

# MITSUBISHI ELECTRIC

## Lossnay Component for residential, commercial or light-industrial use

### Lossnay Remote Controller PZ-60DR-E

#### Installation Manual

This instruction manual describes how to install the Lossnay unit.  
Please read this manual thoroughly and install the remote controller accordingly. For information on how to wire and install the Lossnay units, refer to the Lossnay unit installation manual. After the installation, hand over this manual to users.

## 1 Safety Precautions

Read these Safety Precautions and perform installation work accordingly.

- The following two symbols are used to denote dangers that may be caused by incorrect use and their degree:
- WARNING** This symbol denotes what could lead to a serious injury or death if you misuse the PZ-60DR-E.
- CAUTION** This symbol denotes what could lead to a personal injury or damage to your property if you misuse the PZ-60DR-E.

After reading this installation manual, give it and the indoor unit installation manual to the end user.

The end user should keep this manual and the indoor unit installation manual in a place where he or she can see it at anytime. When someone moves or repairs the PZ-60DR-E, make sure that this manual is forwarded to the end user.

## WARNING

Ask your dealer or technical representative to install the unit.

Any deficiency caused by your own installation may result in an electric shock or fire.

Install in a place which is strong enough to withstand the weight of the PZ-60DR-E.

Any lack of strength may cause the PZ-60DR-E to fall down, resulting in personal injury.

Firmly connect the wiring using the specified cables. Carefully check that the cables do not exert any force on the terminals.

Improper wiring connections may produce heat and possibly a fire.

Never modify or repair the PZ-60DR-E by yourself.

Any deficiency caused by your modification or repair may result in an electric shock or fire.

Consult with your dealer about repairs.

Ensure that installation work is done correctly following this installation manual.

Any deficiency caused by installation may result in an electric shock or fire.

All electrical work must be performed by a licensed technician, according to local regulations and the instructions given in this manual.

Any lack of electric circuit or any deficiency caused by installation may result in an electric shock or fire.

Do not move and re-install the PZ-60DR-E yourself.

Any deficiency caused by installation may result in an electric shock or fire.

Ask your distributor or special vendor for moving and installation.

To dispose of this product, consult your dealer.

## CAUTION

Do not install in any place exposed to flammable gas leakage.

Flammable gases accumulated around the body of PZ-60DR-E may cause an explosion.

Do not use in any special environment.

Using in any place exposed to oil (including machine oil), steam and sulfuric gas may deteriorate the performance significantly or give damage to the component parts.

When installing the remote controller in a hospital or communication facility, take ample countermeasures against noise.

Inverters, emergency power supply generators, high-frequency medical equipment, and wireless communication equipment can cause the remote controller to malfunction or to fail.

Radiation from the remote controller may affect communication equipment and prevent medical operations on the human body or interfere with image transmission and cause noise.

Wire so that it does not receive any tension.

Tension may cause wire breakage, heating or fire.

Completely seal the wire lead-in port with putty etc.

Any dew, moisture, insects entering the unit may cause an electric shock or a malfunction.

Do not install in any place at a temperature of more than 40°C or less than 0°C or exposed to direct sunlight.

Doing so may cause deformation or malfunction.

## 2 Confirming the Supplied Parts

Confirm that the box includes the following parts, in addition to this installation manual:

- Remote controller (cover, body)..... 1
- Cross recessed pan head screw (M4 x 30)..... 1
- Wood screw (M4.1 x 16, used for directly hooking to the wall)..... 2



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## 3 How To Install

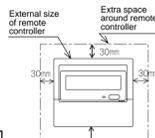
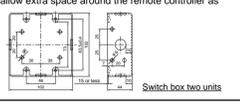
Choose a place in which to install the remote controller (switch box).

Be sure to observe the following steps:

- When installing on either the switch box or the wall, allow extra space around the remote controller as shown in the figure at the right.

Parts which must be supplied on site:

- Switch box for two units
- Thin-copper wiring pipe
- Lock nut and bushing
- Surface raceways



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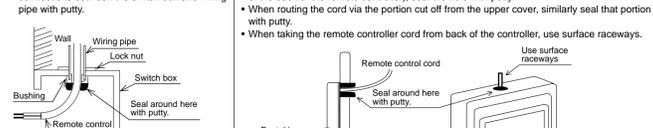
## Construction precautions

- Do not connect a wire exceeding the specified thickness to the terminal block. (This can lead to damage.)
- Do not run together with other wiring in a wiring conduit. (This can cause communication errors.)
- Do not connect multiple communication lines using a single multi-core cable. (This can cause communication errors.)
- The total length of the communication line must be 500 m or less. (This can cause communication errors.)

Seal the remote controller cord with putty in order to prevent the possible entry of dew, water droplets, cockroaches, other insects, etc.

When using the switch box

- When installing on the switch box, seal the connections between the switch box and wiring pipe with putty.
- When routing the cord via the portion cut off from the upper cover, similarly seal that portion with putty.
- When taking the remote controller cord from back of the controller, use surface raceways.



## Remove the remote controller cover.

- Insert a flathead screwdriver into one of the open slots and move the screwdriver in the arrow direction.

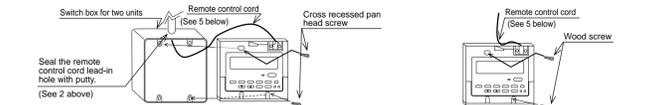
Remove the cover carefully so as to avoid any damage.

Do not turn the screwdriver in the slot. Doing so may damage the slot.



## Install the lower case on the switch box or directly on the wall.

When using the switch box



Do not tighten the screws too tight. Doing so may deform or crack the lower cover.

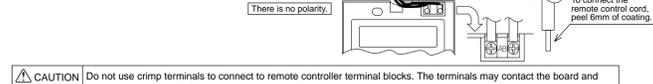
NOTE: Choose a flat plane for installation.

Fasten the switch box at more than two places when installing directly on the wall.

When reinstalling on the wall, fasten securely using anchors.

Connect the remote control cord to the remote controller terminal block.

For the remote control, obtain a 2-core cable between 0.3 and 1.25 mm<sup>2</sup> at the site.



Do not use crimp terminals to connect to remote controller terminal blocks. The terminals may contact the board and cause trouble or contact the cover and damage the cover.

Prevent remote cord chips from getting into the remote controller. Electric shock or malfunction may result.

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- Wiring hole for installing directly on the wall (or open wiring)
  - Cut off the shaded area from the upper cover using a knife, nippers, etc.
  - Take out the remote control cord connected to the terminal block via this portion.
- Install the cover to the remote controller.

First, hook the cover to the two upper claws and then fit it to the remote controller.

**CAUTION** Press the cover until it snaps shut. If not, it may fall off.

NOTE: A protection sheet is stuck to the operation section. Peel off this protection sheet before use.

## 4 Test Run

Operation	Relevant button	Relevant display items	Sequence
1. Starting the Lossnay unit	ON/OFF	Operation lamp	Press the [ON/OFF] button and confirm that the Operation lamp turns on.
2. Setting the ventilation mode	HEAT EX.	HEAT EX. "High" "HEAT EX.: non-automatic"	Press the Function selector button. Each time it is pressed, the corresponding display will change in accordance with the sequence [HEAT EX.] (non-automatic) → [BY-PASS] (non-automatic) → [AUTO].
3. Selecting the fan speed	Fan speed adjustment button	"Low" "Extra High"	Press the Fan Speed Adjustment button to select either Low or High (Extra High) fan speed. High and Extra-High can be selectable by initial setting.
4. Selecting the Extra Low fan speed <sup>1)</sup>	Extra Low fan speed button	"Extra Low"	Press the "Extra Low" fan speed button. Extra low operation will begin. Pressing the Fan Speed Adjustment button will cause the fan speed to revert to its original speed (before the Extra low mode began). Pressing the Extra Low fan speed button again will return operation to Extra low mode.
5. Stopping the Lossnay unit	ON/OFF	Operation lamp	Press the [ON/OFF] button. <sup>2)</sup> (Press the [ON/OFF] button to turn off the Operation lamp.)

- If you press a button for a feature that is not installed at the Lossnay unit, the remote controller will display the "NOT AVAILABLE" message.
- If set to "24-hour Ventilation", pressing the [ON/OFF] button will cause this to be displayed in the dot display "24HR VENTILATION", and the operation will switch to Extra low fan speed mode. To stop operation, press the [ON/OFF] button twice within 3 seconds, or press and hold the [ON/OFF] button for 5 seconds.

Error code	Cause	Action
0900	The SW2 trial-operation switch from the Lossnay control box is ON.  If two or more Lossnay units are not performed, "6608" may indicate that the correct settings has been together using the main/sub switches.	Turn off the trial-operation switch.  Turn off the power supply and use the main/sub switches to specify one Lossnay unit as the main and the others as sub. Turn the power supply back on. Note that all Lossnay units are specified as main before shipment from the manufacturing plant.
6608	If two remote controllers are used together, "6608" may indicate that both of these controllers are not set automatically when the power is turned on.  Multiple transmission cables are wired with multi core cables.	Turn off the power supply, connect the remote controller, then turn the power supply back on.  For the applied transmission cable, wire the transmission cables away from the other transmission cable.
4116	A circuit error has occurred in the Lossnay unit.	Turn off the power supply and contact the distributor.
3126	Temperature error (OA side).	
5101	An error has occurred in the Lossnay thermostat (OA side).	
5102	An error has occurred in the Lossnay thermostat (RA side).	
3602	An error has occurred in the damper motor.	
6600	Multiple address error (M-NET side).	
6602	Communication error (M-NET side).	
6603		
6606		

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## 5 Function Selection

Function selection of remote controller

The setting of the following remote controller functions can be changed using the remote controller function selection mode. Change the setting when needed.

Item 1	Item 2	Item 3 (Setting content)
(1) Change Language ("CHANGE LANGUAGE")	Language setting to display	Display in multiple languages is possible.
(2) Function limit ("FUNCTION SELECTION")	(1) Operation function limit setting (operation lock) ("LOCKING FUNCTION")  (2) 24-hour ventilation setting <sup>2)</sup> ("24HR VENTILATION")	Setting the range of operation limit (operation lock)  Sets whether the [ON/OFF] button stops operation completely or initiates Extra low operation.
(3) Mode selection ("MODE SELECTION")	(1) Use of clock setting ("CLOCK") (2) Timer function setting ("WEEKLY TIMER")	Setting the use or non-use of clock function  Setting the timer type
(4) Display change ("DISP MODE SETTING")	(1) Filter cleaning setting ("MAINTENANCE SIGN") (2) Lossnay cores cleaning setting ("MAINTENANCE SIGN")	Contact number display in case of error Setting the telephone number
(5) Installation settings ("LOSSNAY SETTINGS")	(1) Supply fan speed setting ("SA SETTING") (2) Exhaust fan speed setting ("EA SETTING") (3) Power supply/exhaust when operation starts ("POWER VENT START") (4) Subordinate Lossnay settings ("SUB SET")	Sets Extra High/High fan speed selection, and Multi Ventilation modes  Sets Extra High/High fan speed selection, and Multi Ventilation modes  Power supply / exhaust when operation starts  Enable/disable subordinate Lossnay unit supply and exhaust fan speed settings.
(6) Operation monitor output selection ("OPERATION MONITOR")	(5) Power supply ON/OFF/AUTO ("RECOVERY SETTING")	Controls stop and start operation by turning the power supply (220-240 V) for the Lossnay on and off.
(7) Exhaust fan speed selection for cold region intermittent operation ("EA SETTING INTERMIT")	(6) Operation monitor output selection ("OPERATION MONITOR")	Sets whether the operation monitor will apply to the exhaust fan or the supply fan.
(8) Night purge setting ("NIGHT PURGE")	(7) Exhaust fan speed selection for cold region intermittent operation ("EA SETTING INTERMIT")	Sets exhaust fan speed for cold region intermittent operation.
(9) Bypass automatic ventilation priority setting ("BYPASS SETTINGS")	(8) Night purge setting ("NIGHT PURGE")	Enables/disables Night purge.
(10) Interlocking settings ("INTERLOCK SETTINGS")	(9) Bypass automatic ventilation priority setting ("BYPASS SETTINGS")	These settings indicate how Lossnay should operate when external devices are started or stopped.
(1) Interlock mode setting ("INTERLOCK MODE")	(10) Interlocking settings ("INTERLOCK SETTINGS")	These settings indicate how Lossnay should operate when external devices are started or stopped.
(2) Pulse input setting ("INPUT SIGNAL")	(1) Interlock mode setting ("INTERLOCK MODE")	Set when pulse signal equipment is connected to an external input.
(3) Delayed operation settings ("DELAY OPERATION")	(2) Pulse input setting ("INPUT SIGNAL")	Setting for delay (of operation at startup of heating or cooling)
(4) Exhaust operation settings for air conditioner defrosting ("EA SETTING DEFROST")	(3) Delayed operation settings ("DELAY OPERATION")	Stopping exhaust fan when defrosting air conditioner

(5) Installation settings and (6) Interlocking settings are selection modes that allow overriding of Lossnay unit Dip switches settings via remote controllers.

<sup>1)</sup> When a remote controller is set to factory setting, the system operates according to the main unit Dip switch settings. When the remote controller settings are changed from the defaults, the system operates according to those settings. (The main unit switch settings are overrides.)

<sup>2)</sup> If two remote controllers are used, these settings can be performed only for the "main" remote controller. These settings will be skipped for the "sub" remote controller and may not be modified. The designation of main and sub remote controller and are determined automatically upon main unit power-up. The remote controller for which (5) and (6) are displayed in the Function Selection mode is the main remote controller.

<sup>3)</sup> Clock use must be set for Weekly timer and Night purge operation.

<sup>4)</sup> Applies only to the following functions:

(Supply fan), [Exhaust fan], [Start up power supply and exhaust]

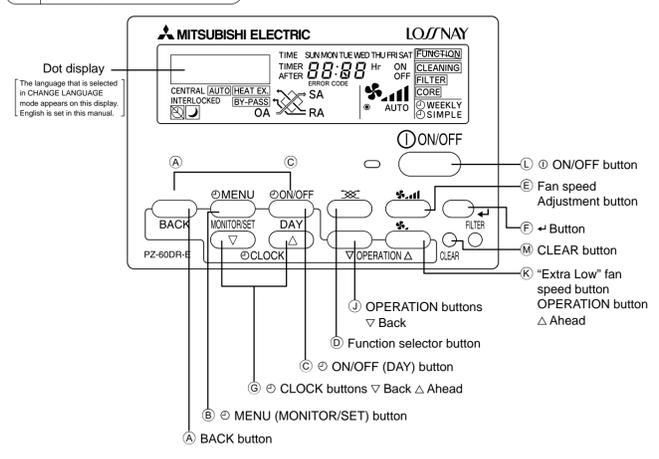
<sup>5)</sup> Indicates Dip switches in the Lossnay control box.

<sup>6)</sup> For the Lossnay models without those functions, those setting items will be nondisplay.

## NOTE

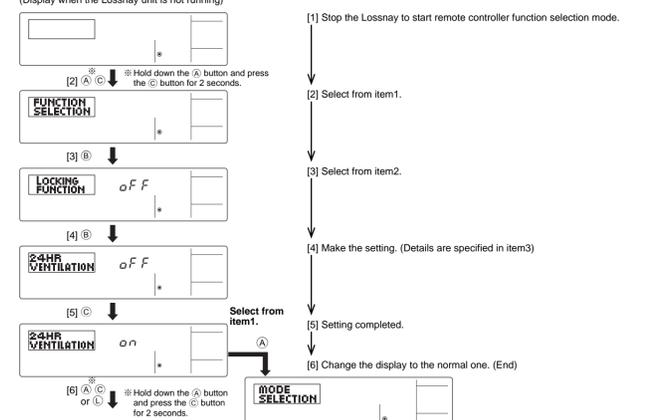
When the functions of the Lossnay unit were changed by function selection after installation, always indicate the set contents by entering ( ) or other mark in the appropriate check field of the tables shown in page 7 and 8. (Settings may be lost if the remote controller malfunctions.) When replacing a remote controller, specify the same settings as before the replacement.

## 5 Function Selection



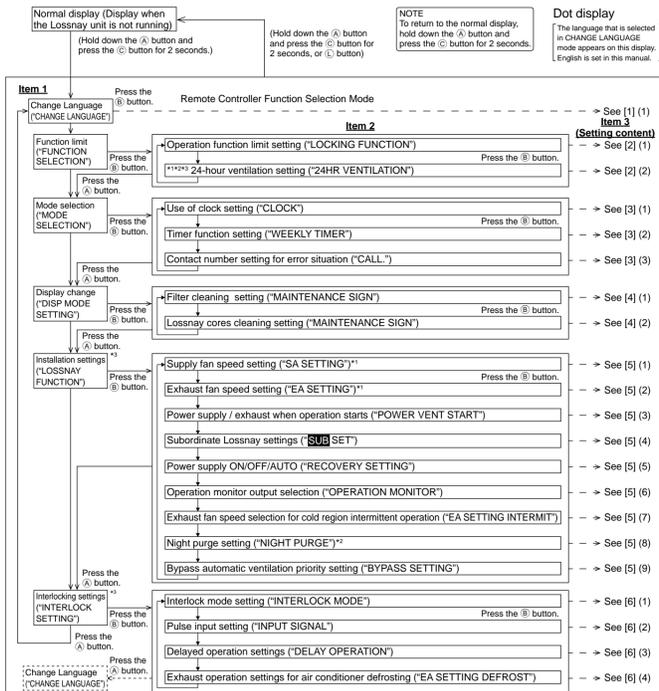
[Function selection flowchart]

(1) Normal display (Display when the Lossnay unit is not running)



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- If the remote controller Function Selection mode is entered during timer operation, the timer operation will be cancelled. Set timer operation after completing the remote controller Function Selection mode.
- When using two remote controllers, if one remote controller is set to remote controller Function Selection mode, "FUNCTION" will be displayed in the other remote controller and its operation will be disabled.
- Button response may at times be slow due to communication processing; this is not a malfunction.



<sup>1)</sup> For the Lossnay models without those functions, those setting items will be nondisplay.

<sup>2)</sup> Those settings can be disabled depending on the other setting conditions.

<sup>3)</sup> When two remote controllers are used, the settings will be displayed only in the main remote controller.

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[1] Change Language				
The language that appears on the dot display can be selected. Press the [MENU] button to change the language. Japanese (日本語) (ja), English (en), German (de), Spanish (es), Russian (ru), Italian (it), Chinese (zh), French (fr)				
[2] Function limit				
(1) Operation function limit setting (operation lock) To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	oFF	Operation lock setting is not made. (Factory setting)		
	no1	Operation lock setting is made on all buttons other than the [ON/OFF] button.		
	no2	Operation lock setting is made on all buttons.		
* To make the operation lock setting valid on the normal screen, it is necessary to press buttons (Press and hold down the [FILTER] and [ON/OFF] buttons at the same time for 2 seconds.) on the normal display after the above setting is made. * The same operation is used to cancel the lock.				
[2] 24-hour ventilation setting Sets whether to stop operation completely or initiate Extra low operation by pressing the [ON/OFF] button during operation. 24-hour Ventilation cannot be set when the pulse input setting is ON in the interlocking settings. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	oFF	Pressing the [ON/OFF] button during operation stops operation. (Factory setting)		
	on	Pressing the [ON/OFF] button during operation initiates Extra low operation. Pressing the [ON/OFF] button twice within three seconds, or pressing and holding it for five seconds, stops operation.		
* When 24-hour Ventilation is set to on, "24HR VENTILATION" will be displayed in the dot display during Extra low operation. The supply fan will stop and the exhaust fan will perform low notch operation if the system enters cold region intermittent mode during 24 hours operation. * For the Lossnay models without those functions, those setting items will be nondisplay.				
[3] Mode selection				
(1) Use of clock setting To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	oFF	The clock function cannot be used. (Factory setting)		
	on	The clock function can be used. (Factory setting)		
* Set to ON to enable Weekly timer and Night purge.				
(2) Timer function setting Selects whether to use a Weekly timer, Simple timer, or not to use any timer. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	oFF	The weekly timer can be used. (Factory setting)		
	on	When the use of clock setting is OFF, the "WEEKLY TIMER" cannot be used.		
	oF	The simple timer can be used.		
	oF	The timer mode cannot be used.		
(3) Contact number setting for error situation To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	CALL 0120XXXXXX	The set contact numbers are not displayed in case of error. (Factory setting)		
	CALL 0120XXXXXX	The set contact numbers are displayed in case of error.		
* The set contact numbers To set the contact numbers, follow the following procedures. Move the flashing cursor to set numbers. Press the OPERATION buttons to move the cursor to the right (left). Press the [CLOCK] button to set the numbers. Pressing the CLEAR button will clear the set number.				
[5] Installation settings				
(1) Supply fan speed setting (SW2-4,9) Set supply to Extra High/High fan speed notch selection or Low fixed (multi ventilation mode). To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	SH:L	Used at "Extra High" and "Low" fan speed		
	H:L	Used at "High" and "Low" fan speed (Factory setting)		
	L	Fixed at "Low" fan speed (multi ventilation mode)		
(2) Exhaust fan speed setting (SW2-5,10) Set exhaust fan to Extra High/High fan speed notch selection or Low fixed (multi ventilation mode). To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	SH:L	Used at "Extra High" and "Low" fan speed		
	H:L	Used at "High" and "Low" fan speed (Factory setting)		
	L	Fixed at "Low" fan speed (multi ventilation mode)		
(3) Power supply / exhaust when operation starts (SW2-3) Set whether or not to perform power exhaust (30 minutes of fixed High (Extra High) fan speed) at start-up. When set to 24-hour Ventilation, pressing the [ON/OFF] button stops and re-starts operation. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	oFF	Normal (Factory setting)		
	on	Power supply / exhaust is performed at start-up (After 30 minutes, the system switches to enable fan speed adjustment from the remote controller)		
* If power supply / exhaust is performed at start-up, the notch can be changed with the Fan speed Adjustment button.				
(4) Subordinate Lossnay settings Enables/disables usage of the supply and exhaust fan speed [(5) (1) to (3) above] remote controller settings for the subordinate Lossnay. If set to "diP", only the main Lossnay will operate at the subordinate remote fan speed settings. The subordinate Lossnay will operate using the main unit Dip switch settings. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	RC	Enables function settings for the subordinate Lossnay via the remote controller. (Factory setting)		
	diP	Disables function settings for the subordinate Lossnay via the remote controller.		
(5) Power supply ON/OFF/AUTO (SW2-6) (SW5-4) Controls stop and start operation by turning the power supply (220-240V) for the Lossnay on and off. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	oFF	Stop when the power is on (Factory setting)		
	on	Start when the power is on		
	AUF	Resume at the same operation mode (stop or start) before power off		
(6) Operation monitor output selection (SW5-2) Selects whether the operation monitor output will apply to the exhaust fan (during operation) or the supply fan. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	1	Corresponds to operation mode output exhaust fan (Factory setting)		
	2	Corresponds to operation mode output supply fan		
(7) Exhaust fan speed selection for cold region intermittent operation (SW5-9) Selects the exhaust fan speed during cold region intermittent operation. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function	Check	
	Lo	Exhaust fan operates at "Low" (fixed) fan speed.		
	on	Exhaust fan operates at "High" and "Low" fan speed (Factory setting)		
	on	Exhaust fan operates normally (with no notch change). (Factory setting)		
(8) Night purge setting Night purge operation is used in the summer to automatically ventilate a room at night while the air conditioner is stopped, to discharge accumulated heat and thereby reduce the air conditioning load the next morning. Enables or disables Night purge operation. To switch the setting, press the [ON/OFF] button.				
Dot display	Display	Function		