DJ-X100T/E

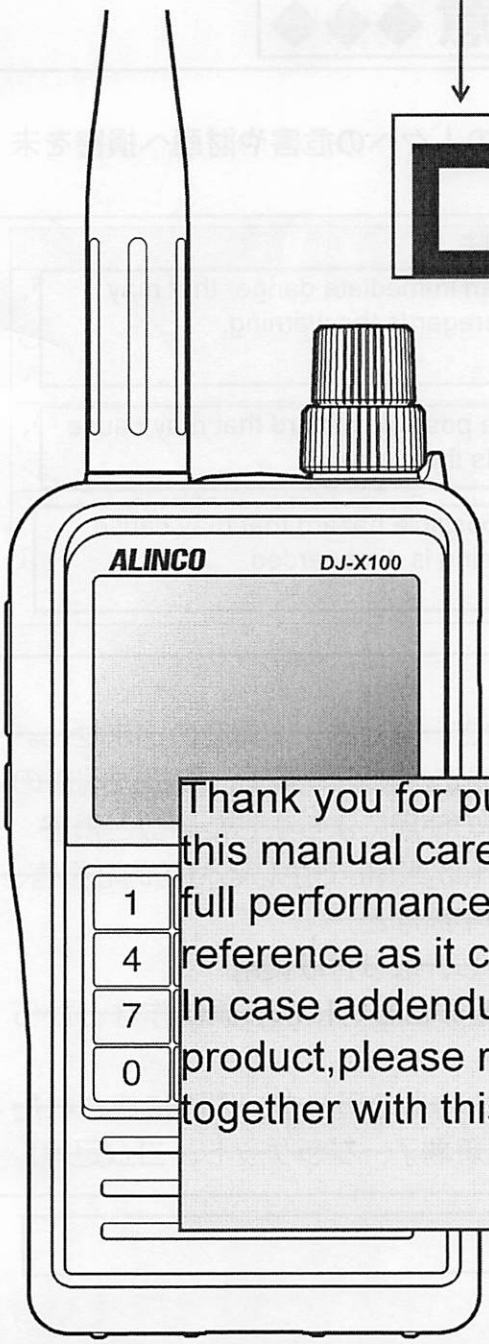
ALINCO

DIGITAL MULTI-MODE RECEIVER

# DJ-X100

# 取扱説明書

Instruction Manual




Thank you for purchashing your DJ-X100T/E.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.

アルインコ　デジタルマルチモードレシーバー DJ-X100 をお買い上げ頂きまして、誠にありがとうございます。本機の性能を十分に発揮させるために、まずこの取扱説明書を最後までお読みいただくようお願いいたします。
アフターサービスなどについても記載していますので、この取扱説明書は必ず保管してください。

This product does not comply with FCC, CE and other foreign Standards, and is intended for use only in Japan.
Alinco declines any responsibilities and technical supports in case this product is used abroad,

アルインコ株式会社

To prevent any hazard during operation of Alinco's 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.

安全

WARNING

# ◆◆◆ 安全上のご注意 ◆◆◆

絵表示について

本製品を正しく安全にお使いいただき、使用者や周囲の人々への危害や財産へ損害を未然に防止するため、下記の表示をしています。

| 表　示 | 表示の意味 |
|---|---|
| ⚠ 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. |

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■For Common (Radio/Battery/Charger/AC Adapter)

⚠ Danger

◎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). This product is not anti-explosive.

◎ Failure to observe the following precautions may cause an accident that could lead to fire, overheating, electric shock, injury, or equipment malfunction.

●指定以外のACアダプターを接続しないでください。

●Do not use third party AC adaptor、Batery and Charger.

●指定以外の充電器を使用しないでください。

◎Do not place where the sun shines, high temperature and close to air conditioner and fire.

ください。

Exposure to direct sunlight in enclosed areas such as a car interior or near windows, even during winter, may cause overheating, leading to battery pack rupture, fire, or equipment malfunction. Even mild warmth from air conditioning or heating systems can contribute to elevated temperatures if continuously exposed.

⚠ Alert

◎Do not disasssembe or modifying the product the radio.
It may result in fire, electric shock, or equipment malfunction.

◎Incase of abnormalities such as smoking, unusual smells, strange noises, or swelling, please refrain from using the product.
Continued usage may lead to fire, electric shock, or equipment malfunction.
Immediately turn off the power, remove the battery from radio, unplug the AC adapter from the AC outlet if using a charger, and ensure that smoke has stopped before contacting your distributor.

◎Use and store in a location out of reach of small children.
It may cause electric shock or injury.

◎Prevent from bending, twisting, pulling, or placing heavy objects on the power cable.
Damage to the power cord may result in fire, electric shock, burns, or injury.

⚠ Caution

◎Do not place it on unstable surfaces such as wobbly tables or inclined areas, or in places with excessive vibration.
Dropping or tipping over may result in fire, injury, or equipment malfunction.

## ■For Radio

⚠ Alert

◎Do not shaking and throwing the product.
Dislodged components may cause injury, damage, or malfunction if they hit people, walls, or other objects.

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

◎Do not use this product without permission in places where the use of electrical appliances is restricted, such as on an aircraft.
Doing so may cause a safety hazard. Do not turn on the power until you have permission from the administrator of the place where you will be using the product.

⚠ Caution

◎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.

◎The radio should be used in an ambient temperature.
It may result in malfunction, operational issues, or overheating leading to fire.

## ◆ Optional Accessory : Charger · Charger Stand

⚠ Alert

◎ Failure to observe the following precautions may cause an accident that could lead to fire, overheating, electric shock, injury, or equipment malfunction.

●Do not operate this product in a wet place such as in a shower room.

●充[illegible]きは使用しないでください。

●Never touch outlet and charger with a wet hand. It may result in electric shock.

●Do not insert metallic objects into the charging terminal.

●Do not install in a humid, dusty or insufficiently ventilated place. It may result in electric shock.

⚠ Caution

◎ Failure to observe the following precautions may cause an accident that could lead to Liquid leakage, or equipment malfunction.

●The ambient temperature should be between 10°C and 40°C in charging. Charging outside this range may not fully charge the battery.

●Do not install in a humid, dusty or insufficiently ventilated place. It may result in electric shock.

●Unplug the AC adapter after charging or when not in use.

●Do not use chargers other than having the specified voltage. Never turn on the radio while charging.

## ◆ AC Afapter · USB Adapter

⚠ Alert

◎ Never touch adapter with a wet hand. It may result in electric shock.

◎ Do not use adapter when a power cord (including USB cables and adapters) is damaged.
It may result in electric fire, electric shock or mal function.

[illegible]きは
火災、感電、故障、破損の原因となります。

◎ Failure to observe the following precautions may cause an accident that could lead to fire, overheating, electric shock or injury.

● 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.

● Never pull the cord alone when you unplug USB cable form the wall outlet.

● Do not heavy object on the cable.

● Do not bend, twist, pull or heat the cable.

● Do not use the cable in wet conditions.

● Do not use the cable in power strip.

● Do not use in a humid, dusty or insufficiently ventilated place.

## ◆ Battery

### ⚠ Danger

◎ Never use, charge or exposure to direct sunlight in enclosed areas such as a car or near windows, may cause overheating, leading to battery rupture, fire, or equipment malfunction.

The performance and lifespan of the battery pack may deteriorate, and the protection circuit may activate, preventing charging. This can lead to rupture, smoking, ignition, fire, liquid leakage, or burns. Exposure to direct sunlight in enclosed areas such as a car interior or near windows, even during winter, it may rise to dangerous temperatures.

Do not drop the battery onto hard surfaces like concrete, give it to strong impacts, or throwing it.

Even if there are no visible cracks or damages on the exterior, internal damage may occur. Continuing to use it in this condition may lead to rupture, ignition, fire, overheating, or smoking.

◎ Failure to observe the following precautions may cause an accident that could lead to fire, overheating, electric shock, injury, or equipment malfunction.

- Never throw the battery into fire, and heat it.
- Do not immerse or wet the battery in liquid.
- Stop using the battery immediately and remove it from the receiver if it swells. Please dispose of it in a battery recycling box.
- Do not solder at the battery terminal.
- Do not connect between battery packs and the terminal using with metal.
- Do not leave metal objects (such as wires, necklaces, keys, etc.) or conductive items on top of the battery pack, and avoid carrying them together.
- Do not rub if battery electrolyte contacts the eyes. There is a risk of blindness. Immediately rinse with clean water and seek medical treatment.

### ⚠ Caution

◎ Replace battery pack if the available usage time becomes shorter or after prolonged usage.

It is recommended to replace it within approximately 3 years, and at the latest by 5 years. Continuing use beyond this period may lead to smoking or fire.

◎ Stop using radio if it is heating up more than usual during use or while charging,

It may lead battery packs to rupture, overheating, leakage of liquid, malfunction. Please dispose of it in a battery recycling box.

## ⚠注意

◎ Failure to observe the following precautions may cause of leading to overheating, liquid leakage, corrosion, decreased performance, and reduced lifespan.

- Do not leave the battery pack fully charged or completely depleted for long time. When storing the battery pack for long time, discharge it completely, then recharge it to approximately half of the estimated full charging time.
- Always turn off the power when the receiver is not in use.
- Always remove the battery pack from the receiver when storing it. Leaving it installed may lead to over-discharge, rendering it unable to charge.

The characteristics and lifespan of the battery pack.

◎ Battery pack is a consumable. The estimated number of charge cycles is between 300 to 500 times. Regularly check the charging status. If you notice any abnormalities such as excessive heat or swelling, discontinue use of the battery pack.

◎ Even when stored without use, deterioration progresses. Once deterioration begins, even from a fully charged state, operational time may decrease.

◎ Deteriorated battery packs may cause ignition or fire, so do not use them. We recommend replacing them within approximately 3 years, and no later than 5 years, for safety reasons.

Li-ion

**使用後はリサイクルへ**

この製品は、充電式電池使用機器です。希少な金属を再利用し、地球環境を維持するために、不要になった電池は廃棄せず、端子部分をテープで絶縁し、充電式電池リサイクル協力店へご持参ください。
充電式電池リサイクル協力店については、一般社団法人 JBRC のホームページでご確認ください。
JBRC ホームページ　https://www.jbrc.com/

Electromagnetic noise

In electronic devices that incorporate inverter circuits, as well as in the interiors and surroundings of hybrid cars and electric vehicles, electromagnetic noise may affect reception, causing interference and potentially disrupting normal operation.

Main electronic devices incorporating inverter circuits

- •LED lighting devices
- •Induction cookers
- •Water heaters
- •Automotive electronic devices
- •Solar power generation systems, etc

# ◆◆◆ ご Precautions before use 意 ◆◆◆

## 電波法上のご注意 - 必ずお読みください。

◎この製品を日本国内で使用するのに特別な資格や許可、免許は必要ありませんが、電波法第 59 条は「何人も法律に別段の定めがある場合を除くほか、特定の相手方に対しておこなわれる無線通信を傍受してその存在若しくは内容を漏らし、又はこれを窃用してはならない。」とし、第 109 条で「無線局の取扱中に係る無線通信の秘密を漏らし、又は窃用した者は、1 年以下の懲役又は 50 万円以下の罰金に処する。」と罰則規定を設けています。さらに第 109 条の 2 で「暗号（秘話）通信を受信した者が、その暗号通信の秘密を漏らし又は窃用する目的で、その内容を復元（秘話解除）した時は、1 年以下の懲役又は 50 万円以下の罰金に処する。」と定めています。この受信機が受信できる音声や文字、画像などのデータ信号は、放送以外は全てこの無線通信にあたります。その存在や通信内容を通信者の許可なく第三者に伝えたり、自分で利用したり、メディア（雑誌、SNS 等）で公開したり、これらの目的のために暗号を解読したりすると罰せられます。

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This product does not comply with FCC, CE and other foreign Standards, and is intended for use only in Japan. Alinco declines any responsibilities and technical supports in case this product is used abroad. Many countries strictly prohibit imports and use of communications receivers without permission.

## 取扱上のお願い - 必ずお読みください。

Handling Request - Please read carefully.

This document contains important information that you should pay special attention to when using this product. Please be sure to read it carefully. Incorrect use may void the product warranty or lead to troubles and malfunctions.

◎受信機を女性向け施設、宿泊施設、遊技場の近くで使用していると盗聴の誤解を受けることがあります。テーマパーク、遊技場、コンサート会場などでは受信機の持ち込みを禁止している場合があります。その場合は速やかに従ってください。

When using the receiver near facilities catering to women, accommodations, or amusement areas, there is a risk of being misunderstood as eavesdropping, leading to trouble. Some places such as theme parks, amusement areas, and concert halls may prohibit the entry of receivers. Please promptly comply if instructed.

◎本体背面の黒い円形シールを別のラベルで覆ったり剥がしたりしないでください。防水性能の低下、内圧の変化、スピーカーからの音の変化や消失の原因となります。

Do not remove or cover the black circular seal attached to the back of the main unit with another label. Doing so may compromise the waterproofing performance, alter the internal pressure, and cause changes or loss of sound from the speaker.

◎付属品、および弊社指定のオプション品以外のアクセサリーを接続して使用すると故障や

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.

感度にかかわらず行うようにしてください。

◎

When using the phone outdoors, be sure to use earphones or a headset. Not only can loud noises be a nuisance, but if you allow a third party to listen to communications that are not related to you, you may be punished for breaching confidentiality.

◎

Do not use the receiver as part of any system or electronic device without prior individual agreement. We cannot accept any responsibility for malfunctions, defects, or damages unless there is a prior individual agreement.

◎

Use a clean, dry cloth to wipe off dirt and condensation from the surface of the product. Never use thinner or benzene for cleaning.

◎

Clean terminals between the main unit and accessory charging stand with a dry cotton swab. Dust and dirt can cause charging problems.

◎

Never remove, cover, or replace any labels, including those containing the model name, numbers, or symbols. It may result in the product being considered stolen or illegally modified, leading to exclusion from our product warranty and service.

◎

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

意ください。

◎廃棄するときは自治体の指定する方法で家電ごみとして処分してください。電池は電池回収ボックスをご利用ください。

◎

Batteries have reduced temporary usability in high or low-temperature environments, and prolonged exposure can accelerate battery degradation. Please store them in a case or similar to keep them close to room temperature for optimal performance.

◎

◎ Use batteries within the recommended expiration date. Old batteries may reduce performance and cause leakage due to deterioration of the internal materials. The expiration date is displayed on the product or packaging in the order of "month-two digits" or "month-year". For example, 01-23 or 01-2023 represents January 2023.

表します。

◎

Use reliable quality alkaline batteries when using optional battery cases. Manganese batteries, nickel-metal hydride rechargeable batteries, and low-quality batteries may result in shorter operational time and malfunction. Nevert use lithium batteries as they may cause malfunctions due to their high initial voltage.

◎

Be cautious of the whip antenna when carried in your shirt-pocket etc. It may make contact with your eye and cause injury.

◎

Carrying the product with the antenna, bending, twisting, or applying pressure to it may cause malfunction.

◎

For safety, always turn off the power to the main unit, remove the batteries, and unplug any adapters from the AC outlet when doing maintenance.

◎

Broadband receivers may have frequencies where reception is impossible or noise is generated due to internal oscillation (spurious). This is not a malfunction.

◎Note that these frequencies are provided as reference only and may not be updated if data for writing to memory channels or frequency data lists are included. Please refer to commercially available frequency notes, guides, or information found online.

◎Even when not in use,store it in a well-ventilated area and power it on. Prolonged storage can lead to deterioration of the battery as well as degradation of rubber and plastic components through hydrolysis, causing them to become brittle or discolored.

◎Using it near electrical and electronic devices such as TVs, radios, LED lights, solar panels, computers, car navigation systems, and other automotive equipment may result in electromagnetic interference, such as noise.

◎Placing it in pants pocket and using it may subject it to excessive force when sitting, leading to malfunction.

【Use while driving

◎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 drive while in a condition that external sounds cannot be heard. Connecting external amplifiers or large speakers and receiving at high volumes that prevent hearing surrounding sounds, or using headphones that completely cover the ears, may result in penalties. Some local governments regulate the use of earphones or headphones while driving, so if you have any questions, please inquire at your nearest police station or relevant authority.

◎Do not drive while wearing the receiver clipped to your body with a belt clip or similar attachment. Antennas or accessories may get caught and obstruct driving. Being distracted in this way can lead to inattention while driving.

【Caution for recharge

◎When charging, you may fluctuations in the S-meter or hear noise due to noise entering from the power line.

◎ALways turn the radio off when it is recharged using with USB terminal in PC. Charging may not proceed correctly if the power remains on.

◎The charging time and usage time of a mobile battery vary depending on its battery capacity.

For IP67

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 meters 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 dustlwater proofing. A periodical, professional maintenance is recommended when the ingress protection is very important to you.

Note: This model only waterproof when MIC-SP jack cover is tightly closed to body.

場所で電池交換や充電端子カバーを開けるなどすれば水分や異物が浸入する原因になります。外郭保護性能の有無にかかわらず受信機は汚れたり濡れたりしたときはすぐに汚れを落としてから乾いた布で拭くなどのメンテナンスを心がけていただくと長く正常な状態でお使いになれます。保護に使われているカバーやシールドの素材は経年劣化のため変質し、保護性能が低下します。弊社の外郭保護性能保証は製品の保証期間と同じとさせていただきます。保護が重要な場合は有償でメンテナンスを承ります。販売店または弊社サービスセンターにご相談ください。
理由の如何と製品保証期間に関わらず、弊社技術員以外が本製品を分解、再組み立てしたときは製品保証の対象外となります。

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 than10 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.

D-STARや198等のModeが必要か確認。
また、dPMRの商標追加？

**【登録商標 / 著作権 / 特許】**

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D-STAR の受信に係る特許はアイコム株式会社の許諾を得て使用しています。
受信可能なデジタルモードの表記は（一社）電波産業会 ARIB の標準規格番号に基づいています。
This receiver adopts DVSI Vocoder device to decode AMBE digital signals.

Check with your local waste officials for details on recycling or proper disposal of the electronics product, battery-packs and accessories in your area. Battery pack recycle bins are available in major DIY and Home electronics stores nationwide.

FCC,CE, ICの文言追加。

## Table of Contents

# ◆◆◆ Functions and Features ◆◆◆

The DJ-X100 is a digital multi-mode receiver whch receives radio media from very high frequencies (VHF) to ultra high frequencies (UHF).

The DJ-X100 has the following main features:

■ ■Covers the V/UHF range from 30 to 470 MHz. (Some bands cannot be received.)

■ ■Equipped with a GPS receiver, which can search and scan for the nearest channel using the longitude and latitude data registered in the memory.

■ ■ The memory holds 999 channels, 50 pairs of program scans, 26 banks, and name tags up to 28 characters can be displayed in the memory.

■ ■ Equipped with an offset step function that applies a 1/2 step shift.

■ ■ Analog AM and FM are also processed with DSP to achieve clear reception sound.

■ ■ The analog reception tones include CTCSS and DCS, and a radio mode that allows to listen to FM radio while waiting for communication.

■ ■ Equipped with a USB Type-C connector can be used for charging and as an external terminal in addition to connecting to a PC with a standard accessory cable.

■ ■ Equipped with a large-diameter speaker and BTL amplifier for clear reception sound, and supports stereo earphones for reception in both ears. (RX sound is monaural.)

■ ■ The receiver has Alinco's first IP67 dustproof and waterproof body, and in addition to the supplied li-ion battery, it can also be used with a dry cell battery case (sold separately) (3 AA dry cell batteries) or a commercially available mobile battery for prolonged field reception.
*It may be more likely for noise to be heard when using a mobile battery.

■ ■ A design inspired by measurement instruments and the glass cockpits of aircraft, featuring a color TFT display with intentionally adopted monochrome to enhance visibility. Backlight and font colors customizable via RGB values, offering freedom in combinations.

■ ■ Keys specialized for frequency input, mode and step switching, with an ergonomic layout designed for ease of use. The keyboard is membrane-type, featuring a flat design that is easy to press.

■階層式で日本語の操作メニューは直感的に使える最新のユーザーインターフェースです。

■ ■ A wide range of accessories are also available (sold separately), including a li-ion battery charger (EDC-325A), dry cell battery case (EDH-46), and a soft case (ESC-65).

# 1 お Before use る前に

## Check accessories

The following items are included with DJ-X100T/E. Please check them before use.

- □ DJ-X100T/E
- □ Li-ion battery pack (EBP-114)
- □ USB adapter EDC347 (For USA) EDC348 (For Europe)
- □ USB cable (EDS-39
- □ Whip antenna (EA-295)
- □ Belt Clip (Installed) (EBC-65) 2 screws included 本付
- □ Instruction manual
- □ 保証書

注意

保証書は購入店名、購入日の記入（または専用ステッカー貼付けなど）と、記載の製造

**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.**

弊社純正、または弊社が認めたアクセサリー以外をご使用になって起きた不具合は保証期間の有無を問わず製品保証の対象外となります。

## 付 Attach / Detach Accessory 外し

### ■ア Antenna EA-295 ち

1. Hold the antenna by its base.
2. Align the grooves at the base of the antenna with the protrusions on the antenna connector.
3. Slide the antenna down and turn it clockwise until it stops.
4. Confirm that the antenna is securely connected. Check the connection from time to time.

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外
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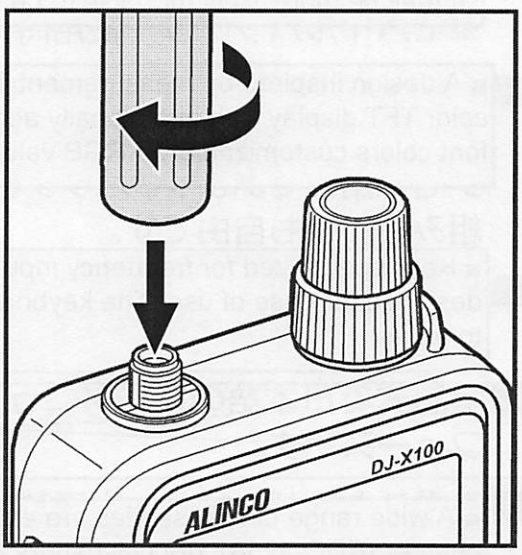
□ を
参 使います。
コネクタ は本体側が SMA メス、ユニット側が

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

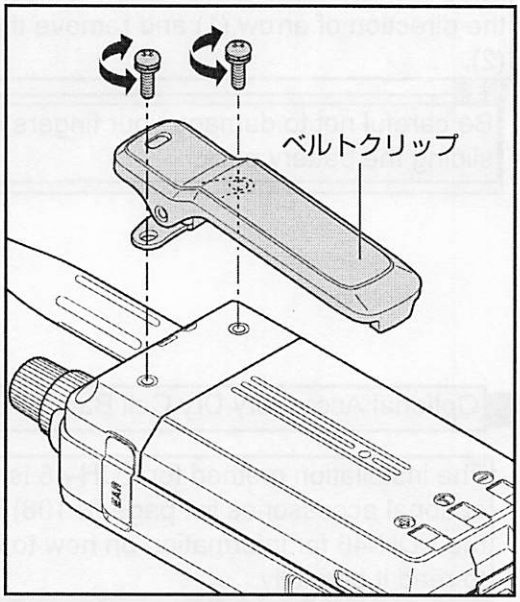


## ■Belt clip EBC-65 (Belt clip x1, Screws x2pcs)

## ■ベルトクリップ EBC-65（ベルトクリップ１個、ネジ２本）

The belt clip is packaged with the product attached. To remove the belt clip, use a screwdriver to unscrew it counterclockwise. (You will need a + screwdriver No. 2)

※ Check for any loosening of screws regularly. The belt clip is a consumable item. Spare parts are available for sale, so please consult your retailer. Using screws other than those provided as standard accessories may damage the receiver unit. Never use screws that do not meet the specifications.

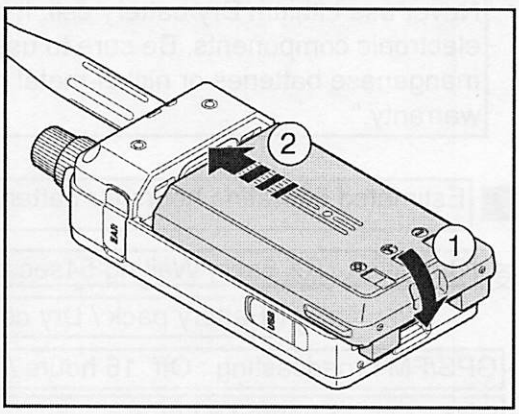



## ■Li-i LI-ion battery pack EBP114 -114

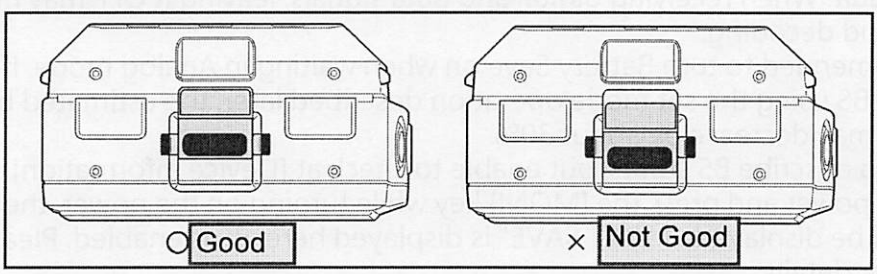
### Attach Battery Pack

Align the battery pack with the tabs on the main unit, then push the battery pack firmly in the direction of the arrow to secure it in place.

Due to its waterproof design, the locking lever may feel slightly stiff. Please make sure that the locking lever is securely fixed in the position shown in the diagram. If it is not securely fixed, it may cause poor contact, resulting in power failure or the battery coming loose. Also, please ensure that no foreign matter, such as dust, is attached to the seal. This could reduce the waterproof performance.




とがあります。
ことを確かめてください。防水性が低

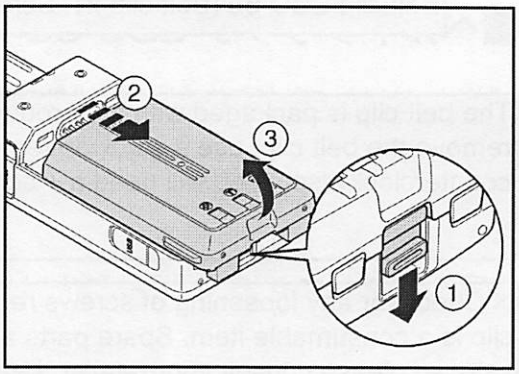



注意

Do not touch or affix labels to the two circular indentations located above the nameplate on the back of the main unit. These are important for maintaining waterproofing.

## Remove Battery Pack

Slide the lock lever at the bottom of the battery pack in the direction of arrow (1) and remove the battery pack (2).




注意

Be careful not to damage your fingers or nails when sliding the battery pack.

## Optional Accessory Dry Cell Battery Case EDH-46

- The installation method for EDH-46 is the same as for the battery pack. Please refer to the optional accessories list page (p.108) in this manual or the instruction manual included with the EDH-46 for information on how to insert dry batteries and handling precautions. Be sure to read it carefully.
- Never use Lithium Dry battery cell. It has a high initial voltage, which may damage internal electronic components. Be sure to use reliable Alcaline battery x3pcs. The use of manganese batteries or nickel-metal hydride rechargeable batteries is not covered under warranty."

## Estimated operating hours for battery pack and dry battery cell case.

Condition : RX 6sec, Waiting 54sec and turn battery save on.

Battery pack / Dry cell battery case. (Approx)

- GPS/FM broadcasting : Off 16 hours / 7 hours
- GPS : On 13 hours / 6 hours

FM broadcasting : On 12 hours / 5 hours

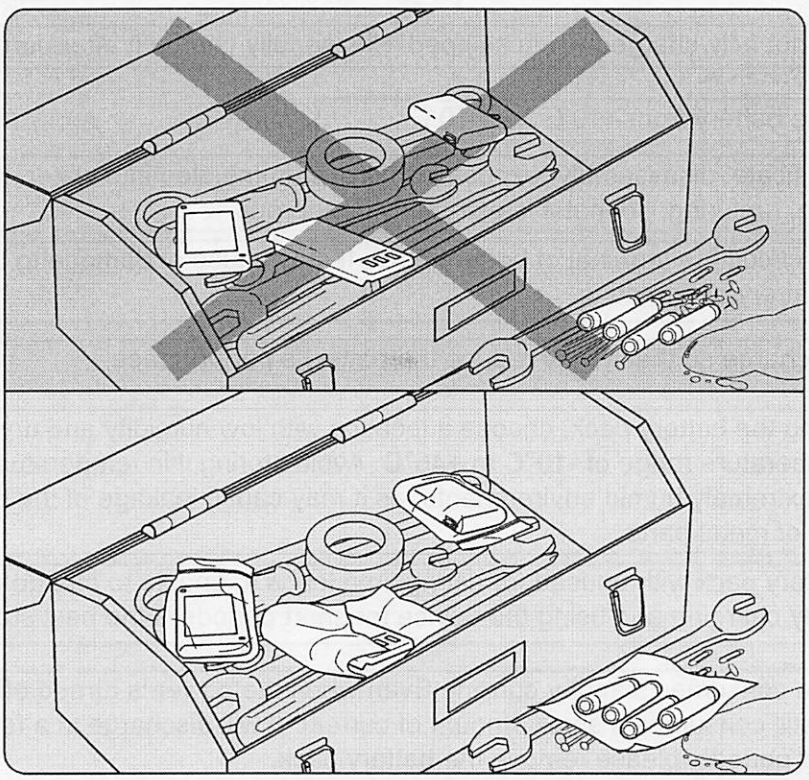
**Important** · This device prioritizes digital reception, and Battery Save (BS) is set to OFF by default. When receiving digital and data signals, leaving it OFF may hinder reception and decoding.

· It is reccomended to turn Battery Save on when waiting in Analog mode. If you do not turn on BS using the set mode operation described later, the estimated battery usage time may decrease by about 30%.

· No icon to describe BS status, but enable to check at [Device Information]. When turn off the power and press the [MONI] key while turning on the power, the current settings will be displayed. If "BAT SAVE" is displayed here, BS is enabled. Please refer to page 104 for details.

## ■電 Prevent Short Circuiting from the Battery Pack

Be extra cautious when carrying the rechargeable battery pack; short circuiting will produce surge current possibly resulting in fire.
Even with 1.5V AAA batteries, temperatures can rise to over 90°C in just a few minutes, so it's essential to exercise caution.



• • 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 shortcircuit.

• Take batteries off of the transceiver before storing them for extended period of time. Store them in a dry, cool and dark place. Supplementary chargers is required from time to time and details are explained later in this manual.

## ■バ Battery Information 上の注意

Failure to observe the following precautions may result in smoking or ignition.

Do not under any circumstances leave the battery pack in places where it may become hot, such as inside a car or near heaters, regardless of the season or temperature.

If the charging does not complete even after the specified charging time has elapsed, please immediately stop the charging process.

The battery pack is a consumable item. The estimated number of charge cycles is between 300 and 500 cycles. Please regularly check the charging status. If you notice any abnormalities such as increased heat or swelling, immediately replace the battery pack.

Do not use deteriorated battery packs. To fully utilize the receiver's performance, it is recommended to replace the battery pack within approximately 3 years, and no later than 5 years.

When the battery pack experiences a strong impact, such as being dropped on a hard floor or hitting a wall, please replace it with a new one. If small scratches occur inside the battery, they can become the cause of smoking or fire.

になります。

注意

The battery pack is not fully charged when shipped. Please fully charge it after purchase before using it.

してから使用ください。

- 充 Charge the battery from +10℃ to +40℃ . ください。
- Never modificate, disassembly, exposure to fire, or immersion into water. It may cased of overheating, rupturing, so that it is extremely dangerous.
- Never short-circuit the terminal of battery pack. It may cause of damage to the radio, burned by battery overheating.
- Do not overcharge so that it may reduce the battery's performance.

ください。

- When storing the battery pack, choose a location with low humidity and dry conditions within a temperature range of -10°C to +45°C. Avoid storing it in temperatures outside this range or in extremely humid environments, as it may cause leakage of the battery's liquid or corrosion of metal parts.
- Storing battery pack with unused for a long time leads to unable to charge due to over-discharge. Occasionally charging and using the device for short periods is the best storage method.
- • This device consumes standby current. Even when the power is turned off with the battery pack installed, it still consumes a small amount of current. It will discharge in a few days, so when not in use for short periods, please remove the battery pack.
- • The battery pack is a consumable item. If the usage time is significantly shorter even after charging for the specified time, it is likely that the battery has reached the end of its life. Please replace it with a new one.
- • The battery pack is a recyclable resource. Please do not dispose of it. Instead, take it to a battery pack recycling cooperative store for proper disposal.

## ■Li- How to recharge Li-ion battery pack 方法

The device can full-charge the included Li-ion battery pack through the main unit using the provided USB adapter. It takes about 5 hours to charge from a discharged condition.

ッテリーパッ

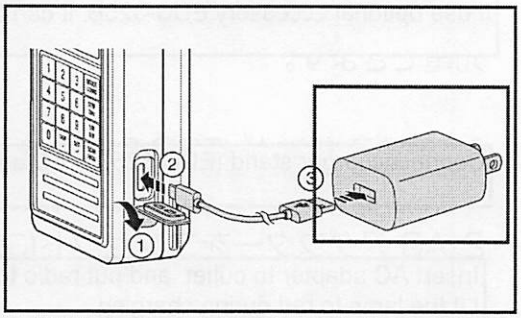
注意

- When you purchase the battery pack or if it has not been used for a long time, please fully charge it before use.

• When using the charging stand and AC adapter in optional parts, please use the genuine products designated for the DJ-X100 by our company. Connecting unspecified products may cause accidents or fires. Please refrain from doing so under any circumstances.

● USB adapter なる場合

1. See pg. 19 to install the battery pack.
付けます。
2. Open the receiver's USB port cap.
3. Connect the Type-C end of the USB cable to the receiver.
4. Connect the Type-A end of the USB cable to the supplied USB adapter.
5. Plug the USB adapter into an electrical outlet.




*Illustrations may differ from the actual product.

Refer to "Battery Icon Display" (pg. 25) for the display while charging.
照ください。
*It may heat up while charging, but this is not an abnormality.

※ *The rubber cap of the USB port must be closed securely each time. If it is not closed properly, it cannot provide outer protection. If left open for long periods of time, the rubber may warp and make it difficult to close. Please be careful of moisture and dirt when unable to close it properly. Leaving it for a while will allow the shape to return to normal and close properly.

CAUTION

• 電源が切れているときにUSBケーブルを接続したり、バッテリーパックを外して

• When the USB cable is connected while the power is off or the battery pack is connected while the USB cable is connected and the battery pack disconnected, it may take up to 2 seconds before the charging icon appears. If the charging icon does not appear after more than 2 seconds, connect the USB cable after turning on the power. This operation is related to internal processing when the charging circuit is activated and is not an abnormality.
• The supplied USB cable can be connected to a PC or mobile battery to charge the battery, but the charging time will be longer due to the lower current, and the battery may not charge fully, but this is not an abnormality.
• Any malfunctioning with commercially available USB adapters or USB cables is not covered by the product warranty.
• When charged while operating in a high-temperature environment, charging may not be possible. For safety reasons, charging will stop when the temperature of the battery pack rises. The charging will resume when the temperature drops. Turn off the power and allow the battery pack to cool down before charging.
The charging status can be checked under "Power Status" (pg. 103) within the Power Menu of Set Mode.

充電の状態はセットモードの電源メニューの「電源状態」(P.103) で確認できます。

付属のUSBアダプターを使えば運用しながら充電することができます。

REFERENCE

充電になるとUSBアダプターからの電流で駆動するので電池が減るのを防げます。

The supplied USB adapter allows charging while the receiver is in operation.
When fully charged, it is powered by the current from the USB adapter, preventing the battery from depleting.
However, constant use of the USB adapter will accelerate battery degradation, so it is recommended that the battery pack be removed once it is fully charged and then stored. Reception can be continued via USB without a battery pack. At this time, keep metal products away from the battery terminals on the back of the receiver to avoid causing them to short-circuit.
The USB adapter may generate noise and affect reception, but this is not a product abnormality.

## Optional accessory ：EDC-325

If use optional accessory EDC-325B, it can finish re-charging battery from empty to full about for 3.5 hours.
充電できます。

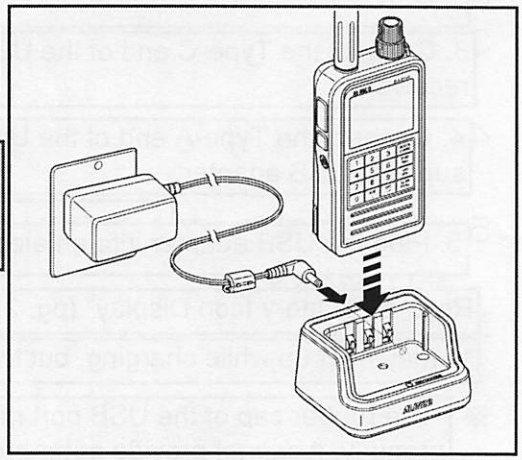
1 充電スタンド(EDC-325)にACアダプター(EDC-330)を接続します。

Connect charger stand (EDC-325) to AC adapter (EDC-330)

2 ACアダプターをコンセントに差し込み、本機を充電スタンドに置きます。充電中はランプが赤色に点灯します。充電器の動作温度+10～+40℃の範囲外で使用すると赤と緑に点滅します。

Insert AC adapter to outlet, and put radio to charger stand.
Lit the lamp to red during charging.
If used outside the operating temperature range of the charger (+10 to +40 degrees Celsius), it will flash red and green.

When finished charging, Light the lamp up to green.



＊ ACアダプターの形状は実際と異なる場合があります。

## Receiving while charging, please be aware of the following.
【充電しながら受信するときのご注意】

While placed on the charging stand, you can still receive signals and charge simultaneously. However, since electric current flows through the receiver unit during charging, the detection of full charge may be disrupted, resulting in the green lamp not lighting up.

Using this method is not recommended as it also puts strain on the battery pack.

For safety reasons, this device is equipped with a timer that stops charging after approximately 6 hours.

＊ When the timer activates, charging stops, but depending on the charging status, the green or red lamp on the charging stand will illuminate

＊ The charging will resume when the battery voltage drops, and it will repeat the cycle of charging stopping after 6 hours. Therefore, depending on when you remove the receiver from the charger, it may not be fully charged.

＊ Removing the receiver from the charger and then inserting it again will reset the timer. Be careful not to frequently insert and remove it, as this may accelerate the degradation of the battery pack due to overcharging.

＊ While charging on the charging stand, the battery icon on the receiver will not display the charging status.

＊ The AC adapter may generate noise that could affect reception, but this is not considered a malfunction of the product.

＊ While receiving signals during charging, the temperature of the device may increase. Even within the charging temperature range of below 40°C, in hot environments, the protection circuit may activate, preventing charging. When the temperature decreases, it will automatically return to normal charging.
動的に元に戻ります。

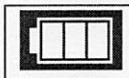
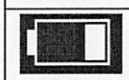
参考 If charging the receiver with the battery pack attached is unsuccessful, please check if the battery pack can be charged separately to ensure there are no abnormalities.

## ■ Battery Icon

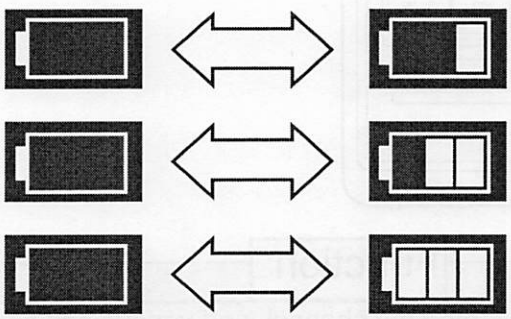
本機のディスプレイに表示されるバッテリーアイコンは、バッテリーの残量を示します。
The battery icon displayed on the device's screen indicates the remaining battery level. When the battery icon is empty, please charge the battery pack or replace it with new dry batteries.
新しい乾電池と交換してください。

### ●バッ Battery level 表示

バッ Indicate battery capacity in 5 stage. 。

| | |
|---|---|
|  | The battery leve is enough. |
|  | The battery level is decreased a little. |
|  | The battery level is decreased. Recommend charging. ます。 |
|  | The battery level is almost empty. Recommend changing the battery. 交換が必要です。 |
|  （点滅） | The battery level is empty. Recommend changing or charging the battery immediately. |

•Battery Charging (From USB)
During charging, flash empty battery icon and current battery status alternative.
す。



CAUTION

The battery level during charging is only an estimate. When charging starts with the USB connected, the battery lebel icon may be increased, and when the USB is removed during charging, the battery lebel icon may be decreased, but this is not malfuction.

REFERENCE

電源オフで充電しているときは、バッテリーアイコンのみがディスプレイに表示されます。
満充電になるとバッテリーアイコンが USB マークに変わり、電源が入っていないと表示が全て消えます。

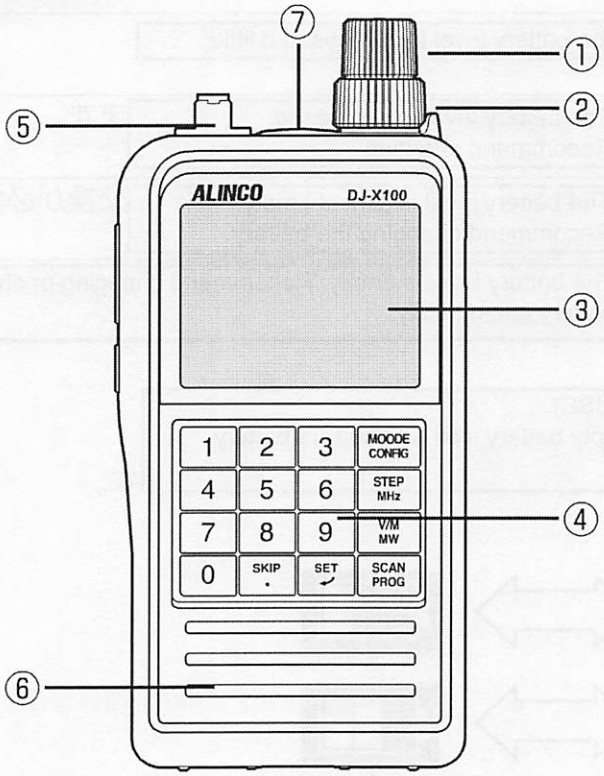
When the device is off and charging, only the battery icon will be displayed on the display.
When the device is fully charged, the battery icon will change to a USB mark, and when the device is off, all displays will disappear.

# 2 GETTING ACQUAINTED

In this manual, "press, short press" refers to pressing the key firmly for a short time and then immediately releasing your finger. "Long press, press for * seconds" refers to continuing to press the key until the described state is reached. If press the key incorrectly, it may perform a different action.

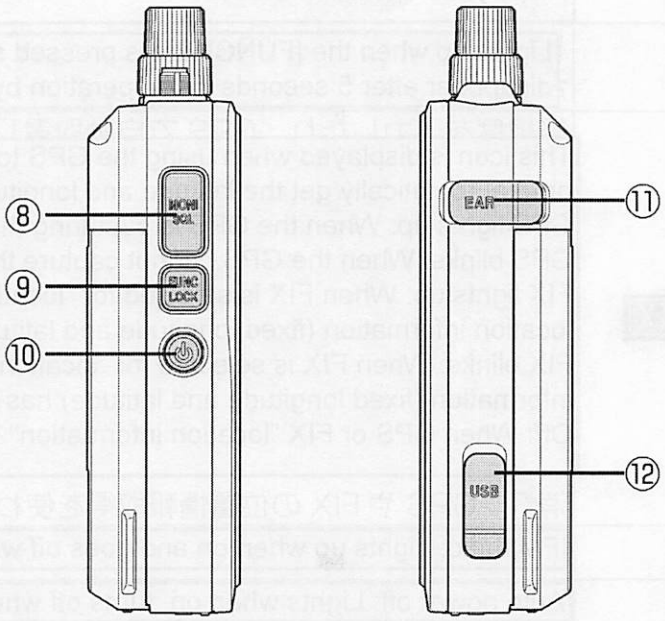
## ■ Main unit

Top and front




| No. | Name | Function |
|---|---|---|
| ① | Upper Dial | Change the frequency, memory channel, and various settings. |
| ② | Lower Dial | Change the volume.<br>* You can customize the functions of the upper and lower dials by switching them in the set mode. (P.99) |
| ③ | Display | Display the status of this unit. Details are described later. |
| ④ | Keybord | Use for direct frequency input and various settings. |
| ⑤ | Anntena Connecter(SMA -J) | Attach the included antenna securely. When using a separately antenna, select an antenna that is tuned to the operating frequency range. |
| ⑥ | Speaker | A thin speaker is built in |
| ⑦ | GPS Antenna | A small GPS antenna is built in. Make sure the top of the unit faces the sky. |

## Side



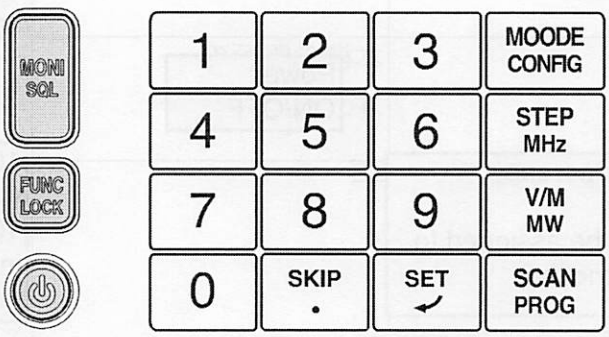

| No. | Name | Function |
|---|---|---|
| ⑧ | [MONI] key ([SQL] key) | Press to open the squelch and hear the receiving sound. |
| ⑨ | [FUNC] key ([LOCK] key) | Use this key in combination with another key to operate the unit. Press and hold the key to lock. |
| ⑩ | [POWER] key | Press for about 1 second to turn the power on and off. |
| ⑪ | Earphone terminal | Connect earphones. (φ 3.5 mono or stereo mini plug) |
| ⑫ | USB port | Used as an external power terminal, as well as for charging and communication with a computer. (Type-C, 5V/1.5A) |

## ■ Display example (basic display)

| No. | ICON アイコン | Function 機能 |
|---|---|---|
| ① | VFO | Display the operation mode. |
| ② | FUNC | Lights up when the [FUNC] key is pressed shortly. It will disappear after 5 seconds if no operation by default. (P100) |
| ③ | GPS / FIX | This icon is displayed when using the GPS to enter latitude and longitude or to automatically get the latitude and longitude. (P.98)<br>GPS lights up: When the GPS is capturing the location information<br>GPS blinks: When the GPS cannot capture the location information<br>FIX lights up: When FIX is selected for "location information" and the location information (fixed longitude and latitude) has been registered<br>FIX blinks: When FIX is selected for "location information" but the location information (fixed longitude and latitude) has not been registered<br>Off: When GPS or FIX "location information" is not used (OFF) |
| ④ | | FM radio: Lights up when on and goes off when off.(P48) |
| ⑤ | | Auto power off: Lights when on, turns off when off. (P.101) |
| ⑥ | | Key Lock : Lights when key lock is activated. (P.78) |
| ⑦ | / | Displays the remaining battery level and charging status. For details, see "Battery icon display" (P.25). |
| ⑧ | MODE FM STEP 20.00 | The MODE on the left is the type of radio wave received. Example: FM<br>The one on the right is the frequency width or step that changes with one click of the upper dial. Example: STEP 20.00 |
| | MODE FM DIST 3.75 | If register longitude and latitude in the memory, the distance between two points can be displayed in km when receive position information by GPS or FIX.<br>Example: DIST 3.75 |
| | MODE FM SW 3.75 | When receive position information by GPS or FIX and a signal with position information, the direction and distance can be displayed in km. The direction will be displayed in 8 directions.<br>Example: SW 3.75 (3.75km southwest) |
| | VOL 21<br>SQL 04 | Display level and bar graph when adjusting volume and squelch. |
| ⑨ | 430アマチュア無線 | Display the name assigned to memory or scan. |
| ⑩ | | Display when manual backlight function is enabled and constantly "ON". |
| ⑪ | 433.0000 | Display the receiving frequency. |
| ⑫ | 001 | Display the memory channel, bank, and scan number. |
| ⑬ | | Light up when skip is set. (P.47) |
| ⑭ | T | Light up when timer skip is set. (P.47) |
| ⑮ | ENCR | Light up when secret communication is detected. |
| | DATA | Light up during data communication. |
| ⑯ | PRI | Light up during priority scan. (P.45) |
| ⑰ | OFFSET STEP | Light up when offset step is used. (P.78) |
| ⑱ | BUSY 1 5 9 + | Display the receiving level. S meter. |

| No. | ICON | Function |
|---|---|---|
| ⑲ | SHIFT- UC 014 EC 08537<br>ATT 10 WC 261 GC 10000 | Display the settings of the shift and attenuator, etc., and information on the received signal. |

## ■ Key operation



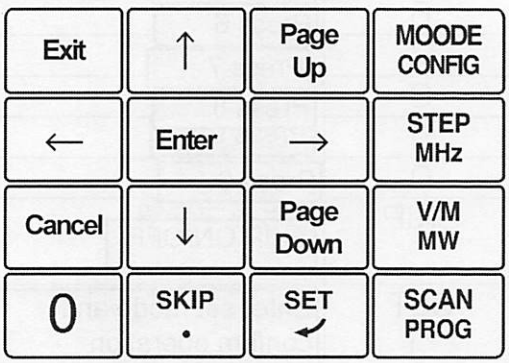

| Key | Short press | Long press (1 second) | Operation after pressing [FUNC] |
|---|---|---|---|
| 1 | Press 1 | 初期状態ではキ | 長押しして各キー |
| 2 | Press 2 | In default setting, shortcuts to main bands. After setting, quick recall | Long press and register quick recall for each key. |
| 3 | Press 3 | | |
| 4 | Press 4 | | |
| 5 | Press 5 | | |
| 6 | Press 6 | | |
| 7 | Press 7 | | |
| 8 | Press 8 | | |
| 9 | Press 9 | | |
| 0 | Press 0 | Quick Recall List | — |
| SKIP<br>. | SKIP ON/OFF | Timer skip ON/OFF | Skip channel edit |
| SET<br>↲ | Enter set mode and confirm operation | Set memory scan stop into VFO | F-COUNT ON/OFF |
| SCAN<br>PROG | SCAN ON/OFF<br>開始・停止 | Select Scan mode setting | Enter program Scan List |
| V/M<br>MW | VFO/ メモリーモードの<br>Switch VFO/MEM | メモリーモードの種類の<br>Enter memory mode setting | Enter Memory write (VFO mode)<br>Enter Memory editing (Memory mode) |
| STEP<br>MHz | 周波数ステップ設定<br>Enter Frequency step setting. | Offset Step ON/OFF (VFO mode) | Set 1MHz step (VFO mode) |
| MODE<br>CONFIG | Enter Receiving mode | FM Radio broadcasting ON/OFF | Enter Config setting. |

| Key | Short press | Long press (1 second) | Operation after pressing [FUNC] |
|---|---|---|---|
| MONI SQL | MONI ON/OFF | | Enter Squelch setting (Upper Dial) |
| FUNC LOCK | FUNC light ON/OFF | Key Lock | Manual backlight on/off (Only when setting is enabled) |
| (POWER) | — | Power ON/OFF | — |
| Upper Dial | Increase/Decreae frequency (Can also be assigned to another function) | — | 10x frequency step (VFO mode) 10 channel increase/decrease (Memory mode) |
| Lower Dial | Increase/Decreae volume (Can also be assigned to another function) | — | — |

· When on selection screen

Actions when the selection screen for each item is displayed by pressing the [SET] key shortly.

| Key | Short press |
|---|---|
| 1 | Exit from settings |
| 2 | Move selected item up |
| 3 | Move to previous page |
| 4 | Move selected item left |
| 5 | Confirm selection |
| 6 | Move selected item right |
| 7 | Cancel or go back |
| 8 | Move item down |
| 9 | Go to next page |
| SET ↵ | Confirm |
| MONI SQL | Cancel or back |
| FUNC LOCK | Light FUNC up |
| Upper Dial | Move item |




* The illustration shows the action on the selection screen instead of numbers. Such a keyboard does not exist.

# 3 BASIC OPERATIONS

## ■ Turning the Power On and Off

Hold down the [POWER] key (about 1 second) to turn on the power.
Perform the same operation to turn the power off.

The ALINCO Logo, Model Name, Firmware Number, and "Battery Voltage" or "USB" will be displayed before booting. Release your finger when this is displayed. The reception screen will then be displayed.
The illustration on the right is of the initial display in the default state or immediately after a reset.


To turn off the power, remove your finger when "Turn Power Off" is displayed. When held down, the power may not turn off.

## ■ Adjusting the Frequency

● Setting the Frequency with the Upper Dial.
Turning the Upper Dial changes the frequency according to the step width described below. In Memory Mode, channels can be changed if there are registered memory channels.
The frequency and memory channel numbers are higher (larger) when the Upper Dial is turned clockwise and lower (smaller) when turned counterclockwise.
Press the [FUNC] key, and if the <FUNC> icon is displayed, turning the Upper Dial in VFO Mode will change the frequency greatly by steps of 10-fold increments. In Memory Mode, 10 channels can be changed with one click. Press the [FUNC] key or leave it be for 5 seconds to return to the previous setting.
When the [FUNC] key is held down for too long, the key lock is activated and the operation is disabled. Hold down one more time to cancel.

● Entering Frequencies Directly
Frequencies can be entered directly by operating the numeric keys.
1. First enter the MHz digits, and then press the [SKIP (.)] key.
2. Continue to enter the kHz units.
3. Press the [SET] key or enter 6 digits for the kHz to confirm. There will be a beeping sound, and the MHz will be displayed at the end of the number.
*When the entered frequency is between 76 and 108 MHz, it will shift to radio mode.
• Details of the Radio Mode are explained within the "FM Radio Mode (pg. 48)" of Operation Mode.
*If a frequency that cannot be received is entered by mistake and the [SET] key is pressed, there will be a "buh-buh" error sound. If you notice an error while entering, press the [MONI] key to start over.

が鳴ります。また、入力途中で誤りに気付いたときは［MONI］キーを押して初めからやり直します。

Example 1: Entering 123.000 MHz
Press the [1][2][3] keys, and then press the [SET] key

Example 2: Entering 123.45 MHz
Press the [1][2][3] [SKIP(.)] [4][5] keys, and then press the [SET] key

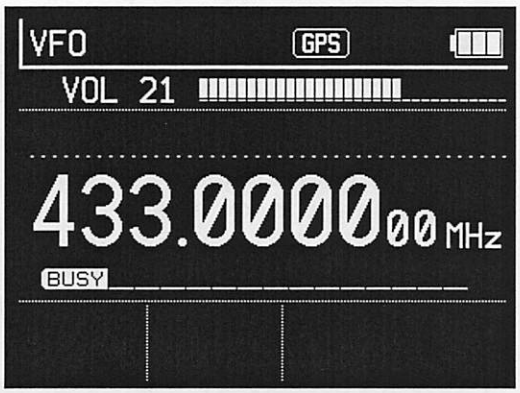
Example 3: Entering 123.456789 MHz
Press the [1][2][3] [SKIP (.)] [4][5][6][7][8][9] keys, and then press [SET] key

REFERENCE

There is no function to round the entered values in the set step. Therefore, frequencies such as in Example 3 can be entered, but when the [Upper Dial] is turned, it will switch to the set step. It is not necessary to change the step value to a rounded value before changing it.

## ■ Adjusting the Volume

The range of volume adjustment is 33 levels from 0 to 32.
The default is set to 0.
When the lower dial is turned while in the default state, it will make a “buzzing” sound.
When the level is set low and the squelch level described below is adjusted, the “buzzing” sound will disappear. After this, it will make the “buzzing” sound while the [MONI] key is pressed.
The volume can be adjusted using this sound as a reference.
The volume increases moving clockwise and decreases moving counterclockwise.
Both the volume and the squelch settings described below are retained until the next time they are changed, even if the power is turned off.




で電源を切っても保持されます。

CAUTION

When using earphones, lower the level beforehand and then gradually increase it.

## ■ FUNC (Function) Key Operations キーの操作

Use the [FUNC] key to perform the squelch operations described in the next page. After pressing the [FUNC] key briefly, the <FUNC> icon will disappear and the display will return to its original state if no operation is performed for 5 seconds. This is to enable automatic recovery even for when the FUNC status is unintentionally set through misoperation. This setting has the options of 5, 10, 20, or 30 seconds for holding the FUNC status until the next operation. Since this key is often used, not only for the squelch, it is recommended that this be changed to one’s preferences in advance.

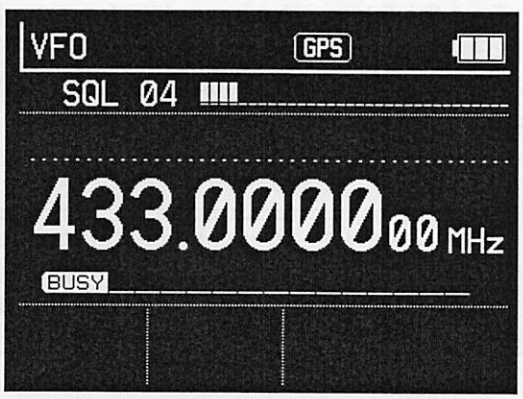
"Hold" is especially useful while still getting accustomed to the operations.
How to Set Up:
1. Press the [SET] key in standby mode
2. SETTING and the menu will be displayed. Turn the [Upper Dial] to select [Operations].
3. Press the [SET] key again and turn the [Upper Dial] to select "FUNC Hold Time."
4. Press the [SET] key again, turn the [Upper Dial] to select the desired value, and then press the [SET] key to confirm.
5. Press the [MONI] key twice to return to the reception screen.

This explanation may be omitted hereafter; the <FUNC> icon is displayed to the left of the <GPS> icon on the display when the key is pressed and in the FUNC status.

## ■ Adjust the Squelch

• What is a Squelch?
This function makes it easier to listen in by eliminating the grating "buzzing" noise heard from the speaker when there is no incoming signal. When the level is too high, it will be unable to receive weak signals. The sounds made from reception are referred to as "opening the squelch" and the reverse of this is "closing the squelch." Adjust the level to match such conditions as the environment and usage.

• How to adjust the Squelch
The range of squelch adjustment is 33 levels from 0 to 32. The default is set to 0.
1. After pressing the [FUNC] key, press the [MONI] key.
2. Turn the [Upper Dial] when the SQL and level number are displayed.
• This should normally be set at a level of 8 to 9, which is the minimum for the "buzzing" sound to disappear.
• The squelch level grows higher moving clockwise and lower moving counterclockwise.
• When the squelch level is set to 0, it will continuously make a "buzzing" sound. This consumes the battery quickly, and the scans stop functioning.




低くなります。
ります。電池を早く消費し、スキャン

REFERENCE
The "squelch" can be assigned to any dial using the "Upper Dial" and "Lower Dial" settings within the "Operations" of the Set Mode. (pg. 99)
The receiver squelch will not close unless the value is relatively high. This is due to the fact that closing it at a low value tends to mute weak signals; and it reproduces the feeling of operating a squelch dial on a radio from the past, when adjustments were made only by one's sense of hearing.

## ■ Monitoring Function

This function temporarily opens the squelch when the received signal is weak or the sound is interrupted, and it also turns off the tone squelch and DCS in analog mode to facilitate reception. By default, the squelch opens only while the [MONI] key is pressed and returns to the set squelch level when released. Pressing the [MONI] key within the MONI Setting (pg. 99) of the Set Mode described below will open the squelch, and pressing it again will close it. In both cases, <BUSY> will blink on the display while monitoring.

Reference
This can also be attempted in the following case: “The S-meter is activating, but no sound is coming out. Is it malfunctioning?”
It is easy to check whether the tone squelch, etc. has been unintentionally set.

## ■ Selecting Receive Mode

Press the [MODE] key to select Receive Mode.
Detailed settings are performed according to the type of radio wave, the digital communication standards, and other factors from the three categories of analog, digital, and data.
1. Press the [MODE] key to display the Receive Mode screen.
2. Turn the [Upper Dial] to select the mode, and then press the [SET] or [MODE] key.
3. Turn the [Upper Dial] to select from the Receive Modes displayed, and then press the [SET] or [MODE] key to confirm the selection and return to the reception screen.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さ
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回
押すと確定し、受信画面に戻ります。

注意
When receiving analog voice communications, turning on “Battery Save” (pg. 100) within the “Power” settings of Set Mode will extend battery life. In digital mode, it may not be possible to recover the signal when using Battery Save.

● Analog
FM, NFM, AM, and NAM
• FM : FM at the VHF 20 kHz step
• NFM: Narrow FM at the UHF band 12.5 kHz step
• AM : AM is typical for Aeronautical Radio
• NAM: Narrow AM with a bandwidth slightly narrowed by filters
This is used to avoid interference from neighboring stations. However, it may help to hear better when the signal is weak due to it sounding as if the high frequencies are cut off slightly. Use it as desired.

• Digital
DCR, NXDN, DMR, D-STAR, and dPMR
C4FM (DN): Digital Mode for Ham Radio by Yaesu Musen Co., Ltd.

• Data
AIS: Various data on AIS (Automatic Identification System)
ACARS: Various data on commercial aircraft
(Aircraft Communications Addressing and Reporting System)
12kIF(W): Output of received signal at 12 kHz IF (bandwidth 15 kHz)
12kIF(N): Output of received signal at 12 kHz IF (bandwidth 6 kHz)
*This 12 kHz IF (intermediate frequency) output was adopted as it is sometimes used in third-party receiver software. It is not used for normal reception or with Alinco's reception software.
*The data communication decoding of the receiver is also compatible with other signals. This is not limited to AIS and ACARS.

も使用されていません。
＊本機のデータ通信のデコードは他の信号にも対応します。AIS と ACARS に限定したものではありません。

When the selection or setting screen is displayed, an icon explaining the operation appears at the bottom of the screen.
The key shown on the selection screen also serves as the confirm key. For example, when proceeding to the selection screen using the [MODE] key, the [MODE] key replaces the [SET] key. This explanation is at times omitted as it appears repeatedly.

■ Receiving Communications
• Communications are not broadcasting. Most calling is performed when necessary and with minimal facilities, and there are exceedingly few communications with frequent radio waves. Communications are not necessarily as easy to receive as with radio broadcasting.
• Noises heard when signals are not being received (those referred to as back noise, white noise, etc.) vary in loudness and quality depending on the type of radio wave, air conditions, frequency, and other factors.
• The strength and sound quality of the radio waves received are affected by various factors, such as the power source used (AC adapter, batteries, etc.), the location and conditions (the presence of fluorescent lights, TVs or other electrical equipment, wooden or rebar construction, the area of one's residence, whether one is standing or walking, etc.), and the air conditions.
• The supplied whip antenna is designed primarily for outdoor reception. For efficient reception inside buildings, etc., install a commercially available external antenna that is compatible with those frequencies.
• In areas with strong electric fields, such as near mountains where radio towers and transmitting stations are concentrated, radio broadcasts, for example, may be heard overlaid on airplane transmissions, but this is not an abnormality. The attenuator function described below can be used to reduce these interferences and disruptions.

# 4 OPERATION MODE

The DJ-X100 has five operation modes: VFO Mode, VFO Scan Mode, Memory Mode, Memory Scan Mode, and FM Radio Mode.

DJ-X ーススキャ
ンモー

| | |
|---|---|
| VFO Mode | ダイヤルを回すか数字キーで周波数を選択します。トダイヤル<br>This selects the frequency by turning the dial or using the numeric keys. The frequency of the set frequency step moves one step with one click of the Upper Dial VFO is a radio term deriving from Variable Frequency Oscillator.<br>が簡単です。 |
| VFO Scan Mode | This mode automatically searches for signals within a VFO Mode band. There are six types of scans to select from: All, MHz, Program, Link Scan, Priority Scan, and Shift Scan. |
| Memory Mode | This mode recalls and receives pre-registered memory channels. Memory Mode and the Memory Scan seen below will not run until the memory has been registered.<br>むまで動作しません。 |
| Memory Scan Mode ード | 登録したメモリーチャンネルで通信中の信号を自動で探すモー<br>This mode automatically searches for signals being communicated on the registered memory channels.<br>There are six types of scans to select from: All Memory, Bank, Bank Link, GPS Memory Scan, Priority Scan, and Shift Scan. |
| FM Radio Mode | This enables communications to be received while listening to FM radio. This mode can be shifted into from all four modes above. When in Radio Mode, the band from 76 MHz to 108 MHz will be displayed. For such operations as turning off or reducing the volume of the broadcast audio when communication signals are received during broadcast reception, perform Radio Volume Reduction (pg. 93) in the Set Mode as described below. |

■ The Receiver's Automatic Analysis Function
This receiver automatically analyzes the CS of CTCSS, DCSCS, and D-STAR, the DG-ID of C4FM, and user code without special settings, and displays the values at the bottom of the reception screen; in addition, the CS, DG-ID, and user code can also be received practically in real time. This runs in both VFO Mode and Memory Mode.
Digital whitening codes are also automatically analyzed and decoded when set to AUTO by performing the operations as described below.

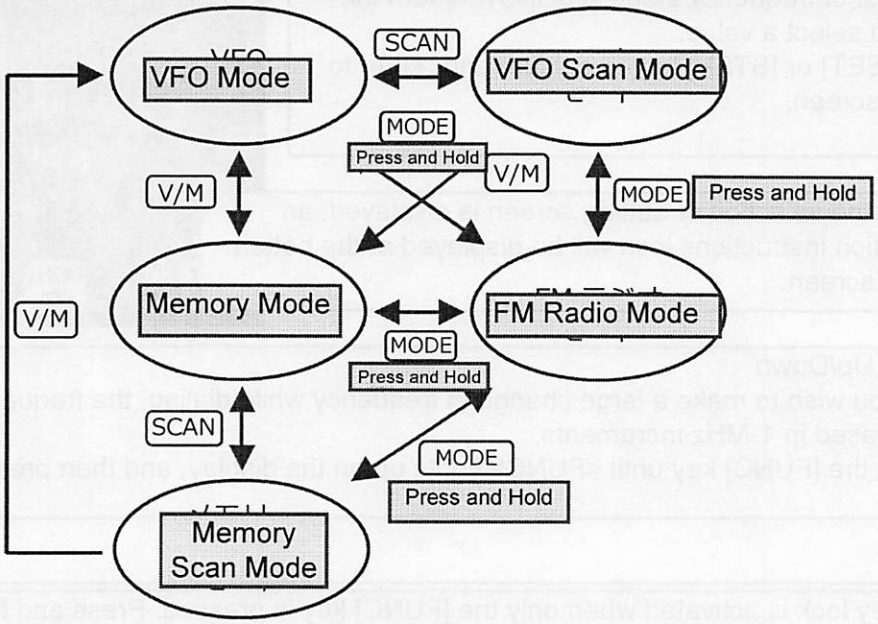
ドします。

参考
• CS/DG-ID/UC は設定初期値の OFF 時に自動解析します
• CS, DG-ID, and UC are automatically analyzed when the set initial value is OFF.
• During digital decoding, the first part of the received audio may be corrupted and difficult to hear, but this is not a malfunction.
• The signal must be strong enough to enable normal reception for proper decoding to be possible.
• The identified values and numbers can be written down and used for selective reception by registering them on memory channels as described below.

## ■運用モードの切り替え

■ Switch the Operation Mode

The figure below shows how to briefly press the [MODE], [V/M], and [SCAN] keys to switch between the various modes. In FM Radio Mode, briefly press the [MODE], [V/M], [SCAN], and [STEP] keys to toggle between modes while receiving FM radio.




■ VFO Mode

As explained in the Basic Operations section, use the Upper Dial and numeric keys to set the desired frequency.

● Select the Frequency Step

A frequency step (hereinafter “step”) is the interval between channels assigned to communications. This selects the suitable step, as they vary depending on communication and broadcast allotment rules. In VFO Mode, both the Upper Dial operations and VFO Scans switch frequencies at this interval.

注意

The receiver does not have the “AUTO Step” function often employed in wideband receivers. It was determined that the frequent changes to band plans in recent years in relation to the digital transition have made AUTO Step unnecessary. Use the internet or a commercially available frequency book to check band plans.

The selectable steps are as follows (k=kHz):
1k/5k/6.25k/8.33k/10k/12.5k/15k/20k/25k/30k/50k/100k/125k/200k

k/125k/

1. Press the [STEP] key on the reception screen.
2. When the list of frequency steps is displayed, turn the [Upper Dial] to select a value.
3. Press the [SET] or [STEP] key to confirm and return to the reception screen.


参考 When the selection or setting screen is displayed, an operation instructions icon will be displayed at the bottom of the screen.

● 1MHz Up/Down
When you wish to make a large change in frequency while dialing, the frequency can be increased or decreased in 1-MHz increments.
1. Press the [FUNC] key until <FUNC> lights up on the display, and then press the [STEP] key.

注意 The key lock is activated when only the [FUNC] key is pressed. Press and hold again to cancel.

2. Turn the [Upper Dial] to adjust the blinking MHz numbers. The number grows higher moving clockwise and lower moving counterclockwise.
3. Press the [MONI] key to confirm, and the blinking will stop.

参考 Depending on the frequency step, it may not increase or decrease in 1-MHz increments. When passing through FM radio frequencies 76 to 108 MHz or other frequencies that cannot be received, the kHz level will be rounded to 0000oo.

● 10-Fold Frequency Steps
This is another way to change the frequency greatly by operating the dial. The frequency can be increased or decreased by 10 times the set step value.
For example, when the step value is 10 kHz, it will increase or decrease in 100-kHz increments.
1. Press the [FUNC] key until <FUNC> lights up on the display, and then turn the [Upper Dial].
The frequency grows higher moving clockwise and lower moving counterclockwise.
2. Press the [FUNC] key again to confirm. When the Hold Time (pg. 100) of the [FUNC] key is not set to Hold, it will automatically be confirmed and return to standby after the set number of seconds has elapsed.

ホールド以外にしているときは、設定した秒数が経過すると自動で確定して待ち受けに戻ります。

■ VFO Scan Mode
This method automatically switches frequencies in VFO Mode for reception.
The [MODE], [STEP], [V/M], [SCAN], and [SET] keys can be used while scanning.

スキャン中でも [MODE] / [STEP] / [V/M] / [SCAN] / [SET] キー操作はできます。

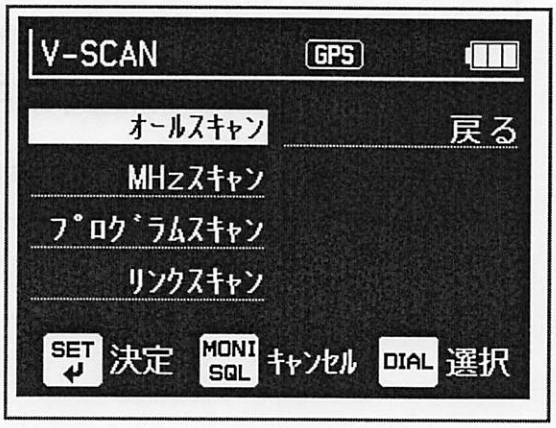
参考 Read this first, as although Memory Scans are described below in the “Memory Mode” section, there are many operations in common.

## ●スキャンの種類

| | |
|---|---|
| All Scan | This scans all frequencies within the reception range of the Receive Mode (type of radio wave) and step set for the VFO. (except for FM radio broadcast bands) |
| MHz Scan | This scans a pre-designated range upward from the current frequency with the Receive Mode and step pre-designated for VFO Mode. |
| Program Scan | This scans a frequency range with the Receive Mode and step pre-designated for the Program Scan. |
| LinkScan | Program Scan channels are pre-linked to receive several different scan ranges in succession. |
| Priority Scan | This alternately scans a specific pre-designated channel (priority channel) and the current frequency. This runs even while scanning.<br>中でも動作します。 |
| Shift Scan | This runs in both VFO Mode and Memory Mode. This alternately scans the current frequency and the frequency set to be shifted into (e.g., the uplink and downlink frequencies of the relay station). |

■ VFO Scan
Press the [SCAN] key in the default state to start All Scan in VFO Mode. Press the [SCAN] key to stop it. Press again to start scanning with the same scan type as was done last time; the scan type selection screen can be displayed by using the VFO Scan Setting in Set Mode (pg. 91) as described below.
1. Press and hold down the [SCAN] key to display the scan type selection screen.
2. Turn the [Upper Dial] to select the scan you wish to use, and then press the [SET] or [SCAN] key to confirm.
Some types of scanning require multiple [SET] or [SCAN] key operations.

オールスキャンを始めます。[SCAN]
じスキャンの種類でスキャンを始めま
P.91) でスキャン種類の選択画面を



● スキャンの共通動作

● Common Scan Operations

• Turn the [Upper Dial] clockwise while scanning to change the scan direction to ascending order and counterclockwise to change it to descending order.

• Press the [MONI] key and monitor while scanning to pause the scan, and release the [MONI] key to resume it.

• It will resume in the direction of the last scan. If the battery runs out or the power switch is turned on and off, the scan will automatically resume after rebooting. For program scans, the scan starts from the Start Frequency and moves toward the End Frequency.

• Any of the conditions for resuming a scan can be selected in the scan settings of Set Mode. A scan can also be resumed at any time by operating the Upper Dial. See Scan Manual Hold in Set Mode (pg. 90).

• Enter a 2-digit Program Scan number while scanning to shift to a program scan if there are registered Program Scans as described below. If nothing is registered, there will be beeping sound and the current scan will continue.

● All Scan

1. Press and hold the [SCAN] key, and then turn the [Upper Dial] to select “All Scan” on the scan type selection screen.
2. Press the [SET] or [SCAN] key to start scanning. While scanning, the dot and MHz in the frequency display will blink, and “ALL” will be displayed above the MHz.
3. Press the [SCAN] key while scanning to stop it. The display will stop blinking.


● MHz Scan

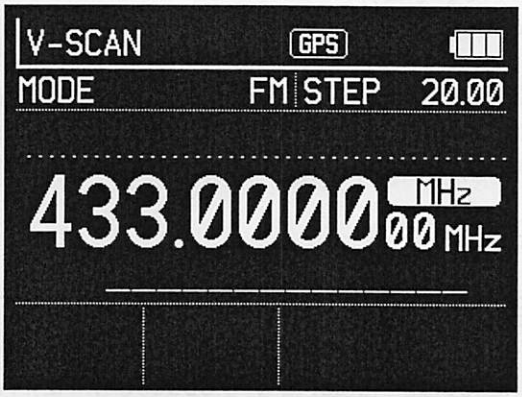
This repeatedly scans a designated MHz width from the current frequency upward with the Receive Mode and step set in VFO Mode. The following seven ranges can be selected in Set Mode. A specific range can be received more easily than a Program Scan with designated upper and lower limit frequencies.

0.25MHz/0.5MHz/1.0MHz/1.5MHz/2.0MHz/3.0MHz/5.0MHz

The default is set to 1 MHz.

For example, if it is 145.000 MHz, it scans between 145.000 and 146.000 MHz.

1. First read How to Set Up Set Mode (pg. 88) and then select the “MHz Scan Width” (pg. 91) in the scan menu.
2. Press and hold the [SCAN] key, and then turn the [Upper Dial] to select “MHz Scan” on the scan type selection screen.
3. Press the [SET] or [SCAN] key to start scanning. While scanning, the dot and MHz of the frequency display will blink, and the “MHz” icon will be displayed above the MHz.
4. Press the [SCAN] key while scanning to stop it. The display will stop blinking.



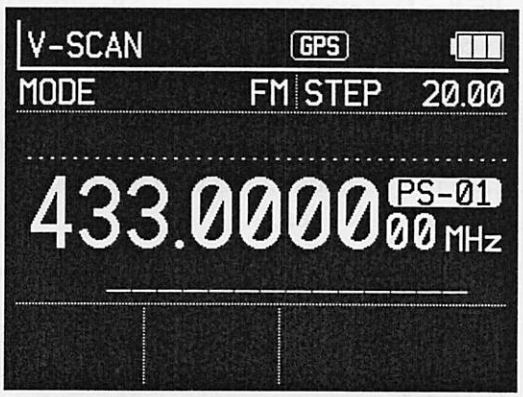

ドットと MHz が点滅し、MHz の上に「MHz」アイコンが表示されます。

4 スキャン中に [SCAN] キーを押すと停止します。表示の点滅が消えます。

参考

• Operations when the band edge or a range without reception is designated
Example 1: If 2 MHz is designated at 469.000 MHz, it will return to 470.000 MHz and scan between 469 and 470 MHz
Example 2: If 5 MHz is designated at 411.000 MHz, it will scan between 411 and 416, skipping only from 412 to 414.4
Example 3: If 2 MHz is designated at 411.000 MHz, it will scan only the 1-MHz width of 411 to 412

● Program Scan
This sets the upper and lower limits of the scan range and scans within that range. The set frequency pair is called a program channel. The receiver can register 50 pairs of program channels. This must be registered in advance to operate.




■ Registering Program Channels
1. Press the [FUNC] key to light up <FUNC> on the display.
2. Press the [SCAN] key to display “PROG,” and the program channel selection screen will be displayed.
3. Turn the [Upper Dial] to select the channel you wish to set, and then press the [SET] or [SCAN] key. When “New” is displayed, press the “SET” key again. The screen changes to the setting screen as shown below.

定画面に変わります。

[Start Frequency]
Press the [SET] key for “Start Freq.” A scan’s Start Frequency can be entered. The default is set to 30.000000 (MHz). As with entering the VFO frequency, use the numeric keys or the [Upper Dial] to set the frequency, and then press the [SET] key to confirm.

で確定します。


[End Frequency]
Turn the [Upper Dial] clockwise to select the End Freq. The idefault is set to 470.000000 (MHz). As with the Start Frequency, press the [SET] key to enter the End Frequency on the setting screen, and then press the [SET] key to confirm.
In the same way, operate the [Upper Dial] and [SET] keys several times to select the mode and step, respectively. The initial value is FM/20.00k.
Air Band, International VHF Marine Radio, Ham Radio, Specified Low Power, Analog Simple Radio, etc. can be received only through the settings up to this point.

終了周波数を入力、［SET］キーで確定

て、それぞれモードとステップも選択

無線、特定小電力、アナログ簡易無線な

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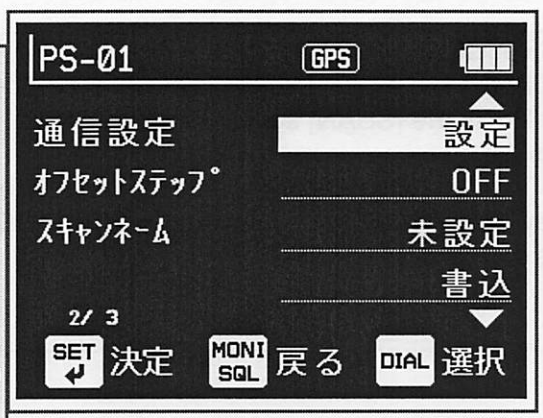
Important
When the [MONI] key is pressed too many times while in operation, it will return to the program channel selection screen (PROG screen); as a result, all operations performed will be lost and will have to be redone. For efficiency, it is recommended to turn the [Upper Dial], select “Write” in the last menu by pressing the [SET] key, turn the [Upper dial] on the “Do you wish to write?” screen to select “Yes,” and then press the [SET] key to confirm and save the settings. Selecting a program channel that is being edited on the PROG screen allows for continued operation.
As there will be a great amount of information edited, select “Yes” for “Write,” press the [SET] key after setting each item, and make frequent use of the write function while operating until you are more accustomed with the operations. Note that edits will not be saved until confirming “Write” with “Yes.”

Reference
The DJ-X100 editing software (utility software) makes these settings easy to perform on the computer.

【通信設定】
[Communication Settings]
The “Communication Settings” are the CTCSS and other selective call, their tone values, frequency shifts, and the attenuation values of the attenuator.
Operate the [Upper Dial], the [SET] key, and the [MONI] key to set them if necessary. For such categories as Air band and International VHF Marine Radio, there are no required operations with the default values.
Default value: Default value of FM communication settings
Available values and initial values are explained in detail in “Communication Settings for Various Functions” (pg. 70).




70) で詳しく説明しています。

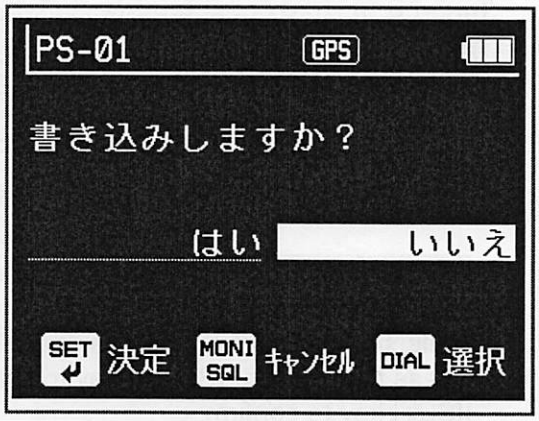
[Offset Step]
Operate the [Upper Dial], the [SET] key, and the [MONI] key to turn on and use "Offset Step"
Default value: OFF

キーを操作し

Reference
For details on offset steps, see pg. 78.

[Scan Name]
When a scan name is selected, a screen to enter text will be displayed.
The message length is 28 characters.
Default value: Blank

For details on how to enter characters, read the "Memory Name Functions" on pg. 60.



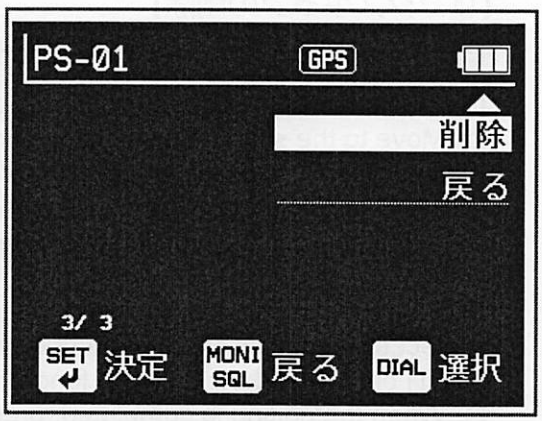

4. Select "Yes" for "Write" to save the edits and return to the PROG screen.

ROG 画面に戻ります。

5. Press the [SET] key and select "Yes" for "Delete" on the delete screen, and then confirm with the [SET] key to delete and initialize the data for that channel.

のデータを削除して初期化します。

Reference
Data can be partially edited, and the changes can be saved. It is not always necessary to delete and then rewrite.




● Link Scan
Linked program channels can be scanned in sequence. This operation cannot be performed unless multiple program channels have been pre-edited.

ンできます。あらかじめプログラム

い。

[Registering and Operating Link Scans]
1. Press and hold the [SCAN] key on the receive screen to display the scan type selection screen.
2. Turn the [Upper Dial] to select [Link Scan], and then press the [SET] or [SCAN] key.
3. When the Link Scan number screen is displayed, turn the [Upper Dial] to select the number you wish to edit.
Strikethrough lines indicate unedited link scans.


す。取り消し線があるのは未編集のリンクス

キャンです。

4. Press the [SET] or [SCAN] key, turn the [Upper Dial], and then select “Add Link” for the items that are displayed.
5. Program channels are displayed. Program channels are scanned in numeric order, not in the order they are linked. Select the program channel you wish to link using the [Upper Dial], and then press the [SET] key. Each time the [SET] key is pressed, the registered program channel will be removed from the list.
6. When the editing is completed, press “Back” to return to the link edit screen. When all program channels are selected, it will automatically return to the link edit screen.
7. Select “Start Link Scan” on the link edit screen, and then press the [SET] key to start scanning; the “LS- (Link Scan number)” icon will be displayed above the MHz display.
Press the [SCAN] key again to stop it.

7 リンク編集画面の「リンクスキャンの実行」を選んで [SET] キーを押すとスキャンが始まり、MHz 表示の上に「LS-（リンクスキャン番号)」アイコンが表示されます。もう一度［SCAN］キーを押すと止まります。

To use a different scan, press and hold the [SCAN] key, and then change it on the scan type selection screen.
Select “Link Scan” on the scan type selection screen to scan with a different Link Scan number, press the [SET] or [SCAN] key to select the number with the [Upper Dial], and then press the [SET] key to confirm.

を選んで [SET] キーで確定します。

【リンクスキャンの削除】

リンクしたプログラムスキャンの一部を削除できます。

[Deleting Link Scans]
Delete some of the linked Program Scans.
1. Move to the scan type selection screen using the same operations as described in “Registering Linked Scans” above, turn the [Upper Dial] to select [Link Scan], and then press the [SET] or [SCAN] key. The Link Scan number will be displayed.
2. Select the number you wish to delete with the [Upper Dial], and then press the [SET] or [SCAN] key.
3. Turn the [Upper Dial] to select “Delete Link,” and then press the [SET] or [SCAN] key.
Select the program channel number you wish to delete with the [Upper Dial], and then press the [SET] or [SCAN] key. It will no longer be displayed after being deleted.
4. When the editing is completed, press “Back” to return to the link edit screen. When all links are deleted, it will automatically return to the link edit screen. Link Scan numbers for which all program channels have been deleted are displayed with strikethrough lines.

除されたリンクスキャン番号は取り消し線付きで表示されます。

[Editing Link Scan Names]
Any name can be registered for registered Link Scans.
1. Move to the scan type selection screen using the same operations as described in “Registering Linked Scans” above, turn the [Upper Dial] to select [Link Scan], and then press the [SET] or [SCAN] key. The Link Scan number will be displayed.
2. Select the number you wish to edit with the [Upper Dial], and then press the [SET] or [SCAN] key.
3. Turn the [Upper Dial] to select “Link Scan Name,” and then press the [SET] or [SCAN] key.

4. Edit the Link Scan name. For details on how to enter characters, read the “Memory Name Functions” entry example on pg. 60.
5. When the editing is complete, press the [SET] key to confirm the edits and return to the previous screen.
Press the [MONI] key to cancel the edit and return to the previous screen.

[MONI] キーを押すと編集はキャンセルされて前の画面に戻ります。

[Initializing Links]
Initialize and delete registered Link Scans individually.
1. Move to the scan type selection screen using the same operations as described in “Registering Linked Scans” above, turn the [Upper Dial] to select [Link Scan], and then press the [SET] or [SCAN] key. The Link Scan number will be displayed.
2. Select the number you wish to initialize with the [Upper Dial], and then press the [SET] or [SCAN] key.
3. Turn the [Upper Dial] to select “Initialize,” and then press the [SET] or [SCAN] key.
4. When “Do you wish to initialize? Yes / No” is displayed, select “Yes” with the [Upper Dial], and then press the [SET] or [SCAN] key to return to the previous screen. Press [No] and then one of the [SET], [SCAN], or [MONI] keys to cancel and return to the previous screen.

します。

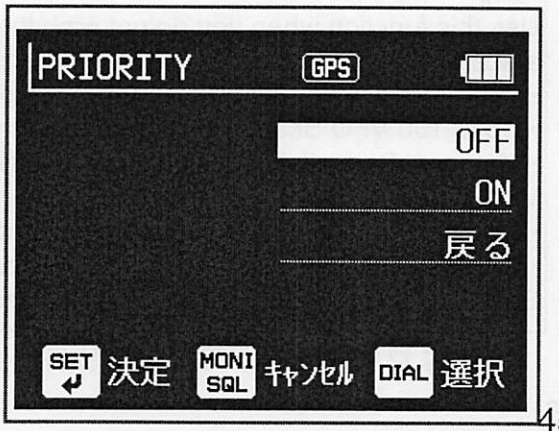
4「初期化しますか？ はい / いいえ」 が表示されるので [ 上ダイヤル ] で「はい」を選択し、[SET] キーまたは [SCAN] キーを押すと前の画面に戻ります。キャンセルするときは [ いいえ ] で [SET] / [SCAN] / [MONI] キーのいずれかを押すと前の画面に戻ります。

● Priority Scan
While receiving or scanning, the receiver can receive a pre-registered priority channel for 0.5 seconds every 5 seconds to check for the presence of a signal. This runs in VFO Mode, Memory Mode, or while scanning.
This item will not be displayed on the scan type selection screen unless the priority channel for memory channel 000 is edited and pre-registered. The same information can be registered in priority channels as in memory channels but a priority channel cannot be used as a memory channel. See Memory Mode (pg. 49) as described below to register memory channel 000 before operating.

ンネル 000 を登録してから操作してください。

メモリーチャンネル 000 にプライオリティ受信したいチャンネルの情報を登録します。

Register the information of the channel you wish to receive priority reception for to memory channel 000.
1. Press and hold down the [SCAN] key to display the scan type selection screen.
2. Turn the [Upper Dial] to select “Priority Scan,” and then press the [SET] or [SCAN] key.
3. Turn the [Upper Dial] to select “ON,” and then press the [SET] or [SCAN] key to return to the previous screen.
4. Select the [MONI] key or “Back,” and then press the [SET] key to return to the reception screen in Priority Scan status.




4 [MONI] キーまたは「戻る」を選択し [SET] キー

を押すとプライオリティスキャン状態で受信画面に戻ります

• During a Priority Scan, "><PRI" will be displayed below the frequency display.
• In Memory Mode, the memory number icon and the PRI icon on the MHz display are displayed in line with the reception status.
5. To stop a priority channel, select "OFF" in step 3.

5 プライオリティチャンネルを止めるときは手順３で「OFF」を選択します。

Reference
The priority reception interval can be changed in the Set Mode settings. (pg. 91)

参考

## ●シフトスキャン

• Shift Scan
This is used when you wish to alternately monitor the destination and source frequencies set to be shifted, such as the uplink and downlink of a relay station. When the frequency shift is not set, it will not be displayed on the scan type selection screen and will not run. For frequency shift settings, see "Communication Settings for Various Functions" (pg. 70).
This runs on both VFO channels and memory channels.
1. Press and hold down the [SCAN] key to display the scan type selection screen.
2. Turn the [Upper Dial] to select "Shift Scan."
3. Press the [SET] or [SCAN] key to start scanning.
While scanning, "SHIFT+" or "SHIFT-" in the lower left will blink.
4. Press the [SCAN] key while scanning to stop the scan and return to the previous reception screen.

ト設定した先と元の周波数を交互
ットを設定していないとスキャン種類の選
数シフトの設定は「各種機能の通信設定」
。
類の
を
ス
の
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ャ
ンが停止し元の受信画面へ戻ります。


Reference
The DJ-X100 editing software (utility software) makes these settings easy to perform on the computer.

## ■スキップ

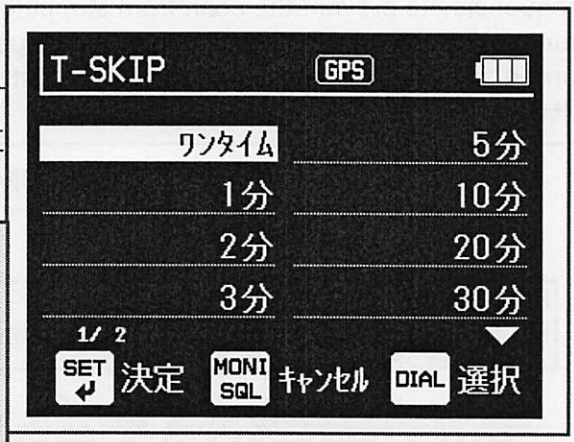
Skip
Use this function when you do not wish to stop a frequency for the next scan that had stopped during a scan.
• There are two types of skips: normal skips and time skips.
• Up to 100 VFO Scan skips can be designated for the normal skips and time skips collectively.
• Memory channel skip designations are saved in the memory data. This does not include the 100 VFO Scans.
• Skip designations can be made even when not scanning.
• Skip designations can be separated by bank or link, and they can also be shared.
See "Skips" (pg. 92) in Set Mode for how to do this.

方法はセットモードの「スキップ」(P.92) をご参照ください。

[Normal Skip]
When a scan stops, press the [SKIP] key to register it. When registered, the ►►► icon will be displayed.
Normal skip designations are saved even when the power is turned off.
After pressing the [FUNC] key, press the [SKIP] key to cancel a skip designation on the skip clear screen.
See “Canceling Skip” described below for details.

詳しくは後述の「スキップの解除」をご参照ください。

[Time Skip]
The time skip excludes a pre-designated amount of time from the scan and then automatically cancels the designation after the time has elapsed.




1. When the scan stops, press and hold the [SKIP] key to display the time skip selection screen.
2. Turn the [Upper Dial] to select the time you wish to set, and then press the [SET] or [SKIP] key to register it. The icon will be displayed when registered.
• The time skip designation is automatically canceled when the power is turned off.
The durations that can be set for the time skip are as follows:
One-time/1 minute/2 minutes/3 minutes/5 minutes/10 minutes/20 minutes/30 minutes/60 minutes/90 minutes
One-time: The skip designation is automatically canceled when scanning is stopped.

除されます。
です。
分 /30 分 /60 分 /90 分
プ指定が解除されます。

【スキップの解除】

[Canceling Skip]
1. Press the [FUNC] key to light up <FUNC> on the display.
2. Press the [SKIP] key to display the skip channel edit screen.
3. Turn the [Upper Dial] to select “Skip Clear” or “Time Skip Clear,” and then press the [SKIP] or [SET] key.
4. When the scan type selection screen is displayed, turn the [Upper Dial] to select the scan type you wish to cancel, and then press the [SKIP] or [SET] key.
5. Depending on the type of scan selected, a different edit screen will be displayed. Operate the [SET] key and the [Upper Dial] to select the target item, and then select “Yes” for “Do you wish to clear?” and then confirm with the [SET] key.


項を選択し、[SKIP] キーまたは [SET]

画面が表示されます。[SET] キーと上
しますか ?」で「はい」を選んで [SET]

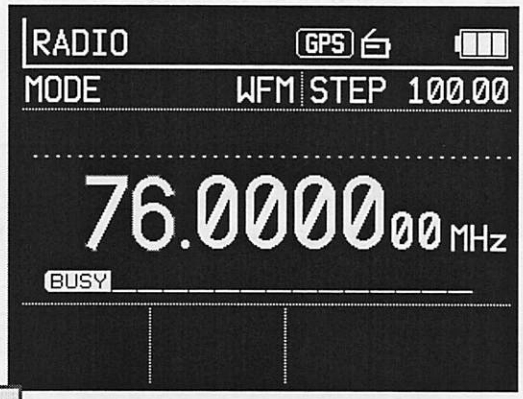
Clear All: This cancels all registered frequency skip settings.

Clear Individual: Select the frequencies to cancel when the registered skip frequencies are displayed.

No: Press the [SET] or [MONI] key to return to the previous screen without confirming.

Reference
In Memory Mode, a skip can be registered by registering it while a memory channel is displayed, and the skip will be saved in the memory. Press the [SKIP] key again to cancel the skip and remove the skip icon.

■ FM Radio Mode
This operation is for receiving FM radio broadcasts.
The FM radio bands are not included in the VFO frequencies to prevent the scan from stopping the FM radio during All Scan. In VFO Mode, when the Upper Dial is turned and the frequency exceeds 76 MHz, it will shift to 108 MHz.




を回して 76MHz を超えると 108MHz に移行します。

Precautions
FM radio broadcast bands cannot be scanned.

1. Press and hold the [MODE] key or enter a frequency between 76 and 108 MHz with the numeric keys in VFO Mode to shift to FM Radio Mode, and the radio icon will be displayed.
2. Turning the Upper Dial displays only 76 to 108 MHz. This can also be entered with the numeric keys in the same way as with VFO Mode. The mode and step are fixed at WFM 100 kHz.
3. The volume in FM Radio Mode is adjusted separately from the other Receive Modes. There is no squelch.
Turn the [Lower Dial] to adjust the volume while “RADIO” is displayed in the upper left corner of the screen.
The range of adjustment is 33 levels from 0 to 32 with an initial value of 0.
4. When receiving communications or scanning while listening to FM radio, press the [MODE], [STEP], [V/M], or [SCAN] key briefly during FM radio reception, or enter a frequency outside of FM broadcasting with the numeric keys.
It can be determined whether FM Radio Mode is ON by whether the radio icon is displayed. FM Radio Mode operations, such as lowering or muting the broadcast volume when communications are received, can be designated in “Radio Volume Reduction” (pg. 93) in Set Mode.
5. Press and hold down the [MODE] key in FM Radio Mode to return to the previous mode and turn off FM Radio Mode.

ドはオフになります。

Important
Due to the absence of a squelch, white noise (a “buzzing” noise) is heard on frequencies where there is no broadcast. When it is shifted to the normal mode while receiving noise, there will be a “buzzing” noise. This noise does not disappear even if the squelch is operated in the normal mode. Turn off FM Radio Mode to turn off the noise. When FM Radio Mode volume is set to zero, the “buzzing” sound will disappear, but the FM receiver circuit is still running and will consume battery power faster.

Precautions
Turning on FM Radio Mode shortens the battery life by more than 20% when compared in the same conditions.

# 5 メモMEMORY MODEド

This is a Receive Mode in which frequently used frequencies and settings are pre-registered to memory channels and recalled for use. The locations where frequencies are divided into categories for ease of use are called “banks,” and the registered frequencies are called “memory channels.” There is no limit to the number of channel registrations per bank on the receiver, and there is no need to edit the size of the bank.

Precautions
No data is registered in Memory Mode in the initial state. Memory Mode operations and Memory Scans cannot be performed without pre-editing the memory channels.

■ Types of Memory and How to Use Them
There are four types of memory modes.
• All Memory: All memory channels can be recalled.
• Bank: Memory channels in a designated bank can be individually recalled.
• Bank Link: Memory channels in banks set to be linked can be recalled.
• GPS Memory: Memory channels within a set distance from the current position can be recalled.
Default value: All Memory

初期値：オールメモリー

Reference
• Memory channel 000 is the channel for Priority Scans. The editing operations are the same, but it cannot be used as one of the memory channels.
• FM radio broadcasting cannot be registered in the memory.

■ Registering Memory Channels
• The following content can be registered and edited for memory channels. The receiver does not have any kind of protection for written data. The saved changes are reflected immediately.
• The device requires complex procedures to operate, such as for the memory names. The editing software to be distributed free of charge can be connected with the supplied PC cable. For this reason, this manual provides minimal explanation of the operations. Operating instructions for the editing software will be included with the software to be distributed.

している。編集ソフトの操作説明書は、配布するソフトに付属します。

[Registerable Data]
• Memory (channel) number
• Frequency
• Mode
• Step
• Communication settings
• 通信設定

- Offset step
- Longitude and latitude
- Bank
- Memory name

*Press the [V/M] key to switch to VFO Mode.
This operation can only be performed in VFO Mode.
1. Press the [FUNC] key to light up <FUNC> on the display, and then press the [V/M] key to display the memory channel registration screen “WRITE.” Items such as frequencies and steps are copied from the VFO setting status when the registration screen is first displayed.

たときの VFO の設定状態がコピーされています。


2. Memory Numbers
The initial value is 001, and after registration, the “smallest number available (unused)” will be displayed as “002 (Unused).” Press the [SET] key and turn the [Upper Dial] on the memory number screen to select the memory number you wish to newly register or edit. The frequency of a registered channel will be displayed in the frame. Press the [SET] key to confirm and return to the memory channel registration screen.

Reference
The memory number can be selected as any number from 001 to 999. 000 is the priority channel. Data can be edited immediately by selecting a registered number. No overwrite protection is provided.

3. Frequencies
(1) Turn the [Upper Dial] to select “Frequency,” and then press the [SET] key.
(2) Turn the [Upper Dial] or operate the numeric keys to enter the frequency.
(3) Press the [SET] key to return to the memory channel registration screen.

Reference
Operate the numeric keys in the same way as when entering frequencies directly in VFO Mode. Read pg. 31.
The band from FM radio frequencies 76 to 108 MHz and frequencies outside the reception range of the receiver cannot be entered.

4. Modes
(1) Turn the [Upper Dial] to select “Mode,” and then press the [SET] key.
(2) When the “Analog,” “Digital,” and “Data” selection screen appears, turn the [Upper Dial] to select. Press the [SET] key again to display the respective detailed screens, and then use the [Upper Dial] to adjust the mode to your preference. Press the [SET] key to confirm and return to the memory channel registration screen. Read this along with “Selecting the Receive Mode” (pg. 34).

5. Steps
(1) Turn the [Upper Dial] to select “Step,” and then press the [SET] key.
(2) When the list of steps is displayed, turn the [Upper Dial] to select a value, and then press the [SET] key to confirm the selection and return to the memory channel registration screen.

Reference
There is no function directly related to this set step value for memory channel reception.

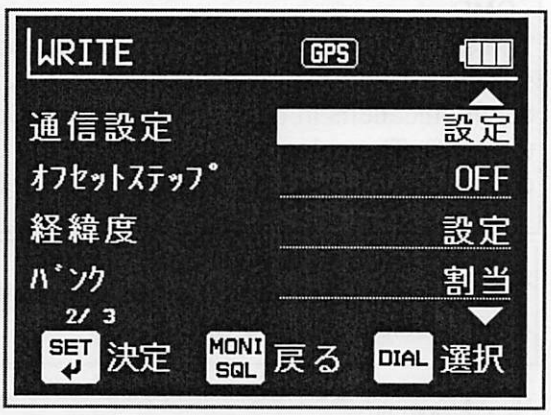
Important
It involves entering long strings of characters after this. These operations take time, and if you mistakenly return even once during the process, the unregistered edits will be lost and cannot be recovered. The edits up to this point can be registered as a new channel by performing the following writing operations. Edits to the remaining items should be performed with the “Edit Memory Channel” operation while frequently saving these edits repeatedly to minimize loss in the event of a mistake.

If you do not wish to save the edits, read “6 Communication Settings” below.

[Saving Edits (Write Operations)]
• Turn the [Upper Dial] to select “Write” on the memory channel registration screen, and then press the [SET] key. Select “Yes” on the write confirmation screen, and then press the [SET] key to confirm and return to VFO Mode.
• Press the [V/M] key to move to Memory Mode, press the [FUNC] key, and then press the [V/M] key once <FUNC> is displayed. Enter the remaining items when the memory channel information being edited is displayed.

Hereinafter, the same items appear on the edit screen with the same names, whether in VFO Mode or Memory Mode. All operations and functions are the same.
• In VFO Mode, “WRITE” will be displayed on the setting screen; in Memory Mode, [EDIT] will be displayed.

6. Communication Settings
Common operations:
Turn the [Upper Dial] to select “Communication Settings,” and then press the [SET] key. The communication settings screen will be displayed, which varies depending on the Receive Mode. Turn the [Upper Dial] to select the item you wish to set, and then press the [SET] key. The setting screen described below will be displayed. Use the [Upper Dial] and [SET] keys or the numeric keys to set as desired, and then press the [SET] key to confirm and return to the registration screen.
Available values and initial values are explained in detail in “Communication Settings for Various Functions” (pg. 70).




(P.70) で詳しく説明しています。

【アナログ（FM/NFM）】

[Analog (FM/NFM)]
• Squelch types (CTCSS, DCS)
These are used specifically for communications that use low-frequency tones to open and close the squelch. CTCSS and DCS are used to filter out noise heard with simplified analog operations and specified low-power radio in order to listen for only specific signals.

す。

• CTCSS tone/DCS code
Select the tone or DCS number used by the station you wish to receive on CTCSS or DCS. Obtain information on the station you wish to monitor in advance, or actually receive its signal and check it on the receiver's display. When it is set indiscriminately, nothing will be received. The values that can be set and the initial values are explained in detail in "Communication Settings Analog" (pg. 71).

「通信設定のアナログ」(P.71) で詳しく説明しています。

• 逆 CTCSS/ 逆 DCS について
通常の CTCSS/DCS 運用ではこれらのトーン信号が重畳された信号を受信すると受信機のスケルチが開きます。逆に常に基地局がトーンを乗せた信号を送信し続けていて、子局と音声通信するときだけトーンを外すものが逆トーン運用です。

[Digital]
The values that can be set and the initial values are explained in detail in "Digital Communication Settings" (pg. 73).

白色化コード、ユーザーコード、秘話コード（32,767 通り）、グループコード、周波数シフト、アッテネータが設定できます。白色化コード（ホワイトニングコード）は 000 ～ 511/AUTO で設定できます。

重要 弊社ではデジタル通信で使われる周波数やコードなどの通信設定についての情報は開示しておりません。お問い合わせにもお答えできません。

• DMR

• DMR
The slot, color code, group code, frequency shift, and attenuator can be set. DMR is a TDMA system that alternately splits the 12.5 kHz bandwidth into two time slots, allowing separate communications in each individual slot. Communications can be received in either slot when set to AUTO. The color code is similar to the user code and is set between 00 and 15. All communications are heard when this is left OFF.

• D-STAR
The code squelch, frequency shift, and attenuator can be selected. All audio is heard when the code squelch is turned OFF.

• C4FM(DN)

• C4FM(DN)
The DG-ID, frequency shift, and attenuator can be selected.
All audio is heard when the DG-ID is turned OFF.

【共通】

[Common]
• Frequency shift
Once the shift frequency width and direction are registered, the shift destination frequency can be received by pressing the [MONI] key. It is mainly used for receiving relay systems. (e.g., if you register a relay station downlink frequency of 439 MHz for Ham Radio and set the shift to -5.000000 MHz, a 434-MHz band frequency can be received on the uplink side by pressing the [MONI] key.)
The initial value is 0.000000. The use of the keys is the same as when entering the frequency. It can also be operated with the [Upper Dial]. After setting, "SHIFT - " will be displayed in the lower left corner of the reception screen.

例：－5MHzを入力

Example: Entering -5 MHz
(1) On the shift frequency setting screen, press 5 using the numeric keys. +5 will be displayed.
(2) Press the [MODE] key to change to -5.
(3) Press the [SET] key.
(4) -5.000000 is entered, confirmed, and it returns to the memory channel registration screen.

Attenuator
When there is a strong signal nearby suppressing or otherwise making it difficult to receive the intended signal, this function reduces the effect of the strong signal and facilitates reception by actually reducing the reception sensitivity. The initial value is OFF, and it can be selected between either 10dB or 20dB The attenuation becomes greater at 20dB.
Press the [SET] key, turn the [Upper Dial] on the edit screen to select, press the [SET] key to confirm, select "Back," and then press the [SET] or [MONI] key to return to the memory channel registration screen. The setting value will be displayed in the lower left corner of the reception screen as something similar to "ATT 20."

7. Offset step
On the memory channel edit screen, turn the [Upper Dial] to select "Offset Step," and then press the [SET] key. Turn the [Upper Dial] to select "ON" or "OFF," and then press the [SET] key to return to the memory channel registration screen.

Reference
For details on offset steps, read pg. 78.

8. Longitude and Latitude
• Registration is required to use the GPS Memory Scan.
• The distance between the position information entered in GPS or FIX and the position information to be registered in the memory will be displayed on the STEP display from 0.01 km to 999.99 km in 10-m increments.
When the distance exceeds 999.99 km, "---.--" will be displayed.
• Enter the value in the DEG (Degree) format (decimal value). Press the [MODE] key while entering numerical values to toggle between N and S for north and south latitudes, and E and W for east and west longitudes.
• Numbers are entered in the same way as with frequencies, etc. This operation can be performed with the numeric keys. When the entry is completed, press the [SET] key or enter the sixth decimal place to confirm the entry.
• Current position information can also be set from GPS position information.

メモリーチャンネル登録画面で［ダイヤル］を回して「経緯度」を選択し、［SET］キ

Turn the [Upper Dial] on the memory channel registration screen to select “longitude and latitude,” and then press the [SET] key.
Turn the [Upper Dial] to select “New,” and then press the [SET] key. Press the [MONI] key to cancel.

【緯度の設定】

[Setting the Latitude]
Turn the [Upper Dial] to select “Latitude,” and then press the [SET] key.
Enter the latitude using the numeric keys, and then confirm to return to the edit screen.
Example: For 35 degrees north, enter 35 using the numeric keys, and then press the SET key.
For 41.5 degrees south, enter 41.5 using the numeric keys, press the [MODE] key to change N to S, and then press the [SET] key.

［SET］キーを押します。

[Setting the Longitude]
Turn the [Upper Dial] to select “Longitude,” and then press the [SET] key.
Enter the longitude using the numeric keys, and then confirm to return to the edit screen. Enter the longitude in is the same way as with the latitude.
Press the [MODE] key to switch between E (east longitude) and W (west longitude).

[Registering Longitude and Latitude]
Once the numbers are entered, select “Settings” on the LOCATE screen, turn the Upper dial to select “Yes” on the “Do you wish to set?” screen, and then press the [SET] key to confirm. It will return to the memory channel registration screen.

面に戻ります。

Precautions
Only entering longitude and latitude values will not register them. Without selecting “Set” on the LOCATE screen, pressing the [SET] key, and then selecting “Yes,” the value will be removed by any operation that changes the screen.

[Registering from GPS Position Information]
Turn the [Upper Dial] to select “Obtain from GPS,” and then press the [SET] key to automatically set the current position information and return to the memory channel registration screen. The operations for registering longitude and latitude as described above are not required.

の操作は不要です。

Precautions
• If the position information cannot be obtained from GPS, it cannot be registered.
• If you wish to set the exact position, enter the longitude and latitude values to register.

9 バンク

9. 9 Bank
The receiver’s banks employs a system in which memory channels in a single area are linked by bank numbers, such as “This is bank A; this is bank B, etc.,” not by dividing memory devices into fixed sizes and writing data on them.
• 999 memory channels can be freely registered in the 26 banks from bank A to bank Z without concern for the bank’s size.

ネル 999 個を自由に登録できます。

• The data in one memory channel can be linked and registered in multiple banks. Even if linked with multiple banks, only one memory channel is counted as registered. (Even if 145.000 MHz is linked with Banks A, D, and Z, the number of memory channels remaining is 998, not 996.)
• It is not necessary to assign them in the order starting with A. Any bank can be selected.

• 必ずAから順番に割り当てる必要はありません。任意のバンクが選べます。

[Bank Selection]
On the memory channel registration screen, turn the [Upper Dial] to select “Bank Assignment,” and then press the [SET] key.
(1) Turn the [Upper Dial] to select the bank (A to Z) you wish to use, and then press the [SET] key.
(2) Turn the [Upper Dial] to select “ON,” and then press the [SET] key. Once confirmed, “ON” will be displayed. Do the same for all the banks you wish to link.
(3) Press the [MONI] key or turn the [Upper Dial] to select “Back,” and then press the [SET] key to return to the memory channel registration screen.

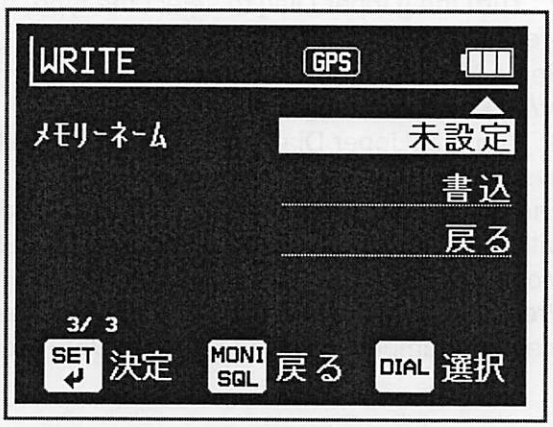
とメモリーチャンネル登録画面に戻ります。

【バンクネームの変更】

[Changing Bank Names]
For example, when registering the air band frequencies of Haneda Airport and Narita Airport in Bank A and Bank B, respectively, the banks can be named as “Haneda” and “Narita.”
(1) Turn the [Upper Dial] on the bank selection screen to select “Change Bank Name,” and then press the [SET] key.
(2) Turn the [Upper Dial] to enter characters.
For details on how to enter characters, see the “Memory Name Function” entry example (pg. 60).
(3) After editing, press the “SET” key.
(4) Press the [MONI] key or turn the [Upper Dial] to select “Back,” and then press the [SET] key to return to the bank selection screen.

バンクの選択画面に戻ります。

10. Memory Names
Individual memory channels can also be given any name.
(1) On the memory channel registration screen, turn the [Upper Dial] to select “Memory Name (Unset),” and then press the [SET] key.
For details on how to enter characters, see the “Memory Name Function” entry example (pg. 60).
(2) After editing, press the [SET] key to return to the memory channel registration screen.




11. Write

Important
As explained in “Saving Edits (Write Operations),” no edits are saved until this write operations are performed.

全ての編集内容を確定して、メモリーチャンネルデータとして保存します。

All edits are confirmed and saved as memory channel data.
(1) Turn the [Upper Dial] on the memory channel registration screen to select “Write,” and then press the [SET] key.
(2) Turn the [Upper Dial] to select “Yes,” and then press the [SET] key to complete the memory channel registration and return to the reception screen.

### ● メモリーチャンネルの削除

Deleting Memory Channels
*Press the [V/M] key to switch to Memory Mode. This operation can only be performed in Memory Mode.
1. Press the [FUNC] key to light up <FUNC> on the display, and then press the [V/M] key to display the memory channel registration screen “EDIT.”
2. Turn the [Upper Dial] to select “Memory Number,” and then press the [SET] key.
3. 3 Turn the [Upper Dial] or press the keyboard to select the memory number you wish to delete, and then press [SET] to return to the memory channel registration screen.
4. Turn the [Upper Dial] to select “Yes” on the “Do you wish to delete?” screen, and then press the [SET] key.
5. Turn the [Upper Dial] to select “Yes” on the "Do you wish to delete?" screen, and then press the [SET] key to delete the selected memory channel and return to the reception screen. Turn the [Upper Dial] to check that the designated channel was removed.

9と選択したメモリーチャンネルを削除して、受信画面に戻ります。[エタイヤル]を回して指定したチャンネルが消えていることを確認します。

### ■ メモリーモードの操作

■ Operating Memory Mode
This operation cannot be performed unless the memory channel has been registered for the mode to be used. For example, if a memory channel containing position information has not been registered, even if you select GPS Memory Mode, an alert message will be displayed stating that there is no position information.

列を

[Select the Type of Memory Mode]
1. Press and hold down the [V/M] key in Memory Mode to display the selection screen for the four Memory Modes.
2. Turn the [Upper Dial] to select the type, and then press the [SET] or [V/M] key to confirm.
Some Memory Mode types require multiple [SET] and [V/M] key operations.
3. Turn the [Upper Dial] one click to change the channel by one.
The degree of change can be increased or decreased with the selector acceleration function (pg. 99) in Set Mode.
Press the [V/M] key to exit Memory Mode, remove the memory number icon, and return to VFO Mode.


能（P.99）で変化量を増減できます。
メモリー番号アイコンが消え、VFO モードに戻ります。

Reference
Press and hold down the [SET] key in Memory Mode to shift to VFO Mode and display the registered memory information.

## ●オールメモリー

• All Memory
All memory channels can be recalled.
Select “All Memory” with the [Upper Dial] on the Memory Mode type selection screen, and then press the [V/M] or [SET] key to recall all memory channels.

• Bank
Memory channels in a designated bank can be individually recalled.
Select “Bank” with the [Upper Dial] on the Memory Mode type selection screen, press the [V/M] or [SET] key, select the bank you wish to receive on the bank number selection screen with the [Upper Dial], and then press the [V/M] or [SET] key to recall only the memory channels in the designated bank.

が[SET]キーを押すと指定したバンク内のメモリーチャンネルのみ呼び出しできます。

## ●バンクリンク

Kyoto

Tokyo

リンク設定しているバンクのメモリーチャンネルを呼び出しできます

• Bank Link
Memory channels in banks set to be linked can be recalled.
[Registering and Deleting Bank Links]
This sets banks when pre-editing memory channels. For example, register Tokyo’s memory channel as Bank A, Osaka’s as Bank B, Kyoto’s as Bank C, and so forth.
1. Select “Bank Link” with the [Upper Dial] on the Memory Mode type selection screen, and then press the [SET] key to display the “Bank Link + Number” setting screen.
2. Turn the [Upper Dial] to select the bank link number you wish to edit, and then press the [SET] key.
3. Turn the [Upper Dial] to select “Add Link” on the bank link edit screen, and then press the [SET] or [V/M] key to display the list of pre-registered banks.
Select “Remove Link” to remove a link, and then perform the same operations.
4. Turn the [Upper Dial] to select the bank you wish to add or remove from the bank link, and then press the [SET] or [V/M] key. Edited banks will be removed from the list. Repeat this operation to edit the numbers you wish to link.

キーまたは[V/M]キーを押します。編集されたバンクは一覧から消えます。この操作を繰り返してリンクさせたい番号を編集します。

Reference
Unregistered bank link numbers are displayed with strikethrough lines.

5. When completed, press the [MONI] key or select “Back,” and then press the [SET] key to return to the previous screen.
に戻ります。

Reference
When all banks have been added, it will automatically return to the previous screen.

[Starting Bank Links]
Select “Start Bank Link” on the bank link edit screen to shift to Bank Link Mode. The alphabetical letters and memory number of the registered bank are displayed above MHz.

す。

【バンクリンクの名前の編集】

[Editing Bank Link Names]
Easily understood names can be registered for registered bank links.
1. Follow the steps up to step 2 of registering and deleting a bank link, and then select “Bank Link Name” on the edit screen.
Press the [SET] key to display the edit screen. Enter the name manually in the same way as editing a memory channel name, or use the editing software.
2. When editing is completed, press the [SET] key to confirm and return to the previous screen.
Press the [MONI] key to cancel the editing and return to the previous screen.

[MONI] キーを押すと編集をキャンセルして前の画面に戻ります。

【バンクリンクの初期化】

[Initializing Bank Links]
Linked registered bank links can be canceled all at once to initialize.
1 Select “Initialize” on the bank link edit screen, press the [SET] or [V/M] key, and when the “Do you wish to initialize? Yes / No” screen is displayed, turn the [Upper Dial] to select “Yes,” and then press the [SET] or [V/M] key. Leave “No” as it is, and then press the [SET] key to cancel; or press the [MONI] key to return to the bank link edit screen.

のまま [SET] キーを押すか [MONI] キーを押すとバンクリンク編集画面に戻ります。

【GPS メモリー】

• GPS Memory
The distance is calculated from the longitude and latitude set by the longitude and latitude or fixed longitude and latitude obtained by the built-in GPS and the longitude and latitude registered in the memory channel, and memory channels within a designated range can be individually recalled. In addition, when it is set to search again, you can automatically limit the recall to nearby frequencies when moving.

Precautions
• This will not run when the position information cannot be obtained by GPS.
• This will not run unless the longitude and latitude are written to the memory channel.

1 メモリーモードの種類の選択画面で「GPS メモリー」を［上ダイヤル］で選択、[V/M]

1. Select “GPS Memory” with the [Upper Dial] on the Memory Mode type selection screen, and then press the [V/M] or [SET] key.
2. Turn the [Upper Dial] on the GPS memory setting screen to select “Search Range,” and then press the [SET] or [V/M] key.
3. Turn the [Upper Dial] or enter a numerical value to set the search range. The setting range is 1 to 199 km with an initial value of 20 km.
4. After setting the search range, press the [SET] or [V/M] key to return to the GPS memory setting screen.
5. Turn the [Upper Dial] to select “Distance to Search Again,” and then press the [SET] or [V/M] key.
6. Turn the [Upper Dial] to select the distance to search again, and then press the [SET] or [V/M] key.
The initial value is 10 km. The following options to search again can be selected to simplify changes.
Distance to search again: Do not search again/100 m/200 m/300 m/500 m/1 km/2 km/3 km/5 km/10 km/20 km/30 km/50 km/100 km

います。

再検索距離：再検索しない /100m/200m/300m/500m/1km/2km/3km/5km/10km/20km/30km/50km/100km

7. Turn the [Upper Dial] to select “Next,” and then press the [SET] or [V/M] key to display the screen for selecting the Memory Mode to search.
8. Turn the [Upper Dial] to select the Memory Mode to search, and then press the [SET] or [V/M] key to select only that memory channel to search.
The STEP display replaces the distance display (DIST).

STEP 表示部が距離表示（DIST）に代わります。

注意

Precautions
• Some types of Memory Mode require multiple [SET] and [V/M] key operations.
• When the target memory channel is not in the search range, “No Corresponding Memory” will be displayed.

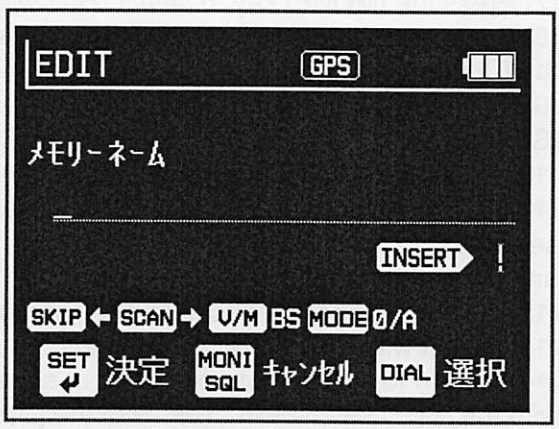
## ■メモリーネーム機能

■ Memory Name
Memory channels registered in Memory Mode can be given names of up to 28 characters, including numbers, alphabetical letters, and symbols.
Registering a name with a call sign or broadcast station name makes it easier to find the memory channel.

くなります。

参考 本体操作によるメモリーネームの入力は、複雑な手順が必要です。弊社 HP で無償配布する編集ソフトをご利用ください。文字の編集が簡単にでき、本機単体の操作では入力できない第二水準準拠の漢字も入力することができるようになります。付属の USB ケーブルで接続できます。

● How to Edit Memory Names
1. Press the [FUNC] key in Memory Mode to light up <FUNC> on the display, and then press the [V/M] key to display the memory channel registration screen “EDIT.”
2. Turn the [Upper Dial] to select “Memory Name (Unset),” and then press the [SET] key.
3. When the memory name setting screen is displayed, operate the keys and the [Upper Dial] to enter characters. For a list of characters that can be entered, see pg. 61 to pg. 65.




をご参照ください。

[How to Enter Characters]
Press the [MODE] key to select the type of characters to enter.
Press the [STEP] key to change between upper and lower case (alphabetical letters).

Turn the [Upper Dial] clockwise to display the characters in regular succession. Turn the dial counterclockwise to display the characters in reverse.
Press the [SCAN] key to move the cursor one character to the right.
Press the [SKIP] key to move the cursor one character to the left.
Press the [V/M] key to delete one character at a time.

[V/M] キーを押すと 1 文字ずつ消去します。

4. When the entry of characters is completed, press the [SET] key to finish editing. Select “Write” on the memory edit screen and perform the “Write Operations” as described above. The edited characters will be lost if this is not performed.

Reference
The registered memory name will be displayed above the frequency display.

例：「関西KIXタワー 1」の書き込み

Example: Writing “関西KIXタワー 1”
Move to the memory name setting screen described in 3 above.

(1) Press the [MODE] key to select "Full-width Hiragana" and press the [SET] key.
(2) The kanji candidates are registered as on-yomi readings, so use the [Upper Dial] to select "ka" and press the [STEP] key.
(3) The kanji candidates are displayed, so turn the [Upper Dial] to find "Kan", align it with "Kan" and press the [SET] key.
(4) Press the [SCAN] key to move the cursor to the right.
(5) Use the [Upper Dial] to select "Se", press the [STEP] key to align it with "Sei" and press the [SET] key.
*If you make a mistake, use the [SCAN] key to move the cursor to the right and then press the [V/M] key to erase the previous character.
(Note that if you only press the [V/M] key, the character before the one you entered correctly will be erased.)
(6) Press the [SCAN] key to move the cursor to the right.
(7) Press the [MODE] key to select “Half-width alphabetical letters,” and then press the [SET] key.
(8) Set to “K” with the [Upper Dial]. Press the [SCAN] key to move the cursor to the right, and then use the [Upper Dial] to set it to “I.”
(9) Move the cursor again with the [SCAN] key, select “X” with the [Upper Dial], and then press the [SCAN] key.
(10) Press the [MODE] key to select "Half-width Katakana" and press the [SET] key.
(11) Use the [Upper Dial] to select "Ta", use the [SCAN] key to move the cursor, and in the same way select "Wa"
and press the [SCAN] key.
(12) Use the [Upper Dial] to select "--" and press the [SCAN] key.
(13) Select with the [MODE] key, select “1” with the [Upper Dial], and then press the [SET] key.
(14) Return to the memory edit screen, select “Write” with the [Upper Dial], move to the write screen with the [SET] key, select “Yes” with the [Upper Dial], and confirm with the [SET] key.

(13)[MODE] キーで「全角数字」を選び、[ 上ダイヤル ] で「1」を選んで [SET] キーを押す

(14) メモリー編集画面に戻るので [ 上ダイヤル ] で「書込」を選び、[SET] キーで書き込み画面に入って [ 上ダイヤル ] で「はい」を選択して [SET] キーで確定する。

(15)[V/M] キーでメモリーモードに入り、[ 上ダイヤル ] を回して編集したメモリーチャ

(15) Press the [V/M] key to move to Memory Mode, and then turn the [Upper Dial] to the edited memory channel. The memory name is displayed above the frequency display as confirmation that it was successfully written.
(16) After pressing the [FUNC] key, press the [V/M] key to continue editing the settings on that channel.

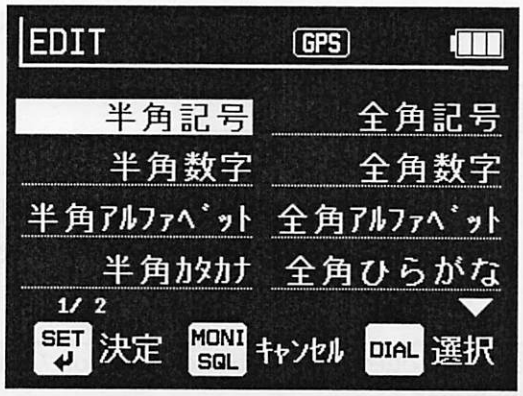
## ■文字入力一覧

■ List of Entry Characters
When the [MODE] key is pressed, the following types of characters can be selected.
For all registration settings, 14 full-width characters or 28 half-width characters can be entered.
Press the [STEP] key while entering alphabetical letters to switch between entering them in uppercase and lowercase. (Initial value is uppercase.)
When full-width katakana or full-width hiragana are input, press the [STEP] key to select the kanji for that character.

漢字は JIS 第一水準準拠です。

・半角記号
・半角数字

• Half-width symbols
• Half-width numbers
• Alphabetical letters
• Half-width Katakana
• Full-width symbols
• Full-width numbers
• Full-width alphabet
• Full-width Hiragana
• Full-width Katakana




● Enterable Characters
• Half-width symbols
Space ! " # $ % & ' ( ) * + , - . / : ; < = > ? @[ \ ] ^ _ ` { | } ~

^ _ ` { ¦ } ~

● Enterable Characters
• Half-width symbols
Space ! " # $ % & ' ( ) * + , - . / : ; < = > ? @[ \ ] ^ _ ` { | } ~
• Half-width numbers
0 1 2 3 4 5 6 7 8 9

• Alphabetical letters
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Half-width Katakana

ｱ ｲ ｳ ｴ ｵ ｶ ｷ ｸ ｹ ｺ ｻ ｼ ｽ ｾ ｿ ﾀ ﾁ ﾂ ﾃ ﾄ ﾅ ﾆ ﾇ ﾈ ﾉ ﾊ ﾋ ﾌ ﾍ ﾎ ﾏ ﾐ ﾑ ﾒ ﾓ ﾔ ﾕ ﾖ ﾗ ﾘ ﾙ ﾚ ﾛ ﾜ ﾝ ｧ
ｨ ｩ ｪ ｫ ｬ ｭ ｮ ｯ ﾞ ﾟ ｰ

• Full-width symbols

スペース 、。 , . ・ : ; ? ！ ゛ ゜ ´ ` ¨ ^ ￣ ＿ ヽ ヾ ゝ ゞ 〃 仝 々 〆 〇 ー ― ‐ ／ ＼ ～ ∥ ｜ … ‥ ‘ ’ “ ” （ ） 〔 〕 ［ ］ ｛ ｝ 〈 〉 《 》 「 」 『 』 【 】 ＋ － ± × ÷ ＝ ≠ ＜ ＞ ≦ ≧ ∞ ∴ ♂ ♀ ° ′ ″ ℃ ￥ ＄ ¢ £ ％ ＃ ＆ ＊ ＠ § ☆ ★ ○ ● ◎ ◇ ◆ □ ■ △ ▲ ▽ ▼ ※ 〒 → ← ↑ ↓ 〓 ∈ ∋ ⊆ ⊇ ⊂ ⊃ ∪ ∩ ∧ ∨ ￢ ⇒ ⇔ ∀ ∃ ∠ ⊥ ⌒ ∂ ∇ ≡ ≒ ≪ ≫ √ ∽ ∝ ∵ ∫ ∬ Å ‰ ♯ ♭ ♪ † ‡ ¶ ○

• Full-width numbers

０１２３４５６７８９

• Full-width alphabet

ＡＢＣＤＥＦＧＨＩＪＫＬＭＮＯＰＱＲＳＴＵＶＷＸＹＺ

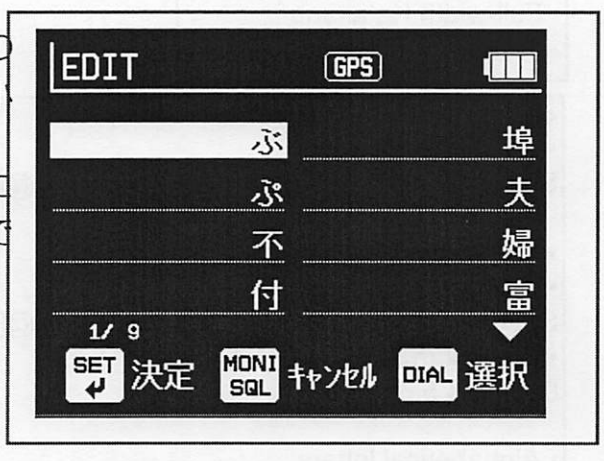
• Full-width Hiragana

あいうえおかきくけこさしすせそたちつてとなにぬねのはひふへほまみむめもやゆよらりるれろわをんがぎぐげござじずぜぞだぢづでどばびぶべぼぱぴぷぺぽぁぃぅぇぉゃゅょっゐゑ

• Full-width Katakana

アイウエオカキクケコサシスセソタチツテトナニヌネノハヒフヘホマミムメモヤユヨラリルレロワヲンガギグゲゴザジズゼゾダヂヅデドバビブベボパピプペポァィゥェォャュョッヵヶヴヰヱ

• Capital Letter/Smal Letter conversion / Kanji conversion
Press the [STEP] key to switch between capital letter and small letter during half-width or full-width alphabets is input. (The default is capital letter.)
When, press the [STEP] key to select the kanji for that character during full-width katakana or full-width hiragana is input.



• Kanji

| | |
|---|---|
| あ | 亜唖娃阿哀愛挨姶逢葵茜穐悪握渥旭葦芦鯵梓圧斡扱宛姐虻飴絢綾鮎或粟袷安庵按暗案闇鞍杏 |
| い | 以伊位依偉囲夷委威尉惟意慰易椅為畏異移維緯胃萎衣謂違遺医井亥域育郁磯一壱溢逸稲茨芋鰯允印咽員因姻引飲淫胤蔭院陰隠韻吋 |
| う | 右宇烏羽迂雨卯鵜窺丑碓臼渦嘘唄欝蔚鰻姥厩浦瓜閏噂云運雲 |
| え | 荏餌叡営嬰影映曳栄永泳洩瑛盈穎頴英衛詠鋭液疫益駅悦謁越閲榎厭円園堰奄宴延怨掩援沿演炎焔煙燕猿縁艶苑薗遠鉛鴛塩 |
| お | 於汚甥凹央奥往応押旺横欧殴王翁襖鴬鴎黄岡沖荻億屋憶臆桶牡乙俺卸恩温穏音 |
| か | 下化仮何伽価佳加可嘉夏嫁家寡科暇果架歌河火珂禍禾稼箇花苛茄荷華菓蝦課嘩貨迦過霞蚊俄峨我牙画臥芽蛾賀雅餓駕介会解回塊壊廻快怪悔恢懐戒拐改魁晦械海灰界皆絵芥蟹開階貝凱劾外咳害崖慨概涯碍蓋街該鎧骸浬馨蛙垣柿蛎鈎劃嚇各廓拡撹格核殻獲確穫覚角赫較郭閣隔革学岳楽額顎掛笠樫橿梶鰍潟割喝恰括活渇滑葛褐轄且鰹叶椛樺鞄株兜竃蒲釜鎌噛鴨栢茅萱粥刈苅瓦乾侃冠寒刊勘勧巻喚堪姦完官寛干幹患感慣憾換敢柑桓棺款歓汗漢澗潅環甘監看竿管簡緩缶翰肝艦莞観諌貫還鑑間閑関陥韓館舘丸含岸巌玩癌眼岩翫贋雁頑顔願 |
| き | 企伎危喜器基奇嬉寄岐希幾忌揮机旗既期棋棄機帰毅気汽畿祈季稀紀徽規記貴起軌輝飢騎鬼亀偽儀妓宜戯技擬欺犠疑祇義蟻誼議掬菊鞠吉吃喫桔橘詰砧杵黍却客脚虐逆丘久仇休及吸宮弓急救朽求汲泣灸球究窮笈級糾給旧牛去居巨拒拠挙渠虚許距鋸漁禦魚亨享京供侠僑兇競共凶協匡卿叫喬境峡強彊怯恐恭挟教橋況狂狭矯胸脅興蒋郷鏡響饗驚仰凝尭暁業局曲極玉桐粁僅勤均巾錦斤欣欽琴禁禽筋緊芹菌衿襟謹近金吟銀 |
| く | 九倶句区狗玖矩苦躯駆駈駒具愚虞喰空偶寓遇隅串櫛釧屑屈掘窟沓靴轡窪熊隈粂栗繰桑鍬勲君薫訓群軍郡 |
| け | 卦袈祁係傾刑兄啓圭珪型契形径恵慶慧憩掲携敬景桂渓畦稽系経継繋罫茎荊蛍計詣警軽頚鶏芸迎鯨劇戟撃激隙桁傑欠決潔穴結血訣月件倹倦健兼券剣喧圏堅嫌建憲懸拳捲検権牽犬献研硯絹県肩見謙賢軒遣鍵険顕験鹸元原厳幻弦減源玄現絃舷言諺限 |
| こ | 乎個古呼固姑孤己庫弧戸故枯湖狐糊袴股胡菰虎誇跨鈷雇顧鼓五互伍午呉吾娯後御悟梧檎瑚碁語誤護醐乞鯉交佼侯候倖光公功効勾厚口向后喉坑垢好孔孝宏工巧巷幸広庚康弘恒慌抗拘控攻昂晃更杭校梗構江洪浩港溝甲皇硬稿糠紅紘絞綱耕考肯肱腔膏航荒行衡講貢購郊酵鉱砿鋼閤降項香高鴻剛劫号合壕拷濠豪轟麹克刻告国穀酷鵠黒獄漉腰甑忽惚骨狛込此頃今困坤墾婚恨懇昏昆根梱混痕紺艮魂 |
| さ | 些佐叉唆嵯左差査沙瑳砂詐鎖裟坐座挫債催再最哉塞妻宰彩才採栽歳済災采犀砕砦祭斎細菜裁載際剤在材罪財冴坂阪堺榊肴咲崎埼碕鷺作削咋搾昨朔柵窄策索錯桜鮭笹匙冊刷察拶撮擦札殺薩雑皐鯖捌錆鮫皿晒三傘参山惨撒散桟燦珊産算纂蚕讃賛酸餐斬暫残 |

| | |
|---|---|
| し | 仕仔伺使刺司史嗣四士始姉姿子屍市師志思指支孜斯施旨枝止死氏獅祉私糸紙紫肢脂至視詞詩試誌諮資賜雌飼歯事似侍児字寺慈持時次滋治爾璽痔磁示而耳自蒔辞汐鹿式識鴫竺軸宍雫七叱執失嫉室悉湿漆疾質実蔀篠偲柴芝屡蕊縞舎写射捨赦斜煮社紗者謝車遮蛇邪借勺尺杓灼爵酌釈錫若寂弱惹主取守手朱殊狩珠種腫趣酒首儒受呪寿授樹綬需囚収周宗就州修愁拾洲秀秋終繍習臭舟蒐衆襲讐蹴輯週酋酬集醜什住充十従戎柔汁渋獣縦重銃叔夙宿淑祝縮粛塾熟出術述俊峻春瞬竣舜駿准循旬楯殉淳準潤盾純巡遵醇順処初所暑曙渚庶緒署書薯藷諸助叙女序徐恕鋤除傷償勝匠升召哨商唱嘗奨妾娼宵将小少尚庄床廠彰承抄招掌捷昇昌昭晶松梢樟樵沼消渉湘焼焦照症省硝礁祥称章笑粧紹肖菖蒋蕉衝裳訟証詔詳象賞醤鉦鍾鐘障鞘上丈丞乗冗剰城場壌嬢常情擾条杖浄状畳穣蒸譲醸錠嘱埴飾拭植殖燭織職色触食蝕辱尻伸信侵唇娠寝審心慎振新晋森榛浸深申疹真神秦紳臣芯薪親診身辛進針震人仁刃塵壬尋甚尽腎訊迅陣靭 |
| す | 笥諏須酢図厨逗吹垂帥推水炊睡粋翠衰遂酔錐錘随瑞髄崇嵩数枢趨雛据杉椙菅頗雀裾澄摺寸 |
| せ | 世瀬畝是凄制勢姓征性成政整星晴棲栖正清牲生盛精聖声製西誠誓請逝醒青静斉税脆隻席惜戚斥昔析石積籍績脊責赤跡蹟碩切拙接摂折設窃節説雪絶舌蝉仙先千占宣専尖川戦扇撰栓栴泉浅洗染潜煎煽旋穿箭線繊羨腺舛船薦詮賤践選遷銭銑閃鮮前善漸然全禅繕膳糎 |
| そ | 噌塑岨措曾曽楚狙疏疎礎祖租粗素組蘇訴阻遡鼠僧創双叢倉喪壮奏爽宋層匝惣想捜掃挿掻操早曹巣槍槽漕燥争痩相窓糟総綜聡草荘葬蒼藻装走送遭鎗霜騒像増憎臓蔵贈造促側則即息捉束測足速俗属賊族続卒袖其揃存孫尊損村遜 |
| た | 他多太汰詑唾堕妥惰打柁舵楕陀駄騨体堆対耐岱帯待怠態戴替泰滞胎腿苔袋貸退逮隊黛鯛代台大第醍題鷹滝瀧卓啄宅托択拓沢濯琢託鐸濁諾茸凧蛸只叩但達辰奪脱巽竪辿棚谷狸鱈樽誰丹単嘆坦担探旦歎淡湛炭短端箪綻耽胆蛋誕鍛団壇弾断暖檀段男談 |
| ち | 値知地弛恥智池痴稚置致蜘遅馳築畜竹筑蓄逐秩窒茶嫡着中仲宙忠抽昼柱注虫衷註酎鋳駐樗瀦猪苧著貯丁兆凋喋寵帖帳庁弔張彫徴懲挑暢朝潮牒町眺聴脹腸蝶調諜超跳銚長頂鳥勅捗直朕沈珍賃鎮陳 |
| つ | 津墜椎槌追鎚痛通塚栂掴槻佃漬柘辻蔦綴鍔椿潰坪壷嬬紬爪吊釣鶴 |
| て | 亭低停偵剃貞呈堤定帝底庭廷弟悌抵挺提梯汀碇禎程締艇訂諦蹄逓邸鄭釘鼎泥摘擢敵滴的笛適鏑溺哲徹撤轍迭鉄典填天展店添纏甜貼転顛点伝殿澱田電 |
| と | 兎吐堵塗妬屠徒斗杜渡登菟賭途都鍍砥砺努度土奴怒倒党冬凍刀唐塔塘套宕島嶋悼投搭東桃梼棟盗淘湯涛灯燈当痘祷等答筒糖統到董蕩藤討謄豆踏逃透鐙陶頭騰闘働動同堂導憧撞洞瞳童胴萄道銅峠鴇匿得徳涜特督禿篤毒独読栃橡凸突椴届鳶苫寅酉瀞噸屯惇敦沌豚遁頓呑曇鈍 |
| な | 奈那内乍凪薙謎灘捺鍋楢馴縄畷南楠軟難汝 |
| に | 二尼弐迩匂賑肉虹廿日乳入如尿韮任妊忍認 |
| ぬ | 濡 |
| ね | 禰祢寧葱猫熱年念捻撚燃粘 |
| の | 乃廼之埜嚢悩濃納能脳膿農覗蚤 |

| | |
|---|---|
| は | 巴把播覇杷波派琶破婆罵芭馬俳廃拝排敗杯盃牌背肺輩配倍培媒梅楳煤狽買売賠陪這蝿秤矧萩伯剥博拍柏泊白箔粕舶薄迫曝漠爆縛莫駁麦函箱硲箸肇筈櫨幡肌畑畠八鉢溌発醗髪伐罰抜筏閥鳩噺塙蛤隼伴判半反叛帆搬斑板氾汎版犯班畔繁般藩販範釆煩頒飯挽晩番盤磐蕃蛮 |
| ひ | 匪卑否妃庇彼悲扉批披斐比泌疲皮碑秘緋罷肥被誹費避非飛樋簸備尾微枇毘琵眉美鼻柊稗匹疋髭彦膝菱肘弼必畢筆逼桧姫媛紐百謬俵彪標氷漂瓢票表評豹廟描病秒苗錨鋲蒜蛭鰭品彬斌浜瀕貧賓頻敏瓶 |
| ふ | 不付埠夫婦富冨布府怖扶敷斧普浮父符腐膚芙譜負賦赴阜附侮撫武舞葡蕪部封楓風葺蕗伏副復幅服福腹複覆淵弗払沸仏物鮒分吻噴墳憤扮焚奮粉糞紛雰文聞 |
| へ | 丙併兵塀幣平弊柄並蔽閉陛米頁僻壁癖碧別瞥蔑箆偏変片篇編辺返遍便勉娩弁鞭 |
| ほ | 保舗鋪圃捕歩甫補輔穂募墓慕戊暮母簿菩倣俸包呆報奉宝峰峯崩庖抱捧放方朋法泡烹砲縫胞芳萌蓬蜂褒訪豊邦鋒飽鳳鵬乏亡傍剖坊妨帽忘忙房暴望某棒冒紡肪膨謀貌貿鉾防吠頬北僕卜墨撲朴牧睦穆釦勃没殆堀幌奔本翻凡盆 |
| ま | 摩磨魔麻埋妹昧枚毎哩槙幕膜枕鮪柾鱒桝亦俣又抹末沫迄侭繭麿万慢満漫蔓 |
| み | 味未魅巳箕岬密蜜湊蓑稔脈妙粍民眠 |
| む | 務夢無牟矛霧鵡椋婿娘 |
| め | 冥名命明盟迷銘鳴姪牝滅免棉綿緬面麺 |
| も | 摸模茂妄孟毛猛盲網耗蒙儲木黙目杢勿餅尤戻籾貰問悶紋門匁 |
| や | 也冶夜爺耶野弥矢厄役約薬訳躍靖柳薮鑓 |
| ゆ | 愉愈油癒諭輸唯佑優勇友宥幽悠憂揖有柚湧涌猶猷由祐裕誘遊邑郵雄融夕 |
| よ | 予余与誉輿預傭幼妖容庸揚揺擁曜楊様洋溶熔用窯羊耀葉蓉要謡踊遥陽養慾抑欲沃浴翌翼淀 |
| ら | 羅螺裸来莱頼雷洛絡落酪乱卵嵐欄濫藍蘭覧 |
| り | 利吏履李梨理璃痢裏裡里離陸律率立葎掠略劉流溜琉留硫粒隆竜龍侶慮旅虜了亮僚両凌寮料梁涼猟療瞭稜糧良諒遼量陵領力緑倫厘林淋燐琳臨輪隣鱗麟 |
| る | 瑠塁涙累類 |
| れ | 令伶例冷励嶺怜玲礼苓鈴隷零霊麗齢暦歴列劣烈裂廉恋憐漣煉簾練聯蓮連錬 |
| ろ | 呂魯櫓炉賂路露労婁廊弄朗楼榔浪漏牢狼篭老聾蝋郎六麓禄肋録論 |
| わ | 倭和話歪賄脇惑枠鷲亙亘鰐詫藁蕨椀湾碗腕 |

## ■ Memory Scan ン

Scans will not run unless the memory channels are pre-registered. As explained in the memory channel section, GPS Memory Scans require GPS reception or the registration of position information.

の登録が必要です。

There are six types of memory scans:
- All Memory Scan
- Bank Scan
- Bank Link Scan
- GPS Memory Scan
- Priority Scan
- Shift Scan


[Basic Scanning Operations]
Operate the [V/M] key to switch to Memory Mode.
Hold down the [SCAN] key to display the scan type selection screen. Perform the operations described below to start a designated scan. The display while scanning varies depending on the mode, but the dot and MHz in the frequency display will blink except for Priority Scans. Press the [MONI] key to pause, and it will resume scanning after a short time. Press the [SCAN] key to stop scanning.
Press the [SCAN] key until the scan type has changed once again to start scanning in the currently selected mode.

Reference
Press the [SCAN] key in the selected Memory Mode to start scanning in the selected Memory Mode.

● All Memory Scan
Scans all registered memory channels.

Hold down the [SCAN] key, select “All Memory Scan” on the scan type selection screen with the [Upper Dial], and then press the [SCAN] or [SET] key to start.

● Bank Scan
Repeatedly scans only the memory channels of one selected bank.
While scanning, the registered bank’s alphabetical letters and the memory channel number will be displayed above MHz.

Hold down the [SCAN] key, select “Bank Scan” on the scan type selection screen with the [Upper Dial], press the [SET] key, select the bank you wish to scan on the bank number selection screen with the [Upper Dial], and then press the [SCAN] or [SET] key to start.

● Bank Link Scan
Allows multiple banks to be linked and scanned repeatedly.
It scans in the order of bank number, not in the order in which they were added to the link.
It will not run unless the bank link is registered. See “Registering a Bank Link” (pg. 57) to pre-register.

を参照して登録をしてください。

Reference
Bank links can also be registered from the scan type selection screen. The operations are the same as explained on pg. 57, except that the [V/M] key changes to the [SCAN] key.

1. Hold down the [SCAN] key, select “Bank Link Scan” with the [Upper Dial] on the scan type selection screen, and then press the [SET] key to display the “Bank Link + Number” setting screen.
2. Turn the [Upper Dial] to select the bank link number you wish to scan, and then press the [SET] key.
3. Turn the [Upper Dial], and then select “Start Link Scan” to start scanning.
While scanning, the dot and MHz in the frequency display will blink, and the alphabetical letters and memory number of the registered bank will be displayed.

スキャン中は周波数表示のドットとMHzが点滅し、登録したバンクのアルファベットとメモリー番号が表示されます。

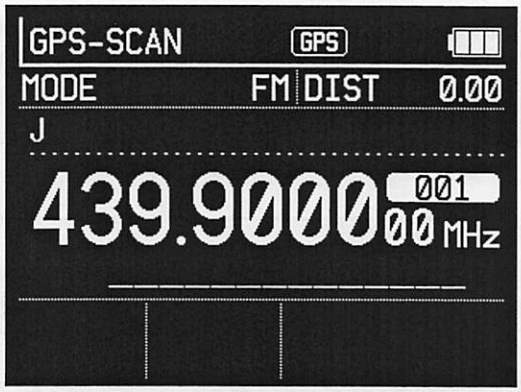
● GPS Memory Scan
This calculates the distance from the longitude and latitude set by the longitude and latitude obtained by the built-in GPS or fixed longitude and latitude along with the longitude and latitude registered to the memory channel, and then scans only the memory channels within the set range. In addition, when it is set to search again, reception can be automatically limited to nearby frequencies while moving.
For example, obtain the positions of the towers at Haneda Airport, Narita Airport, and Yokota Air Base from internet maps, and write the longitude and latitude when the respective air band frequencies are edited in the memory too. Set the search range to 10 km and the range to search again to 20 km. If you go near Yokota Air Base and perform a GPS Memory Scan, it will automatically search and scan only channels that have written position information within 10 km of Yokota. If you start to move from Yokota toward Haneda, it will search the memory channel again after reaching a distance of 20 km. Yokota’s frequency will be removed from the scan, and when within 10 km of Haneda (the position to search again), Haneda’s frequency will become subject to the scan. Similarly, when heading from Haneda toward Narita, the receiver will search again every 20 km and automatically search for any linked memory in the vicinity. When the positions of radio stations between airports are also registered, they can be searched again while moving, and their signals can also be scanned automatically.

ン対象になります。同様に羽田から成田に向かえば20kmごとに再検索して、近隣に関連付けられたメモリーが無いか自動検索します。空港と空港の間にある無線局の位置情報も登録しておけば、移動中に再検索され、自動でそれらの信号もスキャンできます。

Reference
This scans with the registered position information. When it is set to search all memory, there is no need to switch banks while scanning.

Precautions
• It will not run when the position information cannot be obtained by GPS.
• This will not run unless the longitude and latitude are written to the memory channel.

1. Hold down the [SCAN] key in Memory Mode to display the scan type selection screen.
2. Turn the [Upper Dial] to select “GPS Memory Scan,” and then press the [SET] or [SCAN] key.
3. Turn the [Upper Dial] on the GPS Memory Scan setting screen to select “Search Range,” and then press the [SET] or [SCAN] key.
4. Turn the [Upper Dial] or enter a numerical value to set the search range. The setting range is 1 to 199 km with an initial value of 20 km.
5. After setting the search range, press the [SET] or [SCAN] key to return to the GPS Memory Scan setting screen.
6. Turn the [Upper Dial] to select “Distance to Search Again,” and then press the [SET] or [SCAN] key.
7. Turn the [Upper Dial] to select the distance to search again, and then press the [SET] or [SCAN] key.
The initial value is 10 km. The following options to search again can be selected to simplify changes.
Distance to search again: No search/100 m/200 m/300 m/500 m/1 km/2 km/3 km/5 km/10 km/20 km/30 km/50 km/100 km
8. Turn the [Upper Dial] to select “Next,” and then press the [SET] or [SCAN] key to display the screen for selecting the Memory Mode to search.
9. Turn the [Upper Dial] to select the Memory Mode to search, and then press the [SET] or [SCAN] key to start scanning.
While scanning, the dot and MHz in the frequency display will blink, and [GPS-SCAN] will be displayed in the upper left corner of the receiver’s Operation Mode display. Also, the STEP display replaces the distance display (DIST).




初期値は 20km です。
N] キーを押すと GPS メモリースキャ
択し、[SET] キーまたは [SCAN] キー
択し、[SET] キーまたは [SCAN] キー
やすいよう、下記から選ぶようになっ
300m/500m/1km/2km/3km/
km/100km
SET] キーまたは [SCAN] キーを押す
が表示されます。
モードを選択し、[SET] キーまたは
。
点滅し、左上の受信機動作モード表示
STEP 表示部が距離表示 (DIST) に代

Precautions
• Some types of Memory Modes require multiple [SET] and [SCAN] key operations.
• When the target memory channel is not in the search range, “No Corresponding Memory” will be displayed.

されます。

• Priority Scan and Shift Scan
This is the scan mode previously explained for VFO Scans. This also runs in Memory Mode.
Priority Scans receive frequencies registered in memory channel 000 at regular intervals during memory channel reception.
Shift Scans receive the memory frequency within the shift width registered to the memory channel and the shift destination frequency alternately at high speed.

先の周波数を高速で交互に受信します。

・プライオリティスキャンとシフトスキャンはそれぞれ設定しているときのみ一覧に表

• The list will only be displayed when the Priority Scan and Shift Scan have each been set.
• Priority Scans do not stop unless OFF has been selected on the scan type selection screen. Priority Scans do not stop by operating the [SCAN] key.
• Select the [SET] or [SCAN] key on the scan type selection screen to immediately start a “Shift Scan.” Press the [SCAN] key briefly to stop it.
To resume, hold down the [SCAN] key, and then select “Shift Scan” again.

再開するには［SCAN］キー長押しで再度「シフトスキャン」を選択します。

# 6 Functions

## Communication Settings (CONFIG)

The contents of the "Communication Settings" previously explained in Memory Mode can be easily changed. Operating in Memory Mode temporarily rewrites the communication settings for that channel. With the settings for such selective reception methods as tone squelch and user code, and their tones, frequency shifts, attenuators, etc., the menu displayed will vary depending on it being analog, digital, or data.

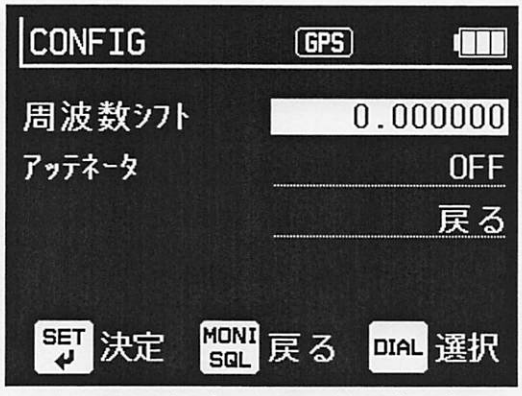
1. Press the [FUNC] key to light up <FUNC> on the display.
2. Press the [MODE] key to display the communication settings screen. The contents displayed will vary depending on the Receive Mode.
3. Turn the [Upper Dial] to select the item you wish to set, and then press the [SET] or [MODE] key.
4. When the detailed setting screen is displayed, turn the [Upper Dial] to select the item you wish to set, and then press the [SET] or [MODE] key. To cancel, press the [MONI] key or turn the [Upper Dial] to select "Back," and then press the [SET] key to return to the previous screen.
5. Press the [MONI] key or turn the [Upper Dial] to select "Back," and then press the [SET] or [MODE] key to return to the previous screen.

5 [MONI] キーを押すか [ 上ダイヤル ] を回して「戻る」を選択して [SET] キーまたは [MODE] キーを押すと元の画面に戻ります。

Reference
While in operation, icons may be displayed at the bottom of the setting screen depending on the mode or item. They explain such operations as turning a function ON or OFF with the [MODE] key or immediately returning to the initial value (INIT) by pressing the [STEP] key.

■ Common
These are the communication setting items in all Receive Modes.
When AM, NAM, AIS, ACARS, 12kHzIF (W), or 12kHzIF (N) is selected, only the following two items will be displayed.

[Frequency Shift]
This is the shift width setting to shift the receiving frequency when the [MONI] key is pressed for a frequency currently being received.
It is the width and direction of the uplink and downlink frequencies of the relay station.
*This is the display shown in AM/NAM and Data Mode.




* AM/NAM とデータモードの時の表示です。

Set value: 0 to ± 99MHz
Initial value: 0
Press the [MODE] key to toggle between plus and minus.

[Attenuator]
This function reduces the reception sensitivity to make the desired signal easier to hear by reducing disturbances when the reception is affected by a station with a strong signal on a nearby channel (suppression), or when FM broadcasting is heard in an Aeronautical Radio band (intermodulation).
The attenuation is greater at 20 dB.
Set value: OFF, 10 dB, 20 dB
Initial value: OFF

設定値：OFF、10dB、20dB
初期値：OFF

Reference
The attenuation of the attenuator varies depending on the receiving frequency.
The receiver does not have the function to “increase sensitivity” like that of preamplifiers.

## ■ Analog

• FM/NFM
[Squelch Type]
Set value: OFF / CTCSS / DCS

Initial value: OFF

This setting is for using CTCSS (Continuous Tone-Coded Squelch System) and DCS (Digital Coded Squelch), which are often used to stand by and receive specific stations in analog communications. Select the squelch type to use with the [Upper Dial].
*This is the display shown in FM/NFM.


＊ FM/NFM の時の表示です。

私鉄MSKの空線信号キャンセルを使うときの設定です。使用するスケルチタイプを［上ダイヤル］で選びます。

注意
Precautions
The normal squelch level should also be pre-adjusted properly when using the tone squelch or DCS.
When the normal squelch is left open, it will take longer to operate the tone squelch and DCS.

Reference
All CTCSS tones and DCS coded signals can be received when the squelch type is turned off.
This setting is used when you wish to avoid interference and only stand by for the destination’s signal.

【CTCSS トーン】

[CTCSS Tone]
This is a decoder setting. The squelch will open when a signal superimposed with the same tone frequency as the set value is received. The tone squelch is used for Analog Simple Radio and Specified Low Power (group talk function).

の交通機関などで使用されます。

The receiver supports 50 tones.

Set value:

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

((Hz) Hz)

Initial value: 67.0 Hz

[DCS Code]
The receiver supports 106 types of DCS code.
Set value:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 設定値:017 | 023 | 025 | 026 | 031 | 032 | 036 | 043 | 047 |
| 050 | 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 | 654 | 662 | 664 | 703 |
| 712 | 723 | 731 | 732 | 734 | 743 | 754 | | |

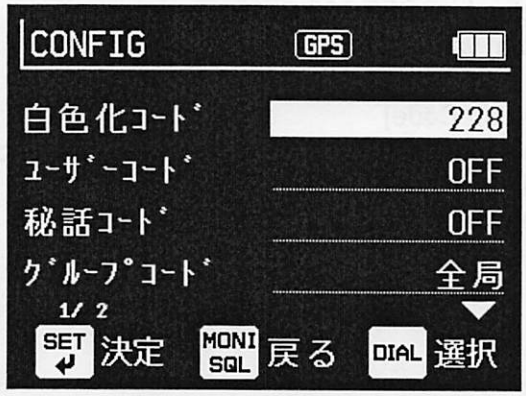
Initial Value : 017

## ■ Digital

• DCR, NXDN
[Whitening Code (WC)]
Set value: 001 to 511 / AUTO
Initial value: 228

初期値：228

Reference
This is also sometimes called Whitening Code. Press the [MODE] key on the code selection screen for AUTO, or press the [STEP] key to return the changed value to the initial value.
*This is the display shown in T98 and T102/B54.




＊T98とT102/B54の時の表示です。

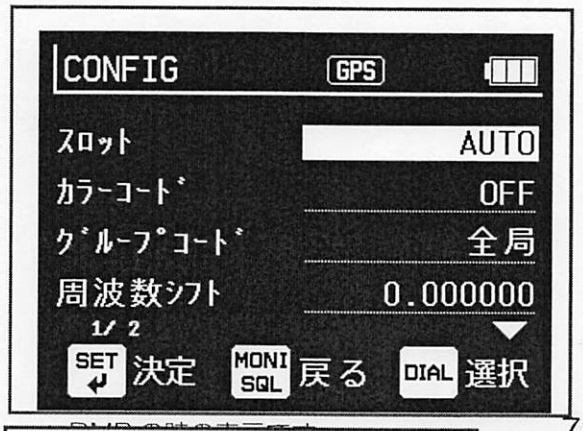
[User Code (UC)]
This sets the user code. This function is similar to analog CTCSS, and all communications that use user codes can be received when it is turned off. This setting is used to avoid interference and stand by only for the intended signal.

Set value: OFF / 001 to 511
Initial value: OFF

[Secret Code]
This code is set for secret communication in which signals other than the same code are received but not audible.
Set value: OFF / 00001 to 32767
Initial value: OFF

[Group Code]
This code is used in Digital Simple Radio that is assigned to each group when calling a specific group.
Set value: All stations / 00001 to 65535
Initial value: All stations

• DMR
[Slots]
Both can be received when set to AUTO.
Set value: AUTO / 1 / 2
Initial value: AUTO




*This is the display shown in DMR.

[Color Code]
This is set when on stand by for a specific station. OFF receives all signals.
Set value: OFF / 00 to 15
Initial value: OFF

[Group Code]
This function is similar to the group call function of Digital Simple Radio. When it is set to all stations, it will receive all signals.
Set value: All stations / 00001 to 65535
Initial value: All stations

• D-STAR:
This is a digital communication mode that is often used in Ham Radio communications and for which JARL has established standards. It only supports receiving voice communications.

[Code Squelch]
This function is similar to the DCR user code. Everything can be received when it is turned off.
Set value: OFF / 00 to 99
Initial value: OFF

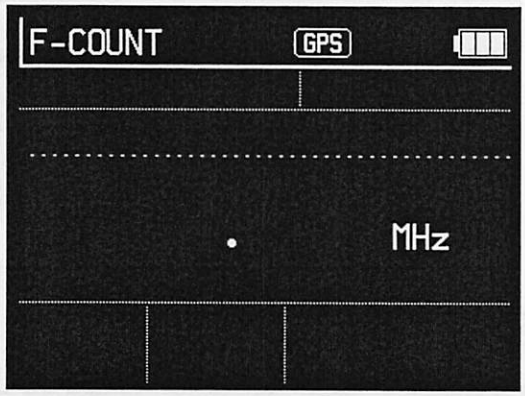
• C4FM (DN):
It supports the DN Mode reception of digital communications proposed by Yaesu Musen Co., Ltd.

[DG-ID]
This is the code used when calling stations with matching numbers. All stations can be received when it is off.

Set value: OFF / 0 to 99
Initial value: OFF

## F-C F-COUNT (Frequency Counter) –)

非常に強い信号が近くにあれば検知して、その周波




1. Press the [FUNC] key to light up <FUNC> on the display.
2. Press the [SET] key to shift to the F-COUNT Mode. Only the dot and MHz will be displayed as it searches for a strong signal.
3. When a strong signal is found, the frequency will be displayed.
• When a signal is lost, the detection will be newly started.
• Press any key to exit.
• Hold down the [SET] key to copy to VFO Mode for reception when the frequency is displayed.
As the Receive Mode of F-COUNT is in FM, it is necessary to change the Receive Mode depending on the frequency.
FM radio will only run when the signal is strong, such as near a transmitting station.

しするとVFOモードにコピーして受

よっては受信モードを変更する必要が

あります。

FMラジオでも動作しますが、送信所の近くなど電波が強くないと動作しません。

注意

Precautions
• Depending on the type of radio wave, it may not be detected.
• The operating frequency of F-COUNT is 50 MHz to 470 MHz.
• This detects radio waves in a different way than normal reception. It will not run unless there are persons operating radios nearby, or if you are receiving in the immediate vicinity of a transmitting station or radio station. Even when it can be heard well, it may not run with signals as small as FM broadcasting.
• This also responds to noise. Malfunctions may occur near noise-producing devices, such as PCs.
• The resolution of F-COUNT is 1 kHz.
• The responding electric field strength varies depending on the frequency. It may not be possible to detect a signal which would be displayed fully in the S-meter.

## クイックリコール Quick Recall

The reception status itself, including not only the frequency but also the display, memory channels, and Set Mode items can be easily recalled by holding down the numeric keys. Numeric keys 1 to 9 can be registered.
As the receiver is used to minutely switch between such display screens as position and GPS along with the Receive Modes, steps, etc., this is a convenient function that enables recalling with a one touch when frequently used statuses or Set Mode items have been registered.

### ■ Quick Recall Initial Value

The following statuses are registered in the default state. It will return to this status when the part reset (pg. 106) or all reset (pg. 107) described below are realized.

| Key | Frequency | Mode | Step | Offset | Shift | Communication Settings |
|---|---|---|---|---|---|---|
| 1 | 51.000000 | FM | 20.00k | OFF | 0.000000 | Default |
| 2 | 118.000000 | AM | 25.00k | OFF | 0.000000 | Default |
| 3 | 145.000000 | FM | 20.00k | OFF | 0.000000 | Default |
| 4 | 148.010000 | FM | 20.00k | ON | 0.000000 | Default |
| 5 | 168.534875 | T102/B54 | 6.25k | ON | −2.000000 | Default |
| 6 | 300.000000 | AM | 100.00k | OFF | 0.000000 | Default |
| 7 | 351.200000 | T98 | 6.25k | OFF | 0.000000 | Default |
| 8 | 433.000000 | FM | 20.00k | OFF | 0.000000 | Default |
| 9 | 467.000000 | T98 | 6.25k | OFF | 0.000000 | Default |

### ■ Registering and Recalling Quick Recall

1. Referring to the conditions below, display the reception status and items you wish to register on the reception screen and press the [FUNC] key. When <FUNC> does not light up on the display, it is not a status or item that can be registered.
2. Hold down any numeric button from 1 to 9 while <FUNC> is lit up to produce a beeping sound and record the status.
3. Hold down a numeric key from 1 to 9 while receiving to recall the recorded status.
4. If you wish to change the registration, perform the same operation to overwrite the number that is unneeded.
The registration of a specific number can be overwritten but not deleted.

上書きはできても特定の番号の登録を消すことはできません。

### ■ Quick Recall Registered Contents

Screens that can be recalled by simply pressing a key once, that do not display a FUNC icon when the [FUNC] key is pressed, that are for entering numerical values, and other such screens may not allow quick recall designation, or even if the designation is possible, the status displayed may be slightly different, such as having a different set value when recalled.

Reference
Hold down the [0] key to display the list of registered quick recalls.
Press the [MONI] key to return to the reception screen.

| Status | Main items that can be registered |
|---|---|
| VFO Mode | Frequency, Receive Mode, Frequency step, Offset step, Communication settings, Display Mode |
| VFO Scan Mode | Scan type selection screen, Program Scan selection screen, Link Scan selection screen |
| During an All Scan | Scan start frequency, Receive Mode, Frequency step, Offset step, Communication settings, Display Mode |
| During an MHz Scan | Scan start frequency, Receive Mode, Frequency step, Offset step, Communication settings, Display Mode |
| During a Program Scan | Scan number, Display Mode |
| During a Link Scan | Link Scan number, Display Mode |
| Memory Mode | Memory Mode selection screen, Bank selection screen, Bank link selection screen, and GPS search setting screen |
| In All Memory Mode | Memory number, Display Mode |
| In Bank Memory Mode | Bank, Memory number, Display Mode |
| In bank link Memory Mode | Bank link number, Bank, Memory number, Display Mode |
| In GPS Memory Mode | GPS search settings (Search Memory Mode, search range, distance to search again), Display Mode |
| Memory Scan Mode | Memory scan type selection screen, bank selection screen, bank link selection screen, GPS search setting screen |
| During an All Memory Scan | Display Mode |
| During a Bank Memory Scan | Bank, Display Mode |
| During a Bank Link Scan | Bank link number, Display Mode |
| During a GPS Memory Scan | GPS search settings (Search Memory Mode, Search range, Distance to search again), Display Mode |
| Settings | Each level menu or each setting screen |

# 7 Useful Functions

## Key Lock

This function prevents the unintentional operation of keys and dials when in use or carrying.

Hold down the [FUNC] key to lock. While locked, the <key> icon lights up to the left of the battery icon. Hold down the [FUNC] key again to cancel. Volume control is also operated by the [Lower Dial] and the [MONI] key in key lock.
It can also be changed in the “Key Lock Range Settings” in Set Mode. See pg. 100.

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## Offset Step

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This is a convenient function that adds 1/2 of the frequency step that has been set for the receiving frequency, thereby eliminating the step-switching operation.
For example, the VHF commercial radio band has a step of 20 kHz; until 147.980, the steps are even, as in 940, 960, 980, etc., and from 148.010, the steps are odd, as in 148.030, 050, etc. Hold down the [STEP] key during an even-numbered step to switch to an odd-numbered step. When the offset step is canceled, it is received in even-numbered steps.

Initial value: OFF
Hold down the [STEP] key to enable the offset step, and “OFFSET STEP” will be displayed below the receiving frequency. Repeat the same operation to disable and the display will disappear.

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## GPS Display

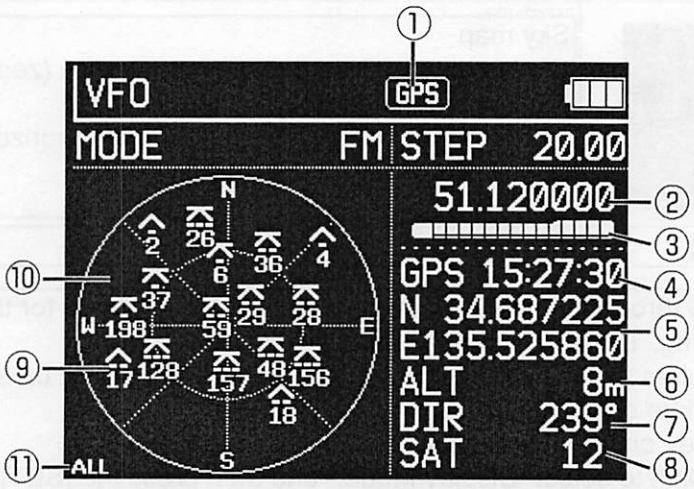
The GNSS (Global Navigation Satellite System) is the collective name for satellite positioning systems, such as GPS in the United States, Quasi-Zenith Satellite System (QZSS) in Japan, GLONASS in Russia, and Galileo in the European Union.
The following functions will not run in environments that are unreceptive to positioning satellites, or when the "Position System Setting" (pg. 98) within "Position/Distance" in Set Mode is set to OFF or FIX.

Reference
For the receiver and throughout the text, GNSS is described as the commonly used term of GPS.

Precautions
• As the GNSS is developed, operated, and managed by each country, for political purposes, some satellite signals may stop transmitting without prior notice due to such factors as the degradation of positioning accuracy, satellite coordination, testing, and trajectory correction, and abnormal radio waves may be transmitted from the satellites for maintenance, etc.
In such cases, it may cause malfunction or the significant degradation of positioning accuracy.
• Significant degradation of positioning accuracy (e.g., position jumps) may occur due to the placement of the receiving satellites, electromagnetic interference, a multipath of received signals, or other factors.
• Even in good environmental locations, the positioning accuracy may degrade due to the placement of the receiving satellites.
• The GPS antenna is built into the top of the receiver. Use the receiver with the top facing upward. Positioning accuracy may degrade when the receiver is laid on its side.
• An external antenna for GPS cannot be connected. External antennas cannot receive GPS signals.

It displays the longitude and latitude, altitude, time, and number of satellites obtained by GPS. It also visualizes this information by mapping it on a sky map. It shows the azimuth and elevation angle where the satellite is located, the satellite number, and the reception status.

• Display Examples (GPS Display)



【表示の説明】

| No. | Name | Function |
|---|---|---|
| ① | GPS | GPS lit up: The GPS function is activated when a GPS signal is received.<br>GPS blinking: It is unable to receive a GPS signal in this status; the receiver's GPS function will not run. |
| ② | 51.120000 | Receiving Frequency |
| ③ | | S-Meter |
| ④ | GPS 15:27:30 | Time obtained from GPS (Japan time) |
| ⑤ | N 34.687225<br>E135.525860 | Longitude and latitude in DEG (Degree) format<br>Upper: Latitude<br>Lower: Longitude |
| | N 34°41' 14"<br>E135°31' 32" | Longitude and latitude in DMS (Degree, Minute, Second) format<br>Upper: Latitude<br>Lower: Longitude |
| ⑥ | ALT 8m | This is the current altitude of the receiver's location. At least four satellites must be acquired. Even after acquiring them, it may take several minutes for the display to become accurate. |
| ⑦ | | The true azimuth of movement (unit: degree) true north 0°/east 90°/south 180°/west 270° |
| ⑧ | SAT 12 | The number of satellites receiving data used for the receiver's GPS function |
| ⑨ |  | • Satellite status<br>: Tracking (receiving)<br>: Incomplete<br>• Satellite signal strength<br>-: Weak or unable to receive data completely<br>--: Medium<br>---: Strong<br>• Satellite number |
| ⑩ |  | Sky map<br>Circle center: 90-degree elevation angle (zenith)<br>Inner circle: 45-degree elevation angle<br>Outer circle: 0-degree elevation angle (horizon)<br>N: North S: South E: East W: West |
| ⑪ | ALL | Satellite types to be displayed |

1. This is set to GPS through the position system setting. Read pg. 98 for the settings of the position system setting. The GPS icon will start blinking.
When the GPS acquires a signal, the GPS icon will change to being lit up and the position and other information will be displayed.
2. Press the [SET] key on the reception screen to switch to Set Mode.
3. Turn the [Upper Dial] to select "Display Mode," and then press the [SET] key.
4. Turn the [Upper Dial] to select "GPS Display," and then press the [SET] key to switch to the GPS display screen. Select "Back " to stop the operation.

になります。操作を止めるときは「戻る」を選びます。

5. To return to the basic display screen, press the [SET] key to select “Display Mode” on the Set Mode screen, press the [SET] key again, turn the [Upper Dial] to “Basic Display,” and then press the [SET] key.

Reference
• Though the GPS icon normally changes to being lit up in tens of seconds, it may take several minutes depending on the operating environment.
• Depending on the surrounding environment of the location or the building of use, it may not be able to receive signals from GPS satellites. It may be unable to acquire GPS indoors, underground, in urban areas with many tall buildings, or in tunnels, but this is not an abnormality. The receiver receives radio waves directly from satellites. If the position display seen on a smartphone cannot be seen on the receiver, it is not an abnormality
• To determine if the GPS function is malfunctioning, find a location in advance, such as a nearby park or riverbed, where the sky is wide open and GPS is sure to be received. If it seems that it is not receiving GPS well enough or is malfunctioning, try to determine if there is reception at that location. GPS reception may be difficult when it is raining or in other inclement weather conditions.

● Longitude and Latitude Display
Press the [FUNC] key while <FUNC> is lit up on the display to display in DMS format. The light-up time of the FUNC icon can be changed under “FUNC Hold Time” (pg. 100) in Set Mode

<FUNC> icon unlit: DEG format
<FUNC> icon lit up: DMS format

● Satellite Display
Satellites mapped on the sky map can be displayed for each satellite positioning system.
When many satellite icons are displayed, their individual information will be easier to see.

1. Press the [FUNC] key to light up <FUNC> on the display.
2. Turn the [Upper Dial] while <FUNC> is lit up to change the satellite to be displayed.
The type of satellite displayed is displayed in the lower left corner.

Selection items: ALL, GPS, GLO, GAL
ALL: All satellites will be displayed.
GPS: The GPS and QZSS satellites will be displayed.
GLO: Only the GLONASS satellites will be displayed.
GAL: Only the Galileo satellites will be displayed.

Initial value: ALL

Reference
OFF will be displayed when set to OFF or FIX in the “Position System Setting” (pg. 98) under “Position/Distance” in Set Mode.

## Position Display

When a signal that is decodable by the receiver is received in communications containing position information, the current position obtained by the receiver's GPS or the manually entered longitude and latitude will be analyzed and its positional relationship will be displayed. These communications are easily received by AIS (Automatic Identification System).
A large number of signals can be received in coastal areas with ports and where vessels navigate, and signals may also be received inland if an external antenna is installed or the receiver is moved to a location with a good vantage point, such as a mountaintop or the top of a tall building.

Reference
The frequency can be changed by turning the [Upper Dial] on the position display screen but not by key entry.
For example, it is more efficient to first set AIS with VFO, as the frequency is known in advance.
The quick recall function can be used.
Once the operating status is registered in quick recall, it will be in reception status with one touch from the next time.

### • AIS Reception

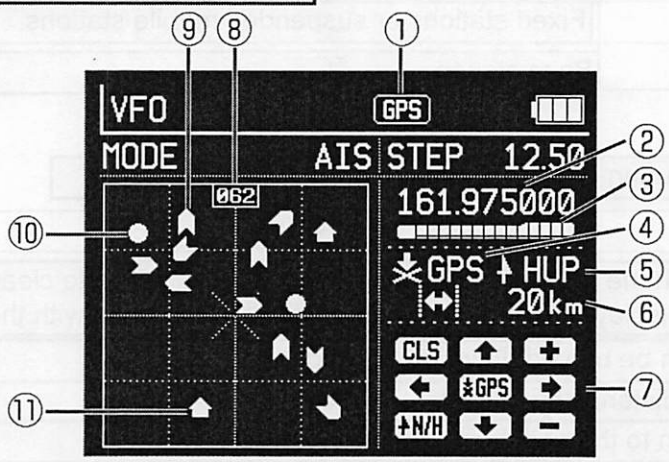
Important
All data signal reception will turn off battery save. The reason for this is that when BS runs during signal reception, the data will be lacking and less data will be available for decoding. Press the [SET] key on the reception screen to set "Battery Save" to OFF in the "Power" menu in Set Mode. (pg. 100)

1. In VFO Mode, set the receiving frequency to 161.975 MHz or 162.025 MHz.
2. Press the [MODE] key, select "Data" with the [Upper Dial], press the [SET] key, select "AIS" with the [Upper Dial], and then press the [SET] key to confirm. It will return to the reception screen.
3. Press the [SET] key, use the [Upper Dial] to select "Display Mode," use the [SET] key to select "Position Display" on the display settings screen, and then press the [SET] key. The screen will change to the position display screen.
4. Press the [SET] key, select "Position/Distance" in Set Mode with the [Upper Dial], press the [SET] key, press the [SET] key again for "Position System Settings" on the setting screen to select GPS or FIX (manually pre-enter position information), press the [SET] key to confirm, and then press the [MONI] key twice to return to the reception screen. The GPS or FIX icon will be displayed.
5. When an AIS signal is received, the icon of a mobile station or base station will be displayed, and the direction and distance to that station will be displayed in the STEP display for 10 seconds or until another signal is received. The display time is fixed at 10 seconds in AIS Mode, regardless of the time setting for message reception described below.
To stop the position display, press the [SET] key, operate the [SET] key and the [Upper Dial] in the "Display Mode" to change the "Position Display" to "Basic Display," and then confirm with the [SET] key.
Meanwhile, when the AIS Mode is left as it is without changing the Receive Mode or frequency, the direction and distance will be displayed in the STEP display when a signal is received.

Reference
Icons such as for moving objects are not displayed under the following conditions, except when there is no signal received.
• The GPS icon or FIX icon is blinking (no position information)
• The position system setting is set to be OFF
• The screen is deleted (the numeric key 1 operations described below)
When Display Mode is switched to position display again, it will not be deleted.
When the power is turned off, it will no longer be displayed. It cannot be saved.

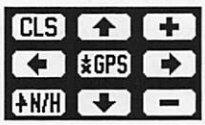
*When the frequency and Receive Mode have been set in the same manner, the icons of moving objects, etc. will automatically be displayed in the display explanations below when communications with position data are received

• Examples of Display (Position Display)




【表示の説明】

| No. | Name 名称 | Function 機能 |
|---|---|---|
| ① | GPS | GPS lit up: When the receiver is acquiring a position via GPS<br>GPS blinking: When the receiver is not acquiring a position via GPS<br>FIX lit up: When the longitude and latitude is being set manually in FIX<br>FIX blinking: When the longitude and latitude is not being set in FIX |
| ② | 161.975000 | The position data signal receiving frequency |
| ③ | | S-meter: the more segments displayed, the stronger the signal will be |
| ④ | GPS | Information at Center of Display<br>GPS: Displayed when the position information received from GPS or entered manually is at the center of the screen<br>MOV: Displayed when your position information is off-center, such as when looking at a different frame (grid) with the numeric key operations described in ⑦ below |
| ⑤ | HUP | Direction above the display screen<br>NUP: Fixes the top of the display screen to the north<br>HUP: Direction of movement is upward; the direction varies |

| | | |
|---|---|---|
| ⑥ |  | グリッド（点線表示の枠）の一辺の距離<br>Distance of one side of the grid (frame displaying dotted line)<br>Initial value is 5 km; can be changed to 10 m/20 m/50 m/100 m/200 m/500 m/1 km/2 km/5 km/10 km/20 km/50 km/100 km/200 km/500 km (press numeric key 3 to go down, press 9 to go up).<br>…ります。） |
| ⑦ |  | Operation Guide for Numeric Keypad<br>(For details, read the next section on keyboard operations during position display.) |
| ⑧ |  | On-Screen Azimuth<br>N: Fixed display when NUP<br>Numeric: Azimuth is displayed (000 for north) when HUP |
| ⑨ |  | Mobile stations with an identified direction of movement<br>(In the example on the left, the upper side is the direction of movement) |
| ⑩ |  | Fixed stations or suspended mobile stations |
| ⑪ |  | Base station |

[Keyboard Operations During Position Display]

| Key | Instruction |
|---|---|
| 1 | Select “Yes” with the [SET] key to confirm once “Do you wish to clear the screen?” is displayed, and the icon being displayed will be cleared and it will be updated with the newly received information. |
| 2 | The screen can be moved down by 1/2 grid. |
| 3 | Decrease grid distance by 1 level |
| 4 | Move the screen to the right by 1/2 grid |
| 5 | Switch the center of the display to the GPS position coordinates |
| 6 | Shift the screen to the left by 1/2 grid |
| 7 | Switch the display direction to either north or the direction of movement. |
| 8 | Move the screen up by 1/2 grid |
| 9 | Increase the grid distance by 1 step |

## Receiving Messages

When messages contain character data that the receiver can decode while receiving in Digital Mode or Data Mode, it will automatically display it on the reception screen. No special operations are required. The display supports alphabetical letters, numbers, Kanji, Hiragana, Katakana and symbols.

- Turn the [Upper Dial] to scroll back and forth through text.
- After being displayed, the receiver will return to the reception screen after 10 seconds of inactivity or by pressing any key.
- The message display time can be changed using “Message Display Time” (pg. 96) in the “Display” menu in Set Mode.
- As with AIS, the decoding rate will increase when battery save is turned off. Press the [SET] key on the reception screen to turn off battery save in the “Power” menu in Set Mode. (pg. 100)

Reference
The character display function can be set to not be used in Set Mode. If messages that were being received are no longer being displayed, check if the “Message Display Time” item (pg. 96) is set to “Do not display.”

Precautions
Depending on the type of radio wave, messages may not be received.

Example: Receiving ACARS
An acronym for Aircraft Communications Addressing and Reporting System, this system can receive such character data as aircraft ID and status transmitted from commercial aircraft, messages from the crew to the ground station, and transit position information. It can be received anywhere in Japan as long as aircraft are flying at the time.
This signal is the easiest way to test the message receiving function of the receiver.
1. Go outdoors or connect a commercially available external antenna during the hours when aircraft are operating.
Tune to 131.450 MHz or 131.250 MHz in VFO Mode.
2. Press the [MODE] key, operate the [Upper Dial] and [SET] key on the MODE screen to select “Data,” press the [SET] key to select “ACARS,” and then press the [SET] key to confirm.
3. Press the [MONI] key, and receive for a while with the squelch open. When a short burst of noise is heard, it is ACARS. Once the signal is confirmed, set the volume to zero and release the [MONI] key. The squelch can be set to the normal setting. When a signal containing data is able to be received, characters will be displayed on the reception screen.

ヒクイスのような短いバースト音が受信できたらACARSです。信号が確認できたら音量はゼロにして、[MONI] キーも離します。スケルチは通常設定で構いません。データを含む信号が受信できると受信画面に文字を表示します。

Reference
• Aircraft employing the ACARS system may use ACARS instead of audio for clearance delivery at large airports. Also try 131.950 MHz at an airport.
• ACARS may send out data with simple position coordinates, but this is not supported by the receiver’s position display.
• In recent years, VHF Digital Link (VDL) systems have also been employed, and not all aircraft communicate via ACARS. The receiver cannot decode VDL.

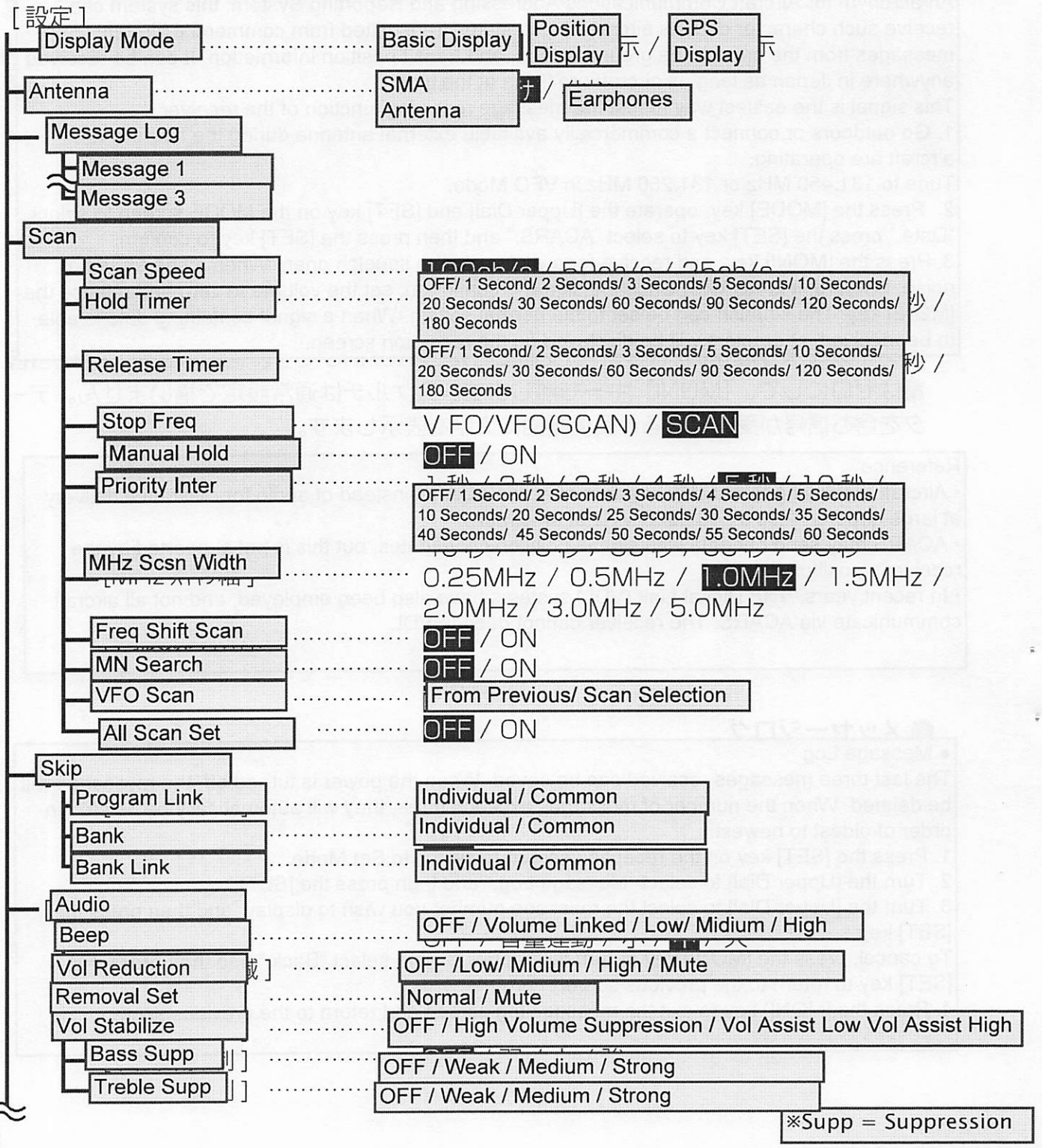
### ● メッセージログ

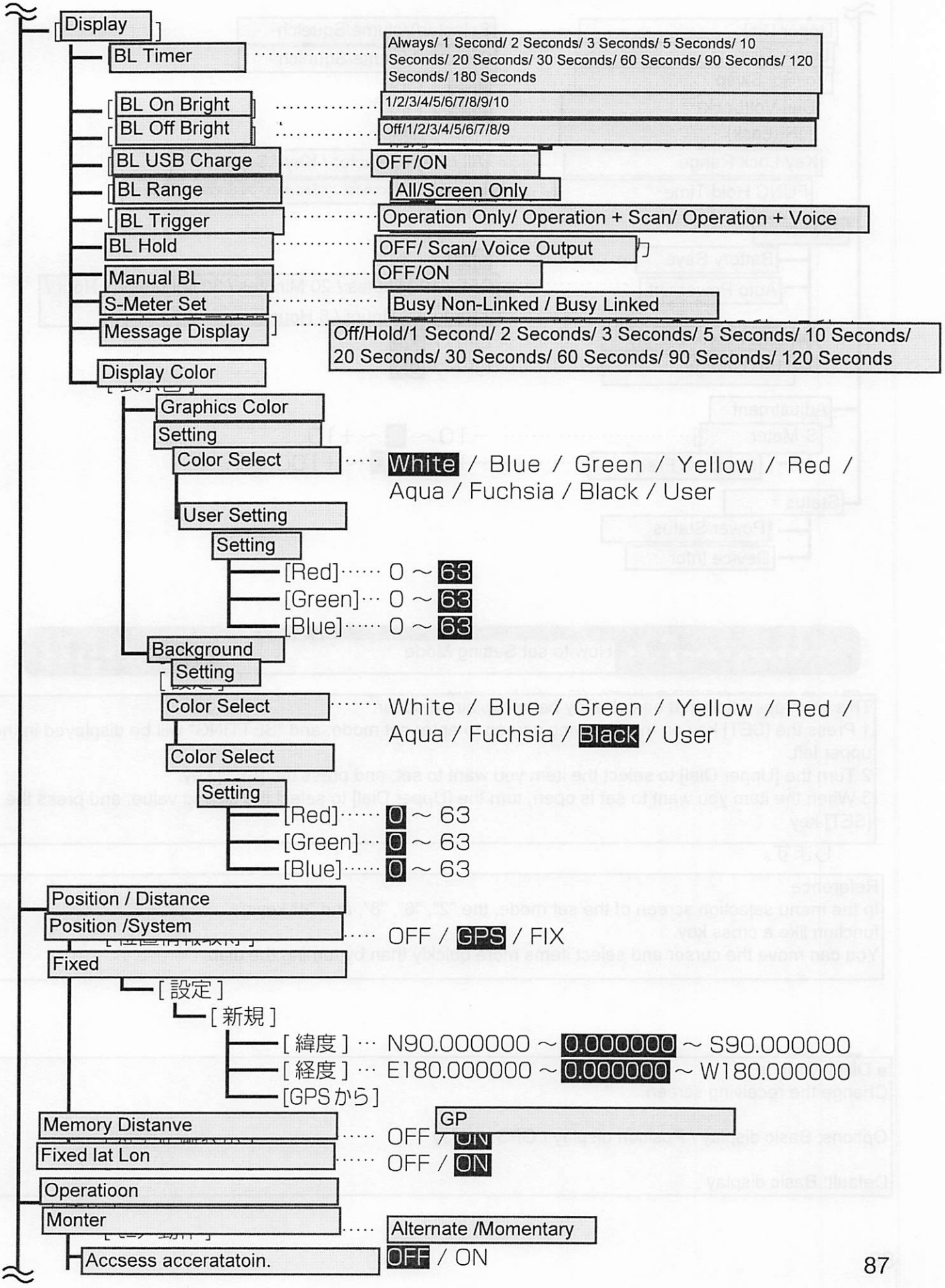
• Message Log
The last three messages received can be saved. When the power is turned off, the messages will be deleted. When the number of messages exceeds three, they will automatically be deleted in order of oldest to newest.
1. Press the [SET] key on the reception screen to switch to Set Mode.
2. Turn the [Upper Dial] to select “Message Log,” and then press the [SET] key.
3. Turn the [Upper Dial] to select the message number you wish to display, and then press the [SET] key.
To cancel, press the [MONI] key or turn the [Upper Dial] to select “Back,” and then press the [SET] key to return to the previous screen.
4. Press the [MONI] key to exit the message log screen and return to the previous screen.

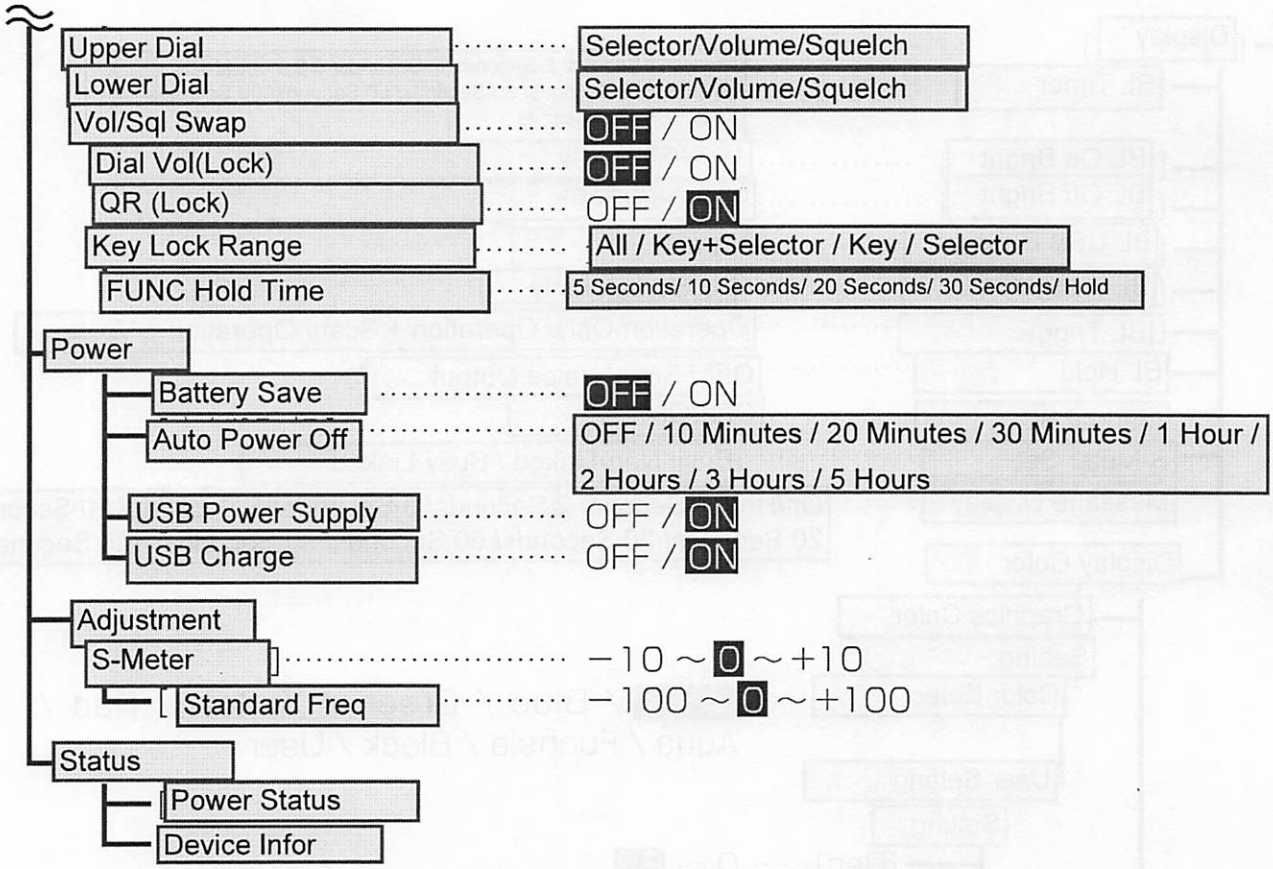
# 8 Set Mode

Make the unit easier to use by changing various functions to suit your needs.
In Set mode,he following items can be customised.
White text indicates the Initial value.

## Set mode list




Display
BL Timer
Always/ 1 Second/ 2 Seconds/ 3 Seconds/ 5 Seconds/ 10 Seconds/ 20 Seconds/ 30 Seconds/ 60 Seconds/ 90 Seconds/ 120 Seconds/ 180 Seconds
BL On Bright
1/2/3/4/5/6/7/8/9/10
BL Off Bright
Off/1/2/3/4/5/6/7/8/9
BL USB Charge
OFF/ON
BL Range
All/Screen Only
BL Trigger
Operation Only/ Operation + Scan/ Operation + Voice
BL Hold
OFF/ Scan/ Voice Output
Manual BL
OFF/ON
S-Meter Set
Busy Non-Linked / Busy Linked
Message Display
Off/Hold/1 Second/ 2 Seconds/ 3 Seconds/ 5 Seconds/ 10 Seconds/ 20 Seconds/ 30 Seconds/ 60 Seconds/ 90 Seconds/ 120 Seconds
Display Color
Graphics Color
Setting
Color Select
White / Blue / Green / Yellow / Red / Aqua / Fuchsia / Black / User
User Setting
Setting
[Red] 0 ～ 63
[Green] 0 ～ 63
[Blue] 0 ～ 63
Background
Setting
Color Select
White / Blue / Green / Yellow / Red / Aqua / Fuchsia / Black / User
Color Select
Setting
[Red] 0 ～ 63
[Green] 0 ～ 63
[Blue] 0 ～ 63
Position / Distance
Position /System
OFF / GPS / FIX
Fixed
[ 設定 ]
[ 新規 ]
[ 緯度 ] N90.000000 ～ 0.000000 ～ S90.000000
[ 経度 ] E180.000000 ～ 0.000000 ～ W180.000000
[GPSから]
Memory Distanve
GP
OFF / ON
Fixed lat Lon
OFF / ON
Operatioon
Monter
Alternate /Momentary
Accsess acceratatoin.
OFF / ON




## How to set Setting Mode

This is an operation that has already been explained so far.
1 Press the [SET] key on the receiving screen to enter set mode, and "SETTING" will be displayed in the upper left.
2 Turn the [Upper Dial] to select the item you want to set, and press the [SET] key.
3 When the item you want to set is open, turn the [Upper Dial] to select the setting value, and press the [SET] key.

します。

Reference
In the menu selection screen of the set mode, the "2", "6", "8", and "4" keys function like a cross key.
You can move the cursor and select items more quickly than by turning the dial.

■ Display mode
Change the receiving screen.

Options: Basic display / Position display / GPS display

Default: Basic display

■ Antenna
Switches between the earphone antenna and the antenna connector. When earphones are selected, the earphone cord becomes a simple antenna, allowing signals to be received even when the supplied whip antenna is disconnected.
SMA Antenna: The receiver's antenna terminal (SMA-J) will be enabled. This connects the supplied whip antenna or a commercially available receiver antenna.
Earphones: The earphones are used as an antenna.
Selection items: SMA Antenna, Earphones
Initial value: SMA antenna

• イヤホンアンテナは、コードの長さや状態（曲がる、体の向き、丸める、など）によっ

Reference
• The earphone antenna reception status may change or become unstable depending on the length and condition of the cord (e.g., bent, the direction that the user is facing, curled, etc.).
• The earphone antenna is not an antenna tuned to a frequency. It is designed to discreetly receive strong radio waves, such as FM broadcasting or air bands received at airports, by removing the whip antenna.
• Both commercially available stereo and monaural earphones can be used. (Φ 3.5-mm mini plug)

■ Message Log
The text information for the selected message number is displayed using the message display screen. (pg. 85)
When there is no message, the number will not be displayed.
Selection items: Message 1 to message 3
Initial value: - (no message)

初期値：-（メッセージ無し）

■ Scan
● Scan Speed
This setting changes the scanning speed.
100 ch/s is the fastest scan, but it may not stop if a signal is weak.
Selection items: 100 ch/s / 50 ch/s / 25 ch/s
Initial value: 100 ch/s

● Hold Timer
This is the amount of time to receive signals when the scan has stopped. Scanning resumes after the designated amount of time has elapsed. OFF is a busy scan. After scanning has stopped, reception continues until there are no more received signals. The scan will remain stopped when there are signals with constant radio wave emission, such as ATIS at airports.

Selection items: OFF/1 sec./2 sec./3 sec./5 sec./10 sec./20 sec./30 sec./60 sec./90 sec./
120 sec./180 sec.
Initial value: OFF

● Release Timer
Set the amount of time to wait before resuming scanning when there are no more received signals after scanning has stopped.
OFF will not resume until the dialing operations are performed.
Selection items: OFF/1 sec./2 sec./3 sec./5 sec./10 sec./20 sec./30 sec./60 sec./90 sec./120 sec./180 sec.
Initial value: 5 sec.

初期値：5 秒

### ●ストップ時周波数

プログラムスキャンとプログラムリンクスキャンでスキャンを止めたときに、どの周波

● Stop Freq(Frequency)
This is the setting for which frequency to return to when scanning is stopped for a Program Scan and Program Link Scan.
Selection items:
VFO: VFO frequency before starting a scan
VFO (SCAN): Frequency stopped by the scan when the VFO frequency before starting the scan is within scan range; it is otherwise the VFO frequency before the scan starts
SCAN: Frequency stopped by scan
Initial value: VFO
Example 1: While receiving at 145.000 MHz, a Program Scan from 144.000 MHz to 146.000 MHz will start and then stop at 145.500 MHz. VFO to return to 145.000, VFO (SCAN) or SCAN to return to 145.500
Example 2: While receiving at 145.000 MHz, a Program Scan from 430.000 MHz to 440.000 MHz will start and then stop at 433.500 MHz. VFO or VFO (SCAN) to return to 145.000, SCAN to return to 433.500

例 2：145.000MHz で受信中、430.000MHz ～ 440.000MHz のプログラムスキャンを開始、433.500MHz で止めた。145.000 に戻るには VFO または VFO(SCAN)、433.500 にするには SCAN

● Manual Hold
The resumption of scanning can be paused by operating the dial. This is useful when it is difficult to operate the keys, such as when the receiver is placed in a pocket.
OFF: When the dial is turned one click while scanning, it will scan in the direction of the turn (ascending or descending order). Dialing does not stop scanning.
ON: Turn the dial one click to pause, regardless of the scan resume setting. Turn it one more click to resume scanning in the direction turned. when scanning is not stopped with the dial, it stops and resumes under designated conditions.
Selection items: OFF/ON
Initial value: OFF

選択項目：OFF/ON
初期値：OFF

• Priority Interval
Set the interval at which priority channels are received during a Priority Scan.
Selection items: 1 sec./2 sec./3 sec./4 sec./5 sec./10 sec./15 sec./ 20 sec./25 sec./30 sec./35 sec./40 sec./45 sec./50 sec./55 sec./60 sec.
Initial value: 5 sec.

初期値：5 秒

### ●MHz スキャン幅

• MHz Scan Width
Set the MHz Scan range.
Selection items: 0.25/0.5/1.0/1.5/2.0/3.0/5.0MHz
Initial value: 1.0 MHz

### ●周波数シフトスキャン

• Freq(Frequency) Shift Scan
Allow the choice of whether or not the shifted side of the frequency set in the shift frequency during a VFO Scan or Memory Scan is also subject to the scan.
OFF: It is not subject to the scan.
ON: It is subject to the scan.
Selection items: OFF/ON
Initial value: OFF

初期値：OFF

### ●メモリーネーム検索

• MN(Memory Name) Search
Checks if the frequency stopped by the VFO Scan is registered in the memory.
When the frequency stopped by the VFO Scan is registered in the memory and the memory name is also registered, that memory name will be displayed.
When there are multiple registrations for the same frequency, the memory name of the smallest memory number will be displayed.
Selecting ON does not change the accuracy or speed of the scan.
OFF: This does not check.
ON: This checks.
Selection items: OFF/ON
Initial value: OFF

選択項目：OFF/ON
初期値：OFF

• VFO Scan
Set the operation when the [SCAN] key is pressed in VFO Mode.
From previous scan: This runs the same scan mode as the previous scan.
Scan Selection: This displays the scan type selection screen. (This is the same operation as holding down the [SCAN] key).
Selection items: From previous scan/Scan selection
Initial value: From previous scan

の動作です。）
選択項目：前回スキャン / スキャン選択
初期値：前回スキャン

• All Scan Set
Hold down the [SCAN] key to select the item to be displayed on the scan type selection screen.

OFF: This displays only the scan type corresponding to the Receive Mode in use.
ON: This displays the scan type in both VFO Mode and Memory Mode.
Selection items: OFF/ON
Initial value: OFF

初期値：OFF

## ■スキップ

■ Skip
● Program Link
Allow the choice of whether or not to use the individual Program Scan skip designation for a Program Link Scan.
Individual: Skips are newly designated and used exclusively for Program Link Scans.
Skips designated at this time are not reflected in individual Program Scans.
Common: The skip designated for each Program Scan is also used for linking.
Selection items: Individual/Common
Initial value: Individual

ます。

選択項目：個別 / 共用

初期値：個別

### ●バンク

● Bank
Allows the choice of whether or not to use the skip for an All Memory Scan during a Bank Scan.
Individual: Skips are newly designated and used exclusively for Bank Scans.
Skips designated at this time are not reflected in All Memory Scans.
Common: All Memory Scan skips are also used for Bank Scans.
Selection items: Individual/Common
Initial value: Individual

● Bank Link
Allows the choice of whether or not to use the skip for a Bank Scan during a Bank Link Scan.
Individual: Skips are newly set and used exclusively for Bank Link Scans.
Common: Bank scan skips are also used for Bank Link Scans.
Selection items: Individual/Common
Initial value: Individual

## ■オーディオ

■ Audio
● Beeping Sound
This is the volume setting for the beeps that sound during operation. The volume linkage also makes the beeping sound louder when the volume is increased. There will not be a beeping sound when OFF.
Selection items: OFF/Volume Linked/Low/Medium/High
Initial value: Medium

Vol(Volume) Reduction
This is an operation setting when communications are received in FM Radio Mode.
Once the communication signal is lost, the FM radio volume will return to normal after approximately 3 seconds.
OFF: The FM radio volume remains the same.
Low: This reduces the FM radio volume to approximately 60%.
Medium: This reduces the FM radio volume to approximately 40%.
High: This reduces the FM radio volume to approximately 20%.
Mute: This sets the FM radio volume to zero (mute).
Selection items: OFF/Low/Medium/High/Mute
Initial value: OFF

選択項目：OFF/弱/中/強/無音

初期値：OFF

● Removal Setting
This function prevents the speaker from emitting sound when the earphones are unplugged. This prevents such mishaps as unplugging the earphones by mistake on a train and having the received audio become audible.
Normal: The volume remains the same, and sound emits from the speaker.
Mute: The speaker volume is set to 0 (mute), and “Earphones are unplugged” will be displayed.
When the earphones are plugged in, it will be restored to normal. When the dial is turned or any key operation is performed while the earphones are unplugged, the speaker will emit sound, and the volume and screen will switch to those of the normal reception screen.
Selection items: Normal/Mute
Initial value: Normal

選択項目：通常/無音化

初期値：通常

## ●音量一定化

● Vol(Volume) Stabilization
This function makes the audio easier to hear by stabilizing the output of the received audio in Digital Mode.
OFF: This does not stabilize.
High volume suppression: This suppresses only high-volume sounds.
Volume assist low: This amplifies the audio slightly and suppresses high-volume sounds.
Volume assist high: This amplifies audio strongly and suppresses high-volume sounds.
Selection items: OFF/High volume suppression/Volume assist low/Volume assist high
Initial value: OFF

初期値：OFF

● Bass Supp(Suppression)
This function suppresses the low frequencies of received audio. Set as desired.
This runs in both analog and digital.
OFF: This does not suppress.
Selection items: OFF/Weak/Medium/Strong
Initial value: OFF

初期値：OFF

● Treble Supp(Suppression)
This function suppresses the high frequencies of received audio. Set as desired.

This runs in both analog and digital.
OFF: This function is disabled.
Selection items: OFF/Weak/Medium/Strong
Initial value: OFF

初期値：OFF

## ■ディスプレイ

■ Display
● BL(Backlight) Timer
The LCD screen automatically dims slightly after a certain amount of time without operation. This designates the amount of time without operation unit the LCD and keyboard backlight dims.
Selection items: Always/1 sec./2 sec./3 sec./5 sec./10 sec./20 sec./30 sec./60 sec./90 sec./120 sec.
Initial value: 10 sec.
The shorter the set value, the less battery it will consume; the always-on light consumes the most battery power. The battery will be depleted in about 9 hours simply in Standby Mode with the always-on light.

ら受け状態だけでも9時間程度で減電池状態になります。

Reference
Regardless of the settings in this section, the always-on light can also be turned on by the Set Mode operations described below.
• The “Backlight (Power from USB)” function allows the light to turn on only when connected to a USB port.
• The “Manual Backlight” can be turned on and off manually. The light remains on unless it is turned off.

● BL(Backlight) On Bright
This sets the brightness of the LCD screen backlight during operation.
Selection items:1/2/3/4/5/6/7/8/9/10
Initial value: 10
The lower the number, the darker it will be. Select a value and press the [SET] key to reflect your desired brightness. The darker it is, the better the battery life will be.

数字が小さいほど暗くなります。値を選んで［SET］キーを押すと明るさが反映されるので、好みの明るさにします。暗いほうが電池の持ちは良くなります。

### ●消灯画面輝度

● BL(Backlight) Off Bright
This sets the brightness of the LCD screen backlight when not in operation.
Selection items: Light off/1/2/3/4/5/6/7/8/9
Initial value: 3
The lower the number, the darker it will be. Select a value and press the [SET] key to reflect your desired brightness. The darker it is, the better the battery life will be. Select light off to remove the display. It will return to the display brightness (backlight on) when any operations are performed.

表示は消えます。何らかの操作をすると点灯画面輝度で復帰します。

### ●外部電源常灯

● BL(Backlight) USB Charge
The backlight can be automatically set to the always-on light only when power is supplied via USB connection.
OFF: This runs in the same way as during battery operation.
ON: This switches to the always-on light.
Selection items: OFF/ON
Initial value: ON

• BL(Backlight) Range
This allows for the choice of the range in which the backlight is lit up.
All: This turns on both the LCD screen and the keyboard backlight.
Screen only: This turns on the LCD screen backlight only.
Selection items: All/Screen Only
Initial value: All

初期値：全て

### ●バックライトトリガ

• BL(Backlight) Trigger
The conditions for lighting up the backlight can be selected.
Operation Only: This turns the light on only when some kind of key or dial operation has been performed.
Operation + Scan: This turns the light on during any operation and when scanning is stopped.
Operation + Audio Output: This turns the light on during any operation and audio output.
Selection items: Operation Only/Operation + Scan/Operation + Audio Output
Initial value: Operation Only

初期値：操作のみ

### ●バックライトホールド

• BL(Backlight) Hold
The backlight timer operation can be temporarily extended.
OFF: There is no extension. Only the operation designated for the “Backlight Timer” item is performed.
Scanning: The backlight turns on until scanning stops and resumes.
Audio Output: This backlight turns on until there is no audio output from the speaker or earphones.
Selection items: OFF/Scan/Voice Output
Initial value: OFF

選択項目：OFF/スキャン/音声出力
初期値：OFF

### ●手動バックライト

• Manual BL(Backlight)
The backlight can be manually set to the always-on light or turned off.
OFF: The backlight is not operated by button operation.
ON: The backlight is operated by button operation.
Selection items: OFF/ON
Initial value: OFF
Press the [FUNC] key to light up <FUNC> on the display, and then press the [FUNC] key to produce a beeping sound and turn on the backlight. The same operation will produce a beeping sound and return to the settings of the backlight timer, etc. The backlight will remain on until it is turned off.
The • icon will be displayed below the frequency step while the manual light is on.

ライトタイマーなどの設定に戻ります。消灯操作するまでバックライトは点灯します。
手動点灯中は周波数ステップの下に●アイコンを表示します。

### ●Sメーター動作

• S-Meter Set
The S-meter Setting can be selected. This is common to all Receive Modes.
Busy not linked: The S-meter always vibrates when there seems to be an RF signal, including noises.
Pressing the [MONI] key only opens the squelch and does not change the S-meter display.

表示は変わりません。

ビジー連動：ノイズではないRF信号があると判断したときにBUSYアイコンとSメー

Busy linked: The BUSY icon and S-meter will be displayed when there is an RF signal that has been determined to not be noise. Press the [MONI] key to open the squelch, and the BUSY icon and S-meter will blink. In either case, when the squelch is 0, “BUSY” will be displayed regardless of whether RF signals are present.
Selection items: Busy Non-Linked/Busy Linked
Initial value: Busy Non-Linked

選択項目：ビジー非連動 / ビジー連動
初期値：ビジー非連動

• Message Display
This is the amount of time before returning from the message displayed on the LCD to the original screen. This is the amount of time before returning from the message to the original screen. When no operation is performed within the designated amount of time, it will automatically return to the original screen.
When a new message is received within the designated amount of time, the newer one will be displayed regardless of the designated amount of time.
No display: No message will be displayed even if received.
Hold: This does not return to the original screen until an operation is performed. New messages will be displayed when received.
Selection items: No display/Hold/1 sec./2 sec./3 sec./5 sec./10 sec./20 sec./30 sec./60 sec./90 sec./120 sec.
Initial value: 10 sec.

初期値：10 秒

• Display Color
This sets the letters and graphics as well as the background.
Select “Settings” and press the [SET] key to display the “Letters and Graphics” and “Background” selection item screen.

します。

Reference
Perform the following operations if the background and characters have unintentionally been set to similar colors, making it difficult to see the characters:
• Turn off the receiver’s power, and then turn it on while holding down the [FUNC] and [MODE] keys. When the startup screen is displayed and there is a beeping sound, release your finger. The letters and background color are initialized to black and white. No other settings will be affected in any way. The exact same color produces a warning message, and it cannot be selected.

選べません。

Letters and graphics
Press the [SET] key in “Settings” to select the “Color Selection” and “User Setting.”

色選択

Color Selection
Turn the dial to select the character color on the LCD screen. Select a color and press the [SET] key to see the reflected status. When “User” is selected, the color will be the customized color of the entered RGB values in the User Setting menu below. When the same color as the background is selected, there will be a warning that “The color is the same as the background color,” and it cannot be selected.
Selection items: White/Blue/Green/Yellow/Red/Aqua/Fuchsia/Black/User
Initial value: White

初期値：White

User Setting
The letters and graphics can be set from a combination of RGB (The three primary colors of Red, Green, and Blue).
Select “Settings” for the User Setting, and then press the [SET] key to display the “Red,” “Green,” and “Blue” selection item screen. Select the color set value you wish to change, and then press the [SET] key.
Turn the dial or enter a numerical value to change the value. Press the [STEP] key to return to the initial value. After making changes, press the [SET] key to have the settings reflected and return to the previous selection screen.

Reference
Search on the internet for such keywords as “Color Code RGB” and refer to a list of color samples and RGB numerical values.

Red
This changes the intensity of the redness of the characters.
Numerical value range: 0 to 63
Initial value: 63

Green
This changes the intensity of the greenness of the characters.
Numerical value range: 0 to 63
Initial value: 63

Blue
This changes the intensity of the blueness of the characters.
Numerical value range: 0 to 63
Initial value: 63

文字の青色の濃さを変更します。
数値範囲：0～63
初期値：63

Background
Press the [SET] key in “Settings” to select the “Color Selection” and “User Setting.”
The operations are the same as for the letters and graphics.

Color Selection
The background color of the LCD screen can be changed.
When “User” is selected, the color will be the color set in User Setting.
Selection items: White/Blue/Green/Yellow/Red/Aqua/Fuchsia/Black/User
Initial value: Black

User Setting
The background can be set from a combination of RGB (The three primary colors of Red, Green, and Blue).
Select “Settings,” and then press the [SET] key to display the “Red,” “Green,” and “Blue” selection item screen.
The selection items are the same as for “Letters and Graphics.”
Initial value: 0

## ■位置 / 距離

■ Position/Distance

● Position System

This is the reference setting for the longitude and latitude used for the distance and position display.
OFF: This does not use position-related functions. The entered FIX position information is also not used.
GPS: This turns on GPS and uses the position information received from satellites.
FIX: This uses the pre-entered longitude and latitude as position information.
Selection items: OFF/GPS/FIX
Initial value: GPS

選択項目：OFF/GPS/FIX

初期値：GPS

Precautions

Turning on GPS consumes battery power. During battery operation, it is recommended to frequently turn off the GPS function when it is not needed or to use FIX.

### ●固定経緯度

● Fixed Lon(Longitude) Lat(Latitude)

The longitude and latitude can be set for when “FIX” is selected in the position system setting.
This enters the longitude and latitude in DEG (Degree) format (decimal values).
The current longitude and latitude can be set as the fixed longitude and latitude using GPS.
For how to register, read the longitude and latitude section within Registering Memory Channels (pg. 53).
Latitude = N/S 00.000000 to 90.000000
Longitude = E/W 000.000000 to 180.000000
Initial value: Unregistered

経度＝E/W 000.000000～180.000000

初期値：未登録

### ●メモリー距離表示

● Memory Dist(Distance)

When receiving in Memory Mode, the distance between two points can be displayed by analyzing the longitude and latitude information registered in the memory channel and the GPS or FIX position information. The distance that can be displayed is from 0.01 km to 999.99 km.
OFF: Do not display.
ON: Display.
Selection items: OFF/ON
Initial value: ON

初期値：ON

### ●位置距離表示

● Position Dist(Distance)

When a signal with position information is received, such as with AIS, the distance and azimuth between two points can be displayed by analyzing the position information and the GPS or FIX position information. The distance that can be displayed is the same as the memory distance setting.
OFF: Do not display the position information.
ON: Display.
Selection items: OFF/ON
Initial value: ON

選択項目：OFF/ON

初期値：ON

## ■ Operations

• MONI Setting
This is an operation when the [MONI] key is pressed.
Alternate: Once the [MONI] key is pressed, it will maintain the monitor status until it is pressed again.
Momentary: Monitoring will be available only while the [MONI] key is pressed.
Selection items: Alternate/Momentary
Initial value: Momentary

初期値：モーメンタリ

### ●セレクタアクセラレーション

• Selector Acceleration
The dial used to switch frequencies and Set Mode items is called the selector, and its initial setting is for the [Upper Dial]. The width changed depends on the strength with which the selector is turned. This function greatly changes the frequency, Set Mode item, etc. when turned.
OFF: Change by only the number of clicks turned.
ON: Change more than the number of clicks turned. Turn one click to perform normal operations.
Selection items: OFF/ON
Initial value: OFF

初期値：OFF

• Upper Dial
The functions of the [Upper Dial] can be changed.
Selection items: Selector/Volume/Squelch
Initial value: Selector

• Lower Dial
The functions of the [Lower Dial] can be changed.
Selection items: Selector/Volume/Squelch
Initial value: Volume

初期値：音量

• Vol(Volume)/Sql(Squelch) Swap
The initial setting only allows the volume to be adjusted by turning the dial designated for volume control. When this function is turned on, it will adjust the volume when not in FUNC status, and it will adjust the squelch level when the [FUNC] key is pressed and FUNC is lit up.
OFF: This is the initial setting operation.
ON: The squelch level can also be adjusted while FUNC is displayed.
Selection items: OFF/ON
Initial value: OFF

選択項目：OFF/ON
初期値：OFF

• Dial Vol(Volume) (Lock)
This function allows a selector that is no longer used after key lock to be used instead of the volume control volume only while locked.

OFF：セレクタをロックしたままにします

OFF: This keeps the selector locked.
ON: The volume is operated by the selector.
Selection items: OFF/ON
Initial value: OFF

初期値：OFF

• QR(Quick Recall) (Lock)
This setting determines whether Quick Recall (recall operation) is used during key lock.
OFF: This allows quick recall.
ON: This blocks Quick Recall operations in the key lock status.
Selection items: OFF/ON
Initial value: ON

選択項目：OFF/ON
初期値：ON

• Key Lock Range
The key or dial to apply the key lock can be designated.
The [FUNC] and [POWER] keys can be operated to unlock the keypad even when in key lock.
All: Lock all operations.
Key + Selector: This locks the dialing operations set for the keyboard and selector.
Key: This locks keyboard operations.
Selector: This locks the dialing operations set for the selector.
Selection items: All/Key + Selector/Key/Selector
Initial value: Key + Selector

セレクタ：セレクタに設定したダイヤル操作をロックします。
選択項目：全て / キー＋セレクタ / キー / セレクタ
初期値：キー＋セレクタ

### ●FUNC 保持時間

• FUNC Hold Time
Press the [FUNC] key to select the amount of time to hold the <FUNC> status. The amount of time from when the FUNC icon turns on until it turns off. “Hold” is recommended while you are still unfamiliar with the operations.
Hold: This holds the FUNC status until the next operation.
Selection range: 5 sec./10 sec./20 sec./30 sec./Hold
Initial value: 5 sec.

初期値：5 秒

## ■電源

■ Power
• Battery Save (BS)
This function reduces power consumption during standby and prolongs battery life by powering on and off at short intervals within the receiver’s circuitry. Turning on BS for digital or data communications will make reception and decoding more difficult.
Selection items: OFF/ON
Initial value: OFF

初期値：OFF

Precautions
• When BS is turned on, BAT SAVE will be displayed on the device information screen. (pg. 104)
• The initial value of the receiver for BS is OFF as it may result in poor data decoding rates or failure to demodulate digital audio. Even for receiving analog signals, the audio may sound choppy when BS is running. The off setting is recommended when USB power is available, but when using a battery pack, turning on BS is recommended in Analog Mode. It is convenient to register the battery save toggle screen in quick recall.
• In principle, battery save is not possible when the squelch is open during signal reception, scanning, or monitoring. Five seconds after the end of such a status, BS resumes operating.
The receiver's BS ratio is 0.2 when ON to 0.8 when OFF (seconds).

• 信号受信中、スキャン中、モニター中などでスケルチを開放しているときは原理上、バッテリーセーブができません。このような状態が終わってから 5 秒後に BS 動作を再開します。
本機の BS の比率はオン 0.2：オフ 0.8（秒）です。

● Auto Power Off
When there are no operations for a designated amount of time, there will be a beeping sound and the power will automatically turn off. The initial value is OFF, and the APO icon lights up when the time is set. Press the power switch to restart. When a key or dial is operated within the amount of time on the timer, the counter is reset and it begins to recount from there. The timer does not stop with changes in reception conditions, such as whether there is a received signal or scan.
Selection items: OFF/10 minutes/20 minutes/30 minutes/1 hour/2 hours/3 hours/5 hours
Initial value: OFF

選択項目：OFF/10 分/20 分/30 分/1 時間/2 時間/3 時間/5 時間
初期値：OFF

● USB Pow(Power) Supply
For example, when connected to a laptop computer and using the editing software, the current is taken up by the receiver's power supply, consuming extra battery power from the notebook computer. Therefore, if you do not wish to consume the battery power of a USB-connected external device, the settings can be changed to use only the current from the receiver's battery pack. When turned off, it is not possible to charge using a USB device. The communications port for using the editing software is always enabled.
Selection items: OFF/ON
Initial value: ON

初期値：ON

Precautions
When "USB Power Supply" is OFF, connect a battery pack or a dry-cell battery case to start up the receiver before connecting a USB cable. Also, unplug the USB cable first before turning off the receiver's power. Otherwise it may cause the receiver to not start up properly.

「USB 給電」が ON でも「USB 充電」をオフにすると、USB からの電流では充電し

Reference
When "USB Power Supply" is turned on but "USB Charge" is turned off, it may seem that the external device's battery would not be depleted since it is not charged by the current from the USB, but the current to power the receiver is still supplied by the external device's battery. For this reason, turn off the USB power supply to conserve most of the battery in external devices.

• USB Charge
This setting determines whether or not the battery pack is charged from the USB terminal. When ON, the battery is automatically charged; when OFF, it is not charged. This setting is for when you do not wish for the device to be charged but wish to receive the data using an external power source, such as a USB adapter.
Selection items: OFF/ON
Initial value: ON

初期値：ON

Reference
This setting is for users who charge the battery pack using only the i-ion battery charger (sold separately).
Charging the battery pack by itself is effective for delaying degradation.

## ■調整

■ Adjustments
• S-Meter
The lit up segments of the S-meter can be changed based on the number of segments when the set value is 0.
For example, if three segments are lit up when the set value is 0, four segments will be lit up when the set value is set to +1.
Numerical value range: -10 to +10
Initial value: 0
The receiver's S-meter does not display the electric field strength as accurately as a measuring instrument would.
It can be conveniently used when thinking "I'd like to set the strength of that signal to this level and compare it with the intensity of other received signals."

きに便利にお使いいただけます。

### ●基準周波数

• Standard Freq(Frequency)
The "Standard Frequency" is originally adjusted using a measuring instrument in the radio's adjustment mode, but since the receiver uses Digital Mode, in which the slightest shift in frequency will result in loss of reception, this basic frequency can be adjusted in a simple manner. Resetting will return to the status before the change, but moving the set value greatly will cause it to be unable to receive properly.
Numerical value range: -100 to +100
Initial value: 0

初期値：0

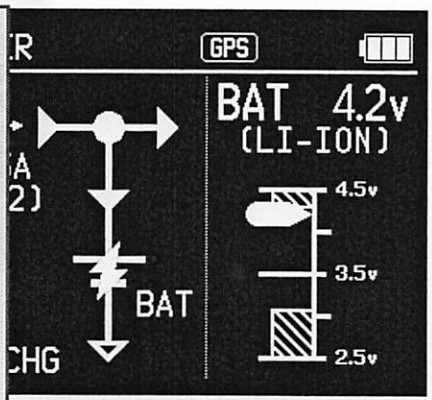
Reference
This function was adopted with correcting frequency shifts that occur over time in mind. Do not make adjustments without reason. The frequency display does not change.
This number does not have such a unit as hertz and is a parameter for the programs.
Adjust for optimum reception while actually receiving.

## ■ Status

This displays the status and information of the receiver on the LCD.

• Power Status
A screen will be displayed for checking the power supply status. It is divided into left and right.

Current Route
The left side of the screen shows the power supply information in use. The USB icon indicates USB power supply, and the icon will be marked with an X when the USB cable is unplugged. BAT is the battery, and both the dry-cell battery case and battery pack are indicated by BAT. The ▲ arrow indicates the direction of the current.
I ≦ 1.5A: This will be displayed when the current that can be supplied from the USB is between 0.5A and 1.5A.
I ≦ 0.5A: This will be displayed when the current that can be supplied from the USB is 0.5A or less. (This will be displayed when something like the USB Type-A port on a PC is used.)
BC1.2: This will be displayed when the current that can be supplied is determined from the BC1.2 specification (Battery Charging specification 1.2). Nothing will be displayed for normal Type-C USB power supply.
The upper right illustration shows that the current is flowing from a USB device to the receiver and battery pack. The lightning bolt icon indicates that the battery is charging, and the X icon is displayed for channels without a current. The RPD CHG section in the lower left corner will display the following:
USB OFF: When the battery pack or dry-cell battery case is being used
BAT OFF: During USB power supply
RPD CHG: The USB power supply is 1.5A or less, and the battery pack is being charged rapidly
NRM CHG: The USB power supply is 0.5A or less, and the battery pack is being charged
CHG CMP: When the battery is fully charged and charging is completed
!! COLD: When charging is not possible due to low temperatures
!! HOT: When charging is not possible due to high temperatures
!! TOT: When the charge timer is operating with USB charge and stops charging
CHG ERR: Other times when charging is not possible




e-A ポートを使用したときな

.2）規格から供給可能電流を
の USB 電源では何も表示さ

リーパックに流れていること
ない経路は×アイコンが表示
。

を急速充電中
を充電中

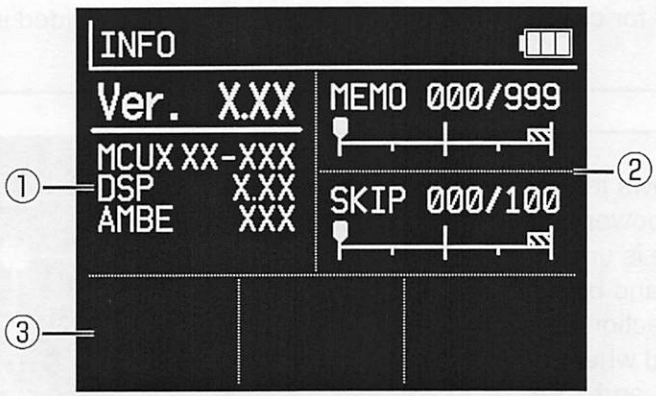
止めた時

Reference
NRM CHG will be displayed when the power is supplied from the USB Type-A port of the PC.
USB OFF will be displayed when the USB is disconnected.

Battery Voltage
The right side of the screen displays the battery voltage and type.
LI-ION: battery pack
DRY-CELL: dry-cell battery case
When the batteries are removed, an X will be displayed in the voltage graph, and -.-V will be displayed for BAT.

• Device Infor(Information)
Turn off the power, and then turn it on while holding down the [MONI] key to display the software version, memory usage, settings, etc. Operate any key to switch to the reception screen.

ます。




| | |
|---|---|
| ① | This is information on the receiver's programs and important devices.<br>Ver. : Version<br>MCU:CPU Version<br>DSP:DSP Version<br>AMBE:AMBE Release Number<br>Note: The Ver, MCU, and DSP numbers may change when there are some changes to the receiver's programs, but the numbers may also change for reasons completely unrelated to function or performance, for example, changes to the automatic adjustment programs during production, etc. If there are any function additions or bug fixes, we will release that information on our website. Differences in numbers in the absence of such a notice are administrative changes. We will not disclose any details of administrative changes even if inquired.<br>を公開することは致しておりません。 |
| ② | This displays on a graph the current number used and the maximum number available.<br>MEMO: Number of memory channel registrations<br>SKIP: Skip usage |
| ③ | ANT EAR ：イヤホンアンテナを選択<br>GPS OFF ：位置情報取得設定が“OFF”<br>ANT EAR: Earphone antenna selected<br>GPS OFF: Position system setting is “OFF”<br>POS FIX: Position system setting is “FIX”<br>REF ADJ: Basic value is set to something other than 0 in the standard frequency setting<br>SMT ADJ: Basic value is set to something other than 0 in the S-meter setting<br>REF SMT: Basic value is set to something other than 0 in both the standard frequency and S-meter settings<br>KLC KEY: Key lock range setting is “Key”<br>KLC DAL: Key lock range setting is “Selector”<br>UDL VOL: Upper dial setting is “Volume”<br>UDL SQL: Upper dial setting is “Squelch”<br>LDL SEL: Lower dial setting is “Selector”<br>LDL SQL: Lower dial setting is “Squelch”<br>BAT SAVE: Battery save is “ON” |

# PC Connection

The DJ-X100 has two types of software: utility software for editing settings and memory channels as well as saving and loading their data files, and geolocation software for displaying received characters and position information on a map.
Search for Alinco, Electronics, Downloads, Receivers, and then click on “Downloads” under “Receivers (Wideband Receivers)” on that page to see the DJ-X100 section. Instructions for using the software are also available at the same location.

https://www.alinco.co.jp/product/electron/soft/softdl02/index.html

The receiver can be connected to a computer with the supplied USB cable. There is no need for PC cables such as ERW-7,ERW-23,ERW-8, and they cannot be connected to the receiver.

This only runs on operating systems Windows 10 or later. No driver software installation is required.
PC connection mode (clone mode) is not available.

To connect to third-party receiver software, read the instructions for that software.
The Alinco Electronic Service Center cannot provide any support for consultations with regard to connecting third-party software.

[Requests regarding the use of the software/Please read carefully]
Software for DJ-X100 is provided free of charge as a service.
The receiver can be used without the use of software, and the software was not developed with the intention of it being used by all users. For this reason, we do not provide individualized support for computer and software operations. In addition to such basic computer operations as software installation, the user should have enough knowledge to be able to view the OS device manager, save and recall edited data, and understand the functions employed in the receiver.
Note that this is free software, and we cannot compensate for any damage to hardware, other software, or data that may result from using the software. In the rare case that the product does not run properly due to compatibility issues with your computer, we cannot guarantee that we will be able to provide individualized support. Software updates will end if the product is discontinued. Note that there is the possibility that a newly provided OS may not be compatible.
Although Alinco Incorporated owns the copyright on the software, it is free to use as long as it is not used for commercial purposes.
Use the software only if you agree to the above.
Instructions for operating the software are included with the software to download or are available on the same download page.

# Reset

This unit has three types of reset (initialization).

## Reset(Only display)

Use this reset when the screen is difficult to see due to an incorrect display color setting.
1 Turn the unit off.
2 Turn the power on while pressing and holding the [FUNC] key and [MODE] key together.
3 Release the keys when the startup screen appears.
4 A "beep beep" will sound and the unit will start up with the default display settings of white text on a black background.
No settings other than the display color are affected.

表示色以外、一切の設定に影響はありません。

## Reset(Partially)

Use this when you don't know how to operate the unit or when it is not working properly.

The memory channel data and associated scan information will remain,

but other settings will return to the factory settings.

1 Turn off the unit.

2 Turn the unit on while pressing the [FUNC] key.

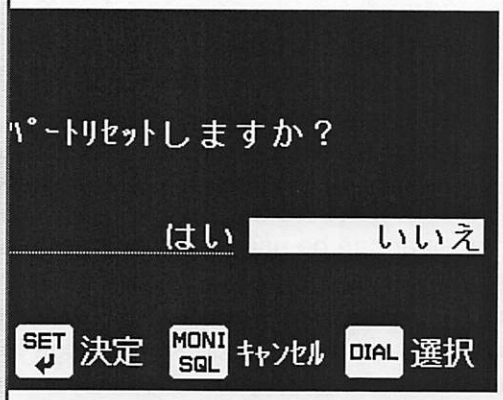
3 Release the key when the "ALINCO DJ-X100" startup screen appears.

4 The RESET screen shown in the illustration will be displayed, so use the [Upper Dial] to select "Yes" and press the [SET] key to initialize and start up.

If you select "No" and press the [SET] key or press the [MONI] key,

it will cancel and start up as is.

ったときに使用します。
ナ情報は残ります



Reset(All)

This reset initializes all functions and deletes all memory data, returning the unit to the factory settings.

If you want to keep the memory data, select Part Reset. This unit does not have a backup or restore function. Please use the utility software distributed on our website.

1 Turn off the unit.

2 Turn on the unit while pressing the [FUNC] and [MONI] keys together.

3 Release the keys when the "ALINCO DJ-X100" startup screen appears.

4 The RESET screen shown in the illustration will be displayed. Use the [Upper Dial] to select "Yes" and press the [SET] key to initialize and start up.

If you select "No" and press the [SET] key or the [MONI] key, the reset will be canceled and the unit will start up as is.

「いいえ」で［SET］キーを押すか [MONI] キーを押すとリセットをキャンセルしてそのまま起動します。

# 11 Option List 一覧

・充電スタンドセット（EDC-325A）：急速充電スタンドとACアダプターのセットです
• Charging stand set (EDC-325A): A set of a quick charging stand and an AC adapter.
• Soft case (ESC-65): Can be used with the belt clip attached.
• Battery case (EDH-46): Uses three AA alkaline batteries. Waterproof enough that it will not break even if you hold it with wet hands.

About the EDH-46 battery case

• This battery case is for AA alkaline batteries only. Do not use manganese batteries or AA rechargeable batteries. This may cause malfunction. Replacing with the wrong type of battery may cause overheating or explosion.
• Never use lithium batteries or lithium rechargeable batteries as they may cause malfunction. Damage is not covered by the product warranty.
• Be careful not to reverse the +/- direction of the batteries. This may cause leakage, fire, or explosion.
• Use new batteries of the same type and manufacturer. When replacing the batteries, replace all batteries with the same new ones. Using different batteries may cause leakage, heat generation, etc.
• Clean the electrodes that come into contact with the batteries from time to time with a clean, dry cloth or cotton swab. Invisible dirt may cause poor contact.

# 12 Maintenance

## 故障 Trouble Shooting Guide に

The following symptoms may not be a malfunction. Please try the procedure described in "Troubleshooting." If the problem persists after trying the procedure, try "Part Reset" on page XXX.

| Problem | Cause | Corrective Action |
|---|---|---|
| When I turn it on, nothing shows on the display. | The battery is having a poor connection | Clean the battery and the battery terminals on the back of the unit with a dry, clean cotton swab, etc. |
| | The battery may be exhausting. | Recharge or replace the battery. |
| | [POWER] key released too soon | Press and hold the [POWER] key until the display appears. |
| No sound from the speakers. | Low Volume | Check volume and increase volume |
| | High squelch level | Adjust the squelch level to an appropriate level |
| | Tone squelch, DCS, and user code are not matched | Press the [MONI] key to see if it can be received. |
| | Settings such as DCS do not match | Set it up proper. |
| The display screen is abnormal | The CPU is malfunctioning | Remove all USB and battery, wait 10 seconds or more, then reinsert them. If that doesn't solve the problem, perform a part reset. |
| Scan not working | Squelch is opened | Set squelch to disappear noise |
| Dial and key operations do not work | Keylock is active | Unlock |
| The display flashes or goes out during reception | The battery may be exhausting. | Recharge or replace the battery. |

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- 弊社が認める修理技術者以外の手によって修理された形跡のある物

## ■製品の廃棄について

技術基準適合や登録、免許などが必要のない製品です。ラジオ同様の小型家電製品ですので、お住まいの地域のルールに従って処分してください。付属のバッテリーパックは家電量販店などに設置されているバッテリーパックの回収箱をご利用ください。その際、バッテリーパックの金属端子にセロハンテープを貼り、ショートを防止してから廃棄してください。

# 13 Technical Specifications

| | | |
|---|---|---|
| Receive frequency range | Receive frequency range | 30.000000 ~ 75.999999MHz<br>108.000001 ~ 253.799999MHz<br>255.000000 ~ 261.999999MHz<br>266.000000 ~ 270.999999MHz<br>275.000000 ~ 380.199999MHz<br>381.325000 ~ 411.999999MHz<br>414.400000 ~ 470.000000MHz<br>76.000000 ~ 108.000000MHz (WFM Only) |
| Frequency step | | 1/5/6.25/8.33/10/12.5/15/20/25/30/50/100/125/150/200kHz |
| Receiving mode | Analog | : FM/NFM/AM/NAM/WFM |
| | Digital | : T98/T102/B54/DMR/D-STAR/C4FM(DN) |
| | Data | AIS/ACARS/12kIF(W)/12kIF(N) |
| Operating voltage | Li-ion battery 3.6V | (EBP-114, 3120mAh) |
| | Dry cell battery (optional parts) | |
| | External power supply (USB Type-C) 5V | |
| Current consumption | Standby: Approx. 150mA (BS ON, backlight, FM mode, GPS OFF) | |
| | Standby: Approx. 300mA (Backlight/WFM mode OFF, GPS ON) | |
| | When receiving: Approx. 500mA (FM rated output, backlight/WFM mode OFF, GPS ON) | |
| Operation temperature | Reception: -20℃ to +60℃ Charging: +10 to +40℃ | |
| Dimensions | Width 58 x height 110 x depth 32.5mm (exclude antenna) | |
| Weight | Approx. 260g (including antenna and accessory battery pack EBP-114)<br>Belt clip: Approx. 14g | |

**Receiving**

[FM/AM/Digital/Data] Triple Super Heterodyne Conversion
1st IF : 243.95MHz.
2nd IF: 50.85MHz
3rd IF 450kHz
[WFM] Direct Conversion

第 2 中間周波数 50.85MHz
第 3 中間周波数 450kHz

**Sensitivity**

| | | |
|---|---|---|
| FM / NFM : | ≦ -10dBμV | (12dB SINAD) |
| AM / NAM : | ≦2dBμV | (10dB S/N) |
| T98 : | ≦ -10dBμV | (BER 1%) |
| DMR : | ≦ -7dBμV | (BER 1%) |
| D-STAR : | ≦ -10dBμV | (BER 1%、~~145MHz / 433MHz アマチュア無線のみ~~) |
| C4FM(DN) : | ≦ -7dBμV | (BER 1%、~~145MHz / 433MHz アマチュア無線のみ~~) |
| AIS : | ≦ -5dBμV | (BER 1%、162MHz only) |
| WFM : | ≦ -2dBμV | (12dB SINAD) |

**Audio** 出力

Internal Speaker 400mW(10% distortion / 8Ω)
External Terminal 40mW(10% distortion / 32Ω)

* Specifications are subject to change without notice.
* Reception sensitivity is a representative value. It may vary slightly depending on the frequency.

[MEMO]

FCC, CE,
ICの追加

■仕様・定格は予告なく変更する場合があります。
■本書の説明用イラストは、実物とは状態や形状が異なる、一部の表示を省略している等の場合があります。

■乱丁・落丁はお取り替え致します。

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受付時間：土日祝日・休業日を除く 10:00 ～ 12:00,13:00 ～ 17:00
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PS1074
FNFF-EF