MITSUBISHI ELECTRIC

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

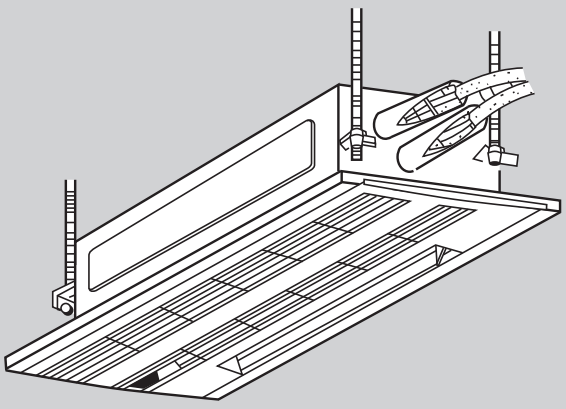
November 2023

No. OCH845

TECHNICAL & SERVICE MANUAL

CITY MULTI Series Ceiling Cassettes R410A

Indoor unit [Model names]	[Service Ref.]
PMFY-P06NBMU-E	PMFY-P06NBMU-ER6
PMFY-P08NBMU-E	PMFY-P08NBMU-ER6
PMFY-P12NBMU-E	PMFY-P12NBMU-ER6
PMFY-P15NBMU-E	PMFY-P15NBMU-ER6



INDOOR UNIT

CONTENTS

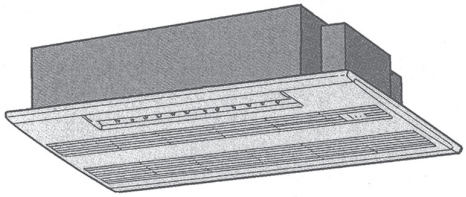
CITY MULTI

Use the specified refrigerant only

Never use any refrigerant other than that specified.

Doing so may cause a burst, an explosion, or fire when the unit is being used, serviced, or disposed of.
Correct refrigerant is specified in the manuals and on the spec labels provided with our products.
We will not be held responsible for mechanical failure, system malfunction, unit breakdown or accidents caused by failure to follow the instructions.

1 FEATURES



Indoor Unit

Models	Cooling capacity / Heating capacity
PMFY-P06NBMU-E	6,000 / 6,700 Btu/h
PMFY-P08NBMU-E	8,000 / 9,000 Btu/h
PMFY-P12NBMU-E	12,000 / 13,500 Btu/h
PMFY-P15NBMU-E	15,000 / 17,000 Btu/h

1. Fresh Air Intake

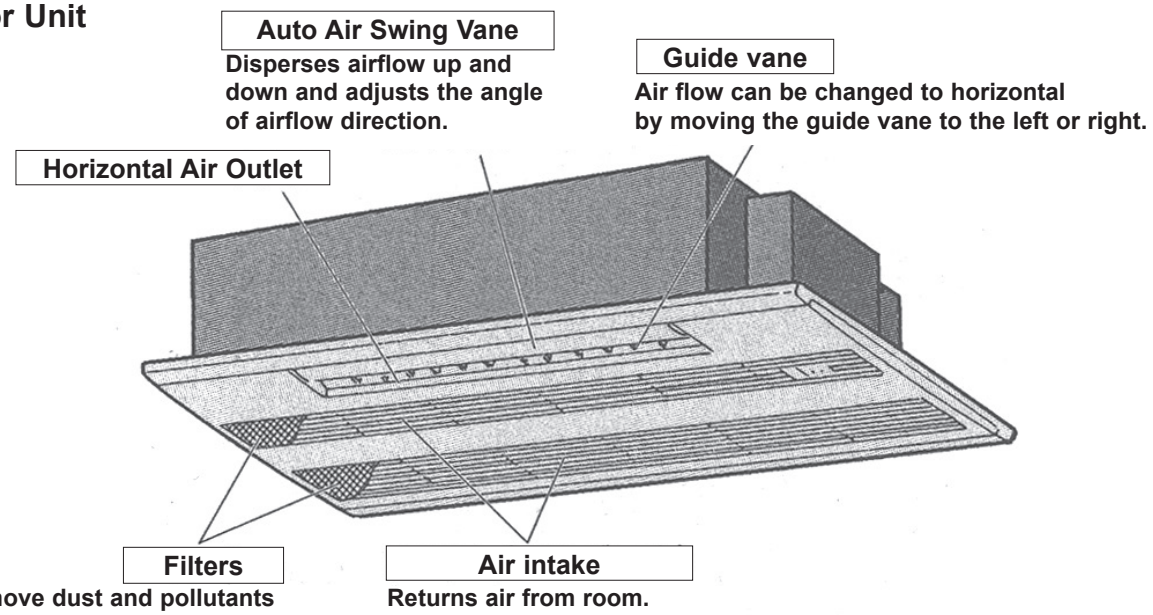
Air recycled indefinitely can become stale and stagnant with air quality suffering significantly. Fresh air is the answer and it is for this reason that the PMFY- series takes in air directly from outdoors. This fresh air intake allows you to enjoy the comfort of crisp, refreshing air in the confines of your living or working space.

2. Light and Compact

The main unit weighs only 31 lb. and the panel merely 7 lb. This makes the PMFY- series one of the lightest in the industry. The unit size is also quite small, having been standardized to a strikingly compact 33-5/8 inch. All of this make the chore of installation and maintenance that much simpler and easier.

2 PART NAMES AND FUNCTIONS

• Indoor Unit



Refer to "9-1. REMOTE CONTROLLER FUNCTIONS" for details.

3 SPECIFICATION

3-1. SPECIFICATIONS

Item \ Service ref.				PMFY-P06NBMU-ER6	PMFY-P08NBMU-ER6	PMFY-P12NBMU-ER6	PMFY-P15NBMU-ER6
Power			V · Hz	Single phase 208-230V 60Hz			
Cooling capacity			Btu/h	6,000	8,000	12,000	15,000
Heating capacity			Btu/h	6,700	9,000	13,500	17,000
Electric characteristic	Input	Cooling	kW	0.04	0.04	0.04	0.05
		Heating	kW	0.04	0.04	0.04	0.05
	Current	Cooling	A	0.20	0.20	0.21	0.26
		Heating	A	0.20	0.20	0.21	0.26
Exterior (munsell symbol)			—	Unit : Galvanized sheets · Standard grilles : ABS resin acrylic coating Pure White <6.4Y 8.9/0.4>			
External dimension H × W × D			mm	230 × 812 × 395			
			in	9-1/16 × 31-15/16 × 15-9/16			
Net weight			kg (lbs)	14 (31)			
Grill	Dimension H × W × D		mm	30 × 1000 × 470			
			in	1-3/16 × 39-3/8 × 18-1/2			
	Net weight		kg (lbs)	3 (7)			
Heat exchanger			—	Cross fin			
Fan	Fan × No		—	Line flow fan × 1			
	Air flow *1		m^3/h	6.5-7.2-8.0-8.7	7.3-8.0-8.6-9.3		7.7-8.7-9.7-10.7
			CFM	230-254-283-307	258-283-304-328		272-307-343-378
	External static pressure		in W.G.	0			
	Fan motor output		kW	0.028			
Insulator			—	PS foam, Polyethylene foam			
Air filter			—	PP honey comb			
2Pipe dimensions		Gas side	mm (in)	ø12.7 (ø1/2") Flare			
		Liquid side	mm (in)	ø6.35 (ø1/4") Flare			
Field drain pipe size			mm (in)	O.D.26 (1") (PVC pipe VP-20 connectable)			
Noise level *1			dB	27-30-33-35	32-34-36-37		33-35-37-39

Note 1. Rating conditions

Cooling: Indoor: D.B. 80°F/27°C W.B. 67°F/19.5°C
Outdoor: D.B. 95°F/35°C W.B. 75°F/24°C
Heating: Indoor: D.B. 70°F/21°C
Outdoor: D.B. 47°F/7°C W.B. 43°F/6°C

*1. Air flow and the noise level are indicated as Low - Medium2 - Medium1 - High.

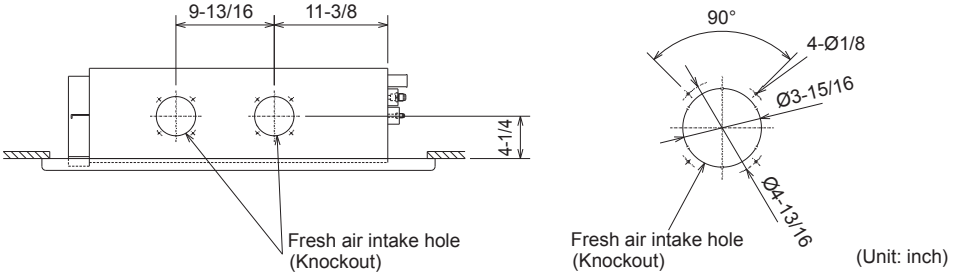
3-2. ELECTRICAL PARTS SPECIFICATIONS

Service Ref. / Parts name	Symbol	PMFY-P06NBMU-ER6	PMFY-P08NBMU-ER6	PMFY-P12NBMU-ER6	PMFY-P15NBMU-ER6
Room temperature thermistor	TH21	Resistance 30°F/15.8kΩ, 50°F/9.6kΩ, 70°F/6.0kΩ, 80°F/4.8kΩ, 90°F/3.9kΩ, 100°F/3.2kΩ			
Liquid pipe thermistor	TH22	Resistance 30°F/15.8kΩ, 50°F/9.6kΩ, 70°F/6.0kΩ, 80°F/4.8kΩ, 90°F/3.9kΩ, 100°F/3.2kΩ			
Gas pipe thermistor	TH23	Resistance 30°F/15.8kΩ, 50°F/9.6kΩ, 70°F/6.0kΩ, 80°F/4.8kΩ, 90°F/3.9kΩ, 100°F/3.2kΩ			
Fuse (Indoor controller board)	FUSE	250V 6.3A			
Fan motor	MF	DC Brushless Motor 8-pole OUTPUT 28W PN0H28-MB			
Vane motor	MV	MSFJC 20M23 12V/380Ω			
Drain pump	DP	PJV-1063 208-240V 50/60Hz			
Drain sensor	DS	Thermistor resistance 30°F/6.3kΩ, 50°F/3.9kΩ, 70°F/2.5kΩ, 80°F/2.0kΩ, 90°F/1.6kΩ, 100°F/1.3kΩ			
Linear expansion valve	LEV	DC12V Stepping motor drive port dimension ø3.2 (0~2000pulse) EDM-40YGME			
Power supply terminal block	TB2	(L1, L2) Rated to 330V 30A *			
Transmission terminal block	TB5	(M1, M2, S) Rated to 250V 20A *			
MA-remote controller terminal block	TB15	(1,2) Rated to 250V 10A *			

***Note : Refer to WIRING DIAGRAM for the supplied voltage.**

3-3. AIR CAPACITY TAKEN FROM OUTSIDE

PMFY-P·NBMU-E series are capable of taking air from outside. When taking air from outside, the duct fan is used. The air capacity should be 20% or less of the airflow SPEC (Hi).



Service Ref.	Air flow (Hi)	Air capacity taken from outside
PMFY-P06NBMU-ER6	307 CFM	60 CFM
PMFY-P08NBMU-ER6	328 CFM	64 CFM
PMFY-P12NBMU-ER6	328 CFM	64 CFM
PMFY-P15NBMU-ER6	378 CFM	74 CFM

Operation in conjunction with duct fan (Booster fan)

- Whenever the indoor unit is operating, the duct fan operates.

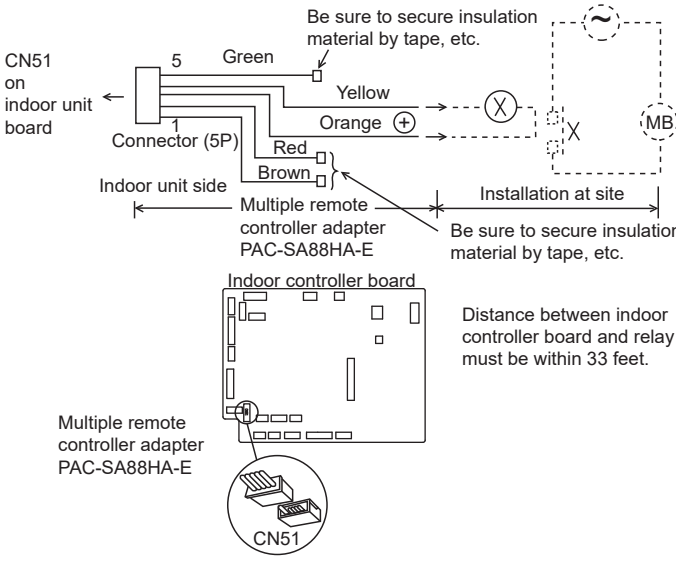
(1) Connect the optional multiple remote controller adaptor (PAC-SA88HA-E) to the connector CN51 on the indoor controller board.

(2) Drive the relay after connecting the 12V DC relay between the Yellow and Orange connector lines.

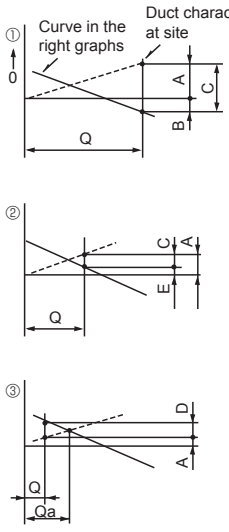
(*)Use a relay of 1W or smaller.

MB: Electromagnetic switch power relay for duct fan.

X: Auxiliary relay (12V DC LY-1F)



How to read curves



Q…Designed amount of fresh air intake <CFM>

A…Static pressure loss of fresh air intake duct system with air flow amount Q <in. W.G>

B…Forced static pressure at air conditioner inlet with air flow amount Q <in. W.G>

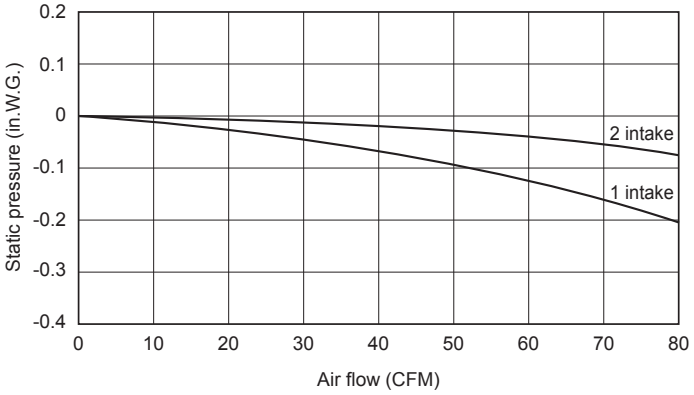
C…Static pressure of booster fan with air flow amount Q <in. W.G>

D…Static pressure loss increase amount of fresh air intake duct system for air flow amount Q <in. W.G>

E…Static pressure of indoor unit with air flow amount Q <in. W.G>

Qa…Estimated amount of fresh air intake without D <CFM>

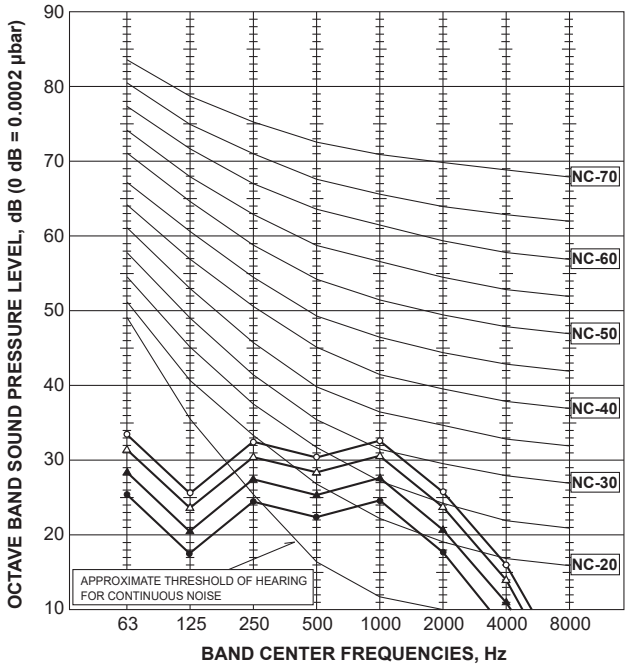
Characteristic diagram of air capacity taken from outside of PMFY-P·NBMU-E



3-4. NOISE CRITERION CURVES

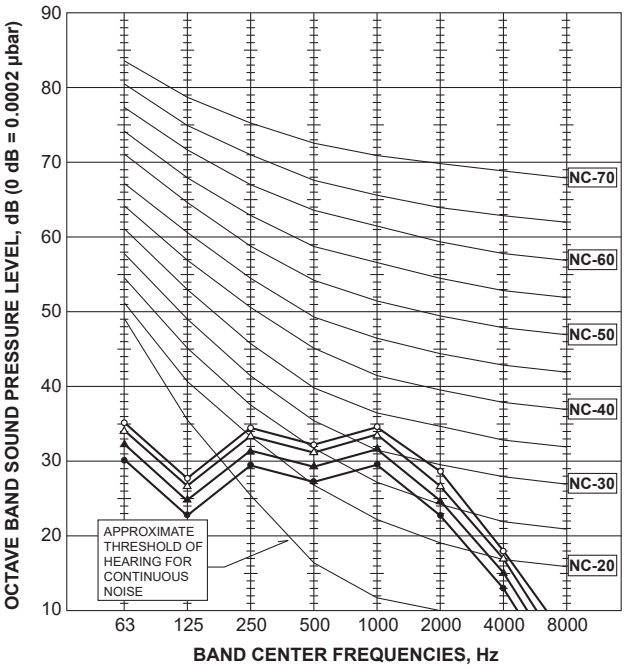
PMFY-P06NBMU-ER6

NOTCH	SPL(dB)	LINE
High	35	
Medium1	33	
Medium2	30	
Low	27	



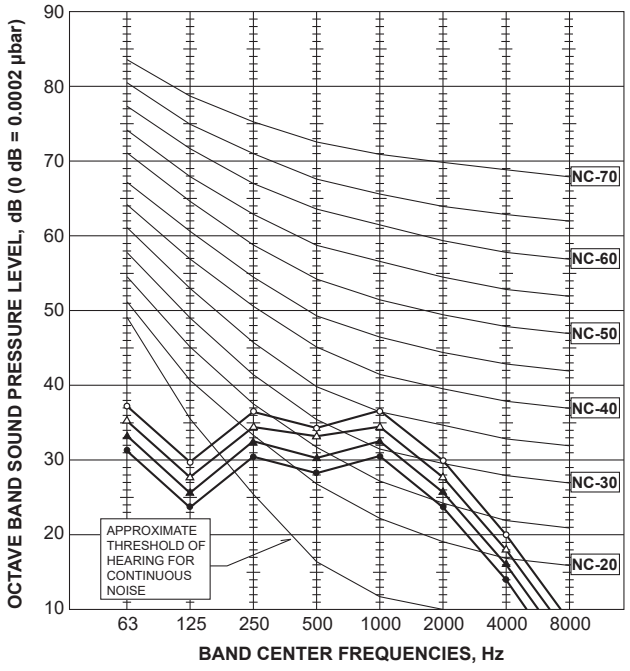
PMFY-P08/12NBMU-ER6

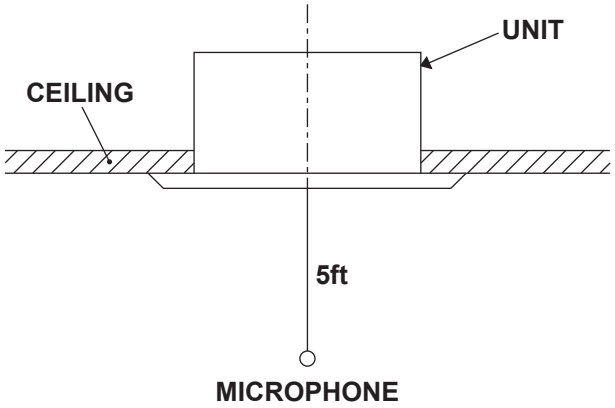
NOTCH	SPL(dB)	LINE
High	37	
Medium1	36	
Medium2	34	
Low	32	



PMFY-P15NBMU-ER6

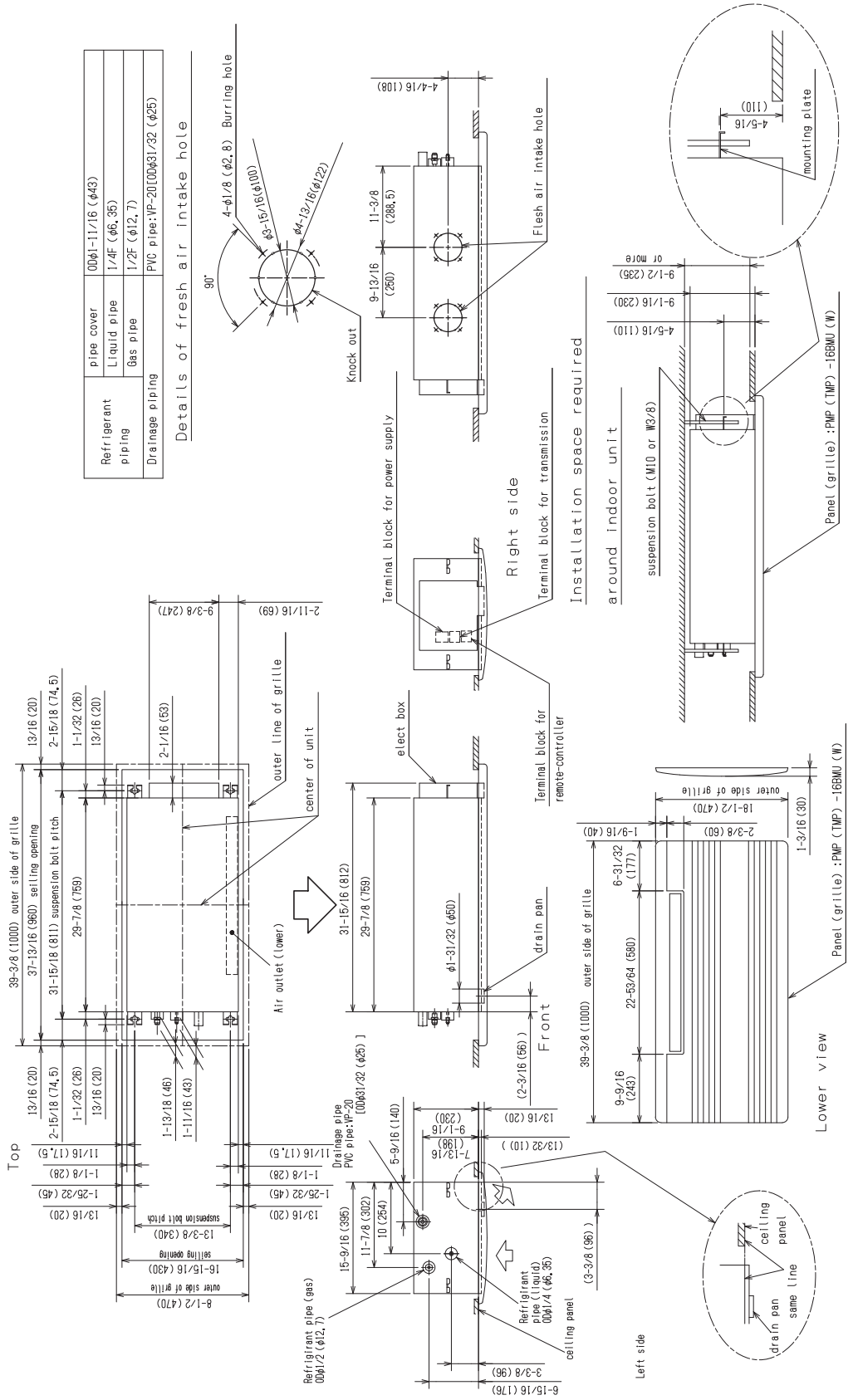
NOTCH	SPL(dB)	LINE
High	39	
Medium1	37	
Medium2	35	
Low	33	





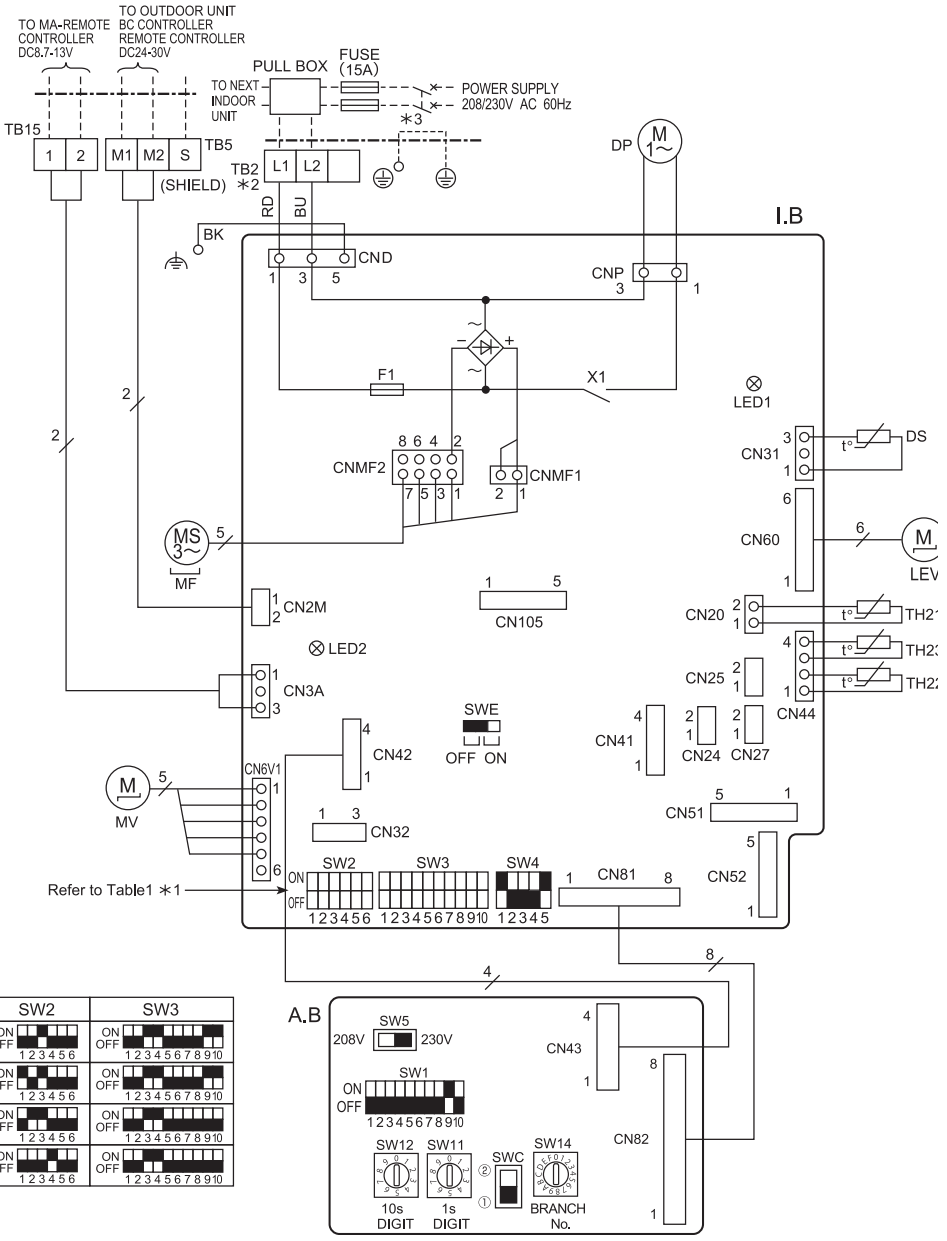
4 OUTLINES AND DIMENSIONS

Unit : inch (mm)



【LEGEND】

SYMBOL	NAME		SYMBOL	NAME	
I.B	INDOOR CONTROLLER BOARD		DS	DRAIN SENSOR	
CN24	CONNECTOR	EXTERNAL HEATER	LEV	LINEAR EXPANSION VALVE	
CN25		HUMIDIFIER	TB2	TERMINAL BLOCK	POWER SUPPLY
CN27		DAMPER	TB5		TRANSMISSION
CN32		REMOTE SWITCH	TB15		MA-REMOTE CONTROLLER
CN51		CENTRALLY CONTROL	TH21	THERMISTOR	ROOM TEMP. DETECTION (32˚F/15kΩ、77˚F/5.4kΩ)
CN52		REMOTE INDICATION			
CN105		IT TERMINAL	TH22		PIPE TEMP. DETECTION / LIQUID (32˚F/15kΩ、77˚F/5.4kΩ)
SW2	SWITCH	CAPACITY CODE			
SW3		MODE SELECTION	TH23		PIPE TEMP. DETECTION / GAS (32˚F/15kΩ、77˚F/5.4kΩ)
SW4		MODEL SELECTION			
SWE		DRAIN UP MACHINE(TEST MODE)	A,B	ADDRESS BOARD	
F1	FUSE （T6.3AL 250V）		SW1	SWITCH	MODE SELECTION
X1	AUX.RELAY	DRAIN PUMP	SW5		VOLTAGE SELECTION
MF	FAN MOTOR		SW11		ADDRESS SETTING 1S DIGIT
MV	VANE MOTOR		SW12		ADDRESS SETTING 10S DIGIT
DP	DRAIN PUMP		SW14		BRANCH No.



NOTES:

1. At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
2. In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
3. In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
4. Symbol [S] of TB5 is the shield wire connection.
5. Symbols used in wiring diagram are, □□□ : terminal block, □ , ○○○ : connector.
6. The setting of the SW2, SW3 dip switches differs in the capacity for the detail, refer to Table1:∗1.
7. Please set the switch SW5 according to the power supply voltage.

∗1 ■ is the switch position.
∗2 Use copper supply wires.
Utiliser des fils d'alimentation en cuivre.
∗3 A disconnect should be required by local code.
Se procurer un sectionneur conforme aux réglementations locales.

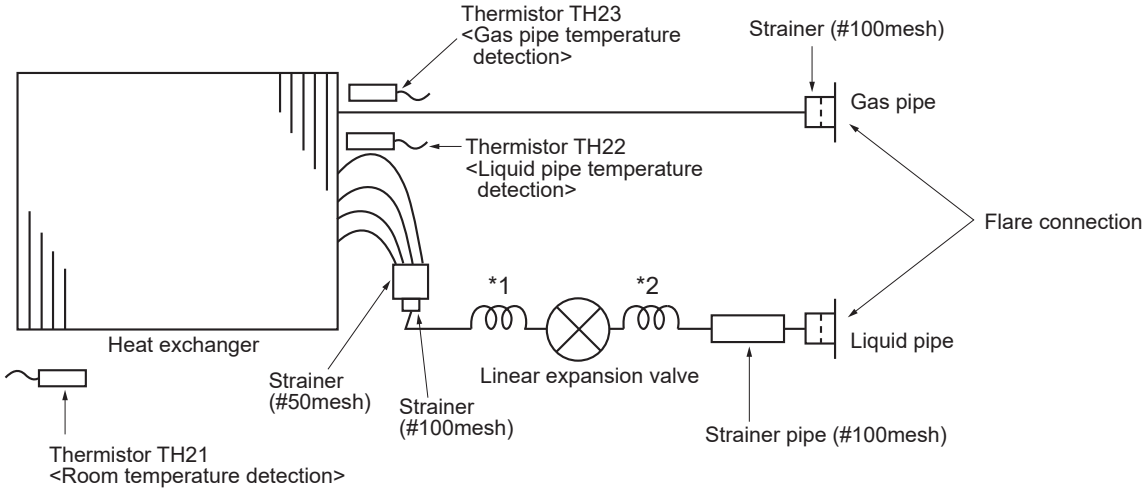
〈Table1〉

Models	SW2	SW3
06	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
08	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
12	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
15	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10

LED on indoor board for service

Mark	Meaning	Function
LED1	Main power supply	Main power supply (Indoor unit:208/230V) Power on → lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit

6 REFRIGERANT SYSTEM DIAGRAM



Unit: in(mm)

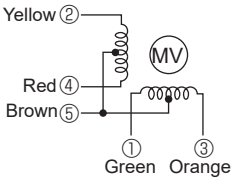
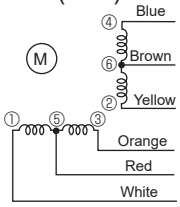
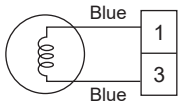
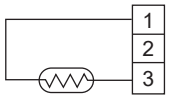
Item \ Service Ref.	PMFY-P06/08/12/15NBMU-ER6
Gas pipe	ø1/2"(12.7)
Liquid pipe	ø1/4"(6.35)

Unit: mm

Item \ Service Ref.	PMFY-P06/08NBMU-ER6	PMFY-P12/15NBMU-ER6
Capillary tube *1	O.D.ø4.6 × I.D.ø3.4 × ℓ200	O.D.ø3.6 × I.D.ø2.4 × ℓ200
Capillary tube *2	O.D.ø3.6 × I.D.ø2.4 × ℓ80	

7 TROUBLESHOOTING

7-1. HOW TO CHECK THE PARTS

<table>
<tr><th>Parts name</th><th>Checkpoints</th></tr>
<tr><td>Thermistor (TH21)
<Room temperature detection>
Thermistor (TH22)
<Liquid pipe temperature detection>
Thermistor (TH23)
<Gas pipe temperature detection></td><td>Disconnect the connector then measure the resistance with a tester.
(At the ambient temperature 50˚F~86˚F)
<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>4.3kΩ ~ 9.6kΩ</td><td>Open or short</td></tr></table>Refer to the next page for the details.</td></tr>
<tr><td>Vane motor (MV)
 
</td><td>Measure the resistance between the terminals with a tester.
(At the ambient temperature 68˚F~86˚F)
<table><tr><th>Connector</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Brown — Yellow</td><td rowspan="4">380Ω ± 7%</td><td rowspan="4">Open or short</td></tr><tr><td>Brown — Red</td></tr><tr><td>Brown — Orange</td></tr><tr><td>Brown — Green</td></tr></table></td></tr>
<tr><td>Linear expansion valve (LEV)
 
</td><td>Disconnect the connector then measure the resistance with a tester.
<table><tr><th colspan="4">Normal</th><th>Abnormal</th></tr><tr><td>White-Red</td><td>Yellow-Brown</td><td>Orange-Red</td><td>Blue-Brown</td><td rowspan="2">Open or short</td></tr><tr><td colspan="4">200Ω ± 10%</td></tr></table>Refer to the next page for the details.</td></tr>
<tr><td>Drain pump (DP)
 
</td><td>Measure the resistance between the terminals with a tester.
(At the ambient temperature 68˚F)
<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>400Ω~480Ω</td><td>Open or short</td></tr></table></td></tr>
<tr><td>Drain sensor (DS)
 
</td><td>Measure the resistance after 3 minutes have passed since the power supply was turned off.
(At the ambient temperature 32˚F~140˚F
<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>0.6kΩ~6.0kΩ</td><td>Open or short</td></tr></table>Refer to the next page for the details.</td></tr>
</table>

<Thermistor characteristic graph>

Thermistors for lower temperature

Thermistor <Room temperature detection> (TH21)
Thermistor <Liquid pipe temperature detection> (TH22)
Thermistor <Gas pipe temperature detection> (TH23)

Thermistor R_0=15kΩ ± 3%
Fixed number of B=3480 ± 1%

$$Rt=15\exp\{3480(\frac{1}{273+(t-32)/1.8}-\frac{1}{273})\}$$

30°F	15.8kΩ
50°F	9.6kΩ
70°F	6.0kΩ
80°F	4.8kΩ
90°F	3.9kΩ
100°F	3.2kΩ

Thermistor for drain sensor

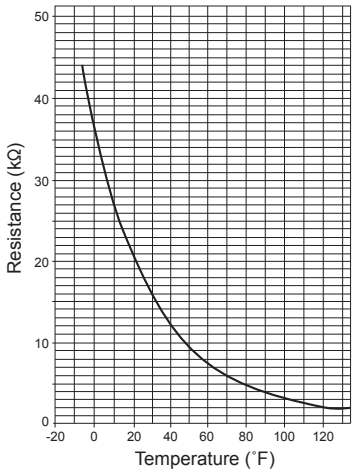
Drain sensor (DS)

Thermistor R_0=6.0kΩ ±5%
Fixed number of B=3390 ±2%

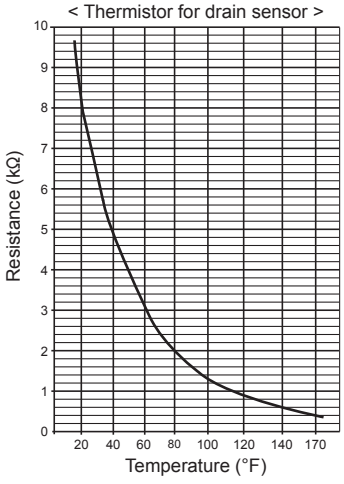
$$Rt=6\exp\{3390(\frac{1}{273+(t-32)/1.8}-\frac{1}{273})\}$$

30°F	6.3kΩ	90°F	1.6kΩ
50°F	3.9kΩ	100°F	1.3kΩ
70°F	2.5kΩ	140°F	0.6kΩ
80°F	2.0kΩ		

< Thermistor for lower temperature >



< Thermistor for drain sensor >

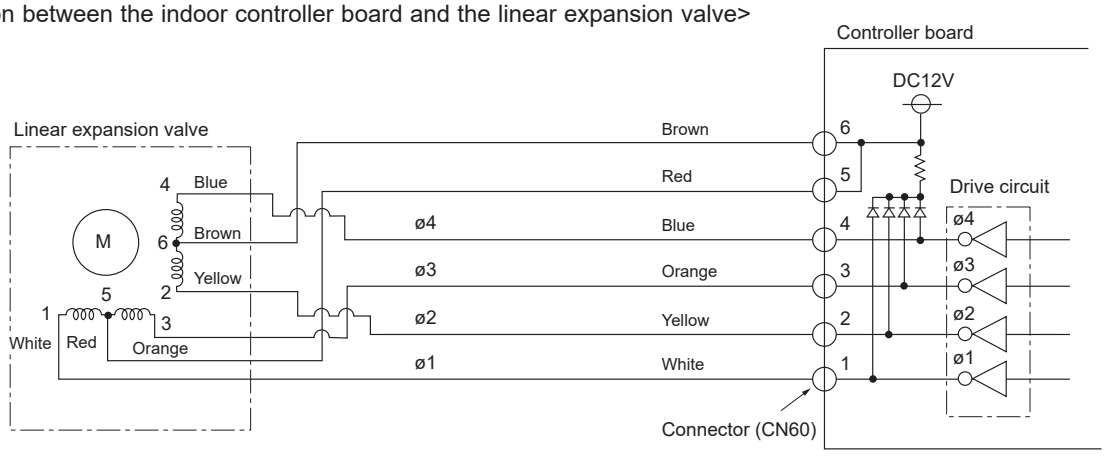


Linear expansion valve

① **Operation summary of the linear expansion valve**

- Linear expansion valves open/close through the use of a stepping motor after receiving the pulse signal from the indoor controller board.
- Valve position can be changed in proportion to the number of pulse signals.

<Connection between the indoor controller board and the linear expansion valve>



Note : Since the number of the connector at the controller board side and the relay connector are different, follow the color of the lead wire.

<Output pulse signal and the valve operation>

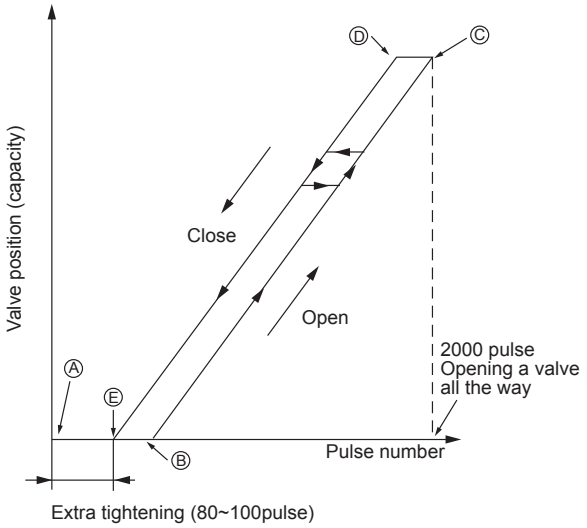
Output (Phase)	Output			
	1	2	3	4
ø1	ON	OFF	OFF	ON
ø2	ON	ON	OFF	OFF
ø3	OFF	ON	ON	OFF
ø4	OFF	OFF	ON	ON

The output pulse shifts in the following order.

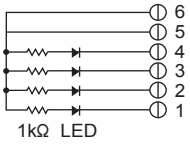
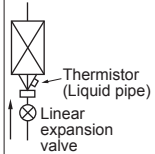
Closing a valve : 1 → 2 → 3 → 4 → 1
Opening a valve : 4 → 3 → 2 → 1 → 4

- When linear expansion valve operation stops, all output phase become OFF.
- At phase interruption or when phase does not shift in order, motor does not rotate smoothly and motor will lock and vibrate.
- When the switch is turned on, 2200 pulse closing valve signal will be sent till it goes to point Ⓐ in order to define the valve position.
- When the valve moves smoothly, there is no sound or vibration occurring from the linear expansion valves : however, when the pulse number moves from Ⓔ to Ⓐ or when the valve is locked, more sound can be heard than in a normal situation.
- Sound can be detected by placing the ear against the screw driver handle while putting the screw driver tip to the linear expansion valve.

② **Linear expansion valve operation**



③ **Troubleshooting**

Symptom	Checkpoints	Countermeasures
Operation circuit failure of the micro processor	Disconnect the connector on the controller board, then connect LED for checking.  When power is turned on, pulse signals will send for 10 seconds. If the LED does not light or keeps lighting even after the signals stop, that means some failures in the operation circuit.	Exchange the indoor controller board at drive circuit failure.
Linear expansion valve mechanism is locked.	Motor will idle and make a ticking noise when the motor is operated while the linear expansion valve is locked. This ticking sound is the sign of the abnormality.	Exchange the linear expansion valve.
Short or breakage of the motor coil of the linear expansion valve	Measure the resistance between each coil (white-red, yellow-brown, orange-red, blue-brown) with a tester. It is normal if the resistance is in the range of 200Ω ±10%.	Exchange the linear expansion valve.
Valve does not close completely.	To check the linear expansion valve, operate the indoor unit in fan mode and at the same time operate other indoor units in cooling mode, then check the pipe temperature <liquid pipe temperature> of the indoor unit by the outdoor multi controller board operation monitor. During fan operation, linear expansion valve is closed completely and if there is any leaking, detecting temperature of the thermistor will go lower. If the detected temperature is much lower than the temperature indicated in the remote controller, it means the valve is not closed all the way.  Linear expansion valve It is not necessary to exchange the linear expansion valve, if the leakage is small and not affecting normal operation.	If large amount of refrigerant is leaked, exchange the linear expansion valve.
Wrong connection of the connector or contact failure	Check the color of lead wire and missing terminal of the connector.	Disconnect the connector at the controller board, then check the continuity.

7-2. FAN MOTOR CHECK

Check method of indoor fan motor (fan motor/controller board)

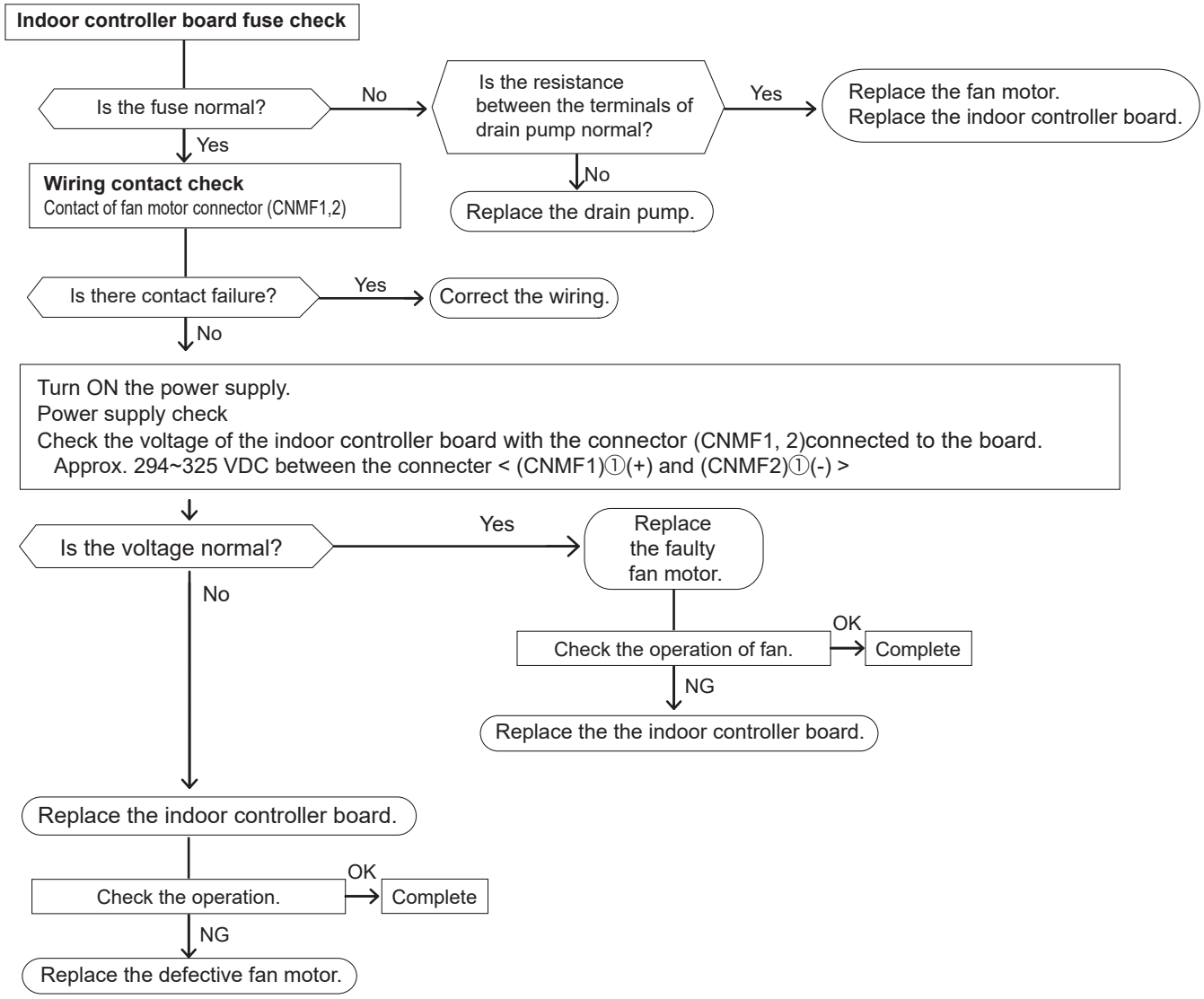
①Notes

· High voltage is applied to the connecter (CNMF1, 2) for the fan motor. Pay attention to the service.

· Do not pull out the connector (CNMF1, 2) for the motor with the power supply on, doing so may result in damage to the board.

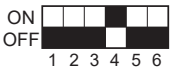
②Self check

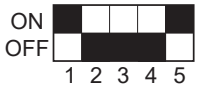
Symptom : The indoor fan can not rotate.

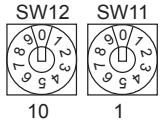
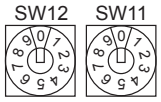
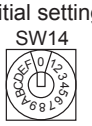
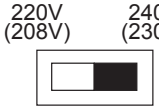
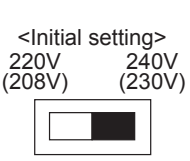


7-3. FUNCTION OF DIP SWITCH

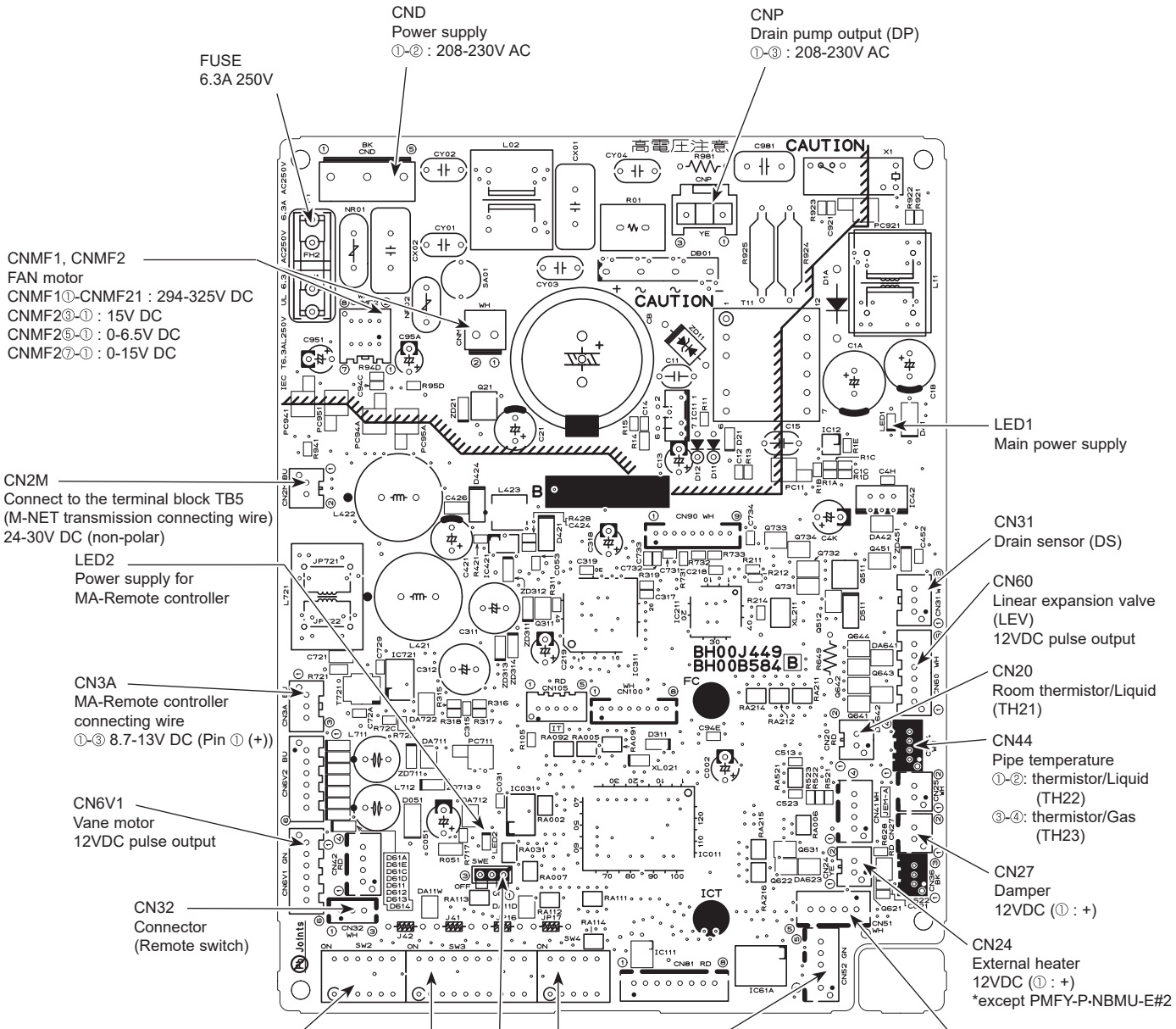
<table>
<tr><th rowspan="2">Switch</th><th rowspan="2">Pole</th><th rowspan="2">Function</th><th colspan="2">Operation by switch</th><th rowspan="2">Effective timing</th><th rowspan="2">Remarks</th></tr>
<tr><th>ON</th><th>OFF</th></tr>
<tr><td rowspan="10">SW1
Function setting</td><td>1</td><td>Thermistor <Room temperature detection> position</td><td>Built-in remote controller</td><td>Indoor unit</td><td rowspan="10">Under suspension</td><td rowspan="10">Address board
<Initial setting>
 

*
<table><tr><th>SW 1-7</th><th>SW 1-8</th><th></th></tr><tr><td>OFF</td><td>OFF</td><td>Extra low</td></tr><tr><td>ON</td><td>OFF</td><td>Low</td></tr><tr><td>OFF</td><td>ON</td><td>Setting air flow</td></tr><tr><td>ON</td><td>ON</td><td>Stop</td></tr></table></td></tr>
<tr><td>2</td><td>Filter clogging detection</td><td>Provided</td><td>Not provided</td></tr>
<tr><td>3</td><td>Filter cleaning sign</td><td>2,500h</td><td>100h</td></tr>
<tr><td>4</td><td>Fresh air intake</td><td>Effective</td><td>Not effective</td></tr>
<tr><td>5</td><td>Switching remote controller display</td><td>Thermo ON signal display</td><td>Indicating fan operation ON/OFF</td></tr>
<tr><td>6</td><td>Humidifier control</td><td>Fan operation at Heating mode</td><td>Thermo ON operation at Heating mode</td></tr>
<tr><td>7</td><td rowspan="2">Air flow at Heat thermo OFF</td><td>Low *</td><td>Extra low *</td></tr>
<tr><td>8</td><td>Setting air flow</td><td>Depends on SW1-7</td></tr>
<tr><td>9</td><td>Auto restart function</td><td>Effective</td><td>Not effective</td></tr>
<tr><td>10</td><td>Power ON/OFF by breaker</td><td>Effective</td><td>Not effective</td></tr>
<tr><td>SW2
Capacity code setting</td><td>1~6</td><td colspan="3"><table><tr><th>MODELS</th><th>SW 2</th><th>MODELS</th><th>SW 2</th></tr><tr><td>PMFY-P06NBMU-E</td><td>  </td><td>PMFY-P12NBMU-E</td><td>  </td></tr><tr><td>PMFY-P08NBMU-E</td><td>  </td><td>PMFY-P15NBMU-E</td><td>  </td></tr></table></td><td>Before power supply ON</td><td>Indoor controller board
<Initial setting>
Set for each capacity.</td></tr>
<tr><td rowspan="11">SW3
Function setting</td><td>1</td><td>Heat pump/Cool only</td><td>Cooling only</td><td>Heat pump</td><td rowspan="11">Under suspension</td><td rowspan="11">Indoor controller board
<Initial setting>
 

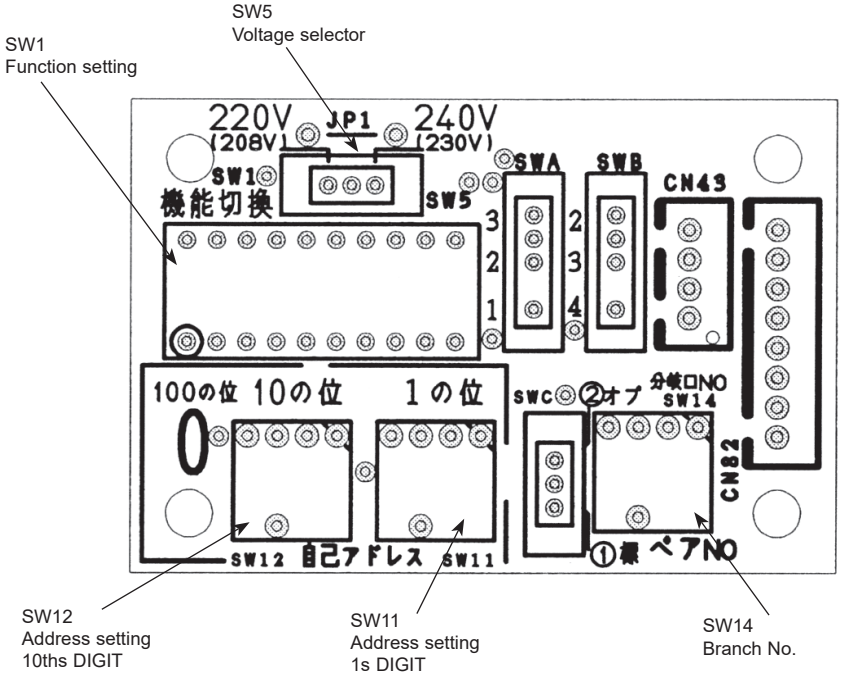
(*4) At cooling mode, each angle can be used only 1 hour.
(*5) SW 3-9 setting
PMFY-P06, P08NBMU-E=ON
PMFY-P12, P15NBMU-E=OFF
SW 3-10 setting
PMFY-P06, P08NBMU-E=ON
PMFY-P12, P15NBMU-E=OFF
Do not use SW3-9, 10 as trouble might be caused by the usage condition.
*6 Second setting means first setting.</td></tr>
<tr><td>2</td><td>Louver</td><td>Available</td><td>Not available</td></tr>
<tr><td>3</td><td>Vane</td><td>Available</td><td>Not available</td></tr>
<tr><td>4</td><td>Vane swing function</td><td>Available</td><td>Not available</td></tr>
<tr><td>5</td><td>Vane horizontal angle</td><td>Second setting *6</td><td>First setting</td></tr>
<tr><td>6</td><td>Vane cooling limit angle setting *4</td><td>Horizontal angle</td><td>Down B, C</td></tr>
<tr><td>7</td><td>Changing the opening of linear expansion valve when the thermostat is OFF</td><td>Effective</td><td>Not effective</td></tr>
<tr><td>8</td><td>Heating 4deg. up</td><td>Not effective</td><td>Effective</td></tr>
<tr><td>9</td><td>Target superheat setting *5</td><td>—</td><td>—</td></tr>
<tr><td>10</td><td>Target sub cool setting *5</td><td>—</td><td>—</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>SW4
Model Selection</td><td>1~5</td><td colspan="3">In case replacing the indoor controller board, make sure to set the switch to the initial setting, which is shown below.
  </td><td>Before power supply ON</td><td>Indoor controller board</td></tr>
</table>

Switch	Pole	Operation by switch	Effective timing	Remarks
SW11 1s digit address setting SW12 10ths digit address setting	Rotary switch	 How to set addresses Example : If address is “3”, remain SW12 (for over 10) at “0”, and match SW11 (for 1 to 9) with “3”.	Before power supply ON	Address board <Initial setting> 
SW14 Branch No. setting	Rotary switch	 How to set branch numbers SW14 (Series R2 only) Match the indoor unit’s refrigerant pipe with the BC controller’s end connection number. Remain other than series R2 at “0”.		Address board <Initial setting> 
SW5 Voltage Selection	2	 If the unit is used at the 230V area, set the voltage to 230V. If the unit is used at the 208V, set the voltage to 208V.		Address board <Initial setting> 

7-4. TEST POINT DIAGRAM
7-4-1. Indoor controller board



7-4-2. Address board



8 DISASSEMBLY PROCEDURE

Be careful when removing heavy parts.

OPERATING PROCEDURE

1. Removing the grille

Opening the air intake grille

(1) Press the PUSH of the air intake grille. (See Figure 1)
(2) Put your fingers on the both ends of nut of the air intake grille and put it down after the grille clicked.

Removing the air intake grille

(1) Press the PUSH of the air intake grille, and pull down the both ends of nut with your fingers after the grille clicked. (See Figure 1)
(2) Pull out the handle of air intake grille strongly toward you. (See Figure 2)
(3) Draw the string of the air intake grille to prevent the air intake grille from dropping. (See Figure 3)

Checks before setting the grille in place

(1) Before installing the grille, make sure the indoor unit is square with the ceiling opening (or parallel to the angle between the wall and the ceiling).
(2) Check that the 4 points where the grille will be secured are in contact with the ceiling surface.
(3) Check that the insulation for the refrigerant pipes, drainage pipes, etc. is in place and that wiring connections and arrangements are complete.

Figure 4

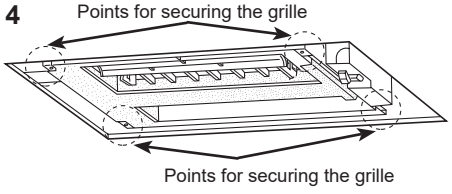
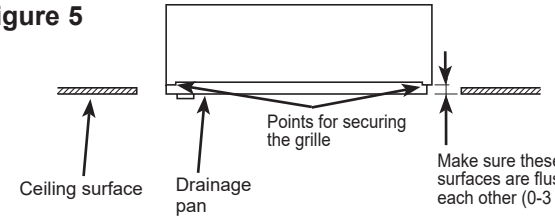


Figure 5



PHOTOS/FIGURES

Photo 1

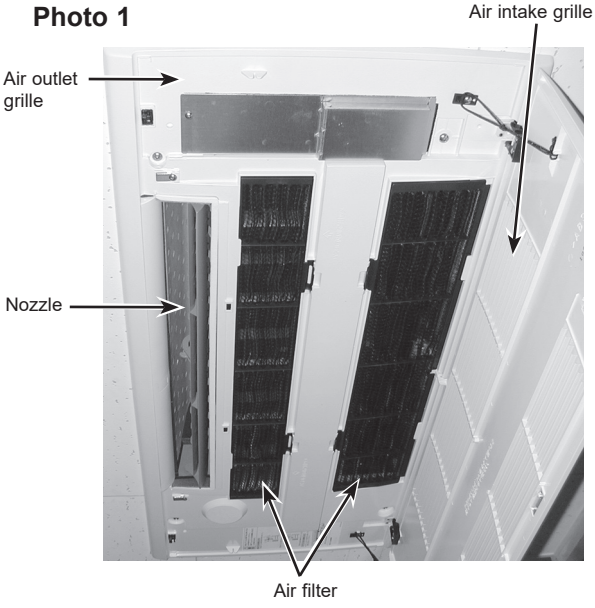


Figure 1

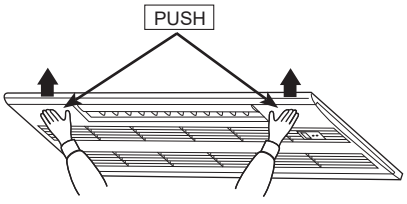


Figure 2

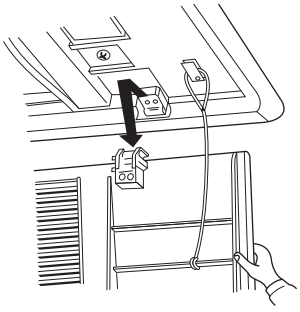
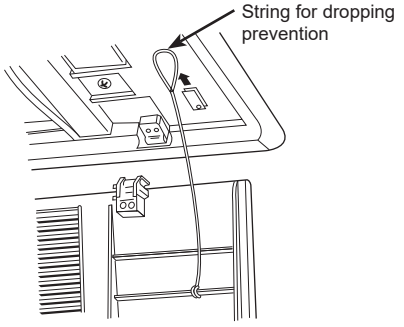


Figure 3



OPERATING PROCEDURE

Removing the grille

(1) Open the intake grille by pressing PUSH of the air intake grille and remove the air filter (× 2). (See Figure 1)
(2) Remove the screw cover in the middle of the air outlet. (See Figure 7)
(3) Open the upper and lower flaps on the indoor unit completely. (See Figure 7)
(4) Remove the securing screws (× 7).
(Ⓐ: M5 × 0.8 × 16, 6pcs)
(Ⓑ: 4 × 16, 1pc)
(5) Remove the temporary holding tabs on the grille to the hooks on the indoor unit.

Attaching the grille

(1) Open the upper and lower flaps on the indoor unit completely.
(2) Hook the temporary holding tabs on the front panel to the hooks on the indoor unit.
(3) Adjust the grille so that it fits properly in the angle between the ceiling and the wall, and install the securing screws Ⓐ (supplied with this grille) in their 4 places at left and right, leaving them slightly loose.
(4) Tighten the securing bolts Ⓐ and securing screws Ⓑ in the center 3 places. (See Figure 6)
(5) Tighten the securing bolts Ⓐ in the 4 places at left and right.
* Make sure there are no gaps between the indoor unit and the grille, and between the grille and the ceiling surface. If there are gaps, the wind may come in and it may cause water to drip. (See Figure 8)
* Tighten the securing bolts Ⓐ and securing screws Ⓑ completely.
(6) Replace the air filter and screw cover, and press PUSH of the intake grille until you hear it snap into place.

Checks after setting the grille

(1) Check that there are no gaps between the indoor unit and the grille, between the grille and the ceiling surface. If there are gaps, the wind may come in and condensation may result.
(2) Check that the air filter is in place.

PHOTOS/FIGURES

Figure 6

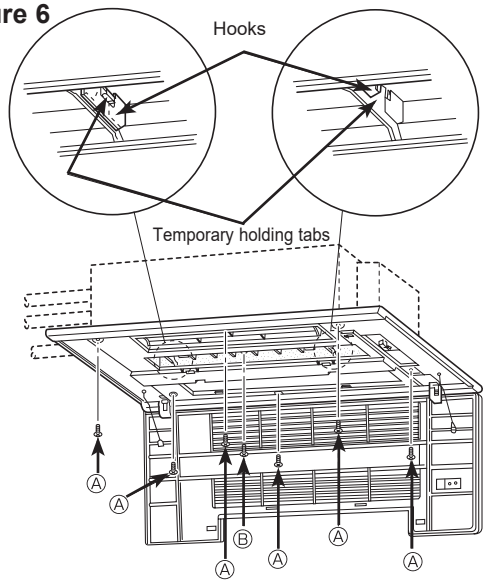


Figure 7

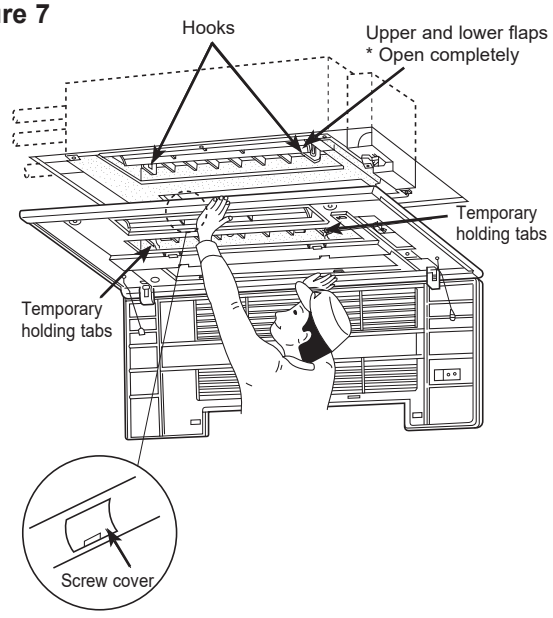
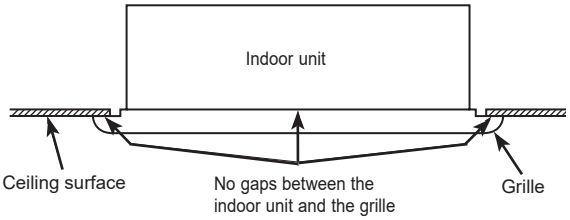
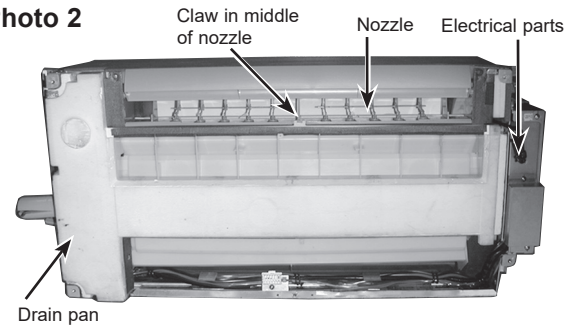
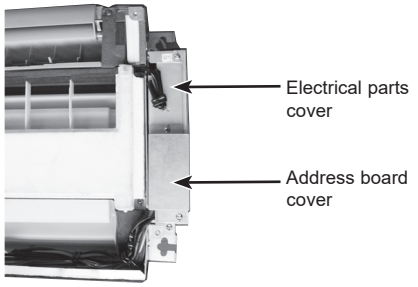
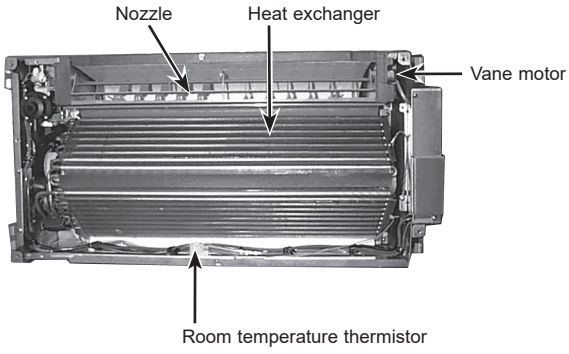
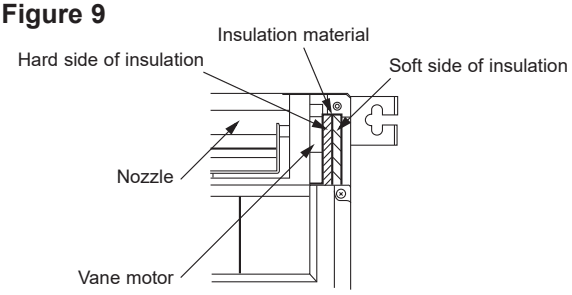
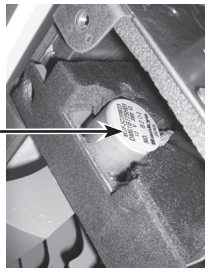
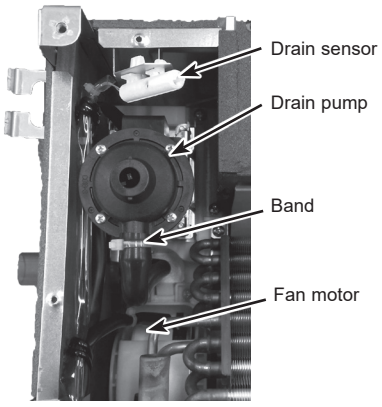
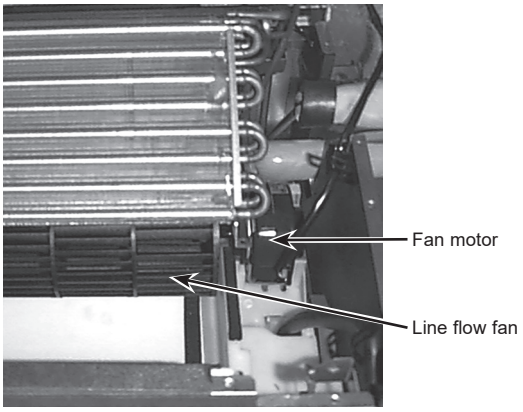


Figure 8



OPERATING PROCEDURE	PHOTOS/FIGURES
2. Removing the electrical parts box (1) Remove the panel. (2) Remove the address board cover. (3) Remove the electrical parts cover. (4) Disconnect the connectors of fan motor, vane motor, drain pump, room temperature thermistor, pipe temperature thermistor (Liquid. Gas), condenser/evaporator temperature thermistor, and drain sensor on the electrical controller board. (5) Disconnect the lead wire and earth wire from terminal block. (6) Remove the electrical parts box.	**Photo 2**  **Photo 3** 
3. Removing the nozzle **Note when the nozzle is removed.** **· The insulation material (white) which prevents water drop is mounted to the side of vane motor. Remove the insulation material before removing nozzle. (See Figure 4)** **· After completing the service, re-mount the insulation material as before as shown in right figure.** **· After service, mount the double layer insulation without fail. The hard material side should be faced toward the nozzle. (See Figure 4)** (1) Remove the panel. (2) Remove the room temperature thermistor. (3) Unhook the claws in the middle of nozzle and remove the drain pan. (5 screws) (See Photo 2) (4) Remove the nozzle side of the heat exchanger. (2 screws) (5) Remove the address board cover. (See Photo 3) (6) Remove the electrical parts cover. (See Photo 3) (7) Disconnect the connector of vane motor. (8) Remove the insulation material (white) on the right side of nozzle. (9) Remove the nozzle. (6 screws)	**Photo 4**  **Figure 9** 
4. Removing the vane motor (1) Remove the nozzle. Refer to above-mentioned 3. Removing the nozzle. (2) Remove the vane motor from the nozzle.	**Photo 5** 

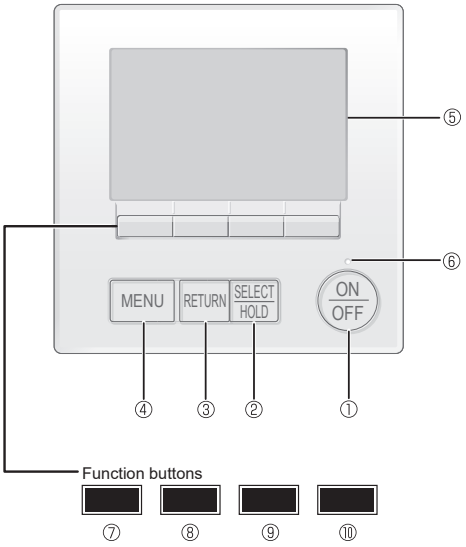
OPERATING PROCEDURE	PHOTOS/FIGURES
5. Removing the drain pump (1) Remove the panel. (2) Unhook the claw in the middle of nozzle and remove the drain pan. (See Photo 2) (3) Remove the address board cover. (See Photo 3) (4) Remove the electrical parts cover. (See Photo 3) (5) Disconnect the connector of drain pump. (6) Cut the band. (7) Remove the drain hose. (8) Remove the drain pump. (2 screws)	**Photo 6** 
6. Removing the fan motor and line flow fan (1) Remove the panel. (2) Unhook the claw in the middle of nozzle and remove the drain pan. (See Photo 2) (3) Unscrew 2 screws at the nozzle side of the heat exchanger. (4) Remove the address board cover. (See Photo 3) (5) Remove the electrical parts cover. (See Photo 3) (6) Disconnect the connector of vane motor, fan motor and drain pump. (7) Remove the nozzle side of the heat exchanger. (2 screws) (8) Remove the nozzle. (9) Remove the drain pump. (10) Unscrew 2 screws in the motor support. (11) Remove the fan motor and line flow fan. (The fan motor and line flow fan can be removed without removing the heat exchanger.)	**Photo 7** 
7. Removing the thermistor <Room temperature detection> (1) Remove the panel. (2) Remove the address board cover. (3) Remove the electrical parts cover. (4) Remove the thermistor. <Intake temperature detector> (5) Disconnect the lead wire from the cord clamp. (5 points) (6) Disconnect the connector (CN20) on the indoor controller board.	
8. Removing the thermistor **<Liquid pipe temperature detection>** **<Gas pipe temperature detection>** (1) Remove the panel. (2) Remove the address board cover. (3) Remove the electrical parts cover. (4) Remove the drain pan. (5) Remove the thermistor <Gas pipe temperature detection>/ <Liquid pipe temperature detection>. (6) Disconnect the lead wire from the cord clamp. (7) Disconnect the connector (CN44) on the indoor controller board.	

9 REMOTE CONTROLLER

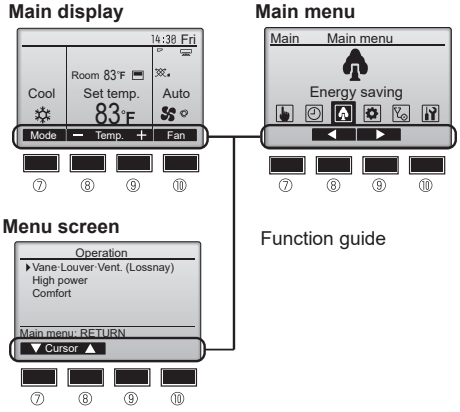
9-1. REMOTE CONTROLLER FUNCTIONS

<PAR-41MAA>

Controller interface



The functions of the function buttons change depending on the screen.
Refer to the button function guide that appears at the bottom of the LCD for the functions they serve on a given screen.
When the system is centrally controlled, the button function guide that corresponds to the locked button will not appear.



① [ON/OFF] button

Press to turn ON/OFF the indoor unit.

② [SELECT] button

Press to save the setting.

③ [RETURN] button

Press to return to the previous screen.

④ [MENU] button

Press to bring up the Main menu.

⑤ Backlit LCD

Operation settings will appear.
When the backlight is off, pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen.

When the backlight is off, pressing any button turns the backlight on and does not perform its function. (except for the [ON/OFF] button)

⑥ ON/OFF lamp

This lamp lights up in green while the unit is in operation. It blinks while the remote controller is starting up or when there is an error.

⑦ Function button [F1]

Main display: Press to change the operation mode.
Menu screen: The button function varies with the screen.

⑧ Function button [F2]

Main display: Press to decrease temperature.
Main menu: Press to move the cursor left.
Menu screen: The button function varies with the screen.

⑨ Function button [F3]

Main display: Press to increase temperature.
Main menu: Press to move the cursor right.
Menu screen: The button function varies with the screen.

⑩ Function button [F4]

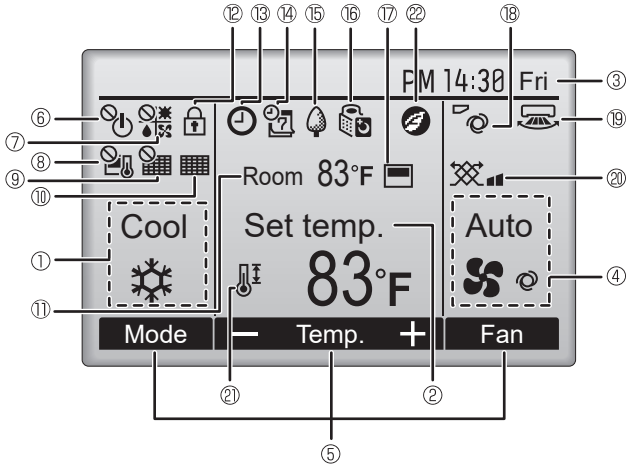
Main display: Press to change the fan speed.
Menu screen: The button function varies with the screen.

Display

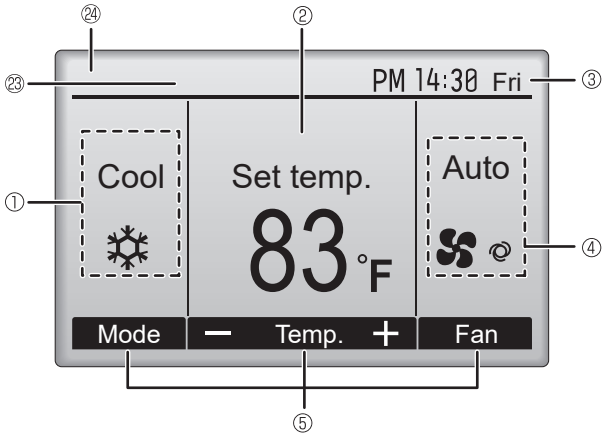
The main display can be displayed in two different modes: ″Full″ and ″Basic″. The initial setting is ″Full″. To switch to the ″Basic″ mode, change the setting on the Main display setting. (Refer to operation manual included with remote controller.)

<Full mode>

* All icons are displayed for explanation.



<Basic mode>



① Operation mode

② Preset temperature

③ Clock

④ Fan speed

⑤ Button function guide

Functions of the corresponding buttons appear here.

⑥

Appears when the ON/OFF operation is centrally controlled.

⑦

Appears when the operation mode is centrally controlled.

⑧

Appears when the preset temperature is centrally controlled.

⑨

Appears when the filter reset function is centrally controlled.

⑩

Indicates when filter needs maintenance.

⑪ Room temperature

⑫

Appears when the buttons are locked.

⑬

Appears when the On/Off timer, Night setback, or Auto-off timer function is enabled.

appears when the timer is disabled by the centralized control system.

⑭

Appears when the Weekly timer is enabled.

⑮

Appears while the units are operated in the energy saving mode. (Will not appear on some models of indoor units)

⑯

Appears while the outdoor units are operated in the silent mode.

⑰

Appears when the built-in thermistor on the remote controller is activated to monitor the room temperature (⑪).

appears when the thermistor on the indoor unit is activated to monitor the room temperature.

⑱

Indicates the vane setting.

⑲ *1

Indicates the louver setting.

⑳

Indicates the ventilation setting.

㉑

Appears when the preset temperature range is restricted.

㉒ *1

Appears when an energy-saving operation is performed using a ″3D i-see Sensor″ function.

㉓ Centrally controlled

Appears for a certain period of time when a centrally-controlled item is operated.

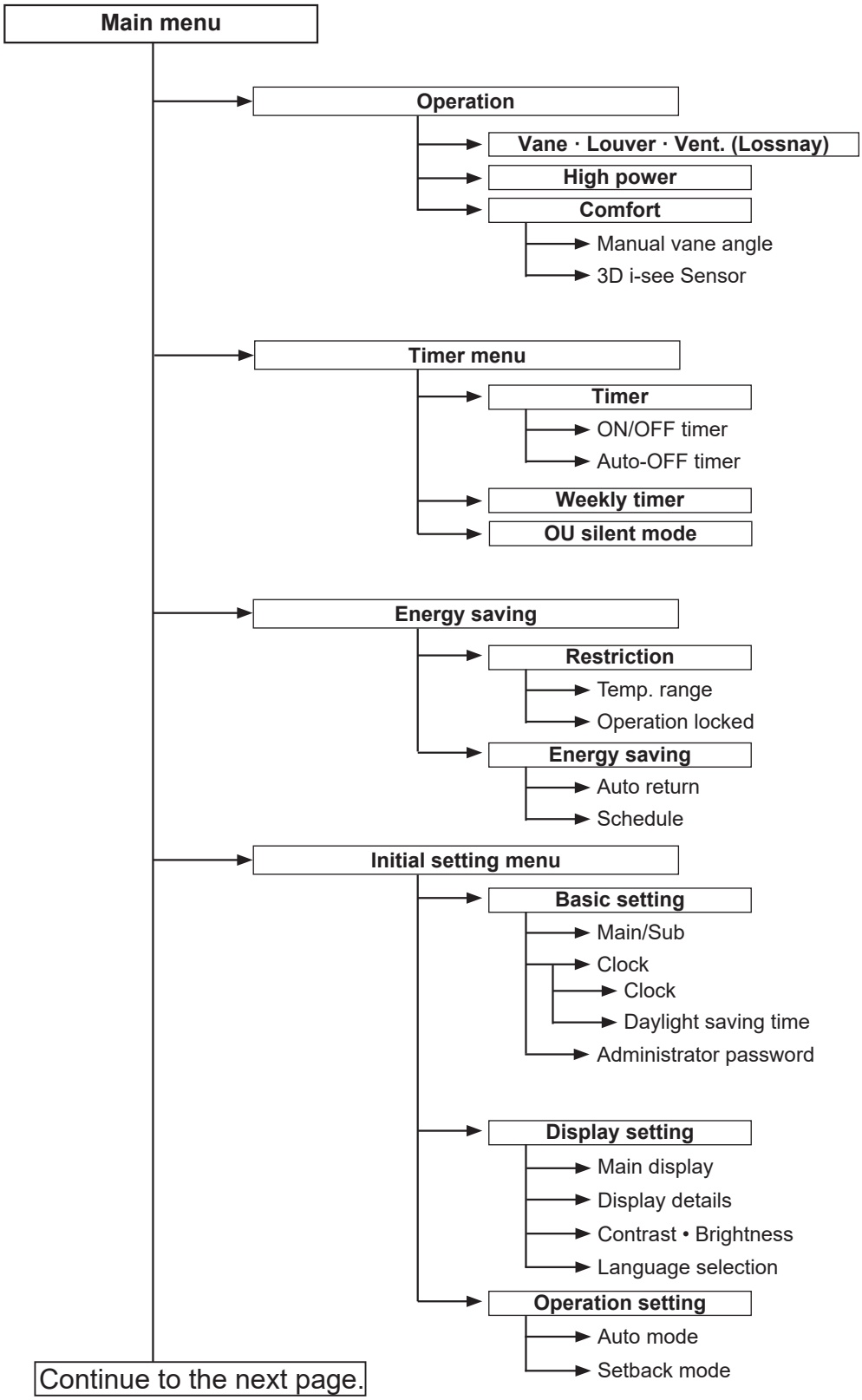
㉔ Preliminary error display

An error code appears during the preliminary error.

Most settings (except ON/OFF, mode, fan speed, temperature) can be made from the Main menu.

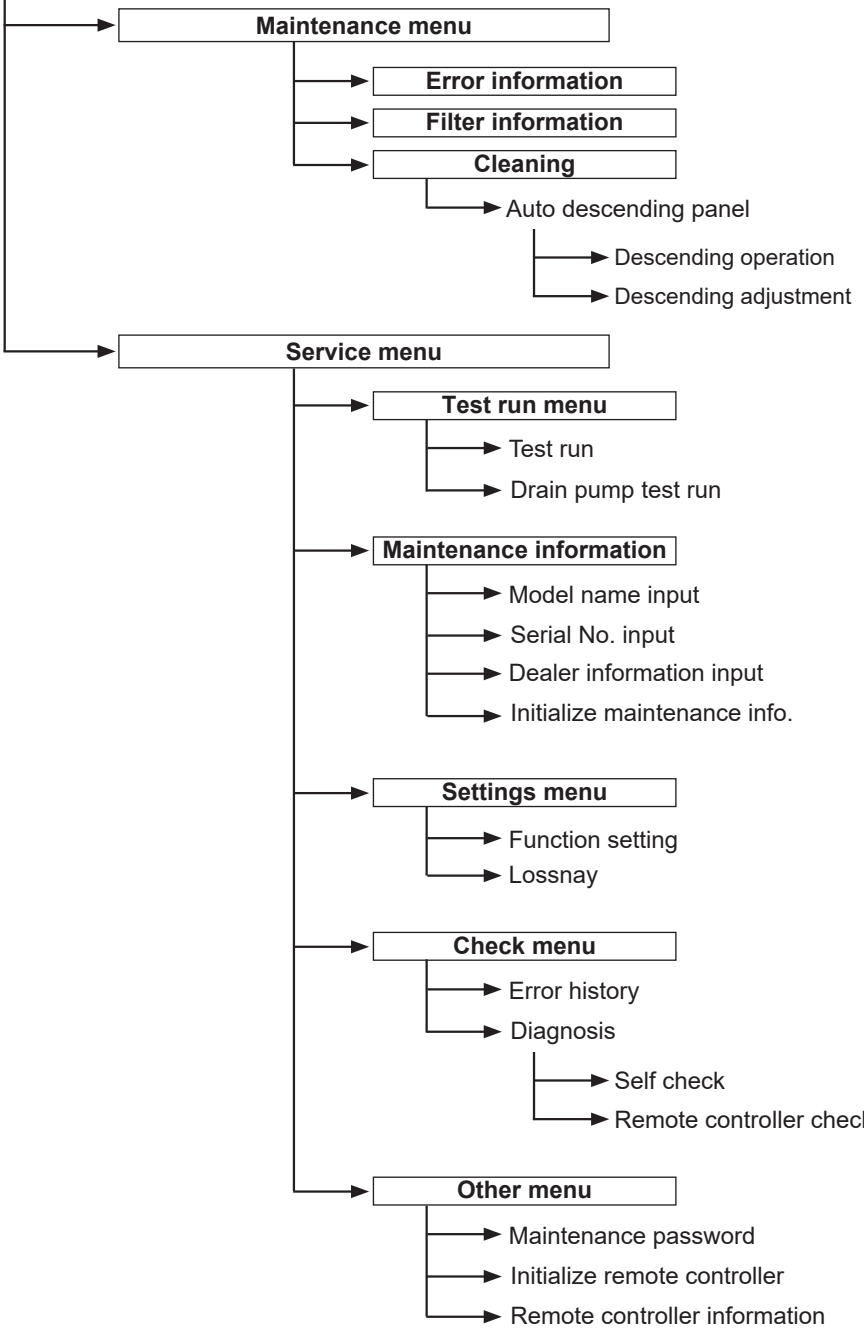
*1 These functions are not applied to the floor standing models.

Menu structure



Not all functions are available on all models of indoor units.

Continue from the previous page.



Not all functions are available on all models of indoor units.

Main menu list

Main menu	Setting and display items		Setting details
Operation	**Vane · Louver · Vent. (Lossnay)**		**Use to set the vane angle.** • Select a desired vane setting. **Use to turn ON/OFF the louver.** • Select a desired setting from ″ON″ and ″OFF.″ **Use to set the amount of ventilation.** • Select a desired setting from ″Off,″ ″Low,″ and ″High.″
	High power *3		**Use to reach the comfortable room temperature quickly.** • Units can be operated in the High-power mode for up to 30 minutes.
	Comfort	**Manual vane angle**	**Use to fix each vane angle.**
		3D i-see Sensor	**Use to set the following functions for 3D i-see Sensor.** • Air distribution • Energy saving option • Seasonal airflow
Timer	**Timer**	**ON/OFF timer** *1	**Use to set the operation ON/OFF times.** • Time can be set in 5-minute increments.
		Auto-OFF timer	**Use to set the Auto-OFF time.** • Time can be set to a value from 30 to 240 in 10-minute increments.
	Weekly timer *1, *2		**Use to set the weekly operation ON/OFF times.** • Up to 8 operation patterns can be set for each day. (Not valid when the ON/OFF timer is enabled.)
	OU silent mode *1, *3		**Use to set the time periods in which priority is given to quiet operation of outdoor units over temperature control. Set the Start/Stop times for each day of the week.** •Select the desired silent level from ″Normal,″ ″Middle,″ and ″Quiet.″
Energy saving	**Restriction**	**Temp. range** *2	**Use to restrict the preset temperature range.** • Different temperature ranges can be set for different operation modes.
		Operation lock	**Use to lock selected functions.** • The locked functions cannot be operated.
	Energy saving	**Auto return** *2	**Use to get the units to operate at the preset temperature after performing energy saving operation for a specified time period.** • Time can be set to a value from 30 and 120 in 10-minute increments. (This function will not be valid when the preset temperature ranges are restricted.)
		Schedule *1, *3	**Set the start/stop times to operate the units in the energy saving mode for each day of the week, and set the energy saving rate.** • Up to 4 energy saving operation patterns can be set for each day. • Time can be set in 5-minute increments. • Energy saving rate can be set to a value from 0% or 50 to 90% in 10% increments.

*1 Clock setting is required.

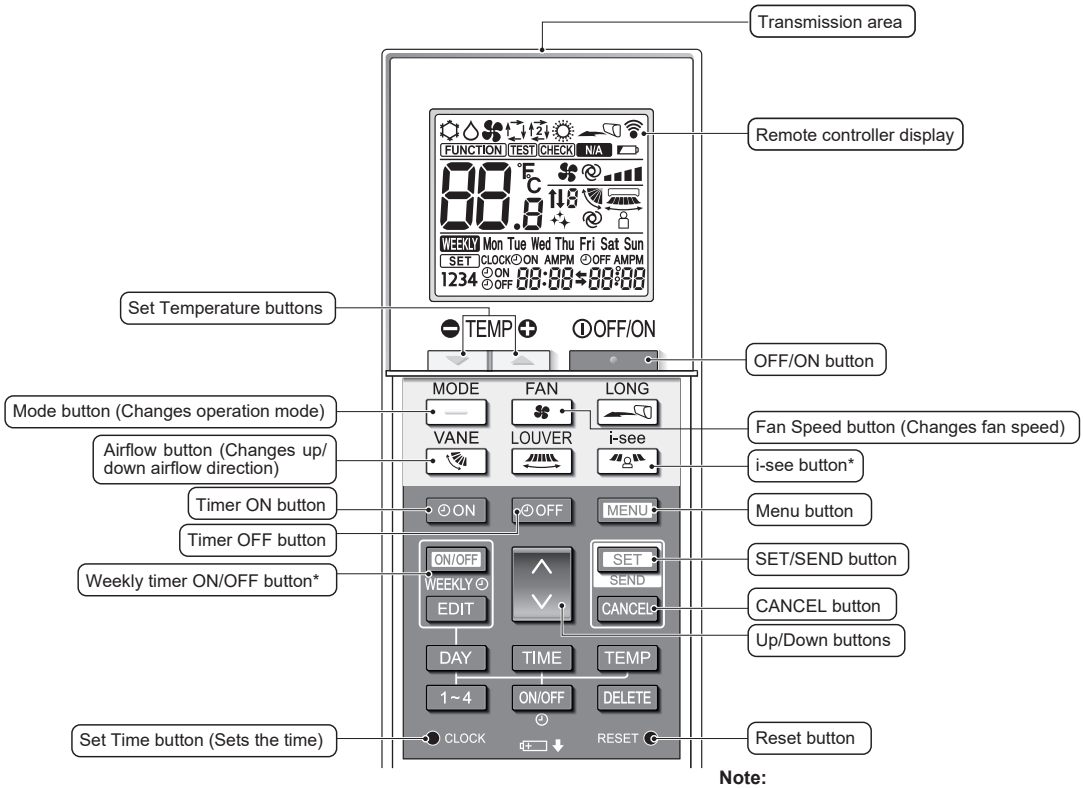
*2 2°F (1°C) increments.

*3 This function is available only when certain outdoor units are connected.

Main menu	Setting and display items		Setting details
Initial setting	Basic setting	Main/Sub	**When connecting 2 remote controllers, one of them needs to be designated as a sub controller.**
		Clock	**Use to set the current time.**
		Daylight saving time	**Set the daylight saving time.**
		Administrator password	**The administrator password is required to make the settings for the following items.** • Timer setting • Energy saving setting • Weekly timer setting • Restriction setting • Outdoor unit silent mode setting • Night set back
	Display setting	Main display	**Use to switch between ˝Full˝ and ˝Basic˝ modes for the Main display, and use to change the background colors of the display to black.**
		Display details	**Make the settings for the remote controller related items as necessary.** **Clock:** The initial settings are ˝Yes˝ and ˝24h˝ format. **Temperature:** Set either Celsius (°C) or Fahrenheit (°F). **Room temp.:** Set Show or Hide. **Auto mode:** Set Auto mode display or Only Auto display.
		Contrast • Brightness	**Use to adjust screen contrast and brightness.**
		Language selection	**Use to select the desired language.**
	Operation setting	Auto mode	**Whether or not to use Auto mode can be selected by using the button. This setting is valid only when indoor units with Auto mode function are connected.**
		Setback mode	**Whether or not to use the Setback mode can be selected by using the button. This setting is valid only when indoor units with the Setback mode function are connected.**
Maintenance	Error information		**Use to check error information when an error occurs.** • Check code, error source, refrigerant address, model name, manufacturing number, contact information (dealer's phone number) can be displayed. (The model name, manufacturing number, and contact information need to be registered in advance to be displayed.)
	Filter information		**Use to check the filter status.** • The filter sign can be reset.
	Cleaning	Auto descending panel	**Use to lift and lower the auto descending panel (Optional parts).**
Service	Test run		**Select ˝Test run˝ from the Service menu to bring up the Test run menu.** • Test run • Drain pump test run
	Input maintenance info.		**Select ˝Input maintenance Info.˝ from the Service menu to bring up the Maintenance information screen.** **The following settings can be made from the Maintenance Information screen.** • Model name input • Serial No. input • Dealer information input • Initialize maintenance info.
	Settings	Function setting	**Make the settings for the indoor unit functions via the remote controller as necessary.**
		LOSSNAY setting	**This setting is required only when the operation of CITY MULTI units is interlocked with LOSSNAY units.**
	Check	Error history	Display the error history and execute ˝delete error history˝.
		Diagnosis	**Self check:** Error history of each unit can be checked via the remote controller. **Remote controller check:** When the remote controller does not work properly, use the remote controller checking function to troubleshoot the problem.
	Others	Maintenance password	**Use to change the maintenance password.**
		Initialize remote controller	**Use to initialize the remote controller to the factory shipment status.**
		Remote controller information	**Use to display the remote controller model name, software version, and serial number.**

<PAR-SL101A-E>

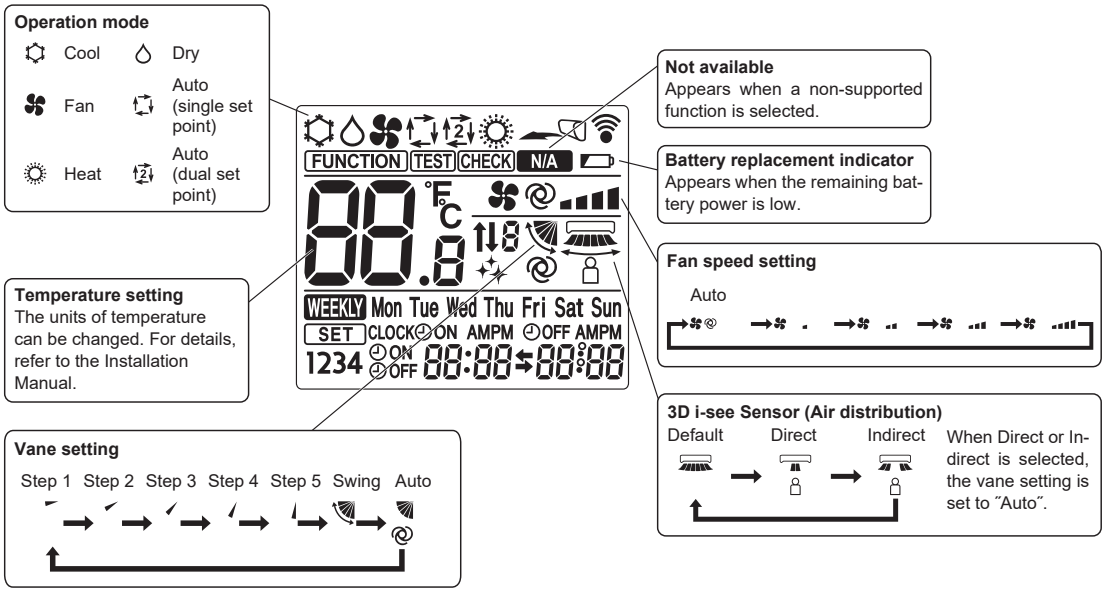
Controller interface



Note:

* **This button is enabled or disabled depending on the model of the indoor unit.**

Display

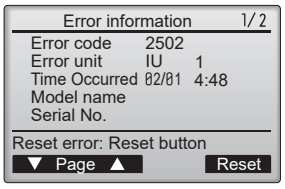


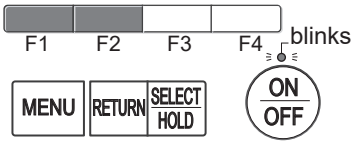
9-2. ERROR INFORMATION

When an error occurs, the following screen will appear.
Check the error status, stop the operation, and consult your dealer.

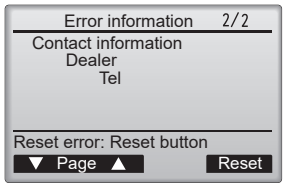
1. Check code, error unit, refrigerant address, date and time of occurrence, model name, and serial number will appear.
   The model name and serial number will appear only if the information have been registered.

   Press the F1 or F2 button to go to the next page.



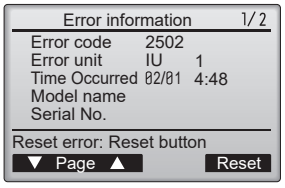


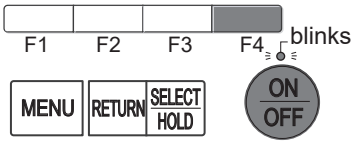
Contact information (dealer's phone number) will appear if the information has been registered.



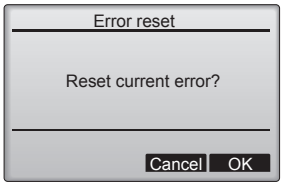
2. Press the F4 button or the [ON/OFF] button to reset the error that is occurring.

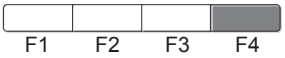
Errors cannot be reset while the ON/OFF operation is prohibited.

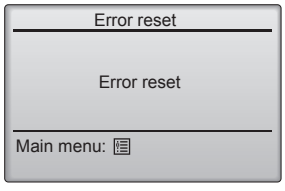




Select ″OK″ with the F4 button.



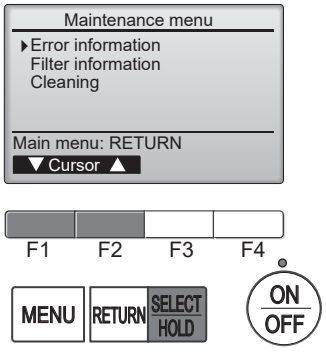




Navigating through the screens
• To go back to the Service menu ..... [MENU] button

• Checking the error information

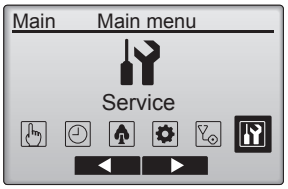
While no errors are occurring, page 2/2 of the error information can be viewed by selecting ″Error information″ from the Maintenance menu.
Errors cannot be reset from this screen.



9-3. SERVICE MENU

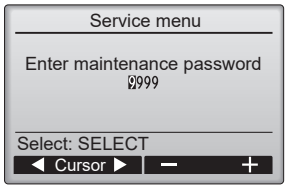
Maintenance password is required

1. Select ″Service″ from the Main menu, and press the [SELECT] button.



*At the main display, the menu button and select ″Service″ to make the maintenance setting.

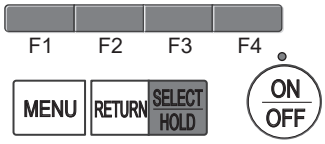
2. When the Service menu is selected, a window will appear asking for the password.



To enter the current maintenance password (4 numerical digits), move the cursor to the digit you want to change with the F1 or F2 button.

Set each number (0 through 9) with the F3 or F4 button.

Then, press the [SELECT] button.



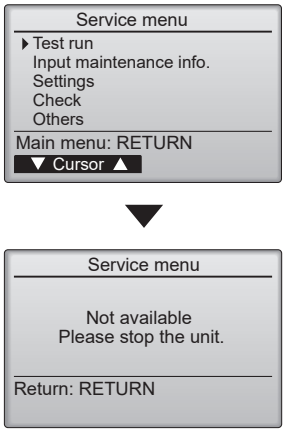
Note: The initial maintenance password is ″9999″. Change the default password as necessary to prevent unauthorized access. Have the password available for those who need it.

If you forget your maintenance password, you can initialize the password to the default password ″9999″ by pressing and holding the F1 button for 10 seconds on the maintenance password setting screen.

3. If the password matches, the Service menu will appear.

Note: Air conditioning units may need to be stopped to make only at ″Settings″. There may be some settings that cannot be made when the system is centrally controlled.

A screen will appear that indicates the setting has been saved.



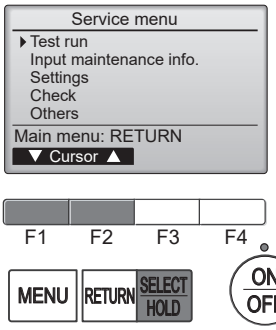
Navigating through the screens

- To go back to the Service menu .....[MENU] button
- To return to the previous screen.....[RETURN] button

9-4. TEST RUN

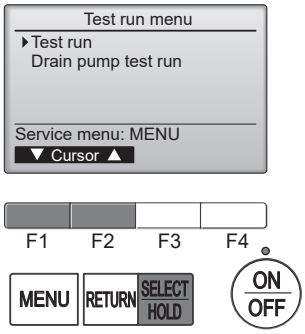
9-4-1. PAR-41MAA

1. Select ″Service″ from the Main menu, and press the [SELECT] button.



Select ″Test run″ with the F1 or F2 button, and press the [SELECT] button.

2. Select ″Test run″ with the F1 or F2 button, and press the [SELECT] button.



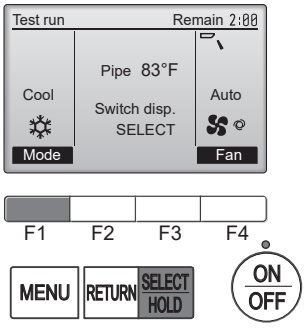
Test run operation

Press the F1 button to go through the operation modes in the order of ″Cool and Heat″.

Cool mode: Check the cold air blows out.
Heat mode: Check the heat blows out.

Check the operation of the outdoor unit's fan.

Press the [SELECT] button and open the Vane setting screen.



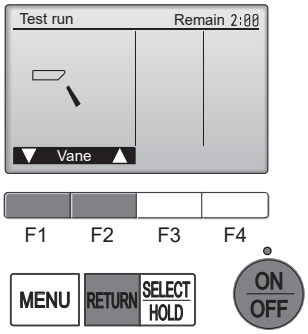
Auto vane check

Check the auto vane with the F1 F2 buttons.

Press the [RETURN] button to return to ″Test run operation″.

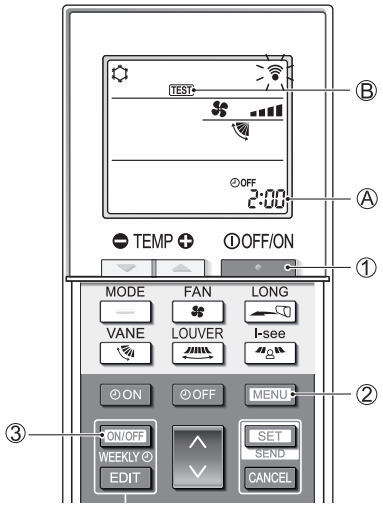
Press the [ON/OFF] button.

When the test run is completed, the ″Test run menu″ screen will appear.
The test run will automatically stop after 2 hours.
*The function is available only for the model with vanes.



9-4-2. PAR-SL101A-E

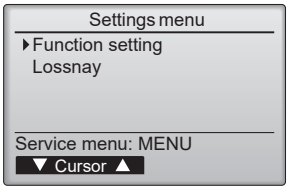
1. Press the [ ] button ① to stop the air conditioner.
   - If the weekly timer is enabled (WEEKLY is on), press the [ON/OFF WEEKLY] button ③ to disable it (WEEKLY is off).
2. Press the [MENU] button ② for 5 seconds.
   - CHECK comes on and the unit enters the service mode.
3. Press the [MENU] button ②.
   - TEST Ⓑ comes on and the unit enters the test run mode.
4. Press the following buttons to start the test run.
   [—]: Switch the operation mode between cooling and heating and start the test run.
   [ ]: Switch the fan speed and start the test run.
   [ ]: Switch the airflow direction and start the test run.
   [ ]: Switch the louver and start the test run.
   [SET]: Start the test run.
5. Stop the test run.
   - Press the [ ] button ① to stop the test run.
   - After 2 hours, the stop signal is transmitted.



9-5. FUNCTION SETTING

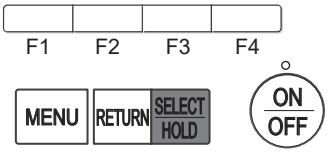
9-5-1. PAR-41MAA

1. Select ″Service″ from the Main menu, and press the [SELECT] button.



Select ″Setting″ from the Service menu, and press the [SELECT] button.

Select ″Function setting″, and press the [SELECT] button.



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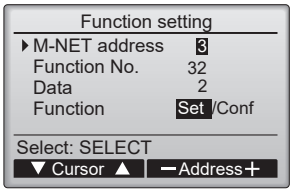
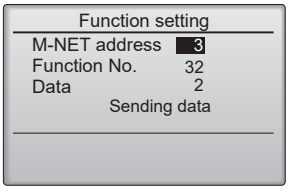
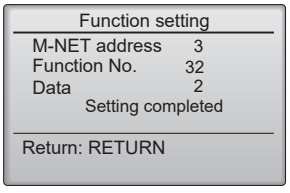
2. The Function setting screen will appear.
   Press the F1 or F2 button to move the cursor to one of the following: M-NET address, function setting number, or setting value. Then, press the F3 or F4 button to change the settings to the desired settings.



   Once the settings have been completed, press the [SELECT] button.
   A screen will appear indicating that the settings information is being sent.
   To check the current settings of a given unit, enter the setting for its M-NET address and function setting number, select Conf for the Function, and press the [SELECT] button.
   A screen will appear indicating that the settings are being searched for.
   When the search is done, the current settings will appear.

   When the settings information has been sent, a screen will appear indicating its completion.
   To make additional settings, press the [RETURN] button to return to the screen shown in the above step. Set the function numbers for other indoor units by following the same steps.

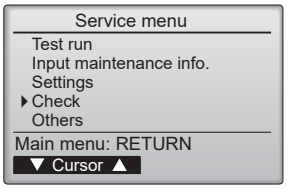




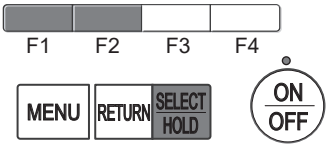
Note:
- Refer to the indoor unit Installation Manual for information about the factory settings of indoor units, function setting numbers, and setting values.
- Be sure to write down the settings for all functions if any of the initial settings has been changed after the completion of installation work.

9-6. ERROR HISTORY

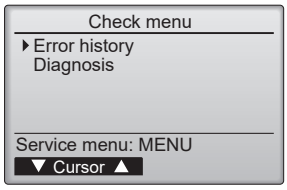
1. Select ″Service″ from the Main menu, and press the [SELECT] button.



Select ″Check″ with the F1 or F2 button, and press the [SELECT] button.

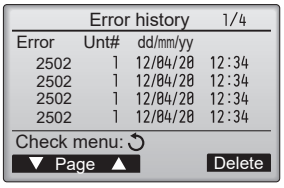


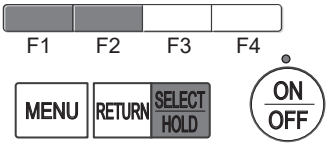
2. Select ″Error history″ with the F1 or F2 button, and press the [SELECT] button.



3. 16 error history records will appear.

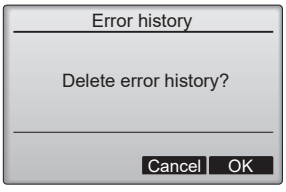
4 records are shown per page, and the top record on the first page indicates the latest error record.





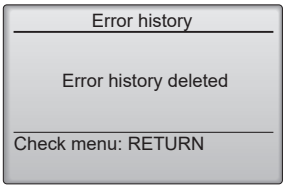
4. Deleting the error history

To delete the error history, press the F4 button (Delete) on the screen that shows error history.
A confirmation screen will appear asking if you want to delete the error history.



Press the F4 button (OK) to delete the history.

″Error history deleted″ will appear on the screen.



Press the [RETURN] button to go back to the Check menu screen.

9-7. SELF-DIAGNOSIS

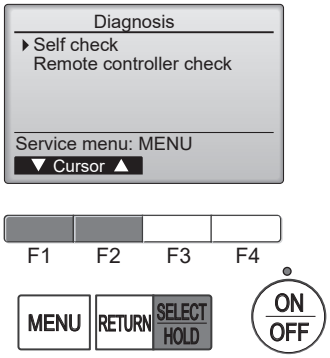
9-7-1. PAR-41MAA

1. Select ″Service″ from the Main menu,
and press the [SELECT] button.

Select ″Check″ from the Service menu,
and press the [SELECT] button.

Select ″Diagnosis″ from the Check menu,
and press the [SELECT] button.

Select ″Self check″ with the F1 or F2 button,
and press the [SELECT] button.



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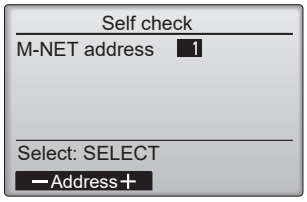
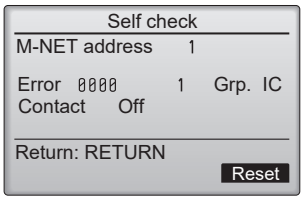
2. Select “Self check” from the Diagnosis menu, and press the [SELECT] button to view the Self check screen.

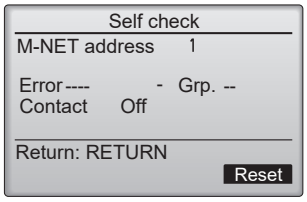
With the F1 or F2 button, enter the M-NET address, and press the [SELECT] button.

Error code, unit number, attribute, and indoor unit demand signal ON/OFF status at the contact will appear. “-” will appear if no error history is available.



When there is no error history

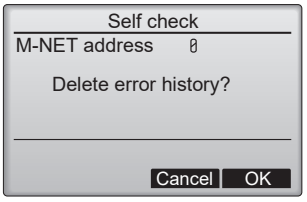


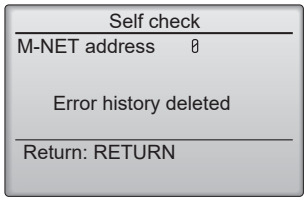


3. <u>Resetting the error history</u>

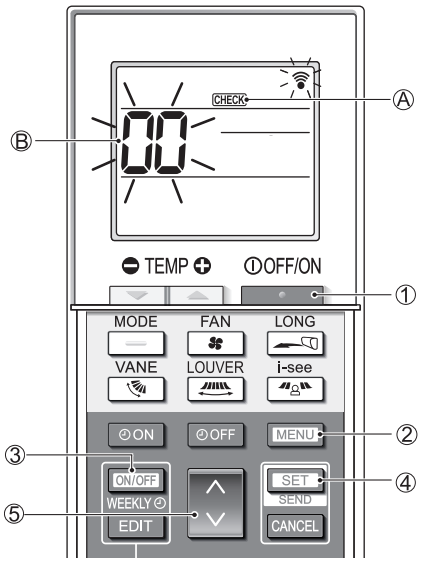
Press the F4 button (Reset) on the screen that shows the error history. A confirmation screen will appear asking if you want to delete the error history.

Press the F4 button (OK) to delete the error history. If deletion fails, “Request rejected” will appear, and “Unit not exist” will appear if indoor units that are correspond to the entered address are not found.





9-7-2. PAR-SL101A-E



[Procedure]

1. Press the [ ] button ① to stop the air conditioner.
   - If the weekly timer is enabled (WEEKLY is on), press the [ON/OFF WEEKLY] button ③ to disable it (WEEKLY is off).
2. Press the [MENU] button ② for 5 seconds.
   - CHECK Ⓐ comes on and the unit enters the self-check mode.
3. Press the [▲▼] button ⑤ to select the refrigerant address (M-NET address) Ⓑ of the indoor unit for which you want to perform the self-check.
4. Press the [SET] button ④.
   - If an error is detected, the check code is indicated by the number of beeps from the indoor unit and the number of blinks of the OPERATION INDICATOR lamp.
5. Press the [ ] button ①.
   - CHECK Ⓐ and the refrigerant address (M-NET address) Ⓑ go off and the self-check is completed.

9-8. REMOTE CONTROLLER CHECK

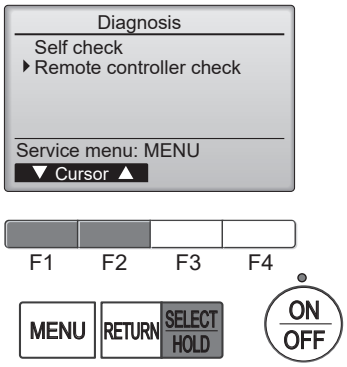
If operations cannot be completed with the remote controller, diagnose the remote controller with this function.

1. Select ″Service″ from the Main menu,
and press the [SELECT] button.

Select ″Check″ from the Service menu,
and press the [SELECT] button.

Select ″Diagnosis″ from the Check menu,
and press the [SELECT] button.

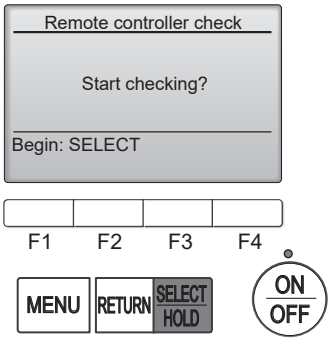
Select ″Remote controller check″ with the F1 or F2 button,
and press the [SELECT] button.



2. Select ″Remote controller check″ from the Diagnosis menu, and press the [SELECT] button to start the remote controller check and see the check results.

To cancel the remote controller check and exit the ″Remote controller check″ menu screen, press the [MENU] or the [RETURN] button.

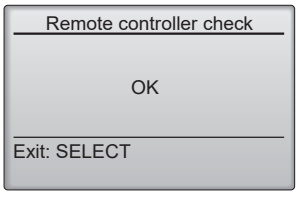
The remote controller will not reboot itself.



3.

OK:	No problems are found with the remote controller. Check other parts for problems.
E3, 6832:	There is noise on the transmission line, or the indoor unit or another remote controller is faulty. Check the transmission line and the other remote controllers.
NG (ALL0, ALL1):	Send-receive circuit fault. The remote controller needs replacing.
ERC:	The number of data errors is the discrepancy between the number of bits in the data transmitted from the remote controller and that of the data that was actually transmitted over the transmission line. If data errors are found, check the transmission line for external noise interference.

Remote controller check results screen



If the [SELECT] button is pressed after the remote controller check results are displayed, remote controller check will end, and the remote controller will automatically reboot itself.

Check the remote controller display and see if anything is displayed (including lines). Nothing will appear on the remote controller display if the correct voltage (8.5–12 VDC) is not supplied to the remote controller. If this is the case, check the remote controller wiring and indoor units.

CITY MULTI

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