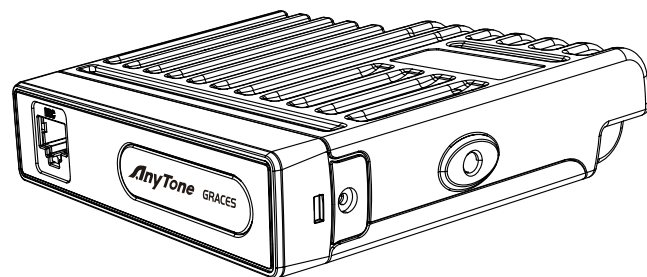




GRACES

CB RADIO

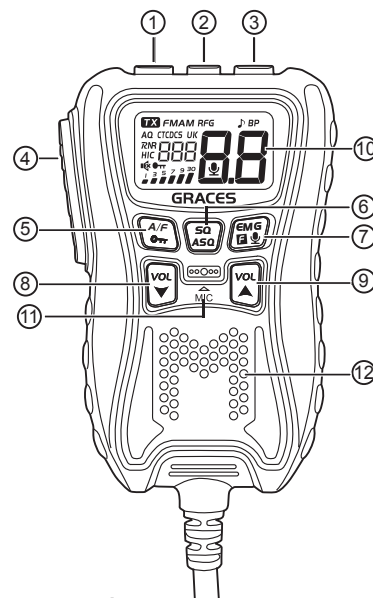
Instruction Manual



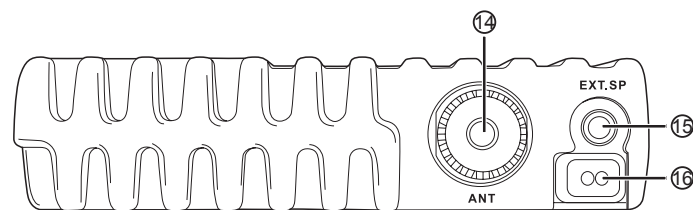
Qixiang Electron Science & Technology Co., Ltd.

www.anytone.net

1.KNOW ABOUT THIS RADIO



1	Channel Down ~ Scan On/Off
2	Power On/Off ~ Speaker Mute
3	Channel Up ~ Scan On/Off
4	PTT
5	Modulation Mode Select ~ Keypad Lock
6	Squelch Level Setting ~ SQ/ASQ Switch
7	CH9/CH19 ~ VOX On/Off ~ Menu
8	Decrease volume level
9	Increase volume level
10	LCD
11	Microphone
12	Built-in Speaker
13	Control Unit Connection Jack
14	Antenna Jack
15	External Speaker Jack
16	Power Cable



2.HOW TO USE THIS RADIO

2.1 Power On/Off the Radio.....

1. Short press **MT** key, the radio emit a prompt and LCD display on.
2. When the radio on, hold **MT** key until nothing appears on LCD and release **MT** key, the radio will power off.

2.2 Volume Control.....

1. Short press **VOL** or **VOL** key to adjust volume, LCD shows "VOL XX" for 2 seconds which means volume level.Total is 27 levels.
2. Hold **VOL** key can fast increase volume level, hold **VOL** key can fast decrease volume level.

2.3 Mute Function.....

1. Short press **MT** key will fastly mute the speaker, "M" appears on the LCD.
2. Short press **MT** key again, the volume will resume to previous volume level setting, "M" disappears from the LCD.

2.4 Channel Control.....

1. Short press **CH** or **CH** key to choose channel.
2. Hold **CH** or **CH** key to choose channel fastly.

2.5 Squelch Level Control.....

1. Short press **SQ** key, until LCD shows "SQ XX", Total is 34 levels, the bigger value stands for high squelch level.
2. Short press **CH** or **CH** key to change SQ level.
3. Hold press **CH** or **CH** key can fast change SQ level.
4. Short press **SQ** key again or wait for 2 seconds to store and exit.

▲ » *The higher SQ level selected, the stronger signal required to open speaker and hear the calling.*

2.6 ASQ Control.....

1. Hold **SQ** key, until LCD displays **AQ**, the ASQ function turned on. The LCD will shows "ASQ XX", Total is 9 levels, the bigger value stands for high squelch level.
2. Short press **CH** or **CH** key to change ASQ level.

2.HOW TO USE THIS RADIO

3. Hold press **CH** or **CH** key can fast change ASQ level.
4. Short press **SQ** key again or wait for 2 seconds to store and exit.

▲ » *The higher ASQ level selected, the stronger signal required to open speaker and hear the calling.*

2.7 Mode Control.....

1. Short press **A/F** key to switch between FM / AM mode.
2. The LCD displays the selected mode.

2.8 Keypad Lock.....

1. Hold **A/F** key for over 3 seconds to lock the keys, "LCK" appears on the LCD.
2. Hold **A/F** key for over 3 seconds again to unlock the keys, "LCK" disappears from the LCD.

▲ » *In lock Mode all keys except PTT is valid.*

2.9 Emergency Channel.....

1. Short press **EMG** key to choose CH9, the channel number blinks on LCD.
2. Short press **EMG** key again to choose CH19, the channel number blinks on LCD.
3. Short press **EMG** key third time to return to last normal channel.

2.10 VOX

1. Press and hold the [PTT] switch.
2. Short press **EMG** key to activate or deactivate the VOX function, "VOX" appears on the LCD when the function is active.

2.11 Scan Function

1. Press and hold **CH** or **CH** key for 7 seconds or until a beep sounds to start scan function. The dot between the two channel digits flashes to indicate that the function is active.
2. Short press **CH** or **CH** key to change scan direction during scan;
3. Press [PTT] switch to exit scan function.

2.HOW TO USE THIS RADIO

2.12 Frequency Band Selection

1. Hold **MT** key while pressing **A/F** key until full appears on LCD and release 2 keys, the current frequency band blinks on LCD;
2. Short press **CH** or **CH** key to choose wanted frequency band;
3. When the frequency band is selected, hold press **A/F** key to store and exit.

2.13 Install External Speaker

Choose a 16Ω external speaker with 3.5mm mono connector.

▲ » **WARNING:** *The sound output mode of the machine is BTL output, and the two pins of the speaker cannot be connected to the ground net or the machine shell! Otherwise, there will be a large DC current flowing through the speaker, which will burn the speaker and components.*

2.14 Menu Operations

1. Long press **EMG** key to enter menu list.
2. Short press **CH** or **CH** key to select menu to be set.
3. Short press **EMG** key to enter function setting parameter of the selected function, the parameter blinks on LCD.
4. Short press **CH** or **CH** key to change the parameter.
5. Short press **EMG** key to validate and stay in the MENU.
6. Long press **EMG** key or **[PTT]** key or wait 10 seconds to store exit MENU.

LCD Display	Function Detail	Setting Details
COL	Backlight color setting	rE (red/default), Gr (green), bL (blue), Cy (cyan), PU (purple), YE (yellow), LL (white)
BEF	Beep sound	ON: turn on beep sound (default) OFF: turn off beep sound
rbP	RB sound setting	OFF (default), 01~06 OFF: turn off RB sound function

2.HOW TO USE THIS RADIO

LCD Display	Function Detail	Setting Details
ni 9	Mic gain control	Level: 01~09 Default: 05
rFP	RF power setting	L: low power (default) n: middle power H: high power Note: This function is valid only when the radio work in HF model or HAM model.
Scn	Scan type setting	S: squelch scan (default) t: time scan
ULE	VOX sensitivity level setting	Level: 01~09 Default: 03
ULt	VOX delay time setting	Level: 01~09 Default: 04
rFg	RF gain level control	OFF (default), 03, 06, 09~48
tot	Time out timer	OFF, 01~10 Min Default: 03
-5t	Frequency -5KHz function	ON: turn on -5KHz function OFF: turn off -5KHz function (default) Note: This function is valid only when the radio work in HF model.
Hi c	HI-Cut setting	ON: turn on HI-Cut function OFF: turn off HI-Cut function (default)
tnc	TX noise reduction level setting	OFF, 01~05 BB: turn off TX noise reduction function. Default: 01
rnr	RX noise reduction level setting	OFF, 01~05 OFF: turn off RX noise reduction function. Default: 01

2.HOW TO USE THIS RADIO

2.15 CTCSS/DCS Set

1. Long press **EMG** key to enter menu list.
2. Short press **CH** or **CH** key to select the **CTCDCS** menu.
3. Short press **EMG** key to validate, the code type blinks on LCD.
4. Short press **CH** or **CH** key to select the code type.
OFF: stands for not set.
ctc: stands for CTCSS tone.
dcs: stands for DCS code.
5. Short press **EMG** key to confirm the code type. The code value flashes (unless selected)
6. Short press **CH** or **CH** key to select the code (form 01 (01) to 38 (38) for CTCSS and 01 (01) to 100 (00) to 104 (04) for DCS)
7. Short press **EMG** key to confirm the selected code.

2.16 Resume Factory Default

1. Long press **EMG** key to enter menu list.
2. Short press **CH** or **CH** key to select the "rES Et" menu.
3. Short press **EMG** key to validate. "rES Et" blinks on LCD.
4. Short press **EMG** key until "rES Et" stops blinking.
5. Release **EMG** key, the radio automatically reseted.

3.SPECIFICATION

GENERAL		
Modulation Mode	AM/FM	
Frequency Range	26.965~27.405MHz	
Frequency Tolerance	± 5.0ppm	
Input Voltage	13.2V	
Dimensions	111x104x25mm	
Weight	300g	
Ferquency Control	PLL Synthesizer	
Operating Temperature Range	-20°C to +50°C	
Current Drain	Transmit	2A MAX
	Receive	Squelched 0.3A
	VOL Max	0.8A
Antenna Connector	UHF, SO-239	
TRANSMITTER		
Power Output	4 Watts FM/AM	
Transmission interference	inferior to 4nW(-54dBm)	
Frequency Response	300~3000Hz	
Modulated signal distortion	inferior to 5%	
Output Impedance	50 ohms	
RECEIVER		
Sensitivity	Less than 1uV for 10dB(S+N)/N	
Image Rejection	70dB	
Adjacent Channel Rejection	60dB	
IF Frequencies	1st 10.695MHz	
	2nd 455KHz	
Automatic Gain Control(AGC)	Less than 10dB change in audio Output for inputs from 10 to 50000uV	
Squelch	less than 1uV	
Audio Output Power	1Watts	
Frequency Response	300~3000Hz	