Thanks for buying the WOUXUN transceiver.

This transceiver offers latest design, enhanced features, solid performances and easy accessibility. We believe you will be pleased with the high quality and reliable features for all your communication needs.

Warning ⚠

» Please do not use the transceiver when you are in the explosing places (such as gas, dust smoke etc.)

» Please turn off the transceiver while your car is being refueled or parked a the gas station.

User Safety, Training, and General Information

READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR WOUXUN PORTABLE TWO-WAY RADIO.

Compliance with RF Energy Exposure Standards

Your WOUXUN two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE (FCC) and ICNIRP exposure limits for occupational/controlled RF exposure environment at duty cycles of up to 50% talk-50% listen and should be used for occupational use only. In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

NOTE ⚠

» The approved batteries supplied with this radio are rated for a 5-5-90 duty cycle (5% talk-5% listen-90% standby), even though this radio complies with the FCC occupational RF exposure limits at duty cycles of up to 50% talk.

Your WOUXUN two-way radio Complies with the following of RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1999 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

Transmit and Receive

To transmit (talk), push the Push-To-Talk (PTT) button; to receive, release the PTT button.

Hand-held radio operation

Hold the radio in a vertical position with the microphone 5 cm away from the lips and let the antenna

farther away from your head.

Body-worn operation

Always place the radio in an WOUXUN approved clip, holder, holster, case, or body harness for this product. Use of non- WOUXUN -approved accessories may exceed FCC RF exposure guidelines.

Antennas & Batteries

- Use only WOUXUN approved, supplied antenna or WOUXUN approved replacement antenna.
- Unauthorized antennas, modifications, or attachments could damage the radio and may violate FCC regulations.
- Use only WOUXUN approved, supplied batteries or WOUXUN approved replacement batteries.
- Use of non- WOUXUN -approved batteries may exceed FCC RF exposure guidelines.

Approved Accessories

For a list of WOUXUN approved accessories,see the accessories page of this user manual or visit the following website which lists approved accessories:http://www.wouxun.com

Notices to the User

- Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.
- Illegal operation is punishable by fine or imprisonment or both.
- Refer service to qualified technicians only.

Warning ⚠

» It is important that the operator is aware of and understand hazards common to the operation of any transceiver. Explosive environment(such as gases, dust, fumes, etc). Turn off your transceiver while talking on fuel, or while parked in gasoline service stations.

» If you require this machine to be developed or some changed, pleased connect with WOUXUN or your WOUXUN dealer.

FCC Caution:

This equipment has been tested and found to comply with the part 90 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmfu l interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following

Measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Licensing Requirements

Your radio must be properly licensed Federal Communications Commission prior to use. Your WOUXUN Wireless dealer can assist you in meeting these requirements. Your dealer will program each radio with your authorized frequencies, signaling codes, etc., and will be there to meet your communications needs as your system expands.

Precautions

Only qualified technicians are allowed to maintain this product.

Do not use the radio or charge a battery in explosive areas such as coal gas, dust, steam, etc.

Switch OFF the radio while refueling or parking at gas station.

Do not modify or adjust this radio without permission.

Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.

Do not place the radio in excessively dusty, humid areas, nor on unstable surfaces.

Safety: It is important that the operator is aware of and understands hazards common to the operation of any radio.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Warning ⚠

» MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

CE Caution:

Hereby, WOUXUN declares that this Two-way radio is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

A copy of the DOC may be obtained through the following address.

Address: No.928 Nanhuan Road, Jiangnan High Technology Industry Park, Quanzhou, Fujian 362000, China

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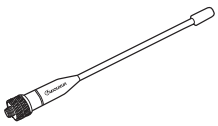
Unpacking and checking of your equipment

Professional FM Transceiver

Carefully unpack the transceiver. We recommend that you identify the items in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, please notify your wouxun dealer.

Supplied accessories

Transceiver


High gain antenna

Li-ion batterypack

Intelligent charger

Beltclip

Handstrap

User's manual

Service card

Description of functions

1. Dual Band, Dual Frequency, Dual Display and Dual Standby
2. Frequency Range (can be suitable for different countries or areas):

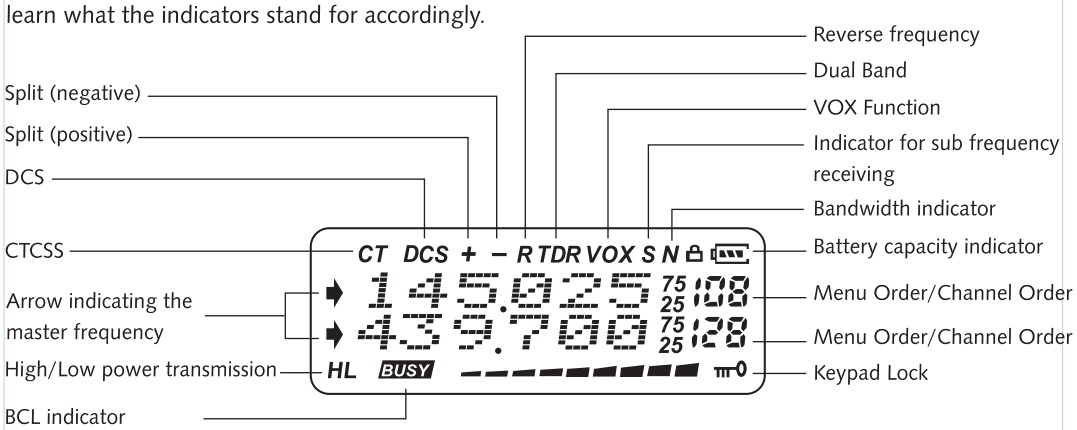
   136-174MHz & 217-221MHz (Rx / Tx),

3. Working Mode: U-V, V-V or U-U selectable
4. Channel setting: VHF Tx & UHF Rx or UHF Tx & VHF Rx selectable
5. DTMF encoding
6. Digital FM Radio (76-108MHz)
7. CTCSS/DCS scan
8. Output power: 1 W
9. 128 memory channels
10. VOX
11. Stopwatch timer function
12. 105 groups DCS and 50 groups CTCSS
13. Voice guide
14. SOS Function
15. Wide/Narrow bandwidth selection (25KHz / 12.5KHz)
16. Multi-display modes (channel order number/ channel frequency/ channel name selectable)
17. Reverse frequency

18. Multi-functional scan modes
19. Priority scan function
20. Bright flashlight illumination
21. Frequency steps selectable (5/6.25/10/12.5/25KHz/50KHz/100KHz)
22. High/Low power changeable when transmitting
23. High capacity Li-ion batterypack
24. Intelligent charger
25. Offset frequency setting (0-69.950MHz)
26. Frequency shift direction setting
27. Busy channel lockout
28. Power-on message (Battery-V/Full Screen/Other Characters)
29. Low voltage prompt
30. Transmitting beginning/ending prompt
31. Transmitting overtime prompt
32. Keypad lock (Auto / Manual)
33. Adding scanning channel
34. High/Low power switchable when transmitting
35. Programmable by computer
36. Wire-clone function
37. Menu/Channel reset
38. 1750Hz burst tone
39. IP55 waterproof

LCD display

There are various indicators displaying on the screen when powing on. Please refer the below table to learn what the indicators stand for accordingly.



Note:

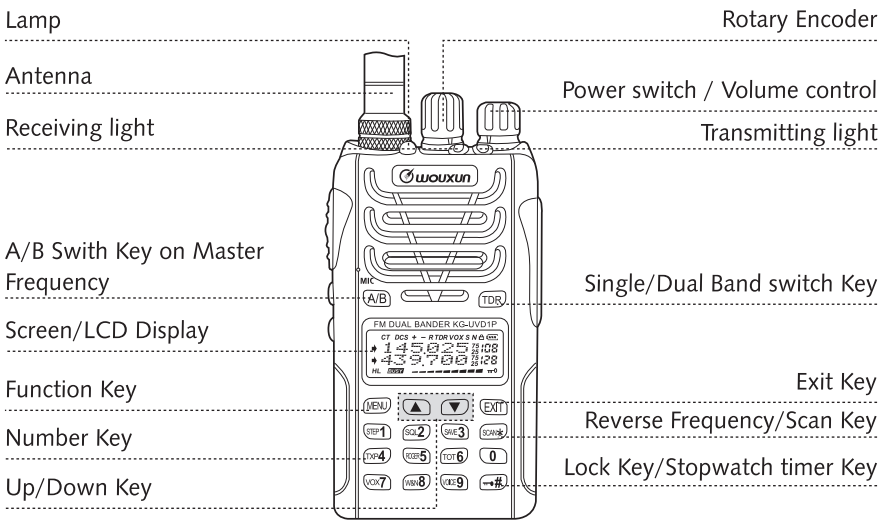
Full indicator for battery capacity

Exhausted indicator for battery capacity

Low indicator for battery capacity

Receiving signal meter

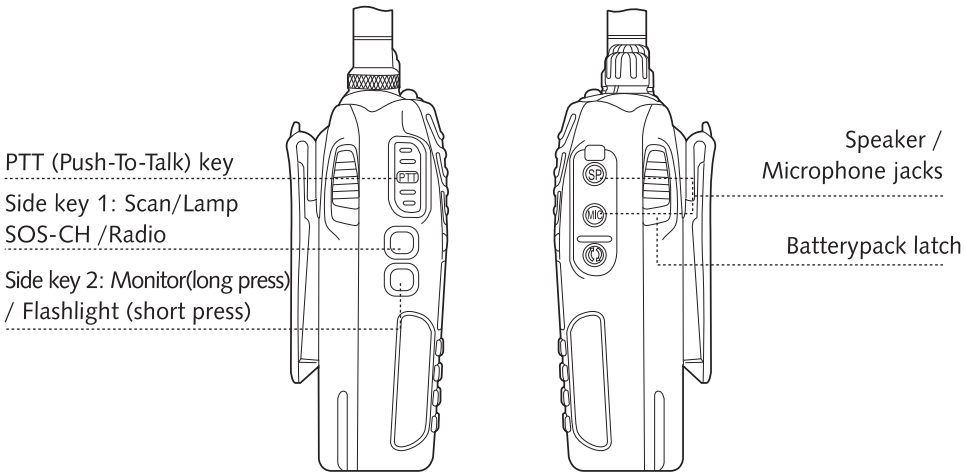
Description of transceiver



Note: Quickly switch the working mode (MENU + TDR)

Quickly resume the transceiver (MENU + A/B)

Getting Started



■ ***Quick Search***

Press ▲ or ▼ key one time to search the desired function or parameter when setting for each function or parameter, while keeping pressing ▲ or ▼ key to quickly search.

■ ***Single/Dual Band Switch***

Press TDR

Single Band ---------- Dual Band

■ ***Quickly resume the transceiver***

In standby, press MENU + A/B , then LCD displays [STEP SURE?] . Press MENU to confirm, and then the transceiver re-starts.

■ ***A/B Switch***

Press A/B to select the master frequency. The frequency with arrowhead mark is the master frequency, while the other frequency without arrowhead mark is the sub frequency. The transceiver can transmit and receive in the master frequency, but ONLY receives in the sub frequency. When it is receiving in the sub frequency, there shows " ***S*** " in the screen.

Getting Started

■ SCAN* *key*

Short press the SCAN* key to set the reverse frequency, while keeping pressing for 2 seconds to active the scan function.

■ ***Side key 2*** (Flashlight/ Monitor selectable)

Short press the side key to turn ON/OFF the flashlight, while keeping pressing for 2 seconds to activate the monitor function.

■ ***1750Hz Burst Tone***

Sometimes, 1750Hz Burst tone is required to carry out some other specific functions. This transceiver has 1750Hz Burst tone to help you.

How to use

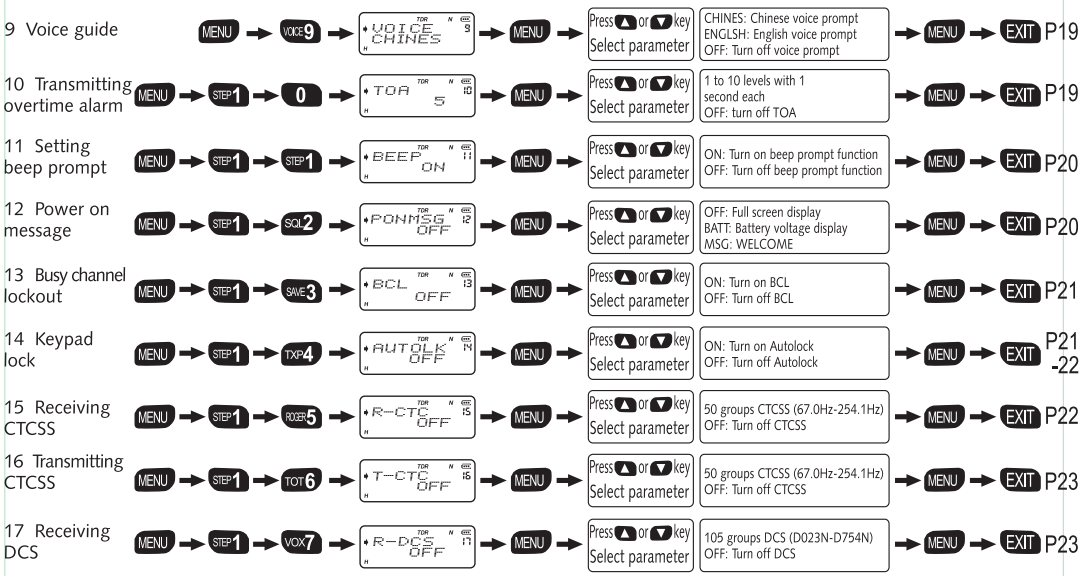
In standby, press PTT key and side key PF1, the transceiver will transmit 1750Hz burst tone. The time keeping pressing PTT key and the side key PF1 determines the 1750Hz burst tone transmitting time. Releasing PTT key and the side key PF1 is to finish transmitting the 1750Hz burst tone.

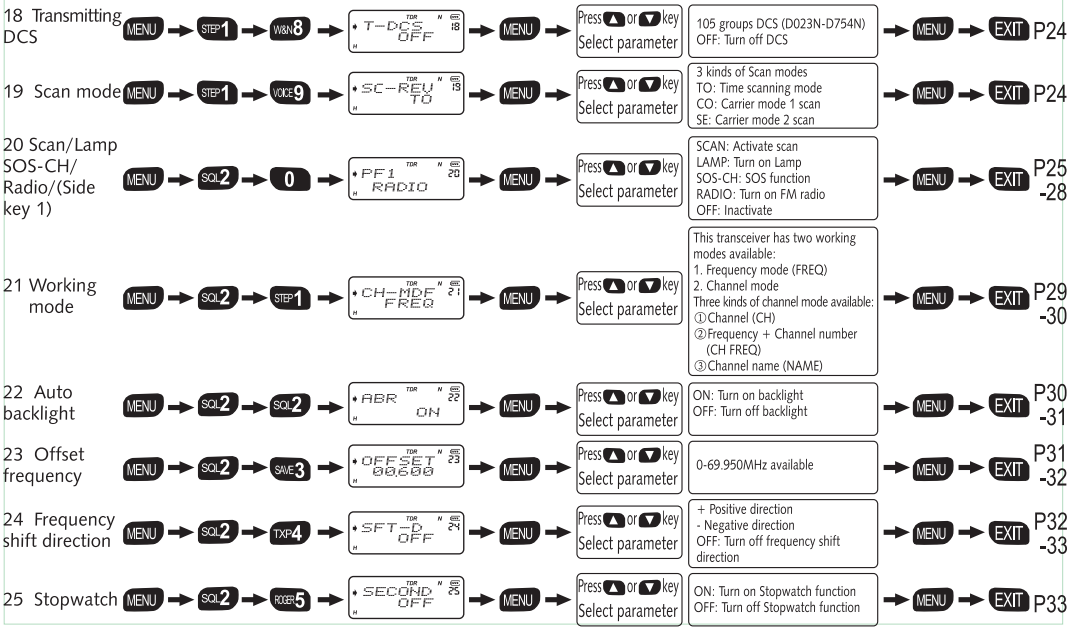
Shortcut operation sheet

WOUXUN Professional FM Transceiver

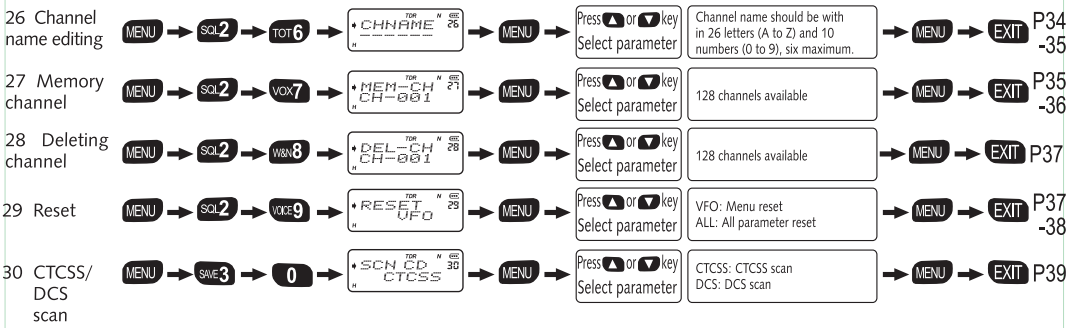
Function order	Function name	Enter function set	Screen display	Select parameter	Selectable parameter explanation	Confirm	Return to standby	See page
1	Setting frequency step	MENU → STEP 1	STEP 12.50K	Press ▲ or ▼ key Select parameter	7 kinds of frequency steps 5K/ 6.25K/10K/12.5K/25K/50K/100K	MENU	EXIT	P14
2	Setting squelch level	MENU → SQL 2	SQL-LE 5	Press ▲ or ▼ key Select parameter	Squelch level from 0 to 9	MENU	EXIT	P15
3	Setting power saver mode	MENU → SAVE 3	SAVE ON	Press ▲ or ▼ key Select parameter	ON: Turn on save function OFF: Turn off save function	MENU	EXIT	P15 -16
4	Selecting transmitting power	MENU → TXP 4	TXP HIGH	Press ▲ or ▼ key Select parameter	H: High power (VHF 5W/UHF 4W) L: Low power (1W)	MENU	EXIT	P16
5	Transmitting beginning/ ending prompt	MENU → ROGER 5	ROGER OFF	Press ▲ or ▼ key Select parameter	OFF: turn off this function,without any voice prompting. BOT: press PTT, voice prompt when begin transmitting EOT: release PTT, voice prompt when end transmitting BOTH: press and release PTT,voice prompt	MENU	EXIT	P17
6	Time-out timer	MENU → TOT 6	TOT 60	Press ▲ or ▼ key Select parameter	TOT has 40 levels in steps of 15 seconds. OFF: Turn off TOT	MENU	EXIT	P17
7	Setting VOX	MENU → VOX 7	VOX OFF	Press ▲ or ▼ key Select parameter	VOX has levels from 1 to 10 OFF: Turn off VOX transmission	MENU	EXIT	P18
8	Setting bandwidth	MENU → W&N 8	WN WIDE	Press ▲ or ▼ key Select parameter	WIDE: 25KHz NARR: 12.5KHz	MENU	EXIT	P18

Shortcut operation sheet





How to operate



- Quick Search ▲ / ▼ (See page 07)
- High/Low power changeable (See page 16)
- DTMF encoding (See page 40)
- Set reverse frequency SCAN* (See page 42)
- Setting transmitting overtime prompt (See page 43)
- Wire-clone function (See page 44)
- Programming guide (See page 48-49)
- 1750Hz Burst Tone (See page 08)
- SOS-CH (SOS function) (See page 26)
- Priority scan function (See page 42)
- Low voltage prompt (See page 43)
- Adding scanning channel function (See page 43)
- Working with repeater (See page 44-47)

How to operate

Menu Lock function

Sometimes if the menu is not need to be operated frequently, you can lock the menu via the programming software. Please see the detailed steps as follow:

1. Set channel mode as the working mode.
2. Turn off operating menu function in the channel mode.

If you want to operate menu function, can activate Menu Available of channel mode by programming software, then change the working mode to frequency mode.

NOTE

» In dual standby mode, the screen shows "TDR" . The frequency with arrowhead mark is the master frequency while the other without arrowhead mark is the sub frequency. When the sub frequency is receiving, there shows "s" in the screen. In the dual standby mode, the transceiver ONLY transmits in the master frequency and receives in the sub frequency.

» Master Frequency Setting
In dual standby, press A/B to select the master frequency.

» This transceiver is the dual bander, with dual frequency and dual display functions. In frequency mode, it can display two different receiving/ transmitting frequencies at the same time. In channel mode, it can also display the channel frequency and related parameter in both channels at the same time.

NOTE

» **In frequency/Channel mode,** it is switchable between band A and band B by A/B key, When the A/B indicator shows in band A, all the operations are based on band A. While the indicator shows in band B, all the operations are based on band B.

» **In frequency mode,** it is available to seperately set the frequency step, transmitting power, squelch level, bandwidth, CTCSS, DCS, offset frequency, frequency shift direction and channel display modes in band A or band B.

» **In channel mode,** it is invalid to set frequency step, transmitting power, CTCSS, DCS, bandwidth, offset frequency, and frequency shift direction functions in band A and band B.

Setting frequency step (STEP) ----- MENU 1

In standby, press MENU + STEP1 , the screen displays

Press MENU to enter, it shows '12.50K', press ▲ / ▼ to select the desired step, then press MENU to confirm, finally press EXIT to return to standby.

The frequency steps selectable for this transceiver are as follow:

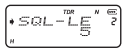
5.00KHz, 6.25KHz, 10.00KHz, 12.50KHz, 25.00KHz, 50.00KHz and 100KHz.

Setting squelch level (SQL-LE) ----- MENU 2

Squelch level is about when the signal is strong enough to turn on the squelch function, and when it is weak enough to turn off the squelch function. When the squelch is on, there is voice from the loudspeaker for all of the signaling set by the transceiver. When the squelch level is set too high, the weaker signals may be missed, while the squelch level is set too low, the transceiver maybe disturbed by some noice or other needless signals.

NOTE

» The squelch level for this transceiver has 0-9 levels selectable, and level 0 is to turn off the squelch function. The higher level the squelch is set, the stronger receiving signal is needed.

In standby, press MENU + SQL2 , the screen displays 

Press MENU to enter, it shows '5', press ▲ / ▼ to select the desired squelch level, then press MENU to confirm, finally press EXIT to return to standby.

Setting power saver mode (SAVE) --- MENU 3

When the power saver function is ON, the receiver ciucuit will be cut off for the moment, and then re-activate to detect the signals for a while, in order to reduce the battery capacity consumption.