AnyTone®



AT-5289

CE RoHS COMPLIANT

USER'S MANUAL

CB RADIO

WARNING

Please install the antenna (connect to the location “B” in the back panel of the radio) and set the SWR (Standing Wave Ratio) before transmitting. Otherwise it may result in destruction of the power amplifier, which is not covered by the guarantee

WELCOME TO USE

AT-5289 is a Multi-norms and multi-function radio which provides you with top performance.

With the use of SMT technology to guarantee the best stability, reliability and unprecedented quality, AT-5289 is a new step in personal communication and is surely the best choice for professional users of radios. Moreover, it adopts flash CPU in the radio, which makes AT-5289 ready for future upgrading and functions expanding. To ensure that you use the radio to the fullest, please read this manual carefully before installing.

CONTENTS

INSTALLATION **1**

WHERE AND HOW TO MOUNT YOUR RADIO 1

ANTENNA INSTALLATION 1

POWER CONNECTION 1

BASIC OPERATIONS 2

ADJUSTMENT OF SWR (standing wave ratio) 2

HOW TO USE YOUR RADIO **4**

SPECIFICATIONS **8**

INSTALLATION

1. WHERE AND HOW TO MOUNT YOUR MOBILE RADIO

a) You should choose the most appropriate setting from a simple and practical point of view

b) Your radio should not interfere with the driver or the passengers.

c) Remember to provide different wires for the passing and protection (e.g.: power, antenna, accessory cabling) so that they do not in any way interfere with the driving of vehicles.

d) To install your equipment, use the cradle (H) and the self-tapping screws [E] provided (drilling diameter 4 mm). Take care not to damage the vehicle's electrical system while drilling the dash board.

e) Do not forget to insert the rubber joints [G] between the radio and its support as these have a shock-absorbing effect which permits gentle orientation and tightening of the set.

f) Choose where to place the microphone support and remember that the microphone cord must stretch to the driver without interfering with the controls of the vehicle.

g) As the transceiver has a frontal microphone socket, it can be set into the dash board. You will need to add external loud speaker to improve the sound quality of communications (connector ext. SP situated on the back panel [D].
Ask your dealer for advice on mounting your radio.

2. ANTENNA INSTALLATION

a) Choosing antenna:

-For mobile radios, the longer the antenna, the better its results. Your dealer will help you with your choice of antenna.

b) Mobile antenna:

-Must be fixed to the vehicle where there is a maximum of metallic surface (ground plane) , away from windscreen mountings.

-If you already have a radio-telephone antenna installed, the CB antenna should be higher than this.

-There are two types of antenna: Pre-regulated antenna which should be used on a good ground plane (e.g. car roof or lid of the boot), and adjustable antenna which offer a much larger frequency range and can be used on a smaller ground plane.

-For an antenna which must be fixed by drilling, you will need a good contact between the antenna and the ground plane. To obtain this, you should lightly scratch the surface where the screw and tightening star are to be placed.

-Be careful not to pinch or flatten the coaxial cable (as this runs the risk of break down and/or short circuiting).

-Connect the antenna to location (B).

c) Fixed antenna:

A fixed antenna should be installed in a space as spacious as possible. If it is necessary for you to fix the antenna to a mast, you need to keep it as per the requirements of the laws in force (please turn to professional advice).

3. POWER CONNECTION

This is protected against an inversion of polarities. However, before switching it on, you are advised to check all the connections. Your equipment must be supplied with a continued current of 12 volts (A). Today, most cars and lorries are negative earth. You can check this by making sure that the negative terminal of the battery is connected either to the engine block or to the chassis. If this is not the case, you should consult your dealer.

WARNING: Lorries generally have two batteries to supply a voltage of 24 volts, in which case it will be necessary to insert a 24/12 volt converter into the electrical circuit. The following connection steps should be carried out with the power cable disconnected from the set.

a) Check whether the battery is of 12 volts.

b) Locate the positive and negative terminals of the battery (+ is red and – is black). Should it be necessary to lengthen the power cable, please use the same or a superior type of cable.

c) It is necessary to connect your radio to a permanent (+) and (-). We advise you to connect the power cable directly to the battery (as the connection of the cable to the wiring of the car-radio or other parts of the electrical circuit may, in some cases, increase the possibilities of interference).
d) Connect the red wire (+) to the positive terminal of the battery and the black (-) wire to the negative terminal of the battery.
e) Connect the power cable to your CB radio.

WARNING: Never replace the original fuse (5A) by one of different value.

4. BASIC OPERATIONS

a) Connect the microphone
b) Check the antenna connections
c) Turn the set on by turning the volume knob clockwise
d) Turn the squelch knob to minimum(Full-anti clockwise)
e) Adjust the volume to a comfortable level
f) Go to channel 20 EC by using the channel knob.

5. ADJUSTMENT OF SWR (standing wave ratio)

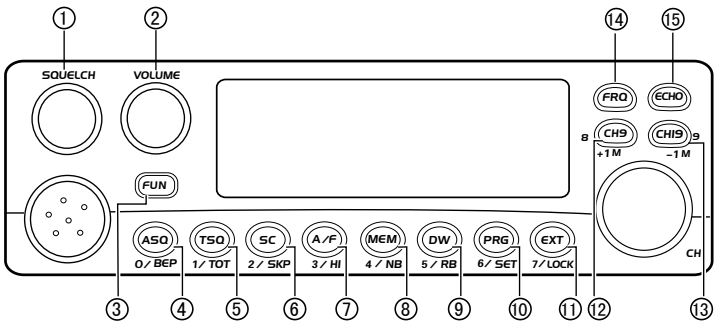
WARNING: This must be carried out when you use your radio for the first time (and whenever you re-position your antenna). The adjustment must be carried out in an obstacle-free area

* Adjustment should be operated with external SWR meter.

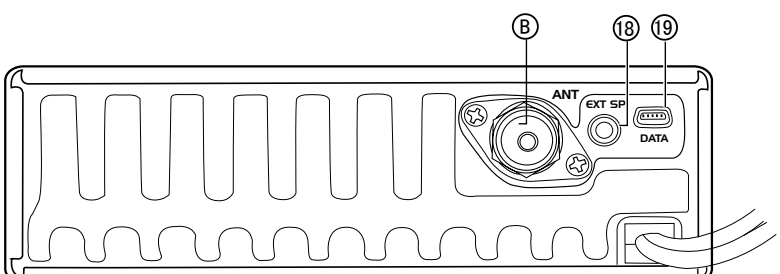
a) To connect the SWR meter
Connect the SWR meter between the radio and the antenna as close as possible to the radio (use a maximum of 40cm cable)
b) To adjust the SWR meter -Set the to channel 20@EC band in FM -put the switch on the SWR meter to position CAL or FWD -Press the PTT switch on the microphone to transmit.
-Bring the index needle to ▼ by using the calibration key
-Change the switch to position SWR (reading of the SWR level) The reading on the meter should be as near as possible to 1. If this is not the case, re-adjust your antenna to obtain a reading as close as possible to 1.(An SWR reading between 1 and 1.8 is acceptable).

-It will be necessary to re-calibrate the SWR meter after each adjustment of the antenna.

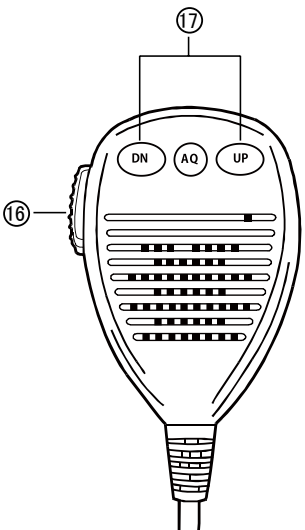
Your radio is now ready for use



Front panel



Rear panel



Microphone

HOW TO USE YOUR RADIO

1. **Manual Squelch**

Turn the SQUELCH knob clockwise to the exact point where all background noise disappears. Please note that this control is fine regulation, if you set it to the maximum (fully clockwise), the radio can only receive the strongest signal.

2. **Volume switch**

a) To turn the radio on, turn the VOLUME knob clockwise.

b) To increase the sound level, turn the knob further clockwise.

3. **FUN key**

a) Choose band

Press and hold it for over 2 seconds to enter band selection, turn the channel knob to choose a band, press FUN again to exit, the radio will work on selected band.

The frequency and channel information in band A to band L, VFO (1 channel), MEM (8 channels) total 12 bands can be programmed by software. The frequency in band E, UK, PL can not be programmed, but the channel information can be changed by software.

Factory Defaulted with only E, UK band, add other bands by software if need.

b) Combined Functions

Press FUN, the LCD display "FUNC", when "FUNC" disappear, press ASQ, TST, SC, A/F, MEM, DW, PRG key to enter the function printed below the buttons.

4. **ASQ key**

a) ASQ: Press ASQ, The LCD displays "ASQ", the ASQ function is on; press it again to turn off ASQ.

Note: ASQ will automatically turn off if the TSQ function turned on.

b)BEP: Press FUN, the LCD display "FUNC", when "FUNC" disappear, press ASQ, the LCD displays "BP", the key beep function is on, press it again to turn off BEP function.

5. **TSQ key**

a) TSQ: CTCSS and DCS code

Press TSQ, The LCD will display "CTC or DCS", the CTCSS or DCS function is on; press it again to turn off the function.

Note1: This function is available only when you installed optional CTC board.

Note2: when you choose RXC or TXC off, this function is not valid.

Note3: When the CTCSS or DCS is on, the speaker will boot only when it receive corresponding CTCSS or DCS code.

Note4: When the CTCSS or DCS is on, the RB function will turn off.

b)TOT (Timer Out Timer)

Press FUN, the LCD displays "FUNC", when "FUNC" disappear, press TSQ, the LCD displays "XXX S", you can adjust the TX limit time by the channel knob, press any other key to exit, or wait for 5 seconds , the radio will store the setup and exit.

When the continuous TX time is over the TOT limit, the radio will stop TX.

TOT Optional: 15-600 seconds, step 15seconds, default: 180Seconds

6. **SC key**

SC (Scan function)

Press SC, The LCD displays "SC" and flashes, the radio start scan function, turn the channel knob to select the scan mode, press any key to exit scan.

Note: the scan only on pre-stored channels in present BAND or MEM.

SKP (Scan Skip function)

Press FUNC, the LCD display "FUNC", when "FUNC" disappear, press SC, the present channel will delete from the scan list. The scan will skip this channel. Press the key again to add present channel to scan list.

7. **A/F key**

A/F (AM/FM switch)

Press it to switch between AM and FM mode, the LCD will display AM or FM.

HI (High low power function)

Press FUN, the LCD display “FUNC”, when “FUNC” disappear, press A/F. The LCD displays “XXX”, then turn the channel knob to choose the TX power, press any other key to exit.

Optional TX power FM: 4W. 15W. 50W Default: 4W AM: 4W. 15W

8. **MEM key**

MEM (Memory channel)

Press MEM key, the radio will work in channel store mode, you can add 8 channels to it.

You can store any channel inside any band, for example, if you want to store the E band channel 9 to MEM 2, the steps are

A. Change to E band 9CH, then hold and press MEM for over 2 seconds, the LCD will display “MEM” and flashes.

B. Turn channel knob to choose MEM2.

C. Hold and press MEM for over 2 seconds to confirm the setup and exit. The storage is done.

NB (Noise blanker)

Press FUN, the LCD display “FUNC”, when “FUNC” disappear, press MEM, the LCD displays “NB”, the NB/ANL function is turned on, press the MEM key again to turn this function off.

9. **DW key**

DW (Dual watch function)

Turn channel knob to choose first channel, then press DW, the LCD display “DW’ and flashes, then turn channel knob again to choose second channel, then press DW key to enter Dual watch function. Press any key to exit dual watch.

RB (Roger beep function)

Press FUN, the LCD display “FUNC”, when “FUNC” disappear, press DW, the LCD displays “RB XXX”, turn the channel knob to choose the RB sound you need. Press any other key to exit. When any RB sound be choose, the LCD will displays “RB”

Note: RB sound can be programmed by software, 8 groups in total.

10. **PRG key**

PRG (Programming)

Press PRG key to enter channel data menu. You can change the channel data by turning the channel knob, the programming is for single channel. Press EXT to exit this function.

For example if you want to change the DCSSN754 code into E BAND 9CH, following:

A. Turn the channel to E BAND 9CH.

B. Press PRG

C. Turn channel knob to choose TXC menu.

D. Press PRG key, the LCD display CTC or DCSN or DCSI or OFF, turn channel knob to choose DCSN

E. Press PRG to show the group number of DCSN, turn channel knob to choose 754N

F. Press PRG key to exit and store the DCS number.

G. Press EXT key to exit channel data edit.

The menus available in the PRG .

A. RXC the signaling for RX: CTC, DCSN , DCSI, OFF

B. TXC the signaling for TX : CTC, DCSN, DCSI, OFF

Note: If no optional CTC board installed, this 2 menu will not exist.

C. RB: On, Off

D. ECHO: On, Off

E. NB: On, Off

F. SCAN: Add, delete

G. BUSY: Busy channel lock.

H. PFM: FM power choose

I. PAM: AM power choose

Note1:H. I, 2 menu will show only one of them that you use at present.

Note2: The channel data can be changed also by FUN key+ function buttons, they are same.

SET (Function menu setup)

For example to turn off Beep sound.

A. Press FUN, the LCD display “FUNC”, when “FUNC” disappear, press PRG, then turn channel knob to choose BEP menu.

B. Press PRG again, then turn channel knob to choose off.

C. Press PRG to exit BEP setup.

D. Press EXT to exit SET.

The functions menu in the set SET function:

TOT : Time out timer

SCN : Scan mode,optional TI. SQ Default mode: SQ

SQ: When scanning find a signal, the scan will not stop when the signal existing.

if the signal last for 30 seconds, the scan will stop for 30 seconds, then stop for 5 seconds(Depend the Scan recovery time you set), if no operation during the 35 seconds, the scan will start again.

TI: When scanning find a signal, the scan stops for 5 seconds(Depend the Scan recovery time you set), if no operation during this 5 seconds, the scan will start again.

SCT : Scan recovery time optional: 5S. 10S. 15S Default: 5S

BEP : key sound optional: ON. OFF, Default: ON

PD : channel data edit mode, Optional: ON. OFF Default: OFF

OFF: When enter channel date edit (PRG function), the changes is only for present channel.

ON: When enter channel date edit (PRG function), the changes is for all the channel.

STEP : In VFO mode,turn the channel knob to choose the step size, Optional: 5K. 10K. 100K. 1M Default: 5K

Note1: The function menu setup can be done also by FUN key+ function buttons, they are same.

11. **EXT key**

EXT: Press this key to exit channel data setup and function menu setup.

LOCK (channel lock function)

Press FUN, the LCD display “FUNC”, when “FUNC” disappear, press EXT, the LCD displays “LOCK” then disappear, all the keys except FUNC,CH9,CH19 is valid, the rest keys are locked. Press FUNC+EXT again, LCD displays UNLOCK then disappear, the LOCK function is off

12. **CH9 key**

CH9: Press CH9 to jump to emerge channel 9 in present band, the LCD will flash; all key except CH9, FRQ key is valid. Press CH9 again to turn off emerging channel.

+1M In VFO mode, press CH9 to increase the frequency by1MHZ.

13. **CH19 key**

CH19: Press CH19 to jump to emerge channel 19 in present band, the LCD will flash; all key except CH19, FRQ key is valid. Press CH19 again to turn off emerging channel.

-1M : In VFO mode, press CH9to decrease the frequency by1MHZ.

14. **FRQ (Frequency mode: VFO)**

Press it to switch between channel mode and frequency display mode.

In VFO mode, press FRQ key, the LCD will display “-- --. -- -- --”, you can input the frequency by the keys, ,The numbers are below the buttons. for example, 0/BEP stands for 0, 1/TOT stands for 1, after input 5 numbers, the radio will exit frequency input mode and back to normal states.

15. **ECHO**

Press ECHO key, they LCD will display “ECHO”, and Echo function is turned on, press it again to turn off echo function.

16. **PTT key (Transmitting)**

To transmit, press and hold the key (16) [PTT] and the TX icon will appears on the LCD.

For best quality, please speak normally at a distance of 2 - 4 inches.

Speaking too loudly will cause distortions and make the signal difficult to understand.

On completion of the transmission release the PTT key and the radio will revert to receiving mode.

17. **UP/DN**

All channels can be selected by channel selector keys [UP] or [DN]. The selected channel is displayed on the LCD. In communication both transceivers (the receiving and transmitting party) need to be in the same channel and under same modulation type.

18. **External speaker jack**

The radio is equipped with a 3.5 mm jack socket at the rear panel to connect an external speaker of 4 - 8 ohm impedance. At 4 ohms the speaker load can be 4 watts. When the external speaker is connected, the internal speaker will be switched off

19. **Programming port**

Connect the PC cable here to program the radio.

Specification

GENERAL	
Modulation modes	AM/FM
Frequency ranges	28.000-29.700MHz 25.615-30.105MHz (programmable)
Antenna impedance	50 Ohms
Power supply	13.2V
Dimensions(in mm)	15.8X 4.8X16.5(WXHXL)
Weight	1.1KG
TRANSMISSION	
Frequency error	+/- 300HZ
Output power	AM: 4W,15W ; FM: 4W,15W, 50W
Transmission interference	inferior to 4nW(-54dBm)
Audio response	300HZ to 3KHZ in AM/FM
Emitted power in the adj. channel	inferior to 20uW
Microphone sensitivity	3mV
Maximum current	max 11A
Modulated singal distortion	inferior to 5%
RECEPTION	
Max sensitivity at 20dB sinad	0.8uV -113 dBm FM 1.5uV -103 dBm AM
Frequency response	300HZ to 3KHZ in AM/FM
Adjacent channel selectivity	60dB
Maximum audio power	3W
Squelch sensitivity	Minimum 0.2uv -120 dBm Maximum 1mV -47 dBm
Maximum current	0.3A nominal/1.2A maximum

A1.0-12/06

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