

**July 2007**
**No.OC314  
REVISED EDITION-C**

# TECHNICAL & SERVICE MANUAL

## Series PLFY Ceiling Cassettes

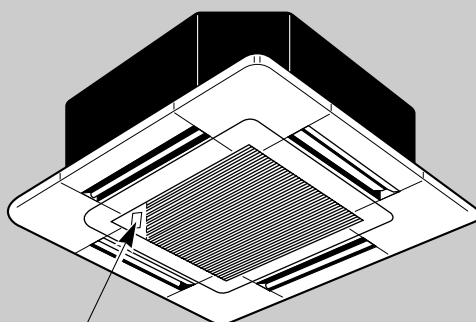
**R410A / R407C / R22**
**Indoor unit  
[Model names]  
PLFY-P20VCM-E**
**[Service Ref.]**
**PLFY-P20VCM-E.TH  
PLFY-P20VCM-E<sub>1</sub>.TH  
PLFY-P25VCM-E  
PLFY-P25VCM-E.TH  
PLFY-P25VCM-E<sub>1</sub>.TH  
PLFY-P32VCM-E  
PLFY-P32VCM-E.TH  
PLFY-P32VCM-E<sub>1</sub>.TH  
PLFY-P40VCM-E  
PLFY-P40VCM-E.TH  
PLFY-P40VCM-E<sub>1</sub>.TH**
**PLFY-P25VCM-E**
**PLFY-P32VCM-E**
**PLFY-P40VCM-E**
**Revision :**

- PLFY-P20/25/32/40VCM-E<sub>1</sub>.TH are added in REVISED EDITION-C.
- Some descriptions have been modified.

- Please void OC314 REVISED EDITION-B.

**Note :**

- RoHS compliant products have <G> mark on spec name plate.  
For servicing RoHS compliant products, refer to the RoHS Parts List.


**Model name  
indication**
**INDOOR UNIT**

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# 1

## TECHNICAL CHANGES

PLFY-P20VCM-E.TH → PLFY-P20VCM-E<sub>1</sub>.TH  
PLFY-P25VCM-E.TH → PLFY-P25VCM-E<sub>1</sub>.TH  
PLFY-P32VCM-E.TH → PLFY-P32VCM-E<sub>1</sub>.TH  
PLFY-P40VCM-E.TH → PLFY-P40VCM-E<sub>1</sub>.TH

• PANEL has been changed.

SLP-2AA(White : 0.70Y 8.59/0.97) → SLP-2AAW(Pure white : 6.4Y 8.9/0.4)

# 2

## SAFETY PRECAUTION

### CAUTIONS RELATED TO NEW REFRIGERANT

Cautions for units utilizing refrigerant R407C

#### Do not use the existing refrigerant piping.

The old refrigerant and lubricant in the existing piping contains a large amount of chlorine which may cause the lubricant deterioration of the new unit.

#### Use liquid refrigerant to charge the system.

If gas refrigerant is used to seal the system, the composition of the refrigerant in the cylinder will change and performance may drop.

#### Use "low residual oil piping"

If there is a large amount of residual oil (hydraulic oil, etc.) inside the piping and joints, deterioration of the lubricant will result.

#### Do not use a refrigerant other than R407C.

If another refrigerant (R22, etc.) is used, the chlorine in the refrigerant may cause the lubricant deterioration.

#### Store the piping to be used during installation indoors with keep both ends sealed until just before brazing. (Store elbows and other joints in a plastic bag.)

If dust, dirt, or water enters the refrigerant cycle, deterioration of the oil and compressor trouble may result.

#### Use a vacuum pump with a reverse flow check valve.

The vacuum pump oil may flow back into the refrigerant cycle and cause the lubricant deterioration.

#### Use ESTR , ETHER or HAB as the lubricant to coat flares and flange connection parts.

If large amount of mineral oil enters, that can cause deterioration of refrigerant oil etc.

#### Ventilate the room if refrigerant leaks during operation. If refrigerant comes into contact with a flame, poisonous gases will be released.

### [1] Cautions for service

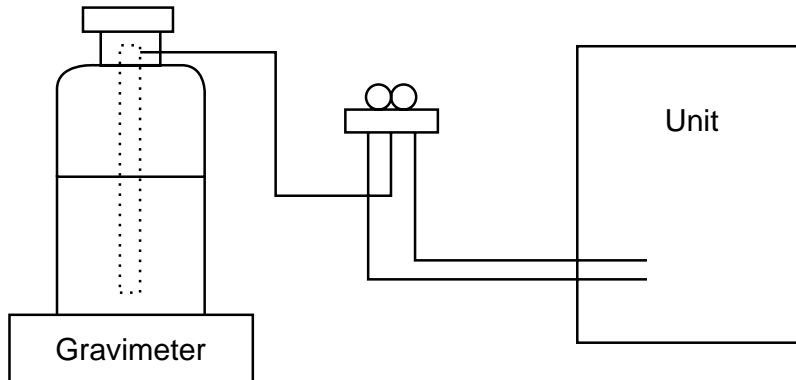
- After recovering the all refrigerant in the unit, proceed to working.
- Do not release refrigerant in the air.
- After completing the repair service, recharge the cycle with the specified amount of liquid refrigerant.

## [2] Refrigerant recharging

### (1) Refrigerant recharging process

#### ① Direct charging from the cylinder

- R407C cylinder which is available on the market has a syphon pipe.
  - Leave the syphon pipe cylinder standing and recharge it.
- (By liquid refrigerant)



### (2) Recharge in refrigerant leakage case

- After recovering all the refrigerant in the unit, proceed to working.
- Do not release the refrigerant in the air.
- After completing the repair service, recharge the cycle with the specified amount of liquid refrigerant.

## [3] Service tools

Use the below service tools as exclusive tools for R407C refrigerant.

No.	Tool name	Specifications
①	Gauge manifold	·Only for R407C
		·Use the existing fitting SPECIFICATIONS. (UNF7/16)
		·Use high-tension side pressure of 3.43MPa·G or over.
②	Charge hose	·Only for R407C
		·Use pressure performance of 5.10MPa·G or over.
③	Electronic scale	—
④	Gas leak detector	·Use the detector for R134a or R407C.
⑤	Adapter for reverse flow check	·Attach on vacuum pump.
⑥	Refrigerant charge base	—
⑦	Refrigerant cylinder	·For R407C    ·Top of cylinder (Brown)
		·Cylinder with syphon
⑧	Refrigerant recovery equipment	—

## Cautions for units utilizing refrigerant R410A

### Do not use the existing refrigerant piping.

The old refrigerant and lubricant in the existing piping contains a large amount of chlorine which may cause the lubricant deterioration of the new unit.

### Use "low residual oil piping"

If there is a large amount of residual oil (hydraulic oil, etc.) inside the piping and joints, deterioration of the lubricant will result.

### Store the piping to be used during installation indoors and keep both ends of the piping sealed until just before brazing. (Leave elbow joints, etc. in their packaging.)

If dirt, dust or moisture enters into refrigerant cycle, that can cause deterioration of refrigerant oil or malfunction of compressor.

### Use ester oil, ether oil or alkylbenzene oil (small amount) as the refrigerant oil applied to flares and flange connections.

If large amount of mineral oil enters, that can cause deterioration of refrigerant oil etc.

### Charge refrigerant from liquid phase of gas cylinder.

If the refrigerant is charged from gas phase, composition change may occur in refrigerant and the efficiency will be lowered.

### Do not use refrigerant other than R410A.

If other refrigerant (R22 etc.) is used, chlorine in refrigerant can cause deterioration of refrigerant oil etc.

### Use a vacuum pump with a reverse flow check valve.

Vacuum pump oil may flow back into refrigerant cycle and that can cause deterioration of refrigerant oil etc.

### Use the following tools specifically designed for use with R410A refrigerant.

The following tools are necessary to use R410A refrigerant.

Tools for R410A	
Gauge manifold	Flare tool
Charge hose	Size adjustment gauge
Gas leak detector	Vacuum pump adaptor
Torque wrench	Electronic refrigerant charging scale

### Keep the tools with care.

If dirt, dust or moisture enters into refrigerant cycle, that can cause deterioration of refrigerant oil or malfunction of compressor.

### Do not use a charging cylinder.

If a charging cylinder is used, the composition of refrigerant will change and the efficiency will be lowered.

### Ventilate the room if refrigerant leaks during operation. If refrigerant comes into contact with a flame, poisonous gases will be released.

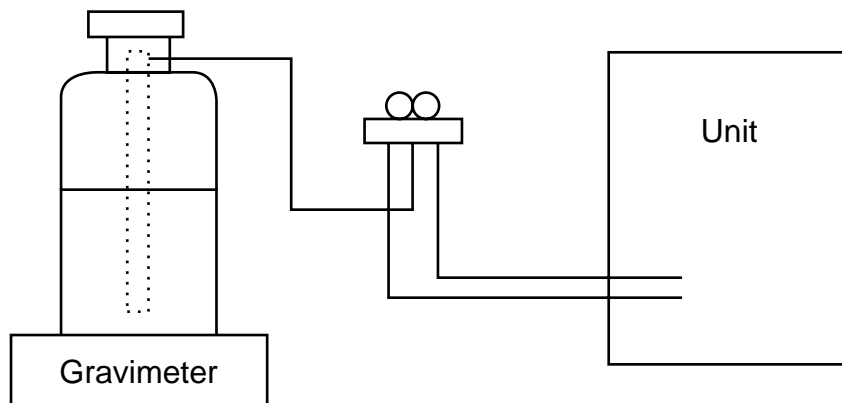
### [1] Cautions for service

- (1) Perform service after recovering the refrigerant left in unit completely.
- (2) Do not release refrigerant in the air.
- (3) After completing service, charge the cycle with specified amount of refrigerant.
- (4) When performing service, install a filter drier simultaneously.  
Be sure to use a filter drier for new refrigerant.

### [2] Additional refrigerant charge

#### When charging directly from cylinder

- Check that cylinder for R410A on the market is syphon type.
- Charging should be performed with the cylinder of syphon standing vertically. (Refrigerant is charged from liquid phase.)



### [3] Service tools

Use the below service tools as exclusive tools for R410A refrigerant.

No.	Tool name	Specifications
①	Gauge manifold	·Only for R410A
		·Use the existing fitting specifications. (UNF1/2)
		·Use high-tension side pressure of 5.3MPa-G or over.
②	Charge hose	·Only for R410A
		·Use pressure performance of 5.09MPa-G or over.
③	Electronic scale	—
④	Gas leak detector	·Use the detector for R134a, R407C or R410A.
⑤	Adaptor for reverse flow check	·Attach on vacuum pump.
⑥	Refrigerant charge base	—
⑦	Refrigerant cylinder	·Only for R410A    ·Top of cylinder (Pink)
		·Cylinder with syphon
⑧	Refrigerant recovery equipment	—

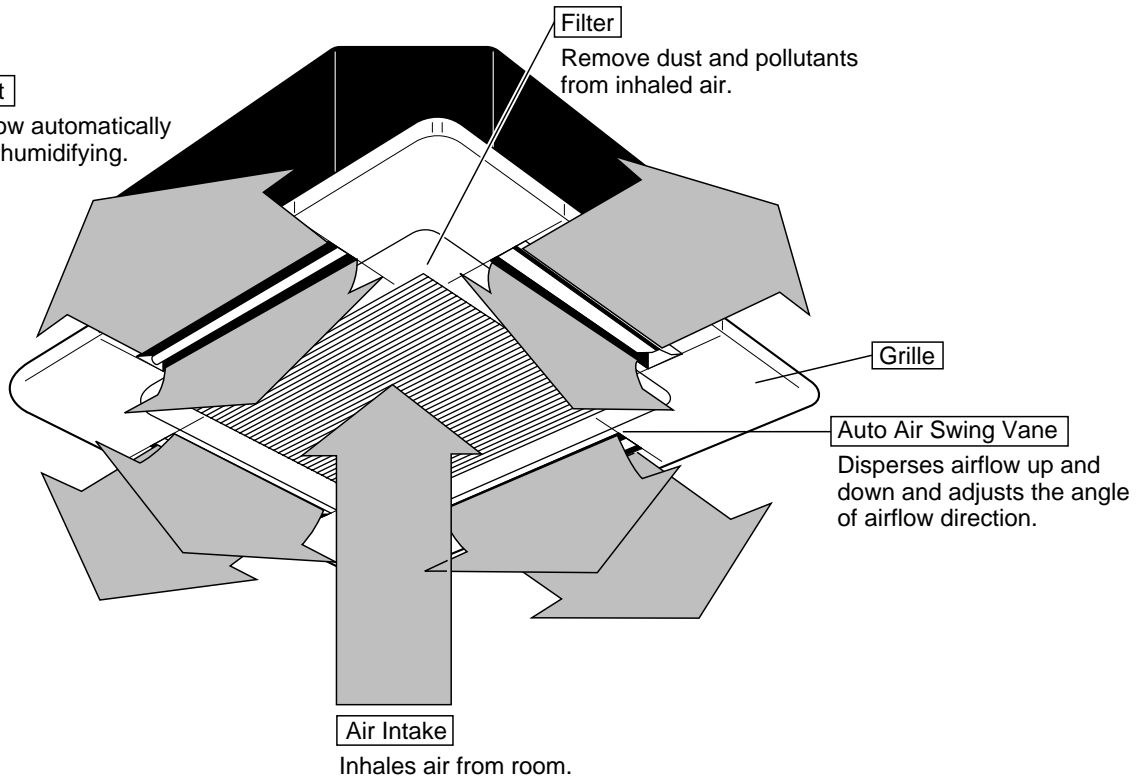
### 3

## PART NAMES AND FUNCTIONS

### ● Indoor Unit

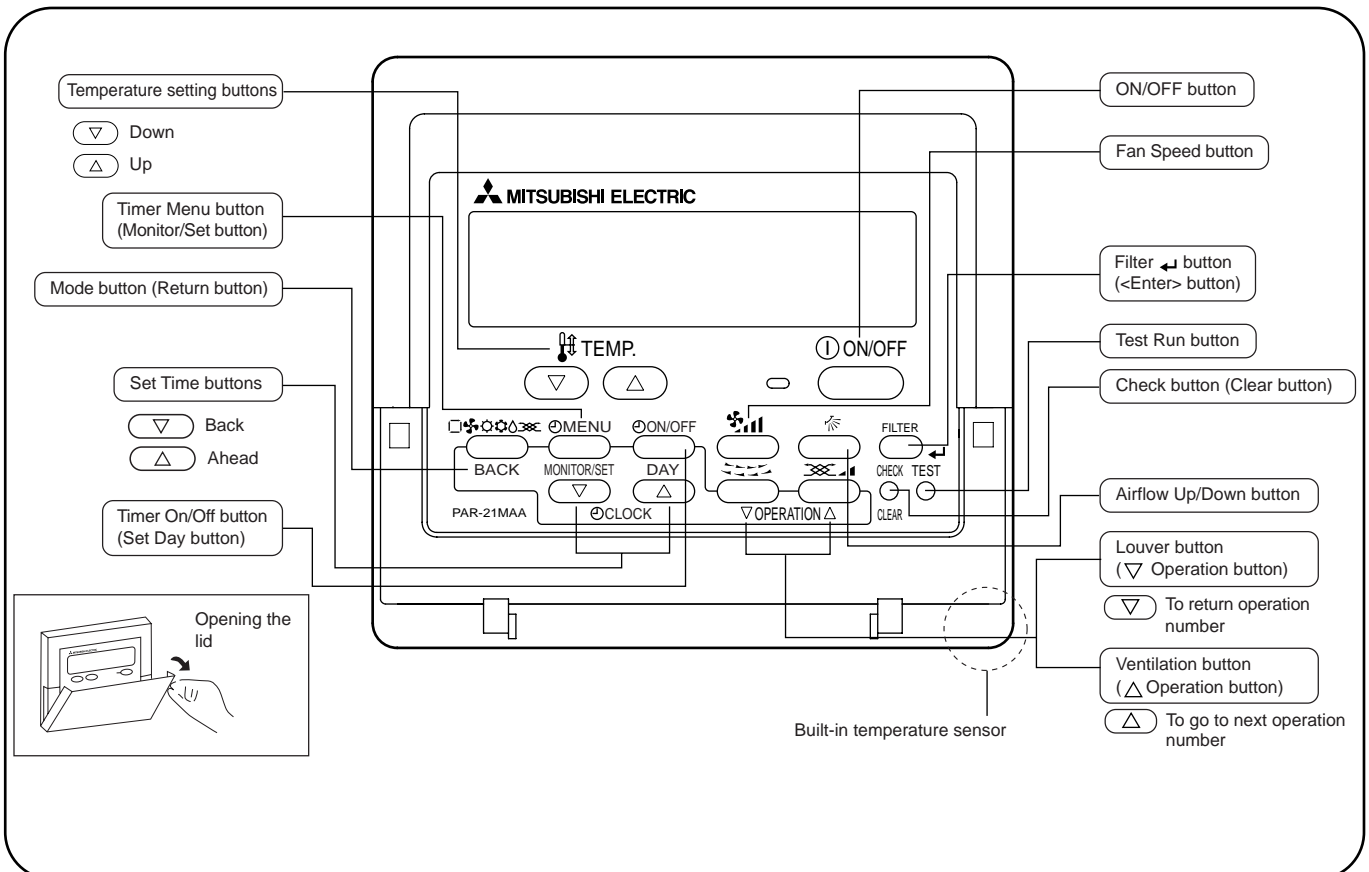
#### Horizontal Air Outlet

Sets horizontal airflow automatically during cooling or dehumidifying.



### ● Wired remote controller

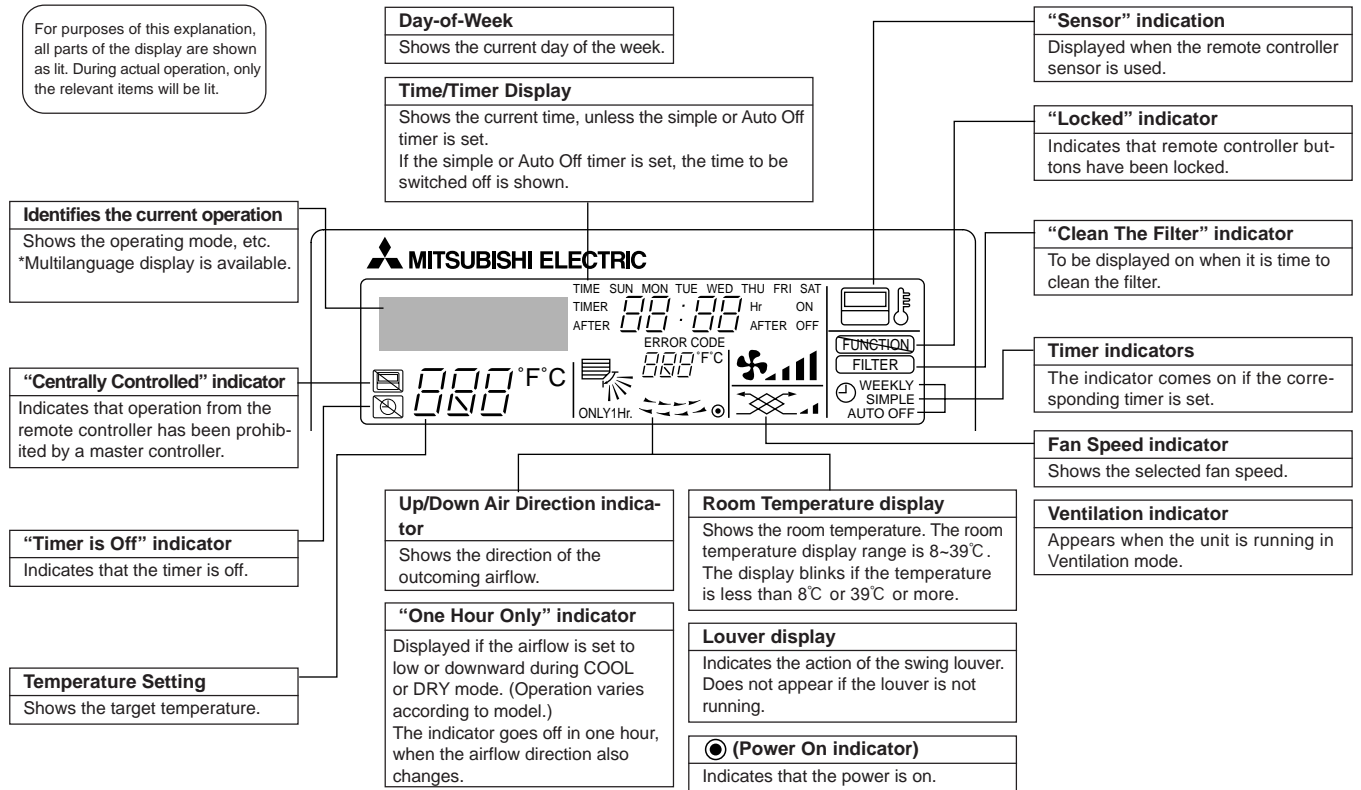
Once the controllers are set, the same operation mode can be repeated by simply pressing the ON/OFF button.



## ● Wired remote controller

### Display Section

For purposes of this explanation, all parts of the display are shown as lit. During actual operation, only the relevant items will be lit.



#### Note:

- **“PLEASE WAIT” message**  
This message is displayed for approximately 3 minutes when power is supplied to the indoor unit or when the unit is recovering from a power failure.
- **“NOT AVAILABLE” message**  
This message is displayed if an invalid button is pressed (to operate a function that the indoor unit does not have).  
If a single remote controller is used to operate multiple indoor units simultaneously that are different types, this message will not be displayed as far as any of the indoor units is equipped with the function.

## 4

## SPECIFICATIONS

## 4-1. SPECIFICATIONS

Item		PLFY-P20VCM-E <sub>(1)</sub> .TH	PLFY-P25VCM-E <sub>(1)</sub> .TH	PLFY-P32VCM-E <sub>(1)</sub> .TH	PLFY-P40VCM-E <sub>(1)</sub> .TH
Power	V·Hz	Single phase 220-230-240V 50Hz			
Cooling capacity	kW	2.2	2.8	3.6	4.5
Heating capacity	kW	2.5	3.2	4.0	5.0
Electric characteristic	Input	Cooling	0.05		0.06
		Heating	0.05		0.06
	Current	Cooling	0.23		0.28
		Heating	0.23		0.28
Exterior (munsell symbol)	—	Unit : Galvanized sheets with gray heat insulation Grilles : ABS resin Munsell<0.70Y 8.59/0.97>(PLFY-P·VCM-E.TH) / <6.4Y 8.9/0.4>(PLFY-P·VCM-E <sub>1</sub> .TH)			
Dimensions	Height	mm 208 <20>			
	Width	mm 570<650>			
	Depth	mm 570<650>			
Heat exchanger	—	Cross fin			
Performance	Fan X No	— Turbo fan X 1			
	Air flow ※3	m <sup>3</sup> /min 10-9-8		11-10-9	
	External static pressure	Pa 0			
	Fan motor output	kW 0.011	0.015	0.020	
Insulator	—	Polyethylene sheet			
Air filter	—	PP honey comb fabric			
Pipe dimensions	Gas side	φmm(in.) φ12.7(1/2")			
	Liquid side	φmm(in.) φ6.35(1/4")			
Field drain pipe size	φmm	O.D.32 (PVC pipe VP-25 connectable)			
Noise level ※3	dB	35-31-28	37-31-29	38-33-29	39-34-30
Product weight	kg	15.5<3>		17<3>	

- Note 1. Rating conditions(JIS B 8616)  
Cooling : Indoor : D.B. 27°C W.B. 19.0°C  
          outdoor : D.B. 35°C  
Heating : Indoor : D.B. 20°C  
          outdoor : D.B. 7°C W.B. 6°C

- Note 2. The number indicated in < > is for the grille.  
※ 3. Airflow and the noise level are indicated as High-Medium-Low.



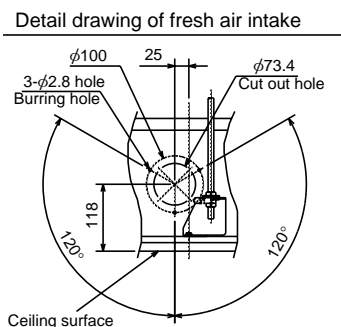
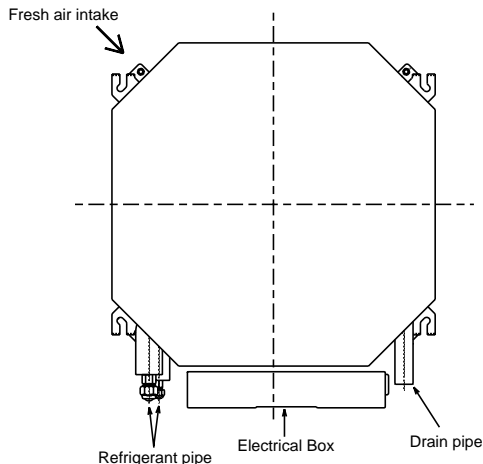
## 4-2. ELECTRICAL PARTS SPECIFICATIONS

Model	Symbol	PLFY-P20VCM-E <sub>(1)</sub> .TH	PLFY-P25VCM-E <sub>(1)</sub> .TH	PLFY-P32VCM-E <sub>(1)</sub> .TH	PLFY-P40VCM-E <sub>(1)</sub> .TH
Thermistor (Room temperature detection)	TH21	Resistance 0°C/15kΩ, 10°C/9.6kΩ, 20°C/6.3kΩ, 25°C/5.4kΩ, 30°C/4.3kΩ, 40°C/3.0kΩ			
Thermistor (Pipe temperature detection/ Liquid)	TH22	Resistance 0°C/15kΩ, 10°C/9.6kΩ, 20°C/6.3kΩ, 25°C/5.4kΩ, 30°C/4.3kΩ, 40°C/3.0kΩ			
Thermistor (Pipe temperature detection/ Gas)	TH23	Resistance 0°C/15kΩ, 10°C/9.6kΩ, 20°C/6.3kΩ, 25°C/5.4kΩ, 30°C/4.3kΩ, 40°C/3.0kΩ			
Fuse (Indoor controller board)	FUSE	250V 6.3A			
Fan motor (with Thermal fuse)	MF	6-pole OUTPUT 11W PK6V11-LF	6-pole OUTPUT 15W PK6V15-LD	6-pole OUTPUT 20W PK6V20-LL	6-pole OUTPUT 20W PK6V20-LM
		Thermal fuse OFF 145°C ± 2°C			
Fan motor capacitor	C	1.0μF X 440V	1.5μF X 440V		
Vane motor	MV	MSBPC20M13 DC12V 300Ω/phase			
Drain pump	DP	PLD-12230ME-1 INPUT 12/10.8W 24 ℓ /Hr			
Drain sensor	DS	Thermistor resistance 0°C/6kΩ, 10°C/3.9kΩ, 20°C/2.6kΩ, 25°C/2.2kΩ, 30°C/1.8kΩ, 40°C/1.3kΩ			
Linear expansion valve [coil]	LEV	DC12V Stepping motor drive, Port dimension ϕ 5.2 (0~2000pulse) EDM-40YGME			
Electric heater (Condensation proof)	H2	240V 15W			
Power supply terminal block	TB2	(L, N, Ⓞ) Rated to 330V 30A ※			
Transmission terminal block	TB5	(M1, M2, S) Rated to 250V 20A ※			
MA remote controller terminal block	TB15	(1, 2) Rated to 250V 10A ※			

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

## 5-1. FRESH AIR INTAKE (Location for installation)

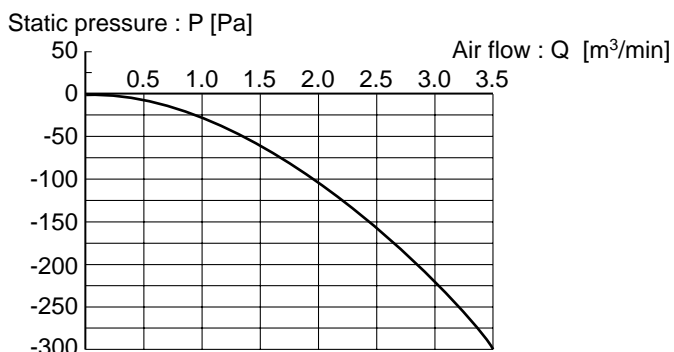
At the time of installation, use the duct holes (cut out) located at the positions shown in following diagram, as and when required.



## 5-2. FRESH AIR INTAKE AMOUNT & STATIC PRESSURE CHARACTERISTICS

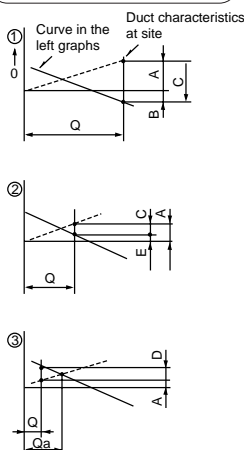
- PLFY-P20VCM-E<sub>(1)</sub>.TH
- PLFY-P25VCM-E<sub>(1)</sub>.TH
- PLFY-P32VCM-E<sub>(1)</sub>.TH
- PLFY-P40VCM-E<sub>(1)</sub>.TH

### Taking air into the unit



**NOTE:** Fresh air intake amount should be 20% or less of whole air amount to prevent dew dripping.

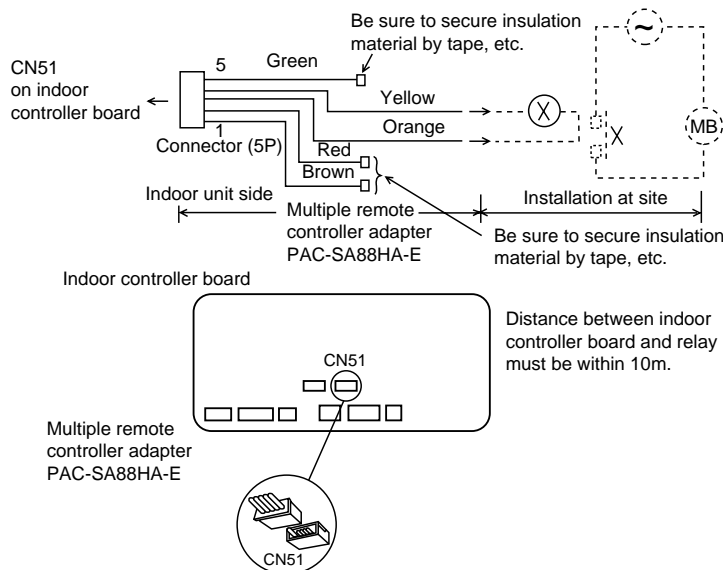
### How to read curves



- Q...Designed amount of fresh air intake <m³/min>
- A...Static pressure loss of fresh air intake duct system with air flow amount Q <Pa>
- B...Forced static pressure at air conditioner inlet with air flow amount Q <Pa>
- C...Static pressure of booster fan with air flow amount Q <Pa>
- D...Static pressure loss increase amount of fresh air intake duct system for air flow amount Q <Pa>
- E...Static pressure of indoor unit with air flow amount Q <Pa>
- Qa...Estimated amount of fresh air intake without D <m³/min>

## 5-3. OPERATION IN CONJUNCTION WITH DUCT FAN (Booster fan)

- Whenever the indoor unit operates, 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 12V DC relay between the Yellow and Orange connector wires.
- MB: Electromagnetic switch power relay for duct fan.
- X: Auxiliary relay (For DC 12V, coil rating : 1.0W or below)

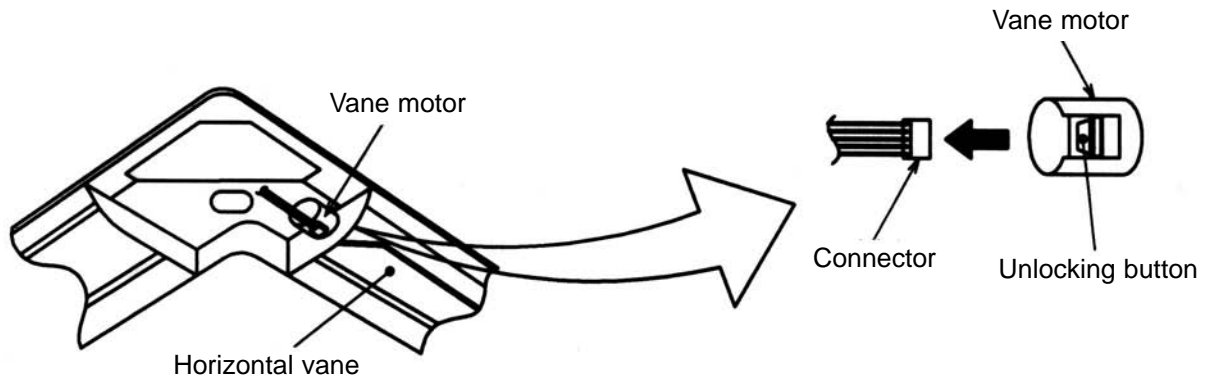


## 5-4. FIXING HORIZONTAL VANE

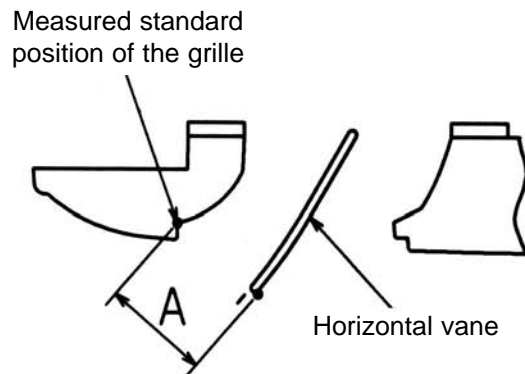
Horizontal vane of each air outlet can be fixed according to the environment where it is installed.

### Setting procedure

- 1) Turn off a main power supply (Turn off a breaker).
- 2) Disconnect the vane motor connector of the direction of the arrow with pressing the unlocking button as shown in figure below.  
Insulate the disconnected connector with the plastic tape.




- 3) Set a vertical vane of the air outlet, which is to be fixed by the hand slowly within the range in the table below.



### <Set range>

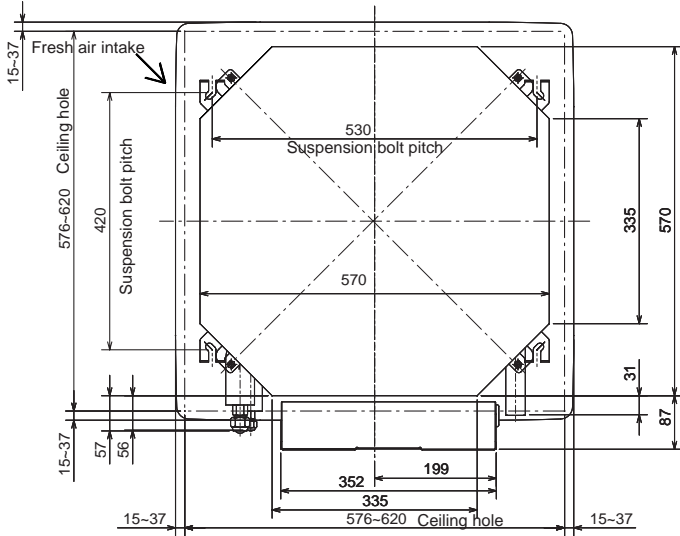
Standard of horizontal position	Level 30° (Min.)	Downward 45°	Downward 55°	Downward 70° (Max.)
Dimension A (mm)	21	25	28	30

\* Dimension between 21 mm and 30 mm can be arbitrarily set.

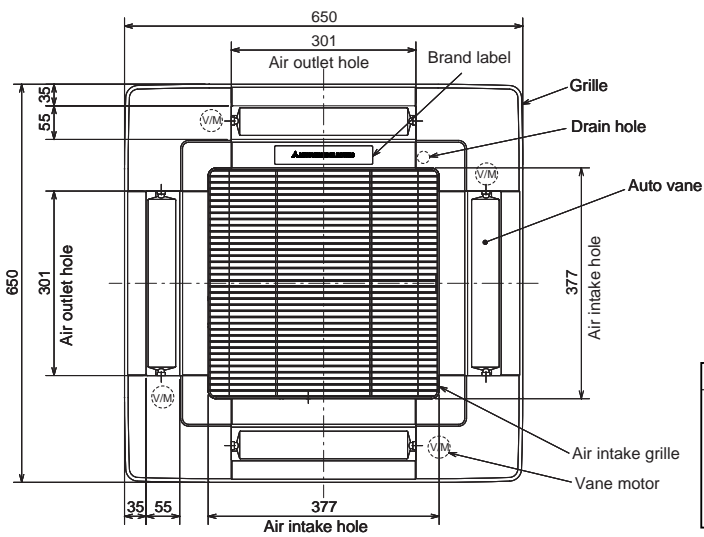
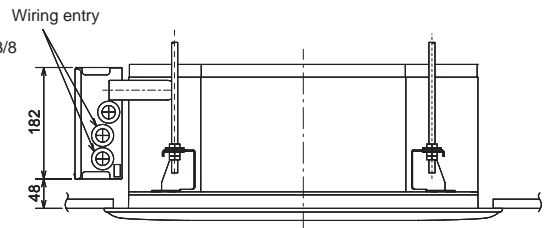
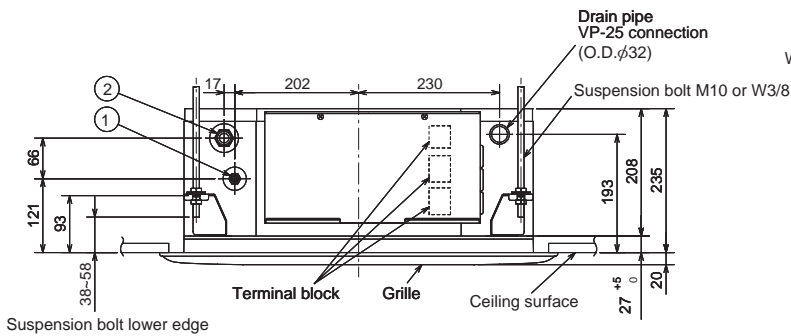
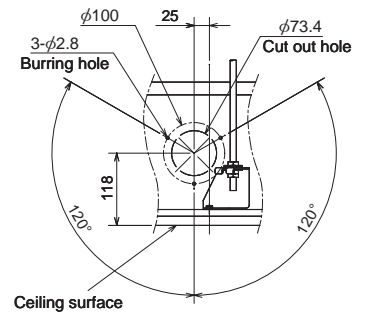
<b>Caution</b> 	Do not set the dimension out of the range.
	Erroneous setting could cause dew drips, smudge on ceiling or malfunction of unit.

PLFY-P20VCM-E.TH    PLY-P25VCM-E.TH    PLY-P32VCM-E.TH    PLY-P40VCM-E.TH  
 PLY-P20VCM-E<sub>1</sub>.TH    PLY-P25VCM-E<sub>1</sub>.TH    PLY-P32VCM-E<sub>1</sub>.TH    PLY-P40VCM-E<sub>1</sub>.TH

Unit : mm



Detail drawing of fresh air intake

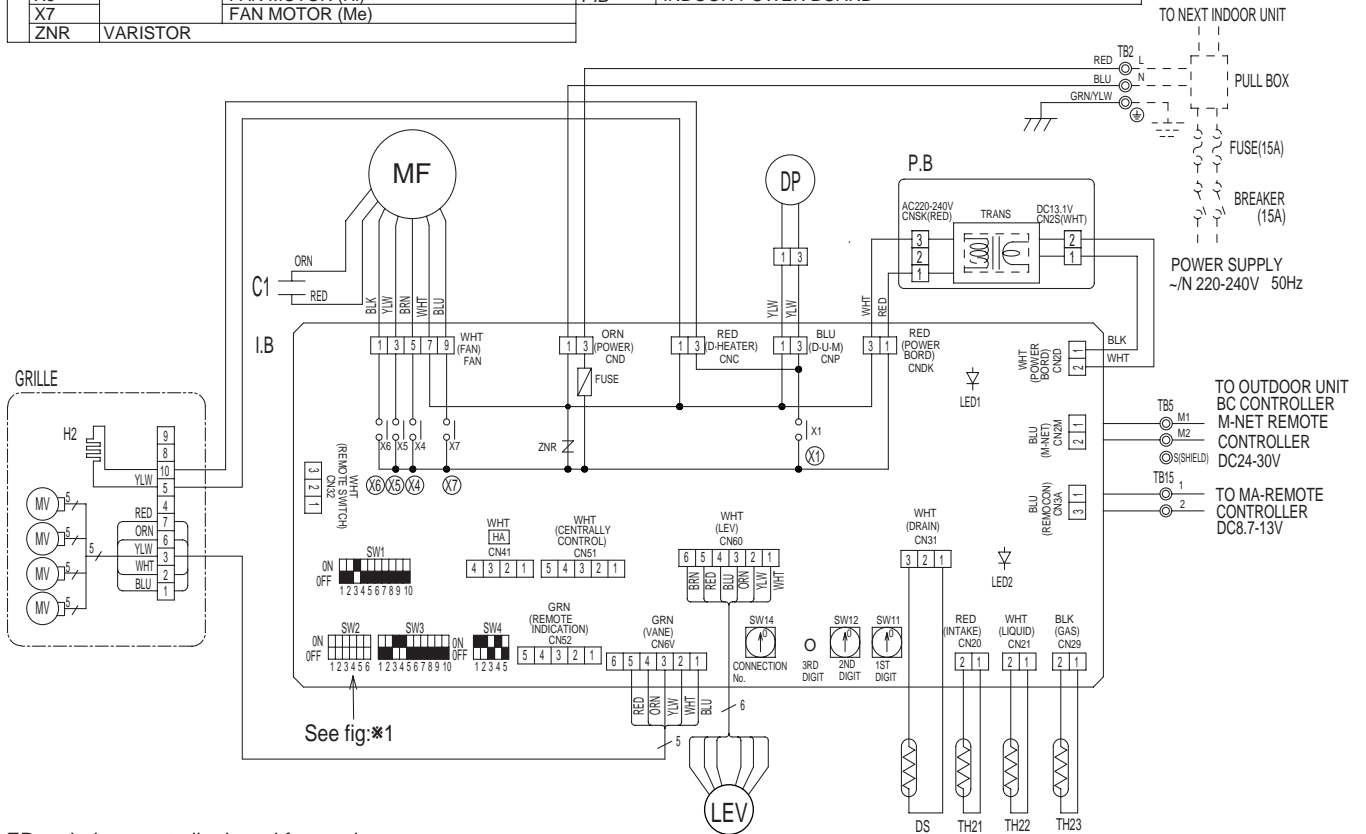


Models	①	②
PLFY-P20VCM-E <sub>(1)</sub>	Refrigerant pipe (6.35mm dia.)	Refrigerant pipe (12.7mm dia.)
PLFY-P25VCM-E <sub>(1)</sub>	flared connection	flared connection
PLFY-P32VCM-E <sub>(1)</sub>	1/4 inch	1/2 inch
PLFY-P40VCM-E <sub>(1)</sub>		

PLFY-P20VCM-E.TH    PLYF-P25VCM-E.TH    PLYF-P32VCM-E.TH    PLYF-P40VCM-E.TH  
 PLYF-P20VCM-E<sub>1</sub>.TH    PLYF-P25VCM-E<sub>1</sub>.TH    PLYF-P32VCM-E<sub>1</sub>.TH    PLYF-P40VCM-E<sub>1</sub>.TH

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	C1	CAPACITOR (FAN MOTOR)
CN32	CONNECTOR	DP	DRAIN PUMP
CN41		DS	DRAIN SENSOR
CN51		H2	DEW PREVENTION HEATER
CN52		LEV	LINEAR EXPANSION VALVE
FUSE	FUSE (6.3A/250V)	MF	FAN MOTOR (WITH THERMAL FUSE)
SW1	SWITCH	MV	VANE MOTOR
SW2		TB2	TERMINAL BLOCK
SW3		TB5	
SW4		TB15	
SW11		TH21	THERMISTOR
SW12		TH22	
SW14		TH23	
X1	AUX. RELAY	P.B	INDOOR POWER BOARD
X4			
X5			
X6			
X7			
ZNR	VARISTOR		



LED on indoor controller board for service

Mark	Meaning	Function
LED1	Main power supply	Main power supply (Indoor unit: 220-240V) power on → Lamp is lit.
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → Lamp is lit.

Notes:

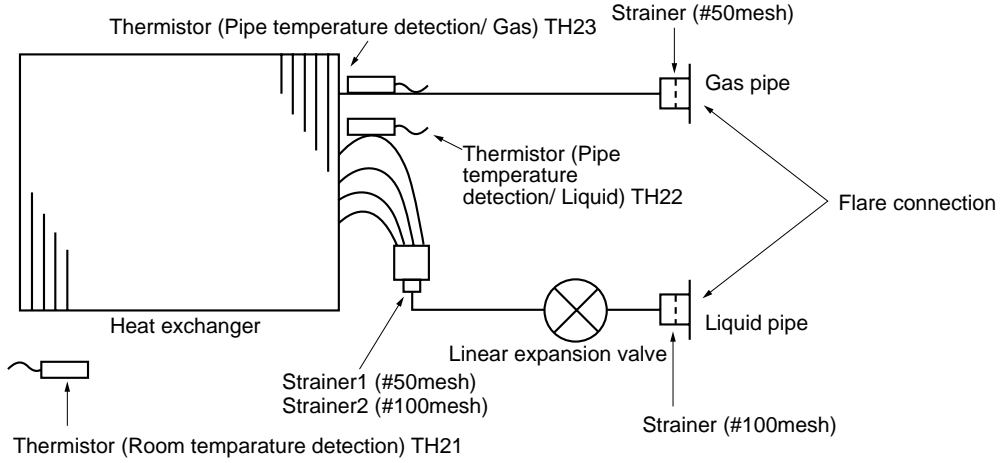
- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol[S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are, ⊙ : terminal block, □□ : connector.
- The setting of the SW2 dip switches differs in the capacity for the detail, refer to the fig:\*1.

<fig:\*1>

MODELS	SW2
P20	ON OFF 1 2 3 4 5 6
P25	ON OFF 1 2 3 4 5 6
P32	ON OFF 1 2 3 4 5 6
P40	ON OFF 1 2 3 4 5 6

# REFRIGERANT SYSTEM DIAGRAM

PLFY-P20VCM-E.TH    PLY-P25VCM-E.TH    PLY-P32VCM-E.TH    PLY-P40VCM-E.TH  
 PLY-P20VCM-E<sub>1</sub>.TH    PLY-P25VCM-E<sub>1</sub>.TH    PLY-P32VCM-E<sub>1</sub>.TH    PLY-P40VCM-E<sub>1</sub>.TH

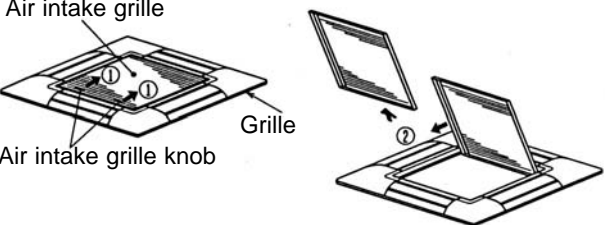
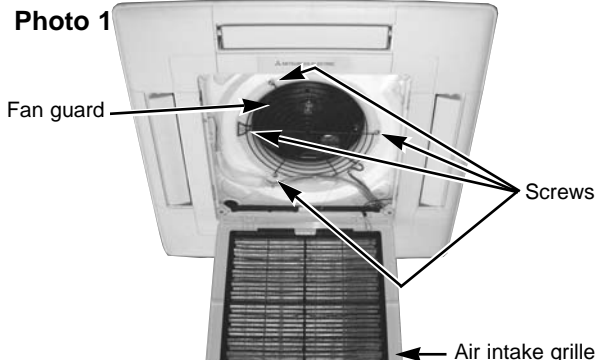
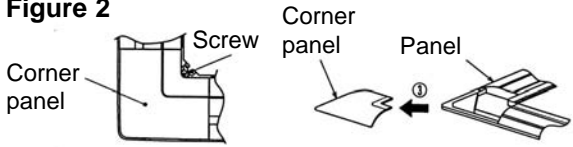
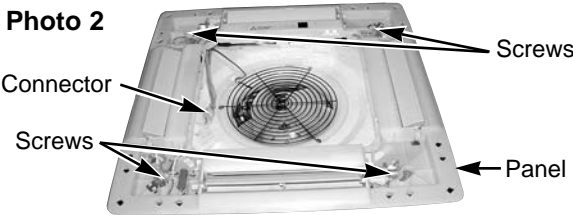
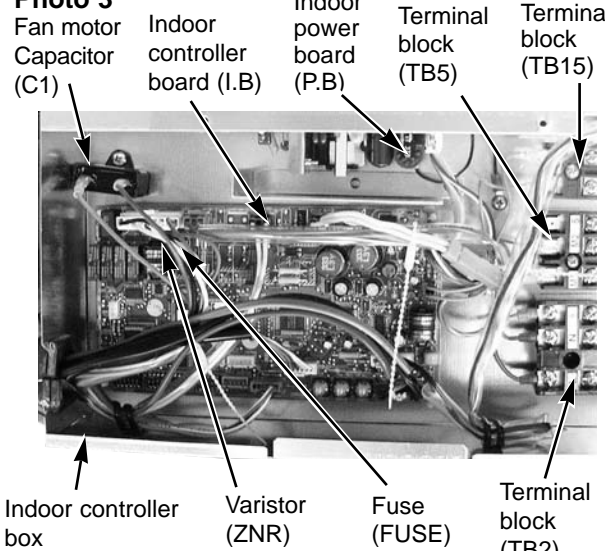


Unit : mm(inch)

Gas pipe	φ12.7(1/2)
Liquid pipe	φ6.35(1/4)

**PLFY-P20-P25-P32-P40VCM-E.TH**  
**PLFY-P20-P25-P32-P40VCM-E<sub>1</sub>.TH**

Be careful on removing heavy parts.

OPERATING PROCEDURE	PHOTOS&ILLUSTRATIONS
<p><b>1. Removing the air intake grille</b></p> <p>(1) Slide the knob of air intake grille to the direction of the arrow ① to open the air intake grille.</p> <p>(2) Remove the string hook from the panel to prevent the grille from dropping.</p> <p>(3) Slide the hinge of the intake grille to the direction of the arrow ② and remove the air intake grille.</p>	<p><b>Figure 1</b></p> 
<p><b>2. Removing the fan guard</b></p> <p>(1) Open the air intake grille.</p> <p>(2) Remove the 3 screws of fan guard.</p>	<p><b>Photo 1</b></p> 
<p><b>3. Removing the panel</b></p> <p>(1) Remove the air intake grille. (Refer to 1)</p> <p><b>Corner panel (See figure 2)</b></p> <p>(1) Remove the screw of the corner.</p> <p>(2) Slide the corner panel to the direction of the arrow ③, and remove the corner panel.</p> <p><b>Panel (See photo 2)</b></p> <p>(1) Disconnect the connector that connects with the unit.</p> <p>(2) Remove the 2 screws from the panel and loose other 2 screws fixed to the oval hole, have different diameter.</p> <p>(3) Rotate the panel a little to remove the screws. (Slide the panel so that the screw comes to a larger diameter of the oval hole, which has 2 different diameters.)</p>	<p><b>Figure 2</b></p>  <p><b>Photo 2</b></p> 
<p><b>4. Removing the electrical parts</b></p> <p>(1) Remove the 2 screws and the control box cover.</p> <p>&lt;Electrical parts in the control box&gt;</p> <ul style="list-style-type: none"> <li>• Indoor controller board (I.B)</li> <li>• Indoor power board (P.B)</li> <li>• Fan motor capacitor (C1)</li> <li>• Fuse (FUSE)</li> <li>• Varistor (ZNR)</li> <li>• Terminal block (TB)</li> </ul>	<p><b>Photo 3</b></p> 



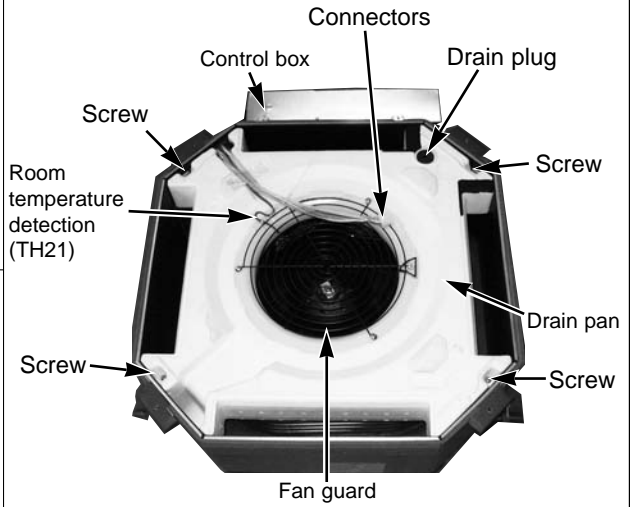
**OPERATING PROCEDURE**

**PHOTOS&ILLUSTRATIONS**

**5. Removing the room temperature detection (TH21)**

- (1) Remove the panel. (Refer to 3)
- (2) Pull out the room temperature detection from the drain pan.
- (3) Remove the 2 screws fixed to the control box cover, and remove the control box cover.
- (4) Remove the connector (CN20) from the indoor controller board, and disconnect the room temperature detection.

**Photo 4**



**6. Removing the drain pan**

- (1) Remove the panel. (Refer to 3)
- (2) Remove the room temperature detection and the 2 lead wires held with fastener; wireless controller board relay connector (9P red) and panel relay connector (10P white).
- (3) Remove the 4 screws fixed to the drain pan, and remove the drain pan.
- (4) Remove the fan guard. (Refer to 2)

**7. Removing the pipe temperature detection/liquid (TH22) and pipe temperature detection/gas (TH23)**

- (1) Remove the panel. (Refer to 3)
- (2) Remove the drain pan. (Refer to 6)
- (3) Disconnect the pipe temperature detection/liquid or the pipe temperature detection/gas from the holder.
- (4) Remove the 3 screws fixed to the piping cover, and remove the piping cover. (See photo 9)
- (5) Remove the 2 screws fixed to the control box cover, and remove the control box cover.

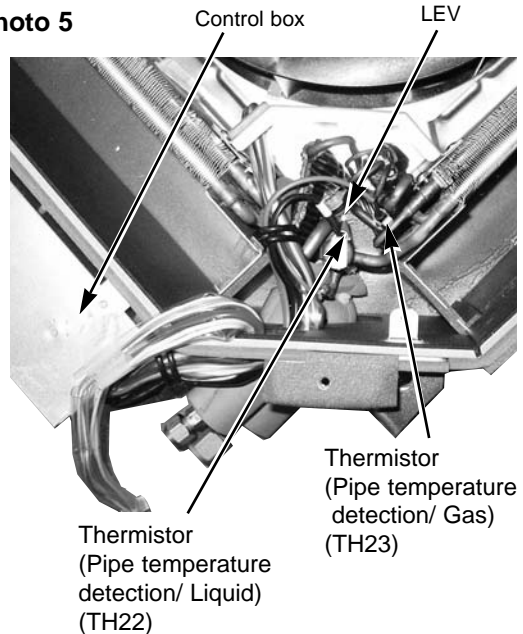
**Pipe temperature detection/liquid (TH22)**

- (6) Remove the connector (CN21) from the indoor controller board, and disconnect the pipe temperature detection/liquid.

**Pipe temperature detection/gas (TH23)**

- (6) Remove the connector (CN29) from the indoor controller board, and disconnect the pipe temperature detection/gas with its holder.

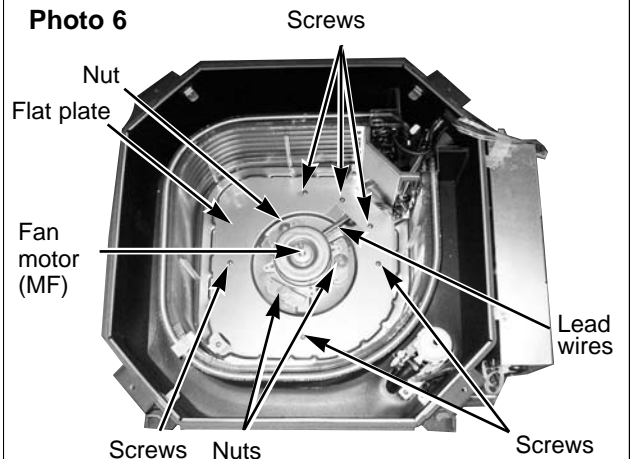
**Photo 5**



**8. Removing the fan motor (MF)**

- (1) Remove the panel. (Refer to 3)
- (2) Remove the drain pan. (Refer to 6)
- (3) Remove the nut and the washer from the turbo fan, and remove the turbo fan.
- (4) Remove the 2 screws fixed to the control box cover, and remove the control box cover.
- (5) Disconnect the connector of the FAN from the indoor controller board.
- (6) Remove the 3 screws fixed to the piping cover, and remove the piping cover. (See photo 9)
- (7) Remove the 6 screws fixed to the flat plate, and remove the flat plate.
- (8) Disconnect the lead wires to the direction of the fan motor, and remove the 3 nuts of the fan motor.

**Photo 6**





## OPERATING PROCEDURE

### 9. Removing the drain pump (DP) and drain sensor (DS)

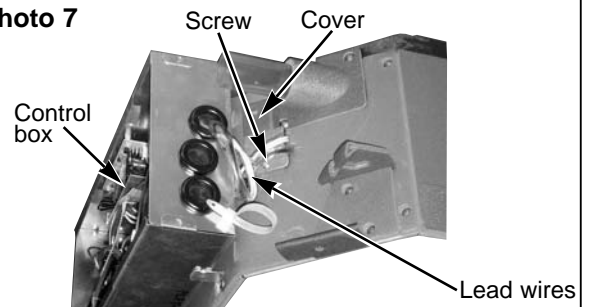
- (1) Remove the panel. (Refer to 3 )
- (2) Remove the drain pan. (Refer to 6)
- (3) Remove the 2 screws fixed to the control box cover, and remove the control box cover.
- (4) Remove the connectors of the (CNP) and the (CN31) from the indoor controller board.
- (5) Remove the 1 screw fixed to the cover, and remove the cover.
- (6) Disconnect the lead wires to the direction of the drain pump.(See photo 7)
- (7) Remove the 3 screws of the drain pump.
- (8) Cut the drain hose band, pull out the drain hose from the drain pump.
- (9) Pull out the drain pump.
- (10) Remove the drain sensor and the holder.

### 10. Removing the heat exchanger

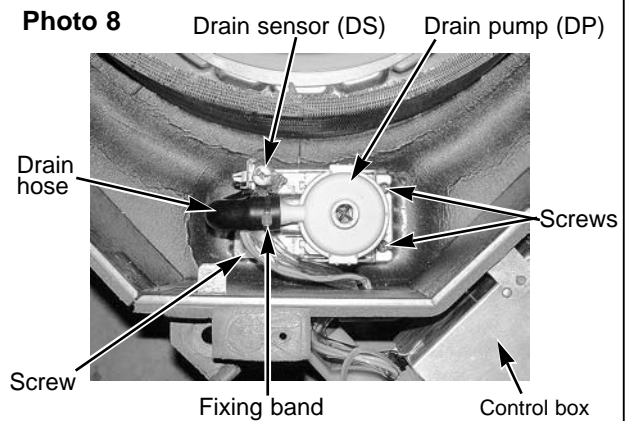
- (1) Remove the panel. (Refer to 3 )
- (2) Remove the drain pan. (Refer to 6)
- (3) Remove the nut and the washer from the turbo fan, and remove the turbo fan.
- (4) Remove the 2 screws fixed to the control box cover, and remove the control box cover.
- (5) Disconnect the connector of the FAN from the indoor controller board.
- (6) Remove the 3 screws fixed to the piping cover, and remove the piping cover. (See photo 9)
- (7) Remove the pipe temperature thermistor/liquid and condenser/evaporator temperature thermistor. (Refer to 7)
- (8) Disconnect the lead wires to the direction of the fan motor.
- (9) Remove the 1 coil support screw, the 2 inside coil screws (See photo 10), and the 4 outside coil screws (See photo 9) from the heat exchanger, and remove the heat exchanger.

## PHOTOS&ILLUSTRATIONS

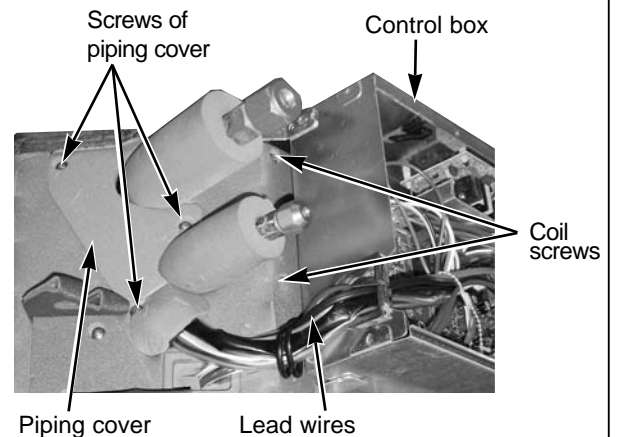
**Photo 7**



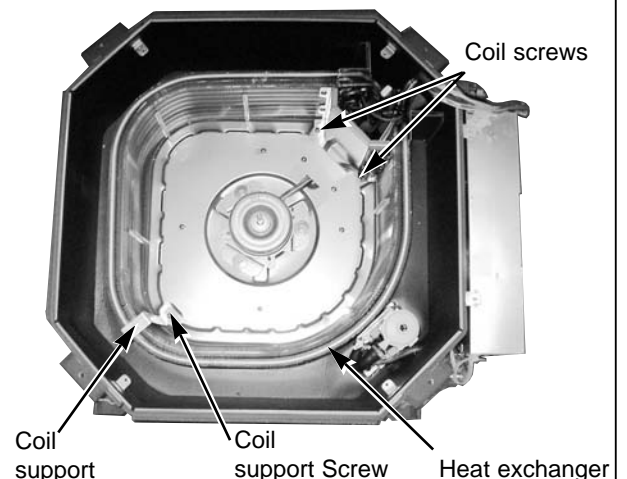
**Photo 8**



**Photo 9**



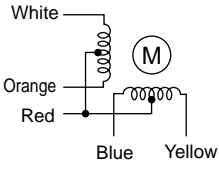
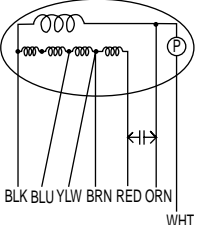
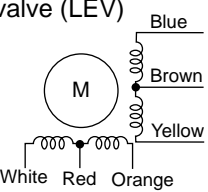
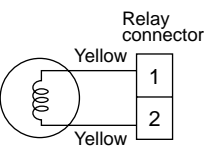
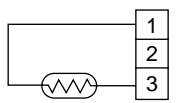
**Photo 10**



# 10 TROUBLESHOOTING

## 10-1. HOW TO CHECK THE PARTS

PLFY-P20VCM-E.TH PLFY-P25VCM-E.TH PLFY-P32VCM-E.TH PLFY-P40VCM-E.TH  
 PLYF-P20VCM-E<sub>1</sub>.TH PLYF-P25VCM-E<sub>1</sub>.TH PLYF-P32VCM-E<sub>1</sub>.TH PLYF-P40VCM-E<sub>1</sub>.TH

Parts name	Check points																																				
Thermistor (TH21) (Room temperature detection) Thermistor (TH22) (Pipe temperature detection/ Liquid) Thermistor (TH23) (Pipe temperature detection/ Gas)	Disconnect the connector then measure the resistance with a tester. (At the ambient temperature 10°C~30°C) <table border="1" style="margin-left: 20px;"> <tr> <td>Normal</td> <td>Abnormal</td> </tr> <tr> <td>4.3kΩ~9.6kΩ</td> <td>Open or short</td> </tr> </table> Refer to the next page for the details.	Normal	Abnormal	4.3kΩ~9.6kΩ	Open or short																																
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4.3kΩ~9.6kΩ	Open or short																																				
Vane motor (MV) 	Measure the resistance between the terminals with a tester. (At the ambient temperature 20°C~30°C) <table border="1" style="margin-left: 20px;"> <tr> <th>Connector</th> <th>Normal</th> <th>Abnormal</th> </tr> <tr> <td>Red — Yellow</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">300Ω</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">Open or short</td> </tr> <tr> <td>Red — Blue</td> </tr> <tr> <td>Red — Orange</td> </tr> <tr> <td>Red — White</td> </tr> </table>	Connector	Normal	Abnormal	Red — Yellow	300Ω	Open or short	Red — Blue	Red — Orange	Red — White																											
Connector	Normal	Abnormal																																			
Red — Yellow	300Ω	Open or short																																			
Red — Blue																																					
Red — Orange																																					
Red — White																																					
Fan motor (MF)  <p>© : Thermal fuse 145°C ± 2°C</p>	Measure the resistance between the terminals with a tester. (Coil wiring temperature 10°C ~ 30°C) <table border="1" style="margin-left: 20px;"> <tr> <th rowspan="2"></th> <th colspan="4">Normal</th> <th rowspan="2">Abnormal</th> </tr> <tr> <th>PLFY-P20VCM-E<sub>(1)</sub></th> <th>PLFY-P25VCM-E<sub>(1)</sub></th> <th>PLFY-P32VCM-E<sub>(1)</sub></th> <th>PLFY-P40VCM-E<sub>(1)</sub></th> </tr> <tr> <td>WHT-BLK</td> <td>302Ω~327Ω</td> <td>390Ω~423Ω</td> <td>378Ω~409Ω</td> <td>312Ω~338Ω</td> <td rowspan="5" style="text-align: center; vertical-align: middle;">Opened or short-circuited</td> </tr> <tr> <td>BLK-BLU</td> <td>91Ω~100Ω</td> <td>82Ω~90Ω</td> <td>157Ω~170Ω</td> <td>137Ω~149Ω</td> </tr> <tr> <td>BLU-YLW</td> <td>38Ω~42Ω</td> <td>28Ω~32Ω</td> <td>44Ω~49Ω</td> <td>44Ω~49Ω</td> </tr> <tr> <td>YLW-RED</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RED-BRN</td> <td>265Ω~288Ω</td> <td>158Ω~172Ω</td> <td>306Ω~332Ω</td> <td>296Ω~321Ω</td> </tr> </table>		Normal				Abnormal	PLFY-P20VCM-E <sub>(1)</sub>	PLFY-P25VCM-E <sub>(1)</sub>	PLFY-P32VCM-E <sub>(1)</sub>	PLFY-P40VCM-E <sub>(1)</sub>	WHT-BLK	302Ω~327Ω	390Ω~423Ω	378Ω~409Ω	312Ω~338Ω	Opened or short-circuited	BLK-BLU	91Ω~100Ω	82Ω~90Ω	157Ω~170Ω	137Ω~149Ω	BLU-YLW	38Ω~42Ω	28Ω~32Ω	44Ω~49Ω	44Ω~49Ω	YLW-RED					RED-BRN	265Ω~288Ω	158Ω~172Ω	306Ω~332Ω	296Ω~321Ω
	Normal				Abnormal																																
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YLW-RED																																					
RED-BRN	265Ω~288Ω	158Ω~172Ω	306Ω~332Ω	296Ω~321Ω																																	
Linear expansion valve (LEV) 	Disconnect the connector then measure the valve resistance with a tester. <table border="1" style="margin-left: 20px;"> <tr> <th colspan="4">Normal</th> <th rowspan="2">Abnormal</th> </tr> <tr> <td>White-Red</td> <td>Yellow-Brown</td> <td>Orange-Red</td> <td>Blue-Brown</td> </tr> <tr> <td colspan="4" style="text-align: center;">150kΩ ±10%</td> <td style="text-align: center;">Open or short</td> </tr> </table> Refer to the next page for the details.	Normal				Abnormal	White-Red	Yellow-Brown	Orange-Red	Blue-Brown	150kΩ ±10%				Open or short																						
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White-Red	Yellow-Brown	Orange-Red	Blue-Brown																																		
150kΩ ±10%				Open or short																																	
Drain pump (DP) 	Measure the resistance between the terminals with a tester. (At the ambient temperature 20°C~30°C) <table border="1" style="margin-left: 20px;"> <tr> <td>Normal</td> <td>Abnormal</td> </tr> <tr> <td>290Ω</td> <td>Open or short</td> </tr> </table>	Normal	Abnormal	290Ω	Open or short																																
Normal	Abnormal																																				
290Ω	Open or short																																				
Drain sensor (DS) 	Measure the resistance after 3 minutes have passed since the power supply was intercepted. (At the ambient temperature 0°C~60°C) <table border="1" style="margin-left: 20px;"> <tr> <td>Normal</td> <td>Abnormal</td> </tr> <tr> <td>0.6kΩ~6.0kΩ</td> <td>Open or short</td> </tr> </table> Refer to the next page for the details.	Normal	Abnormal	0.6kΩ~6.0kΩ	Open or short																																
Normal	Abnormal																																				
0.6kΩ~6.0kΩ	Open or short																																				

<Thermistor characteristic graph>

Thermistor for lower temperature

- Thermistor (TH21)  
(Room temperature detection)
- Thermistor (TH22)  
(Pipe temperature detection/ Liquid)
- Thermistor (TH23)  
(Pipe temperature detection/ Gas)

Thermistor  $R_0=15k\Omega \pm 3\%$   
Fixed number of  $B=3480K \pm 2\%$

$$R_t = 15 \exp \left\{ 3480 \left( \frac{1}{273+t} - \frac{1}{273} \right) \right\}$$

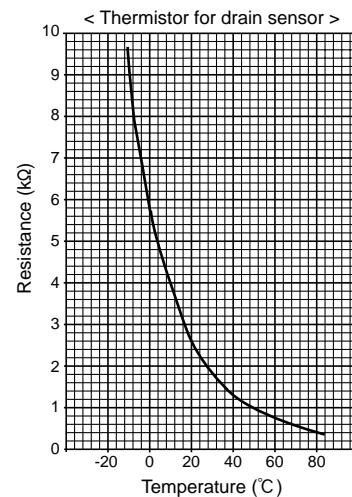
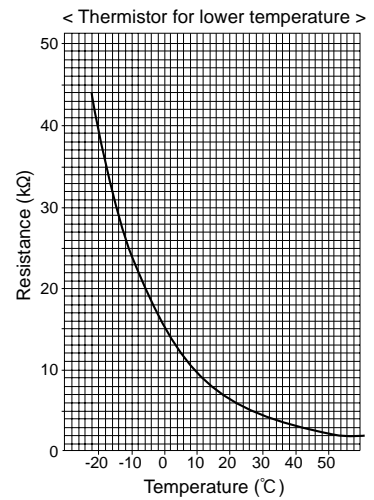
0°C	15kΩ
10°C	9.6kΩ
20°C	6.3kΩ
25°C	5.4kΩ
30°C	4.3kΩ
40°C	3.0kΩ

Thermistor for drain sensor

Thermistor  $R_0=6.0k\Omega \pm 5\%$   
Fixed number of  $B=3390K \pm 2\%$

$$R_t = 6 \exp \left\{ 3390 \left( \frac{1}{273+t} - \frac{1}{273} \right) \right\}$$

0°C	6.0kΩ
10°C	3.9kΩ
20°C	2.6kΩ
25°C	2.2kΩ
30°C	1.8kΩ
40°C	1.3kΩ
60°C	0.6kΩ

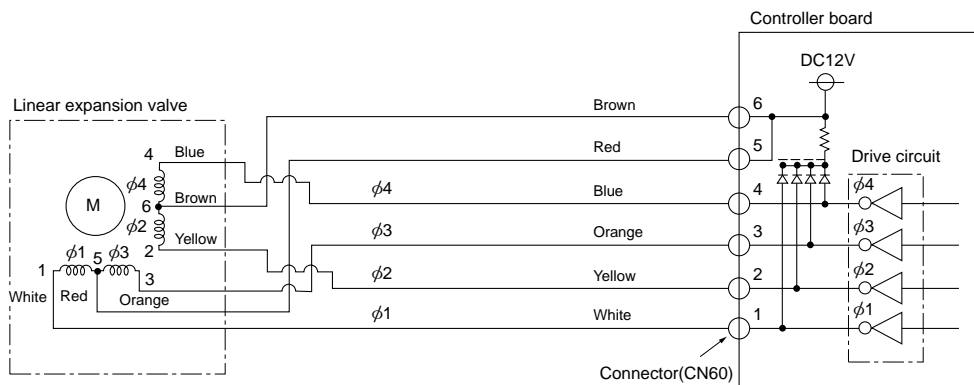


Linear expansion valve

① Operation summary of the linear expansion valve

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

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



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

### <Output pulse signal and the valve operation>

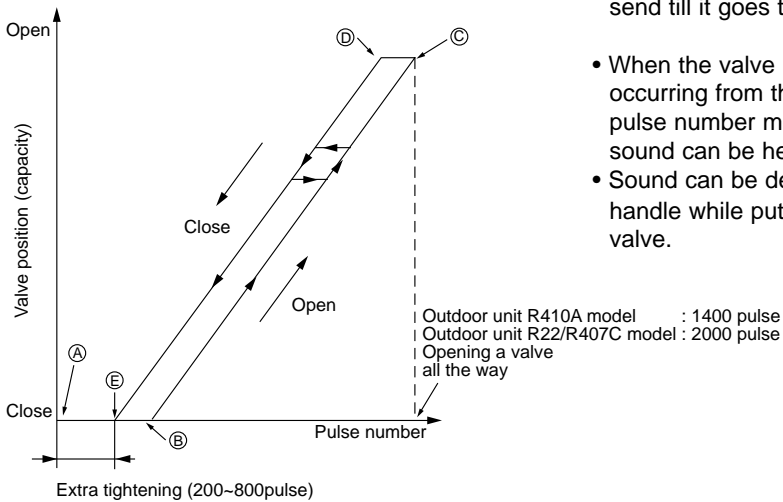
Output (Phase)	Output			
	1	2	3	4
$\phi 1$	ON	OFF	OFF	ON
$\phi 2$	ON	ON	OFF	OFF
$\phi 3$	OFF	ON	ON	OFF
$\phi 4$	OFF	OFF	ON	ON

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

The output pulse shifts in above order.

- When linear expansion valve operation stops, all output phase become OFF.
- At phase interruption or when phase does not shift in order, motor does not rotate smoothly and motor will lock and vibrate.

#### ② Linear expansion valve operation



- When the switch is turned on, 2200 pulse closing valve signal will be send till it goes to point A in order to define the valve position.
- When the valve moves smoothly, there is no sound or vibration occurring from the linear expansion valves : however, when the pulse number moves from E to A or when the valve is locked, more sound can be heard than in a normal situation.
- Sound can be detected by placing the ear against the screw driver handle while putting the screw driver tip to the linear expansion valve.


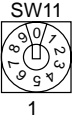




#### ③ Troubleshooting

Symptom	Check points	Countermeasures
Operation circuit failure of the micro processor	Disconnect the connector on the controller board, then connect LED for checking.  1kΩ LED	Exchange the indoor controller board at drive circuit failure.
Linear expansion valve mechanism is locked.	Motor will idle and make a ticking noise when the motor is operated while the linear expansion valve is locked. This ticking sound is the sign of the abnormality.	Exchange the linear expansion valve.
Short or breakage of the motor coil of the linear expansion valve	Measure the resistance between each coil (white-red, yellow-brown, orange-red, blue-brown) with a tester. It is normal if the resistance is in the range of 150Ω ±10%.	Exchange the linear expansion valve.
Valve doesn't close completely.	To check the linear expansion valve, operate the indoor unit in fan mode and at the same time operate other indoor units in cooling mode, then check the pipe temperature <liquid pipe temperature> of the indoor unit by the outdoor multi controller board operation monitor. During fan operation, linear expansion valve is closed completely and if there is any leaking, detecting temperature of the thermistor will go lower. If the detected temperature is much lower than the temperature indicated in the remote controller, it means the valve is not closed all the way. It is not necessary to exchange the linear expansion valve, if the leakage is small and not affecting normal operation.  Thermistor (Liquid pipe) Linear expansion valve	If large amount of refrigerant is leaked, exchange the linear expansion valve.
Wrong connection of the connector or contact failure	Check the color of lead wire and missing terminal of the connector.	Disconnect the connector at the controller board, then check the continuity.

## 10-2. FUNCTION OF DIP SWITCH

Switch	Pole	Function	Operation by switch		Effective timing	Remarks													
			ON	OFF															
SW1 Function Selection	1	Thermistor <Room temperature detection> position	Built-in remote controller	Indoor unit	Under suspension	<div style="border: 1px solid black; padding: 2px;">Indoor controller board</div> <p style="text-align: center;">&lt;Initial setting&gt;</p> <p style="text-align: center;">ON OFF 1 2 3 4 5 6 7 8 9 10</p>													
	2	Filter clogging detection	Provided	Not provided															
	3	Filter cleaning	2,500h	100h															
	4	Fresh air intake	Effective	Not effective															
	5	Remote indication switching	Thermo ON signal indication	Fan output indication															
	6	Humidifier control	Fan operation at Heating mode	Thermo ON operation at heating mode															
	7	Air flow set in case of Heat thermo OFF	Low *3	Extra low *3															
	8		Setting air flow *3	Depends on SW1-7															
	9	Auto restart function	Effective	Not effective															
	10	Power ON/OFF	Effective	Not effective															
SW2 Capacity code setting	1~6	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Capacity</th> <th>SW 2</th> <th>Capacity</th> <th>SW 2</th> </tr> </thead> <tbody> <tr> <td>P20</td> <td>ON OFF </td> <td>P32</td> <td>ON OFF </td> </tr> <tr> <td>P25</td> <td>ON OFF </td> <td>P40</td> <td>ON OFF </td> </tr> </tbody> </table>				Capacity	SW 2	Capacity	SW 2	P20	ON OFF 	P32	ON OFF 	P25	ON OFF 	P40	ON OFF 	Before power supply ON	<div style="border: 1px solid black; padding: 2px;">Indoor controller board</div> <p style="text-align: center;">&lt;Initial setting&gt;</p> <p style="text-align: center;">Set for each capacity.</p>
		Capacity	SW 2	Capacity	SW 2														
		P20	ON OFF 	P32	ON OFF 														
		P25	ON OFF 	P40	ON OFF 														
1	Heat pump / Cooling only	Cooling only	Heat pump																
2	Louver	Available	Not available																
3	Vane	Available	Not available																
SW3 Function setting	4	Vane swing function	Available	Not available	Under suspension	<div style="border: 1px solid black; padding: 2px;">Indoor controller board</div> <p style="text-align: center;">Set while the unit is off.</p> <p style="text-align: center;">&lt;Initial setting&gt;</p> <p style="text-align: center;">ON OFF 1 2 3 4 5 6 7 8 9 10</p> <p>Note :</p> <p>*4 At cooling mode, each angle can be used only 1 hour.</p> <p>*5 Do not use SW3-9, 10 as trouble might be caused by the usage condition.</p> <p>*6 Second setting is same as first setting.</p>													
	5	Vane horizontal angle	Second setting *6	First setting															
	6	Vane cooling limit angle setting *4	Horizontal angle	Down B, C															
	7	Indoor linear expansion valve opening	Effective	Not effective															
	8	Heat 4degrees up	Not effective	Effective															
	9	Superheat setting temperature *5	—	—															
	10	Sub cool setting temperature *5	—	—															
SW4 Unit Selection	1~5	In case of replacing the indoor controller board, make sure to set the switch to the initial setting, which is shown below. <div style="text-align: center;"> <p style="text-align: center;">ON OFF 1 2 3 4 5</p> </div>			Before power supply ON	<div style="border: 1px solid black; padding: 2px;">Indoor controller board</div>													



	Pole	Operation by switch	Effective timing	Remarks
SW11 1st digit address setting SW12 2nd digit address setting	Rotary switch	  <p>Address setting should be done when M-NET remote controller is being used.</p>	Before power supply ON	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 10px;">Indoor controller board</div> <p>&lt;Initial setting&gt;</p>  
SW14 Connection No. setting	Rotary switch	 <p>This is the switch to be used when the indoor unit is operated with R2 series outdoor unit as a set.</p>		<div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 10px;">Indoor controller board</div> <p>&lt;Initial setting&gt;</p> 

# 10-3. TEST POINT DIAGRAM

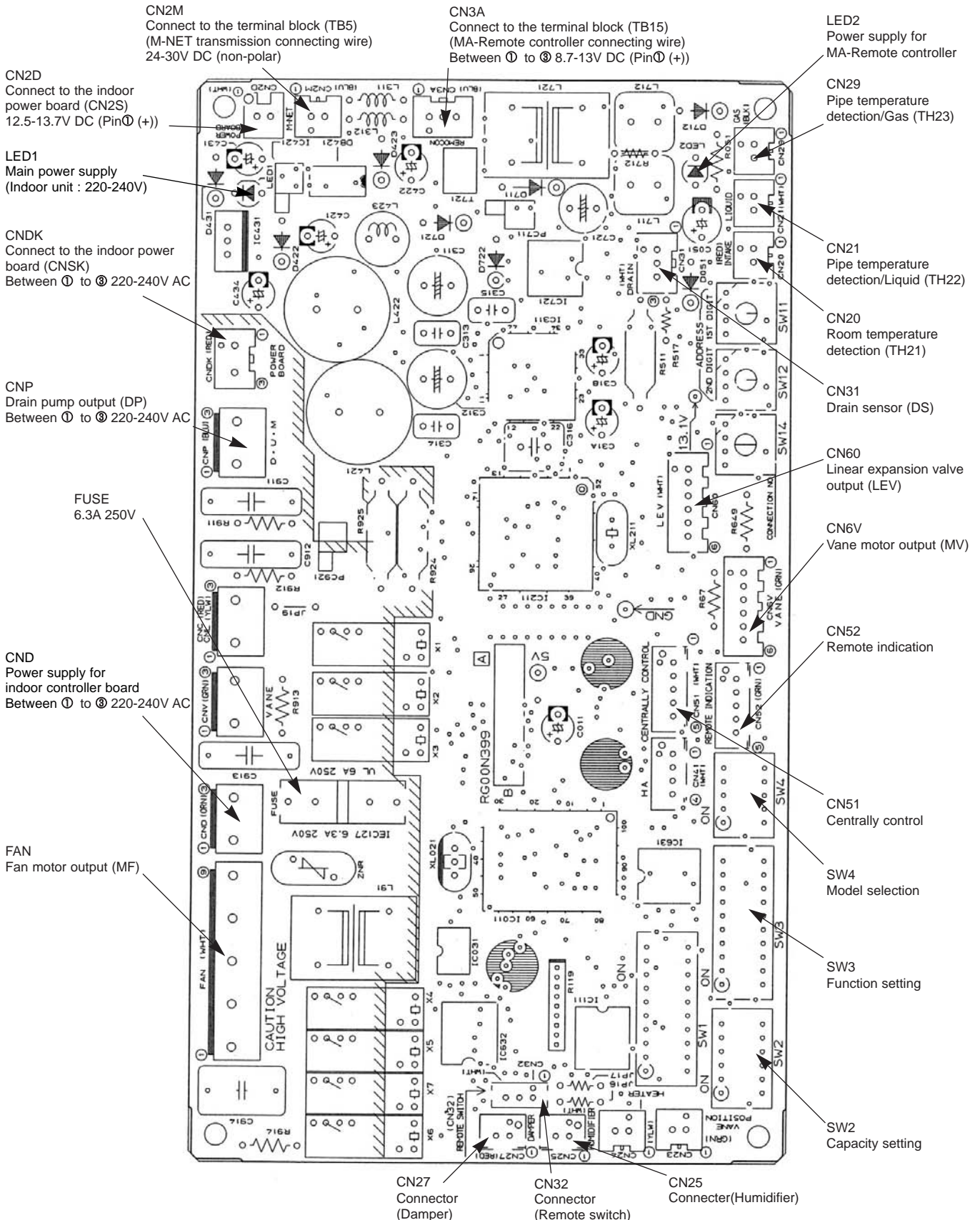
## 10-3-1. Indoor controller board

PLFY-P20VCM-E.TH  
PLFY-P20VCM-E1.TH

PLFY-P25VCM-E.TH  
PLFY-P25VCM-E1.TH

PLFY-P32VCM-E.TH  
PLFY-P32VCM-E1.TH

PLFY-P40VCM-E.TH  
PLFY-P40VCM-E1.TH



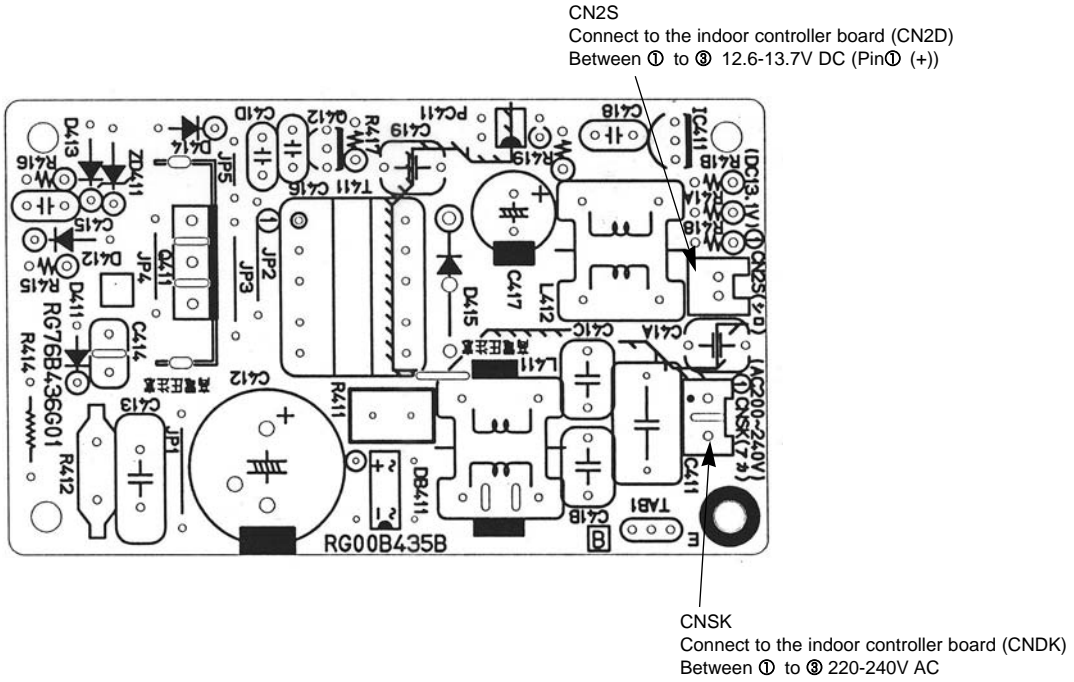
10-3-2. Indoor power board

PLFY-P20VCM-E.TH  
PLFY-P20VCM-E1.TH

PLFY-P25VCM-E.TH  
PLFY-P25VCM-E1.TH

PLFY-P32VCM-E.TH  
PLFY-P32VCM-E1.TH

PLFY-P40VCM-E.TH  
PLFY-P40VCM-E1.TH



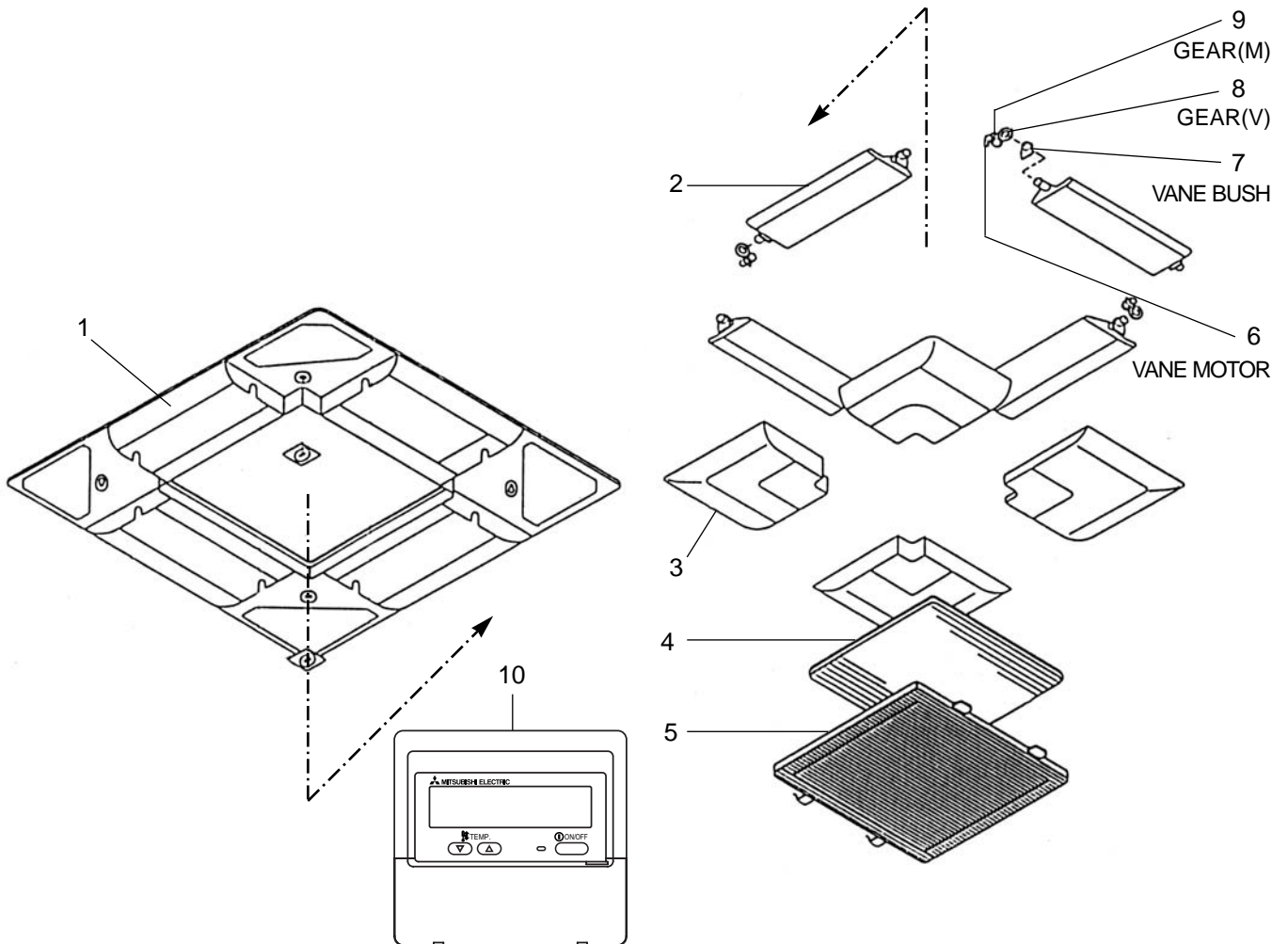


# 11

## PARTS LIST (Non-RoHS compliant)

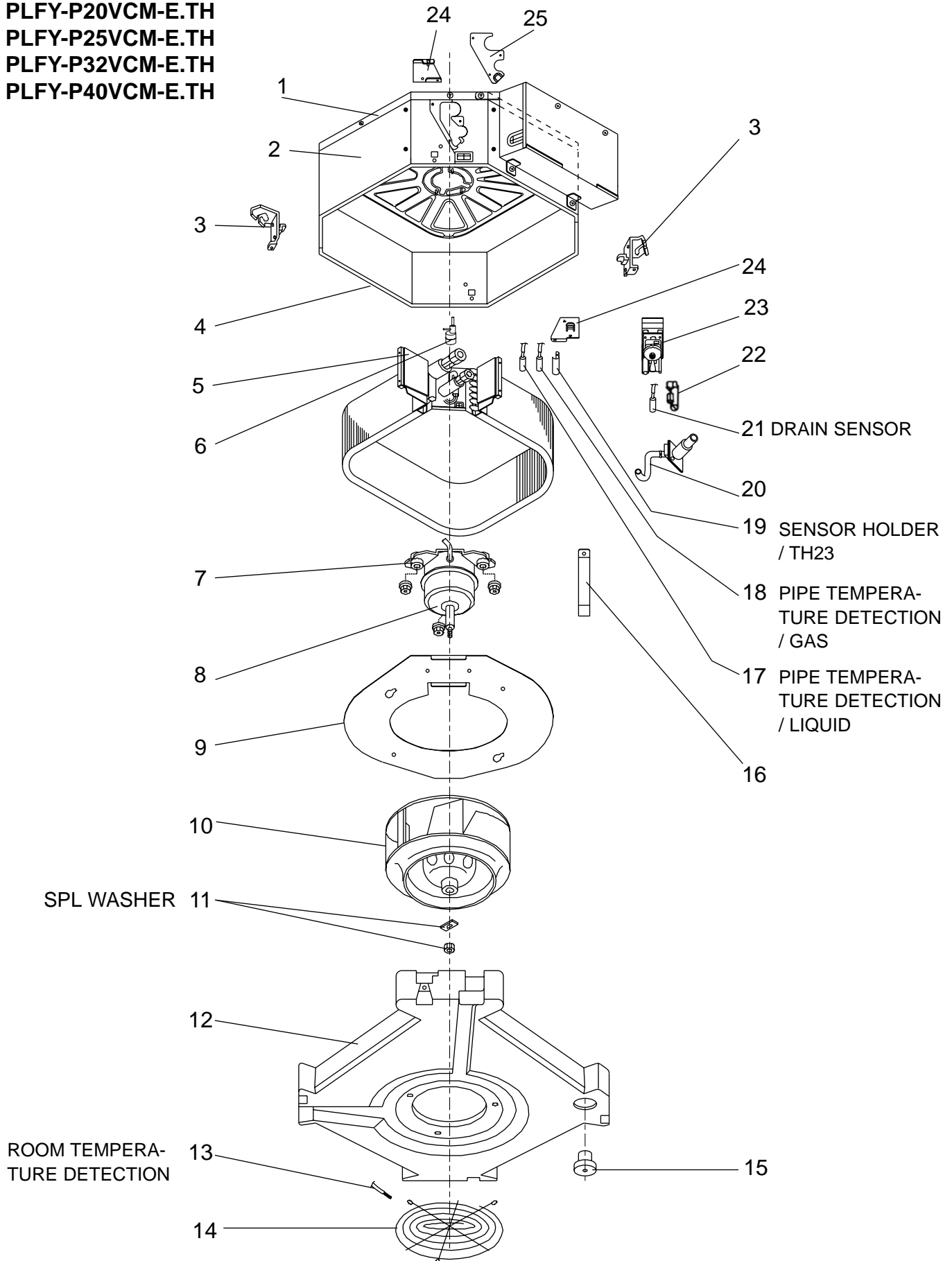
### PANEL PARTS

SLP-2AA(FOR PLFY-P20-P25-P32-P40VCM-E.TH)



No.	Parts No.	Parts name	Specification	Q'ty/set	Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
				SLP-2AA			
1	E07 158 003	AIR OUTLET GRILLE		1	Including H2		
2	E07 103 037	AUTO VANE		4			
3	E07 103 975	CORNER PANEL		4			
4	E07 103 100	AIR FILTER		1			
5	E07 103 010	INTAKE GRILLE		1			
6	E07 103 303	VANE MOTOR		4		MV	
7	E07 103 044	VANE BUSH		8			
8	E07 103 031	GEAR (V)		4			
9	E07 103 032	GEAR (M)		4			
10	-	REMOTE CONTROLLER	PAR-21MAA	1			

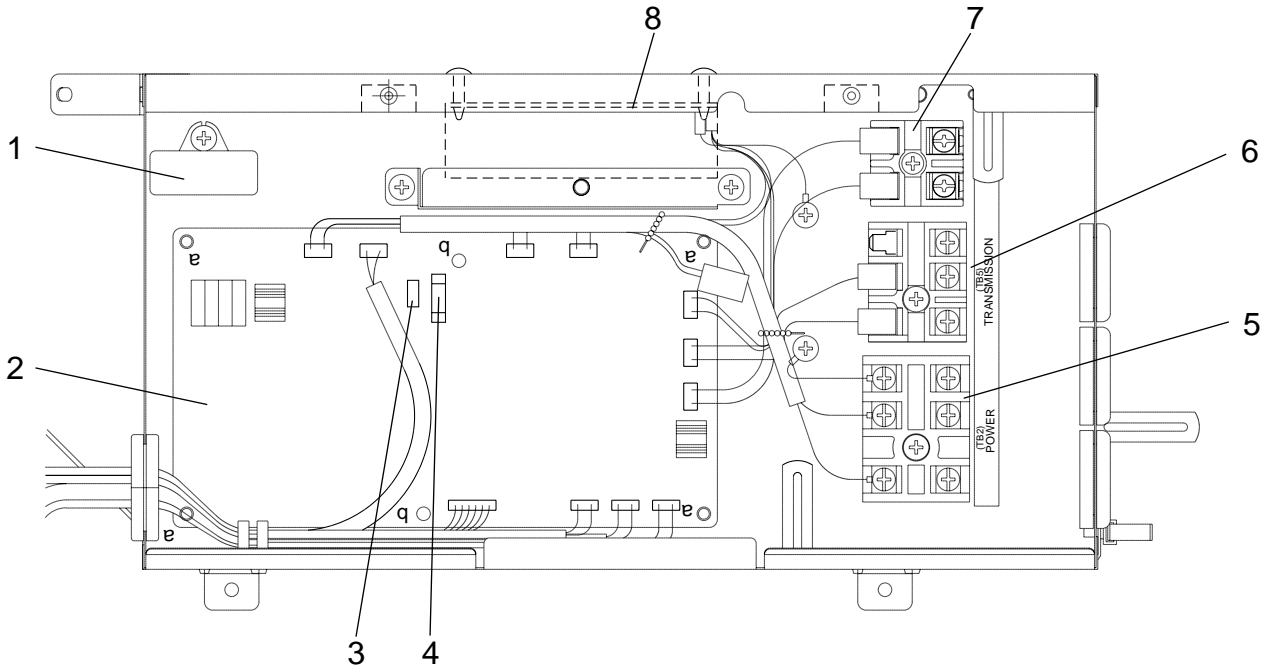
**FUNCTIONAL PARTS**  
**PLFY-P20VCM-E.TH**  
**PLFY-P25VCM-E.TH**  
**PLFY-P32VCM-E.TH**  
**PLFY-P40VCM-E.TH**





No.	Parts No.			Parts name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
						PLFY-						
						P20	P25	P32	P40			
VCM-E.TH												
1	E07	104	290	BASE		1	1	1	1			
2	E07	104	124	DRUM-1		1	1	1	1			
3	E07	104	808	LEG-1		2	2	2	2			
4	E07	105	124	DRUM-2		1	1	1	1			
5	E07	154	620	INDOOR HEAT EXCHANGER		1	1					
	E07	155	620	INDOOR HEAT EXCHANGER				1	1			
6	E07	154	640	LINEAR EXPANSION VALVE		1	1	1	1		LEV	
7	E07	104	105	MOTOR MOUNT		3	3	3	3	3PCS/SET		
8	E07	168	300	INDOOR FAN MOTOR	PK6V11-LF	1					MF	
	E07	162	300	INDOOR FAN MOTOR	PK6V15-LD		1				MF	
	E07	164	300	INDOOR FAN MOTOR	PK6V20-LL			1			MF	
	E07	166	300	INDOOR FAN MOTOR	PK6V20-LM				1		MF	
9	E07	104	816	FLAT PLATE		1	1	1	1			
10	E07	104	502	TURBO FAN		1	1	1	1			
11	E07	104	097	SPL WASHER		1	1	1	1			
12	E07	104	700	DRAIN PAN		1	1	1	1			
13	E07	154	308	ROOM TEMPERATURE DETECTION		1	1	1	1		TH21	
14	E07	104	520	FAN GUARD		1	1	1	1			
15	E07	104	524	DRAIN PLUG		1	1	1	1			
16	E07	104	648	COIL SUPPORT		1	1	1	1			
17	E07	154	307	PIPE TEMPERATURE DETECTION/LIQUID		1	1	1	1		TH22	
18	E07	154	309	PIPE TEMPERATURE DETECTION/GAS		1	1	1	1		TH23	
19	E07	154	241	SENSOR HOLDER/TH23	(TH23)	1	1	1	1			
20	E07	104	702	DRAIN HOSE		1	1	1	1			
21	E07	104	266	DRAIN SENSOR		1	1	1	1		DS	
22	E07	104	241	SENSOR HOLDER	(DS)	1	1	1	1			
23	E07	104	355	DRAIN PUMP		1	1	1	1		DP	
24	E07	104	809	LEG-2		2	2	2	2			
25	E07	154	006	COVER (DRUM)		1	1	1	1			

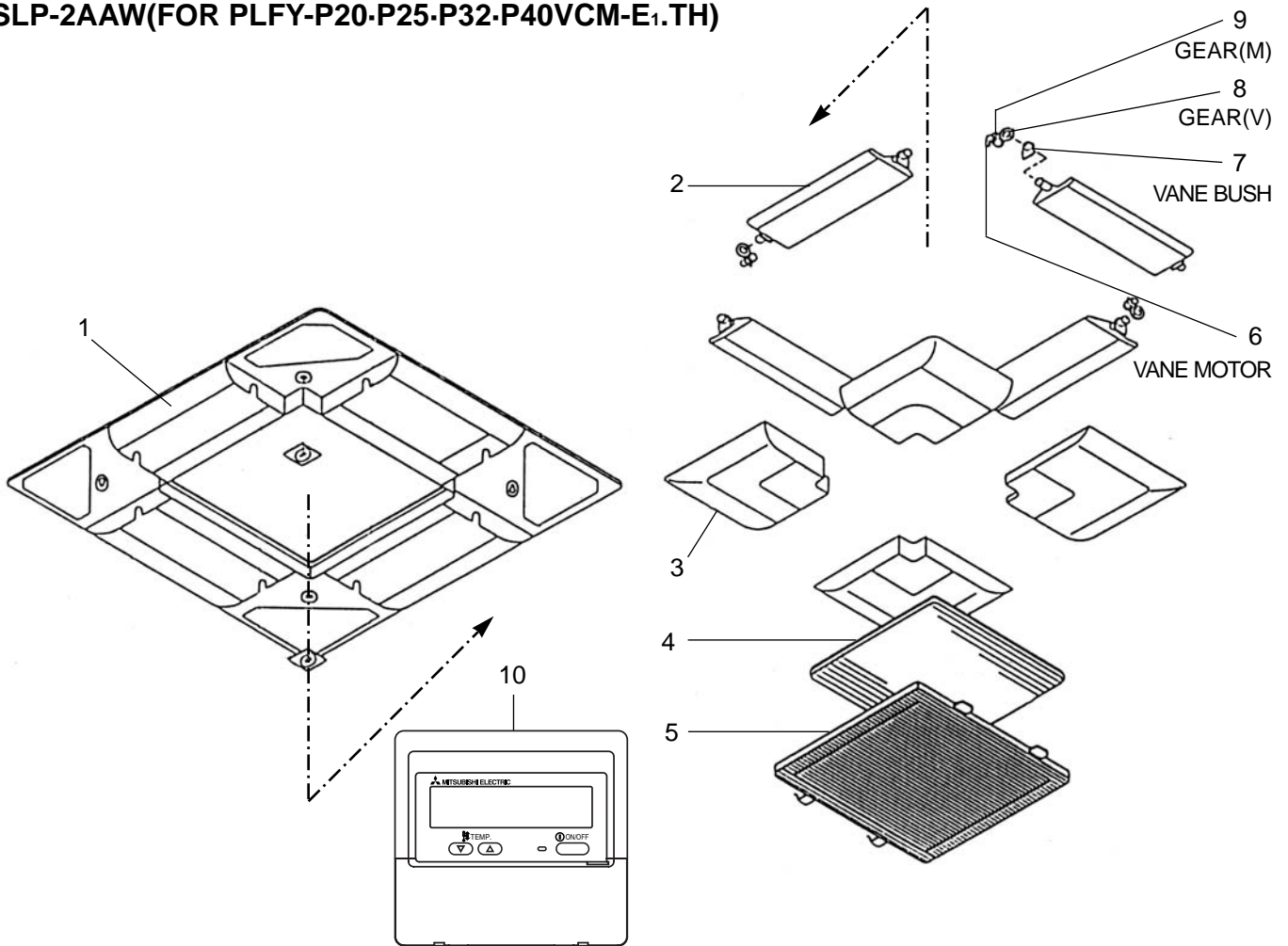
**ELECTRICAL PARTS**  
**PLFY-P20VCM-E.TH**  
**PLFY-P25VCM-E.TH**  
**PLFY-P32VCM-E.TH**  
**PLFY-P40VCM-E.TH**



No.	Parts No.	Parts name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
				PLFY-						
				P20	P25	P32	P40			
1	E07 154 350	CAPACITOR	1.0 $\mu$ F/40VAC	1					C1	
	E02 095 350	CAPACITOR	1.5 $\mu$ F/440VAC		1	1	1			
2	E07 154 447	INDOOR CONTROLLER BOARD		1					I.B	
	E07 155 447	INDOOR CONTROLLER BOARD			1					
	E07 156 447	INDOOR CONTROLLER BOARD				1				
	E07 157 447	INDOOR CONTROLLER BOARD					1			
3	E02 661 385	VARISTOR		1	1	1	1		ZNR	
4	E07 006 382	FUSE	250V 6.3A	1	1	1	1		FUSE	
5	E07 155 375	TERMINAL BLOCK	3P(L, N, $\ominus$ )	1	1	1	1		TB2	
6	E07 154 375	TERMINAL BLOCK	3P(M1, M2, S)	1	1	1	1		TB5	
7	E07 156 375	TERMINAL BLOCK	2P(1, 2)	1	1	1	1		TB15	
8	E07 154 440	INDOOR POWER BOARD		1	1	1	1		P.B	

## PANEL PARTS

SLP-2AA(FOR PLFY-P20-P25-P32-P40VCM-E.TH)

SLP-2AAW(FOR PLFY-P20-P25-P32-P40VCM-E<sub>1</sub>.TH)

No.	RoHS	Parts No.	Parts name	Specification	Q'ty/set		Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
					SLP-				
					2AA	2AAW			
1	G	E17 158 003	AIR OUTLET GRILLE		1		Including H2		
	G	E17 424 003	AIR OUTLET GRILLE			1	Including H2		
2	G	E17 103 037	AUTO VANE		4				
	G	E17 423 037	AUTO VANE			4			
3	G	E17 103 975	CORNER PANEL		4				
	G	E17 423 975	CORNER PANEL			4			
4	G	E17 103 100	AIR FILTER		1	1			
5	G	E17 103 010	INTAKE GRILLE		1				
	G	E17 423 010	INTAKE GRILLE			1			
6	G	E17 103 303	VANE MOTOR		4	4		MV	
7	G	E17 103 044	VANE BUSH		8	8			
8	G	E17 103 031	GEAR (V)		4	4			
9	G	E17 103 032	GEAR (M)		4	4			
10	G	-	REMOTE CONTROLLER	PAR-21MAA	1	1			

**FUNCTIONAL PARTS**

PLFY-P20VCM-E.TH

PLFY-P25VCM-E.TH

PLFY-P32VCM-E.TH

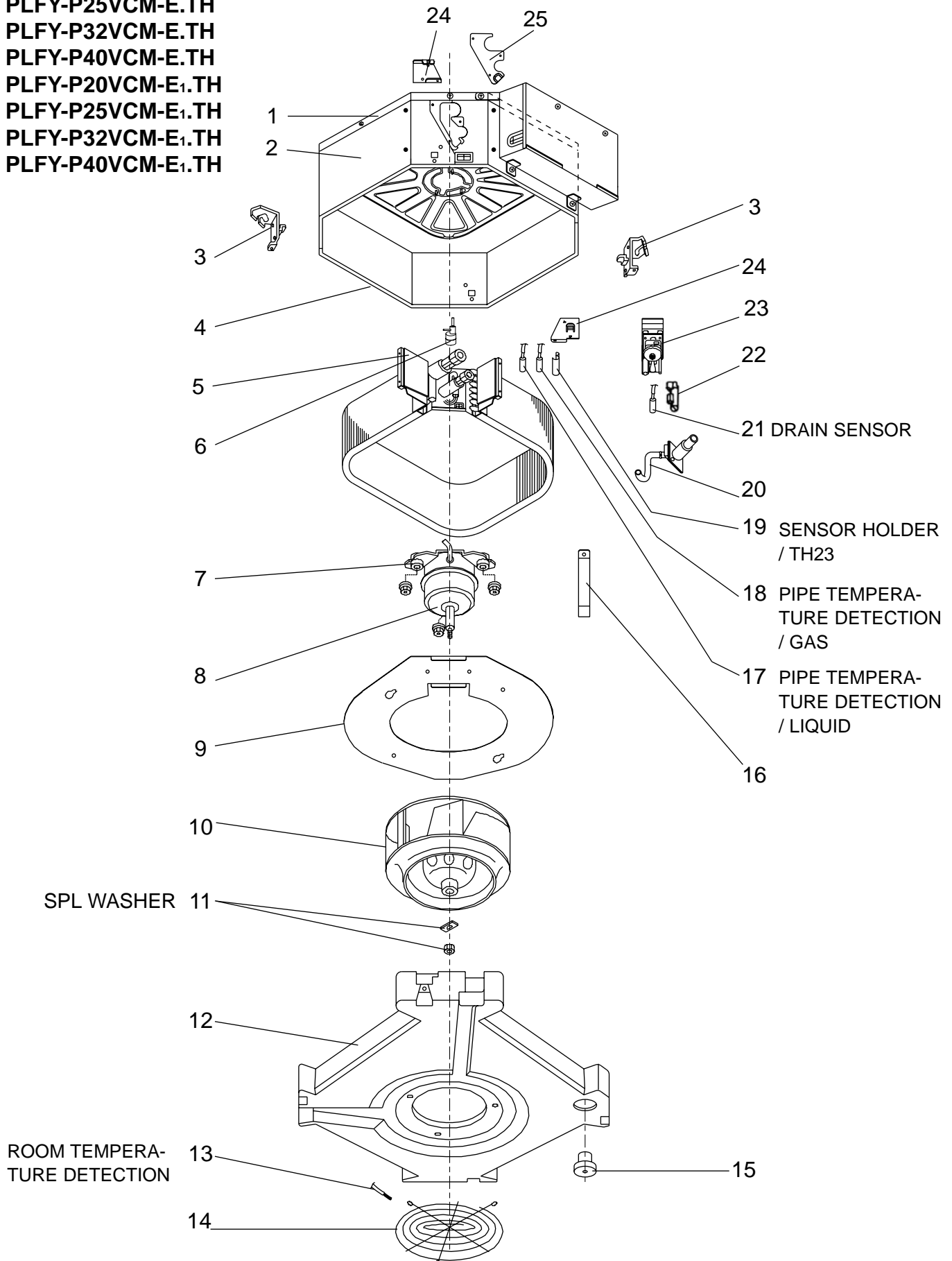
PLFY-P40VCM-E.TH

PLFY-P20VCM-E<sub>1</sub>.TH

PLFY-P25VCM-E<sub>1</sub>.TH

PLFY-P32VCM-E<sub>1</sub>.TH

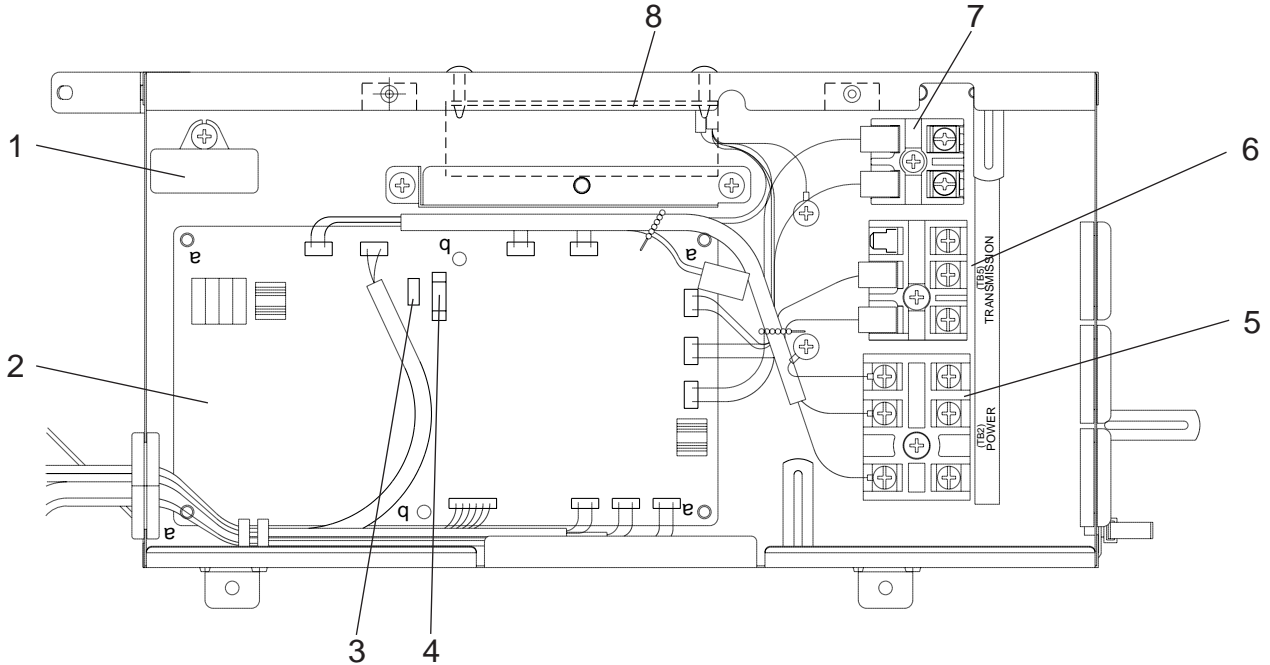
PLFY-P40VCM-E<sub>1</sub>.TH



No.	RoHS	Parts No.			Parts name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
							PLFY-						
							P20	P25	P32	P40			
							VCM-E <sup>(1)</sup> .TH						
1	G	E17	104	290	BASE		1	1	1	1			
2	G	E17	104	124	DRUM-1		1	1	1	1			
3	G	E17	104	808	LEG-1		2	2	2	2			
4	G	E17	105	124	DRUM-2		1	1	1	1			
5	G	E17	154	620	INDOOR HEAT EXCHANGER		1	1					
	G	E17	155	620	INDOOR HEAT EXCHANGER				1	1			
6	G	E17	154	640	LINEAR EXPANSION VALVE		1	1	1	1		LEV	
7	G	E17	104	105	MOTOR MOUNT		3	3	3	3	3PCS/SET		
8	G	E17	168	300	INDOOR FAN MOTOR	PK6V11-LF	1					MF	
	G	E17	162	300	INDOOR FAN MOTOR	PK6V15-LD		1				MF	
	G	E17	164	300	INDOOR FAN MOTOR	PK6V20-LL			1			MF	
	G	E17	166	300	INDOOR FAN MOTOR	PK6V20-LM				1		MF	
9	G	E17	104	816	FLAT PLATE		1	1	1	1			
10	G	E17	104	502	TURBO FAN		1	1	1	1			
11	G	E17	104	097	SPL WASHER		1	1	1	1			
12	G	E17	104	700	DRAIN PAN		1	1	1	1			
13	G	E17	154	308	ROOM TEMPERATURE DETECTION		1	1	1	1		TH21	
14	G	E17	104	520	FAN GUARD		1	1	1	1			
15	G	E17	104	524	DRAIN PLUG		1	1	1	1			
16	G	E17	104	648	COIL SUPPORT		1	1	1	1			
17	G	E17	154	307	PIPE TEMPERATURE DETECTION/LIQUID		1	1	1	1		TH22	
18	G	E17	154	309	PIPE TEMPERATURE DETECTION/GAS		1	1	1	1		TH23	
19	G	E17	154	241	SENSOR HOLDER/TH23	(TH23)	1	1	1	1			
20	G	E17	104	702	DRAIN HOSE		1	1	1	1			
21	G	E17	104	266	DRAIN SENSOR		1	1	1	1		DS	
22	G	E17	104	241	SENSOR HOLDER	(DS)	1	1	1	1			
23	G	E17	104	355	DRAIN PUMP		1	1	1	1		DP	
24	G	E17	104	809	LEG-2		2	2	2	2			
25	G	E17	154	006	COVER (DRUM)		1	1	1	1			

## ELECTRICAL PARTS

PLFY-P20VCM-E.TH PLYF-P25VCM-E.TH PLYF-P32VCM-E.TH PLYF-P40VCM-E.TH  
 PLYF-P20VCM-E<sub>1</sub>.TH PLYF-P25VCM-E<sub>1</sub>.TH PLYF-P32VCM-E<sub>1</sub>.TH PLYF-P40VCM-E<sub>1</sub>.TH



No.	RoHS	Parts No.	Parts name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
					PLFY-						
					P20	P25	P32	P40			
1	G	E17 154 350	CAPACITOR	1.0 $\mu$ F / 40VAC	1					C1	
	G	E12 095 350	CAPACITOR	1.5 $\mu$ F / 440VAC		1	1	1		C1	
2	G	E17 154 447	INDOOR CONTROLLER BOARD		1					I.B	
	G	E17 155 447	INDOOR CONTROLLER BOARD			1				I.B	
	G	E17 156 447	INDOOR CONTROLLER BOARD				1			I.B	
	G	E17 157 447	INDOOR CONTROLLER BOARD					1		I.B	
3	G	E12 661 385	VARISTOR		1	1	1	1		ZNR	
4	G	E17 006 382	FUSE	250V 6.3A	1	1	1	1		FUSE	
5	G	E17 155 375	TERMINAL BLOCK	3P(L, N, $\oplus$ )	1	1	1	1		TB2	
6	G	E17 154 375	TERMINAL BLOCK	3P(M1, M2, S)	1	1	1	1		TB5	
7	G	E17 156 375	TERMINAL BLOCK	2P(1, 2)	1	1	1	1		TB15	
8	G	E17 154 440	INDOOR POWER BOARD		1	1	1	1		P.B	

**MITSUBISHI ELECTRIC CORPORATION**

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