

February 2012

No. OC179
REVISED EDITION-B

TECHNICAL & SERVICE MANUAL

Series PKFY Wall Mounted R407C / R22

<Indoor unit>

[Model names]

PKFY-P32VGM

PKFY-P40VGM

PKFY-P50VGM

[Service Ref.]

PKFY-P32VGM

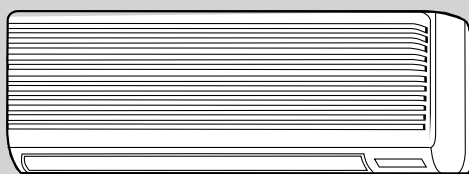
PKFY-P40VGM

PKFY-P50VGM

Revision:

- The indicated No. of CORNER COVER (page 19) in the illustration have been corrected in REVISED EDITION-B.
- Some descriptions have been modified.

- Please void OC179 REVISED EDITION-A.



Indoor unit

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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 "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 indoors during installation and 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 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.

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.

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.

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 the specified refrigerant only.**Never use any refrigerant other than that specified.**

Doing so may cause a burst, an explosion, or fire when the unit is being used, serviced, or disposed of.

Correct refrigerant is specified in the manuals and on the spec labels provided with our products.

We will not be held responsible for mechanical failure, system malfunction, unit breakdown or accidents caused by failure to follow the instructions.

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

[1] 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.	

[2] Cautions for service

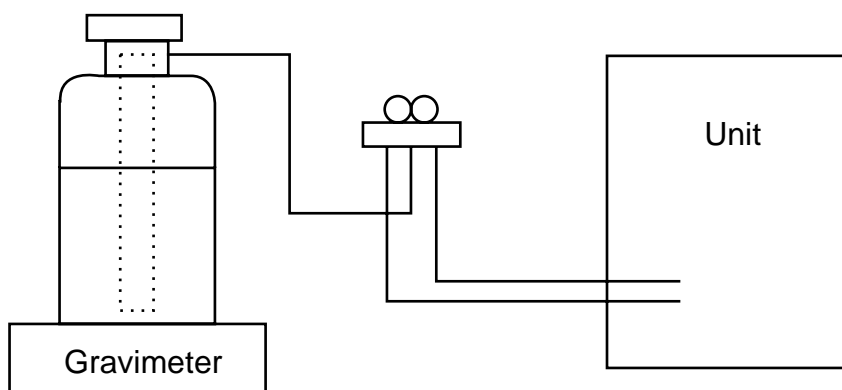
- After recovering all the refrigerant in the unit, proceed to working.
- Do not release refrigerant in the air.
- After completing the repair service, recharge the cycle with the specified amount of liquid refrigerant.

[3] Refrigerant recharging

(1) Refrigerant recharging process

① Direct charging from the cylinder.

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



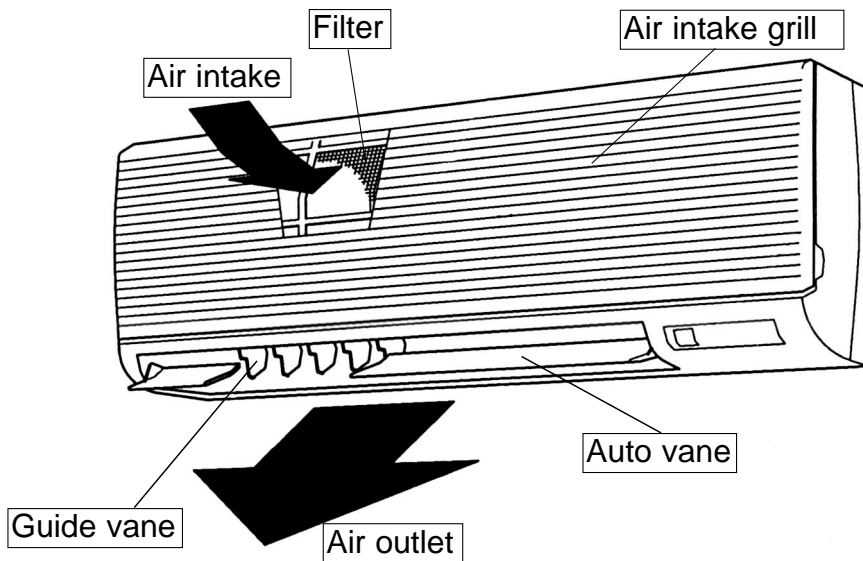
(2) Recharge in refrigerant leakage case

- After recovering the all 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.

2

PART NAMES AND FUNCTIONS

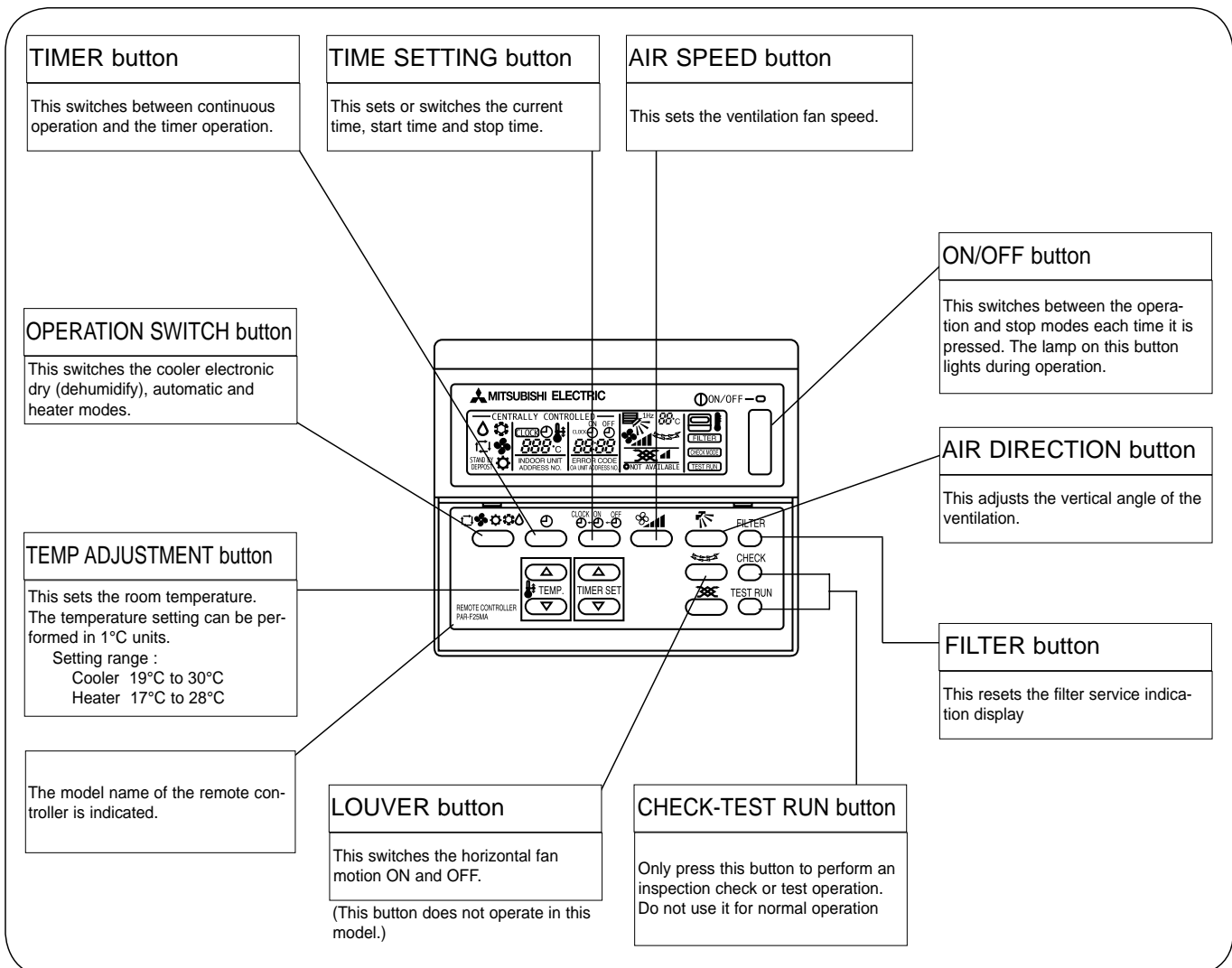
- Indoor Unit
PKFY-P32VGM
PKFY-P40VGM
PKFY-P50VGM



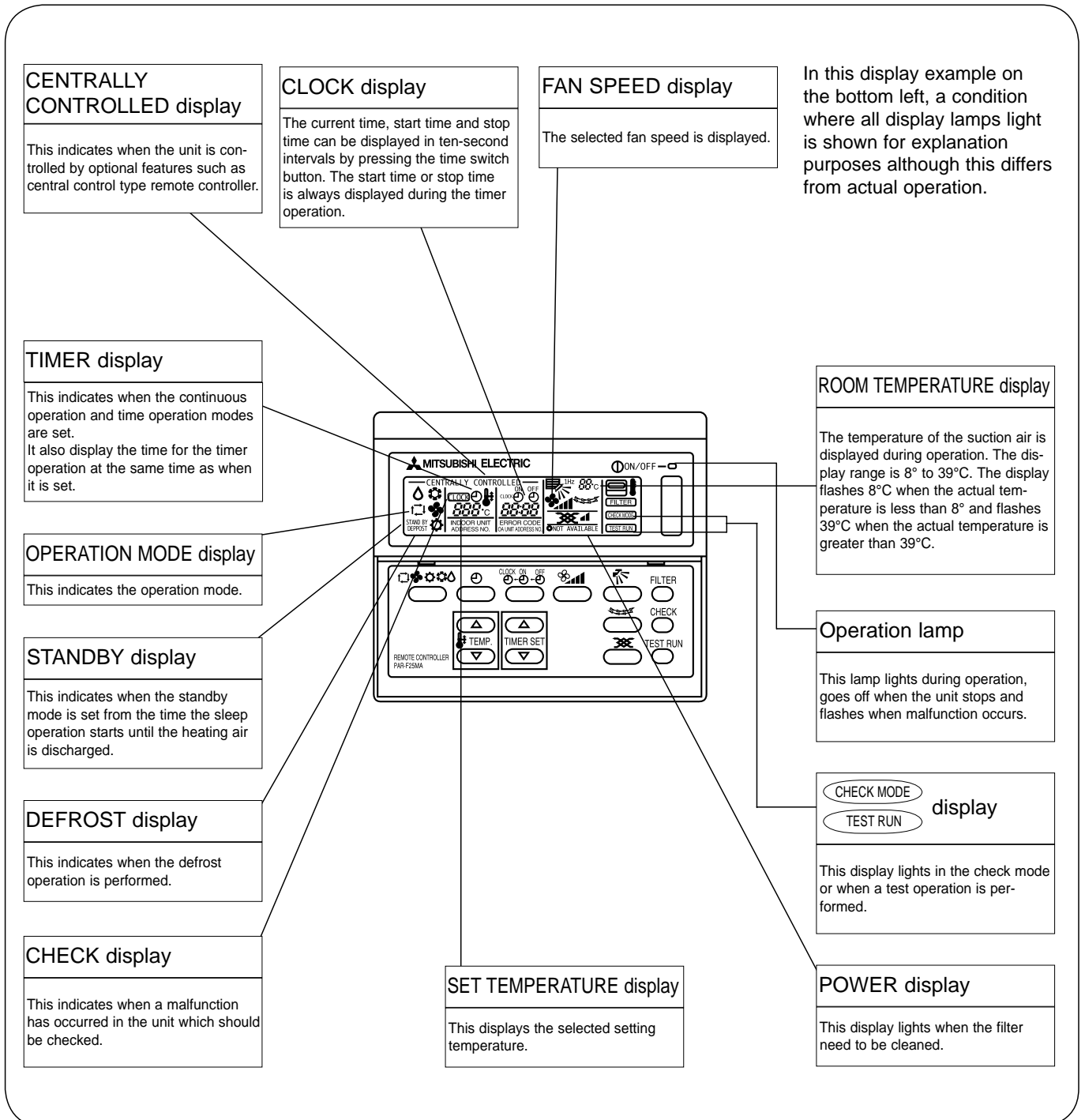
- Remote controller [PAR-F25MA]

- Once the controls are set, the same operation mode can be repeated by simply pressing the on / off button.

- Operation buttons



• Display



Caution

- Only the Power display lights when the unit is stopped and power supplied to the unit.
- When power is turned ON for the first time the (CENTRAL CTRL) display appears to go off momentarily but this is not a malfunction.
- When the central control remote control unit, which is sold separately, is used the ON-OFF button, Operation switch button and \updownarrow TEMP button do not operate.
- "NOT AVAILABLE" is displayed when the Air speed button and the Louver button are pressed. This indicates that this room unit is not equipped with the fan direction adjustment function and the louver function.
- When power is turned ON for the first time, it is normal that "HO" is displayed on the room temperature indication (For max. 2 minutes). Please wait until this "HO" indication disappear then start the operation.

3

SPECIFICATIONS

3-1. Specification

Item		Unit	PKFY-P32VGM	PKFY-P40VGM	PKFY-P50VGM
Power source		V · Hz	Single phase 220-240V 50Hz / 220V 60Hz		
Cooling capacity		kcal/h	3150	4000	5000
Heating capacity		kcal/h	3550	4500	5600
Electric characteristic	Power consumption	Cooling	kW		
		Heating	kW		
	Current	Cooling	A		
		Heating	A		
Exterior <munsell symbol>		—	Plastic , white : <0.70Y 8.59/0.97>		
Dimensions	Height	mm	340		
	Width	mm	990		
	Depth	mm	235		
Heat exchanger		—	Cross fin(Aluminum plate fin and copper tube)		
Fan	Type × No.	—	Lineflow fan × 1		
	Air flow ※2	m ³ /min	11.5 - 10.5 - 9.5 - 8		12 - 11 - 10 - 9
	External static pressure	Pa	0		
	Fan motor output	kW	0.03		
Air filter		—	PP Honey comb		
Refrigerant pipe dimensions	Gas side	φmm	12.7 <1/2">		15.88 <5/8">
	Liquid side	φmm	6.35 <1/4">		9.52 <3/8">
Drain pipe dimension		φmm	Outer diameter 20 <PVC pipe VP-20 connectable>		
Noise level ※2		dB (A)	41 - 38 - 36 - 33		43 - 40 - 37 - 34
Product weight		kg	16		

Note : ※1. Rating conditions
Cooling : Indoor 27°C DB. 19.5°C WB
Outdoor 35°C DB. 24°C WB
Heating : Indoor 21°C DB.
Outdoor 7°C DB. 6°C WB

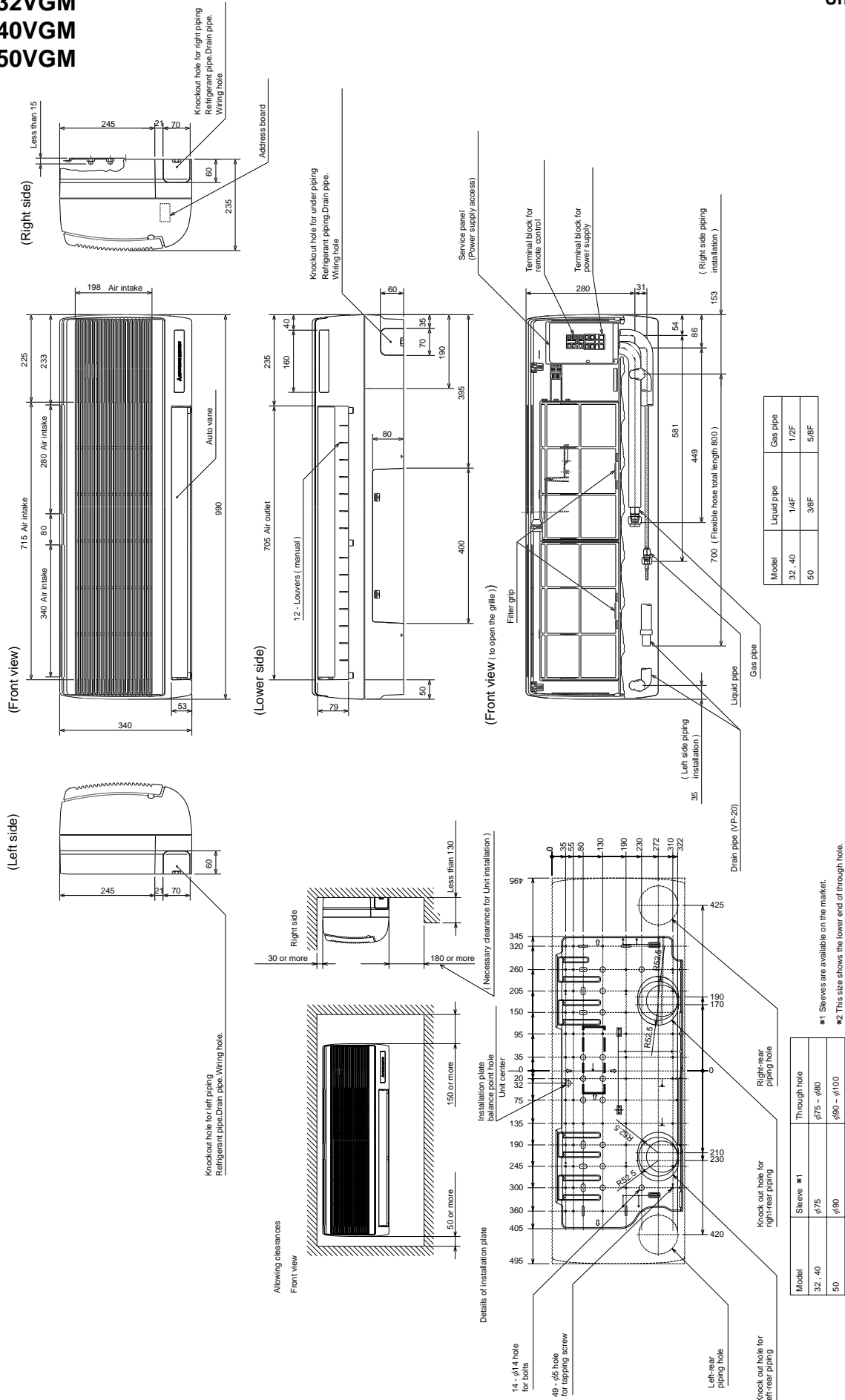
※2. Air flow and the noise level are indicated as High - Medium1 - Medium2 - Low .

3-2. Electrical parts specifications

Parts name	Model	Symbol	PKFY-P32VGM	PKFY-P40VGM	PKFY-P50VGM
Transformer		T	(Primary) 50/60Hz 220 - 240V (Secondary) 18.4V 1.7A		
Room temperature thermistor		TH21	Resistance 0C/15k, 10C/9.6k, 20C/6.3k, 25C/5.4k, 30C/4.3k, 40C/3.0k		
Liquid pipe thermistor		TH22			
Gas pipe thermistor		TH23			
Fuse (Indoor controller board)		FUSE	250V 6.3A		
Fan motor (with inner-thermostat)		MF	PM4V30-K 220-240V/220V , 50/60Hz 4 pole Output 30W		
			Inner-thermostat	OFF 125 ± 5°C	
Fan motor capacitor		C1	2.0F 440V		
Vane motor		MV	MP 35 EA DC12V		
Linear expansion valve		LEV	DC12V Stepping motor drive Port dimension ϕ 3.2 (0 ~ 2000pulse)		
Power supply terminal block		TB2	(L, N, \oplus) 330V 30A		
Transmission terminal block		TB5	(M1, M2, S) 250V 20A		

PKFY- P32VGM
 PKFY- P40VGM
 PKFY- P50VGM

Unit : mm

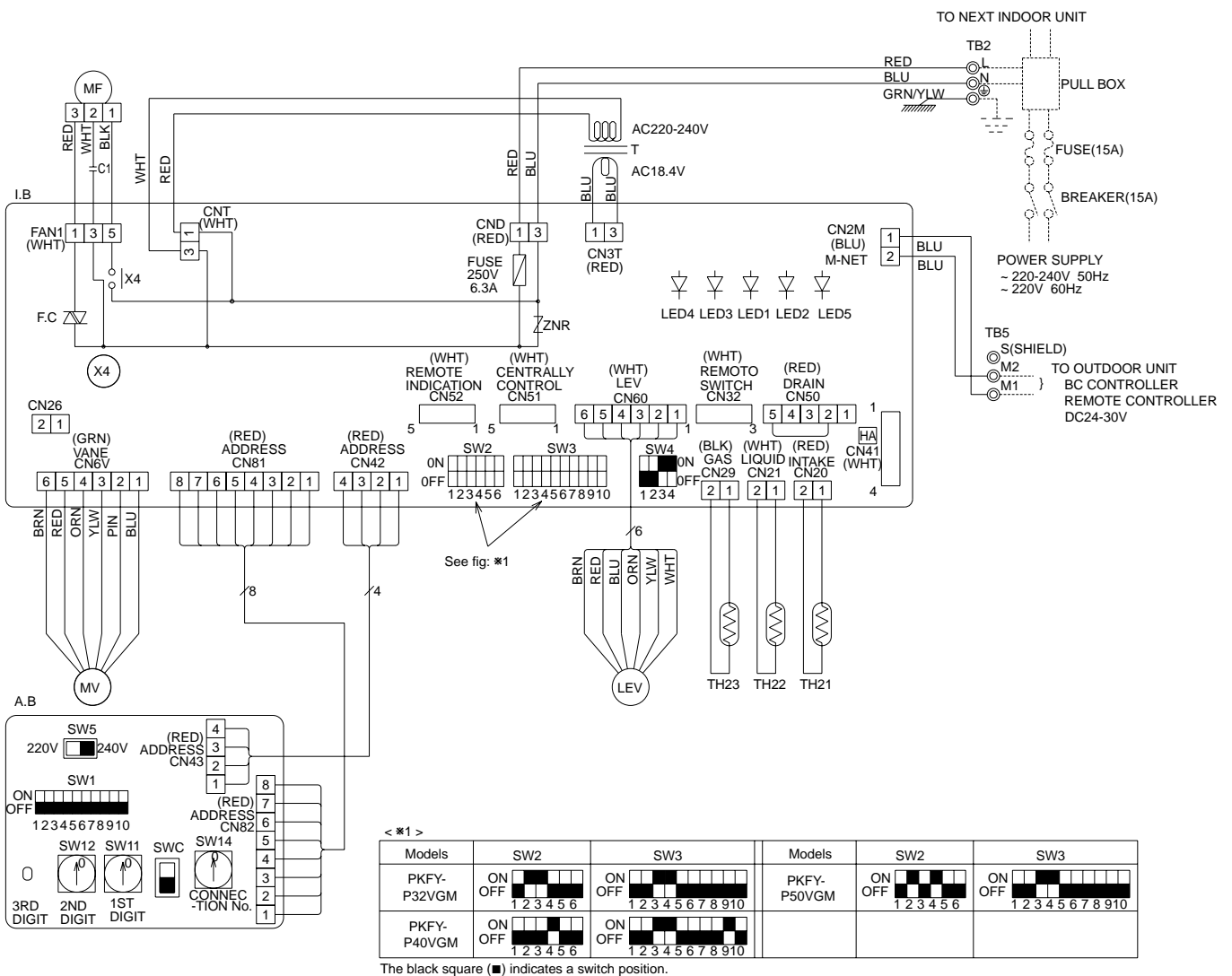


5

WIRING DIAGRAM

PKFY-P32VGM, PKFY-P40VGM, PKFY-P50VGM

Symbol	Name	Symbol	Name	Symbol	Name
I.B	Indoor controller board	TH21	Thermistor	A,B	Circuit board
CN32	Connector	TH22	Room temperature detection (0°C/15kΩ, 25°C/5.4kΩ)	SW1	Switch
CN41	Remote switch	TH23	Pipe temperature detection/Liquid (0°C/15kΩ, 25°C/5.4kΩ)	SW5	Mode selection
CN51	HA terminal-A		Pipe temperature detection/Gas (0°C/15kΩ, 25°C/5.4kΩ)	SW11	Voltage selection
CN52	Centrally control			SW12	Address setting 1st digit
CN52	Remote indication			SW14	Address setting 2nd digit
SW2	Switch	MF	Fan motor (with inner thermostat)	SWC	Connection No.
SW3	Capacity code	C1	Capacitor (fan motor)		Option selector
SW4	Mode selection	MV	Vane motor		
ZNR	Varistor	TB2	Terminal block		
X4	Aux.Relay (Fan motor)	TB5	Power supply		
FUSE	Fuse (6.3A)		Transmission		
F.C	Fan phase control	LEV	Linear expansion valve		
T	Transformer				



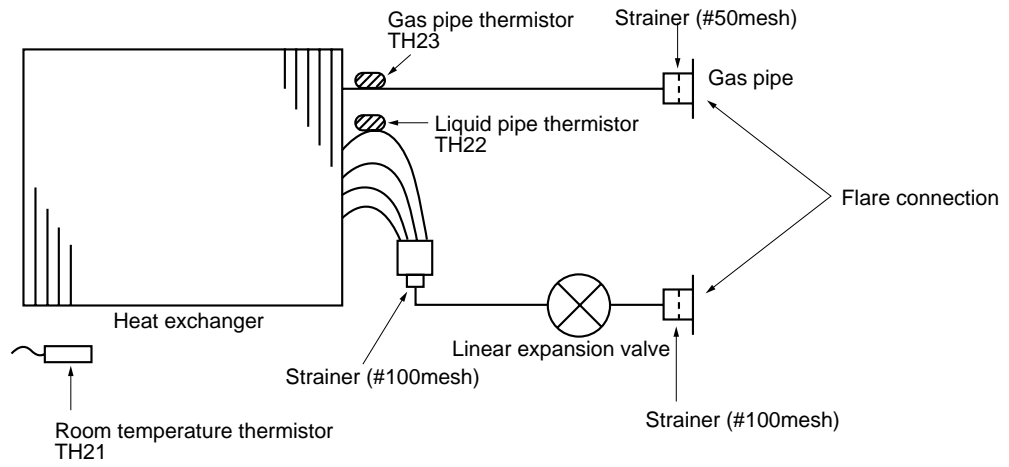
Note

1. At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
2. Symbol[S] of TB5 is the shield wire connection.
3. Symbols used in wiring diagram above are, (⊙) : terminal block, (□) : connector.
4. The setting of the SW2 dip switches differs in the capacity for the detail, see the table below.
5. Please set the switch SW5 according to the power supply voltare.
 - Set SW5 to 240V side when the power supply is 230 and 240 volts.
 - When the power supply is 220 volts, set SW5 to 220V side.

6

REFRIGERANT SYSTEM DIAGRAM

PKFY-P32VGM
 PKFY-P40VGM
 PKFY-P50VGM



Refrigeration pipe size (Flare connection size)

Item \ Capacity	PKFY-P32VGM, PKFY-P40VGM	PKFY-P50VGM
Gas pipe	$\phi 12.7 <1/2F>$	$\phi 15.88 <5/8F>$
Liquid pipe	$\phi 6.35 <1/4F>$	$\phi 9.52 <3/8F>$

7

TROUBLE SHOOTING

7-1. How to check PKFY-P32VGM , PKFY-P40VGM , PKFY-P50VGM

Parts name	Check method			
Room temperature thermistor (TH21)	Disconnect the connector then measure the resistance with a tester. (Surrounding temperature 10°C~30°C)			
Liquid pipe thermistor (TH22)	Normal	Abnormal		
Gas pipe thermistor (TH23)	4.3kΩ~9.6kΩ	Open or short		
Trans	Disconnect the connector then measure the resistance with a tester.			
		Normal	Abnormal	
	CNT(1)-(3)	About 70Ω	Open or short	
	CN3T(1)-(3)	About 1Ω		
Vane motor	Measure the resistance between the terminals with a tester. (Surrounding temperature 20°C~30°C)			
	Connector	Normal	Abnormal	
	Brown - Yellow	186Ω ~ 214Ω	Open or short	
	Brown - Blue			
	Red - Orange			
	Red - Pink			
Fan motor	Measure the resistance between the terminals with a tester. (Surrounding temperature 20°C)			
	Motor terminal or relay connector	Normal	Abnormal	
	Red - Black	141.2Ω	Open or short	
	White - Black	131.5Ω		
Linear expansion valve	Disconnect the connector then measure the resistance with a tester. (Surrounding temperature 20°C)			
	Normal		Abnormal	
	(1)-(5) White-Red	(2)-(6) Yellow-Blown	(3)-(5) Orange-Red	Open or short
	(4)-(6) Blue-Brown			
150Ω ±10%				

<Thermistor Characteristic graph>

Thermistor for lower temperature

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

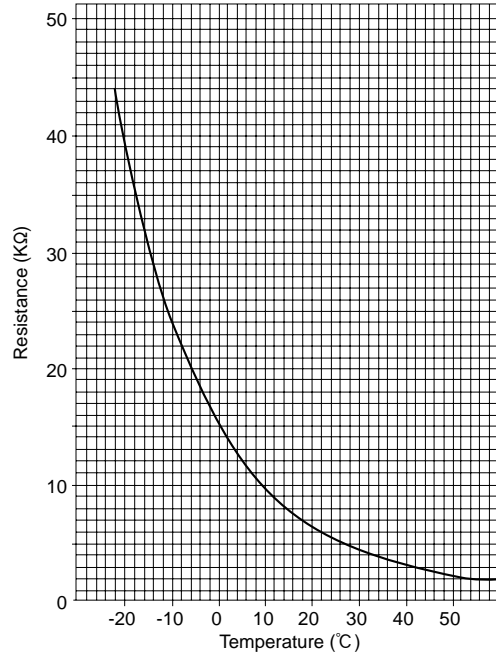
Thermistor $R_0=15k\Omega \pm 3\%$

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	5.2kΩ
30°C	4.3kΩ
40°C	3.0kΩ

< Thermistor for lower temperature >

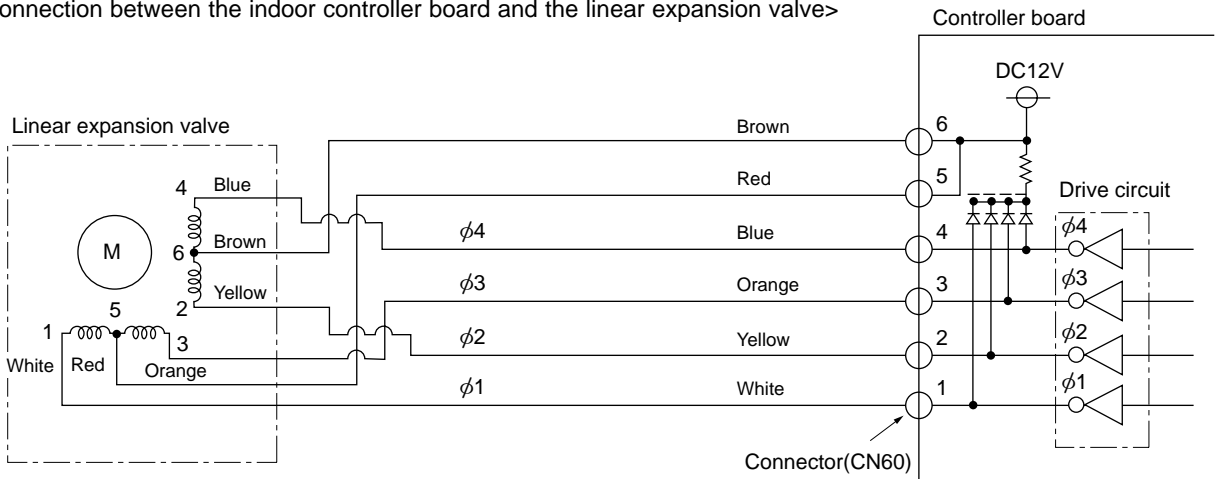


Linear expansion valve

① Operation summary of the linear expansion valve

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

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



<Output pulse signal and the valve operation>

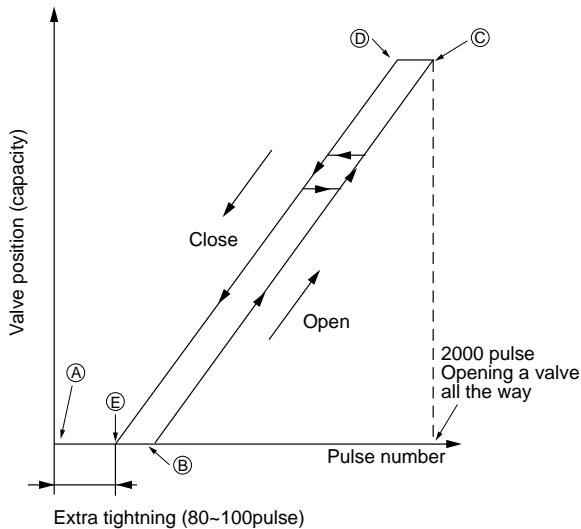
Output (Phase)	Output			
	1	2	3	4
φ1	ON	OFF	OFF	ON
φ2	ON	ON	OFF	OFF
φ3	OFF	ON	ON	OFF
φ4	OFF	OFF	ON	ON

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

The output pulse shifts in above order.

- * 1. When linear expansion valve operation stops, all output phase become OFF.
- 2. At phase interruption or when phase does not shift in order, motor does not rotate smoothly and motor locks and vibrates.

② Linear expansion valve operation

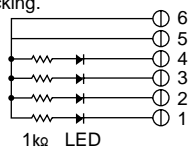
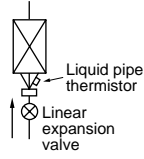


* When the switch is turned on, 2200 pulse closing valve signal will be send till it goes to ① point in order to define the valve position.

When the valve move smoothly, there is no noise or vibration occurring from the linear expansion valve : however, when the pulse number moves from ⑤ to ① or when the valve is locked, more noise can be heard than normal situation.

* Noise can be detected by placing the ear against the screw driver handle while putting the screw driver to the linear expansion valve.


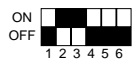
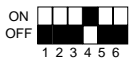

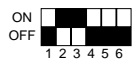
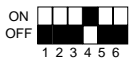

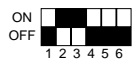
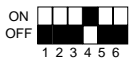

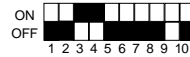
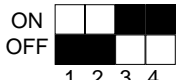
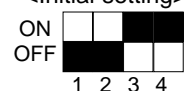
③ Trouble shooting

Symptom	Check points	Countermeasures
Operation circuit failure of the micro processor.	Disconnect the connector on the controller board, then connect LED for checking.  Pulse signal will be sent out for 10 seconds as soon as the main switch is turned on. If there is LED with lights on or lights off, it means the operation circuit is abnormal.	Exchange the indoor controller board at drive circuit failure.
Linear expansion valve mechanism is locked.	Motor will idle and make ticking noise when 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 the each coil (red-white, red-orange, brown-yellow, brown-blue) using 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 (thermistor leaking).	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 are some 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 making any trouble.	If large amount of thermistor is leaked, exchange the linear expansion valve.
Wrong connection of the connector or contact failure.	Check the color of lead wire and missing terminal of the connector.	Disconnect the connector at the controller board, then check the continuity.

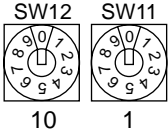
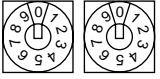



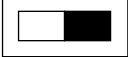
7-2. FUNCTION OF DIP SWITCH

PKFY-P32VGM , PKFY-P40VGM , PKFY-P50VGM

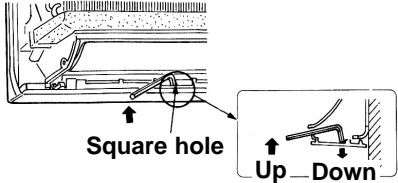
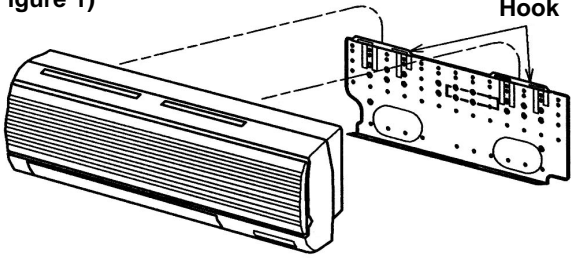
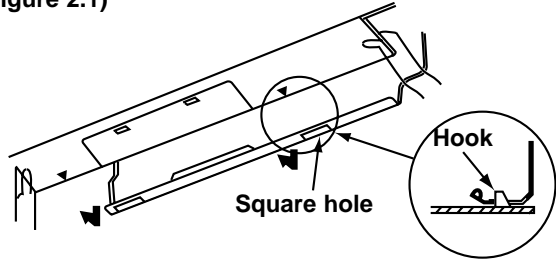
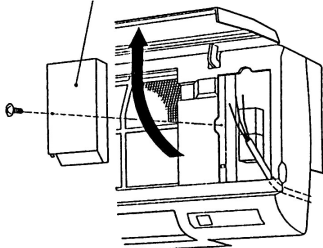
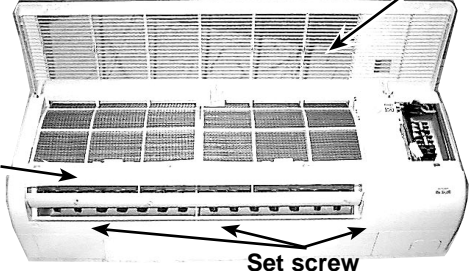
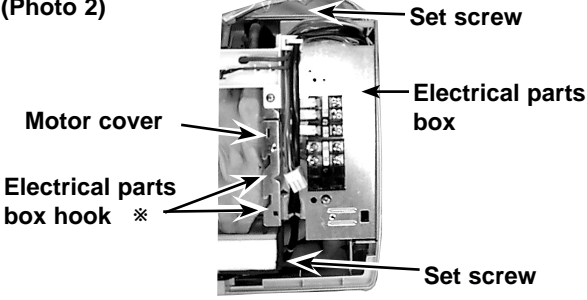
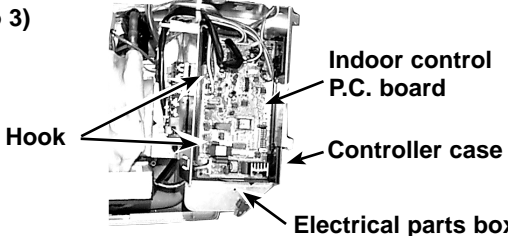
The black square (■) indicates a switch position.

Switch	Pole	Function	Operation by switch		Remarks												
			ON	OFF													
SW1 Mode Selection	1	Thermistor<Intake temperature detection>position	Bult-in remote controller	Indoor unit	<div style="border: 1px solid black; padding: 5px;">Address board</div> <p><Initial setting></p>  <p>NOTE:</p> <ul style="list-style-type: none"> *1 At Heating mode, fan operating. *2 At Heating mode, operating heat thermostat ON. *3 SW1-7=OFF, SW1-8=ON →Setting air flow. SW1-7=ON, SW1-8=ON →Indoor fan stop. 												
	2	Filter clogging detection	Provided	Not provided													
	3	Filter life	2500hr	100hr													
	4	Air intake	Effective	Not effective													
	5	Remote indication switching	Thermostat ON signal indication	Fan output indication													
	6	Humidifier control	Always operated while the heating mode *1	Operated depends on the condition *2													
	7	Air flow set in case of	Fix to LOW *3	Fix to EXTRA LOW *3													
	8	Heat thermostat OFF	Depends on setting Remote controller *3	Depends on SW1-7													
	9	Auto restart	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>MODELS</th> <th>SW2</th> <th>MODELS</th> <th>SW2</th> <th>MODELS</th> <th>SW2</th> </tr> </thead> <tbody> <tr> <td>PKFY-P32VGM</td> <td></td> <td>PKFY-P40VGM</td> <td></td> <td>PKFY-P50VGM</td> <td></td> </tr> </tbody> </table>			MODELS	SW2	MODELS	SW2	MODELS	SW2	PKFY-P32VGM		PKFY-P40VGM		PKFY-P50VGM		<div style="border: 1px solid black; padding: 5px;">Indoor controller board</div> <p>Set while the unit is off.</p> <p><Initial setting></p> <p>Set for each capacity.</p>
MODELS	SW2	MODELS	SW2	MODELS	SW2												
PKFY-P32VGM		PKFY-P40VGM		PKFY-P50VGM													
SW3 Function Selection	1	Heat pump/Cooling only	Cooling only models	Heat pump models	<div style="border: 1px solid black; padding: 5px;">Indoor controller board</div> <p>Set while the unit is off.</p> <p><Initial setting></p>  <p>NOTE:</p> <ul style="list-style-type: none"> *4 At cooling mode, each angle can be used only 1 hour. *5 SW3-9 setting PKFY-P32VGM = OFF PKFY-P40VGM = ON PKFY-P50VGM = OFF 												
	2	Louver	Available	Not available													
	3	Vane	Available	Not available													
	4	Vane swing function	Available	Not available													
	5	Vane horizontal angle	Second setting	First setting													
	6	Vane cooling limit angle setting *4	Horizontal angle	Down A,B,C													
	7	Indoor linear expansion valve opening	Effective	Not effective													
	8	Heater 4 deg up	Not effective	Effective													
	9	Target Superheat setting *5	9 degrees	6 degrees													
	10	Target Subcool setting	15 degrees	10 degrees													
SW4 Unit Selection	1~4				<div style="border: 1px solid black; padding: 5px;">Indoor controller board</div> <p>Set while the unit is off.</p> <p><Initial setting></p> 												

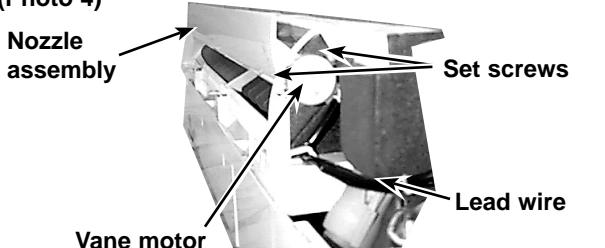
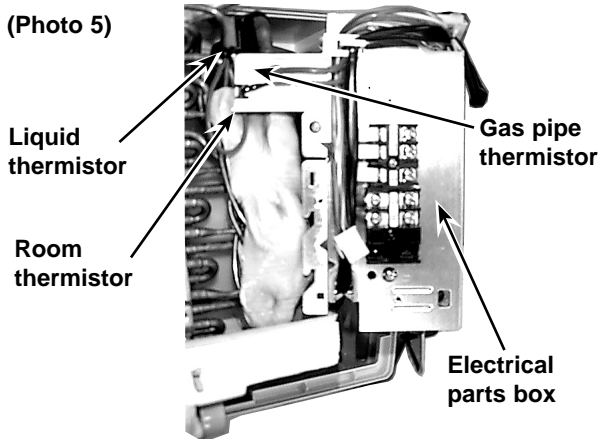
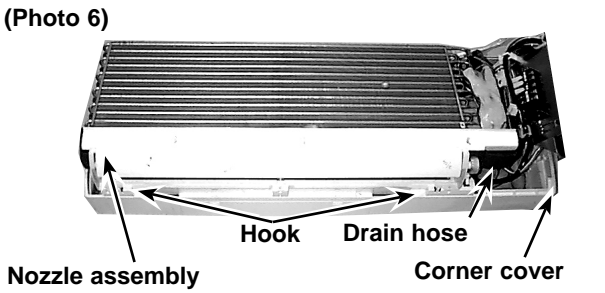
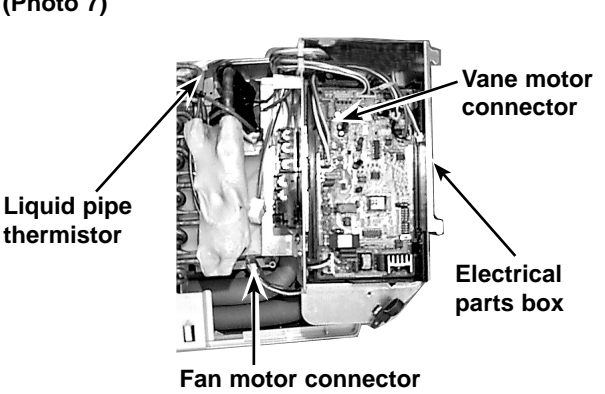
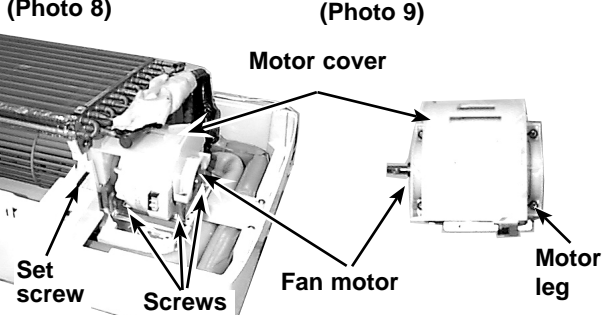
The black square (■) indicates a switch position.

Switch	Pole	Operation by switch	Remarks
SW11 1st digit address setting SW12 2nd digit address setting	Rotary switch	 <p>Address setting should be done when network remote controller (PAR-F25MA) is being used.</p>	<div style="border: 1px solid black; padding: 2px; text-align: center;">Address board</div> <p>Address can be set while the unit is stopped.</p> <p><Initial setting></p> 
SW14 Connection No. setting	Rotary switch	 <p>This is the switch to be used when the indoor unit is operated with R2, R3 series outdoor unit as a set.</p>	<div style="border: 1px solid black; padding: 2px; text-align: center;">Address board</div> <p><Initial setting></p> <p>SW14</p> 
SW/5 Voltage Selection	2	<p>220V 240V</p>  <p>If the unit is used at the 230V or 240V area, set the voltage to 240V. If the unit is used at the 220V, set the voltage to 220V.</p>	<div style="border: 1px solid black; padding: 2px; text-align: center;">Address board</div> <p><Initial setting></p> <p>220V 240V</p> 

PKFY-P32VGM , PKFY-P40VGM , PKFY-P50VGM

OPERATION PROCEDURE	PHOTOS & ILLUSTRATION
<p>1 REMOVING THE LOWER SIDE OF THE INDOOR UNIT FROM THE INSTALLATION PLATE</p> <p>(1) Remove the left / right corner box of the indoor unit.</p> <p>(2) Hold and pull down the lower and both ends of the indoor unit, and remove the ▼ section from the square hole. (Refer to Figure 2.1) Or remove the front panel and push the ▼ section down by using alankey ,etc. from the front side. (Refer to Figure 2.2).</p> <p>(3) Unhook the top of the indoor unit from the back plate catch.</p> <p>(Figure 2.2)</p> 	<p>(Figure 1)</p>  <p>(Figure 2.1)</p> 
<p>2 REMOVING THE FRONT PANEL</p> <p>(1) Open the front grille.</p> <p>(2) Remove the terminal block cover with a screw.</p> <p>(3) Remove the screw 3 caps then remove the set 3 screws.</p> <p>(4) After removing the lower side of the front panel a little, remove it as pulling toward upper.</p>	<p>(Figure 3)</p>  <p>(Photo 1)</p> 
<p>3 REMOVING THE INDOOR CONTROLLER BOARD</p> <p>(1) Remove the terminal block cover.</p> <p>(2) Remove the front panel. (See Photo 1)</p> <p>(3) Remove the electrical parts box (2 screws).</p> <p>(4) Remove the electrical parts box cover (1 screw).</p> <p>(5) Disconnect the connector on the indoor controller board and remove the controller board by pulling up the hook of the controller case.</p> <p>※ For a smooth work, hang the side hooks of the electrical parts box on the hook of the motor cover. (See Photo 3)</p>	<p>(Photo 2)</p>  <p>(Photo 3)</p> 

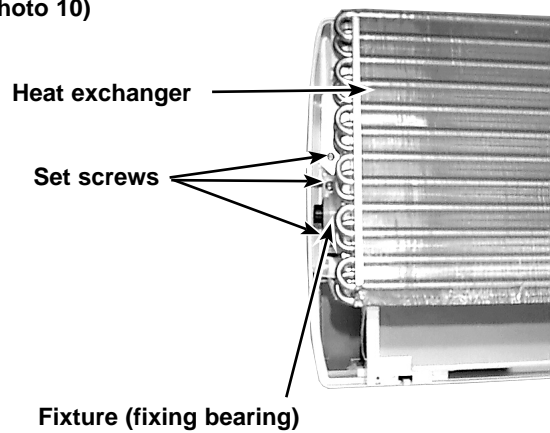


OPERATION PROCEDURE	PHOTOS & ILLUSTRATION
<p>4 REMOVING THE VANE MOTOR</p> <p>(1) Disconnect the connector CN6V on the indoor controller board.</p> <p>(2) Remove the 2 screws of the vane motor, disconnect the lead wire and remove the vane motor from the shaft.</p>	<p>(Photo 4)</p> 
<p>5 REMOVING THE THERMISTOR</p> <p>(1) Removing the room thermistor TH21</p> <p>① Disconnect the connector CN20<red> on the indoor controller board.</p> <p>② Remove the room thermistor from the holder.</p> <p>(2) Removing the liquid pipe thermistor TH22</p> <p>① Disconnect the connector CN21<white> on indoor controller board.</p> <p>② Remove the liquid pipe thermistor with set to the pipe.</p> <p>(3) Removing the gas pipe thermistor TH23</p> <p>① Disconnect the connector CN29<blak> on the indoor controller board.</p> <p>② Remove the gas pipe thermistor with set to the pipe.</p>	<p>(Photo 5)</p> 
<p>6 REMOVING THE NOZZLE ASSEMBLY</p> <p>(1) Disconnect the connector CN6V on the indoor controller board.</p> <p>(2) Disconnect the lead wire of the vane motor.</p> <p>(3) Remove the corner cover.</p> <p>(4) Pull the drain hose out from the nozzle assembly.</p> <p>(5) Unhook the hook of the lower nozzle assembly and pull the nozzle assembly toward you, then remove the nozzle assembly by sliding it down.</p>	<p>(Photo 6)</p> 
<p>7 REMOVING THE ELECTRICAL PARTS BOX</p> <p>(1) Remove the terminal block cover.</p> <p>(2) Remove the front panel. (See Photo 1)</p> <p>(3) Disconnect the vane motor connector.</p> <p>(4) Disconnect the fan motor connector from the fan motor.</p> <p>(5) Remove the liquid/gas pipe thermistor. (See Photo 5)</p> <p>(6) Remove the electrical parts box (2 screws).</p>	<p>(Photo 7)</p> 
<p>8 REMOVING THE FAN MOTOR</p> <p>(1) Remove the terminal block cover.</p> <p>(2) Remove the front panel. (See Photo 1)</p> <p>(3) Remove the electrical parts box. (See Photo 7)</p> <p>(4) Remove the nozzle assembly. (See Photo 6)</p> <p>(5) Remove the fan motor leg fixing 3 screws.</p> <p>(6) Unscrew the set screws using by alankey and remove it by sliding the fan motor to right.</p> <p>(7) Remove the 4 screws and remove the motor cover from the fan motor leg.</p>	<p>(Photo 8) (Photo 9)</p> 

9 REMOVING THE LINE FLOW FAN

- (1) Remove the terminal block cover.
- (2) Remove the front panel. (See Photo 1)
- (3) Remove the electrical parts box. (See Photo 7)
- (4) Remove the nozzle assembly. (See Photo 6)
- (5) Remove the fan motor. (See Photo 8)
- (6) Remove the pipe fixture with 2 screws. (See Photo 11)
- (7) Remove the left / right screws of the heat exchanger and pull the left-hand side up.
- (8) Remove the 2 screws by sliding it toward you remove the fixture (fixing bearing).
 - * When the fan is hard to remove, remove the fan motor first.
 - * When resetting the fan to the fan motor, locate and fix the shaft after installing the fan.

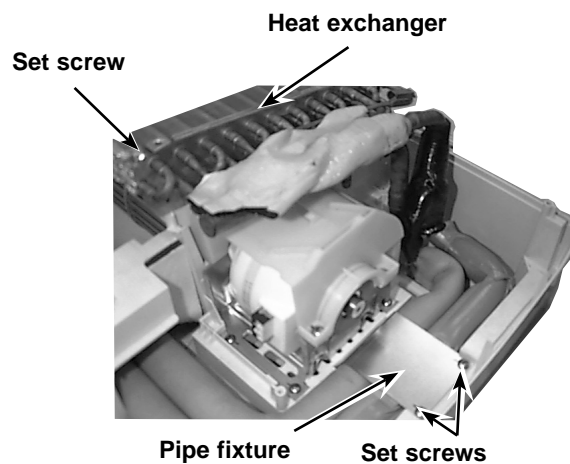
(Photo 10)



10 REMOVING THE HEAT EXCHANGER

- (1) Remove the terminal block cover.
- (2) Remove the front panel. (See Photo 1)
- (3) Remove the electrical parts box. (See Photo 7)
- (4) Remove the corner box.
- (5) Remove the nozzle assembly. (See Photo 6)
- (6) Remove the 2 screws and the pipe fixture.
- (7) Remove the 2 screws and heat exchanger.

(Photo 11)

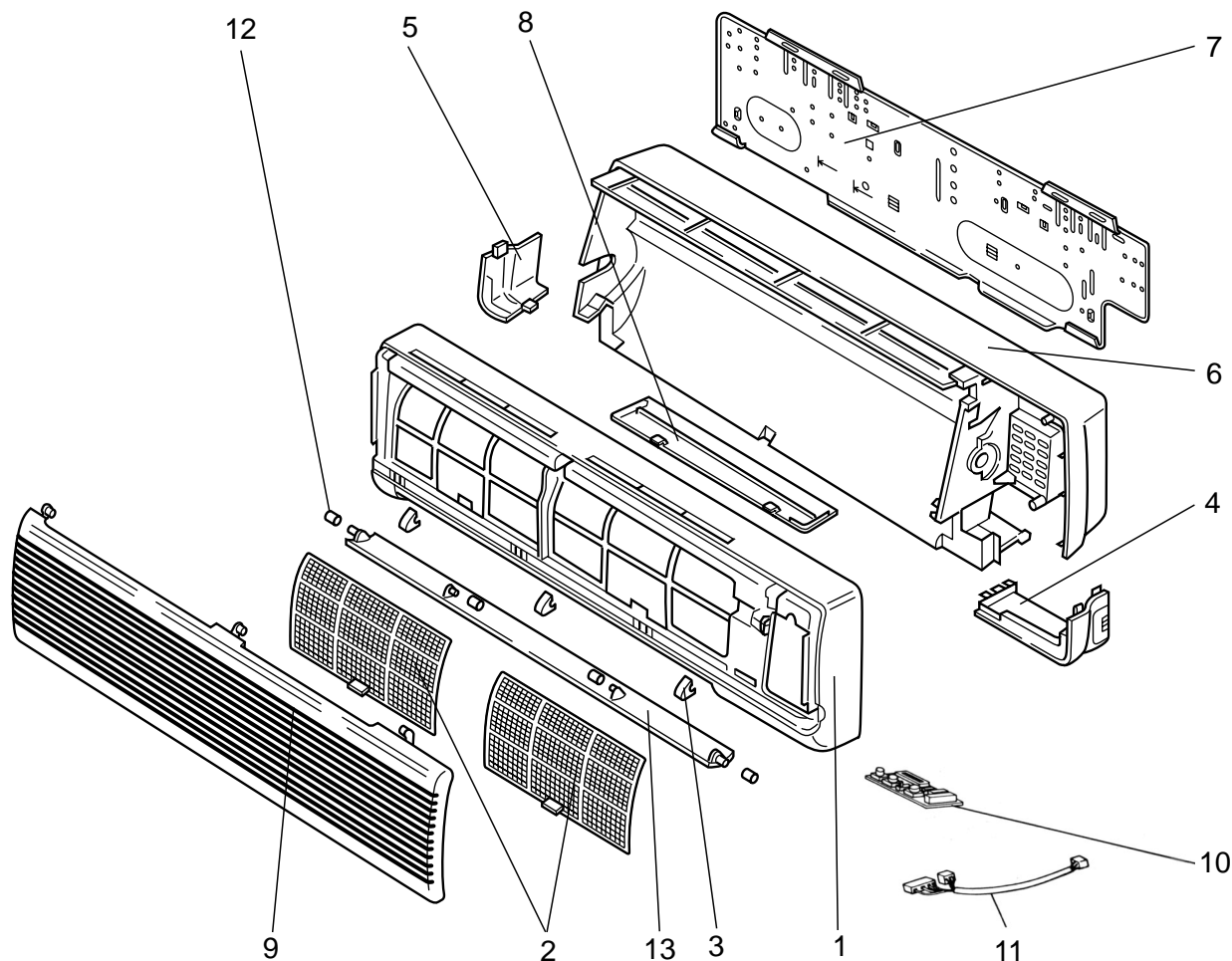


9

PARTS LIST (non-RoHs compliant)

**PKFY-P32VGM
PKFY-P40VGM
PKFY-P50VGM**

STRUCTURAL PARTS



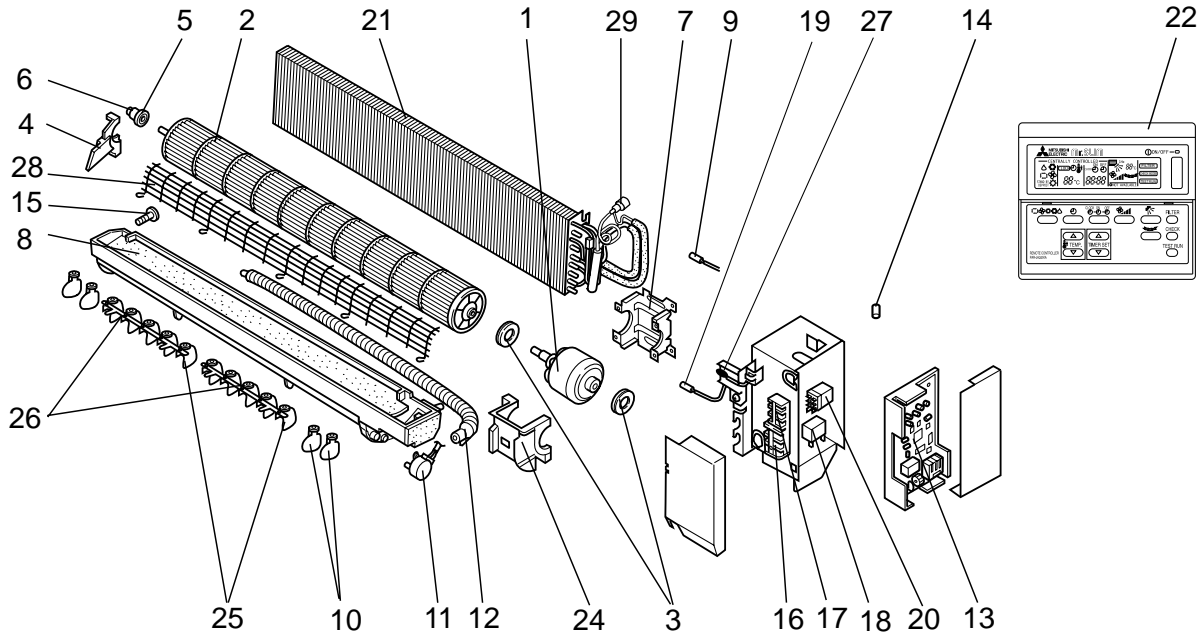
No.	Parts No.	Parts Name	Specifications	PKFY-P32VGM PKFY-P40VGM PKFY-P50VGM	Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
1	R01 89Y 651	FRONT PANEL		1			
2	R01 A16 500	AIR FILTER		2			
3	R01 07Y 096	SCREW CAP		3			
4	R01 10Y 658	CORNER COVER		1			
5	R01 08Y 658	CORNER COVER		1			
6	R01 07Y 635	BOX ASSEMBLY		1			
7	R01 07Y 808	BACK PLATE		1			
8	R01 07Y 623	UNDER COVER		1			
9	R01 07Y 691	FRONT GRILLE		1			
10	T7W B01 294	ADDRESS BOARD		1			
11	T7W 85Y 304	ADDRESS CABLE		1			
12	R01 07Y 092	VANE SLEEVE		1			
13	R01 07Y 002	AUTO VANE		1			

PARTS LIST (non-RoHs compliant)

PKFY-P32VGM

PKFY-P40VGM ELECTRICAL PARTS

PKFY-P50VGM



Part numbers that are circled are not shown in the figure.

No.	Parts No.	Parts Name	Specifications	PKFY-			Remarks (Drawing No.)	Wiring Diagram Symbol	Recom- mended Q'ty
				P32VGM	P40VGM	P50VGM			
1	T7W A01 762	FAN MOTOR		1	1	1			
2	R01 07Y 114	LINE FLOW FAN		1	1	1		MF	
3	R01 07Y 105	RUBBER MOUNT		2	2	2			
4	R01 07Y 106	BEARING SUPPORT		1	1	1			
5	R01 005 103	SLEEVE BEARING		1	1	1			
6	R01 07Y 102	BEALING MOUNT		1	1	1			
7	R01 07Y 130	MOTOR SUPPORT		1	1	1			
8	R01 07Y 530	NOZZLE ASSY		1	1	1			
9	R01 89Y 202	GAS PIPE THERMISTOR		1	1	1		TH23	
10	R01 09Y 038	GUIDE VANE		4	4	4			
11	R01 89Y 223	VANE MOTOR		1	1	1		MV	
12	R01 07Y 527	DRAIN HOSE		1	1	1			
13	T7W E02 310	CONTROLLER BOARD		1	1	1		I.B	
14	T7W 520 239	FUSE		1	1	1		FUSE<I.B>	
15	R01 07Y 524	DRAIN PLAG		1	1	1			
16	T7W 521 716	TERMINAL BLOCK	3P	1	1	1		TB2	
17	T7W E00 716	TERMINAL BLOCK		1	1	1		TB5	
18	R01 588 255	RUN CAPACITOR 2		1	1	1		C1	
19	R01 KL5 202	LIQUID PIPE THERMISTOR		1	1	1		TH22	
20	T7W A00 260	POWER TRANS		1	1	1		T	
21	R01 A03 480	HEAT EXCHANGER		1					
	R01 A04 480	HEAT EXCHANGER			1				
	R01 A05 480	HEAT EXCHANGER				1			
22	T7W B00 713	REMOTE CONTROLLER	PAR-F25MA	1	1	1			
23	T7W A00 305	CORD REMOTE CONTROLLER	10m	1	1	1			
24	R01 07Y 135	MOTOR COVER		1	1	1			
25	R01 07Y 038	GUIDE VANE		10	10	10			
26	R01 07Y 059	ARM		2	2	2			
27	R01 18J 202	ROOM THERMISTOR		1	1	1		TH21	
28	T7W A00 675	FAN GUARD		1	1	1			
29	R01 22A 401	LINEAR EXPANSION VALVE		1	1	1		LEV	



Mr. SLIM

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Distributed in Feb. 2012 No.OC179 REVISED EDITION-B
Distributed in Jun. 2000 No.OC179 REVISED EDITION-A 200
Distributed in Dec. 1999 No.OC179 50
Distributed in Nov. 1999 No.OC179 300
Distributed in Dec. 1998 No.OC179 1
Distributed in Dec. 1998 No.OC179 357
Made in Japan

New publication, effective Feb. 2012
Specifications are subject to change without notice.