

Yodoyabashi Dai-bldg 13F
4-4-9 Koraibashi, Chuo-ku, Osaka 541-0043 Japan
Phone: +81-6-7636-2362 Fax: +81-6-6208-3802
<http://www.alinco.com>
E-mail: export@alinco.co.jp

**ALINCO**

VHF/UHF FM Transceiver **DJ-VX50H** Instruction Manual

Thank you for purchasing your new Alinco transceiver. Please read this manual carefully before using the product to ensure full performance, and keep this manual for future reference as it contains information on after-sales service. In case addendum or errata sheets are included with this product, please read those materials and keep them together with this instruction manual for future reference. Amateur radio license is required to operate this device.

[MEMO]

封二

Introduction

Thank you very much for purchasing this excellent Alinco transceiver. It is designed to operate to your satisfaction for many years to come.

PLEASE READ THIS MANUAL COMPLETELY TO LEARN ALL THE FUNCTIONS THIS PRODUCT OFFERS. WE MADE EVERY ATTEMPT TO WRITE THIS MANUAL TO BE AS COMPREHENSIVE AND EASY TO UNDERSTAND AS POSSIBLE. IT IS IMPORTANT TO NOTE THAT SOME OF THE OPERATIONS MAY BE EXPLAINED IN RELATION TO INFORMATION IN PREVIOUS CHAPTERS. BY READING JUST ONE PART OF THE MANUAL, YOU RISK NOT UNDERSTANDING THE COMPLETE EXPLANATION OF THE FUNCTION.

THIS MANUAL HAS BEEN EDITED BASED ON THE LAND MOBILE VERSION OF DJ-VX50, THEREFORE, SOME OF THE ILLUSTRATIONS WITH FREQUENCIES INDICATE COMMERCIAL RADIO FREQUENCIES OUTSIDE OF THE AMATEUR RADIO BANDS.

Before transmitting

There are many radio stations operating in proximity to the frequency ranges this product covers. Be careful not to cause interference when transmitting around such radio stations.

■ Lightning

Any person is not safe outdoor during thunderstorm and lightning. This condition is getting worse if somebody keeps a hand-held radio, chances of being hit by lightning are doubled since lightning may hit a radio antenna as well. At this time, there is no hand-held radio having any kind of protection against lightning current (which is higher than 10 kA). Note also that no car provides adequate protection of its

passengers or drivers against lightning as well. Therefore, Alinco will not take responsibility for any danger associated with using its hand-held radios outdoor or inside the car during lightning.

■ IP67 Dust and water proof

About IP67 rating

6: Dust tight / No ingress of dust; complete protection against contact. Test duration of up to 8 hours based on air flow using specified powders.

7: No water penetration / Submerge the device for 30 minutes at a depth of 1 meter from the fresh water's surface.

The IP67 designation provides for limited dust and fresh water proofing of the radio, antenna and battery pack when integrated, perspecified above. This compatibility is factory guaranteed for a period of one year provided all specified conditions of use are respected, any accessories connected must be specified genuine Alinco accessories and the device has not been disassembled by the consumer. The device is designed to remain operational when used in rain, severe weather or in accidental cases of dropping it in wet place when used in extreme conditions and is in no way stating that you should attempt to use the device under water or submerge the radio for cleaning. Warranty will not cover devices that are damaged due to negligence or misuse of the product. Never remove the small label attached on the rear chassis of this product, or cover it with other materials. This label is essential to adjust an air pressure inside to secure dust/water proofing. A periodical, professional maintenance is recommended when the ingress protection is very important to you.

Note: The waterproof is void when an external microphone is in use.

■ Covering ranges

You may expect a range of approx 3km (2 miles) or more at high-power when located on a flat, noise-free place like on a beach. However, it may vary drastically depending on how to wear and carry the radios, surrounding locations/conditions and static noise levels (below or near power transmission lines), etc. In urban areas with many buildings or inside a building, such covering range may become drastically short even to several tens of meters.

■ Compliance Information Statement

WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual.

FCC INFORMATION

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 phone service signals is prohibited under FCC rules and Federal Law.

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.

CAUTION:

Changes or modifications to this device, not expressly approved by Alinco, Inc., could void your authority to operate this device under

ABOUT CE AND DOC



Hereby, Alinco, Inc. declares DJ-VX50HE which has the "CE" symbol on the product, complies with the essential requirements of the radio Equipment Directive, 2014/53/EU, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://www.alinco.com/Ce/>
Country code chart is posted on page 48

■ Electromagnetic Interference Compatibility

Electronic devices are susceptible to electromagnetic interference (EMI) if they are not adequately shielded or designed for electromagnetic compatibility. Because this transceiver generates RF energy, it can cause interference to such equipment.







- Turn OFF your transceiver where signs are posted to do so. Hospitals and health care facilities use equipment that is sensitive to electromagnetic radiation.
- Turn OFF your transceiver while on board an aircraft when so instructed. Use of the transceiver must be in accordance with airline regulations and/or crew instructions.

Features

- Output power selectable 5W(VHF) / 4W(UHF) / 2W / 1W
- 200 programmable channels
- Li-Ion battery pack and stand-charger as standard accessories
- Alphanumeric name tags
- FM broadcast 76-108MHz receiver built-in
- Air-band (AM) 118-135.995 MHz receiver built-in
- VHF 144-148 MHz receiver built-in
- UHF 420-450 MHz receiver built-in
- NOAA receiver built-in
- Selectable Battery-save parameters
- Busy Channel Lockout
- CTCSS/DCS Encode/Decode, DTMF 2Tone/5Tone
- VOX built-in
- Various scan modes, Key lock, Wide/Narrow operations

WARNING

To prevent any hazard during operation of Alinco's radio product, in this manual and on the product you may find symbols shown below. Please read and understand the meanings of these symbols before starting to use the product.

 Danger	This symbol is intended to alert the user to an immediate danger that may cause loss of life and property if the user disregards the warning.
 Alert	This symbol is intended to alert the user to a possible hazard that may cause loss of life and property if the user disregards the warning.
 Caution	This symbol is intended to alert the user a possible hazard that may cause loss of property or injure the user if the warning is disregarded.
	Alert symbol. An explanation is given.
	Warning symbol. An explanation is given.
	Instruction symbol. An explanation is given.



Alert

■ Environment and condition of use

- ! Use of this product may be prohibited or illegal outside of your country. Be informed in advance when you travel.
- ! It is recommended that you check local traffic regulations regarding the use of a radio equipment while driving. Some countries prohibit or apply restrictions for the operation of radios and mobile-phones while driving.
- ⊘ Do not use this product in close proximity to other electronic devices, especially medical ones. It may cause interference to those devices.
- ! Keep the radio out of the reach of children.
- ⊘ In case a liquid leaks from the product, do not touch it. It may damage your skin. Rinse with plenty of cold water if the liquid contacted your skin.
- ⊘ Never operate this product in facilities where radio products are prohibited for use such as aboard aircraft, in airports, in ports, within or near the operating area of business wireless stations or their relay stations.
- ! The manufacturer declines any responsibilities against loss of life and/or a property due to a failure of this product when used to perform important tasks like life-guarding, surveillance, and rescue.
- ⊘ Do not use multiple radios in very close proximity. It may cause interference and/or damage to the product(s).
- ! Risk of explosion if battery is replaced with an incorrect type. Dispose of, or recycle used batteries according to your local regulations.


- ! The manufacturer declines any responsibilities against loss of life and property due to a failure of this product when used with or as a part of a device made by third parties.
- ! Use of third party accessory may result in damage to this product. It will void our warranty for repair.


■ Handling this product

- ! Be sure to reduce the audio output level to minimum before using an earphone or a headset. Excessive audio may damage hearing.
- ⊘ Do not open the unit without permission or instruction from the manufacturer. Unauthorized modification or repair may result in electric shock, fire and/or malfunction and voids warranty.
- ⊘ Do not operate this product in a wet place such as in a shower room. It may result in electric shock, fire and/or malfunction.
- ⊘ Do not place the product in a container carrying conductive materials, such as water or metal in close proximity. A short-circuit to the product may result in electric shock, fire and/or malfunction.

■ About chargers

- ⊘ Do not use adapters other than having the specified voltage. It may result in electric shock, fire and/or malfunction, Never turn on the radio while charging.
- ⊘ Do not plug multiple devices using an adapter into a single wall outlet. It may result in overheating and/or fire.
- ⊘ Do not handle adapter with a wet hand. It may result in electric shock.


 Securely plug the adapter into the wall outlet. Insecure installation may result in short-circuit, electronic shock and/or fire.

 Do not use the adapter if the plug or socket contacts are dirty. Overheating and/or short-circuiting may result in fire, electric shock and/or damage to the product.


■ In case of emergency

In case of the following situation(s), please turn off the product, switch off the source of power, then remove or unplug the power-cord. Please contact your local dealer of this product for service and assistance. Do not use the product until the trouble is resolved. Do not try to troubleshoot the problem by yourself.

- When a strange sound, smoke and/or strange odor comes out of the product.
- When the product is dropped or the case is broken or cracked.
- When a liquid penetrated inside.
- When a power cord (including DC cables, AC cables and adapters) is damaged.









 For your safety, turn off then remove all related AC lines to the product and its accessories from the wall outlet if a thunderstorm is likely.

■ Maintenance



 Do not open the unit and its accessories. Please consult with your local dealer of this product for service and assistance.

Caution

■ Environment and condition of use

-  Do not use the product in proximity to a TV or a radio. It may cause interference or receive interference.
-  Do not install in a humid, dusty or insufficiently ventilated place. It may result in electric shock, fire and/or malfunction.
-  Do not install in an unstable or vibrating position. It may result in electric shock, fire and/or malfunction when/if the product falls to the ground.
-  Do not install the product in proximity to a source of heat and humidity such as a heater or a stove. Avoid placing the unit in direct sunlight.
-  Be cautious of a dew formation. Please completely dry the product before use when it happens.
-  Electronics devices such as solar panels and LED light bulbs may generate high levels of RF noise that may cause an interference. This is not a defect of receiver circuits of our product.
-  Turn off the radio before entering any area with a potentially explosive atmosphere or blasting caps.
-  Do not operate the radio, disassemble or charge the battery in the potentially flammable and explosive atmosphere (such as gas station, coal gas station, etc.).

■ About transceiver

-  Be cautious of the whip antenna when carried in your shirt-pocket etc. It may make contact with your eye and cause injury.
-  Do not connect devices other than specified ones to the jacks and ports on the product. It may result in damage to the devices.

- ❗ Turn off and remove the power source (AC cable, DC cable, battery, cigar cable, charger adapter etc.) from the product when the product is not in use for extended period of time or in case of maintenance.
- ⊘ Never pull the cord alone when you unplug AC cable form the wall outlet.
- ❗ Use a clean, dry cloth to wipe off dirt and condensation from the surface of the product. Never use thinner or benzene for cleaning.



Check with your local waste officials for details on recycling or proper disposal of the electronics product, battery-packs and accessories in your area.

Copyright © All rights reserved. No part of this document may be reproduced, translated or transcribed in any form or by any means without the prior permission of Alinco, Inc., Osaka, Japan. Alinco and ALINCO logo are registered trademarks of Alinco Incorporated, Japan in United States, EU States, Russia, China and many other countries. Windows is a registered trademark of Microsoft Corporation in the United States and other countries. All other trademarks are the properties of their respective holders. ALINCO and authorized dealers are not responsible for any typographical errors there may be in this manual. The contents of this manual may be updated without any notice or obligation. Alinco cannot be liable for pictorial or typographical inaccuracies. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

◦ TABLE OF CONTENTS

ALINCO

STANDARD ACCESSORIES	01
Standard Accessories	01
BATTERY INFORMATION	02
Charging Operation	02
Battery Charger Type	02
Notice for Charging Battery	02
How to Charge	05
How to Store the Battery	06
PREPARATION	07
Installing/Removing the Battery	07
Installing/Removing the Antenna	08
Installing/Removing the Belt Clip	08
Installing optional microphones	09
GETTING ACQUAINTED	09
LCD Display	09
BASIC OPERATIONS	12
Turn the Radio On & OFF	12
Adjusting Volume	12
Switch between Main band and Sub band	12
Switch between Channel mode and VFO mode	13
Selecting Memory Channel	13
Selecting VFO Frequencies	13
Receiving	14

◦ TABLE OF CONTENTS

Transmitting	14
SQL Adjustment (Squelch)	15
Transmit tone burst	15
MONI Key Function	15
Memory channel programming	15
Delete channel	16
Turn On/Off FM Radio	16
FM Channel Searching	17
Turn On / Off AM (VHF civil aviation) / NOAA (Weather Channel)	17
AM Channel Searching	17
Voice Operated Transmission (VOX)	18
Offset Frequency Direction Setup	18
Frequency/Channel Scan	19
Channel Scan Skip	19
Frequency Reverse	20
Power selection	20
Keypad lock	20
DTMF code Transmit and Enquiry	21
Function Menu Setup	22
Default Settings	24
CTCSS/DCS Decode Setup	25
CTCSS/DCS Encode Setup	25

◦ TABLE OF CONTENTS

ALINCO

Frequency Step	26
Wide/ Narrow FM Mode	26
Beep sounds	27
LCD Backlight	27
LCD Backlight Color	28
Time-Out-Timer (TOT)	28
Offset Frequency	29
Voice Operated Transmission (VOX)	29
Voice Operated Transmission (VOX) Delay Time	30
Keypad lock	30
Editing Channel name	31
Voice Announcment	31
Busy Channel Lockout	32
Tone Burst Frequency (Popular in European repeaters)	32
Battery Save	33
Scan Model Setup	33
Squelch level / AM Squelch level	34
Auto Repeater	35
Display Setup (Channel Mode)	36
Resume Factory Default (RESET)	36
AUXILIARY FUNCTIONS	38
Cable Cloning	38

◦ TABLE OF CONTENTS

Cable cloning instruction	39
Setting functions by PC software	39
OPTIONAL ACCESSORIES AND SPARES	40
RECOMMENDED INSTALLATION OF EARPHONE MICROPHONE	41
SPECIFICATIONS	42
TROUBLESHOOTING	44
APPENDIX	45
CTCSS Frequency Chart	45
105 groups DCS frequency chart	46

◦ STANDARD ACCESSORIES

ALINCO

Standard Accessories

- EA-253 Whip antenna
- EBP-101 Li-ion battery pack (7.4V,1800mAh)
- EDC-219 Rapid charger stand
- EDC-221 AC Adapter (E: 220V)
- EDC-305 Adapter (T: 120C)
- EBC-51 Belt Clip


NOTE: Accessories may differ depending on the version you have purchased. Please contact your local dealer for details of standard accessories and the warranty-policy before purchase.

◦ BATTERY INFORMATION

ⓘ Charging Operation

The battery is not charged at the factory, please charge it before use. Charge the battery for the first time after purchase or extended storage (more than 2 months) may not bring the battery to its normal operating capacity. After repeating fully charge/discharge cycle for two or three times, the operating capacity will reach the best performance. The battery life is over when its operating time decreases even though it is fully and correctly charged and it must be replaced to new one.

ⓘ Battery Charger Type

Please use ALINCO's designated charger, other models may cause explosion. After installing the battery, when the radio displays  low battery, please charge the battery.

ⓘ Notice for Charging Battery

- ▲ Do not short circuit the charger. Never attempt to remove the casing from the battery, otherwise the warranty is void and you risk serious damage to yourself and properties.
- ▲ The ambient temperature should be between 5°C and 40°C while charging. Charging outside this range may not fully charge the battery.
- ▲ Always switch off the transceiver before charging. Otherwise, it may not charge correctly.
- ▲ To avoid interfering the charging procedure, please do not cut off the power or take out the battery during charging.
- ▲ Do not recharge the battery if it is already fully charged. This may shorten the life of the battery or damage the battery.
- ▲ Do not charge the battery or transceiver if it is wet. Dry it before charging to avoid danger.

◦ BATTERY INFORMATION

ALINCO

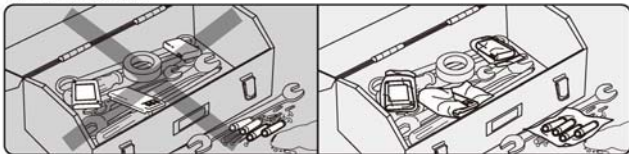
Caution

- Risk of explosion, generation of heat or leak of chemicals inside if the battery is replaced by an incorrect type or reverse polarity. Use always the recommended types of batteries in this manual only.
- The battery pack isn't fully charged when shipped. It must be charged before use.
- Charging should be conducted in a temperature range of +5°C to +40°C (+41°F to +104°F).
- Don't modify, dismantle, incinerate or immerse the battery pack in the water as this can be dangerous.
- Never short circuit the battery pack terminals, as this can cause damage to the equipment or lead to heating of the battery which may cause burns.
- Unnecessary prolonged charging (overcharging) can deteriorate battery performance.
- The battery pack should be stored in a dry place where temperature is in -10°C to +45°C (-14°F to +113°F) range. Temperatures outside this range can cause the battery liquid to leak. Exposure to prolonged high humidity can cause corrosion of metal components.
- Battery-packs are a consuming part. When its operating time becomes considerably short after a normal charge, please consider that the pack is exhausted and replace it with a new one.
- The battery pack is recyclable. Check with your local waste officials for details on recycling options or proper disposal in your area.
- Use specified genuine chargers only to charge battery packs. Use of other chargers may cause damage to products, you and your property.
- Never carry battery packs together with conductive articles such as metals in a same bag to prevent from short-circuiting. Put the packs only in nylon bags to carry them safely.
- Even if you do not use the battery pack for a long time, charge it at least once every three months to prevent deterioration.

◦ BATTERY INFORMATION

■ Handling and storing information of batteries and battery packs.

Batteries contain flammable materials. Mishandling shall cause batteries to rupture producing extreme heat, fire, deteriorate, or cause damages to you and your properties. Please care about the following information.



- Do not carry batteries in metal containers or in a bag containing objects such as metal tools, clips, screws, keys and jewelries.
- Do not carry batteries in wet conditions. Water is conductive and may cause short-circuit.
- The batteries must be packed in a dry nylon bag one by one when carried or stored to avoid short-circuit.
- Take batteries off of the transceiver before storing them for extended period of time. Store them in a dry, cool and dark place. Supplementary charge is required from time to time and details are explained later in this manual.
- Please dispose of batteries according to your local regulations. When batteries are stored in a container for disposal, cover battery terminals with insulation tape to avoid short-circuit.

◦ BATTERY INFORMATION

⚡ How to Charge

1. Plug the AC adaptor into the AC outlet, then plug the cable of AC adaptor into the DC jack. LED is turned off. (waits to charge).
2. Slide the battery or transceiver with battery into the charger, make sure the battery terminals are in contact with the charging terminals. LED turns into RED (charging).
3. It takes about 4 hours to fully charge the battery, and LED turns OFF when the charge is complete.



Warning: Never charge while the radio is turned on. When turned on, the charger can't detect the charging voltage properly and LED fails to indicate charge status correctly.

NOTE:

- ▲ Trouble means battery heating, short circuit or charger malfunction. Remove the battery pack from the charger immediately and contact to your local dealer for services.
- ▲ The max trickle pre-charging time is 30 minutes. In case the red indicator continues to blink longer, please stop charging and consult with your local dealer for services.
- ▲ It is known that Li-Ion battery packs heat up over 400°C by itself when kept in a temperature of over 80°C for extended period of time. Although the packs are protected against overheating with a protective circuit, never leave the battery packs in a car or similar locations in hot seasons.
- ▲ Li-Ion packs may deteriorate by over 30% regardless of conditions after 3 years. This is a nature of Li-Ion pack and not a defect of the product.

◦ BATTERY INFORMATION

- ▲ The charger is to charge the battery pack only. It is not an AC adapter to operate the radio. Never attempt to transmit the radio with using the charger as it will cause the damage to the charger and a repair/replace may become necessary.
- ▲ The charge should be conducted in an ambient temperature with a proper air-conditioning in an extremely hot or cold seasons.
- ▲ Try charging the battery pack only when having trouble charging with the radio. In case the radio may have troubles, the charge can't be conducted properly. If the battery pack can be charged alone, please take the radio to your local dealer for services.

⦿ How to Store the Battery

1. The battery should be kept in the status of 50%-100% charged when storing.
2. It should be kept in cool, dry environment and remove it from the transceiver.
3. Keep away from source of heat and direct sunlight.

WARNING

- ▲ Do not short circuit battery terminals.
- ▲ Never attempt to remove the casing from the battery pack.
- ▲ Never assemble the battery hazardous in explosive atmosphere as, spark may cause explosion.
- ▲ Do not put the battery in hot environment or throw it into fire, it may also cause explosion.

Note : Battery pack discharges faster when it is attached to the radio. Please always remove it from the radio when not in use.

◦ PREPARATION

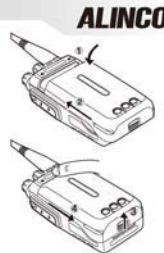
⦿ Installing / Removing the Battery

■ Installing the Battery:

Align the catches on the unit with the grooves on the battery pack, slide the pack forward and close the latch until it clicks.

■ Removing the Battery Pack:

Push the latch in the direction of the arrow, and pull out the battery pack.



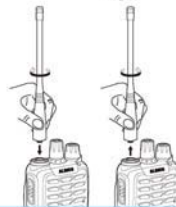
⦿ Installing / Removing the Antenna

■ Installing the Antenna:

Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

■ Removing the Antenna:

Turn the antenna anticlockwise to disconnect the antenna.



◦ PREPARATION

《 Installing / Removing the Belt Clip

■ Installing the Belt Clip:

Place the belt clip to the grooves on the back of the transceiver, and then fix it by provided screws.

■ Removing the Belt Clip:

Check the tightness of the fixing screws from time to time. (screws size 2.5mm x 6.5mm).

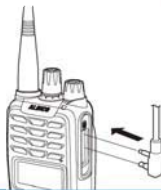


《 Installing optional microphones

Unveil the MIC-SP jack cover and then insert the Microphone plug into MIC-SP jack.

NOTE:

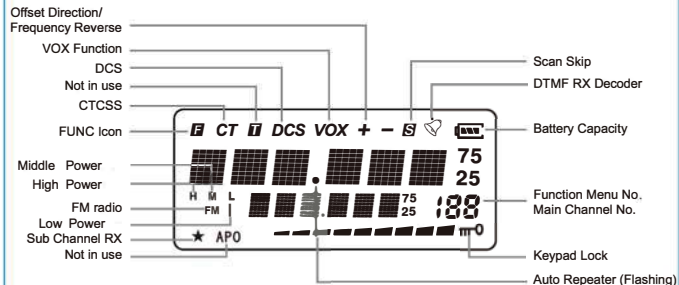
1. To keep the radio dust and water resistant, the cover must be closed properly with the original supplied cover.
2. The radio is not dust and water resistant while using the optional accessory risking that the water may penetrate inside through the plug.



◦ GETTING ACQUAINTED

ALINCO

《 LCD Display



NOTE:

- ☐ Battery capacity full
- ☐☐ Battery capacity middle/low
- ☐ No power, replace battery pack or charge battery
- Receiving Signal strength/Output power Indicator

◦ GETTING ACQUAINTED



NOTE: Please do not close the microphone hole.

◦ GETTING ACQUAINTED

ALINCO

- ❶ Antenna
- ❷ Main dial (marked CH)
- ❸ Power / Volume Switch (marked VOL)
Rotate it clockwise to turn on transceiver, rotate it Counterclockwise until clicks to turn off the transceiver.
When transceiver is power on, rotate it clockwise to increase volume, anticlockwise to reduce.
- ❹ RX indicator, RX is Green, is Red
- ❺ LCD display
Displays current frequency/channel and operations
- ❻ Speaker
- ❼ Keypad
Enters desired frequency/channel or operations by keypads
- ❽ Mic
- ❾ PTT key
Press PTT key to talk, release this key to receive.
- ❿ SQL key
- ⓫ MONI key
- ⓬ Speaker/Microphone jack, programming cable jack
- ⓭ Battery
- ⓮ Belt Clip

◦ BASIC OPERATIONS

☞ Turn the Radio On & OFF

Turn [POWER/VOLUME] knob clockwise to turn on power. A beep sounds and shows current setting on the display. Turn counterclockwise till it clicks to turn off power.



☞ Adjusting Volume

Under power-on state, turn [POWER/VOLUME] knob to adjust volume. Press [MONI] key to hear the noise for audio level setting. Turn [POWER/VOLUME] knob clockwise when too low, counterclockwise to reduce if too loud.

NEVER USE EARPHONE while adjusting audio level. The max audio output is 1W, and it's loud enough to hurt your eardrums.

You may feel a static shock when wearing an earphone in a dry atmosphere but it's not a defect of product but a cause of nature. It is the same shock you feel typically when opening a door of a car in certain conditions.


☞ Switch between Main band and Sub band

Under standby state, press  key to switch channel between Main band and Sub band.

◦ BASIC OPERATIONS

ALINCO

☞ Switch between Channel mode and VFO mode

Under standby state, press  key to set main band as Channel mode (Memory mode) or frequency mode(VFO).

Observe that small digits appear on the right bottom of the display when in the memory channel mode.

☞ Selecting Memory Channel

Channels must be programmed in advance to operate. If not pre-programmed, refer to P.15 and edit them as necessary. In channel mode or FM channel mode, turn the main dial to select a desired channel. Turn it clockwise to change channels upward, counterclockwise to downward. Only programmed channel numbers appear and skips blank channels.

Use numerical keys to directly select the desired channels. To set 01, press 001. To set 30, press 30 and press 199 to set 199.

☞ Selecting VFO Frequencies


In VFO or FM radio frequency mode, turn main dial to select a desired frequency. Turn the main dial clockwise to change upward, counterclockwise to downward in order of preset step.

NOTE: Channel step: 2.5K, 5K, 6.25K 10K, 12.5K, 20K, 25K, 30K AND 50KHz in total 9 options.
FM radio step frequency is 50KHz.

◦ BASIC OPERATIONS

In VFO mode, you can directly input frequency by keypad.

Example: To enter 145.120, press [1] [4] [5] [1] [2] [0]. When an invalid numbers are entered, the display will return to the current state and an error beep sounds.

Or press [1] [4] [5] [1] [2] then press  key twice to confirm the final digit. A beep sounds when valid. When entered digits are out of covering range, an error message alerts


⏮ Receiving

When a signal is received on the frequency that you selected, RX indicator lights green and S-meter shows signal strength, then the received signal can be heard. When receiving in SUB band, a "★" icon appears at the bottom left of the display. Use [MONI] key when receiving a signal but not hearing, CTCSS and DCS are temporarily cancelled and allows you to monitor the signal.

◦ BASIC OPERATIONS

ALINCO

⏮ SQL Adjustment (Squelch)

Under standby state, press and hold SQL key until radio sounds beep and SQL is displayed. Turn the channel knob to select SQL level. Press  key to confirm then press [ESC] to exit.

⏮ Transmit tone burst



Press and hold [PTT] key, then press SQL to transmit selected tone burst tone. The tone frequency can be set to 1750Hz / 2100Hz / 1000Hz / 1450Hz. See "function menu setup" for details.

⏮ MONI Key Function

Following functions may be assigned to the MONI key.

1. Squelch off: Press and hold [MONI] key in 5 seconds, squelch will be temporary off and you can hear background noise. Press [MONI] key again to set squelch.
2. Monitor: Press [MONI] key, you can hear background noise. Release [MONI], squelch is mute.
3. Turn the power on while holding the [MONI] key to enter to the set mode.

⏮ Memory channel programming

1. Under frequency mode (VFO), enter desired frequency and settings, press  key, the top left corner of LCD displays "F" icon, press  key to switch into channel mode, LCD displays "MEN CH" and channel number flashes.

◦ BASIC OPERATIONS

2. Turn main dial or input the number directly to select the desired channel number to store.
3. Press **FUNC** key to store the channel number.

⌘ Delete channel

1. Under standby state and in channel mode, press **FUNC** key, the top left corner of LCD displays "**F**" icon, press **DEL** key, LCD display "**DEL CH**" and channel number flashes.
2. Turn main dial or input the number directly to select the desired deleting channel number.
3. Press **FUNC** key to delete the channel number.
4. Press **ESC** key then turn the dial channel, the deleted channel will disappear.

⌘ Turn On/ Off FM Radio

Under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **TRK** key, LCD displays "**RADIO**" and current FM radio frequency, FM radio function is on.

Repeat above to turn off FM radio.

Press PTT to return to VFO or Memory channel mode. After a short while, it resumes to receive FM radio in background. When PTT is operated or a signal being received, FM radio mutes.

[NOTE] The battery lasts shorter if tuned to FM radio in background.



◦ BASIC OPERATIONS

ALINCO

⌘ FM Channel Searching

In FM radio mode, press **FUNC** key, LCD displays "**F**" icon, then press **SCAN** key to start FM searching. Scan stops when receiving a signal. Repeat to search another station. While searching, turn the dial clockwise to scan upward, counterclockwise to scan downward.



⌘ Turn On / Off AM (VHF civil aviation) / NOAA (Weather Channel)

Under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **2** key, LCD displays "**AM**" and current AM frequency, AM mode is on. Repeat above operation to switch to NOAA (Weather Channel). To exit the function press **FUNC** key then press **2**.

When AM mode is on, normal transceiver functions are disabled. Only AM frequency can be received.

⌘ AM Channel Searching

When in AM mode, press **FUNC** key, LCD displays "**F**" icon, then press **SCAN** key to start AM searching. Scan stops when receiving a signal. Repeat to search another station. While searching, turn the dial clockwise to scan upward, counterclockwise to scan downward.

◦ BASIC OPERATIONS

🔊 Voice Operated Transmission (VOX)

Under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **3 VOX** key, the top middle of LCD displays "VOX" and VOX function is on. Repeat above operation to turn off VOX function. When VOX function is on the transmitting can be started by voice, no need to press [PTT] key. The VOX sensitivity level and delay time can be set in the "FUNCTION MENU SETUP".

NOTE: This function is invalid while FM radio is turned on.

🔊 Offset Frequency Direction Setup

In VFO mode, under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, press **4 +/-** key to choose offset frequency direction. There are 3 options, plus offset, minus offset, shut off offset.

1. (+) Plus offset: Indicates frequency is higher than RX frequency. When enabling reverse function, the RX frequency is higher than frequency.
2. (-) Minus offset: Indicates frequency is lower than RX frequency. When enabling reverse function, the RX frequency is lower than frequency.
3. None: Indicates that offset is not in use.

NOTE: This function is invalid in channel mode.

◦ BASIC OPERATIONS

ALINCO

🔊 Frequency/Channel Scan

Under corresponding mode, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **5 SCAN** key to start frequency scan or channel scan.

1. Frequency Scan

Scans all VFO range in order of step and stops when an incoming signal is detected. Turn dial clockwise to scan upward, counterclockwise to downward. When the signal is gone, it resumes scanning after 5 seconds. Press any numerical key or ESC to stop scanning.

2. Channel Scan

Scans all preprogrammed channels and stops when an incoming signal is detected. Turn dial clockwise to scan upward channel number, counterclockwise to downward. When the signal is gone, it resumes scanning after 5 seconds. Press any numerical key or [ESC] key to stop scanning.

NOTE: Refer to "Scan modes" to select scan resume conditions.

🔊 Channel Scan Skip

Under channel mode, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **6 SKIP** key to set the current channel as channel scan skip. Repeat above operation to cancel channel scan skip.

1. LCD displayed "**S**" icon means the current channel will not be scanned.
2. "**S**" icon disappeared means the current channel will be scanned.

◦ BASIC OPERATIONS

☞ Frequency Reverse

Under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **7REV** key to set the current channel as frequency reverse, repeat above operation to turn off frequency reverse.

- When "+" offset frequency is on and then turn on reverse function, top corner of LCD will flash "-" icon.
- When "-" offset frequency is on and then turn on reverse function, top corner of LCD will flash "+" icon.
- When current channel is opening the frequency reverse function, frequency and RX frequency is interchanged, if CTCSS/DCS signaling is set, it will also interchange.

☞ Power selection

Under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **9HL** key to choose High/Low power for current channel.

1. When LCD displays "**L**" icon, it means low power is chose.
2. When LCD displays "**H**" icon, it means high power is chose.
3. When LCD displays "**M**" icon, it means Middle power is chose.

☞ Keypad lock

Under standby state, press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press and hold **#0** key until a beep sounds, and LCD displays "☞" icon, keypad is locked. Repeat above operation, "☞" icon disappears, key lock function is cancelled.

◦ BASIC OPERATIONS

ALINCO

NOTE: When keypad is locked, only PTT key/ **FUNC** key/ main dial are usable.

☞ DTMF code Transmit and Enquiry

"Pre-programming by PC software is necessary to create the DTMF data.

1. Press **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **0DTF** key, LCD displays DTMF data and group number (total 16 groups) of current group.
2. Turn main dial to choose desired group and DTMF data, press [PTT] key to transmit selected DTMF signaling. If current group not edit DTMF data, LCD displays the current group number and "**EMPTY**".

EMPTY

When DTMF function is on and transceiver is receiving a signal which matched to DTMF code, the top of LCD will display "☞" icon and you can hear the call. To create group DTMF use PC software.

FUNCTION MENU SETUP

The operating methods are as follows:

1. Press **FUNC** key, the top left corner of LCD displays "F" icon, then press **8SET** key to enter function menu.
2. Press **▲MS** / **▼EN** to choose desired function menu function.
3. Turn main dial to select desired setting.

Note:In CTCSS/DCS setting, Press **[F5]** to select CTCSS, DCS or OFF. When select DCS press **[F6]** to switch between positive and negative code.

4. Press **FUNC** to confirm the selction, then press **ESC** key or leave it for a while to exit menu.

Menu No.	LCD Display	Function	Options	Description
1	R-CDC	CTCSS/DCS Decode	OFF	No CTCSS/DCS Decode
			67Hz-254.1Hz	50 groups fixed CTCSS decode
			D023N-D754I	105 groups DCS decode
2	T-CDC	CTCSS/DCS Encode	OFF	No CTCSS/DCS Encode
			67Hz-254.1Hz	50 groups fixed CTCSS encode
			D023N-D754I	105 groups DCS encode
3	STEP	Frequency step	2.5K-50K	9 options in total (VFO mode only)
4	W/N	Wide / Narrow Band Selection	WIDE/NARROW	Wide band/Narrow band
5	BEEP	Keypad beep sound	ON/OFF	Turn on/off
6	LIGHT	LCD Backlight	ON/OFF	Always on/off
			AUTO	Turns off automatically after a while.

◦ FUNCTION MENU SETUP

ALINCO

7	COLOR	LCD Backlight Color	BLUE/ORG/PUR	Blue/Orange/Purple
8	TOT	Time-Out-Timer	OFF	Turn off time-out timer
			30-270 S	Total 9 levels for optional, each interval is 30S step up
9	OFFSET	Offset Frequency Setup	0-99.995MHz	Frequency range is 0-99.995MHz
10	VOX LV	Voice Operated Transmission (VOX) Level	1-9	Total 9 VOX levels
11	VOX D	VOX Delay Setup	0.3S-3S	0.3S/0.5S/1.0S/1.5S/2.0S/3.0S
12	LOCK	Keypad Lock	Manual	Manual Keypad lock
			Auto	Keypad automatic locked after a period
13	CHNAME	Editing Channel Name	a~z / A~Z / 0~9 / ! / # / \$ / % / (/) / + / - / : / ; / & / ' / < / = / > / ? / @ / [/ \ /] / ^ / _ / ' * / , / .	In channel name display mode, will display the edited channel name.(Channel mode only)
14	VOICE	Voice Announcement Setup	ON/OFF	Turn on/off
15	BCLO	Busy Channel Lockout Setup	BCL/BTL/ OFF	3 options
16	TBST	Tone-burst Signalling Setup	1000Hz/1450Hz/1750Hz/2100Hz	Tone plus frequency is 1750Hz/2100Hz/1450Hz /1000Hz

◦ FUNCTION MENU SETUP

17	SAVE	Battery Save Setup	ON/OFF	Turn on/off
18	SCAN-M	Scan Mode Setup	TO/CO/SE	3 options
19	SQL	Squelch Level/ AM Squelch Level Setup	0-9	Total 10 SQL levels
20	REPEAT	Auto Repeater	ON/OFF	Automatically shift the transmitting frequency

⌘ Default Settings

Menu No.	LCD Display	Default
01	R-CDC	OFF
02	T-CDC	OFF
03	STEP	10KHz
04	W/N	Wide
05	BEEP	ON
06	LIGHT	Auto
07	COLOR	Orange
08	TOT	OFF
09	OFFSET	10MHz
10	VOX LV	6

Menu No.	LCD Display	Default
11	VOX D	3Sec
12	LOCK	Manual
13	CHNAME	Blank
14	VOICE	OFF
15	BCLO	OFF
16	TBST	1750Hz
17	SAVE	ON
18	SCAN-M	TO
19	SQL	9
20	REPEAT	OFF

◦ FUNCTION MENU SETUP

ALINCO

⌘ CTCSS/DCS Decode Setup

By using this function with CTCSS/DCS decode feature, you hear only signals that are sent with matching tones. (Such operations are often referred to as Tone-Squelch or DCS squelch)

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon then press **8000** key.
2. Press **▲** / **▼** key to choose menu 01 and display "R-CDC".
3. Turn main dial to select desired setting.
4. Press **CODE** key to choose the desired CTCSS / DCS decoding tone. When selecting CTCSS turn main dial to select desired tone. When selecting DCS press **#00** key to switch between positive and negative code. Then turn main dial to select desired code. See appendix for details of available tones and codes.
5. Press **FUNC** key to confirm then press **ESC** key to exit.

R-CDC
OFF 01

R-CDC
67.0 01

R-CDC
0023N 01

R-CDC
0023I 01

⌘ CTCSS/DCS Encode Setup

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon then press **8000** key.
2. Press **▲** / **▼** key to choose menu 02 and display "T-CDC".
3. Turn main dial to select desired setting.
4. Press **CODE** key to choose the desired CTCSS / DCS encoding tone. When selecting CTCSS, turn main dial to select desired tone. When selecting DCS press

T-CDC
OFF 02

T-CDC
67.0 02

T-CDC
0023N 02

◦ FUNCTION MENU SETUP

CODE key to switch between positive and negative code. Then turn main dial to select desired code. See appendix for details of available tones and codes.

- Press **FUNC** key to confirm then press **ESC** key to exit.



NOTE: The encoding and decoding tones can be set separately.

⦿ Frequency Step

- After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **Back** key.
- Press **Am** / **Ym** key to choose menu 03 and display "**STEP**".
- Turn main dial to select desired setting.
- Press **FUNC** key to confirm then press **ESC** key to exit.



Available steps are 2.5K, 5K, 6.25K, 10K, 12.5K, 20K, 25K, 30K and 50KHz. This parameter is not available when the radio is in the Channel mode.

⦿ Wide/ Narrow FM Mode

- After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **Back** key.
- Press **Am** / **Ym** key to choose menu 04 and display "**W/N**".
- Turn main dial to select desired setting.



◦ FUNCTION MENU SETUP

ALINCO

- Available parameters are 12.5KHz(narrow) and 25KHz(wide).
- Press **FUNC** key to confirm then press **ESC** key to exit.

⦿ Beep sounds

- After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **Back** key.
- Press **Am** / **Ym** key to choose menu 05 and display "**BEEP**".
- Turn main dial to select desired setting.



ON: Beep sounds is enabled.

OFF: Beep sounds is disabled.



- Press **FUNC** key to confirm then press **ESC** key to exit.

⦿ LCD Backlight

- After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **Back** key.
- Press **Am** / **Ym** key to choose menu 06 and display "**LIGHT**".
- Turn main dial to select desired setting.



AUTO: Backlight will automatic closed after a period.

OFF: Always off.

ON: Always on. This setting consumes battery very fast.



- Press **FUNC** key to confirm then press **ESC** key to exit.



◦ FUNCTION MENU SETUP

《LCD Backlight Color

There are three kinds of backlight color for optional.

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8SET** key.
2. Press **▲/▼** key to choose menu 07 and display "COLOR".
3. Turn main dial to select desired setting.

ORANGE: Orange backlight

PURPLE: Purple backlight

BLUE: Blue backlight

4. Press **FUNC** key to confirm then press **ESC** key to exit.

COLOR
" ORANGE 07

COLOR
" PURPLE 01

COLOR
" BLUE 01

《Time-Out-Timer (TOT)

The purpose of Time-out-Timer is to restrict transceiver for continuous long-term transmission. When the continuous transmission time is beyond the preset time, transceiver is forced to stop transmitting and make a beep sound.

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8SET** key.
2. Press **▲/▼** key to choose menu 08 and display "TOT".
3. Turn main dial to select desired setting.

OFF, 30~270S of TOT for optional, each interval is 30 seconds.

4. Press **FUNC** key to confirm then press **ESC** key to exit.

TOT
" 30 08

◦ FUNCTION MENU SETUP

ALINCO

《Offset Frequency

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8SET** key.
2. Press **▲/▼** key to choose menu 09 and display "OFF SET".
3. Press **8SET** key to enter next menu, input desired offset frequency by keypad.
Available parameters are 0.00 to 69.995MHz in step size selected in menu 09.
4. Press **FUNC** key to confirm then press **ESC** key to exit.

OFF SET
" 006.000 09

《Voice Operated Transmission (VOX) Level

When this function is on, the transmitting can be started by voice, no need to press [PTT] key.

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8SET** key.
2. Press **▲/▼** key to choose menu 10 and display "VOX LV".
3. Turn main dial to select desired setting.
1~9 : Total 9 VOX levels for optional.
1 is most sensitive, 9 is less sensitive that requires more voice level to activate VOX.
4. Press **FUNC** key to confirm then press **ESC** key to exit.

VOX LV
" 6 10

NOTE: VOX is not usable in noisy areas as it may start transmitting by the back noise.

◦ FUNCTION MENU SETUP

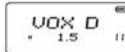
ⓘ Voice Operated Transmission (VOX) Delay Time

If transceiver returns to receive mode instantly after VOX calling, it may cause calling voice missing. To avoid this problem, user can set a suitable delay time.

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **8SET** key.
2. Press **▲MS** / **▼VW** key to choose menu 11 and display "VOX D".
3. Turn main dial to select desired setting.

0.3S-3S: Total 6 levels.

4. Press **FUNC** key to confirm then press **ESC** key to exit.



ⓘ Keypad lock

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **8SET** key.
2. Press **▲MS** / **▼VW** key to choose menu 12 and display "LOCK".
3. Turn main dial to select desired setting.

MANU (Manual): keypad can be locked by manual operation.

AUTO: Keypad will be automatically locked after 20 seconds without any manipulation on the radio.

4. Press **FUNC** key to confirm then press **ESC** key to exit process.
5. To activate keypad lock by manual operation, under main screen press **FUNC** key, the right bottom corner of LCD displays "**F**" icon, then hold **#DUAL** till the radio emits a beep sound. The bottom left corner of LCD displays "**0**" means radio keypad is locked.

◦ FUNCTION MENU SETUP

ALINCO

6. Repeat above operation to unlock.

NOTE: When keypad is locked, only PTT / SQL / MONI and **FUNC** key are usable.

ⓘ Editing Channel name

In the memory channel mode, select a channel to edit the tag. Up to 6 characters are programmable.

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **8SET** key.
2. Press **▲MS** / **▼VW** key to choose menu 13 and display "CH NAME".
3. Turn main dial to select desired setting. Press **ENTR** key to confirm current character and move to next character. Press **←** key to edit the previous character.
4. Press **FUNC** key to confirm then press **ESC** key to exit.

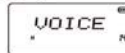


Edited name tags will be displayed only when the display mode is set to NAME. See P.36 for details.

ⓘ Voice Announcement

This function is available in Memory (Channel) mode only, and guides channel numbers in English voice.

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **8SET** key.
2. Press **▲MS** / **▼VW** key to choose menu 14 and display "VOICE".
3. Turn main dial to select desired setting.



◦ FUNCTION MENU SETUP

ON: Voice announcement is enabled.

OFF: Voice announcement is disabled.

4. Press **FUNC** key confirm and exit then press **ESC** key to exit.

《Busy Channel Lockout

This function prohibits the transmitting when the channel is busy.

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8MEN** key.
2. Press **AMS** / **YVR** key to choose menu 15 and display "BCLO".
3. Turn main dial to select desired setting.

BTL: Signaling busy lock. It suspends transmitting when receiving a signal but incorrect signaling tones.

BCL: Carrier busy lock. It suspends transmitting when receiving any signal.

OFF: PTT operation is always possible without busy channel lockout.

4. Press **FUNC** to confirm and exit then press **ESC** key to exit.

BCLO
" BTL 15

BCLO
" BCL 15

BCLO
" OFF 15

《Tone Burst Frequency (Popular in European repeaters)

This function is used for waking up sleeping repeater, it needs a certain intensity of Tone Burst to wake up sleeping repeater. In general, as long as the repeater has been waked up, no need to transmit Tone Pulse again in preset time.

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8MEN** key.

◦ FUNCTION MENU SETUP

ALINCO

2. Press **AMS** / **YVR** key to choose menu 16 and display "TBST".

3. Turn main dial to select desired setting.

1750Hz, 2100Hz, 1000Hz, 1450Hz, 4 kinds of Tone Burst for optional.

TBST
" 1750 16

《Battery Save

Battery Save prevents useless battery consumption by switching the power ON/OFF at a fixed ratio internally. This function is temporarily suspended when operating keys, signals being received or while scanning.

After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8MEN** key.

1. Press **AMS** / **YVR** key to choose menu 17 and display "SAVE".

2. Turn main dial to select desired setting.

OFF: Battery Save is disabled.

ON: Battery save ratio is adjusting automatically.

3. Press **FUNC** key to confirm then press **ESC** key to exit.

SAVE
" OFF 17

SAVE
" ON 17

《Scan Mode Setup

There are three kinds of scan modes.

1. After pressing **FUNC** key, the top left corner of LCD displays "F" icon, then press **8MEN** key.
2. Press **AMS** / **YVR** key to choose menu 18 and display "SCAN-M".
3. Turn main dial to select desired setting.

◦ FUNCTION MENU SETUP

TO: Time operation scan, when scanning matched signal, transceiver will stop scanning for 5 seconds then resume scan process.



CO: Carrier operation scan, when scanning matched signal, transceiver will stop scanning till the carrier signal disappears, after carrier signal disappeared, transceiver will continue to scan next channel / frequency.



SE: Search scan, when scanning matched signal, transceiver will stop to scan at this carrier frequency and exit scan process.

4. Press **FUNC** key confirm and exit then press **ESC** key to exit.

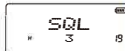
《 Squelch level / AM Squelch level

Squelch is a function that eliminates the noise when no signals are being received. The excessive high level setting may block weaker signals.

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **8SET** key.

2. Press **▲MS** / **▼FM** key to choose menu 19 and display "SQL".

3. Turn main dial to select desired setting.



0~9: Press **FUNC** key to monitor the noise every time you change the level.

Level 0 opens the squelch and noise is heard.

4. Press **FUNC** key to confirm then press **ESC** key to exit.

◦ FUNCTION MENU SETUP

ALINCO

AM Squelch level

To adjust the AM Squelch level. Set radio in AM mode by pressing **FUNC** then press **2+**. Operate as above to access AM squelch adjustment mode.

《 Auto Repeater

This function applies appropriate shift setting automatically in VFO mode.

1. After pressing **FUNC** key, the top left corner of LCD displays "**F**" icon, then press **8SET** Key.

2. Press **▲MS** / **▼FM** key to choose menu 20 and display "REP EAT"

3. Press **FUNC** key to confirm then press **ESC** key to exit.

- On: The transceiver will automatically apply the shift direction and frequency offset according to the standard repeater band-plans. When the VFO frequency is in the regulation range and auto repeater is set on the dot will flash.

- Off: No offset occurs

DJVB50HT

Bands	Shift	Frequency Range
VHF	Rx-0.6MHz	146.610-146.995MHz
	Rx+0.6MHz	147.000-147.395MHz
UHF	Rx+5.0MHz	442.000-444.995MHz
	Rx-5.0MHz	447.000-449.995MHz

DJVB50HE

Bands	Shift	Frequency Range
VHF	Rx-0.6MHz	145.600-145.795MHz

◦ FUNCTION MENU SETUP

⏮ Display Setup (Channel Mode)

There are three kinds of display modes.

1. Press and hold MONI key to turn on and wait until DSP/FREQ is displayed,
2. Turn main dial to select desired setting.

FREQ: Frequency+ Channel mode.

CH: Channel number + Channel mode.

NAME: Channel number + Name tag mode.

3. Press **FUNC** key to confirm then press **ESC** key to exit.

DSP
FREQ

DSP
CH

DSP
NAME

⏮ Resume Factory Default (RESET)

There are 2 types of reset functions, Factory reset resumes all functions and memory data to factory default. Initialize resets only functions and memory data won't be deleted.

1. Press and hold MONI key to turn on and wait until DSP/FREQ is displayed,
2. Press **▲** / **▼** key to choose "RESET".

◦ FUNCTION MENU SETUP

ALINCO

3. Turn main dial to select factory reset or Initialize functions only.

FACT: Resumes all functions to factory default and deletes programmed channels. It can't recall channels once they are reset. Press **FUNC** key to display 6 underbar. Press 0(zero) key 6 times consecutive and wait until it automatically turns off and turns on again.

Note: The 6th zero won't enter to the last underbar but this is normal.

INIT: Resumes all functions to factory default but programmed channels remain. Press **FUNC** key and wait until it automatically turns off and turns on again.

Default settings are **435.150** and **145.150** in VFO mode with H (high power) and battery icons.

RESET
FACT

FACT

RESET
INIT

◦ AUXILIARY FUNCTIONS

《Cable Cloning

The memory data and customized operational parameters can be transferred from a master unit to other DJ-VX50 using a commonly available audio cable. Refer to the next page for connection details.

1. Program and customize the master radio. Be sure to fully charge the battery.
2. Prepare the radio(s) to be programmed and charge the battery.
3. Turn off all radios. Connect a master radio with another radio as shown on the next page and turn on the radio to be copied.
4. Turn on the master radio by pressing and holding SQL key until "CLONE" is displayed.
5. Press SQL key to start copying the data. Don't touch until it finishes.
6. When the clone is done, the master radio remains CLONE mode for the next radio. Repeat above to copy more radios.
7. To finish, turn off the master radio and remove the cable.

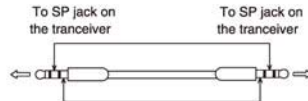
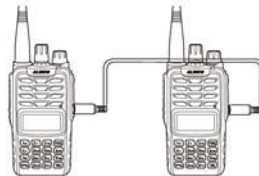
In case an error is displayed, turn off both radios, make sure the cable connection and battery conditions then retry.

◦ AUXILIARY FUNCTIONS

ALINCO

《Cable cloning instruction

Connect the cable to SP jack



NOTE: Commonly available 3.5mm ϕ stereo miniplug audio cable is usable.

《Setting functions by PC software

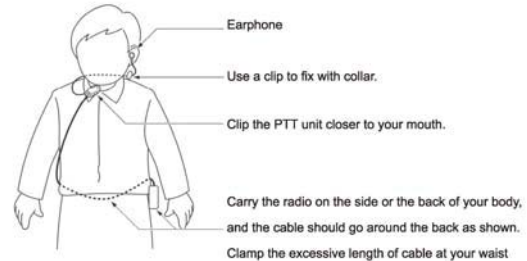
A PC, an optional PC connection cable and a free utility software is required to program DTMF, 2 TONE, 5 TONE and other advanced features.

The software and its instruction is free-downloadable from alinco.com

◦ OPTIONAL ACCESSORIES AND SPARES

- EA-253 Whip antenna (VHF/UHF)
- EBP-101 Li-ion battery pack (7.4V,1800mAh)
- EDC-219 Rapid charger stand
- EDC-221 AC Adapter (E: 220V)
- EDC-305 AC Adapter (T: 120V)
- EBC-51 Belt Clip
- EME-56A Earphone Microphone
- EMS-76 Speaker Microphone
- ERW-7 PC cable

◦ RECOMMENDED INSTALLATION OF EARPHONE MICROPHONE **ALINCO**



◦ SPECIFICATIONS

📡 GENERAL

	DJ-VX50HT	DJ-VX50HE
RX Frequency Coverage	FM : 136 – 174MHz / 400 – 470MHz	FM : 144 – 146MHz /
	430 – 440MHz WFM : 76 – 107.95MHz / AM 118 – 135.995MHz FM 162.400 – 162.550 MHz	
Frequency Coverage	FM: 144-148MHz 420-450MHz	FM: 144-146MHz 430-440MHz
Modulation	F3E(16K0F3E / 11K0F3E / RX only WFM, AM)	
Frequency stability	±2.5ppm	
Power supply requirement	7.4V (Battery)	
Current drain (Approx.)	1500mA / 300mA receive at Max audio output 80mA squelched	
Usable temperature range	-20~ +60°C(-4~140°F)	
Channel step	2.5, 5, 6.25, 10, 12.5, 20, 25, 30 and 50 KHz	
Dimensions	118 x 59 x 38 mm (with battery pack)	
Weight	approx.230g inclusive of battery pack and antenna	

◦ SPECIFICATIONS

ALINCO

📡 RECEIVER

Receiver System	Direct conversion
Sensitivity (12dB SINAD Wide/Narrow)	Wide -12dBu / Narrow -9dBu
Adjacent Channel Selectivity	Wide More than 65dB / Narrow More than 60dB
Audio output power	1W (10% distortion)

CAUTION:

Changes or modifications to this device, not expressly approved by Alinco, Inc., could void your authority to operate this device under FCC regulations.

MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR TELEPHONE IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

◦ TROUBLESHOOTING

Problem	Corrective Action
No power	A. The battery may be exhausting. Recharge or replace the battery. B. The battery may not be installed correctly. Remove the battery and install it again.
Battery lasts shortly after charging.	The battery life is finished. Replace the battery pack with a new one.
No sound when using earphone.	Earphone jack is broken. Please contact with local dealers to repair.
Can't communicate with other stations.	A. Different frequency or channel, please change it. B. Different CTCSS / DCS / DTMF, please reset it. C. Out of communication range.
Receiving intermittent noise	Out of communication range or getting closer to off-range, or being affected by local noise generated by electronics devices, cars, illuminations etc.

◦ APPENDIX

ALINCO

CTCSS Frequency Chart

1	OFF	12	94.8	23	136.5	34	177.3	45	218.1
2	67.0	13	97.4	24	141.3	35	179.9	46	225.7
3	69.3	14	100.0	25	146.2	36	183.5	47	229.1
4	71.9	15	103.5	26	151.4	37	186.2	48	233.6
5	74.4	16	107.2	27	156.7	38	189.9	49	241.8
6	77.0	17	110.9	28	159.8	39	192.8	50	250.3
7	79.7	18	114.8	29	162.2	40	196.6	51	254.1
8	82.5	19	118.8	30	165.5	41	199.5		
9	85.4	20	123.0	31	167.9	42	203.5		
10	88.5	21	127.3	32	171.3	43	206.5		
11	91.5	22	131.8	33	173.8	44	210.7		

◦ APPENDIX

« 105 groups DCS frequency chart

023	025	026	031	032	036	043	047	051	053
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	455	462	464	465	466	503
506	516	523	526	532	546	565	606	612	624
627	631	632	645	654	662	664	703	712	723
731	732	734	743	754					

◦ APPENDIX

ALINCO

Weather Channel	Frequency in MHz
1	162.550
2	162.400
3	162.475
4	162.425
5	162.450
6	162.500
7	162.525
8	161.650
9	161.775
10	163.275

◦ APPENDIX

Country Code List (ISO 3166-1)

	Country	Codes		Country	Codes		Country	Codes
1	Austria	AT	12	Greece	GR	23	Norway	NO
2	Belgium	BE	13	Hungary	HU	24	Poland	PL
3	Bulgaria	BG	14	Iceland	IS	25	Portugal	PT
4	Croatia	HR	15	Ireland	IE	26	Romania	RO
5	Czech Republic	CZ	16	Italy	IT	27	Slovakia	SK
6	Cyprus	CY	17	Latvia	LV	28	Slovenia	SI
7	Denmark	DK	18	Liechtenstein	LI	29	Spain	ES
8	Estonia	EE	19	Lithuania	LT	30	Sweden	SE
9	Finland	FI	20	Luxembourg	LU	31	Switzerland	CH
10	France	FR	21	Malta	MT	32	Turkey	TR
11	Germany	DE	22	Netherlands	NL	33	United Kingdom	GB

[MEMO]

封三