

## 6 Operation check

Please follow the steps below to check the operation.

Operation						
	Power OFF or equipment failure	Power on	Standby	Detecting	Standby	
LED indication *	Pulse	OFF	Sequential green lighting	Green	Sequential red lighting	Green
	Toggle	OFF	Sequential green lighting	Green	Sequential red lighting	Red
Output (when set to N.O.)	Pulse	OFF	OFF	OFF	ON	OFF
	Toggle	OFF	OFF	OFF	ON	ON
Output (when set to N.C.)	Pulse	OFF	ON	ON	OFF	ON
	Toggle	OFF	ON	ON	OFF	OFF

\* The factory default LED display settings are the same for N.O./N.C.

Please check for other unintended detections. If there is a problem, go back to 4. Settings in

5 Installation procedure and set up again.

## 7 Inform building owner/operator of the following items

### ⚠ WARNING Failure to do so may cause fire, electric shock, or malfunction

- Observe the "WARNINGS" listed in 1 Manufacturer's statement and 2. Wiring in 5 Installation procedure.

### ⚠ CAUTION

- Make sure to check the operation before use.
- If you change the setting, please contact the installer.
- Do not place obstacles (such as swaying plants) in the detection area.
- Keep the front cover clean.
  - If the surface is heavily soiled, apply a mild detergent to a damp cloth and gently wipe off the stain. Afterwards, make sure to lightly wipe off the detergent with a cloth dampened with water.
  - Never use paint.

## 8 Troubleshooting

Condition	Cause	Coping methods
No operation (detect).	Power is not turned on.	Turn on the power.
	Wrong power supply voltage.	Match the rated voltage.
	Disconnected or misconnected.	Check the wiring.

Hard to operate (detect).	Narrow detection area.	Turn up the sensitivity volume.
	Front cover is dirty.	Clean the front cover.
Unintentional operation (detection).	Detecting passersby crossing the device.	Turn down the sensitivity volume.
	Detecting nearby obstacles.	Ensure that there are no swaying objects nearby.
Continue to operate (detect).	Toggle output.	Change to the pulse output.
	Detecting nearby obstacles.	Turn down the sensitivity volume. Ensure that there are no swaying objects nearby.

If the condition is not improved after the above actions, please contact our sales representative.

## 9 Specifications

Model	OMH-100D US
Installation location	Indoor
Detection method	Microwave doppler effect
Microwave frequency	24.15 GHz
Detection area	Maximum distance less than approx. 20in (500mm)
Power supply	12 to 24 VDC
Current consumption	< 40 mA (at 24 VDC)
Output	Form A relay 50 V 0.1 A Max. (Resistance load)
Output hold time	Approx. 500ms
Output settings	Pulse/Toggle
Operating temperature	-27.4 to 131°F (-33 to +55°C) (No condensation inside the product)
Operating humidity	< 80 %
IP rate	IP55 (When installed on a flat wall)
Material	Main unit : ABS/PC Front cover : PC
Weight	2.47oz (70 g)
Chemical resistant	Hypochlorous acid for cleaning Isopropyl alcohol

### FCC WARNING (For USA)

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

### - NOTICE -

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.

### - NOTICE -

- The antennas cannot be exchanged.
- To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

### IC (For CANADA)

Operation is subject to the following two conditions:

- this device may not cause interference, and
- this device must accept any interference received, including interference that may cause undesired operation of the device.

### Contact

North and South America Subsidiary

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# CleanWave

## OMH-100D US

5935190 OCT 2024

## 1 Manufacturer's statement

### ■ Safety instructions

OMH-100D is a sensor that outputs an activation signal to an automatic door by detecting a moving object such as a human hand. Do not use for anything other applications.

We will not be liable for any serious injury or damage to property resulting from the use of this product for purposes other than those described above.

### ■ This product is designed to be fit to US single gangbox.

- Read this operation manual carefully before use to ensure proper operation of this product.
- After reading the instruction, please keep it in a place where you can access it at anytime.
- Failure to read this operation manual may cause improper operation and may result in serious injury or death of a person. The meanings of the symbols are as follows.



### WARNING

Failure to follow the instruction that accompany this indication and improper handling may result in serious injury or death.



### CAUTION

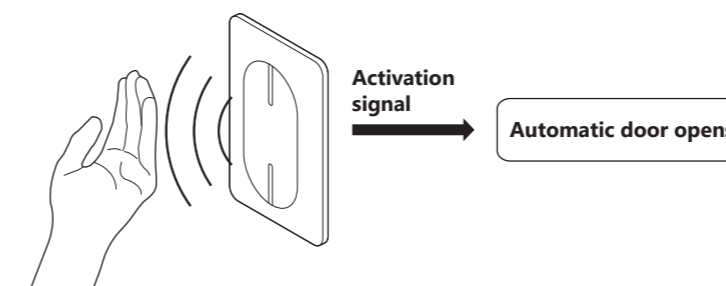
Failure to follow the instruction that accompany this indication and improper handling may result in serious injury and/or damage to property.

### ⚠ WARNING

<b>Avoid touching with wet hands</b>	Do not touch the inside of the product with wet hands. Failure to do so may result in electric shock.
<b>Do not put foreign objects in</b>	Do not allow foreign objects such as pieces of metal to enter the product. Failure to do so may cause fire, electric shock, or malfunction.
<b>Do not disassemble, modify, or repair the main unit</b>	Please do not disassemble, modify, or repair the main unit by the customer, as it is dangerous. Failure to do so may cause fire, electric shock, or malfunction.
<b>Do not leave abnormalities unattended</b>	Do not continue use if smoke, strange smells or noises are noticed. Failure to do so may cause fire, electric shock, or malfunction.
<b>Do not install or set up outside of specifications</b>	Do not install or configure under conditions outside the scope of the specifications. Failure to do so may cause fire, electric shock, or malfunction.
<b>Use auxiliary sensors together</b>	Always use an auxiliary sensor as a safety aid.

## 2 General

This unit uses the microwave (MW) doppler method to detect moving objects, such as the hands of passersby, and outputs an activation signal to the automatic door.



### ■ Detection conditions

Detection is performed when a hand is held over the detection area.

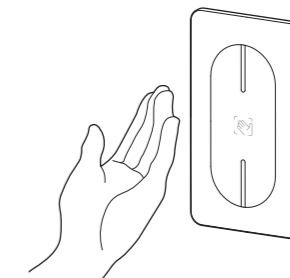
- \* Detection sensitivity varies depending on the speed at which the hand is held up, the size of the hand, and other individual differences.
- \* Detection is possible with gloves on.
- \* Moving objects other than human hands can be detected, but are not recommended.

### ■ Environment near the door

Ensure that there are no swaying objects nearby.

### ■ Features

- This unit can detect moving objects without being affected by frost or condensation.
- Its thinness prevents dust from accumulating on the top surface area and keeps it clean.



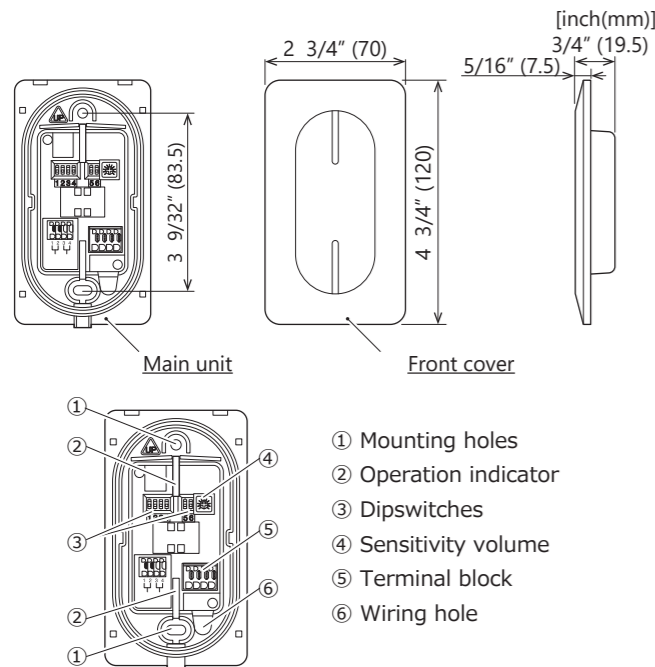
### 3 Contents of the set

Parts	Qty
Main unit	1
Front cover	1
Screws for MSW-1W (short)	2
Screws for other gangbox (long)	2
Instruction(this manual)	1

#### Optional item

- MSW-1W Spacer for exposed installation.

### 4 Outer dimensions and Parts names



### 5 Installation procedure

#### Location

Install in the following location(s). The recommended installation height is about 3'3 3/8" (1000mm) above the floor.

- Position where people can hold up their hands.
- Possible wiring position.
- Position not to detect passers-by crossing the unit.
- Position with no obstacles (e.g., swaying plants) nearby

#### Installation method

The installation method should be selected from the following two types depending on the site environment.

Exposed installation (with MSW-1W)	Recessed installation
3/4" (20.5)	5/16" (7.5) [inch(mm)]
This unit is waterproof.	Thinness helps to maintain cleanliness.

In addition, decide whether to sound a beep or toggle output upon detection and the output (N.O./N.C.).

### 1. Installation

The following procedure is used for installation.

\* Recessed Installation in the gangbox.

\* For exposed installation, the optional item (MSW-1W) is recommended.

#### Exposed installation (when using MSW-1W)

Procedure	Point
<ol style="list-style-type: none"> <li>Cut out the knockout to match the wiring path and screw MSW-1W to the wall according to site conditions.</li> </ol>	<ul style="list-style-type: none"> <li>Cut out the knockout before screwing the MSW-1W.</li> <li>Make sure the MSW-1W is securely fastened to the wall.</li> <li>These screws are included in the package of MSW-1W.</li> </ul>
<ol style="list-style-type: none"> <li>Pass the wires through the wiring holes and attach the main unit to MSW-1W using the shorter screws provided with the unit.</li> </ol>	<ul style="list-style-type: none"> <li>Make sure there are no kinks or pinches in the wiring.</li> <li>Make sure that there is no deflection in the main unit. If the screws are tightened too tightly during installation, deflection may occur and the front cover may not close.</li> <li>Make sure the main unit is securely fastened to the MSW-1W.</li> </ul>

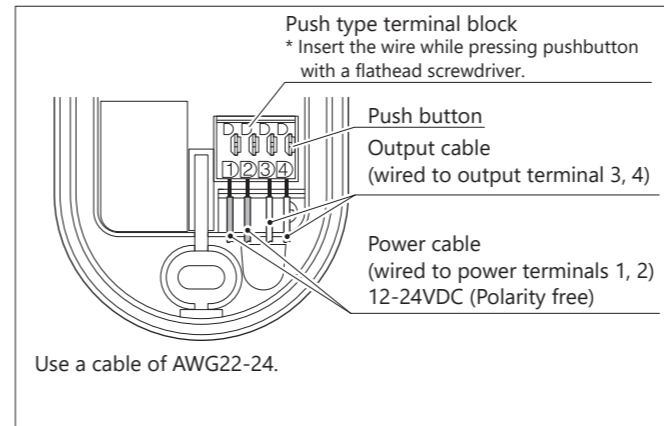
\* If waterproofing is required, seal the border with the wall.

#### Recessed installation

Procedure	Point
<ol style="list-style-type: none"> <li>Install the gangbox into the wall according to the site conditions.</li> </ol>	<ul style="list-style-type: none"> <li>Make sure the gangbox is securely fastened to the wall.</li> </ul>
<ol style="list-style-type: none"> <li>Pass the wires through the wiring holes. Fix the main unit to the gangbox with longer screws.</li> </ol>	<ul style="list-style-type: none"> <li>Make sure there are no kinks or pinches in the wiring.</li> <li>Make sure that there is no deflection in the main unit. If the screws are tightened too tightly during installation, deflection may occur and the front cover may not close.</li> <li>Make sure the main unit is securely fastened to the gangbox.</li> </ul>

### 2. Wiring

Connect the power cable and the output cable to the automatic door to the terminal block of the main unit as shown below.



#### WARNING Failure to do so may cause fire, electric shock, or malfunction

- Work with the power turned off.
- Make sure that the wiring is correct.
- When passing the wiring cord through the hole, make sure that the cable sheath will not tear.
- Make sure that the peeled edges of adjacent wires do not touch each other.
- Do not modify, forcibly bend, pull, twist, or bundle wiring cords.
- Use within the power supply range of the specifications.

### 3. Power on

Turn on the automatic door power supply to supply power to the unit.  
\* Immediately after the power is turned on, the operation indicator lights up in Green only once.

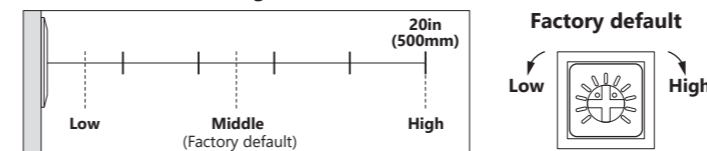
### 4. Settings

Adjust the sensitivity volume and dipswitches to configure the device.

#### Sensitivity volume

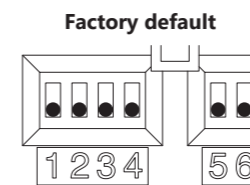
The sensitivity can be adjusted between "Low" and "High". Maximum range is approx. 20in (500mm).

#### Detection distance image



#### Dipswitches

Set the following five items related to this device.



No.	1	2	3	4	5	6
Setting items	Standby LED	LED color * when detected	Short beep when detected (0.1 sec)	Act. output type	Output type ***	
ON	OFF	Sequential red lighting	ON	N.C.	Pulse	
OFF	Green	Red fade flashing	OFF	N.O.	Toggle	
		Orange				
		Red				

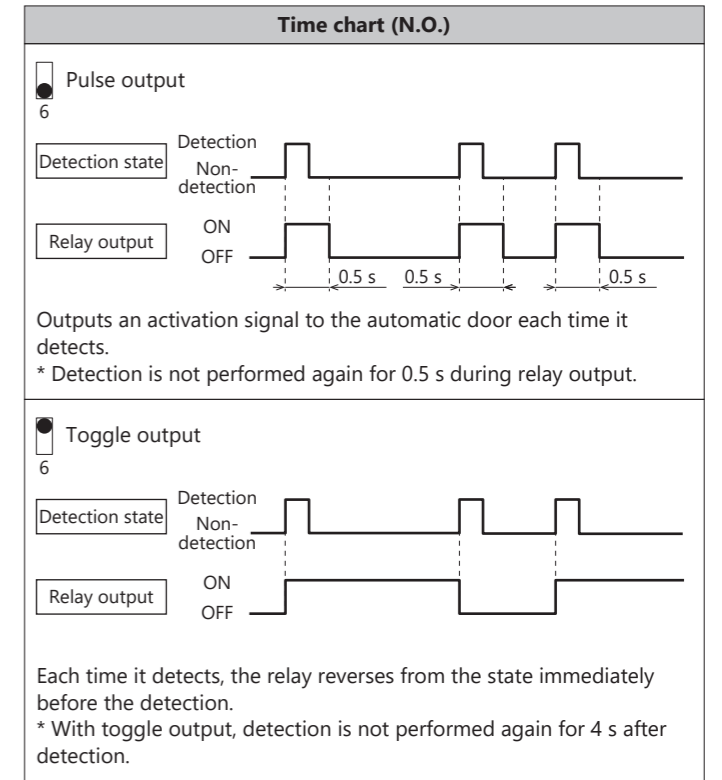
#### Operation indicator when detection

The color of the operation indicator can be set by a combination of dipswitches 2, 3.

No.	Operation indicator (when detected)	
2 3	Sequential red lighting **	When detected, the set indicator pattern is held for 2 s. (In case of toggle setting, the light will remain on until it is detected again.)
2 3	Red fade flashing	
2 3	Orange	** Sequential lighting: The light spreads outward from the center.
2 3	Red	

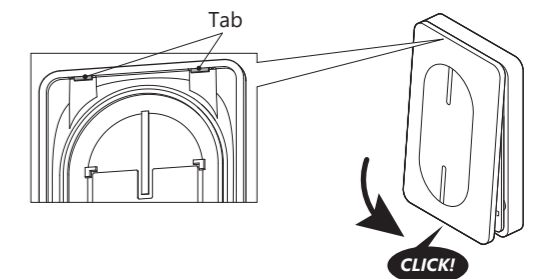
#### Output type

The output type can be switched to pulse or toggle by turning dipswitch 6 "ON" or "OFF". See the time chart below for the operation.



### 5. Close the front cover

Close the front cover after each adjustment is completed. Hook the cover over the tabs at the top of the unit and then insert it until you hear a click.



#### How to open the front cover

Insert a flathead screwdriver into the hole on the underside and pull it toward you.

