

ALINCO, INC.

Yodoyabashi Dai-bldg 13F

4-4-9 Koraihashi, Chuo-ku, Osaka 541-0043 Japan

Phone: +81-6-7636-2362 Fax: +81-6-6208-3802

<http://www.alinco.com>

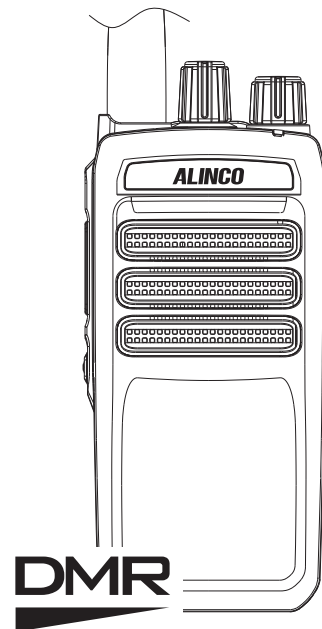
E-mail: export@alinco.co.jp



Copyright Alinco, Inc. PS0920 / FNEK-EN
Printed in China

A1.171024

ALINCO



VHF DIGITAL TRANSCEIVER

DJ-D15

UHF DIGITAL TRANSCEIVER

DJ-D45

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

The product is delivered to consumers after being programmed by dealers. The product is blocked and not functional in ex-factory state due to regulations.

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 other chapters. By reading just one part of the manual, you may risk not understanding the complete explanation of the function.

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.

■About IP54 rating / Dust and splash resistant

About IP54 rating

- 5: Dust protected /Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact.
- 4: Splashing water / Water splashing against the enclosure from any direction shall have no harmful effect. Test duration: 5 minutes / Water volume: 10 liters per minute /Pressure: 80~100 kN/m²

The IP54 designation provides for limited dust and splash proofing of the radio per specified above. 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 accessories and the radio has not been disassembled by the customer. The factory has tested and made the equipment compatible to IP54 certification during engineering. However, please understand that this equipment is NOT certified IP54 compliant but 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.

■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.

IMPORTANT NOTICE / DEALER PROGRAMMING

The utility software may be available to distributors/dealers only. USB programming cable is required. The manufacturer will not release the software to unauthorized party so please contact your dealer for details.




This product may be delivered to the consumer after being preprogrammed with the operating parameters, then certain operation may be disabled for user-accesses. This is the Commercial radio mode, and it may not work as described in this booklet. 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.




Features

- Output power selectable 5W/1W(VHF) or 4W/1W(UHF).
- DMR Tier I and Tier II.
- Programmable up to 256CH in 16CH/zone.
- Voice guidances in English.
- Improved call capacity with DMO 2-slots in Direct Mode.
- Up to 16 hours of operation time with 2000mAh battery pack.
- ARC 40-bit Encryption supported.
- Variety of security features including Radio check, Call alert, Stun/Revive/Kill & Remote monitor.

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 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

-  A license may be required to operate this device. Please consult with your dealer about radio laws and regulations before purchase.
-  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 coldwater 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, This product is splash-proof but not a complete water-proof.
- ⚡ 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.

■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, 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 from 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.

RoHS

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 the irrelative 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

STANDARD ACCESSORIES	1
BATTERY INFORMATION	2
PREPARATION	6
Attaching the Accessories	6
Attaching/Detaching the Antenna	6
Attaching/Detaching the Belt Clip	6
Attaching/Detaching the Battery	7
Attaching the Microphone (Optional)	8
GETTING ACQUAINTED	9
LED Indication	12
PROGRAMMABLE KEYS	13
BASIC OPERATION	15
Power on/off the Radio	15
Selecting the Channel	15
Adjusting the Volume	15

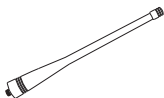
◦ TABLE OF CONTENTS

ALINCO

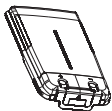
Receiving	15
Transmitting	16
FEATURES AND OPERATIONS	17
TOT (time-out-timer)	17
Channel Scan	17
Priority Scan	18
STUN and REVIVE	18
KILL	18
Emergency	19
Enabling Color Code on Digital Mode	20
OPTIONAL ACCESSORIES	21
TROUBLE SHOOTING	22
SPECIFICATIONS	23

◦ STANDARD ACCESSORIES

《Standard Accessories



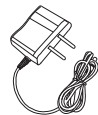
Antenna
EA-255(VHF) or
EA-266(UHF)



Li-ion Battery
EBP-102
7.4V 2000mA



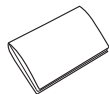
Battery Charger
EDC-290



AC Adaptor
EDC-291



Belt Clip
EBC-52



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

ALINCO

《Charging Operation

The battery pack is not fully charged before delivery. Please read this chapter very carefully to understand about the battery pack and its charging instructions. Misuse may result in damaging you, and your property.

《Important Notice

- 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 fully charge the battery.
- 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 when wet. Dry it with a clean cloth before charging to avoid short-circuiting.

◦ 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.
- 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.
- 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.

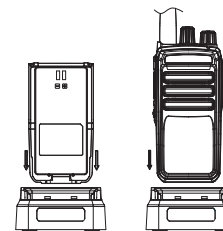
◦ BATTERY INFORMATION

ALINCO

⚡ How to Charge

Charging should be conducted in a temperature range of 5°C to +40°C (+41°F to +104°F).

1. Connect the AC adapter to the DC input jack on the back of the charger.
2. Connect the AC adapter to an wall outlet. The indicator turns to green.
3. Be sure to turn off the unit and insert the unit to the charger as shown. The indicator turns to red. You may charge the battery pack alone as shown also.
4. When charging is completed, the indicator turns to green. It takes up to 6 hours to fully charge the battery. You may leave the unit for additional 1-2 hours on the charger to obtain the best charging performance.



Note:

- Use a clean, dry cloth to wipe off dirt and condensation from the surface of the battery pack occasionally. Even invisible dirt and grease on contact terminals cause malfunction of charging.
- Use specified genuine chargers only to charge battery packs. Use of other chargers may cause damage to products, you and your property.
- 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. 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

(((How to Store the Battery

- The best condition to store the battery pack is about 50% charged. Exhausted or fully charged state may cause faster deterioration.
- It should be kept in dry environment and the temperature should be in -10 to +35°C range. Keep away from source of heat and direct sunlight.
- Be always sure to remove the battery pack from the radio when not in use. The over-discharge may cause faster deterioration.

◦ PREPARATION

ALINCO

Attaching the Accessories

(((Attaching/Detaching the Antenna

Attaching the Antenna:

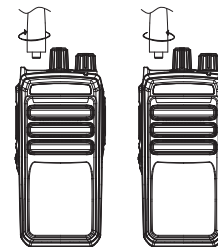
Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

Detaching the Antenna:

Turn the antenna anticlockwise till the antenna separates the connector of the transceiver to remove it.

NOTE:

Do not use third-party antenna as it may radiate more RF that exceeds SAR limit guidances.



(((Attaching/Detaching the Belt Clip

Attaching the Belt Clip:

Place the belt clip to the grooves on the back of the transceiver, and then fix it by provided screws. (screws size 2.5mmx6.5mm)

Detaching the Belt Clip:

When detaching, loosen the two screws on the belt clip and remove the belt clip. Never use screws of incorrect size.

M2.5*6.5 screw to
fasten the belt clip



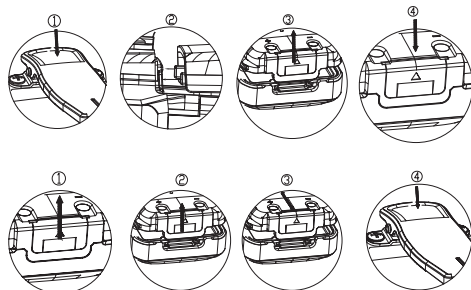
◦ PREPARATION

⦿ Attaching/Detaching the Battery

Be always sure that the radio is turned off before charging.

◆ Attaching the Battery

- (1) Slightly press the top of the belt clip as shown in ①.
- (2) Align the catches on the unit with the grooves on the battery pack, slide the pack forward as shown in ② and ③.
- (3) Lift up the latch as shown in ④ while pushing down the battery. Release the latch when it's placed in a right position.



◆ Detaching the battery

- (1) Press the clip as explained above while pushing up the latch as shown in ①.
- (2) The pack removes, so slide it off of the body as shown in ②.
- (3) Slide to take out the battery along the direction as shown in ③. If there is belt clip, slightly press the belt clip top as shown in ④ to take out the battery.

◦ PREPARATION

ALINCO

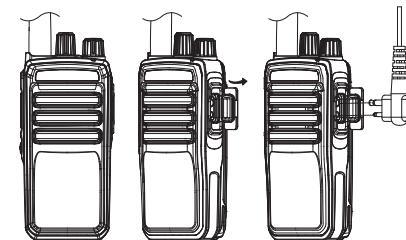
⦿ Attaching the Microphone (Optional)

Open the earphone cover plate on the right and connect the accessory to the port.

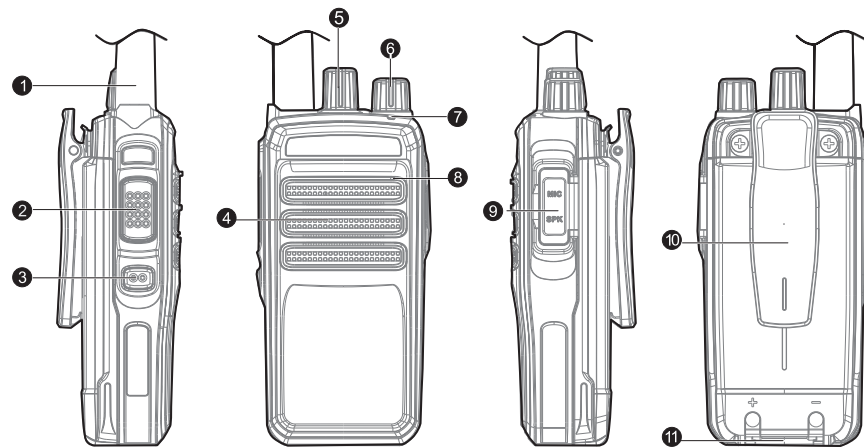
NOTE:

To keep the radio dust and water resistant, the cover must be closed properly with the original supplied cover.

Even a smallest particle like a dust around the cover could cause water-leak into the radio. Be very cautious when closing the cover.



◦ GETTING ACQUAINTED



NOTE: Please do not cover the microphone hole with labels, dirt, finger etc.

◦ GETTING ACQUAINTED

ALINCO

No.	Part Name
1	Antenna
2	PTT key Press to transmit, release to receive.
3	Side key (programmable key) This key can be set with different features by dealer. Please refer to "Programmable Keys" for further details
4	Speaker
5	Channel Knob Rotate the knob to select channel 1-16.
6	Power/Volume Knob Turn clockwise to power on, counter-clockwise to power off. After turning on, rotate clockwise to raise the audio level.
7	LED Indicator See the next page for details.

◦ GETTING ACQUAINTED

No.	Part Name
8	Microphone
9	External port Open the cover plate and connect the external speaker and microphone
10	Belt Clip
11	Battery Latch

◦ GETTING ACQUAINTED

ALINCO

(((LED Indication

State	Operation
Red	Transmitting
Green	Receiving
Flashes red	Low battery
Flashes green	Channels are being scanned
Flashes orange	Digital call hang time and it will exit when the hang time is up
Orange	Blank channel which is not available. Switch to other channel to exit.
Flashes red quickly	The programming software is reading the parameters available for configuration
Flashes green quickly	The programming software is writing the parameters which is available for configuration into the radio.

◦ PROGRAMMABLE KEYS

(((Side Key (Programmable Key)

The default setting is the Monitor function to temporary squelch off.

This key is dealer-programmable and can be assigned to other features as a shortcut. Available features are as below.

No.	Programmable Feature	Application
1	None	No feature
2	High/Low Power	Switch to high and low power
3	Monitor	Temporarily disabled CTCSS signaling (Tone squelch) to monitor the channel. This feature is effective to CTCSS channels only.
4	Emergency	Starts the emergency feature. Used for seeking help in emergency.
5	Emergency Exit	Exits the emergency state.

◦ PROGRAMMABLE KEYS

ALINCO

6	Squelch on/off	Enable/disable squelch and eventual CTCSS operations temporary to monitor weaker signals.
7	Squelch Level	Adjusts analogue squelch level.
8	Scan	Enable/Disable scan feature.
9	Alert Tone on/off	Enable/disable all the alert tones.
10	Zone Selection	Press this key to switch among different zones. The zones are programmable only by using dealer software.
11	Repeater/Talk around	Enable/disable Repeater feature.
12	Nuisance Delete (Scan skip)	Enables scan-skip to avoid scanning unwanted channels.

◦ BASIC OPERATION

In this manual the phrase "Press ** key" means to press it firmly and quickly release the finger. Keep pressing the key may start different features.

Power on/off the Radio

Turn Power / Volume dial clockwise to power on.
Turn it counter-clockwise to power off.

Selecting the Channel

When the radio is on, rotate the channel knob to select channels.

Adjusting the Volume

When the radio is on, rotate the power/volume knob clockwise to increase the audio level and counter-clockwise to decrease.
Never use earphone while adjusting audio level for your safety.

Receiving

When a signal is received on the channel that you selected, the received signal can be heard. The indicator turns green and turns off when the signal is gone. Unmatched analog-signaling

◦ BASIC OPERATION

ALINCO

and digital selective calling such as private/group/all signals can't be heard.

Transmitting

Press the PTT key. The red indicator turns on while transmitting.
While holding down the PTT key, speak into the mic at normal voice from the distance of 5cm (2 inches).

Release the PTT key to receive.

To reply in digital mode, press PTT within the talk around group call hang time set by dealer. Sets the duration during which a radio will talk back to a received call or continue a transmitted Talk around Group Call using the previously received or previously transmitted digital group ID. After expiration of the Talk around Group Call hang timer, the radio will transmit using the TX Contact Name (digital group).

To reply in analog mode, press PTT and speak.

NOTE:

- Speaking too loud, too close or too far from the radio may distort the audio.
- Do not close the microphone hole on the front panel with your finger. Be cautious specially when wearing gloves.

◦ FEATURES AND OPERATIONS

(((TOT (time-out-timer)

The TOT prohibits users from transmitting after a certain period of time has elapsed. The radio automatically returns to receive. and an alarm sounds. Press PTT key once to stop alarm.

The PTT becomes active again when the Time-out penalty time is elapsed. TOT penalty time is preprogrammed by dealer. The warning beep is also available if programmed by dealer, to indicate the timeout in advance to avoid TOT penalty.

(((Channel Scan

This feature is made available by dealer's presetting and programming only.

Use this function to automatically search for signals. Press Scan shortcut key preset by dealer to start scanning the channels in accordance with the preprogrammed scan list. Only when a signal is received and matches the signaling setting, the audio will be heard. When the signal is gone, the scan resumes automatically. Press PTT to transmit on preprogrammed channel. Press the Scan key again to stop scanning. This scanning is carrier-controlled so noise squelch should be properly adjusted. Exit from the monitor function before start scanning.

◦ FEATURES AND OPERATIONS

ALINCO

(((Priority Scan

This feature is made available by dealer's presetting and programming only.

When a priority channel is set in the scan list, it monitors the priority channel in every intervals during the scan. Suppose the scan list contains 4 channels with ch.2 as priority, it scans 1ch>2ch>3ch>2ch>4ch>2ch>1ch in cycle. Other scanning features are the same as Channel scan.

(((STUN and REVIVE

Use this feature for your communication security purposes. By activating this function, in case the radio is lost or stolen, send the Radio disable signal to stun the lost unit. In Stun state, it doesn't transmit and receive but receives only the REVIVE (Radio enable) signal to return to work again, or use dealer programming software to revive.

(((KILL

This feature is available in digital mode only. By activating this function, in case the radio is lost or stolen, send the Radio kill signal to stop working the lost unit. In KILL state, it doesn't transmit and receive. The only way to revive is to reprogram it by dealer software.

◦ FEATURES AND OPERATIONS

(((Emergency

In state of emergency, press the Emergency shortcut key to send emergency alarm.

Emergency alarm consists of two parts: alarm type and alarm mode. Alarm mode is used to specify the contents sent to other members in emergency. You can ask your dealer to set these parameters based on your requirements.

For exiting emergency, press again the Emergency shortcut key.

◆ Alarm Mode

Emergency Alarm means a data signal to trigger the alarm sent from other radios.

Emergency Call means a special call mode that has higher priority to normal calls for faster communications.

- Emergency Alarm: enable to send alarm and exit alarm state automatically afterwards.
- Emergency Alarm + Emergency Call: after the radio sends emergency alarm, press PTT to send emergency call.
- Emergency Alarm + Auto Background Tone: after the radio sends emergency alarm, it will automatically transmit an emergency call by your voice control without pressing PTT key.

◆ Alarm Type

- None: no alarm feature (default).
- Siren Only: after the radio enters the alarm state, the alarm sounds from the speaker but won't

◦ FEATURES AND OPERATIONS

ALINCO

transmit any alarming signals.

- Conventional: In the alarm state, LED turns on, alarm sounds and receives signals.
- Secret: In the alarm state, the LED remains turned off, no alarm sounds and does not receive signals.
 - Secret with voice: In the alarm state, the LED remains turned off, no alarm sounds but receives signals.

(((Enabling Color Code on Digital Mode

Color codes are assigned as channel attributes on the radios, allowing a single radio to communicate with multiple sites each having a uniquely defined color code.

Only when both the color code and ID matches, the speaker can be turned on to receive.

Range: 0~15 (16 groups of color codes)

◦ OPTIONAL ACCESSORIES

EBP-102: Battery (Li-ion 7.4V 2000mAh)

EDC-290: Charger

EDC-291: AC Adapter (220V)

EA-255: Whip ANT (VHF)

EA-256: Whip ANT (UHF)

ERW-17: PC Cable

EBC-52: Belt Clip

◦ TROUBLESHOOTING

ALINCO

No.	Problem	Cause and Solution
1	Failed to power on	A. The battery is used up –charge the battery or change to a new battery. B. Possible hardware faulty. Contact your dealer.
2	Voice is low	A. Speak closer to the microphone or speak loud. B. wrong volume setting – turn the volume knob clockwise to increase the audio level.
3	Failed to transmit or receive	A: Not pressing the PTT key firmly enough. B: Check the Channel, group and signaling settings. C: Out of communication range.

○ SPECIFICATIONS

General	
Frequency Range (TX/RX)	DJ-D15 : 136-174MHz DJ-D45 : 400-470MHz
Number of Channels	256ch
Zone capacity	16
Channel Spacing	Digital : 12.5kHz Analog : 12.5/25kHz
Operating Voltage	7.5V DC $\pm 20\%$
Operating Temperature Range	-30°C to +60°C
Frequency Stability	$\pm 1.5\text{ppm}$
Antenna Impedance	50Ω
Dimensions (W x H x D Approx.) with battery pack / without antenna	54.0 x 116.0 x 31.0mm
Weight (Approx.) with battery pack & antenna	275g
*Projections are not included in the declared dimension values.	

○ SPECIFICATIONS

ALINCO

Transmitting Part	
RF Power Output	5W / 1W (DJ-D15) , 4W/1W (DJ-D45)
Current Drain (MAX)	<1.8A
Spurious Emission	More than 1GHz : -30dBm Less than 1GHz : -36dBm
FM Hum & Noise (Analog)	25kHz : 45dB 12.5kHz : 40dB
Modulation	16K0F3E / 11K0F3E / 7K60FXD / 7K60FXE
Vocoder	AMBE+2™

◦ SPECIFICATIONS

Receiving Part	
Sensitivity (Analog/12dB SINAD)	0.25μV
Sensitivity (Digital/BER	0.25μV (5%)
Intermodulation	-65dB
Spurious Response	70dB
Audio Distortion	Less than 3% typical
Audio Output	1000mW /16Ω
Current Drain (MAX)	<0.5A

[MEMO]