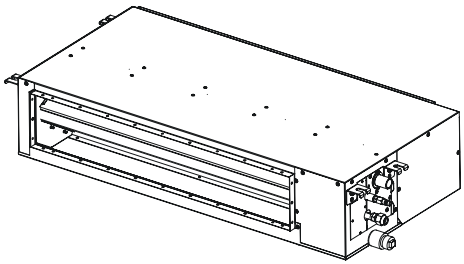
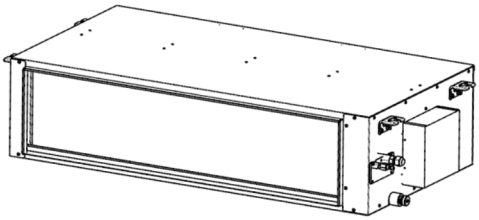
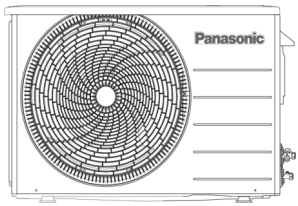
Panasonic

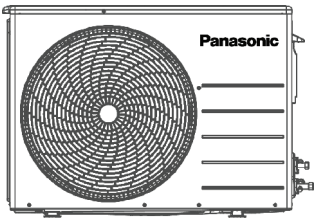
Installation & Operating Instructions

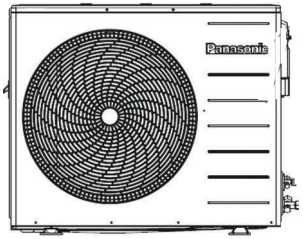
Ducted Air Conditioner











Model No. Indoor Unit	Outdoor Unit
S-18PM9RY	U-18PM9R5Y
S-24PM9RY	U-24PM9R5Y
S-36PF1RY	U-36PF1R5Y
S-48PF1RY	U-48PF1R5Y

Installation Instructions
Air Conditioner

Thank you for purchasing Panasonic Air Conditioner
Before Installation the unit, please read these installation Instructions thoroughly and keep them for future reference.

English

CAD36PR00901-R0

Installation of Indoor Unit

PREPARATION BEFORE INSTALLATION

Key point of inspection

Installation

- Be sure of machine type and name to avoid wrong installation.

Refrigerant

- Refrigerant pipe diameter must match the recommended size.
- Refrigerant pipe must be heat-insulated.

Air purging

- Vacuum pump or refrigerant cylinder should be used in air purging of the connection pipe or refrigerant can be used at the gas side.

Charge additional refrigerant

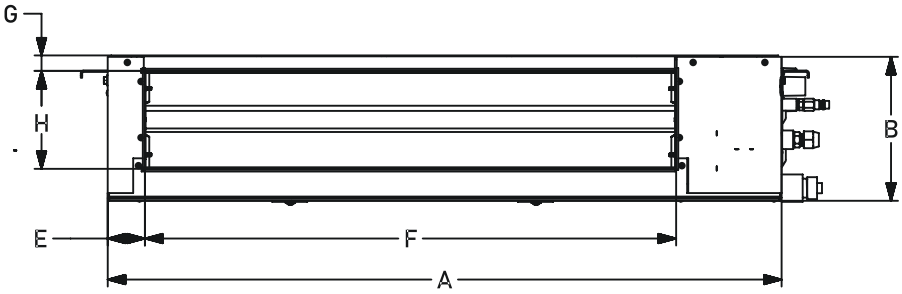
- The refrigerant charge volume is based on 5m connecting pipe. if the connecting length is longer than 5m please Scan the QR code on the front page and refer to page 12.
- Please keep record of additional refrigerant charge, pipe length and height drop of indoor & outdoor.

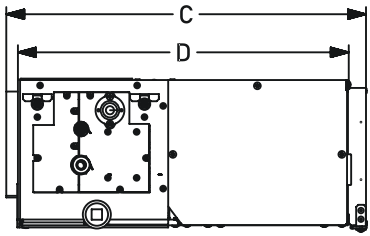
Electric wiring

- Choose the electric capacity and circuit according to design manual. The diameter of the electric supply line must be more than that of ordinary electromotor.
- Connect the power supply after completing the vacuuming process.

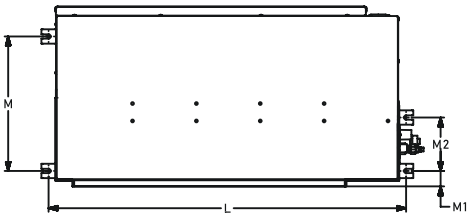
Unit Size (Detailed dimensions)

Indoor Unit

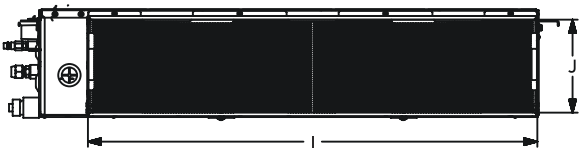




Size of mounted hook

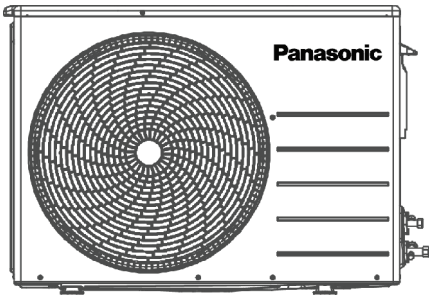


Air inlet size

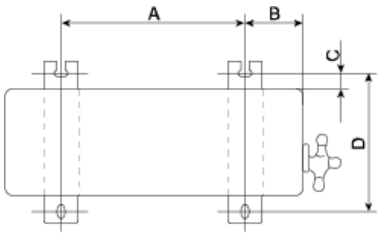


Model	Outline dimension				Air outlet opening size				Air return opening size		Size of mounted lug			
	A	B	C	D	E	F	G	H	I	J	L	M	M1	M2
S-18PM9RY	957	200	500	455	51	757	18	140	862	179	997	375	43	149
S-24PM9RY	1156	200	500	455	51	957	18	140	1063	179	1197	375	43	149
S-36PF1RY	1218	316	657	629	53	1076	22	251	1215	289	1278	427	105	427
S-48PF1RY	1218	316	657	629	53	1076	22	251	1215	289	1278	427	105	427

Outdoor Unit



Model	A	B	C	D
U-18PM9R5Y	570mm	105mm	18.5mm	320mm
U-24PM9R5Y	540mm	160mm	18.5mm	330mm
U-36PF1R5Y	613mm	131mm	24mm	360.5mm
U-48PF1R5Y	613mm	131mm	24mm	360.5mm



Installation location

Indoor unit

1. A place where there are sufficient space for repair.
2. Hung ceiling that can bear the weight of the machine.
3. A place without air inlet and outlet is not hindered and without influence from outdoor air
4. A place without heat source like smoke, fire or toxic pollution.
5. A place where air flow can be transmitted everywhere in the room.
6. A place convienient for installation.

Outdoor unit

1. A place where there is sufficient space for installation and repair.
2. A place where the air inlet and outlet are not hindered, without strong air flowing.
3. A dry and ventilated place.
4. A place where the overhanging is level and bear the weight of the outdoor unit, without much noise.
5. A place where neighbours are not annoyed by noise and exhausted air.
6. A place without leakage of flammable gas.
7. A place convenient for installation.

⚠ CAUTION

(Location in the following places may cause malfunction of the machine).

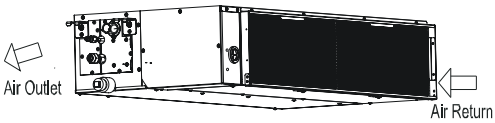
1. A place where there is flammable gas leakage.
2. There is a salty air surrounding (near the coast)
3. There is caustic gas (sulfide) existing in the air.
4. A place which can not bear the weight of the machine.
5. In the kitchen where it is full of oil gas.
6. There is strong electromagnetic wave existing.
7. There is acid or alkaline liquid evaporating.
8. A place where air circulation is not enough.
9. Other special surroundings.

Indoor unit Installation

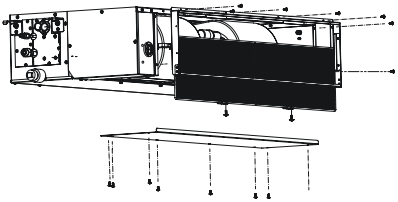
Choice of air return ways

This indoor unit is fitted with backward air return, which can be change to its downward counterpart if necessary (Applicable to 1.5TR & 2.0TR model). Please follow the steps below (2-4) to change it into the mode of air return downward.

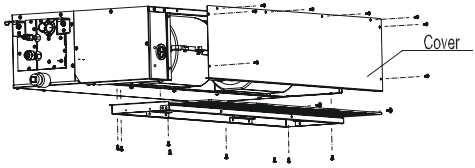
1. Air return backward.



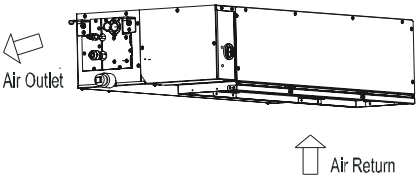
2. Loose the nut and dismantle support channel and filter; Loose the nut dismantel the back cover.



3. Install the support channel and filter at the downside; Install the cover to the backside.

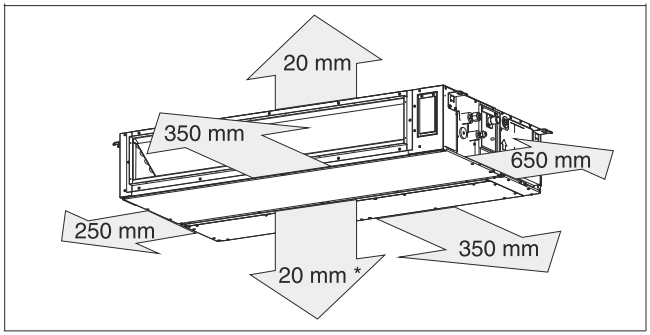


4. Air return downward



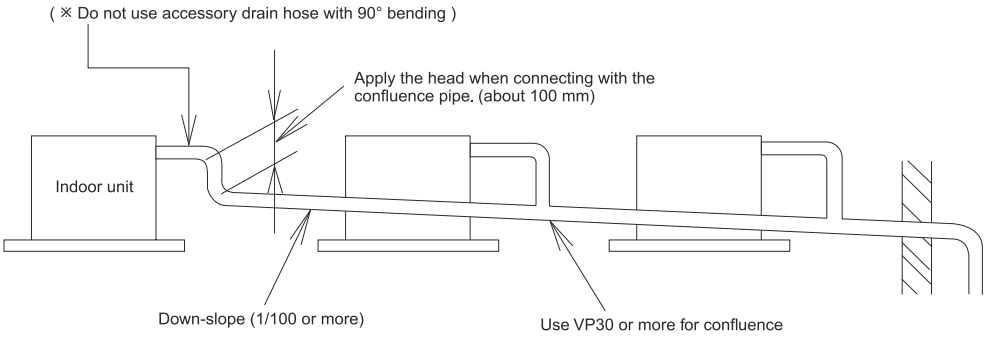
Installation Space

Ensure sufficient space for installation



Drain pipe connection

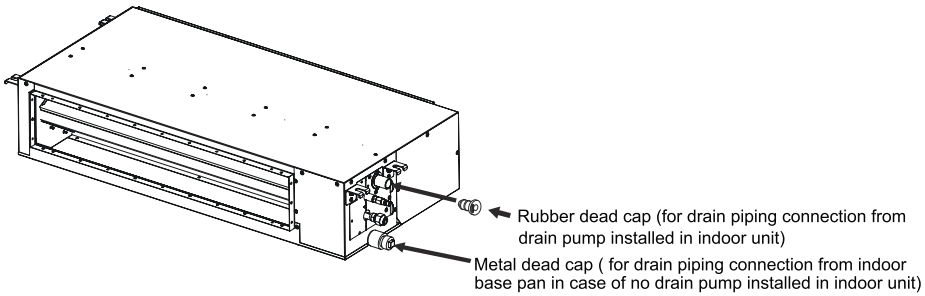
- During Drain Set Piping, install as shown in the figure below.



- Drain piping must have down-slope (1/50 to 1/100); be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert extra force on the drain port at the indoor unit.
- There are two pipe options for drain pipe installation: (only one pipe can be used for drainage pipe installation)

  a. Drainage from pump : The outside diameter of the connection at the indoor unit is 32 mm.

  b. Manual drainage: Use PVC pipe with 27mm outer diameter to lay the drainage pipe and make sure downward slope in more than 2/100
- Use one drain at a time and second drain must be close with dead plug.



- **Piping material:** Polyvinyl chloride pipe VP-25 and pipe fitting.
- Be sure to perform heat insulation on the drain piping.

Before Performing the installation of drain piping through drain pump

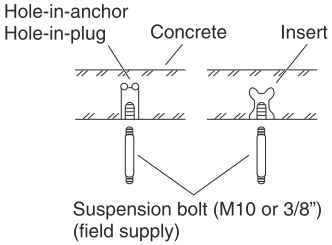
1) Limitations of Raising the Drain Pipe Connection

- The drain pipe can be raised to a maximum height of 850 mm from the bottom of the ceiling.
- Do not attempt to raise it higher than 850 mm.

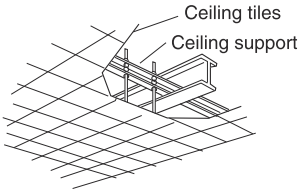
Fix Indoor unit

Depending on the ceiling type:.

a) Insert suspension bolts or



b) Use existing ceiling supports or construct a suitable support

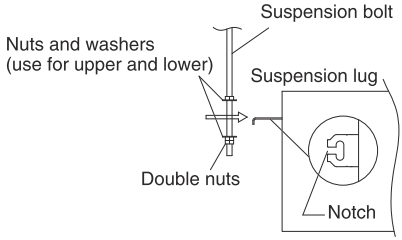


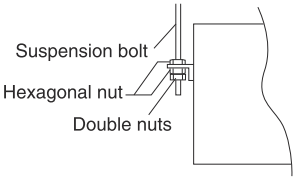
⚠ WARNING	It is important that you use extreme care in supporting the indoor unit inside the ceiling. Ensure that the ceiling is strong enough to support the weight of the unit. Before hanging the unit, test the strength of each attached suspension bolt.

(1) When placing the unit inside the ceiling, determine the pitch of the suspension bolts referring to the dimensional data as shown in the tables and diagrams under the section Required Minimum Space for Installation and Maintenance Services.
Tubing must be laid and connected inside the ceiling when suspending the unit. If the ceiling is already constructed, lay the tubing into position for connection to the unit before placing the unit inside the ceiling.

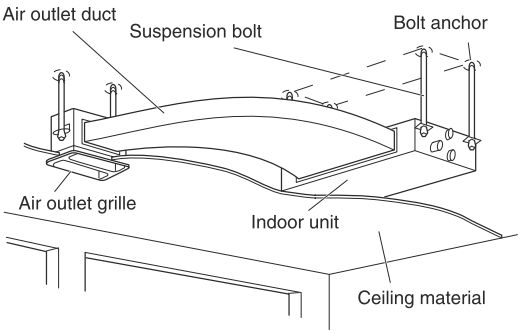
(2) Screw in the suspension bolts allowing them to protrude from the ceiling. (Cut the ceiling material, if necessary.)

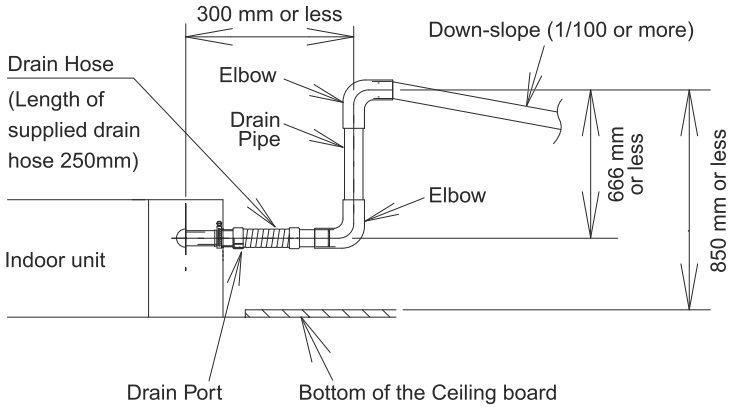
(3) Thread the 3 hexagonal nuts and 2 washers (field supply) onto each of the 4 suspension bolts. Use 1 nut and 1 washer for the upper part, and 2 nuts (double nuts) and 1 washer for the lower part, so that the unit will not fall off the suspension lugs.





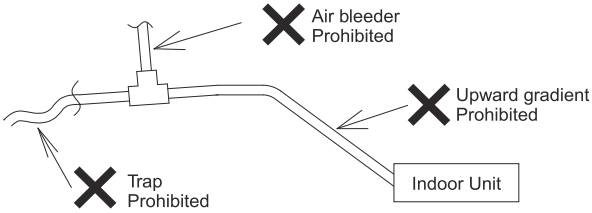
- This shows an example of installation.



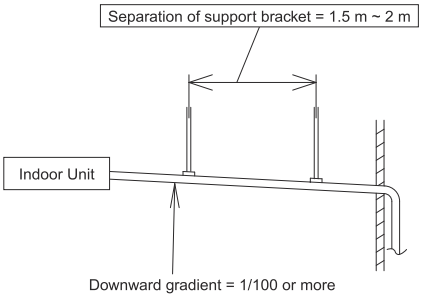


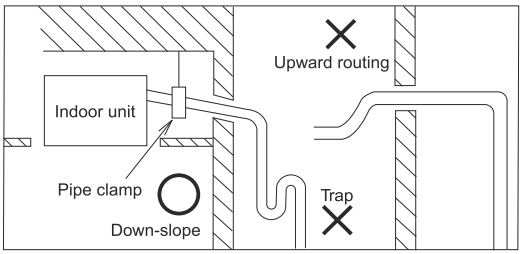
2) Limitations of Drain Pipe Connection

- Do not install the drain pipe with an upward gradient from the drain port connection. This will cause the drain water to flow backward and leak when the unit is not operating.
- Do not install an air bleeder as this may cause water to spray from the drain pipe outlet.
- Do not provide U-trap or bell shaped trap in the middle of the drain pipe. Doing so will cause abnormal sound.

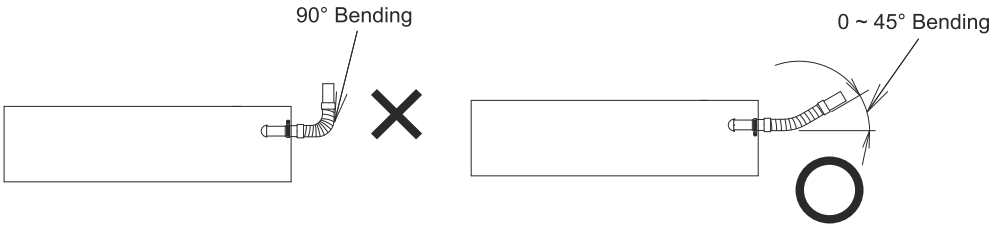


- Make sure the drain pipe has downward gradient (1/100 or more; downward from drain port connection).

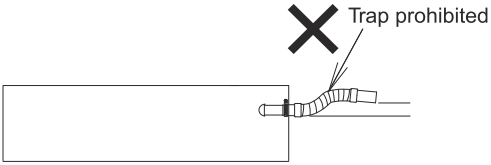




3) Limitations of Drain Hose Connection



(※ Do not bend downwards on less than 0°)

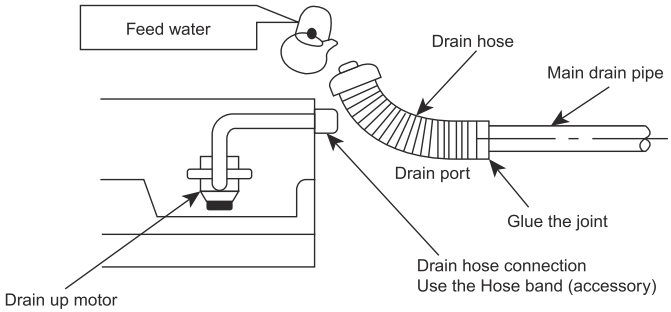


(※ Trap prohibited. Doing so will cause abnormal sound)

Drain test

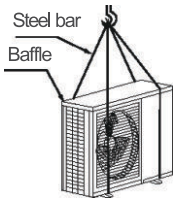
The air conditioner uses a drain up motor to drain water (Applicable to 1.5TR & 2.0TR model). Use the following procedure to test the drain up motor operation.

- Connect the main drain pipe to exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- Be sure to check the drain up motor for normal operating and noise when electric wiring is complete.
- When the test is complete, connect the flexible drain hose to the drain port.



Outdoor unit Installation

Position the outdoor unit



1.Ensure that 4 pieces of 6mm steel wire hanging the outdoor unit up and move in.

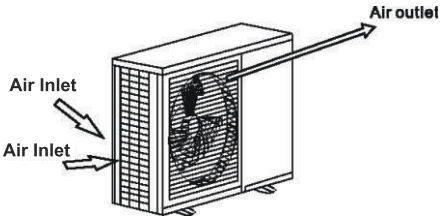
2.To avoid the outdoor unit from out of shape Ensure to add the baffles at the surface of outdoor unit where the steel wire rope may touch.

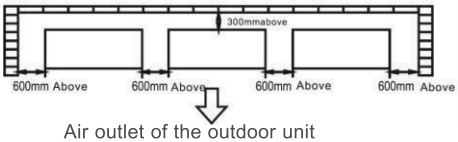
3. After moving, please remove the tray wood on the bottom (If applicable).

Installation space

1.After leaving repair space as illustrated below, install the outdoor unit with power supply equipment installed at the side of the outdoor unit.

2.Ensure sufficient space is provided for maintenance and repair.



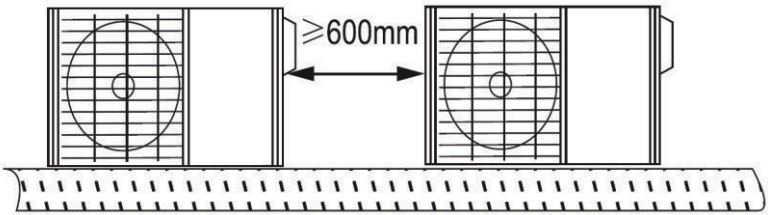


Air outlet of the outdoor unit

Overview of the outdoor unit

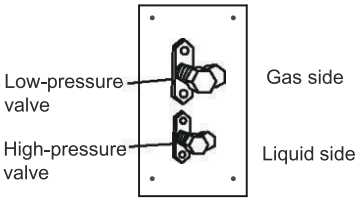
⚠ No obstruction from the air outlet of outdoor unit

At least 600mm space must be left between outdoor units as the sketch indicated.



Refrigerant pipe

1.The Pipe connection is on the right panel.
2.The figure on the right shows the valve installation panel of the outdoor unit. The gas-side (low-pressure) valve is located at the top, and the liquid-side valve is located at the bottom



Outdoor unit Installation

Installation

Pre-installation precaution

- Ensure that the installation personnel's are qualified in relevant installation service. If the air conditioner was installed by persons without special skills, normal operations would not be ensured, even the personal and estate safety would be affected.

User guideline

- The user's installation site should be provided with regular power supply in conformity with that indicated in nameplate of the air conditioner, and its voltage should be within a range 90 □/»-110 % of the rated voltage value.
- Power circuit should be equipped with protector, such as electricity leakage protector or air switch, which should possess a capacity greater than 1.5 times the maximum current value of the air conditioner.
- Never fail to adopt personal circuit and effectively-grounded socket compatible with the attached plug of the air conditioner. The attached plug is equipped with grounding pin, and it must not be modified as desired.
- Always use the fuse or circuit breaker prescribed in Installation Instructions.
- Only qualified electrician is allowed to carry out wiring tasks strictly according to electric safety requirements.
- Do ensure good earth of air conditioner, in other words, the main power switch of air conditioner must be connected to reliable ground wire.

Precautions

- The air conditioner should be installed securely otherwise poor installation may lead to abnormal noise and vibration.
- Outdoor unit should be installed at a spot ensuring that its air outlet noise and hot exhaust will not violate your neighbors.

Precautions

Confirm the indoor unit dimension according to the picture below

M10 bolts is to be installed.(4 sets)

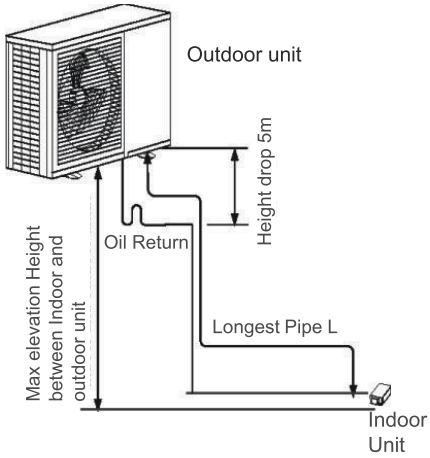
- Refer to the following for the center distance between the bolts
- M10 bolts is used
- Consult professional for your specific ceiling arrangement.

1. Dismantle scale of the ceiling. Ensure the ceiling is level. Strengthen the beam to avoid vibration.
2. Break the beam of the ceiling
3. Strengthen the breaking point of the ceiling and reinforce the ceiling beam.

- After the main body hanging is finished, arrangement of pipe and line will be done in the ceiling.
- The direction of the pipe is determined after the installation location is chosen.If the ceiling has existed, arrange the refrigerant pipe, drainage pipe, indoor and outdoor connecting line.
- Installation of the hanging screw bolt

Refrigerant Pipe Connection

Please refer to refrigerant pipe connection for detail Allowed length and elevation height



Remove objects and water

- Use high-pressure nitrogen to clean the pipe instead of outdoor refrigerant.
- Before installing refrigerant pipe, please clean the pipe in case of foreign objects

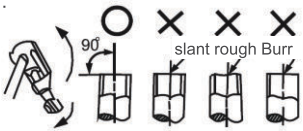
Additional refrigerant charge

The additional charge is base on the diameter and length of outlet/inlet liquid type
This AC has been charged with that for 5m pipe, those beyond 5 m should recharge as follows.

Model	Piping Size		Std. Length (m)	Max. Elevation (m)	Min. Ppiping Length (m)	Max. Ppiping Length (m)	Additional Refrigerant (g/m)
	Gas	Liquid					
U-18PM9R5Y	12.70 mm (1/2)"	6.35 mm (1/4)"	5	15	5	20	15
U-24PM9R5Y	15.88 mm (5/8)"	6.35 mm (1/4)"	5	15	5	30	20
U-36PF1R5Y	15.88mm (5/8”)	9.52mm (3/8”)	5	20	5	30	20
U-48PF1R5Y	15.88mm (5/8”)	9.52mm (3/8”)	5	20	5	50	20

Flaring

① Cut the refrigerant pipe off with pipe cutter.



② Flaring after putting the pipe into connection nut.



Outside Diameter	A (mm)	
	MAX	MIN
Φ1/4"	8.7	8.3
Φ3/8"	12.4	12.0
Φ1/2"	15.8	15.4
Φ5/8"	19.0	18.6

Stop valve operation item

- Open the valve rod till to the position rod.
- Do not tray to open larger.
- Fasten the Dead Nut with spanner or similar tools. Fasten the Dead Nut of valve rod.

  Liquid side(Φ3/8", Φ1/4"):1180N cm(120kgf cm)

  gas side (Φ5/8", Φ3/8"): 1180N cm(120kgf cm)

Junction fixture

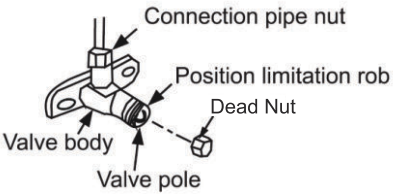
- Aim at connection pipe fix the nut of connection pipe, then tighten] as the following diagram with spanner

⚠Notice

According to installation conditions, overlarge wrenched torch will destroy the nut. (Unit. N.cm)

Outside diameter	Stengthen to fasten the torch
Φ1/4"	1420-1720N cm (144-176kgf.cm)
Φ3/8"	3270-3990N cm (333—407kgf.cm)
Φ1/2"	4950-6030N cm (504-616kgf.cm)
Φ5/8"	6180-7540N cm (630-770kgf.cm)



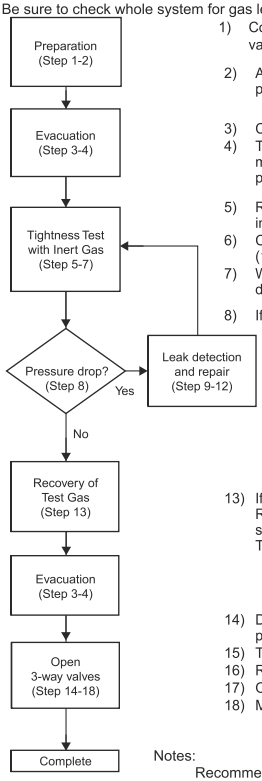


AIR TIGHTNESS TEST ON THE REFRIGERATING SYSTEM

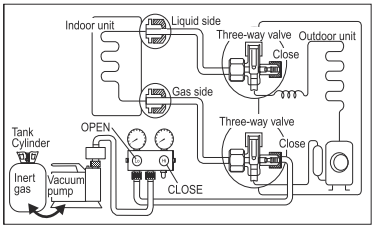
AIR PURGING METHOD IS PROHIBITED FOR R32 SYSTEM

Do not purge the air with refrigerants but use a vacuum pump to vacuum the installation.
There is no extra refrigerant in the outdoor unit for air purging.
Ensure to remove R32 precharged in the indoor unit before connecting indoor to outdoor tubing

- Before system is charged with refrigerant and before the refrigerating system is put into operation, below site test procedure and acceptance criteria shall be verified by the certified technicians, and/or the installer.
- Be sure to check whole system for gas leakage.



1) Connect a charging hose with a push pin to the Low side of a charging set and the service port of 3-way valve.
2) Attach the gauge manifold set correctly and tightly. Make sure that both valves of the manifold gauge (low pressure and high pressure) is in close position.
3) Connect the center hose of the manifold gauge to a vacuum pump.
4) Turn on the power switch of the vacuum pump, then turn open the low side manifold gauge valve and make sure that the needle in the gauge moves from 0cmHg (0 MPa) to –76 cmHg (–0.1 MPa). This process continues for approximately ten minutes. Then close the low side manifold gauge valve.
5) Remove the vacuum pump from the centre hose and connect the center hose to cylinder of any applicable inert gas as test gas.
6) Charge test gas into the system and wait until the pressure within the system to reach min. 1.04MPa (10.4barg).
7) Wait and monitor the pressure reading on the gauges. Check if there is any pressure drop. Waiting time depends on the size of the system.
8) If there is any pressure drop, perform step 9-12. If there is no pressure drop, perform step 13.
9) Use Gas Leak Detector to check for leaks. Must use the detection equipment with a sensitivity of 5 grams per year of test gas or better.
10) Move the probe along the air conditioning system to check for leaks, and mark for repair.
11) Any leak detected and marked shall be repaired.
12) After repair, repeat evacuation steps 3-4 and tightness test steps 5-7. Check the pressure drop as in step 8.



13) If no leak,
Recover the test gas. Perform evacuation of steps 3-4.
Then proceed to step 14.
14) Disconnect the charging hose from the service port of the 3-way valve.
15) Tighten the service port caps of the 3-way valve at a torque of 18 N•m with a torque wrench.
16) Remove the valve caps of 3-way valve.
17) Open both of the valves, using a hexagonal wrench (4mm).
18) Mount back the valve cap onto the 3-way valve to complete this process.

Notes:
Recommended use of any of the following leak detector,
I) Universal Sniffer leak detector
II) Electronic halogen leak detector
III) Ultrasonic Leak Detector

REGARDING REFRIGERANT FILLING

Precautions during refrigerant filling

- Use tools that are designed specifically for R32, for pressure resistance and to prevent mixing impurities.
- Fill the refrigerant from the 3-way valve's service port on the liquid-side.

For filling and replacing all refrigerant (For refilling due to a leak)

- For refilling refrigerant, first collect all residual refrigerant and after vacuum dehydration using the vacuum pump. Refill the refrigerant according to the prescribed amount stated on the placard affixed to this unit.

Precautions after the pipes' connection have completed

- Ensure to open the 3-way valve after completing the piping installation, leak test and vacuuming. If it is closed during operation, it can lead to compressor failure.

Electric wiring

Electric

Caution

- Ensure the appropriate power supply is provided for the outdoor unit.
- Ensure that classify the connection wire system of outdoor & indoor unit and refrigeration same system as the pipe system.
- Carry out according to National Electric Standard.
- Consign the professional technician to do the electric wiring.
- Electric leakage protector and manual switch should be installed for power.

Safety precautions

WARNING

Ensure that dimension of electrical source complies with requirements and the voltage is stable.

The electrical source should be connected by specific circuit.

Wiring operation should be done by professionals in accordance with concerning national standard.

Indoor and outdoor connection and the lead of electrical source should be well installed to make sure they do not contact each other.

Ensure that wire under the guidance of circuit diagram and notice concerning warnings on indoor and outdoor unit.

Add short-circuit switch and protection switch for electrical leakage to the circuitry.

Ensure the specified power cord is used. If requirement can not be satisfied, the substitute should comply with national standard.

CAUTION

1. Electric line connecting indoor and outdoor unit is a power-supply cord connecting indoor and outdoor unit.
2. Those above are dimensions of electric supply,electric line and indoor-outdoor connecting line for each type of unit.
3. When the electric connecting line is a bit longer,The sectional area of Conductor should be enlarged in case of voltage falling.
4. The sectional area of the electric core wire is minimum in case power connecting wire is longer than usual just select the conductor cross-section a level higher than the specified one to avoid voltage drop.
5. Power lead connecting indoor unit is RW (300/5OOV) power cord. Power line connecting outdoor unit and indoor-outdoor power supply is multi-stranded line of YZW (300/5OOV) power cord.If single-core cord is adopted, use wires with larger dimension and wear electrician cover.
6. When following occassions occur, please stop running immediately,cut off the power supply and contact the dealer.

- Incorrect motion of on/off .
- Fuse or electric leakage protector melts frequently.
- Foreign matters or water come into the air conditiner.

Electric wiring

1. Ways of Electric wiring for indoor unit

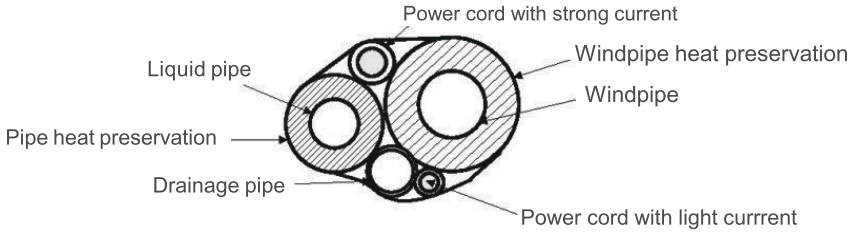
Open the electric joint box and let connecting line go through the ring.
Do according to what the circuit diagram prescribes.
Ensure that the connecting line at the end of the line be impressed tight.

2. Wrapping

After wiring is finished, wrap connecting pipe, connecting line and drainage pipe with bandages.
The section is illustrated as follows after wrapping is done.

NOTICE:

Do not flatten the drainage pipe
Please connect drainage outlet
Where the environment is not polluted.

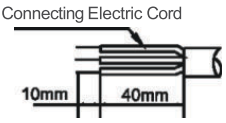


If situations as follow occur, cut off the electric power before contacting the dealer

- Open or close incorrectly
- Fuse or electric leakage protector breaks for several times.
- Objects or water into the AC

3. Outdoor unit wiring

1. Copper-cored wire should be selected.
2. As electric control box is inside the unit body, dismantle the valve installation cover, top cover right front board sequently when connecting wires. Then connect the responding wires from the hole of the electric control box to right back board.
3. Make series number according to junction box of outdoor unit. (Disposed length of connection wire is good enough for inserting the connection pole completely as the right picture shows.)
4. Wrap the electric wire(conductor),which is not inserted into the connection pole, with PVC belt and make it avoid any electric appliance or metal elements.
5. After installing cable connection tug on the main power wire, then connect to the terminal row.
6. Connection plug should be installed on the grounded wire of all cables. So that on finishing all cables can be connected to grounded bolt.
7. The electric wire from wire terminal should be through wire clips.
8. Refer to the right illustration.



NOTICE

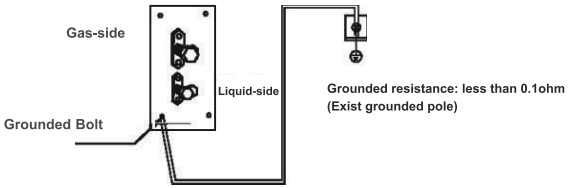
The indoor unit should be connected correctly with the high-pressure and low-presurre stop valve of the outdoor unit as well as the signal line.Otherwise,some electrical componets and system may suffer damages.

Grounded Job

(NOTE: The hull of outdoor unit must be grounded)

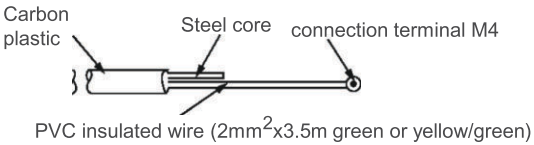
- Find the grounded connection pole on the outdoor PCB as the following picture indicated.

(1) when there is an exist grounded connection pole on the outdoor PCB as the following picture indicated (The area of the wire is no less than 4mm^2) (standard line)



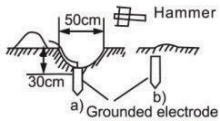
(2) use a grounded electrode

- Dimension of grounded electrode.



- Step of grounded connection

Do the grounded connection according to the following instruction.

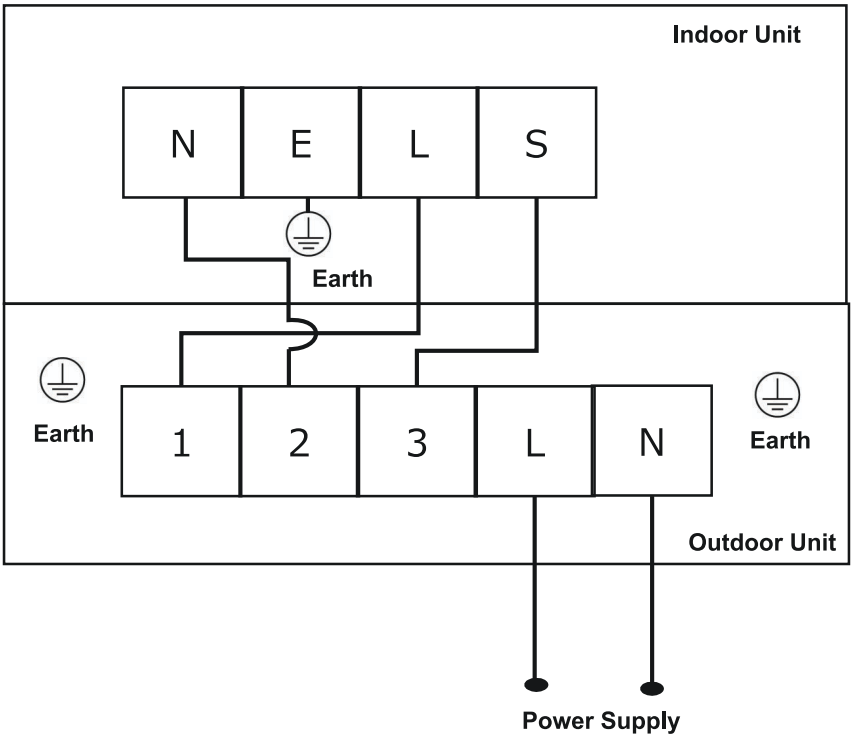
Step	Job	Instruction	Notice information
1	Decide the connection position	Suitable position a) Moisture place b) Hard quality soil but not loose sand and soil Unsuitable position a) The places where there are underground building and facilities, such as gas pipe, telephone wire, cable,etc. B) within 2m of electric pole or conductor.	• Avoid sand soil, gravel soil because their resistance are high. • The grounded wire of the telephone cannot be used for AC. • When the elctrode is installed in a heavy traffic place,please pay attention to fasten connection.
2	Put the grounded electrode into the installation position	A) Dig a hole according to the graphic size and put the electrode into it. B) Cover grounded electrode with soil which has been dug out.	
3	Arrange the grounded wire connection	a) If the grounded wire is too short, extend the wire the joint should be welded and wrapped with adhesive tape. b) Fix the grounded wire with thread yard.	• Grounded wire should use green or yellow-green insulation material. The section-crossed is no less than 4mm • do not bury the welding objects into underground
4	If necessary, check quality and take proper measure.	a) After the grounded job finishing, test the grounded resistance with ohm meter b) If the grounded resistance is higher than the standard level, put the electrode deeper or add more elctrodes.	
5	Connect grounded wire with AC.	Fix the grounded wire to the rod of the AC unit	

Electric wiring

Interconnecting Diagram

ModelNo.

S-18PM9RY / U-18PM9R5Y
S-24PM9RY / U-24PM9R5Y
S-36PF1RY / U-36PF1R5Y
S-48PF1RY / U-48PF1R5Y



General precautions on wiring

(1) Before wiring, confirm the rated voltage of the unit as shown on its nameplate, then carry out the wiring closely following the wiring diagram.
(2) Provide a power outlet to be used exclusively and a circuit breaker.
(3) To prevent possible hazards from insulation failure, the unit must be grounded.
(4) Each wiring connection must be done in accordance with the wiring system diagram. Wrong wiring may cause the unit to misoperate or become damaged.
(5) Do not allow wiring to touch the refrigerant tubing, compressor, or any moving parts of the fan.
(6) Unauthorized changes in the internal wiring can be very dangerous. The manufacturer will accept no responsibility for any damage or misoperation that occurs as a result of such unauthorized changes.
(7) Regulations on wire diameters differ from locality to locality. For field wiring rules, please refer to your LOCAL ELECTRICAL CODES before beginning. You must ensure that installation complies with all relevant rules and regulations.
(8) To prevent malfunction of the air conditioner caused by electrical noise, care must be taken when wiring as follows:
(1) The remote control wiring and the inter-unit control wiring should be wired apart from the inter-unit power wiring.
(2) Use shielded wires for inter-unit control wiring between units and ground the shield on both sides.
(9) If the power supply cord of this appliance is damaged, it must be replaced by a repair shop designated by the manufacturer, because special-purpose tools are required.

Recommended cable crossectional size & cores

Recommended Cable Crossectional Size & Cores

Model	Power Supply	Power Cable to ODU (Minimum Size)	No of Cores	Interconnecting Cable Crossectional Size (B/w IDU and ODU)	No of Cores
U-18PM9R5Y	230V AC- Single Phase	2.5mm²	3.0	2.5mm²	4.0
U-24PM9R5Y	230V AC- Single Phase	2.5mm²	3.0	2.5mm²	4.0
U-36PF1R5Y	230V AC- Single Phase	4.5mm²	3.0	2.5mm²	4.0
U-48PF1R5Y	230V AC- Single Phase	4.5mm²	3.0	2.5mm²	4.0

Electric wiring

Test run

NOTICE

1. When carrying out test run, please confirm all the valves are open.
2. After checking electric safety, do the test run.
3. Try your best not to do the test running in force.

1. Test running should be proceded by proper installation.

2 Please confirm the following particulars.

- Make sure proper installation of the indoor and outdoor units.
- Make sure proper connection of pipe and line. (Cross connection is forbidden!)
- Make sure refrigerant pipe system gone through leak hunting.
- Make sure drainage is not hindered.
- Make sure heat insulation and preservation in proper condition.
- Make sure earth wire correctly connected.
- Make sure recordes on pipe length and additional refrigerant charge are made.
- Make sure voltage of the electrical source equal to rated voltage of the air conditioner.
- Make sure clearance in air outlets of indoor and outdoor units.
- Make sure gas-sided and liquid-sided cut-off valve open.
- Make sure electrical source is connected and the air conditioner preheated.

3. Racks for remote controller should be installed according to customers requirement.

The location should facilitate smooth transmission of signals to the indoor apparatus.

4. TEST RUNNING

Usage of remote controllers should be in accordance with particulars as follows:

Troubles can be eliminated according to the chapter of maintenance.

- Indoor Unit

(1) Make sure switch of the remote controller in proper state.

(2) Make sure each function button of the remote controller in proper state.

(3) Make sure movement of baffle in proper state. (Except for those without baffles)

(4) Make sure regulation of indoor temperature in proper state.

(5) Make sure the pilot lamp shine in paper sate.

(6) Make sure buttons for hands handling in proper state.

(7) Make sure no condensation or dropping water as a result of loose in copper pipe and drainpipe.

(8) Open the air grill and make sure no penetration or leakage , especially at the drain plug.

(9) Make sure no vibration or abnormal noise in operation.

(10) Make sure proper running in heating mode.

- Outdoor Unit

(1) Make sure no vibration or abnormal noise in operation.

(2) Make sure neighbours out of disturbance from wind, noise and condensation.

(3) Make sure no refrigerant leakage.

NOTE:When the switch is on, restarting after immediate opeing or closing will be under protection of the air conditioner with the compressor resarting 3 minutes later.

Remote controller



Wired Remote Controller



Wireless remote control (optional)

Operating Instructions

Thank you for purchasing Panasonic Air Conditioner.

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Accessories

With unit:
Wired Remote Controller
Flare Nut x 2
Drain pipe extension
Wire hose clamp

To be purchased separately:
Wireless Remote Controller

The illustrations in this manual are for explanation purposes only and may differ from the actual unit. They are subject to change without notice.

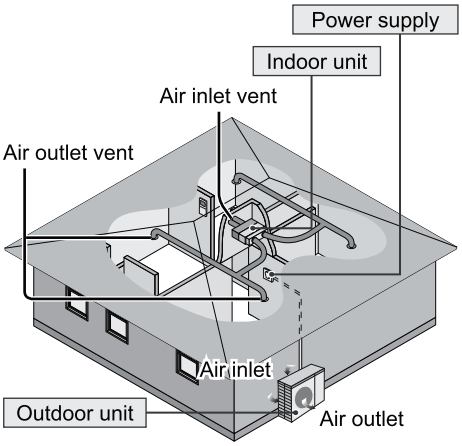
Safety Precautions

To prevent personal injury, injury to others or property damage, please comply with the following:
Incorrect operation due to failure to follow instructions below may cause harm or damage, the seriousness of which is classi fied as below:
This appliances is not intended for accessibility by the general public.

WARNING	This sign warns of death or serious injury.
CAUTION	This sign warns of injury or damage to property.

The instructions to be followed are classi fied by the following symbols:

	This symbol denotes an action that is PROHIBITED.
	These symbols denote actions COMPULSORY.



WARNING

Indoor unit and outdoor unit

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.

Please consult an authorised dealer or specialist to clean the internal parts, repair, install, remove, disassemble and reinstall the unit. Improper installation and handling will cause leakage, electric shock or fire.

Confirm with authorised dealer or specialist on usage of any speci fied refrigerant type. Using refrigerant type other than the speci fied may cause product damage, burst and injury etc.

Do not use means to accelerate the defrosting process or to clean, other than those recommended by manufacturer.
Any un fit method or using incompatible material may cause product damage, burst and serious injury.

Do not install the unit in a potentially explosive or flammable atmosphere.
Failure to do so could result in fire.

Do not insert your fingers or other objects into the air conditioner indoor or outdoor unit, rotating parts may cause injury.

Do not touch the outdoor unit during lightning, it may cause electric shock.

Do not expose yourself directly to cold air for a long period to avoid excess cooling.

Do not sit or step on the unit, you may fall down accidentally.

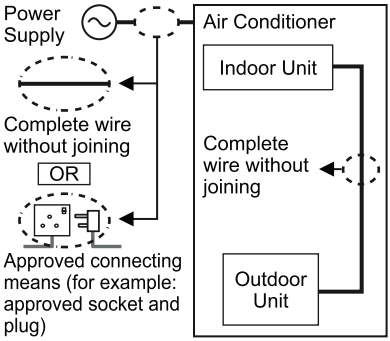
Power supply

Do not use a modi fied cord, joint cord, extension cord or unspeci fied cord to prevent overheating and fire.

To prevent overheating, fire or electric shock:
- Do not share the same power outlet with other equipment.
- Do not operate with wet hands.
- Do not over bend the power supply cord.
- Do not operate or stop the unit by inserting or pulling out the power plug.

Safety Precautions

Use complete power supply cord without joining. In unavoidable circumstances that complete power supply cord without joining is impossible, use an approved connection means (for example: socket and plug).



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

It is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD) to prevent electric shock or fire.

To prevent overheating, fire or electric shock:
- Insert the power plug properly.
- Dust on the power plug should be periodically wiped with a dry cloth.

Stop using the product if any abnormality/ failure occurs and disconnect the power plug or turn o ffthe power switch and breaker.
(Risk of smoke/ fire/electric shock)
Examples of abnormality/failure
- The ELCB trips frequently.
- Burning smell is observed.
- Abnormal noise or vibration of the unit is observed.
- Water leaks from the indoor unit.
- Power cord or plug becomes abnormally hot.
- Fan speed cannot be controlled.
- The unit stops running immediately even if it is switched on for operation.
- The fan does not stop even if the operation is stopped.

Contact your local dealer immediately for maintenance/repair.

This equipment must be earthed to prevent electrical shock or fire.

Prevent electric shock by switching o ffthe power supply and unplug:
- Before cleaning or servicing,
- When extended non-use, or
- During abnormally strong lightning activity.

CAUTION

Indoor unit and outdoor unit

Do not wash the indoor unit with water, benzine, thinner or scouring powder to avoid damage or corrosion at the unit.

Do not use for preservation of precise equipment, food, animals, plants, artwork or other objects. This may cause quality deterioration, etc.

Do not use any combustible equipment in front of the air flow outlet to avoid fire propagation.

Do not expose plants or pet directly to air flow to avoid injury, etc.

Do not touch the sharp aluminium fin, sharp parts may cause injury.

Do not switch ON the indoor unit when waxing the floor. After waxing, aerate the room properly before operating the unit.

Do not install the unit in oily and smoky areas to prevent damage to the unit.

Do not dismantle the unit for cleaning purpose to avoid injury.

Do not step onto an unstable bench when cleaning the unit to avoid injury.

Do not place a vase or water container on the unit. Water may enter the unit and degrade the insulation. This may cause an electric shock.

Do not open window or door for long time during operation, it may lead to inef ficient power usage and uncomfortable temperature changes.

Prevent water leakage by ensuring drainage pipe is:
- Connected properly,
- Kept clear of gutters and containers, or
- Not immersed in water

After a long period of use or use with any combustible equipment, aerate the room regularly.

After a long period of use, make sure the installation rack does not deteriorate to prevent the unit from falling down.

Power supply

Do not disconnect the plug by pulling the cord to prevent electric shock.

WARNING

This appliance is filled with R32 (mild flammable refrigerant).
If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.

Indoor unit and outdoor unit

The appliance shall be installed, and/or operated in a room with floor area larger than A_{min} (m²) and keep away from ignition sources, such as heat/sparks/open flame or hazardous areas such as gas appliances, gas cooking, reticulated gas supply systems or electric cooking appliances, etc. (Refer to Installation instructions table for A_{min} (m²))

Be aware that refrigerant may not contain an odour, highly recommended to ensure suitable flammable refrigerant gas detectors are present, operating and able to warn of a leak.

Keep any required ventilation openings clear of obstruction.

Do not pierce or burn as the appliance is pressurized. Do not expose the appliance to heat, flame, sparks, or other sources of ignition. Else it may explode and cause injury or death.

Precaution for using R32 refrigerant

The basic installation work procedures are the same as conventional refrigerant (R410A, R22) models.

Since the working pressure is higher than that of refrigerant R22 models, some of the piping and installation and service tools are special. Especially, when replacing a refrigerant R22 model with a new refrigerant R32 model, always replace the conventional piping and flare nuts with the R32 and R410A piping and flare nuts on the outdoor unit side.
For R32 and R410A, the same flare nut on the outdoor unit side and pipe can be used.

The mixing of different refrigerants within a system is prohibited. Models that use refrigerant R32 and R410A have a different charging port thread diameter to prevent erroneous charging with refrigerant R22 and for safety.
Therefore, check beforehand. [The charging port thread diameter for R32 and R410A is 1/2 inch.]

Must always ensure that foreign matter (oil, water, etc.) does not enter the piping. Also, when storing the piping, securely seal the opening by pinching, taping, etc. (Handling of R32 is similar to R410A.)

- Operation, maintenance, repairing and refrigerant recovery should be carried out by trained and certi fied personnel in the use of flammable refrigerants and as recommended by the manufacturer. Any personnel conducting an operation, servicing or maintenance on a system or associated parts of the equipment should be trained and certi fied.
- Any part of refrigerating circuit (evaporators, air coolers, AHU, condensers or liquid receivers) or piping should not be located in the proximity of heat sources, open flames, operating gas appliance or an operating electric heater.
- The user/owner or their authorised representative shall regularly check the alarms, mechanical ventilation and detectors, at least once a year, where as required by national regulations, to ensure their correct functioning.
- A logbook shall be maintained. The results of these checks shall be recorded in the logbook.
- In case of ventilations in occupied spaces shall be checked to con firm no obstruction.
- Before a new refrigerating system is put into service, the person responsible for placing the system in operation should ensure that trained and certi fied operating personnel are instructed on the basis of the instruction manual about the construction, supervision, operation and maintenance of the refrigerating system, as well as the safety measures to be observed, and the properties and handling of the refrigerant used.
- The general requirement of trained and certi fied personnel are indicated as below:
  a) Knowledge of legislation, regulations and standards relating to flammable refrigerants; and,
  b) Detailed knowledge of and skills in handling flammable refrigerants, personal protective equipment, refrigerant leakage prevention, handling of cylinders, charging, leak detection, recovery and disposal; and,
  c) Able to understand and to apply in practice the requirements in the national legislation, regulations and Standards; and,
  d) Continuously undergo regular and further training to maintain this expertise.
  e) Air-conditioner piping in the occupied space shall be installed in such a way to protect against accidental damage in operation and service.

f) Precautions shall be taken to avoid excessive vibration or pulsation to refrigerating piping.
g) Ensure protection devices, refrigerating piping and fittings are well protected against adverse environmental effects (such as the danger of water collecting and freezing in relief pipes or the accumulation of dirt and debris).
h) Expansion and contraction of long runs piping in refrigerating systems shall be designed and installed securely (mounted and guarded) to minimize the likelihood hydraulic shock damaging the system.
i) Protect the refrigerating system from accidental rupture due to moving furniture or reconstruction activities.
j) To ensure no leaking, field-made refrigerant joints indoors shall be tightness tested. The test method shall have a sensitivity of 5 grams per year of refrigerant or better under a pressure of at least 0.25 times the maximum allowable pressure (>1.04 MPa, max 4.15 MPa). No leak shall be detected.

1. Installation (Space)

- Product with flammable refrigerants, shall be installed according to the minimum room area, A_{min} (m^2) mentioned in Installation Instructions.
- In case of field charge, the effect on refrigerant charge caused by the different pipe length has to be quanti fied, measured and labelled.
- Must ensure the installation of pipe-work shall be kept to a minimum. Avoid use dented pipe and do not allow acute bending.
- Must ensure that pipe-work shall be protected from physical damage.
- Must comply with national gas regulations, state municipal rules and legislation. Notify relevant authorities in accordance with all applicable regulations.
- Must ensure mechanical connections be accessible for maintenance purposes.
- In cases that require mechanical ventilation, ventilation openings shall be kept clear of obstruction.
- When disposal of the product, do follow to the precautions in #12 and comply with national regulations.
  Always contact to local municipal of fices for proper handling.

2. Servicing

2-1. Service personnel

- The system is inspected, regularly supervised and maintained by a trained and certi fied service personnel who is employed by the person user or party responsible.
- Ensure the actual refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed.
- Ensure refrigerant charge not to leak.
- Any quali fied person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certi ficate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognised assessment speci fication.
- Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- Servicing shall be performed only as recommended by the manufacturer.

2-2. Work

- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised. For repair to the refrigerating system, the precautions in #2-2 to #2-8 must be followed before conducting work on the system.
- Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapour being present while the work is being performed.
- All maintenance sta ffand others working in the local area shall be instructed and supervised on the nature of work being carried out.
- Avoid working in con fined spaces. Always ensure away from source, at least 2 meter of safety distance, or zoning of free space area of at least 2 meter in radius.
- Wear appropriate protective equipment, including respiratory protection, as conditions warrant.
- Keep all sources of ignition and hot metal surfaces away.

2-3. Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres.
- Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non sparking, adequately sealed or intrinsically safe.
- In case of leakage/spillage happened, immediately ventilate area and stay upwind and away from spill/release.
- In case of leakage/spillage happened, do notify persons down wind of the leaking/ spill, isolate immediate hazard area and keep unauthorised personnel out.

2-4. Presence of fire extinguisher

- If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available at hand.
- Have a dry powder or CO_2 fire extinguisher adjacent to the charging area.

2-5. No ignition sources

- No person carrying out work in relation to a refrigerating system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. They must not be smoking when carrying out such work.
- All possible ignition sources, including cigarette smoking, should be kept suf ficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space.
- Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks.
- “No Smoking” signs shall be displayed.

2-6. Ventilated area

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work.
- A degree of ventilation shall continue during the period that the work is carried out.
- The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

2-7. Checks to the refrigerating equipment

- Where electrical components are being changed, they shall be fit for the purpose and to the correct speci fication.
- At all times the manufacturer’s maintenance and service guidelines shall be followed.
- If in doubt consult the manufacturer’s technical department for assistance.
- The following checks shall be applied to installations using flammable refrigerants.
  - -The actual refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed.
  - -The ventilation machinery and outlets are operating adequately and are not obstructed.
  - -If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
  - -Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected.
  - -Refrigerating pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are properly protected against being so corroded.

2-8. Checks to electrical devices

- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures.
- Initial safety checks shall include but not limit to:-
  - -That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.
  - -That there no live electrical components and wiring are exposed while charging, recovering or purging the system.
  - -That there is continuity of earth bonding.
- At all times the manufacturer’s maintenance and service guidelines shall be followed.
- If in doubt consult the manufacturer’s technical department for assistance.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used.
- The owner of the equipment must be informed or reported so all parties are advised thereinafter.

3. Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc.
- If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.
- Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original speci fication, damage to seals, incorrect fitting of glands, etc.
- Ensure that apparatus is mounted securely.
- Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres.
- Replacement parts shall be in accordance with the manufacturer's speci fications.

NOTE: The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment.

Intrinsically safe components do not have to be isolated prior to working on them.

4. Repair to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.
- Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
- The test apparatus shall be at the correct rating.
- Replace components only with parts speci fied by the manufacturer. Unspeci fied parts by manufacturer may result ignition of refrigerant in the atmosphere from a leak.

5. Cabling

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects.
- The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

6. Detection of flammable refrigerants

- Under no circumstances shall potential sources of ignition be used in the searching or detection of refrigerant leaks.
- A halide torch (or any other detector using a naked flame) shall not be used.

7. The following leak detection methods are deemed acceptable for all refrigerant systems

- No leaks shall be detected using detection equipment with sensitivity to detect leakage of 5g/year of refrigerant or better under a pressure of at least 0.25 times the maximum allowable pressure (>1.04 MPa, max 4.15 MPa), for example, a universal sniffer.
- Electronic leak detectors may be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration.
  (Detection equipment shall be calibrated in a refrigerant-free area.)
- Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
- Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is con firmed.
- Leak detection fluids are also suitable for use with most refrigerants, for example, bubble method and fluorescent method agents. The use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.
- If a leak is suspected, all naked flames shall be removed/extinguished.
- If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut o ffvalves) in a part of the system remote from the leak. The precautions in #8 must be followed to remove the refrigerant.

8. Removal and evacuation

- When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to: remove refrigerant -> purge the circuit with inert gas -> evacuate -> purge with inert gas -> open the circuit by cutting or brazing.
- The refrigerant charge shall be recovered into the correct recovery cylinders.
- The system shall be purged with OFN to render the appliance safe.
- This process may need to be repeated several times.
- Compressed air or oxygen shall not be used for this task.
- Purging shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum.
- This process shall be repeated until no refrigerant is within the system.
- When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- This operation is absolutely vital if brazing operations on the pipe work are to take place.
- Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and there is ventilation available.

OFN = oxygen free nitrogen, type of inert gas.

9. Charging procedures

- In addition to conventional charging procedures, the following requirements shall be followed.
  - -Ensure that contamination of different refrigerants does not occur when using charging equipment.
  - -Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
  - -Cylinders shall be kept in an appropriate position according to the instructions.
  - -Ensure that the refrigerating system is earthed prior to charging the system with refrigerant.
  - -Label the system when charging is complete (if not already).
  - -Extreme care shall be taken not to over fill the refrigerating system.
- Prior to recharging the system it shall be pressure tested with OFN (refer to #7).
- The system shall be leak tested on completion of charging but prior to commissioning.
- A follow up leak test shall be carried out prior to leaving the site.
- Electrostatic charge may accumulate and create a hazardous condition when charging and discharging the refrigerant. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before charging/discharging.

10. Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its details.
- It is recommended good practice that all refrigerants are recovered safely.
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant.
- It is essential that electrical power is available before the task is commenced.
  - a) Become familiar with the equipment and its operation.
  - b) Isolate system electrically.
  - c) Before attempting the procedure ensure that:
    - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
    - all personal protective equipment is available and being used correctly;
    - the recovery process is supervised at all times by a competent person;
    - recovery equipment and cylinders conform to the appropriate standards.
  - d) Pump down refrigerant system, if possible.

e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
f) Make sure that cylinder is situated on the scales before recovery takes place.
g) Start the recovery machine and operate in accordance with instructions.
h) Do not over fill cylinders. (No more than 80 % volume liquid charge).
i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
k) Recovered refrigerant shall not be charged into another refrigerating system unless it has been cleaned and checked.

- Electrostatic charge may accumulate and create a hazardous condition when charging or discharging the refrigerant. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before charging/discharging.

11. Labelling

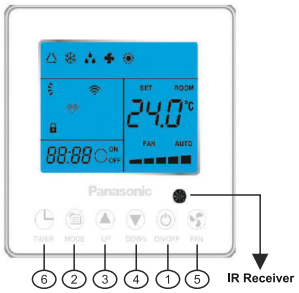
- Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant.
- The label shall be dated and signed.
- Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

12. Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
- When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.
- Ensure that the correct number of cylinders for holding the total system charge are available.
- All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure relief valve and associated shut-o ffvalves in good working order.
- Recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants.
- In addition, a set of calibrated weighing scales shall be available and in good working order.
- Hoses shall be complete with leak-free disconnect couplings and in good condition.
- Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged.
- Do not mix refrigerants in recovery units and especially not in cylinders.
- If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant.
- The evacuation process shall be carried out prior to returning the compressor to the suppliers.
- Only electric heating to the compressor body shall be employed to accelerate this process.
- When oil is drained from a system, it shall be carried out safely.

How to Use Wire Remote (For Cooling Mode)

Wired remote control



Key Operations of the Wire Controller

No.	Button's Name	Icon	Functional Description
1	ON/OFF Button		ON/OFF
2	Mode Button		Operation Mode Selection
3	"+" Button		Temperature Regulation. Timer or Clock Time Regulation
4	"-" Button		Temperature Regulation. Timer or Clock Time Regulation
5	Fan Speed Button		Fan Speed Selection
6	Timer Button		Timer ON or OFF

ON/OFF Operation

- Under the button unlocking condition, touch the "ON/OFF" button 1 second can turn on or turn off the unit.
- In other settings, press this key to return to the main interface.
- When it is in standby mode, the wired controller cancels to show indoor temperature, only shows the time.

Operation Mode Selection

Pressing the mode selection button each time, it can choose the operation mode as follows in turn.



Under the Auto Mode

- In AUTO mode, the unit automatically selects COOL or DRY operation according to the room temperature, as shown below:

Room Temperature	Operation Mode
Equal & Above 23°C	COOL
Below 23°C	DRY

- The temperature can be adjusted from 16°C to 30°C in 1°C increments.

Under the cooling mode, setting temperature adjustable range is 16~30°C, minimum adjustable temperature is 1°C.
Under the dry mode, setting temperature adjustable range is 16~30°C, minimum adjustable temperature is 1°C.
Fan mode, is suitable for when you don't need to lower the room temperature, you can still use the air conditioner as a simple fan.

Setting Temperature Adjustment The user can adjust the setting temperature by touching "UP" and "DOWN" button, pressing the "UP" or "DOWN" button once to increase or decrease the setting temperature by 1°C, pressing and holding the "UP" or "DOWN" button can adjust the setting temperature constantly.

Select the Desire Temperature

- **Auto Mode : 16°C ~ 30°C**
- **Cool Mode : 16°C ~ 30°C**
- **Dry Mode : 16°C ~ 30°C**

Temperature Memory Function (AUTO / COOL / DRY Mode) – Remote OFF/ON

- In AUTO, COOL, and DRY modes, if the set temperature before power-off is below 24°C, the temperature will automatically reset to 24°C when the wired controller is turned ON again.
- If the set temperature before power-off is 24°C or above, the wired controller will restore the previously set temperature when it is turned ON again.

Temperature Memory Function (AUTO / COOL / DRY Mode) – Power Reset (Power Cut & Resume)

- In AUTO, COOL, and DRY modes, if a power cut occurs and the power is restored, the unit will retain the previously set temperature, regardless of the temperature setting before the power interruption.

FAN

The user can adjust the fan speed by touching fan speed button, thr sequence of fan speed adjustment is Quiet (–) → Low (– –) → Medium (– – –) → High (– – – –) → Auto

- Turbo fan speed is available in cool mode only.
- Under the dry mode the unit run at Low (– –) & it cannot be adjusted by switch.

How To Use Wire Remote (For Cooling Mode)

Clock Setting

Displaying the Clock
Under normal operating conditions, the display shows the current local time.
The clock can be set whether the unit is ON or OFF.

Setting the Clock
1. Press and hold the **TIMER** button for **5 seconds** until the **clock icon flashes**, indicating that the clock setting mode has been entered.
2. Press the **TIMER** button once. The **hour** digits will flash.
3. Press the **UP (▲)** or **DOWN (▼)** button to adjust the **hour**.
    1. Press once to change by 1 hour.
    2. Press and hold to adjust continuously.

4. Press the **TIMER** button again. The **minute** digits will flash.
5. Press the **UP (▲)** or **DOWN (▼)** button to adjust the minutes.
    1. Press once to change by 1 minute.
    2. Press and hold to adjust continuously.
6. Press the **TIMER** button once more to confirm the setting.
7. The **clock icon** will remain steadily displayed, indicating that the current time has been saved successfully.

Timer On/Off & Timer cancel setting:

Setting the Timer ON
1. Press the TIMER button. The Timer and Clock icons will flash, indicating Timer Setting mode.
2. Press the TIMER button again until the ON Timer indicator is displayed.
3. The Hour digits will flash. Press the UP (▲) or DOWN (▼) button to set the desired hour.
4. Press the TIMER button again. The Minute digits will flash.
5. Press the UP (▲) or DOWN (▼) button to set the desired minutes.
6. Press the MODE button to confirm the Timer ON setting.

Setting the Timer OFF
1. Press the TIMER button. The Timer and Clock icons will flash.
2. Press the TIMER button until the OFF-Timer indicator is displayed.
3. The Hour digits will flash. Press the UP (▲) or DOWN (▼) button to set the desired hour.
4. Press the TIMER button again. The Minute digits will flash.
5. Press the UP (▲) or DOWN (▼) button to set the desired minutes.
6. Press the MODE button to confirm the Timer OFF setting.

View Timer Setting
1. Press the TIMER button to view the currently programmed Timer ON or Timer OFF setting.
2. If no button is pressed for 10 seconds, the controller automatically exits the setting mode and returns to the main display.

Cancel Timer Setting
1. Press the TIMER button until the " ON " or " OFF " indicator flashes.
2. Press the UP (▲) or DOWN (▼) button and then Press the MODE button to cancel the selected timer.
3. The corresponding timer indicator will disappear, confirming that the timer has been cancelled.

Note: If both Timer ON and Timer OFF are enabled, repeat the above procedure to cancel each timer separately.

How To Use Wire Remote (For Cooling Mode)

Press the MODE and DOWN keys simultaneously for 3 seconds to enter or exit the ECO function.

- **When ECO is active:**
  The remote display will show temperature 26°C and the ECO icon will be displayed.





- **When ECO is deactivated:**
  The remote display will show the default set temperature.



Powerful Mode

Press the MODE and UP keys simultaneously for 3 seconds to enter or exit the Powerful function.

- The **POWERFUL** icon is displayed when the function is activated.
- The unit operates at **maximum cooling capacity** for **1 hour** to achieve faster cooling **(COOL mode only)**.
- To cancel the function, press **MODE + UP for 3 seconds** again, change the operating mode, activate the **ECO** function, or turn the unit **OFF**.

Key lock (Child Lock)

- Press and hold the "FAN" button for 3 seconds to lock the button, the lock icon is always on, and the operation button no longer responds after locking.
- Press and hold the "FAN" button again for 3 seconds to cancel the key lock, and the lock icon disappears.

Display Function

Press and hold the FAN + UP + DOWN keys simultaneously for 3 seconds to turn the display backlight ON or OFF.

Note:

- If the display backlight is OFF, after a power interruption and power restoration, the display backlight will turn **ON for 5 seconds** and then automatically turn **OFF** again.

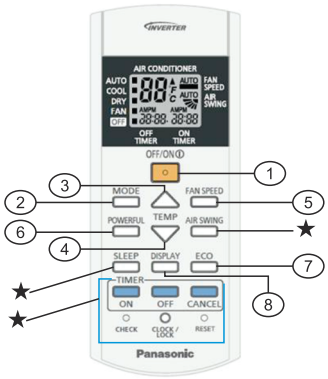
Cleaning Function

Press and hold the MODE + FAN keys simultaneously for 3 seconds to enter or exit the Self-Cleaning function.

- **"CL"** is displayed on the **wired remote controller.**
- The Self-Cleaning function can only be activated when the unit is in **Standby (OFF) mode.**
- The cleaning operation runs for approximately **10–15 minutes.**
- During the cleaning operation, some remote controller functions are disabled.
- To cancel the Self-Cleaning function, press **MODE + FAN** simultaneously for **3 seconds** again or press the **ON/OFF** key to turn the unit **OFF**.

How To Use Wireless Remote (For Cooling Mode)

Wireless remote control (optional)



★ Not Applicable

① OFF/ON

Press the ON/OFF button to start or stop the unit

② MODE

To Select the desired mode

AUTO → COOL → DRY → FAN

AUTO – For Your Convenience

- The unit automatically selects COOL or DRY mode according to the room temperature.
- You can adjust the temperature from 16°C to 30°C in 1°C increments for your comfort.

COOL – To Enjoy Cool Air

- Provides efficient cooling for a comfortable indoor environment.
- The temperature can be adjusted from 16°C to 30°C.

DRY – To Reduce Humidity

- Automatically operates at low fan speed to reduce indoor humidity while maintaining a comfortable environment.

FAN – Fan Only Operation

- Only the indoor fan operates according to the selected fan speed.
- The outdoor unit remains OFF, and no cooling operation is performed.

③ & ④ Select the Desire Temperature

- **Auto Mode : 16°C ~ 30°C**
- **Cool Mode : 16°C ~ 30°C**
- **Dry Mode : 16°C ~ 30°C**

⑤ FAN SPEED

To select fan speed

(Remote control display)



- For AUTO, the indoor fan speed is automatically adjusted according to the operation mode.

⑥ POWERFUL

- This function provides faster cooling in COOL mode and faster heating in HEAT mode.
  The POWERFUL function operates for 1 hour, after which the unit automatically returns to the previous operating condition. This function is not available in AUTO, DRY, or FAN modes.

⑦ ECO

- Default temperature is now 26°C.
- Can be used in COOL mode only, to save Energy.

⑧ DISPLAY

* For control the Display Backlight On/Off.

Auto Restart Control

- If the power supply is restored after a power failure, the unit will automatically restart after a short delay and resume the previous operating mode and settings.
- The POWERFUL and TIMER functions will not resume automatically after power restoration.
- If the display backlight is OFF before a power failure, the display backlight will turn ON for 5 seconds after power is restored and then automatically turn OFF again.
- If the Timer OFF progress is greater than 80% when a power failure occurs, the unit will turn OFF automatically after power is restored.
- If the Timer OFF progress is less than 80% when a power failure occurs, the unit will remain ON after power is restored and continue normal operation.

Specifications

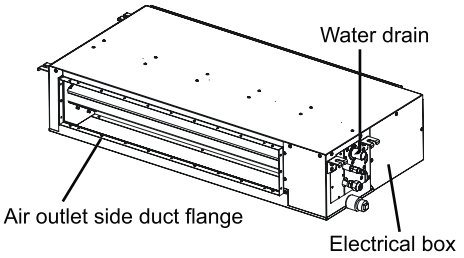
Power Supply	Single Phase, Voltage: 230V±10% AC
Operating temperature limit	Max. up to 50°C
Display	LCD Display
Temperature control accuracy	±1%
Set Temperature range	16°C-30°C
Temperature sensors	Room sensor and coil sensor
LED Display & Keypad hand set	Pendant mounting with 5.0 meter long cable

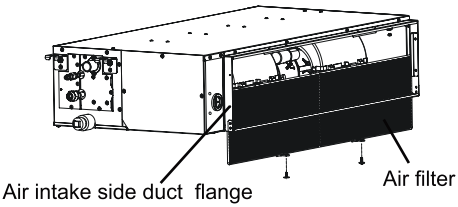
Cleaning Instructions

The air filter should be cleaned every 90 days. Cleaning frequency should be increased if the unit is installed in a room where there is an abnormal amount of dirt and dust. A dirty unit may cause malfunction. Consult an authorised dealer.

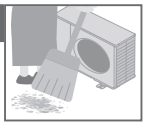
- Before cleaning, switch off the power supply and unplug the unit.
- Do not touch the aluminium fin as the sharp parts may cause injury.
- Do not use benzine, thinner or scouring powder.
- Use soap (≒ pH 7) or neutral household detergent only.
- Do not use water hotter than 40 °C / 104 °F.

Indoor unit





Outdoor unit



Clean the debris that surround the unit.
Clear any blockage from the drain pipe.

Air Filter

- Unit is a rear ventilated one, remove the filter filter fixed with screws take down away from the unit.
- Clean the unloaded filter with vacuum cleaner or water
- Scrub with neutral detergent if the filter is too dirty. Do not wash with hot water
- Place it on ventilated place and should not be under sunshine directly after washing it out of shape.

WARNING Ensure the unit is shut down and the power supply is disconnected before cleaning

Maintenance

1. Perform the following job well if the air conditioner is not used for a long time.
   - In order to dry the unit completely, set the FAN mode and run for 3-4hours. Shut down the air conditioner and cut off the power supply.
2. When used again after the unit stops for a long period.
   - When cleaning the filter and indoor unit, you must stop the unit and cut off power supply. Wipe the indoor unit with soft cloth. It is forbidden to posh the machine with petrol, benzene, lye, powder, detergent, insecticide etc., Which will damage the unit.
   - Ensure air inlet and outlet of indoor and outdoor unit are not blocked by rubbish.
   - Check whether the grounded wire is loose and flexible, then connect the power.

After-sale service

When your air conditioner can not run in order, shut down the machine and cut off the power supply immediately. Then contact dealers.

Troubleshooting

The following symptoms do not indicate malfunction.

Symptom	Cause
The system is not turn on or respond to remote controller immediately after power on. *Please wait a moment (5min/15sec) after power on the system.	• For new product first time power on after installation, the system requires approximately 5 minutes for “System Auto con figuration Process”. • For subsequent operation start up by power switch, the system requires 15secs for “Program Initialization”.
Operation is delayed a few minutes after restarting.	• The delay is a protection to the unit’s compressor.
Indoor fan stops occasionally during automatic fan speed setting.	• This is to help remove the surrounding odour.
The room has a peculiar odour.	• This may be due to damp smell emitted by the wall, carpet, furniture or clothing.
Cracking sound during operation.	• Changes in temperature caused the unit to expand and contract.
Water flowing sound during operation.	• Refrigerant flow inside the unit.
Mist emerges from indoor unit.	• During cooling operation, the discharged cold air may condense to water vapour.
Outdoor unit emits water or steam.	• During cooling operation, condensation occurs on cold pipes and the condensed water may drip from the outdoor unit.
Discoloration of some plastic parts.	• Discoloration is subjected to the types of materials used in plastic parts. It is accelerated when exposed to heat, sun light, UV light or environmental factors.

Check the following before calling for servicing.

Symptom	Check
Operation in COOL mode is not working ef ficiently.	• Set the temperature correctly. • Close all doors and windows. • Clear any obstruction at the air inlet and air outlet vents.
Noisy during operation.	• Check if the unit has been installed at an incline.
The unit does not work.	• Check if the circuit breaker is tripped. • Check if timers have been set.

ERROR CODE

ODU PCB/ODU Logic PCB(4.0Tr) LIGHT FLASH	IDU DISPLAY	Error or Protection Description
/	H00	No fault
25	EE	Indoor unit EEPROM fault
26	E1	Indoor fan motor fault
27	E2	Indoor PCB zero-crossing fault
28	H23	Indoor evaporator temperature sensor fault
29	H14	Indoor room air temperature sensor fault
60	EC	Indoor evaporator inlet temperature sensor fault
61	EH	Indoor evaporator outlet temperature sensor fault
62	E5	Wire controller communication failure
63	EF	Drainage failure
30	F91	Refrigeration cycle abnormality
31	H25	Nanoe-G air purifying system abnormal
24	F11	4-way valve switching failure
1	E0	Outdoor EEPROM fault
2	H11	Indoor to Outdoor communication fault
7	F4	Compressor shell temperature overheat protection
8	H15	Compressor discharge temperature sensor fault
9	F6	Compressor Suction temperature sensor fault
10	H28	Outdoor coil temperature sensor fault
11	H27	Outdoor ambient temperature sensor fault
13	F98	Outdoor AC current protection
14	F99	Compressor phase current protection
15	P2	Outdoor unit AC voltage over-high protection
36	PE	Outdoor unit AC voltage over-low protection
16	P3	DC bus voltage over-high protection
37	PF	DC bus voltage over-low protection
17	F96	IPM over-heat temperature protection
18	F97	Compressor discharge temperature over-heat protection
19	H99	Cooling Indoor unit coil anti- freezing protection
20	P7	Cooling outdoor coil over-heat protection
21	P8	Heating indoor coil over-heat protection
22	P9	Cooling outdoor ambient temperature over-low protection
23	PA	Heating outdoor ambient temperature over-high protection
38	PH	High pressure switch protection
39	PL	Low pressure switch protection
3	F90	Logic board and driver board communication failure
4	F93	Compressor starting abnormal
5	F2	Compressor out-of-step abnormal
6	F3	IPM module fault
12	F9	Outdoor DC fan motor fault
35	L1	Drive bus voltage over-high protection
32	L2	Drive bus voltage over-low protection
33	L3	Drive phase current overload fault
34	L4	Phase current sampling abnormal
40	d0	Driver board EE failure
41	d1	Driver board AC voltage over-high protection
42	d2	Driver board AC voltage over-low protection
43	d3	Driver board AC current over-high protection
44	d4	Input phase loss protection
45	d5	Driver board IPM over-high temperature protection
46	d6	IPM temperature sensor failure
47	d7	Driver board rectifier bridge over-high temperature protection
48	d8	Rectifier bridge temperature sensor failure
49	d9	Input power over-high protection
50	dC	Drive board phase current overload protection
51	dH	Drive board drive bus voltage over-high protection
52	dL	Drive board drive bus voltage over-low protection
/	EC0	No Error
/	H85	IDU PCB cannot detect WiFi module
/	EC1	WiFi router SSID and password not setup
/	EC2	Wrong password /SSID, WiFi router not connected
/	EC3	WiFi router signal weak / router abnormal, WiFi router not connected
/	EC4	Connected WiFi network but cannot connect to the server/unknown server problem
/	EC5	WiFi radio turned off by user
/	SE	WiFi module in on boarding state currently

Panasonic

Panasonic Life Solutions India Pvt. Ltd. **CERTIFICATE OF WARRANTY** **Customer Copy**

Sr.No.A -

Dear Customer,
Thank you for buying this Panasonic product. This card entitles you to enjoy 12 months warranty on the product.
The compressor fitted in all Panasonic Commercial Air-Conditioners upto 4 Ton carries an additional warranty of 4 years after 1 year warranty period of product, compressor fitted in all Panasonic Commercial Air-Conditioners above 4 Ton carries an additional warranty of 3 years after 1 year warranty period of product and PCB's of inverter Ductable AC's carries an additional warranty of 4 years after 1 year warranty period (Applicable for Model Series purchased after 01-01-2022).

Product : COMMERCIAL AIR-CONDITIONER

Model No./ ODU Sl. No. : ..... IDU Sl No. .....

Customer Name : .....

Address : .....

Tel. No. : .....

Date of Purchase : .....

Invoice No. : .....

Dealer Name and Address:

FOR CUSTOMER ASSITANCE: SCAN THE QR CODE

For Customer Call Registration Visit the Link
https://poisplus.in.eww.panasonic.com/ServiceCallLog

Help Line : Panasonic Helpline Number 080-6984-1333, Email : helpline@in.panasonic.com

Regd. Office: Panasonic Life Solutions India Pvt. Ltd., Intellion Park, 12th Floor, Tower 3, Sector 59, Golf Course Extension Road, Gurugram – 122011, Haryana, India

F1220-00

ACXF55-43361

Panasonic Life Solutions India Pvt. Ltd.

Certificate of Warranty

Terms and Conditions

Panasonic Life Solutions India Pvt. Ltd. having its registered office at Intellion Park,12th Floor, Tower 3, Sector 59, Golf Course Extension Road, Gurugram – 122011, Haryana, India herein after reffered to as "Company", warrants to the purchaser ("Customer") of this Air Conditioner ("Product"), free of charge repairs of any part(s) thereof, if proved upon inspection by the Company or any of its Authorized Dealer/Service Centre, to be defective due to faulty material or workmanship.
The above mentioned warranty shall be valid for a period of 12 months from the date of Purchase or date of commissioning whichever is earlier
During additional warranty period "any additional cost other than supply of compressor & PCB will be in scope of customer".
This warranty covers only the above mentioned repairs and does not entitle the Customer for replacement of the Product including but not limited to free replacements of cabinets and styling materials aesthetic material frames, plastic parts & accessories. The Company shall provide following Warranty services, free of cost through its authorized Dealer/Service Centre during the respective Warranty Periods mentioned above

A. Preventive Maintenance:

Preventive maintenance checkup will be carried out three times in one year from the date of installation, upon request from the Customer, which will include: General cleaning and brushing up of Dirt and Muck, general checkup of the performance of the Product unit, cleaning of air filter, and checking of electrical parts and components.

B. Breakdown Complaints:a

Company will put its best efforts to promptly attend to any breakdown complaint lodged by the Customer. Company will carry out repairs if it is determined by the Company's authorized service representative that the breakdown is due to a manufacturing defect.

The aforementioned warranty shall be subject to the under mentioned conditions:

1. The warranty is valid only when this warranty certificate (duly filled, signed and stamped by the selling dealer), along with original purchase invoice indicating the date of purchase and the dealer's name is presented to the Company or its authorized service centers, as designated by the Company. Warranty will not be valid without these documents. Any modification, defacement of or amendment to these documents shall render this warranty void.
2. Warranty takes care of any manufacturing defect or breakdown of the Product during Warranty Period. Company at its sole discretion will repair or replace such defective Product or parts thereof. All parts removed by the Company shall be the property of the Company. In the event the Company carries out repairs or replacement of any part during the said Warranty Period, the warranty shall thereafter continue only for the remaining period of the warranty. Any repairs done or replacement provided shall not extend the Warranty Period for any of the Products.
   The Warranty Period is limited as provided hereunder from the date of Purchase Invoice irrespective of the period the Product unit was not in use; was not giving proper performance; was under breakdown; or was under repair(s) by Company's Authorized Service Centre.
3. This warranty is valid and applicable only in respect of Products which are purchased in India from authorized channel of the Company. Parallel imports are excluded from this warranty. Further, this warranty is confined to the first purchaser of the Product only, and is not transferable.
4. The Company reserves the right to decide at its discretion, for replacing any defective part with a substitute without affecting the performance of the Product.
5. This warranty shall not apply with respect to the Products or any part thereof which has been subject to:
   (a) Installation/repair by any unauthorized persons or repair/use of this Product or any accessories other than those specified by Company;
   (b) Any accident or damage during transit; mishandling, unauthorized modifications, input voltage beyond specifications, riots, commercial use, lightning, use contrary to the operations specified in the user's manual supplied with the Product/unit, Alteration;
   (c) Unit/part(s) Serial No. mutilated, defaced or altered or any damage arising out of unauthorized modification or alteration, repair or use of the Product;
   (d) Damage due to fire, flood or such occurrences, water, dust, input voltage beyond specifications;
   (e) Damage due to presence of any foreign object or living creature (eg. Rat, lizard, insect, ants, etc.) Inside the Product unit;
   (f) Use of harmful chemicals; Improper heat load, Usage of unit in an abnormally corrosive alkaline/acidic atmosphere;
   (g) Any change or defect resulting due to improper maintenance any use contrary to the operations specified in the user's manual supplied with the Product;
   (h) Damage or loss arising out of mishandling or incurred during transit.
6. The warranty on the compressor shall be void if the failure is due to lack of proper preventive maintenance of the unit or if the unit is repaired / attended to by any unauthorized person.
7. While Company undertakes responsibility to replace only the compressor free of cost during Warranty Period. Cost of labor, transportation and other incidental expenditures shall be borne by the Customer after the lapse of first year of Product warranty.
8. The Product is defined to operate at a voltage supply of 230 Volts ±10% (single phase) & 415 Volts ±5% (three phase), and frequency 50±3Hz in both single & three phase product. Earthling value between Neutral & Earth shall be less than 3V. Any failure due to operation of the machine beyond the above specified limits will not be covered under warranty.
9. While the Company will make every effort to carry out repairs/replacement of parts at the earliest, it is however made explicitly clear that the Company is under no obligation to do so in a specified period of time.
10. Any defect in the electrical installation or wiring at site has to be rectified by the Customer as per the recommendation of Company's Authorized service representative.
11. In the event of any unforeseen circumstance, and spares not being available, Company's prevailing depreciation rules will be binding on the Customer to accept as commercial solution in lieu of repairs, the depreciation rules will be applicable after one year of purchase of the unit.
12. The Company shall not be liable or be deemed to be in default for any delay or failure in performance resulting directly or indirectly from causes beyond its reasonable control including delay in repairing due to non-availability of any component or accessory, labor problem, restrictions and regulations of the government, public movement, war and any unavoidable circumstances, specially vis-à-vis the import of supplies and raw material or if the company is otherwise prevented from performing its functions under this warranty.
13. For Product units installed outside the municipal limits of the Company or Authorized Dealer's service center, all expenses incurred in to & fro transportation of unit / parts, lodging, boarding, conveyance and other incidental charges will be borne by and payable in advance by the Customer.
14. To the extent permitted by law, this Warranty and the remedies set forth herein are exclusive and in lieu of all other warranties, remedies and conditions, whether oral, written, statutory, express or implied. Company disclaims all statutory and implied warranties, including without limitation, warranties of merchantability and fitness for a particular purpose and warranties against hidden or latent defects, to the extent permitted by law. In so far as such warranties cannot be disclaimed, Company limits the duration and remedies of such warranties to the duration of this express Warranty and, at Company's option, the repair or replacement services described below.
15. The Company shall not be liable for any indirect, special, incidental, punitive, exemplary, consequential or economic damage or loss (including but not limited to loss of profits, data, anticipated savings, personal injury and goodwill or business opportunities arising from or related to the warranty). The Company's liability under or in relation to this warranty shall be limited to the purchase price of the Product or the Maximum Retail Price thereof, as stated on the packaging of the Product, whichever is lower.
16. In the event of any difference or dispute arising with reference to the terms and conditions of this warranty or their interpretation, the same shall be referred to a sole arbitrator, who shall be appointed by the Company. The decision of the sole arbitrator shall be final and binding on the parties. Such arbitration proceedings shall be held at New Delhi and provision of the Arbitration & Conciliation Act 1996 shall apply to the arbitration proceedings.
17. It is an obligatory condition of this warranty that any changes in the location of the Product unit or ownership thereof must be intimated in writing to the Company 10 days in advance and only Company's Authorized Dealer /Service Centre shall remove and install the Product units on chargeable basis, failing which, the warranty shall not be applicable.
18. Company's obligation under this warranty shall be limited to repair of part/s only. The maximum amount of liability with respect to any Product related claim/s, if entertained by Company, will be subject to the maximum retail price of the Product purchased or the purchase price, whichever is lower.
19. The warranty is confined to first purchaser only & is not transferable.
20. The Purchaser has to provide Installation report along with original Purchase Invoice and warranty card at the time of requesting the warranty services.
21. For complete warranty terms and conditions, visit http://www.panasonic.com/in/support/

Printed in India

Information

Information on hazardous constituents as specified in sub-rule1 of rule16 (1) in electrical and electronic equipment.
Declaration of Conformity with the requirements of the E-Waste (Management) Amendment Rules 2024 with the rule 16 (1) limits with respect to Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls, Polybrominated diphenyl ethers.

The content of hazardous substance with the exemption of the applications listed in SCHEDULE II of the E-Waste (Management) Amendment Rules 2024 :

1. Lead (Pb) – not over 0.1% by weight;
2. Cadmium (Cd) – not over 0.01% by weight;
3. Mercury (Hg) – not over 0.1% by weight;
4. Hexavalent chromium (Cr^{6+}) – not over 0.1% by weight;
5. Polybrominated biphenyls (PBBs) – not over 0.1% by weight;
6. Polybrominated diphenyl ethers (PBDEs) – not over 0.1% by weight.



For the purpose of recycling to facilitate effective utilization of resources, please return this product to a nearby authorized collection center, registered dismantler of recycler, or Panasonic service center when disposing of this product.

Customer care number : 080-6984-1333

Please see the Panasonic website for further information on collection centers, etc.
or call the customer care toll-free number
http://www.panasonic.com/in/corporate/sustainability/panasonic-india-i-recycle-program.html

Do's & Don't: E-waste (Management) Amendment Rules 2024		
S.No.	**Do's**	**Don't**
1.	All electrical and electronic products are required to be handed over only to the Authorized recycler.	The product should not be opened by the User himself / herself, but only by authorized service personnel.
2.	The product should be handed over only to authorized recycler for disposal.	The product is not meant for re-sale to any unauthorized agencies / scrap dealer / Kabariwalas.
3.	Keep the product in isolated area, after it becomes non-functional / un-repairable so as to prevent its accidental breakage.	The product is not meant for mixing into household waste stream.
4.	Refer to operating instruction for handling of End-of Life products.	Do not keep any replaced spare part(s) from the product in exposed area.
5.	Always dispose products that have reached end-of life at Panasonic India Authorized Service Centre.	Do not donate old electronic items to any body. Do not dispose your product in garbage bins along with municipal waste that ultimately reaches landfill.
6.	Wherever possible or as instructed, separate the packaging material according to responsible waste disposal options and sorting for recycling.	Do not give e-waste to informal and unorganized sectors like Local Scrap Dealer / Rag Pickers.

PLASTIC WASTE MANAGEMENT RULES - INDIA	
Brand owner	PANASONIC LIFE SOLUTIONS INDIA PVT. LTD.
EPR No.	BO-15-000-07-AADCP9391B-22
Thickness	>50 Microns
Category of Plastic Packaging	Category II

Panasonic Corporation
Website: http://www.panasonic.com

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