



Hereby, ALINCO, INC. declares that the radio equipment type DJ-VX46 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://www.alinco.com/Ce/>

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PMR446 FM TRANSCEIVER **DJ-VX46**

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.

Introduction

Please read this manual completely from the first page to the last, to learn all the functions the product offers. 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 may risk not understanding the complete explanation of the function.

■ Lightning

Any person is not safe outdoor during thunderstorm and lightning. This condition is getting worse if somebody keeps a handheld radio; chances of being hit by lightning are doubled since lightning may hit a radio antenna as well. At this time, there is no handheld 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 handheld radios outdoor or inside the car during lightning.

■ IP67 Dust and waterproof

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 water proofing of the radio. This compatibility is factory guaranteed for a period of one year provided all the jack covers are securely in place, any accessories connected must be specified genuine Alinco products and the radio has not been disassembled by the user. However, please understand that this is designed to remain operational when used in hard conditions and is in no way stating that you should attempt to wash the radio for cleaning. Warranty will not cover radios that are water/dust damage due to negligence or misuse of the product. Never remove or cover a small label located on the rear chassis, as this is essential to adjust air pressure inside to secure waterproofing. A periodical professional maintenance is recommended if the ingress protection is important to you.

■ Covering ranges

You may expect a range of approx. 1.5km(1 mile) or more at high-power when located on a flat, noise-free place. However, it may vary depending on how to carry the radios, surrounding locations/conditions and static noise levels, etc. In urban areas with many buildings or inside a building, such covering range will become drastically short.

IMPORTANT NOTICE

■ Software programming (Available in WINDOWS OS only)

An utility software may be available from distributors/dealers. An optional programming cable is required for programming. Please ask for details to your dealer at the moment of purchase. In addition, a dealer programming software is made available to professional radio dealers. The manufacturer will not release such software to unauthorized party so please contact your dealer for details. This product is delivered to consumers after being programmed with the operating parameters, then certain operation may be disabled for user-accesses. For this reason some features mentioned in this booklet may not be available, or features NOT mentioned in this manual may be available to your radio. The manufacturer and distributors are not aware of details of such dealer-programming. Therefore, please contact to your dealer in case any technical assistance may be necessary.

■ RADIO FREQUENCY ENERGY SAFETY INFORMATION

This transceiver generates RF EME while transmitting. RF EMERF energy exposure is determined primarily by the distance to and the power of the transmitting device. In general, RF exposure is minimized when the lowest possible power is used or transmission time is kept to the minimum required for consistent communications, and the greatest distance possible from the antenna to the body is maintained.

Never use this product in areas the use of transceiver is prohibited such as aboard aircraft and inside medical facilities. This product is not intrinsic safe.







This product is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet. address: <http://www.alinco.com/Ce/>

Features

- **128 PC-programmable channels (16ch x 8 groups)**
- **Li-Ion battery pack and stand-charger as standard accessories**
- **Voice Comander (Reduce Noise & enhance audio clarity)**
- **Inversion Scramble(Analog encryption)**
- **Sub-tone (CTCSS/DCS) Encode/Decode and DTMF**
- **VOX built-in**
- **Ingress protection IP67**

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. Importing and using transceivers are severely controlled in some countries even if it's a license-free radio in your country, and illegal operations may be subject to serious penalty and/or fine.
-  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, IP67 doesn't mean submersible.


 Do not place the product in a container carrying conductive materials, such as 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.

 Never pull the AC cord alone when you unplug the AC adapter from the wall outlet. It may cause damage to the adapter and risks 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 audio/video/computing devices. 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.

■ 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.

-  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.

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STANDARD ACCESSORIES

Standard Accessories

EBP-101 Li-ion battery pack (7.4V,1800mAh)
EDC-219 Rapid charger stand
EDC-221 AC Adapter
EBC-51 Belt Clip
Instruction Manual
Hand Strap

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

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Charging Operation

The battery is not charged at the factory, so 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, 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 pack, if the radio sounds "Low Voltage" prompt, please charge the battery.

Notice for Charging Battery

- ▼ Do not shortcircuit 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 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 when wet. Dry it before charging to avoid danger.

BATTERY INFORMATION

Caution:

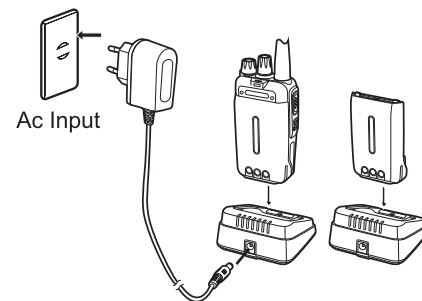
- ▼ Risk of explosion, generation of heat or leak of chemicals inside if the battery is replaced by an incorrect type or reverse polarity. Use always the recommended types of batteries in this manual only.
- ▼ The battery pack isn't fully charged when shipped. It must be charged before use.
- ▼ Charging 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

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How to Charge

1. Plug the AC adaptor into the AC outlet, then plug the cable of AC adaptor into the DC jack, LED has no indicator (waits to charge).
2. Slide the battery or transceiver with battery into the charger, make sure the battery terminals properly contact with charging terminals. LED indicator lights RED on (charging).
3. It takes about 4 hours to fully charge the battery, and LED indicator lights RED off when the charge is complete. Remove the battery or the transceiver equipped with battery from the stand charger.



NOTE: Please always turn off the unit while charging. When the unit is turned on, the charge can't be performed correctly.

• BATTERY INFORMATION

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

• BATTERY INFORMATION

ALINCO

🔊 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.

PREPARATION

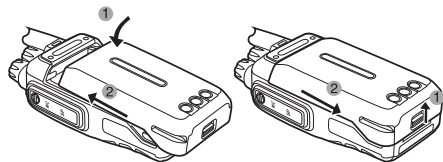
Installing / Removing the Battery

■ 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.



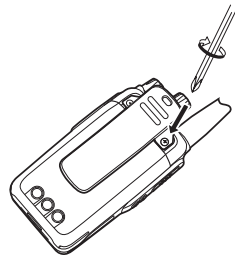
Installing / Removing the Belt Clip

■ Installing the Belt Clip:

1. Put the belt clip on the back of the unit, and the screw clockwise until it stops.
2. Confirm that the belt clip is securely attached.
* Tighten up the screw occasionally.

■ Removing the Belt Clip:

Turn the screw counter-clockwise to remove the belt clip.
Caution: Use the screws of specified size only. Others may cause damage to the product.
(screws size 2.5mm × 6.5mm)



PREPARATION

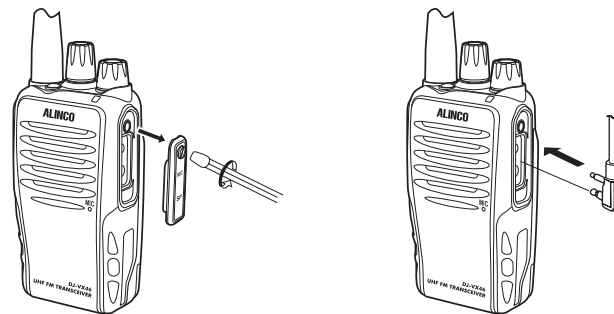
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Accessories

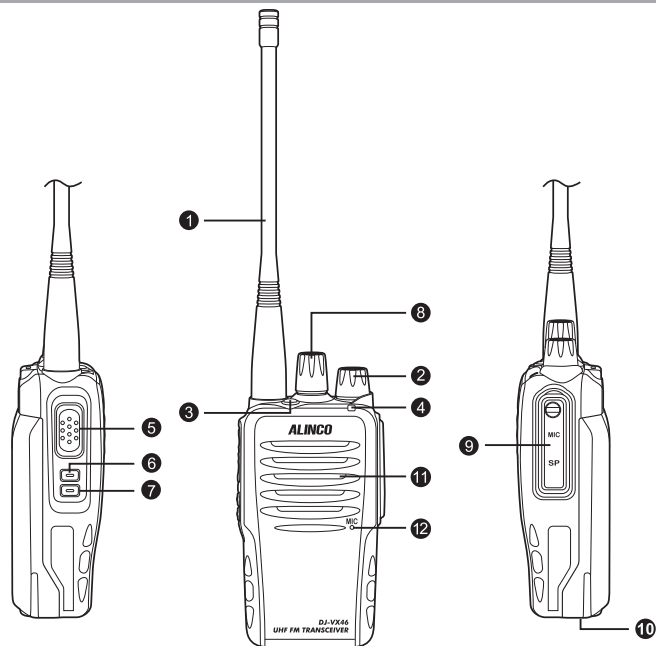
Remove the cover and insert the plug as shown.
Keep the cover for future use.

Warning:

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



• GETTING ACQUAINTED



• GETTING ACQUAINTED

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- 1 **Antenna:** Not removable. Never attempt to unscrew.
- 2 **POWER I VOLUME Knob:** To turn on/off the power and adjust the audio level. (Marked VOL)
- 3 **Top key**
- 4 **LED indicator:** Turns green while receiving, red while transmitting.
- 5 **PTT Key:** Press and hold this key to transmit. Release the key to receive.
- 6 **PF1 Key:** Programmable Function key 1
- 7 **PF2 Key:** Programmable Function key 2
- 8 **Channel Selector Knob:** Turn the selector knob to select a desired channel. (Marked with Ch numbers)
- 9 **Optional accessory port**
- 10 **Battery Lock**
- 11 **Speaker**
- 12 **Microphone (MIC)**

Note: Do not cover the microphone hole by labels or a finger while speaking, Always keep the mic hole clean. Closed mic hole will cause poor modulation sound.

• GETTING ACQUAINTED

🔊 LED Indication

LED State	Operation
Red	Transmitting
Green	Receiving
Flashing Red	Writing data into radio. Receiving data in cloning process
Flashing Green	Reading data from radio. Transmitting data in cloning process

🔊 Beep Sound

Beep Sound State	Operation
Key Operation	A single beep sounds when activating a function. Beeps twice when exiting from a function.
Low battery voltage warning announcement.	Radio sounds "Low Voltage" announcement. When battery is low.

Note: Voice guidance and Beep sounds

When the Voice Guidance is turned off and BEEP is on, both key operation and error beeps sound.

When both V.G and BEEP are turned off, the radio remains silent.

• PROGRAMMABLE KEYS

ALINCO

🔊 Programmable keys default setting

1	Press TOP Key	Alarm
2	Press PF1 Key	Monitor
3	Press PF2 Key	Scan
4	Press and hold PF1 Key	Adjust Squelch Level
5	Press and hold PF2 Key	Scramble

These keys are programmable and can be assigned to any features as a shortcut. Manual programming is not supported so consumer or dealer utility software is necessary to customize features. Available features are as below.

Available features for PF1 and PF2 key.

No	Programmable Feature	Application
1	None	No feature.
2	Call Request	Press assigned key to send a call request to others.
3	Monitor	Temporarily disable CTCSS signaling (Tone squelch) to monitor the channel. This feature is effective to CTCSS channels only.

◦ PROGRAMMABLE KEYS

No	Programmable Feature	Application
4	Scan Skip	Enable/Disable scan skip feature. (Skipping selected channels during the scanning.)
5	Check Squelch Level	Checks analogue squelch level.
6	Adjust Squelch Level	Adjusts analogue squelch level.
7	Scan	Starts/stops scanning. See next page for available scan mode.
8	Scramble	Activate/deactivate analog voice encryption. The security is low and could be heard by third parties.
9	Squelch Off	Turn off the Squelch.
10	Squelch Off Momentary	Momentary turn off Squelch.
11	Talk Around	Enable the user to talk to other users without using the repeater.
12	Revert Frequency	Reverse RX and TX frequency for repeater-access monitoring.
13	Check Power Level	Checks the TX power level.
14	Compander	Reduces the back-ground noise and enhances audio clarity.
15	Battery Power Indicate	Indicates the battery voltage level. Has 5 levels of voltage. "Voltage 5" is full battery and "Voltage 1" is lowest.
16	Channel beep sound	When changing channel radio sounds beep without voice guidance.

◦ PROGRAMMABLE KEYS

ALINCO

No	Programmable Feature	Application
17	Channel Lock	Locks current receiving channel.
18	Vox	Voice operation; Speak to transmit, stop speaking to receive. Restriction applies such as surrounding noise level for proper use.

Note: Available scan modes / Programmable by utility software

TO: Time scan. Resumes scanning after 5 seconds of monitoring.

CO: Carrier (BUSY)scan. Resumes scanning after the carrier is gone from the monitoring channel.

SE: Search scan. When a signal is received, exits from scan mode and monitors the channel.

Available features for Top key.

No	Programmable Feature	Application
1	None	None
2	Local Alarm	The radio sounds alarm without transmitting alert signal.
3	Remote Alarm	Only receiver radios sound alarm.
4	Local + Remote Alarm	Both transmitting and receiving radios sound alarm.
5	Special Alarm	Radio transmits a signal in 1 minute period. In first 30 seconds both transmitting radio and receiving radio sound alarm, in last 30 seconds transmitting radio sends voice signal.

• BASIC OPERATIONS

🔊 Switch on / off Transceiver

Turn **【POWER】** / **【VOLUME】** knob clockwise to power on.
Turn it counterclockwise to power off.

🔊 Adjusting Audio output level

Turn **【POWER】** / **【VOLUME】** knob clockwise to increase the audio level, counterclockwise to decrease.
The voice guidance or a channel beep can be used as sound level reference.

CAUTION:

Never use earphone while adjusting audio level. The max audio output is 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 static shock you feel typically when opening a door of a car in certain conditions.

🔊 Channels Selection

In stand-by state, turn the channel selector knob to select a desired channel.
In case the voice guidance is activated, it announces the channel number in voice.
If guidance is not in use, see a white line on the knob to identify the current channel.
When an empty channel is selected, a beep sounds until a programmed channel is selected.

• BASIC OPERATIONS

ALINCO

🔊 Receiving

When you receive a signal, the LED indicator turns to green, and receiving voice is heard if signaling setting matches. In case the voice is not heard, use monitor function (if programmed) to temporary release signaling setting and squelch.

🔊 Transmitting

Use monitor function if available or see the LED indicator is not lit green to make sure the channel is clear. Press and hold [PTT] key then speak into microphone (MIC). Keep the distance of about 5cm between your lips and MIC, and speak at normal voice level. Release [PTT] key to receive.
While transmitting the LED indicator turns red. Adjust the distance or voice level for the best transmitting audio. It takes a fraction of second until it actually sends out the voice signal so it is a good practice that you take a short moment before start speaking.

🔊 Group Selection

128 available channels can be divided up to 8 groups, 16 channels each. To select an operating group, turn off then turn on with [PF2] key pressed. Turn the channel selector knob and select a preprogrammed desired group number. When voice guidance is ON, it tells you like "mode 1 channel 1". In this case "mode" number refers to the group number.

◦ FEATURES AND OPERATIONS

Manual setting is not supported so please use an utility software or contact your dealer if re-programming may be necessary.

No	Programmable Feature	Application
1	Decode/ Encode	CTCSS, DCS for TX and RX
2	BCL(Busy Channel Lockout)	Carrier signal lockout. transmitting is prohibited when radio receives any carrier.
3	BTL(Busy Tone Lockout)	Transmitting is prohibited when current channel is receiving a carrier signal that CTCSS/DCS tones are different from your group.
4	Voice Guidance	Turn On/Off Voice guidance.
5	DTMF	Dual tone multi frequency signaling
6	PTT ID[BOT, EOT, BOTH]	If current channel is edited with PTT ID, the transceiver will send a transmitting ID when pressing PTT key.
7	Call Group	The caller can call only in groups by sending group call codes.
8	Vox Function	Turns on/off the VOX.
9	TOT	Time out timer.
10	BEEP [ON/OFF]	Radio sounds beep when pressing none assigned side keys.
11	Scan Mode[To/Se/Co]	Scan Modes.
12	Battery Save	Turns on/off the battery save function
13	TBST Frequency	Tone burst tone setting.
14	Reset Prohibition	Prohibit resetting to protect dealer-programming settings.

◦ AUXILIARY FUNCTIONS

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(((Cable Cloning

With this function, you can clone the master data to multiple radios. A commercially available stereo audio cable is required. The cable can be made using 2 stereo plugs and a 2-core wire as shown in the next page.

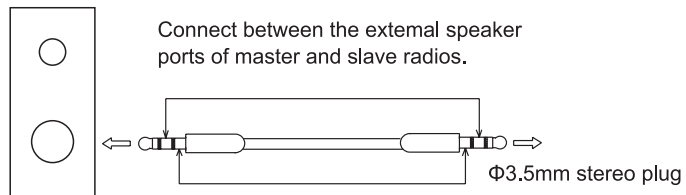
1. Program the data in master radio. Connect master and slave radios with the cable. Turn on the slave radio.
2. Press and hold master radio's [PF1] while turning on enter "CLONE" mode. The LED flashes RED twice.
Press PTT to transfer the data to Slave radio. Master radios' LED flashes green while slave radio flashes red.
3. When successfully cloned, Master radio remains in the clone mode.
4. Remove the cable from the slave radio, connect to another radio and press PTT. of master radio. Repeat the same operation to clone multiple radios.

Note: If data can not transfer successfully, power off Mater and Slave radio, check the cable connection and repeat the process.

• AUXILIARY FUNCTIONS

🔊 Cable cloning instruction

Connect the cable to SP jack



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

• PRESET OPERATIONS

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🔊 Resume Factory Default (RESET)

In most cases user-access to reset operation is prohibited by the dealer programming to avoid operation failure. 2 different reset modes are available to resume the factory default settings.

1. Normal reset

Programmable keys and function settings resume default values and can't be resumed manually.

Press and hold Top key and PTT key together while turning on the power. Programmed channel data remains intact.

2. Total reset

All settings resume default values, channel data is erased and can't be resumed manually.

Press and hold PF1 key, Top key and PTT key together while turning on.

Note: After pressing combination keys to reset, it takes a while to restart the radio, for correct resetting operation don't turn off radio until the restart process completes.

OPTIONAL ACCESSORIES

EBP-101 Li-ion battery pack (7.4V,1800mAh)

EDC-219 Rapid charger stand

EDC-221 AC Adapter (AC220V)

EBC-51 Belt Clip

EME-56A Earphone Microphone

EMS-76 Speaker Microphone

ERW-7 PC Programming Cable

SPECIFICATIONS

ALINCO

General	
Frequency Range	446.00625-446.19375MHz
Channel Capacity	128 channels (16ch x 8groups)
Operating Voltage	7.4V DC \pm 20%
Battery Life	14 Hours(1800mAh), by TX 5(Sec)-RX 5(Sec)-Standby 90(Sec) working cycle
Frequency Stability	\pm 2.5ppm
Operating Temperature	-20°C ~ +60°C
Size (Approx)	243×59×38mm (with battery pack and antenna)
Weight (Approx)	238g (with battery pack and antenna)

Receiving	
Sensitivity(12dB SINAD)	-12dBu
Adjacent Channel Selectivity	\geq 60dB
Intermodulation	\geq 55dB
Spurious Rejection	\geq 70dB
Audio Power Output	1000mW/10%

Transmitting	
Power Output	0.5W
Modulation	8K50F3E(FM)
Adjacent Channel Power	\geq 60dB
Audio Distortion	\leq 3%

• 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. C.The power switch is broken; send it to local dealers to repair. D.Battery life is end; contact to local dealers to replace.
Battery power drops shortly after charging.	The battery is exhausted. Replace the battery pack with a new one.
Transceiver cannot scan	Squelch is open. Adjust the level.
All channels are noisy	Adjust squelch level.
No sound when using earphone.	Earphone or the jack is broken. Please contact with local dealers for inspection.
Communication distance becomes short, and Low sensitivity	A.Check whether the antenna is in good conduction and the antenna base is securely fixed. B.Antenna may be broken. Consult your local dealer for services.
Cannot talk or hear other members in your group	A.Different frequency or channel, signaling. B.Different CTCSS / DCS / DTMF, signaling. C.Out of communication range.

• TROUBLESHOOTING

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Can not power on or frequent power off	Check if the battery pack is securely attached.
The receiving sound level is low or intermittent	Consult with local dealers for inspection.
Receiving signal is intermittent.	A.Out of communication range or obstruct by walls, buildings etc. Change position to transmit. B.Internal components may be in trouble, please contact with local dealers to repair.
Loudspeaker sounds lower or with dry noise after certain time of usage.(Speaker magnet attracts iron powders)	Check whether the loudspeaker is broken, Iron powder or dusts is in the loudspeaker. Consult your dealer for assistance.
Receive voice from the other parties and can not transmit	Interference is being received. BCLO activated.
Receiving indicator with green light but no sound	A.Low volume, increase the audio level. B.Volume switch or loudspeaker is broken, Consult your dealer for assistance. C.Earphone jack is broken, Consult your dealer for assistance.

ATTACHED CHART

(((Preset Channel Frequency Chart (Reset won't delete these channels)))

Group channel 1

Channel Number	Frequency	CTCSS / DCS Tone
1	446.00625	94.8
2	446.09375	88.5
3	446.03125	103.5
4	446.06875	79.7
5	446.04375	118.8
6	446.01875	123.0
7	446.08125	127.3
8	446.05625	85.4
9	446.00625	107.2
10	446.09375	110.9
11	446.03125	114.8
12	446.06875	82.5
13	446.04375	D132N
14	446.01875	D155N
15	446.05625	D134N
16	446.08125	D243N

Group channel 2

Channel Number	Frequency	CTCSS / DCS Tone
1	446.10625	None
2	446.11875	None
3	446.13125	None
4	446.14375	None
5	446.15625	None
6	446.16875	None
7	446.18125	None
8	446.19375	None

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[MEMO]