ABBREE®

AR-M7

CB RADIO

Instruction Manual

1. ACCESSORIES

Radio

Microphone

Mounting Bracket

Spare Fuses
(5A,250V)

Adjusting screws
(2 pieces)

Self-tapping Screws
(6 pieces)

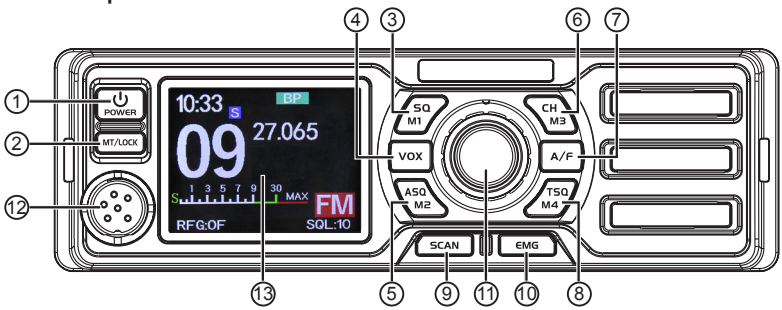
Pads for bracket
(6 pieces)

Microphone Hanger

DC Power Cable with Fuse Holder

2. KNOW ABOUT THIS RADIO

2.1 Front panel function



NO.	Button	Function
1	POWER	Power On/ Off button
2	MT/LOCK	Mute/ Keypad lock button
3	SQ M1	Squelch function/ Store memory channel function button
4	VOX	VOX function button
5	ASQ M2	ASQ (Automatic Squelch Control) function/ Store memory channel function button
6	CH M3	Channel switch/ Store memory channel function button
7	A/F	Modulation switch button
8	TSQ M4	CTCSS/DCS function / Store memory channel function button
9	SCAN	Scan channel function button
10	EMG	Emergency channel button
11		Volume knob/ Push/ Function menu button
12	MIC	Microphone interface
13	LCD	Display the status of channel/frequency and various function settings

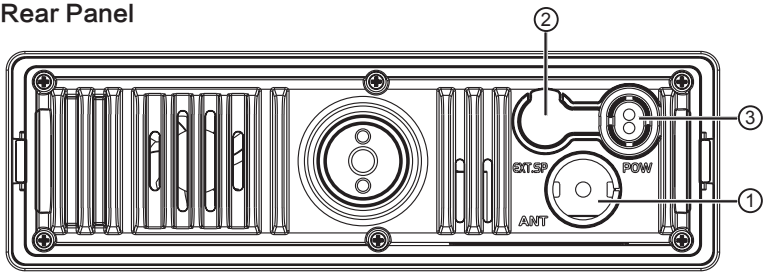
After pressing the PUSH button, press the following buttons to enter function:

Button	Function
SQ M1	Choose storage memory channel M1
ASQ M2	Choose storage memory channel M2
CH M3	Choose storage memory channel M3
TSQ M4	Choose storage memory channel M4

Hold on pressing the following buttons to enter function:

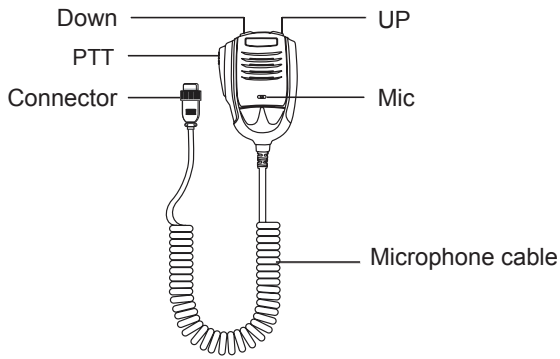
Button	Function
SQ M1	Store/ delete memory channel M1
ASQ M2	Store/ delete memory channel M2
CH M3	Store/ delete memory channel M3
TSQ M4	Store/ delete memory channel M4
SCAN	Add/ remove scan channel list

2.2 Rear Panel



NO.	Button	Function
1	Antenna Interface	Install the antenna here, the impedance is 50Ω
2	External Speaker Jack	Connect the optional external speaker SP01 here
3	Power cable	Connect the standard DC (Direct Current) power cable here

2.3 Microphone



3. HOW TO USE THIS RADIO

3.1 Power On/Off the Radio .....

(1) Power On the radio: Press the [POWER] button, the screen will light up and display "WELCOME", then the radios will show the current frequency or channel, it's on.

(2) Power Off the radio: Press the [POWER] button for 2 seconds, the screen will display "CLOSING", then all the display will disappear, it's off.

3.2 Volume Adjustment .....

When the radio is under standby, turn the VOL knob to adjust the volume, turn it clockwise to increase the volume, and turn it counterclockwise to decrease the volume.

Note: *Set the volume level during a call to adjust the desired volume more accurately.*

3.3 Quick Mute Setting .....

Under standby state, short press the [MT/LOCK] key, the screen will display the mute icon to enter mute mode; Short press the [MT/LOCK] key again or turn the VOL knob, the screen displays the volume level to exit the mute mode.

3.4 Enter Stored Memory Channel and Exit Out .....

Enter Stored Memory Channel: Short press the [PUSH] button, the screen will displays the "FUNC" icon, then press the corresponding M1-M4 to enter the memory channel mode; Short press the CH/M3 button when the channel number is blue, and then turn the VOL knob to exit the memory channel mode out.

3.5 Store Memory Channel .....

In the non-storage channel, select the channel you want to store, and hold on press the corresponding M1-M4 button until the screen displays the storage channel number and emits a "DiDi" sound, and the storage is completed.

3.6 Delete Memory Channel .....

Under the storage channel, hold on press the corresponding M1-M4 button until the storage channel number displayed on the screen disappears and a "DiDi" beep sounds, and the storage channel deletion is completed.

4. KEYPAD FUNCTION

4.1 [MT/LOCK] Button.....

Keypad Lock Function

(1) Hold on press the [MT/LOCK] key for 2 seconds to turn on the keypad lock function, and the screen will display the " " icon.

(2) Hold on press the [MT/LOCK] key again for 2 seconds to turn off the keypad lock function.

Note: *When the key is locked, the PTT key /VOL switch knob is valid, and the other keys are invalid.*

4.2 [SQ M1] Button.....

SQ Level Selection

Short press the [SQ M1] button to display the current SQ level on the LCD. You can select the desired SQ level by rotating the VOL switch or pressing the [UP/DOWN] button of the microphone. There are OFF and 1–34 levels to choose.

4.3 [VOX] Button .....

VOX Function

Short press the [VOX] button to turn on the voice control function, short press the [VOX] button again to turn off the voice control function.

4.4 [ASQ M2] Button.....

Automatic Squelch Level Selection

Short press the [ASQ M2] button to display the current ASQ level on the LCD. You can select the desired ASQ level by rotating the VOL knob or pressing the [UP/DOWN] button of the microphone. There are 1–9 levels to choose.

4.5 [CH M3] Button.....

Channel Selection

In the channel mode, short press the [CH M3] button, when the channel number is blue, turn the VOL knob or press the [UP/DOWN] button of the microphone to select the desired channel. Turn clockwise to adjust to the next channel , turn counterclockwise to the previous channel.

4.6 [A/F] Button .....

Modulation Mode Selection

(1) Short press the [A/F] button to switch the communication modulation mode AM/FM.

(2) The selected modulation mode will be displayed on the LCD.

4.7 TSQ M4 Button .....

CTCSS/ DCS Code Function

(1) Short press the TSQ M4 button to enter the CTCSS/DCS encode and decode function, and the screen will displays the "CTC or DCS" icon.

(2) Short press the TSQ M4 button for the first time to enter the CTCSS encode and decode signaling function.

(3) Short press the TSQ M4 button for the second time to enter the DCS encode and decode signaling function.

(4) Short press the TSQ M4 button for the third time to turn off the CTCSS/DCS codec encode and decode signaling function.

4.8 SCAN Button.....

Scan Function

(1) Short press the SCAN button to enter the scan function, and the screen will flashes a red "S" icon.

(2) Under the scanning state, press the CH M3 button and then turn the VOL knob or press the [UP/DOWN] button of microphone to change the scanning direction.

(3) Short press the SCAN button or the PTT button again to exit scan.

Add/ Delete Scan List

(1) Hold on press the SCAN key for 2 seconds to set the current channel to be added to the scan list or deleted it from the scan list.

(2) When the screen shows "S" icon, it means that the current channel is not in the scan list, and the channel will not be scanned during scanning.

(3) When the screen doesn't show "S" icon, it means that the current channel has been added to the scan list, and the channel will be scanned when scanning.

4.9 EMG Button .....

Emergency Channel Function

Short press the EMG button to enter the emergency channel function, and the screen displays the "EMG" icon.

(1) Short press the EMG button once to choose the CH9 channel.

(2) Short press the EMG button twice to choose the CH19 channel.

(3) Short press the EMG key thrice to return to the original channel.

4.10 【PUSH】Button.....

Hold on press the [PUSH] button for 2 seconds to enter the function menu setting.

4.11 Norms and Frequency .....

(1) In the power off state, hold on press the A/F button to power on the radio and displays the norms in LCD.

(2) Turn the knob or press the UP/DN button of the microphone to select norms.

(3) Turn off the radio to confirm selected norms and exit.

4.12 Install External Speakers.....

If you plan to install external speakers, choose speakers with 8Ω and a 3.5mm mono (two-conductor) plug.

(1) Install the external speakers in an ideal position.

(2) Plug the speaker connector into jack.

5. FUNCTION MENU OPERATION

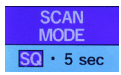
Hold on press the [PUSH] button to enter sub MENU, rotate the VOL knob to switch betwen sub menu : Functions or PARA-SET or TIME-DATE

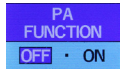
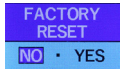
Press the [PUSH] button to enter the sub menu list,
Rotate the VOL knob to select the function options;

Press the [PUSH] button to enter the selected function, rotate the VOL knob for setting, and press the [PUSH] button to save the setting;

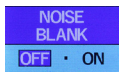
Short press the EMG button to exit the function setting menu step by step.

5.1 FUNCTION MENU SETTING

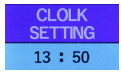
NO.	LCD display	Function detail	Setting details
1.1		Display brightness of backlight setting	Option 1~5, there are 5 levels to choose; Default: 5
1.2		Keypad brightness of backlight setting	1~5, there are 5 levels to choose; Default: 5
1.3		Keypad beep setting	OFF:Shut beep function ON:Open beep function Default: ON
1.4		Power on setting	OFF:Turn off the automatic power-on function ON:Turn on the automatic power-on function
1.5		Scan type setting	SQ:SQ scan function TI:Time scan function
1.6		Scan range setting	OFF:Turn off scan range function ON:Turn on scan range function Default: ON Note: Set the scan begin channel or frequency when “S” is displayed in the menu, and set the scan stop channel or frequency when “E” is displayed
1.7		Dual watch channel setting	One of 1-40 channels can be set, the channel before entering menu is another dual watch channel Default: 09
1.8		Dual watch function setting	OFF: turn off the dual watch function. ON: turn on the dual watch function. Default : OFF
1.9		TOT settings	OFF~600S, 10 minutes to choose, OFF is to turn off TOT function; Default: 60S
1.10		RF gain setting	OFF/ AU/ 03/ 06/ 09~48, total 18 types to select, OFF is to turn off the RF gain function; Default: OFF Note: If set the AUTO RFG function, the radio will turn on the automatic RFG function.

1.11		Microphone type settings	DY：Dynamic MIC EL：Electronic MIC Default: EL
1.12		Microphone sensitivity settings	1~9, total 9 levels, the higher level the higher sensitivity of microphone; Default: level 6
1.13		TALK BACK function settings	OFF/ 1~9, total 10 levels, the higher level the louder it will sound; Default: OFF
1.14		NC function settings	OFF：turn off NC function; ON：turn on NC function; Default: OFF
1.15		NG function settings	OFF：turn off NG function; ON：turn on NG function; Default: OFF
1.16		PA function settings	OFF：turn off PA function; ON：turn on PA function; Default: OFF
1.17		VOX sensitivity settings	1~9, total 9 levels, the higher level the higher sensitivity of VOX; Default: level 3
1.18		VOX delay time settings	1~9, total 9 levels, the higher level the longer delay time of VOX; Default: level 4
1.19		SWR protection settings	OFF/ 2.0/ 2.5/ 3.0/ 4.0/ 5.0/ 10.0, OFF is to turn off SWR protection function Default: OFF
1.20		Power on display settings	DEF PIC: default picture display USET PIC: Customized picture display (can be written by PC software) CHAR: indicates the name BAT: voltage display Default : DEF PIC
1.21		RX NRC(Noise reduction) function setting	OFF: Turn off NRC function ON: Turn on NRC function Default: OFF (**Optional function, only have this function when NRC PCB added)
1.22		Factory reset settings	ALL the channels, function settings will be back to factory default settings

5.2 RARA–SET MENU SETTING

NO.	LCD display	Function detail	Setting details
2.1		Public channel settings	OFF:turn off public channel function; ON:turn on public channel function; Default: ON
2.2		Add/ delete scanning settings	ADD:Add scanning list SKIP:Delete scanning list Default: ADD
2.3		CTCSS/DCS Decode settings	OFF：Turn off CTCSS/DCS function CTCSS:C01–67.0Hz~C38–250.3Hz； DCS:D001–023N~D104–754N； Default：OFF
2.4		CTCSS/DCS Encode settings	OFF：Turn off CTCSS/DCS function CTCSS:C01–67.0Hz~C38–250.3Hz； DCS:D001–023N~D104–754N； Default：OFF
2.5		CTCSS/DCS Decode & Encode settings	OFF：Turn off CTCSS/DCS function CTCSS:C01–67.0Hz~C38–250.3Hz； DCS:D001–023N~D104–754N； Default：OFF
2.6		HI-CUT function settings	OFF:turn off HI-CUT function; ON:turn on HI-CUT function; Default: ON
2.7		NB function settings	OFF:turn off NB function; ON:turn ON NB function; Default: ON
2.8		RB function settings	OFF/ 1/ 2~8, total 9 levels, OFF is to turn off RB function Default: OFF
2.9		Busy channel lock out function settings	OFF:turn off Busy lock-out function; ON:turn on Busy lock-out function; Default: OFF

5.3 TIME–DATE MENU SETTING

NO.	LCD display	Function detail	Setting details
3.1		CLOLK SETTING	Setting hours and minutes, the radio is 24hours system display
3.2		DATE SETTING	Setting DATE,MONTH,YEAR
3.3		DISPLAY SETTING	CLOCK:clock display VOLTAGE:voltage display DEFAULT:CLOCK
3.4		SCREEN SAVER TIME SETTING	OFF,5,10~60S,total 13 levels for optional DEFAULT:OFF
3.5		CLOCK COLOR SETTING	WHITE:White YELLOW:Yellow RED:Red GREEN:Green CYAN:Cyan DEFAULT:WHITE
3.6		POWER OFF SCREEN SAVER SETTING	OFF: close SCREEN SAVER display function CLOCK: open SCREEN SAVER display function DEFAULT:OFF

6. SPECIFICATION

GENERAL		
Modulation Mode		AM/FM
Frequency Range		26.965−27.405MHz
Frequency Tolerance		±5.0ppm
Dimensions(in mm)		188x78x58mm
Ferquency Control		PLL Synthesizer
Operating Temperature Range		−20℃ TO + 55℃
Current Drain	Transmit	3A MAX
	Receive	Squelched 0.3A
	VOL Max	0.8A

TRANSMITTER	
Power Output	4 Watt 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

FCC Compliance Statements:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

RF Exposure and Separation Distance:
For safe operation, the minimum separation distance should be 36.2cm.

WARNING:
MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

Xiamen Aorui Electronics Co.,Ltd