

# Air-Conditioners

## PCA-RP·GA

### INSTALLATION MANUAL

For safe and correct use, please read this installation manual thoroughly before installing the air-conditioner unit.

**FOR INSTALLER**

### INSTALLATIONSHANDBUCH

Zum sicheren und ordnungsgemäßen Gebrauch der Klimaanlage das Installationshandbuch gründlich durchlesen.

**FÜR INSTALLATEURE**

### MANUEL D'INSTALLATION

Veuillez lire le manuel d'installation en entier avant d'installer ce climatiseur pour éviter tout accident et vous assurer d'une utilisation correcte.

**POUR L'INSTALLATEUR**

### INSTALLATIEHANDLEIDING

Voor een veilig en juist gebruik moet u deze installatiehandleiding grondig doorlezen voordat u de airconditioner installeert.

**VOOR DE INSTALLATEUR**

### MANUAL DE INSTALACIÓN

Para un uso seguro y correcto, lea detalladamente este manual de instalación antes de montar la unidad de aire acondicionado.

**PARA EL INSTALADOR**

### MANUALE DI INSTALLAZIONE

Per un uso sicuro e corretto, leggere attentamente questo manuale di installazione prima di installare il condizionatore d'aria.

**PER L'INSTALLATORE**

### ΕΓΧΕΙΡΙΔΙΟ ΟΔΗΓΙΩΝ ΕΓΚΑΤΑΣΤΑΣΗΣ

Για ασφάλεια και σωστή χρήση, παρακαλείστε διαβάσετε προσεκτικά αυτό το εγχειρίδιο εγκατάστασης πριν αρχίσετε την εγκατάσταση της μονάδας κλιματισμού.

**ΓΙΑ ΑΥΤΟΝ ΠΟΥ ΚΑΝΕΙ ΤΗΝ ΕΓΚΑΤΑΣΤΑΣΗ**

### MANUAL DE INSTALAÇÃO

Para segurança e utilização correctas, leia atentamente este manual de instalação antes de instalar a unidade de ar condicionado.

**PARA O INSTALADOR**

### INSTALLATIONSMANUAL

Læs venligst denne installationsmanual grundigt, før De installerer airconditionanlægget, af hensyn til sikker og korrekt anvendelse.

**TIL INSTALLATØREN**

### INSTALLATIONSMANUAL

Läs denna installationsmanual noga för säkert och korrekt bruk innan luftkonditioneringen installeras.

**FÖR INSTALLATÖREN**

### MONTAJ ELKİTABI

Emniyetli ve doğru biçimde nasıl kullanılacağını öğrenmek için lütfen klima cihazını monte etmeden önce bu elkitabını dikkatle okuyunuz.

**MONTÖR İÇİN**

### РУКОВОДСТВО ПО УСТАНОВКЕ

Для осторожного и правильного использования прибора необходимо тщательно ознакомиться с данным руководством по установке до выполнения установки кондиционера.

**ДЛЯ УСТАНОВИТЕЛЯ**

### 安装说明书

在安装空调机之前，请先通读此安装说明书，以便安全正确地使用。

**安装人员适用**

English

Deutsch

Français

Nederlands

Español

Italiano

Ελληνικά

Português

Dansk

Svenska

Türkçe

Русский

中文

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## 1. Safety precautions

- ▶ Before installing the unit, make sure you read all the “Safety precautions”.
- ▶ Please report to your supply authority or obtain their consent before connecting this equipment to the power supply system.

**⚠ Warning:**  
Describes precautions that must be observed to prevent danger of injury or death to the user.

**⚠ Caution:**  
Describes precautions that must be observed to prevent damage to the unit.

After installation work has been completed, explain the “Safety Precautions,” use, and maintenance of the unit to the customer according to the information in the Operation Manual and perform the test run to ensure normal operation. Both the Installation Manual and Operation Manual must be given to the user for keeping. These manuals must be passed on to subsequent users.

- ⚠ Warning:**
- Ask a dealer or an authorized technician to install the unit.
  - For installation work, follow the instructions in the Installation Manual and use tools and pipe components specifically made for use with refrigerant specified in the outdoor unit installation manual.
  - The unit must be installed according to the instructions in order to minimize the risk of damage from earthquakes, typhoons, or strong winds. An incorrectly installed unit may fall down and cause damage or injuries.
  - The unit must be securely installed on a structure that can sustain its weight.
  - If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration in the room from exceeding the safety limit in the event of refrigerant leakage. Should the refrigerant leak and cause the concentration limit to be exceeded, hazards due to lack of oxygen in the room may result.

### 1.1. Before installation (Environment)

- ⚠ Caution:**
- Do not use the unit in an unusual environment. If the air conditioner is installed in areas exposed to steam, volatile oil (including machine oil), or sulfuric gas, areas exposed to high salt content such as the seaside, the performance can be significantly reduced and the internal parts can be damaged.
  - Do not install the unit where combustible gases may leak, be produced, flow, or accumulate. If combustible gas accumulates around the unit, fire or explosion may result.
  - Do not keep food, plants, caged pets, artwork, or precision instruments in the direct airflow of the indoor unit or too close to the unit, as these items can be damaged by temperature changes or dripping water.

### 1.2. Before installation or relocation

- ⚠ Caution:**
- Be extremely careful when transporting the units. Two or more persons are needed to handle the unit, as it weighs 20 kg or more. Do not grasp the packaging bands. Wear protective gloves as you can injure your hands on the fins or other parts.
  - Be sure to safely dispose of the packaging materials. Packaging materials, such as nails and other metal or wooden parts may cause stabs or other injuries.

### 1.3. Before electric work

- ⚠ Caution:**
- Be sure to install circuit breakers. If not installed, electric shock may result.
  - For the power lines, use standard cables of sufficient capacity. Otherwise, a short circuit, overheating, or fire may result.
  - When installing the power lines, do not apply tension to the cables.

### 1.4. Before starting the test run

- ⚠ Caution:**
- Turn on the main power switch more than 12 hours before starting operation. Starting operation just after turning on the power switch can severely damage the internal parts.
  - Before starting operation, check that all panels, guards and other protective parts are correctly installed. Rotating, hot, or high voltage parts can cause injuries.

- ⊘ : 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.
- ⚠ : Indicates that the main switch must be turned off before servicing.
- ⚠ : Beware of electric shock.
- ⚠ : Beware of hot surface.
- ⚠ ELV : At servicing, please shut down the power supply for both the Indoor and Outdoor Unit.

**⚠ Warning:**  
Carefully read the labels affixed to the main unit.

- Ventilate the room if refrigerant leaks during operation. If refrigerant comes into contact with a flame, poisonous gases will be released.
- All electric work must be performed by a qualified technician according to local regulations and the instructions given in this manual.
- Use only specified cables for wiring.
- The terminal block cover panel of the unit must be firmly attached.
- Use only accessories authorized by Mitsubishi Electric and ask a dealer or an authorized technician to install them.
- The user should never attempt to repair the unit or transfer it to another location.
- After installation has been completed, check for refrigerant leaks. If refrigerant leaks into the room and comes into contact with the flame of a heater or portable cooking range, poisonous gases will be released.

- When the room humidity exceeds 80% or when the drainpipe is clogged, water may drip from the indoor unit. Do not install the indoor unit where such dripping can cause damage.
- When installing the unit in a hospital or communications office, be prepared for noise and electronic interference. Inverters, home appliances, high-frequency medical equipment, and radio communications equipment can cause the air conditioner to malfunction or breakdown. The air conditioner may also affect medical equipment, disturbing medical care, and communications equipment, harming the screen display quality.

- Thermal insulation of the refrigerant pipe is necessary to prevent condensation. If the refrigerant pipe is not properly insulated, condensation will be formed.
- Place thermal insulation on the pipes to prevent condensation. If the drainpipe is installed incorrectly, water leakage and damage to the ceiling, floor, furniture, or other possessions may result.
- Do not clean the air conditioner unit with water. Electric shock may result.
- Tighten all flare nuts to specification using a torque wrench. If tightened too much, the flare nut can break after an extended period.

- Be sure to ground the unit. If the unit is not properly grounded, electric shock may result.
- Use circuit breakers (ground fault interrupter, isolating switch (+B fuse), and molded case circuit breaker) with the specified capacity. If the circuit breaker capacity is larger than the specified capacity, breakdown or fire may result.

- Do not operate the air conditioner without the air filter set in place. If the air filter is not installed, dust may accumulate and breakdown may result.
- Do not touch any switch with wet hands. Electric shock may result.
- Do not touch the refrigerant pipes with bare hands during operation.
- After stopping operation, be sure to wait at least five minutes before turning off the main power switch. Otherwise, water leakage or breakdown may result.

## 2. Installation location

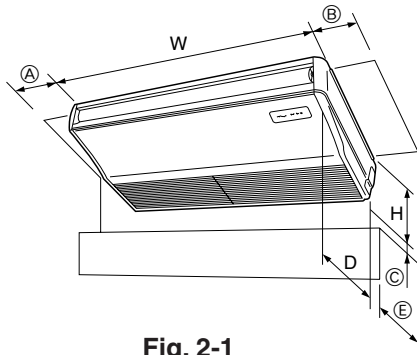


Fig. 2-1

## 3. Installing the indoor unit

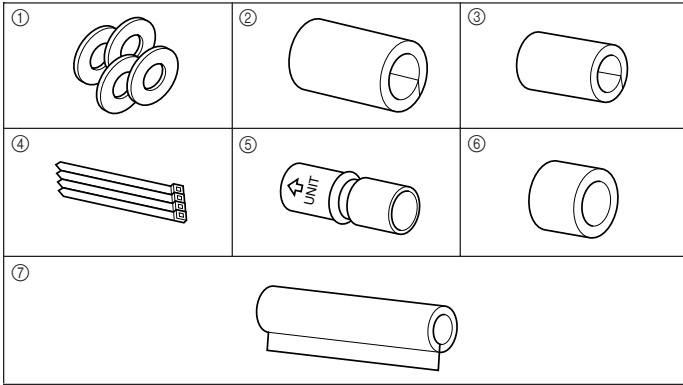


Fig. 3-1

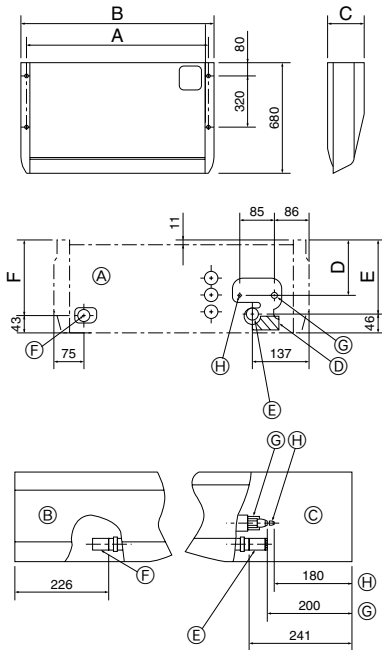


Fig. 3-2

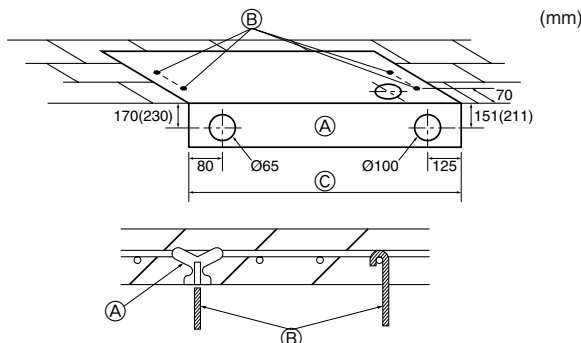


Fig. 3-3

### 2.1. Outline dimensions (Indoor unit) (Fig. 2-1)

Select a proper position allowing the following clearances for installation and maintenance.

Models	W	D	H	A	B	C	E
RP2	1000	680	221	Min. 270	Min. 300	Min. 500	Max. 250
RP2.5, 3	1310	680	221	Min. 270	Min. 300	Min. 500	Max. 250
RP4	1310	680	281	Min. 270	Min. 300	Min. 500	Max. 250
RP5, 6	1620	680	281	Min. 270	Min. 300	Min. 500	Max. 250

#### Warning:

Mount the indoor unit on a ceiling strong enough to withstand the weight of the unit.

### 2.2. Outline dimensions (Outdoor unit)

Refer to the outdoor unit installation manual.

### 3.1. Check the indoor unit accessories (Fig. 3-1)

The indoor unit should be supplied with the following accessories (contained in the inside of the intake grille).

	Accessory name	Q'ty
①	Washer	4 pcs
②	Pipe cover	1 pc Large size (For gas tubing)
③	Pipe cover	1 pc Small size (For liquid tubing)
④	Band	4 pcs
⑤	Joint socket	1 pc Marked with "UNIT"
⑥	Socket cover	1 pc
⑦	Drain tubing cover	1 pc

### 3.2. Preparation for installation (Fig. 3-2)

#### 3.2.1. Suspension bolt installing spacing

Models	A	B	C
RP2	933	1000	221
RP2.5, 3	1240	1310	221
RP4	1240	1310	281
RP5, 6	1547	1620	281

#### 3.2.2. Refrigerant and drain tubing location

Models	D	E	F	G	H	J	K	L
RP2, 2.5, 3	131	175	178	90	82	159	156	90
RP4, 5, 6	191	235	238	150	142	219	216	150

- Ⓐ Front side outlet
- Ⓑ Left side outlet
- Ⓒ Right side outlet
- Ⓓ Independent piece (Removable)
- Ⓔ Right drain tubing
- Ⓕ Left drain tubing
- Ⓖ Gas tubing
- Ⓗ Liquid tubing

#### 3.2.3. Selection of suspension bolts and tubing positions (Fig. 3-3)

Using the pattern paper provided for installation, select proper positions for suspension bolts and tubing and prepare relative holes.

- Ⓐ Pattern paper
- Ⓑ Suspension bolt hole
- Ⓒ Indoor unit width

Secure the suspension bolts or use angle stock braces or square timbers for bolt installation.

- Ⓐ Use inserts of 100 kg to 150 kg each.
- Ⓑ Use suspension bolts of W3/8 or M10 in size

### 3. Installing the indoor unit

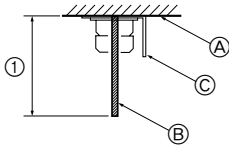


Fig. 3-4

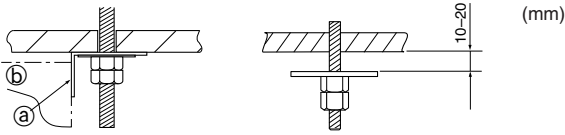


Fig. 3-5

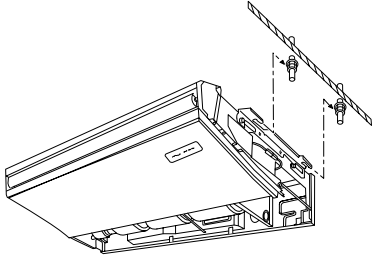


Fig. 3-6

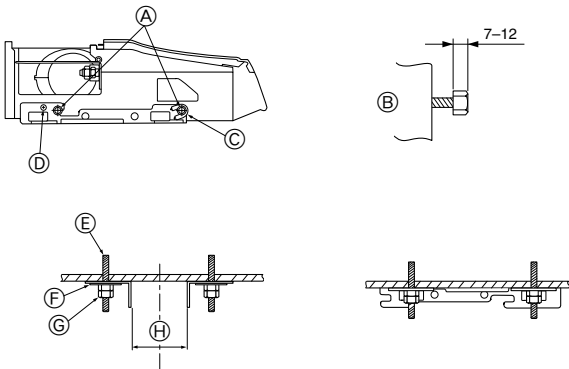


Fig. 3-7

#### 3.2.4. Indoor unit preparation (Fig. 3-4)

1. Install the suspending bolts. (Procure the W3/8 or M10 bolts locally.)  
Predetermine the length from the ceiling (ⓐ) within 100 mm).

- ⓐ Ceiling surface
- ⓑ Suspending bolt
- ⓒ Suspending bracket

2. Remove the intake grille.

Slide the intake grille holding knobs (at two locations) backward to open the intake grille.

3. Remove the side panel.

Remove the side panel holding screws (one in each side, right and left) then slide the side panel forward for removal.

#### 3.3. Installing the indoor unit

Use a proper suspending method depending on the presence or absence of ceiling materials as follows. (Fig. 3-5)

In the absence of ceiling materials

- ⓐ Suspending bracket
- ⓑ Unit

##### 1) Directly suspending the unit (Fig. 3-6)

Installing procedures

1. Install the washer ① (supplied with the unit) and the nut (to be locally procured).
2. Set (hook) the unit through the suspending bolts.
3. Tighten the nuts.

Check the unit installing condition.

- Check that the unit is horizontal between the right and left sides.
- Check that the unit slopes continuously downward from the front to the rear.

##### When embedding pipes, into the wall

##### 2) Installing the suspending bracket first onto the ceiling (Fig. 3-7)

Installing procedures

1. Remove the suspending brackets, U-shaped washers, and suspending bracket holding screws from the unit.
2. Adjust the suspending bracket holding bolts on the unit.
3. Attach the suspending brackets to the suspending bolts.
4. Set (hook) the unit to the suspending brackets.

\* Be sure to install the U-shaped washers.

- Ⓐ Bolt
- Ⓑ Unit
- Ⓒ Washer
- Ⓓ Suspending bracket holding screw
- Ⓔ Bolt
- Ⓕ Washer ①
- Ⓖ Double nuts

ⓐ (mm)	
RP2	900 - 905
RP2.5, 3, 4	1207 - 1212
RP5, 6	1514 - 1519

## 4. Installing the refrigerant piping

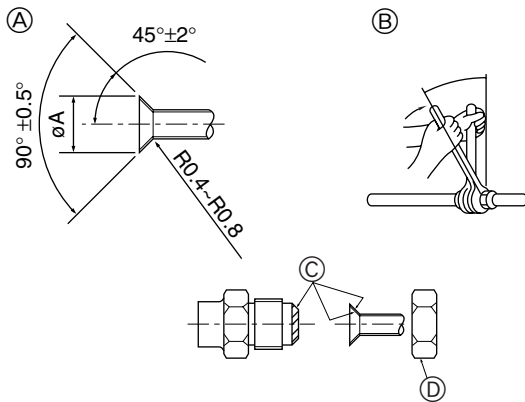


Fig. 4-1

### (A) Flare cutting dimensions

Copper pipe O.D. (mm)	Flare dimensions øA dimensions (mm)
ø6.35	8.7 - 9.1
ø9.52	12.8 - 13.2
ø12.7	16.2 - 16.6
ø15.88	19.3 - 19.7
ø19.05	23.6 - 24.0

### 4.1. Connecting pipes (Fig. 4-1)

- When commercially available copper pipes are used, wrap liquid and gas pipes with commercially available insulation materials (heat-resistant to 100 °C or more, thickness of 12 mm or more).
- The indoor parts of the drain pipe should be wrapped with polyethylene foam insulation materials (specific gravity of 0.03, thickness of 9 mm or more).
- Apply thin layer of refrigerant oil to pipe and joint seating surface before tightening flare nut.
- Use two wrenches to tighten piping connections.
- Use refrigerant piping insulation provided to insulate indoor unit connections. Insulate carefully.

### (B) Flare nut tightening torque

Copper pipe O.D. (mm)	Flare nut O.D. (mm)	Tightening torque (N-m)
ø6.35	17	14 - 18
ø6.35	22	34 - 42
ø9.52	22	34 - 42
ø12.7	26	49 - 61
ø12.7	29	68 - 82
ø15.88	29	68 - 82
ø15.88	36	100 - 120
ø19.05	36	100 - 120

© Apply refrigerating machine oil over the entire flare seat surface.

⑤ Use the flare nuts as follows.

Indoor unit		RP1.6, 2	RP2.5, 3	RP4-6
Refrigerant		R407C		
Joint outdoor unit		PU(H)-P1.6/2	PU(H)-P2.5/3	PU(H)-P4/5/6
Gas side	Pipe size (mm)	ø15.88	ø15.88	ø19.05
	Indoor nut	*1	*1	*1
	Outdoor nut	*1	*1	*1
Liquid side	Pipe size (mm)	ø9.52	ø9.52	ø9.52
	Indoor nut	*1	*1	*1
	Outdoor nut	*1	*1	*1
Indoor unit		RP1.6, 2	RP2.5, 3	RP4-6
Refrigerant		R410A		
Joint outdoor unit		PUHZ-RP1.6/2	PUHZ-RP2.5/3	PUHZ-RP4/5/6
Gas side	Pipe size (mm)	ø12.7	ø15.88	ø15.88
	Indoor nut	*2	*1	*2
	Outdoor nut	*1	*1	*1
Liquid side	Pipe size (mm)	ø6.35	ø9.52	ø9.52
	Indoor nut	*2	*1	*1
	Outdoor nut	*1	*1	*1

\*1: The flare nut is attached to its pipe.

\*2: The flare nut is in the outdoor unit accessory.

Do not use the flare nut attached. If it is used, a gas leakage or even a pipe extraction may occur.

Refer to the outdoor unit installation manual for the specification of connecting pipes.

### 4.2. Indoor unit (Fig. 4-2)

#### Installing procedures

- Slide the supplied pipe cover ② over the gas tubing until it is pressed against the sheet metal inside the unit.
- Slide the provided pipe cover ③ over the liquid tubing until it is pressed against the sheet metal inside the unit.
- Tighten the pipe covers ② and ③ at the both ends (15 - 20 mm) with the supplied bands ④.

Ⓐ Gas tubing

Ⓑ Liquid tubing

Ⓒ Band ④

Ⓓ Pipe cover ②

Ⓔ Pipe cover ③

Ⓕ Press the pipe cover against the sheet metal.

Ⓖ Refrigerant tubing heat insulating material

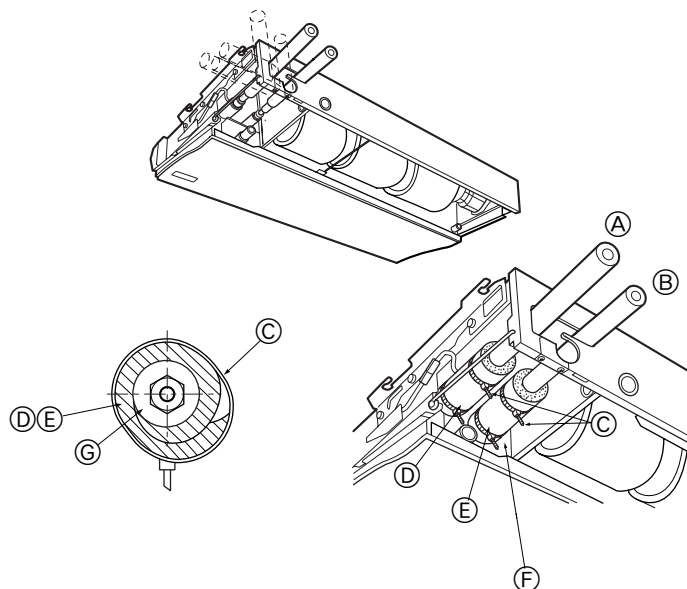


Fig. 4-2

### 4.3. For twin/triple combination

Refer to the outdoor unit installation manual.

## 5. Drainage piping work

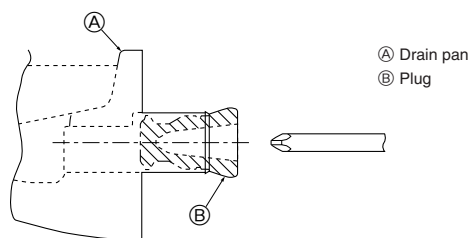
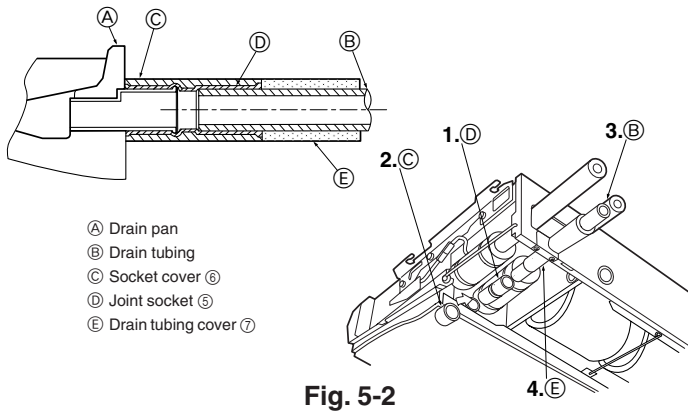


Fig. 5-1

### 5.1. Preparation for left side tubing installation (Fig. 5-1)

- For left side tubing, be sure to insert the rubber plug into the right drain port.
- Install the drain tubing as it slopes continuously downward.
- After completion of work, check that correct drain is available from the outflow port of the drain tubing.

## 5. Drainage piping work



- A Drain pan
- B Drain tubing
- C Socket cover ⑥
- D Joint socket ⑤
- E Drain tubing cover ⑦

Fig. 5-2

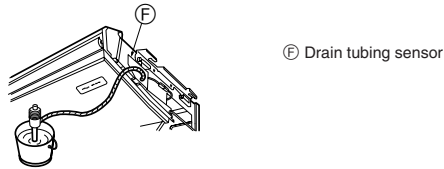


Fig. 5-3

### Installing procedures (Fig. 5-2)

1. Attach the joint socket ⑤ supplied with the unit to the drain port on the unit with a vinyl chloride adhesive.
2. Fasten the socket cover ⑥ supplied with the unit to the joint socket ⑤.
3. Attach the field drain tubing (VP20) to the joint socket ⑤ with a vinyl chloride adhesive.
4. Wrap the drain tubing cover ⑦ supplied with the unit. (Seam taping)

### 5. Check for correct drainage. (Fig. 5-3)

- \* Fill the drain pan with water of about 1 L from the tubing sensor access port.
- \* After checking for correct drainage, replace the tubing sensor access port cover.

## 6. Electrical work

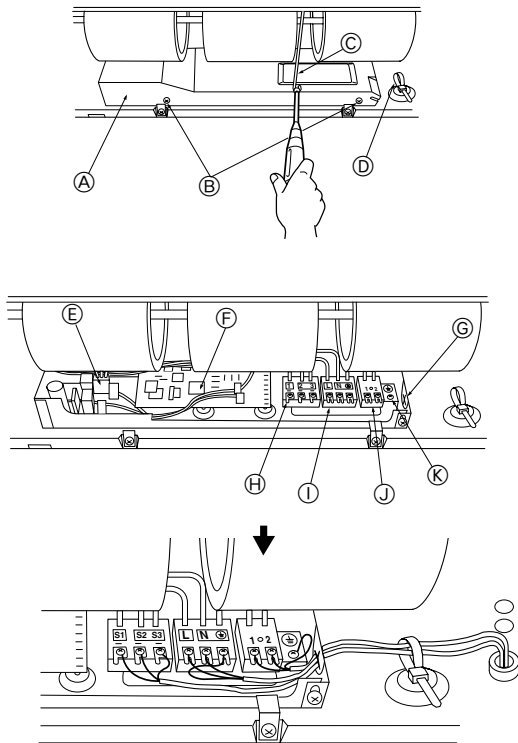


Fig. 6-1

### 6-1. Electric wiring (Fig. 6-1)

#### Wiring procedures

1. Remove the (two) tapping screws then remove the electric part cover.
2. Connect the electric wires securely to the corresponding terminals.
3. Replace the removed parts.
4. Tie the electric wires with the local wiring clamp located in the right side of the junction box.

- A Cover
- B Set screws
- C Beam
- D Wiring clamp
- E Power supply board
- F Control board
- G Wire service entrance
- H Terminal block for indoor and outdoor units connection
- I Terminal block for electric heater power supply (for only PCH models)
- J Terminal block for remote controller
- K Grounding cable connector

Indoor unit model		PCA	PCH
Indoor unit power supply (Heater)		-	~N (single), 50Hz, 220-230-240V
Indoor unit input capacity (Heater)		-	16A
Main switch (Breaker)		*1	
Wiring Wire No. x size (mm <sup>2</sup> )	Indoor unit power supply (Heater)	-	2 × Min. 1.5
	Indoor unit power supply (Heater) earth	-	1 × Min. 1.5
	Indoor unit-Outdoor unit	3 × 2.5 (Polar)	3 × 2.5 (Polar)
	Indoor unit-Outdoor unit earth	1 × Min. 2.5	1 × Min. 2.5
	Remote controller-Indoor unit	*2	2 × 0.69 (Non-polar)
Circuit rating	Indoor unit (Heater) L-N	*3	AC 220-230-240V
	Indoor unit-Outdoor unit S1-S2	*3	AC 220-230-240V
	Indoor unit-Outdoor unit S2-S3	*3	DC24V
	Remote controller-Indoor unit	*3	DC14V

\*1. A breaker with at least 3 mm contact separation in each pole shall be provided. Use non-fuse breaker (NF) or earth leakage breaker (NV).

\*2. A 10 m wire is attached in the remote controller accessory.

\*3. The figures are NOT always against the ground.

S3 terminal has DC 24 V against S2 terminal. However between S3 and S1, these terminals are not electrically insulated by the transformer or other device.

**Notes:** 1. Wiring size must comply with the applicable local and national code.

2. Power supply cords and Indoor unit/Outdoor unit connecting cords shall not be lighter than polychloroprene sheathed flexible cord. (Design 245 IEC 57)
3. Install an earth longer and thicker than other cables.



## 6. Electrical work

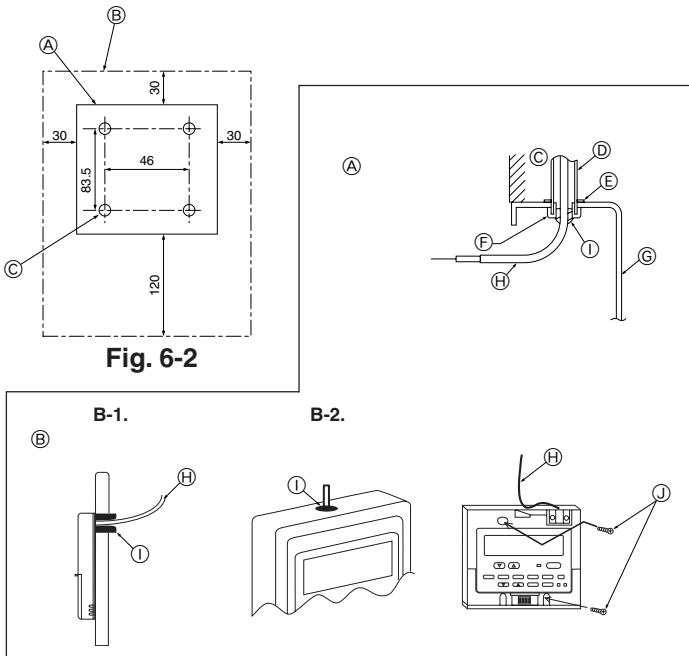


Fig. 6-3

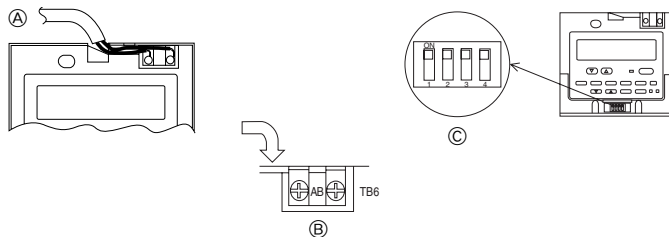


Fig. 6-4

<SW No. 1>

SW contents Main	Remote controller Main/Sub setting
ON/OFF	Main/Sub
Comment	Set one of the two remote controllers at one group to "Main"

<SW No. 2>

SW contents Main	When remote controller power turned on
ON/OFF	Normally on/Timer mode on
Comment	When you want to return to the timer mode when the power is restored after a power failure when a Program timer is connected, select "Timer mode".

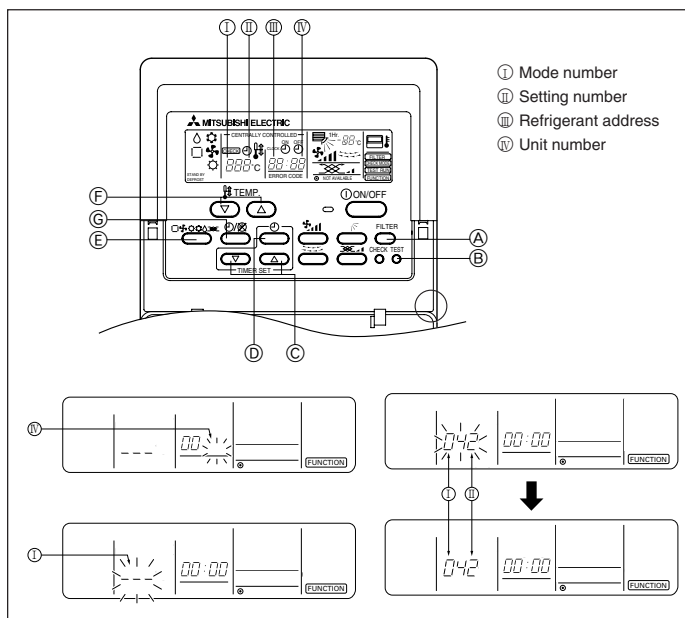


Fig. 6-5

## 6.2. Remote controller

### 6.2.1. For wired remote controller

#### 1) Installing procedures

(1) Select an installing position for the remote controller. (Fig. 6-2)

The temperature sensors are located on both remote controller and indoor unit.

#### ► Procure the following parts locally:

- Two piece switch box
- Thin copper conduit tube
- Lock nuts and bushings
- Ⓐ Remote controller profile
- Ⓑ Required clearances surrounding the remote controller
- Ⓒ Installation pitch

(2) Seal the service entrance for the remote controller cord with putty to prevent possible invasion of dew drops, water, cockroaches or worms. (Fig. 6-3)

Ⓐ For installation in the switch box:

Ⓑ For direct installation on the wall select one of the following:

- Prepare a hole through the wall to pass the remote controller cord (in order to run the remote controller cord from the back), then seal the hole with putty.
- Run the remote controller cord through the cut-out upper case, then seal the cut-out notch with putty similarly as above.

#### B-1. To lead the remote controller cord from the back of the controller:

#### B-2. To run the remote controller cord through the upper portion:

(3) For direct installation on the wall

- Ⓒ Wall
- Ⓓ Conduit
- Ⓔ Lock nut
- Ⓕ Bushing
- Ⓖ Switch box
- Ⓗ Remote controller cord
- Ⓘ Seal with putty
- Ⓚ Wood screw

#### 2) Connecting procedures (Fig. 6-4)

① Connect the remote controller cord to the terminal block.

- Ⓐ To TB5 on the indoor unit
  - Ⓑ TB6 (No polarity)
- ② Set the dip switch No.1 shown below when using two remote controller's for the same group.

Ⓒ Dip switches

#### Setting the dip switches

The dip switches are at the bottom of the remote controller. Remote controller Main/Sub and other function settings are performed using these switches. Ordinarily, only change the Main/Sub setting of SW No.1. (The factory settings are all "ON".)

<SW No. 3>

SW contents Main	Cooling/heating display in AUTO mode
ON/OFF	Yes/No
Comment	When you do not want to display "Cooling" and "Heating" in the Auto mode, set to "No".

<SW No. 4>

SW contents Main	Intake temperature display
ON/OFF	Yes/No
Comment	When you do not want to display the intake temperature, set to "No".

## 6.3. Function settings

### 6.3.1. For wired remote controller (Fig. 6-5)

Changing the power voltage setting

- Be sure to change the power voltage setting depending on the voltage used.

① Go to the function setting mode.

Switch OFF the remote controller.

Press the Ⓐ and Ⓑ buttons simultaneously and hold them for at least 2 seconds. FUNCTION will start to flash.

② Use the Ⓒ button to set the refrigerant address (Ⅲ) to 00.

③ Press Ⓓ and [–] will start to flash in the unit number (Ⅳ) display.

④ Use the Ⓒ button to set the unit number (Ⅳ) to 00.

⑤ Press the Ⓔ MODE button to designate the refrigerant address/unit number. [–] will flash in the mode number (Ⅰ) display momentarily.

⑥ Press the Ⓕ buttons to set the mode number (Ⅰ) to 04.

⑦ Press the Ⓖ button and the current set setting number (Ⅱ) will flash.

Use the Ⓕ button to switch the setting number in response to the power supply voltage to be used.

Power supply voltage

240 V : Setting number = 1

220 V, 230 V : Setting number = 2

⑧ Press the MODE button Ⓔ and mode and the setting number (Ⅰ) and (Ⅱ) will change to being on constantly and the contents of the setting can be confirmed.

⑨ Press the FILTER Ⓐ and TEST RUN Ⓑ buttons simultaneously for at least two seconds. The function selection screen will disappear momentarily and the air conditioner OFF display will appear.

## 6. Electrical work

### Function table

Select unit number 00

Mode	Settings	Mode no.	Setting no.	Initial setting	Setting
Power failure automatic recovery	Not available	01	1	○	
	Available		2		
Indoor temperature detecting	Indoor unit operating average	02	1	○	
	Set by indoor unit's remote controller		2		
	Remote controller's internal sensor		3		
LOSSNAY connectivity	Not Supported	03	1	○	
	Supported (indoor unit is not equipped with outdoor-air intake)		2		
	Supported (indoor unit is equipped with outdoor-air intake)		3		
Power voltage	240 V	04	1		
	220 V, 230 V		2	○	
Auto mode (only for PUHZ)	Energy saving cycle automatically enabled	05	1	○	
	Energy saving cycle automatically disabled		2		

Select unit numbers 01 to 03 or all units (AL [wired remote controller]/07 [wireless remote controller])

Mode	Settings	Mode no.	Setting no.	Initial setting	Setting
Filter sign	100 Hr	07	1		
	2500 Hr		2	○	
	No filter sign indicator		3		
Fan speed	Standard (PLH/PLA)/Silent (PCH/PCA)	08	1		
	High ceiling ① (PLH/PLA)/Standard (PCH/PCA)		2	○	
	High ceiling ② (PLH/PLA)/High ceiling (PCH/PCA)		3		
No. of air outlets	4 directions	09	1	—	
	3 directions		2	—	
	2 directions		3	—	
Installed options (high-performance filter)	Not supported	10	1	○	
	Supported		2		
Up/down vane setting	No vanes	11	1		
	Equipped with vanes (vaner angle setup ①)		2	○	
	Equipped with vanes (vaner angle setup ②)		3		
Energy saving air flow (Heating mode)	Disabled	12	1	○	
	Enabled		2		

## 7. Test run

### 7.1. Before test run

- ▶ After completing installation and the wiring and piping of the indoor and outdoor units, check for refrigerant leakage, looseness in the power supply or control wiring, wrong polarity, and no disconnection of one phase in the supply.
- ▶ Use a 500-volt megohmmeter to check that the resistance between the power supply terminals and ground is at least 1.0 MΩ.

- ▶ Do not carry out this test on the control wiring (low voltage circuit) terminals.

⚠ Warning:

Do not use the air conditioner if the insulation resistance is less than 1.0 MΩ. Insulation resistance

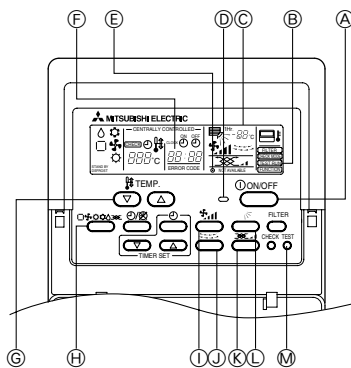


Fig. 7-1

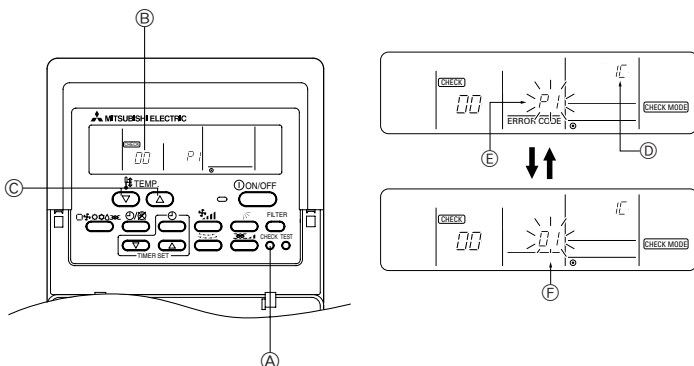


Fig. 7-2

### 7.2. Test run

The following 3 methods are available.

#### 7.2.1. Using wired remote controller (Fig. 7-1)

- ① Turn on the power at least 12 hours before the test run.
- ② Press the [TEST] button twice. ⇒ "TEST RUN" liquid crystal display
- ③ Press the [Mode selection] button. ⇒ Make sure that wind is blown out.
- ④ Press the [Mode selection] button and switch to the cooling (or heating) mode.
  - ⇒ Make sure that cold (or warm) wind is blown out.
- ⑤ Press the [Fan speed] button. ⇒ Make sure that the wind speed is switched.
- ⑥ Switch the wind direction by pressing the [Airflow] or [Louver] button.
  - ⇒ Make sure that horizontal outlet, downward outlet, and other wind direction adjustments are possible.
  - ⇒ Check operation of the outdoor unit fan.
- ⑦ Release test run by pressing the [ON/OFF] button. ⇒ Stop
- ⑧ After the checks, always turn off the power.

#### 7.2.2. Using SW4 in outdoor unit

Refer to the outdoor unit installation manual.

### 7.3. Self-check

#### 7.3.1. Wired remote controller (Fig. 7-2)

- ① Turn on the power.
- ② Press the [CHECK] button twice.
- ③ Set refrigerant address with [TEMP] button if system control is used.
- ④ Press the [ON/OFF] button to stop the self-check.

- Ⓐ CHECK button
- Ⓑ Refrigerant address
- Ⓒ TEMP. button
- Ⓓ IC: Indoor unit
- Ⓔ OC: Outdoor unit
- Ⓕ Check code
- Ⓖ Unit address



## 7. Test run

- For description of each check code, refer to the following table.

① Check code	Symptom	② Buzzer sound	③ OPE LED
P1	Intake sensor error	Single beep × 1	Lit for 1 sec. × 1
P2	Pipe sensor error	Single beep × 2	Lit for 1 sec. × 2
P4	Drain sensor error	Single beep × 4	Lit for 1 sec. × 4
P5	Drain pump error	Single beep × 5	Lit for 1 sec. × 5
P6	Freezing/Overheating safeguard operation	Single beep × 6	Lit for 1 sec. × 6
P8	Pipe temperature error	Single beep × 8	Lit for 1 sec. × 8
P9	TH5 sensor error	Single beep × 2	Lit for 1 sec. × 2
U0–UP	Outdoor unit error	Double beep × 1	Lit for 0.4 sec. + 0.4 sec. × 1
F1–FA	Outdoor unit error	Double beep × 1	Lit for 0.4 sec. + 0.4 sec. × 1
E0–E5	Signal error between remote controller and indoor units	Sounds other than above	Lights other than above
E6–EF	Communication error between indoor and outdoor units	Sounds other than above	Lights other than above
--	No alarm history	No sound	Not lit
F F F F	No unit	Triple beep	Not lit

- On wireless remote controller
- ② The continuous buzzer sounds from receiving section of indoor unit.
- ③ Blink of operation lamp
- On wired remote controller
- ① Check code displayed in the LCD.

- If the unit cannot be operated properly after the above test run has been performed, refer to the following table to remove the cause.

Symptom		Cause
Wired remote controller	LED 1, 2 (PCB in outdoor unit)	
H0	For about 2 minutes following power-on After LED 1, 2 are lighted, LED 2 is turned off, then only LED 1 is lighted. (Correct operation)	• For about 2 minutes following power-on, operation of the remote controller is not possible due to system start-up. (Correct operation)
H0 → Error code	After about 2 minutes has expired following power-on Only LED 1 is lighted. → LED 1, 2 blink.	• Connector for the outdoor unit's protection device is not connected. • Reverse or open phase wiring for the outdoor unit's power terminal block (L1, L2, L3)
Display messages do not appear even when operation switch is turned ON (operation lamp does not light up).	Only LED 1 is lighted. → LED 1 blinks twice, LED 2 blinks once.	• Incorrect wiring between indoor and outdoor units (incorrect polarity of S1, S2, S3) • Remote controller wire short

On the wireless remote controller with condition above, following phenomena takes place.

- No signals from the remote controller are accepted.
- OPE lamp is blinking.
- The buzzer makes a short piping sound.

### Note:

**Operation is not possible for about 30 seconds after cancellation of function selection. (Correct operation)**

For description of each LED (LED1, 2, 3) provided on the indoor controller, refer to the following table.

LED1 (power for microcomputer)	Indicates whether control power is supplied. Make sure that this LED is always lit.
LED2 (power for remote controller)	Indicates whether power is supplied to the remote controller. This LED lights only in the case of the indoor unit which is connected to the outdoor unit refrigerant address "0".
LED3 (communication between indoor and outdoor units)	Indicates state of communication between the indoor and outdoor units. Make sure that this LED is always blinking.

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This product is designed and intended for use in the residential,  
commercial and light-industrial environment.

The product at hand is based on the following EU regulations:

- Low Voltage Directive 73/23/ EEC
- Electromagnetic Compatibility Directive 89/336/ EEC

Please be sure to put the contact address/telephone number on  
this manual before handing it to the customer.