

ALINCO



DJ-W70_{HT}
USER'S MANUAL

Maintenance and repair

The radio is a sophisticated electronic product and should be used carefully. The following suggestion may make your radio service life longer.

- Please do not attempt to disassemble the radio, disassembling the radio by laypeople may cause damage.
- When using stable voltage power supply, the supply voltage must be between 6.8V-8.4V to avoid damage to the radio.
- Please do not expose the radio to sunlight for a long time, or putting it in an overheated environment, high temperature will shorten the life of electronic devices and may cause deformation of plastic parts.
- Please do not put the radio in a dusty or dirty place.
- Please keep the radio dry. Rain or moisture can corrode electrical wiring.
- If the radio is found to have odor or smoke. Please turn off the power immediately. Remove the charging pack or battery pack from the radio and contact the ALINCO dealership.
- Don't transmit without an antenna installed.

Feature

- 200 storage channels wide and narrow band optional (25kHz/12.5kHz)
- VOX transmission function
- AI infrasonic scan CTCSS/DCS
- Frequency scan
- Voice encryption
- Bluetooth (Optional)
- FM radio
- Emergency alarm
- Dual watch
- AM/FM
- AI noise cancelling
- Support TYPE-C charger
- Real clock
- Intelligent power saving

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Unpacking and device inspection

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Please take the radio out of the packing box carefully. We recommend that you check the contents of the packaging materials listed below before discarding them. If any lost or damaged, please submit the claim to the deliveryman immediately.

Standard accessories

Item	Quantity
Antenna	1
Battery pack	1
Charger	1
Belt clip	1
Use's manual	1

Optional accessories

Item
Earphone
Programming cable
Programming software

◦ Preparation

Battery charger

The battery is not charged, please charge it before use.

Charging the battery for the first time after purchase or after long-term storage (more than two months) will not bring the battery to its usual capacity.

After repeated charging/discharging for twice or three times, the capacity will increase to the usual state.

Warning

If the battery is fully charged, do not charge it again, otherwise, the battery life will be shortened or damaged.

After charging, remove the battery from the charger. Charging the battery more than 5 days will shorten the battery life due to overcharging.

Remarks:

The temperature during charging should be between 5°C and 40°C, and when charging outside the temperature, the battery will not be fully charged.

Before charging, please turn off the radio. Use the radio while the battery of the radio is charging prevents proper charging of the battery.

If the battery use time does not increase after the battery is correctly charged, the battery life has expired., please replace the battery with a new one.

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◦ Preparation

Charging one:

The AC power adapter plugs into the adapter jack located on the back of the charger.

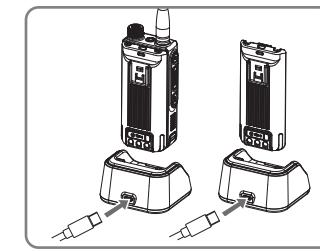
Plug the AC power adapter into the adapter jack located on the back of the charger.

Plug the AC power adapter into the AC power output socket.

Plug the battery or radio with battery into the charger.

Ensure the battery contact with the charging contact.

Charging indicator light is red and charging begins.



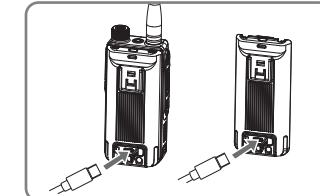
Charging two:

Plug the TYPE-C cable of the AC power adapter into the battery.

Plug the AC power adapter into the power outlet.

Ensure the battery TYPE-C connection port is properly connected to the TYPE-C cable.

Charging indicator light is red and charging begins.



After charging is complete, the green light is steady on.

Unplug the AC adapter from the socket.

◦ Preparation

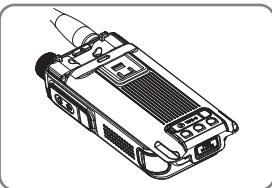
Install/remove battery

The average use time was measured at 5% transmit time, 5% receive time and 90% standby time.

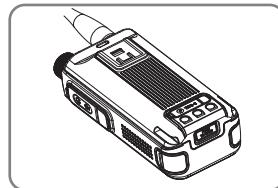
Warning

Do not short circuit the charging contact or throw the battery into the fire.
Do not disassemble the battery.

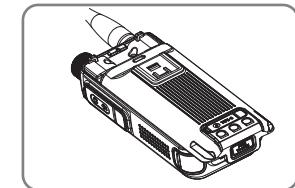
Align the top notch of the battery with the corresponding buckle on the radio.



Press the battery down towards the radio until you hear "click".



To remove the battery, push the battery clip at the bottom of the back of the battery inwards, the battery cocks up, and then remove the battery.



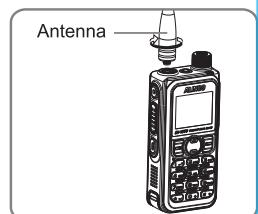
◦ PREPARATION

Install antenna

Screw the antenna into the connector at the top of the radio clockwise until it is tightened.

Attention: Do not use antenna as handle, key chain or speaker/microphone hanging parts, it will cause antenna damage or degrade performance.

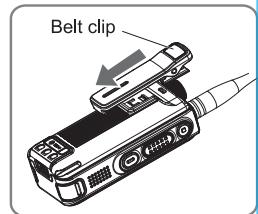
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Install belt clip

If necessary, the belt clip included in the package can be fastened to the rear housing of the radio.

Attention: If no belt clip is installed, the location where the belt clip is installed will become hot during continuous use or in a hot environment.

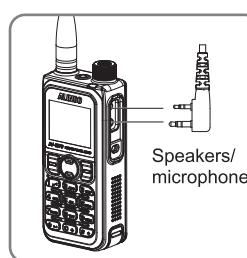


Preparation

Install speaker/microphone

Plug the speaker/microphone into the speaker/microphone jack.

Attention: When using speakers/microphone, the radio can not completely waterproof.



Install speaker/microphone jack cover

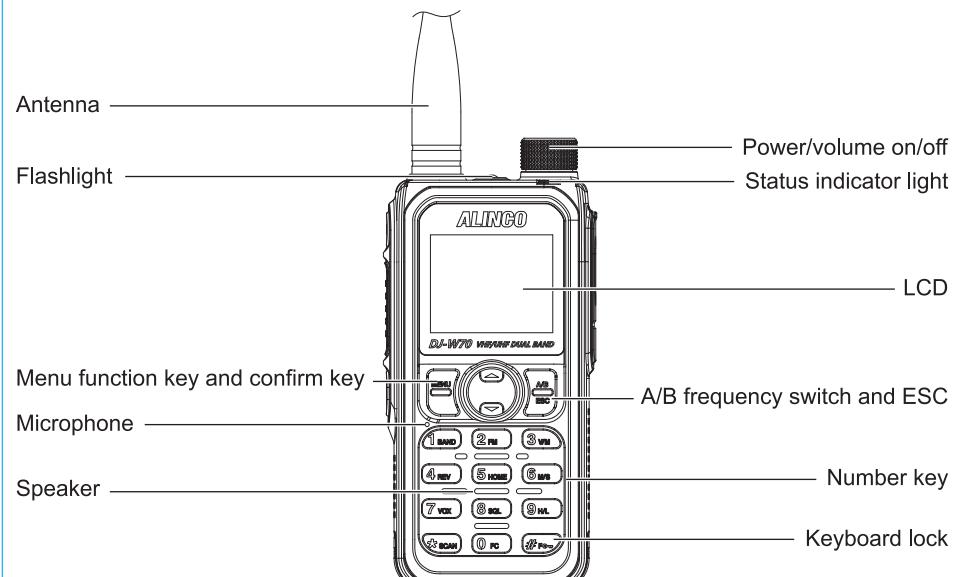
Please keep the jack cover tightly closed when not using the speaker/microphone.

Attention: Ensure the jack cover is tightly closed to make the radio waterproof.

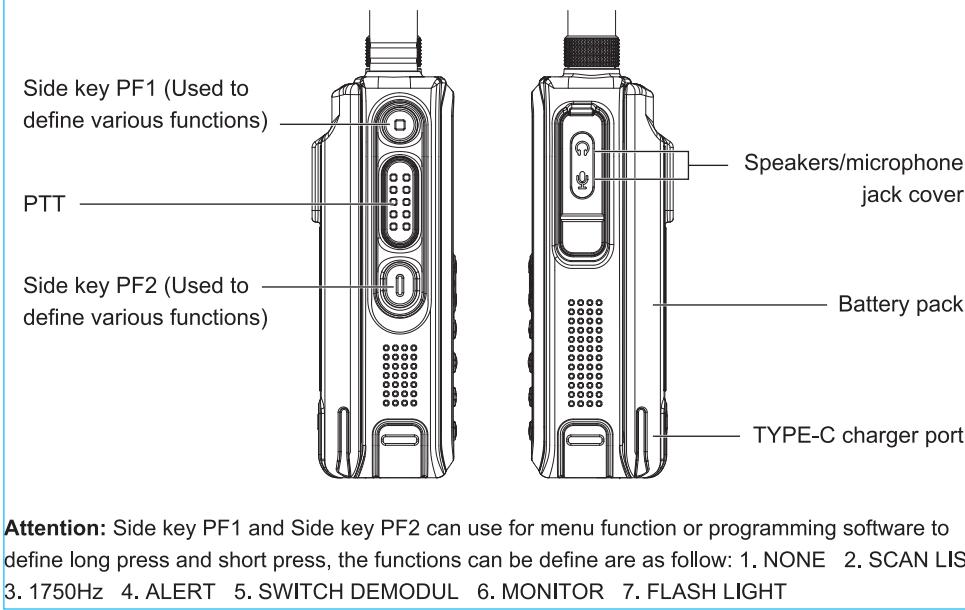


Familiar with radio

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- Familiar with radio

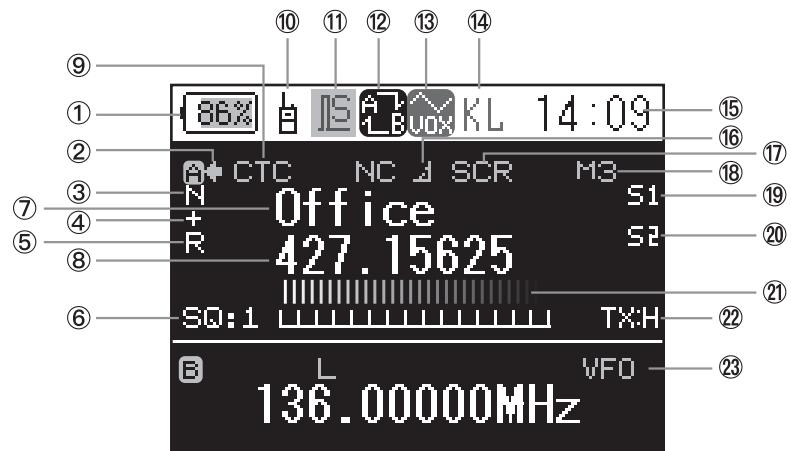


Attention: Side key PF1 and Side key PF2 can use for menu function or programming software to define long press and short press, the functions can be define are as follow: 1. NONE 2. SCAN LIST 3. 1750Hz 4. ALERT 5. SWITCH DEMODUL 6. MONITOR 7. FLASH LIGHT

- Familiar with radio

Display

With various instructions on the display, the following table can help you understand what the instructions mean or how they are set.



◦ Familiar with radio

①  86%	Battery status Battery voltage(V) Battery capacity(%)	⑬  VOX VOX transmit
②  #	Activity channel	⑭  F F key pressed KL Keyboard lock SA Scan all S1 Scan list1 S2 Scan list2
③  N	N, W channel bandwidth	⑮  14:09 Clock
④  +	+,- transmitting frequency deviation direction	⑯  Compand Voice compandor turn on
⑤  R	TX/RX overturn	⑰  Voice encryption turn on
⑥  SQ:1	Squelch level SQ: 1-9	⑱  Channel code
⑦  Office	Office channel name	⑲  Scan list1
⑧  427.15625	Channel frequency	⑳  Scan list2
⑨  CTC	CTS/DCS receive mode	㉑  Signal barS1-S9 (No signal is empty)
⑩  R	Radio turn on	㉒  TXH Transmit power H/M/L  TX Forbid transmit
⑪  RX	RX Receiving	
 TX	TX Transmitting	
 PS	PS Power saving	
⑫  A/B	A/B Channel dual watch	㉓  VFO Frequency mode

◦ Operation guidance

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Keyboard, knob control, switch, indicators

■ PWR/VOL (Power/volume) knob control	Use for turn on/off radio and volume control
■ Transmit indicator	Press PTT, the light become red, indicate the radio is transmitting
■ PTT key	The radio's switch of transmit and receive status
■ Monitor side key definition	When in the receiving state, press the define key, can monitor what is happening on the working channel when you click the monitor key, the receiving signal bar will be displayed.
■ Menu key	Use for menu confirm and turn on bluetooth
■ A/B key ESC key	Use for ESC and switch A/B channel

◦ Operation guidance

Jack and connector

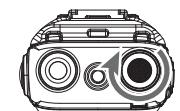
■ SMA connect	Use to connect randomly configured antennas
■ Extern connect microphone speaker jack	If need to use extern connect microphone, speaker or both, please connect the jack. When not in use, please close the jack cover tightly to prevent water from flowing into the jack.

◦ Basic use method

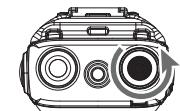
Turn on/off

Turn on: Turn the volume knob clockwise, hear a click, and the radio turns on.

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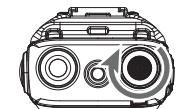


Turn on: Turn the volume knob counterclockwise, hear a click, and the radio turns off.



Adjust volume

Increase volume: Turn the volume knob clockwise, the volume gradually increased



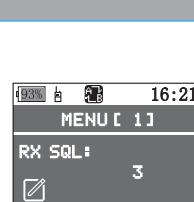
Decrease volume: Turn the volume knob counterclockwise, the volume gradually decreased



• Radio menu function

1) “RX SQL” squelch setting

1. Press **MENU** into menu list.
2. Press **▼** or **▲** to select squelch setting, then press **MENU** to confirm into submenu.
3. Press **▼** or **▲** to select squelch level you need, then press **MENU** to confirm. (squelch level:0-9)
4. Press **A/B/ESC** back to main page.



2) “TX POWER” transmit power

1. Press **MENU** into menu list.
2. Press **▼** or **▲** to select power setting, then press **MENU** to confirm into submenu.
3. Press **▼** or **▲** to select power mode you need, then press **MENU** to confirm. (H/M/L)
4. Press **A/B/ESC** back to main page.



• Radio menu function

3) “FREQ STEP” stepped frequency

1. Press **MENU** into menu list.
2. Press **▼** or **▲** to stepped frequency setting, then press **MENU** to confirm into submenu.
3. Press **▼** or **▲** to select stepped frequency you need, then press **MENU** to confirm. (Stepped frequency: 2.50k/5.00k/6.25k/10.00k/12.50k/25.00k/50.00k)
4. Press **A/B/ESC** back to main page.

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4) “BAND W/N” frequency bandwidth

1. Press **MENU** into menu list.
2. Press **▼** or **▲** to frequency bandwidth setting, then press **MENU** to confirm into submenu.
3. Press **▼** or **▲** to select frequency bandwidth you need, then press **MENU** to confirm. (WIDE, NARROW)
4. Press **A/B/ESC** back to main page.



◦ Radio menu function

5) “DEMOD MODE” modulation mode

1. Press **MENU** into menu list.
2. Press **▼** or **▲** select modulation mode setting, then press **MENU** to confirm into submenu.
3. Press **▼** or **▲** to select modulation mode you need, then press **MENU** to confirm. (AM,FM)
4. Press **A/B/ESC** back to main page.



6) “RX DCS” receive digital subtone

1. Press **MENU** into menu list.
2. Press **▼** or **▲** select receive digital subtone setting, then press **MENU** to confirm into submenu.
3. Press **▼** or **▲** to select receive digital subtone you need, then press **MENU** to confirm.
[OFF、D023N/I-D754N/I (104 group digital subtone setting)]
4. Press **A/B/ESC** back to main page.



◦ Radio menu function

7) “RX CTC” Receive the Analog sub tone

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the RX CTC, press **MENU** to confirm.
3. Press **▼** or **▲** to select the required RX CTC, press **MENU** to confirm. [OFF,67.0-254.1Hz (50 group CTCSS can be selected)]
4. Press **A/B/ESC** to return the main page.

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8) “TX DCS” Transmit Digital sub tone

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the TX DCS, press **MENU** to confirm.
3. Press **▼** or **▲** to select the required TX DCS, press **MENU** to confirm. [OFF, D023N/I-D754N/I (104 group DCS can be selected)]
4. Press **A/B/ESC** to return the main page.



◦ Radio menu function

9) “TX CTC” Transmit Analog sub tone

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the TX CTC, press **MENU** to confirm.
3. Press **▼** or **▲** to select the required TX CTC, press **MENU** to confirm. [OFF,67.0-254.1Hz (50 group CTCSS can be selected)]
4. Press **A/B/ESC** to return the main page.



10) “STE” Squelch tail elimination

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the STE, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select turn ON/OFF the STE, press **MENU** to confirm. (OFF, ON can be selected)
4. Press **A/B/ESC** to return the main page.



◦ Radio menu function

11) “ROGER” Call ending tone

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the ROGER, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the type of ROGER, press **MENU** to confirm. (OFF, ROGER, MDC can be selected)
4. Press **A/B/ESC** to return the main page.

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12) “BATT SAVE” Battery save settings

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the BATT SAVE, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required mode of BATT SAVE, press **MENU** to confirm. (OFF, 1:1, 1:2, 1:3, 1:4, 1:5, 1:6, 1:7, 1:8 can be selected)
4. Press **A/B/ESC** to return the main page.



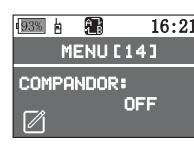
• Radio menu function

13) "SCRAMBLER" Voice encryption

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCRAMBLER, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required SCRAMBLER, press **MENU** to confirm. (OFF, 1-10 can be selected)
4. Press **A/B/ESC** to return the main page.

14) "COMPANDOR" Audio Compandor

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the COMPANDOR, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required COMPANDOR, press **MENU** to confirm. (OFF, TX, RX, TX/RX can be selected)
4. Press **A/B/ESC** to return the main page.



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• Radio menu function

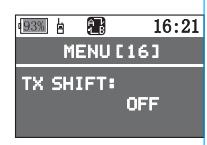
15) "BCLO" Busy Channel Lock Out

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the BCLO setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select turn ON or OFF the BCLO, press **MENU** to confirm. (OFF, ON can be selected)
4. Press **A/B/ESC** to return the main page.



16) "TX SHIFT" Transmit frequency difference direction

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the TX SHIFT setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required mode of TX SHIFT, press **MENU** to confirm. (OFF, -, + can be selected)
4. Press **A/B/ESC** to return the main page.



• Radio menu function

17) “TX OFFSET” Transmitting frequency difference

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the TX OFFSET setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required mode of TX OFFSET, press **MENU** to confirm. (0-999.98750MHz can be selected)
4. Press **A/B/ESC** to return the main page.



18) “TX TOT” Transmit Time Out Timer

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the TX TOT setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required mode of TX TOT, press **MENU** to confirm. (OFF, 30Sec, 1min-9min can be selected)
4. Press **A/B/ESC** to return the main page.



• Radio menu function

19) “CH SAVE” Channel Save

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the CH SAVE setting, press **MENU** to enter the submenu.
- (If “EMPTY” is displayed, it means this channel is empty.)
3. Press **▼** or **▲** to select the required save channel number, press **MENU** to confirm. (1-200 storage channel can be selected)
4. The screen will display the channel number you want to store and “OK?”, then press the MENU button to confirm the storage operation.
5. Press **A/B/ESC** to return the main page.

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20) “CH NAME” Channel name

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the CH NAME edit setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the channel number you want to edit the CH NAME, press **MENU** to confirm the editing.



• Radio menu function

4. Press **▼** or **▲** to select editing character, the channel name can be edited up to 8 characters. (26 uppercase and lowercase letters, 0-9 numbers and 18 symbols can be set) **(numbers can be input directly by number keypad, * key can edit, # key can edit as space key)**
5. After finish the Channel name editing, press **MENU** to confirm the saving operation, press **MENU** to cancel and exit editing.
6. Press **A/BESC** to return the main page.

21) "CH HOME" Main Frequency Setting

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the CH HOME setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required setting CH HOME, press **MENU** to confirm. (Only the saved channel can be set as main channel)
4. Press **A/BESC** to return the main page.



22) "CH DISP" Channel display mode

1. Press **MENU** to enter the menu list.

• Radio menu function

2. Press **▼** or **▲** to select the CH DISP setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the required CH DISP mode, press **MENU** to confirm the operation.
 - (a. FREQ b. NAME+FREQ c.NAME d.CHANNEL NUMBER can be set)
4. Press **A/BESC** to return the main page.

23) "CH DEL" Delete the Channel

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the CH DEL setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select the Channel number you required to delete, press **MENU** to confirm the operation.
 - (If the page display "NULL", it means there are no channels to delete)
4. Now the page will display the channel number you want to delete and "OK?", then press **MENU** again to confirm the delete operation.
5. Press **A/BESC** to return the main page.

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Radio menu function

24) "SCAN ADD1" Added to the scan list 1

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCAN ADD1 setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select if you need to add the current channel to the scan list 1, press **MENU** to confirm. (OFF, ON can be set)
4. Press **A/B/ESC** to return the main page.



25) "SCAN ADD2" Added to the scan list 2

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCAN ADD2 setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select if you need to add the current channel to the scan list 2, press **MENU** to confirm. (OFF, ON can be set)
4. Press **A/B/ESC** to return the main page.



Radio menu function

26) "SCAN LIST" Scan list selection

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCAN LIST setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select your required SCAN LIST mode, press **MENU** to confirm. (ALL, LIST1, LIST2 can be set)
4. Press **A/B/ESC** to return the main page.

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27) "SCAN LIST1" Check the scan list 1

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCAN LIST1 setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select and check the channels that have been added to the SCAN LIST1, then press **MENU** to confirm. (Saved 200 channels can be added and checked)
4. Press **A/B/ESC** to return the main page.



Radio menu function

28) "SCAN LIST2" Check the scan list 2

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCAN LIST2 setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select and check the channels that have been added to the SCAN LIST1, then press **MENU** to confirm.
(Saved 200 channels can be added and checked)
4. Press **A/BESC** to return the main page.

29) "SCAN MODE" Scan mode

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the SCAN MODE setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select your required scan mode, then press **MENU** to confirm. (STOP, TIME OUT, CARRIER can be set)
4. Press **A/BESC** to return the main page.



Radio menu function

30) "PF1 SHORT" Side Key 1 shot press

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the PF1 SHORT setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select your required PF1 SHORT press function, then press **MENU** to confirm. (a.NONE, b.SCAN LIST, c.Transmit 1750Hz signalling, d.ALERT, e.SWITCHDEMODULATION, f.MONITOR, g.FLASHLIGHT can be set)
4. Press **A/BESC** to return the main page.

31) "PF2 LONG" Side key 2 long press

1. Press **MENU** to enter the menu list.
2. Press **▼** or **▲** to select the PF1 LONG setting, press **MENU** to enter the submenu.
3. Press **▼** or **▲** to select your required PF1 LONG press function, then press **MENU** to confirm. (a.NONE, b.SCAN LIST, c.Transmit 1750Hz signalling, d.ALERT, e.SWITCHDEMODULATION, f.MONITOR, g.FLASHLIGHT can be set)
4. Press **A/BESC** to return the main page.

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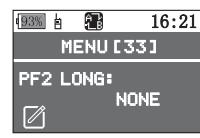
◦ Radio menu function

((32) "PF2 SHORT" Side 2 Short Press Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "PF2 SHORT" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to define the needed function for "PF2 SHORT" and then press the **MENU** to confirm the operations. (a.NONE b.SCAN LIST c.Send 1750Hz Signaling d.ALERT e.SWITCHDEMODULATION MODE f.MONITOR g.FLASH LIGHT)
4. Press the **A/BESC** to return to the main page.

((33) "PF2 LONG" Side 2 Long Press Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "PF2 LONG" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to define the needed function for "PF2 SHORT" and then press the **MENU** to confirm the operations. (a.NONE b.SCAN LIST c.Send 1750Hz Signaling d.ALERT e.SWITCHDEMODULATION MODE f.MONITOR g.FLASHLIGHT)
4. Press the **A/BESC** to return to the main page.



ALINCO

◦ Radio menu function

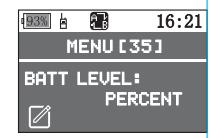
((34) "KEY LOCK" Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "KEY LOCK" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to define the needed "KEY LOCK" mode and then press the **MENU** to confirm the operations. (OFF/AUTO Selectable)
4. Press the **A/BESC** to return to the main page.



((35) "BATT LEVEL" Battery Indicator Type Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "BATT LEVEL" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to define the needed battery indicator type and then press the **MENU** to confirm the operations. (Battery Bar/Battery Voltage/Battery Power Percentage Selectable)
4. Press the **A/BESC** to return to the main page.



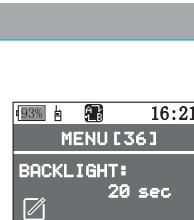
Radio menu function

36) "BACKLIGHT" Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "BACKLIGHT" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to define the needed backlight timeout and then press the **MENU** to confirm the operations.
(5sec/10sec/20sec/1min/2min/5min/ON Selectable)
4. Press the **A/BESC** to return to the main page.

37) "BEEP TONE" Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "BEEP TONE" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to enable/disable Beep Tone and then press the **MENU** to confirm the operations. (ON/OFF Selectable)
4. Press the **A/BESC** to return to the main page.



Radio menu function

38) "ALERT MODE" Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "ALERT MODE" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to define the needed alert mode and then press the **MENU** to confirm the operations. (TONE/TX15s Selectable)
4. Press the **A/BESC** to return to the main page.
(Press the pre-defined alert side to define/enable/disable this function.)

39) "BOT CODE" Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to "BOT CODE" setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to choose the needed BOT CODE and then press the **MENU** to confirm the operations.
(Max 15 Letters can be set via CPS: 0-9/ABCD/*/# Configurable)
4. Press the **A/BESC** to return to the main page.

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◦ Radio menu function

40) “EOT CODE” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “EOT CODE” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to choose the needed EOT CODE and then press the **MENU** to confirm the operations.
(Max 15 Letters can be set via CPS: 0-9/ABCD/*/# Configurable)
4. Press the **A/BESC** to return to the main page.



41) “PTT ID” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “PTT ID” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to choose the needed PTT ID and then press the **MENU** to confirm the operations.
(OFF、BOT、EOT、BOT/EOT、BEEP TONE Selectable)
4. Press the **A/BESC** to return to the main page.



◦ Radio menu function

42) “DTMF ST” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “DTMF ST” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to enable/disable DTMF ST and then press the **MENU** to confirm the operations. (ON/OFF Selectable)
4. Press the **A/BESC** to return to the main page.

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43) “RX MODE” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “RX MODE” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to select the Rx/Tx Mode and then press the **MENU** to confirm the operations. (DUAL RX RESPOND/MAIN ONLY/MAIN TX DUAL RX/MAIN TX SEC RX Selectable)
4. Press the **A/BESC** to return to the main page.



◦ Radio menu function

44) “VOX” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “VOX” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to select needed VOX level and then press the **MENU** to confirm the operations.
(OFF/1-10 Level Configurable (Level 1 is the most sensitive))
4. Press the **A/BESC** to return to the main page.



45) “MIC GAIN” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “MIC GAIN” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** or using the numeric keypad to choose the needed Mic sensitivity and then press the **MENU** to confirm the operations.
(1-5 Level Configurable (Level 5 is the most sensitive))
4. Press the **A/BESC** to return to the main page.



◦ Radio menu function

46) “AI NC” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “AI NC” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to enable/disable AI intelligent noise canceling function and then press the **MENU** to confirm the operations.
(NC ON/OFF Selectable)
4. Press the **A/BESC** to return to the main page.

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47) “TIME” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “TIME” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Using the numeric keypad to directly enter the time to set and then press the **MENU** to confirm the operations. (hh:mm Configurable)
4. Press the **A/BESC** to return to the main page.



◦ Radio menu function

48) “UI MODE” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “UI MODE” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to select the needed UI Mode and then press the **MENU** to confirm the operations.
(A/B VFO、Main VFO Selectable)
4. Press the **A/BESC** to return to the main page.

49) “RESET” Setting

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “RESET” setting and then press the **MENU** to confirm to enter the sub-menu.
3. Press the **▼** or **▲** to select the needed reset mode and then press the **MENU** to confirm the operations. (VFO/ALL Selectable)
4. Press the **A/BESC** to return to the main page.

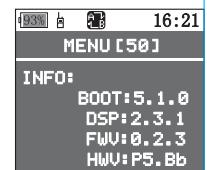


◦ Radio menu function

50) “INFO” Transceiver Information

1. Press the **MENU** to enter the menu list.
2. Press the **▼** or **▲** to select to “INFO” and then press the **MENU** to confirm to enter the sub-menu.
3. Transceiver information can be found here.
(BOOT Version/DSP Version/Firmware Version/Hardware Version/
Current Battery Voltage)
4. Press the **▼** or **▲** to return to the menu list and then press **MENU** to return to the main page.

ALINCO



• SHORTCUT FUNCTION

“BLUETOOTH” function (Optional)

Long press the **MENU** to enable/disable the Bluetooth function. The Bluetooth mode can be used to receive phone calls or as a Bluetooth speaker.

“A/B”channel switching

Long press the **A/B/ESC** to switch A/B channel.

“BAND”switching

Press **#_{FO-N}** and **1_{BAND}** or long press **1_{BAND}** to enable the “BAND” function, and switch to a different frequency band with each press in frequency mode.

“FM” enable the FM radio

Press **#_{FO-N}** and **2_{FM}** or long press **2_{FM}** to enter the FM radio mode directly. Repeat the above operations or press **A/B/ESC** to exit FM radio mode. Press **#_{FO-N}** and ***_{SCAN}** or long press ***_{SCAN}** to start the FM radio auto scan, short press ***_{SCAN}** to start FM radio manual scan.

(FM Radio Frequency: 76-108MHz)

ALINCO

• SHORTCUT FUNCTION

“V/M” working mode switch

Press **#_{FO-N}** and **3_{V/M}** or long press **3_{V/M}** to switch the working mode between VFO frequency mode and MRCH channel mode.

“REV” reverse frequency

Press **#_{FO-N}** and **4_{REV}** or long press **4_{REV}** to enable reverse frequency function, turn on or off the TX/RX frequency reverse.

“HOME” main channel

Press **#_{FO-N}** and **5_{HOME}** or long press **5_{HOME}** to back to main channel directly

“M/S” memory

Press **#_{FO-N}** and **6_{M/S}** or long press **6_{M/S}** to enable store channel function, and store the frequency to the channel.

• SHORTCUT FUNCTION

“VOX” function

Press **#_{FO-N}** and **7_{VOX}** or long press **7_{VOX}** to enter the VOX mode directly. Repeat the above operations to exit VOX.

“SQL” squelch setting

Press **#_{FO-N}** and **8_{SQL}** or long press **8_{SQL}** to enter the squelch setting function, and set the squelch level.

“H/L” power switch

Press **#_{FO-N}** and **9_{H/L}** or long press **9_{H/L}** to switch high, medium and low power, and switch to a different power (H/M/L) with each press.

“FC” frequency counting

Press **#_{FO-N}** and **0_{FC}** or long press **0_{FC}** to enable the frequency counting scan function directly (wireless pairing).

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• SHORTCUT FUNCTION

“SCAN” intelligent scanning

Press **#_{FO-N}** and ***_{SCAN}** to enable the intelligent scan function.

“SCAN”scanning

Long press ***_{SCAN}** to enable the scan function

In frequency mode,enable scan range PF1、PF2 programmable [SCAN LIST], or **[BAND]** can set the scan start and end points.

Scanning range can be set:

SCAN_1M: ±1MHz

SCAN_3M: ±3MHz

SCAN_5M: ±5MHz

SCAN_10M: ±10MHz

SCAN_BAND: current frequency range

“FC” frequency counting

Long press **#_{FO-N}** to enable or disable the keypad lock function.

• SPECIFICATIONS

General

Frequency range	144-148Mhz,420-450Mhz
Working temperature	-20°C ~ +55°C
Rated voltage	DC 7.4V
Dimension	121mm*58mm*42mm (Exclude antenna)
Weight	Around 268g (Including antenna and battery)
Antenna impedance	50Ω

Transmission

Receiver

Carrier frequency tolerance	±2.5ppm	Occupied bandwidth	≤16KHz
Carrier output power	VHF: 1W/5W/10W UHF: 1W/5W/10W	Reference sensitivity	<0.2μV
Modulation limiting	≤2.5@12.5KHz; ≤5@25KHz	Audio distortion	≤3%
Audio distortion	≤3%	Audio Response	+2dB ~ -10dB
Modulation characteristic	+3dB ~ -3dB	Co-channel suppression	≥-8dB
Adjacent channel power	≥65dB	Adjacent channel selectivity	≥60dB
Spurious radiation	≤7.5μV	Intermodulation rejection	≥55dB
		Spurious response rejection	≥70dB
		Blocking characteristic	≥85dB

• Troubleshooting Guide

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Problem	Corrective Action
No power	<ul style="list-style-type: none"> The battery may be exhausting. Recharge or replace the battery. The battery may not be installed correctly. Remove the battery and install it again.
Battery lasts shortly after charging	<ul style="list-style-type: none"> The battery life is finished. Replace the battery pack with a new one.
Can't communication with other stations	<ul style="list-style-type: none"> Double check the frequency and CTSS/DCS is same as other stations Out of communication range, double check whether it within the effective range of other radios.
Other (non-group member) voices appear in the channel	<ul style="list-style-type: none"> Please reset the CTCSS/DCS signal tone. At this time, be sure to reset the CTCSS/DCS of all radios in the group.

◦ APPENDIX

« 50 groups CTCSS Frequency Chart

67.0	85.4	107.2	136.5	165.5	186.2	210.7	254.1
69.3	88.5	110.9	141.3	167.9	189.9	218.1	
71.9	91.5	114.8	146.2	171.3	192.8	225.7	
74.4	94.8	118.8	151.4	173.8	196.6	229.1	
77.0	97.4	123.0	156.7	177.3	199.5	233.6	
79.7	100.0	127.3	159.8	179.9	203.5	241.8	
82.5	103.5	131.8	162.2	183.5	206.5	250.3	

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◦ APPENDIX

« 104 groups DCS frequency chart

023	065	132	205	255	331	413	465	612	731
025	071	134	212	261	332	423	466	624	732
026	072	143	223	263	343	431	503	627	734
031	073	145	225	265	346	432	506	631	743
032	074	152	226	266	351	445	516	632	754
036	114	155	243	271	356	446	523	654	
043	115	156	244	274	364	452	526	662	
047	116	162	245	306	365	454	532	664	
051	122	165	246	311	371	455	546	703	
053	125	172	251	315	411	462	565	712	
054	131	174	252	325	412	464	606	723	

FCC compliance statement

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 including received interference that may cause undesired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 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 harmful 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.

