}$	**100Hz-5MHz,** Frequency Shift/Offset range. **Default:** 100KHz
23	ASQ Level	$\boxed{\begin{array}{c} 23 \\ ASQ \end{array}}$	**01-09:** Total of 9 Automatic Squelch levels; **OFF:** Turn off ASQ **Default:** 05.
24	VOX	$\boxed{\begin{array}{c} 24 \\ VOX \end{array}}$	**OFF:** Disable VOX function; **ON:** Enable VOX function; **Default:** OFF
25	VOX sensitivity	$\boxed{\begin{array}{c} 25 \\ VOX-L \end{array}}$	**01-09**, Total of 9 VOX sensitivity levels; **Default:** 03
26	VOX Delay Time	$\boxed{\begin{array}{c} 26 \\ VOX-T \end{array}}$	**01-09**, Total of 9 VOX Delay Time levels; **Default:** 03
27	VOX Speaker	$\boxed{\begin{array}{c} 27 \\ VOXSPK \end{array}}$	**OFF:** VOX PTT is disabled when squelch is open; **ON:** VOX PTT is enabled when squelch is open; **Default:** OFF
28	RX Noise Reduction Level	$\boxed{\begin{array}{c} 28 \\ RXNR \end{array}}$	**01-05:** Total of 5 levels for RX noise reduction; **OFF:** Turn off RX noise reduction; **Default:** OFF
29	TX Noise Reduction Level	$\boxed{\begin{array}{c} 29 \\ TXNR \end{array}}$	**01-05:** Total of 5 levels for TX noise reduction; **OFF:** Turn off TX noise reduction; **Default:** OFF
30	FM Deviation	$\boxed{\begin{array}{c} 30 \\ FMDEV \end{array}}$	**2K:** 2KHz FM deviation **4K:** 4KHz FM deviation **Default:** 2K
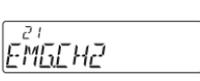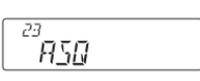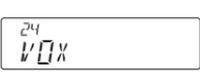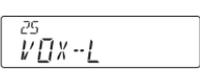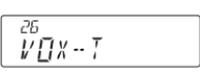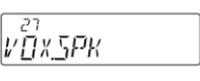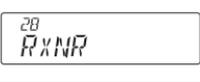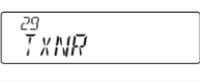
31	SSB TX Audio	31 TONE	**HI 4K:** 4KHz SSB audio bandwidth; **LO 3K:** 3KHz SSB audio bandwidth; **Default:** HI 4K
32	CW Volume (Sidetone)	32 CWBEEP	**01-63:** Adjusts the CW Sidetone level (volume); **OFF:** CW Sidetone disabled; **Default:** 31
33	CW FREQ	33 CWFREQ	**300Hz-3KHz:** This menu is to select CW Sidetone; frequency. The frequency step is 10Hz; **Default:** 1050Hz
34	AGC (S-Meter Response)	34 AGCSET	**SLOW:** AGC SLOW response; **FAST:** AGC FAST response; **Default:** SLOW
35	User Define PF Key	35 PFKEY	A total of 16 PF key functions are available. See 'Section 10. SELF DEFINE PF KEY' for options. **Default:** INDIC
36	DTMF Encode	36 DTMF	**S TIME:** DTMF transmit time; **FDELAY:** First digital delay time; **C TIME:** Pre-carrier time; ***# TIME:** * and # delay time; **D CODE:** D code setting time; **TXDIS:** Display setting for DTMF transmit; **MEM:** DTMF encode storage list; **Note:** In the DTMF encode storage list (M1-M16), press PUSH to edit DTMF code, then turn channel knob to choose desired value. Press PUSH again to edit next list. Hold PUSH to store any chnages and exit back to the main menu.
37	Reset	37 RESET	**OPT:** Settings/Functions reset to defaults; **ALL:** Channels and Settings/Functions reset to defaults; **Default:** OPT

10. SELF DEFINE PF KEY

1. Hold **[MENU]** for 2 seconds and enter the Background Function menu #35 PF.KEY;

2. Press **[PUSH]** to choose the menu to enter modify mode;

3. Turn the Channel switch to modify the PF.KEY menu options;

4. Press **[PUSH]** to return to the previous menu. Press any other key or wait 5 seconds, and the menu will exit and the modified settings will be stored.

No.	LCD Display	1st Function (PF Short Press)	2nd Function (PF Long Press)
1	**VOX**	VOX ON/OFF	Enter VOX setting menu
2	**VFO**	VFO ON/OFF	Enter STEP setting menu
3	**NB.ANL**	NB.ANL ON/OFF. See below: ⤷ **NB → ANL → ANL+NB → OFF** ⌐	--
4	**10K**	+10K ON/OFF	--
5	**ECHO**	ECHO ON/OFF	Enter ECHO setting menu
6	**HI-CUT**	HI-CUT ON/OFF	--
7	**CALL**	DTMF ON/OFF	Enter DTMF setting menu
8	**C-CDC**	CTCSS/DCS ON/OFF - If a channel has no CTCSS/ DCS, the LCD will show "ERROR"	Enter C-CDT setting menu
9	**ASQ**	Enter ASQ level setting menu	--
10	**MIC.GAIN**	Enter Mic Gain setting menu	--
11	**AM.NPC**	AM TX NPC ON/OFF	--
12	**RXNR**	RXNR ON/OFF	Enter RXNR setting menu

13	**TXNR**	TXNR ON/OFF	Enter TXNR setting menu
14	**FM.DEV**	Choose FM Deviation level	--
15	**TONE**	Choose SSB TX bandwidth	--
16	**INDIC**	Choose LCD meter display	When set to SWR, long press enters SWR setting menu.
17	**CH.PUSH**	Choose frequency STEP size	Enter Public Setting PD menu
18	**AGC.SET**	Choose AGC FAST/SLOW speed	--

GENERAL	
Frequency Range	28.000-29.700MHz (Programmable)
Frequency Band	A/B/C/D/E/F/G/H/I + VFO
Channel	40 channels (programmable) in each band
Frequency Control	Phase-Locked-Loop Synthesizer
Frequency Step	10Hz,100Hz,1KHz,5KHz,10KHz,100KHz,1MHz
Frequency Tolerance	±5.0 ppm
Temperature Range	-20℃~ +50℃
Microphone	With Push-to-Talk / UP / DN / PF and coiled cord
Input Voltage	13.8V DC
Dimensions (in mm)	252(L) x 158(W) x 48(H)
Weight	1.27kg
Antenna Connector	UHF, SO239
TRANSMITTER	
Power Output	AM: 80W(PEP) / FM:50W / SSB: 80W(PEP)
Drain	15A (with modulation)
Modulation	FM/AM/USB/LSB/CW
Inter-modulation Distortion	SSB: 3rd order, more than -25dB; 5th order, more than -35dB
SSB Carrier Suppression	55dB
Unwanted Sideband	50dB
Frequency Response	AM/FM: 300 to 3000Hz SSB: 450 to 2500Hz
Output Impedance	50ohms, unbalanced
RECEIVER	
Sensitivity	SSB: 0.25µV for 10dB(S+N)/N AM:1.0µV for 10dB(S+N)/N FM: 1.0µV for 20 dB (S+N)/N (All at greater than 1/2 watt of audio output)
Adjacent-Channel Selectivity	AM/FM: 60dB SSB: 70dB
Image Rejection	More than 65dB
IF Frequency	AM/FM: 10.695MHz 1st IF, 455KHz 2nd IF SSB: 10.695MHz
RF Gain Control	45dB adjustable for optimum signal reception
Automatic Gain Control(AGC)	Less than 10dB change in audio output for inputs from 10 to 100,000 microvolt.
Squelch	Adjustable; threshold less than 1.0µV. Automatic Squelch Control (AM/FM) 1.0µV
Audio Output Power	3 watts into 8 ohms
Frequency Response	AM/FM: 300 to 3000Hz SSB: 450 to 2500Hz
Built-in Speaker	8 ohms, round.
External Speaker(Not Supplied)	8 ohms; disables internal speaker when connected.