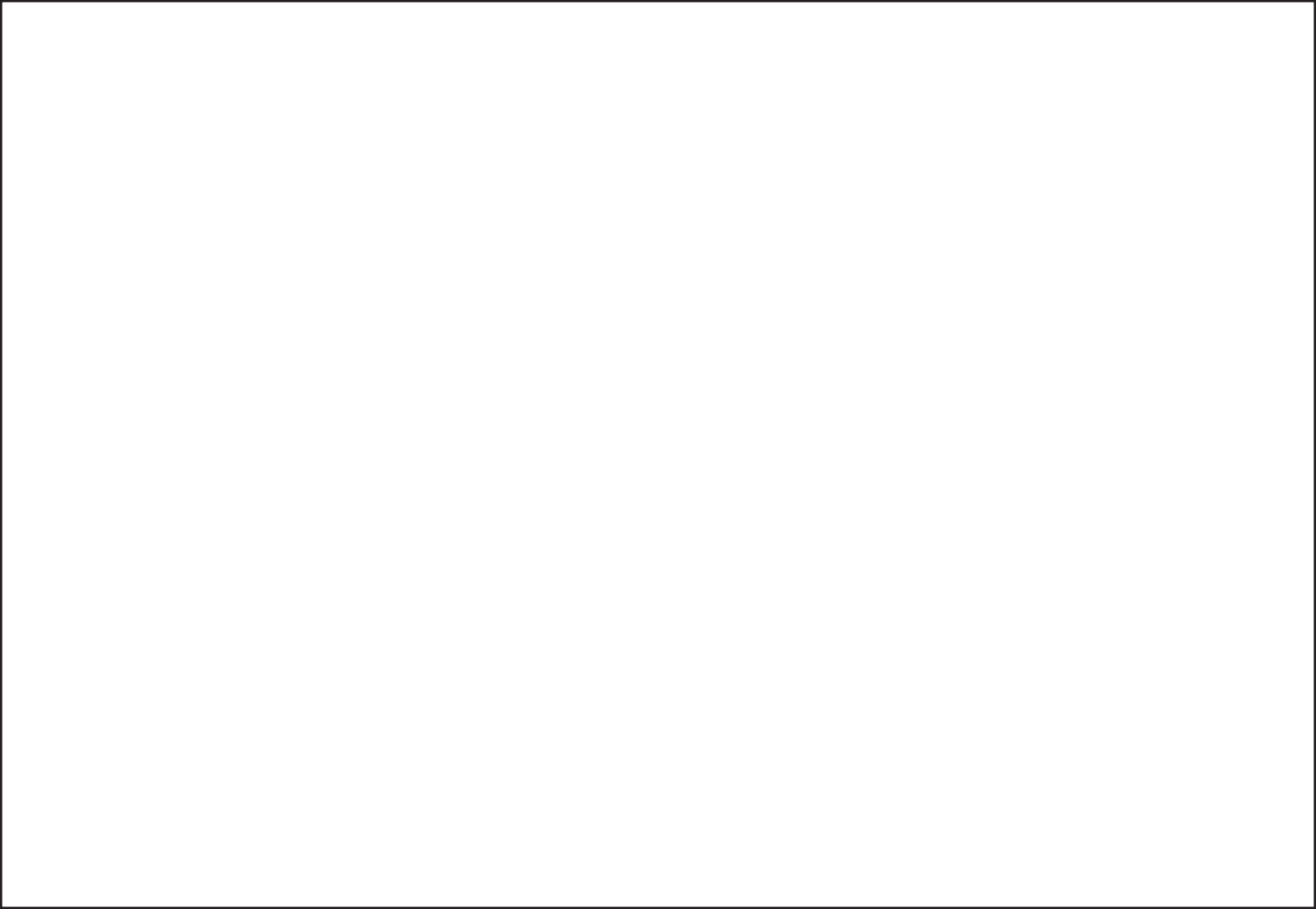


DYNASCAN

M-6D



MOBILE RADIO



FC CE  RoHS



MOBILE RADIO

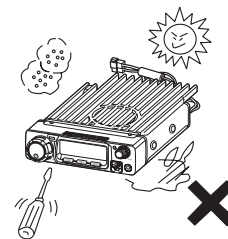
Thank you for choosing this ~~Anytone~~ vehicle transceiver, . always provides high quality products, And this transceiver is no exception. As you learn how to use this transceiver, you will find that it is pursuing "user friendliness". For example, each time you change the menu no. in Menu mode, you will see a text message on the display that lets you know what you are configuring.

Though friendly design for user, this transceiver is technically sophisticated and some features may be new to you. Consider this manual to be a personal tutorial from the designers. Allow the manual to guide you through the learning process now, then act as a reference in the coming years.

Precautions

Please observe the following precautions to prevent fire, personal injury, or transceiver damage:

- ⚠ Do not attempt to configure your transceiver while driving; it is dangerous.
- ⚠ This transceiver is designed for a 13.8V DC power supply. Don't use a 24V battery to power on the transceiver.
- ⚠ Do not place the transceiver in excessively dusty, humid or wet areas, nor unstable surfaces.
- ⚠ Please keep it away from interferential devices (such as TV, generator etc.)
- ⚠ Do not expose the transceiver to long periods of direct sunlight nor place it close to heating appliances.
- ⚠ If an abnormal odor or smoke is detected coming from the transceiver, turn OFF the power immediately. Contact an Anytone service station or your dealer.
- ⚠ Do not transmit with high output power for extended periods; the transceiver may overheat.



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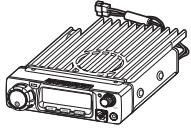
M-6D Mobile Radio has nice housing, stoutness & **stability**, advanced and reliable functions, **perfect** & **valuable**. This amateur mobile radio especially designs for drivers and it pursues company philosophy of innovation and practicality. More functions as follows:

- ▼ Display on a large LCD with adjustable brightness, convenient for nighttime use. **There are Amateur operation mode and Professional operation mode for option**
- ▼ Distribute buttons reasonably, convenient for operation. Adopt superior quality material, better technology and high quality radiator to ensure stable and durable operation
- ▼ **200 programmable memorized channels, identified by editing name**
- ▼ Programming different CTCSS, DCS, 2Tone, 5Tone in per channel, rejecting extra calling from other radios
- ▼ Various scan functions including CTCSS/DCS Scan function
- ▼ **Using** 5Tone to send Message, Emergency alarm, Call all, ANI, Remotely kill, Remotely Waken, etc.
- ▼ Automatic **calling** Identification function by **DTMF--ANI or 5Tone--ANI**
- ▼ Scramble function (Optional)
- ▼ Compander function for decrease the background noise and **enhance audio clarity**, it can set compander ON/OFF per channel
- ▼ **Different band width per channel**, 25K for wide band **20K for middle band or**, 12.5K for narrow band.
- ▼ Theft alarm provides extra safety

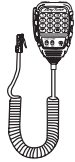
SUPPLIED ACCESSORIES

After carefully unpacking the transceiver, identify the items listed in the table below. We suggest you keep the box and packaging.

- Transceiver



- Microphone (QHМ-03)
(with DTMF keyboard)



- Mobile Mounting
Bracket (QMB-01)



- DC Power Cable with
Fuse Holder(QPL-01)



- Hardware Kit for Bracket
Black screws
(M4X8mm)
4pcs(QSS-01A)



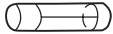
- Tapping screws
(M5X8mm)
4pcs(QSS-01B)



- S-Washer
(QSS-01D)



- Spare Fuses



- User Manual



OPTIONAL ACCESSORIES

- Cloning Cable (CP50)



- USB Programming
(PC50)



- Cigar-Plug Connection
Line (QCC-01)



- Programming Software
(QPS-588)



- Regulated Power
Supply (QRP-01)



- External Speaker
(SP01)



- Desktop
Microphone
(QDM-01)



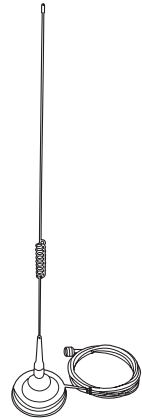
- Alarm Cable A
[QL-01(A)]



- Alarm Cable B (Extension line)
[QL-01(B)]



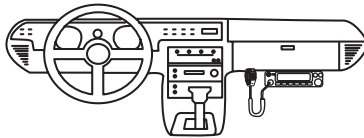
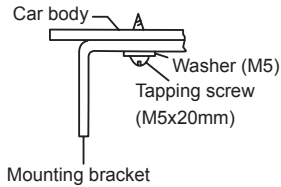
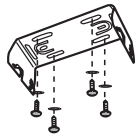
- Car Antenna
(QCA-01)



MOBILE INSTALLATION

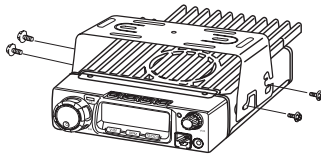
To install the transceiver, select a safe, convenient location inside your vehicle that minimizes danger to your passengers and yourself while the vehicle is in motion. Consider installing the unit at an appropriate position so that knees or legs will not strike it during sudden braking of your vehicle. Try to pick a well ventilated location that is shielded from direct sunlight.

1. Install the mounting bracket in the vehicle using the supplied self-tapping screws (4pcs) and flat washers (4pcs).

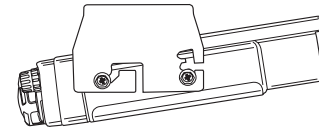
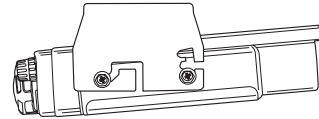
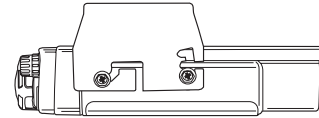


2. Position the transceiver, then insert and tighten the supplied hexagon SEMS screws.

- ▼ Double check that all screws are tightened to prevent vehicle vibration from loosening the bracket or transceiver.



- ▼ Determine the appropriate angle of the transceiver, using the 3 screw hole positions on the side of the mounting bracket.



DC POWER CABLE CONNECTION

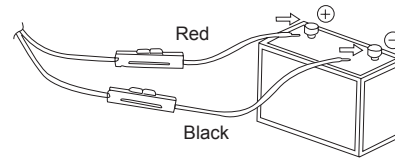


Locate the power input connector as close to the transceiver as possible.

⚠ MOBILE OPERATION

The vehicle battery must have a nominal rating of 12V. Never connect the transceiver to a 24V battery. Be sure to use a 12V vehicle battery that has sufficient current capacity. If the current to the transceiver is insufficient, the display may darken during transmission, or transmitting output power may drop excessively.

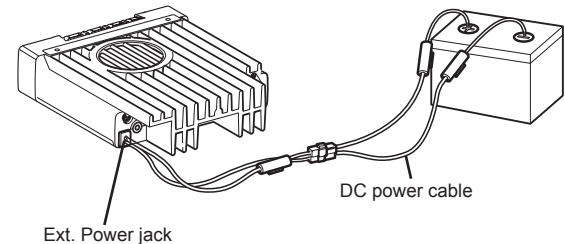
1. Route the DC power cable supplied with the transceiver directly to the vehicle's battery terminals using the shortest path from the transceiver.
 - ▼ We recommend you do not use the cigarette lighter socket as some cigarette lighter sockets introduce an unacceptable voltage drop.
 - ▼ The entire length of the cable must be dressed so it is isolated from heat, moisture, and the engine secondary (high voltage) ignition system/ cables.
2. After installing cable, in order to avoid the risk of damp, please use heat-resistant tap to tie together with fuse box. Don't forget to reinforce whole cable.
3. In order to avoid the risk of short circuit, please cut down connection with negative (-) of battery, then connect with radio.
4. Confirm the correct polarity of the connections, then attach the power cable to the battery terminals; red connects to the positive (+) terminal and black connects to the negative (-) terminal.
 - ▼ Use the full length of the cable without cutting off excess even if the cable is longer than required. In particular, never remove the fuse holders from the cable.
5. Reconnect any wiring removed from the negative terminal.



6. Connect the DC power cable to the transceiver's power supply connector.

▼ Press the connectors firmly together until the locking tab clicks.

If the ignition-key on/off feature is desired(optional feature),use the



optional QCC-01(For Cigar-Plug connection) cable. Connect one of the cables between the ACC terminal or a Cigar-Plug that operates with the vehicle ignition or ACC switch on the vehicle and EXT POWER jack on the rear side of the unit.



In many cars,the cigar-lighter plug is always powered. If this is the case, you cannot use it for the ignition key on/off function.

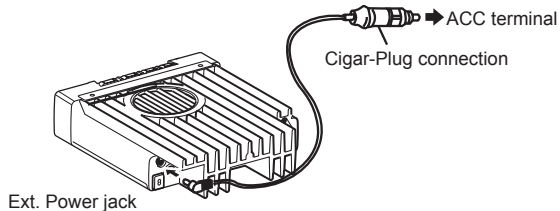
7. When the ignition key is turned to ACC or ON(Start) position with the radio turned off, the power switch illuminates. The illumination will be turned off when the ignition key is turned to the off position.

To turn on the unit, press the power switch manually while it is illuminated. (While ignition key is at ACC or ON position)

8. When the ignition key is turned to ACC or ON position with the radio's power switch on, the unit turns on automatically and the power switch will be lit. Turn the ignition key to OFF position or manually turn the power switch off to shut down the radio.

9. Using extra cable, power consumption: 5MAH.

10. Without this function, user can turn on/off radio by Power knob.



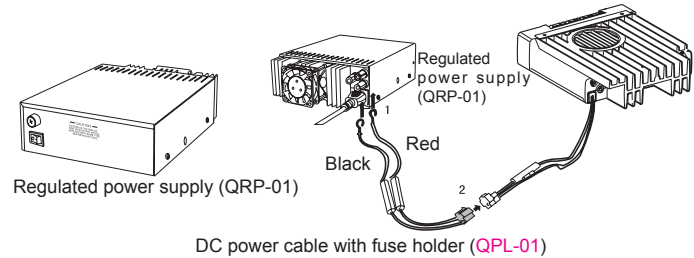
FIXED STATION OPERATION

In order to use this transceiver for fixed station operation, you will need a separate 13.8V DC power supply (not included) Qixiang provides power supply (QRP-01) as optional accessories. Please contact local dealer to require.

The recommended current capacity of your power supply is 12A.

1. Connect the DC power cable to the regulated DC power supply and ensure that the polarities are correct. (Red: positive, Black: negative).
 - ▼ Do not directly connect the transceiver to an AC outlet.

- ▼ Use the supplied DC power cable to connect the transceiver to a regulated power supply.
- ▼ Do not substitute a cable with smaller gauge wires.



2. Connect the transceiver's DC power connector to the connector on the DC power cable.
 - ▼ Press the connectors firmly together until the locking tab clicks.

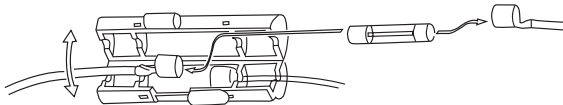


NOTE

- ▼ Before connecting the DC power to the transceiver, be sure to switch the transceiver and the DC power supply OFF.
- ▼ Do not plug the DC power supply into an AC outlet until you make all connections.

✘ REPLACING FUSES

If the fuse blows, determine the cause, 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 for assistance.



Fuse Location	Fuse Current Rating
Transceiver	15A
Supplied Accessory DC power cable	20A

Only use fuses of the specified type and rating; otherwise the transceiver could be damaged.



NOTE

If you use the transceiver for a long period when the vehicle battery is not fully charged, or when the engine is OFF, the battery may become discharged, and will not have sufficient reserves to start the vehicle. Avoid using the transceiver in these conditions.

■ POWER SUPPLY VOLTAGE DISPLAY

After connecting the transceiver to the power supply, the supply voltage can be displayed on LCD by pressing the **[FUN]** key together with the **[SQL]** key.

The display immediately changes as the voltage supply changes, It also displays voltage during transmission.

The transceiver will return to its normal operation when the power is switched ON or repeat above operation.



Important

The range of displayed voltage is only from 7V to 16V DC, because the displayed value is estimated, please use a voltmeter when a more precise reading is desired.

■ ANTENNA CONNECTION

Before operating, install an efficient, well-tuned antenna. The success of your installation will depend largely on the type of antenna and its correct installation. The transceiver can give excellent results if the antenna system and its installation are given careful attention.

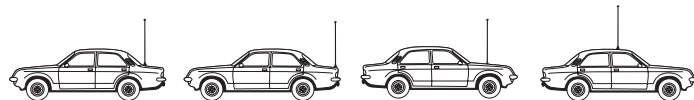
Use a 50Ω impedance antenna and low-loss coaxial feed line that has a characteristic impedance of 50 Ω, to match the transceiver input impedance. Coupling the antenna to the transceiver via feed lines having an impedance other than 50Ω reduces the efficiency of the antenna system and can cause interference to nearby broadcast television receivers, radio receivers, and other electronic equipment.



NOTE

Transmitting without first connecting an antenna or other matched load may damage the transceiver. Always connect the antenna to the transceiver before transmitting.
All fixed stations should be equipped with a lightning arrester to reduce the risk of fire, electric shock, and transceiver damage.

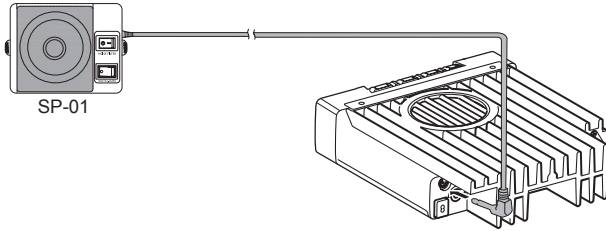
The possible locations of antenna on a car are shown as following:



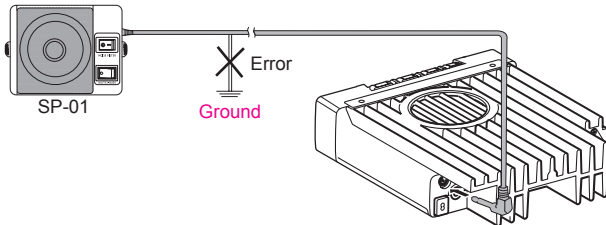
ACCESSORIES CONNECTIONS

EXTERNAL SPEAKER

If you plan to use an external speaker, choose a speaker with an impedance of 8 Ω . The external speaker jack accepts a 3.5 mm (1/8") mono (2-conductor) plug.

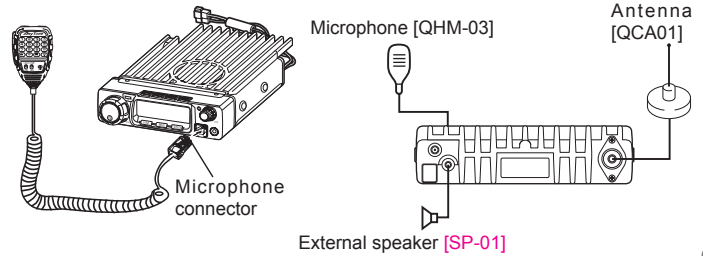


External speaker adopt double port BTL, please care about the connecting way. **NOTE** The speaker can not connect with the ground, otherwise the speaker will be fault. The wrong connecting way as the following picture.



MICROPHONE

For voice communications, connect a microphone equipped with an 8-pin modular plug into the modular socket on the front of the main unit. Press firmly on the plug until the locking tab clicks. Attach the supplied microphone hanger in an appropriate location using the screws included in the screw set.



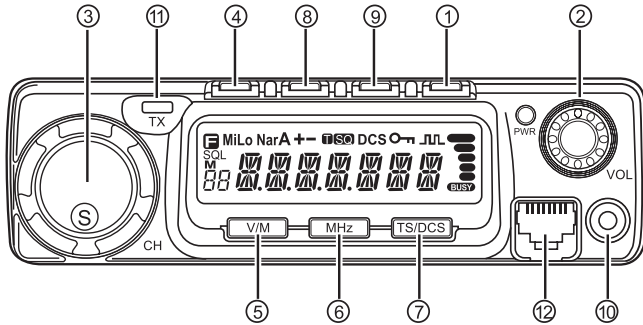
PC CONNECTING

To utilize the optional QPS-588 software, you must first connect the transceiver to your PC then using an optional programming cable PC50 (via **Data socket**).

Please use QPS-588 software for programming.

NOTE Ask your dealer about purchasing a Programming Cable PC50.

FRONT PANEL



• Basic Functions

NO.	KEY	FUNCTION
1	Pow(Power)	Power on/Off
2	VOL	Adjust Volume Key
3	Main Dial	Change frequency, memory channel and scan direction etc.
4	FUN/SET	Function Key
5	V/M/MW	Switches between VFO mode and Channel mode
6	MHz/SHIFT	Step Size Key (step:1MHz)
7	TS/DCS/LOCK	Sets CTCSS and DCS value
8	CAL/H/L	Call key
9	SQL/D	Squelch off
10	Data Terminal	Data reading/writing, cloning and theft alarm functions
11	TX	lights during Transmitting
12	Mic.connector	Microphone connection port

- Press **FUN** key until **☑** icon appears then press the following key.

NO.	KEY	FUNCTION
4	FUN/SET	Confirms the selective functions and exit
5	V/M/MW	Stores data into channels
6	MHz/SHIFT	offset direction and offset frequency
7	TS/DCS/LOCK	Keypad lock function
8	CAL/ H/L	Switches between HI, MID and LOW power transmission
9	SQL/D	Compander mode on/off

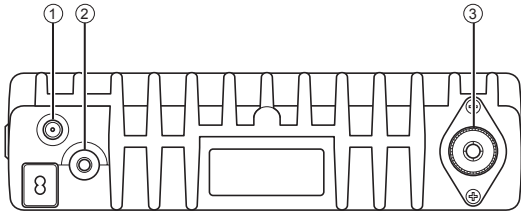
- Press **FUN** key and following key together to activate following function:

NO.	KEY	FUNCTION
1	PWR	Reset to factory default settings
5	V/M/MW	Erase the memory
6	MHz/SHIFT	Switches between Wide/ Narrow band
7	TS/DCS/LOCK	Auto dialer
8	CAL/H/L	Enters clone data function mode
9	SQL/D	Enters power supply voltage indication mode

- Functions that require continuous pressing following key to be activated

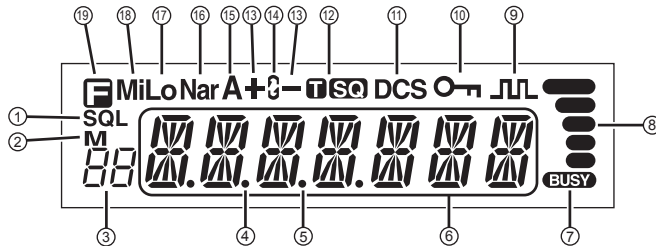
NO.	KEY	FUNCTION
4	FUN/SET	Press and hold for 2s to enter the Setting mode
9	SQL/D	Monitor mode

REAR PANEL



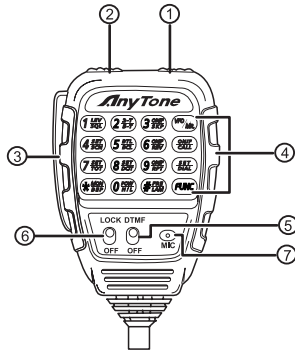
NO.	KEY	FUNCTION
1	Ext. Power Jack	Terminal for connecting optional cable QCC01 for use with ignition key On/Off function. The radio will auto power on when car is driving. The radio will auto power off when car stops.
2	Ext. Speaker Terminal	Terminal for optional external speaker SP01
3	Antenna Connector	Connection for 50Ω coaxial cable and antenna.

DISPLAY

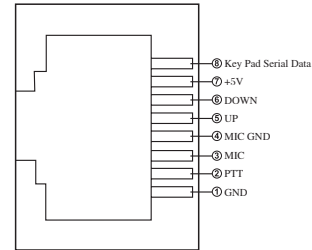


NO.	KEY	FUNCTION
1	SQL	Squelch level.
2	M	In channel mode.
3	88	Indicates the channel number in channel mode.
4	Decimal point	Channel skip.
5	Decimal point	Indicates the decimal point of frequency and the scanning function.
6	88888888	Indicates the frequency or memory name.
7	BUSY	Signal is being received or monitor.
8	Signal strength bars	Signal strength of receiving and transmitting.
9	Componder	Componder.
10	Keypad lock	Keypad lock .
11	DCS	Set DCS function.
12	CTCSS	Set CTCSS function.
13	+ -	Offset frequency direction.
14	Scramble	Scramble
15	A	Auto power off.
16	Nar	Narrow band.
17	LO	Low power.
18	Mi	Middle Power.
19	Key	Pressing key.

MICROPHONE



MIC Connector Diagram(in the front view of connector)



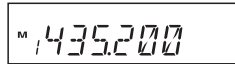
NO.	KEY	FUNCTION
1	UP	Increase frequency ,channel number or setting value.
2	DOWN	Decrease frequency, channel number or setting value.
3	PTT	Press the PTT (Push-TO-Talk) key to transmit.
4	Number Key	Input VFO frequency or DTMF dial out etc..
5	DTMF ON / OFF	Switches between DTMF dialing or function operating.
6	LOCK Switch	Locks out the UP , Down and keys.
7	MIC	Speak here during transmission.

According to practical application, you can set the radio operates as Amateur Transceiver mode or Professional Transceiver mode. There are also 2 levels operation menu to set functions as you need. It is easy and convenient.

1. Operation Mode:

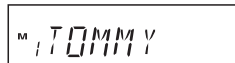
- A. By programming software:** In PC software's "General Setting" menu, choose "Display Mode" to select Amateur Transceiver mode or Professional Transceiver mode.
 - B. By manual setup:** Please refer to "Display Mode" in Page 24.
2. **Amateur Transceiver Mode:** Except setting as "CH" mode, others considered as Amateur transceiver mode. Under this mode, press **V/M** key to switch between Channel mode and VFO mode.

A. Frequency + Channel mode: When set display as "FR", it enters into Frequency+Channel mode, new setting of channel operation and shortcut operation can be temporarily used by user. Once the radio is turned off or switched to another channel, the temporary setting will be erased and back to initial settings. (As pic 1)



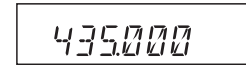
(Pic 1)

B. Channel+Name Tag Mode: When set display as "NM", it enters into Channel+Name Tag mode. At this mode, it will display corresponding channel name when the current channel is edited with name. Otherwise, it will display frequency + channel. Its operations are the same as frequency + channel mode. (As pic 2)



(Pic 2)

C. VFO Mode(Frequency mode): This mode shows only frequency on the display. Shortcut operation and Channel setting will be changed & stored as the latest value permanently. Once the radio is turned off or changed VFO frequency, the latest setting is remained until next change. (As pic 3)

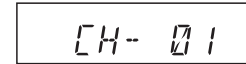


(Pic 3)

3. Professional Transceiver Mode: When set display mode as "CH", it enters into Professional Transceiver mode. At this mode, except scan, other shortcut operation can't operate. And from No.1-17 menu in function setting will be auto-hidden, they should be set by PC software. If there is corresponding name for current channel, the LCD will display current channel and his name. Otherwise, it shows channel number. (As pic 4) (As pic 5)



(Pic 4)



(Pic 5)

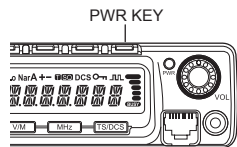


If transceiver programmed as professional transceiver mode and locked, you can't return to amateur transceiver mode by manual operation from general setting.

4. Under every mode, from No. 18-29 menu in function setting can be changed and saved.

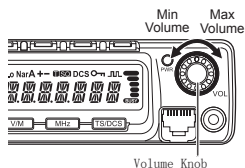
SWITCHING THE POWER ON/OFF

according to the option selected during installation Press the **[POW]** switch or turn the ignition key to ACC (speed up) or ON (startup) position to power on radio . Press the **[POW]** key for 1s or turn the ignition key to OFF position to turn off.



ADJUSTING THE VOLUME

Turn the VOL knob clockwise to increase the audio level, counterclockwise to decrease.

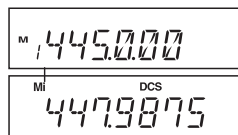


NOTE During communication, volume can be adjusted more accurate.

12

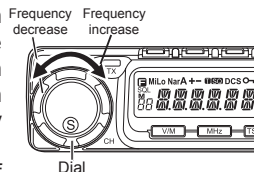
SWITCHING THE OPERATION MODE

In standby, press **[V/M]** key or Microphone's **[V/M]** key until appear **M**, this indicates current channel in channel mode. Repeat above operation to switch between Frequency mode (VFO) and Channel mode.



ADJUSTING FREQUENCY/CHANNEL THROUGH SELECTOR KNOB

- Under frequency (VFO) mode, you can change the current frequency to the desired one through selector knob; Turn clockwise to increase frequency; turn counterclockwise to decrease. Every gear will increase or decrease one step. Press **[MHz]** key, the decimal point of



frequency in screen will be auto-hidden. In this status, **turn** selector knob or Microphone **[UP / DOWN]** key will increase or decrease 1MHz frequency.

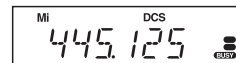
- Under channel mode, you can change the current channel to the desired one through selector knob, clockwise turn to the forward channel, anticlockwise turn to the backward channel. In relative working mode, Microphone's **[UP / DOWN]** key has same function for adjusting frequency and channel.



5k, 6.25k, 8.33K, 10k, 12.5k, 20k, 25k, 30k and 50k total **nine** step size **NOTE** available for this radio.

RECEIVING

When the channel you are operating is called, the screen shows **[BUSY]** and field intensity, in this way, you can hear the calling from transmitting party.



NOTE If the transceiver has set at higher squelch level, it may fail to hear the calling.

TRANSMITTING

Press **[SQL]** key or press MIC's **[*MIC]** key to monitor for a while to confirm the channel desired is not busy. **Then release [SQL] or press Mic's [*MIC] key to return standby status, Then press and hold [PTT] key to speak into microphone.**

- ▼ Please hold the microphone approximately 2.5-5.0cm from your lips, and then speak into the microphone in your normal speaking voice to get best timbre.



NOTE Press and hold **[PTT]** key, LED lights RED and power intensity showed in screen indicates it is transmitting, release to receive.

TRANSMITTING TONE-PULSE

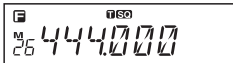
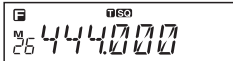
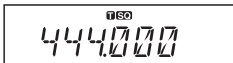
Press and hold [PTT] key, then press Microphone [DOWN] key to transmit current selected tone-pulse signal.

TRANSMITTING OPTIONAL SIGNALING

Press and hold [PTT] key, then press Microphone **[UP]** key or press **[CAL]** and Mic's **[OFF]** key to transmit pre-stored and selected DTMF, 2Tone, 5Tone optional signaling.

CHANNEL EDIT

- Under frequency mode (VFO), turn **selector knob to select the desired frequency or input frequency by MIC's numeric keys.**
- Press **[TS/DCS]** key to enter CTCSS/DCS signaling setup, turn selector knob to select the desired signaling.
- Press **[FUN]** key, LCD appears **[F]**, **M** icon and current channel number, **M** icon flashing means current channel is empty.
- Turn selector knob to select the desired channel number to store.
- Press **[V/M]** key, **[F]**, **M** icon and channel number disappears and emit a prompt voice, thus the channel storage succeed.




CHANNEL DELETE

- Under channel mode, turn selector knob to select channel which you want to delete.
- Press **[FUN]** key until LCD appears **[F]** icon, then press **[V/M]** key, current channel will be deleted and emitted a prompt voice. **M** icon flashing means current channel is **deleted**.

SQUELCH OFF/SQUELCH OFF MOMENTARY

[SQL] key programmed as Squelch Off or Squelch Off Momentary to monitor the weak signal.

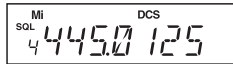
1. Squelch Off: Press **[SQL]** key to disable squelch ,press **[SQL]** key again to resume squelch.
2. Squelch Off Momentary: Press and hold **[SQL]** key to disable squelch,release **[SQL]** key to resume squelch.

 The above functions should be set in programme software.

SQUELCH LEVEL SETUP

Setting the radio to a tight squelch level,you can avoid unwanted signals or noise,but you may not receive a weak signal. Therefore,it will be better for you to select the normal squelch level.

1. While standby, press **[SQL]** key and turn selector knob until LCD appears **SQL** and current squelch level
2. Turn selector knob or press MIC [UP/ DOWN] key to set desired squelch level.
3. Press any key except **[POW]** to exit .

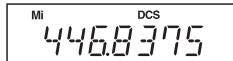


FREQUENCY/CHANNEL SCAN

* FREQUENCY SCAN

In frequency (VFO) mode, this function is designed to monitor signal of every communicative frequency point of transceiver "step size" you have set.

1. In VFO mode,press V/M for 1s to enter into frequency scan.

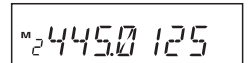


2. Turn selector knob or press Microphone [**[UP]** / **[DOWN]**] key to change scan direction.
3. Press any key except **[POW]** and **[FUN]** key to exit.

CHANNEL SCAN

In channel mode, this function is designed to monitor signal in every channel.

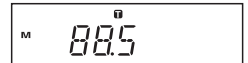
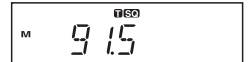
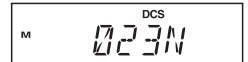
1. In storing status,Press **[V/M]** key for 1s to enter into channel scan
2. Turn selector knob or press Microphone [**[UP]** / **[DOWN]**] key to change scan direction.
3. Press any key except **[POW]** and **[FUN]** key to exit.



CTCSS/DCS ENCODE AND DECODE SETUP

Repeatedly press **[TS/DCS]** key to check whether set CTCSS/DCS encode and decode in channel or not.

1. When LCD appears **T** iron, it means current channel with CTCSS encode, turn selector knob or press Microphone's [**[UP]** / **[DOWN]**] key to select desired CTCSS encode.
2. When LCD appears **T** and **SQ** iron, it means current channel with CTCSS encode and decode, turn selector knob or press Microphone's [**[UP]** / **[DOWN]**] to select desired CTCSS code.

- When LCD appears **DCS** icon, it means current channel can be set with DCS encode and decode together, turn selector knob or press Microphone's [**UP** / **DOWN**] to select desired DCS encode and decode.
- CTCSS:62.5-254.1, Total 51groups; DCS:000N-777I total 1024 groups. **N** is positive code, **I** is inverse code
- Press any key except **[FUN]**, **[POW]** and **[TS/DCS]** keys to return into standby status.



Under channel mode, this operation can be temporarily used by user. Once the radio is turned off or switched to another channel, the temporary setting will be erased

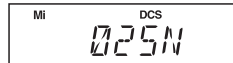
CTCSS SCAN

Repeatedly press **[TS/DCS]** key until LCD displays **T** and **SQ** icons, then hold **[TS/DCS]** key for 1S to enter into CTCSS scanning. Once finding a matching CTCSS signaling, it will stop for 15s then scan again.



DCS SCAN

Repeatedly press **[TS/DCS]** key until LCD displays **DCS** icons, then hold **[TS/DCS]** key for 1S to enter into DCS scanning. Once finding a matching DCS signaling, it will stop for 15s then scan again.



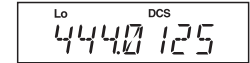
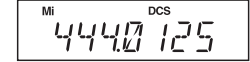
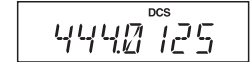
TX POWER SWITCH

Press **[FUN]** key until LCD display **Hi** icon, then press **[CAL]** key to switch between high/ Mid/low power. The LCD appears:

None: Transmist in high power

Mi: Transmist in middle power

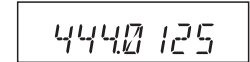
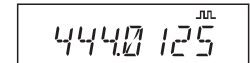
Lo: Transmist in low power



COMPANDER (DECREASE THE BACKGROUND NOISE AND ENHANCE AUDIO CLARITY)

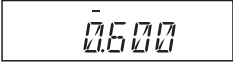
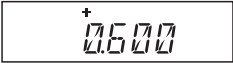
Compander function will decrease the background noise and enhance audio clarity, especially in long range communication.

- Press **[FUN]** key, then press **[SQL]** key to turn on compander function, repeat above operation again to turn off compander function.
- When LCD appears **JUL** icon, enable compander in current channel.
- When LCD doesn't display **JUL** icon, disable compander in current channel.



■ OFFSET DIRECTION AND OFFSET FREQUENCY SETUP

Repeater receives a signal(UP-LINK) on one frequency and re-transmits on another frequency(DOWN-LINK). The difference between these two frequencies is called the offset frequency. If the UP-LINK frequency higher than DOWN-LINK frequency, the direction is positive, If it is lower, the shift direction is negative.

1. Press **[FUN]** key until the **[]** icon displays on the LCD, then press **[MHz]** key LCD displays offset direction and offset frequency. 
2. Repeatedly press **[MHz]** key to select positive offset and negative offset. 
3. When LCD displays "+" icon, it indicates positive offset, which means transmitting frequency higher than receiving frequency.
4. When LCD displays "-" icon, it indicates negative offset, which means transmitting frequency lower than receiving frequency.
5. Turn selector knob or Mic's **[UP]** / **[DOWN]** key to change offset frequency, offset frequency changed as per stepping.
6. Press any key except **[FUN]** and **[MHz]** key to exit into standby.



NOTE

Under channel mode, this operation can be temporarily used by user.
Once the radio is turned off or switched to another channel, the temporary setting will be erased.

■ KEYPAD LOCKOUT

Avoiding unintentional operation, this function will lock main keys, all keys except **[SQL]**、**[FUN]** and **[POW]** key are invalid.

1. Press **[FUN]** key until LCD displays **[]** icon, then press **[TS/DCS]** key until, LCD displays **[]** icon, it indicates keypad lockout function is valid.
2. Repeat above operation, **[]** icon disappears, it indicates keypad lockout function is invalid.



■ CURRENT VOLTAGE ENQUIRY

This function will display Current Battery Voltage.

1. Press and hold **[FUN]** key, then press **[SQL]** key, LCD displays current battery voltage.
2. Repeat above operation to return into VFO or Channel mode



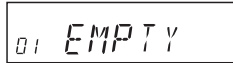

In voltage display mode, all functions and channel or frequency selection are invalid.

■ AUTO-DIALER SETUP

This will automatically transmit pre-programmed and stored DTMF tones. And they are often used to remote control electronic devices or AUTOPATCH phone systems available on some repeater.

1. Press and hold **[FUN]** key, then press **[TS/DCS]** key to enter the auto-dialer enquiry mode, LCD displays current default data and current group displayed on left. If no data in current group, it shows "EMPTY".

2. Turn selector knob to choose group you desired. Total:16 group,01-16.
3. Press **SQL** key to enter into editing of current group,press MIC's numeric keys to set your desired data.
4. The display scrolls when the 7th digit is entered. The numbers 0-9, --, A-D, * and # can be stored up to a total of 23 digits.
5. After editing,press PTT or **CAL** key to send current group and store edited DTMF signaling. Press **SQL** to exit and store.

A rectangular display box showing the text '01' on the left and 'EMPTY' on the right.A rectangular display box showing the text '01' on the left, four dashes '----' in the middle, and '123' on the right.A rectangular display box showing the text '01' on the left and '123' on the right.

■ TRANSMITTING EDITED DTMF TONES IN THE AUTO-DIALER MEMORY

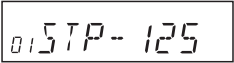
1. Press **FUN** key, then press **TS/DCS** key to enter into auto-dialer enquiry
2. Turn selector knob to select desired transmitting group
3. Press PTT or **CAL** key to transmit current selected DTMF tones.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** or **[SQL]** to select the desired function option.
3. Turn selector knob to select the desired setup.
4. Press **[TS/DCS]** to confirm and exit. Editing channel name or starting up menu, press **[V/M]** or **[TS/DCS]** to move forward or backward, Press **[MHz]** to store and exit.

NOTE In Profession transceiver mode, the functions from No.1 to No.17 will be auto-hidden.

FREQUENCY CHANNEL STEP SETUP

Only in frequency (VFO) mode, this function is valid. Turn selector knob to select frequency or frequency scanning which is restricted by frequency step size.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu. 
2. Press **[CAL]**/**[SQL]** key to choose No.01 menu, LCD displays "STP--125"
3. Turn selector knob to select the desired frequency channel step. Channel step: 5K,6.25K,8.33K,10K,12.5K,20K,25K,30K and 50K, total 9 kinds.
4. Press **[TS/DCS]** key to confirm and exit


NOTE This function is auto-hidden in channel mode.

SUB TONE DTMF, DTMF ANI, 2TONE OR 5TONE SIGNALING

DTMF, 5Tone, 2Tone and CTCSS/DCS signalling function as similarly as CTCSS/DCS. Without receiving correspondent tone signalling, the speaker will remain mute. DTMF and 5Tone signalling can be applied

for other advanced features such as ANI, PTT ID, group call, stun, remote kill, revival, waken,...etc. The signalling edition must be done through PC programmer. Please refer to the HELP option in the programming software to know how to operate these features.

1. Press and hold **[FUN]** key for over 2s to enter into general setting menu.
2. Press **[CAL]**/**[SQL]** to choose No 2 menu, LCD displays "T-OFF" .

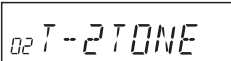
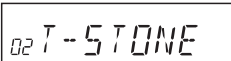


3. Turn selector knob to change the setting..

- ▼ "DTMF": the channel will be mute by a DTMF signal. The speaker won't be open until receiving a correspondent DTMF signal. Hold "PTT" then press [UP] or press **[CAL]** to transmit the pre-stored DTMF signaling.

NOTE In DTMF signaling mode, press **[CAL]** for 2s until LCD displays "AN---", turn selector knob to select desired digit (caller ID). In this mode, press **[TS/DCS]** to confirm exist digit and move cursor to next, press **[V/M]** to forward cursor. After editing, press **[CAL]** key to operate ANI call.

- ▼ "2TONE": the channel will be mute by a 2-Tone signal. The speaker won't be open until receiving a correspondent 2-Tone signal. Hold "PTT" then press [UP] or press **[CAL]** to transmit the pre-stored 2-Tone signaling.

- ▼ "5Tone": the channel will be mute by a 5-Tone signal. The Speaker won't be open until receiving a correspondent 5-Tone signal. hold "PTT" then press [UP] or

Press **[CAL]** to transmit the pre-stored 5-Tone signaling.

In 5Tone signaling mode,press **[CAL]** for 2s until LCD displays "AN---",turn selector knob to select desired digit(caller ID).In this mode,press **[TS/DCS]** to confirm exist digit and move cursor to next,press **[V/M]** to forward cursor.After editing,press **[CAL]** key to operate ANI call.



NOTE

4. Press **[TS/DCS]** key to confirm and exit

SENDING 2-TONE CALL

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.03 menu, LCD displays "2TON XX","XX"indicates the group in the list.
3. Turn selector knob to select the desired sending 2TONE group,Press PTT to transmit selected group.
4. Total:32groups,00-31,Default:00.
5. Press **[TS/DCS]** key to confirm and exit.

03 2TON-00

Context and name of 2TONE will be edited by programming software.



NOTE

This radio only query edited group or name.If there is corresponding name to 2TONE edit,this operation will display 2TONE corresponding name.

SENDING 5-TONE CALL

1. Press and hold **[FUN]** key for over 2s to enter general setting menu

2. Press **[CAL]** / **[SQL]** key to choose No.04 menu, LCD displays "5TON XX","XX"indicates the group in the list.
3. Turn selector knob to select the desired sending 5TONE group,Press PTT to transmit selected group.
4. Total:100groups,00-99,Default:00.
5. Press **[TS/DCS]** key to confirm and exit.

04 5TON-00

Context and name of 5TONE will be edited by programming software.This radio only query edited group or name.If there is corresponding name to 5TONE edit,this operation will display 5TONE corresponding name.

SENDING DTMF CALL

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]** / **[SQL]** key to choose No.05 menu, LCD displays "DTMF XX","XX"indicates the group in the list.
3. Turn selector knob to select the desired sending DTMF group,Press PTT to transmit selected group.
4. Total:16groups,00-16,Default:00.
5. Press **[TS/DCS]** key to confirm and exit.

05 DTMF-01

SIGNALING COMBINATION SETUP

This function is improving and preventing to receive irrelative signaling level.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.06 menu, LCD displays "SPK--SQ".
3. Turn selector knob to select the desired combination

If select "SQ",it indicates you can hear the calling from caller when receive a matching carrier.

- ▼ If LCD displays "CTC",it indicates you can hear the calling from caller when receive a matching carrier and matching CTCSS/DCS signaling .
- ▼ If LCD displays "TON",it indicates you can hear the calling from caller when receive a matching carrier and matching DTMF,2TONE or 5TONE signaling .
- ▼ If LCD displays "C/T",it indicates you can hear the calling from caller when receive a matching carrier and matching CTCSS/DCS and matching DTMF/2TONE/5TONE signaling .
- ▼ If LCD displays "C/T",it indicates you can hear the calling from caller when receive a matching carrier and matching CTCSS/DCS or any one from matching DTMF/2TONE/5TONE signaling.

4. Press **[TS/DCS]** key to confirm and exit

NOTE This setting will be set together with sub tone signaling and CTCSS/DCS.

TX POWER SELECTION

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.07 menu, LCD displays"POW--HI".
3. Turn selector knob to select the desired setting.
HI: High TX Power
MI : Middle TX Power
LOW: Low TX Power
4. Press **[TS/DCS]** key to confirm and exit.

BAND-WIDTH SELECTION

Select suitable bandwidth in accordance with different local conditions.

1. Press and hold **[FUN]** key for over 2s to enter general setting menu.
2. Press **[CAL]**/**[SQL]** key to choose No.08 menu, LCD displays"BAND--25".
3. Turn selector knob to select the desired setting.
25: band width is 25k(Wide band)
20: band width is 20k(Middle band)
12:band width is 12.5k(Narrow band)
4. Press **[TS/DCS]** key to confirm and exit.
5. Default:25(Wide Band).