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**ZASTONE**  
PROFESSION FM TRANSCEIVER



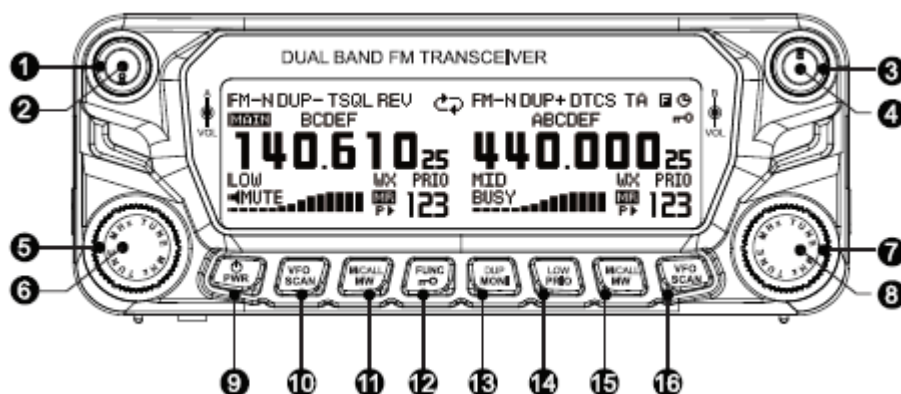
**INSTRUCTION MANUAL**




**D9000**





Car walkie-talkie

## Introduction of the Machine

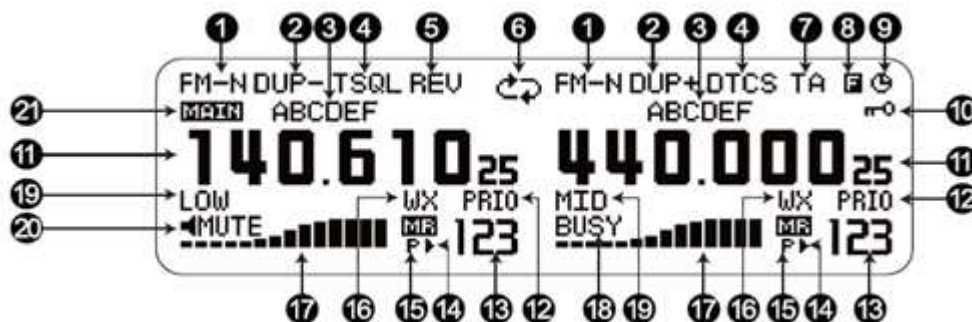
### ■ Front Panel






No.	Keys and Buttons	Functions
1	left main mode key [MAIN·BAND]	press the key and set the left band to be the main band mode
2	left volume key [VOL]	switch it clockwise to increase the left side volume of the machine; switch it anticlockwise to decrease the left side volume of the machine
3	right main mode key [MAIN·BAND]	press the key and set the right band to be the main band mode
4	right volume key [VOL]	switch it clockwise to increase the right side volume of the machine; switch it anticlockwise to decrease the right side volume of the machine
5	left side on-off band key [DAIL]	switch it to choose the frequency/channel of the left side of the machine
6	left [MHz·TUNE] key	under the frequency mode, press the key to enter the adjustment mode of the MHz
7	right side on-off band key [DAIL]	switch it to choose the frequency/channel of the right side of the machine
8	right [MHz·TUNE] key	under the frequency mode, press the key to enter the adjustment mode of the MHz
9	power key [PWR]	hold the key to turn on or turn off the power
10	left 	under the standby mode, press the key to choose the VFO mode; hold the key to start the frequency scan
11	Left 	under the standby mode, press the key to choose the channel mode/CALL channel mode; hold the key to enter the store/delete channel mode
12		under the standby mode, press the key to enter the second function mode; hold the key to start or close the clock key on the screen

13		under the standby mode, press the key to choose the DUPLEX of the main band mode; hold the key to start or close the monitor mode of the main band mode
14		under the standby mode, press the key to choose the power level of the main band mode; hold the key to start the double waiting and monitoring function
15	right 	under the standby mode, press the key to choose VFO mode; hold the key to start the frequency scan
16	right 	under the standby mode, press the key to choose the channel mode /CALL channel mode; hold the key to enter the store/delete channel mode

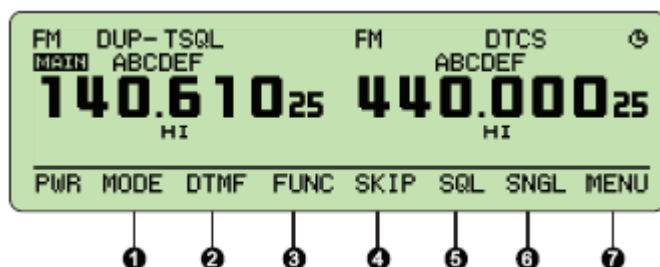
### ■ LCD Screen Display










No.	Icons	Functions
1	FM FM-N AM	indication for the wideband frequency modulation, indication for the narrow-band frequency modulation, indication for the amplitude modulation
2	DUP- DUP+	indications for - DUPLEX and + DUPLEX
3	ABCDEF	indication for the channel name
4	TSQL DTCS	indication for the trunk signaling, indication for the CTCSS signaling, indication for the DCS signaling
5	REV	indication for the frequency reverse
6		indications for starting the same frequency repeater or cross repeater
7	TA	indication for the talk around function
8		indication for the shortcut operations
9		indication for starting up the function of the automatic power on
10	0	indication for the clock key of the panel
11	140.61025	indication for the present channel frequency
12	PRIO	indication for the function of double waiting

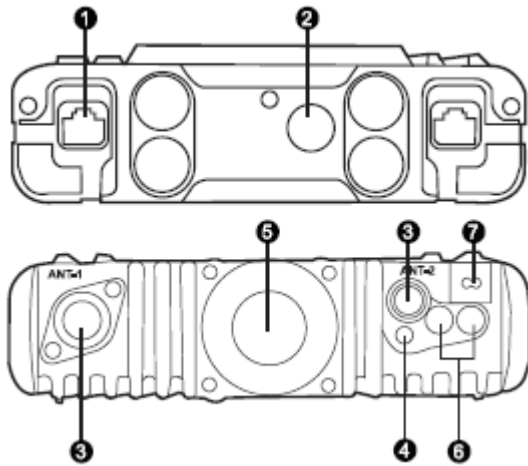
13	<u>123</u>	indication for the storage channel number
14	▶	indication for deleting or adding the scan channel
15	<b>F</b>	indication for the priority channel scan
16	<b>WX</b>	indication for starting the meteorological warning channel
17	.....	indication for TSSI/RSSI
18	<b>BUSY</b>	indication for RSSI or the startup of the monitor function
19	<u>HI MID LOW</u>	indication for the high power, middle power and low power
20	◀ <b>MUTE</b>	indication for the mute subcarrier frequency
21	<b>MAIN</b>	indication for the main channel

## ■ Function Menu



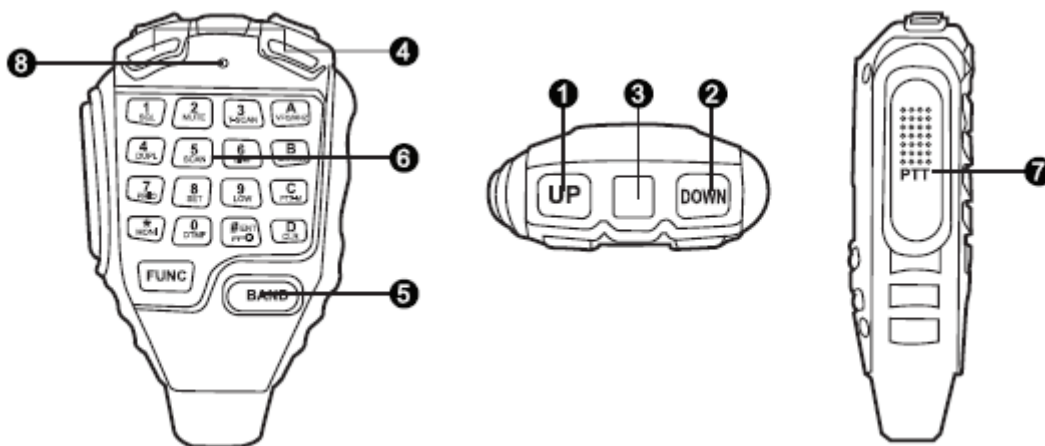
No.	Keys and Buttons	Functions
1	[MODE] (left  key)	Press the key to choose the channels of FM Frequency Modulation, Meteorological Warning, Air, Radio, and Amplitude Modulation (including short wave, medium wave and long wave).
2	[DTMF] (left  key)	Press the key to set the parameters of the DTMF.
3	[FUNC] (  key)	Press the key to start or exit the shortcut operation, or exit the menu operation.
4	[SKIP] (  key)	Under the main band channel mode, press the key to start or close the present delete and add functions of the channel scan.
5	[SQL] (  key)	Under the main band mode, press the key to enter the adjustment mode of squelch level.
6	[SNGL] (right  key)	Under the standby mode, press the key to switch it into single-band mode or dual band mode.
7	[MENU] (right  key)	Under the standby mode, press the key to enter the mode of function menu operation.

## ■ Back Panel



No.	Keys and Buttons	Functions
1	Crystal Interface	The interface to connect the control panel or the microphone
2	Data Interface	The interface of TNC data transmission
3	Antenna Terminal	It is used to connect the antenna wire, and the antenna impedance is 50 ohm.
4	External ACC Connector	The cigar lighter can be connected by matching it to the start line (HCC01). As the car started, the car sill will start automatically. As the engine stops, the car sill will close automatically.
5	Radiator Fan	As the car sill start to work and the temperature increases, the radiator fan will start automatically.
6	External Dual Channel Speaker Interface	These are used to connect the distribution channel get to the external speaker.
7	Input the Power Cord	12-24V interface
















### ■ Microphone



























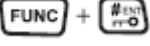













No.	Keys and Buttons	Functions
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1	UP	Increase the frequency value, record the position or setting value of the channel.
2	Down	Decrease the frequency value, record the position or setting value of the channel.
3	Emergency Warning Key	Hold the key to start the warning function, cancel the operation with a short press
4	Receiver/Transmitter Indicator Light	The green LED indicator light will be on as the signal is received. As the keyboard is launched through pressing the PTT key, the red LED indicator light will be on.
5	Host/Auxiliary Engine Switch	Press the key can switch the left or right engine into the main channel.
6	Keypad	It is used to set the functions, input the VFO frequency or DTMF dialing.
7	Talk Key	Press the [PTT] to enter the transmit operation.
8	Microphone	Speak with it as sending messages.

### ■ Function Description of the Microphone Keyboard

No.	Keys and Buttons	Functions
1	Mode of Squelch Level  + 	Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to enter the adjustment mode of squelch level.
2	Mute Mode of the Main Channel  + 	Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to start or close the mute function of the main channel.
3	CTCSS/DCS Scan  + 	Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to start or close the mute function of the main channel.
4	Duplex Setting  + 	Under the standby mode, press the  key first,

		<p>after the "F" is displayed on the screen then press the  key to switch the duplex of the main channel to DUP+ and DUP –or close the duplex.</p>
5	<p>Start the Scan Operation</p> <p> + </p>	<p>Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to start the frequency scan of the main channel, channel scan, or other functions of the frequency search.</p>
6	<p>Mode Switch of the Single Band/ Dual Band</p> <p> + </p>	<p>Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to switch the vehicle mounted station's operation mode to single-band or dual band mode.</p>
7	<p>Start the Double Waiting Operation</p> <p> + </p>	<p>Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key start the double waiting function of the main channel in modes of frequency and channel.</p> <p>Marks: The function can not be started as there is no channel setting with the mian channel.</p>
8	<p>Enter the Menu Mode</p> <p> + </p>	<p>Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to enter the menu mode.</p>
9	<p>High and Low Power Switch</p> <p> + </p>	<p>Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to switch the main channel's</p>

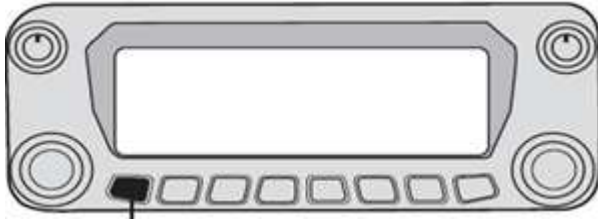
		transmit power to high power, medium power or low power. Marks: The function can not be set as under the aeronautical frequency range and the radio frequency.
10	Function Setting of the DTMF 	Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key to enter the function setting mode of the DTMF.
11	Lock or Unlock the Keyboard of the Front Panel 	Under the standby mode, press the  key first, after the "F" is displayed on the screen then press the  key for 1 second to start the key lock of the front panel. Repeat the above step to unlock the keyboard of the front panel.
12	Start or Close the Monitor Function 	Under the standby mode, press the  key to start the monitor operation, press it again to close the operation.
13	Frequency Mode or MHz Adjustment Mode Setting 	Under the standby mode, press the  key to choose the VFO mode. Under the VFO mode, press the  key to enter the MHz Adjustment Mode.
14	Channel Mode Setting or CALL Mode Setting 	Under the standby mode, press the  key to choose the Channel Mode/CALL Mode.
15	Key Lock of the PTT 	Under the standby mode, hold the  for more than 1 second to start the key lock function of the PTT. Repeat the above step to unlock the keyboard of the PTT.
16	Mode Setting of the Main Channel and Side Channel 	Under the standby mode, press the  key to respectively switch the left engine and right engine to main channel mode.



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## Basic Operation

### ■ Power On/Off of the Vehicle Mounted Station




#### Power Key

##### ◇ Power On of the Vehicle Mounted Station

Under the shutdown state, press the  key for a second to turn on the walkie-talkie. After the walkie-talkie begins to beep loudly and there appear some messages on the LCD display screen, directions and the present operating frequency will show on the screen.

##### ◇ Power Off of the Vehicle Mounted Station

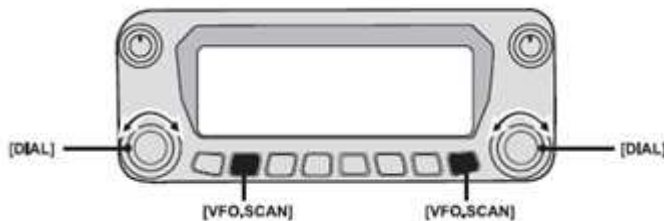
Under the shutdown state, press the  key for a second to turn off the walkie-talkie. As the walkie-talkie is turned off, the present parameters can be stored in it and will be shown automatically for the next time when the power is on again.

### ■ Volume Control

Minimum	Max	Minimum	Max
Volume	Volume	Volume	Volume



### ■ Adjust the Frequency with the Tuning Knob




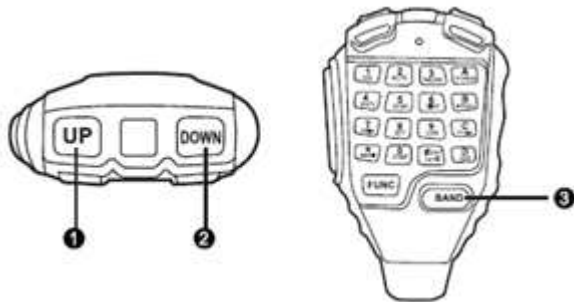
Under the **VFO** mode, adjust and select the frequency that needs to be adjusted with the **[DIAL]** knob. Clockwise adjustment is to increase the frequency, and the anticlockwise adjustment is to decrease the frequency. One notch can increase or decrease it by one step value.



As **1MHz** adjusting step value is selected, the number below **100kHz** will disappear.  
 As to adjust the frequency of the main engine, press the corresponding **[DIAL]** knob, you will enter the adjustment mode of **MHz**. With this state, modify the band switch, and the frequency can be immediately adjusted by **1MHz** step value.

### ■ Usage of the [▼]/[▲]Keys










- Press the  key to select the frequency range (left or right) as the main band.
- Press the [▼]/[▲] to select the frequency you want.



**Notes:** push the [▲] for one time can increase the value by one step, holding down the [▼]/[▲] can adjust the frequency continuously.

### ■ Input the Frequency with Mic Number


Under the mode of the main frequency range, you can input the frequency by the mic keyboard. You will fail as the input frequency is beyond the range. For example, the frequency is set as **145.36250MHz**

Keys	Display Screen
  	
Press  	
Press 	




**Notes:** If the frequency range has been set to a range, the frequency whatever you input or modify will be limited within the present effective frequency range of the **VFO**.

### ■ Selecting the Output Power



There are 3 notches of out power with the walkie-talkie to meet your needs. If you are going to communicate within a short distance, the low power output can be turned on to reduce the interference to other stations and the power consumption.

- Press the  key a few times to select the output power

S/RF Display	POWER OUTPUT
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	VHF/UHF	Taiwan
High Power: 	50W/50W	25W
Medium Power: 	15W*/15W*	15W*
Low Power: 	5 W*/5 W*	5W*

The output power can be changed in the process of transmission.  
The output power can also be selected by microphone keyboard.



Press the  key on the microphone keyboard first, and then press the  key to respectively select the high power, medium power and low power.

### ■ Single Frequency/Dual Frequency Operation

You can monitor the two frequencies during the operation of dual frequency. There are two independent receiving circuits: the left frequency range and the right frequency (can be used to different frequencies, modes and functions). Only one frequency can be monitored during the operation of single frequency.

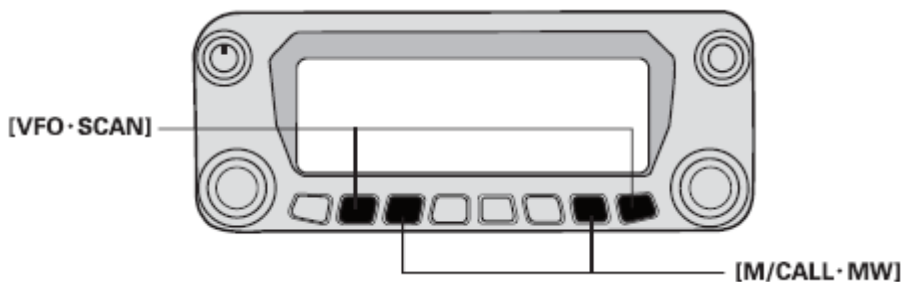
- ① Press the  key, the function menu will be displayed.
- ② Press the [SNGL] (the right frequency range ) to select the mode of the single-band operation. You can operate with the [DIAL],[MAIN-BAND],[VOL],[VFO-SCAN] and the [M/CALL·MW] that are placed to the left frequency band and the right frequency band.



- ③ Press the  key, the function menu will be displayed. Afterwards, you can press the [DUAL] (right frequency ) to back to the dual frequency operation.



### ■ Selection of the VFO Channel, MR Channel and CALL Channel



Under the standby mode, as the vehicle mounted station is in VFO mode, you can press the



key to switch it to **MR** storage pattern, press the



again, it can be switched to

the mode of **CALL** channel.

· Under the standby mode, as the vehicle mounted station is in the mode of **MR** storage or the

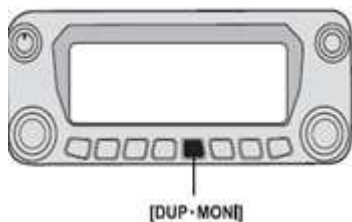
**CALL** channel mode, press the



key, and it can be changed to the **VFO** mode.

## ■ Duplex Slection

It is used to select a transmitting frequency that is above (+) or below (-) the receiving frequency.



① Under the standby mode, press the **[MAIN·BAND]** key to select the left side frequency band or the right frequency band as the main mode.

② Press the



key to select the -DUPLEX, + DUPLEX or the simplex mode in turn.

## ■ Programming Chanel

The frequency and the related data that are used frequently can be stored in the memory channel so that you do not need to program them every time. Only with simple operation can you reload the programmed channel.

① Set the frequency at the expected frequency band

- Press the **[VFO·SCAN]** of the expected frequency band to select the **VFO** mode
- To set the receiving frequency, the **DUPLEX**, and the **CTCSS/DCS** according to your needs.

② Hold down the **[M/CALL·MW]** that is in the same channel for 1 second.

· 2 alert sounds

· The indicator of “**MR**” and the storage channel number begin to blink.

③ Switch the **[DIAL]**, select the storage channel to program.

· The storage channel that has not been programmed should be empty.

④ Hold down the **[S.MW]**( **M/CALL·MW**) (the left side frequency band)for a second to enter the programming operation.

· 3 alert sounds

As the storage channel number increases automatically, press the **[M/CALL·MW]** to continue the programming.



## ■ Delete the Channel

Steps that are used to clear the single storage channel:

① Press the **[VFO·SCAN]** select the frequency band (the left side frequency band or the right side frequency band)that the **VFO** needs.

- 
- ② Hold down the **[M/CALL·MW]** of the corresponding band for one second.
    - The indicator of “**MR**” and the storage channel number begin to blink.
  - ③ Switch the **[DIAL]** and select the storage channel that needs to be cleared.
  - ④ Hold down the **[CLR](DUP·MONI)** for one second to clear.
    - As there appears 3 alert sounds, the frequency is cleared.
    - The indicator of “**MR**” and the storage channel number blink on and off.
    - After the **CALL** channel is cleared, the present **VFO** will reenter the **CALL** channel and do the programming automatically.
  - ⑤ Press the **[BACK](V/MHz·SCAN)**(the right side frequency band) and back to the **VFO** mode.

## Function Set for the Overall Unit

- ① Press the  key, the operation menu screen will be displayed.
- ② Press the  key (right side ) and enter the function menu.
- ③ Switch the [DIAL], select the “SET MODE” menu group and push the [MHz TUNE].
- ④ Switch the [DIAL], select the “TIME-OUT TIMER” menu option, and push the [MHz TUNE].

### ■ Time-out Timer

MENU	TIME-OUT TIME	5MIN
SET MODE	AUTO POWER OFF	30MIN
	SPEAK SELECT	MODE-1
	FAN CONTROL	OFF
01/20	SQL DELAY	SHORT

BACK

**OFF:** Close the time-out timer

**1-30:** After 1 to 30 minutes that are set before, the power will be automatically off.

### ■ Auto Power Off

MENU	TIME-OUT TIME	5MIN
SET MODE	AUTO POWER OFF	30MIN
	SPEAK SELECT	MODE-1
	FAN CONTROL	OFF
02/20	SQL DELAY	SHORT

BACK

**OFF:** Close the function of automatical power off

**30—720MIN:** The power will be off automatically after 30 to 720 minutes.

Default: **OFF**

### ■ Speaker Select

MENU	TIME-OUT TIME	5MIN
SET MODE	AUTO POWER OFF	30MIN
	SPEAKER SELECT	MODE-1
	FAN CONTROL	OFF
03/20	SQL DELAY	SHORT

BACK

**MODE-1:** speaker of the main engine

**MODE-2:** speaker of the panel

**BOTH:** speaker of the main engine and the panel

Default: **OFF**

### ■ Fan Control

MENU	TIME-OUT TIME	5MIN
SET MODE	AUTO POWER OFF	30MIN
	SPEAK SELECT	MODE-1
	FAN CONTROL	OFF
	SQL DELAY	SHORT
04/20		
BACK		

**OFF:** Close the fan function

**ON:** Start the fan function

**AUTO:** automatic fan control

**Default:** AUTO

### ■ Automatic Repeater

MENU	SPEAK SELECT	MODE-1
SET MODE	FAN CONTROL	OFF
	SQL DELAY	SHORT
	AUTO REPEATER	OFF
	BEAT SHIFT	OFF
06/20		
BACK		

**OFF:** Close the automatic repeater

**RPT1:** repeater function of the common frequency

**RPT2:** repeater function of the dissimilar frequency

**Default:** OFF

### ■ MIC Noise Reduction

MENU	VHF BAND AIP	OFF
SET MODE	VHF BAND AIP	OFF
	VFO TRACKING	OFF
	MIC NOISE REDUCTION	MOD-2
	MIC KEY LOCK	OFF
12/20		
BACK		

**NOR:** normal mode

**MOD-1:** common noise reduction

**MOD-2:** enhance the noise reduction

**Default:** NOR

### ■ FM Transmitter Function

MENU	TUNE ENABLE	OFF
SET MODE	AIR-BAND STEP	25K
	AMR-BAND STEP	1K
	FM TRANSMITTER OFF	OFF
	FM TRANSMITTER FREQ	64.5M
17/20		
BACK		

**OFF:** close the FM transmitter

**ON:** start the FM transmitter

**Default:** OFF

### ■ FM Transmitter Frequency

MENU	AIR-BAND STEP	25K
SET MODE	AMR-BAND STEP	1K
	FM TRANSMITTER	OFF
	FM TRANSMITTER FREQ	64.5M
18/20	WX ALERT	OFF
BACK		

frequency range of the FM transmitter: 64-108MHz

**Default: 64.5MHz**

### ■ Weather Alert

MENU	AMR-BAND STEP	1K
SET MODE	FM TRANSMITTER OFF	OFF
	FM TRANSMITTER FREQ	64.5M
	WX ALERT	OFF
19/20	RESET	VFO
BACK		

**OFF:** close the weather alert

**ON:** start the weather alert

**Default: OFF**

### ■ Factory Reset

MENU	AMR-BAND STEP	1K
SET MODE	FM TRANSMITTER OFF	OFF
	FM TRANSMITTER FREQ	64.5M
	WX ALERT	OFF
20/20	RESET	VFO
BACK		

**VFO:** recover the left band, right band, radio, aviation, and the VFO frequency in the amplitude frequency range

**PART:** recover the overall unit and set the menu parameters

**FULL:** full recovery of the machine

**Default: VFO**

### Backlight Set

MENU	RED BACKLIGHT	OFF
DISPLAY	GREEN BACKLIGHT	OFF
	BLUE BACKLIGHT	OFF
	DIMMER	8
01/07	AUTO DIMMER	OFF
BACK		

### Red Backlight Set

MENU	RED BACKLIGHT	ON
DISPLAY	GREEN BACKLIGHT	OFF
	BLUE BACKLIGHT	OFF
	DIMMER	8
02/07	AUTO DIMMER	OFF
BACK		

### Green Backlight Set

MENU	RED BACKLIGHT	OFF
DISPLAY	GREEN BACKLIGHT	ON
	BLUE BACKLIGHT	OFF
	DIMMER	8
03/07	AUTO DIMMER	OFF
BACK		

### Blue Backlight Set





Shenzhen Zastone technology Co.lTD  
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