

Remote Control Unit

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

RMU-01

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

CAUTION for LAN port

For safety reason, do not connect the LAN port to any network devices that might have excessive voltage.

The LAN port of this unit is to be connected only to the devices whose power feeding meets the requirements for SELV (Safety Extra Low Voltage) and complies with Limited Power Source according to IEC 60950-1.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

*If you have any questions about this product, you may call;
Sony Customer Information Service Center
1-800-222-7669 or
<http://www.sony.com/>*

Declaration of Conformity

Trade Name: SONY
Model: RMU-01
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo, San Diego, CA 92127 U.S.A.
Telephone Number: 858-942-2230

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For the customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

This model has an RF module of the FCC/IC approval built-in.

BUILT IN MODULE RM-223

**FCC-ID: AK8RM223
IC: 409B-RM223**

For the customers in the U.S.A.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted,

Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate this device.

This device complies with FCC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. This device has very low levels of RF energy that it is deemed to comply without testing of specific absorption radio (SAR).

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



For the customers in Europe

Hereby, Sony Corporation, declares that this RMU-01 is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. For details, please access the following URL: <http://www.compliance.sony.de/>

This product is intended to be used in the following countries : United Kingdom, Germany, Norway, Luxembourg, Belgium, Denmark, France, Italy, Sweden, Switzerland, Finland, Iceland, and Turkey.

Voor de klanten in Europa

Hierbij verklaart Sony Corporation dat het toestel RMU-01 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Nadere informatie kunt u vinden op: <http://www.compliance.sony.de/>

Dit product is bedoeld om in volgende landen gebruikt te worden: Verenigd Koninkrijk, Duitsland, Noorwegen, Luxemburg, België, Denemarken, Frankrijk, Italië, Zweden, Zwitserland, Finland, IJsland en Turkije.

For kunder i Europa

Härmed intygar Sony Corporation att denna RMU-01 står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG. För ytterligare information gå in på följande hemsida: <http://www.compliance.sony.de/>

Den här produkten är avsedd för användning i följande länder: Storbritannien, Tyskland, Norge, Luxembourg, Belgien, Danmark, Frankrike, Italien, Sverige, Schweiz, Finland, Island och Turkiet.

Para os clientes da Europa

Sony Corporation declara que este RMU-01 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE. Para mais informacoes, por favor consulte a seguinte URL: <http://www.compliance.sony.de/>

Este produto destina-se a ser usado nos seguintes países: Reino Unido, Alemanha, Noruega, Luxemburgo, Bélgica, Dinamarca, França, Itália, Suécia, Suíça, Finlândia, Islândia e Turquia.

For kunder i Europa

Undertegnede Sony Corporation erklærer herved, at følgende udstyr RMU-01 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF. For yderligere information gå ind på følgende hjemmeside:
<http://www.compliance.sony.de/>

Dette produkt er beregnet til brug i de følgende lande: Storbritannien, Tyskland, Norge, Luxembourg, Belgien, Danmark, Frankrig, Italien, Sverige, Schweiz, Finland, Island og Tyrkiet.

Euroopassa oleville asiakkaille

Sony Corporation vakuuttaa täten että RMU-01 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Halutessasi lisätietoja, käy osoitteessa:
<http://www.compliance.sony.de/>

Tämä tuote on tarkoitettu käytettäväksi seuraavissa maissa: Yhdistynyt kuningaskunta, Saksa, Norja, Luxemburg, Belgia, Tanska, Ranska, Italia, Ruotsi, Sveitsi, Suomi, Islanti ja Turkki.

For kundene i Europa

Sony Corporation erklærer herved at udstyret RMU-01 er i samsvar med de grundlæggende krav og øvrige relevante krav i direktiv 1999/5/EF. For flere detaljer, vennligst se:
<http://www.compliance.sony.de/>

Dette produktet er ment for bruk i følgende land: Storbritannia, Tyskland, Norge, Luxemburg, Belgia, Danmark, Frankrike, Italia, Sverige, Sveits, Finland, Island og Tyrkia.

Για τους πελάτες στην Ευρώπη

Με την παρούσα η Sony Corporation δηλώνει ότι RMU-01 συμμορφώνεται προς της ουσιώδεις απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 1999/5/EK..

Για λεπτομέρειες παρακαλούμε όπως ελέγξετε την ακόλουθη σελίδα του διαδικτύου:
<http://www.compliance.sony.de/>

Το προϊόν προορίζεται για χρήση στις εξής χώρες: Ηνωμένο Βασίλειο, Γερμανία, Νορβηγία, Λουξεμβούργο, Βέλγιο, Δανία, Γαλλία, Ιταλία, Σουηδία, Ελβετία, Φινλανδία, Ισλανδία και Τουρκία.

За клиентите в Европа

С настоящето Сони Корпорация декларира, че този RMU-01 отговаря на основните изисквания и другите съответстващи клаузи на Директива 1999/5/ЕС. Подробности може да намерите на Интернет страницата :
<http://www.compliance.sony.de/>.

Този продукт е предназначен за употреба в следните държави: Обединеното кралство, Германия, Норвегия, Люксембург, Белгия, Дания, Франция, Италия, Швеция, Швейцария, Финландия, Исландия и Турция.

Pro zákazníky v Evropě

Sony Corporation tímto prohlašuje, že tento RMU-01 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES. Podrobnosti lze získat na následující URL:
<http://www.compliance.sony.de/>

Tento produkt je určen k použití v následujících zemích: Spojené království, Německo, Norsko, Lucembursko, Belgie, Dánsko, Francie, Itálie, Švédsko, Švýcarsko, Finsko, Island a Turecko.

Euroopa klientidele

Sony Corporation kinnitab käesolevaga seadme RMU-01 vastavust 1999/5/EÜ direktiivi põhinõuetele ja nimetatud

direktiivist tulenevatele teistele
asjakohastele sätetele.
Üksikasjalikum info:
<http://www.compliance.sony.de/>.

See toode on ettenähtud kasutamiseks
järgmistes riikides: Suurbritannia,
Saksamaa, Norra, Luksemburg, Belgia,
Taani, Prantsusmaa, Itaalia, Rootsi, Šveits,
Soome, Island ja Türgi.

Európai vásárlóink fi gyelmébe

Alulírótt, Sony Corporation
nyilatkozzom, hogy a(z) RMU-01
megfelel a vonatkozó alapvető
követelményeknek és az 1999/5/EC
irányelv egyéb előírásainak.
További információkat a következő
weboldalon találhat:
<http://www.compliance.sony.de/>

Ez a termék a következő országokban
használható: Egyesült Királyság,
Németország, Norvégia, Luxemburg,
Belgium, Dánia, Franciaország,
Olaszország, Svédország, Svájc,
Finnország, Izland és Törökország.

Klientiem Eiropā

Ar šo Sony Corporation deklarē, ka
RMU-01 atbilst Direktīvas 1999/5/EK
būtiskajām prasībām un citiem ar to
saistītajiem noteikumiem.
Plašāka informācija ir pieejama:
<http://www.compliance.sony.de/>

Šis produkts ir paredzēts lietošanai šādās
valstīs: Apvienotā Karaliste, Vācija,
Norvēģija, Luksemburga, Beļģija, Dānija,
francija, Itālija, Zviedrija, Šveice, Somija,
Īslande un Turcija.

Klientams Europejo

Šiuo Sony Corporation deklaruojau, kad šis
RMU-01 atitinka esminius reikalavimus ir
kitas 1999/5/EB Direktivos nuostatas.
Susipažinti su visu atitikties deklaracijos
turiniu Jūs galite interneto tinklalapyje:
<http://www.compliance.sony.de/>

Šis gaminys skirtas naudoti šiose šalyse:
Jungtinėje Karalystėje, Vokietijoje,
Norvegijoje, Liuksemburge, Belgijoje,
Danijoje, Prancūzijoje, Italijoje, Švedijoje,
Šveicarijoje, Suomijoje, Islandijoje ir
Turkijoje.

Dotyczy klientów z Europy

Niniejszym Sony Corporation
oświadcza, że RMU-01 jest zgodne z
zasadniczymi wymaganiami oraz innymi
stosownymi postanowieniami
Dyrektywy 1999/5/WE.
Szczegółowe informacje znaleźć można
pod następującym adresem URL:
<http://www.compliance.sony.de/>

Ten produkt jest przeznaczony do
użytku w następujących krajach:
Wielkiej Brytanii, Niemczech, Norwegii,
Luksemburgu, Belgii, Danii, Francji,
Włoszech, Szwecji, Szwajcarii, Finlandii,
Islandii i Turcji.

Pentru clienții din Europa

Prin prezenta, Sony Corporation declară
că acest RMU-01 respectă cerințele
esențiale și este în conformitate cu
prevederile Directivei 1995/5/EC.
Pentru detalii, vă rugăm accesați
următoarea adresă:
<http://www.compliance.sony.de/>

Acest produs este destinat utilizării în
următoarele țări: Regatul Unit,
Germania, Norvegia, Luxemburg,
Belgia, Danemarca, Franța, Italia,
Suedia, Elveția, Finlanda, Islanda și
Turcia.

Pre zákaznikov v Európe

Sony Corporation týmto vyhlasuje, že
RMU-01 spĺňa základné požiadavky a
všetky príslušné ustanovenia Smernice
1999/5/ES.
Podrobnosti získate na nasledovnej
webovej adrese:
<http://www.compliance.sony.de/>

Tento produkt je určený na používanie v nasledovných krajinách: Veľká Británia, Nemecko, Nórsko, Luxembursko, Belgicko, Dánsko, Francúzsko, Taliansko, Švédsko, Švajčiarsko, Fínsko, Island a Turecko.

Za stranke v Evropi

Sony Corporation izjavlja, da je ta RMU-01 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Za podrobnosti vas naprošamo, če pogledate naURL:
<http://www.compliance.sony.de/>

Izdelek je namenjen za uporabo v naslednjih državah: Veliki Britaniji, Nemčiji, Norveški, Luksemburgu, Belgiji, Danski, Franciji, Italiji, Švedski, Švici, Finski, Islandiji in Turčiji.

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Overview

The RMU-01 Remote Control Unit can be used for a network remote control (referred to as “NT remote,” hereafter) of the Sony wireless microphone system.

- By connecting this unit through the LAN cable and placing at appropriate location, the transmitters can be controlled remotely and the NT remote system operation that is capable of controlling up to 82 transmitters is highly utilized. Up to nine RMU-01 units can be used with one system.
- This unit accepts PoE (Power over Ethernet) that makes long-distance LAN connections easy. The power to this unit can also be provided from the supplied AC adapter.
- Inside a solid structure, a 1/4 wavelength monopole antenna is built into this unit. The smooth surface of this unit is designed to match various installation locations. This unit can easily be attached to the microphone stand. With the supplied brackets, this unit can also be attached on the wall, poles, lighting batters, catwalk, etc.

Notes

- Using more of this unit in the network system does not necessarily increase the number of controllable transmitters. The maximum number of controllable transmitters in the system is 82, regardless of the number of this unit.

For details on installation location, installation intervals, and cables for connections, see “Important Notes on Operation” on page 26.

- If you plan to use a PoE hub or PoE power supply unit, purchase it on the market.

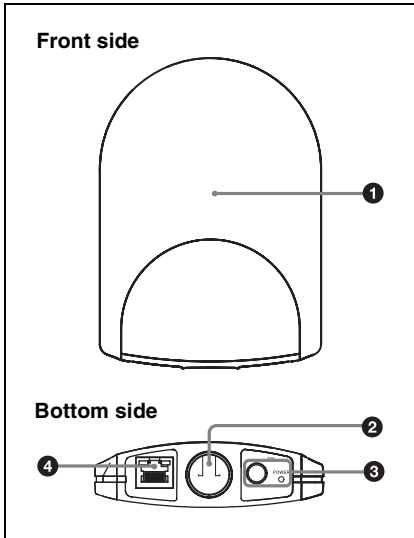
For details on how to connect the receivers, PoE devices, hub, etc., refer to the operation manual supplied with the applicable device.

What is the PoE (Power over Ethernet)?

The PoE is a technology to supply power through the Ethernet cable used for LAN connection. With LAN cables carrying both signal and power, operation in a situation where the power supply is difficult to reserve becomes easy.

The power can be supplied to this unit from the connected PoE hub that conforms to IEEE802.3af standards, or from the PoE power supply device connected to this unit through the hub.

Parts Identifications



1 Antenna storage section

2 Hole for attaching the microphone stand

Can be attached to the microphone stand (PF $1/2$ -inch thread) with this hole. To attach an NS $5/8$ -inch or a W $3/8$ -inch microphone stand, use the supplied screw adapter.

3 AC adapter connector and POWER indicator

Connect the supplied AC adapter to the AC adapter connector to supply power to this unit.

The POWER indicator lights up green while the power is supplied from the AC power connector or the LAN connector.

For details on power supply to this unit, see “Connecting to Power Supply and Other Devices” on page 22.

4 LAN connector (RJ-45)

This is a 10Base-T/100Base-TX connector for network connection. Communication speed automatically changes according to the connected device.

Connect to a receiver such as DWR-R01D, Windows PC, or hub.

When a PoE device including PoE hub is connected, the power is supplied through this connector.

CAUTION



- For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to this port. Follow the instructions for this port.
- Do not touch the LAN connector directly with your hand. If you do, electrostatic discharge may damage the internal components.

Making Use of the NT Remote Function

To use the NT remote function fully and with stability, note the following.

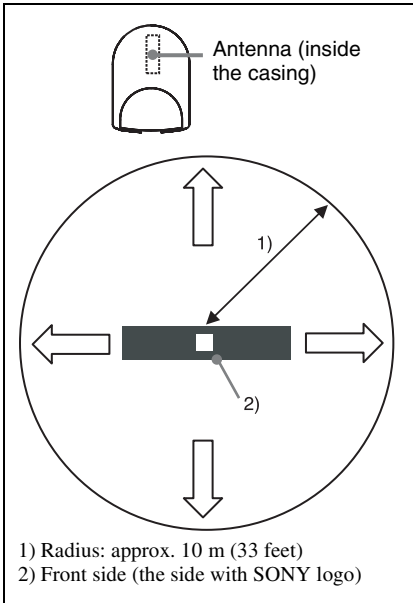
- 2.4GHz-band radiowave has the strong tendency to travel in a straight line. When there is an obstacle between this unit and the transmitter, signal strength drops rapidly. To avoid this, be sure to install this unit so that this unit is in direct view from where the transmitters are placed.
- In order to avoid signal interference and to maintain stable 2.4GHz-band transmission, it is recommended to use at least two RMU-01 units in the network. When installing multiple RMU-01 units, install them so that they keep distance of 10 m to 20 m (11 yards to 22 yards) from one another.
- Up to nine RMU-01 units can be connected to a system. Under less favorable environment where the signal is weak due to signal interference, consider adding more RMU-01 units to reinforce the signal transmission, if necessary.
- When operating outdoors where less signal reflection occurs than indoors, operating area of this unit may be narrowed. For outdoor use, install this unit at the same height as the transmitters to shorten the signal transmission distance.
- In every operating environment, the internal antenna of this unit attains efficient performance with the side with connectors facing downward. However, when this unit is installed close to the ceiling, better performance can be

obtained by facing the front side (the side with SONY logo) downward.

- Signal transmission status varies depending on the structure and material of the building where this unit is installed. It is recommended to install this unit so that the wireless remote control condition level indications on the transmitters and receivers (Shows the quality of 2.4-GHz wireless signal. For details, refer to the Operating Instructions supplied with the wireless microphone, transmitter, or the receiver.) are stable at  or .
- When the total operation area is wide by putting together the areas that two or more RMU-01 units cover, the transmitter may change the RMU-01 unit to communicate with from one to another (roaming). Even when the areas that the RMU-01 units cover are completely adjacent with no gaps, the communication between the transmitter and the receiver is cut whenever the roaming occurs on the transmitter. Note that the communication is cut for several seconds.

About the characteristics of the built-in antenna

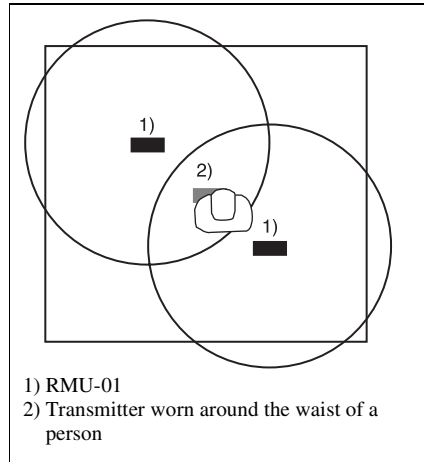
The antenna inside the casing of this unit emits the strong radiowave concentrically from the center of the antenna. Placing the transmitter inside the radiowave circle is important for taking advantage of the system.



Emitted radiowave is strong in the area inside the radius of approximately 10 m (33 feet). When installing multiple RMU-01 units, place them so that strong signal area touches that of adjacent RMU-01 unit.

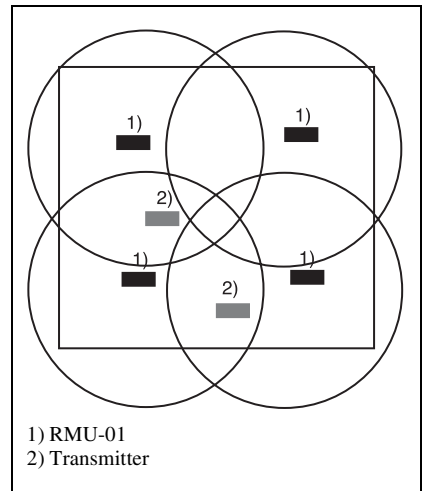
Installation example 1 (plane view)

When two RMU-01 units are installed to control the body-pack transmitter that is worn around the waist of a person, it is recommended that the RMU-01 units be placed across the body-pack transmitter so that there is no obstacle between the transmitter and at least one of the RMU-01 units.



Installation example 2 (plane view)

To increase the total operation area by putting the areas that multiple RMU-01 units cover together, place them so that the area that one RMU-01 covers touches those on others, completely adjacent and with no gaps.

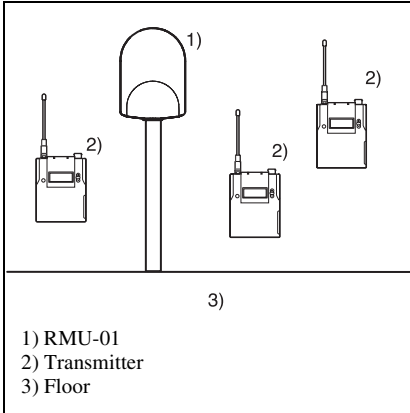


Installation example 3 (section view)

This is an example when this unit is installed to the microphone stand.

Indoors: Because the signal is reflected from the walls, floor, and ceiling, there are no conditions for the installation height of this unit.

Outdoors: Install this unit at the same height as the transmitters.

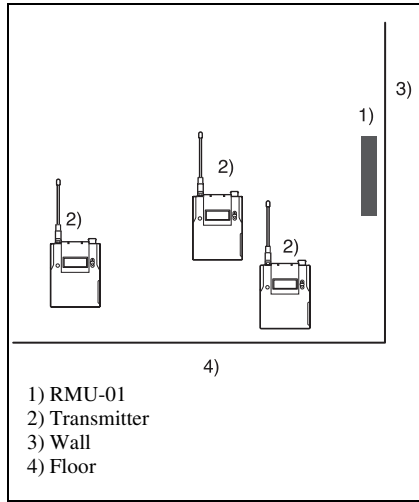


Installation example 4 (section view)

This is an example when this unit is installed on the wall.

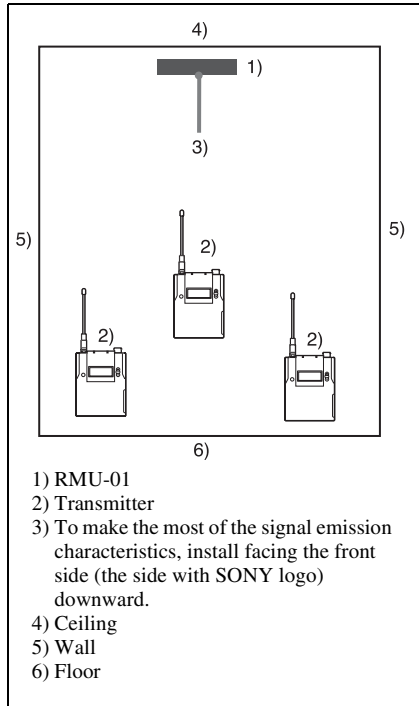
Indoors: Because the signal is reflected from the walls, floor, and ceiling, there are no conditions for the installation height of this unit.

Outdoors: Install this unit at the same height as the transmitters.



Installation example 5 (section view)

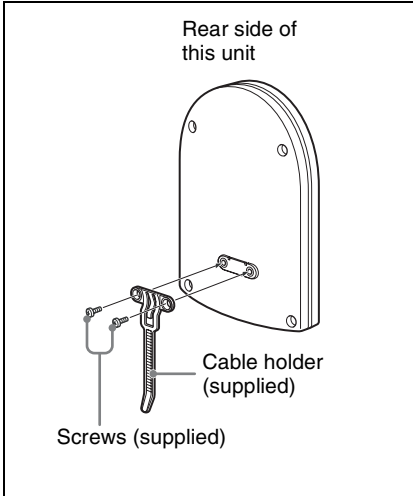
This is an example when this unit is installed indoors, near the ceiling.



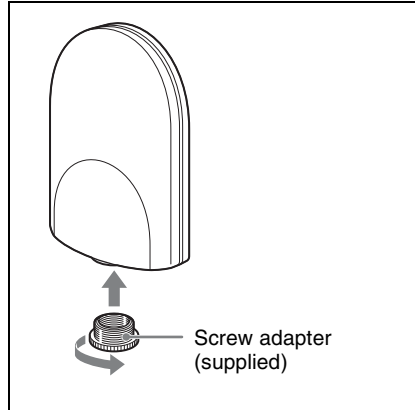
Installations

Attaching to the Microphone Stand

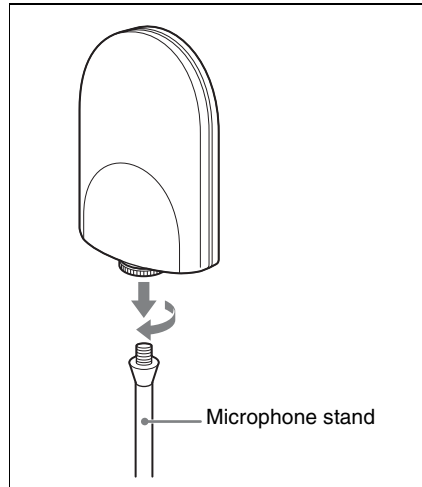
- 1 Attach the cable holder to this unit.



- 2 When attaching to an NS $\frac{5}{8}$ -inch or a W $\frac{3}{8}$ -inch microphone stand, screw in the supplied screw adapter into the hole for attaching the microphone stand.



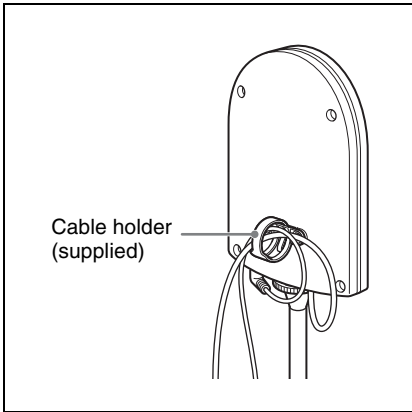
- 3 Insert the tip of the microphone stand into the hole, and turn this unit to securely attach to the microphone stand.



- 4 Connect the cables.

For details on connections, see "Connecting to Power Supply and Other Devices" on page 22.

- 5 Bring the cables together with the cable holder.

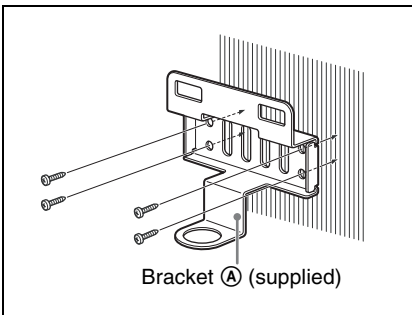


Attaching on the Wall

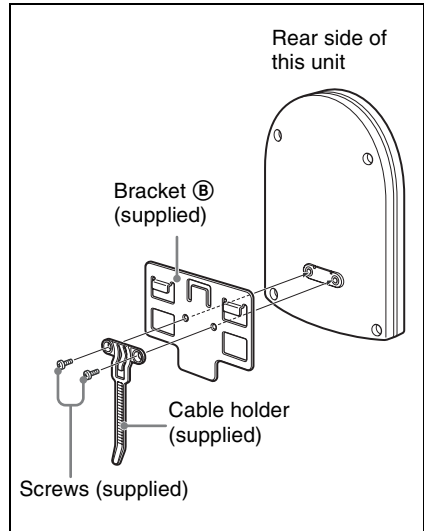
Note

Do not touch the LAN connector directly with your hand. If you do, electrostatic discharge may damage the internal components. To prevent this unit from electrostatic damage, grounding the supplied brackets, safety wire, etc., by attaching them to metallic object is recommended.

- 1 Attach the bracket **(A)** on the wall securely with screws.



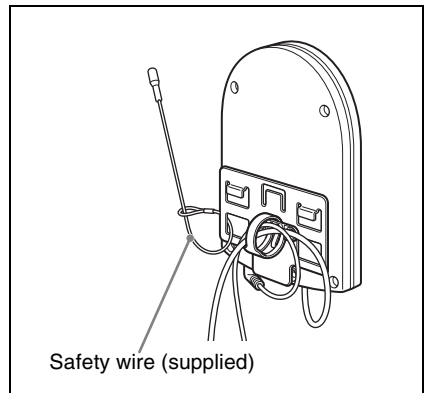
- 2 Attach the bracket **(B)** and the cable holder to this unit.



- 3 Make connections and bring the cables together with the cable holder.

For details on connections, see "Connecting to Power Supply and Other Devices" on page 22.

- 4 Wrap the supplied safety wire around the bracket **(B)**.

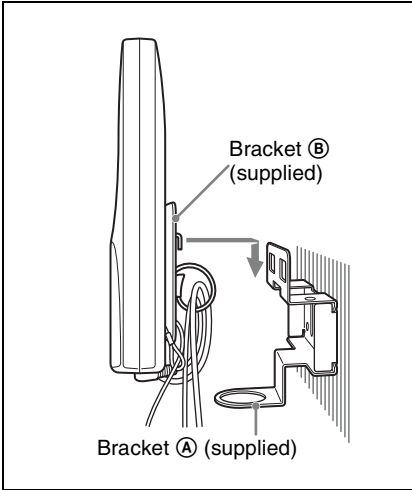


- 5 Join the brackets by pressing down the two hooks on the bracket **(B)** against the two square holes on the bracket **(A)**,

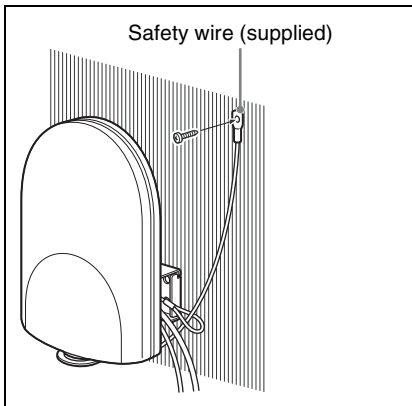
until the upper edges of the brackets align.

Note

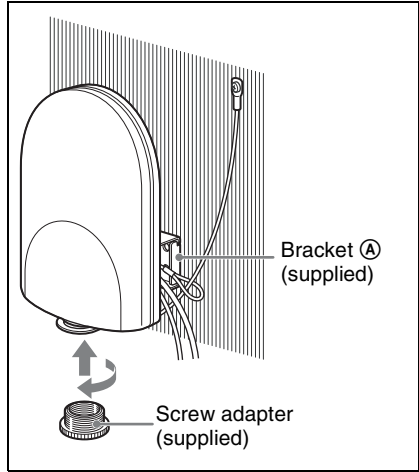
Take care not to catch the cables between the brackets.



- 6** Fix the end of the safety wire to the wall with a screw.

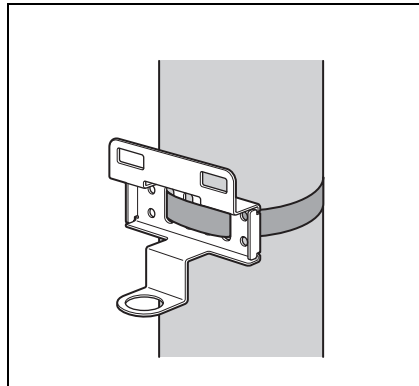


- 7** Screw in the supplied screw adapter into the hole for attaching the microphone stand to secure the bracket A to this unit.



Attaching to the Catwalk, Pole, or a Lighting Batten

- 1** Attach the bracket A to the location where this unit is attached by using banding bands.



- 2** Do steps 2 to 7 in "Attaching on the Wall" on page 14.

Preparations of Operation

Do the procedure below to prepare the operation in NT remote system.

- 1** Install the RMU-01 Setting Tool software on the PC.
For details on installing procedure, refer to the printed Operating Instructions.
- 2** Connect this unit to the PC with the RMU-01 Setting Tool installed with a LAN cable.

At this point, the connection to the DWR-R01D is unnecessary.
- 3** Set the IP address of this unit by using the RMU-01 Setting Tool software.
For details, see “Using the RMU-01 Setting Tool” on page 16.
- 4** Connect the PoE hub or PoE power supply unit and the DWR-R01D, etc., to this unit.

For details on the power supply to the unit, see “Connecting to Power Supply and Other Devices” on page 22.

For details on system configuration examples, refer to the Operating Instructions supplied with the DWR-R01D.

Using the RMU-01 Setting Tool

Note

Depending on the PC environment, an attempt to start up the RMU-01 Setting Tool software may be blocked by the firewall. When the firewall is activated for the RMU-01 Setting Tool software, LAN communication necessary for the NT remote function is blocked, resulting in the operational failure of this unit. To prevent this from happening, set the firewall so that the RMU-01 Setting Tool software is unblocked.

This section explains the use of the Setting Tool software supplied with the RMU-01 Remote Control Unit.

Notations Used in This User’s Guide

- Clicking a menu or button and then selecting a sub-menu is expressed as follows: Select “Menu (or button) > (sub-menu name)”.
Example: Select “File menu>New”.
- Holding down one key on the keyboard while pressing another is indicated by a “+” sign between the two keys.
Example: Press Ctrl + C.

About the Window Displays

The window displays that appear in this section may differ from those on your PC, due to differences in the operating system being used.

Preparations

Connections

Connect the RMU-01 to the PC with a LAN cable.

For connections, use a category 5 or superior LAN cable with a maximum length of 100 m (330 ft).

The type of LAN cable for the connection differs depending on how to connect the RMU-01 to the PC, as follows:

To connect the PC directly: cross cable

To connect the PC through the hub: straight cable

For details on how to connect the RMU-01 to other devices, see “Connecting to Power Supply and Other Devices” on page 22.

Settings up the network

Make network settings on the RMU-01 and the PC.

For the PC to recognize other devices on the network, host name, IP address, and subnet mask must be specified to all the devices to be connected to the network.

The following table shows the setting examples for connecting two RMU-01 units and the PC.

Device	IP address	Subnet mask
PC	192.168.0.200	255.255.
First RMU-01	192.168.0.100 ¹⁾	255.0 ²⁾
Second RMU-01	192.168.0.101 ¹⁾	

1) The IP addresses of the RMU-01 units do not need to be consecutive.

2) Normally, specify “255.255.255.0”.

Note

Make sure not to use an IP address that is already assigned to another device on the network. If you do, the devices with the same IP address may not be recognized.

PC network settings

The following procedure explains the setting operations using the Windows XP operating system.

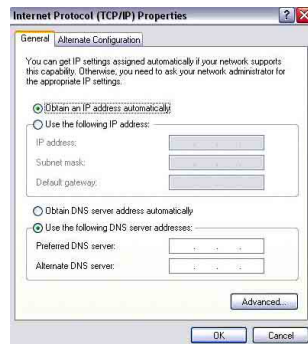
For details on how to make network settings with other operating systems, refer to the help of the operating system that you use.

- 1 Select “Start>Control Panel>Network and Internet Connections”.
- 2 Click “Network Connections”.
- 3 Right-click the local area connection icon and then click “Properties”.
- 4 Double-click “Internet Protocol 4 (TCP/IP)”.

The properties window of the local area connection opens up.

- 5 Double-click “Internet Protocol (TCP/IP)”.

The internet protocol (TCP/IP) properties window opens up.



- 6** Click “Use the following IP address”, and then enter the IP address in the IP address field.

Note

Make sure not to use an IP address that is already assigned to another device on the network.

- 7** Enter “255 255 255 0” into the Subnet Mask field.
- 8** Click “OK” to close the internet protocol (TCP/IP) properties window.
- 9** Click “Close” to close the local area connection properties window.

Software installation

For details on installing procedure, refer to the printed Operating Instructions.

Starting Up and Exiting the Software

To start up the software

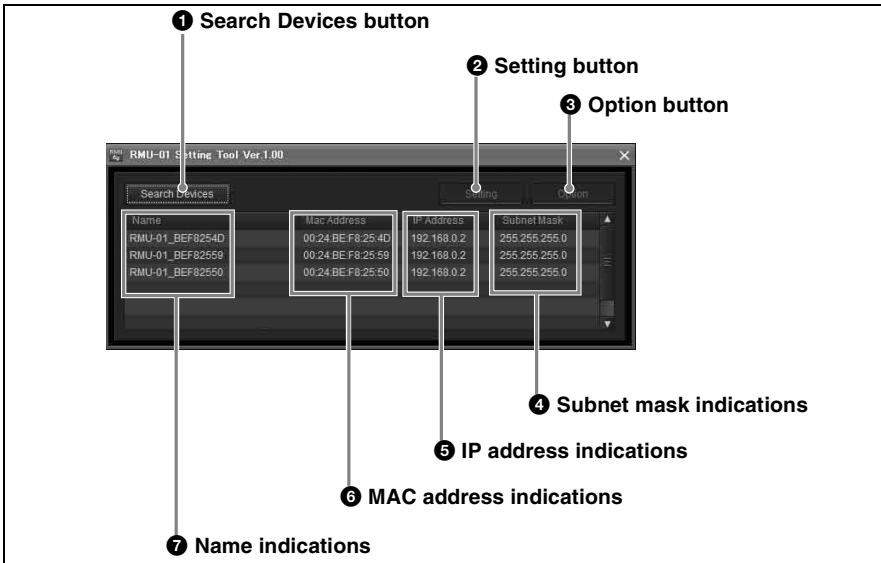
Select “Start> All Programs> Sony> Digital Wireless Microphone System> RMU-01 Setting Tool” to start up the software.

To exit the software

Click the Close button (×) in the top-right corner of the window.

Parts Identification

In this section, parts of the main display of this software are explained.



1 Search Devices button

Click to detect the RMU-01 units on the network.

For details, see “Detecting the RMU-01 Units on the Network Automatically” on page 19.

2 Setting button

Click to change the device name, IP address, and subnet mask settings of the device.

For details, see “Changing Settings of the RMU-01” on page 19.

3 Option button

Click to activate additional functions.

4 Subnet mask indications

Shows the subnet mask addresses of the RMU-01 units on the network.

Initially, the factory-set subnet mask address (255.255.255.0) is displayed for all RMU-01 units. With this software, the subnet mask settings can later be changed.

For details, see “Changing Settings of the RMU-01” on page 19.

5 IP address indications

Shows the IP addresses of the RMU-01 units on the network.

Initially, the factory-set IP address (192.168.0.2) is displayed for all RMU-01 units. With this software, the IP address settings can later be changed.

For details, see “Changing Settings of the RMU-01” on page 19.

6 MAC address indications

Shows the MAC addresses of the RMU-01 units on the network.

Unique MAC addresses are given to each device and cannot be changed.

7 Name indications

Shows the names of the RMU-01 units on the network.

A 16-character name is given to each RMU-01 at the factory. With this software, the RMU-01 units can be renamed.

For details, see “Changing Settings of the RMU-01” on page 19.

Detecting the RMU-01 Units on the Network Automatically

Click the Search Devices button to initiate the automatic detection of RMU-01 units on the network.

While the automatic detection is in progress, the progress bar window appears. When the detection finishes, information on the detected RMU-01 units is listed in the main window.

Note

With some PC's equipped with multiple LAN ports (wired and wireless), the RMU-01 units connected to a LAN port may not be automatically detected even when you click the Search Devices button.

If this happens, invalidate all ports including LAN and IEEE1394 ports with “Network Connections” on the OS, then validate only the LAN port to which the RMU-01 units are connected. And then, restart the RMU-01 Setting Tool software to perform automatic detection.

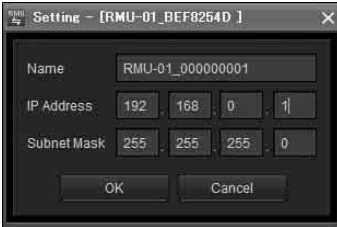
To change the settings of the detected device

For details, see “Changing Settings of the RMU-01” on page 19.

Changing Settings of the RMU-01

On the list of detected RMU-01 units in the main display, click the name of the device whose settings you want to change and click the Setting button.

The Setting window for the device appears.



To change the RMU-01's name

Enter a new name in the Name box. Up to 16 characters can be entered.

The following characters and a space can be used.

A B C D E F G H I J K L M N O P Q R S T
 U V W X Y Z
 0 1 2 3 4 5 6 7 8 9 ! # & \$ @ + - = _ () []

To change the IP address

Enter a new IP address in the IP Address boxes. Up to three digits can be entered in each box.

To change the subnet mask address

Enter a new subnet mask address in the Subnet Mask boxes. Up to three digits can be entered in each box.

After changes are made, click OK to enter the new settings and revert to the main display.

If the new settings are appropriate, a message “Success!!” appears. If not, “Failed!!” appears.

To change settings of the RMU-01 again

Click the Search Devices button to update the list of detected RMU-01 units. Then,

click the name of the device that you want to change the settings.

To resume the main display without changing the settings

Click the Cancel button.

Additional Functions

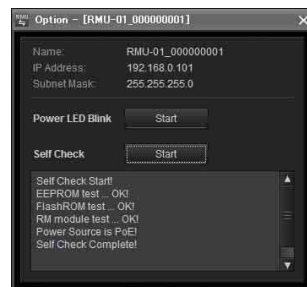
Two additional functions are available with this software.

POWER indicator flasher: When multiple RMU-01 units are connected to the network, use this function to easily distinguish the particular unit by operate the POWER indicator on that unit to flash.

Self-check function: If an RMU-01 unit does not work properly even when connections and settings are correct, perform self-check on the hardware of that device.

On the list of detected RMU-01 units in the main display, click the name of the device to apply an additional function, and then click the Option button.

The Option window for the device appears.



To flash the POWER indicator of the selected device

Click the Start button at the right of the “Power LED Blink” indication.

The POWER indicator of the selected device flashes at 0.1-second intervals for about five seconds.

For details on the status of this unit and the POWER indicator status, see “On the Status of This Unit and the Lighting Status of the POWER Indicator” on page 25.

To perform self-check for the selected device

Click the Start button at the right of the “Self Check” indication.

The check starts and the results of the following four items (① to ④) are displayed.

Item	Meanings
① EEPROM test	EEPROM check
② Flash ROM test	Flash ROM check
③ RM module test	2.4-GHz transmission/reception module check ¹⁾
④ Power Source is	Shows the power source. PoE: PoE AC: AC adapter

1) When the 2.4-GHz wireless communication is busy, self-check may not be performed properly. In this case, “NG!” may be displayed as the results. It is recommended that you perform the check again after turning off the transmitters and the receivers or after disconnecting them from the network.

If results of any of the item from ① to ③ in the table above are “NG!”, the hardware of the RMU-01 may be malfunctioning. If this happens, consult your Sony service representative or nearest dealer.

When a time-out error occurs in LAN communication, “NG!(ErrCode 0xFF)” appears as the results. This may be caused by improper connection of the LAN cable

or inappropriate connection between this unit and the power source. If this happens, check the connection and the power source, then perform the check again.

To resume the main display

Click the Close button (×) in the top-right corner of the window.

Connecting to Power Supply and Other Devices

Notes

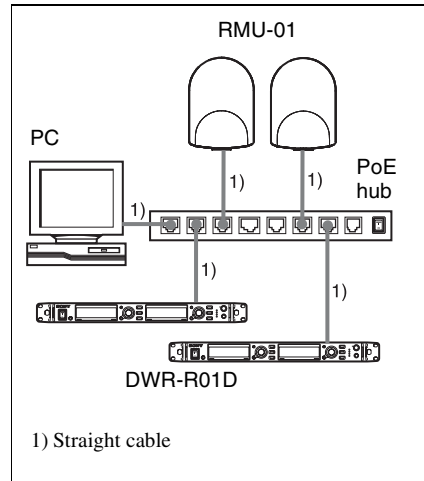
- For connections, use a category 5 or superior LAN cable.
- Use a LAN cable with a maximum length of 100 m (330 ft) for connecting the devices (PoE hub, receivers, etc.).
- When the PoE power supply unit that does not have the repeater function is connected between this unit and the DWR-R01D or the hub, keep the total cable length at 100 m (330 ft) or shorter.
- Using self-made LAN cables may result in network connection failure. Use commercially available LAN cables, instead.

Connections and the type of LAN cables depend on the power supply method to this unit.

Supplying Power From the PoE Device

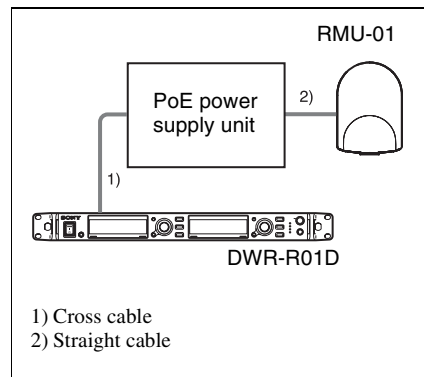
The examples of connections when the power is supplied from the PoE device to this unit are shown below.

To supply power from the PoE hub

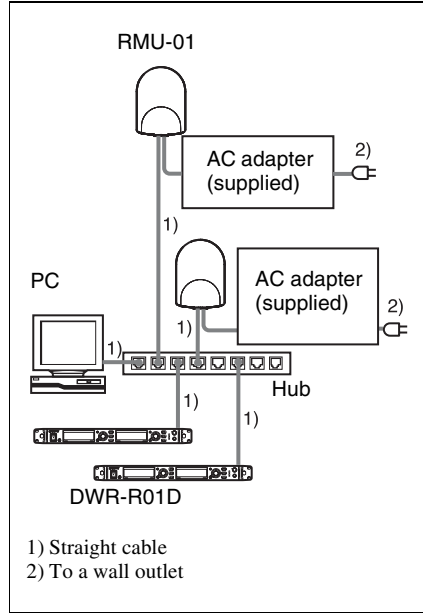
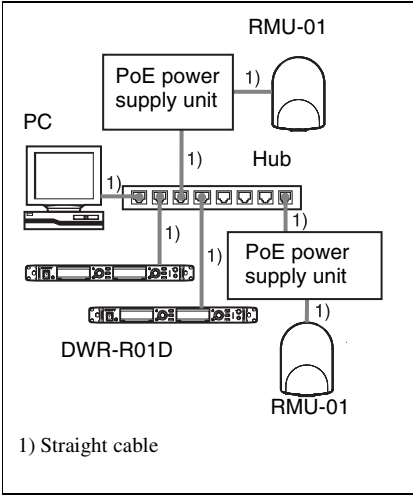


To supply power from the PoE power supply unit

- When only one receiver (such as the DWR-R01D) or the PC is connected to this unit and the power is supplied to this unit from the PoE power supply unit

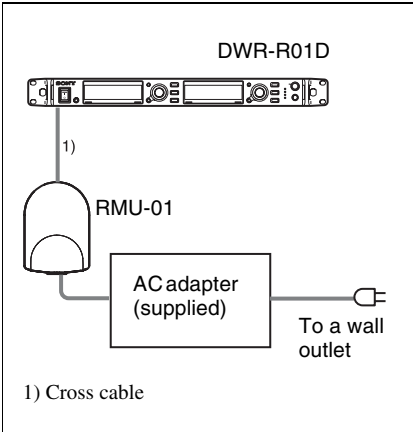


- When multiple devices including this unit and the receivers are connected and the power is supplied to this unit from the PoE power supply unit



Supplying Power From the AC Adapter

- When only one receiver (such as the DWR-R01D) or the PC is connected to this unit and the power is supplied to this unit from the supplied AC adapter



- When multiple devices including this unit and the receivers are connected and the power is supplied to this unit from the supplied AC adapter

Troubleshooting

If you encounter a problem using this unit, use the following checklist to find a solution. If the problem persists, consult your Sony dealer.

Symptom	Cause	Remedy
Wireless remote control cannot be performed.	Pairing is not established between the transmitter and the receiver.	Carry out pairing. <i>For details on pairing procedure, refer to the Operating Instructions supplied with the transmitter/receiver.</i>
	The transmitter is out of the radio communication range.	Check the condition level of the transmitter. If the level is low, bring the transmitter closer to this unit.
	IP address on one (or more) RMU-01 unit(s) is (are) not set properly.	Use the supplied Setting Tool software to set the IP address of all the RMU-01 units properly.
	LAN cables are not connected properly.	Check the LAN cable connections, making sure that the appropriate type of cable is used for each connection.
When multiple RMU-01 units are used in the network, wireless remote control fails at times.	A certain RMU-01 unit is out of order.	Use the supplied Setting Tool software to check that all the RMU-01 units are recognized. And, perform self-check on all the RMU-01 units to see if any hardware error is detected.
The RMU-01 units on the network cannot be detected automatically.	With some PC's equipped with multiple LAN ports (wired and wireless), the RMU-01 units on the network may not be automatically detected unless you change the port setting on "Network Connections" on the OS.	With "Network Connections" on the OS, invalidate all ports on the PC, then validate only the LAN port to which the RMU-01 units are connected. And then, restart the RMU-01 Setting Tool software to perform automatic detection (<i>see page 19</i>).

On the Status of This Unit and the Lighting Status of the POWER Indicator

Status of this unit	Status of the POWER indicator
① Starting up	Flashes at 0.2-second intervals
② In normal operation	Lights up
③ “Power LED Blink” is conducted on the RMU-01 Setting Tool software	Flashes at 0.1-second intervals
④ RM module initialization is failed.	Flashes at 2-second intervals
⑤ Unexpected error	Flashes at 1-second intervals

The hardware of this unit is reset right after the IP address of the unit is changed on the RMU-01 Setting Tool software. In this case, the POWER indicator also flashes at 0.2-second intervals. When the POWER indicator is flashing as described in item ④ or ⑤ in the table above, the RMU-01 hardware may be malfunctioning. If this happens, consult your Sony service representative or nearest dealer.

Important Notes on Operation

On Power Supply

- To supply power to this unit through the LAN cable (Power over Ethernet), be sure to use the power supply unit (PoE hub or PoE power supply unit) that conforms to IEEE802.3af standards.

For details on how to use the PoE hub and the power supply unit, refer to the operation manual supplied with the applicable device.

- When the power is supplied to this unit from the supplied AC adapter and the connected PoE power supply at the same time, the power from the PoE power supply takes priority.

On Installation

- When using multiple RMU-01 units, install them so that they keep the distance of 10 m (33 feet) or more from one another. Also, keep the wireless LAN access point that uses 2.4-GHz-band as far as possible from this unit.
- Do not install this unit in the following places:
 - behind the interior material, such as ceiling and wall
 - near a window, electric appliance (lighting equipment, electric motor, elevator, electric switchboard, etc.)
 - where the moving equipment may knock over and damage this unit
- Do not touch the LAN connector directly with your hand. If you do, electrostatic discharge may damage the internal components. To prevent this unit from electrostatic damage, grounding the

supplied brackets, safety wire, etc., by attaching them to metallic object is recommended.

On Operation

- This unit does not work by itself. To change the settings for the transmitters in Sony digital wireless microphone system (e.g., DWT-B01, DWT-P01, DWM-01), connect this unit to the receiver that is compatible with the NT remote system, such as the DWR-R01D.
- In NT remote system operation, transmitter settings can be changed from the front panel of the receiver.

On Using and Storing Environment

- This unit must be used within a temperature range of 0 °C to 50 °C (32 °F to 122 °F). (When the power is supplied from the supplied AC adapter, use this unit within the temperatures of 0 °C to 45 °C (32 °F to 113 °F).)
- Operating this unit near electrical equipment (motors, transformers, or dimmers) may cause it to be affected by electromagnetic induction. Keep this unit as far from such equipment as possible.
- The presence of the lighting equipment may produce electrical interference over the entire frequency range. Position this unit so that interference is minimized.

On Cleaning

- If this unit is used in a very humid or dusty place or in a place subject to an active gas, clean its surface as well as the connectors with a dry, soft cloth soon after use. Lengthy use of this unit in such places or not cleaning it after its use in such places may shorten its life.

- Clean the surface and the connectors of this unit with a dry, soft cloth. Never use thinner, benzene, alcohol or any other chemicals, since these may mar the finish.

Specifications

Radio system

Conforms to IEEE802.15.4

Frequency range of transmission/reception

2405 MHz to 2480 MHz

Antenna gain

2 dB

Antenna power

1 mW

Remote control distance

10 m (33 feet) at maximum (per unit)

LAN transmission speed

10 M/100 Mbps (automatic detection)

Connectors

LAN connector: RJ45-type, eight-pin (accepts PoE power)

AC adapter connector: EIAJ-type4

Supply voltage

When the PoE device is used:

48 V DC

When the AC adapter is used:

12 V DC

Current consumption

When the PoE device is used:

50 mA or less

When the AC adapter is used:

100 mA or less

PoE power reception

Conforms to IEEE802.3af

(supports mode A and B)

Operation temperature

When the PoE device is used: 0 °C to 50 °C (32 °F to 122 °F)

When the AC adapter is used: 0 °C to 45 °C (32 °F to 113 °F)

Storage temperature

-20 °C to 60 °C (-4 °F to 140 °F)

Dimensions

107 × 151 × 30 mm (4 × 6 × 1 in.)
(w/h/d)

Mass Approx. 300 g (10.5 oz)

Supplied accessories

- AC adapter (1)
- Bracket (2)
- Screw adapter (2)
- Screws (1 set)
- Safety wire (1)
- Operating Instructions (1)
- CD-ROM (1)
- Warranty booklet (1)

Design and specifications are subject to change without notice.

Note

Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

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