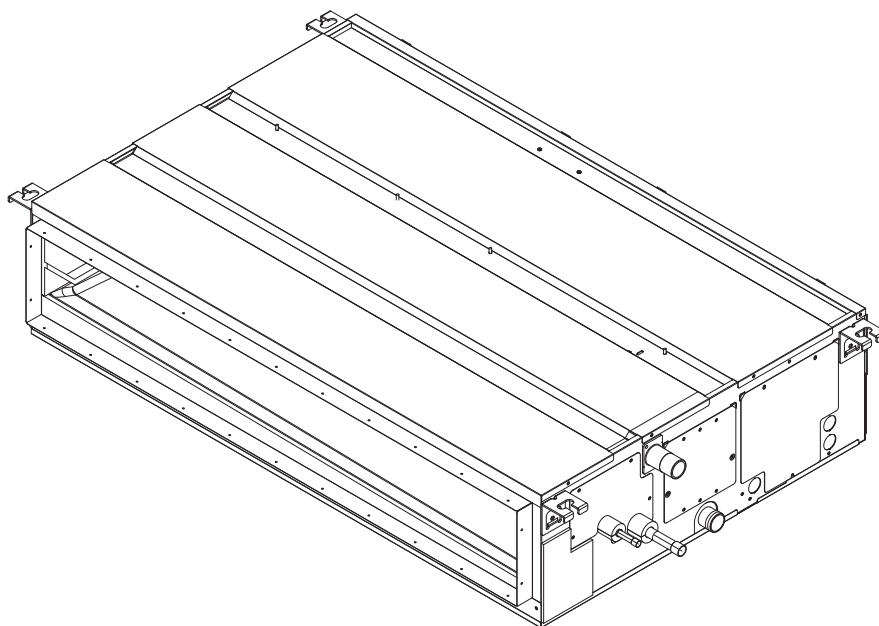


**2021**  
**R410A**

# TECHNICAL & SERVICE MANUAL

Models

PEFY-P20VMA(L)-E4	PEFY-P71VMA(L)-E4
PEFY-P25VMA(L)-E4	PEFY-P80VMA(L)-E4
PEFY-P32VMA(L)-E4	PEFY-P100VMA(L)-E4
PEFY-P40VMA(L)-E4	PEFY-P125VMA(L)-E4
PEFY-P50VMA(L)-E4	PEFY-P140VMA(L)-E4
PEFY-P63VMA(L)-E4	



# CITY MULTI

# Safety Precautions

## 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.

### Symbols used in the text

#### **WARNING**

Describes precautions that should be observed to prevent danger of injury or death to the user.

#### **CAUTION**

Describes precautions that should be observed to prevent damage to the unit.

### Symbols used in the illustrations



Indicates an action that must be avoided.



Indicates that important instructions must be followed.



Indicates a part which must be grounded.



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



Beware of electric shock (This symbol is displayed on the main unit label.) <Color: yellow>

#### **WARNING**

Carefully read the labels affixed to the main unit.

#### **WARNING**

- Ask the dealer or an authorized technician to install the air conditioner.**
  - Improper installation by the user may result in water leakage, electric shock, or fire.
- Install the air unit at a place that can withstand its weight.**
  - Inadequate strength may cause the unit to fall down, resulting in injuries.
- Use the specified cables for wiring. Make the connections securely so that the outside force of the cable is not applied to the terminals.**
  - Inadequate connection and fastening may generate heat and cause a fire.
- Prepare for typhoons and other strong winds and earthquakes and install the unit at the specified place.**
  - Improper installation may cause the unit to topple and result in injury.
- Always use an air cleaner, humidifier, electric heater, and other accessories specified by Mitsubishi Electric.**
  - Ask an authorized technician to install the accessories. Improper installation by the user may result in water leakage, electric shock, or fire.
- Never repair the unit. If the air conditioner must be repaired, consult the dealer.**
  - If the unit is repaired improperly, water leakage, electric shock, or fire may result.
- Do not touch the heat exchanger fins.**
  - Improper handling may result in injury.
- When handling this product, always wear protective equipment.**  
**EG: Gloves, full arm protection namely boiler suit, and safety glasses.**
  - Improper handling may result in injury.
- If refrigerant gas leaks during installation work, ventilate the room.**
  - If the refrigerant gas comes into contact with a flame, poisonous gases will be released.
- Install the air conditioner according to this Installation Manual.**
  - If the unit is installed improperly, water leakage, electric shock, or fire may result.
- Have all electric work done by a licensed electrician according to “Electric Facility Engineering Standard” and “Interior Wire Regulations” and the instructions given in this manual and always use a special circuit.**
  - If the power source capacity is inadequate or electric work is performed improperly, electric shock and fire may result.

- Keep the electric parts away from water (washing water etc.).**

- It might result in electric shock, catching fire or smoke.

- Securely install the outdoor unit terminal cover (panel).**

- If the terminal cover (panel) is not installed properly, dust or water may enter the outdoor unit and fire or electric shock may result.

- 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.

- If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit even if the refrigerant should leak.**

- Consult the dealer regarding the appropriate measures to prevent the safety limit from being exceeded. Should the refrigerant leak and cause the safety limit to be exceeded, hazards due to lack of oxygen in the room could result.

- When moving and reinstalling the air conditioner, consult the dealer or an authorized technician.**

- If the air conditioner is installed improperly, water leakage, electric shock, or fire may result.

- After completing installation work, make sure that refrigerant gas is not leaking.**

- If the refrigerant gas leaks and is exposed to a fan heater, stove, oven, or other heat source, it may generate noxious gases.

- Do not reconstruct or change the settings of the protection devices.**

- If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Mitsubishi Electric are used, fire or explosion may result.

- To dispose of this product, consult your dealer.**

- Do not use a leak detection additive.**

- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.**

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**

- Children should be supervised to ensure that they do not play with the appliance.**

- The installer and system specialist shall secure safety against leakage according to local regulation or standards.**

- The instructions in this manual may be applicable if local regulation are not available.

- Pay a special attention to the place, such as a basement, etc. where refrigeration gas can stay, since refrigeration is heavier than the air.**

- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.**

### Precautions for devices that use R410A refrigerant

#### **CAUTION**

- Do not use the existing refrigerant piping.**

- The old refrigerant and refrigerant oil in the existing piping contains a large amount of chlorine which may cause the refrigerant oil of the new unit to deteriorate.

- Use refrigerant piping made of C1220 (Cu-DHP) phosphorus deoxidized copper as specified in the JIS H3300 “Copper and copper alloy seamless pipes and tubes”. In addition, be sure that the inner and outer surfaces of the pipes are clean and free of hazardous sulphur, oxides, dust/dirt, shaving particles, oils, moisture, or any other contaminant.**

- Contaminants on the inside of the refrigerant piping may cause the refrigerant residual oil to deteriorate.

- Store the piping to be used during installation indoors and keep both ends of the piping 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 liquid refrigerant to fill 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.

•**Do not use a refrigerant other than R410A.**

- If another refrigerant (R22, etc.) is used, the chlorine in the refrigerant may cause the refrigerator oil to deteriorate.

•**Use a vacuum pump with a reverse flow check valve.**

- The vacuum pump oil may flow back into the refrigerant cycle and cause the refrigerator oil to deteriorate.

•**Do not use the following tools that are used with conventional refrigerants. (Gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, refrigerant recovery equipment)**

- If the conventional refrigerant and refrigerator oil are mixed in the R410A, the refrigerant may deteriorate.
- If water is mixed in the R410A, the refrigerator oil may deteriorate.
- Since R410A does not contain any chlorine, gas leak detectors for conventional refrigerants will not react to it.

•**Do not use a charging cylinder.**

- Using a charging cylinder may cause the refrigerant to deteriorate.

•**Be especially careful when managing the tools.**

- If dust, dirt, or water gets in the refrigerant cycle, the refrigerant may deteriorate.

# CONTENTS

---

## I Features

[1] Features.....	1
-------------------	---

## II Components and Functions

[1] Components and Functions.....	2
-----------------------------------	---

## III Specifications

[1] Specifications.....	5
1.Specifications .....	5
2.Electrical component specifications.....	8

## IV Outlines and Dimensions

[1] Outlines and Dimensions.....	10
[2] Service Space.....	12

## V Wiring Diagram

[1] Wiring Diagram .....	14
--------------------------	----

## VI Refrigerant System Diagram

[1] Refrigerant system diagram.....	15
-------------------------------------	----

## VII Troubleshooting

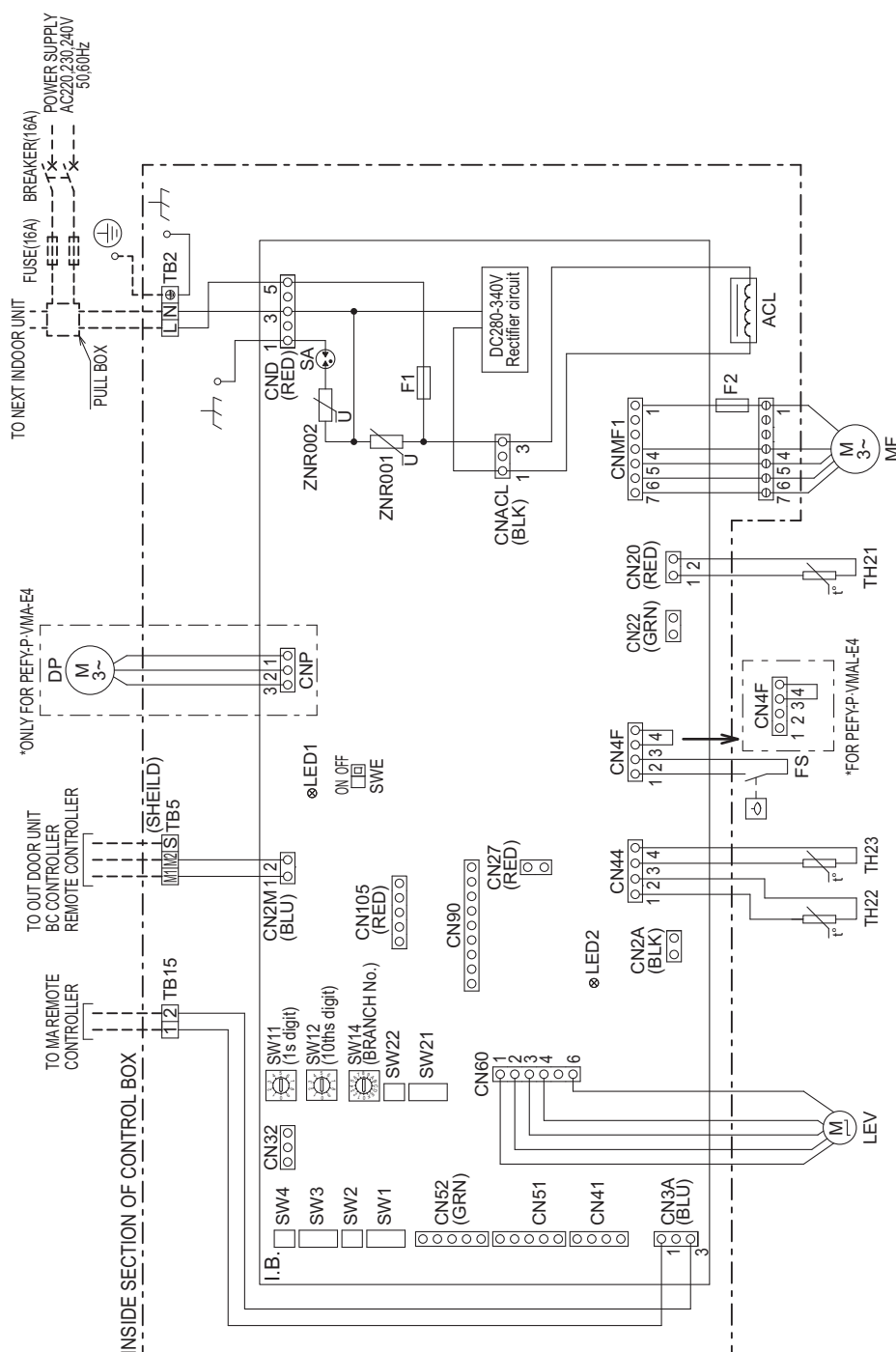
[1] Troubleshooting .....	16
1.Check methods.....	16
2.DC fan motor (fan motor/indoor control board).....	20
3.Address switch setting .....	21
4.Voltage test points on the control board .....	22
5.Dipswitch setting (Factory setting).....	23

## VIII Disassembly Procedure

[1] Disassembly Procedure .....	26
1.Control box .....	26
2.Thermistor (Intake air) .....	27
3.Drain pump .....	27
4.Drainpan .....	28
5.Thermistor (Gas pipe) (Liquid pipe).....	29
6.Fan and fan motor .....	30
7.Heat exchanger .....	31

### [1] Wiring Diagram

1. PEFY-P20, 25, 32, 40, 50, 63, 71, 80, 100, 125, 140VMA(L)-E4



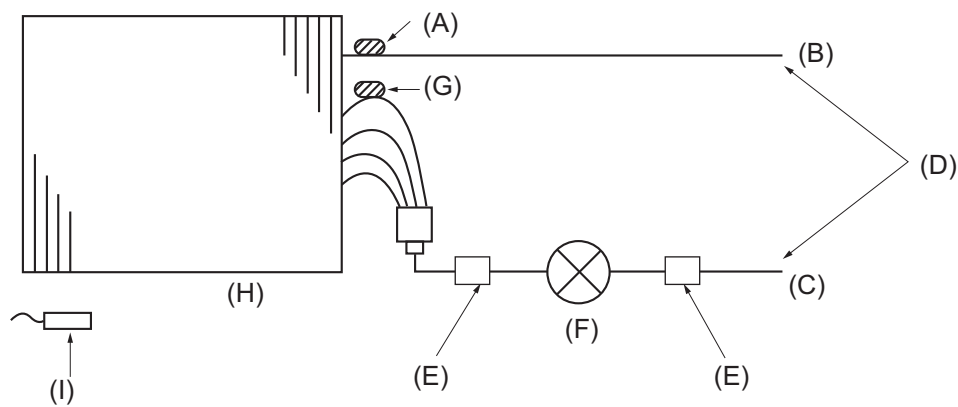
NOTE)1. Symbols used in wiring diagram are

- Terminal,  
 Connector, (Heavy dotted line): Field wiring,
2. Have all electric work done by a licensed electrician according to the local regulations.
  3. Earth leakage circuit breaker should be set up on the wiring of the power supply.
  4. To perform a drainage test for the drain pump turn on the SWE on the control board while the indoor unit is being powered.  
• Be sure to turn off the SWE after completing a drainage test or test run.

SYMBOL EXPLANATION

SYMBOL				SYMBOL				SYMBOL			
SYMBOL		NAME		SYMBOL		NAME		SYMBOL		NAME	
ACL	AC reactor(Power factor improvement)			I.B.	Indoor controller board				I.B.	Indoor controller board	
DP	Drain Pump			SA	Arrester				SW1	Switch (for mode selection)	
F2	Fuse DC400V 3A			F1	Fuse AC250V 6.3A				SW2	Switch (for capacity code)	
FS	Float switch			ZNR001002	Varistor				SW3	Switch (for mode selection)	
MF	Fan Motor			CN2A	Connector (0-10V Analog Input)				SW4	Switch (for model selection)	
LEV	Linear expansion valve			CN22	Connector (Optional Thermistor)				SW11	Switch (1s digit address set)	
TB2	Power source terminal block			CN27	Connector (Dampner)				SW12	Switch (10ths digit address set)	
TB5	Transmission terminal block			CN32	Connector (Remote switch)				SW14	Switch (BRANCH No.)	
TB15	Transmission terminal block			CN41	Connector (HA terminal-A)				SW21	Switch (for static pressure selection)	
TH21	Thermistor (inlet air temp. detection)			CN51	Connector (Centrally control)				SW22	Switch (Wireless pair No.)	
TH22	Thermistor (piping temp. detection/liquid)			CN52	Connector (Remote indication)				SWE	Connector (emergency operation)	
TH23	Thermistor (piping temp. detection/gas)			CN90	Connector (Wireless)				LED1	LED(Power supply)	
				CN105	Connector (IT terminal)				LED2	LED(Remote controller supply)	

[1] Refrigerant system diagram



- (A) Gas pipe thermistor TH23
- (B) Gas pipe
- (C) Liquid pipe
- (D) Brazed connections
- (E) Strainer (#100 mesh)
- (F) Linear expansion valve
- (G) Liquid pipe thermistor TH22
- (H) Heat exchanger
- (I) Room temperature thermistor TH21

Capacity	PEFY- P20, 25, 32, 40, 50VMA(L)-E4	PEFY- P63, 71, 80, 100, 125, 140VMA(L)-E4
Gas pipe	ø12.7 [1/2]	ø15.88 [5/8]
Liquid pipe	ø6.35 [1/4]	ø9.52 [3/8]

## [1] Troubleshooting

### 1. Check methods

#### 1. Component and check points

##### (1) Thermistor

- Room temperature thermistor (TH21)
- Liquid pipe thermistor (TH22)
- Gas pipe thermistor (TH23)

Disconnect the connector and measure the resistance between terminals with a tester.  
(Ambient temperature 10°C - 30°C)

Normal	Abnormal
4.3kΩ - 9.6kΩ	Open or short

(Refer to the thermistor characteristic graph below.)

##### 1) Thermistor characteristic graph

###### Low-temperature thermistor

- Room temperature thermistor (TH21)
- Liquid pipe thermistor (TH22)
- Gas pipe thermistor (TH23)
- Drain sensor (DS)

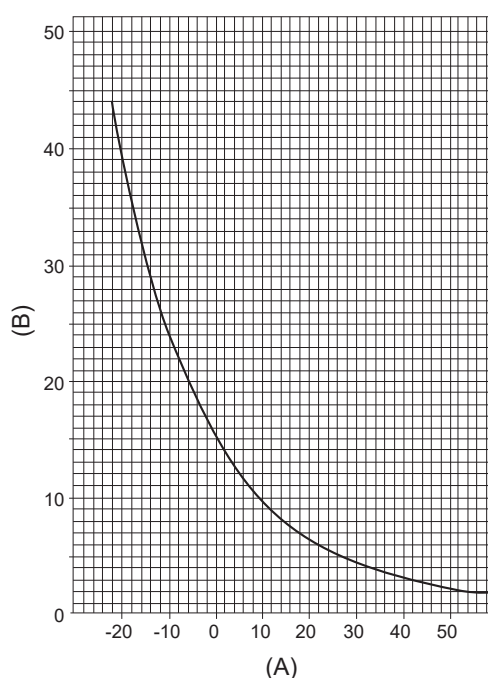
- Thermistor  $R_0 = 15 \text{ k}\Omega \pm 3\%$
- Multiplier of B =  $3480 \text{ k}\Omega \pm 2\%$

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

0°C	15kΩ
10°C	9.6kΩ
20°C	6.3kΩ
25°C	5.2kΩ
30°C	4.3kΩ
40°C	3.0kΩ

(A) Temperature (°C)

(B) Resistance (kΩ)


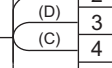


##### (2) Fan motor (CNMF)

Refer to the page on "DC fan motor (fan motor/indoor control board)."

##### (3) Linear expansion valve

Disconnect the connector, and measure the resistance between terminals with a tester.  
Refer to the next page for details.

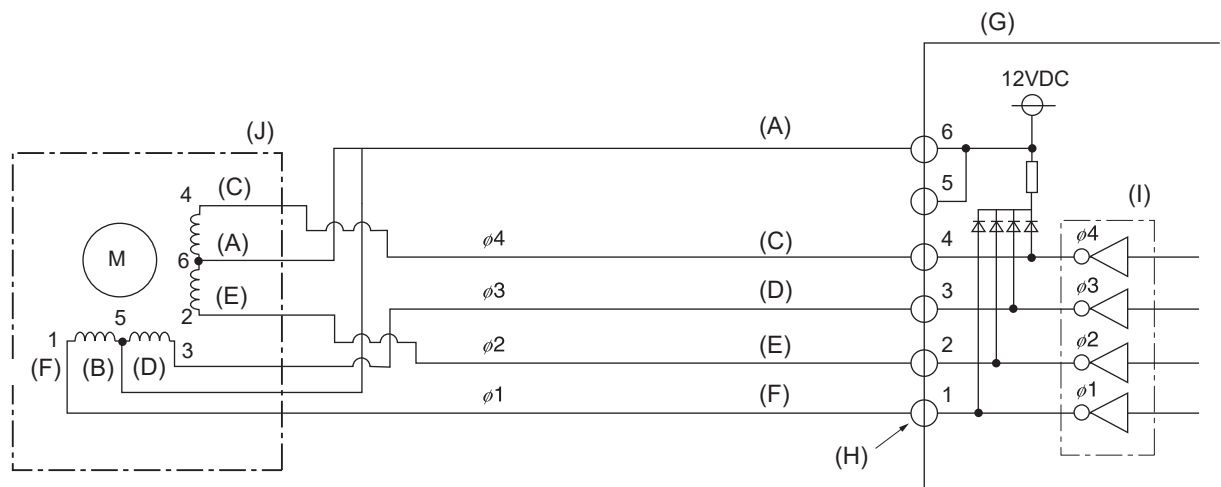
 LEV		Normal				Abnormal
		1-6 White-Red	2-6 Yellow-Red	3-6 Orange-Red	4-6 Blue-Red	Open or short
		(150Ω) ±10%				

- |            |            |
|------------|------------|
| (A) Red    | (E) Yellow |
| (C) Blue   | (F) White  |
| (D) Orange |            |

1) Summary of linear expansion valve (LEV) operation

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

**Indoor control board and LEV connection**



- |            |                            |
|------------|----------------------------|
| (A) Red    | (G) Control board          |
| (C) Blue   | (H) Connection (CN60)      |
| (D) Orange | (I) Drive circuit          |
| (E) Yellow | (J) Linear expansion valve |
| (F) White  |                            |

**Pulse signal output and valve operation**

Phase number	Output pulse			
	1	2	3	4
ø1	ON	OFF	OFF	ON
ø2	ON	ON	OFF	OFF
ø3	OFF	ON	ON	OFF
ø4	OFF	OFF	ON	ON

The output pulse changes in the following order:

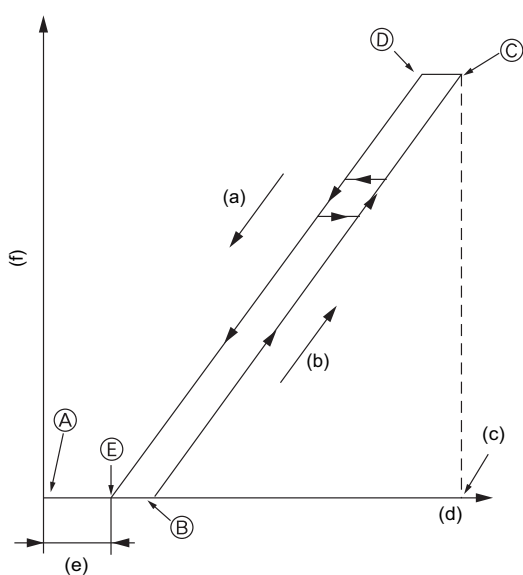
When the valve closes 1 -> 2 -> 3 -> 4 -> 1

When the valve opens 4 -> 3 -> 2 -> 1 -> 4

- When the valve position remains the same, all output signals will be OFF.
- If any output signal is missing or if the signal remains ON, the motor vibrates and makes clicking noise.



## 2) LEV operation

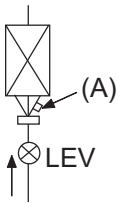


- (a) Close
- (b) Open
- (c) Fully open valve (2000 pulses)
- (d) No. of pulses
- (e) Extra tightening (41 pulses)
- (f) Valve opening degree

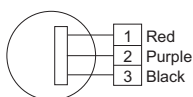
- When the power is turned on, a pulse signal of fully open pulse + 10% pulse is output (valve closure signal), to bring the valve to position A.
- When the valve is operating normally, it is free of vibration noise. If the valve locks or when it goes from point E to A in the figure, it makes louder noise than would be heard when there is an open phase.
- Check for abnormal sound/vibration by placing the metal tip of a screwdriver against the valve and the handle side against your ear.

## 3) Troubleshooting

Symptom	Checking Criteria	Remedy
Circuit failure on the microcomputer	<p>Disconnect the connectors on the control board, and connect LEDs to test the circuit as shown below.</p> <p>Pulse signals are output for 10 seconds when the main power is turned on. If there are LEDs that do not light up at all or remain lit after the pulses are turned off, there is a problem with the driving circuit.</p>	Replace the indoor control board if driving circuit failure is detected.
Locked LEV	The motor will idle and make small clicking noise if it is run while the LEV is locked. If this clicking noise is heard both when the valve is fully closed and while it is being opened, it indicates a problem.	Replace the LEV.
Disconnected or shorted LEV motor coils	Measure the resistance between the coils with a tester (red-white, red-orange, Red-yellow, Red-blue). The normal range of resistance is $150\Omega \pm 10\%$	Replace the LEV.

Valve closure failure (leaky valve)	<p>To check the LEV on the indoor unit, check the indoor unit liquid pipe temperature that appears on the operation monitor on the outdoor unit's multi control board while operating the indoor unit in question in the FAN mode and the other indoor units in the cooling mode.</p> <p>(A) Termistor (TH21)</p>  <p>Normally, the LEV is fully closed while the unit is in the FAN mode. If the valve is leaky, liquid pipe thermistor reading will be lower than normal. If it is significantly lower than the inlet temperature on the remote controller, valve closure failure is suspected. If the amount of leakage is insignificant, replacement of LEV is unnecessary unless it is causing a problem.</p>	Replace the LEV if the amount of leakage is great.
Misconnections of connectors or contact failure	Perform a visual check for disconnected connectors. Perform a visual check of lead wire color.	Disconnect the connectors on the control board and perform a continuity test.

#### (4) 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 of controller board, so it is not possible to measure the resistance between the terminals.

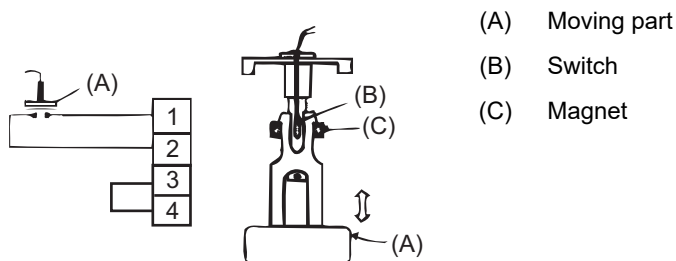
Normal

Red-Black: Input 13V DC → 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.

#### (5) Drain float switch (CN4F)

Disconnect the connector, and measure the resistance between terminals with a tester.



Position of the moving part	Normal	Abnormal
Up	Short	(any position but short)
Down	Open	(any position but open)

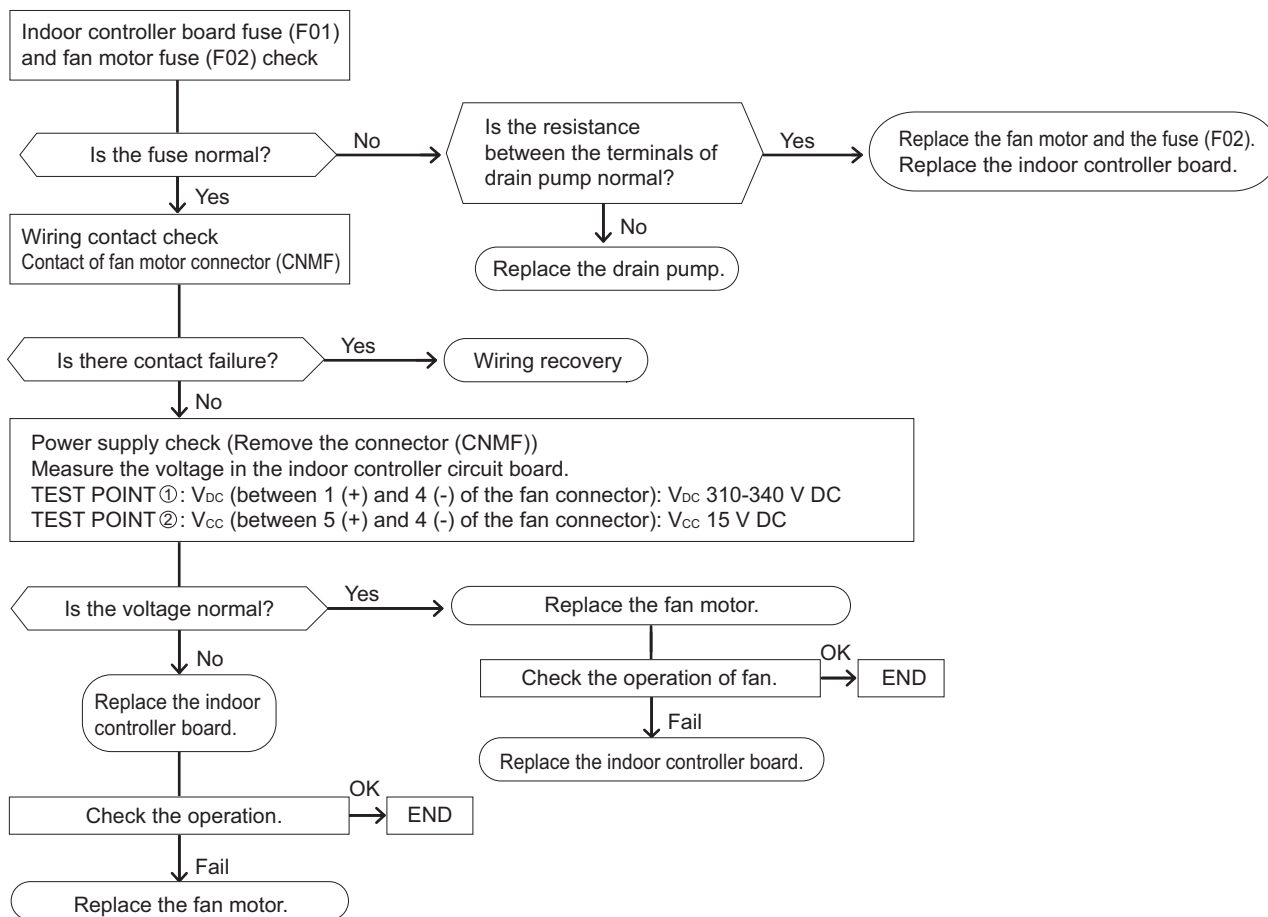
## 2. DC fan motor (fan motor/indoor control board)

### 1. CAUTION

- A high voltage is applied to the connector for connection to the fan motor (CNMF).
- Do not unplug the connector CNMF with the unit energized to avoid damage to the indoor control board and fan motor.

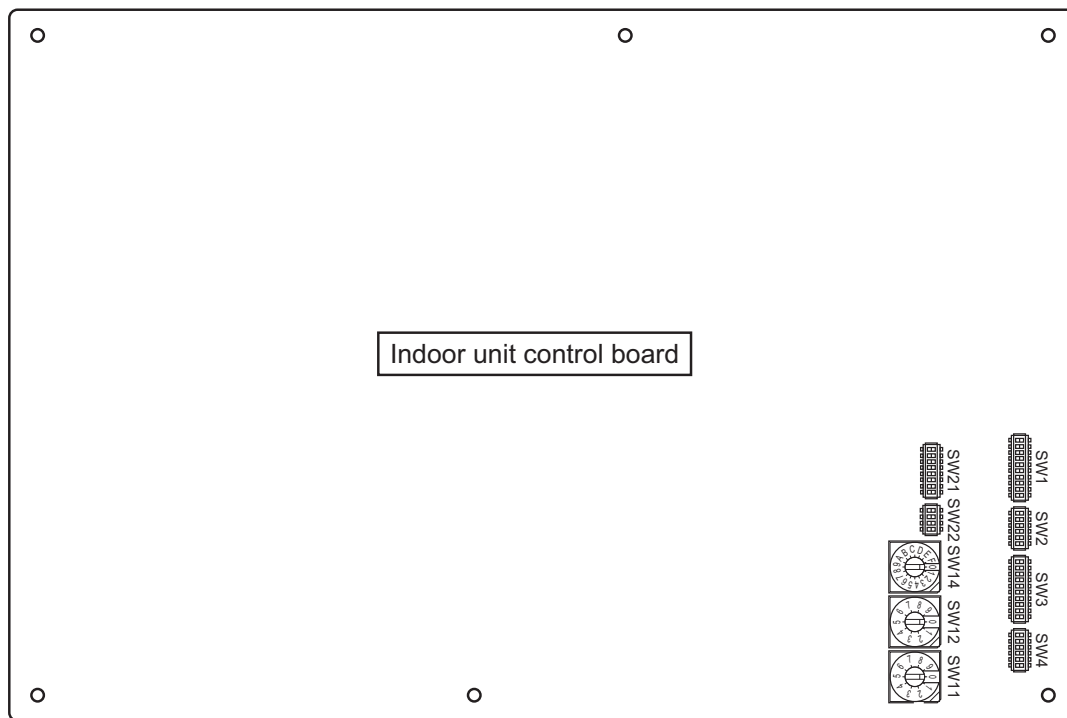
### 2. Troubleshooting

- Symptom: Indoor unit fan does not run.



### 3. Address switch setting

Make sure that power to the unit is turned off.



1. When using an ME remote controller, set the address with the rotary switches (SW11, SW12).

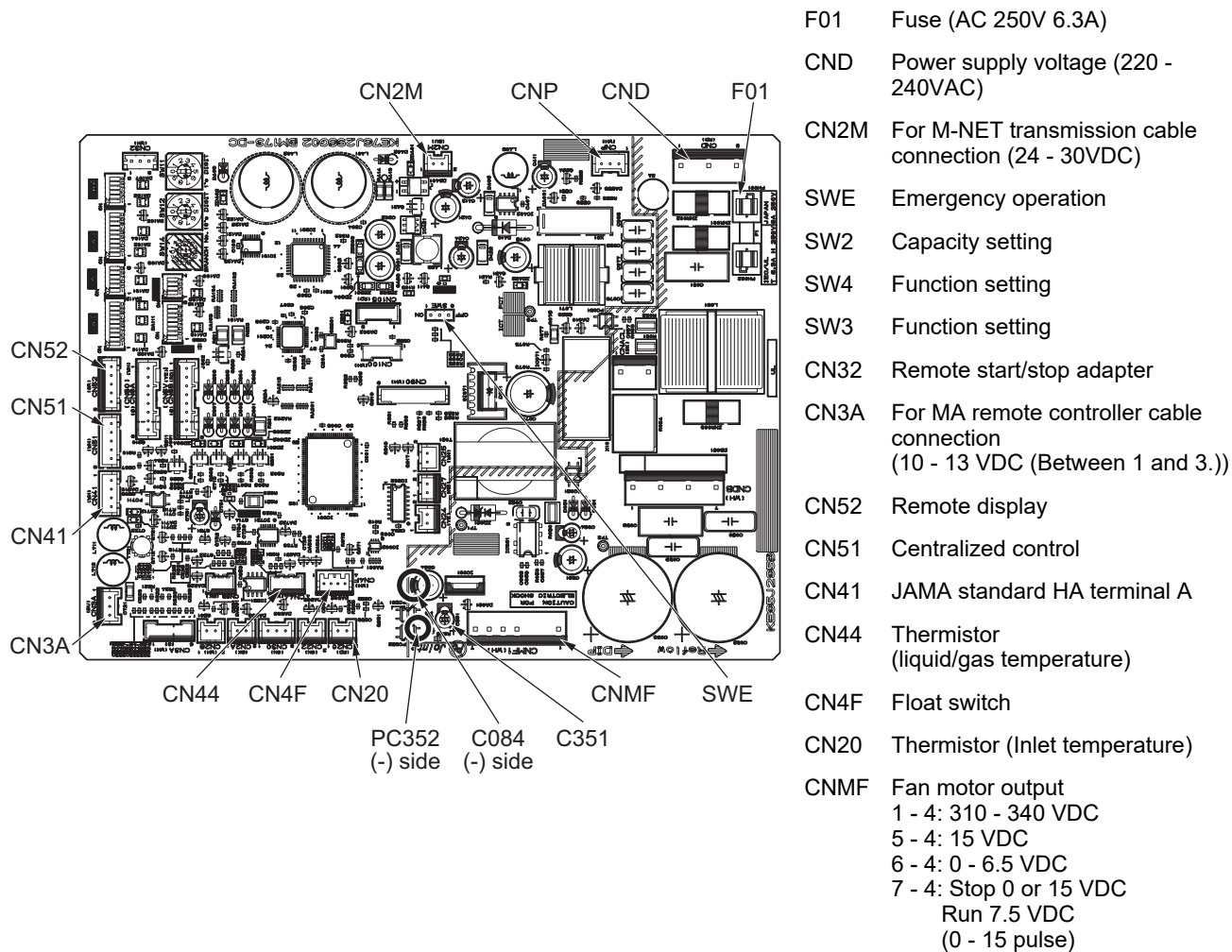
•Address setting is not required when the unit remote controller is used.

**On-site address setting is required for the indoor units to run.**

2. Address settings vary in different systems.  
Refer to the section on address setting in the outdoor unit installation manual.
3. Address is set with a combination of SW12 (10's digit) and SW11 (1's digit).  
To set the address to "3," set SW12 to "0" and SW11 to "3."  
To set the address to "25," set SW 12 to "2" and SW 11 to "5."

4. Voltage test points on the control board

1. PEFY-P20, 25, 32, 40, 50, 63, 71, 80, 100, 125, 140VMA(L)-E4



- F01 Fuse (AC 250V 6.3A)
- CND Power supply voltage (220 - 240VAC)
- CN2M For M-NET transmission cable connection (24 - 30VDC)
- SWE Emergency operation
- SW2 Capacity setting
- SW4 Function setting
- SW3 Function setting
- CN32 Remote start/stop adapter
- CN3A For MA remote controller cable connection (10 - 13 VDC (Between 1 and 3.))
- CN52 Remote display
- CN51 Centralized control
- CN41 JAMA standard HA terminal A
- CN44 Thermistor (liquid/gas temperature)
- CN4F Float switch
- CN20 Thermistor (Inlet temperature)
- CNMF Fan motor output
  - 1 - 4: 310 - 340 VDC
  - 5 - 4: 15 VDC
  - 6 - 4: 0 - 6.5 VDC
  - 7 - 4: Stop 0 or 15 VDC
  - Run 7.5 VDC
  - (0 - 15 pulse)

(\*1)

- V<sub>FG</sub> Voltage on the (-) side of PC352 and C084 (Same with the voltage between 7 (+) and 4 (-) of CNMF)
- V<sub>CC</sub> Voltage between the C084 pins 15 VDC (Same with the voltage between 5 (+) and 4 (-) of CNMF)
- V<sub>sp</sub> Voltage between the C351 pins 0VDC (with the fan stopped) 1 - 6.5VDC (with the fan in operation) (Same with the voltage between 6 (+) and 4 (-) of CNMF)

## 5. Dipswitch setting (Factory setting)

### 1. Function setting

#### (1) SW1

Switch position	Function	Switch setting	
		ON	OFF
1	Active Thermistor (Intake air thermistor)	Built-in thermistor on the remote controller	Indoor unit
2	Filter clogging detection	Available	Unavailable
3	Filter life	2500 hr	100 hr
4	Outdoor air intake	Enabled	Disabled
5	Remote display	Thermo-ON signal	Fan output
6	Drainpump locking detection	Disabled	Enabled
7	Fan speed	Low	Very low
8	Fan speed at heating Thermo-OFF	Preset fan speed	Follows the setting of SW1-7
9	Auto restart after power failure	Enabled	Disabled
10	Power start/stop	Enabled	Disabled

#### Factory setting

PEFY-P·VMA-E4



PEFY-P·VMAL-E4



#### (2) SW3

Switch position	Function	Switch setting	
		ON	OFF
1	Unit type	Cooling only	Heat pump
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	Heating 4-deg up	Disabled	Enabled
9	-	-	-
10	-	-	-

Dipswitch settings must be made while the unit is stopped.

#### Factory setting

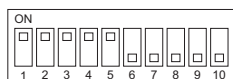
PEFY-P20VMA(L)-E4



PEFY-P25, 40, 63, 71, 80, 100, 125, 140VMA(L)-E4



PEFY-P32, 50VMA(L)-E4



The figure at left shows that the switches 1 through 5 are set to ON and 6 through 10 are set to OFF.

## 2. Capacity code setting

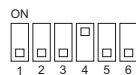
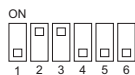
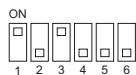
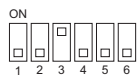
### (1) SW2

Dipswitch settings must be made while the unit is stopped.

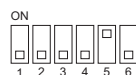
Factory setting

The switches are set to correspond to the unit capacity.

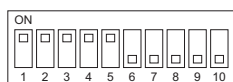
PEFY-P20VMA(L)-E4    PEFY-P25VMA(L)-E4    PEFY-P32VMA(L)-E4    PEFY-P40VMA(L)-E4



PEFY-P50VMA(L)-E4    PEFY-P63VMA(L)-E4    PEFY-P71VMA(L)-E4    PEFY-P80VMA(L)-E4



PEFY-P100VMA(L)-E4    PEFY-P125VMA(L)-E4    PEFY-P140VMA(L)-E4



The figure at left shows that the switches 1 through 5 are set to ON and 6 through 10 are set to OFF.

## 3. Model setting

### (1) SW4

Dipswitch settings must be made while the unit is stopped.

Factory setting

Please see the WIRING LABEL on the control box.

Note:

Changes made to the dipswitches SW1, SW2, and SW3 will become effective when the unit comes to a stop (remote controller off). There is no need to power cycle the unit.

## 4. Power voltage setting

### (1) SW21-6

Dipswitch settings must be operated with the main power turned OFF.

Factory setting

Please see the WIRING LABEL on the control box.

Set SW21-6 to OFF side when the power supply is 240 volts.

When the power supply is 220 and 230 volts, set SW21-6 to ON side.

## 5. External static pressure

Five levels of external static pressure are available for selection.

Set the setting either by using the switches on the control board (SW21-1, SW21-2, and SW21-5) or from the function selection screen on the remote controller.

Note:

- ◆When the static pressure setting was set from the remote controller, the actual setting and the switch setting on the control board may not match because the latest setting from the remote controller overrides the previous setting. To check the latest static pressure setting, check it on the remote controller, not on the switch.
- ◆If the static pressure setting for the duct is lower than that for the unit, the fan of the unit may repeat start/stop, and the outdoor unit may remain in a stopped state. Match the static pressure settings for the unit to that for the duct.

**To set the external static pressure with the switches on the control board**

External static pressure	SW21-1	SW21-2	SW21-5	Initial setting
P20–P63: 35 Pa P71–P100: 40 Pa	OFF	OFF	OFF	○ only P20–P100
50 Pa	ON	OFF	OFF	○ only P125, P140
70 Pa	OFF	ON	ON	
100 Pa	OFF	OFF	ON	
150 Pa	ON	OFF	ON	

**To set the external static pressure from the function selection screen on the remote controller (PAR-33MAA, PAR-40MAA)**

Follow the instructions below and the instructions detailed in the remote controller manual for how to set the switches.

- Set the function setting No. 32 (Switch setting/Function selection) to “2”.
- Set the function setting No. 8 and No. 10 to appropriate values, according to the external static pressure.

Selection	Function setting No.	Initial setting	Current setting
	No. 32		
Switch setting	1	○	
Function selection	2		

External static pressure	Function setting No.		Initial setting	Current setting
	No. 8	No. 10		
P20–P63: 35 Pa P71–P100: 40 Pa	2	1	○ only P20–P100	
50 Pa	3	1	○ only P125, P140	
70 Pa	1	2		
100 Pa	2	2		
150 Pa	3	2		

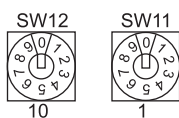
**[Important]**  
Be sure to write down the settings for all functions in the “Current setting” row if any of the initial settings has been changed.

**6. 1s and 10ths digits****(1) SW11, SW12 (Rotary switch)**

The use of an ME remote controller requires address setting.

Address settings must be made while the unit is stopped.

Factory setting

**7. Connection No. setting****(1) SW14 (Rotary switch)**

This switch is used when the unit connected to an R2 series of outdoor unit.

Factory setting



**Note:**

Changes to the dipswitches SW11, SW12, SW14, and SW15 must be made while the unit is stopped and the remote controller is OFF.



## [1] Disassembly Procedure

### 1. Control box

Exercise caution when removing heavy parts.

1. Removing the control box cover
  - (1) Remove the three fixing screws on the cover (A) to remove it.

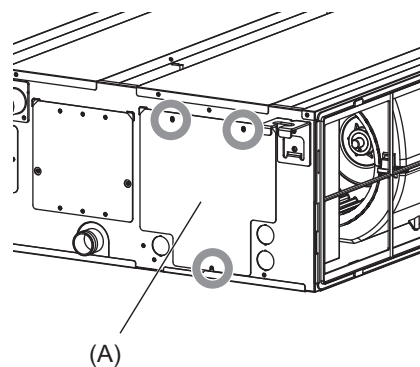


Fig.1

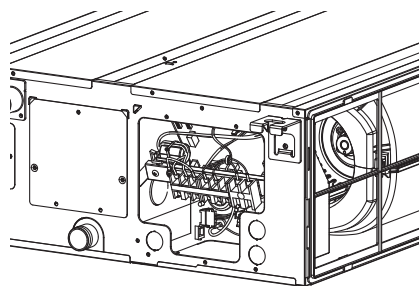


Fig.2

## 2. Thermistor (Intake air)

**Exercise caution when removing heavy parts.**

1. Remove the control box cover according to the procedure in section [1]-1.
2. Remove the thermistor.
  - (1) Pull out the thermistor holder (B) and thermistor (C) on the control box.

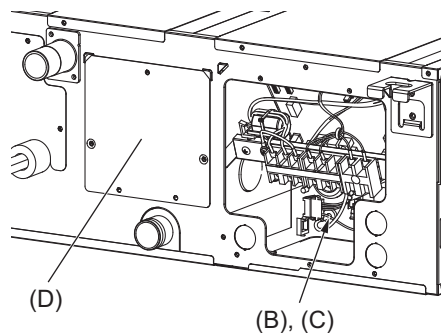


Fig.3

## 3. Drain pump

**Exercise caution when removing heavy parts.**

1. Remove the control box cover according to the procedure in section [1]-1.
2. Remove the drain pump.
  - (1) Remove the drain pump from connector (E) in control box.
  - (2) Remove the cover (D) and the drain pump.

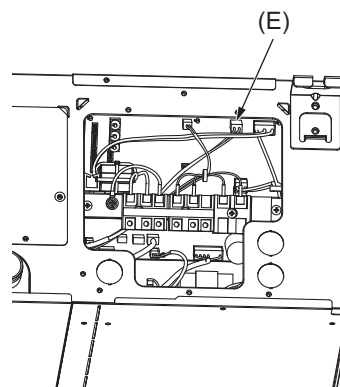


Fig.4

## 4. Drainpan

**Exercise caution when removing heavy parts.**

1. Removing the filter and the bottom plate
  - (1) Push down the tab on the filter, and pull out the filter in the direction of the arrow 1.
  - (2) Remove the fixing screws on the bottom plate (F), (G) to remove it.

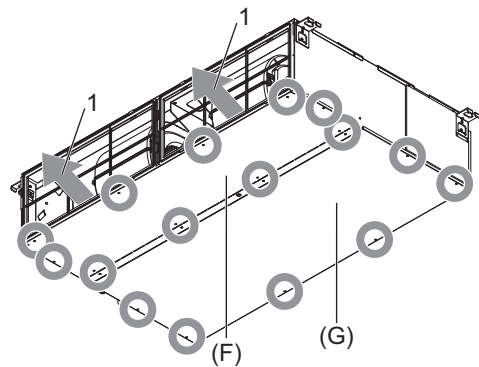


Fig.5

2. Removing the drainpan
  - (1) Pull out the drain pan in the direction of the arrow 2.

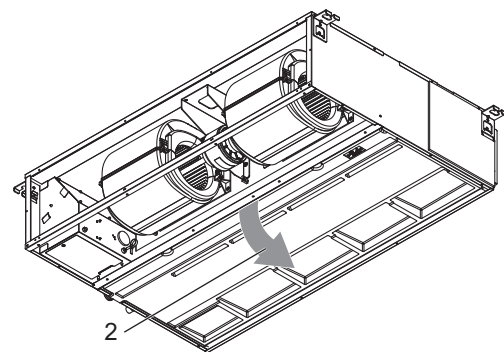


Fig.6

**Note**

♦Drain the water out of the drain pan before removing it.

## 5. Thermistor (Gas pipe) (Liquid pipe)

**Exercise caution when removing heavy parts.**

1. Remove the drain pan according to the procedure in section [1]-4.
2. Removing the Heat exchanger cover
  - (1) Remove the three fixing screws on the heat exchanger cover (H) to remove it.

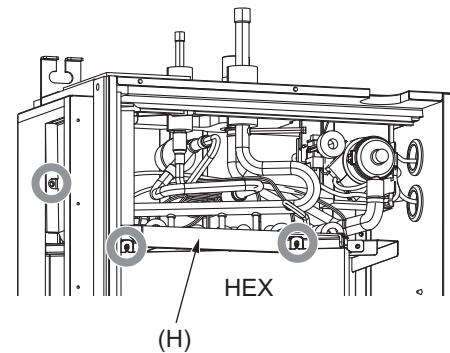


Fig.7

3. Removing the thermistor
  - (1) Remove the thermistor (J) from the thermistor holder (K) on the copper tube.

Thermistor size  
Liquid pipe:  $\varnothing 8\text{mm}$   
Gas pipe:  $\varnothing 6\text{mm}$

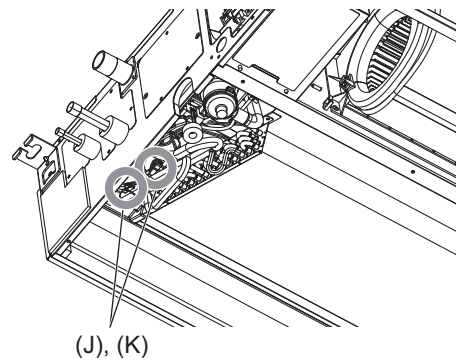


Fig.8

## 6. Fan and fan motor

**Exercise caution when removing heavy parts.**

### 1. Removing the filter and the bottom plate

- (1) Push down the tab on the filter, and pull out the filter in the direction of the arrow 1.
- (2) Remove the fixing screws on the bottom plate (M) to remove it.

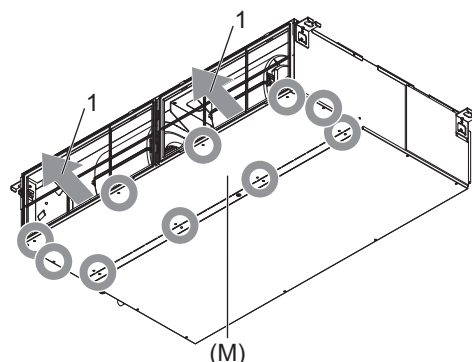


Fig.9

### 2. Removing the fan casing (bottom half)

- (1) Squeeze the tabs on the fan casing to remove it in the direction of arrow 2.

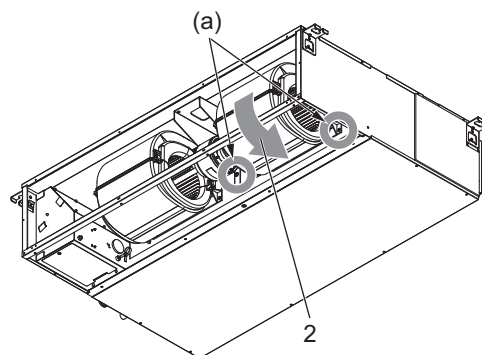


Fig.10

(a) Tab

### 3. Removing the motor cable

- (1) Remove the motor cable through the rubber bush.

### 4. Removing the fan motor and the Sirocco fan

- (1) Loosen either of the two rubber joint (N) fixing screws.
- (2) To remove the Sirocco fans (b) and (c) of PEFY-P100/125/140VMA(L)-E3, loosen only the screw (d) on the bearing support (P), and remove the other screws on it.

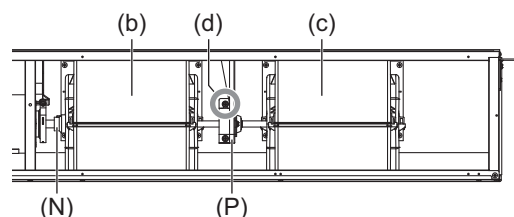


Fig.11

- (3) Remove the two motor fixing screws to remove the motor and the Sirocco fan in the direction of arrow 3.

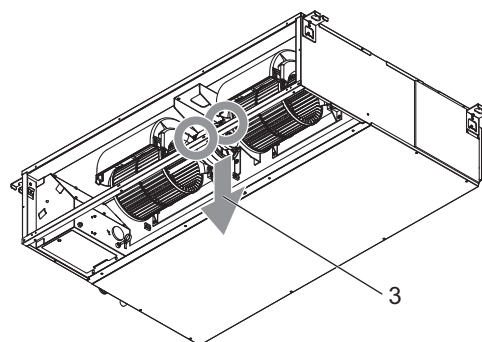


Fig.12

- (4) Remove the four fan case fixing screws to take the top half of the fan casing off.

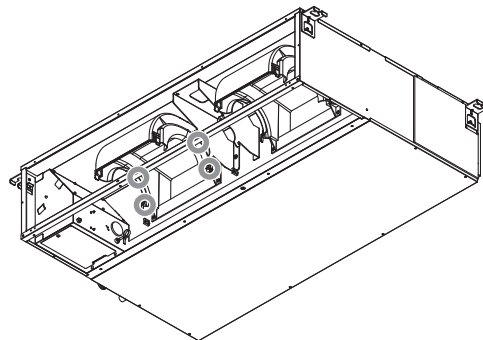


Fig.13

## 7. Heat exchanger

**Exercise caution when removing heavy parts.**

1. Remove the drain pan according to the procedure in section [1]-4.
2. Remove the heat exchanger cover according to the procedure in section [1]-5-2.
3. Removing the cover
  - (1) Remove the five fixing screws on the cover (Q) to remove it.

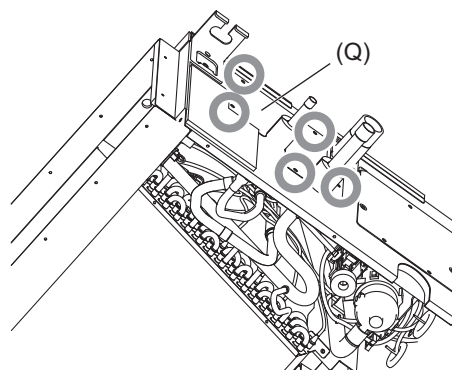


Fig.14

4. Removing the Heat exchanger
  - (1) Remove the fixing screws on the heat exchanger (R) to remove it.

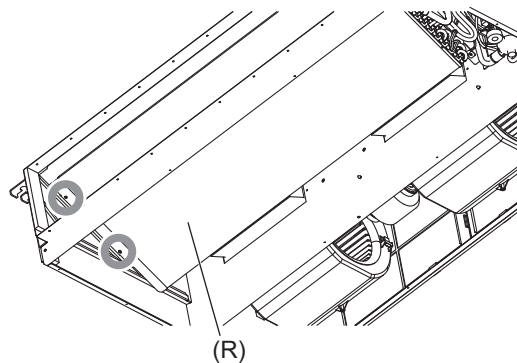


Fig.15

**mitsubishi** **ELECTRIC CORPORATION**

[www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)

---