Warranty & After-Sales Service

●Warranty

After ensuring the date of purchase and sales location on the warranty has been filled in, receiving the product from the sales location and carefully reading the content, store this warranty in a safe location. The warranty is valid for one year from the date of purchase.

●Minimum availability of replacement functional parts

Replacement functional parts for the product will be available for a minimum of 3 years from completion of the product. Functional parts means to parts required for the product to function.

●Consultation in cases where clarification is necessary

Please contact the sales location.

●Requesting repairs

Should a problem persist after checking for possible solutions in the troubleshooting section, turn the power off and contact the sales location.

●While under warranty

Present this warranty when having the product repaired. The sales location will perform necessary repairs according to the rules stipulated in the warranty.

●If the warranty has expired

When usable with repairs you may opt for repairs at your own expense. Please consult with the sales location.

Warranty

This document is a guarantee of free repairs according to the information contained within this document. Should the product break within one year of the date of purchase please contact the sales location or our service station to request repairs.

Product Name	Fact in Call		
Warranty Period for Free Repairs	One Year	Date of Purchase	
Customer	Address		
	TEL		
	Name		
Sales Location			
Seal/Signature			

Thank you for purchasing this product. Before use, read this Owner's Manual carefully in order to handle the product properly.

INDEX

Safety Precautions

* Read the Safety Precautions before use. Only use the product correctly.
* The precautions listed here are intended to prevent accidents or injury to the users of the product or other people and to ensure safe and proper use of the product.
  The precautions are categorized as "Warning" and "Caution" to indicate the level of danger or amount of damage that may arise from certain kinds of misuse. Both are important for safety, so make sure they are strictly obeyed.

⚠ **Warning**	⚠ **Caution**
Ignoring this indication and handling the product in a mistaken manner may result in serious injury.	Ignoring this indication and handling the product in a mistaken manner may result in injury or physical damage.

Warning Symbols

⚠	・This symbol indicates caution signs (and warnings).
🚫	・This symbol indicates prohibited action. Inside the symbol or nearby a drawing indicates the specific prohibition (the example on the left means disassembly prohibited).
❗	・This symbol indicates required action or instructions.

⚠ Warning

● Disconnect the product from the power source during maintenance (to prevent electrical shocks).

● Do not use the product if the cord or power plug has been damaged or if the connection to the power socket is loose. (Electrical shocks or fires caused by shorting may result.)
● Do not cut, damage, process, forcefully bend, pull, twist or bundle the cord. Do not place heavy objects on the cord or cause it to be pinched. (Electrical shocks or fires caused by shorting may result.)

⚠ Warning (cont.)

● Do not apply water or cleansing agents to the product.
● Do not install the product in a humid location or where there is a possibility of water splashing on it. (Fires or electrical shock may result.)

● Do not disassemble, repair or modify the product unless you are a trained repair technician. (Fires or electrical shock may result.)

● Keep cords tidy.
● If dust is present on the power plug prongs or the prong surfaces, wipe thoroughly before use. (Fires or electrical shock may result.)

● Stop using the product and disconnect the plug if any of the following should occur: smoke or strange odors or sounds. (Fires or electrical shock may result.)
● Stop using the product and disconnect the plug if any of the following should occur: water or foreign objects inside the device or if the outer casing is damaged. (Fires or electrical shock may result.)

● Do not plug in or disconnect the power plug with wet hands. (Electrical shock may result.)

⚠ Caution

● Do not hold the cord when disconnecting the power plug. Pull it out holding the plug terminal. (Electrical shocks or fires caused by shorting may result.)

● Do not use in an unstable location or close to sparks. (Deformation or damage may result.)

● Carefully install the batteries for the receiver/cancellation device taking care to align the polarity in the indicated direction. Do not use new batteries with old, or mixed types. (Battery fluid leaks or damage may result.)

⚠ Caution (cont.)

● Do not recharge the batteries. (Battery fluid leaks or damage may result.)

● When moving the receiver or external antenna, put away the antenna before moving it. (The antenna may bend or damage to the tip may result.)

● If the product will go unused for an extended period of time, disconnect the power plug from the socket for safety. (Fire may result.)

● If lightning should occur, do not touch the power plug. (Fires or electrical shock may result.)

● Do not throw the product or allow external impact.
● Do not block the air pores. (Fires or damage may result.)
● Keep magnetic objects away. (Damage may result.)

Caution

● Fact in Call is used for notification and communication. It is not intended for use as a life-saving or theft-preventing system.
● The signal distance may become shorter depending on the location it is used or other conditions.

■ **Precautions regarding placement**
If the receiver display, portable receiver display, receiver speaker, or repeater (relay) that receive the signal are impacted by noise (signal degradation) they may not operate normally due to not receiving the signal properly from the transmitter and cancellation device or portable receiver display.
Please place the receiver display, receiver speaker and repeater (relay) at least two meters from devices that generate noise (signal degradation) easily.
When installing against a wall, consider the other side of the wall as well.
If devices are present that give off radio signals or noise, please consult with us in advance.

◎ Example devices that generate noise (signal degradation) easily:
Air conditioners and their outdoor components/refrigerators/refrigeration cases and their outdoor components/transmission related relays (OES, cellular phone, wireless LAN)/other electrical devices with high power consumption (wattage) as they turn on and off, etc.
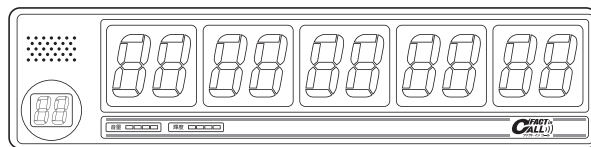
Introduction

About the Product

Fact in Call is a cordless chime system that is composed of the following products.

Receiver Display

■Standard Model
Shows information using a 3 color LED display.

■Portable Receiver Display (with Cancellation Function)
The portable model includes a vibration function.

➲Red/yellow/green display
➲Freely use any of 255 settings in each color
➲Numbers displayed in order of arrival.
➲Displays calls remaining.
➲Notifies passage of time by blinking.

Solid for about 30 seconds → Slowly blinking display → 30 seconds later → Blinking display → 30 seconds later → Fast blinking display
(2 seconds lit/0.5 seconds off)　　　　　　　(1 second lit/0.5 seconds off)　　　　　　　(0.5 seconds lit/0.5 seconds off)

Both the standard receiver display and the portable receiver display incorporate 3-color LEDs, thus making it possible to display identical numbers in different colors.
* All numbers, however, will be erased together unless the cancellation and setup device is used to erase identical numbers. (No numbers can be erased on a color-by-color basis).
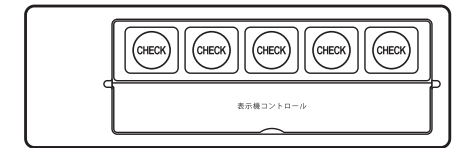
Recharger

■Recharger
Recharge multiple portable receiver displays at once. Choose between 10 unit charger and 5 unit charger.
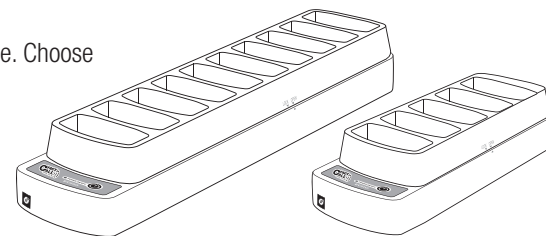
Cancellation & Setting Device
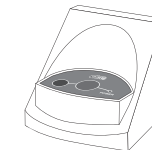
■Cancellation & Setting Device
Used to clear the display on the receiver display. Also used to customize the various settings of the receiver display.
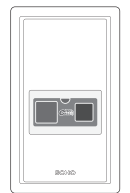
Transmitter

■Standard Model
A high-efficiency transmitter with a built-in antenna board.
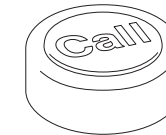Two buttons can be used for calling and cancellation.

■Card Model
Compact card sized transmitter. Can be installed in places the standard model does not fit.
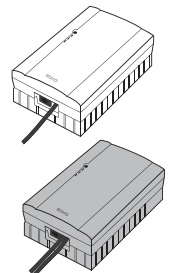
■Round Model
A transmitter with an easy-to-press, big button that can be pressed for a comparatively long time for cancellation.
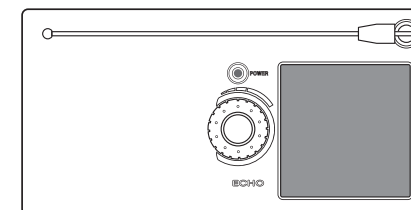
■Signal Input Model
Automatically transmits signals to the receiver device when trouble occurs without human intervention. Problems will receive attention without the need for someone to operate the device.

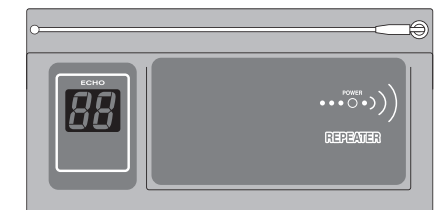### Receiver Speaker & Relay (Repeater)

■Receiver Speaker
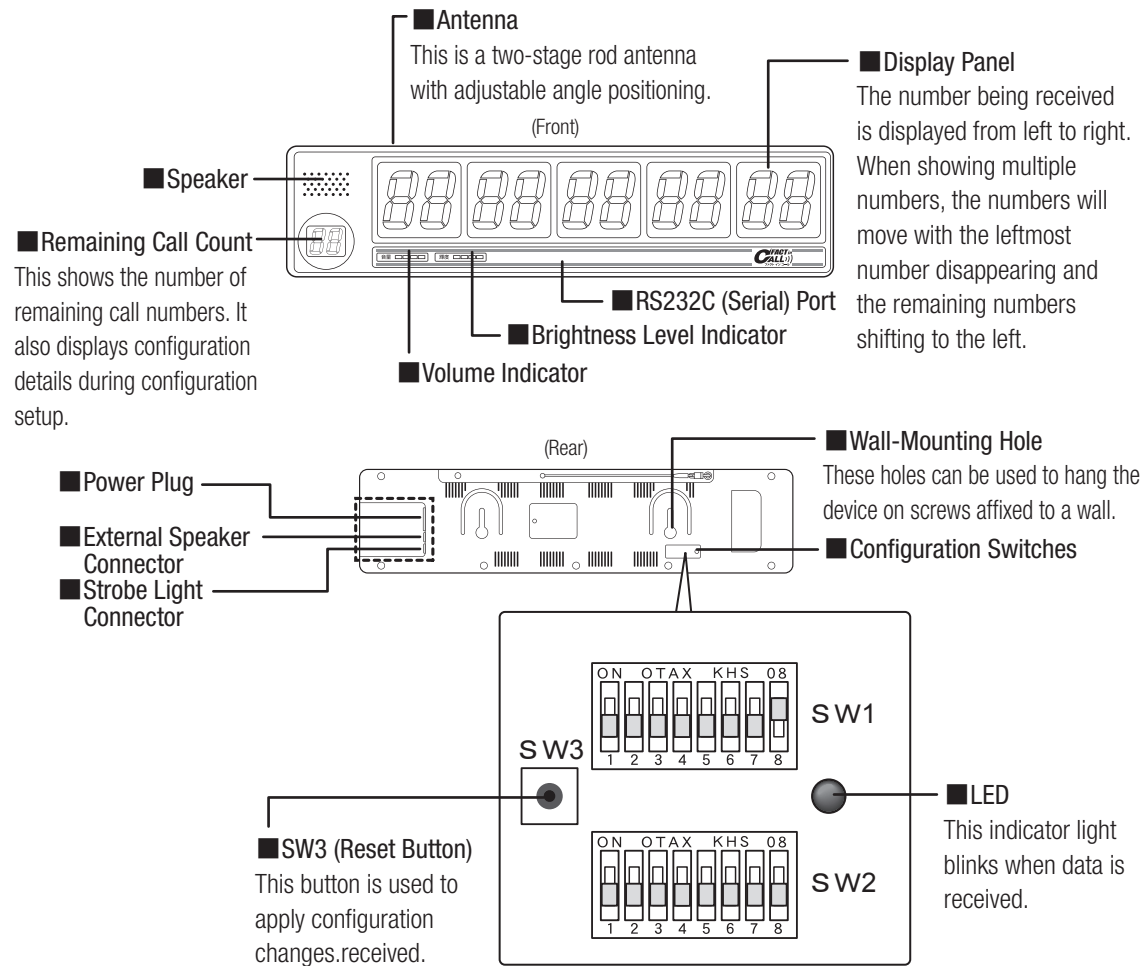A chime can be set to ring in places away from the receiver display.

■Relay (Repeater)
Used to extend the signal to out of the way corners or places where the signal doesn't reach very well. Multiple devices can work in tandem.

Receiver Display

Part Names / Functions

■Antenna
This is a two-stage rod antenna with adjustable angle positioning.

(Front)

■Display Panel
The number being received is displayed from left to right. When showing multiple numbers, the numbers will move with the leftmost number disappearing and the remaining numbers shifting to the left.

■Speaker

■Remaining Call Count
This shows the number of remaining call numbers. It also displays configuration details during configuration setup.

■RS232C (Serial) Port

■Brightness Level Indicator

■Volume Indicator

(Rear)

■Wall-Mounting Hole
These holes can be used to hang the device on screws affixed to a wall.

■Power Plug

■External Speaker Connector

■Strobe Light Connector

■Configuration Switches

ON OTAX KHS 08
1 2 3 4 5 6 7 8
SW1

SW3

SW2
ON OTAX KHS 08
1 2 3 4 5 6 7 8

■SW3 (Reset Button)
This button is used to apply configuration changes.received.

■LED
This indicator light blinks when data is received.

Installation Location

Important If the receiver display, portable receiver display, receiver speaker, or repeater (relay) that receive the signal are impacted by noise (signal degradation) they may not operate normally due to not receiving the signal properly from the transmitter and cancellation device or portable receiver display.
Please place the receiver display, receiver speaker and repeater (relay) at least two meters from devices that generate noise (signal degradation) easily.
When installing against a wall, consider the other side of the wall as well.
If devices are present that give off radio signals or noise, please consult with us in advance.

◎Example devices that generate noise (signal degradation) easily:
Air conditioners and their outdoor components/refrigerators/refrigeration cases and their outdoor components/transmission related relays (OES, cellular phone, wireless LAN)/other electrical devices with high power consumption (wattage) as they turn on and off, etc.

⚠ **Caution** To avoid fires and electric shocks, the device should be installed in a location where the surrounding air temperature does not exceed 40°C, free from high humidity levels and contact with water.

(((**Tips**)))
●If the device is installed in a location near something metal, its reception range may be reduced. Make sure it is installed away from metal and other electronic devices.
●The device may break if dropped on a hard surface. It should be placed somewhere where it is unlikely to fall.
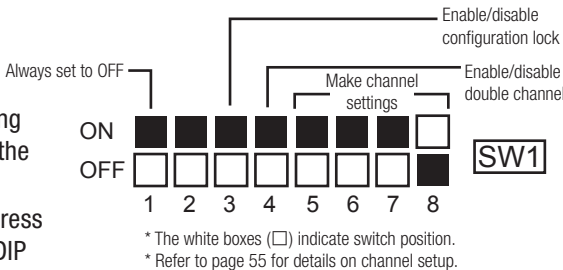
Setting the Channel

You can freely set or adjust the device to use any of 15 channels (channels 1 – 15). The channel is set using a DIP switch.
The receiver is fitted with a DIP switch. Use the DIP switch to set the channel. Be sure not to set the switch incorrectly when setting the channel.

* Normally, there is no need to adjust the channel. If you adjust the channel of the receiver, all other devices must also have their channels adjusted. Ask the retailer for more information.

1 Turn the power ON.

2 Open the setup panel.

3 Use SW1 to set the channel.

4 The device is set to channel 1 before being shipped from the factory. You can adjust the channel as required.

5 After setup, plug in the power cord and press the yellow reset button to the left of the DIP switch to apply the setup changes.

Always set to OFF

Enable/disable configuration lock

Make channel settings

Enable/disable double channel

ON
OFF
1 2 3 4 5 6 7 8
SW1

* The white boxes (□) indicate switch position.
* Refer to page 55 for details on channel setup.

(((**Tips**)))
All the five windows will display "— —" when the power is turned ON or reset, followed by software numbers and channel numbers. (These items may not be displayed, depending on the remaining capacity of the built-in battery).
* There is no need to pay attention to software numbers during the normal use of the product.
●Backup Functionality during Power Interruptions
The receiver comes with a backup function. It works for momentary 0.1-second power interruptions as well as interruptions lasting several seconds. This feature ensures that calls are reliably recorded, and that call numbers are displayed once power is restored.
●The Reset Button
The reset button returns the device to its original settings (volume [level 2], brightness [maximum], and sound tone [beep]). However, if "configuration lock" is set, it does not return the device to its original settings. This button is also used to apply modified settings.
●Configuration Lock Functionality
This function ensures that the sound tone, volume, and brightness settings for the device do not return to their original settings in the case of an extended power outage.
* With this feature activated, the lock functionality is given priority so that even if the reset button is pressed, the device does not return to its original settings. To return the device to its original settings without using a setup device, first disable this function.
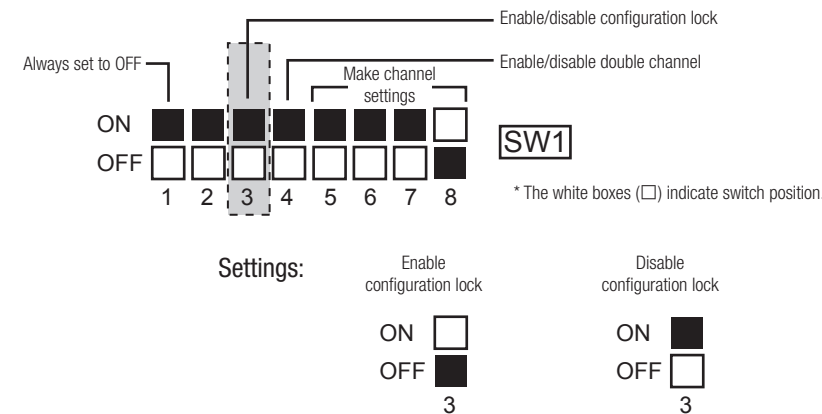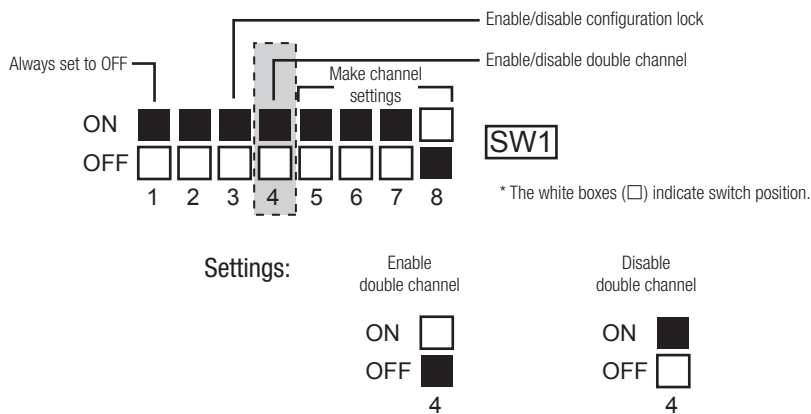●Double Channel
Enabling this function allows the device to receive signals on two channels. If the channel is set to channels 1 through 5, this function allows reception on the corresponding channels 11 through 15 as well.
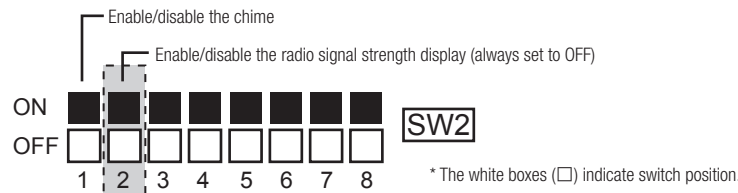I.e.: ch. 1 + ch. 11, ch. 2 + ch. 12, ch. 3 + ch. 13, ch. 4 + ch. 14, or ch. 5 + ch. 15

Enable/Disable Configuration Lock Function

This function ensures that the sound tone, volume, and brightness settings for the device do not return to their original settings in the case of an extended power outage.
* With this feature activated, the lock functionality is given priority so that even if the reset button is pressed, the device does not return to its original settings. To return the device to its original settings without using a setup device, first disable this function.

Always set to OFF
Enable/disable configuration lock
Enable/disable double channel
Make channel settings

ON / OFF
1 2 3 4 5 6 7 8

SW1

* The white boxes (□) indicate switch position.

Settings:

Enable configuration lock
ON / OFF
3

Disable configuration lock
ON / OFF
3

* In order to enable the setting changes, be sure to **press the reset SW with the power turned ON**.

Enable/Disable Double Channel

Enabling this function allows the device to receive signals on two channels. If the channel is set to channels 1 through 5, this function allows reception on the corresponding channels 11 through 15 as well.
I.e.: ch. 1 + ch. 11, ch. 2 + ch. 12, ch. 3 + ch. 13, ch. 4 + ch. 14, or ch. 5 + ch. 15

Always set to OFF
Enable/disable configuration lock
Enable/disable double channel
Make channel settings

ON / OFF
1 2 3 4 5 6 7 8

SW1

* The white boxes (□) indicate switch position.

Settings:

Enable double channel
ON / OFF
4

Disable double channel
ON / OFF
4

* In order to enable the setting changes, be sure to **press the reset SW with the power turned ON**.

Enable/Disable Radio Signal Strength Display

This function is used for the receiver display to check the strength of radio signals transmitted from transmitters, cancellation and setup device, or repeaters. Be sure to disable the DIP switches after the location of installation is determined.

Enable/disable the chime

Enable/disable the radio signal strength display (always set to OFF)

ON
OFF

SW2

1 2 3 4 5 6 7 8

* The white boxes (□) indicate switch position.

Settings:

Enable the radio signal strength display

ON
OFF
2

Disable the radio signal strength display

ON
OFF
2

* In order to enable the setting changes, be sure to **press the reset SW with the power turned ON**.

Radio Signal Strength Display

Display window 5 (on the right-hand side) will display the strength of the radio signal (for approximately 1 second) when the receiver display receives a radio signal from a transmitter, the cancellation and setup device, or a repeater.

The maximum value is 60. The threshold of normal communication enabled is around 25. If the value is 20 or below, signal data may not be received properly. This function makes it possible to determine the location of installation with ease based on the strength of the radio signal.

Beep

PUSH
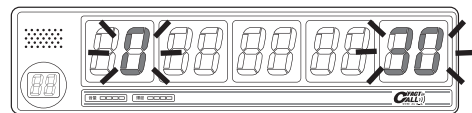
Display window 1 (on the farthest left) displays 0 in the case of the transmitter, cancellation and setup device, or portable receiver.
Repeaters show relay number of 1 to 9 or A to F (10 to 15).

Enable/Disable the Chime

The chime can be enabled or disabled when receiving the signal for the same number displayed.

Enable/disable the chime

Enable/disable the radio signal strength display (always set to OFF)

ON
OFF

SW2

1 2 3 4 5 6 7 8

* The white boxes (□) indicate switch position.

Settings:

Enable the chime

ON
OFF
1

Disable the chime

ON
OFF
1

* In order to enable the setting changes, be sure to **press the reset SW with the power turned ON**.

Setting the Sound Tone

The sound tone can be set to one of 13 different chimes.

* This can be set using the cancellation and setup device. Refer to page 40 for details.

13 different chimes
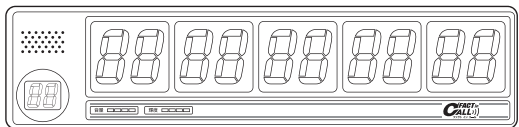
Setting the Volume

The volume of the sound tone that plays for incoming calls can be set to one of 16 levels.

* This can be set using the cancellation and setup device. Refer to page 38 for details.
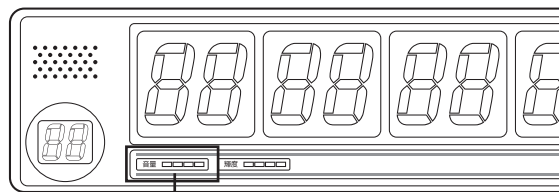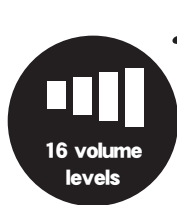
16 volume levels

(((Tips)))

About the Volume Setting
The volume level setting is indicated by four LEDs.

Volume Level	LEDs
1～4	1 LED lit
5～8	2 LEDs lit
9～12	3 LEDs lit
13～16	4 LEDs lit

Setting the Brightness

LED brightness can be set to one of 16 levels.

* This can be set using the cancellation and setup device. Refer to pages 38 and 39 for details.

16 brightness levels
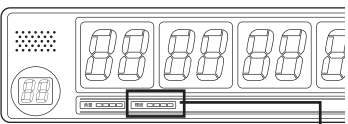
(((Tips)))

About the Brightness Setting
The brightness level setting is indicated by four LEDs.

Brightness Level	LEDs
1～4	1 LED lit
5～8	2 LEDs lit
9～12	3 LEDs lit
13～16	4 LEDs lit

Installation Methods (Optional)

◆Suspension from the Ceiling

The receiver can be suspended from the ceiling using special mounting brackets (optional). Attach the brackets as shown in the diagram.

・The receiver display unit weighs about 1.5 kg. Don't suspend it from the ceiling until you have adequately confirmed that the weight will not cause any problems.
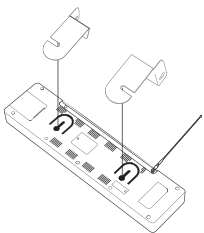
Connecting to a Computer

The receiver display can be connected to a computer using an RS232C (serial) cable. This allows transmitted data can to be displayed on the computer.
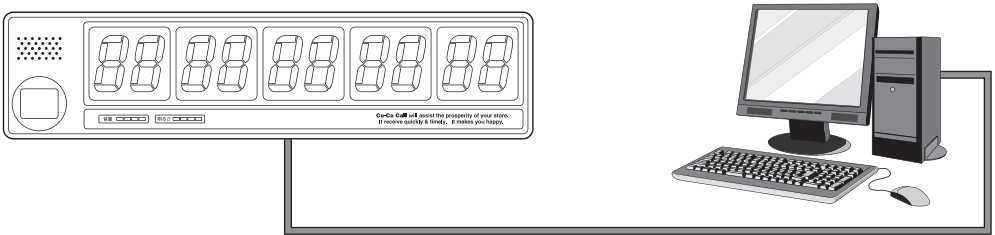
How to Connect the Receiver Display to a Computer (Using an RS232C Cable)

1 Connect the computer to the receiver unit with an RS232C cable (straight serial cable).
* A USB serial cable is required if the computer has no COM port.

2 Check the operation of the COM port.
Click "Control Panel," "System," and "Device Manager" in this order, and check that the COM port will operate normally.

Install FactMonitor

1 Use FactMonitor software for data communications between the receiver unit and computer. Download and install FactMonitor software from the following site.

http://echo5555.co.jp/lineup/fact_f/dl.html

FactMonitor Startup Settings

1 Start FactMonitor by clicking the shortcut icon on the desktop or select the FactMonitor program from the Start menu.

(1) Click "Port (P)..." in the Settings (S) menu and select the serial port.
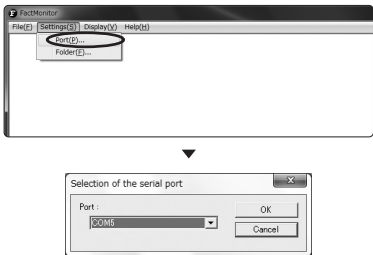
(2) Click "Folder (F)…" from the Settings (S) menu and make file output settings.

---
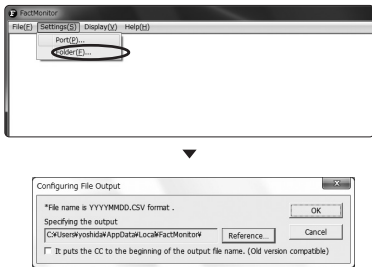
(3) The following log will appear on the screen when signals are sent from the transmitter to the display unit or numbers are deleted.
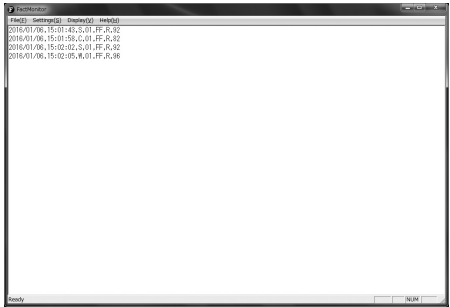
FactMonitor operating screen

(4) The log file is saved in the specified area as shown below.
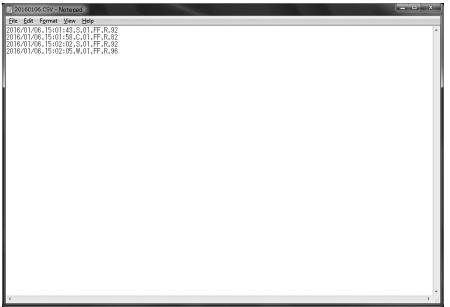
Image screen opened in Notepad

Log File Output Specifications

The log file displayed and output in the following format.

2010/09/27, 11:47:12, S, 01, 88, G, 6A

Year / Month / Day
Hour : Minutes : Seconds
Checksum
Color: R=Red Y=Yellow G=Green
Number: 01 – FF
Channel: 01 – 15
S: Data Input
C: Cancellation (signals from transmitters or portable receivers)
W: Cancellation (signals from cancellation setup devices)

A log file for each day will be created in the location specified for saving data.
Log files are named according to the naming scheme shown to the right.

20100927.csv

Month and Day (Sept. 27)
Year (2010)

If the date changes, it will automatically be updated, with a new folder created and repeatedly saved.

Connecting Strobe Lights
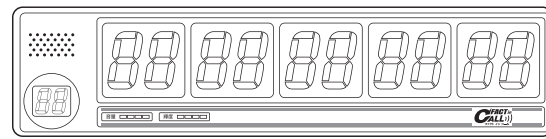
Strobe lights will keep flashing while numbers are displayed. When the numbers are removed, the strobe lights will turn off.

$(((\ \textbf{Tips}\ )))$

You can use an optional strobe light with the receiver display.
Please contact us for more information.

┌─ Recommended Strobe Light ────────────────────────────┐

Model KPE-100-R by Patlite Corporation

└───┘

Connecting External Speakers (with Built-In Amplifiers)

The receiver display can be connected to external speakers.
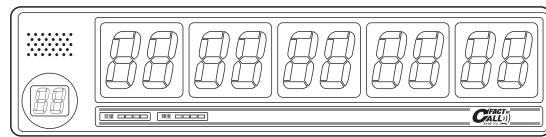
External speakers can play much louder sound than the receiver's built-in speaker in order to alert you to calls.

$(((\ \textbf{Tips}\ )))$

You can use an optional external speaker with the receiver display. Please contact us for more information.

┌─ Recommended Speaker ─────────────────────────────────┐

Model FH-595 by Noboru Electric Co., Ltd.

└───┘

MEMO

Portable Receiver Display

Part Names

■Battery Charge Display LED
Displays the remaining battery charge. Recharge as soon as possible when the LED display is blinking.

■Cancellation Key
Outputs a cancellation signal for the displayed call number when it is dealt with.

■Speaker
Notifies calls with a chime.

■Receiver Lamp
Displays the call, charge, and other status information.

■Display Panel
The number of the transmitted called will be lit (the number will blink in the case of recalling). Includes ability to display in three colors. When waiting to receive, the right terminal dot blinks.

Blink

■Confirmation Key
Turns off notifications including the call reception lamp, vibration and chime. Press and hold for two seconds to turn the power off or for one second to turn the power on.

■Vibration Motor
Notifies calls numbers with vibration.

■Special Earphone ■Special Strap
Standard bundled products

Main Features

●The receiver lamp blinks while the received call lamp is displayed. Call notification is easily noticed. Receiving the same call number repeatedly while displayed will cause the number display to blink faster.
●Call notification comes with vibration and chime.
●The two-panel display is easy to use and easy to see. Displays calls from two locations. Further calls (up to 50 calls) will be recorded in unit memory and displayed in order as currently shown ones are cancelled.
●Includes cancellation function. When cancelling a call number it is cancelled from other display devices as well.
●Includes low-power display function to help batteries to last longer.
●Special earphones and strap come in the standard bundle.
●When the special earphones are used the device will not make the chime sound.
●While recharging the portable receiver display's receiver lamp will be green.
●Before becoming fully charged the receiver lamp will blink slowly; afterwards, it will turn off. (It will take approximately 6 to 8 hours to fully charge the battery.)
●When the portable receiver display's battery charge becomes low, the battery charge indicator LED will turn on. When the LED is on, recharge the device as soon as possible. When the battery is low it may malfunction.
●Incorporates an overcharge prevention function.

Setting the Channel

You can freely set or adjust the device to use any of 15 channels (channels 1 – 15). The channel is set using a DIP switch.
The receiver is fitted with a DIP switch. Use the DIP switch to set the channel. Be sure not to set the switch incorrectly when setting the channel.

> * Normally, there is no need to adjust the channel. If you adjust the channel of the receiver, all other devices must also have their channels adjusted. Ask the retailer for more information.

1 Remove the screws and open the back plate.
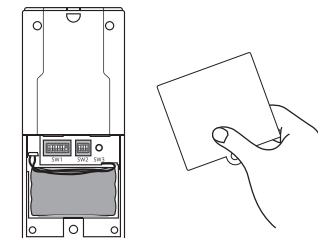
2 Facing the panel, use the DIP switches on the left (SW1) to set the channel.
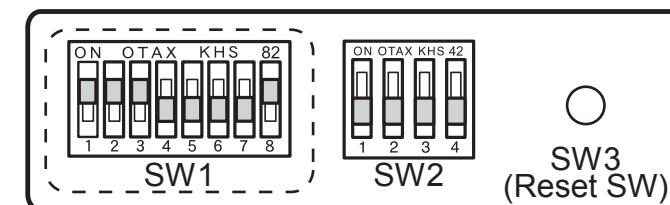
ON OTAX KHS 82
1 2 3 4 5 6 7 8
SW1

ON OTAX KHS 42
1 2 3 4
SW2

SW3
(Reset SW)

3 The device is set to channel 1 before being shipped from the factory. You can adjust the channel as required.

Enable/disable vibration
Enable/disable the chime
Enable/disable cancellation signal transmission
Enable/disable double channel

Channel setup

ON
OFF
1 2 3 4 5 6 7 8
SW1

* The white boxes (□) indicate switch position.
* Refer to page 55 for details on channel setup.

4 Verify that the switches are set to the desired channel and close the setting panel.

* To enable the modified settings, **press the reset switch with the device in standby**.

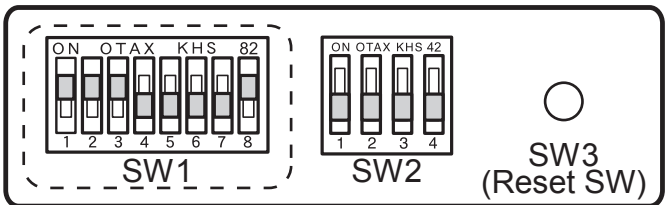⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Enable/Disable Vibration

The portable display device can be setup to enable or disable the vibration function. This setting is adjusted using the DIP switches. Take care when adjusting the DIP switches to ensure they are in the proper state.

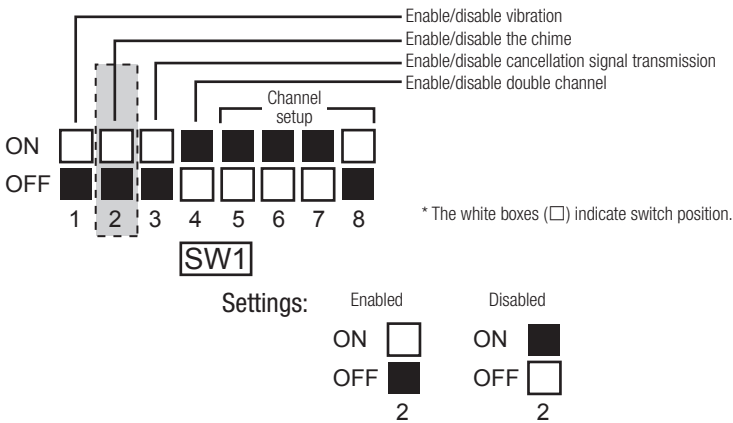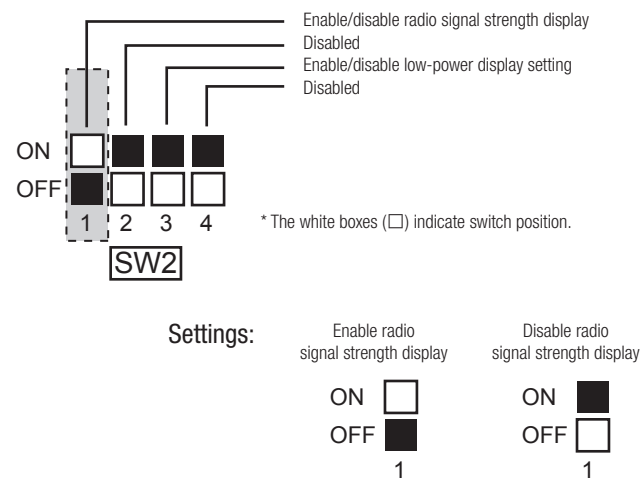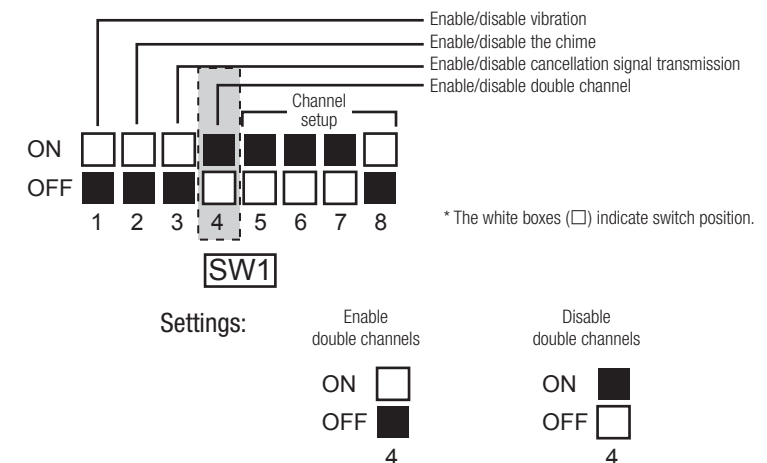**1** Remove the screws and open the back plate.
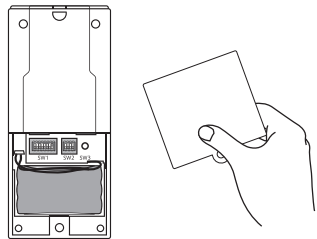
2 Facing the panel, use the DIP switches on the left (SW1) to enable or disable vibration.

SW1   SW2   SW3
(Reset SW)
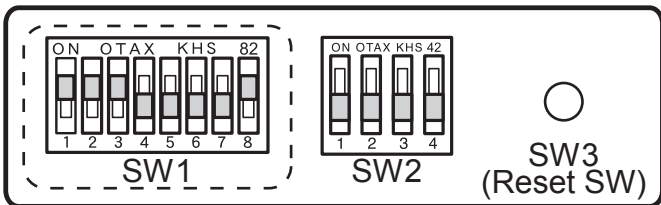
3 The vibration function is turned ON before being shipped from the factory. You can adjust the setting as required.
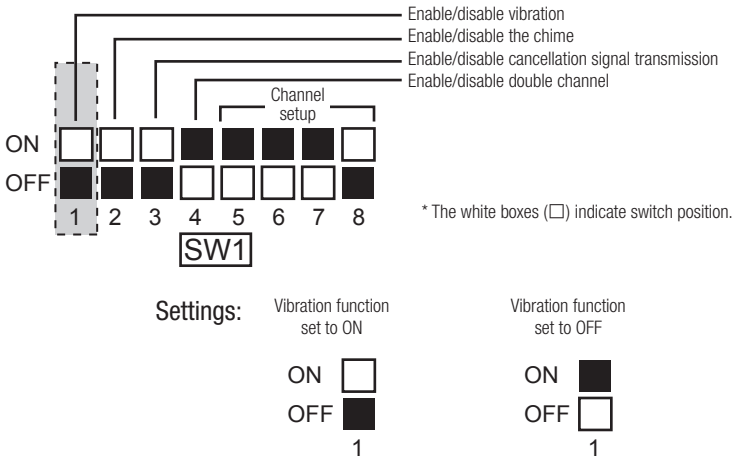
Enable/disable vibration
Enable/disable the chime
Enable/disable cancellation signal transmission
Enable/disable double channel

Channel setup

ON
OFF
1 2 3 4 5 6 7 8

SW1

* The white boxes (□) indicate switch position.

Settings:

Vibration function set to ON

ON
OFF
1

Vibration function set to OFF

ON
OFF
1

4 Verify that the switches are set to the desired setting and close the back panel.
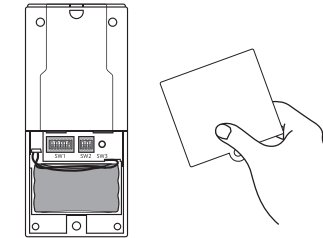
* To enable the modified settings, **press the reset switch with the device in standby**.

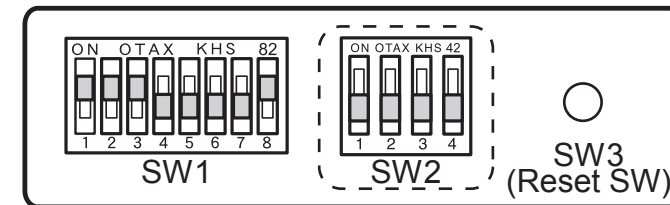⚠ **Caution**   Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

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Enable/Disable the Chime

The portable display device can be setup to enable or disable the chime. This setting is adjusted using the DIP switches. Take care when adjusting the DIP switches to ensure they are in the proper state.

1 Remove the screws and open the back plate.
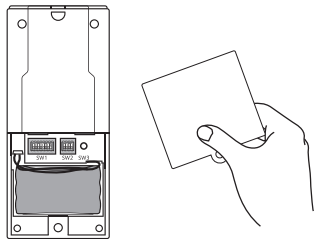
2 Facing the panel, use the DIP switches on the left (SW1) to enable or disable the chime sound.

SW1   SW2   SW3
(Reset SW)

3 The chime is turned ON before being shipped from the factory. You can adjust the setting as required.

Enable/disable vibration
Enable/disable the chime
Enable/disable cancellation signal transmission
Enable/disable double channel

Channel setup

ON
OFF
1 2 3 4 5 6 7 8

SW1

* The white boxes (□) indicate switch position.
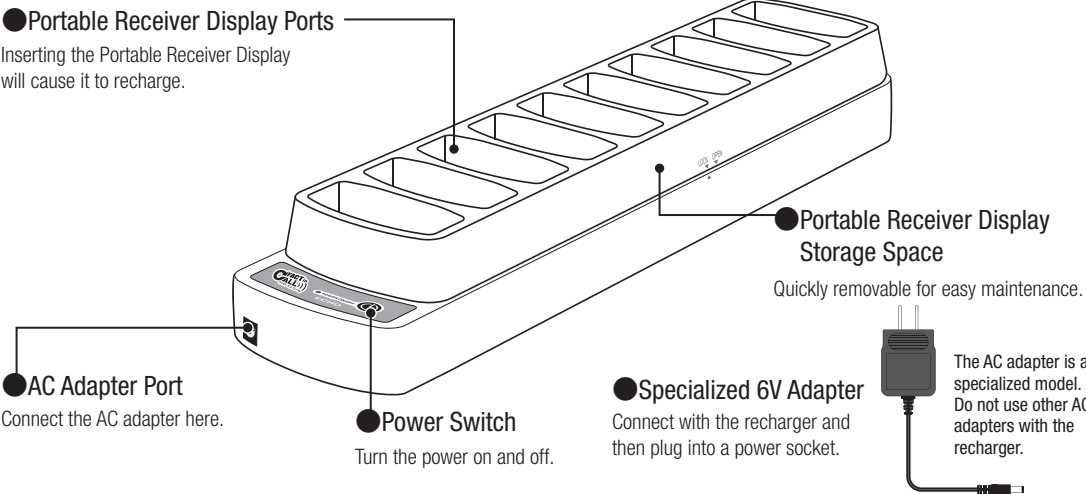
Settings:

Enabled

ON
OFF
2

Disabled

ON
OFF
2

4 Verify that the switches are set to the desired setting and close the back panel.

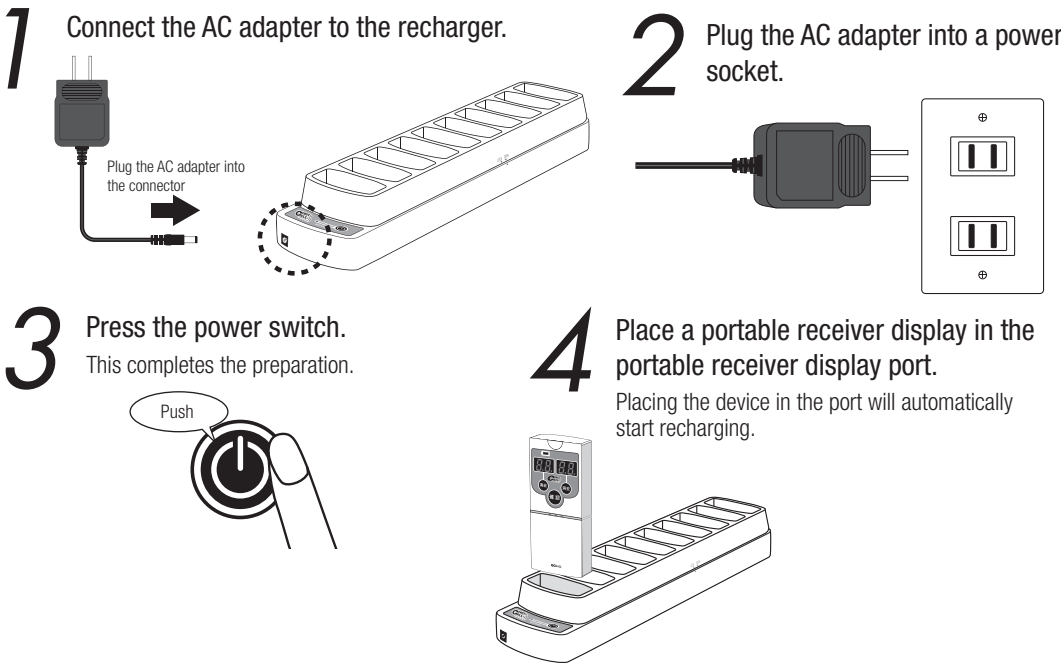* To enable the modified settings, **press the reset switch with the device in standby**.

⚠ **Caution**   Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

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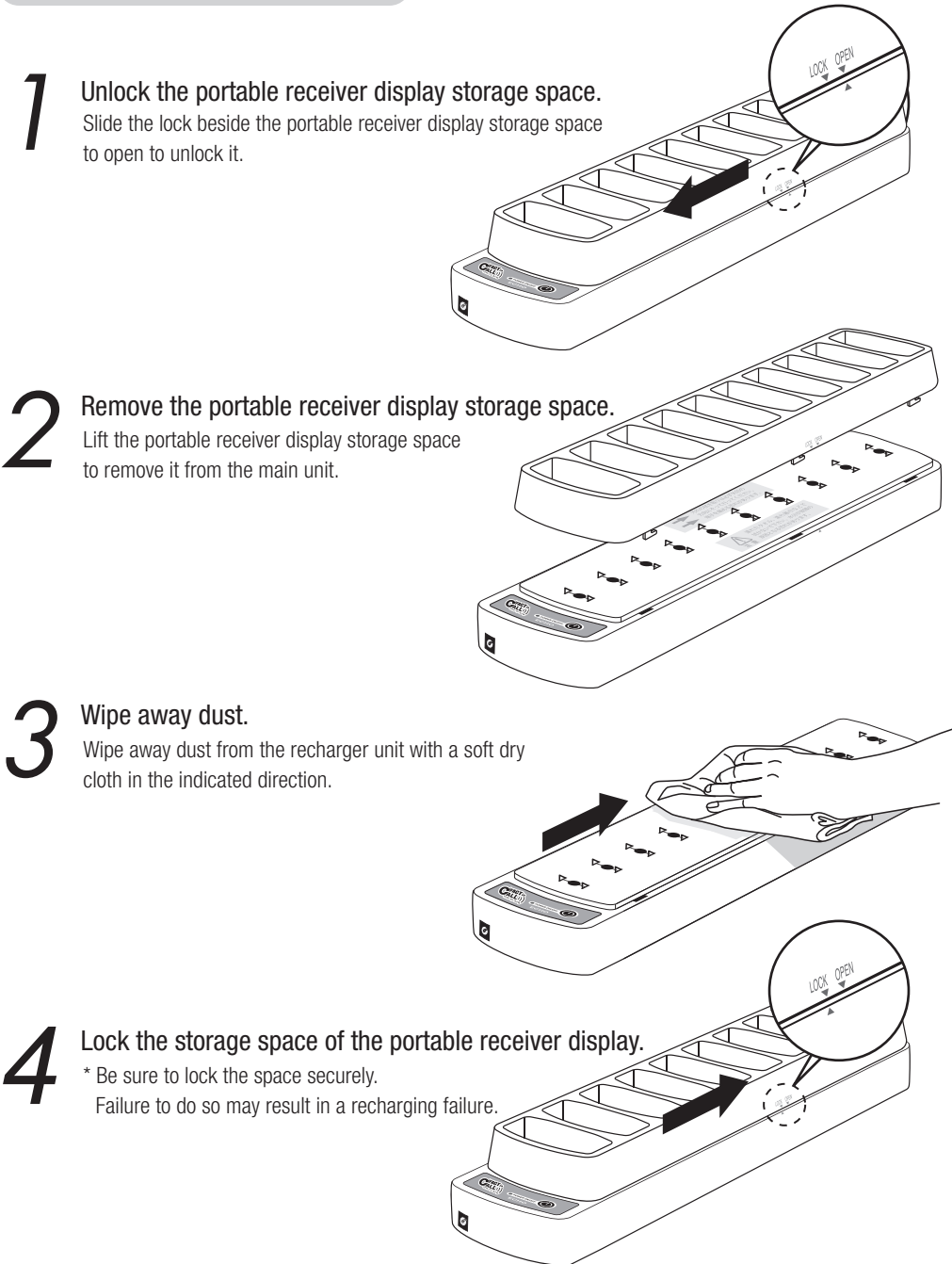## Enable/Disable Radio Signal Strength Display

This function is used for the receiver display to check the strength of radio signals transmitted from transmitters, cancellation and setup device, or repeaters. Be sure to disable the DIP switches after the location of installation is determined.

1 Remove the screws and open the back plate.
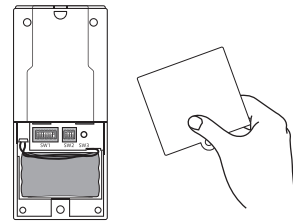
2 Facing the panel, use the DIP switches on the left (SW2) to enable or disable radio signal strength display.

SW1   SW2   SW3
(Reset SW)
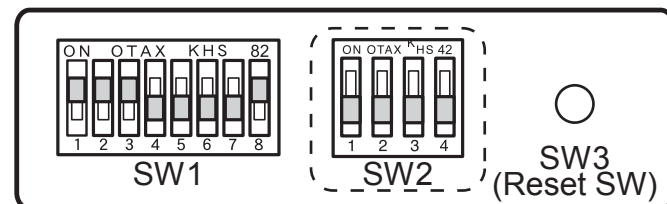
3 This function is turned OFF before being shipped from the factory. Turn ON the function only when you want to check the strength of radio signals. (Normally turn OFF the function when using the product.)

Enable/disable radio signal strength display
Disabled
Enable/disable low-power display setting
Disabled

ON
OFF
1   2   3   4   * The white boxes (□) indicate switch position.

SW2

Settings:

Enable radio signal strength display	Disable radio signal strength display
ON □	ON ■
OFF ■	OFF □
1	1

4 Verify that the switches are set to the desired setting and close the back panel.

* To enable the modified settings, **press the reset switch with the device in standby**.

⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Enable/Disable Double Channel

The portable display device can be setup to receive signals on two different channels by enabling or disabling the double channel setting.

1 Remove the screws and open the back plate.
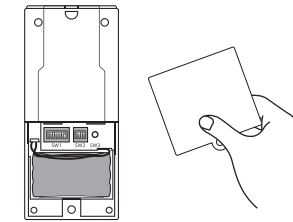
2 Facing the panel, use the DIP switches on the left (SW1) to adjust the double channel setting.

SW1   SW2   SW3
(Reset SW)
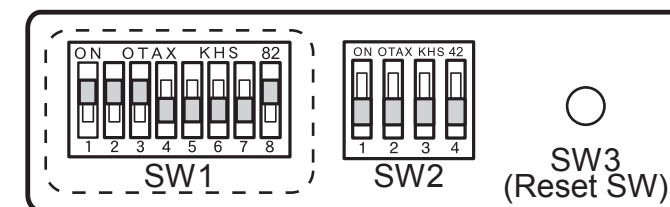
3 The double channel setting is disabled before being shipped from the factory. You can adjust the settings as required.

Enable/disable vibration
Enable/disable the chime
Enable/disable cancellation signal transmission
Enable/disable double channel

Channel setup

ON
OFF
1   2   3   4   5   6   7   8   * The white boxes (□) indicate switch position.

SW1

Settings:

Enable double channels	Disable double channels
ON □	ON ■
OFF ■	OFF □
4	4

4 Verify that the switches are set to the desired setting and close the back panel.

* To enable the modified settings, **press the reset switch with the device in standby**.

(((**Tips**)))

● Double Channel
Enabling this function allows the device to receive signals on two channels. If the channel is set to channels 1 through 5, this function allows reception on the corresponding channels 11 through 15 as well.
I.e.: ch. 1 + ch. 11, ch. 2 + ch. 12, ch. 3 + ch. 13, ch. 4 + ch. 14, or ch. 5 + ch. 15

⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Enable/Disable Low-power Display Setting

When the low-power display setting is enabled after ten seconds without operation or receiving new signals when there is a call the display switches to showing a blinking dot lamp to extend battery life. The display returns to normal by pressing the confirmation key, or automatically when a new call is received.

■Number Display

* The left terminal dot blinks

Blink
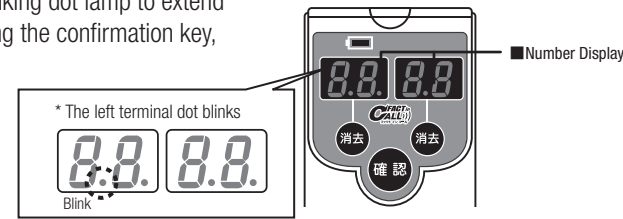
1 Remove the screws and open the back plate.
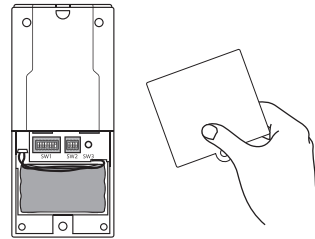
2 Facing the panel, use the DIP switches on the right (SW2) to adjust the low-power display setting.

ON OTAX KHS 82
1 2 3 4 5 6 7 8
SW1

ON OTAX KHS 42
1 2 3 4
SW2

SW3
(Reset SW)
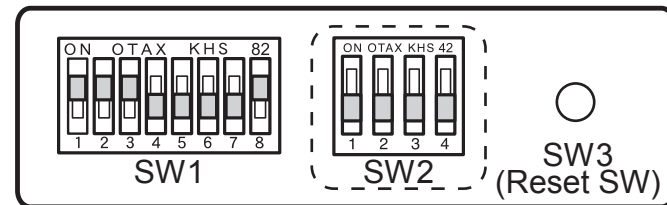
3 The low-power display setting is disabled before being shipped from the factory. You can adjust the settings as required.

Enable/disable radio signal strength display
Unused
Enable/disable low-power display setting
Unused

ON
OFF
1 2 3 4
* The white boxes (□) indicate switch position.

SW2

Settings:

Enable low-power display setting

ON
OFF
3

Disable low-power display setting

ON
OFF
3
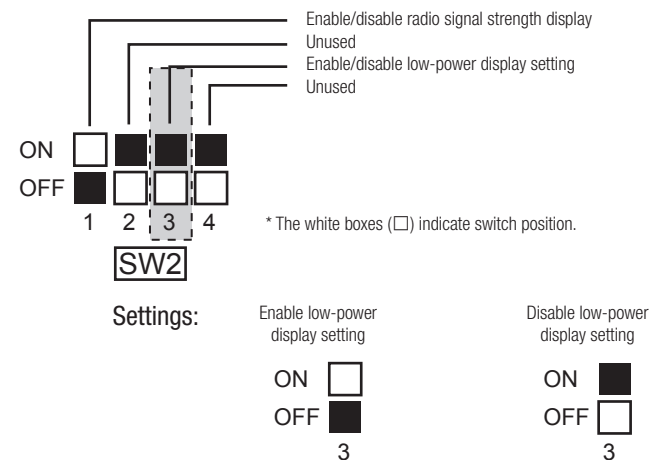
4 Verify that the switches are set to the desired setting and close the back panel.

* To enable the modified settings, **press the reset switch with the device in standby**.

⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Enable/Disable Cancellation Signal Transmission

The portable display device can be setup to cancel numbers by enabling the signal transmission setting. Enabling the setting will allow the device to cancel the number display from other portable receivers display and receiver displays.

1 Remove the screws and open the back plate.

2 Facing the panel, use the DIP switches on the left (SW1) to adjust the cancellation signal transmission setting.

ON OTAX KHS 82
1 2 3 4 5 6 7 8
SW1

ON OTAX KHS 42
1 2 3 4
SW2

SW3
(Reset SW)

3 The cancellation signal transmission setting is enabled before being shipped from the factory. You can adjust the settings as required.
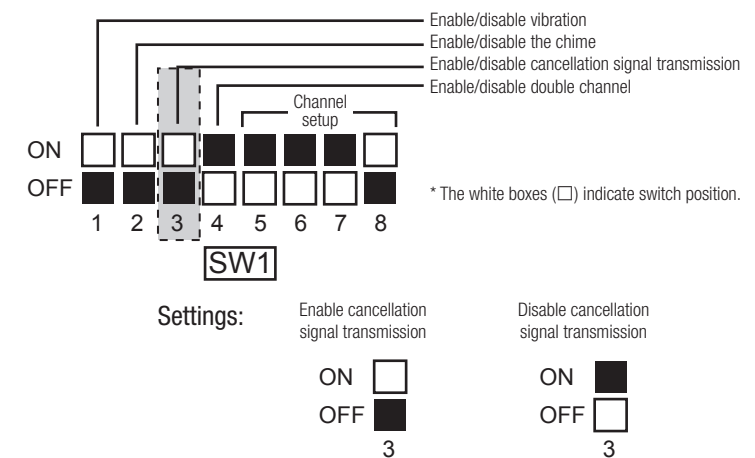
Enable/disable vibration
Enable/disable the chime
Enable/disable cancellation signal transmission
Enable/disable double channel

Channel setup

ON
OFF
1 2 3 4 5 6 7 8
* The white boxes (□) indicate switch position.

SW1

Settings:

Enable cancellation signal transmission

ON
OFF
3

Disable cancellation signal transmission

ON
OFF
3

4 Verify that the switches are set to the desired setting and close the back panel.

* To enable the modified settings, **press the reset switch with the device in standby**.

⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Recharger

Part Names

●Portable Receiver Display Ports
Inserting the Portable Receiver Display will cause it to recharge.

●Portable Receiver Display Storage Space
Quickly removable for easy maintenance.

●AC Adapter Port
Connect the AC adapter here.

●Power Switch
Turn the power on and off.

●Specialized 6V Adapter
Connect with the recharger and then plug into a power socket.

The AC adapter is a specialized model. Do not use other AC adapters with the recharger.

Recharging Method

1 Connect the AC adapter to the recharger.

Plug the AC adapter into the connector

2 Plug the AC adapter into a power socket.

3 Press the power switch.
This completes the preparation.

Push

4 Place a portable receiver display in the portable receiver display port.
Placing the device in the port will automatically start recharging.

Recharger Maintenance

Dust or other foreign articles building up in the portable receiver display storage space may prevent proper recharging. We recommend taking time to clean the recharger regularly.

1 Unlock the portable receiver display storage space.
Slide the lock beside the portable receiver display storage space to open to unlock it.

2 Remove the portable receiver display storage space.
Lift the portable receiver display storage space to remove it from the main unit.

3 Wipe away dust.
Wipe away dust from the recharger unit with a soft dry cloth in the indicated direction.

4 Lock the storage space of the portable receiver display.
* Be sure to lock the space securely.
  Failure to do so may result in a recharging failure.

CAUTION
●Only wipe in the indicated direction. Wiping in the wrong direction may damage the recharger terminals.
●Do not use a damp towel or rag. The moisture may cause damage.

Receiver Speaker

Part Names / Functions

■Antenna
Equipped with a rod antenna, the angle of which can be adjusted.

■Volume Setting

■AC Adapter Connection Port
Connect the specialized AC adapter to this port.

■Specialized 6V Adapter
Connect the AC adapter to the receiver speaker and plug in the AC adapter for use.

The AC adapter is a specialized model. Do not use other AC adapters with the recharger.
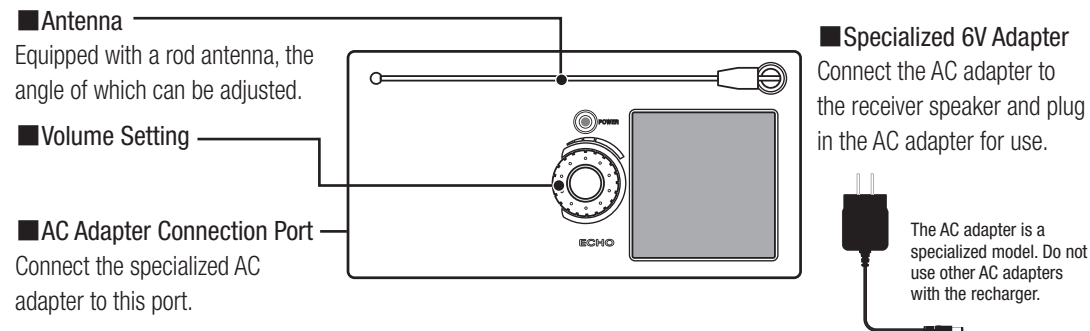
Channel and Double Channel Settings

You can freely set or adjust the device to use any of 15 channels (channels 1 – 15). The channel is set using a DIP switch.

> * Normally, there is no need to adjust the channel. If you adjust the channel of the receiver, all other devices must also have their channels adjusted. Ask the retailer for more information.

1 If the power cord is plugged into the socket, unplug it and remove the receiver speaker.

2 Open the set cover.
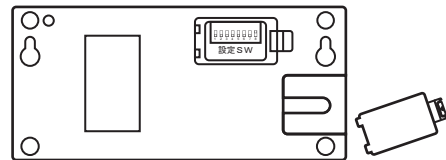
3 You can adjust the channel as required.

Set the chime count
Channel setup
Double channel
(Normally set to OFF. Turn the function ON in the case of using double channels.)

ON
OFF
1 2 3 4 5 6 7 8
Setting SW

* The white boxes (□) indicate switch position.
* Refer to page 55 for details on channel setup.
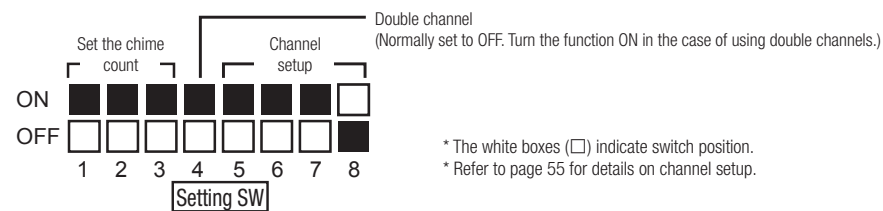
4 Verify that the switches are set to the desired channel and then close the set cover.

> ⚠ **Caution** Settings cannot be changed while the power is connected. Change the settings with the power unplugged.

(((**Tips**)))

●Double Channel
Enabling this function allows the device to receive signals on two channels. If the channel is set to channels 1 through 5, this function allows reception on the corresponding channels 11 through 15 as well.
I.e.: ch. 1 + ch. 11, ch. 2 + ch. 12, ch. 3 + ch. 13, ch. 4 + ch. 14, or ch. 5 + ch. 15

Volume Setting

Set the volume with the volume setting.

Louder   Quieter
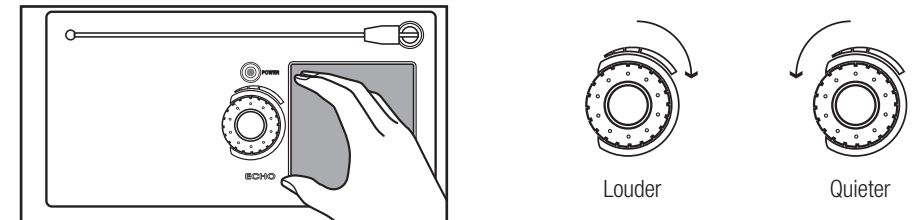
Tone Setting

Important The tone is set on the transmitter. If no tone is set, the speaker will not sound.

By individually changing the tone of the transmitters one can tell where the button was pressed
* Refer to page 35 and 54 for details on tone setup.

Chime Count Setting

The chime count is set using a DIP switch.
(The default factory setting is once.)

Set the chime count
* The white boxes (□) indicate switch position.

ON
OFF
1 2 3 4 5 6 7 8
Setting SW

[Chime count settings]

1 Time	2 Time	4 Time	8 Time
ON / OFF 1 2 3	ON / OFF 1 2 3	ON / OFF 1 2 3	ON / OFF 1 2 3

16 Time	32 Time	64 Time	128 Time
ON / OFF 1 2 3	ON / OFF 1 2 3	ON / OFF 1 2 3	ON / OFF 1 2 3
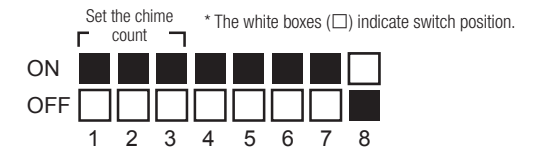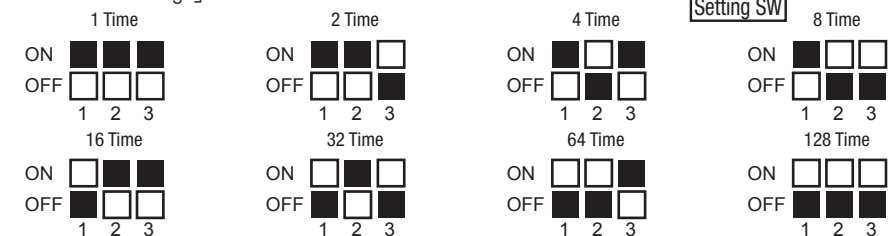
Important Until the chime completes this count it does not receive the next signal.

Installation Location

Important When the receiver display, portable receiver display, receiver speaker, relay (repeater) that receive the signal are affected by noise (signal degradation).
Please place the receiver display, receiver speaker and repeater (relay) at least 2 meters from devices that generate noise (signal degradation) easily.
When installing against a wall, consider the other side of the wall as well.
If devices are present that give off radio signals or noise, please consult with us in advance.

◎Example devices that generate noise (signal degradation) easily:
Air conditioners and their outdoor components/refrigerators/refrigeration cases and their outdoor components/transmission related relays (OES, cellular phone, wireless LAN)/other electrical devices with high power consumption (wattage) as they turn on and off, etc.

> ⚠ **Caution** To avoid fires and electric shocks, the device should be installed in a location where the surrounding air temperature does not exceed 40°C, free from high humidity levels and contact with water.

Transmitter

Part Names / Functions

【Standard Model】

■LED
Blinks when transmitting. If lit while in standby the battery needs to be replaced. Replace the batteries with new batteries.

■Call Button (1)

■Call Button (2)
Press the button to send the signal to the receiver display.
A transmission chime will sound and the LED lamp will blink.

■Setting Panel
Open the panel to replace the battery, change the signal color and set the channel (using DIP switches).

【Card Model】

■LED
Blinks when transmitting. If lit while in standby the battery needs to be replaced. Replace the batteries with new batteries.

■Call Button (2)
Press the button to send the signal to the receiver display.
A transmission chime will sound and the LED lamp will blink.

■Call Button (1)

【Round Model】

■LED
Blinks when transmitting. If lit while in standby the battery needs to be replaced. Replace the batteries with new batteries.

■Call Button
Press the button for a short period (less than 2 seconds) to send a call signal to the receiver display. A transmission chime will sound and the LED lamp will blink.
Press the button for a long period (2 seconds or more) to send a cancellation signal to the receiver display. A transmission chime will sound and the LED lamp will blink.

【Signal Input Model】

Connect with relay junctions or other devices.

■LED
Blinks when transmitting. If lit while in standby the battery needs to be replaced. Replace the batteries with new batteries.

Equivalent to button (1)

Equivalent to button (2)

How to Use

・Press the call button to send a signal to the receiver display. The transmission chime will sound at the same time.

  * The explanation uses a standard model but the operating method is essentially the same with the other models.

Beep

PUSH
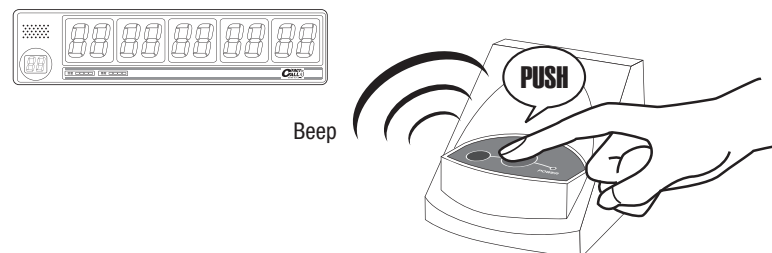
・The receiver displays the number and color registered on the transmitter.
The numbers are displayed from the left without regard for the size of the number.

| 1 | 2 | 3 | 4 | 5 |
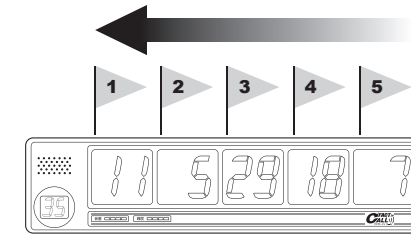
Important The transmitter is built with about 2 seconds of built-in time lag between transmissions to meet Japanese radio signal legal requirements.

Installation Location

⚠ **Caution** To avoid fires and electric shocks, the device should be installed in a location where the surrounding air temperature does not exceed 40°C, free from high humidity levels and contact with water.

(((**Tips**)))

●If the device is installed in a location near something metal, its reception range may be reduced. Make sure it is installed away from metal and other electronic devices.
●The device may break if dropped on a hard surface. It should be placed somewhere where it is unlikely to fall.

Replacing Batteries

After pressing the call button, if the receiver display does not display the number, the transmission chime does not sound, or the LED lamp does not blink, the batteries may be low on charge.
Replace the batteries with new batteries as soon as possible.

1 Remove screws, open the setting panel and remove the batteries.
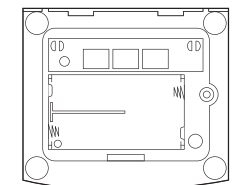
■Standard model example

2 Put in new batteries. (Take care to not reverse the polarity.)

[Used battery types and count]

Standard/Round model	Two AA alkaline batteries
Signal input model	Two AA alkaline batteries
Card model	Two SR44 button batteries
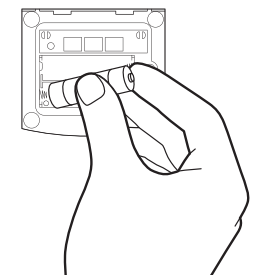
3 Close the setting panel

(((**Tips**)))
We recommend alkaline batteries (SR44 button batteries only in the case of the card model). The batteries will last approximately one year (depending on the use conditions).

Setting the Channel (Standard, Round, Signal Input, and Card Model)

You can freely set or adjust the device to use any of 15 channels (channels 1 – 15). The channel is set using a DIP switch.
The transmitter is fitted with three DIP switches. Use the center DIP switch to set the channel. Be sure not to set the switch incorrectly when setting the channel.

> * Normally, there is no need to adjust the channel. If you adjust the channel of the receiver, all other devices must also have their channels adjusted. Ask the retailer for more information.

1 Open the setting panel.

2 Use the center DIP switches (SW2) to set the channel.
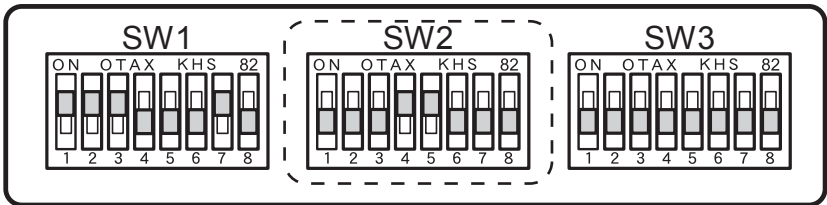
3 The device is set to channel 1 before being shipped from the factory. You can adjust the channel as required.

SW2

Channe setup

Set cancellation or color: button 2
Set cancellation or color: button 1

ON
OFF

1 2 3 4 5 6 7 8

* The white boxes (□) indicate switch position.
* Refer to page 54 for details on channel setup.
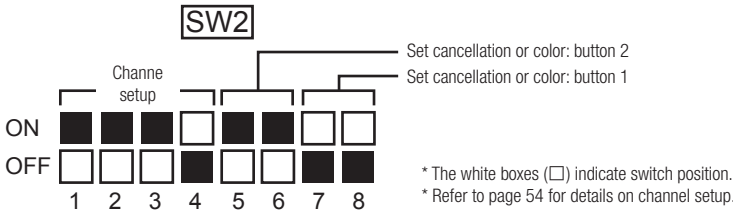
4 Ensure the switches are set to the desired channel and close the setting panel.

> ⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Setting the Number (Standard, Round, Signal Input, and Card Model)

You can freely set or adjust the device to use any number from 1 to FF. The setting is set using a DIP switch. The transmitter is fitted with three DIP switches. Use the left DIP switch (SW1) to set the number. Be sure not to set the switch incorrectly when setting the number.

1 Open the setting panel.

2 Use the left DIP switches (SW1) to set the number.
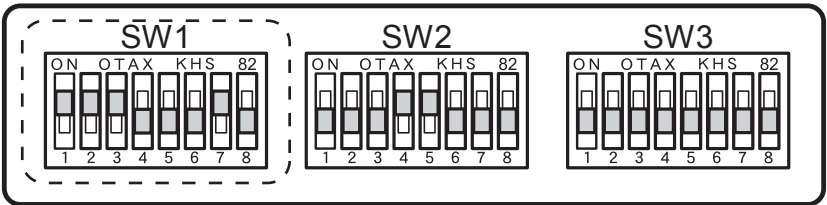
> ⚠ **Caution** Do not adjust the center or right switches.

3 You can adjust the number as required.

SW1

Set the second digit | Set the first digit

⑧ ④ ② ① ⑧ ④ ② ① • • • • • The total of the switches is displayed.

ON
OFF

1 2 3 4 5 6 7 8
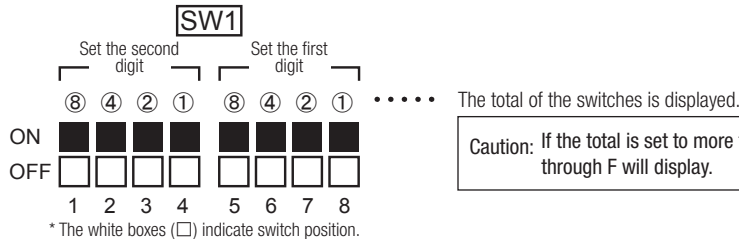
> Caution: If the total is set to more than 10, letters A through F will display.

* The white boxes (□) indicate switch position.

[Example Settings]

(Sets the number to 2) (Sets the number to 81) (Sets the number to 68) (Sets the channel to AF)

⑧ ④ ② ① ⑧ ④ ② ①   ⑧ ④ ② ① ⑧ ④ ② ①   ⑧ ④ ② ① ⑧ ④ ② ①   ⑧ ④ ② ① ⑧ ④ ② ①

ON
OFF

1 2 3 4 5 6 7 8
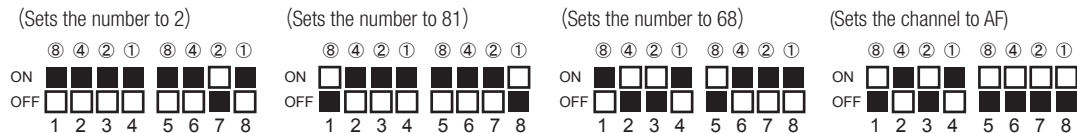
4 Ensure the switches are set to the desired number and close the setting panel.

Setting the Display Color (Standard, Round, Signal Input, and Card Model)

You can adjust the device to use a different color (red/yellow/green) or cancel. The setting is set using a DIP switch. The transmitter is fitted with three DIP switches. Use the center DIP switch (SW2) to set this setting. Be sure not to set the switch incorrectly when setting the number.

1 Open the setting panel.

2 Use the center DIP switches (SW2) to set this setting.
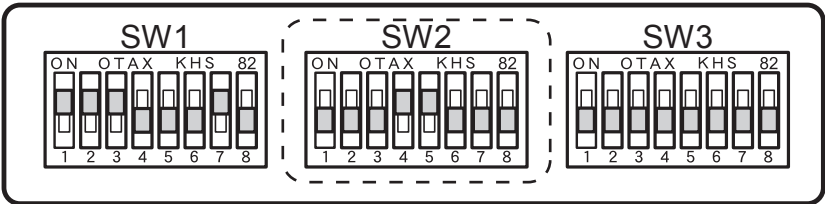
3 You can adjust the display color as required. (The default factory setting is red.)

Channel setup
Set cancellation or color: button 2
Set cancellation or color: button 1

ON / OFF   1 2 3 4 5 6 7 8

* The white boxes (☐) indicate switch position.

[DIP Switch Settings]

	(Set to red)	(Set to yellow)	(Set to green)	(Set to off)
Button 1	ON / OFF 7 8	ON / OFF 7 8	ON / OFF 7 8	ON / OFF 7 8
Button 2	ON / OFF 5 6	ON / OFF 5 6	ON / OFF 5 6	ON / OFF 5 6

4 Ensure the switches are set to the desired number and close the setting panel.

Setting the Tone (Standard, Round, Signal Input, and Card Model)

You can adjust each device individually to use one of 13 different tones. The setting is set using a DIP switch. The transmitter is fitted with three DIP switches. Use the right DIP switch (SW3) to set this setting. Be sure not to set the switch incorrectly when setting the tone.

1 Open the setting panel.

2 Use the right DIP switches (SW3) to set this setting.
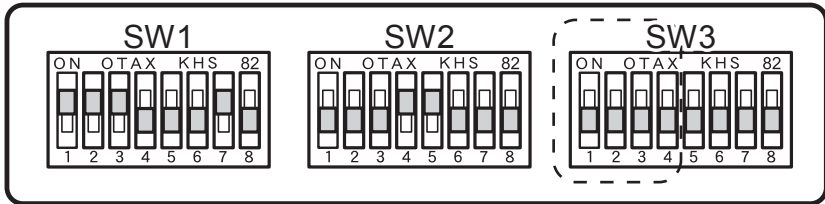
3 You can adjust the tone as required.

ON / OFF   1 2 3 4

* The white boxes (☐) indicate switch position.
* Refer to page 54 for details on the tone settings.
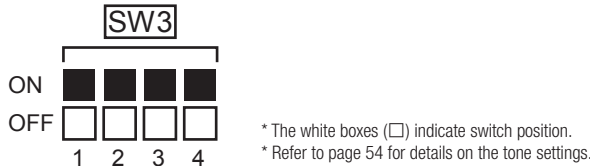
(((**Tips**)))

● If no tone is set, the receiver display will use its tone setting.
The transmitter tone setting will take precedence if it is set.

● Pressing the tone button on the cancellation and setting device will output the chime on a rotary and display the tone number on the Remaining Call Count display of the receiver display.
Choose the chime tone number as you like.

* The chime sound is output from the receiver display speaker.

4 Ensure the switches are set to the desired number and close the setting panel.

Cancellation and Setup Device

Part Names / Functions

■Check Button
Use this button to cancel the number being displayed on the receiver display.

(Cover Open)

■Brightness Button
Use this button to set the brightness of the LEDs to one of 16 levels.

■Volume Button
Use this button to set the volume of the call chime to one of 16 levels.

音量　輝度　表示時間　受信音
小　大　暗　明　短　長　連続　音色

(Cover Closed)

CHECK CHECK CHECK CHECK CHECK

表示機コントロール

(Rear)

■Display Time Button
Set the time it takes for call numbers to automatically be canceled.

■Tone Button
Set the tone to be used for the call chime.

■Battery Cover

■Wall-mounting Hook Holes
Use the wall-mounting holes for the wall mounting of the product with screws. Make sure that each screw head is not in excess of 7 mm away from the wall. Otherwise, the interior of the product may be damaged.

How to Use the Cancellation and Setup Device

●Configuring the Receiver Display

Volume　Display Time

Brightness　Tone
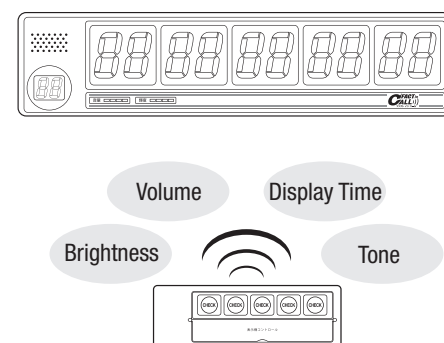
●Cancelling Call Numbers

PUSH
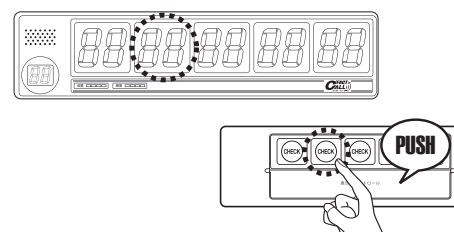
Button positions correspond to the display panels on the receiver display.

➲If you would like to cancel the second number from the left, press the second check button from the left on the cancellation and setting device.

Setting the Channel

You can freely set or adjust the device to use any of 15 channels (channels 1 – 15). The channel is set using a DIP switch.
Be sure not to set the switch incorrectly when setting the channel.

* Normally, there is no need to adjust the channel. If you adjust the channel of the cancellation and setup device, all other devices must also have their channels adjusted. Ask the retailer for more information.

1 Remove the setting panel.

Setting Panel
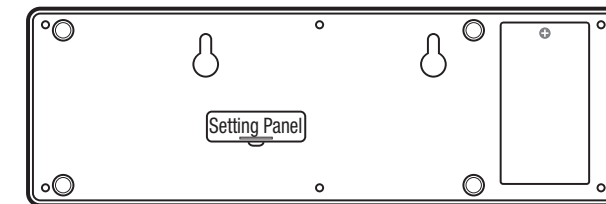
2 Set the channel using the DIP switch.
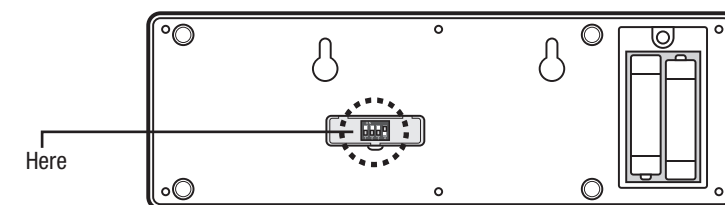
Here

3 The device is set to channel 1 before being shipped from the factory. You can adjust the channel as required.

* Refer to page 55 for more details on setting the channel.

4 Confirm that you have set the switch to the channel you wish to set, and then replace the switch cover.

Setting the Volume

The volume of the tone that plays for incoming calls can be set to one of 16 levels.

> * The alert chime is played from the receiver display's speaker.

1 The volume is set to level 2 when it leaves the factory.

2 If you want to raise the volume, press the button marked "大(Up)." The volume will go up the number of times pressed (up to level 16). Each time you press the button, the alert chime and the number of the tone (1 – 13) selected on the receiver display will appear in the Remaining Call Count display.

PUSH
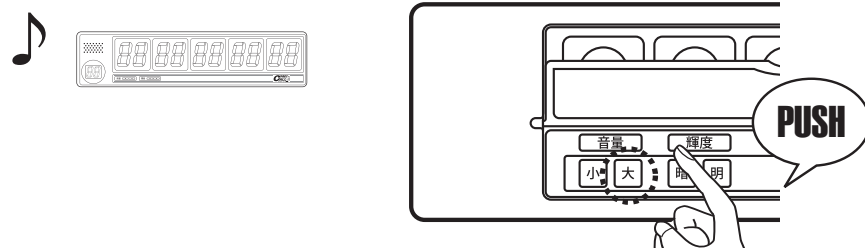
3 If you want to lower the volume, press the button marked "小(Down)". The volume will down up the number of times pressed (down to level 0). Each time you press the button, the alert chime and the number of the tone (1 – 13) selected on the receiver display will appear in the Remaining Call Count display.

PUSH
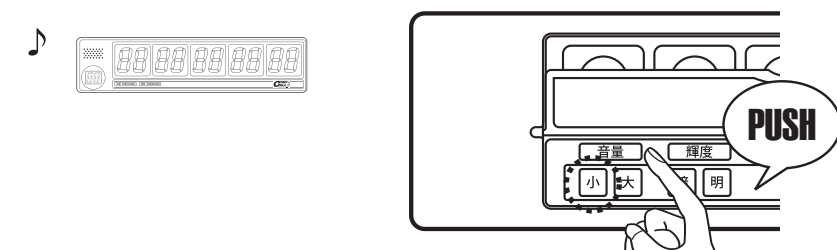
4 To finish setting the volume, confirm that you have it set to the desired level.

Setting the Brightness

The LED brightness of the receiver display can be set to one of 16 levels.
Set it in accordance with lighting levels.

1 The brightness is set to maximum when it leaves the factory.

2 If you want to lower the brightness of the LED display, press the button marked "暗(Down)". The brightness level will decrease the number of times pressed.

PUSH

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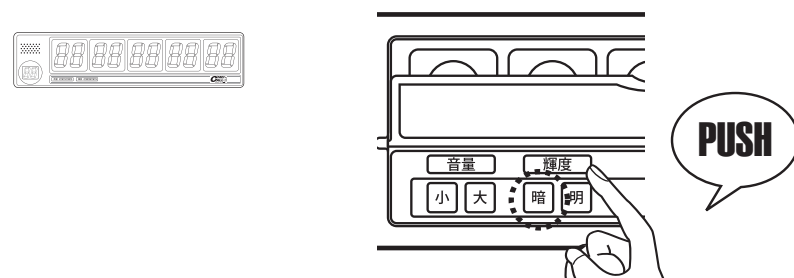
3 If you want to raise the brightness of the LED display, press the button marked "明(Up)". The brightness level will increase the number of times pressed.

PUSH
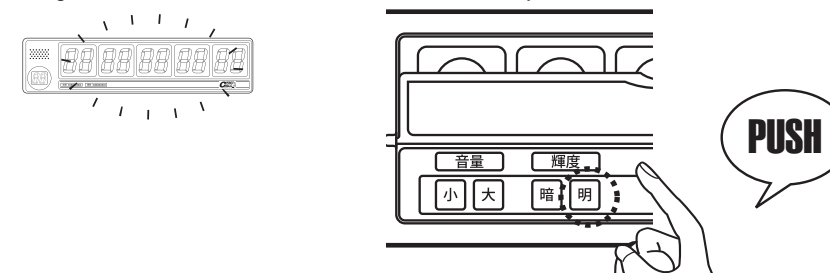
4 To finish setting the brightness level, confirm that you have it set to a level that makes it easy to see.

Setting the Display Time

This function lets you change the time it takes for call numbers to automatically be cancelled (for a range from approximately 10 seconds up to 990 seconds to be displayed in values ranging from 1 to 99). To prevent the automatic cancel function from taking effect, you can select "連続 (Continuous)" (causing the call numbers to remain visible until cancelled using the cancellation device).

1 The display time is set to "連続(Continuous)" when it leaves the factory.

2 If you want to lengthen the display time, press the button marked "長 (Long)". The display time will increase by 1 (approximately 10 seconds) each time the button is pressed, and display window 5 (on the farthest right) will display the set length of time. Set the desired automatic cancellation time.

> * The set value x 10 (seconds) is the time until the display is automatically cancelled.

PUSH
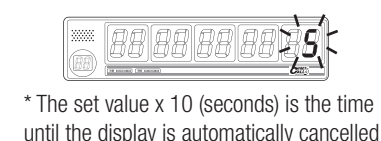
3 If you want to lengthen the display time, press the button marked "短 (Short)". The display time will decrease by 1 (approximately 10 seconds) each time the button is pressed, and display window 5 (on the farthest right) will display the set length of time. Set the desired automatic cancellation time.

> * The set value x 10 (seconds) is the time until the display is automatically cancelled.

PUSH
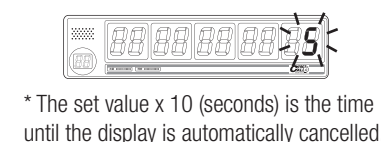
> * The button is of rotary change type, and the value after 99 will return to 1 with no continuation "— —" set.

4 If you press the button marked "連続 (Continuous)", display window 5 (on the farthest right) will display "— —" for approximately 1 second and the automatic cancellation function will be disabled. Use the check button to turn OFF the number display.

⚠ Caution

> When the automatic cancellation function is enabled, call numbers can get cancelled. In order to avoid any problems, we recommend that you leave the device set to "連続 (Continuous)" mode.

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The tone can be set to one of 13 different call chimes.

1 Press the button marked "Tone". The chime will play.

PUSH
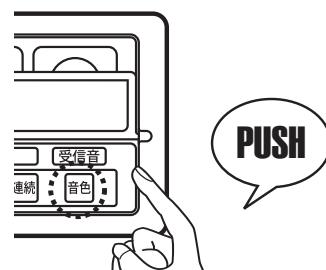
2 Press the button marked "Tone" once more, and a different chime will play.

PUSH
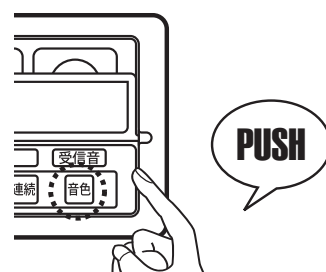
3 Choose your favorite sound from among the 13 tone options.

4 The "Tone" button cycles through all the options. Once the thirteenth chime has played, it will return to the beginning and play the first chime next.

→ ♪❶→♪❷→♪❸→♪❹→♪❺→♪❻→♪❼→♪❽→♪❾→♪❿→♪⓫→♪⓬→♪⓭

If you press the Tone button, a number between 1 and 13 will be shown in the Remaining Call Count display on the receiver.
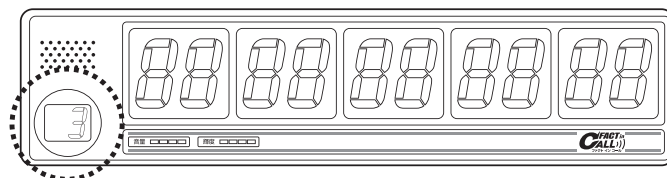
⚠ **Caution** The transmitter tone setting will take precedence if it is set and be played.

5 To finish setting the tone, confirm that the alert chime you want is the one set.

After pressing the check button, if the receiver display does not display the number, the transmission chime does not sound, or the LED lamp does not blink, the batteries may be low on charge.
Replace the batteries with new batteries as soon as possible.

1 Remove the screws and the battery cover, and take out the batteries.
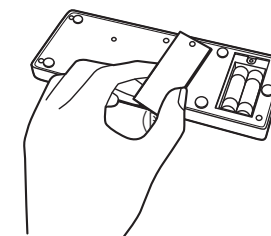
2 Put in new batteries. (Take care not to reverse the polarity.)

・ The cancellation and setup device requires 2 AA alkaline batteries.
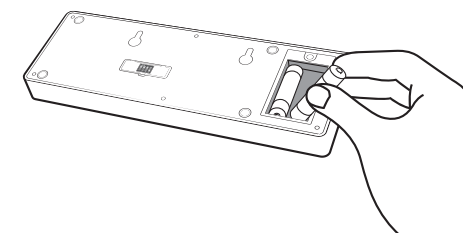
3 Close the setting panel.

(((**Tips**)))

We recommend alkaline batteries. The batteries will last approximately one year (depending on use conditions).

⚠ **Caution** Do not tighten the screw tightly. The head of the screw or the unit casing may become damaged.

Relay (Repeater)

Part Names/Functions

● **Radio Signal Strength Display**
Displays the strength of radio signals received (60 max.)

● **Antenna**
Equipped with a rod antenna, the angle of which can be adjusted.

● **AC Adapter Connection Port**
Connect the specialized AC adapter to this port.

● **Power Supply LED**
Always lit when the power is supplied.

● **Specialized Mounting Bracket (sold separately)**
A mounting bracket is available for ease of mounting. Use the bracket if necessary.

● **Specialized 6V Adapter**
Connect the adapter to the repeater and plug in the adapter for use.

POINT
The following number will appear in sequence in the repeater display window when the reset button is pressed after setting changes.

12 → *1* → *3*

| Repeater software number (in green) | Channel number displayed by repeater (in red) | Repeater number (in red) |
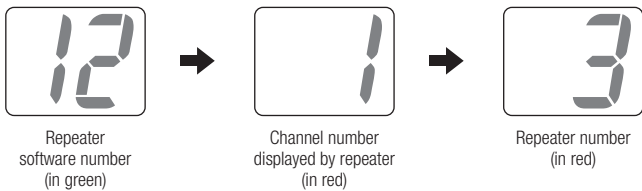
* There is no need to pay attention to software numbers during the normal use of the product. Software numbers are used for the confirmation of any software changes in the future.

Installation Location

The installation location of the repeater requires a power supply.

*Use batteries only when you look for the installation location.

● The repeater will always display the strength of radio signals when the radio signal display is enabled.
● Install the repeater in a place where the strength of radio signals is 25 or over.
● The reaching distance of radio signals from the transmitter to the repeater or receiver display varies with the environment.
● Thoroughly check the strength of radio signals before using the repeater.
● The repeater will display the strength of radio signals for approximately 2 seconds when a signal is received if the radio signal strength display is disabled.
● Be sure to connect the AC adapter to the repeater in normal use, and check that the power supply LED is lit.
● Be sure to install the repeater in a place where the repeater will not be adversely affected by high temperature, high humidity, or excessive dust.
● This product is not of waterproof construction. Do not install the repeater outdoors with no water protection. (An optional waterproof box is available.)

Enable/Disable Radio Signal Strength Display

This function is used to enable or disable the radio signal strength display. The strength of radio signals will be always displayed when the function is enabled. The strength of radio signals will be displayed for approximately 2 seconds when the function is disabled.

1 Remove the screws and open the setting panel.

■ Reset SW

2 Use the DIP switches to enable or disable the function.

3 This function is turned OFF before being shipped from the factory.
Make setting changes if necessary.

Radio Signal Strength Display Settings

Disable/Enable the radio signal strength display.

5 6 7 8
SW1

Enable
ON
OFF
8

Disable
ON
OFF
8

Disable/Enable the radio signal strength display.
ON
OFF
8

* The white boxes (□) indicate switch position.
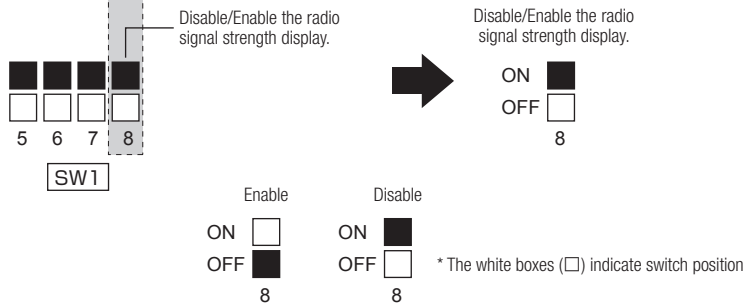
4 Verify that the switches are set to the desired setting and close the setting panel.

Radio Signal Strength Display

The display window will display the strength of the radio signal when the receiver display receives a radio signal. The maximum value is 60. The threshold of normal communication enabled is around 25. If the value is 20 or below, signal data may not be received properly, and the repeater will reject the signal.

● The dot in the 7-segment LED on the left-hand side will blink once when a signal is received.
● The dot will blink once again when the signal is relayed and transmitted.

This function makes it possible to determine the location of installation with ease based on the strength of the radio signal.

POINT
Effective Use
This function makes it possible to check the radio condition of the location at the time of installing the repeater. Disable the function after the location of installation is determined.

Changing Channel Number

You can freely set or adjust the device to use any of 15 channels (channels 1 – 15). Be sure to set the same number for all other devices as well.

1 Remove the screws and open the setting panel.

2 Use the DIP switches to enable or disable the function.

3 This function is set to 1 before being shipped from the factory. Make setting changes if necessary. Channel 0 set will be set as channel 1 and displayed.

List of Channel Settings

Channel 0 set will be set as channel 1 and displayed.

Make channel settings

Make channel settings
⑧ ④ ② ①

The channel number is the total sum of the figures.
* Refer to page 54 for details on channel setup.

ON
OFF
1 2 3 4

1 2 3 4

SW2
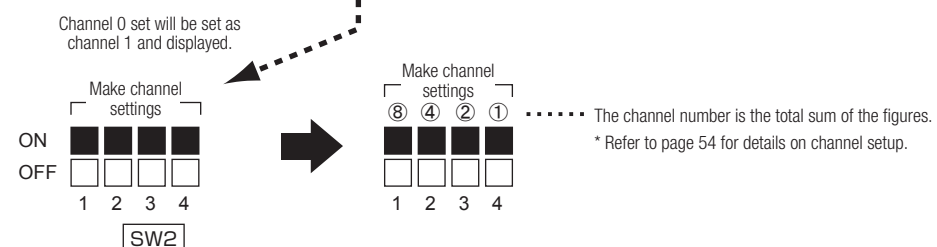
4 Verify that the switches are set to the desired channel and then close the set cover.

Enable/Disable Double Channel

Double channel settings enable or disable a single repeater to relay two different channels.
Double channel settings are available for combinations of channels 1 to 11, 2-12, 3-13, 4-14, and 5-15. This function makes it possible to enable a repeater to relay different channels.

1 Remove the screws and open the setting panel.

2 The double channel function can be enabled or disabled using a DIP switch.

3 The double channel function is turned OFF before shipped from the factory. You can adjust the setting as required.

Double Channel Settings

Time lag settings

Enable/disable double channel

Enable/disable double channel

ON
OFF
8

5 6 7 8

SW2

Enabled
ON
OFF
8

Disabled
ON
OFF
8

* The white boxes (□) indicate switch position.
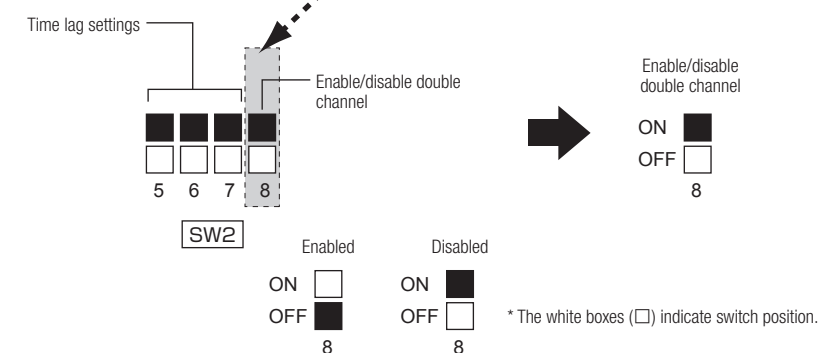
4 Verify that the switches are set to the desired setting and close the setting panel.

Time Lag Settings

Set a transmission time lag between repeaters, if more than one repeater is used, in order to prevent the radio interference of the repeaters. A time lag range from 0 to 7 can be set.
* A time lag refers to the time between the signal reception and the signal transmission of a repeater.

1 Remove the screws and open the setting panel.

2 Use the DIP switches to enable or disable the function.

SW3
SW2
SW1
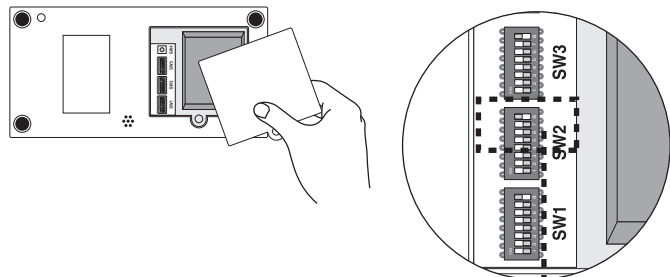
Caution

Do not set the same time lag for two or more repeaters, or otherwise trouble may result.

List of Time Lag Settings

Make time lag settings

④ ② ① ····· The channel number is the total sum of the figures.
* The white boxes (□) indicate switch position.

ON
OFF
5 6 7
SW2

ON
OFF
5 6 7

Time lag 0
ON
OFF
5 6 7

Time lag 1
ON
OFF
5 6 7

Time lag 2
ON
OFF
5 6 7

Time lag 3
ON
OFF
5 6 7

Time lag 4
ON
OFF
5 6 7

Time lag 5
ON
OFF
5 6 7

Time lag 6
ON
OFF
5 6 7

Time lag 7
ON
OFF
5 6 7
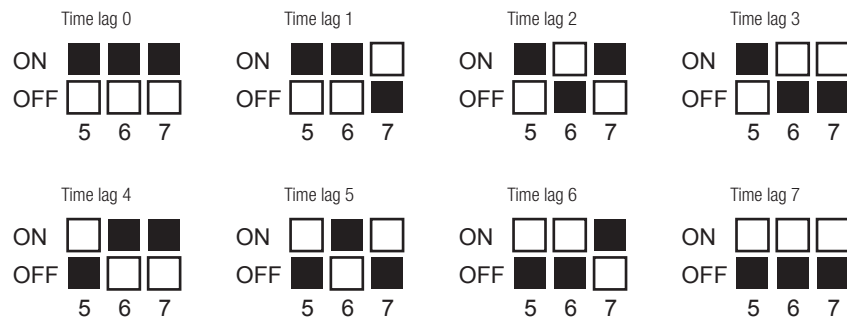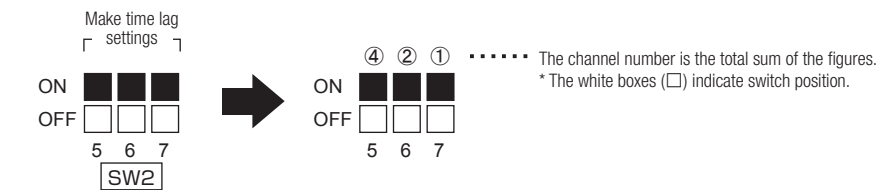
3 Verify that the switches are set to the desired setting and close the setting panel.

Special Usage. Setting Repeaters without Relaying (Up to Two Settings)

In special cases, including the necessity for installing a number of repeaters within a comparatively short distance, the radio interference of the repeaters occurs and radio signals do not reach the receiver or repeaters. In order to prevent this, it is possible to prohibit repeaters not to transmit radio signals received from other repeaters.

Setting the Repeater Number

In the case of using a number of repeaters, make repeater number changes in order to avoid the duplication of repeater numbers. Repeater numbers 1 through 15 can be set.

1 Remove the screws and open the setting panel.

2 Use the DIP switches to enable or disable the function.

SW3
SW2
SW1
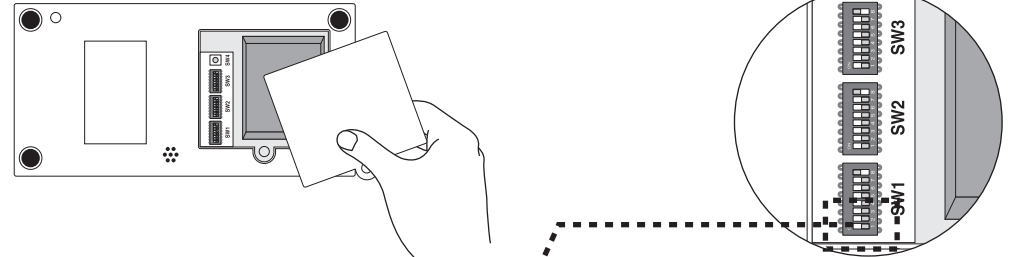
Caution

Do not set the same number to the two or more repeaters, or otherwise trouble may result.

List of Repeater Number Settings

Channel 0 set will be set as channel 1 and displayed.
Make repeater number settings

⑧ ④ ② ① ····· The channel number is the total sum of the figures.
* The white boxes (□) indicate switch position.

ON
OFF
1 2 3 4
SW1

ON
OFF
1 2 3 4

Repeater number 1
ON
OFF
1 2 3 4

Repeater number 2
ON
OFF
1 2 3 4

Repeater number 3
ON
OFF
1 2 3 4

Repeater number 4
ON
OFF
1 2 3 4

Repeater number 5
ON
OFF
1 2 3 4

Repeater number 6
ON
OFF
1 2 3 4

Repeater number 7
ON
OFF
1 2 3 4

Repeater number 8
ON
OFF
1 2 3 4

Repeater number 9
ON
OFF
1 2 3 4

Repeater number 10
ON
OFF
1 2 3 4

Repeater number 11
ON
OFF
1 2 3 4

Repeater number 12
ON
OFF
1 2 3 4

Repeater number 13
ON
OFF
1 2 3 4

Repeater number 14
ON
OFF
1 2 3 4

Repeater number 15
ON
OFF
1 2 3 4

3 Verify that the switches are set to the desired setting and close the setting panel.

Setting the Repeater Number without Relaying

1 Remove the screws and open the setting panel.

2 Use the DIP switches to set repeater numbers for repeaters not relaying.

3 This function is turned OFF before being shipped from the factory.
Make setting changes if necessary.

SW3

SW2

SW1

List of Repeater Numbers for Repeaters without Relaying

Make first repeater settings   Make second repeater settings

⑧ ④ ② ①   ⑧ ④ ② ① · · · · · · The channel number is the total sum of the figures.
* The white boxes (□) indicate switch position.

ON

OFF

1 2 3 4 5 6 7 8

SW3

■SW3 setting example

Repeater number 1
ON ■ ■ ■ □
OFF □ □ □ ■
1 2 3 4

Repeater number 2
ON ■ ■ □ ■
OFF □ □ ■ □
1 2 3 4

Repeater number 3
ON ■ ■ □ □
OFF □ □ ■ ■
1 2 3 4

Repeater number 4
ON ■ □ ■ ■
OFF □ ■ □ □
1 2 3 4

Repeater number 5
ON ■ □ ■ □
OFF □ ■ □ ■
1 2 3 4

Repeater number 6
ON ■ □ □ ■
OFF □ ■ ■ □
1 2 3 4

Repeater number 7
ON ■ □ □ □
OFF □ ■ ■ ■
1 2 3 4

Repeater number 8
ON □ ■ ■ ■
OFF ■ □ □ □
1 2 3 4

Repeater number 9
ON □ ■ ■ □
OFF ■ □ □ ■
1 2 3 4

Repeater number 10
ON □ ■ □ ■
OFF ■ □ ■ □
1 2 3 4

Repeater number 11
ON □ ■ □ □
OFF ■ □ ■ ■
1 2 3 4

Repeater number 12
ON □ □ ■ ■
OFF ■ ■ □ □
1 2 3 4

Repeater number 13
ON □ □ ■ □
OFF ■ ■ □ ■
1 2 3 4

Repeater number 14
ON □ □ □ ■
OFF ■ ■ ■ □
1 2 3 4

Repeater number 15
ON □ □ □ □
OFF ■ ■ ■ ■
1 2 3 4

Make similar settings for other units.

4 Verify that the switches are set to the desired setting and close the setting panel.

Maintenance Guide

⚠ **Warning** Be sure to unplug the power cord before doing maintenance on these devices, since electric shocks can result.

Maintenance

● If you notice any dirt, wipe the device with a soft, firmly wrung out cloth.
● If the device is especially dirty, wipe it with a soft cloth moistened with diluted dishwashing detergent. Then wipe it down well with a firmly wrung out cloth.
(Static electricity in the winter in particular has the effect of attracting dust.)

⚠ **Warning** To avoid the risk of fire and electric shocks, be sure not to allow water or detergent to come into contact with device components or the power plug area.

⚠ **Caution** Benzene, paint thinner, abrasive cleaning agents, and nylon scrub brushes can damage the plastic and should not be used. (They can cause cracks in the plastic and damage the device.)

Troubleshooting

Even though you push the call button on the transmitter, the receiver display doesn't show anything.

➲ Check if the power cord for the receiver display is plugged in.
➲ Check if the channel is set correctly.
➲ Push the reset button on the receiver display.
➲ Check the transmitter batteries.

The receiver displays numbers even though the call button on the transmitter hasn't been pushed.

➲ The signals might be crossed, so try setting the devices to a different channel.

◎ Please contact the retailer if you're unable to resolve the problem.

Specifications

● **Receiver Display**

Model	F-100
Size (L×W×H)	550 × 55 × 130 mm
Weight	Approx. 1,350 g (including the cord)
Power Source	100V AC
Power Consumption	Approx. 15 W
Reception Frequency	426.025 MHz and up (specific low-power)
Reception Method	Simplex
Reception Distance	Approx. 100 m (varies according to usage environment)
Display Method	5 2-digit blocks; 3-color message receipt order; setting number and remaining call count
Alert Chime	13 options, cycle through to set
Volume Adjustment	16 levels
Speaker Output	300 mW
LED Brightness	16 levels
Channels	Channels 1–15
Operating Environment	0°C – 40°C

● **Portable Receiver Display**

Model	F-200
Size (L×W×H)	51 × 129 × 21 mm
Weight	Approx. 100 g (including battery pack)
Power Source	Lithium ion polymer batteries
Reception Frequency	426.025 MHz and up (specific low-power)
Reception Method	Simplex
Transmission Output (for Cancellation)	1 mW
While Transmitting	5-kHz electronic beep
Display Method	2 2-digit blocks; 3-color message receipt order
Memory Size	50 numbers
Battery Time	Approx. 6 – 8 hours
Standby Time	Approx. 30 hours (varies according to usage environment)
Channels	Channels 1–15
Operating Environment	0°C – 40°C

● **Charger**

Model	F-705 (5-Battery Charger)	F-710 (10-Battery Charger)
Size (L×W×H)	79 × 165 × 54 mm	79 × 290 × 54 mm
Weight	Approx. 400 g	Approx. 550 g
Power Source	Special adapter, 6V DC	Special adapter, 6V DC
Charging Method	Contact charging	Contact charging
Separation Method	Separate compartments (cleanable)	Separate compartments (cleanable)
Power Consumption	Approx. 12 W (peak time)	Approx. 24 W (peak time)

Specifications

●Cancellation and Setup Device

Model	F-400
Size (L×W×H)	245 × 80 × 25 mm
Weight	Approx. 230 g (including two alkaline AA batteries)
Power Source	2 alkaline AA batteries
Reception Frequency	426.025 MHz and up (specific low-power)
Reception Method	Simplex
Transmission Output	1 mW
While Transmitting	5-kHz electronic beep
Settings	Volume, display brightness, automatic cancellation time, and tone
Channels	Channels 1–15
Operating Environment	0°C – 40°C

●Transmitter (Standard and Round Models)

Model	F-301 (standard model)	F-305 (round model)
Size (L×W×H)	85x78x71mm	80x80x43mm
Weight	Approximately 150g (2 AA alkaline batteries included)	Approximately 130g (2 AA alkaline batteries included)
Power Source	2 alkaline AA batteries	
Reception Frequency	426.025 MHz and up (specific low-power)	
Reception Method	Simplex	
Transmission Output	1 mW	
Alert Chime Settings	13 options configurable by DIP switch	
While Transmitting	5-kHz electronic beep	
Number Settings	1 – FF	
Display Color Settings	3 colors	
Channels	Channels 1–15	
Operating Environment	0°C – 40°C	

●Transmitter (Card Model)

Model	F-302
Size (L×W×H)	55 × 93 × 11 mm (60 × 98 × 15 mm when in holder)
Weight	Approx. 35 g (including two alkaline watch batteries; 55 g when in holder)
Power Source	2 SR44 watch batteries
Reception Frequency	426.025 MHz and up (specific low-power)
Reception Method	Simplex
Transmission Output	1 mW
Alert Chime Settings	13 options configurable by DIP switch
While Transmitting	5-kHz electronic beep
Number Settings	1 – FF
Display Color Settings	3 colors
Channels	Channels 1–15
Operating Environment	0°C – 40°C

Specifications

●Transmitter (Signal Input Model)

Model	F-304 (non-voltage contact type)	F-306 (voltage input type)	F-306W (voltage input type)
Input Voltage	—	5 to 24 V DC	5 to 24 V DC
Size (L×W×H)	75 × 36.9 × 116 mm (75.42 × 42.1 × 116.42 mm with holder mounted)		
Weight	Approx. 165 g (including two alkaline AA batteries. Approx. 190 g with holder mounted.)		
Power Source	Two alkaline AA batteries/3.3 V DC dedicated adapter (sold separately)		
Reception Frequency	426.025 MHz and up (specific low-power)		
Reception Method	Simplex		
Transmission Output	1 mW		
Alert Chime Settings	13 options configurable by DIP switch		
While Transmitting	5-kHz electronic beep		
Number Settings	1 – FF		
Display Color Settings	3 colors		
Channels	Channels 1–15		
Operating Environment	0°C – 40°C		

●Relay (Repeater)

Model	F-500
Size (L×W×H)	170 × 85 × 40 mm (excluding antenna)
Weight	Approx. 200 g
Power Source	Specialized adapter, 6V DC
Reception Frequency	426.025 MHz and up (specific low-power)
Reception Method	Simplex
Transmission Output	1 mW
Channels	Channels 1–15
Relay Number Settings	1–15
Operating Environment	0°C – 40°C
Power Consumption	Approx. 3 W (peak)

* Special mount available (sold separately)

●Receiver Speaker

Model	F-600
Size (L×W×H)	166 × 82 × 42 mm (excluding antenna)
Weight	Approx. 225 g
Power Source	Specialized adapter, 6V DC
Reception Frequency	426.025 MHz and up (specific low-power)
Reception Method	Simplex
Reception Distance	Approx. 100 m (varies according to usage environment)
Sound Repeat Settings	8 options configurable by DIP switch
Volume Adjustment	Rotating volume knob (analog)
Speaker Output	300 mW
Channels	Channels 1–15
Operating Environment	0°C – 40°C

DIP Switch Settings

* The white boxes (□) indicate switch position.

●**DIP Switch for Adjusting Channel Used by Transmitter and Relay (Repeater) (SW2)**

1ch 2ch 3ch 4ch 5ch
6ch 7ch 8ch 9ch 10ch
11ch 12ch 13ch 14ch 15ch

●**DIP Switch for Adjusting Channel Used by Receiver Display Device, Receiver Speaker, and Portable Receiver Display (SW1)**

1ch 2ch 3ch 4ch 5ch
6ch 7ch 8ch 9ch 10ch
11ch 12ch 13ch 14ch 15ch

●**DIP Switch for Adjusting Transmitter Tone (SW3)**

Tone 1 Tone 2 Tone 3 Tone 4 Tone 5
1. Doorbell 2. Ring 3. Ding-Dong (High-Pitched) 4. Ding-Dong (Low-Pitched) 5. Clang

Tone 6 Tone 7 Tone 8 Tone 9 Tone 10
6. Ding-Dong 7. Tada 8. Rattle 9. Gong 10. Twitter
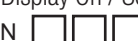
Tone 11 Tone 12 Tone 13 Display On / Sound Off Display On / Sound Off
11. Bush-warbler chirp 12. Thrum Thrum 13. Drums Sound Off Sound Off

Tone Not Set

Receiver Display Setup Sound

●**DIP Switch for Adjusting Channel Used by Cancellation and Setup Device (SW1)**

1ch 2ch 3ch 4ch 5ch
6ch 7ch 8ch 9ch 10ch
11ch 12ch 13ch 14ch 15ch