MITSUBISHI ELECTRIC

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

August 2023

No. TCH124

REVISED EDITION-A

TECHNICAL & SERVICE MANUAL

Series PLFY Ceiling Cassettes

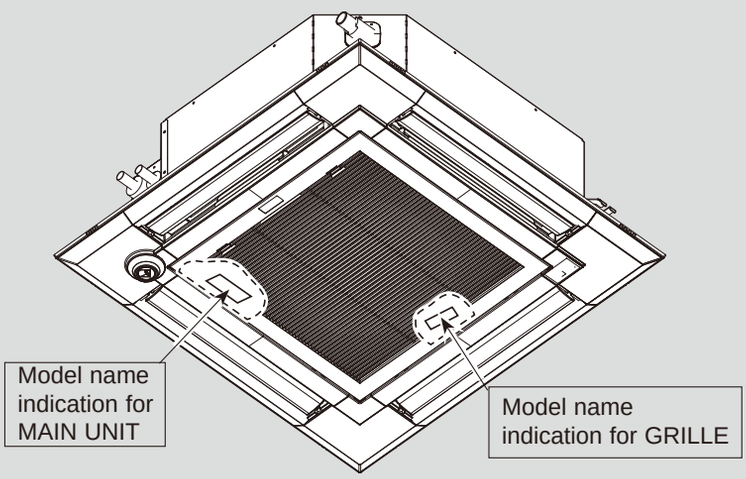
Indoor unit [Model names]	[Service Ref.]
PLFY-WL06NEMU-E	PLFY-WL06NEMU-E.TH
PLFY-WL08NEMU-E	PLFY-WL08NEMU-E.TH
PLFY-WL12NEMU-E	PLFY-WL12NEMU-E.TH
PLFY-WL15NEMU-E	PLFY-WL15NEMU-E.TH
PLFY-WL18NEMU-E	PLFY-WL18NEMU-E.TH
PLFY-WL24NEMU-E	PLFY-WL24NEMU-E.TH
PLFY-WL30NEMU-E	PLFY-WL30NEMU-E.TH
PLFY-WL36NEMU-E	PLFY-WL36NEMU-E.TH
PLFY-WL48NEMU-E	PLFY-WL48NEMU-E.TH

Grille model [Model name]

PLP-41EAEU

Revision:
- Some descriptions have been revised in REVISED EDITION-A.

TCH124 is void.



INDOOR UNIT

CONTENTS

1. SAFETY PRECAUTION····2
2. PARTS NAMES AND FUNCTIONS····3
3. SPECIFICATIONS····4
4. 4-WAY AIRFLOW SYSTEM····10
5. OUTLINES AND DIMENSIONS····13
6. WIRING DIAGRAM····14
7. REFRIGERANT SYSTEM DIAGRAM····15
8. MICROPROCESSOR CONTROL····15
9. TROUBLESHOOTING····22
10. DISASSEMBLY PROCEDURE····29
11. REMOTE CONTROLLER····36

PARTS CATALOG (TCB124)

CITY MULTI

1 SAFETY PRECAUTION

Read before installation and performing electrical work

- ♦Thoroughly read the following safety precautions prior to installation.
- ♦Observe these safety precautions for your safety.
- ♦This equipment may have adverse effects on the equipment on the same power supply system.
- ♦Contact the local power authority before connecting to the system.

Symbol explanations

⚠ WARNING
This symbol indicates that failure to follow the instructions exactly as stated poses the risk of serious injury or death.

⚠ CAUTION
This symbol indicates that failure to follow the instructions exactly as stated poses the risk of serious injury or damage to the unit.

Indicates an action that must be avoided.

Indicates important instructions.

Indicates a parts that requires grounding.

Indicates that caution must be taken with rotating parts. (This symbol is on the main unit label.) <Color: Yellow>

Indicates that the parts that are marked with this symbol pose a risk of electric shock. (This symbol is on the main unit label.) <Color: Yellow>

⚠ WARNING
Carefully read the labels affixed to the main unit.

⚠ WARNING

♦Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
- Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, during repair, or at the time of disposal of the unit. It may also be in violation of applicable laws. MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.

♦Ask your dealer or a qualified technician to install the unit.
- Improper installation by the user may result in water leakage, electric shock, or fire.

♦Properly install the unit on a surface that can withstand its weight.
- Unit installed on an unstable surface may fall and cause injury.

♦Only use specified cables. Securely connect each cable so that the terminals do not carry the weight of the cable.
- Improperly connected cables may produce heat and start a fire.

♦Take appropriate safety measures against wind gusts and earthquakes to prevent the unit from toppling over.
- Improper installation may cause the unit to topple over and cause injury or damage to the unit.

♦Only use accessories (i.e., air cleaners, humidifiers, electric heaters) recommended by Mitsubishi Electric.

♦Do not make any modifications or alterations to the unit. Consult your dealer for repair.
- Improper repair may result in water leakage, electric shock, or fire.

♦Do not touch the heat exchanger fins with bare hands.
- The fins are sharp and pose a risk of cuts.

♦Properly install the unit according to the instructions in the Installation Manual.
- Improper installation may result in water leakage, electric shock, or fire.

♦Have all electrical work performed by an authorized electrician accord-ing to the local regulations and the instructions in this manual. Use a dedicated circuit.
- Insufficient power supply capacity or improper installation of the unit may re-sult in malfunctions of the unit, electric shock, or fire.

♦Keep electrical parts away from water.
- Wet electrical parts pose a risk of electric shock, smoke, or fire.

♦Securely attach the control box cover.
- If the cover is not installed properly, dust or water may infiltrate and pose a risk of electric shock, smoke, or fire.

♦Only use the type of refrigerant that is indicated on the unit when installing or relocating the unit.
- Infiltration of any other types of refrigerant or air into the unit may adversely affect the refrigerant cycle and may cause the pipes to burst or explode.

♦Consult your dealer or a qualified technician when moving or reinstalling the unit.
- Improper installation may result in water leakage, electric shock, or fire.

♦After completing the service work, check for a refrigerant leak.
- If leaked refrigerant is exposed to a heat source, such as a fan heater, stove, or electric grill, toxic gases will be generated.

♦Do not try to defeat the safety features of the unit.
- Forced operation of the pressure switch or the temperature switch by defeating the safety features for these devices, or the use of accessories other than the ones that are recommended by Mitsubishi Electric may result in smoke, fire, or explosion.

♦Consult your dealer for proper disposal method.

♦Do not use a leak detection additive.

Precautions for handling units for use with water

⚠ CAUTION

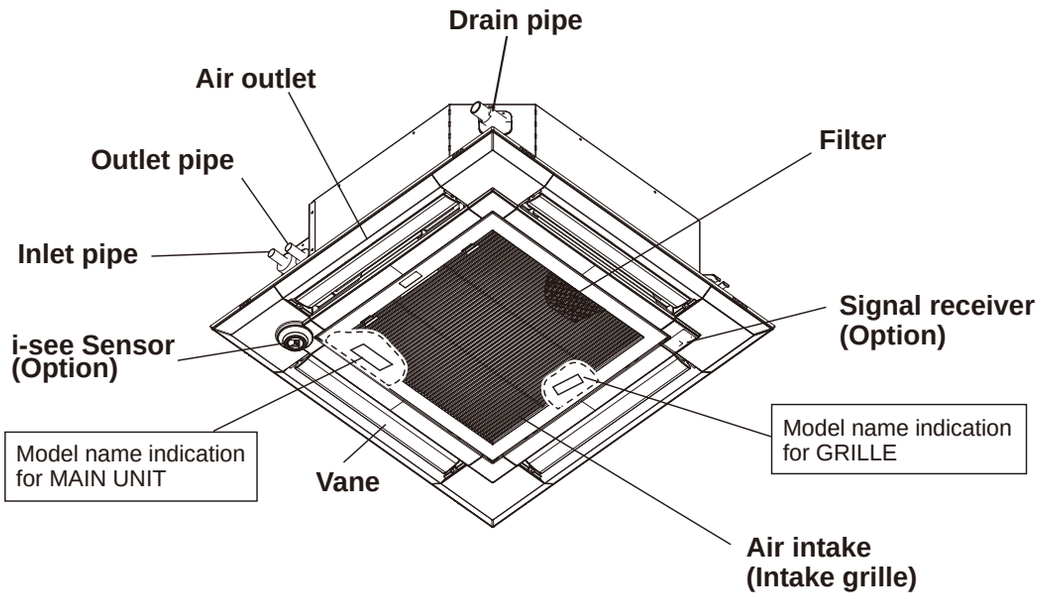
♦Do not use the existing water piping.
- Store the piping materials indoors, and keep both ends of the pipes sealed until immediately before installation. Keep the joints wrapped in plastic bags. If dust or dirt enters the water circuit, it may damage the heat exchanger and cause water leakage.

♦Only use water.
- Only use clean water as a refrigerant. The use of water outside the specification may damage the refrigerant circuit.

♦Install the unit so that external force is not applied to the water pipes.

2 PARTS NAMES AND FUNCTIONS

2-1. Indoor unit



2-2. WIRED REMOTE CONTROLLER <PAR-41MAA> <PAC-YT53CRA>

The functions which can be used are restricted according to each model.

○ : Supported × : Unsupported

	Function		PAR-41MAA		PAC-YT53CRA
			Slim	CITY MULTI	
Body	Product size H × W × D	(mm)	120 × 120 × 14.5		120 × 70 × 14.5
		(inch)	4-3/4 × 4-3/4 × 9/16		4-3/4 × 2-3/4 × 9/16
	LCD		Full Dot LCD		Partial Dot LCD
	Backlight		○		○
Energy saving	Energy saving operation schedule		○	×	×
	Automatic return to the preset temperature		○		×
Restriction	Setting the temperature range restriction		○		○
Function*	Operation lock function		○		○
	Weekly timer		○		×
	ON/OFF timer		○		×
	High Power		○	×	×
	Manual vane angle		○		×

*Some functions may not be available depending on model types.

Refer to "11-1. REMOTE CONTROLLER FUNCTIONS" for details.

3 SPECIFICATIONS

3-1. SPECIFICATIONS

Model				PLFY-WL06NEMU-E.TH	PLFY-WL08NEMU-E.TH	PLFY-WL12NEMU-E.TH	PLFY-WL15NEMU-E.TH	PLFY-WL18NEMU-E.TH
Power source				1-phase 208/230 V 60Hz				
Cooling capacity *1			BTU/h	6,000	8,000	12,000	15,000	18,000
(Nominal) *1			kW	1.8	2.3	3.5	4.4	5.3
	Power input		kW	0.03				0.04
	Current input		A	0.26	0.29	0.33	0.35	0.40
Heating capacity *2			BTU/h	6,700	9,000	13,500	17,000	20,000
(Nominal) *2			kW	2.0	2.6	4.0	5.0	5.9
	Power input		kW	0.03				0.04
	Current input		A	0.20	0.23	0.27	0.29	0.34
External finish				Galvanized steel plate				
External dimension H × W × D			inch	10-3/16 × 33-2/32 × 33-2/32				
			mm	258 × 840 × 840				
Net weight			lbs (kg)	40 (18)		44 (20)		
Decoration panel	model			PLP-41EAEU				
	External finish			MUNSELL (1.0Y 9.2/0.2)				
	Dimension H × W × D		inch	1-9/16 × 37-13/32 × 37-13/32				
			mm	40 × 950 × 950				
	Net weight		lbs (kg)	11 (5)				
Heat exchanger				Cross fin (Aluminum fin and copper tube)				
	Water volume		L	1.0		1.8		
FAN	Type × Quantity			Turbo fan × 1				
	External static press.		in.WG	0				
			Pa	0				
	Motor type			DC motor				
	Motor output		kW	0.05				
	Driving mechanism			Direct-driven				
	Airflow rate			(Low-Mid2-Mid1-High)				
			cfm	424 - 459 - 494 - 530	424 - 459 - 530 - 600	494 - 530 - 565 - 600	494 - 530 - 565 - 600	494 - 565 - 636 - 706
			m³/min	12 - 13 - 14 - 15	12 - 13 - 15 - 17	14 - 15 - 16 - 17	14 - 15 - 16 - 17	14 - 16 - 18 - 20
			L/s	200 - 217 - 233 - 250	200 - 217 - 250 - 283	233 - 250 - 267 - 283	233 - 250 - 267 - 283	233 - 267 - 300 - 333
Sound pressure level				(Low-Mid2-Mid1-High)				
(measured in anechoic room)			dB <A>	24 - 26 - 27 - 28	24 - 26 - 28 - 30	26 - 27 - 29 - 30	26 - 28 - 29 - 31	27 - 29 - 31 - 33
Insulation material				PS				
Air filter				PP honeycomb (long life filter, anti-bacterial type)				
Protection device				Fuse				
Refrigerant control device				—				
Connectable HBC controller				CMB-WP-NU-AA, CMB-WP-NU-AB				
Water piping diameter *3,*4	Connection size	Inlet	mm O.D.	22				
		Outlet	mm O.D.	22				
	Field pipe size	Inlet	mm I.D.	20				
		Outlet	mm I.D.	20				
Field drain pipe size			inch (mm)	O.D. 1-1/4 (32)				
Drawing	External			VK01B213				
	Wiring			VM79A839				
	Refrigerant cycle			—				
standard attachment	Document			Installation Manual, Instruction Book				
	Accessory			Insulation template, Washer, Drain socket, Tie band				
Optional parts	3D i-see Sensor corner panel			PLP-41EAEU				
	Multi-function casement			PAC-SJ41TM-E				
	High efficiency filter element			PAC-SH59KF-E				
	Air outlet shutter plate (1 set)			PAC-SJ37SP-E				
	Flange for fresh air intake			PAC-SH65OF-E				
	Wireless signal receiver			PAR-SR4LU-E				
	External heater adapter			PAC-YU25HT				
Remark				* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.				

Notes:
1. Norminal cooling conditions
   Indoor: 80°FD.B./67°FW.B. (26.7°D.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
   Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
2. Norminal heating conditions
   Indoor: 70°FD.B. (21.1°C.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
   Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
3. Be sure to install a valve on the water inlet/outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.

Unit converter

Btu/h = kW × 3,412
cfm = m³/min × 35.31
lb = kg/0.4536
*Above specification data is subject to rounding variation.

Model				PLFY-WL24NEMU-E.TH	PLFY-WL30NEMU-E.TH	PLFY-WL36NEMU-E.TH	PLFY-WL48NEMU-E.TH
Power source				1-phase 208/230 V 60Hz			
Cooling capacity *1 (Nominal) *1			BTU/h	24,000	30,000	36,000	48,000
			kW	7.0	8.8	10.6	14.1
	Power input		kW	0.04	0.05	0.08	0.11
	Current input		A	0.40	0.46	0.66	1.05
Heating capacity *2 (Nominal) *2			BTU/h	27,000	34,000	40,000	54,000
			kW	7.9	10.0	11.7	15.8
	Power input		kW	0.04	0.05	0.08	0.11
	Current input		A	0.34	0.40	0.60	0.99
External finish				Galvanized steel plate			
External dimension H × W × D			inch	11-3/4 × 33-2/32 × 33-2/32			
			mm	298 × 840 × 840			
Net weight			lbs (kg)	53 (24)			57 (26)
Decoration panel	model			PLP-41EAEU			
	External finish			MUNSELL (1.0Y 9.2/0.2)			
	Dimension H × W × D		inch	1-9/16 × 37-13/32 × 37-13/32			
			mm	40 × 950 × 950			
	Net weight		lbs (kg)	11 (5)			
Heat exchanger				Cross fin (Aluminum fin and copper tube)			
	Water volume		L	2.1		2.2	3.1
FAN	Type × Quantity			Turbo fan × 1			
	External static press.		in.WG	0			
			Pa	0			
	Motor type			DC motor			
	Motor output		kW	0.12			
	Driving mechanism			Direct-driven			
	Airflow rate			(Low-Mid2-Mid1-High)			
			cfm	530 - 600 - 671 - 742	630 - 676 - 742 - 812	671 - 812 - 918 - 1059	706 - 883 - 1059 - 1236
			m³/min	15 - 17 - 19 - 21	15 - 18 - 21 - 23	19 - 23 - 26 - 30	20 - 25 - 30 - 35
			L/s	250 - 283 - 317 - 350	250 - 300 - 350 - 383	317 - 383 - 433 - 500	333 - 417 - 500 - 583
Sound pressure level				(Low-Mid2-Mid1-High)			
(measured in anechoic room)			dB <A>	27 - 29 - 31 - 33	37 - 30 - 33 - 35	31 - 35 - 37 - 40	33 - 37 - 40 - 46
Insulation material				PS			
Air filter				PP honeycomb (long life filter, anti-bacterial type)			
Protection device				Fuse			
Refrigerant control device				—			
Connectable HBC controller				CMB-WP-NU-AA, CMB-WP-NU-AB			
Water piping diameter *3,*4	Connection size	Inlet	mm O.D.	22			
		Outlet	mm O.D.	22			
	Field pipe size	Inlet	mm I.D.	30			
		Outlet	mm I.D.	30			
Field drain pipe size			inch (mm)	O.D. 1-1/4 (32)			
Drawing	External			VK01B213			
	Wiring			VM79A839			
	Refrigerant cycle			—			
standard attachment	Document			Installation Manual, Instruction Book			
	Accessory			Insulation template, Washer, Drain socket, Tie band			
Optional parts	3D i-see Sensor corner panel			PLP-41EAEU			
	Multi-function casement			PAC-SJ41TM-E			
	High efficiency filter element			PAC-SH59KF-E			
	Air outlet shutter plate (1 set)			PAC-SJ37SP-E			
	Flange for fresh air intake			PAC-SH65OF-E			
	Wireless signal receiver			PAR-SR4LU-E			
	External heater adapter			PAC-YU25HT			
Remark				* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specifications may be subject to change without notice.			

Notes:
1. Norminal cooling conditions
   Indoor: 80°FD.B./67°FW.B. (26.7°D.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
   Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
2. Norminal heating conditions
   Indoor: 70°FD.B. (21.1°C.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
   Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)
3. Be sure to install a valve on the water inlet/outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.

Unit converter

Btu/h = kW × 3,412
cfm = m³/min × 35.31
lb = kg/0.4536
*Above specification data is subject to rounding variation.

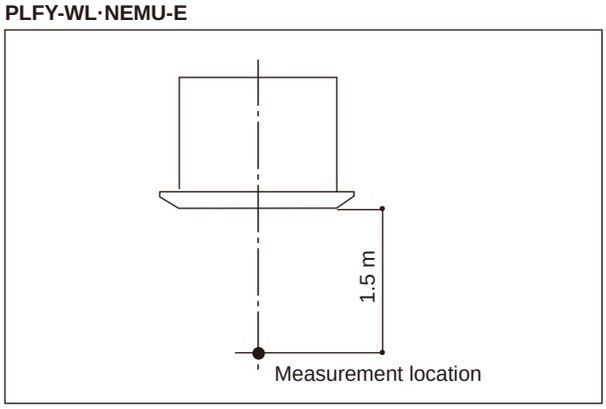
3-2. ELECTRICAL PARTS SPECIFICATIONS

Service Ref. / Parts name	Symbol	PLFY-WL06NEMU-E.TH PLFY-WL08NEMU-E.TH PLFY-WL12NEMU-E.TH PLFY-WL15NEMU-E.TH PLFY-WL18NEMU-E.TH	PLFY-WL24NEMU-E.TH PLFY-WL30NEMU-E.TH PLFY-WL36NEMU-E.TH PLFY-WL48NEMU-E.TH
Room temperature thermistor	TH21	Resistance 30°F/15.8 kΩ, 50°F/9.6 kΩ, 70°F/6.0 kΩ, 80°F/4.8 kΩ, 90°F/3.9 kΩ, 100°F/3.2 kΩ	
Inlet pipe thermistor	TH22	Resistance 30°F/15.8 kΩ, 50°F/9.6 kΩ, 70°F/6.0 kΩ, 80°F/4.8 kΩ, 90°F/3.9 kΩ, 100°F/3.2 kΩ	
Outlet pipe thermistor	TH23	Resistance 30°F/15.8 kΩ, 50°F/9.6 kΩ, 70°F/6.0 kΩ, 80°F/4.8 kΩ, 90°F/3.9 kΩ, 100°F/3.2 kΩ	
Fuse (Indoor controller board)	FUSE	250 V 6.3 A	
Fan motor	MF	8-pole OUTPUT 50 W	8-pole OUTPUT 120 W
Vane motor	MV	MSBPC20M13 DC12 V 300 Ω/phase	
Drain pump	DP	PMD-12D13ME INPUT 3 W 24 ℓ /Hr	
Drain float switch	FS	Open / Short detection	
Power supply terminal block	TB2	(L1, L2) Rated to 330 V 30 A *	
Transmission terminal block	TB5	(M1, M2, S) Rated to 250 V 20 A *	
MA remote controller terminal block	TB15	(1, 2) Rated to 250 V 10 A *	

*Refer to WIRING DIAGRAM for the supplied voltage.

3-3. SOUND PRESSURE LEVEL

PLFY-WL·NEMU-E



Note: Measured in anechoic room.

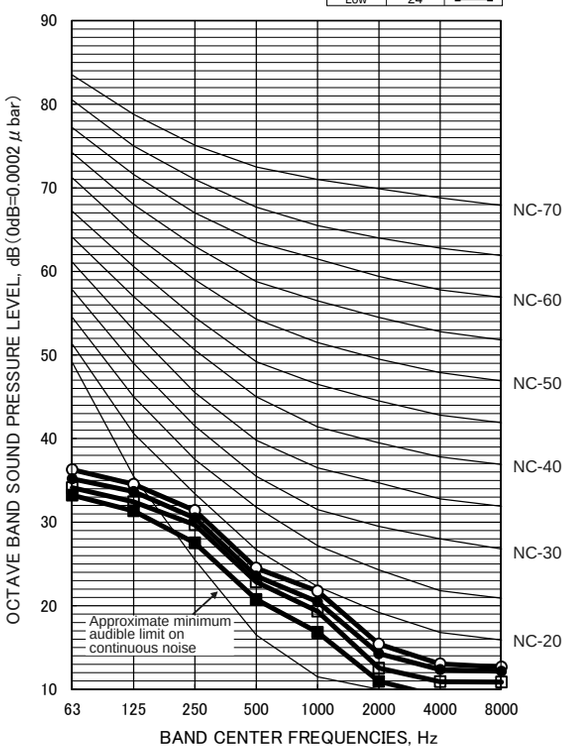
Sound pressure level at anechoic room : Low-Mid2-Mid1-High

Model name	Sound pressure level dB (A)
PLFY-WL06NEMU-E	24 - 26 - 27 - 28
PLFY-WL08NEMU-E	24 - 26 - 28 - 30
PLFY-WL12NEMU-E	26 - 27 - 29 - 30
PLFY-WL15NEMU-E	26 - 28 - 29 - 31
PLFY-WL18NEMU-E	27 - 29 - 31 - 33
PLFY-WL24NEMU-E	27 - 29 - 31 - 33
PLFY-WL30NEMU-E	27 - 30 - 33 - 35
PLFY-WL36NEMU-E	31 - 35 - 37 - 40
PLFY-WL48NEMU-E	33 - 37 - 40 - 46

3-4. NC CURVES

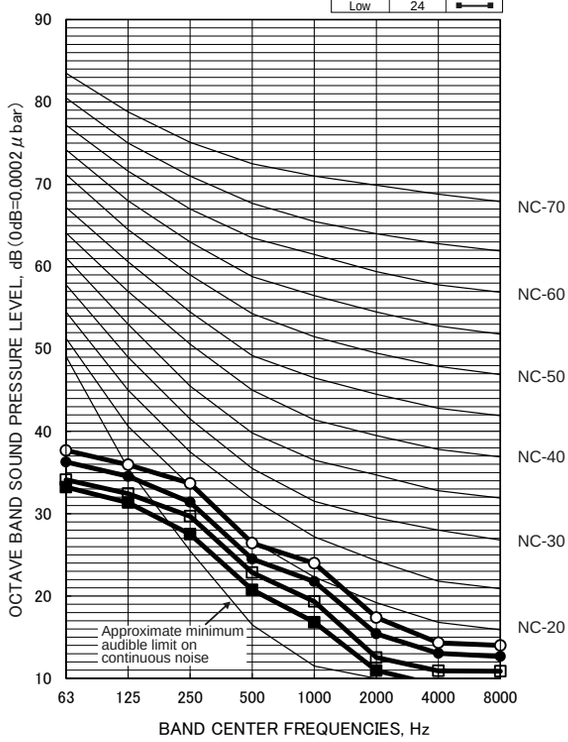
PLFY-WL06NEMU-E.TH

FAN	SPL(dB)	LINE
High	28	
Medium1	27	
Medium2	26	
Low	24	



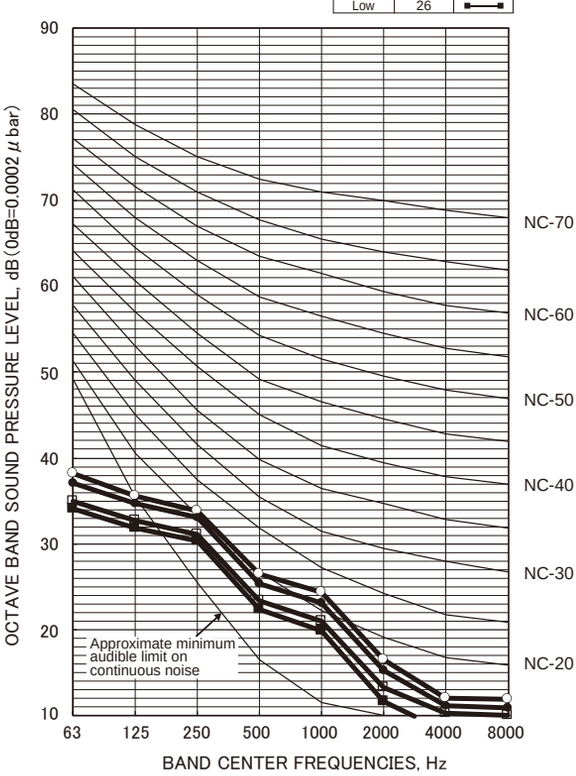
PLFY-WL08NEMU-E.TH

FAN	SPL(dB)	LINE
High	30	
Medium1	28	
Medium2	26	
Low	24	



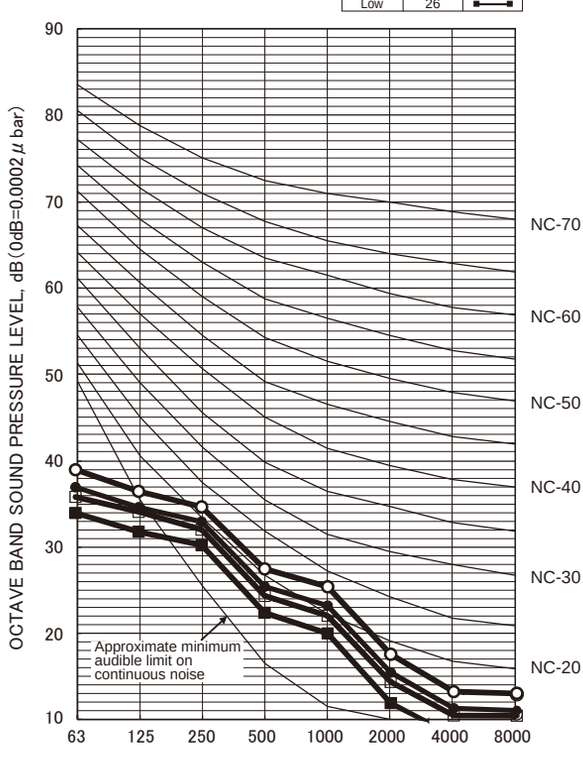
PLFY-WL12NEMU-E.TH

FAN	SPL(dB)	LINE
High	30	
Medium1	29	
Medium2	27	
Low	26	



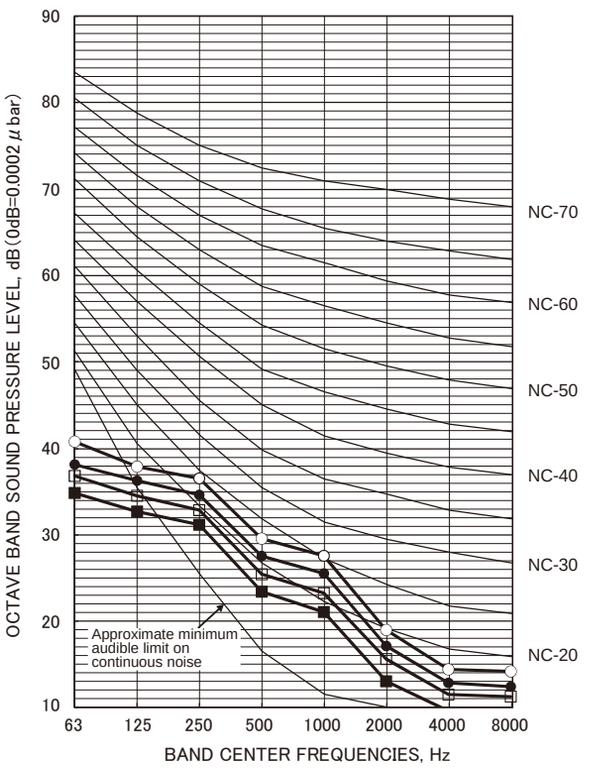
PLFY-WL15NEMU-E.TH

FAN	SPL(dB)	LINE
High	31	
Medium1	29	
Medium2	28	
Low	26	



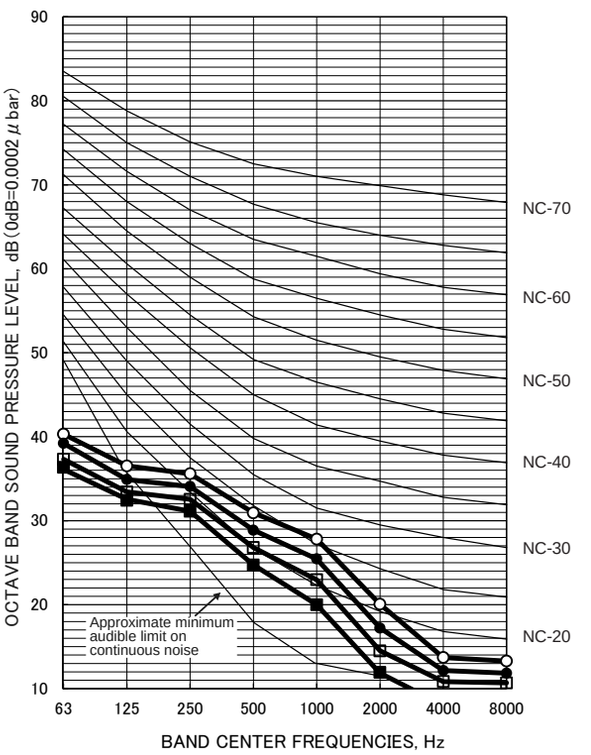
PLFY-WL18NEMU-E.TH

FAN	SPL(dB)	LINE
High	33	
Medium1	31	
Medium2	29	
Low	27	



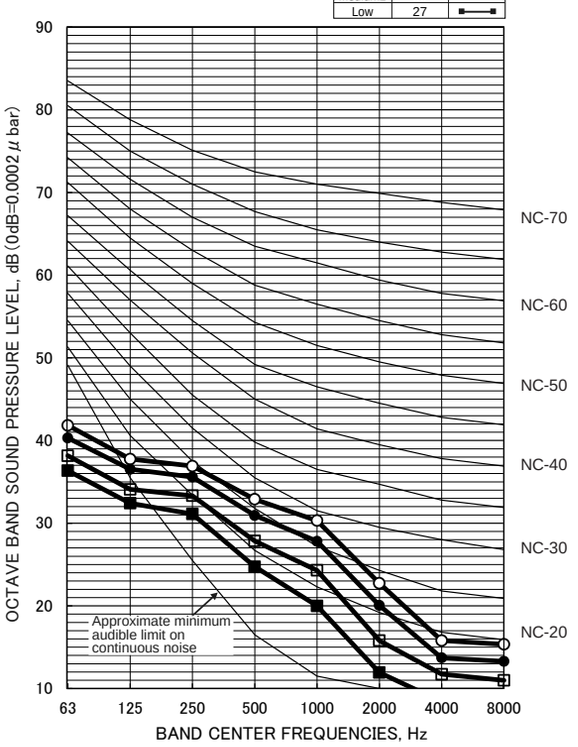
PLFY-WL24NEMU-E.TH

FAN	SPL(dB)	LINE
High	33	
Medium1	31	
Medium2	29	
Low	27	



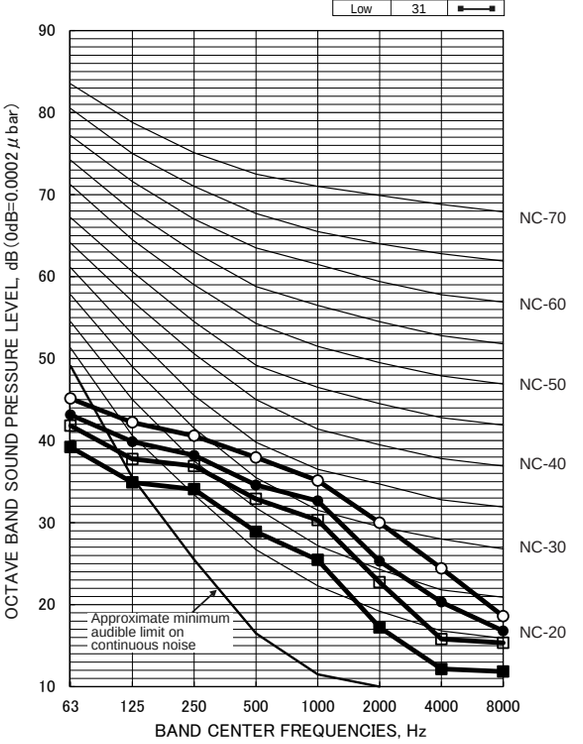
PLFY-WL30NEMU-E.TH

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



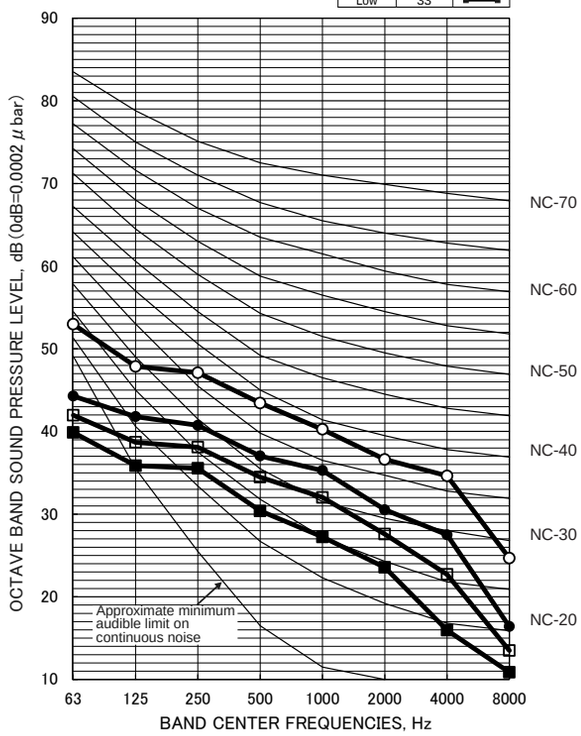
PLFY-WL36NEMU-E.TH

FAN	SPL(dB)	LINE
High	40	
Medium1	37	
Medium2	35	
Low	31	



PLFY-WL48NEMU-E.TH

FAN	SPL(dB)	LINE
High	46	
Medium1	40	
Medium2	37	
Low	33	



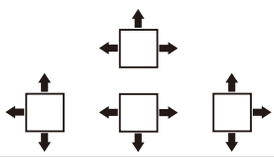
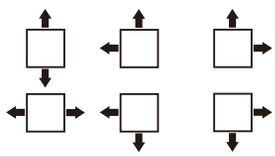
4 4-WAY AIRFLOW SYSTEM

4-1. PLACEMENT OF THE AIR OUTLETS

• For this grille, the blowout direction comes in 11 patterns.
Also, by setting switch on the controller board to the appropriate settings, you can adjust the airflow and speed. Select the settings from Table1 according to the location in which you want to install the unit.

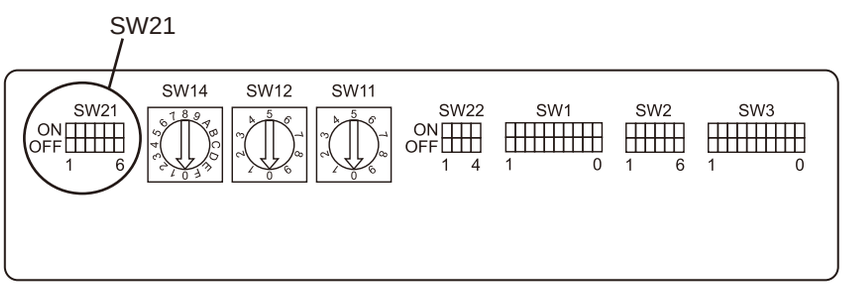
1) Decide on the pattern of the airflow direction.

<Table 1>

Blowout direction pattern	4-direction	3-direction	2-direction
	Pattern 1 Initial setting	Pattern 4 1 air outlet fully closed 	Pattern 6 2 air outlet fully closed 

Note1.
For 3- and 2-direction settings, please use the air outlet shutter plate (option).

2) According to the number of air outlets and height of the ceiling to install the unit, be sure to set up the switch (SW21) on the circuit board to the appropriate setting.
• Correspondence of ceiling heights to the number of air outlets



4-2. BRANCH DUCT HOLE AND FRESH AIR INTAKE HOLE

At the time of installation, use the duct holes (cut out) located at the positions shown in following diagram, as and when required.

• A fresh air intake hole for the optional multi-functional casement can also be made.

Note:

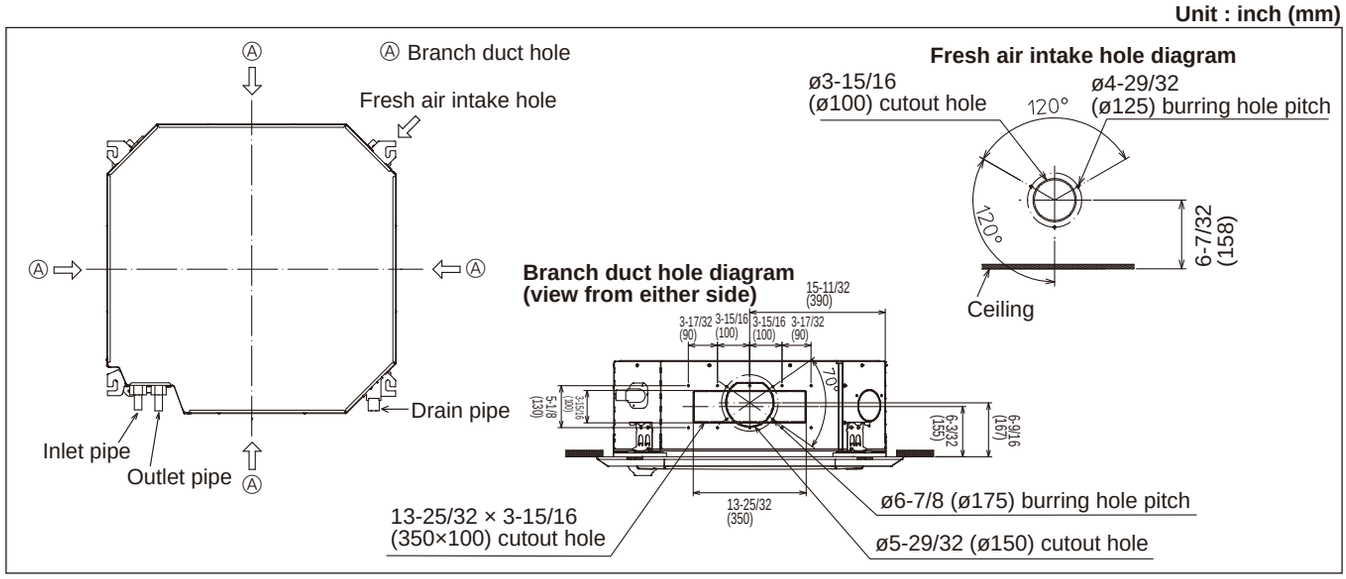
The figures marked with * in the drawing below represent the dimensions of the main unit excluding those of the optional multi-functional casement.

When installing the optional multi-functional casement, add 5-5/16" (135 mm) to the dimensions marked on the figure.

When installing the branch ducts, be sure to insulate adequately.

Otherwise, condensation and dripping may occur.

Unit : inch (mm)



4-3. OPERATION IN CONJUNCTION WITH DUCT FAN (Booster fan)

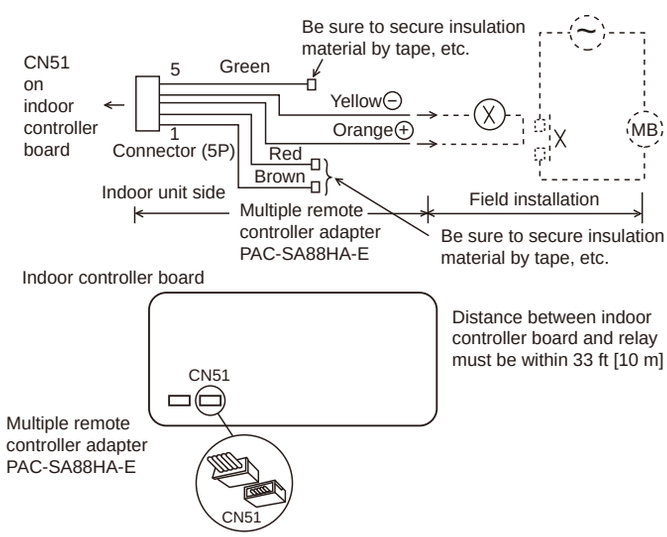
• Whenever the indoor unit is operating, the duct fan also operates.

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

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

MB: Electromagnetic switch power relay for duct fan.

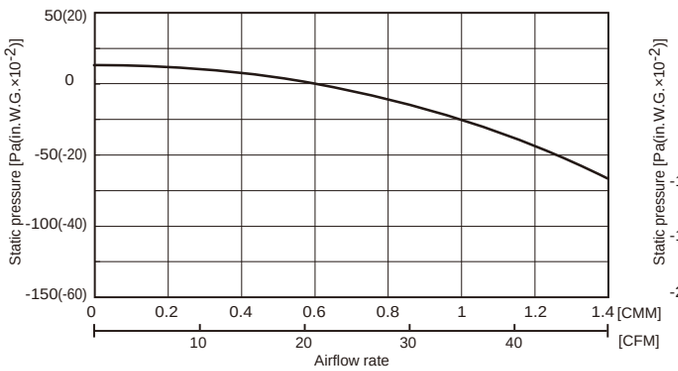
X: Auxiliary relay (For 12 VDC, coil rating: 1.0 W or smaller)



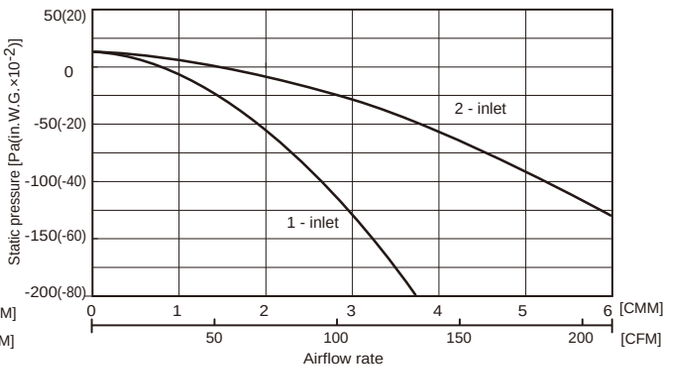
4-4. FRESH AIR INTAKE AMOUNT & STATIC PRESSURE CHARACTERISTICS

PLFY-WL06/08/12/15/18/24/30/36/48NEMU-E

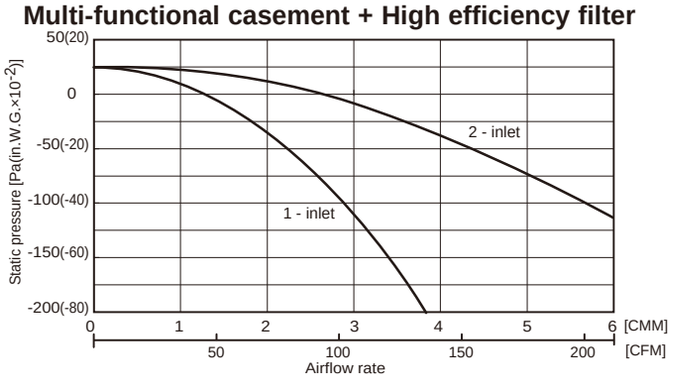
Taking air into the unit



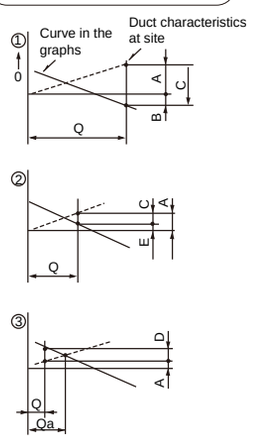
Multi-functional casement + Standard filter



Multi-functional casement + High efficiency filter



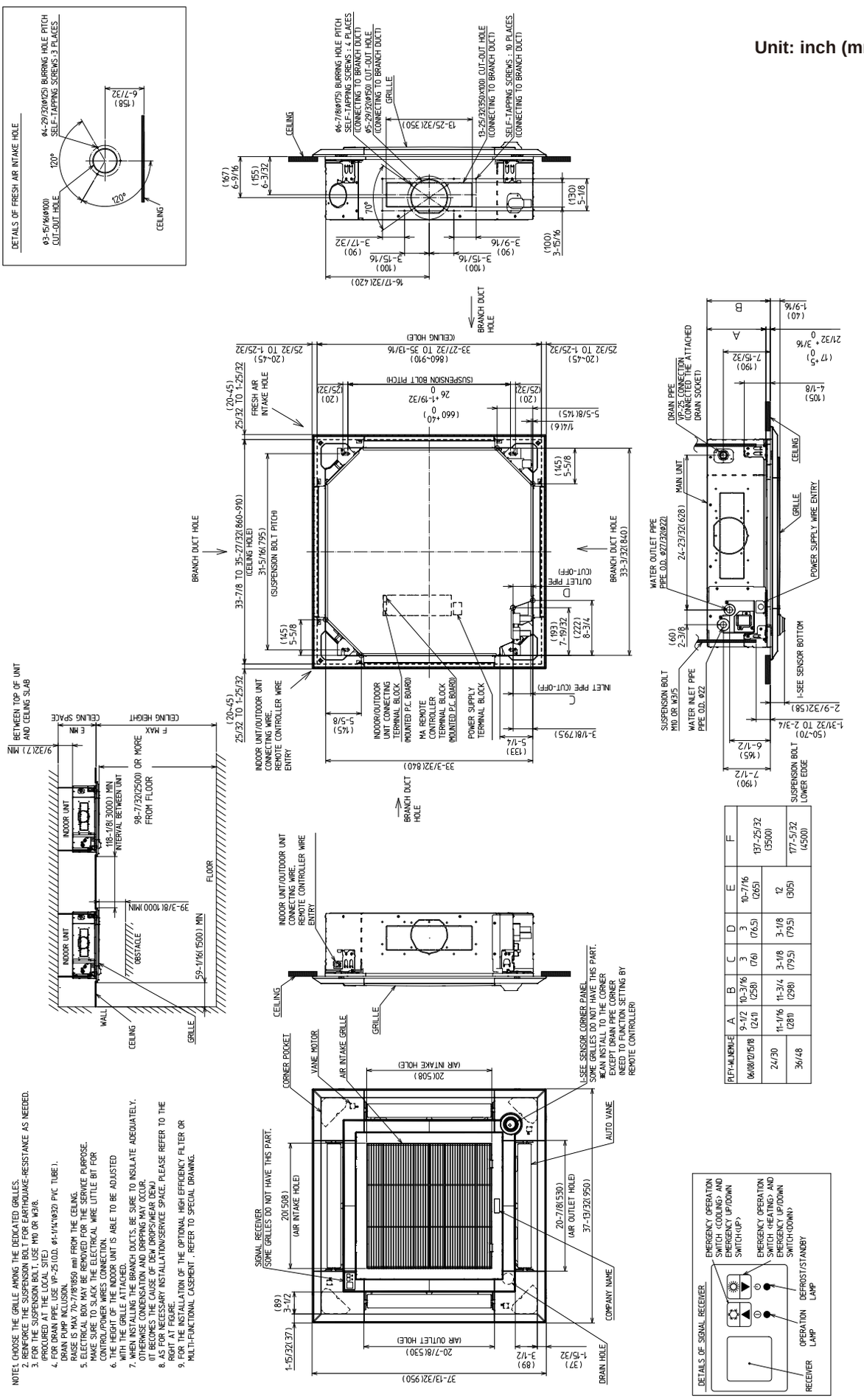
How to read curves



Q…Designed amount of fresh air intake <CMM (CFM)>
A…Static pressure loss of fresh air intake duct system with airflow amount Q <Pa (in.W.G.o10-2)>
B…Forced static pressure at air conditioner inlet with airflow amount Q <Pa (in.W.G.o10-2)>
C…Static pressure of booster fan with airflow amount Q <Pa (in.W.G.o10-2)>
D…Static pressure loss increase amount of fresh air intake duct system for airflow amount Q <Pa (in.W.G.o10-2)>
E…Static pressure of indoor unit with airflow amount Q <Pa (in.W.G.o10-2)>
Qa…Estimated amount of fresh air intake without D <CMM (CFM)>

5 OUTLINES AND DIMENSIONS

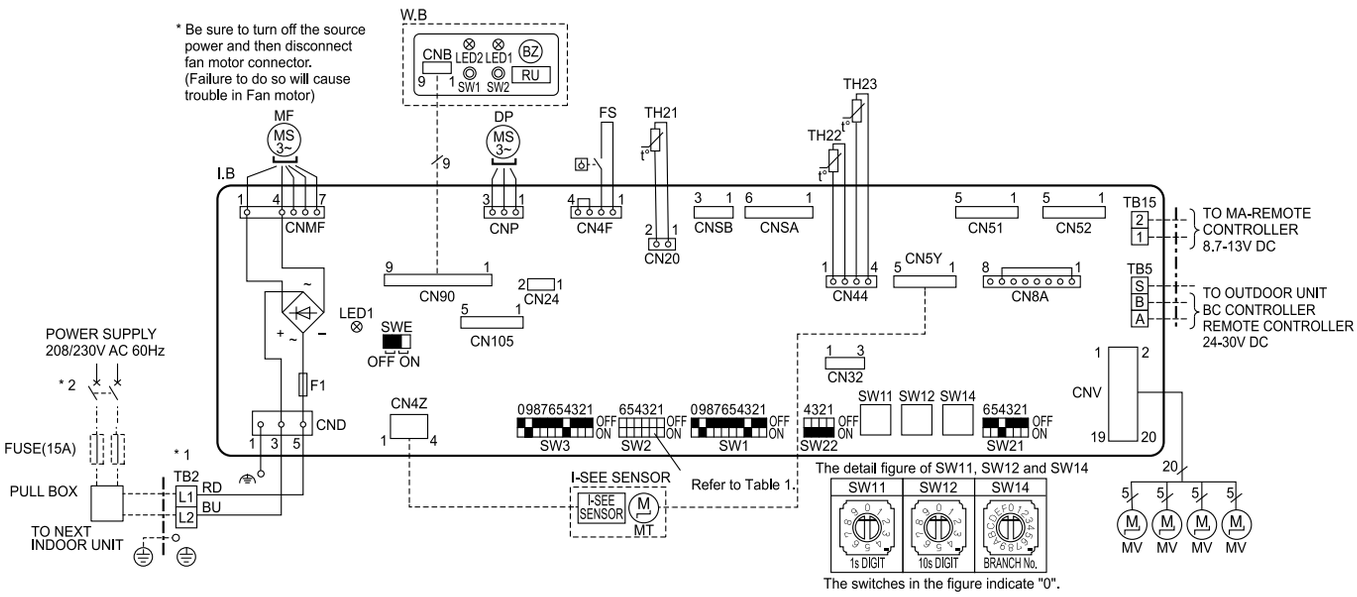
Unit: inch (mm)



PLFY-WLMD-E	A	B	C	D	E	F
06/08/12/15/18	9-1/2 (241)	10-3/16 (258)	3 (76)	3 (76.5)	10-7/16 (265)	137-25/32 (3500)
24/30	11-1/16 (281)	11-3/4 (298)	3-1/8 (79.5)	3-1/8 (79.5)	12 (305)	177-5/32 (4500)
36/48						

NOTES:
1. CHOOSE THE GRILLE AMONG THE DEDICATED GRILLES.
2. REINFORCE THE SUSPENSION BOLT FOR EARTHQUAKE-RESISTANCE AS NEEDED.
3. FOR THE SUSPENSION BOLT, USE M10 OR W3/8. (PROCURED AT THE LOCAL SITE)
4. FOR DRAIN PIPE, USE VP-25(I.D. Ø1-1/4"(Ø32) PVC TUBE). DRAIN PUMP INCLUSION. RAISE IS MAX 70-7/8"(1850 mm) FROM THE CEILING.
5. ELECTRICAL BOX MAY BE REMOVED FOR THE SERVICE PURPOSE. MAKE SURE TO SLACK THE ELECTRICAL WIRE LITTLE BIT FOR CONTROL/POWER WIRES CONNECTION.
6. THE HEIGHT OF THE INDOOR UNIT IS ABLE TO BE ADJUSTED WITH THE GRILLE ATTACHED.
7. WHEN INSTALLING THE BRANCH DUCTS, BE SURE TO INSULATE ADEQUATELY. OTHERWISE CONDENSATION AND DRIPPING MAY OCCUR. (IT BECOMES THE CAUSE OF DEW DROPS/WEAR DEW.)
8. AS FOR NECESSARY INSTALLATION/SERVICE SPACE, PLEASE REFER TO THE RIGHT AT FIGURE.
9. FOR THE INSTALLATION OF THE OPTIONAL HIGH EFFICIENCY FILTER OR MULTI-FUNCTIONAL CASEMENT, REFER TO SPECIAL DRAWING.

6 WIRING DIAGRAM



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-Remote controller, 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 above are, □□□ : terminal block, ○ ○ ○ : connector.
6. The setting of SW2 differs in the capacity. For the detail, refer the table 1 .
7. Make sure to turn off the indoor and the outdoor units before replacing indoor controller board.
8. ■ is the switch position.
*1. Use copper supply wires.
Utilisez des fils d'alimentation en cuivre.
*2. A disconnect should be required by local code.
Se procurer un sectionneur conforme aux réglementations Locales.

<Table 1> SW2 (CAPACITY CODE)

MODELS	SW2	MODELS	SW2
06		24	
08		30	
12		36	
15		48	
18			

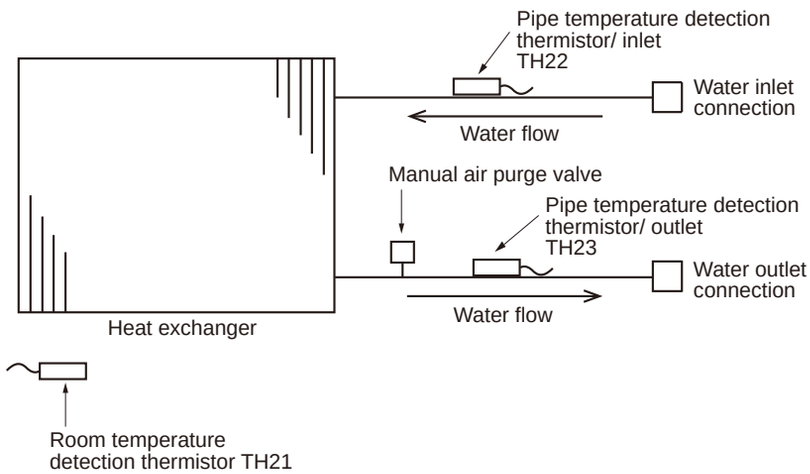
【LEGEND】

SYMBOL		NAME		SYMBOL		NAME	
I. B		INDOOR CONTROLLER BOARD		TH23	THERMISTOR	PIPE TEMP. DETECTION / GAS (32°F/15kΩ, 77°F/5.4kΩ)
	F1	FUSE (UL 6.3A 250V AC)				
	CN24	CONNECTOR	EXTERNAL HEATER	MF	FAN MOTOR	
	CN32		REMOTE SWITCH	MV	VANE MOTOR	
	CN51		CENTRALLY CONTROL	MT	I-SEE SENSOR MOTOR	
	CN52		REMOTE INDICATION	DP	DRAIN PUMP	
	CN105		IT TERMINAL	FS	DRAIN FLOAT SWITCH	
	SW1	SWITCH	MODE SELECTION	TB2	TERMINAL BLOCK	POWER SUPPLY
	SW2		CAPACITY CODE	TB5		TRANSMISSION
	SW3		MODE SELECTION	TB15		MA-REMOTE CONTROLLER
	SW11		ADDRESS SETTING 1s DIGIT	OPTION PART		
	SW12		ADDRESS SETTING 10s DIGIT	W.B		PCB FOR WIRELESS REMOTE CONTROLLER
	SW14		BRANCH NO.		BZ	BUZZER
	SW21		CEILNG HEIGHT/DISCHARGE OUTLET NUMBER/OPTION SELECTOR		LED1	LED (OPERATION INDICATION : GREEN)
					LED2	LED (PREPARATION FOR HEATING : ORANGE)
	SW22		PAIR NO. SETTING		RU	RECEVING UNIT
	SWE		DRAIN PUMP (TEST MODE)		SW1	EMERGENCY OPERATION (HEAT / DOWN)
TH21		THERMISTOR	ROOM TEMP. DETECTION (32°F/15kΩ, 77°F/5.4kΩ)		SW2	EMERGENCY OPERATION (COOL / UP)
TH22			PIPE TEMP. DETECTION / LIQUID (32°F/15kΩ, 77°F/5.4kΩ)			

LED on indoor board for service

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

7 REFRIGERANT SYSTEM DIAGRAM



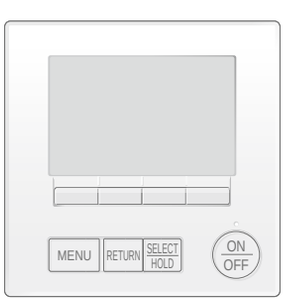
WATER PIPE CONNECTION SIZE

Unit: inch (mm)

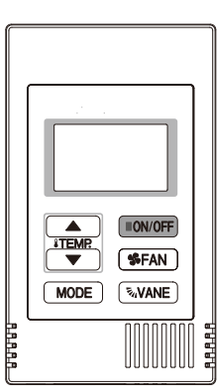
Item \ Model name	PLFY-WL06/08/12/15/18NEMU-E	PLFY-WL24/30/36/48NEMU-E
Water outlet	Min. I.D. 25/32 (20)	Min. I.D. 1-3/16 (30)
Water inlet	Min. I.D. 25/32 (20)	Min. I.D. 1-3/16 (30)

8 MICROPROCESSOR CONTROL

INDOOR UNIT CONTROL
8-1. COOL OPERATION



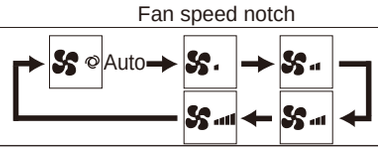
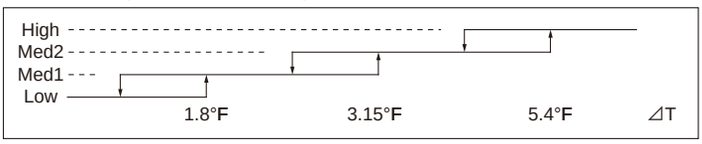
<How to operate>
① Press ON/OFF button.
② Press [F1] button to display COOL.
③ Press [F2] [F3] button to set the set temperature.
NOTE: The settable temperature range varies with the model of outdoor units and remote controller.

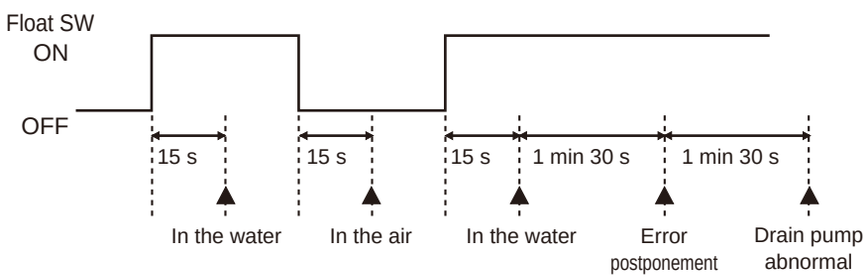


<How to operate>
① Press POWER ON/OFF button.
② Press the operation MODE button to display COOL.
③ Press the TEMP. button to set the set temperature.
NOTE: The set temperature changes 1°F when the ▽ or △ button is pressed one time. Cooling 67 to 87°F

<table>
<tr><th>Control Mode</th><th>Control Details</th><th>Remarks</th></tr>
<tr><td>1. Temperature adjustment function</td><td>1-1. Determining temperature adjustment function
(Function to prevent restarting for 3 minutes)
• Room temperature ≧Set temperature + 2°F ···Thermo-ON
• Room temperature ≦Set temperature ···Thermo-OFF

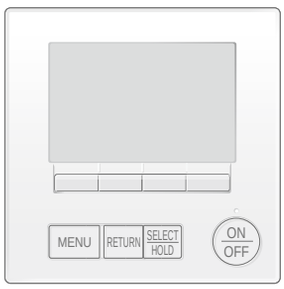
1-2. Anti-freeze control
■ Condition to detect
When the pipe temperature detection thermistor/liquid (TH22) detects 32°F or less in 16 minutes from thermo-ON, the anti-freeze control initiates, and the unit enters to the thermo-OFF.

■ Condition to release
The timer which prevents reactivating is set for 3 minutes, and anti-freeze control is cancelled when any one of the following conditions has been satisfied:
① Pipe temperature detection thermistor/liquid (TH22) reaches 50°F or above.
② The condition of thermo-OFF has been completed by the thermostat.
③ The operation has changed to a mode other than COOLING.</td><td>• The ON/OFF commands by the indoor unit thermostatic control are not an ON/OFF commands to the compressor but an open/close commands to the linear expansion valve. (The compressor stops only when the thermostatic control for all the indoor units connected to the same outdoor unit turns OFF.)</td></tr>
<tr><td>2. Fan</td><td>By the remote controller setting (switch of 4 speeds+Auto)
<table><tr><th>Type</th><th>Fan speed notch</th></tr><tr><td>4 speeds + Auto type</td><td>  </td></tr></table>When [Auto] is set, fan speed is changed depending on the value of:
ΔT = Room temperature − Set temperature
  </td><td></td></tr>
<tr><td>3. Drain pump</td><td>3-1. Drain pump control
• The drain pump will always run when the unit is in COOL or DRYING mode. (Regardless of the thermo ON/OFF)
• Whenever the operation is changed over to the other modes (including Stop), the drain pump will stop pumping after approximately 3 minutes.

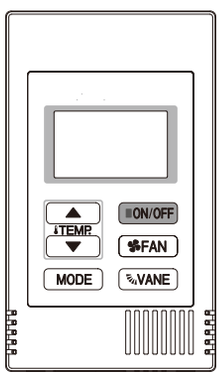
Float switch control
• Float switch control judges whether the sensor is in the air or in the water by turning the float switch ON/OFF.
In the water: Detected that the float switch is ON for 15 seconds.
In the air: Detected that the float switch is OFF for 15 seconds
  </td><td></td></tr>
<tr><td>4. Vane (up/down vane change)</td><td>(1) The initial vane setting for COOL mode will be the horizontal position.
(2) Vane position:
Horizontal →Downward A →Downward B →Downward C→Downward D→Swing→Auto

(3) Restriction of the downward vane setting
If the vane position is set to Downward A/B/C/D in [Med1], [Med2], or [Low], the vane will return to the horizontal position after 1 hour has passed.</td><td>• "1h" appears on the wired remote controller.</td></tr>
</table>

8-2. DRYING OPERATION



<How to operate>
① Press ON/OFF button.
② Press [F1] button to display DRYING.
③ Press [F2] [F3] button to set the set temperature.

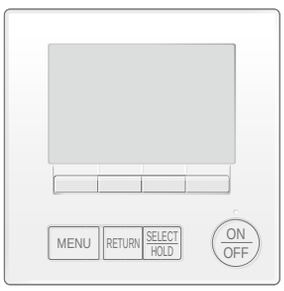


<How to operate>
① Press POWER ON/OFF button.
② Press the operation MODE button to display DRYING.
③ Press the TEMP. button to set the set temperature.
NOTE: The set temperature changes 1°F when the ▽ or △ button is pressed one time. Dry 67 to 87°F

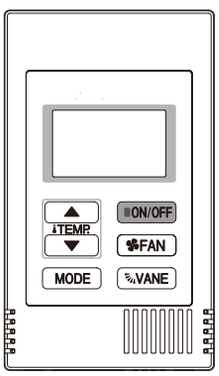
<table>
<tr><th>Control Mode</th><th>Control Details</th><th>Remarks</th></tr>
<tr><td>1. Temperature adjustment function</td><td>1-1. Determining temperature adjustment function
(Function to prevent restarting for 3 minutes)
Setting the Dry thermo by the thermostat signal and the room temperature (TH21).
Dry thermo-ON Room temperature ≧ Set temperature + 2°F
Dry thermo-OFF Room temperature ≦ Set temperature

<table>
<tr><th rowspan="2">Room temperature</th><th colspan="2">3 minutes passed since starting operation</th><th rowspan="2">Dry thermo-ON time (min)</th><th rowspan="2">Dry thermo-OFF time (min)</th></tr>
<tr><th>Thermostat signal</th><th>Room temperature (T1)</th></tr>
<tr><td rowspan="5">Over 64°F</td><td rowspan="4">ON</td><td>T1 ≧ 83°F</td><td>9</td><td>3</td></tr>
<tr><td>83°F > T1 ≧ 79°F</td><td>7</td><td>3</td></tr>
<tr><td>79°F > T1 ≧ 75°F</td><td>5</td><td>3</td></tr>
<tr><td>75°F > T1</td><td>3</td><td>3</td></tr>
<tr><td>OFF</td><td>Unconditional</td><td>3</td><td>10</td></tr>
<tr><td>Below 64°F</td><td colspan="3">Dry thermo OFF</td></tr>
</table>
</td><td></td></tr>
<tr><td></td><td>1-2. Anti-freeze control
No control function</td><td></td></tr>
<tr><td>2. Fan</td><td>Indoor fan operation controlled depends on the compressor conditions.
<table>
<tr><th>Dry thermo</th><th colspan="2">Fan speed notch</th></tr>
<tr><td>ON</td><td colspan="2">[Low]</td></tr>
<tr><td>OFF</td><td>Excluding the following</td><td>Stop</td></tr>
<tr><td></td><td>Room temp. < 64°F</td><td>[Low]</td></tr>
</table>
Note: Fan speed change is not allowed during DRYING operation.</td><td></td></tr>
<tr><td>3. Drain pump</td><td>Operates as it would in COOL operation.</td><td></td></tr>
<tr><td>4. Vane (up/down vane change)</td><td>Settings are the same in DRYING operation as they are in COOL operation.</td><td></td></tr>
</table>

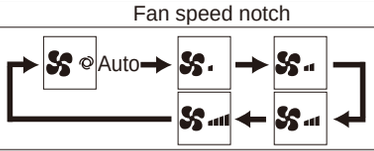
8-3. FAN OPERATION



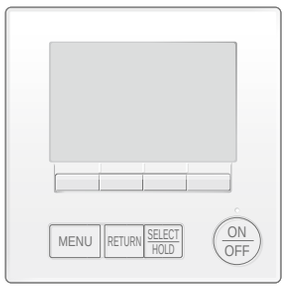
<How to operate>
① Press ON/OFF button.
② Press [F1] button to display FAN.



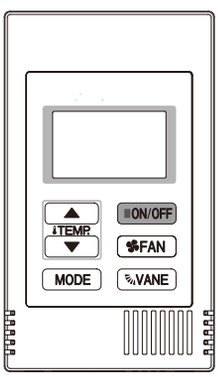
<How to operate>
① Press POWER ON/OFF button.
② Press the operation MODE button to display FAN.

Control Mode	Control Details	Remarks
1. Temperature adjustment function	Set by remote controller. Type: 4 speeds + Auto type Fan speed notch:  When [Auto] is set, fan speed becomes [Low].	
2. Drain pump	2-1. Drain pump control The drain pump turns ON for the specified amount of time when any of the following conditions has been satisfied: ① ON for 3 minutes after the operation mode is switched from COOL or DRYING to another operation mode (FAN). ② ON for 6 minutes after the float switch is submerged in the water when the float switch control judges the sensor is in the water.	
	2-2. Float switch control • Float switch control judges whether the sensor is in the air or in the water by turning the float switch ON/OFF. In the water : Detected that the float switch is ON for 15 seconds. In the air : Detected that the float switch is OFF for 15 seconds.	• Operates as it would in COOL operation.
3. Vane (up/down vane change)	Same as the control performed during the COOL operation, but with no restriction on the vane's downward blow setting	

8-4. HEAT OPERATION

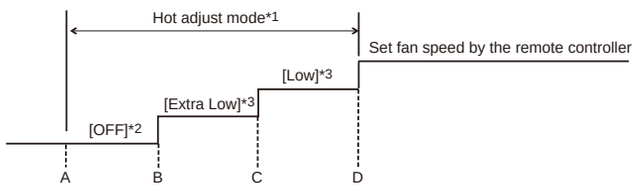


<How to operate>
① Press ON/OFF button.
② Press [F1] button to display HEAT.
③ Press [F2] [F3] button to set the set temperature.
NOTE: The settable temperature range varies with the model of outdoor units and remote controller.

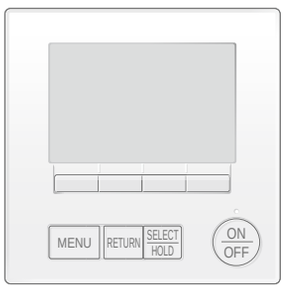


<How to operate>
① Press POWER ON/OFF button.
② Press the operation MODE button to display HEAT.
③ Press the TEMP. button to set the set temperature.
NOTE: The set temperature changes 1°F when the ▽ or △ button is pressed one time. Heating 63 to 83°F

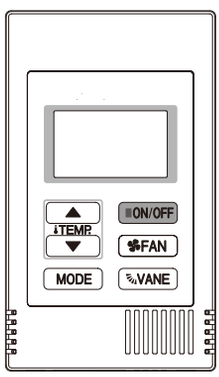
Control Mode	Control Details	Remarks
1. Temperature adjustment function	1-1. Determining temperature adjustment function (Function to prevent restarting for 3 minutes) • Room temperature ≦ Set temperature −2°F ···Thermo-ON • Room temperature ≧ Set temperature ···Thermo-OFF	
2. Fan	By the remote controller setting (switch of 4 speeds+Auto) Type: 4 speeds + Auto type; Fan speed notch: Auto → → →

Control Mode	Control Details	Remarks
	2-1. Hot adjust mode The fan controller becomes the hot adjuster mode for the following conditions. ① When starting the HEAT operation ② When the temperature adjustment function changes from OFF to ON. ③ When release the HEAT defrosting operation  A: Hot adjust mode starts. B: 5 minutes have passed since the condition A or the indoor liquid pipe temperature reached 86°F or more. C: 5 minutes have passed since the condition A or the indoor liquid pipe temperature reached 95°F or more. D: 2minutes have passed since the condition C. (Terminating the hot adjust mode) <table><tr><td colspan="2" rowspan="2"></td><td colspan="2">DIP SW 1-8</td></tr><tr><td>ON</td><td>OFF</td></tr><tr><td rowspan="2">DIP SW 1-7</td><td>ON</td><td>B to C [Extra Low] C to D [Low]</td><td>B to C [Low] C to D [Low]</td></tr><tr><td>OFF</td><td>B to C [Setting airflow] C to D [Setting airflow]</td><td>B to C [Extra Low] C to D [Low] Note: Initial setting</td></tr></table>	*1 "Heat Standby" will be displayed during the hot adjust mode. *2 The step change of A to B will not be performed at the first thermo-ON mode since the HEAT operation has started. *3 The fan speed varies according to the setting of DIP SW1-7 and 1-8 as shown in the table below.
	2-2. Residual heat exclusion mode When the condition changes the auxiliary heater ON to OFF (temperature adjustment function, or operation stop, etc.), the indoor fan operates in [Low] mode for 1 minute.	• This control is same for the model without auxiliary heater.
	2-3. Thermo-OFF mode When the temperature adjustment function changes to OFF, the indoor fan operates in [Extra low].	
	2-4. Heat defrosting mode The indoor fan stops.	
3. Drain pump	3-1. Drain pump control The drain pump turns ON for the specified amount of time when any of the following conditions has been satisfied: ① ON for 3 minutes after the operation mode is switched from COOL or DRYING to another operation mode (FAN). ② ON for 6 minutes after the float switch is submerged in the water when the float switch control judges the sensor is in the water.	
	3-2. Float switch control • Float switch control judges whether the sensor is in the air or in the water by turning the float switch ON/OFF. In the water: Detected that the float switch is ON for 15 seconds. In the air : Detected that the float switch is OFF for 15 seconds.	• Operates as it would in COOL operation.
4. Vane control (Up/down vane change)	(1) Initial setting: OFF → HEAT⋯[last setting] When the last setting is [Swing] ⋯ [Downward D] When changing the mode from exception of HEAT to HEAT operation ⋯[Downward D] (2) Vane position: Horizontal →Downward A →Downward B →Downward C→Downward D→Swing→Auto (3) Restriction of vane position ①The vane is horizontally fixed for the following modes. (The control by the remote controller is temporally invalidated and control by the unit.) • Thermo-OFF • Hot adjust [Extra low] mode • Heat defrost mode	

8-5. AUTO OPERATION [AUTOMATIC COOL/HEAT CHANGE OVER OPERATION]



<How to operate>
① Press ON/OFF button.
② Press [F1] button to display AUTO.
③ Press [F2] [F3] button to set the set temperature.
NOTE: The settable temperature range varies with the model of outdoor units and remote controller.



<How to operate>
① Press POWER ON/OFF button.
② Press the operation MODE button to display AUTO.
③ Press the TEMP. button to set the set temperature.
NOTE: The set temperature changes 1°F when the ▽ or △ button is pressed one time. Automatic 67 to 83°F

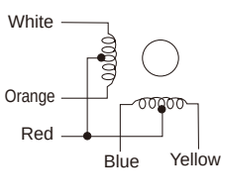
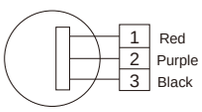
Control Mode	Control Details	Remarks
1. Initial value of operation mode	HEAT mode for room temperature < Set temperature COOL mode for room temperature ≧ Set temperature	
2. Mode change	(1) HEAT mode → COOL mode Room temperature ≧ Set temperature + 3°F or 3 minutes have passed. (2) COOL mode → HEAT mode Room temperature ≦ Set temperature − 3°F or 3 minutes have passed.	
3. COOL mode	Operates as it would in COOL operation.	
4. HEAT mode	Operates as it would in HEAT operation.	

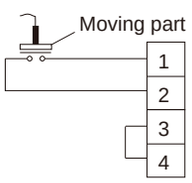
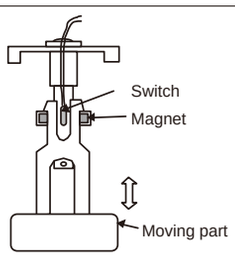
8-6. WHEN UNIT IS STOPPED CONTROL MODE

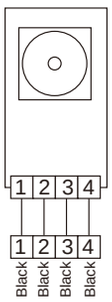
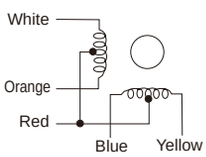
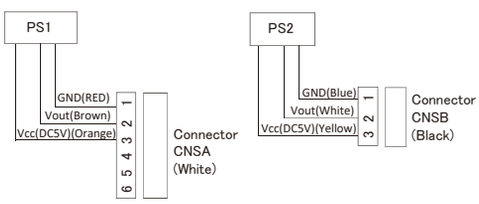
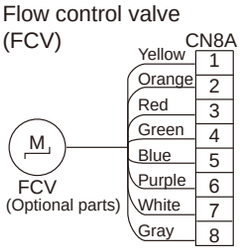
Control Mode	Control Details	Remarks
1. Drain pump	1-1. Drain pump control The drain pump turns ON for the specified amount of time when any of the following conditions has been satisfied: ① ON for 3 minutes after the operation mode is switched from COOL or DRYING to another operation mode (FAN). ② ON for 6 minutes after the float switch is submerged in the water when the float switch control judges the sensor is in the water.	
	1-2. Float switch control • Float switch control judges whether the sensor is in the air or in the water by turning the float switch ON/OFF. In the water : Detected that the float switch is ON for 15 seconds. In the air : Detected that the float switch is OFF for 15 seconds.	• Operates as it would in COOL operation.

9 TROUBLESHOOTING

9-1. HOW TO CHECK THE PARTS

<table>
<tr><th>Parts name</th><th>Checkpoints</th></tr>
<tr><td>Room temperature detection thermistor (TH21)
Pipe temperature detection thermistor/inlet (TH22)
Pipe temperature detection thermistor/outlet (TH23)</td><td>Disconnect the connectors, then measure the resistance with a multimeter.
(At ambient temperatures of 50°F ~ 86°F)
<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>4.3 to 9.6 kΩ</td><td>Open or short</td></tr></table>Refer to “9-1-1. Thermistor”.</td></tr>
<tr><td>Vane motor (MV)
 
</td><td>Measure the resistance between the terminals with a multimeter.
(At ambient temperatures of 68°F ~ 86°F)
<table><tr><th>Connector</th><th>Normal</th><th>Abnormal</th></tr><tr><td>Red - Yellow (⑤-③, ⑩-⑧, ⑮-⑬, ⑳-⑱)</td><td rowspan="4">300 Ω ± 7%</td><td rowspan="4">Open or short</td></tr><tr><td>Red - Blue (⑤-①, ⑩-⑥, ⑮-⑪, ⑳-⑯)</td></tr><tr><td>Red - Orange (⑤-④, ⑩-⑨, ⑮-⑭, ⑳-⑲)</td></tr><tr><td>Red - White (⑤-②, ⑩-⑦, ⑮-⑫, ⑳-⑰)</td></tr></table></td></tr>
<tr><td>Drain pump (DP)
 
</td><td>① Check if the drain float switch works properly.
② Check if the drain pump works and drains water properly in cooling operation.
③ If no water drains, confirm that the check code 2502 will not be displayed 10 minutes after the operation starts.
Note: The drain pump for this model is driven by the internal DC motor, so it is not possible to measure the resistance between the terminals.

Normal
Red–Black: Input 13 VDC → The fan starts to rotate.
Purple–Black: Abnormal (check code 2502) if it outputs 0–13 V square wave (5 pulses/rotation), and the number of rotation is not normal.</td></tr>
<tr><td>Fan motor (MF)</td><td>Refer to “9-1-4. DC Fan motor (fan motor/indoor controller board)”.</td></tr>
<tr><td>Drain float switch (FS)
 
</td><td>Measure the resistance between the terminals with a multimeter.
<table><tr><th>State of moving part</th><th>Normal</th><th>Abnormal</th></tr><tr><td>UP</td><td>Short</td><td>Other than short</td></tr><tr><td>DOWN</td><td>Open</td><td>Other than open</td></tr></table> 
</td></tr>
</table>

Parts name	Checkpoints
i-see Sensor 	Turn the power ON while the i-see Sensor connector is connected to the CN4Z on indoor controller board. A communication between the indoor controller board and i-see Sensor board is made to detect the connection. Normal: When the operation starts, the motor for i-see Sensor is driven to rotate the i-see Sensor. Abnormal: The motor for i-see Sensor is not driven when the operation starts. Note: The voltage between the terminals cannot be measured accurately since it is pulse output.
i-see Sensor motor (MT) (Option) 	Measure the resistance between the terminals with a multimeter. (At ambient temperatures of 68°F ~ 86°F) Connector / Normal / Abnormal Red - Yellow, Red - Blue, Red - Orange, Red - White: 250 Ω ± 7%: Open or short
Pressure sensor (Optional parts)	▪ Pressure sensor (inner water) PS1 ▪ Pressure sensor (outlet water) PS2 1. Check that the pressure sensor is connected. 2. Check the pressure sensor wiring for breakage. Pressure 0-1.0 MPa [145 psi] Vout 0.5-4.5 V 0.392 V/ 0.098 MPa [14 psi] Pressure [MPa] = 0.25 × Vout [V] - 0.125 Pressure [psi] = (0.25 × Vout [V] - 0.125) × 145 
Flow control valve (FCV) 	Disconnect the connector then measure the resistance between terminals with a multimeter. Refer to "9-1-2. Flow control valve". Normal: 1-5 Purple-Brown / 2-5 Orange-Brown / 3-5 Blue-Brown / 4-5 Green-Brown: 55 Ω ± 5.6 Ω (at 77°F) Abnormal: Open or short

9-1-1. Thermistor

<Thermistor characteristic graph>

Thermistors for lower temperature

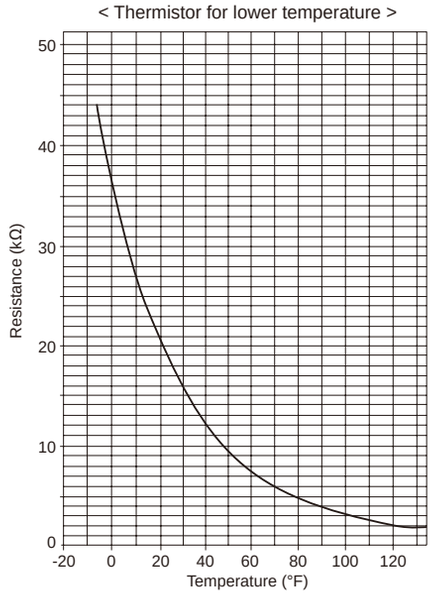
Room temperature detection thermistor (TH21)
Pipe temperature detection thermistor/inlet (TH22)
Pipe temperature detection thermistor/outlet (TH23)

Thermistor R_0=15 kΩ ± 3%
Fixed number of B=3480 ± 2%

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

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

< Thermistor for lower temperature >

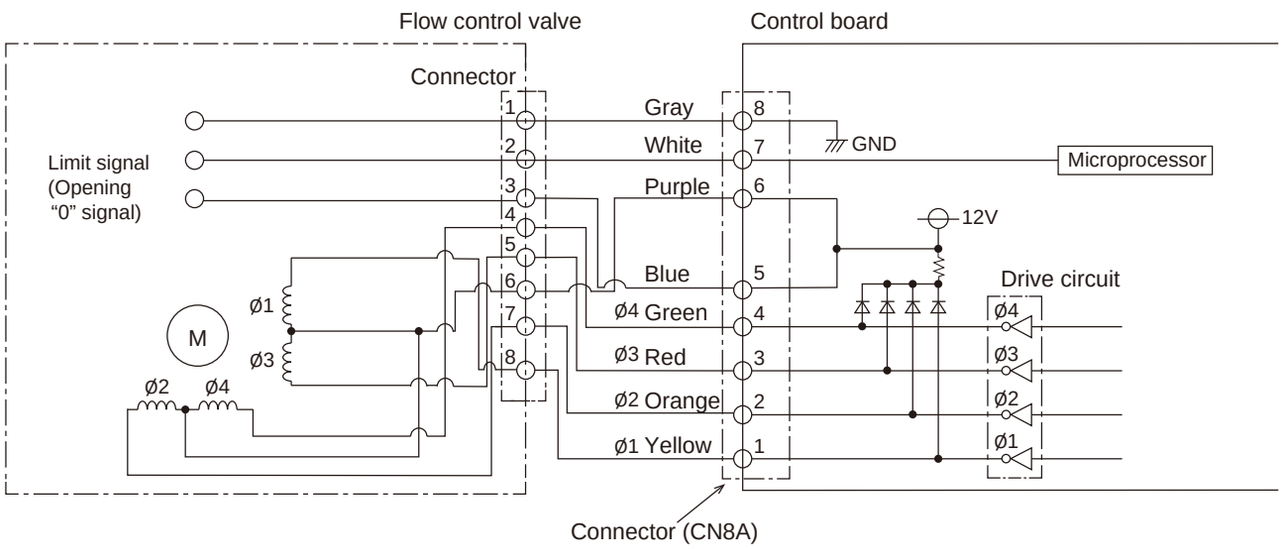


9-1-2. Flow control valve

1) Summary of flow control valve (FCV) operation

- The FCV is operated by a stepping motor, which operates by receiving a pulse signal from the indoor control board.
- The FCV position changes in response to the pulse signal.

Indoor control board and FCV connection

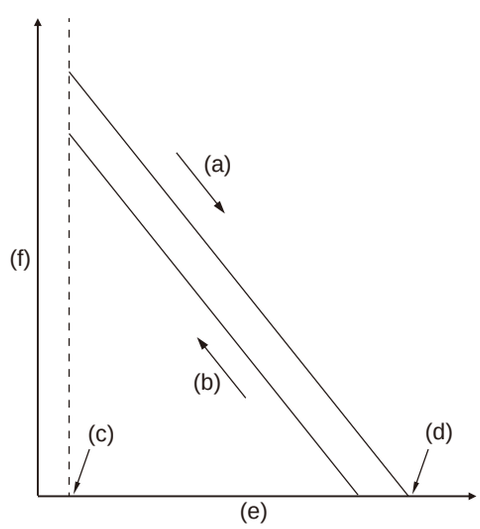


Pulse signal output and valve operation

Output (phase) number	Output status			
	1	2	3	4
ø1	OFF	ON	ON	OFF
ø2	ON	ON	OFF	OFF
ø3	ON	OFF	OFF	ON
ø4	OFF	OFF	ON	ON

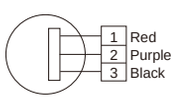
The output pulse changes in the following order:
When the valve closes 1 → 2 → 3 → 4 → 1
When the valve opens 4 → 3 → 2 → 1 → 4

2) FCV operation



(a) Close
(b) Open
(c) Fully open valve (85 pulses)
(d) Fully close valve (770 pulses)
(e) No. of pulses
(f) Valve opening degree

9-1-3. Drain pump



1. Check if the drain float switch works properly.
2. Check if the drain pump works and drains water properly in cooling operation.
3. If no water drains, confirm that the check code 2502 will not be displayed 10 minutes after the operation starts.

Note: The drain pump for this model is driven by the internal DC motor, so it is not possible to measure the resistance between the terminals.

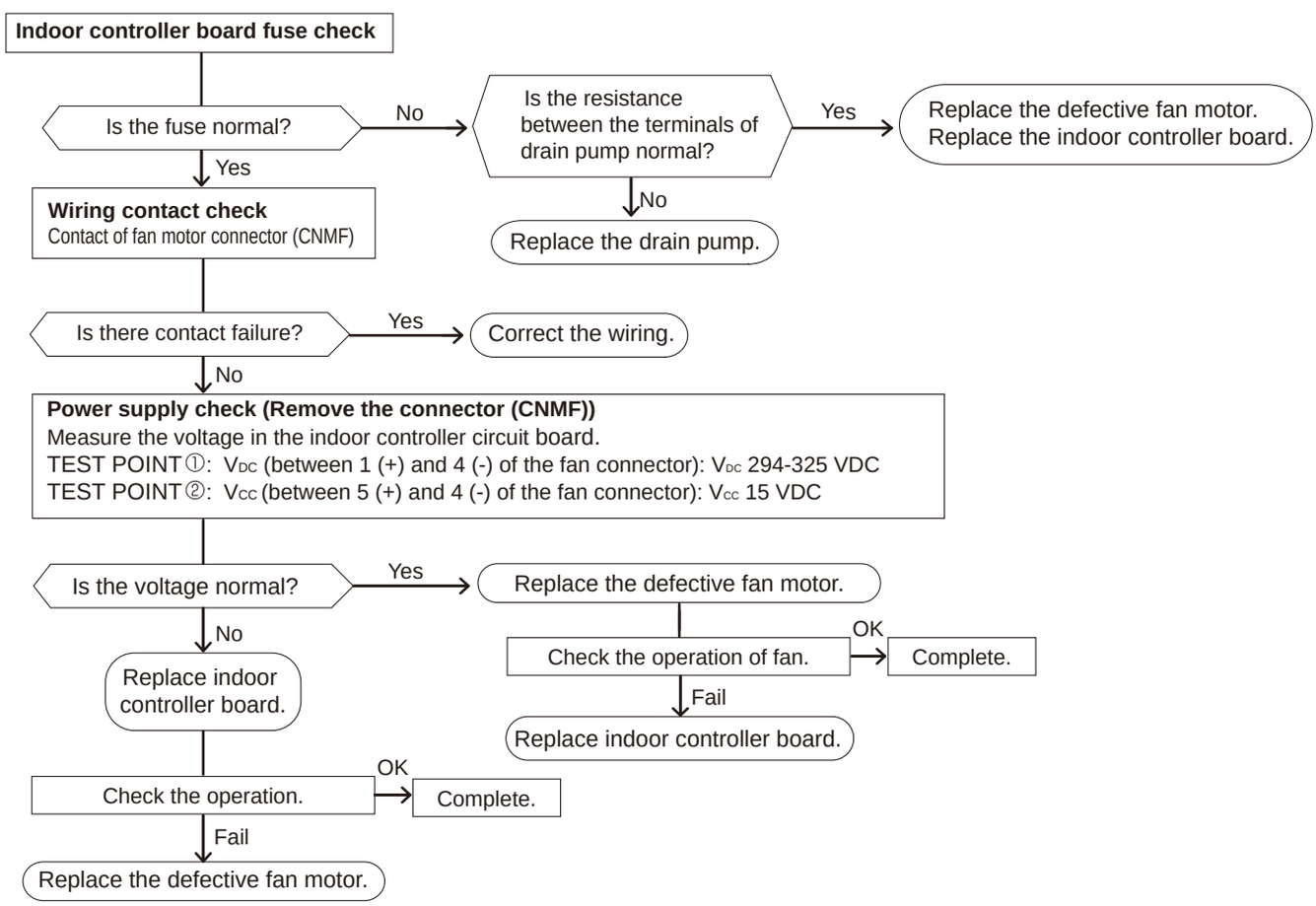
Normal
Red–Black: Input 13 VDC → The fan starts to rotate.
Purple–Black: Abnormal (check code 2502) if it outputs 0–13 V square wave (5 pulses/rotation), and the number of rotation is not normal.

9-1-4. DC Fan motor (fan motor/indoor controller board)

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

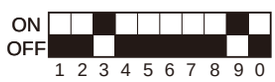
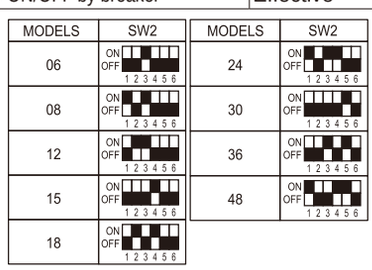
① Notes
- · High voltage is applied to the connector (CNMF) for the fan motor. Pay attention to the service.
- · Do not pull out the connector (CNMF) for the motor with the power supply on. (It causes trouble of the indoor controller board and fan motor.)

② Self check
Conditions : The indoor fan cannot rotate.



9-2. FUNCTION OF DIP SWITCH

The black square (■) indicates a switch position.

Switch	Pole	Function	Operation by switch		Effective timing	Remarks
			ON	OFF		
SW1 Function Setting	1	Thermistor <Room temperature detection> position	Built-in remote controller	Indoor unit	Under suspension	Indoor controller board <Initial setting>  *1 Fan operation at heat mode *2 Heat thermo-ON is operating. *3 Refer to the <Table A> below.
	2	Filter clogging detection	Provided	Not provided		
	3	Filter cleaning	2,500h	100h		
	4	Fresh air intake	Effective	Not effective		
	5	Switching remote indication	Thermo-ON signal display	Indicating fan operation ON/OFF		
	6	Humidifier control	Always operated while the heat in ON*1	Operated depends on the condition*2		
	7	Airflow set in the case of heat thermo-OFF	Low*3	Extra low*3		
	8		Setting airflow*3	Depends on SW1-7		
	9	Auto restart function	Effective	Not effective		
	0	Power ON/OFF by breaker	Effective	Not effective		
SW2 Capacity code setting	1–6	 			Before power supply ON	Indoor controller board <Initial setting> Set for each capacity.
SW3 Function setting	1	Heat pump/Cooling only	Cooling only	Heat pump	Under suspension	Indoor controller board <Initial setting> Set for each capacity. *4 Refer to the <Table C> below for SW3-5 and SW-3-6.
	2	Louver/Humidifier	—	—		
	3	3D i-See sensor positioning	Depending on the combination of SW3-3 and SW3-4. Refer to the <Table B> below.		Before power supply ON	
	4					
	5	Vane horizontal angle ①	Second setting*4	First setting*4	Under suspension	
	6	Vane horizontal angle ②	Third setting*4	Depends on SW3-5		
	7	—	—	—		
	8	Sensible temperature correction	Not effective	Effective		
	9	3D i-See sensor ceiling height setting	Depending on the combination of SW3-9 and SW3-10. Refer to the <Table D> below.			
	0					

<Table A>

SW1-7	SW1-8	
OFF	OFF	Extra low
ON	OFF	Low
OFF	ON	Setting airflow
ON	ON	stop

<Table B>

SW3-3	SW3-4		Initial setting
OFF	OFF	Position ①	
ON	OFF	Position ②	
OFF	ON	Standard	●
ON	ON	(Standard)	

<Table D>

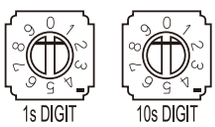
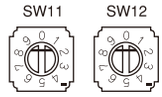
SW3-9	SW3-10		Initial setting
OFF	OFF	Low ceiling	
ON	OFF	Standard	●
OFF	ON	High ceiling	
ON	ON	(High ceiling)	

<Table C>

SW3-5	SW3-6	Vane setting	Initial setting	Setting	Vane position
OFF	OFF	Setting ①	●	Standard	Standard
ON	OFF	Setting ②		Less draft*5	Upward position than the standard
OFF	ON	Setting ③		Less smudging	Downward position than the standard
ON	ON	Unused		—	—

*5 Smudge could be left on the ceiling.

Continue to the next page

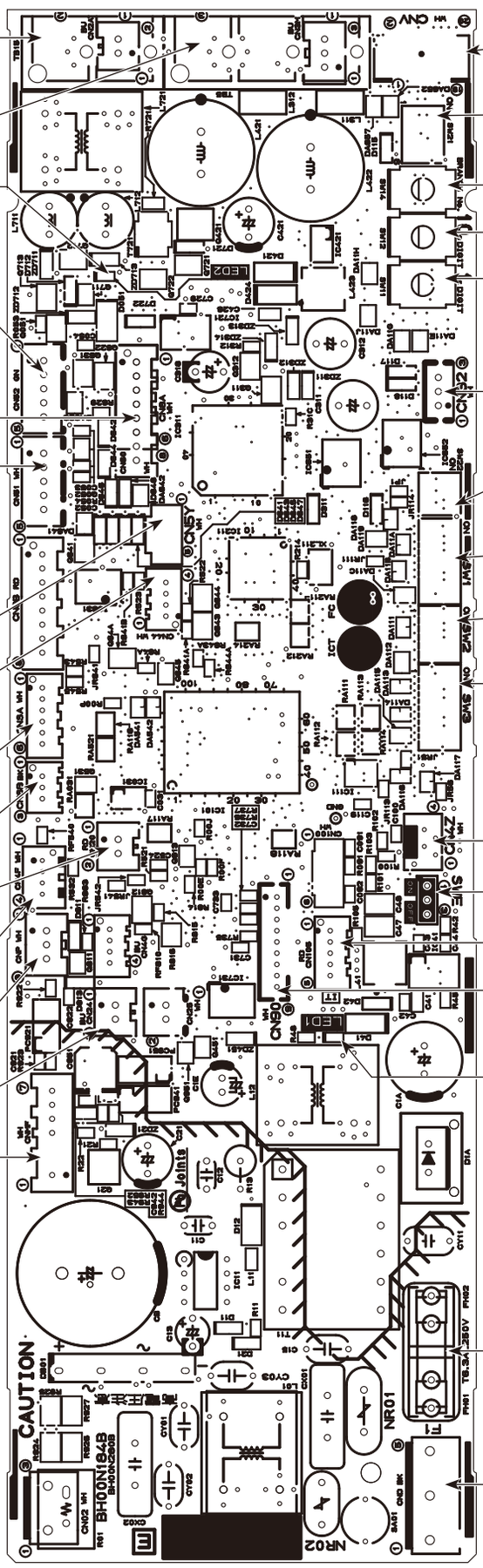
Switch	Pole	Function	Operation by switch		Effective timing	Remarks
			ON	OFF		
SW11 1s digit address setting SW12 10s digit address setting	Rotary switch	SW11 SW12  1s DIGIT 10s DIGIT	Address setting should be done when M-NET remote controller is being used.		Before power supply ON	Indoor controller board <Initial setting> SW11 SW12 
SW14 Connection No. setting	Rotary switch	SW14 	This is the switch to be used when the indoor unit is operated with R2 series outdoor unit as a set.			Indoor controller board <Initial setting> SW14
SW21 Function Setting	1	Setting the ceiling height	Depending on the combination of SW21-1 and SW21-2. Refer to the <Table E> below.		Under suspension	Indoor controller board <Initial setting>
	2	Setting the ceiling height				
	3	Setting the number of air outlet	Depending on the combination of SW21-3 and SW21-4. Refer to the <Table E> below.			
	4	Setting the number of air outlet				
	5	Setting for optional parts	Option	Standard		
	6	Not used	Not used	Not used		

<Table E>

			PLFY-WL06NEMU-E.TH PLFY-WL08NEMU-E.TH PLFY-WL12NEMU-E.TH PLFY-WL15NEMU-E.TH PLFY-WL24NEMU-E.TH PLFY-WL30NEMU-E.TH						PLFY-WL36NEMU-E.TH PLFY-WL48NEMU-E.TH					
			Silent		Standard		High ceiling		Silent		Standard		High ceiling	
			SW21-1	SW21-2	SW21-1	SW21-2	SW21-1	SW21-2	SW21-1	SW21-2	SW21-1	SW21-2	SW21-1	SW21-2
			OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
4 direction	SW21-3	OFF	8.2 ft [2.5 m]		8.9 ft [2.7 m]		11.5 ft [3.5 m]		8.9 ft [2.7 m]		10.5 ft [3.2 m]		14.8 ft [4.5 m]	
	SW21-4	ON												
3 direction	SW21-3	OFF	8.9 ft [2.7 m]		9.8 ft [3.0 m]		11.5 ft [3.5 m]		9.8 ft [3.0 m]		11.8 ft [3.6 m]		14.8 ft [4.5 m]	
	SW21-4	OFF												
2 direction	SW21-3	ON	9.8 ft [3.0 m]		10.8 ft [3.3 m]		11.5 ft [3.5 m]		10.8 ft [3.3 m]		13.1 ft [4.0 m]		14.8 ft [4.5 m]	
	SW21-4	OFF												

Note: The setting with ▭ indicates the initial setting; To change it to other than ▭, switch setting is necessary.

9-3. TEST POINT DIAGRAM
Indoor controller board



TB15
MA-Remote controller connecting wire
①–②: 8.7–13 VDC (non-polar)

TB5
M-NET transmission connecting wire
24–30 VDC (non-polar)

LED2
Power supply for
MA-Remote controller

CN52
Remote indicator
①–②: Status lamp
12 VDC(①: +)
①–③: Cooling/Dry status lamp
12 VDC(①: +)
①–④: Heating status lamp
12 VDC(①: +)

CN8A
Flow control valve

CN51
Centrally controlled
①–②: Status lamp
12 VDC(①: +)
③–④: Cooling/Dry status lamp
12 VDC(③: +)
③–⑤: Heating status lamp
12 VDC(③: +)

CN5Y
i-see Sensor motor output
12 VDC pulse output

CN44
Pipe temperature thermistor
①–②: Inlet (TH22)
③–④: Outlet (TH23)

CNSA
Pressure sensor
(inlet water)

CNSB
Pressure sensor
(outlet water)

CN20
Room temperature
thermistor (TH21)

CN4F
Drain float switch (FS)

CNP
Drain pump output (DP)
①–③: 208/230 VAC

CN24
EXTERNAL HEATER

CNMF
Connect to the fan motor (MF)
①–④: 294- 235 VDC
⑤–④: 15 VDC

CNV
Vane motor output
12 VDC pulse

SW21
Number of air outlets and height of
the ceiling

SW14
Branch No.

SW12
Address setting 10s digit

SW11
Address setting 1s digit

CN32
Remote switch

SW22
Pair No.setting for wireless
remote controller

SW1
Function setting

SW2
Capacity setting

SW3
Function setting

CN4Z
i-see Sensor

SWE
Test run (Drain pump)

CN105
IT Terminal

CN90
Connect to the wireless remote
controller board (W.B)

LED1
Main power supply
(Indoor unit: 208/230 V)

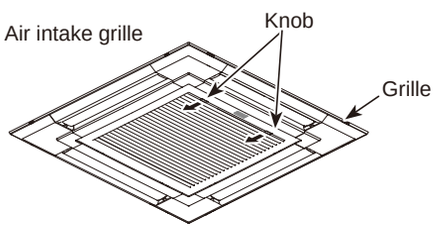
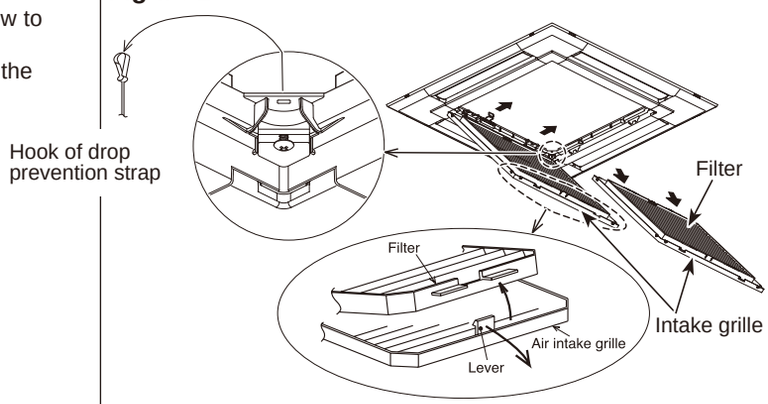
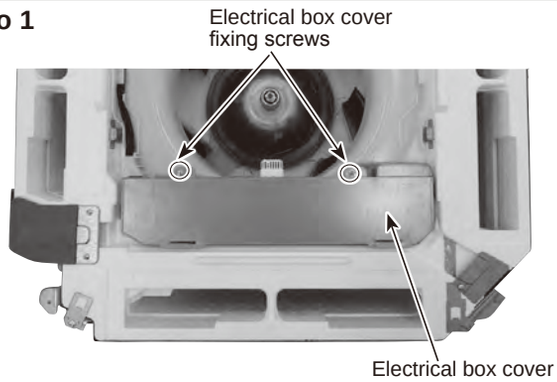
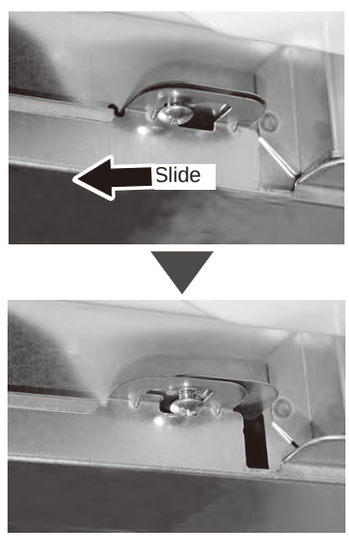
FUSE
6.3 A 250 V

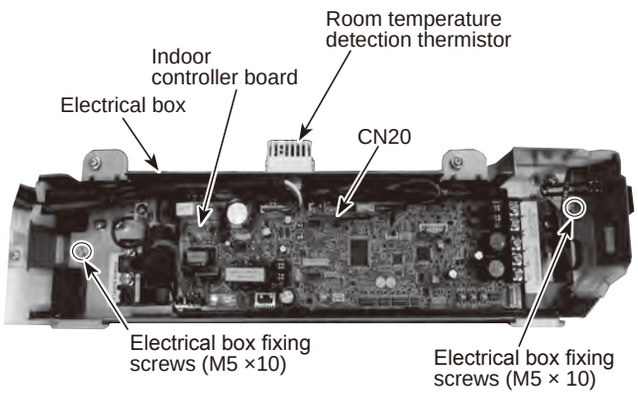
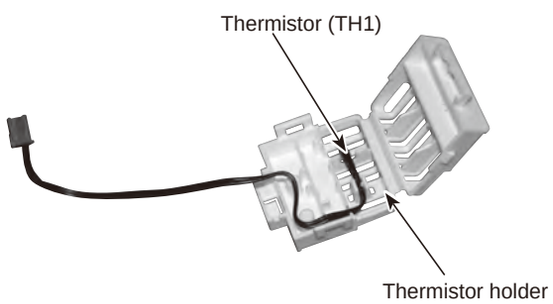
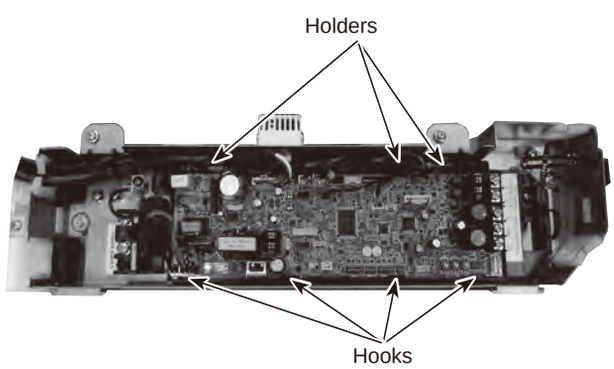
CND
Power supply for indoor controller board
③–⑤: 208/230 VAC

10 DISASSEMBLY PROCEDURE

——→ : Indicates the visible parts in the photos/figures.
--------→ : Indicates the invisible parts in the photos/figures.

Be careful when removing heavy parts.

OPERATING PROCEDURE	PHOTOS/FIGURES
1. Removing the filter (1) Slide the knob of air intake grille toward the arrow to open the air intake grille. (See Figure 1) (2) Pull down the lever of the air intake grille to remove the filter. (See Figure 2)	**Figure 1** 
2. Removing the air intake grille (1) Slide the knob of air intake grille toward the arrow to open the air intake grille. (See Figure 1) (2) Remove the hook of drop prevention strap from the panel. (3) Remove the air intake grille.	**Figure 2** 
3. Removing the electrical box cover (1) Remove the air intake grille and the filter. (Refer to procedure 2) (2) Loosen the 2 electrical box cover fixing screws (M4×10) approximately 2 to 3 mm. (See Photo 1) (3) Slide the electrical box cover toward the arrow to remove. (See Photo 2)	**Photo 1**  **Photo 2** 

OPERATING PROCEDURE	PHOTOS/FIGURES
4. Removing the room temperature thermistor (TH21) (1) Remove the electrical box cover. (See Photo 1 and 2) (2) Disconnect the connector CN20 (Red) from the indoor controller board. (3) Remove the room temperature thermistor with its holder. (See Photo 4)	**Photo 3**  **Photo 4** 
5. Removing the indoor controller board (I.B) (1) Remove the electrical box cover. (See Photo 1 and 2) (2) Disconnect the connectors: CNMF (White) for fan motor CNV (White) for vane motor CN5Y (White) for motor for i-see Sensor (Option) CN4Z (White) for sensor for i-see Sensor (Option) CN90 (White) for signal receiver (Option) CNP (White) for drain pump CN4F (White) for float switch CN44 (White) for thermistor (TH22/TH23) CN01 (Black) for Indoor/Outdoor connecting line CN3C (Blue) for Indoor/Outdoor transmission Disconnect the connectors for optional parts, if any. (3) Disconnect the lead wire connected to the TB5 on the indoor controller board. TB5: M-NET transmission connecting wire (4) For the unit controlled with the wireless remote controller, disconnect the lead wire connected to the TB15 on the indoor controller board. (5) Remove the indoor controller board (3 holders/4 hooks). (See Photo 5)	**Photo 5** 

Be careful when removing heavy parts.

OPERATING PROCEDURE

6. Removing the electrical box

(1) Remove the electrical box cover (See Photo 1 and 2) and the connectors (Refer to procedure 5).
(2) Remove the electrical box fixing screws (M5×10: 2 screw). (See Photo 3)
<Electrical parts in the electrical box>
• Terminal block for earth and reactor
• Indoor controller board
• Thermistor (TH)
(3) Remove the electrical box (2 hooks).

7. Removing the turbo fan

(1) Remove the electrical box. (See Photo 3 and refer to procedure 6)
(2) Remove the bell mouth (tapping screw 4×10: 2 screws). (See Photo 6)

< With nut and washer >

(3) Remove the nut (M8 × 1) and a washer. (See Photo 7 and 8.)
(4) Remove the turbo fan.

Note 1: When assembling the turbo fan, attach it so that its tabs fit the holes of washer.
Note 2: Nut tightening torque: 4.5 ± 0.5 N▪m, 3.3 ± 0.4 ft▪lbs.

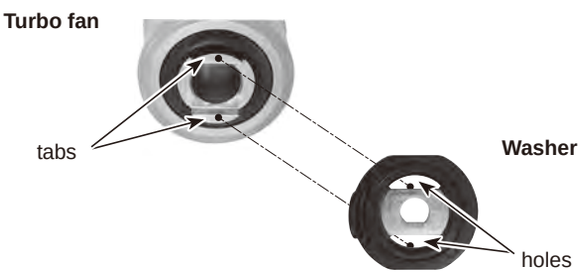


Photo 8

Turn this way to tighten. Turn this way to loosen.
(The same directions as the fan rotation.)

PHOTOS/FIGURES

Photo 6

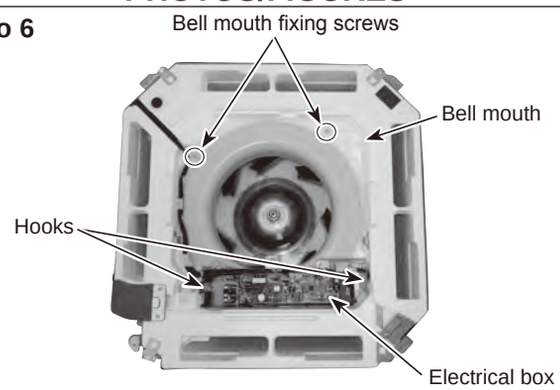
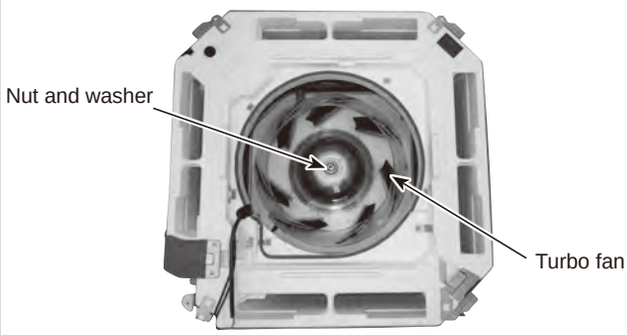
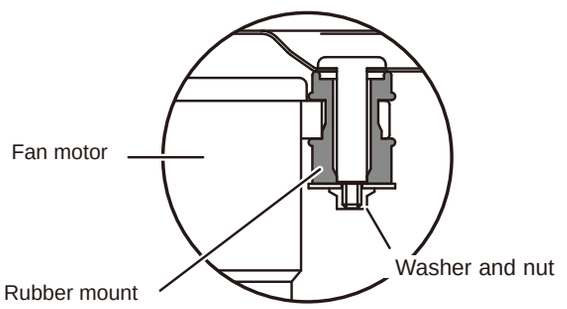
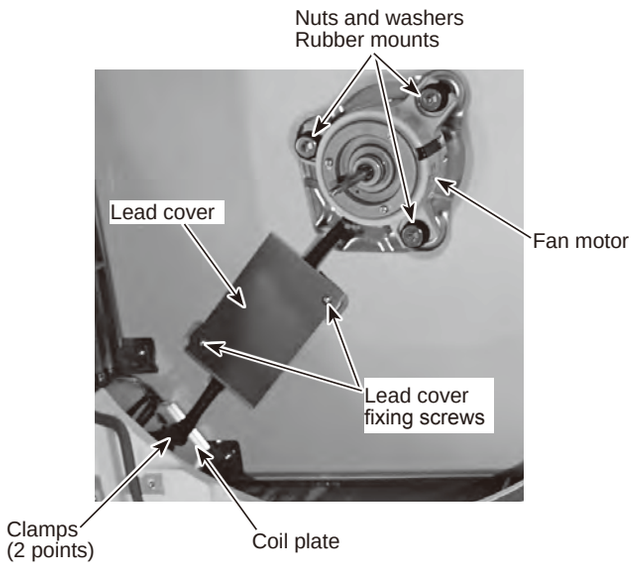
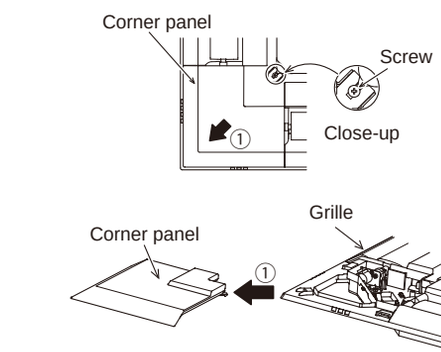
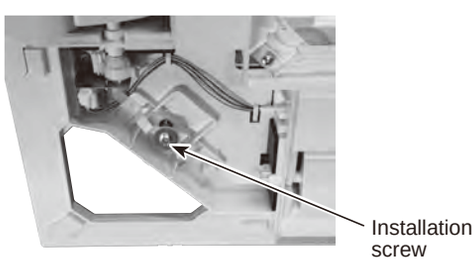
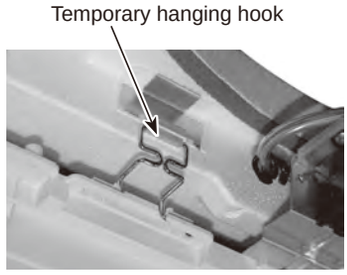


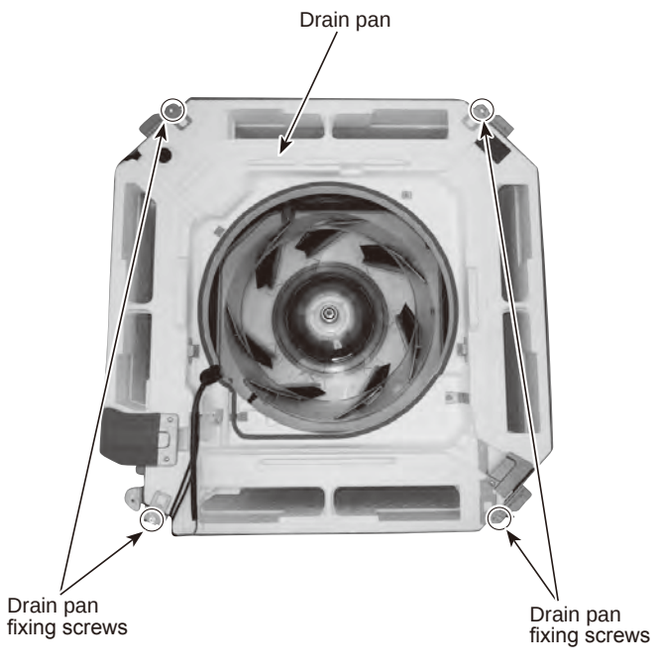
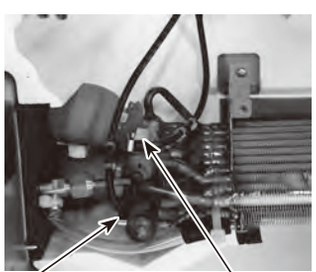
Photo 7



< Nut and washer >

Photo 9

OPERATING PROCEDURE	PHOTOS/FIGURES
8. Removing the fan motor (MF) (1) Remove the turbo fan. (See Photo 8 and refer to procedure 7) (2) Remove the lead cover (tapping screw 4×10: 2 screws). (See Photo 10) (3) Loosen the 2 clamps. (4) Remove the 3 nuts and washers (M5). (5) Remove the fan motor. (6) Remove the 3 rubber mounts. **Figure 3: Partial cross section**  **Note: When re-attaching the motor mount, make sure that the thicker end faces the motor shaft.**	**Photo 10** 
9. Removing the panel (1) Remove the electrical box fixing cover. (See Photo 1) (2) Disconnect the connector for vane motor (CNV: White). (Refer to procedure 5) (3) Loosen the 4 corner panel fixing screws (tapping screw 4×16). (See Figure 4) (4) Slide the corner panel to the direction of the arrow 1, and remove the corner panel. (See Figure 4) (5) Remove the 4 installation screws (M5×28). (See Photo 11) (6) Release the 2 temporary hanging hooks to remove the grille. (See Photo 12)	**Figure 4**  **Photo 11**  **Photo 12** 

OPERATING PROCEDURE	PHOTOS/FIGURES
10. Removing the drain pan (1) Remove the electrical box. (See photo 3 and refer to procedure 6) (2) Remove the bell mouth (tapping screw 4×10 : 2 screws). (See Photo 6) (3) Remove the drain pan (screw M5×10: 4 screws).	**Photo 13** 
11. Removing the pipe temperature detection thermistor/inlet (TH22) and pipe temperature detection thermistor/outlet (TH23) (1) Remove the drain pan (Refer to procedure 10) and loosen the 2 clamps of the coil plate. (See Photo 10) (2) Remove the coil plate (tapping screw 4×10: 2 screws). (3) Disconnect the pipe temperature detection thermistor/inlet (TH22) and pipe temperature detection thermistor/outlet (TH23) from the holder.	**Photo 14** 

OPERATING PROCEDURE

12. Removing the drain pump (DP)

(1) Remove the drain pan. (Refer to procedure 10)
(2) Cut the hose band and remove the hose.
(3) Loosen the clamp of the drain pump.
(4) Remove the drain pump (tapping screw 4×10: 2 screws/2 hooks).
(5) Cut the drain pump base and lead wire fixing band. (See Figure 5)
(6) Remove the lead wire of the drain pump from the clamp of the drain pump base. (See Figure 5)
(7) Remove the drain pump (tapping screw: 3 screws). (See Figure 6)

PHOTOS/FIGURES

Photo 15

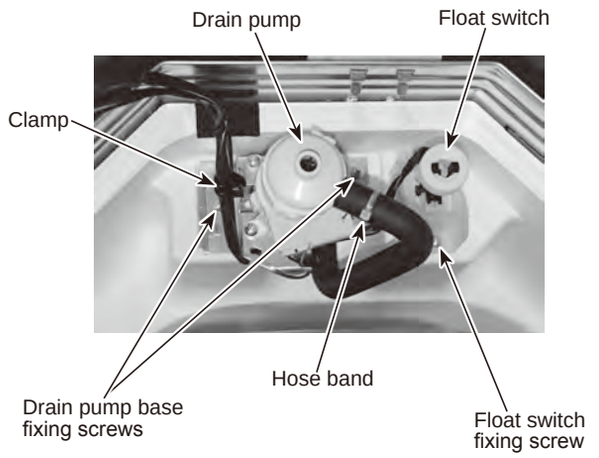


Figure 6

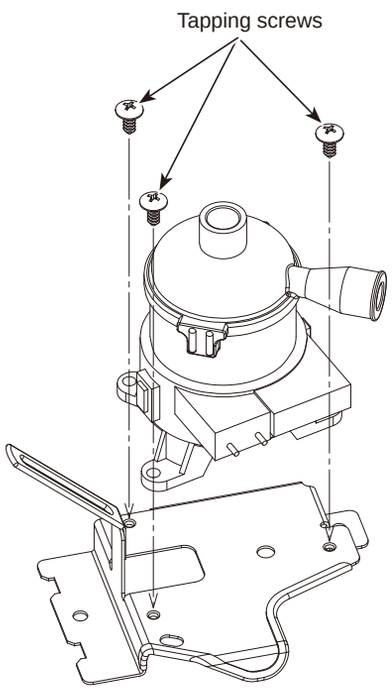
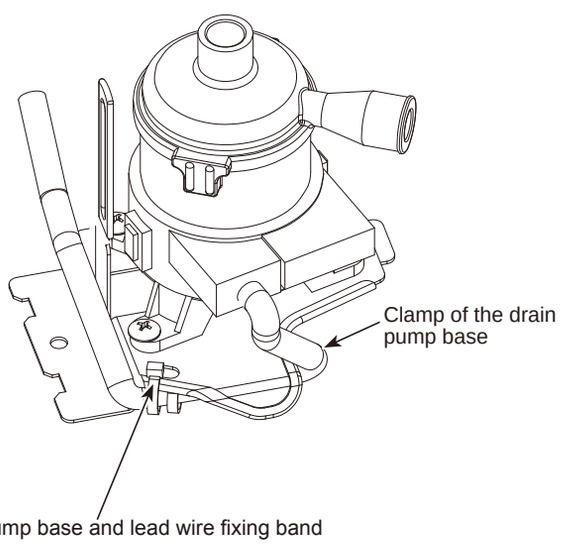
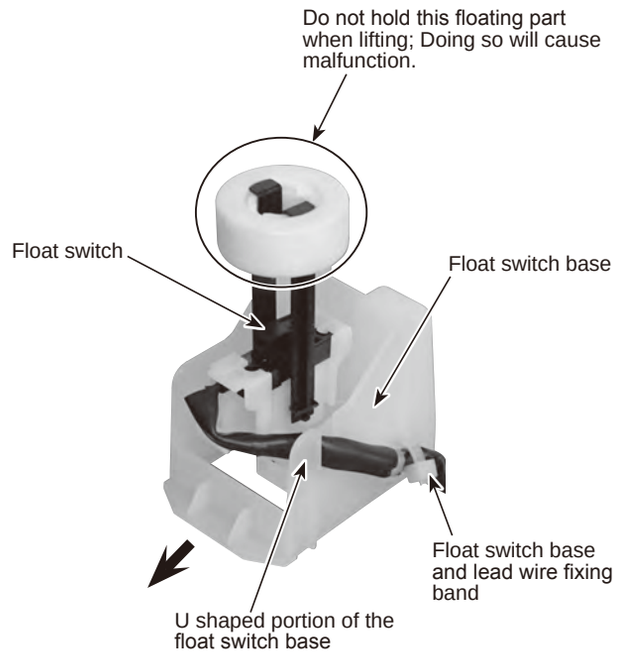
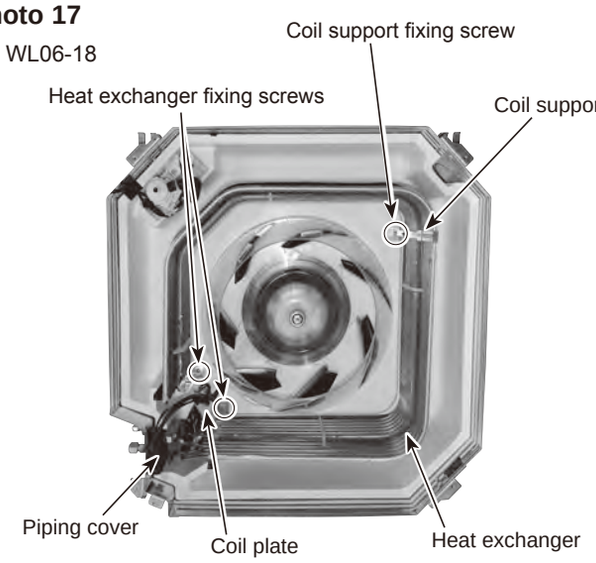
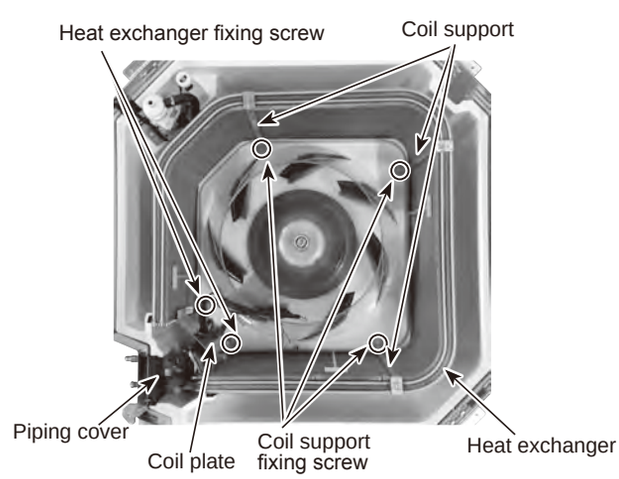


Figure 5



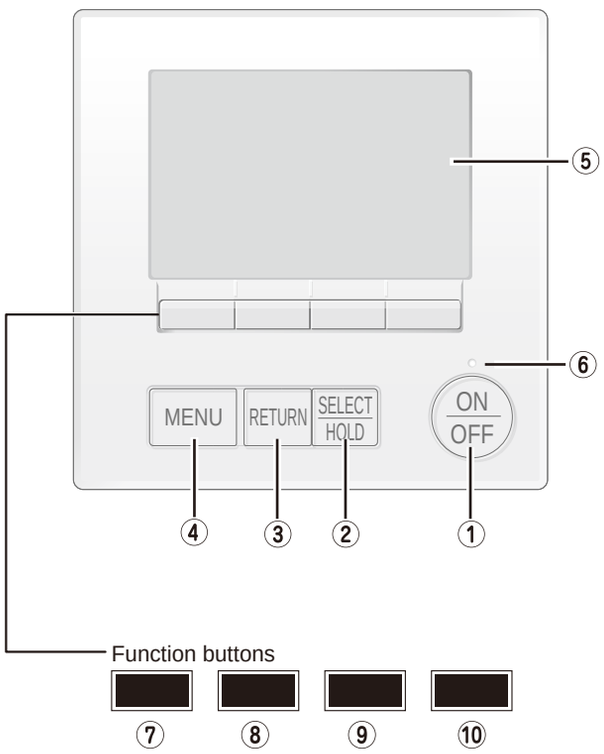
OPERATING PROCEDURE	PHOTOS/FIGURES
13. Removing the float switch (FS) (1) Remove the drain pan. (Refer to procedure 10) (2) Loosen the clamp of the drain pump. (See Photo 15) (3) Remove the float switch (tapping screw 4×10: 1 screw/1 hook). (See Photo 15) (4) Remove the float switch base and the lead wire fixing band. (See Photo 16) (5) Remove the lead wire from the U shaped portion of the float switch base. (See Photo 16) (6) Slide the float switch towards the arrow to remove from the float switch base.	**Photo 16** 
14. Removing the heat exchanger (1) Remove the drain pan. (Refer to procedure 10) (2) Remove the piping cover (tapping screw 4×10: 3 screws). (3) Remove the coil plate (tapping screw 4×10: 2 screws). (4) Remove the heat exchanger fixing screws (tapping screw 4×10: 2 screws). (5) Remove the coil support (tapping screw 4×10: 1 screw each) (See photo 17) ■ WL06-18: 1 coil support ■ WL24-48: 3 coil support (6) Remove the heat exchanger.	**Photo 17** ■ WL06-18  ■ WL24-48 

11 REMOTE CONTROLLER

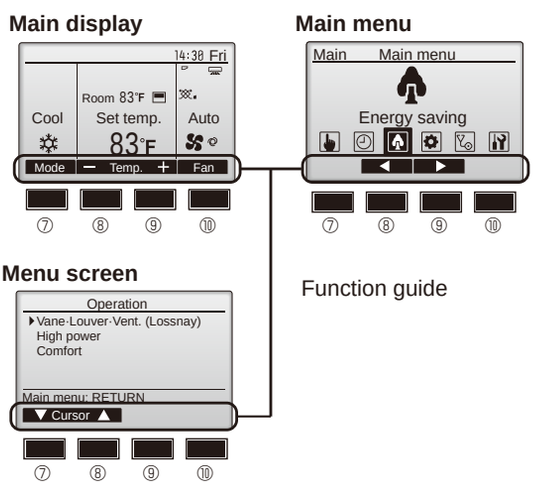
11-1. REMOTE CONTROLLER FUNCTIONS

<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/HOLD] button

Press to save the setting.
When the Main menu is displayed, pressing this button will enable/disable the HOLD function.

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]

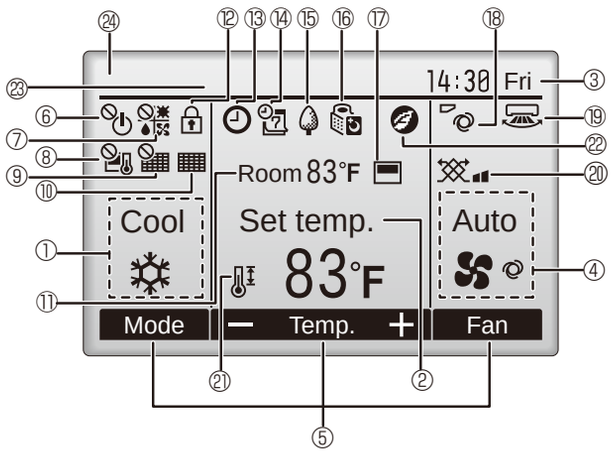
Main display: Press to change the fan speed.
Menu screen: The button function varies with the screen.

Display

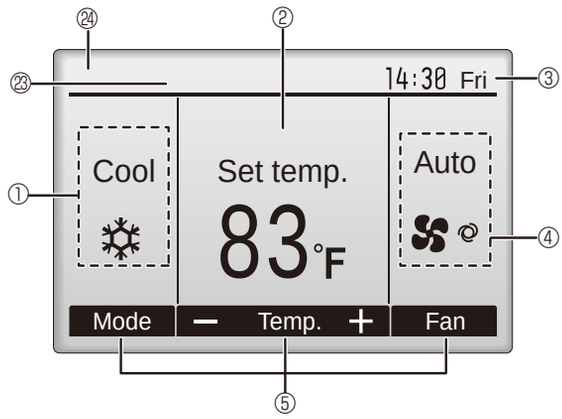
The main display can be displayed in two different modes: “Full” and “Basic”. The initial setting is “Full”. To switch to the “Basic” mode, change the setting on the Main display setting. (Refer to operation manual included with remote controller.)

<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 or Auto-off timer function is enabled.

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

appears when the HOLD function is enable.

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 (1).

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

⑱

Indicates the vane setting.

⑲

Indicates the louver setting.

⑳

Indicates the ventilation setting.

㉑

Appears when the preset temperature range is restricted.

㉒

Appears when an energy saving operation is performed using a “3D i-See sensor” function.

㉓ Centrally controlled

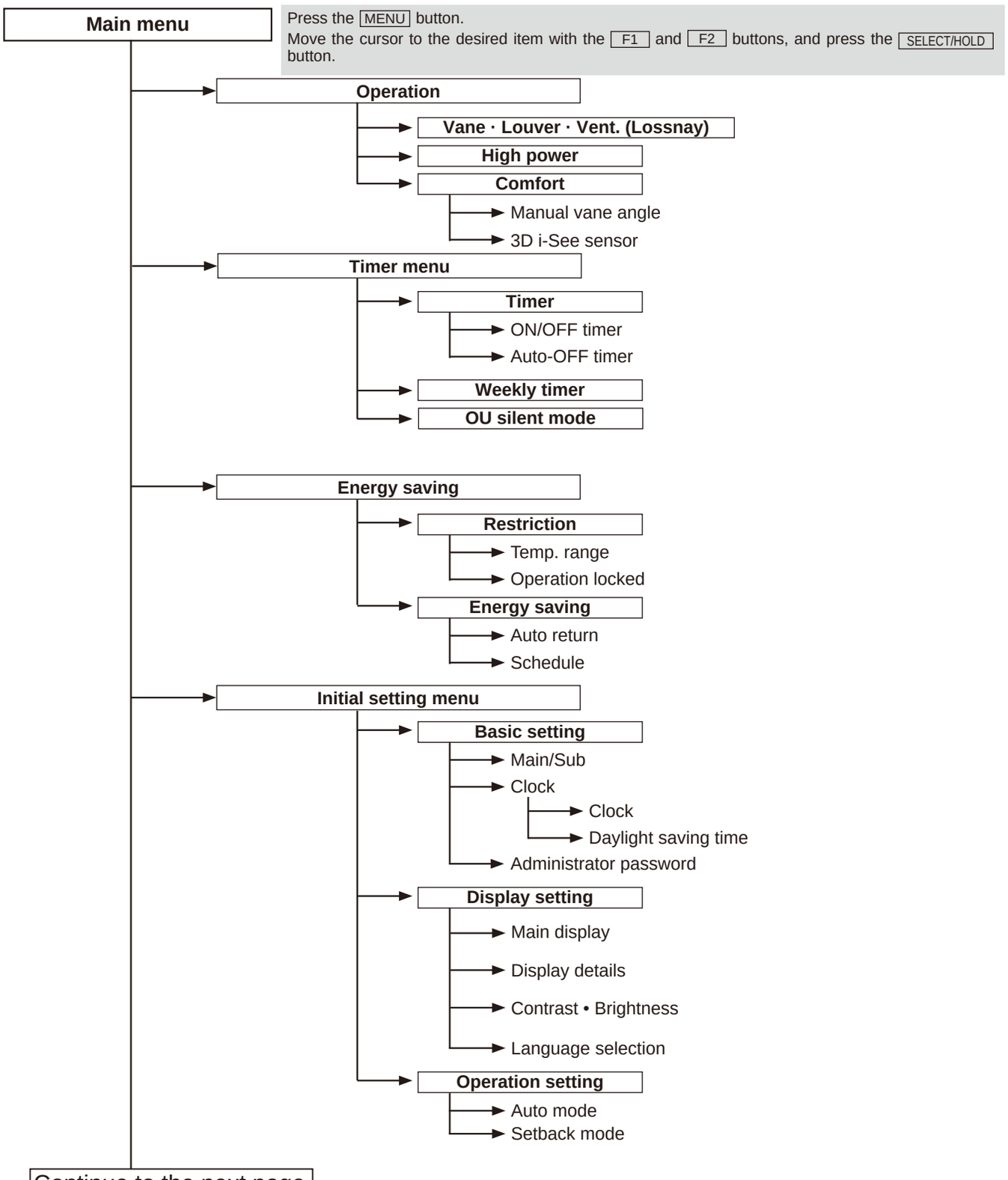
Appears for a certain period of time when a centrally-controlled item is operated.

㉔ Preliminary error display

A check code appears during the preliminary error.

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

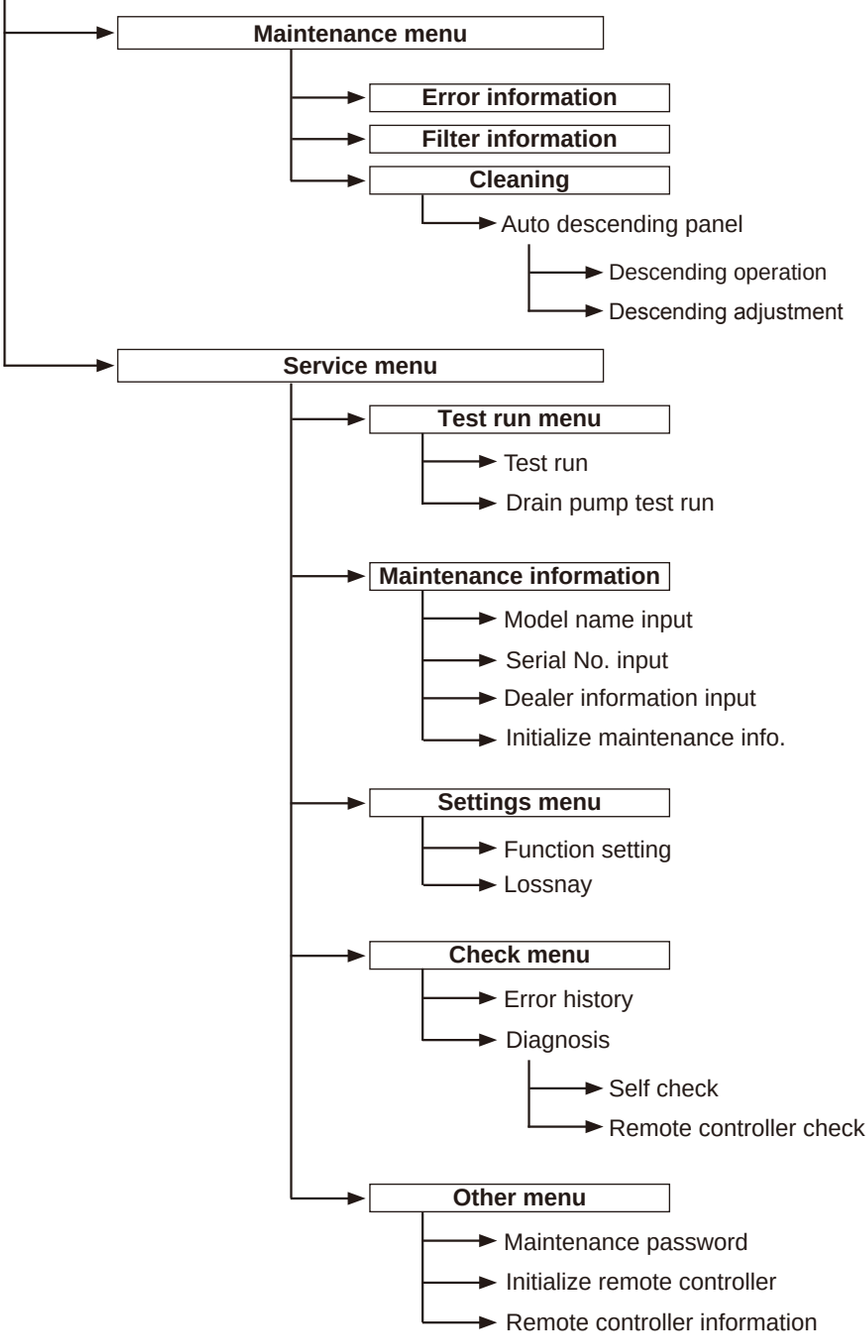
Menu structure



Continue to the next page.

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 from 5 different settings. **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		**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		**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	**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.

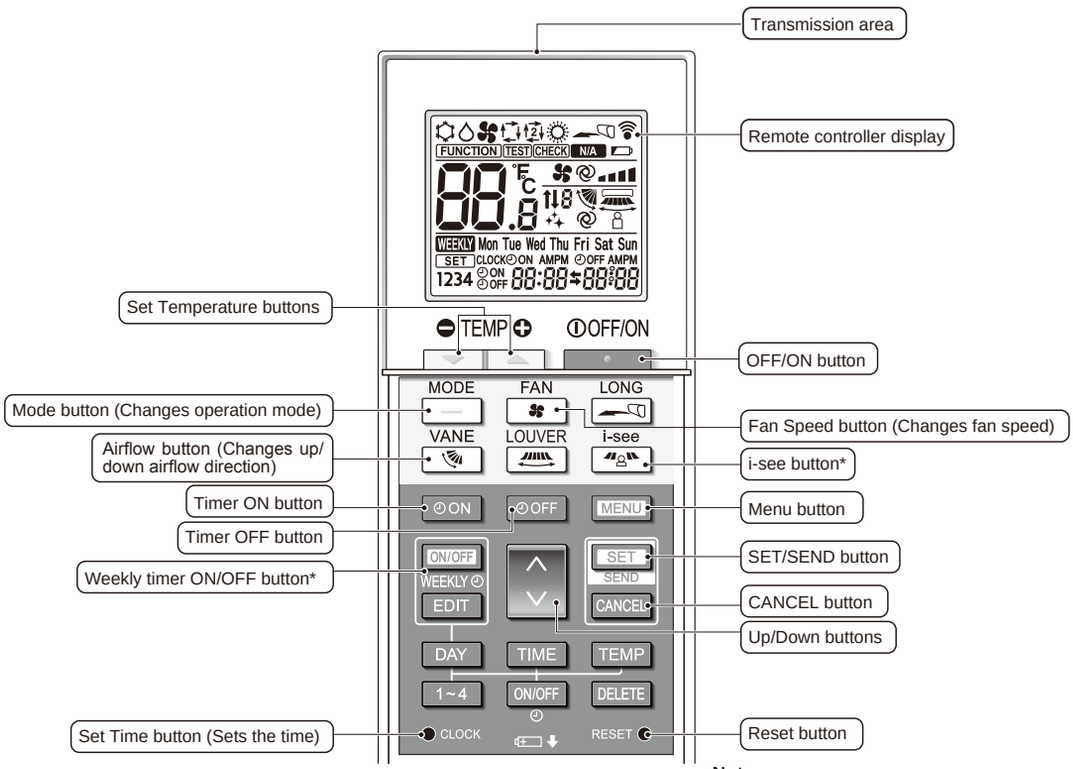
***1** Clock setting is required.

***2** 33.8°F (1°C) increments.

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.** • The initial setting is "Full."
		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 the 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 the Auto mode can be selected by using the button. This setting is valid only when indoor units with the 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, unit model, manufacturing number, contact information (dealer's phone number) can be displayed. (The unit model, 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		**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.
	Other	**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>

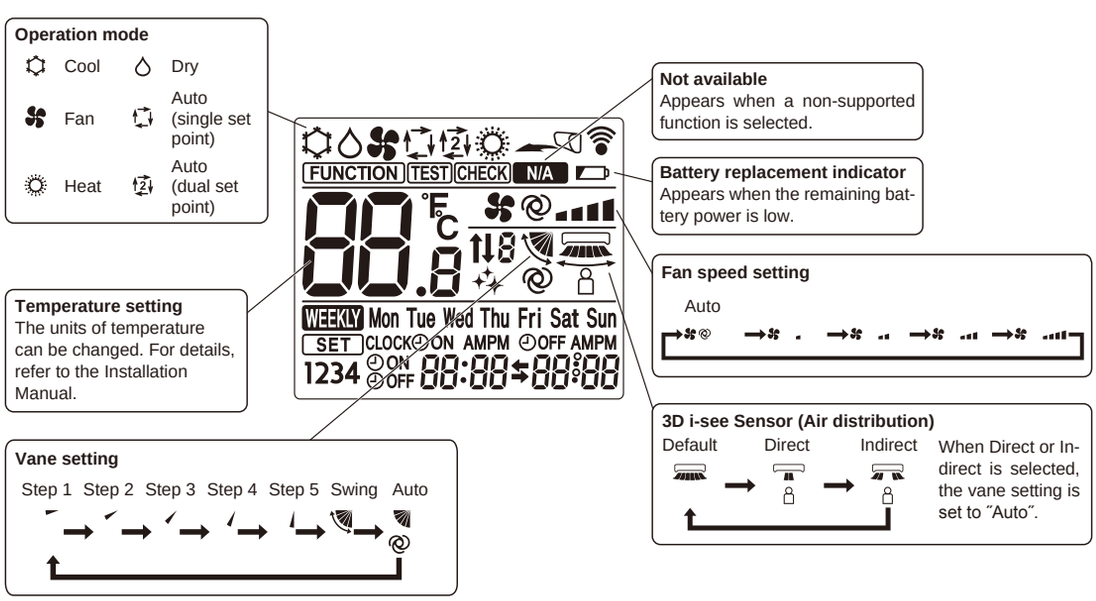
Controller interface



Note:

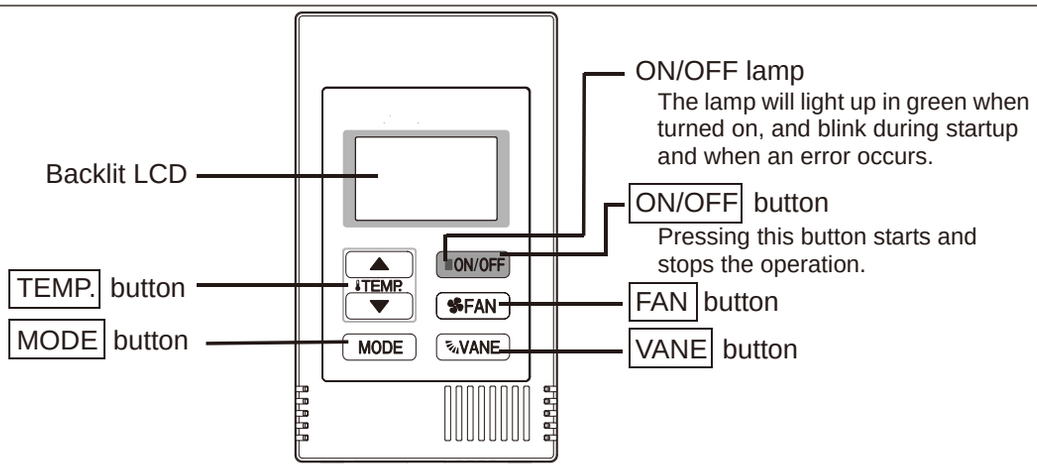
*** This button is enabled or disabled depending on the model of the indoor unit.**

Display



<PAC-YT53CRAU>

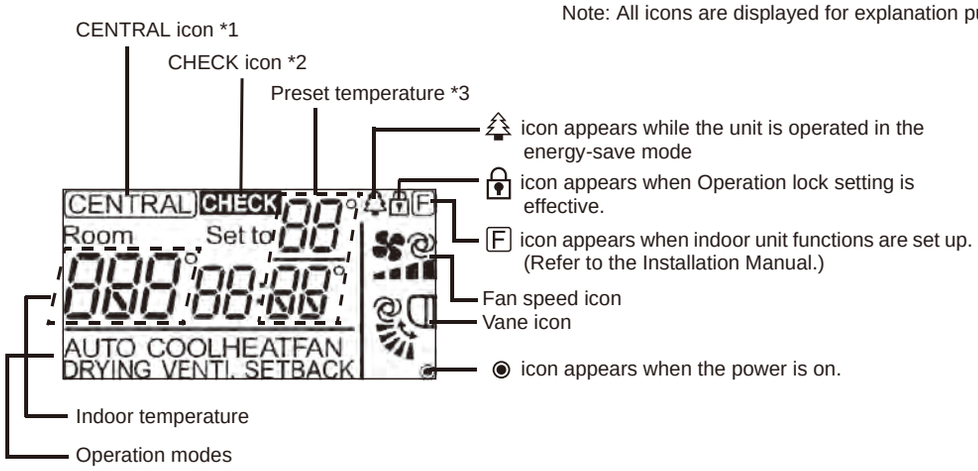
Note:
The phrase "Wired remote controller" in this manual refers only to the PAC-YT53CRAU.
If you need any information for the other remote controller, please refer to either the installation manual or initial setting manual which are included in remote controller's box.



Note: To set the functions that are not available on this controller (PAC-YT53CRAU) such as Louver, use the centralized controller.

Display section

Note: All icons are displayed for explanation purpose.



*1 CENTRAL icon

Appears when one of the following local operations is prohibited: ON/OFF; operation mode; preset temperature; fan speed; vane.

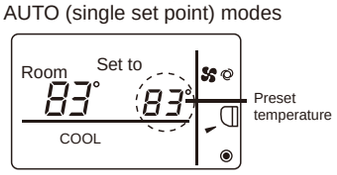
*2 **CHECK** icon

For City Multi, when an error occurs, power indicator will blink, and unit address (3 digits) and check code (4 digits) will blink.
Check the error status, stop the operation, and consult your dealer.

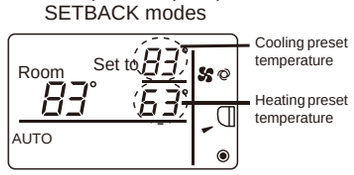
*3 Preset temperature

* Centigrade or Fahrenheit is selectable. Refer to the Installation Manual for details.

In COOL, DRYING, HEAT, or AUTO (single set point) modes



In AUTO (dual set point) or SETBACK modes

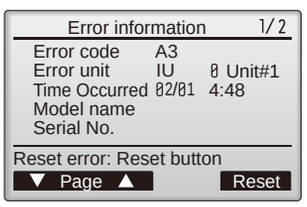


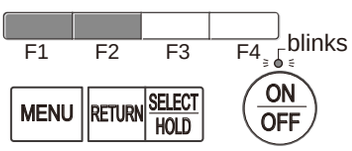
11-2. ERROR INFORMATION

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

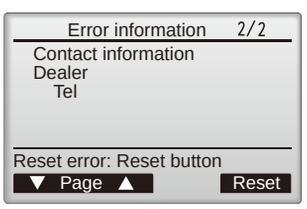
1. Check code, error unit, refrigerant address, model name, and serial number will appear.
   The model name and serial number will appear only if the information has been registered.

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





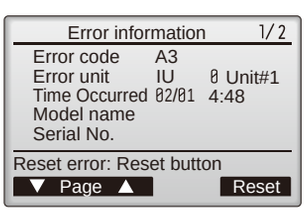
Contact information (dealer's phone number) will appear if the information has been registered.

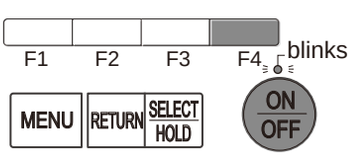


---

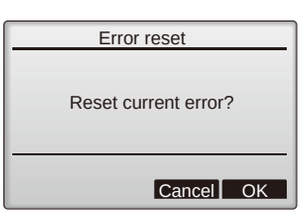
2. Press the F4 button or the [ON/OFF] button to reset the error that is occurring.

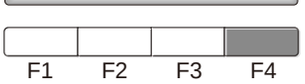
Errors cannot be reset while the ON/OFF operation is prohibited.

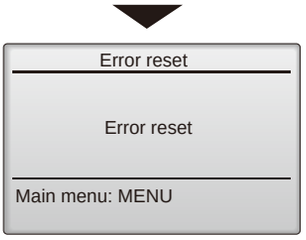




Select "OK" with the F4 button.



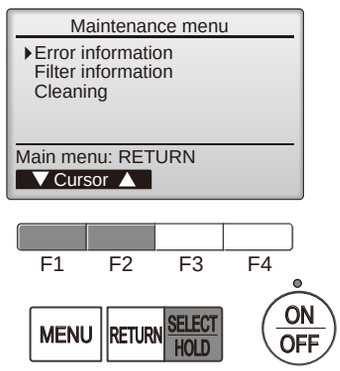




Navigating through the screens
• To go back to the Service menu ..... [MENU] button

• 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.

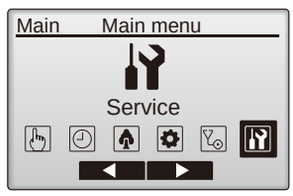


11-3. SERVICE MENU

Maintenance password is required

1. Select "Service" from the Main menu, and press the [SELECT/HOLD] 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.

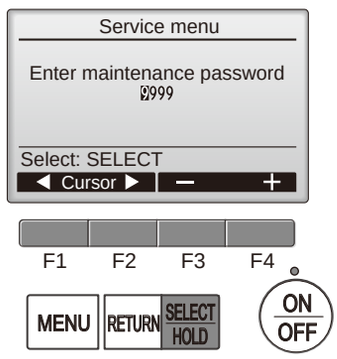
   To enter the current maintenance password (4 numerical digits), move the cursor to the digit you want to change with the F1 or F2 button.

   ▼

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

   ▼

   Then, press the [SELECT/HOLD] button.



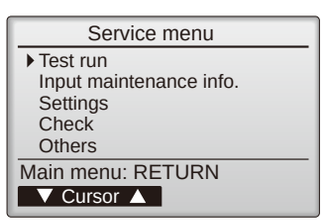
Note: The initial maintenance password is "9999". Change the default password as necessary to prevent unauthorized access. Have the password available for those who need it.

: 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.

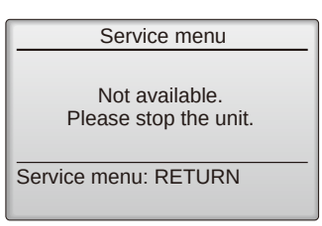
   The type of menu that appears depends on the connected indoor units' type.



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.



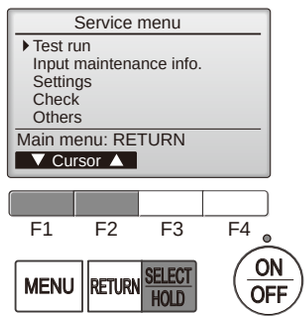
Navigating through the screens

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

11-4. TEST RUN

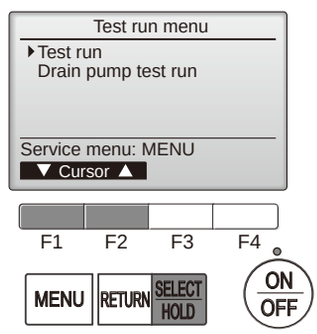
11-4-1. PAR-41MAA

1. Select "Service" from the Main menu, and press the [SELECT/HOLD] button.



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

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



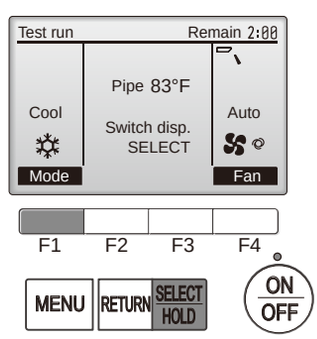
Test run operation

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/HOLD] button and open the Vane setting screen.



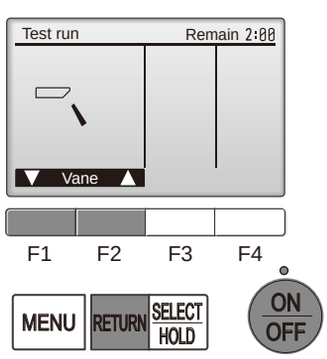
Auto vane check

Check the auto vane with the F1 F2 buttons.

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

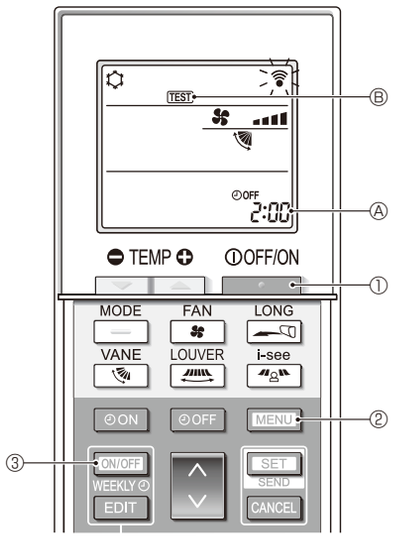
Press the [ON/OFF] button.

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.



11-4-2. 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.



11-5. FUNCTION SETTING

11-5-1. PAR-41MAA

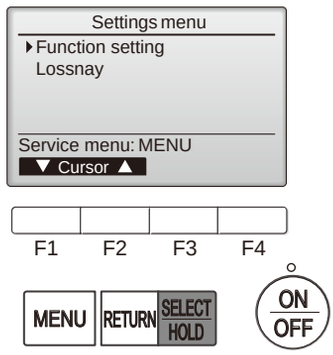
1. Select ″Service″ from the Main menu, and press the [SELECT/HOLD] button.

   ▼

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

   ▼

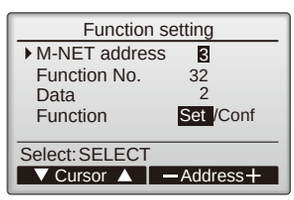
   Select ″Function setting″, and press the [SELECT/HOLD] button.



---

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.

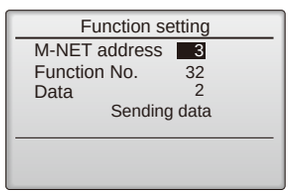


   ▼

   Once the settings have been completed, press the [SELECT/HOLD] button.

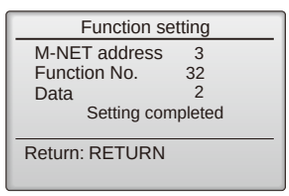
   A screen will appear indicating that the settings information is being sent.
   To check the current settings of a given unit, enter the setting for its M-NET address and function setting number, select Conf for the Function, and press the [SELECT/HOLD] button.

   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.

11-5-2. PAR-SL101A-E

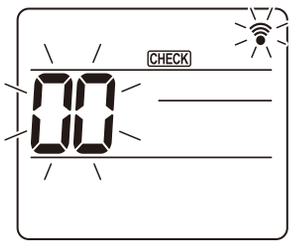


Fig. 11-1

1. Going to the function select mode
   Press the MENU button between of 5 seconds.
   (Start this operation from the status of remote controller display turned off.)
   [CHECK] is lit and ″00″ blinks. (Fig. 11-1)
   Press the ∧ button to set the ″50″.
   Direct the wireless remote controller toward the receiver of the indoor unit and press the SET button.

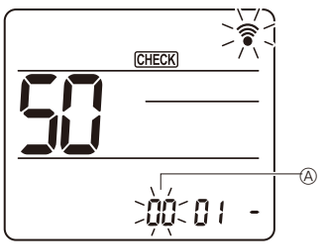


Fig. 11-2

2. Setting the unit number
   Press the ∧ button to set unit number Ⓐ. (Fig. 11-2)
   Direct the wireless remote controller toward the receiver of the indoor unit and press the SET button.

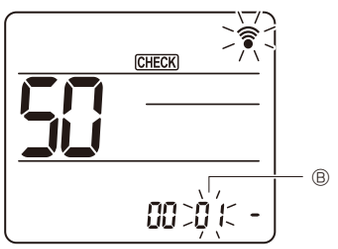


Fig. 11-3

3. Select a mode
   Press the ∧ button to set Mode number Ⓑ. (Fig. 11-3)
   Direct the wireless remote controller toward the receiver of the indoor unit and press the SET button.
   Current setting number: 1=1 beep (1 second)
   2=2 beep (1 second each)
   3=3 beep (1 second each)

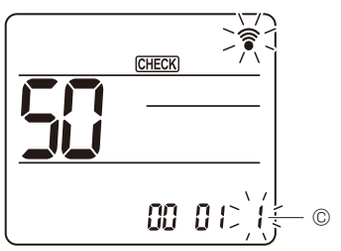


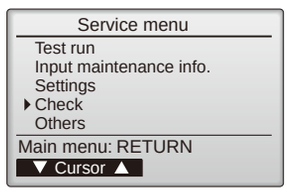
Fig. 11-4

4. Selecting the setting number
   Use the ∧ button to change the Setting number Ⓒ. (Fig. 11-4)
   Direct the wireless remote controller toward the receiver of the indoor unit and press the SET button.
5. To select multiple functions continuously
   Repeat select ③ and ④ to change multiple function settings continuously.
6. Complete function selection
   Direct the wireless remote controller toward the sensor of the indoor unit and press the ⏻OFF/ON button.

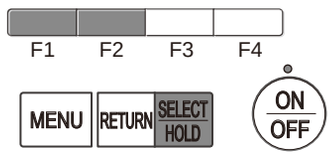
Note:
Make the above settings on Indoor units as necessary.
- **Be sure to write down the settings for all functions if any of the initial settings has been changed after the completion of installation work.**

11-6. ERROR HISTORY

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

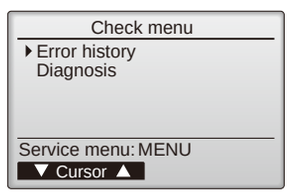


Select ″Check″ with the F1 or F2 button, and press the [SELECT/HOLD] button.



---

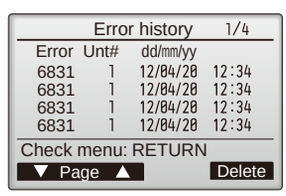
2. Select ″Error history″ with the F1 or F2 button, and press the [SELECT/HOLD] button.

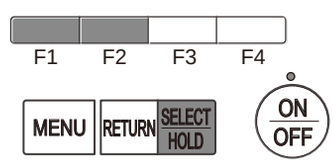


---

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.

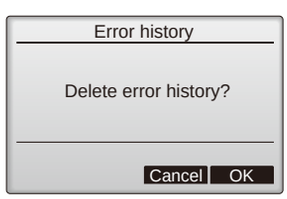




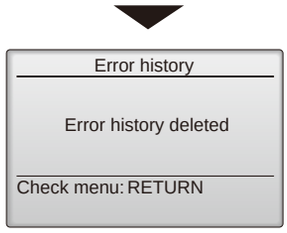
---

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.

11-7. SELF-DIAGNOSIS

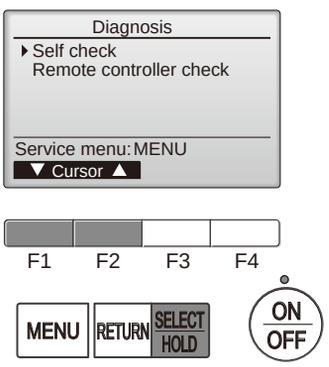
11-7-1. PAR-41MAA

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

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

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

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

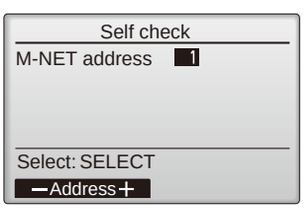


---

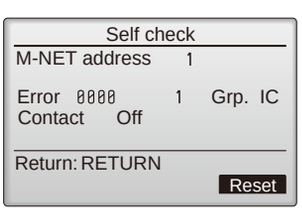
2. Select “Self check” from the Diagnosis menu, and press the [SELECT/HOLD] button to view the Self check screen.

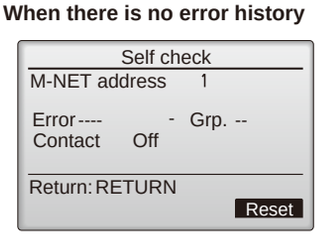
   With the F1 or F2 button, enter the M-NET address, and press the [SELECT/HOLD] button.

   Check 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

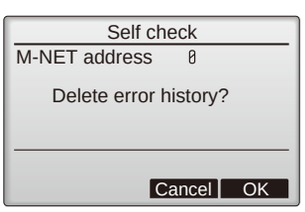


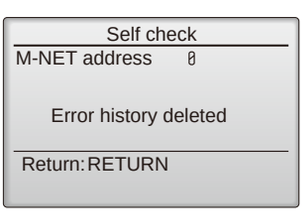


3. <u>Resetting the error history</u>

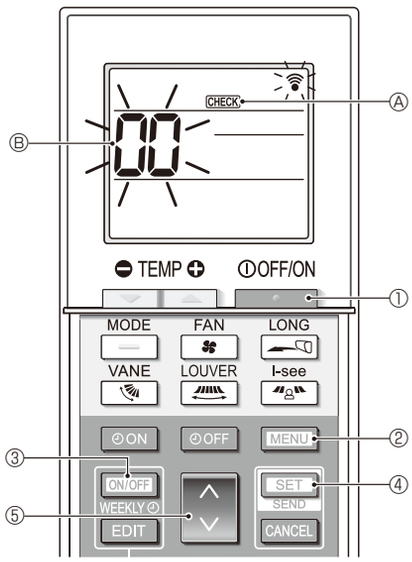
   Press the F4 button (Reset) on the screen that shows the error history. A confirmation screen will appear asking if you want to delete the error history.

   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.





11-7-2. 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 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.

11-8. 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/HOLD] button.

   ▼

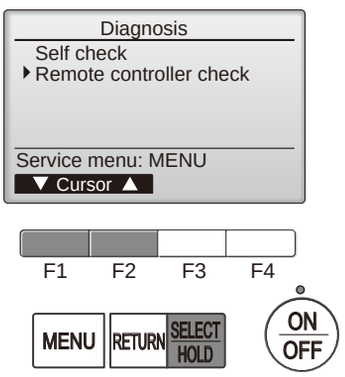
   Select "Check" from the Service menu, and press the [SELECT/HOLD] button.

   ▼

   Select "Diagnosis" from the Check menu, and press the [SELECT/HOLD] button.

   ▼

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



---

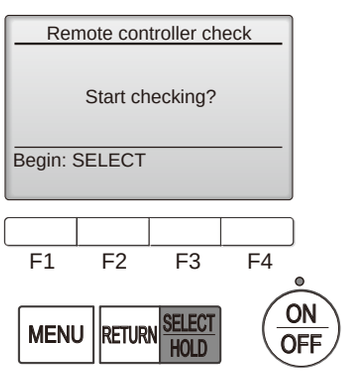
2. Select "Remote controller check" from the Diagnosis menu, and press the [SELECT/HOLD] button to start the remote controller check and see the check results.

   ▼

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

   ▼

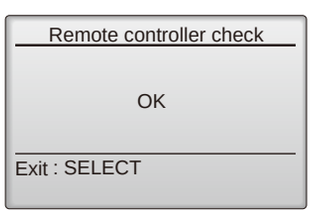
   The remote controller will not reboot itself.



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/HOLD] 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

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : TOKYO BUILDING, 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN

MITSUBISHI ELECTRIC CONSUMER PRODUCTS (THAILAND) CO., LTD.
700/406 MOO 7, TAMBON DON HUA ROH,
AMPHUR MUANG, CHONBURI 20000 THAILAND
Issued: Aug. 2023. No. TCH124 REVISED EDITION-A
Published: Jul. 2023. No. TCH124
Made in Thailand

Specifications are subject to change without notice.