

# Installation Manual for Motion Sensor Kit

Model	SOR-NEZ
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**NOTE:**

The applicable indoor unit may be different depending on the product series.  
Refer to the product catalog for applicable indoor unit models.

Read following sections carefully before installing this product.

Read the Installation and Maintenance Manual for the indoor unit as well.

**IMPORTANT NOTICE:**

- Johnson Controls-Hitachi Air Conditioning pursues a policy of continuous improvement in design and performance of products. We reserve the right to vary specifications without notice.
- No part of this manual may be reproduced without Johnson Controls-Hitachi Air Conditioning' written permission.
- Keep this manual for future reference.
- Johnson Controls-Hitachi Air Conditioning cannot anticipate every possible circumstance that might involve a potential hazard.
- This kit is designed for a combination of Johnson Controls-Hitachi Air Conditioning air conditioners. Do not use this kit by itself or in combination with other companies' air conditioners.
- Perform a test run after installation to check for abnormalities.
- Signal words are used to identify levels of hazard seriousness. Definitions for identifying hazard levels are provided below with their respective signal words.

**⚠ WARNING**

: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

**⚠ CAUTION**

: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

**NOTICE**

: Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

**NOTE**

: Indicates useful information for operation and/or maintenance.

- It is assumed that this motion sensor kit will be installed and serviced by English speaking people. If this is not the case, the customer should add safety, caution and operating signs in the native language.
- If you have any questions, contact your distributor or contractor.
- This manual gives a common description and information for this motion sensor kit, as well as for other models, which you may operate.
- This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment. Forward this information to the building owner and request that they maintain all the equipment manuals.

## 1. Introduction

- This product is designed for standard air conditioning only.  
Do not use this product for other purposes.
- Do not install the unit in the following places. It may cause a fire, damage, corrosion or failure.
  - \* Places where a fire, oil, steam or powder may directly enter the unit such as right above a kitchen.
  - \* Places where oil (including machinery oil) may be present.
  - \* Places where sulfide gases are present, such as hot springs.
  - \* Places where inflammable gas may be generated or flow.
  - \* Regions where dense, salt-laden airflow is heavy, such as coastal regions.
  - \* Regions where the air quality is of high acidity or alkalinity.
  - \* Areas where harmful gases are generated from decomposition.
- Pay attention to the following points when installing the unit in a hospital or other facility where nearby electromagnetic waves are generated from medical devices.
  - \* Do not install the unit in a place where electromagnetic waves can directly radiate into the electrical box, remote control switch cable or remote control switch.
  - \* Install the unit at least 10ft (3m) away from devices generating electromagnetic waves, such as a radio.
- Do not install the unit in a location where animals and plants can come into direct contact with the outlet air stream. It could adversely affect animals and plants.
- Do not install the motion sensor kit in the following places. It may cause misdetection, undetectable motion or the deterioration of the sensor.
  - \* Places where ambient temperature change is drastic.
  - \* Places where excessive force or vibration is applied to the sensor.
  - \* Places where static electricity or electromagnetic waves may generate.
  - \* Places where there is interference for infrared light such as mist in a detecting area.
  - \* Places where the lens for the sensor is exposed to high temperature and humidity for a long period of time.
  - \* Places where fluid and corrosive gases exist.
  - \* Places where direct light such as sunlight or headlights affect the sensor.
  - \* Places where hot air, for example from a heater, directly affects the sensor.
  - \* Places where the airflow returns to the sensor by bouncing off objects.
  - \* Places where blower devices such as ceiling fans or ventilating fans affect the airflow from the indoor unit.
  - \* Places where weather affects the surface of the sensor.
  - \* Places where the lens surface may smudge or be damaged by dust.

Be aware that the detecting function will be decreased if the lens has smudges.  
If this happens, wipe off smudges using a cotton swab soaked in alcohol (isopropyl alcohol is recommended.) or a soft cloth. (When wiping off smudges on the sensor lens, do not apply excessive force. If excessive force is applied, the resin lens may be damaged leading to malfunctions such as misdetection or undetectable motions.)

## Installation

### WARNING

- Correctly perform the installation work referred to in this manual.  
If the installation is not completed correctly, there may be an injury as a result of the motion sensor kit falling.
- Do not install the motion sensor kit where flammable gases may generate or enter.
- Turn OFF the power supply completely before performing the installation and electrical wiring work for the motion sensor kit. Not doing so may cause an electric shock.

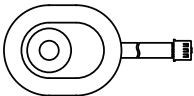
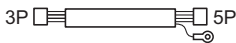
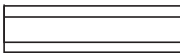

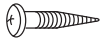
## Electrical Work

### WARNING

- Correctly perform the electrical wiring work.  
If the electrical work is not completed correctly, heat generation at the connection, a fire or an electric shock may occur.
- Make sure that the electrical wires are secured so that an external force is not applied to the terminal connections. Failure to properly secure electrical wiring could result in excessive heat or fire.
- Turn OFF the power supply completely before performing the installation and electrical wiring work for the motion sensor kit. Not doing so may cause an electric shock.

## 2. Before Installation Work

Check to ensure that the following accessories are packed with the motion sensor kit.

No.	Accessory	Q'ty	Remarks
①	Motion Sensor Kit 	1	with Connecting Cable
②	Connecting Cable 	1	-
③	Wiring Cover 	1	for Protection of Relay Connector
④	Cable Clamp 	3	for Securing Connecting Cable and Wiring Cover
⑤	Securing Screw 	2	for Securing Motion Sensor Kit
⑥	Installation Manual	1	-

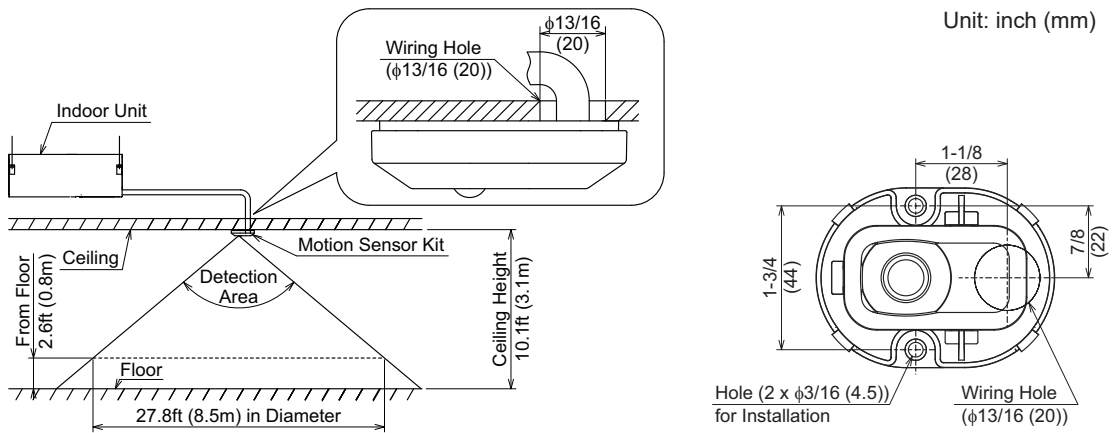
### 3. Installation

#### NOTICE

- Do not run the connecting cable for the motion sensor kit and the power supply wiring in parallel. It may cause a malfunction of the motion sensor kit from electromagnetic interference (EMI).
- Install the motion sensor kit after ceiling work.
- When the motion sensor kit is installed after the indoor unit's installation, be sure to turn off the power supply completely before starting installation.

#### (1) Installation Location

Install the motion sensor kit in the center of the room as much as possible.



#### NOTICE

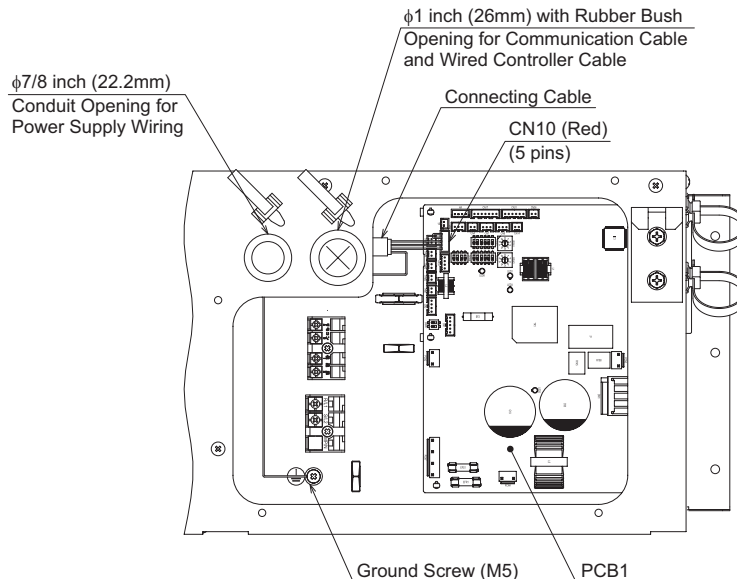
- Do not install the motion sensor kit in the air outlet path of the indoor unit. It may cause misdetection due to the influence of air flow.
- Install the indoor unit in position that discharge air do not enter the detection area.

#### (2) Prepare the hole (φ13/16 inch (20mm)) on the ceiling for wiring.

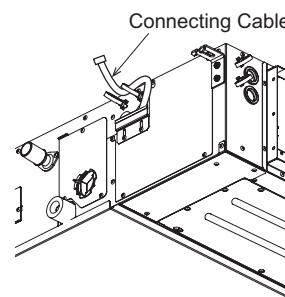
#### (3) Connect the connecting cable to CN10.

Open the electrical box cover at the indoor unit. Connect the connecting cable to CN10 of PCB in the electrical box.

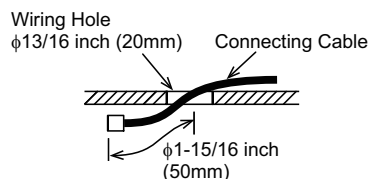
Connect the ground wiring to the ground screw inside the electrical box as shown in the following figure.



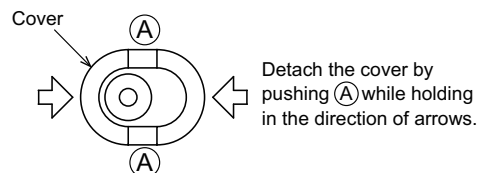
- (4) After connecting the connecting cable, route it out to inside the false ceiling or outside of the unit.  
Next, route the cable to the installed location of the motion sensor kit.  
After running the connecting cable, clamp the extra length of the connecting cable with the included cable clamp and store it inside the ceiling.



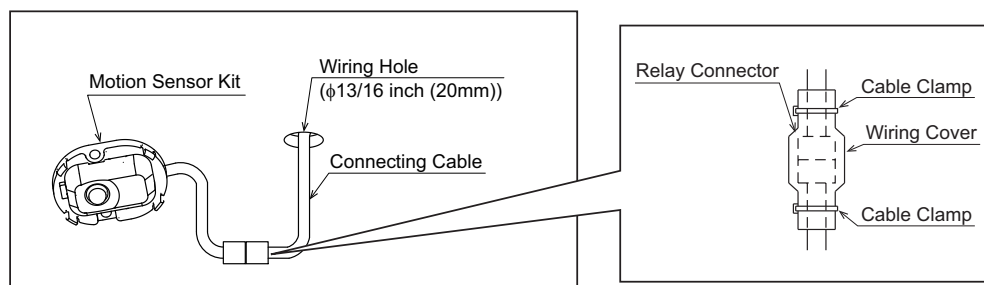
- (5) Pull out the connecting cable 1-15/16 inch (50mm) from the wiring hole.



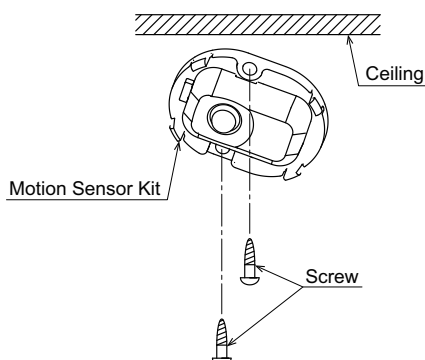
- (6) Detach the cover of motion sensor kit.



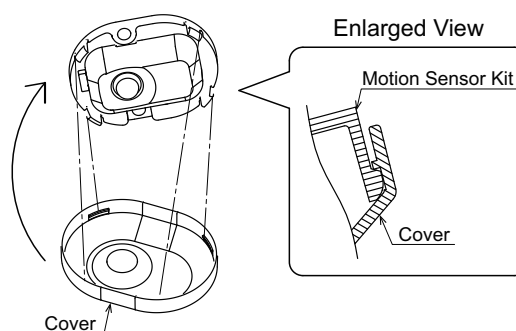
- (7) Connect the wiring for motion sensor kit to the relay connector as shown in the following figures.  
After connecting the cable, cover the connection to the relay connector. Attach the wiring cover with the cable clamps.



- (8) Install the motion sensor kit to ceiling using screws while pushing the cable into the hole.



- (9) Attach the cover of motion sensor kit as the following figure.



### NOTICE

Snap the motion sensor kit to the cover ensuring that the tabs are properly engaged.



