



Qixiang Electron Science & Technology Co.,Ltd.

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***AnyTone***<sup>®</sup>

# ***ARES II***

# Instruction Manual





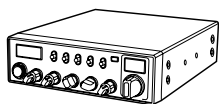
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## FUNCTIONS & FEATURES

- ◆ PA/FM/AM/USB/LSB mode
- ◆ Weather Channel 150-170MHz programmable(Optional)
- ◆ CTCSS/DCS Code
- ◆ PWR, RX RSSI S-Meter
- ◆ PC programmable
- ◆ Echo Function
- ◆ SQ, ASQ Function
- ◆ RF Gain Adjustment
- ◆ Mike Gain Adjustment
- ◆ RF PWR Adjustment
- ◆ Programmable RB
- ◆ NB/ANL Function
- ◆ Offset Function
- ◆ Beep Voice Prompt
- ◆ +10KHz Function
- ◆ TOT Function
- ◆ HI-CUT Function
- ◆ Busy channel lock
- ◆ Monitor
- ◆ LED Brightness Adjustment
- ◆ SWR Protection
- ◆ Voltage Protection
- ◆ VOX Function
- ◆ RX noise reduction
- ◆ TX noise reduction
- ◆ NPC function
- ◆ SCAN function

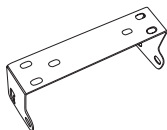
## ■ STANDARD ACCESSORIES



Radio



Microphone



Mounting Bracket



Microphone  
Hanger



Non-slip  
Mat



DC Power  
Cable



Screws for  
bracket



Pads for  
bracket



Adjusting  
screws



Spare Fuses  
(10A,250V)



Self-tapping  
Screws



Pads

## ■ OPTIONAL ACCESSORIE



USB Programming  
Cable

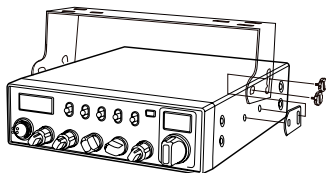
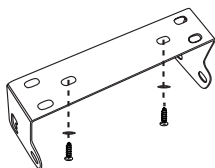


External Speaker

## ■ INSTALLATION

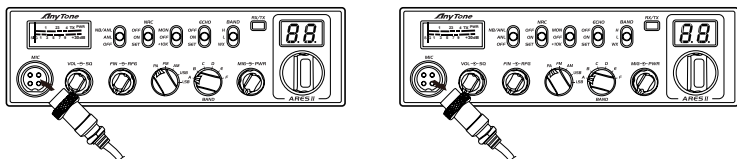
Choose the most appropriate setting from a simple and practical point of view. Your radio should not interfere with the driver or crash the driver's knee or leg when rush brake.

1. Using the self-tapping screws and pads(2 sets) to fix the bracket.
2. Put the Non-slip mat on the 2 ends of the bracket and put in the radio. Then insert the adjusting screws and check careful each screws, make sure the screws and machine will not loose when the car shaking.
3. Choose suitable angle by the 3 screw holes in the two ends of bracket.



## ❏ Microphone connection

1. Plug microphone connector into jack.
2. Pull on the screw for microphone connector.

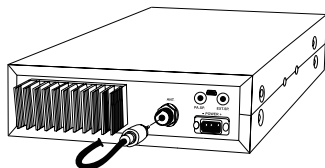


## ❏ ANTENNA INSTALLATION

Before using this radio, please install a high efficient and harmonious adjusted CB antenna, suitable antenna type and correct installation will bring excellent communication.

To match with the radio, the antenna and cable shall with characteristic impedance of 50ohm, or the antenna system will not efficient enough and will disturb TV, radio or other electronics.

1. Screw the antenna connector into the antenna jack.
2. Grounding the antenna system to ensure best performance of this radio.



### WARNING:

- ▲ Connect antenna firstly before transmitting, or it might damage the radio.
- ▲ To avoid the risk of fire, electric shock, radio damage, all base station shall equip of lightning protector
- ▲ Be sure choose a matching antenna, you may enquiry our dealers.

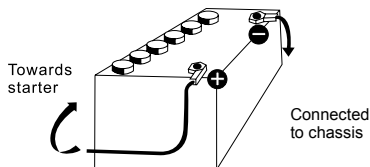
3. The position of antenna can be put as following example:



## ❏ POWER CONNECTION

This radio adopt 13.8V power supply, never connect it to 24V battery, And the 13.8V car battery shall with sufficient current, or the LCD will become dark and Transmit power will drop down.

1. Connect positive red power cable with the + terminal of the battery.
2. Connect negative black power cable with the - terminal of the battery.
3. Connect the DC power cable to the transceiver's power supply connector.
  - ▲ We suggest not use cigar lighter as it often bring down the voltage.
  - ▲ Locate the power cable away from high temperature, moisture, portfire and cable insulator.
  - ▲ Use a full power cable even it is longer than need, do not take off the fuse holder from the cable.



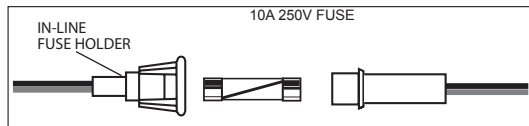
## ✖ Replacing Fuse

This radio adopt 10A, 250V fuse.

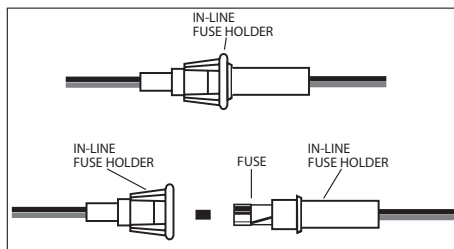
If the fuse blows, determine the reason, then correct the problem.

After the problem is resolved, replace the fuse. If newly installed fuses continue to blow, disconnect the power cable and contact your autho-rized dealer or an authorized servicecenter:

1. Pull the two fuse cover in difference direction and open it.



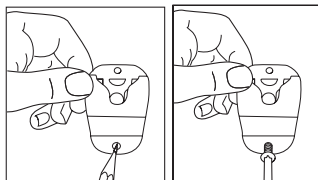
2. Replace the broke fuse with good one, and close the fuse holder.
3. Be sure to use suggested fuse, or it might damage the radio.





### ❖ Install Microphone Hanger

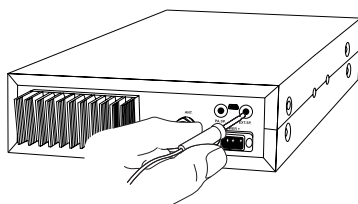
Choose a ideal location which will not interfere the driver. Using supplied self-tapping screws and pads(2 sets) to fix the hanger.



### ❖ Install External Speaker

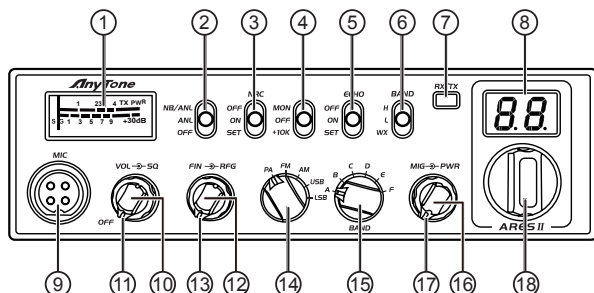
If use an external speaker, please choose 8ohm speaker with 3.50mm mono band (doulbe cable) plug.

1. Locate the external speaker in a suitable place.
2. Plug into the speaker jack.



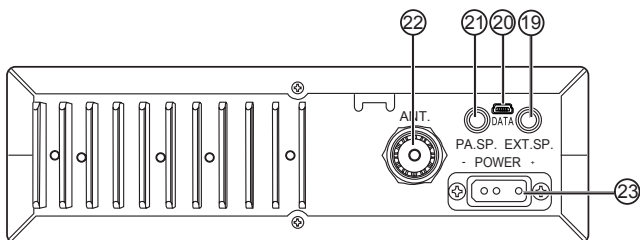
## ■ GETTING ACQUAINTED

### ✦ Front Panel



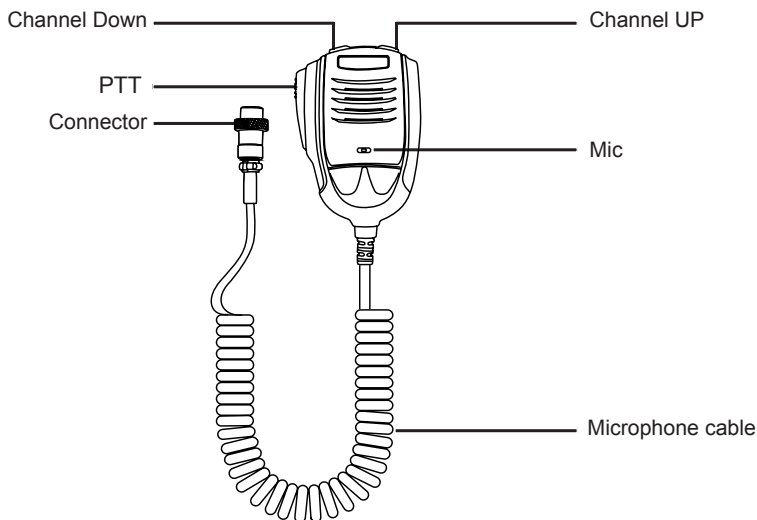
| No. | Functions                         |
|-----|-----------------------------------|
| 1   | S—Meter                           |
| 2   | Control NB/ANL function on/off    |
| 3   | NRC function on/off /set          |
| 4   | Control Monitor/10K on/off        |
| 5   | Echo function on/off /set         |
| 6   | Choose H and L band group         |
| 7   | TX/RX indicator                   |
| 8   | Channnel display                  |
| 9   | Mike connector                    |
| 10  | Power on/off volume level control |
| 11  | Squelch level control             |
| 12  | SSB frequency FINE function       |
| 13  | Control RF gain level             |
| 14  | Choose PA/FM/AM/USB/LSB mode      |
| 15  | Choose working band               |
| 16  | Control Mike gain level           |
| 17  | Control power level               |
| 18  | Channel Switch                    |

## ❏ Rear Panel



| No. | Functions           |
|-----|---------------------|
| 19  | External SP Jack    |
| 20  | PC programming port |
| 21  | External PA Jack    |
| 22  | Antenna Jack        |
| 23  | Power Supply Jack   |

## ❏ Microphone



## ■ HOW TO USE YOUR RADIO

### ✘ OFF/ON Radio

1. Turn VOL clockwise to switch on the radio, the radio emit a beep. When the LED displays frequency or channel, the radio is on.
2. Turn VOL anti-clockwise to switch off the radio, the radio is OFF when hear Ka Ta from the switch.

### ✘ Volume Control

When the radio is turned on, turn VOL clockwise will increase the volume, turn VOL anti-clockwise will reduce the volume.

**Note: Adjust the volume during communication to get suitable level.**

### ✘ Squelch Control

When the radio is standby, turn SQ outer shaft clockwise to adjust squelch level.

### ✘ Mic Gain Control

When the radio is transmitting, turn MIG inner shaft to adjust Mic gain. Turn it clockwise to increase gain, anti-clockwise to reduce gain.

### ✘ RF Gain Control

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

### ✘ RF POWER Concentric

Valid for AM and FM mode only. Reducing the power for communication with a radio without RF gain, default set to maximum for normal use.

### ✘ Scan Function

#### CB Channels Scan ( long press 7 seconds)

(1) In CB mode, press and hold UP/DN keys in the microphone for 7 seconds until hear a beep sound, the CB scan function starts.

The dot between the two channel digits flashes to indicate that the scanning is active.

(2) Rotary channel switch or UP/DN keys in the microphone to change scan direction.

(3) short press [PTT] to exit scan.

#### WX Channels Scan(long press 3 seconds)

(1) In WX mode, press and hold UP/DN keys in the microphone for 3 seconds until hear a beep sounds to start WX scan function.

The dot between the two channel digits flashes to indicate that the scanning is active.

(2) Rotary channel switch or UP/DN keys in the microphone to change scan direction.

(3) short press [PTT] to exit scan.

### ✘ Working Mode Control

Turn the mode switch to choose PA/FM/AM/USB/LSB mode.

### ✘ Working Band Control

Turn the band switch to choose A/B/C/D/E/F band.

### ✘ Channel Selection

Turn the channel knob to select desired channel.

Clockwise to increase, anti-clockwise to reduce channel.

## ■ SLIDE SWITCH

| No. | Function     | Position            | Description                                                                               |
|-----|--------------|---------------------|-------------------------------------------------------------------------------------------|
| 1   | NB/ANL       | NB/ANL<br>ON<br>OFF | Turn on NB and ANL function                                                               |
|     |              | NB/ANL<br>ON<br>OFF | Turn on ANL function                                                                      |
|     |              | NB/ANL<br>ON<br>OFF | Turn off NB/ANL function                                                                  |
| 2   | NRC          | OFF<br>ON<br>SET    | Turn off NRC function                                                                     |
|     |              | OFF<br>ON<br>SET    | Turn on NRC function                                                                      |
|     |              | OFF<br>ON<br>SET    | NRC level set: rr for RX noise reduction level<br>tr for TX noise reduction level.        |
| 3   | MON<br>+ 10K | MON<br>OFF<br>+10K  | Turn on MON, 32 levels available by programming                                           |
|     |              | MON<br>OFF<br>+10K  | No function                                                                               |
|     |              | MON<br>OFF<br>+10K  | Turn on +10KHz function                                                                   |
| 4   | ECHO         | OFF<br>ON<br>SET    | Turn off ECHO function                                                                    |
|     |              | OFF<br>ON<br>SET    | Turn on ECHO function                                                                     |
|     |              | OFF<br>ON<br>SET    | Echo volume and delay level set:<br>EL for volume level set, Et for echo delay level set. |
| 5   | BAND         | H<br>L<br>WX        | Choose higher frequency band group                                                        |
|     |              | H<br>L<br>WX        | Choose lower frequency band group                                                         |
|     |              | H<br>L<br>WX        | Turn on Weather channel function(Optional)                                                |

## ■ FUNCTION MENU

1. Press the [UP] key of the microphone to enter into the radio function menu.
2. Rotate the channel switch or press the [UP/DN] key of the microphone to select the menu function options.
3. Press the [PTT] key of the microphone to enter into the menu setting.
4. Rotate the channel switch to select the desired setting.
5. Turn off to save and exit the function settings.

| No. | Function        | LCD Display | Description                                                                                                                                                                                                         |
|-----|-----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Beep            | <i>bP</i>   | Available setting: oF, 01-09 levels<br>Default: oF                                                                                                                                                                  |
| 2   | Roger beep      | <i>rb</i>   | Available setting: oF, 01-05 levels<br>Default: oF                                                                                                                                                                  |
| 3   | WX alarm        | <i>AL</i>   | Available setting: oF, on<br>Default: on                                                                                                                                                                            |
| 4   | Dimmer          | <i>d l</i>  | Available setting: 1-3<br>Default: 3                                                                                                                                                                                |
| 5   | NPC             | <i>nP</i>   | Available setting: oF, on<br>Default: on ( It is valid for AM/SSB mode only, adjust MIC to control microphone gain)                                                                                                 |
| 6   | VOX level       | <i>uL</i>   | Available setting: oF, 01-09 levels<br>Default: oF Note: VOX will not work if squelch is on.                                                                                                                        |
| 7   | VOX delay       | <i>ut</i>   | Available setting: 01-09 levels<br>Default: 3                                                                                                                                                                       |
| 8   | Scan type       | <i>Sn</i>   | Available setting: ti( timne scan), Sq( squelch scan)<br>Default: Sq                                                                                                                                                |
| 9   | Microphone type | <i>nt</i>   | Available setting: EL(condenser), dy( dynamic)<br>Default: EL                                                                                                                                                       |
| 10  | Fine adjust     | <i>Fn</i>   | oF: turn on frequency fine adjustment.<br>r: turn on fine adjustment for RX frequency<br>t: turn on fine adjustment for TX frequency<br>rt: turn on fine adjustment for TX /RX frequency<br>Default: rt ( ± 500Hz ) |
| 11  | SWR display     | <i>Sr</i>   | on: turn on SWR display<br>oF: turn off SWR display<br>Default: oF                                                                                                                                                  |
| 12  | Reset           | <i>rt</i>   | NB/ANL slide switch to OFF, press PTT to reset all radio data to factory default<br>NB/ANL slide switch to NB/ANL, press PTT to reset all channel data to factory default                                           |

## ■ ERROR CODE

When the RX/TX indicator light on yellow,LED displays code,means the radio meet problem.

E1: Voltage too low

E2: Voltage too high

E3: WX function invalid

E4: Current BAND invalid

E5: TX SWR too high

## ■ SPECIFICATIONS

| GENERAL             |                                          |
|---------------------|------------------------------------------|
| Frequency Range     | 28.000-29.695MHz(Programmable)           |
| Frequency Band      | L band: A/B/C/D/E/F H band : A/B/C/D/E/F |
| Channel             | 40channels(programmable)in each band     |
| Frequency Control   | Phase-Locked-Loop Synthesizer            |
| Frequency Tolerance | ± 5.0 ppm                                |
| Temperature Range   | -20℃to +50℃                              |
| Microphone          | with push-to-talk /UP/DN and coiled cord |
| Input Voltage       | 13.8V                                    |
| Dimensions (in mm)  | 287(L)x200(W)x61(H)                      |
| Weight              | 1.5kg                                    |
| Antenna Connector   | UHF, SO239                               |

| TRANSMITTER                    |                                                                                                                                                                                                                                        |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Output                   | AM:1-12W(adjustable)<br>FM:1-40W(adjustable)<br>USB/LSB:1-35W(adjustable)                                                                                                                                                              |
| Drain                          | 8A(with modulation)                                                                                                                                                                                                                    |
| Modulation                     | FM/AM/SSB                                                                                                                                                                                                                              |
| Inter-modulation Distortion    | SSB: 3rd order, more than -25dB;<br>5th order, more than -35dB                                                                                                                                                                         |
| SSB Carrier Suppression        | 55dB                                                                                                                                                                                                                                   |
| Unwanted Sideband              | 50dB                                                                                                                                                                                                                                   |
| Frequency Response             | AM/FM: 450 to 2500Hz                                                                                                                                                                                                                   |
| Output Impedance               | 50ohms, unbalanced                                                                                                                                                                                                                     |
| RECEPTION                      |                                                                                                                                                                                                                                        |
| Sensitivity                    | AM:1.0 $\mu$ V for 10 dB(S+N)/N at greater than 1/2watt of audio output.<br>FM: 1.0 $\mu$ V for 20 dB (S+N)/N at greater than 1/2 watt of audio output.<br>SSB: 0.25 $\mu$ V for 10dB(S+N)/N at greater than 1/2-watt of audio output. |
| Selectivity                    | AM/FM:6dB@3KHz,50dB @9KHz<br>SSB: 6 dB@2.1KHz,60dB @3.3KHz                                                                                                                                                                             |
| Adjacent-Channel Selectivity   | 60dB AM/FM &70 dB SSB                                                                                                                                                                                                                  |
| Image Rejection                | More than 65dB                                                                                                                                                                                                                         |
| IF Frequency                   | AM/FM: 10.695 MHz 1st IF, 455 KHz 2nd IF<br>SSB: 10.695 MHz                                                                                                                                                                            |
| 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 0.5 $\mu$ V.<br>Automatic Squelch Control(only AM/FM)0.5 $\mu$ V                                                                                                                                       |
| ANL                            | Switchable                                                                                                                                                                                                                             |
| Noise Blanker                  | RF type, effective on AM/FM and SSB                                                                                                                                                                                                    |
| Audio Output Power             | 3 watts into 8 ohms                                                                                                                                                                                                                    |
| Frequency Response             | AM/FM: 300 to 2800Hz                                                                                                                                                                                                                   |
| Built-in Speaker               | 8 ohms, round                                                                                                                                                                                                                          |
| External Speaker(Not Supplied) | 8 ohms, disables internal speaker when connected                                                                                                                                                                                       |

**Note: Specifications are subject to change without notice due to advancements in technology.**