

Remote Monitoring Station Instruction Manual (detailed version)

How to Use This Manual

Pages 3 and 4 of this document contain the same information as the instruction manual “Usage Precautions” sheet packaged with Remote Monitoring Station (“the product”). Pages in this section are not numbered. If you require a printed copy of the instruction manual, please print pages 3 and 4 of this document on B4 or larger sized paper.

Detailed information on the product’ s functions is included from page 5 of this document. Please refer to it when managing the system.

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Remote Monitoring Station - Precautions for use -

To users of this product

Please contact the source this product was obtained from if you have any questions about using this product or if you need help resolving any concerns.

More Information can be found on the Internet at:
<http://www.fmworl.d.net/biz/uware/support/>

Alarm Indication

In this manual, various pictures are used to indicate alarm. These are signs to prevent harms and damages that might be added to you and other people. The display and the meaning are as follows.

| | | |
|--|----------------|--|
| | DANGER | When this display is disregarded and wrong handling is done, there is a high possibility that the person dies or sustains severe injuries. |
| | WARNING | When this display is disregarded and wrong handling is done, there is a possibility that the person dies or sustains severe injuries. |
| | CAUTION | When this display is disregarded and wrong handling is done, there is a possibility that the person owes injury or the property damage occurs. |

The following sign is used to show what one the content of harm and damage is.

| | |
|--|---|
| | The sign shown by Δ means prompts warning and attention. A concrete content of warning is shown in the sign and sideward of that. |
| | The sign shown by \textcircled{X} means an act of not doing (prohibited activity). A concrete content of the prohibition is shown in the sign and sideward of that. |
| | The sign shown by \bullet means what you must do. A concrete content of the instruction is shown in the sign and sideward of that. |

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To users of this product

This product's functions and use may vary depending on how it was configured by the source it was obtained from (the business customer that purchased the product from us).

Please ask for an explanation of this product's functions and use when you receive the product, or contact the source the product was obtained from for help.

* This product is not meant to prevent entry or theft. We are not to be held responsible for incidents, accidents, or damage caused through use of this product.

* This product is not meant for specialized monitoring such as childcare, caregiving, or medical purposes. We are not to be held responsible for incidents, accidents, or damage caused through use of this product for these applications.

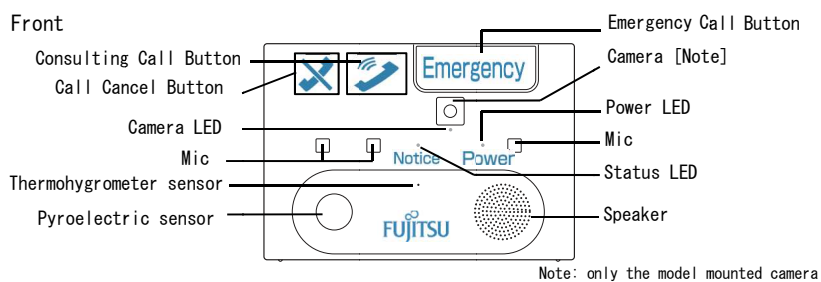
Confirm included items prior to use

Prior to using this product, confirm that the following items are included in the package. If anything is missing, please contact the source the product was obtained from. In addition to the included items listed on this sheet, the package may also contain a sheet of instructions. Place the included items along with the sheet of instructions in safekeeping.

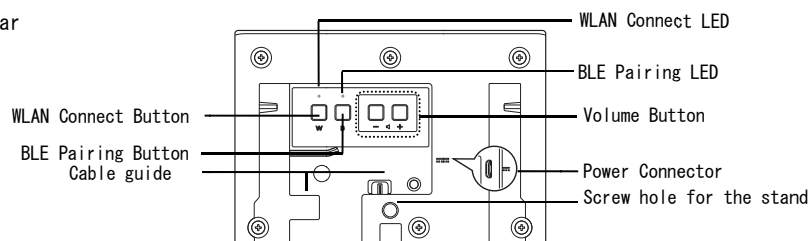
- Remote Monitoring Station (main unit)
 - Precautions to use (this sheet)
 - AC Adapter
 - Power cable
 - Warranty Card
- Confirm that all product serial numbers are entered on the warranty card.
- In addition, the attached articles of the stand for RCB sold separately are as follows.
- Stand
 - Screw
 - Double-sided tape x2
 - Adsorption tape x2

Ports and controls - main unit -

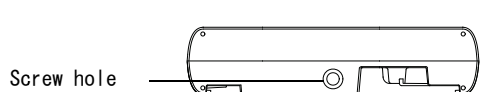
Front



Rear



Bottom



High Safety Required Use

This Product is designed, developed and manufactured as contemplated for general use, including without limitation, general office use, personal use, household use, and ordinary industrial use, but is not designed, developed and manufactured as contemplated for use accompanying fatal risks or dangers that, unless extremely high safety is secured, could lead directly to death, personal injury, severe physical damage or other loss (hereinafter "High Safety Required Use"), including without limitation, nuclear reaction control in nuclear facility, aircraft flight control, air traffic control, heavy transport logistics, medical life support system, missile launch control in weapon system. You shall not use this Product without securing the sufficient safety required for the High Safety Required Use.

About Bluetooth[®] wireless technology

2.4 FH1

- Wireless devices that use the 2.4 GHz band (as indicated above) make use of the entire bandwidth and are unable to avoid using the bandwidth used by mobile identification equipment. FHSS is used as the modulation method, and such devices may interfere with other devices at a range of 10 m.
- In addition to commercial, scientific, and medical devices (such as microwaves), on-premise radio stations (licensed) and designated low-power radio stations (nonlicensed) for mobile identification used in factory production lines and other locations are also operated within the frequency band used by this product.
 - (1) Prior to using this product, confirm that there are no on-premise radio stations or designated low-power radio stations for mobile identification use being operated nearby.
 - (2) If the use of this product causes radio interference with an on-premise radio station used for mobile identification, immediately stop the product from transmitting radio waves, and contact support (information below) to discuss ways to prevent interference (such as putting up partitions).
 - (3) If the use of this product causes radio interference with a designated low-power radio station used for mobile identification or if you have any other concerns, please contact the source this product was obtained from.
- It is recommended that this product be used within a 10 m radius (the line-of-sight radius) from devices it will communicate with (the maximum output for Class 2). However, due to the nature of Bluetooth[®] wireless technology, the communication distance may vary depending on the usage environment, such as the structure/material of the building it is being used in, obstacles, software, installation conditions, and radio wave conditions. There may also be situations where communication slows down or even becomes impossible.
- If you will be using this product on an airplane, first contact the relevant airline company to confirm.
- We are not to be held responsible for any data transmitted nor information leaked during Bluetooth[®] wireless technology communication.

Wireless LAN (WLAN)

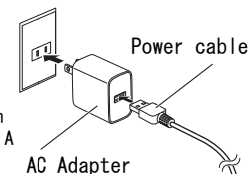
2.4 DS/OF 4

- The product uses the 2.4 GHz band. DS-SS and OFDM are used as the modulation schemes. The interference distance is about 40 m or less.
- All bandwidths can be used, and that bands of mobile unit identification devices can be avoided.
 - (1) In the frequency band used by WLAN devices, in addition to home electric appliances such as a microwave oven and industrial/scientific/medical devices, in-plant radio stations for identification of mobile objects used in production lines of a factory, etc., specified low power radio stations or amateur radio stations can be in operation.
 - (2) Before using this device, confirm that in-plant radio stations for identification of mobile objects, specified low power radio stations or amateur radio stations are not in operation in your neighborhood.
 - (3) If this device generates harmful radio wave interference against in-plant radio stations for identification of mobile objects, change the using frequency promptly or stop using wireless LAN function.
 - (4) If the use of this product causes radio interference with a designated low-power radio station used for mobile identification or if you have any other concerns, please contact the provider of this product.
- It is recommended that this product be used within a 25 m radius (unobstructed) from devices it will communicate with. However, due to the nature of wireless LAN technology, the communication distance may vary depending on the usage environment, such as the structure/material of the building it is being used in, obstacles, software, installation conditions, and radio wave conditions.
- There may also be situations where communication slows down or even becomes impossible.
- In mixed IEEE 802.11g and IEEE 802.11b wireless LAN environments, IEEE 802.11g functions may not be available in order to maintain compatibility with IEEE 802.11b standards. If IEEE 802.11g functions are required, keep IEEE 802.11g and IEEE 802.11b networks separate, and leave at least five channels open between the channels used at each network.

Power ON/OFF

Power ON

1. Connect the Power cable to an AC adapter.
2. Connect the Power cable to the DC-IN connector of the product and connects the power supply plug of the AC adapter to an outlet. Then power of Remote Monitoring Station turns on. A power LED turns on green in a short time.



Power OFF

Remove the power supply plug of the AC adapter from an outlet.

Installation of Remote Monitoring Station

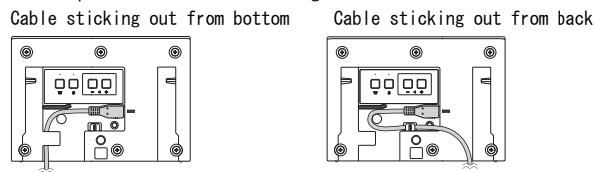
* If you were provided with any installation instructions from the provider of this product, be sure to follow them.

Install the Remote Monitoring Station according to the environment it will be used in. We recommend using the separately sold stand or wall attachment options to install the Remote Monitoring Station. Commercially sold tripods or other fixtures (that use 1/4th inch screws) can be installed using the screw hole on the bottom of the main unit.

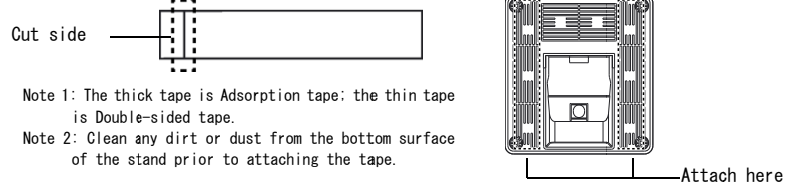
This section explains how to install the stand (sold separately).

For information on how to install the wall attachment, please refer to the manual supplied with the wall attachment.

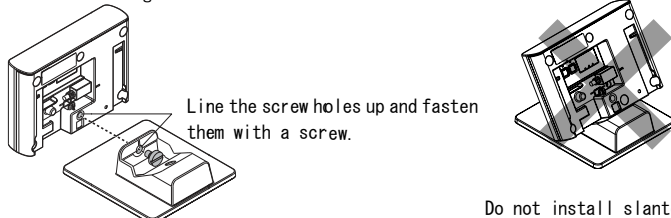
1. Set the power cable in the cable guide.



2. Peel the paper from the Adsorption tape or the cut side of the Double-sided tape, and then stick the tape to the bottom surface of the stand.



3. Install the stand to the Remote Monitoring Station. Use a coin to tighten and loosen the screw.



Do not install slanted.

4. Peel the film from the Adsorption tape (or paper from the non-cut side of the Double-sided tape), attach it firmly to the adhesion surface, and then install the Remote Monitoring Station.

Note the following during installation.

- * Install on a flat surface with no irregularities.
- * Remove any dirt, water, or oil from the installation location prior to installation.
- * Do not attach double-sided tape to locations with weak surfaces such as wallpaper.
- * When double-sided tape is removed it may leave a mark. If using a chemical such as an adhesive remover to clean the surface, make sure that it will not cause any damage.

■ Safety Notes

This section includes important information in order to use this product safely and correctly. Be sure to read this information prior to using this product, so that it can be used correctly, safely, and appropriately. Be sure to read the manual carefully in order to use the product correctly.

Common notes for UBIQUITOUSWARE products

⚠ DANGER

- Always be sure to turn this product off prior to entering areas (such as gasoline stands) with flammable gas (such as propane gas or gasoline) or dust. Do not charge the product in these areas.

Doing otherwise could cause the gas to ignite.

⚠ WARNING

- Use indicated peripheral devices only. Doing otherwise could cause heat buildup, ignition, an explosion, a malfunction, or leaking.

- Do not subject the product to strong forces, drop it, drive nails through it, hammer it, or step on it.

Doing otherwise could cause ignition, damage, or injury.

- Do not place this product in fire, heat it, or short the terminals. Doing otherwise could cause smoke, ignition, or an explosion.

- If this product behaves abnormally (such as heat buildup, emitting smoke or strange odors/noises), immediately remove it from your wrist and turn the power off. If the product is connected to its AC adapter, remove the power plug from the outlet.

Continuing to use this product when it is acting abnormally could cause electrical shock or a fire.

- If a liquid (such as water) or a foreign substance (such as metal) enters this product, immediately turn the product off. If the product is connected to its AC adapter, remove the power plug from the outlet.

Continuing to use it in this state could cause electrical shock or a fire.

- If this product is dropped or parts such as its cover are damaged, immediately turn the product off and repair it. Continuing to use it in this state could cause electrical shock or a fire.

- If you hear thunder, do not touch this product or its cables until there is no danger of lightning striking.

Do not connect any cables as long as there is a danger of lightning striking. If there is a danger of lightning striking, turn this product off beforehand and immediately remove the product from your wrist. If the product is connected to its AC adapter, remove the power plug from the outlet and then detach the cables.

Doing otherwise could result in being shocked by lightning or could cause a fire. The product could also malfunction.

- Never disassemble or modify this product yourself.

Doing otherwise could result in injury, electrical shock, or a fire.

- When using this product, do not cover it with a blanket or other covering, place it near a heater, or place it on an electric carpet.

Doing otherwise could trap heat inside the product, causing a fire.

- Do not use cleaning sprays (that include flammable substances) to clean this product.

Doing otherwise could result in a malfunction or fire.

If this product is damaged and the main unit's internals are exposed due to dropping it or the like, do not touch the exposed internals.

Doing otherwise could cause electrical shock or

- Store the main unit and its accessories outside the reach of infants.

- Do not allow infants to chew or swallow the main unit or its accessories.

- If an infant should swallow the main unit or its accessories, consult immediately with a physician.

- Use only included or specified AC adapters or power cables with this product; do not use the included AC adapter or power cable with other products.

Doing otherwise could cause an electrical shock or fire.

⚠ CAUTION

- Do not wipe with benzine or paint thinner. Doing otherwise could cause paint peeling, cracking, injury caused by damage, or a fire.

- If this product is dirty or wet, wipe it clean with a dry cloth or the like. If left dirty or wet the product could deteriorate more quickly or its color could fade.

- Do not place heavy objects on this product. Doing otherwise could cause damage or injury.

- Do not use or place this product in locations that are subject to direct sunlight or that are very hot (such as in locked vehicles).

- Doing otherwise could cause an electrical shock or fire. It could also result in damage or a malfunction.

AC Adapter, Power cable

⚠ WARNING

- Use only at the specified power supply voltage. Failure to do so could cause ignition, fire, heat buildup, or electrical shock.

- Do not connect to devices that generate square waves (uninterruptible power supplies (UPS) or automobile AC power supplies).

Doing otherwise may result in a fire.

- Make sure that the power plug is firmly inserted all the way into the outlet. If the connection is not good it could cause electrical shock, heat buildup, or ignition that could result in a fire. Do not use any loose outlets.

- Insert the AC adapter power plug directly and firmly into the outlet (100 V AC). Do not use piggybacked electrical outlets. Doing otherwise could cause electrical shock, burns, or fire.

- Hold the AC adapter or power cable straight when inserting or removing them. Do not apply unreasonable force.

Doing otherwise could cause fire, burns, injury, or electrical shock.

- When removing the AC adapter power plug from the outlet, be sure to grab the AC adapter. Do not pull the power cable. Pulling the power cable could damage it, causing electrical shock or fire.

- Place the product near the outlet in an accessible location where the power plug can easily be reached.

Doing otherwise could make it impossible to remove the power plug or could lead to danger.

- injury due to the damaged part.

- Store bags and the like used for the packaging material outside the reach of children.

Doing otherwise could result in suffocation if the child puts the material in his or her mouth or covers his or her head with it.

- Do not insert or remove the power cable or AC adapter if your hands are wet. Doing otherwise could cause electrical shock.

- Do not wrap the power cable tightly around the AC adapter, or otherwise apply pressure to the base.

Doing otherwise could expose or sever the core of the power cable, causing electrical shock or fire.

- When the AC adapter is connected to the outlet, do not catch anything on it or otherwise subject it to strong impact.

Doing otherwise could cause injury or a malfunction.

- Do not drop the AC adapter or subject it to strong impact. Doing otherwise could damage the internal circuit board. Do not use deformed, broken, or damaged AC adapters or power cables.

Doing otherwise could cause a malfunction, electrical shock, or fire.

- Periodically remove the AC adapter or power plug from the outlet, and use a soft cloth to clean dust from the connecting parts of the outlet, AC adapter, and power cable. Using the product when these are dusty could cause electrical shock, burns, or fire. Inspect and clean the product once per year.

- Always remove the AC adapter power plug from the outlet during maintenance. Doing otherwise could cause electrical shock.

- Never use in bathrooms or other highly humid locations. Doing otherwise could cause electrical shock or a malfunction.

- If the product will not be used for a long period of time, remove the AC adapter power plug from the outlet and disconnect the AC adapter.

Doing otherwise could cause a fire.

■ Disposal

⚠ CAUTION

For commercial customers who have purchased the product from us, refer to “Disposing and Recycling ICT Products” on our webpage (<http://www.fujitsu.com/jp/about/environment/society/products/recycleinfo/>). If this product was obtained from another source, please contact that source.

■ Additional Information

□ Precautions for use

- This product uses wireless communication, and there may be cases where functions may not be used as expected if there is cross talk or interference. We are not to be held responsible for incidents, accidents, or damage caused through use of this product.
- If the status LED turns red, a sensor malfunction or communication error may have occurred. If this occurs, please contact the source this product was obtained from.
- A smartphone (Android 4.4 or later) and special application are required to initialize this product.
- No personal information is stored in this product.
- This product cannot be used if it is not turned on.
- Place one hand on the Remote Monitoring Station to stabilize it when pressing buttons. Doing otherwise could cause the adhesion side of the stand to come unstuck, making it impossible to press buttons.
- The wireless LAN IEEE 802.11b unit installed in the Remote Monitoring Station can use wireless channels 1 through 13. Set the wireless LAN access point to use a channel within the range from 1 to 13. Please refer to your wireless access point manual for information on how to configure it.

- Do not use damaged AC adapters, power cables, or power plugs. Doing otherwise could cause fire or electrical shock.

- Do not bring screwdrivers or other metal objects near the AC adapter power plug. Doing otherwise could cause fire or electrical shock.

- Do not damage, modify, heat, or pull the power cable. Do not place heavy objects on it, or bend or twist it unreasonably. Do not use damaged cables. Doing otherwise could cause electrical shock, a short circuit, fire, or burns.

Radio components

⚠ WARNING

- Precautions on WLAN and Bluetooth® wireless technology

Turn wireless communication functions off (for example, turn the product off) in the following locations.

- Inside hospitals or in locations with electronic medical devices

Be especially careful not to bring the product into operating rooms, intensive care units, CCUs (coronary care units), or other similar locations.

- Locations where the use of wireless communication functions is prohibited, such as on airplanes
- Near automatic control devices such as automatic doors or fire alarms
- Locations where you may come into close contact with individuals who are wearing implantable medical devices (such as pacemakers) in the situation where you cannot move freely, etc.

■ FCC CAUTION

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Note: 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:

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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

■ IC CAUTION

This device complies with Industry Canada's licence-exempt RSSs. 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.**

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

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

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.)

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

■ Detailed information

□ Function List

In order to use this function, "UBIQUITOUSWARE Sensor Algorithm" (sold separately) is required.

- Product function

| Function | Specification | Application Example |
|--|--|---|
| Sound detection | Detects conversation and speech of the person. | Safety confirmation Trespassing prevention |
| Snoring detection | Detects snore frequency/interval. | Safety confirmation Health monitoring |
| Disturbance detection of respiration | Detects the length of the long silence interval between snoring. | Health monitoring |
| Cough detection | Detects a high frequency of consecutive coughs. Detected as positive if at least 10 sets of consecutive coughs (i. e. 20 coughs) are detected in an hour. | Safety confirmation Health monitoring |
| TV sound detection | Detects the sound spreading from TV. | Safety confirmation |
| Sound pressure measurement | Measure the mean of the sound pressure per minute. | Abnormal big sound (Big sound detection) |
| Abnormal big sound detection | Notifies the event of big sound pressure as abnormality. | Abnormal big sound (Big sound detection) Trespassing prevention |
| Temperature and humidity measurement | Measure the temperature / the humidity. | Heat index measurement warning |
| The estimate of the thermal environment level | Estimates the thermal environment level on a scale of 1 to 5 from the heat index that is based on heat and humidity information measured by the thermo-hygro sensor. | Heat index measurement warning |
| Notice of the degree of risk of the heat stroke | If the thermal environment level is high, the administrator is notified and the terminal automatically plays an announcement urging that measures be taken. | Heat index measurement warning |
| Detection of human body motion | Uses a motion sensor to detect human movement in order to determine whether or not someone is in the vicinity. | Safety confirmation Trespassing prevention |
| Camera | The image photography of the still image is possible. | Safety confirmation (As confirmation means of the situation) Abnormal big sound detection (As confirmation means of the situation) Trespassing prevention |
| VoIP call originating | Notifies/Alerts to the administrator by only pushing the Emergency Call or Consulting Call Button. | Emergency Call / talk Consulting Call Button |
| VoIP call incoming | Receives VoIP calls made by administrators. | Emergency Call / talk Consulting Call Button |
| Notification transmission | Sends notification that the Emergency Call button or Consulting Call Button was pressed (must select VoIP call transmission for each button, and then make a call). | Emergency Call / talk Consulting Call Button |
| Cancel | Pressing the Call Cancel Button cancels abnormality notification. If the Emergency Call Button or Consulting Call Button is pressed accidentally, or if an abnormality is erroneously detected, the user can prevent the call from connecting or a photo from being taken. | |
| Simultaneous announcement of the sound | Five audio files are stored in the terminal as means of communicating with the user. Sounds can be played back at the direction of the administrator. It is possible to update audio files over the network. | Announcement |
| Trespassing prevention mode | Turns on/off the trespassing prevention mode. When the sound or motion sensor detected it in absence, notifies the trespassing event to a server and beeps alarm sound. And takes a picture and uploads it to a server. | Trespassing prevention |
| Trespassing prevention mode with the date and hour designation | Controls On/OFF of the trespassing prevention mode by setting the date and time. Turns on the trespassing prevention mode automatically when it is past the designated date and time, *Please turn off the trespassing prevention mode beforehand when turning on this mode. | Trespassing prevention |
| The firmware update of the Remote Monitoring Station | Downloads the firmware of the Remote Monitoring Station from a server and updates it. | The firmware update |

* Please see the FUJITSU IoT Solution UBIQUITOUSWARE General Catalog for actual examples of usage scenarios.

• Cooperation function with the vital sensing band

| Function | Specification | Application Example |
|--|---|---------------------------|
| Bluetooth out-of-range notification | Detects when Vital Sensing Band's Bluetooth connection drops, and can notify the administrator that the user has moved away from the Remote Monitoring Station. | Out-of-range notification |
| Transfer function of the sensor data of the vital sensing band | Collects sensor data via Bluetooth from the vital sensing band and uploads it to a server. | |
| Firmware update function of the vital sensing band | Downloads the firmware of the vital sensing band from a server and transmits data to it via Bluetooth. | The firmware update. |

□ Sound playback function

• Customizing the audio file

The audio file played over the Remote Monitoring Station and each function sound can be customized over the network.

List of sounds that can be configured

| No. | Type | Length | Usage | Playback | Stop | Volume | Priority | Default announcement message |
|-----|-------------------------------------|--------|---|--|-----------------------------|------------|----------|---|
| 1 | Announcement 1 | 90sec | Information provision announcement | Playback request from the service provider | Stops after repeating twice | Set volume | 4 | "There has been an earthquake. Please act calmly. Stay safe and extinguish the source of the fire. Please check the TV or radio for information and stay calm." (Assuming there has been an earthquake) |
| 2 | Announcement 2 | 90sec | Information provision announcement | Playback request from the service provider | Stops after repeating twice | Set volume | 4 | "A heavy rain and flood warning has been issued. Please check the weather forecast for updates." (Assuming there is heavy rain and flooding) |
| 3 | Announcement 3 | 90sec | Information provision announcement | Playback request from the service provider | Stops after repeating twice | Set volume | 4 | "A disaster has occurred happened in your residence area. Please check information on TV or radio and act calmly." (Assuming there has been a disaster) |
| 4 | Announcement 4 | 90sec | Information provision announcement | Playback request from the service provider | Stops after repeating twice | Set volume | 4 | "There has been a disaster in your region. Please evacuate to the specified evacuation site." (Assuming there has been a disaster) |
| 5 | Announcement 5 | 90sec | Information provision announcement | Playback request from the service provider | Stops after repeating twice | Set volume | 4 | "The earlier announcement was false alarm". |
| 6 | Announcement prior to a photo shoot | 10sec | Announcement sound played prior to shooting with the camera according to instructions from the service provider | Playback request from the service provider | Playback completion | Set volume | 3 | "It will take a photo of you right after this announcement. Please press the Call Cancel Button if it's unnecessary. 3. 2. 1" |
| 7 | Shutter sound | 1sec | Camera sound when shooting with the camera | · After the announcement prior to a photo shoot is complete · After the service provider requests a photo shoot | Playback completion | Set volume | 3 | Shutter sound |
| 8 | Volume change sound | 1sec | Confirmation sound played when a Volume Button (+)/(-) is pressed | When a Volume Button (+)/(-) is pressed | Playback completion | Set volume | 6 | Volume change sound |

| No. | Type | Length | Usage | Playback | Stop | Volume | Priority | Default announcement message |
|-----|--|--------|---|--|--|--------------------------|----------|--|
| 9 | Cancel sound | 2sec | Confirmation sound played when the Call Cancel Button is pressed | When the Call Cancel Button is pressed | Playback completion | Set volume | 1 | "Your request has been canceled." |
| 10 | Chimes sound | 5sec | Chime sound played prior to playing an information announcements/thermal environment level announcement | Announcement 1-5 / Prior to thermal environment level announcement | Playback completion | Set volume | --- | Chimes sound |
| 11 | Thermal environment level announcement | 20sec | Thermal environment alert announcement | When a thermal environment level of 4 or 5 is detected * After playing the chime sound, an alert announcement must be made. | Stops after repeating twice (can be set to repeat from 1 to 10 times)) | Set volume | 5 | "You have a risk to get heat stroke in this room. Please take some water, make the room cooler etc. to avoid the risk. " |
| 12 | Alarm sound | 5sec | Alarm sound played when an intrusion is detected | After sending a photo when an intrusion was detected | <ul style="list-style-type: none"> After repeating for 10 minutes When the trespass mode is OFF When abnormality detection status is OFF | Maximum volume (Level 5) | 2 | Alarm sound |
| 13 | Emergency Call Button | 15sec | Announcement sound played until a call is received from the center, after the Emergency Call Button is pressed | After pressing the Emergency Call Button * Repeats until the stop condition | <ul style="list-style-type: none"> When incoming call received from the center was automatically answered When cancel is pressed When time has passed (5 minutes) | Set volume | 2 | "Emergency Call Button has been just pressed. It's connecting now so please wait a while. " |
| 14 | Received call announcement | 20sec | Announcement sound played until a call is received from the center, after the Consulting Call Button is pressed | When there is an incoming call | <ul style="list-style-type: none"> Playback completion When the Call Cancel Button is pressed | Set volume | 2 | "Receiving a call. Please hold on. Please press the Call Cancel Button if it's unnecessary. " |
| 15 | Consulting announcement | 10sec | Announcement sound played until a call is received from the center, after the Consulting Call Button is pressed | After pressing the Consulting Call Button * Repeats until the stop condition is reached | <ul style="list-style-type: none"> When incoming call received from the center was automatically answered When cancel is pressed When time has passed (5 minutes) | Set volume | 2 | "Consulting Call Button has been just pressed. It's connecting now so please hold on a minute. " |
| 16 | Ring back tone | 5sec | Outgoing call ring back tone | When there is an outgoing call | <ul style="list-style-type: none"> When the center has responded When cancel is pressed When an outgoing call failed | Set volume | 2 | Ring tone |

- * One with a small figure is reproduced by priority.
- * It reproduces in the winning when the same priority reproduction demands are generated.

Sound data that can be played on this product is PCM format.

- sampling rate : 16000Hz
- bit sample : 16 bit
- number of channels : 1ch(monaural)
- volume level : The largest level where a waveform clip is not generated is recommended.

Please edit the sound source by using the sound edit software to become the above-mentioned condition.

□ Limitations of each sensing

Mic

- May detect sounds from sources other than people. For example, sounds from dogs or cats may be detected as voices.
- If used with a window left open, sounds from outside may make it difficult to detect human voices, or the device may react to human voices from outside.
- Detection performance
 - It detects it when there is 5 dB or more sound pressure difference between a surrounding noise and the sound to be detected.
 - Detects audio when audio to detect is 65 dB or higher (for voices, coughs, and TV audio).
 - Detects audio when audio to detect is 60 dB or higher (for snoring and disturbance of respiration).
 - Detects audio when audio to detect is 95 dB or higher (for detecting loud noises).
 - Detection area: Horizontal: approx. 180 degrees, Vertical: approx. 180 degrees Distance: approx. less than 5 m (in case of voice, cough and TV sound. In the case of snoring and disturbance of respiration, it is less than 50cm)

Motion sensor

- Sensor that detects moving objects with a temperature difference from the surroundings. Moving objects other than people may therefore be detected as people. Some examples include animals, opening/closing doors, curtains moving in the wind, air coming from air conditioners, steam rising from electric water heaters, and swiveling electric heaters.
- Detection performance
 - Detects objects with a +4° C difference in temperature from the surroundings (with a size of around 150 cm x 30 cm) that have moved in a horizontal direction at a speed of around 1.0 m/s.
 - Detection area: Horizontal : approx. 120 degrees, Vertical : approx. 90 degrees, Distance : approx. less than 8 m

Camera

- Performance
 - Shooting range : Horizontal : approx. 70 degrees, Vertical : approx. 40 degrees
 - Approx. 900 K pixels (1280 x 720)
- Other
 - Photographing in a dark place is not possible.
 - After a photo is taken, it may take up to two minutes to upload it (depending on the communication environment and server environment). Other functions such as the Emergency Call Button, Consulting Call Button, or receiving calls cannot be used during this time.
 - Zoom and photographing in a dark place are not possible.
 - The camera and call functions cannot be used at the same time. If the Consulting Call/Emergency Call Buttons are pressed or if a call comes in when the camera is taking a photo, the camera shooting will be canceled.
 - When a VoIP call is received or made, or when waiting for a call after pressing the Consulting Call Button, the shooting instruction will be discarded.

Thermo-hygro sensor

- It takes 30 minutes to start of measurement after power on.

Call Cancel Button

- Cannot use the Emergency Call, Consulting Call and Call Cancel Button for 2 seconds after pushing a button.

□ Main unit operation (Gateway Software Configuration Tool)

| Operation items | Overview | Remarks |
|---|--|--|
| Setting of Remote Monitoring Station | Configure the Remote Monitoring Station. | Please refer to the appendix in the User's Guide (Gateway/Device Settings Version) for settings. |
| Remote Monitoring Station diagnosis <ul style="list-style-type: none"> └ WLAN connection status └ Server connection status └ Pyroelectric sensor status └ Trespassing prevention mode └ Camera shooting | Confirm operation of the Remote Monitoring Station. | |
| Edit/send whitelist | Manage a Vital Sensing Unit to connect with a Remote Monitoring Station. | The server URL, login ID, and password will need to be configured in the application. |
| Device settings <ul style="list-style-type: none"> └ Device ID └ Motion function operation settings └ Vital algorithm function settings └ Vibration settings └ Pulse sensor parameter settings | Configure a Vital Sensing Unit connected with a Remote Monitoring Station. | |

※For more details, refer to the "User's Guide (for Main Module) / (for Gateway and Device Setup)" attached to the "UBIQUITOUSWARE Sensor Algorithm".

Main unit operation (Device Management Tool)

| Operation items | Overview |
|--|---|
| Device / Gateway / Remote Monitoring Station List | Display the list of Device / Gateway / Remote Monitoring Station. |
| Checking Contents of Device / Gateway / Remote Monitoring Station | On clicking a device ID or a gateway ID or a station ID in the "Device/Gateway/Remote Monitoring Station List," you can check the data contents that are set for that ID. (For single device / Gateway) |
| Batch Editing Devices / Gateways / Remote Monitoring Stations | Edit the value of set item of Device / Gateway / Remote Monitoring Station at once. (For multiple devices / Gateways) |
| Command History | Display the history of control command of Device / Gateway / Remote Monitoring Station. (Display for each request number) |
| Detailed Information of Control Commands | Display the detailed information of control commands to the Device / Gateway / Remote Monitoring Station. (Display the result of the process, etc. to each Device / Gateway / Remote Monitoring Station) |
| List of uploaded log files | Display the list of uploaded log files from the Device / Gateway / Remote Monitoring Station. |
| IoT Platform Setting | Set the connection information to the platform. |
| Command Create New <ul style="list-style-type: none"> ■ Getting Log ■ Firmware Update ■ Camera Shooting ■ Mode Change ■ Sound Data Download ■ Sound Data Playback ■ Alarm Release ■ Remote Monitoring Station Reset ■ Certificate Download | The following can be directed. |

* The Device in this item refers to Vital Sensing Unit.

* The more information of this tool can be found in the (Sensor Algorithm User's Guide (for Main Module) (Device and Gate Way Setting)).

Setting method when function is not used

| Function | Operation |
|---|--|
| All call functions(Incoming and outgoing) | Do not configure the telephone number after configuring the setting when the Consulting Call button is pressed and the setting when the Emergency Call Button is pressed to "call." |
| Call function by Consulting Call Button | Do not configure the consulting report contact telephone number after configuring the setting when the Consulting Call Button is pressed to "call." |
| Call function by Emergency Call Button | Do not configure the emergency report contact telephone number after configuring the setting when the Emergency Call Button pressed to "call." |
| Temperature and humidity measurement | Turn off the thermo-hygro sensor ON/OFF. |
| Trespassing prevention | Turn off the Trespassing prevention mode OM/FF and the Trespassing prevention mode with the date and hour designation. |
| Safety confirmation | Turn safety confirmation OFF in the sensor algorithm settings. |
| Out-of-range notification | Turn out detection mode OFF. |
| Camera shooting | There is no setting to turn the function OFF. To prevent the camera from taking photos, the administrator should not issue a shooting instruction, or the trespassing prevention mode should be turned OFF. If the trespassing prevention mode is ON it will automatically take photos. To completely disable the camera shooting function, use a Remote Monitoring Station (No Camera). |

□ Product operation (Button)

• Normal button operation

| Status | Emergency Call Button | | Consulting Call Button | | Call Cancel button | | BLE Pairing Button | | WLAN Connect Button | | Volume Button(+) | | Volume Button(-) | |
|--|-----------------------|---------------|------------------------|---------------|--|---------------|--------------------|-----------------------------------|---------------------|-----------------|------------------|---------------|------------------|---------------|
| | Short push | Push and hold | Short push | Push and hold | Short push | Push and hold | Short push | Push and hold | Short push | Push and hold | Short push | Push and hold | Short push | Push and hold |
| During/Under normal operation | Emergency call | - | VoIP incoming | - | - | - | - | Bluetooth pairing with smartphone | - | WLAN connection | Volume-up | Volume-up | Volume-down | Volume-down |
| During emergency report / During consulting report / During announcement | - | - | - | - | Cancel (VoIP call/ camera photography) | - | - | - | - | - | Volume-up | Volume-up | Volume-down | Volume-down |
| During VoIP call | - | - | - | - | - | - | - | - | - | - | Volume-up | Volume-up | Volume-down | Volume-down |
| During trespassing prevention mode | - | - | - | - | - | - | - | - | - | - | Volume-up | Volume-up | Volume-down | Volume-down |
| During camera photographing | Emergency call | - | VoIP incoming | - | - | - | - | - | - | - | Volume-up | Volume-up | Volume-down | Volume-down |
| During firmware update | Emergency call (*1) | - | Emergency call (*1) | - | - | - | - | - | - | - | Volume-up | Volume-up | Volume-down | Volume-down |
| Out-of-service | - | - | - | - | - | - | - | - | - | - | Volume-up | Volume-up | Volume-down | Volume-down |
| Configuring product from smartphone over a Bluetooth connection | Emergency call test | - | VoIP incoming test | - | - | - | - | Bluetooth pairing with smartphone | - | WLAN connection | Volume-up | Volume-up | Volume-down | Volume-down |
| During Bluetooth setting | Emergency call | - | VoIP incoming | - | - | - | - | - | - | WLAN connection | Volume-up | Volume-up | Volume-down | Volume-down |
| During WLAN setting with the WLAN connection button | - | - | - | - | - | - | - | Bluetooth pairing with smartphone | - | - | Volume-up | Volume-up | Volume-down | Volume-down |

* Five volume levels are available (level 1 to level 5). Pressing the Volume Buttons (+)/ (-) will increase or decrease the volume step by step.

*1: Emergency call and VoIP incoming are possible only when the firmware data is downloaded. But the firmware download is cancelled.

• Plural button operation

| Status | WLAN Connect & BLE Pairing Button Power-on with pushing both buttons at the same time | | WLAN Connect & BLE Pairing Button | |
|--|--|--------------------------|-----------------------------------|---|
| | Short push | Push and hold | Short push | Push and hold |
| During/Under normal operation | - | Reset to factory default | - | Bluetooth pairing with the Vital Sensing Unit |
| During emergency report / During consulting report / During announcement | - | - | - | - |
| During VoIP call | - | - | - | - |
| During trespassing prevention mode | - | - | - | - |
| During camera photographing | - | - | - | - |
| During firmware update | - | - | - | - |
| Out-of-service | - | - | - | - |
| Configuring product from smartphone over a Bluetooth connection | - | - | - | Bluetooth pairing with the Vital Sensing Unit |
| During Bluetooth setting | - | - | - | - |
| During WLAN setting with the WLAN Connection Button | - | - | - | Bluetooth pairing with the Vital Sensing Unit |

□ LED list

| LED | Status of main unit | Status of LED |
|------------------------------------|---|-------------------------------------|
| Status LED (Green and Red) | Calling | Green flashing |
| | Emergency announcement | |
| | Dangerous Heat Disorder announcement | |
| | Talking | Green lights |
| | Equipment abnormality occurs in | Red flashing |
| | During a firmware update | Green fast flashing |
| Power LED (Green) | Power ON | Lighting |
| | Power OFF | Turning lights off |
| Camera LED (Green) | Camera use | Lighting⇒20 seconds after off |
| | Camera unused | Turning lights off |
| WLAN Connect LED (Green) | WLAN setting in | Green flashing |
| | WLAN setup complete | Green lights⇒3 seconds after off |
| | Network communication possible | Green lights |
| BLE Pairing LED (Green and Red) | Pairing in | Green flashing *Up to 30 seconds |
| | Pairing establishment | Green lights⇒3 seconds after off |
| | Pairing failed | Red flashing⇒3 seconds after off |

* All LED is turned off when the power supply of the main unit is off.

* When the WLAN is cut in the out of the sphere etc. after the WLAN is connected, the WLAN Connect LED is turned off.

* The BLE Pairing LED does not light while connected it after the BLE pairing succeeds.

* The Status LED might seem flashing to orange if equipment abnormality occurred while the Status LED is lighting or flashing to green.

* When the Status LED has flashed in red or orange, an equipment abnormality occurs. Please put the power supply of the main unit again.

□ Connection of external devices

Capable of connecting external devices

UBIQUITOUSWARE Vital Sensing Unit

- The maximum number of connections to a single Remote Monitoring Station : 4
- Connection method : Select from the connection by the pairing and by the whitelist

Remote Monitoring Station
Instruction Manual (detailed version)

Published by FUJITSU LIMITED

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Several factors may cause the actual results to differ.

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