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PREFACE

Thank you for purchasing our Amateur Portable Radio, which is a dual band/dual display radio. This easy-to-use radio will deliver you secure, reliable and reliable communications at peak efficiency. Please read this manual carefully before use. The information presented herein will help you to derive maximum performance from your radio.

1.- SAFETY INFORMATION

The following safety precautions shall always be observed during operation, service and repair of this equipment.

- This equipment shall be serviced by qualified technicians only.
- Do not modify the radio in any way.
- Use only BAOFENG supplied or approved batteries and chargers.
- Do not use damaged accessories or batteries. Continued use, if a damaged antenna comes into contact with your skin, may cause a minor burn-out wound.
- Turn off your radio prior to entering any area with explosive and flammable materials.
- Do not charge your battery in a location with explosive and flammable materials.
- To avoid electromagnetic interference and/or compatibility conflicts, turn off your radio in any area where posted notices instruct you to do so.
- Turn off your radio before boarding an aircraft. Any use of a radio must be in accordance with airline regulations or crew instructions.
- Turn off your radio before entering a blasting area.
- For vehicles with an air bag, do not place a radio in the area over an air bag or in the air bag deployment area.
- Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.
- When transmitting with a portable radio, hold the radio in a vertical position with the microphone 3 to 4 centimeters away from your lips. Keep antenna at least 2.5 centimeters away from your body when transmitting.

WARNING: If any metal objects touch an your body, ensure the radio and Isoentenna are at least 2.5 centimeters away from your body when transmitting.

2.- FEATURES AND FUNCTIONS

- Dual-band handheld transceiver with display function menu on the display "LCD".
- DTMF encoder.
- Lithium-ion battery with high capacity.
- Commercial FM radio receiver (87.0 - 108 MHz).
- Incorporates 105 codes "DCS" and 50 privacy codes "CTCSS" programmable.
- Function "VOX" (voice control transmitter).
- Alarm function.
- Up to 128 memory channels.
- Broadband (Wide) / Narrowband (Narrow) selectable.
- Channel Scanner (Busy channel lockout or BCL).
- Display illuminated and programmable keyboard.
- Function "beep" on the keyboard.
- Dual Watch/dual reception.
- Selectable Frequency Step 2.5/5/6.25/10/12.5/25 kHz.
- Function "OFFSET" (frequency shift).
- Battery saving function "SAVE".
- Timer transmission "TOT" programmable.
- Selecting the Scan Mode.
- Function then a Channel lock "BCLO".
- Built-in RX CTCSS/DCS scan.
- Built-in LED flashlight.
- Programmable by PC.
- Level Threshold "Squelch" adjustable from 0 to 9.
- Crossband reception
- Tone end of transmission
- Built-in key lock

3.- UNPACKING AND CHECKING EQUIPMENTS

Carefully unpack the transceiver. We recommend that you identify the items listed in the following before discarding the packing material. If any items are missing or have been damaged during shipment, please contact your dealers immediately.

Note: - Items included in the package, may differ from those listed in the table above depending on the country of purchase. For more information, consult your dealer or seller.

4.- OPTIONAL ACCESSORIES

Note: - Consult the dealer or retailer for information about options available.

5.- INSTALLATION OF ACCESSORIES

5.1.- INSTALLING THE ANTENNA

Install the antenna as shown in the figure below and turn it clockwise until it stops.

Note:
- **When installing the antenna, don't rotate it by its tip, holding it by its base instead.**
- **If you use an external antenna, make sure the'SWR is about 1.5:1 or less, to avoid damage to thetransceiver'. final transmitter.**
- **Do not hold the antenna with your hand or wrap the outside of it to avoid bad operation of the transceiver.**
- **Never transmit without an antenna.**

5.2.- INSTALLING THE BELT CLIP

If necessary, install the belt clip at the rear of the battery compartment cover as shown in the figure below.

WARNING: - To reduce the risk of injury, charge only the battery specified by the manufacturer. Other batteries may burst, causing bodily injury and property damage.

5.3.- MICRO-HEADSET INSTALLATION OF EXTERNAL

Plug the external micro-headset connector into the jack of "SP & MIC" of the transceiver as shown in the figure below.

5.4.- BATTERY INSTALLATION

- When attaching battery, make sure the battery is in parallel and in good contact with the aluminum chassis. The battery bottom is about 2 to 3 centimeters below the bottom of the radio's body.
- Align the battery with the guide rails on the aluminum chassis and slide it upwards until a 'click' is heard.
- The battery latch at the bottom locks the battery.
- Turn off the radio before removing the battery.
- Slide the battery latch, at the bottom of the radio's body, in the direction indicated by the arrow.
- Slide down the battery for about 1 to 2 centimeters, and then remove the battery from the radio's body.

6.- BATTERY CHARGING

Use only the charger specified by the manufacturer. The charger's LED indicates the charging status.

CHARGING STATUS	LED INDICATION
Standby (no load)	Red LED lights,while Green LED glows
Charging	Red LED solidly glows
Fully Charged	Green LED solidly glows
Error	Red LED flashes,while Green LED glows

Note: - Consult the dealer or retailer for information about options available.

7.- BATTERY INSTALLATION

7.1.- INITIAL USE

New batteries are shipped uncharged fully from the factory. Charge a new battery for 5 hours before initial use. The maximum battery capacity and performance is achieved after three full charge/discharge cycles. If you notice the battery power runs low, please recharge the battery.

WARNING: - To reduce the risk of injury, charge only the battery specified by the manufacturer. Other batteries may burst, causing bodily injury and property damage.

- To avoid risk of personal injury, do not dispose of batteries in a fire!
- Dispose of batteries according to local regulations (e.g. recycling).
- Do not dispose in household waste.
- Never attempt to disassemble the battery.

7.2.- BATTERY TIPS

1.- When charging your battery, keep it at a temperature between 5℃-40℃. Temperature out of the limit may cause battery leakage or damage.
2.- When charging a battery attached to a radio, turn the radio off to ensure a full charge.
3.- Do not cut off the power supply or remove the battery when charging a battery.
4.- Never charge a battery that is wet. Please dry it with a soft cloth prior to charging.
5.- The battery will eventually wear out. When the operating time (talk-time and standby time) is noticeably shorter than normal performance, it is time to buy a new battery.

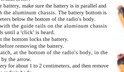
7.3.- PROLONG BATTERY LIFE

1.- Battery performance will be greatly decreased at a temperature below 0℃. A spare battery is necessary in cold weather. The cold battery unable to work in this situation may work under room temperature, so keep it in pocket.
2.- The dust on the battery contact may cause the battery cannot work or charge. Please use a clean dry cloth to wipe it before charging, in order to ensure a full charge.

7.4.- BATTERY STORAGE

1.- Fully charge a battery before you store it for a long time, to avoid battery damage due to over-discharge.
2.- Recharge a battery after several months' storage (Li-ion batteries: 6 months), to avoid battery capacity reduction due to over-discharge.
3.- Store your battery in a cool place.

8.- PARTS, CONTROLS AND KEYS



Please follow these steps:
1. Insert the battery.
2. Plug the AC connector of the charger into the AC outlet socket.
3. Plug the other connector of the adapter into the DC socket on the back of the charger.
4. Place the radio with the battery attached, or the battery alone, in the charger.
5. Make sure the battery is in good touch with the charging terminals. The charging process will begin when the red LED lights.
6. The green LED lights about 4 hours later indicating the battery is fully charged. Then remove the radio with the battery attached or the battery alone from the charger.

7.- BATTERY INFORMATION

7.1.- INITIAL USE

New batteries are shipped uncharged fully from the factory. Charge a new battery for 5 hours before initial use. The maximum battery capacity and performance is achieved after three full charge/discharge cycles. If you notice the battery power runs low, please recharge the battery.

WARNING: - To reduce the risk of injury, charge only the battery specified by the manufacturer. Other batteries may burst, causing bodily injury and property damage.

▶ SK-SIDE KEY1(CALL):
- Press the [CALL] button,to activate the FM Radio;Press it again to deactivate the FM Radio.
- Press and hold on the [CALL]button,to activate the alarm function; Press and hold it again, to deactivate the alarm function.

▶ SK-SIDE KEY2(MONI):
- Press the [MONI] button,to turn on the flashlight;Press it again to turn off. Press and hold on the [MONI] button,to activate the SQUELCH.

▶ [VFO/MR]BUTTON:
- Press the [VFO/MR] button,to switch the frequency mode and channel mode.

▶ [A/B]BUTTON:
- Press the [A/B] button,to switch frequency display.

▶ [BAND]BUTTON:
- Press the [BAND]button,to switch band display.
- While FM radio being activated,press the [BAND]button to switch the band of FM radio (band:65~76MHz/76~108MHz).

▶ [▶ SCAN]KEY:
- Press the [▶ SCAN] key to activate the Reverse function,it will exchange a separate reception and transmission frequency.
- Press the [▶ SCAN] key for 2 seconds to start scanning(frequency/channel).
- While FM radio being activated,press the [▶ SCAN] key to search FM radio station.
- While setting the RX CTCSS/DCS, press the key [▶ SCAN] to scan the RX CTCSS/DCS.

▶ [▲ ▶] KEY:
- Under channel mode, press[▶]to switch High/Medium/Low transmit power
- Press [▲ ▶] key for 2 seconds to lock/unlock the keypad.

▶ FUNCTION KEYPAD:
- MENU / KEY:
- To enter the menu of the radio and confirm the setting.
- [▲ ▶] KEY:
- Press and hold [▲]or[▶]key for frequency up or down fast.
- Press [▲]or[▶]key to select the scanning will be opposite.
- [EXIT] KEY:
- To cancel close an exit.

▶ NUMERIC KEYPAD:
- Used to enter information for programming the radio's lists and the non-standard CTCSS
- Under transmission mode, press the numeric key to send the signal code (the code should be set by PC software)

▶ ACCESSORY JACK:
- The jack is used to connect audio accessories, or other accessories such as programming cable.

9.- LCD' DISPLAY

The display icons appear when certain operations or specific features are activated.

Icon	Description
	Operating channel.
	Operating frequency.
CT	'CTCSS' activated.
DCS	'DCS' activated.
	Frequency offset direction for accessing repeaters.
S	Dual Watch/Dual Reception functions activated.
VOX	Function 'VOX' enabled.
R	Reverse function activated.
W	Wide Band selected.
	Battery Level indicator
	Keypad lock function activated.
	Low transmit power.
	Operation Frequency.
	Signal Strength Level.

10.- 1750 Hz TONE FOR ACCESS TO REPEATERS

The user needs to establish long-distance communications through an amateur radio repeater which is activated after sending a 1750 Hz tone. Press and hold on the [PTT], ben press the [BAND] button to transmit a 1750Hz tone.

11.- BASIC OPERATION

11.1.- RADIO ON/OFF/VOLUME CONTROL

- Make sure the antenna and battery are installed correctly and the battery charged.
- Rotate the knob clockwise to turn the radio on, and rotate the knob fully counter-clockwise until a 'click' sheard to turn the radio off. Turn the knob clockwise to increase the volume, or counter-clockwise to decrease the volume.

11.2.- SELECTING A FREQUENCY OR CHANNEL

- Press the key [▲] or [▼] to select the desired frequency/channel you want. The display shows the frequency / channel selected.
- Press and hold down the key [▲]or[▼]for frequency up or down fast.

Note - You can not select a channel if not previously stored.

12.- ADVANCED OPERATION

You can program your transceiver operating in the setup menu to suit your needs or preferences.

12.1.- SET MENU DESCRIPTION

Menu	Description	Available settings
0	SQL (Squelch level)	0-9
1	STEP(Frequency step)	2.5/5/6.25/10/12.5/25kHz
2	TXP(Transmit power)	HIGH/MEDIUM/LOW
3	SAVE(Battery save)	OFF/1:2/3:4
4	VOX(Voice operated transmission)	OFF/9-10
5	TOT(Time out timer)	30/60/90/120/180
6	ABR(Backlight)	OFF/1-9/10
7	MIC(Microphone sensitivity)	OFF/1-9/10
8	BEEP(Keypad beep)	OFF/ON
9	CTC(Continuous tone)	67.0/69.0/71.9/74.4/77.0/79.7/82.5/85.4/88.5/91.5/94.8/97.4/100.0/103.5/107.2/110.9/114.8/118.8/123.0/127.3/131.8/136.5/141.3/146.2/151.4/156.7/162.2/167.9/173.8/179.9/186.2/192.8/203.5
10	R-DCS(Receiver digital code)	023/025/026/031/036/043/047/051/054/065/071/072/073/074/114/115/116/122/125/131/132/134/143/145/152/155/156/162/165/172/174/205/212/223/225/226/243/244/245/246/251/252/255/261/263/265/266/271/274/306/311/315/325/331/332/343/346/351/356/364/365/371/411/412/413/423/431/432/445/446/452/454/464/465/466/503/506/516/523/526/532/546/565/606/612/624/627/632/654/662/664/703/712/723/731/732/734/743/754
11	T-DCS(Transmission digital code)	023/025/026/031/036/043/047/051/054/065/071/072/073/074/114/115/116/122/125/131/132/134/143/145/152/155/156/162/165/172/174/205/212/223/225/226/243/244/245/246/251/252/255/261/263/265/266/271/274/306/311/315/325/331/332/343/346/351/356/364/365/371/411/412/413/423/431/432/445/446/452/454/464/465/466/503/506/516/523/526/532/546/565/606/612/624/627/632/654/662/664/703/712/723/731/732/734/743/754
12	R-CTC(Receiver CTCSS)	67.0Hz...254.1Hz
13	T-CTC(Transmission CTCSS)	67.0Hz...254.1Hz
14	VOICE (Invite Vocal)	OFF/ON
15	ANI(Identification de numéro automatique de la radio; ne peut que d'être définie par logiciel PC)	OFF/ON
16	DTMF(Fa ccode DTMF de transmission d'un code)	OFF/D0-ST/A0-ST/D1-A0/D2-A0/D3-A0/D4-A0/D5-A0/D6-A0/D7-A0/D8-A0/D9-A0/D0-A1/D1-A1/D2-A1/D3-A1/D4-A1/D5-A1/D6-A1/D7-A1/D8-A1/D9-A1/D0-A2/D1-A2/D2-A2/D3-A2/D4-A2/D5-A2/D6-A2/D7-A2/D8-A2/D9-A2/D0-A3/D1-A3/D2-A3/D3-A3/D4-A3/D5-A3/D6-A3/D7-A3/D8-A3/D9-A3/D0-A4/D1-A4/D2-A4/D3-A4/D4-A4/D5-A4/D6-A4/D7-A4/D8-A4/D9-A4/D0-A5/D1-A5/D2-A5/D3-A5/D4-A5/D5-A5/D6-A5/D7-A5/D8-A5/D9-A5/D0-A6/D1-A6/D2-A6/D3-A6/D4-A6/D5-A6/D6-A6/D7-A6/D8-A6/D9-A6/D0-A7/D1-A7/D2-A7/D3-A7/D4-A7/D5-A7/D6-A7/D7-A7/D8-A7/D9-A7/D0-A8/D1-A8/D2-A8/D3-A8/D4-A8/D5-A8/D6-A8/D7-A8/D8-A8/D9-A8/D0-A9/D1-A9/D2-A9/D3-A9/D4-A9/D5-A9/D6-A9/D7-A9/D8-A9/D9-A9/D0-A/D1-A/D2-A/D3-A/D4-A/D5-A/D6-A/D7-A/D8-A/D9-A/D0-B/D1-B/D2-B/D3-B/D4-B/D5-B/D6-B/D7-B/D8-B/D9-B/D0-C/D1-C/D2-C/D3-C/D4-C/D5-C/D6-C/D7-C/D8-C/D9-C/D0-D/D1-D/D2-D/D3-D/D4-D/D5-D/D6-D/D7-D/D8-D/D9-D/D0-E/D1-E/D2-E/D3-E/D4-E/D5-E/D6-E/D7-E/D8-E/D9-E/D0-F/D1-F/D2-F/D3-F/D4-F/D5-F/D6-F/D7-F/D8-F/D9-F