

Rhein Tech Laboratories, Inc.
360 Herndon Parkway
Suite 1400
Herndon, VA 20170
<http://www.rheintech.com>

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Model: DJ-G29T
Standards: FCC 15.121
& IC RSS-215
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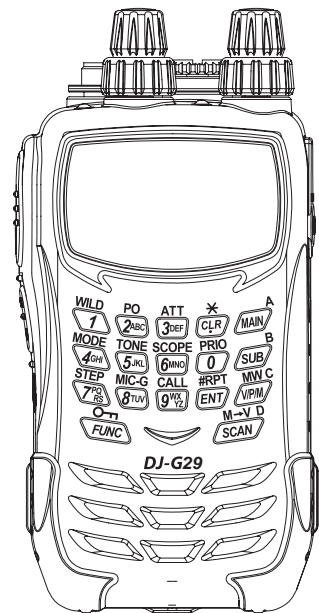
Appendix L: Manual

Please see the following pages.

222/902MHz DUAL BAND FM TRANSCEIVER

DJ-G29T

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.

NOTICE / Compliance Information Statement

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 instruction manual, 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 transceiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



Information in this document is subject to change without notice or obligation. All brand names and trademarks are the property of their respective owners. Alinco cannot be liable for pictorial or typographical inaccuracies. Some parts, options and/or accessories are unavailable in certain areas. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

222/902MHz FM amateur radio handheld transceiver DJ-G29T

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.

Manufacturer:

ALINCO, Inc. Electronics Division
Yodoyabashi Dai Bldg 13F, 4-4-9, Koraihashi, Chuo-ku, Osaka 541-0043 JAPAN



Check with your local waste officials for details on recycling or proper disposal in your area.

RoHS

An operator's license is required for this device.

For Customers in Canada :

MODEL : 3070C-DJG29T

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Accessories List

The following accessories are supplied with the DJ-G29T. Please confirm that nothing is missing before using the product.

- DJ-G29T Transceiver
- Flexible Whip Antenna EA-203
- Li-ion Battery Pack EBP-73
- Drop-in charger EDC-173
- AC Adapter for Charging EDC-170
- Belt Clip EBC-23
- Hand Strap
- Instruction Manual (this booklet)

Standard accessory may vary depending on the model you have purchased. Contact your local dealer for information on specifications of standard accessories and warranty details.

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1.Warning

1-1 Warning











To ensure safe operation of Alinco's products, please read the “Warning” section before using this product. To ensure safe operation and prevent any danger to life and/or property, you may find the symbols shown below in this manual. Please read and understand the meaning of these symbols before using this product.

Symbols	Explanation
 Danger	This symbol is intended to alert the user to an immediate danger that may cause loss of life and/or 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/or property if the user disregards the warning.
 Caution	This symbol is intended to alert the user to a possible hazard that may cause injury or the loss of property if the warning is disregarded.







Symbol	Explanation
	The \triangle symbols contain information on what the user should be aware of in terms of dangers, alerts and cautions.
	The \circ symbol informs the user of prohibited acts. Specific information of what is prohibited is drawn inside or near the symbol.
	The \bullet symbol contains information on what the user is instructed to do. Specific information on the instruction is inside the symbol (in this case the symbol instructs the user to unplug the adapter from the wall outlet).

The manufacturer declines any responsibilities against economic loss due to loss of communication opportunities caused by external factors such as malfunctions, mistakes, failures and/or blackouts.






 **Danger****■Environment and conditions of use**

-  For your safety, do not drive while handling the radio. It is recommended that you check local traffic regulations regarding the use of radio equipment while driving.
Some jurisdictions prohibit the operation of a transceiver while driving.
-  Do not use this product in close proximity to other electronic devices, especially medical equipment. It may cause malfunctions and/or errors in those devices.
-  In case a liquid leaks from the product, do not touch it. It may damage your skin. If the liquid does contact your skin, rinse with plenty of cold water.
-  Never operate this product in facilities where radio products are prohibited for use, such as aboard aircraft, in airports, within or near business wireless stations or their relay stations, and in hospitals (do not even switch the product on). It may disturb safe flying, proper operation of other stations, interfere with radio reception and may cause malfunctions and/or errors in medical devices.
-  Use of this product may be prohibited or illegal outside your country. Check the regulations in effect at your destination before you travel.
-  The manufacturer declines any responsibilities for loss of life and/or property due to failure of this product.
-  Do not use multiple radios in very close proximity to one another. It may cause malfunction, errors and/or failures of the product(s).
-  The manufacturer and local dealers decline any responsibilities for errors and/or failures of the product when used as part of any systems and/or electronic devices.
-  Do not connect the product to unspecified options and/or accessories manufactured by other manufacturers. They may cause this product to malfunction.
-  Keep the radio out of the reach of children.






■ Handling this product

-  Be sure to reduce the audio output level to the minimum setting before using an earphone or a headset. Excess audio may damage hearing.
-  This product was adjusted before being shipped. Do not disassemble or modify the product; it could result in fire, electric shock and/or malfunction.
-  Do not cover this product with a cloth, which could cause the product to overheat.
Severe overheating could cause the case to deform and/or result in fire. Avoid exposure to direct sunlight and use the radio in a well-ventilated environment.
-  Do not splash, or allow water to penetrate the product. Exposure to water could result in fire, electric shock and/or malfunction.
-  Do not operate this product in a wet place such as a shower. It may result in fire, electric shock and/or malfunction.
-  Do not place the product in a container carrying conductive materials, such as water or metal in close proximity to the product. If water leaks and/or metal penetrates the product, it may result in fire, electric shock and/or malfunction.



■ About chargers

-  Do not use any adapter other than one compliant with the specified voltage. It may result in fire, electric shock and/or malfunction.
-  Do not plug multiple devices, including the adapter into a single wall outlet. It may result in overheating and/or fire.
-  Do not handle, connect and/or disconnect the adapter with a wet hand. It may result in electric shock.
-  Securely plug the power supply connector into the wall outlet. If a metal object comes into contact with the metal portion of the wall connector, it may result in fire, electric shock and/or malfunction.
-  Do not use the product if there is dirt or other material on the metal portion of the adapter. It may result in fire, electric shock and/or malfunction.



■About the power supply

-  Do not use any power supply other than one compliant with the specified voltage. It may result in fire, electric shock and/or malfunction.
-  Do not plug multiple devices, including the power supply into a single wall outlet.
-  Do not handle, connect and/or disconnect the power supply plug with a wet hand. It may result in electric shock.
-  Never attempt to use the power supply with the fuse holder removed. It may result in fire, electric shock and/or malfunction.
-  When a charger is powered from an external DC power source (adapter, power supply, cigar-plug cable etc), make sure that the device conforms with IEC/EN 60950-1.

■Cigar-lighter cable

-  Use only cigar-lighter cables specified by the manufacturer. If unspecified cables are used, it may result in fire, electric shock and/or malfunction.
-  Do not handle the cigar-lighter cable with a wet hand. It may result in electric shock.

■In case of emergency

-  In case of the following situation(s), please turn off the product and remove the batteries.
If you are using the charger, unplug the adapter from the wall outlet. If you use the product when it is not operating properly, it may result in fire, electric shock and/or malfunction. Do not try to troubleshoot the problem yourself. Please contact your local dealer for service and assistance.
-
- 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 or foreign object penetrates the product.
 - When a power cord is damaged (including cases where the insulation is damaged and/or when the cord is broken).
-  For your safety, turn off the transceiver and remove all external connections and accessories from the wall outlet if a thunderstorm is likely.

■Maintenance



Do not open the unit or its accessories. It may result in injury, electric shock and/or malfunction. Please contact your local dealer for service and assistance.



Caution

■Environment and conditions of use



Do not use the product in proximity to a TV or radio. It may cause interference and receive interference.



Do not install in humid, dusty or insufficiently ventilated places. It may result in fire, electric shock and/or malfunction.



Do not install in unstable or vibrating locations. It may result in injury or damage when/if the product falls to the ground.



Do not place the product in locations where temperatures rise abnormally, such as in direct sunlight and/or in proximity to the vent of a heater in a car. High temperatures may cause deformation and/or discoloration of the case and damage to internal components that could result in fire.



Do not place the product in places where it may be exposed to oily smoke and/or steam. It may result in fire, electric shock and/or malfunction.



Be cautious of a dew formation. Please completely dry the product before use when it happens.

■About the transceiver



Be careful with the whip antenna so it does not come into contact with your eyes.





Do not connect devices other than those specified to the jacks and ports on the product. It may result in damage to the devices.





For your safety, turn off the unit and remove the batteries, and if you are using the charger, unplug the adapter from the wall outlet when not using the product for an extended period of time. It is recommended to charge the battery pack occasionally to avoid over-discharging the pack.





■About chargers

-  Do not pull the cord when unplugging the adapter from the wall outlet. It may result in fire, electric shock and/or malfunction. Be sure to hold the adapter when unplugging.
-  Do not use the adapter in proximity to heaters. It may result in fire, electric shock and/or malfunction.

■Maintenance

-  When maintaining the product, turn off the unit and remove the batteries, and if you are using the charger, unplug the adapter from the wall outlet for your safety.
-  Use a soft, clean and dry cloth to wipe off dirt and condensation from the surface of the product. Never use benzene, thinners, alcohol or detergent for cleaning.

■When using an external power source

-  When using the cigar-lighter outlet in a car, use the optional cigar-lighter cable (EDC-36).
-  Please turn off the unit when connecting and disconnecting the cables of external power sources.
-  Do not directly connect the unit to cars equipped with 24 volt systems. It may result in malfunction or damage.
-  When you are using a switching power supply as a source of external power, there may be cases when the product receives switching noise. Be sure to use a communication grade power supply per IEC/EN60950-1.

■About waterproof protection / IPX7 compatibility

The IPX7 designation provides specifications for limited waterproofing of the radio. The specifications are immersion in one meter (approx 3ft) of still sweet water for up to 30 minutes to warranty the product mainly for use in rain or snow. 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 genuine Alinco waterproof accessories and the radio has not been disassembled by the customer. The factory has tested and

made the equipment compatible to IPX7 certification during engineering. However, please understand that this equipment is NOT certified IPX7 compliant but is designed to remain operational when used in rain, severe weather or in accidental cases of dropping it in water when used in extreme conditions and is in no way stating that you should attempt use the radio under water or submerge the radio for cleaning. Warranty will not cover radios that have water / salt damage due to negligence or misuse of the product.

■About 902MHz frequency operations

- You may experience fading and other conditions such as hearing more noise on the 902MHz band than on the 222MHz band. This is because the 902MHz signal is prone to instability, especially in the case of mobile operation; it is not due to a malfunction of the product.
- Because it uses a temperature compensated crystal oscillator (TCXO), the frequency stability of this product is very high. While communicating with transceivers that don't use a stable oscillator, it is possible the frequency may drift during a contact especially on 902MHz. This is due to conditions at the other station and not due to a malfunction of DJ-G29T.
Use of RIT/TXIT is recommended in such event.
- Your RX/TX signals may be interefered by noise when you operate near by its source such as florescent lights especially on 902MHz band but it is not a defect. Please operate away from the noise source or reduce the output power to eliminate or reduce it.

■Lightning

No person is safe outdoors during thunderstorms. It is more dangerous when using a handheld radio. The chances of being hit by lightening are greater since lightening may hit a radio antenna. At this time, there is no handheld radio having any kind of protection against lightening current (which is higher than 10kA). Note also that no car provides adequate protection of its passengers or drivers against lightening. Therefore, Alinco will not take responsibility for any danger associated with using its radio products outdoors or inside a car during a lightening storm.

■Limited Power Source

Please note that the transceiver enclosure only provides mechanical protection for its internal parts; it will not contain a fire within the device if the fire starts under certain fault conditions. Alinco will not take responsibility for any fire hazard associated with powering the transceiver or charging its batteries using a power source that does not belong to the limited power source in the meaning of EN60950-1.

■About operating frequencies and spurious signals

When received frequencies are as shown below, there may be cases when you receive non-modulated carriers. This is due to the frequency composition of the product and not due to a malfunction.

Main side frequency - 51.65MHz = Sub side frequency - (50.75 X 2) MHz
 Main side frequency - (51.65 x 2) MHz = Sub side frequency + 50.75MHz
 Main side frequency - (51.65 x 2) MHz = Sub side frequency - 50.75MHz
 (222MHz bandwidth - 51.65MHz) x integral multiple = 222MHz bandwidth frequencies
 (222MHz bandwidth - 51.65MHz) x integral multiple = 902MHz bandwidth frequencies
 (902MHz bandwidth - 51.65MHz) x integral multiple = 902MHz bandwidth frequencies

When the received frequency is approximately 3 times the transmitted frequency, it causes signal suppression.

When receiving simultaneously, if the sub band's VCO frequency is near the main band's IF frequency, the indicated frequency causes reception suppression.

1-2 Before transmitting

There are many business radio stations operating in proximity to the ham bands. Be careful not to cause interference when transmitting around such radio stations. Even when amateur radio stations adhere to radio laws, there are unexpected cases of radio interference. When operating this product while traveling, please be very careful.

1-3 Introduction

- Please read this manual completely to learn all the functions the product offers. We made every attempt to edit 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 different chapters. By reading just one part of the manual, you may risk not understanding the complete explanation of the function.
- In case addendum sheets such as errata are included with the package, please read them and keep them together with this manual for your future reference.
- This product is manufactured and shipped under strict quality control procedures. However, if you find anything unusual about this product, contact your local dealer as soon as possible.
- Due to the large bandwidth capability of this product, there will be cases when you cannot receive radio signals and/or instances when you hear noise due to the inner spurious signals generated by the unit; these cases are not malfunctions.
- Information in this document is subject to change without notice or obligation.
- In case there are problems with this manual, such as missing pages, we will exchange this document for a new one at no charge.