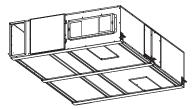




Lossnay Energy Recovery Ventilator MODELS: LGH-160RVXT3-E LGH-200RVXT3-E LGH-250RVXT3-E

Installation Instructions



For use by dealer/contractor

Contents

1. Safety precautions	2
2. Outline drawings	5
3. Before installation	5
4. Standard installation examples	6
5. Installation method	
5.1 Installing the Lossnay unit	7
5.2 Electrical installation	
6. Function settings	
7. Check points after installation work	
8. Trial operation	
8.1 Trial operation using the remote controller (PZ-62DR series)	
8.2 Lossnay trial operation	
8.3 Lossnay trial operation in a whole system	
8.4 If trouble occurs during trial operation	
3	

This product needs to be installed properly in order to ensure maximum functionality as well as safety.
Please make sure to read this installation manual before starting the installation.
Installation must be performed by a dealer or installation contractor. Please note that improper installation may cause malfunction or accident.

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"Operating Instructions" and this manual must be handed over to the customer after completing the installation.

1. Safety precautions

The following signs indicate that death or serious injury may be caused by failure to heed the precautions described below.

<u>∧</u> w	ARNING	Incorrect handling could cause serious injury or death.											
Do not disassemble	Do not modify or disasse It could cause fire, electric												
Prohibition of use in bath or shower room	The Lossnay unit and rep place. It could cause electric show	mote controller should not be installed where it is highly humid, like a bathroom, or other wet ck or power leakage.											
Connect the grounding wire.	Connect the product properly to ground. Malfunctioning or power leaks can cause electrical shock.												
	Follow the laws and regulations of each country for electrical wiring. It could cause fire, electric shock or injury.												
	Use of incorrect power supply or voltage could cause fire or electric shock.												
	Select a place with sufficient strength and install the main unit securely. It could cause injury or death.												
	Wiring work must be performed by qualified professionals, and be implemented safely and securely in accordance with appropriate standards and regulations. Poor connection or improper wiring work could cause electric shock or fire.												
D The instructions given must be	Make sure to install an all-pole electric leakage isolator securely. All supply circuits must be disconnected before obtaining access to the terminal devices. Use the specified cable size and connect the cables securely to prevent disconnection when they are pulled.												
followed.	combustion gas, or othe	e for the opening to introduce outdoor air, where it will not intake the exhaust fumes like rs, and there is no risk of blockage. put the room in a state of oxygen deficiency.											
	A duct made of steel mus or others. It could cause fire when po	st be installed with care not to be connected electrically with metal, wire, stainless steel plate, ower leakage occurs.											
	It is prohibited to use the It could cause fire, electric	e unit where salt, sulphur, chlorine or hot spring steam damage is expected. shock or injury.											
	Do not touch the product It could cause electric show	t for at least 5 minutes after the power is shut off. ck.											
	Upside-down installation It could cause injury or ma	and vertical installation are prohibited. Ifunction.											

	Do not place a burning appliance in a place where it is exposed directly to the air from the Lossnay unit. It could cause an accident as a result of incomplete combustion.										
	Do not use at a place where it is exposed to high temperatures (40°C or higher), naked flames, or in environment with combustible fumes.										
\bigcirc	When using the product where it is exposed to high temperatures and humidity (40°C or higher, RH 80% or higher), or where fog occurs frequently, moisture is likely to condense in the core, and may result in condensation build up in t unit. The product should not be used under such conditions.										
Prohibited	Do not use in an environment such as a chemical factory, where hazardous gases such as acidic gases, alkaline gas organic solvent fumes, paint fumes, or gases containing corrosive components are generated. It could cause malfunction.										
	Do not install this product in a place where it is exposed to ultraviolet light. UV may damage covering insulation.										
	Avoid to install air inlets and outlets where insects are likely to gather like a place near interior or exterior lights. In the case, choose hoods have repellent net. It could cause intrusion of small insects.										
	Do not put strong shock on the product. It could cause malfunction.										
	Put on gloves during installation. It could cause injury.										
	Make sure the power supply isolator is turned off when Lossnay is not used for a long period of time after the installation.										
	It could cause electric shock, power leakage, or fire as a result of deteriorated insulation. Always use the specified suspension bolts, nuts and washers or correctly rated wire / chain hangers.										
	Use of hardware with insufficient strength could result in the product dropping.										
	Install weather louver or "Weather cover" for OA inlet & EA outlet to prevent rainwater from entering the Lossnay un Ducts to outdoor (OA and EA) shall decline by 1/30 or more downward to outdoor. They shall be longer than 3 m and properly insulated. The entry of rain water may cause power leakage, fire, or damage to household property.										
	The control box cover must be closed after the installation.										
	Dust or humidity may cause power leakage or fire.										
	When connecting external devices (electric heater, damper, lamp, monitoring unit, etc.) using output signals of the Lossnay unit, make sure to install safety equipment for the external devices. It could cause fire, damage, etc. without safety equipment.										
	Select a duct heater in compliance with local and national laws, ordinances, and standards. Select a duct heater that meets adequate standard in each country.										
The instructions	Install the duct heater separated from the product by a distance of 2 m or more. Failure to do so may result in fire or equipment damage due to the transmission of residual heat from the heater.										
given must be followed.	In cold area or strong wind area, outdoor air may enter the unit because of the pressure difference or external wind even when the unit stops. It is recommended to install an electrically operated damper to block outdoor air in such cases.										
	In cold weather areas, even if they are within the range of operating conditions, dewing or freezing could occur on the main unit, where the duct is connected, or other sections, depending on the conditions of outdoor air and indoor temperature and moisture. Make sure to check the operating conditions and other precautions, and do not use the product if dewing or freezing is anticipated.										
	Do not connect the field supply fan to the product so that the air volume exceeds the maximum air volume of Lossnay's P-Q curve. It may not work properly.										
	Other than EU countries: This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.										
	EU countries: This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concernin- use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.										

Bypass operation

RVXT3 series does not have bypass damper.

Bypass operation of RVXT3 is realized by only one fan motor operation from 2 fan motors in supply and exhaust path.

Air path to 2 fan motors in each supply and exhaust are separated physically after the heat exchange core.

This structure contribute that one fan motor operation in each supply and exhaust path makes less-energy recovery operation possible.

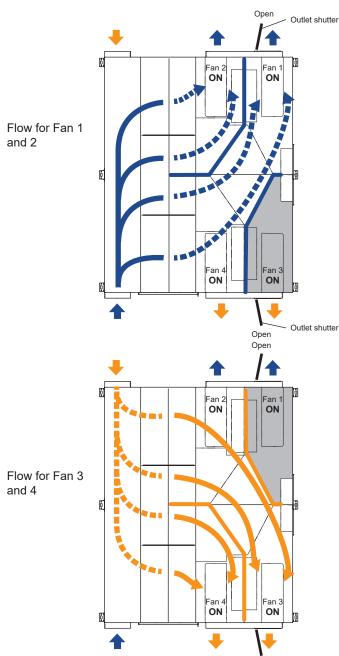
In bypass mode, the maximum air flow is 70 % of energy recovery mode. So as in Night purge function also.

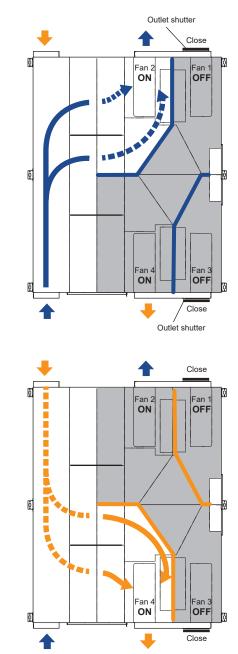
Note:

- When RVXT3 operates air flow 75 % or more, RVXT3 moves into energy recovery mode and stops bypass monitor output even bypass condition is satisfied at bypass mode.
- The display on the remote controller keeps bypass mode.
- In bypass mode, the fan with outlet shutter operate trickly from 60 % to 70 % air flow. If it is necessary to stop that operation, it is
 possible to change the maximum air flow for bypass mode in Function setting No. 35 of PZ-62DR series.

Energy recovery operation (Lossnay mode)

Bypass operation (bypass mode)

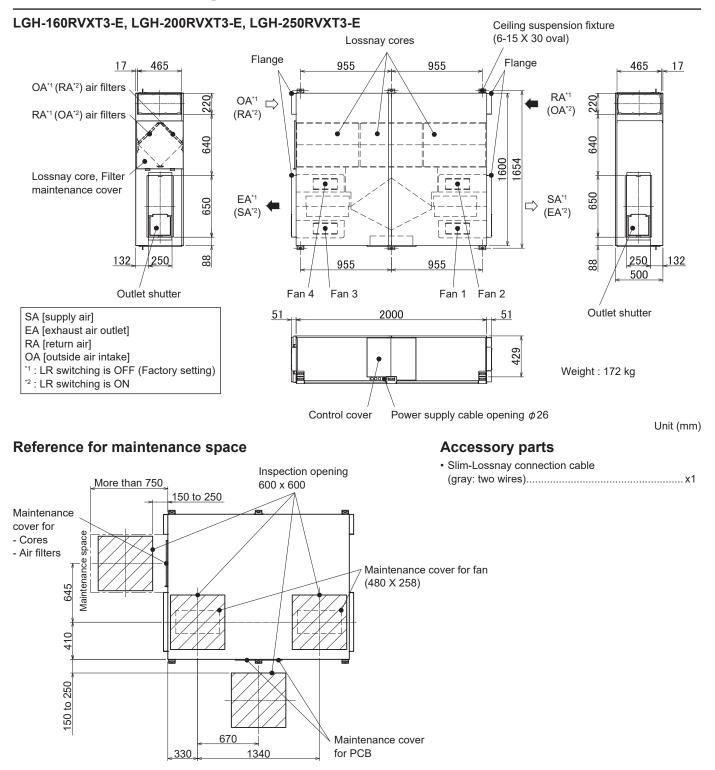




- Outlet shutter is necessary to shut out the backward flow during bypass operation.
- Leave the carton cover for the outlet flange until just before connecting duct in order not to damage on the shutter.
- Even if using screws to fix the flange and duct, take care the screws not to interfere the shutter.

Open

2. Outline drawings



3. Before installation

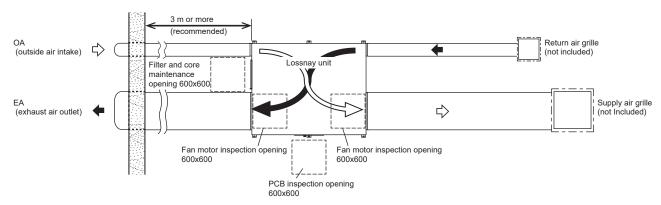
- Shutter cover cartons should be removed just before connecting duct. If the shutter move freely, it could be damaged during the installation.
- If carrying the product into the building is difficult due to the product's size, it is possible to stand the product up like the picture below.



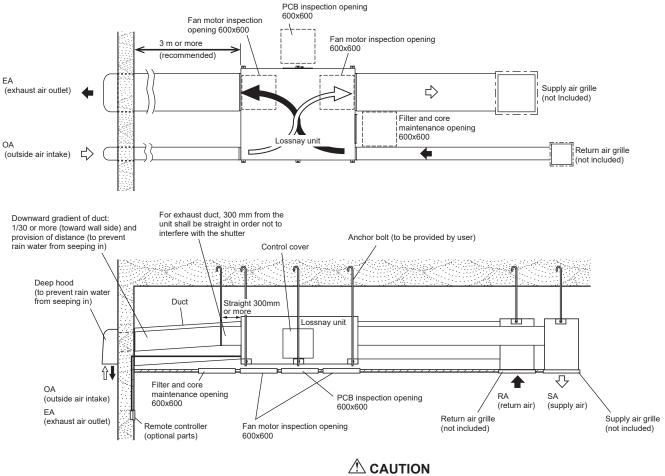
- Before standing the product up, remove the Lossnay cores and filters (See page 5 of the operating instructions.)
- Deep caution is necessary during the carry.
- Vertical installation is prohibited.
- Do not hold flanges during the carrying.
- Do not remove shutter cover cardboards while carrying.

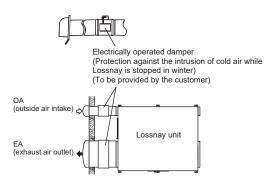
4. Standard installation examples

LR switching is OFF (Factory setting)









· In a region where there is risk of freezing in winter, it is recommended to install an Electrically operated damper, or the like, in order to prevent the intrusion of (cold) outdoor air while Lossnay is stopped.

- · Do not install Lossnay unit vertically or on an incline. It shall be leveled with in ± 0.5°.
- Do not install Lossnay unit up-side-down.
- · When RA comes from a space which have strong odor like aromatic or detergent in wash room or shower room, the SA location is recommended not to arrange directly over the human living space.
- · Ducts should be fixed individually in accordance with the necessity so that their weight will not be applied to the Lossnay unit.
- · In the case any of them is not observed, water leakage happens from the unit.
- · The surrounding air condition of the unit shall be between 0 and 40°C, and the dew point of the ambient air shall be lower than 11°C in winter (e.g. 20°C 56%RH or less).
- · When fake ceiling is close to the unit, the maintenance opening for filter and core has to be well considered in order not to interfere the frame of the grid ceiling with core or filter.

5. Installation method

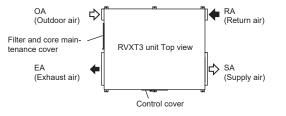
5.1 Installing the Lossnay unit

5.1.1 Determination of air path

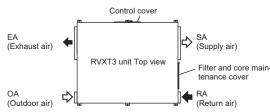
RVXT3 series have LR switching function which can change air path according to the structure of other equipment around the unit. Firstly decide to use or not to use this function and write down the check box on the maintenance cover name plate.

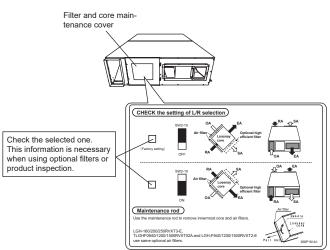
- If this setting is incorrect, the air path becomes reverse. It may cause condensation or malfunction.
- In order to LR switching enabled, set dip SW2-10 as ON (Refer to I) on the page 23 for detail).
- After installation finished, check the setting is correct along with the intention by trial operation.

LR switching is OFF (Factory setting)



LR switching is ON

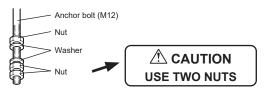




* The drawing may be different from this picture.

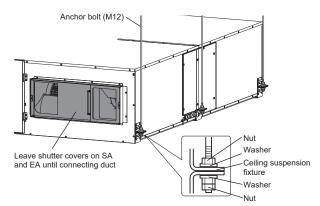
5.1.2 Preparing the anchor bolts (M12)

Mount the washers (outer diameter of >24 mm) and nuts onto the prerecessed anchor bolts (M12), as shown in the figure below.



5.1.3 Mounting Lossnay unit

- (1) Hang the ceiling suspension fixtures on the anchor bolts and adjust in such a way that Lossnay unit is leveled with in ± 0.5°.
- (2) Tighten up securely using double nuts.



 Install the anchor bolts to ensure the product's weight or earthquake load. (Correctly rated wire/chain may also be used)

• The unit shall be leveled with in ± 0.5°.

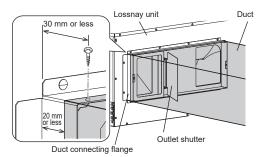
5.1.4 Connecting the ducts

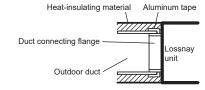
(1) Remove shutter covers of outlets.

- (2) Fasten the duct securely to the duct connecting flange, and wrap aluminum tape (field supply) around the joints so that there is no air leakage.
- (3) Suspend the ducts from the ceiling so that their weight will not be applied to the Lossnay unit.
- (4) The two outdoor ducts must be covered with heat-insulating material in order to prevent condensation from forming.

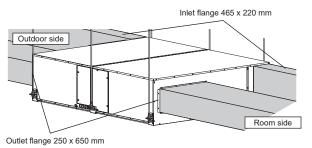
- When using screws to fix the duct and flange, make sure to place the screw within 30 mm from the unit. The gap between the tip of duct and the bottom of flange shall be 20 mm or less. Otherwise, the screw may interfere the shutter operation.
- Do not bend, shrink or convert duct shape during 300 mm from the tip of flange.

Otherwise it could interfere shutter operation.





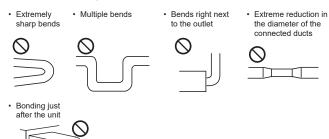
* This picture shows the air path of factory setting. In case LR switching is enabled, the path becomes opposite.



• When on-site commissioning is planned, a straight duct length more than 10xD (D=duct diameter or equivalent) from the source of turbulence like bends, contractions and dampers etc, to the measurement point is recommended for correct measurement.

In the United Kingdam, on-site measurement should therefore be measured in accordance with BSRIA guideline (Commissioning Air System. Application procedures for buildings AG3/89.3(2001))

- Before attaching the ducts, check that no (debris or any other) foreign matter (scraps of paper, vinyl, etc.) has found its way inside the ducts.
- Do not touch the shutter on the flange when connecting the ducts.
- If it is expected that the ambient temperature around the place where the Lossnay unit is installed will be high during the summer air conditioning season, it is recommended that the indoor duct work be covered with insulation material.
- Do not carry out the following types of duct construction. (Doing so could cause a drop in the air volume and generate abnormal noises.)



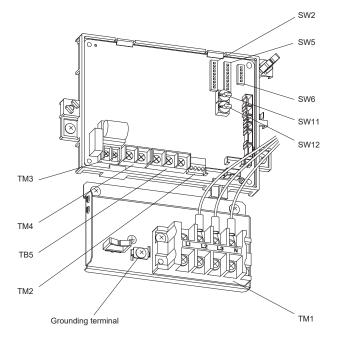
5.2 Electrical installation

With this product, the wiring installation method will vary according to the design of the system.

Perform electrical installation to meet local electrical regulations.

- * Always use double insulated cable for the transmission cables.
- * Wiring work must be performed by qualified professionals.
- * All supply circuits is disconnected and all LED on the circuit board shall be lit off, before accessing to the terminal devices.
- * This appliance incorporates an earth connection for functional purposes.

5.2.1 Names of components in control box



• Do not pull out preconnected connectors unnecessarily during installation.

5.2.2 Wire connection diagram

* TM1, TM2, TM3, TM4, TB5 shown in dotted lines are field work.

- * Be sure to connect the ground wire.
- * A power supply isolator must be installed.

* Always use an isolator for the main switch power connection.

* Select proper circuit breaker according to the electrical current information in the chart below.

* Do not disconnect connectors while power supplied.

Maximum current (A) (380-415V 3N~ 50Hz / 380 3N~ 60Hz)	L1	L2	L3	Ν
LGH-160RVXT3-E	0	2.2-2.0 / 2.2	2.2-2.0 / 2.2	2.9-2.8 / 2.8
LGH-200RVXT3-E	0	3.0-2.8 / 3.0	3.0-2.8 / 3.0	3.9-3.7 / 3.7
LGH-250RVXT3-E	0	4.2-3.8 / 4.2	4.2-3.8 / 4.2	5.0-4.8 / 4.8
Maximum input (W) (380-415V 3N~ 50Hz / 380 3N~ 60Hz)	L1-N	L2-N	L3-N	
LGH-160RVXT3-E	0	370-360 / 370	370-360 / 370	
LGH-200RVXT3-E	0	530-520 / 530	530-520 / 530	
LGH-250RVXT3-E	0	740-730 / 750	740-730 / 750	

Even the power supply for these models is three phase 4 wire, actual usage is two of single phase. Note the following;

- Electric current exist even for neutral.
- There is no load between L1 and neutral.

- The load of each phase is unbalanced. If it affects any problem to the load of whole building, consider to rotate the power supply phase to the unit.

• Make sure to connect Neutral.

• Do not connect power cables L1, L2 or L3 to N on the TM1.

• Mis-wiring causes the damage to the circuit board.

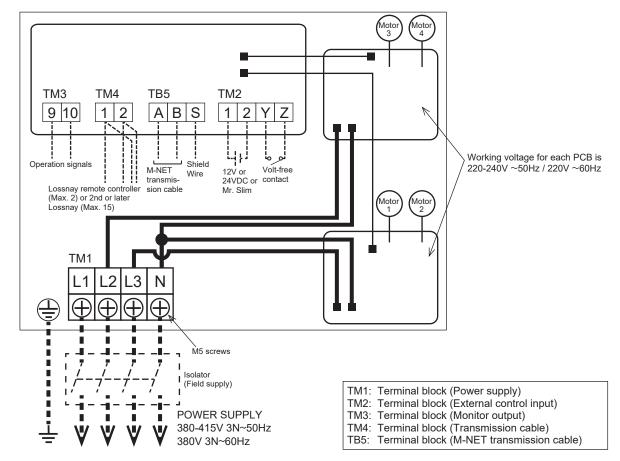
• Use same mm² / AWG with L1, L2 and L3 for Neutral. Otherwise it may cause fire.

* Make sure that the current leakage breaker is one compatible with higher harmonics.

* Always use a current leakage breaker that is compatible with higher harmonics as this unit is equipped with an inverter.

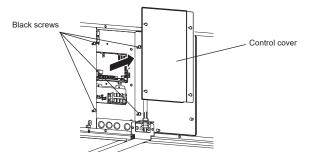
* The use of an inadequate breaker can cause the incorrect operation of inverter.

* After installation, be sure to confirm the unit supplies the air flow correctly by trial operation to avoid mis wiring. Please see **8. Trial operation** for more detail.

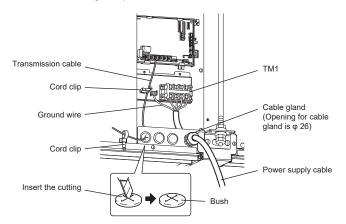


5.2.3 Connecting the power supply cable

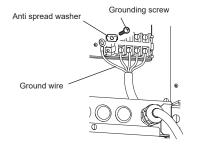
- (1) Loosen the black screws.
- Control cover can remove without removing screws.



- (2) Connecting the power supply cable and transmission cable.
 - Pass the Power supply cable through the bush* and connect to the TM1 terminal block using the round terminals. Screw size of TM1 is M5. Connect the ground wire to the ground terminal and secure tightening the bush. (* Use an item that can firmly secure the cable such as a cable gland.)



Be sure to tighten the ground wire to the grounding screw using the round terminals with anti spread washer.



- Always separate the power supply cable and transmission cable by 5 cm (2") or more to prevent malfunctioning of the unit.
- If the length of the stripped Power supply cable is too long, the conductors may touch and short out.
- Power supply cable size : 1.0 mm² or more.
- Power supply cable into the control box must be U trapped appropriately.
- (1) Tighten the ground wire and transmission cables to the terminal block.
- (2) Secure the transmission cables using the cord clips.
- Upon completion of the wiring connections, replace the control box cover.
- When using optional signal output terminal (PZ-4GS-E), please follow the install manual of it for the electrical installation as well.

The following system configuration can be created. Connect the necessary parts.

- 1 When connecting with remote controller (PZ-62DR series)
- 2 When interlocked with indoor unit of air conditioner or other external device including other manufactures
- 3 When operating multiple Lossnay units
- 4 Signal output from Lossnay unit
- 5 When switching fan speed externally (when a sensor or other equipment is connected)
- 6 When switching Bypass externally
- **7** To change fan speed by 0 10 VDC input
- ⁸When using the remote/local switching and the ON/OFF input (level signal)
- 9 When connecting to the City Multi, Mitsubishi Electric Air-Conditioner Network System (MELANS)
- 10 To start/stop Lossnay stand-alone operation without using the remote control
- 11 Control via Wi-Fi interface or MELCOBEMS MINI
- 2 When connecting CO2 sensor PZ-70CSD-E or PZ-70CSW-E
- 13 Leader-follower function

A CAUTION

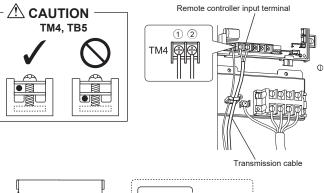
- · When connecting external devices (electric heater, damper, lamp, monitoring unit, etc.) using output signals of the Lossnay unit, be sure to install safety equipment for the external devices.
- (It could cause fire, damage, etc. without safety equipment.)
- · Seal the opening between the bushing and the cables in order not to intrude insects.
- · Except SW2-1, before DIP-SW setting is changed, always the power supply to Lossnay unit has to be cutoff. Otherwise, it may cause electrical shock, injury or non-reflection of the change.

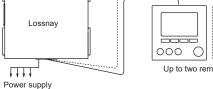
1 When connecting with remote controller (PZ-62DR series)

- * When controlling Lossnay units with MELANS, connect wires according to 9
- Securely connect the transmission cable from the remote controller to (1) and (2) of the input terminal block (TM4). (No polarity)
- Wire type: two-core sheathed cable
- Wire diameter: 0.3 mm²
- If there are two remote controllers, connect them in the same way.
- · Keep the overall length of the transmission cable between Lossnay and the remote controller within 200 m.

Note

- Do not tighten screws of terminal block TM4 and TB5 with a torque larger than 1.2 N·m. It could damage the circuit board.
- Take care not to connect the power supply cable or M-NET transmission cable.
- · When connecting multiple cables to the terminal, use round terminal.
- · Solid wire (single-stranded wire) cannot be connected.
- PZ-61DR-E is not available.





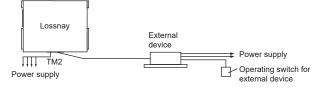
Up to two remote controllers

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- The connection may vary according to the output signal type of the external unit.
- Do not press the terminal with a force of more than 19.6 N when connecting the cable to TM2.

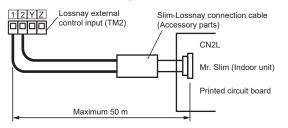


When using Mitsubishi Mr. Slim air conditioner with MA Remote controller

Confirm that the pulse input switch (SW2-2) is set to "OFF". (Factory setting is "OFF".) (Refer to function settings No. 23)

Connect the Slim-Lossnay connection cable connector side to CN2L on the circuit board for the Mr. Slim indoor unit, then connect the lead wire side to the 1 and 2 of the input terminal block (TM2) for the Lossnay external controller input. (No polarity)

- Always separate the power supply cable and the Slim-Lossnay connection cable by 5 cm or more to prevent the unit from malfunctioning.
- The Slim-Lossnay connection cable is 100 mm long. When wiring, extend it as far as necessary.



Note

- Use MA remote controller of Mr. Slim for switching Lossnay ON/ OFF or the fan speed.
- The ventilation mode is fixed to "automatic ventilation" from MA remote controller.
- Ensure that all connections are secure and that the appropriate insulation is provided.

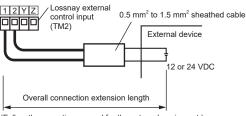
Use extension cable sheathed cable or cable from 0.5 \mbox{mm}^2 to 1.5 $\mbox{mm}^2.$

- Only one Lossnay and one Mr. Slim unit can be interlocked. Multiple units interlock is not possible.
- Lossnay can not be connected M-NET in this case.

[SW2-2] setting vary depending on the types of output signal of external device.

When the external device has a charged operating signal of 12 VDC or 24 VDC

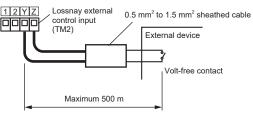
- If the input is pulse signal, move the pulse input switch [SW2-2] to the ON position. (Refer to function settings No. 28)
- When level signal is selected, the signal width has to be more than 10 seconds for ON and OFF .
- When pulse signal is selected, a pulse width has to be at least 200 m sec. to turn Lossnay ON, and 10 sec. interval is necessary to next output.
- The wiring should be as shown by the following picture.



(Follow the operation manual for the external equipment.)

When the external device has an Volt-free contact signal

- If the input is pulse signal, move the pulse input switch [SW2-2] to the ON position. (Refer to function settings No. 28))
- When level signal is selected, the signal width has to be more than 10 seconds for ON and OFF.
- When pulse signal is selected, a pulse width has to be at least 200 m sec. to turn Lossnay ON, and 10 sec. interval is necessary to next output.
- · The wiring should be as shown by the following picture.



• If an optocoupler or any other type of polar coupler is used at the Volt-free contact, connect the positive side to \boxed{Y} and the negative side to \boxed{Z} .

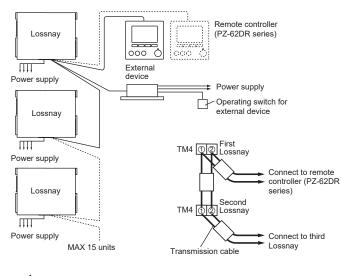
3 When operating multiple Lossnay units

In the case that Lossnay units are RVS, RVX3, RVXT3 series with PZ-62DR series, up to 15 multiple units can be operated at the same time.

(1) Connect the Lossnay unit from Unit 1 to Unit 2, and from Unit 2 to Unit 3 and so on up to a maximum of 15 units using a transmission cable.

Wire type: two-core sheathed cable

- Wire diameter: 0.3 mm²
- (2) When it is interlocked with an external device, set the Lossnay unit which has external signal input to "Main".





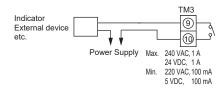
Note

- Do not tighten screws of terminal block TM4 and TB5 with a torque larger than 1.2 N·m. It could damage the circuit board.
- When connecting multiple cables to the terminal, use round terminal.
- Solid wire (single-stranded wire) cannot be connected.
- Only one unit can be set as main Lossnay. The operating signal and pulse signal of the external device can be connected to Main Lossnay only.
- · Connect the power supply cable to each Lossnay unit.
- When setting the Lossnay address for use with a Mitsubishi Electric Air-Conditioner Network System (MELANS) etc., the Lossnay with the smallest address in the group will be the Main Lossnay. When not setting the address, set the address to "1" for only one unit in the group. The Lossnay with an address of "1" is the Main Lossnay. (Refer to "Setting the address" on the section 6 for more detail.)
- When multiple type of Lossnay units are in the group, RVS series can NOT be the main unit.
- Without PZ-62DR series, RVS, RVX3 and RVXT3 series can not be mixed in a group.

4 Signal output from Lossnay unit

Set DIP-SW or Function setting on PZ-62DR series as following table depending on the necessary output signal from Lossnay unit. For more information of signal output, see function settings No. 12 to No. 16.

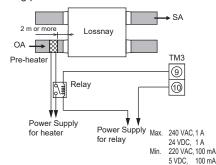
DIP-SW	/ setting	Function	setting on						
SW5-1	SW5-2		R series	Signal output					
-	-		0	Dip-SW priority (PZ-62DR series factory setting)					
OFF	OFF		1	Operation monitor (Dip-SW factory setting)					
ON	OFF		2	Malfunction monitor					
OFF	ON	12	3	Bypass monitor					
ON	ON		4	Supply fan operation monitor					
N/A	N/A		5 Exhaust fan operation monitor						
N/A	N/A		6	Pre-heater signal output					
N/A	N/A		7	After-heater signal output					



 Do not tighten screws of terminal block TM3 with a torque larger than 0.5 N·m. It could damage the circuit board.

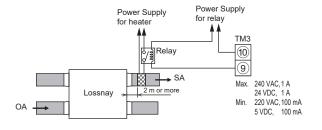
When connecting multiple cables to the terminal, use round terminal.
If multiple output signals are necessary, use optional signal output terminal (PZ-4GS-E).

When using Pre-heater output signal, the wiring should be as shown by the following picture.



- Failure to follow below instructions, it could cause a fire.
- Choose a OA pre-heater which can control the heater outlet air temperature even both the air flow is maximum and minimum. Otherwise it could fall the supply fan into intermittent operation.
- Select a duct heater in compliance with local and national laws, ordinance and standards.
- Always select a heater that is equipped with a non-self-resetting safety device.
- Do not directly supply power from the Lossnay unit to the duct heater. Doing so could cause fire.
- Install a circuit breaker for the duct heater in compliance with all applicable laws, ordinances, and standards.
- Install the duct heater separated from the product by a distance of 2 m or more.
- Failure to do so may result in equipment damage due to the transmission of residual heat from the heater.
- Ensure that the duct heater and Lossnay are wired and that the Lossnay function settings have been configured, and then always check operation by trial operation.
- For the duct heater output, see function setting No. 60 and No. 61

When using After-heater output signal, the wiring should be as shown by the following picture.



For the heater, observe the cautions listed in Pre-heater.

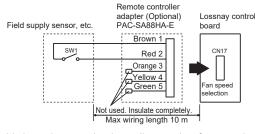
When switching fan speed externally 5 (when a sensor or other equipment is connected)

Using a field supply sensor, etc., make connection by inserting the optional remote controller adapter (PAC-SA88HA-E) in the connector CN17 as shown by the figure.

Lossnay will operate at the fan speed following the table below, regardless of the remote controller setting.

0	
CN17	Fan speed
1-2 (Brown-Red)	4
1-3 (Brown-Orange)	3
1-4 (Brown-Yellow)	2
1-5 (Brown-Green)	1

Example "Fan speed 4"



Use this in such a way that it ventilates at low fan speed normally, and when the external sensor detects contamination of indoor air, or SW1 is on, it changes to high fan speed operation.

When multiple Lossnay units are controlled by one input, PZ-62DR series is necessary.

The signal has to be inputted into main unit referring to 3.

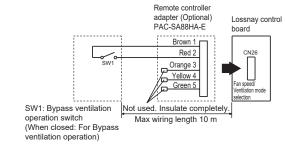
Cannot be used in conjunction with the following functions:

- To change fan speed by 0 - 10 VDC input. - Connecting CO2 sensor PZ-70CSD-E or PZ-70CSW-E.



When switching Bypass externally.

Establish the wire connection by inserting the optional remote controller adapter (PAC-SA88HA-E) in the connector CN26.

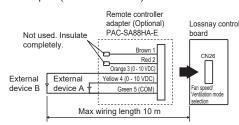


With SW1 is "ON", the ventilation mode of Lossnay is changed to the Bypass ventilation regardless of the setting on the remote controller. When multiple Lossnay units are controlled by one input, PZ-62DR series is necessary.

- The signal has to be inputted into main unit referring to 3.
- When the outdoor air temperature drops lower than 8°C or air flow is 75 % or higher, it changes to the energy recovery ventilation. (In this case, ventilation mode icon on the display of the remote controller does not change from the previous mode, it might be different from the actual unit operation.)

To change fan speed by 0 - 10 VDC input

Establish the wire connection by inserting the optional remote controller adapter (PAC-SA88HA-E) in the connector CN26.



- External device A : 3rd party CO₂ sensor / BMS / 3rd party pressure sensor (for return air constant pressure control)
- External device B : 3rd party pressure sensor (for supply air constant pressure control) / 3rd party PM2.5 sensor (CN105 communication only)

To change fan speed by 0 - 10 VDC input, the wiring should be as shown by the above picture. Refer to function settings No. 66 for more details.

When multiple Lossnay units are controlled by one input, PZ-62DR series is necessary.

The signal has to be inputed into main unit referring to 3.

Cannot be used in conjunction with the following functions:

- Switching fan speed externally (CN17).

🗥 WARNING

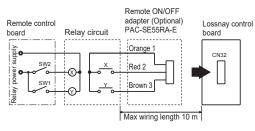
 0-10 VDC input from the external device to use CN26 shall be insulated from main power supply like 220-240 V.
 Otherwise it could cause electrical shock or death.

- Make sure of correct polarity.
- Do not apply voltages higher than 10 VDC.

8 When using the remote/local switching and the ON/OFF input (level signal)

Insert the optional remote ON/OFF adapter (PAC-SE55RA-E) in CN32 on the Lossnay control circuit board.

When multiple Lossnay units are controlled by one input, the signal has to be inputed into main unit referring to **S**.



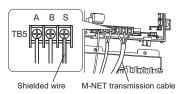
- SW1: When this is ON, Lossnay cannot be turned ON/OFF by the Remote Controller (PZ-62DR series).
- SW2: When SW1 is ON, Lossnay can be turned ON by setting SW2 at ON or turned OFF by setting SW2 at OFF.
- SW1: Remote/local selector switch

SW2: ON/OFF switch

X, Y: Relay (Contact rated load: 0.1 A at 15 VDC or more, Minimum applicable load: 1 mA or less)

9 When connecting to the City Multi, Mitsubishi Electric Air-Conditioner Network System (MELANS)





 Connect a shielded wire to terminal TB5 (S) on the circuit board. Address setting is required. (Refer to function setting section.)
 M-NET transmission cable: Connect any of the City Multi indoor unit, or Mitsubishi Electric

indoor unit, or Mitsubishi Electric Air-Conditioner Network System (MELANS) - to the Lossnay.

Remote Controller

PZ-62DR series:

Connect to TM4 ①, ② on the circuit board. (See Section 1 "When connecting with remote controller (PZ-62DR series)".)

 Securely connect the M-NET transmission cables to TB5 (A)(B). (No-Polar)

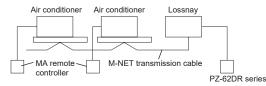
Type: Shielded wire (CVVS/CPEVS)

Wire diameter: 1.25 mm²

- Do not tighten screws on the terminal block with a torque larger than 1.2 N·m. It may damage the circuit board.
- Always use shielded wires only for the M-NET transmission cables, and finish the shield properly.
- Be sure to cut M-NET power supply during Lossnay wiring, otherwise it causes malfunction.

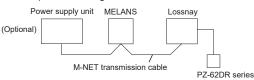
When interlocking with Mitsubishi M-NET air conditioner

• In case of PZ-62DR series



When connecting to PZ-62DR series and MELANS

Connect the power feeding unit.



* Limit the total length of transmission cables no longer than 500 m. Limit the wiring length between Lossnay and the power supply unit (Optional) or the outdoor unit no longer than 200 m.

Note

 LGH-RVX3-E series, RVS-E series, RVXT3-E series can be set as the same group in case with PZ-62DR series. Other model are not possible. **10** To start/stop Lossnay stand-alone operation without using the remote control

•

TM2	Lossnay external control input
	Switch لمو

Start/stop the unit by a switch connected to TM2 $\forall Z$. When turned the unit ON, it operates at fan speed 4 and automatic ventilation mode without any other external input.

• Do not start/stop the unit by turning the power supply to the unit ON/OFF.

:

•

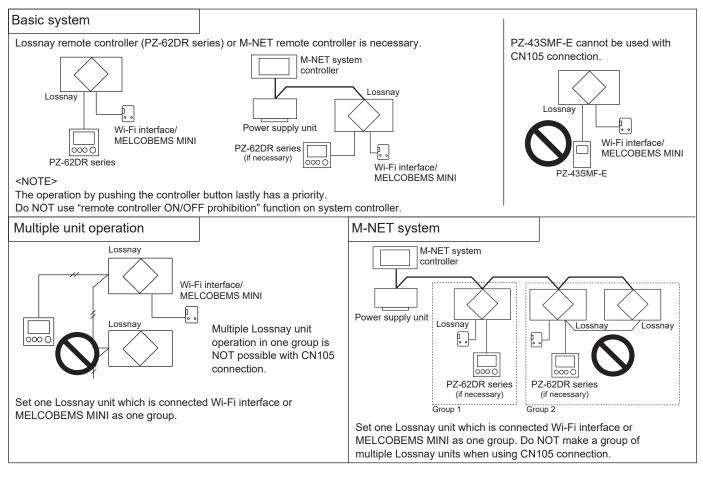
11 Control via Wi-Fi interface or MELCOBEMS MINI

Connect the lead wire of a Wi-Fi interface or MELCOBEMS MINI to CN105 on circuit board of Lossnay unit.

Regarding the model name of the connectable Wi-Fi interface or MELCOBEMS MINI, please contact the sales company in your market.

- 1. For the installation of the Wi-Fi interface, there are some precautions. Refer to the Installation manual of the Wi-Fi interface for more details.
- 2. After the installation, be sure to do a test run prior to the start of actual operations.

3. Follow the system configuration examples listed below.



System controller	Prohibit remote controller	Do NOT use "remote controller ON/OFF prohibition" function on system controller.							
External control	ON/OFF switching by CN32	NOT available with CN105 connection control.							
	External fan speed control (CN17, CN26)	The unit follows external input signal. Therefore, the fan speed selection through CN105 connection control become invalid.							
	External Bypass control (CN26)	The unit follows external input signal. Therefore, the ventilation mode selection though CN105 connection control become invalid.							
Interlocking	Interlock with Mr. Slim	Interlocking with Mr. Slim unit by Slim-Lossnay connection cable (CN2L-TM2①② connection) is NOT possible.							
	Interlock mode setting	Only "ON/OFF interlock mode" is available. Please set function No. 19 as 0 on PZ-62DR series (factory setting).							

12 When connecting CO2 sensor PZ-70CSD-E or PZ-70CSW-E

When CO2 sensor is connected, "Auto" fan speed can be selected.

In "Auto" mode, the fan speed changes automatically according to CO2 concentration.

Connect and install correctly by following the installation manual of PZ-70CSD-E or PZ-70CSW-E.

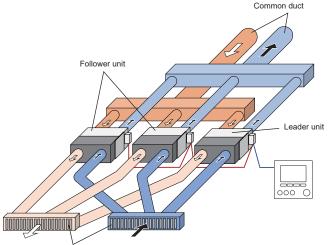
Note

- PZ-70CSB-E can not be installed in LGH-RVXT3-E series.
- LGH-RVXT3-E series can cover large space due to its large air flow. Therefore when CO₂ concentration is partial, the actual fan speed may not match the average concentration.
- When connecting PZ-70CSW-E or PZ-70CSD-E, shift the ferrite core on the cable 220 mm off from the original position to sensor unit side in order not to interface.

13 Leader-follower function

Follower units synchronize the fan operation, ventilation mode and protective operation to the leader unit.

This function is available when multiple Lossnay units are necessary to realize large air flow at common duct.



Common grille

* This picture shows an example other than RVXT series. Mind the ducting in case of RVXT series.

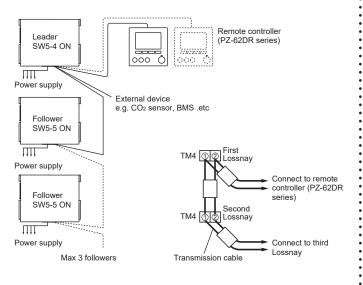
- (1) Connect leader, follower units and PZ-62DR series via TM4 with transmission cable.
 - Maximum 3 followers are allowed for one Leader.

Wire type: two-core sheathed cable

Wire diameter: 0.3 mm²

Keep the cable length between lossnay units within 10 m.

- (2) Turn leader unit DIP-SW5-4 "ON" and follower unis DIP-SW5-5 "ON"
- (3) When connecting to MELANS, only set the address for the leader and connect it to MELANS. Keep the address setting for the follower as "00". The follower cannot be connected to MELANS.
- (4) When connecting external devices which can control Lossnay or Lossnay output signal, always input to / output from the leader unit. (Only malfunction monitor output signal is available from follower units.)
- (5) For trial operation, DIP-SW2-1 of the leader shall be turned "ON". If SW for follower unit is turned "ON", the follower does not operate. When using this function, approximately 15 sec delay may occur to the start of trial operation.



Note

- Do not tighten screws of terminal block TM4 with a torque larger than 1.2 N·m.
- It could damage the circuit board.
- Use round terminal for multiple wires connection.
- Solid wire (single-stranded wire) cannot be connected.
- Connect the power supply cable to each Lossnay unit.

- Only same model can use this function. For example, not available between LGH-160RVXT3-E and LGH-200RVXT3-E, or LGH-200RVXT3-E and LGH-200RVX3-E.
- PZ-62DR series is mandatory to use this function. (PZ-43SMF-E cannot be used.)
- When using Leader-follower, the maximum number of Lossnay units that can be connected in one group is four (one Leader unit and three Follower units). It is not possible to mix Lossnay units that do not use Leader-follower within the same group.
- · Duct pressure loss of each unit shall be closer.
- Outdoor intake of all units has to be close. If there is a big temperature gap, it may cause core freezing or condensation.
- When one unit in a leader-follower group has an error, all units stop even other units are normal.
- Do not install pre-heater and after-heater for individual duct for each unit. Otherwise it could cause fire or malfunction.
- Connect all units in Leader-follower group to same circuit breaker.
- This function should be set while the power is NOT supplied to the unit.
- If setting is done during the unit is supplied the power, be sure to reboot the unit.
- Theoretically, when several fans which operate at same load are combined in parallel, air flow rate will be added up as many and static pressure will be unchanged from one fan operation.
 But, in the actual installation, due to by pressure loss at the junction point and asymmetry ducting of each unit etc. drift, vortex or turbulence flow will happens. Then, air flow specification of the total unit would be different from theory.
- If communication is lost between the leader unit and follower units due to transmission line disconnection or other issues, the leader unit will not be able to detect abnormalities in the follower units. Please use the malfunction monitor output of the follower units to monitor their status as needed.

6. Function settings

Address setting is required when connecting to City Multi and MELANS.

Setting the address

Use the following procedure when setting the address for dedicated Lossnay.

(The method in determining the addresses will depend on the existing system. Refer to the appropriate technical documents for details.)

(1) Remove the control cover.

- (2) Turn the address setting switch on the circuit board.
- SW12 indicates the tens digit and SW11 indicates the ones digit.
- The factory setting is "00".



* When the address number has been changed, the data in the memory is automatically reset. (All function setting data is initialized)

Changing the function selection switches (SW-2, 5 and 6)

Set the selection switches (SW-2 and 5) to perform the appropriate function.

* All function except "Trial operation (SW2-1)", "Auto fan speed setting (SW5-9) without Lossnay or M-NET remote controller", "Leaderfollwer function (SW5-4, SW5-5)" and "LR switching (SW2-10)" can be set also from the remote controller (PZ-62DR series). If the function is switched later using the remote controller, it operates according to the setting on the remote controller.

1

2 3

4

5

6

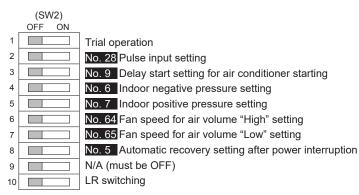
7

8

9

10

• Except SW2-1, before DIP-SW setting is changed, always the power supply to Lossnay unit has to be cutoff. Otherwise, it may cause electrical shock, injury or non-reflection of the change.



(SW5) OFF ON No. 12 Monitor output setting No. 17 Exhaust fan setting during air conditioner defrosting Leader-follwer function (Turn "ON" only leader unit) Leader-follwer function (Turn "ON" all follower unit) No. 66 0-10 VDC external input fan control When connecting the CO₂ sensor, Auto fan speed setting without Lossnay remote controller or M-NET system controller

N/A (must be OFF)

Change the function settings from the remote controller PZ-62DR series.

Please refer to the Instruction book of PZ-62DR series for how to set the function settings.

DIP-SW6 is to identify the model for circuit board. When replacing to new circuit board, set the same setting as old one.

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101	

	SW6-1	SW6-2	SW6-3	SW6-4	SW6-5	SW6-6
LGH-160RVXT3-E	OFF	ON	OFF	ON	OFF	OFF
LGH-200RVXT3-E	ON	ON	OFF	ON	OFF	OFF
LGH-250RVXT3-E	OFF	OFF	ON	ON	OFF	OFF

* Do not change from factory setting. If changed, please set as factory setting.

							Sett	ing Data										Factory	DIP-SW
No	Function	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	setting	No.
1	Filter maintenance and fan power up setting against filter choking	Indicator N/A Fan power up N/A	Indicator available Fan power up N/A	Indicator available Fan power up available	Indicator N/A Fan power up available	_	_	_	_	_	_	_		_	_	_	_	0	_
2	Lossnay core maintenance indicator setting	N/A	Available	_	_	_	_	_	_	_	-	—	_	_	_	-	—	0	_
5	Automatic recovery setting after power interruption	Dip-SW priority	Stop when the power is On	Start when the power is On	Return to the state before interrup- tion	_	_	_	_	_	_	_	_	_	_	_	_	0	2-8
6	Indoor negative pressure setting	Dip-SW priority	N/A	Supply 1 down	Supply 2 down	_	_	_	_	_	_	—	_	_	_	_	_	0	2-4
7	Indoor positive pressure setting	Dip-SW priority	N/A	Exhaust 1 down	Exhaust 2 down	_	_	_	_	—	—	—	_	—	—	—	—	0	2-5
8	Max. fan speed setting during the first 30 minutes	N/A	Available	_	_	_	_	_	_	_	-	—	_	_	_	-	—	0	_
9	Delay start setting for air condi- tioner starting	Dip-SW priority	N/A	15 min	30 min	_	_	_	_	_	_	_	_	_	_	_	_	0	2-3
12	Monitor output setting TM3 910	Dip-SW priority	Operation monitor	Malfunction monitor	Bypass monitor	Supply fan monitor	Exhaust fan monitor	Pre-heater output	SA fan monitor output with delay operation (for After heater)	—	_	_	_	_	_	_	_	0	5-1 5-2
13	Monitor output setting PZ-4GS-E COM-OUT1	Operation monitor	Malfunction monitor	Bypass monitor	Supply fan monitor	Exhaust fan monitor	Pre-heater output	SA fan monitor output with delay operation (for After heater)	_	_	_	_	_	_	_	_	_	1	_
14	Monitor output setting PZ-4GS-E COM-OUT2	Operation monitor	Malfunction monitor	Bypass monitor	Supply fan monitor	Exhaust fan monitor	Pre-heater output	SA fan monitor output with delay operation (for After heater)	_	_	_	_	_	_	_	_	_	2	_
15	Monitor output setting PZ-4GS-E COM-OUT3	Operation monitor	Malfunction monitor	Bypass monitor	Supply fan monitor	Exhaust fan monitor	Pre-heater output	SA fan monitor output with delay operation (for After heater)	_	—	_	_	—	—	_	_	_	3	_
16	Monitor output setting PZ-4GS-E COM-OUT4	Operation monitor	Malfunction monitor	Bypass monitor	Supply fan monitor	Exhaust fan monitor	Pre-heater output	SA fan monitor output with delay operation (for After heater)	_	_	-	_	-	_	_	_	_	4	_
17	Exhaust fan setting during air conditioner defrosting	No change	Stop	Dip-SW priority	—	—	—	—	—	—	_	—	—	—	—	_	—	2	5-3
18	Exhaust fan setting at OA tem- perature lower than -15 °C	No change	Forced to fan speed 2 or less	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0	_
19	Interlock mode setting	ON/ OFF in- terlock	ON in- terlock	OFF in- terlock	External input given priority	_	_	_	_	—	_	_	—	—	_	_	_	0	_
28	Pulse input setting	Dip-SW priority	Non- pulse input	Pulse input	_			_	_	_	_	_	_	_	_	_	_	0	2-2
30	Night purge setting 1) Air volume	N/A	Fan speed 1	Fan speed 2	Fan speed 3	Fan speed 4	_		_	—	—	—	—	—	—	—	—	0	
31	Night purge setting 2) Outdoor and indoor temperature gap	0 K (0°C)	1 K (1°C)	2 K (2°C)	3 K (3°C)	4 K (4°C)	5 K (5°C)	6 K (6°C)	7 K (7°C)	_	_	_	_	_	_	_	_	5	_
32	Night purge setting 3) The lowest outdoor temperature	Setting [Data 0 to	15> Th	e lowest o	outdoor te	mperatu	re for Nig	ht purge 1	15°C	to 30	°C			1		1	2	
33	Night purge setting 4) Outdoor temperature detection period	24 hrs	48 hrs	72 hrs	_	_	_	_	_	_	-	-	_	_	_	-	_	2	_
34	Input priority setting	Bunch control priority	Individual control priority	_	_	_	—	_	_	_	_	_	—	_	_	_	_	0	_
35	Maximum air flow setting in bypass operation	Not limited	50 % or less	_	_	_	_	_	_	_	-	—	_	_	_	-	_	0	_
36	Outdoor temperature display setting	N/A	Available	_	_	_	—	_	_	—	_	—	—	—	_	_	—	1	_
37	Indoor temperature display setting	N/A	Available	_	_	_	_	_	_	_	-	—	-	_	-	-	_	1	_
38	CO ₂ concentration display setting	N/A	Available	_	—	—	—	—	—	—	_	—	—	—	_	-	—	1	—
39	Calculated supply air tempera- ture display setting	N/A	Available				_		_	_	-	-	-	-	-	-	-	0	_
40	Temperature exchange efficiency setting (10 digit)	Setting [Data 0 to	9> 10 d	ligit of ten	nperature	exchang	e efficien	cy 0 to 9			—	—	—	—	-	—	7	_
41	Temperature exchange efficien- cy setting (1 digit)					perature e						-	-	_	-	-	-	0	_
	Outdoor temperature correction Indoor temperature correction								<u>′°C) to 7 k</u> C) to 7 K (′		C)							7	
44	CO ₂ concentration correction	Setting [10> CC					~500ppm				_	_	_	_	—	5	_
45	Supply fan monitor threshold	Fan speed	Fan speed	Fan speed 3 or higher		_		_	_	_	_	_	_	_	_	_	_	0	_
46	Exhaust fan monitor threshold			Fan speed 3 or higher		_		_	_	—	_	—	—	—	_	_	—	0	_
47	Constant pressure control setting 1) Air flow changing interval	1 min	3 min	5 min	7 min	10 min	15 min	30min	_	_	_	_	_	_	_	_	_	2	_
48	Constant pressure control setting 2) Target voltage for SA - Ones digit	0.0 V	1.0 V	2.0 V	3.0 V	4.0 V	5.0 V	6.0 V	7.0 V	8.0 V	9.0 V	N/A	—	—	—	-	_	10	—

							Sott	ing Data										Factory	
No	Function	0	1	2	3	4	5	ing Data 6	7	8	9	10	11	12	13	14	15	Factory setting	DIP-SW No.
49	Constant pressure control setting 3) Target voltage for SA - Ones deci- mal place	0.0 V	0.1 V	0.2 V	0.3 V	0.4 V	0.5 V	0.6 V	0.7 V	0.8 V	0.9 V	_	_	_	_	_	_	0	_
50	Constant pressure control setting 4) Target voltage for RA - Ones digit	0.0 V	1.0 V	2.0 V	3.0 V	4.0 V	5.0 V	6.0 V	7.0 V	8.0 V	9.0 V	N/A	—	_	_	_	_	10	_
51	Constant pressure control setting 5) Target voltage for RA - Ones deci- mal place	0.0 V	0.1 V	0.2 V	0.3 V	0.4 V	0.5 V	0.6 V	0.7 V	0.8 V	0.9 V	_	_	_	_	_	_	0	_
52	Automatic ventilation mode setting 1) Outdoor and indoor temperature gap	Setting [etting Data 0 to 7> Temperature gap 0 K (0°C) to 7 K (7°C)												_	0	—		
53	Automatic ventilation mode setting 2) The lowest outdoor temperature setting	Setting [etting Data 0 to 15> Lowest outdoor temperature 10°C to 25°C														6	_	
54	Automatic ventilation mode setting 3) The lowest indoor temperature setting	Setting [Setting Data 0 to 15> Lowest indoor temperature 15°C to 30°C														1	_	
60	Pre-heater output setting 1) ON temperature	0 °C	-1 °C	-2 °C	-3 °C	-4 °C	-5 °C	-6 °C	-7 °C	-8 °C	-9 °C	-10 °C	-11 °C	-12 °C	-13 °C	-14 °C	-15 °C	0	_
61	Pre-heater output setting 2) OFF interval	1 hr	2 hrs	3 hrs	4 hrs	5 hrs	_	_	_		—	_				_		0	_
62	LED usage setting for PZ-70CSW-E during non operation	Unlit	Lit	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0	_
64	Fan speed for air volume "High" input	Dip-SW priority	Fan speed 4	Fan speed 3	_	_	_	_	_	_	_	_	_	_	_	_	—	0	2-6
65	Fan speed for air volume "Low" input	Dip-SW priority	Fan speed 2	Fan speed 1	_	_	—	_	_	—	-	-	-	-	_	_	_	0	2-7
66	0-10 VDC external input fan control	Dip-SW priority	N/A	3rd party's CO2 sensor	_	BMS Pattern Z	CO2 sensor PZ-70CSW-E	_	CO2 sensor PZ-70CSD-E		constant	SA & RA constant pressure	pressure	PM2.5		sensor PZ- 70CSW-E & PM2.5		0	5-6 5-7 5-8
67	Threshold minutes for PZ-70CSW-E LED	10 min	15 min	20 min	25 min	30 min	_	_	_	_	_	_	_	_	_	_	_	2	_
68	Threshold concentration for PZ-70CSW-E LED	1000 ppm	1100 ppm	1200 ppm	1300 ppm	1400 ppm	1500 ppm	1600 ppm	1700 ppm	1800 ppm	1900 ppm	2000 ppm	—	—	—	_	—	5	_
69	Emergency stop setting	Emergency stop	Normal stop	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0	_
73	Air flow setting for supply fan speed 3	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	5	_
74	Air flow setting for supply fan speed 2	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	10	_
75	Air flow setting for supply fan speed 1	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	15	_
76	Air flow setting for exhaust fan speed 3	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	5	_
77	Air flow setting for exhaust fan speed 2	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	10	_
78	Air flow setting for exhaust fan speed 1	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	15	_
83	Filter maintenance interval setting - Thousands digit	0	1	2	3	4	5	6	7	8	9	—	—	—	—	—	—	3	—
84	Filter maintenance interval setting - Hundreds digit	0	1	2	3	4	5	6	7	8	9	_	_	_	_	_	—	0	_
85	Lossnay core maintenance inter- val setting - Thousands digit	0	1	2	3	4	5	6	7	8	9	_	—	_	_	-	_	6	_
86	Lossnay core maintenance inter- val setting - Hundreds digit	0	1	2	3	4	5	6	7	8	9	—	_	_	_	_	_	0	—
87	Air flow setting for supply fan speed 4	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %	60 %	55 %	50 %	45 %	40 %	35 %	30 %	25 %	0	_
88	Air flow setting for exhaust fan speed 4	100 %	95 %	90 %	85 %	80 %	75 %	70 %	65 %			50 %					25 %	0	—
89	CO ₂ sensor setting - maximum side - Hundreds digits	600 ppm	700 ppm	800 ppm	900 ppm	1000 ppm	1100 ppm	1200 ppm	1300 ppm	1400 ppm	1500 ppm	1600 ppm		1800 ppm		2000 ppm		4	_
90	CO ₂ sensor setting - maximum side - tens digits	0 ppm	50 ppm							_	_		_	_	_	_	_	0	—
91	CO ₂ sensor setting - minimum side - Hundreds digits	300 ppm	400 ppm	500 ppm	600 ppm	700 ppm	800 ppm	900 ppm	1000 ppm	1100 ppm	1200 ppm	1300 ppm		1500 ppm	1600 ppm	1700 ppm	—	1	—
92	CO ₂ sensor setting - minimum side - tens digits	0 ppm	50 ppm	_	_	_	_	_		-	-	_	_	_	_	_	-	1	_
93	CO ₂ sensor correction	-250 ppm	-200 ppm	-150 ppm	-100 ppm	-50 ppm	0 ppm	50 ppm	100 ppm	150 ppm	200 ppm	250 ppm	—	_	—	_	—	5	_
94	Indoor negative / positive pressure setting at auto fan speed setting	N/A	Supply fan	Exhaust fan	_		_			—	-	-	_	-	—	-	—	0	_
95	Indoor negative / positive pressure setting at auto fan speed setting	N/A	5 %	10 %	15 %	20 %	25 %	30 %	35 %	40 %	45 %	50 %	55 %	60 %	65 %	70 %	75 %		_
	Initialization (No.1~99)	N/A	Initialize			<u> </u>			_		<u> </u>	—			<u> </u>	—	<u> </u>	0	

This table shows the summary of function settings. Please refer to the following pages for more details.

The functions indicated with "N/A" in the "DIP-SW No." column are available only when using with remote controller PZ-62DR series.

PZ-62DR series can set Night purge setting (No. 30), Bypass setting (No. 52, No. 53, No. 54), CO₂ sensor setting (No. 89, No. 90, No. 91, No. 92), Filter maintenance interval setting (No. 83, No. 84), Lossnay core maintenance interval setting (No. 85, No. 86) and Air flow setting (No. 73 - No. 78, No. 87, No. 83) by different way more easily.

Refer to the remote controller PZ-62DR series operation manual for more detail.

A, B, C DIP-SW only function

A Auto fan speed setting without Lossnay remote controller or M-NET system controller

When CO₂ sensor is connected but any remote controller is not connected, SW 5-9 has to be ON in order to operate according to CO₂ concentration.

When SW 5-9 is ON, any Lossnay remote controller or M-NET system controller can not be connected and not possible to interlock with City Multi or Mr. Slim unit.

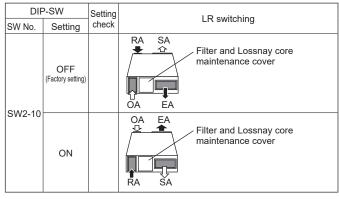
Constant pressure control is not available without PZ-62DR series.

DI	DIP-SW Set		Auto fan speed setting without Lossnay or M-NET
SW No.	Setting	check	system controller
SW5-9	OFF (Factory setting)		N/A
	ON		Fan speed changes according to CO ₂ concentration

B LR switching

RVXT3 series can switch air flow direction according to DIP-SW setting.

Refer to "Installing the Lossnay unit" on the page 7 for detail.



After installation finished, check the setting is correct along with the intention by trial operation.

C Leader-follower

Follower units synchronize the fan operation, ventilation mode and protective operation to the leader unit.

Refer to 13 for detail.

Up to 3 units can follow the leader. All units have to be same model.

DI	P-SW	Setting	Londor	
SW No.	Setting	check	Leader	
014/5 4	OFF (Factory setting)		Leader-follower function is N/A.	
SW5-4	ON		The selected unit becomes a leader. Only one unit can be a leader in a group.	

Even there are followers in a group, leader-follower function is not available as long as there is no leader.

DI	DIP-SW		Follower			
SW No.	Setting	check	Follower			
0.4/5 5	OFF (Factory setting)		Leader-follower function is N/A.			
SW5-5	ON		The selected unit becomes a follower. Up to 3 followers can be set as one leader.			

Even there is a leader in a group, leader-follower function is not available as long as there is no followers.

No. 1 Filter maintenance and fan power up setting against filter choking

Set the schedule for filter cleaning based on the estimated concentration of dust in the air.

This function is not available when 100 % air flow is already selected. When fan power up is available, exhaust and supply fans power up at 1,000 hrs, 2,000 hrs and 3,000 hrs gradually.

Estimated hour differs by actual operated fan speed.

This function is N/A from Lossnay unit DIP-SW.

The target interval can be selected at No. 83, No. 84.

DI	DIP-SW		PZ-62DR series		Setting	Filter maintenance	Fan power
SW No.	Setting	check	Function No.	Setting Data	check	indicator	UP
N/A	-	-	1	0 (Factory setting)		N/A	N/A
	-	-		1		Appears at the interval of estimated 3,000 hrs	N/A
	-	_		2		Appears at the interval of estimated 3,000 hrs	Available
	-	-		3		N/A	Available

 When the cumulative operation time of the Lossnay exceeded the estimated hours, the maintenance icon will appear on the air conditioner remote controller or the Lossnay remote controller. After cleaning the filter, the maintenance icon can be reset. Refer to the Instruction book for the remote controller.

No. 2 Lossnay core maintenance indicator setting

When using PZ-62DR series, set to enable Lossnay core maintenance display. Estimated hour differs by actual operated fan speed. This function is N/A from Lossnay unit DIP-SW.

The target interval can be selected at No. 85, No. 86

DIP-SW		Setting	PZ-62DR series		Setting	Lossnay core
SW No.	Setting	check	Function No.	Setting Data	check	maintenance indicator
	-	-	0	0 (Factory setting)		N/A
N/A	-	-	2	1		Indicate at estimated 6,000 hrs

 When the cumulative operation time of the Lossnay exceeded the estimated hours, the maintenance icon will appear on the Lossnay remote controller. After cleaning the Lossnay core, the maintenance icon can be reset. Refer to the Instruction book for the remote controller.

No. 5 Automatic recovery setting after power interruption

Sets for automatic recovery following power interruption.

DIP-SW		Setting	PZ-620	OR series	Setting	Lossnay operation when
SW No.	Setting	check	Function No.	Setting Data	check	the power is recovered
	-	-		0 (Factory setting)		DIP-SW priority
SW2-8	OFF (Factory setting)		5	1		Lossnay remains stopped.
0112-0	-	-		2		Lossnay starts operation.
	ON			3		Lossnay returns to the state before interruption*

* If a power failure happens when Lossnay is operating by external signal via TM2 1 or $\fbox{2}$ or $\fbox{2}$, Lossnay returns the condition before power failure regardless of the external input condition after power recovery.

No. 6 Indoor negative pressure setting

Exhaust fan speed becomes bigger than supply fan speed. Remote controller indicates fan speed of exhaust fan.

an speed	Exhaust	Supply fan				
Display	fan	1 down	2 down			
4	4	3	2			
3	3	2	1			
2	2	1	1			
1	1	1	1			

DIP-SW		Setting	PZ-62DR series		Setting	Down level of supply fan
SW No.	Setting	check	Function No. Setting Data		check	speed
	-	-		0 (Factory setting)		DIP-SW priority
0.4/0.4	OFF (Factory setting)		6	1		N/A
SW2-4	ON			2		Supply fan speed is 1 down to exhaust fan speed
	-	-		3		Supply fan speed is 2 down to exhaust fan speed

E

No. 7 Indoor positive pressure setting

Supply fan speed becomes bigger than exhaust fan speed. Remote controller indicates fan speed of supply fan.

Fan speed	Supply	Exhaust fan			
Display	fan	1 down	2 down		
4	4	3	2		
3	3	2	1		
2	2	1	1		
1	1	1	1		

DIP-SW		Setting	g PZ-62DR series		Setting	Down level of exhaust
SW No.	Setting	check Function No.		Setting Data	check	fan speed
	-	-		0 (Factory setting)		DIP-SW priority
0.4/0 5	OFF (Factory setting)		7	1		N/A
SW2-5	ON			2		Exhaust fan speed is 1 down to supply fan speed
	-	-		3		Exhaust fan speed is 2 down to supply fan speed

No. 8 Max. fan speed setting during the first 30 minutes

This sets the fan to run forcibly for 30 minutes when operation starts to ventilate the indoor area. After 30 minutes, fan speed can be changed. Use this setting if the indoor air is contaminated at night when the system is shut down and you desire to ventilate the indoor area quickly when operation is started in the morning.

This function is N/A from Lossnay unit DIP-SW.

While this function is working, \Im and selected fan speed are displayed on the screen of PZ-62DR series.

DIP-SW		Setting	PZ-62DR series		Setting	Max. fan speed setting
SW No.	Setting	check	Function No.	Setting Data	check	during the first 30 minutes
N/A	-	-	8	0 (Factory setting)		N/A
11// 1	-	-	, ,	1		Available

No. 9 Delay start setting for air conditioner starting

Delays Lossnay operation for 30 minutes when City Multi or Mr. Slim starts operating or when a external device starts operating. This function is available only when Lossnay is interlocked with air conditioners.

DIP-SW		Setting PZ-62D		R series	Setting	Lossnay delay start
SW No.	Setting	check	Function No.	Setting Data	check	Lossnay delay start
	-	-	9	0 (Factory setting)		DIP-SW priority
SW2-3	OFF (Factory setting)			1		N/A
	-	-		2		15 min
	ON			3		30 min

No. 12-16 Monitor output setting

Set operation monitor output from TM3 (9)(10) synchronized with fan operation, ventilation mode or occurrence of malfunction. Monitor output setting for PZ-4GS-E COM-OUT1 to 4 can be set from the remote controller as well.

See page 21 for which function No. is applied for the each terminal.

DI	DIP-SW		PZ-62DR series			
		Setting	Setting	g Data	Setting	Monitor output setting
SW No.	Setting for TM3	check	Function No.12	Function No.13-16	check	Monitor output ootang
	-	-	0 (Factory setting)	-		DIP-SW priority
	5-1 OFF 5-2 OFF (Factory setting)		1	0		Operation monitor output The output turns ON while Lossnay is operating.
	5-1 ON 5-2 OFF		2	1		Malfunction monitor output The output turns ON when a malfunction occurs on the Lossnay unit.
SW5-1 SW5-2	5-1 OFF 5-2 ON		3	2		Bypass ventilation operation monitor output Corresponds to operation mode output of the Bypass. * When air flow is 75 % or more, RVXT3 stops the bypass monitor output even bypass condition is satisfied.
	5-1 ON 5-2 ON		4	3		SA fan monitor output * When supply fan stops due to cold outdoor temp. or defrosting, output stops.
			5	4		EA fan monitor output
			6	5		Pre-heater output Output starts 10 seconds after supply fan starts operation. Fan continues to operate for 3 min. after stopping the output. Lossnay starts output when outdoor temp. is 0°C or less, and stops output when de- tecting temp. becomes 15°C Lossnay stops the output every 1 hour. Error code is shown on the remote con- troller and the output stops in the case of following. 1) Outdoor temperature higher than 15°C within 15 minutes after the output starts. 20°C or lower, 5 minutes after the output starts.
			7	6		SA fan monitor output with delay operation (for After heater) Output starts 10 seconds after supply fan starts operation. Fan continues to operate for 3 min. after stopping the output.

- To use as the after-heater output, observe the cautions listed in 4 in the page 14.

- For heater selection, observe the cautions listed in 4 in the page 14.

No. 17 Exhaust fan setting during air conditioner defrosting

This function can be used under the condition Lossnay supply duct is connected to Mr. Slim or City Multi indoor unit.

Sets the operation of the exhaust fan during defrosting of the air conditioner (when supply fan stop).

To enable this function, it is necessary to set the indoor unit also. Please refer to its manual.

DIP-SW		Setting	PZ-620	OR series	Setting	Exhaust fan operation during
SW No.	Setting	check	Function No.	Setting Data	check	air conditioner defrosting
	OFF (Factory setting)			0		No change
SW5-3	ON		17	1		Stop
	_	_		2 (Factory setting)		DIP-SW priority

No. 18 Exhaust fan setting at OA temperature lower than -15 °C

Sets the operation of the exhaust fan when the outdoor air is lower than -15 $^\circ C$ (when supply fan stop).

This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-62DR series		Setting	Exhaust fan operation at
SW No.	Setting	check	Function No.	Setting Data	check	outdoor temp15 °C or less
	-		40	0 (Factory setting)		No change
N/A	-	-	18	1		Forced to fan speed 2 or less

 If EA and SA is set unbalanced, the Lossnay core defrosting may not work correctly. For continuous unbalanced operation, a pre-heater is recommended to install.

No. 19 Interlock mode setting

These settings indicate how Lossnay should operate when City Multi or external devices are started or stopped.

This function is N/A from Lossnay unit DIP-SW.

DI	DIP-SW		PZ-62DR series		Setting	
SW No.	Setting	check	Function No.	Setting Data	check	Interlock setting
	_	_	19	O (Factory setting)		The Lossnay will start and stop according to the operation of the external devices. Subsequent operation will be possible using the remote con- troller for the Lossnay or MELANS.
N/A	_	-		1		The Lossnay will start whenever external devices are operated. Stopping Lossnay opera- tion will be possible using its remote controller or MELANS.
N/A	_	_		2		The Lossnay will stop whenever external devic- es are stopped. Starting Lossnay operation will be possible using its remote controller or MELANS.
	_	_		3		The Lossnay will start and stop according to the operation of the external devices. Control via the Lossnay remote controller or MELANS will only be possible when external devices are stopped.

No. 28 Pulse input setting

Set external input signal type from external device for TM2.

DIP-SW		Setting	PZ-62DR series		Setting	Pulse input setting
SW No.	Setting		Function No.	Setting Data	check	Puise iliput setting
	-	-	28	0 (Factory setting)		DIP-SW priority
SW2-2	OFF (Factory setting)			1		NOT pulse input
	ON			2		Pulse input

When pulse signal is selected, No. 9 and No. 19 are not available. Keep factory settings for No. 9 and No. 19.

Either interlocking with City Multi or Mr. Slim is not possible.

No. 30 Night purge setting 1) Air volume

Set fan speed during Night purge. To use Night purge function, it is necessary to set <u>No. 30</u>, <u>No. 31</u>, <u>No. 32</u> correctly.

This function is N/A from Lossnay unit DIP-SW.

It can also be set on the PZ-62DR series's Ventilation settings screen. When using PZ-62DR series and AE-200A together, set all conditions from AE-200A.

DIP-SW		Setting PZ-62D		OR series	Setting	Air volume
SW No.	Setting	check	Function No.	Setting Data	check	All volume
	-	-	30	0 (Factory setting)		N/A (Night purge function is not available)
	-	_		1		Fan speed 1
N/A	-	-		2		Fan speed 2
	-	_		3		Fan speed 3
	-	-		4		Fan speed 4

Note:

Even 75 % or more air flow is set as fan speed 4 in this setting for this product, the maximum air flow in Night purge is approx. 70 %.

No. 31 Night purge setting 2) Outdoor and indoor temperature gap

Set one of conditions for Night purge start, temperature gap between indoor and outdoor.

When the actual gap between indoor and outdoor becomes bigger than the setting, Night purge starts.

This function is N/A from Lossnay unit DIP-SW.

When using PZ-62DR series and AE-200A together, set all conditions from AE-200A.

DIF	DIP-SW		PZ-620	OR series	Setting	Outdoor and indoor
SW No.	Setting	check	Function No.	Setting Data	check	temperature gap
	-	-	31	0		0 K (0 °C) or more
	-	-		1		1 K (1 °C) or more
	-	-		2		2 K (2 °C) or more
	-	-		3		3 K (3 °C) or more
N/A	-	-		4		4 K (4 °C) or more
	-	-		5 (Factory setting)		5 K (5 °C) or more
	-	-		6		6 K (6 °C) or more
	_	-		7		7 K (7 °C) or more

No. 32 Night purge setting 3) The lowest outdoor temperature

Set one of conditions for Night purge start, maximum outdoor temperature within 72 hours.

When this setting temperature is low, it is likely to start Night purge. This function is N/A from Lossnay unit DIP-SW.

When using PZ-62DR series and AE-200A together, set all conditions from AE-200A.

DI	P-SW	Setting	PZ-620	OR series	Setting	The lowest outdoor
SW No.	Setting	check	Function No.	Setting Data	check	temperature
	-	_		0		15 °C or more
	-	_		1		16 °C or more
	-	-		2 (Factory setting)		17 °C or more
	-	_	32	3		18 °C or more
	-	_		4		19 °C or more
	-	_		5		20 °C or more
	-	_		6		21 °C or more
N/A	-	_		7		22 °C or more
	-	_		8		23 °C or more
	-	_		9		24 °C or more
	-	_		10		25 °C or more
	-	_		11		26 °C or more
	-	_		12		27 °C or more
	-	_		13		28 °C or more
	-	-		14		29 °C or more
	-	-		15		30 °C or more

No. 33 Night purge setting 4) Outdoor temperature detection period

Night purge is decided to start or not by the OA temperature within X hour.

X hour can be selected from 24, 48 or 72 hrs.

It is possible to operate Night purge on Sunday midnight or Monday early morning by selecting longer setting. This function is N/A from Lossnay unit DIP-SW.

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	o:	PZ 62DP sorios	o	~	

DIP-SVV		Setting	PZ-62DR series		Setting	OA temperature
SW No.	Setting	check	Function No.	Setting Data	check	detection period
	-	-	33	0		24 hrs
N/A	-	-		1		48 hrs
	-	-		2 (Factory setting)		72 hrs

No. 34 Input priority setting

Set to follow input to the main unit from air conditioner, fan speed controller, etc.

When multiple Lossnay units fan speed is externally controlled via CN17 or CN26, select individual control or bunch control.

When bunch control is selected, connect PZ-62DR series and input external signal to the main unit.

This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-62DR series		Setting	Input priority setting
SW No.	Setting	check	Function No.	nction No. Setting Data check		input phonty setting
N/A	-	-	34	0 (Factory setting)		Bunch control priority
	_	_		1		Individual control priority

No. 35 Maximum air flow setting in bypass operation

When setting the bypass ventilation mode or auto ventilation mode via remote control operation, it is possible to limit the maximum air flow during bypass operation. This setting also applies to the maximum air flow during night purging.

This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-62DR series		Setting	Maximum air flow setting
SW No.	Setting	check	Function No. Setting Data		check	in bypass operation
N/A	_	_	35	O (Factory setting)		Not limited. When air flow is 75 % or more in bypass opera- tion, the unit operates in energy recovery mode to realize higher air flow.
	-	_		1		In bypass operation, the maximum air flow is limited to 50%.

Note:

When the unit operates at Auto fan speed according to 0-10 VDC input, to keep air flow has higher priority.

Therefore even this function setting is set 50% or less, the unit shifts to energy recovery mode to realize higher air flow.

No. 36 Outdoor temperature display setting

Set to display outdoor temperature detected by Lossnay unit thermistor.

This function is N/A from Lossnay unit DIP-SW.

This function is available only when "Sensor value" is set to "Yes" (Display) by the remote controller PZ-62DR series.

DIP-SW		Setting	PZ-62DR series		Setting	Outdoor temperature
SW No.	Setting	check	Function No.	Setting Data	check	display
	-	-		0		N/A
N/A			36	1		Available on the screen
	_	_		(Factory setting)		of PZ-62DR series

No. 37 Indoor temperature display setting

Set to display indoor temperature detected by Lossnay unit thermistor. This function is N/A from Lossnay unit DIP-SW.

This function is available only when "Sensor value" is set to "Yes" (Display) by the remote controller PZ-62DR series.

DI	DIP-SW		PZ-62DR series		Setting	Indoor temperature
SW No.	Setting	check	Function No.	Setting Data	check	display
	-	-		0		N/A
N/A	_	-	37	1 (Factory setting)		Available on the screen of PZ-62DR series

No. 38 CO₂ concentration display setting

Set to display CO₂ concentration when the CO₂ sensor is used. This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-620	OR series	Setting	CO ₂ concentration
SW No.	Setting	check	Function No.	Setting Data	check	display
	-	-		0		N/A
N/A	-	-	38	1 (Factory setting)		Available on the screen of PZ-62DR series

- This function is available only when "Sensor value" is set to "Yes" (Display) by the remote controller PZ-62DR series.
- When displaying CO₂ concentration, supply air temperature cannot be displayed simultaneously.
- CO₂ concentration display shows the value detected by a CO₂ sensor connected to Lossnay unit. The value may differ from the actual indoor CO₂ concentration. This function cannot be used as a measuring instrument.
- If the CO₂ sensor is installed in the ductwork, there may be a significant difference between the CO₂ concentration displayed on the remote controller and the actual indoor CO₂ concentration for the first 15 minutes after starting operation.
- The displayed range is from 400 ppm to 2000 ppm.

No. 39 Calculated supply air temperature display setting

Set to display calculated supply air temperature or not. This function is N/A from Lossnay unit DIP-SW.

In addition, this function is available only when "Sensor value" is set to "Yes" (Display) by the remote controller PZ-62DR series.

CO₂ concentration and supply air temperature can not be displayed at the same time.

DIP-SW		Setting	PZ-62DR series		Setting	Calculated supply air
SW No.	Setting	check	Function No.	Setting Data	check	temperature display
	-	-		0 (Factory setting)		N/A
N/A	-	-	39	1		Available on the screen of PZ-62DR series

- CO₂ concentration and supply air temperature can not be displayed at the same time.

No. 40, 41 Temperature exchange efficiency setting

Set the 10 digit of temperature exchange efficiency which is used to calculate supply air temperature.

This function is N/A from Lossnay unit DIP-SW.

DIF	P-SW	Setting	PZ-620	OR series	Setting	10 digit of temperature
SW No.	Setting	check	Function No.	Setting Data	check	exchange efficiency
	-	-		0		0
	-	-		1		1
	-	-		2		2
	-	_		3		3
	-	_		4		4
N/A	-	_	40	5		5
	-	-		6		6
	-	-		7 (Factory setting)		7
	-	-		8		8
	-	_		9		9
DIF	DIP-SW		PZ-62DR series		0 - 441	
		Setting	1 2 022	111001100	Setting	1 digit of temperature
SW No.	Setting	check			check	exchange efficiency
SW No.	Setting –					
SW No.	Setting -			Setting Data 0		exchange efficiency
SW No.	Setting – –			Setting Data 0 (Factory setting)		exchange efficiency 0
	Setting 			Setting Data 0 (Factory setting) 1 2 3		exchange efficiency 0 1 2 3
SW No.	Setting			Setting Data 0 (Factory setting) 1 2 3 4		exchange efficiency 0 1 2 3 4
	Setting 		Function No.	Setting Data 0 (Factory setting) 1 2 3 4 5		exchange efficiency 0 1 2 3 4 5
	Setting		Function No.	Setting Data 0 (Factory setting) 1 2 3 4 5 6		exchange efficiency 0 1 2 3 4 5 6
	Setting 		Function No.	Setting Data 0 (Factory setting) 1 2 3 4 5 5 6 7		exchange efficiency 0 1 2 3 4 5 6 7
	Setting		Function No.	Setting Data 0 (Factory setting) 1 2 3 4 5 6		exchange efficiency 0 1 2 3 4 5 6

No. 42 Outdoor temperature correction

Set the correction for the outdoor temperature displayed on the PZ-62DR series screen by function $\boxed{\text{No. 36}}$. This function is N/A from Lossnay unit DIP-SW.

DI	P-SW	Setting	PZ-620	OR series	Setting	The correction to
SW No.	Setting	check	Function No.	Setting Data		thermistor detection
	-	-		0		-7 K (-7 °C)
	-	-		1		-6 K (-6 °C)
	-	-		2		-5 K (-5 °C)
	-	-		3		-4 K (-4 °C)
	-	-		4		-3 K (-3 °C)
	-	-		5		-2 K (-2 °C)
	-	-		6		-1 K (-1 °C)
N/A	-	-	42	7 (Factory setting)		0 K (0 °C)
	-	-		8		+1 K (+1 °C)
	-	-		9		+2 K (+2 °C)
	-	-		10		+3 K (+3 °C)
	-	-		11		+4 K (+4 °C)
	-	-		12		+5 K (+5 °C)
	-	-		13		+6 K (+6 °C)
	-	-		14		+7 K (+7 °C)

No. 43 Indoor temperature correction

Set the correction for the indoor temperature displayed on the PZ-62DR series screen by function No. 37. This function is N/A from Lossnay unit DIP-SW.

DI	P-SW	Setting	PZ-620	R series	Settina	The correction to
SW No.	Setting	1		Setting Data		thermistor detection
	-	-		0		-7 K (-7 °C)
	-	-		1		-6 K (-6 °C)
	-	-		2		-5 K (-5 °C)
	-	-		3		-4 K (-4 °C)
	-	-		4		-3 K (-3 °C)
	-	-		5		-2 K (-2 °C)
	-	-		6		-1 K (-1 °C)
N/A	-	-	43	7 (Factory setting)		0 K (0 °C)
	-	-		8		+1 K (+1 °C)
	-	-		9		+2 K (+2 °C)
	-	-		10		+3 K (+3 °C)
	_	-		11		+4 K (+4 °C)
	-	-		12		+5 K (+5 °C)
	_	-		13		+6 K (+6 °C)
	-	-		14		+7 K (+7 °C)

No. 44 CO₂ concentration correction

CO₂ concentration displayed on the PZ-62DR series can be corrected. This function is available when there is CO₂ concentration gap due to the location of CO₂ sensor.

This function is N/A from Lossnay unit DIP-SW.

DIF	DIP-SW		PZ-620	OR series	Setting	CO ₂ concentration
SW No.	Setting	check	Function No.	Setting Data	check	correction
	-	-		0		-500 ppm
	-	_		1		-400 ppm
	-	-		2		-300 ppm
	-	-		3		-200 ppm
	-	-		4		-100 ppm
N/A	-	-	44	5 (Factory setting)		±0 ppm
	-	_		6		100 ppm
	-	-	-	7		200 ppm
	_	_		8		300 ppm
	-	-		9		400 ppm
	_	_		10		500 ppm

No. 45 Supply fan monitor threshold

The threshold fan speed of supply fan monitor output can be selected. This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-620	OR series	Setting	Supply fan monitor
SW No.	Setting	check				threshold
	-	-		0 (Factory setting)		Fan speed 1 or higher
N/A	-	-	45	1		Fan speed 2 or higher
	-	-	-10	2		Fan speed 3 or higher
	-	-		3		Fan speed 4

No. 46 Exhaust fan monitor threshold

The threshold fan speed of exhaust fan monitor output can be selected.

This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-620	OR series	Setting	Exhaust fan monitor
SW No.	Setting	check	Function No.	Setting Data	check	threshold
	-	-		0 (Factory setting)		Fan speed 1 or higher
N/A	-	-	46	1		Fan speed 2 or higher
	-	-	10	2		Fan speed 3 or higher
	-	-		3		Fan speed 4

No. 47 Constant pressure control setting 1) Air flow changing interval

This function is available when constant pressure control is used. It is possible to change the frequency of the adjustment. This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-62DR series		Setting	
SW No.	Setting	check	Function No.	Setting Data	check	All now changing interval
	-	-		0		1 minute
	-	_		1		3 minutes
	_	-		2 (Factory setting)		5 minutes
N/A	-	_	47	3		7 minutes
	-	-		4		10 minutes
	_	_		5		15 minutes
	_	_		6		30 minutes

When Leader-follower function is used simultaneously, this setting shall not to be set shorter than factory setting.

No. 48-51 Constant pressure control setting 2) – 5) Target voltage

This function is available when constant pressure control is used. Refer to No. 66 for constant pressure control.

It is possible to change the target voltage according to required pressure.

Pressure sensor which can output 0-10 VDC which is equal to 0-500 Pa has to be used.

No. 48 and No. 49 is for supply air setting.

No. 50 and No. 51 is for return air setting. These functions are N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-620	OR series		Target voltage integer for
SW No.	Setting	1		Setting Data	check	SA - Ones digit
	-	-		0		0.0 V
	-	-	1	1		1.0 V
	-	-		2		2.0 V
	-	-	48	3		3.0 V
	-	-		4		4.0 V
N/A	-	-		5		5.0 V
11// (-	-		6		6.0 V
	-	-		7		7.0 V
]	8		8.0 V	
	-	-		9		9.0 V
	_	-		10 (Factory setting)		N/A

DIF	DIP-SW		PZ-620	OR series	Setting	Target voltage decimal for
SW No.	Setting	check	Function No.	Setting Data	check	SA - Ones decimal place
	-	-		0 (Factory setting)		0.0 V
	-	-		1		0.1 V
	-	-		2		0.2 V
	-	-		3		0.3 V
N/A	-	-	49	4		0.4 V
	-	-		5		0.5 V
	-	-		6		0.6 V
	-	-		7		0.7 V
	_	-		8		0.8 V
	-	-		9		0.9 V

For example, No. 48 is set 7 and No. 49 is set 5, the target voltage becomes 7.5 VDC.

It is equal to 375 Pa for 0-500 Pa = 0-10 VDC sensor.

(500 Pa ÷ 10.0 VDC × 7.5 VDC = 375 Pa)

When only SA constant pressure control is enabled, EA fan operates same fan speed with SA fan.

DIP-SW		Setting	PZ-620	OR series	Setting	Target voltage integer for
SW No.	Setting	check	Function No.	Setting Data	check	RA - Ones digit
	-	-		0		0.0 V
	-	_		1		1.0 V
	-	-		2		2.0 V
	-	_		3		3.0 V
	-	-		4		4.0 V
N/A	-	_	50	5		5.0 V
	-	-		6		6.0 V
	-	-		7		7.0 V
	-	-		8		8.0 V
	_	_		9		9.0 V
	-	-		10 (Factory setting)		N/A

DI	DIP-SW		PZ-620	OR series	Setting	Target voltage decimal for
SW No.	Setting	check	Function No.	Setting Data	check	RA - Ones decimal place
	-	-		0 (Factory setting)		0.0 V
	-	_		1		0.1 V
	-	-		2		0.2 V
	-	-]	3		0.3 V
N/A	-	-	51	4		0.4 V
	-	-		5		0.5 V
	-	-		6		0.6 V
	-	-		7		0.7 V
	-	-		8		0.8 V
	-	-		9		0.9 V

RA constant pressure control only is not possible. RA constant pressure control is always accompanied with SA control.

No. 52 Automatic ventilation mode setting 1) Outdoor and indoor temperature gap

Set one of conditions for Bypass mode in auto ventilation operation, temperature gap between indoor and outdoor.

This function is N/A from Lossnay unit DIP-SW.

This function can also be set on the **Auto Bypass** settings screen of the PZ-62DR series.

DIP-SW		Setting	PZ-62DR series		Setting	Gap between Indoor
SW No.	Setting	check	Function No.	Setting Data	check	temp. and Outdoor temp.
	-	-		0 (Factory setting)		0 K (0 °C) or more
	-	-		1		1 K (1 °C) or more
	-	-		2		2 K (2 °C) or more
N/A	-	-	52	3		3 K (3 °C) or more
	-	-		4		4 K (4 °C) or more
	-	-		5		5 K (5 °C) or more
	_	_		6		6 K (6 °C) or more
	-	-		7		7 K (7 °C) or more

No. 53 Automatic ventilation mode setting 2) The lowest outdoor temperature

Set one of conditions for Bypass mode in auto ventilation operation, minimum outdoor temperature which comes in indoor directly. This function is N/A from Lossnay unit DIP-SW.

This function can also be set on the **Auto Bypass** settings screen of the PZ-62DR series.

DIP-SW		Setting	PZ-620	OR series	Setting	Quitdo ex temporatura
SW No.	Setting	check	Function No.	Setting Data		Outdoor temperature
	-	-		0		10 °C or more
	-	-		1		11 °C or more
	-	-		2		12 °C or more
	-	-		3		13 °C or more
	-	-		4		14 °C or more
	-	-		5		15 °C or more
			6 (Factory setting)		16 °C or more	
N/A	-	-	53	7		17 °C or more
	-	-		8		18 °C or more
	-	-		9		19 °C or more
	-	-		10		20 °C or more
	_	-		11		21 °C or more
			12		22 °C or more	
	_			13		23 °C or more
	-	-		14		24 °C or more
	-	-		15		25 °C or more

No. 54 Automatic ventilation mode setting 3) The lowest indoor temperature setting

Set one of conditions for Bypass mode in auto ventilation operation, minimum indoor temperature.

This function is N/A from Lossnay unit DIP-SW.

When Lossnay is interlocked to Mr. Slim or City Multi indoor unit, the target temperature of the indoor unit is the lowest indoor temperature for Bypass mode.

This function can also be set on the **Auto Bypass** settings screen of the PZ-62DR series.

DI	P-SW	Setting	PZ-620	R series	Setting	l
SW No.	Setting	check		Setting Data	check	Indoor temperature
	-	-		0		15 °C or more
	-	-		1 (Factory setting)		16 °C or more
	-	_		2		17 °C or more
	-	-		3		18 °C or more
	-	_		4		19 °C or more
	-	-		5		20 °C or more
	-	_		6		21 °C or more
N/A	-	-	54	7		22 °C or more
	-	_		8		23 °C or more
	-	-		9		24 °C or more
	-	_		10		25 °C or more
	-	-		11		26 °C or more
	-	_		12		27 °C or more
	-	-		13		28 °C or more
	-	-		14		29 °C or more
	-	_		15		30 °C or more

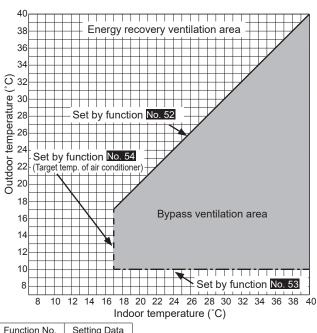
User can set conditions to go into Bypass mode in automatic ventilation mode by function <u>No. 52</u>, <u>No. 53</u>, and <u>No. 54</u>. Setting examples are shown below.

Function No. 52, No. 53, and No. 54 can also be set on the Auto

bypass setting screen of PZ-62DR series.

Example 1

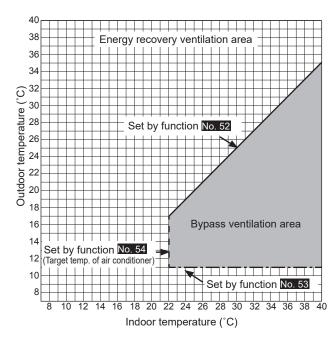
Bypass/Energy recovery ventilation map in automatic ventilation mode



Function No.	Setting Data
52	0 (0°C)
53	0 (10°C)
54	2 (17°C)

Example 2

Bypass/Energy recovery ventilation map in automatic ventilation mode



Function No.	Setting Data
52	5 (5°C)
53	1 (11°C)
54	7 (22°C)

When the setting of function No. 53 is low, with using the pre-heater function, the outdoor temperature may be detected as higher and the mode may change to Bypass mode even in winter. Set the setting to 16° C or more, or use Energy recovery ventilation mode.

Pre-heater output setting 1) No. 60 **ON** temperature

Set the outdoor temperature for Pre-heater output ON. When detecting temp. becomes the setting or less, Pre-heater output starts.

This function is N/A from Lossnay unit DIP-SW.

DI	P-SW	Setting	PZ-620	OR series	Settina	Outdoor temp. for Pre-
SW No.	Setting	check		Setting Data		heater output ON
	-	-		0 (Factory setting)		0 °C or less
	-	-		1		-1 °C or less
	-	-		2		-2 °C or less
	-	-		3		-3 °C or less
	-	-		4		-4 °C or less
	-	-		5		-5 °C or less
	-	-		6		-6 °C or less
N/A	-	-	60	7		-7 °C or less
	-	-		8		-8 °C or less
	-	-		9		-9 °C or less
	-	-		10		-10 °C or less
	-	-		11		-11 °C or less
		-		12		-12 °C or less
	_	-		13		-13 °C or less
	-	-		14		-14 °C or less
	-	-		15		-15 °C or less

Pre-heater output setting 2) No. 61 OFF interval

Set the Pre-heater output interval. Output stops according to the set hours.

This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting PZ-62D		OR series	Setting	Pre-heater output OFF
SW No.	Setting	check	Function No.	Setting Data	check	interval
	-	-		0 (Factory setting)		1 hr
	-	-		1		2 hrs
N/A	-	-	61	2		3 hrs
	-	-	-	3		4 hrs
	-	_		4		5 hrs

No. 62

LED usage setting for PZ-70CSW-E during non operation

Wall mount type CO2 sensor PZ-70CSW-E has LED which indicate the concentration level.

It is possible to select lit or unlit during Lossnay unit is not operating. Refer to the Installation manual of PZ-70CSW-E for more detail. This function is N/A from Lossnay unit DIP-SW.

DI	P-SW					LED usage setting for
SW No.	Setting	check	Function No.	Setting Data	check	PZ-70CSW-E
N/A	_	_	62	0 (Factory setting)		Unlit
	-	-	02	1		Lit

No. 64 Fan speed for air volume "High" input

Set the fan speed setting when receiving "High" signal from remote controllers (e.g. remote controller of City Multi and Mr. Slim, Lossnay simple remote controller) which have High/Low air volume.

DIP-SW		Setting	PZ-62DR series		Setting	Operating fan speed
SW No.	Setting	check	Function No.	Setting Data	check	Operating ian speed
	-	-		0 (Factory setting)		DIP-SW priority
SW2-6	OFF (Factory setting)		64	1		Fan speed 4
	ON			2		Fan speed 3

No. 65 Fan speed for air volume "Low" input

Set the fan speed setting when receiving "Low" signal from remote controllers (e.g. remote controller of City Multi and Mr. Slim, Lossnay simple remote controller) which have High/Low setting for ventilation fan speed.

DIP-SW		Setting	PZ-620	OR series	Setting	Operating fan speed
SW No.	Setting	check	Function No.	Setting Data	check	Operating fair speed
				0 (Factory setting)		DIP-SW priority
SW2-7	OFF (Factory setting)		65	1		Fan speed 2
	ON			2		Fan speed 1

NO. 66 0-10 VDC external input fan control

According to the type of external input, set this item.

Lossnay changes fan speed according to input voltage to CN26 when 3rd party's CO2 sensor, pressure sensor or BMS is setting. When connecting with PZ-70CSW-E or PZ-70CSD-E, refer to their manuals for detail.

Do not set other than following settings.

Refer to **7** (*page 16*) for detail connection.

* The function of [CO2 control: No/Yes] on PZ-62DR series is not applicable for this product. Do not change that setting.

• 0-10 VDC input from the external device to use CN26 shall be insulated from main power supply like 220-240 V.

Otherwise it could cause electrical shock to death.

• Do not input 10 VDC or higher.

It may cause malfunction.

DI	DIP-SW		PZ-620	OR series	Setting	0-10 VDC external input
SW No.	Setting	check	Function No.	Setting Data	check	fan control
	-	-		0 (Factory setting)		DIP-SW priority
	5-6 OFF 5-7 OFF 5-8 OFF (Factory setting)		66	1		No external fan speed control input
SW5-6 SW5-7	5-6 OFF 5-7 OFF 5-8 ON			2		[Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] Fan speed control by 3rd party's CO ₂ sensor (0-10 VDC equals to 0-2000 ppm)
SW5-8	5-6 OFF 5-7 ON 5-8 ON			4		[Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] BMS control Refer to pattern Z on the following page.
	5-6 ON 5-7 OFF 5-8 OFF			5		[Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] PZ-70CSW-E control
	5-6 ON 5-7 ON 5-8 OFF			7		[Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] PZ-70CSD-E control

	P-SW	С <i>а</i> ш:	P7_60	OR series	С:		
SW No.	Setting	Setting check		1		0-10 VDC external input fan control	
	_	_		9		[Orange 3 and Green 5 of PAC-SA88HA-E (CN26)] Constant pressure control for the supply air by 3rd party's pressure sensor. Refer to Con- stant pressure control. Note: Exhaust fan operates as same fan speed as supply fan in this setting.	
	_	_		10		[Orange 3 and Green 5 of PAC-SA88HA-E (CN26)] Constant pressure control for the supply air by 3rd party's pressure sensor. [Vellow 4 and Green 5 of PAC-SA88HA-E (CN26)] Constant pressure control for the return air by 3rd party's pressure sensor. Refer to Con- stant pressure control.	
	_	_	11		[Orange 3 and Green 5 of PAC-SA88HA-E (CN26)] Constant pressure control for the supply air by 3rd party's pressure sensor. [Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] Displaying CO ₂ concentration on PZ-70CSD-E. (No Fan speed control) Note: Constant pressure control has a priority. Refer to Constant pressure control . Exhaust air operates as same fan speed as supply fan in this setting.		
N/A	_	_	66	12		[Orange 3 and Green 5 of PAC-SA88HA-E (CN26)] Measure the PM2.5 concen- tration by 3rd party's PM2.5 sensor. (0-10 VDC equals to 0-1000 ug/m ³) Note: PM2.5 level is communicated via CN105. PM2.5 level is not displayed on PZ-62DR series. (No Fan speed control)	
	_	_			13		(C) range 3 and Green 5 of PAC-SA88HA-E (CN26)] Measure the PM2.5 concen- tration by 3rd party's PM2.5 sensor. (0-10 VDC equals to 0-1000 µg/m ³) [Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] Fan speed control by 3rd party's CO ₂ sensor. (0-10 VDC equals to 0-2000 ppm) Note: PM2.5 level is communicated via CN105. PM2.5 level is not displayed on PZ-62DR series.
-	_	_		14		[Orange 3 and Green 5 of PAC-SA88HA-E (CN26)] Measure the PM2.5 concen- tration by 3rd party's PM2.5 sensor. (0-10 VDC equals to 0-1000 µg/m ³) (Yellow 4 and Green 5 of PAC-SA88HA-E (CN26)] Fan speed control by PZ-70CSW-E. Note: PM2.5 level is communicated via CN105. PM2.5 level is not displayed on PZ-62DR series.	
	_	_		15		[Crange 3 and Green 5 of PAC-SA88HA-E (CN26)] Measure the PM2.5 concen- tration by 3rd party's PM2.5 sensor. (0-10 VDC equals to 0-1000 µg/m ³) (Vellow 4 and Green 5 of PAC-SA88HA-E (CN26)] Fan speed control by PZ-70CSD-E. Note: PM2.5 level is communicated via CN105. PM2.5 level is not displayed on PZ-62DR series.	

[Pattern Z]

Lossnay changes fan speed as the table below. (Connection example: BMS (Building Management System))

Input voltage[VDC]	Fan speed	Fan speed changing from Remote controller
0 - 1.0	-	Available
1.5 - 2.5	1	N/A
3.5 - 4.5	2	N/A
5.5 - 7	3	N/A
8.5 - 10	4	N/A

When the input voltage is in-between, it will cause unstable operation.

«Constant pressure control»

This function is available when connecting pressure sensor in supply duct or both supply and return duct.

PZ-62DR series is mandatory for this function.

- Select a sensor which can output 0-10 VDC and it equals to 0-500 Pa. Set the requiring pressure (voltage) according to function No. 48, No. 49, No. 50 and No. 51.
- Constant pressure control becomes ON, when "Auto" fan speed is selected.
- The unit changes fan speed according to the gap between current pressure level and requiring level.

The unit can operate 5 % air flow pitches, then sometimes, it may fluctuate up and down according to the condition, and it may not achieve the target pressure exactly.

When the fluctuation is annoying, change the control interval according to function No. 47.

- It is not possible to connecting pressure sensor only to the return duct.
- In constant pressure control, it is not possible to control Lossnay in a group collectively. Please connect a pressure sensor to each Lossnay in the group and perform the function setting. Set function No. 34 to "Individual control priority".

- It takes a few minutes to get close to the target pressure.
- When air flow is too big or too small in this mode, check the pressure sensor.

No. 67 Threshold minutes for PZ-70CSW-E LED

LED turns from orange (MID) to red (HIGH) when the CO $_2$ level is kept over the limit concentration for decided minutes.

The threshold minutes can be changed.

Refer to the Installation manual of PZ-70CSW-E for more detail. This function is N/A from Lossnay unit DIP-SW.

DI	DIP-SW		PZ-62DR series		Setting	Threshold minutes for	
SW No.	Setting	check	Function No.	Setting Data	check	PZ-70CSW-E LED	
	-	-		0		10 min	
	-	-		1		15 min	
N/A	-	-	67	2 (Factory setting)		20 min	
	-	-		3		25 min	
	-	-		4		30 min	

No. 68 Threshold concentration for PZ-70CSW-E LED

The threshold concentration for wall mounted CO₂ sensor LED from green (LOW) to orange (MID) can be changed. Refer to the Installation manual of PZ-70CSW-E for more detail.

This function is N/A from Lossnay unit DIP-SW.

DIF	DIP-SW		PZ-620	OR series	Setting	Threshold concentration
SW No.	Setting	check	Function No.	Setting Data	check	for PZ-70CSW-E LED
	-	-		0		1000 ppm
	-	_		1		1100 ppm
	-	_		2		1200 ppm
	-	_		3		1300 ppm
	-	_	68	4		1400 ppm
N/A	-	-		5 (Factory setting)		1500 ppm
	-	_		6		1600 ppm
	-	_		7		1700 ppm
	-	_		8		1800 ppm
	-	_		9		1900 ppm
	-	-		10		2000 ppm

No. 69 Emergency stop setting

This function can select the priority of Remote OFF signal to CN32. When the emergency stop is selected and Lossnay receives remote off signal, Lossnay does not operate Night purge, after cooling or some other operations until remote off signal stops. This function is N/A from Lossnay unit DIP-SW.

DI	DIP-SW		PZ-620	OR series	Setting	Mode	Lossnay opera-	
SW No.	Setting	check	Function No.	Setting Data	check	wode	tion	
N/A	_	_	69	O (Factory setting)		Emergen- cy stop	When stopped by Remote OFF input, Night purge, after cooling and some other operation does NOT work.	
N/A	_	_	69	1		Normal stop	When stopped by Remote OFF input, Night purge, after cooling and some other operation does work.	

- When installing the centralized management devices (including the system controller) in Mitsubishi Electric Air-Conditioner Network System (MELANS), perform emergency stop by the centralized management devices. In this case, do not use the function No. 69.

No. 73-78, 87, 88 Air flow

Adjust the output of the fan speed. This function can also be set on the Air flow settings screen of the PZ-62DR series. This function is N/A from Lossnay unit DIP-SW.

			Lossnay				OR series	0 - 44 - 44		F		P7-62	OR series	0 - 44'		F	
F Z=02L	Setting Data	Setting check	Fan output	Fan speed	Fan		Setting Data	Setting check	Fan output	Fan speed	Fan			Setting check	Fan output	Fan speed	Fan
T UNCLOTTINO.						T UNCLOTTING.			100%			T UTGUOTT NO.	0		100%		
	(Factory setting)		100%				1		95%				1		95%		
	1		95%				2			90%			2		90%		
	2		90%				3		85%				3		85%		
	3		85%				4		80%				4		80%		
	4		80%				5		75%				5		75%		
	5		75%				6		70%				6		70%		
	6		70%				7		65%				7		65%		
87	7		65%	4	SA	75	8		60%	1	SA	77	8		60%	2	EA
	8		60%				9		55%				9		55%		
	9		55%				10		50%				10				
	10		50%				11		45%				(Factory setting)		50%		
	11		45%				12		40%				11		45%		
	12		40%				13		35%				12		40%		
	13		35%				14		30%				13		35%		
	14		30%				15		25%				14		30%		
	15		25%				(Factory setting)		23%				15		25%		
	0		100%				0 (Factory setting)		100%				0		100%		
	1		95%				1		95%				1		95%		
	2		90%				2		90%				2		90%		
	3		85%				3		85%	4			3		85%		
	4		80%				4		80%				4		80%		
	5 (Factory setting)		75%				5		75%				5		75%		
	6		70%				6		70%				6		70%		
73	7		65%	3	SA	88	7		65%		EA	78	7		65%	1	EA
10	8		60%				8		60%			10	8		60%		
	9		55%				9		55%				9		55%		
	10		50%				10		50%				10		50%		
	11		45%				11		45%				11		45%		
	12		40%				12		40%				12		40%		
	13		35%				13		35%				13		35%		
	14		30%				14		30%			-	14		30%		
	15		25%				15		25%				15 (Factory setting)		25%		
	0		100%				0		100%								
	1		95%				1		95%								
	2		90%				2		90%								
	3		85%				3		85%								
	4		80%				4		80%								
	5		75%				5 (Factory setting)		75%								
	6		70%				(Facioly Setting)		70%								
	7		65%				7		65%								
74	8		60%	2	SA	76	8		60%	3	EA						
	9		55%				9		55%								
	10		50%				10		50%								
	(Factory setting) 11		45%				10		45%								
	12		40%				12		40%								
	12		35%				12		35%								
	13		30%				13		30%	-							
	15		25%				15		25%								
	10		2070			L	10		2070		1						

- Fan output percentage of Fan speed 4 cannot be set to lower values than that of Fan speed 3.

Example: When function No. 73 is set to "5" (75%), the setting data for function No. 87 can be selected from "0" (100%) to "5" (75%).

Fan output percentage of Fan speed 3 cannot be set to higher values than that of Fan speed 4, or lower values than that of Fan speed 2. Likewise, fan output percentage of Fan speed 2 cannot be set to higher values than that of Fan speed 3, or lower values than that of Fan speed 1.
 Example: When function No. 87 is set to "2" (90%) and function No. 74 is set to "7" (65%), the setting data for function No. 73 can be selected from "2" (90%) to "7" (65%).

- Fan output percentage of Fan speed 1 cannot be set to higher values than that of Fan speed 2. Example: When function No. 74 is set to "5" (75%), the setting data for function No. 75 can be selected from "5" (75%) to "15" (25%).

No. 83, 84 Filter maintenance interval setting

Filter cleaning sign is displayed on the remote controller according to the set interval in this function.

The interval can be set from 100 hrs to 9900 hrs depending on the site situation.

This function can also be set on the Maintenance interval settings screen of the PZ-62DR series.

This function is N/A from Lossnay unit DIP-SW.

DI	DIP-SW		PZ-620	OR series	Setting	Filter maintenance interval
SW No.	Setting	check	Function No.	Setting Data	check	setting - Thousands digit
	-	-		0		0
	-	-		1		1
	-	-		2		2
	-	-	83	3 (Factory setting)		3
N/A	-	-		4		4
	-	-		5		5
	-	-		6		6
	-	-		7		7
	-	_		8		8
	-	_		9		9

DI	P-SW	Setting	PZ-620	OR series	Setting	Filter maintenance interval				
SW No.	Setting	check	Function No. Setting Data		check	setting - Hundreds digit				
	-	-		0 (Factory setting)		0				
	-	_		1		1				
	-	-		2		2				
	-	_		3		3				
N/A	-	-	- 84	4		4				
	-	_		5		5				
	-	-		6		6				
	-	_		7		7				
	-	-		8		8				
	-	_		9		9				

No. 85, 86 Lossnay core maintenance interval setting

Lossnay core maintenance sign is displayed on the remote controller according to the set interval in this function.

The interval can be set from 100 hrs to 9900 hrs depending on the site situation.

This function can also be set on the Maintenance interval settings screen of the PZ-62DR series.

This function is N/A from Lossnay unit DIP-SW.

DIP-SW		Setting	PZ-62DR series		Setting	Lossnay core maintenance interval setting - Thousands
SW No.	Setting	check	Function No.	Setting Data	check	digit
	-	-		0		0
	-	-		1		1
	-	-		2		2
	-	-	85	3		3
	-	-		4		4
N/A	-	-		5		5
	-	-		6 (Factory setting)		6
	-	-		7		7
	_	-		8		8
	-	-		9		9

DIP-SW Setting PZ-62DR series Setting Lossnay core maintenance interval setting - Hundreds Check Function No. Setting Data

	5			5	aigit
	-	-	_	0 (Factory setting)	0
	-	-		1	1
	-	-		2	2
	-	-		3	3
N/A	-	_	86	4	4
	-	-		5	5
	-	-]	6	6
	-	-		7	7
	_	_		8	8
	_	_]	9	9

No. 89, 90 CO₂ sensor setting - maximum side

It is possible to set the CO₂ concentration which fan speed turn into 4. When it is necessary to set 50 ppm, set Function No.90 as 1. This function can also be set on the CO₂ control setting screen of the

PZ-62DR series.

(For example, the target is 950 ppm, Function No. 89 is 3 and No. 90 is 1.)

This function is N/A from Lossnay unit DIP-SW.

DI	P-SW	Setting	PZ-620	R series	Setting	CO2 sensor setting -
SW No.	Setting	check	Function No.	Setting Data	check	maximum side - Hun- dreds digit
	-	_		0		600 ppm
	-	-		1		700 ppm
	-	_		2		800 ppm
	-	_		3		900 ppm
	-	-		4 (Factory setting)		1000 ppm
	-	_		5		1100 ppm
	-	-		6		1200 ppm
N/A	-	_	89	7		1300 ppm
	-	-		8		1400 ppm
	-	_		9		1500 ppm
	-	-		10		1600 ppm
	-	_		11		1700 ppm
	-	-		12		1800 ppm
	-	_		13		1900 ppm
	-	-		14		2000 ppm

DIP-SW		Setting	PZ-62	OR series	Setting	CO ₂ sensor setting - maximum side - Tens digits	
SW No.	Setting	check	Function No.	Setting Data	check	maximum side - Tens digits	
N/A	-	-	90	0 (Factory setting)		0 ppm	
	-	-		1		50 ppm	

No. 91, 92 CO2 sensor setting - minimum side

It is possible to set the CO₂ concentration which fan speed turn into 1. When it is necessary to set 50 ppm, set Function No.92 as 1. This function can also be set on the CO₂ control setting screen of the

PZ-62DR series.

(For example, the target is 950 ppm, Function <u>No. 91</u> is 6 and <u>No. 92</u> is 1.)

This function is N/A from Lossnay unit DIP-SW.

DI	DIP-SW		PZ-620	OR series	Setting	CO ₂ sensor setting - min-		
SW No.	Setting	Setting check	Function No.	Setting Data	check	imum side - Hundreds digits		
	-	-		0		300 ppm		
	-	-		1 (Factory setting)		400 ppm		
	-	-		2		500 ppm		
	-	-		3		600 ppm		
	-	-		4		700 ppm		
	-	-		5		800 ppm		
	-	-		6		900 ppm		
N/A	-	-	91	7		1000 ppm		
	-	-		8		1100 ppm		
	-	-		9		1200 ppm		
	-	-		10		1300 ppm		
	-	-		11		1400 ppm		
	-	-		12		1500 ppm		
	-	-		13		1600 ppm		
	-	-		14		1700 ppm		
DI	DIP-SW		PZ-620	OR series		CO2 sensor setting - min-		
SW No.	Setting	check	Function No.	No. Setting Data check imum side - Te		imum side - Tens digits		
	_	-		0		0 ppm		
N/A	-	-	92	1 (Factory setting)		50 ppm		

No. 93 CO₂ sensor correction

CO₂ concentration can be corrected when CO₂ sensor is connected. In this function, the control value of CO₂ level is corrected. On the other hand, <u>No. 44</u> changes the displayed CO₂ level only. This function is N/A from Lossnay unit DIP-SW.

DIF	DIP-SW		-	R series Settir		CO ₂ sensor analogue
SW No.	Setting	check	Function No.	Setting Data	check	correction
	-	-		0		-250 ppm
	-	_		1		-200 ppm
	-	-		2		-150 ppm
	-		3		-100 ppm	
			4		-50 ppm	
N/A	_	-	93	5 (Factory setting)		±0 ppm
	-	-		6		50 ppm
	-	-		7		100 ppm
		8		150 ppm		
			9		200 ppm	
	-	-		10		250 ppm

No. 94, 95 Indoor negative / positive pressure setting at auto fan speed setting

At auto fan speed setting operation, by reducing the air flow of the supply fan or exhaust fan, the indoor negative or positive pressure can be adjusted.

- This function is N/A from Lossnay unit DIP-SW.
- Select the fan to be targeted at No. 94 .
- Select the percentage of air flow reduction at No. 95. However, the air flow cannot be reduced below 25 %.
- For example, if the air volume reduction rate of the exhaust fan is set to 50 %, the air flow of the supply fan will be 75 % and the air flow of the exhaust fan will be 25 %. Even if the air flow of the supply fan becomes 70 %, the air flow of the exhaust fan will not go below 25 %. In this case, if the air flow of the supply fan goes below 70 %, it will not be possible to maintain the balance with the exhaust fan.
- Even when function setting <u>No. 66</u> is set as constant pressure control on the supply air side, the exhaust side air flow can be reduced by selecting "Exhaust fan" at <u>No. 94</u> on the other hand "Supply fan" can not be selected.

When constant pressure control is selected for both the supply and the return side, this function is not available.

DI	DIP-SW		PZ-620	OR series	Setting	Fan that reduce air flow
SW No.	Setting	check	Function No.	Setting Data		Fail that reduce all now
	-	-		0 (Factory setting)		N/A
N/A	-	_	94	1		Supply fan
	-	-		2		Exhaust fan

DIF	DIP-SW		PZ-62DR series Sett		Setting	Percentage of air flow
SW No.	Setting	check	Function No.	Setting Data	check	reduction comparing to opposite fan
	-	-		0 (Factory setting)		N/A
	-	-		1		5%
	-	-]	2		10%
	-	-		3		15%
	4		20%			
	-	-]	5		25%
	-	-		6		30%
N/A	-	-	95	7		35%
	-	-		8		40%
	-	-		9		45%
	-	-		10		50%
	-	-		11		55%
			12		60%	
	_	-		13		65%
	-	-		14		70%
	-	-		15		75%

No. 100 Initialization (No.1~99)

Set to initialize the remote PZ-62DR series setting. All settings which are changed by users are cancelled.

	DIP-SW		Setting PZ-62DF			Setting	Initialization
SW N	0.	Setting	check	Function No.	Setting Data	check	mualization
N/A		-	-	100	0 (Factory setting)		N/A
	-		-	100	1		Available

7. Check points after installation work

After installation work has been completed, check the following points once again.

If any failure is detected, be sure to fix it.

Check the following points before trial operation, and place a check mark \checkmark in the corresponding check box.

	Reference page	Check box
(1) Check points - Main unit installation work		
The length of 3 m or more is provided for the outdoor side ducts (OA, EA) from a building wall surface.	4. Standard installation examples 5.1.4 Connecting the ducts	
A downward gradient of 1/30 or more toward a building wall is provided for the outdoor side ducts (OA, EA).	4. Standard installation examples 5.1.4 Connecting the ducts	
The two outdoor side ducts (OA, EA) are covered with a heat-insulating material.	5.1.4 Connecting the ducts	
Check LR switching condition on the maintenance cover name plate.	5.1.1 Fix the air path	
2) Check points - Wiring work		
A combination of power supply voltage, model name, and remote controller is correct.	5.2 Electrical installation	
The wires are correctly connected according to the wire connection diagram.	5.2 Electrical installation	
The wires are securely connected to the terminal blocks.	5.2 Electrical installation	
The wires are securely fixed.	5.2 Electrical installation	
The connectors on the circuit board are securely connected.	5.2 Electrical installation	
The grounding cable is installed securely.	5.2 Electrical installation	
The cables are correctly fixed by using the cord clips and cable glands.	5.2 Electrical installation	
In terms of size and specification, the proper power supply cable and transmission cables are used.	5.2 Electrical installation	
The cable is U trapped before entering the control box.	5.2 Electrical installation	
3) Check points - Function setting		
The "Main" Lossnay is correctly set.	6. Function settings	
The address setting switches (SW11, SW12) are correctly set.	6. Function settings	
The function selection switches (SW2, SW5) are correctly set.	6. Function settings	
The function settings by the remote controller are correct. (For details, refer to the Installation Manual of the remote controller PZ-62DR series.)	6. Function settings	

To prevent early failures, be sure to check the check points after installation work.

8. Trial operation

After the system has been installed and before the ceiling panel is installed, make sure that wires are properly connected, then test the system's operation, referring to the operation manual for the remote controller.

8.1 Trial operation using the remote controller (PZ-62DR series)

Follow the procedure shown in the operation manual for the remote controller the functions below.

- (1) Start operation
- (2) Fan speed selection
- (3) Ventilation mode selection
- (4) Stop operation

8.2 Lossnay trial operation

This function can be used in the following situations.

- When there is no remote controller installed for operating the Lossnay
- When heater output, malfunction monitor output, operation monitor output, and other output are connected
- When the outdoor temperature is 8 °C or lower (To check Bypass monitor output)
- LR switching condition has to be checked. Only supply fan runs at first 1 minute to confirm LR switching has been set correctly.
- · Leader-follower function is enabled.
- The wiring of PZ-70CSW-E when it is connected.

(1) Supply power to the Lossnay unit.

(2) Turn the trial operation switch (DIP-SW SW2-1) "On."

· Wear insulated gloves or such kind of protective tool.

Operation of Fan Speed and Ventilation mode

						Minutes	0	1	2	3	4	
						Second	0 10 20 30 40 50	0 10 20 30 40 50	0 10 20 30 40 50	0 10 20 30 40 50	0 10 20 30 40 50	
ТМ3	3 PZ-4GS-		PZ-4GS-I	Ξ	Fon output	Supply	100 % *1	70 %	100 %			
	PZ-62DR	series	PZ-62DR	series	Fan output	Exhaust	STOP *1	70 %	100 %			
SW No. Setting	Function No.	Setting data	Function No.	Setting data	Ventilation m	ode	-	Bypass	Lossnay	_ossnay		
5-1 OFF 5-2 OFF		1		0	Lossnay operation monitor		ON					
5-1 ON 5-2 OFF		2		1	Malfunction r	Malfunction monitor output		ON				
5-1 OFF 5-2 ON	-	3		2	Bypass moni	tor output	OFF	ON	OFF			
5-1 ON 5-2 ON	12	4	13-16	3	SA fan monit	or output	ON					
-		5		4	EA fan monit	or output	OFF	ON				
-		6		5	Pre-heater output		OFF				ON	
_		7		6	SA fan monitor output with delay operation (for after heater)		OFF ON					
					LED lit on PZ (Optional par	2-70CSW-E *2 ts)	G O R G O R	G O R G O R	G O R G O R	G O R G O R	G <mark>O R</mark> G <mark>O R</mark>	

*1 Check for LR switching is correctly set or not by operating only supply fan. Sufficient care is necessary due to LR (air path) switching function on RVXT3 series. *2 G: Green, O: Orange, R: Red

Error code "0900" appears on the remote controller. The timing in the chart is a general guideline.

(3) Check each function is operating normally.

(4) Turn the trial operation switch (DIP-SW SW2-1) "Off."

8.3 Lossnay trial operation in a whole system

8.3.1 For Interlock system with air conditioners or external devices

- Use the remote controller for the air conditioner or the operating switches for the external device to check that the air conditioner and Lossnay
 are interlocked.
- When delay start time is set (when City Multi or Mr. Slim that is connected using a Slim-Lossnay interlocking cable starts operating), check Lossnay operation after the delay start time has passed.

8.3.2 For MELANS system

Check Lossnay operation by using the Mitsubishi Electric Air-Conditioner Network System (MELANS).

8.4 If trouble occurs during trial operation

Symptom				Remedy						
Lossnay does not operate				ghtness. (The	e specified p	power s	upply is Three-phase and			
even when the operation		15 V 50Hz / 380 \	,			4				
switch of the remote controller (PZ-62DR	• Check for a short circuit or disconnection in the transmission cable. (Check that the voltage between terminals in the transmission cables is 10 to 13 VDC for the PZ-62DR series.)									
series) is pressed.					,	e and th	e power supply cable and othe			
	transmission		io promaca some							
	Operate Loss	nay independently	using the trial opera	tion switch (S	W2-1) to see	e if it op	erates properly or not.			
	Lossnay ope	erates ⇒	Check the signal I	lines						
	Lossnay do	esn't operate ⇒	Check the power	supply						
	Check if there	e are three or mor	e remote controller	connected (The maximu	ım is tu	(0)			
When M-NET is used,							15 V 50Hz / 380 V 60Hz, cabl			
he Lossnay does not	diameter, swi		1 11 5				,			
perate by M-NET system					ower is supp	lied or	not (For a system with Lossna			
controller.			e power supply unit							
				roken wire (C	heck if 20 -	30 VD0	C is detected between the			
		ransmission cable	/	on the transm	viscion coble	and th	e power supply cable and oth			
	transmission		is provided betwee		IISSIULI CADIE	anu ui	le power suppry cable and our			
			y to see if it operate	es properly or	not.					
	Lossnay ope		Inspect the transn							
			Check the power							
		•	•		 4					
Air conditioner indoor unit			ndition in the system			orios)				
or external device does not	 Check if the pulse input switch (SW2-2) is off. (Can be set from PZ-62DR series) Check the overall cable length between the indoor unit or external device and Lossnay. (Refer to technical 									
nterlock.	manuals or other such documents.)									
	Check the connections at the external control input terminal block (TM2).									
	In the case of voltage charged 12 or 24 VDC output device: Connect to external control input terminals ① and ②.									
	In the case of Volt-free contact output device: Connect to external control input terminals \underline{Y} and \underline{Z} .									
	In the case of Mr. Slim (A control or K control): Connect to external control input terminals (1) and (2).									
	• Perform the registration using the remote controller for the air conditioner or MELANS. (Refer to the installation instructions for the remote controller for the air conditioner or MELANS.)									
	Check if the delay start time has been set.									
	 Check the following items after removing the transmission cable from external device. 									
				Opera	tion signal		Stop signal			
	Charged 12	or 24 VDC output	device 1	2 or 24 VDC	0	(
		ntact output device		Resistance: 0	Ω	1	Unlimited resistance Ω			
	Mr. Slim	i		2 to 6 VDC (pulse signal)			2 to 6 VDC (pulse signal)			
	. Mhon multinl		re connected, checl	the externe		puttod i	into the main unit			
					i signai is in	pulleu				
ossnay does not stop.	Cneck that th	le trial operation si	witch (SW2-1) is se							
The inspection indicator amp (LED 1 Green) in the		ult on fan 1 motor								
control box flashes.		ult on fan 2 motor								
		ult on OA thermiste								
	-	ult on RA thermisto	or			Turn the power off and consult your dealer.				
		ult on fan 3 motor								
		ult on fan 4 motor			Turn					
		ult on Pre-heater o			deale					
			roller communicatio	n						
	10 flashes Fault on function setting									
	11 flashes Fault on power supply to remote controller									
	12 flashes Fault on CO2 sensor, PZ-70CSD-E or PZ-70CSW-E									
	13 flashes DIP-SW 2-9 is ON. Change it OFF position.									
		P-SW 2-9 is ON. C	hange it OFF posit	ion.						
	13 flashes DIF • 15 or 30 minu	utes in the delay s	tart setting, LED lits							
The inspection indicator amp (LED 2 Red) in the	13 flashes DIF • 15 or 30 minu • LED blinks ju		tart setting, LED lits	ON.	the nower of	and imp	nediately contact your dealer.			

When an error code blinks on the remote controller, follow the procedures shown in the installation and operating manuals provided with the remote controller.

If the remote controller is not used, operate after approximately 2 minutes of turning on the power for the Lossnay.

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE:

TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN

Click the links to the right to download documents and files that relate to the relevant model number. LGH-160-250RVXT3-E Declaration of Conformity (N24HHGT0016)

- LGH-160-250RVXT3-E Installation Manual (N23HHZA0035)
- LGH-160-250RVXT3-E Instruction Book (N23HHZA0034)
- LGH-160-250RVXT3-E Service Manual & Parts List (U324)
- LGH-200RVXT3-E Specification Sheet (N23HHGU0025)
- LGH-RVXT3-E Product Information Sheet



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