



## Lossnay Remote Controller PZ-43SMF-E

Installation Manual (For use by dealer/contractor)

This remote controller is to be connected to a Lossnay unit to allow that unit to be started and stopped, and to allow selection of the ventilation mode and of the fan speed.

- This manual must be read both fully and carefully before commencing installation procedures; furthermore, the subsequent installation must be performed correctly and safely in accordance with the instructions given.
- The installation of this remote controller is to be performed by the dealer or by an installation contractor.
- A switch box will be required for this installation.

### 1 Safety Precautions

**WARNING** This symbol denotes what could lead to serious injury or death if the Lossnay remote controller is misused.

- **Never modify or repair by yourself.**
  - If the product is modified or inappropriately repaired, electric shock, fire, etc. could result. Contact your dealer for repair.
- **Do not move or reinstall the product by yourself.**
  - If it is installed improperly, electric shock, fire, etc. could result. Contact your dealer or technical representative.
- **Use the specified cables for wiring and connect them securely. Hold the cables so as not to apply external force of the cables to the connector.**
  - Improper connection could result in heat generation or fire.
- **All electrical work must be performed by a licensed technician, according to local regulations and the instructions given in this manual.**
- **Install the product in a firm and stable place to withstand the product weight.**
  - If the strength is inadequate, the product could drop and cause an injury.
- **Ensure that installation work is done correctly following this installation manual.**
  - If it is installed improperly, electric shock, fire, etc. could result.

**CAUTION** This symbol denotes what could lead to personal injury or property damage if the Lossnay remote controller is misused.

- **Do not install the product in a place where flammable gases may leak.**
  - If gas should leak or accumulate around the product, fire or explosion could result.
- **Do not use the product in special environments.**
  - The product could underperform or the parts could be damaged if it is used in locations subject to large quantities of oil (including machine oil), steam, or sulfide gas.
- **Do not install the unit in a place where large amounts of oil, steam, organic solvents, or corrosive gases, such as sulfuric gas, are present or where acidic/alkaline solutions or sprays are used frequently.**
  - These substances can compromise the performance of the unit or cause certain components of the unit to corrode, which can result in electric shock, malfunctions, smoke, or fire.
- **Do not touch the button with a sharp object.**
  - Doing so could result in electric shock or breakdown.
- **Do not supply 220-240 V to the remote controller. The maximum is 12 VDC.**
  - Doing so could result in fire or breakdown.
- **Do not install in any place at a temperature of more than 40°C (104°F) or less than 0°C (32°F) or exposed to direct sunlight.**
  - Doing so could result in fire or breakdown.
- **Do not install in any steamy place such a bathroom or kitchen.**
  - Avoid any place where moisture is condensed into dew. Doing so could cause electric shock or malfunctions.
- **Do not touch the button with wet hands.**
  - Doing so could result in electric shock or breakdown.
- **Do not wash the product with water.**
  - Doing so could result in electric shock or breakdown.
- **Take appropriate measures against electrical noise interference when installing the Lossnay in hospitals or facilities with radio communication capabilities.**
  - Inverter, high-frequency medical, or wireless communication equipment as well as power generators may cause the Lossnay to malfunction. The Lossnay may also adversely affect the operation of these types of equipment by creating electrical noise.
- **Wire so that it does not receive any tension.**
  - Tension could cause wire breakage, heating or fire.
- **Completely seal the wire lead-in port with putty etc.**
  - Any dew, moisture, cockroaches, insects entering the unit could cause electric shock or malfunctions.
- **Use standard wires in compliance with the current capacity.**
  - Failure to do so could result in electric leakage, heating or fire.
- **Put on gloves during installation.**
  - Failure to do so could cause injury.

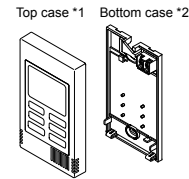
### 2 Component names and supplied parts

The following parts are included in the box.

Parts name	Qty.	Appearance
Remote controller (top case)	1	Right figure *1
Remote controller (bottom case)	1	Right figure *2
Roundhead cross slot screws M4×30	2	*3
Wood screws 4.1×16 (for direct wall installation)	2	
Installation Manual (this manual)	1	
Operation Manual	1	

\*3 ISO metric screw thread

\*4 Remote controller cable is not included.



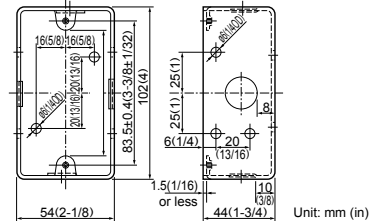
### 3 Field-supplied parts/Required tools

#### (1) Field-supplied parts

The following parts are field-supplied parts.

Parts name	Qty.	Notes
Single switch box	1	Not required for direct wall installation
Thin metal conduit	Necessary	
Lock nut and bushing	Necessary	
Cable cover	Necessary	Required for routing remote controller cable along a wall
Putty	Reasonable	
Molly anchor	Necessary	
Remote controller cable (Use a 0.3 mm <sup>2</sup> (AWG22) 2-core sheathed cable.)	Necessary	

#### Switch box



#### (2) Field-supplied tools

- Flat-tip screwdriver (Width: 3 - 5 mm (1/8 - 7/32 inch))
- Knife or Nipper
- Miscellaneous tools

### 4 Installation

This remote controller is for the wall installation. It can be installed either in the switch box or directly on the wall. When performing direct wall installation, wires can be thread through either back or top of the remote controller.

#### (1) Selecting an installation site

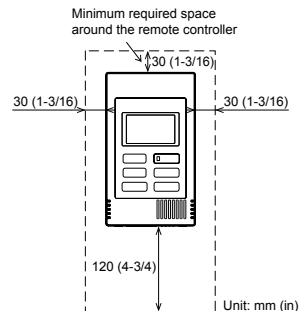
Install the remote controller (switch box) on flat surface.

##### Note:

- To reduce the risk of malfunctions, do not install the controller in a place where water or oil may come into contact with the controller, or in a condensing or corrosive environments.
- To avoid deformation and malfunction, do not install the remote controller in direct sunlight or where the ambient temperature may exceed 40°C (104°F) or drop below 0°C (32°F).
- Do not install the remote controller directly onto electrically conductive objects such as metal plate that has not been painted.

#### (2) Installation space

Leave a space around the remote controller as shown in the right figure, regardless of whether the controller is installed in the switch box or directly on the wall. Removing the remote controller will not be easy with insufficient space. Also, leave an operating space in front of the remote controller.



### (3) Installation work

Controller can be installed either in the switch box or directly on the wall. Perform the installation properly according to the installation method.

#### ① Drill a hole in the wall.

- Installation using a switch box
  - Drill a hole in the wall, and install the switch box on the wall.
  - Connect the switch box to the conduit tube.
- Direct wall installation
  - Drill a hole in the wall, and thread the cable through it.

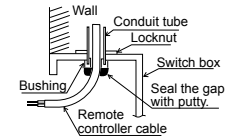
#### ② Seal the cable access hole with putty

- Installation using a switch box
  - Seal the remote controller cable access hole at the connection of switch box and conduit tube with putty.

##### Note:

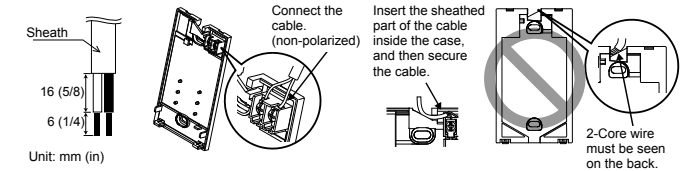
To reduce the risk of electric shock, malfunctions, or fire, seal the gap between the cables and cable access holes with putty.

#### ③ Prepare the bottom case of the remote controller.



#### ④ Connect the remote controller cable to the terminal block on the bottom case.

Peel off the remote controller cable sheath as shown below to connect to the terminal block properly. Secure the remote controller cable so that the peeled part of the cable will fit into the case.



##### ■ Direct wall installation

- Seal the hole through which the cable is threaded with putty.
- To reduce the risk of electric shock, shorting, or malfunctions, keep wire pieces and sheath shavings out of the terminal block.

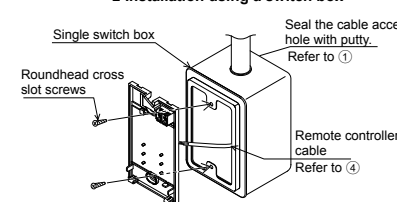
##### Note:

- Do not use solderless terminals to connect cables to the terminal block. Solderless terminals may come in contact with the circuit board and cause malfunctions or damage the controller cover.

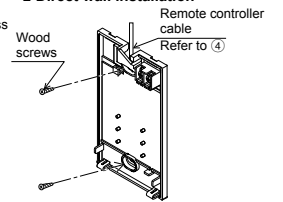
#### ⑤ Install the bottom case.

Be sure to secure two places of the bottom case.

##### ■ Installation using a switch box



##### ■ Direct wall installation

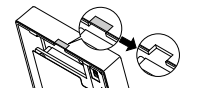


##### Note:

- To avoid deformation and damage to the bottom case, do not overtighten the screws.
- To avoid damage to the bottom case, do not make holes in it.

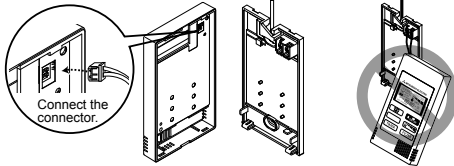
#### ⑥ Cut out the cable access hole.

- Direct wall installation (when running the cable along the wall)
  - Cut out the thin-wall part on the cover (the shaded area in the right figure) with a knife or a nipper.
  - Thread the cable from the groove behind the bottom case through this access hole.



**7 Connect the connector to the top case.**

Connect the connector on the bottom case to the socket on the top case.



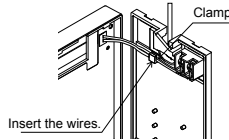
**Note:**

- To prevent malfunctions, do not remove the protective sheet or the circuit board from the top case.
- To prevent cable breakage and malfunctions, do not hang the top controller casing hang by the cable as shown in the figure above.

**8 Insert the wires into the clamp.**

**Note:**

- Hold the wires in place with the clamp to prevent undue force from being applied to the terminal block and causing cable breakage.



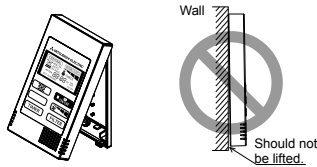
**9 Install the top case on the bottom case.**

Two mounting tabs are at the top of the top case.

Hook those two tabs onto the bottom case, and click the top case into place. Check that the case is securely installed and not lifted.

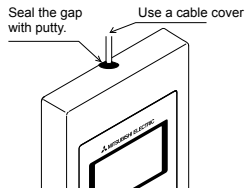
**Note:**

- When attaching the top case to the bottom case, push it until it they click into place. If they are not properly locked into place, they may fall, causing injury, controller damage, or malfunctions.



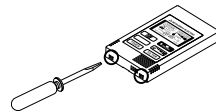
■ Direct wall installation (when running the cable along the wall)

- Thread the cable through the access hole at the top of the remote controller.
- Seal the cut-out part of the cover with putty.
- Use a cable cover.



**- Uninstalling the top case**

Insert a flat-tip screwdriver with a blade width of 3-5 mm (1/8-7/32 inch) into the latches at the bottom of the remote controller and lift the latches. Then, pull up the top case.



**Note:**

- To prevent damage to the controller case, do not force the flat-tip screwdriver to turn with its tip inserted in the slot.
- Do not insert the flat-tip screwdriver too far. Doing so will damage the circuit board.

**5 Trial operation**

**After installation has been completed, it is of the utmost importance that trial operation of the Lossnay unit and any external devices such as air conditioners is carried out.**

When power is supplied to the remote controller, the [HO] display will blink (for approximately 45 seconds); following this, the system will switch to operation-start mode.

When the back light is off, the first pressing any button (except "ON/OFF" button) will not activate but make the back light on.

Relevant button	Relevant display items	Sequence
1		Initiate the supply of power to the Lossnay unit. (The [HO] display will blink for approximately 45 seconds)
2		Press the "ON/OFF" button and check that the operation lamp turns on.
3		Press the "Ventilation mode" button: Each time it is pressed, the corresponding display will change in accordance with the sequence [HEAT EX.] (non-automatic) --> [BY-PASS] (non-automatic) --> [AUTO]. If [AUTO] is selected, the display will change to indicate the current mode after three seconds have passed.
4		Press the "Fan Speed" button to select either Low or High fan speed.
5		Press the "ON/OFF" button. (and check the operation lamp turns off.)

- Note that when the "Ventilation mode" button is pressed, it will take up to 40 seconds before the operation of the damper changes accordingly.

**If an inspection number should blink, refer to the following table and take the required action.**

Inspection number	Cause	Required action
0900	The SW2-1 (trial operation switch) of the Lossnay PCB is ON.	Please turn off the trial operation switch.
3602	Breakdown of the Lossnay damper motor.	Please turn off the power supply and then contact your dealer or installer.
4116	Breakdown of the Lossnay PCB. Breakdown of the Lossnay motor.	
4120	Non-applicable power supply voltage.	Please check if the power supply voltage is correct and then contact your dealer or installer.
5101	Breakdown of the Lossnay thermistor (OA side).	Please turn off the power supply and then contact your dealer or installer.
5102	Breakdown of the Lossnay thermistor (RA side).	
6801	The power to the Lossnay is supplied before connecting the remote controller to the Lossnay PCB.	Please turn off the power supply and then turn on again.
	More than two Lossnay units are connected and the Main/Sub setting was not done.	Please turn off the power supply and then set the Main/Sub. Refer to the Lossnay Installation manual for more details.
	Two remote controllers are connected and the connection cable of one remote controller was disconnected. (one remote controller can not be used)	Please turn off the power supply, re-connect the cable and then turn on again.
	Multi-conductor cable is used for the connection cable.	Please use the two-core sheathed cable. Refer to 3(1) of this manual.
-	The other inspection number is blink.	Please turn off the power supply and then contact your dealer or installer.