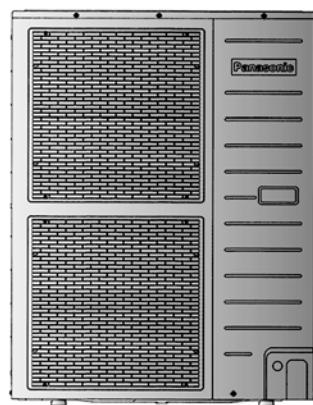


Service Manual

Air Conditioner

Indoor Unit Outdoor Unit

CS-PC36HKV CU-PC36HKV



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

⚠ PRECAUTION OF LOW TEMPERATURE

In order to avoid frostbite, be assured of no refrigerant leakage during the installation or repairing of refrigeration circuit.

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1 Safety Precautions

- Read the following “SAFETY PRECAUTIONS” carefully before perform any servicing.
- Electrical work must be installed or serviced by a licensed electrician. Be sure to use the correct rating of the power plug and main circuit for the model installed.
- The caution items stated here must be followed because these important contents are related to safety. The meaning of each indication used is as below.
Incorrect installation or servicing due to ignoring of the instruction will cause harm or damage, and the seriousness is classified by the following indications.






| | |
|--|---|
|  WARNING | This indication shows the possibility of causing death or serious injury. |
|--|---|



| | |
|--|--|
|  CAUTION | This indication shows the possibility of causing injury or damage to properties. |
|--|--|

The items to be followed are classified by the symbols:

| | |
|---|---|
|  | This symbol denotes item that is PROHIBITED from doing. |
|---|---|

- Carry out test running to confirm that no abnormality occurs after the servicing. Then, explain to user the operation, care and maintenance as stated in instructions. Please remind the customer to keep the operating instructions for future reference.

|  WARNING | |
|---|---|
| 1. Engage dealer or specialist for installation and servicing. If installation or servicing done by the user is defective, it will cause water leakage, electrical shock or fire. | |
| 2. Install according to this installation instructions strictly. If installation is defective, it will cause water leakage, electrical shock or fire. | |
| 3. Use the attached accessories parts and specified parts for installation and servicing. Otherwise, it will cause the set to fall, water leakage, fire or electrical shock. | |
| 4. Install at a strong and firm location which is able to withstand the set's weight. If the strength is not enough or installation is not properly done, the set will drop and cause injury. | |
| 5. For electrical work, follow the local national wiring standard, regulation and the installation instruction. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect found in electrical work, it will cause electrical shock or fire. | |
| 6. Use the specified cable and connect tightly for indoor/outdoor connection. Connect tightly and clamp the cable so that no external force will be acted on the terminal. If connection or fixing is not perfect, it will cause heat-up or fire at the connection. | |
| 7. Wire routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed perfectly, it will cause heat-up at connection point of terminal, fire or electrical shock. | |
| 8. When connecting the piping, do not allow air or any substances other than the specified refrigerant to enter the refrigeration cycle. Otherwise, this may lower the capacity, cause abnormally high pressure in the refrigeration cycle, and possibly result in explosion and injury. |  |
| 9. Thickness of copper pipes used must be more than 0.8 mm. Never use copper pipes thinner than 0.8 mm. |  |
| 10. It is desirable that the amount of residual oil is less than 40 mg/10 m. |  |
| 11. Do not modify the length of the power supply cord or use of the extension cord, and do not share the single outlet with other electrical appliances. Otherwise, it will cause fire or electrical shock. |  |

|  CAUTION | |
|--|---|
| 1. The equipment must be earthed. It may cause electrical shock if grounding is not perfect. | |
| 2. Do not install the unit at place where leakage of flammable gas may occur. In case gas leaks and accumulates at surrounding of the unit, it may cause fire. |  |



CAUTION

3. Carry out drainage piping as mentioned in installation instructions. If drainage is not perfect, water may enter the room and damage the furniture.
4. Pb free solder has a higher melting point than standard solder; typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C). Pb free solder will tend to splash when heated too high (about 1100°F/600°C).

ATTENTION

1. Selection of the installation location. Select an installation location which is rigid and strong enough to support or hold the unit, and select a location for easy maintenance.
2. Power supply connection to the conditioner. Connect the power supply cord of the air conditioner to the mains using one of the following methods. Power supply point shall be the place where there is ease for access for the power disconnection in case of emergency. In some countries, permanent connection of this room air conditioner to the power supply is prohibited.
 1. Power supply connection to the receptacle using a power plug. Use an approved power plug with earth pin for the connection to the socket.
 2. Power supply connection to a circuit breaker for the permanent connection. Use an approved circuit breaker for the permanent connection. It must be a double pole switch with a minimum 3.5 mm contact gap.
3. Do not release refrigerant during piping work for installation, servicing reinstallation and during repairing a refrigeration parts. Take care of the liquid refrigerant, it may cause frostbite.
4. Installation work. It may need two people to carry out the installation work.
5. Do not install this appliance in a laundry room or other location where water may drip from the ceiling, etc.

2 Specifications

2.1. CS-PC36HKV CU-PC36HKV

| Item | | Unit | Indoor unit | Outdoor unit | |
|----------------------------|-------------------|--|----------------------|--|-----|
| Performance Test Condition | | | NEW JIS | | |
| Capacity | | kW | 10.55 | | |
| | | BTU/h | 36000 | | |
| | | *kJ/h | 37980 | | |
| EER | | W/W | 2.93 | | |
| | | BTU/hW | 10.0 | | |
| Noise Level | | dB (A) | High: 50 Low: 45 | High: 55 / - | |
| | | Power level dB | — | — | |
| Moisture Removal | | l/h | 6.3 | | |
| | | (pt/h) | 13.4 | | |
| Air Volume | Lo | m ³ /m (ft ³ /m) | 17.8 (629) | — | |
| | Me | m ³ /m (ft ³ /m) | 19.4 (685) | — | |
| | Hi | m ³ /m (ft ³ /m) | 21.0 (740) | 106 (3750) | |
| | SHi | m ³ /m (ft ³ /m) | — | — | |
| Refrigerant Control Device | | | — | Capillary Tube | |
| Refrigerant Oil (Charged) | | cm ³ | — | ATMOS M60 or ATMOS M56 or SUNISO 4GDID | |
| Refrigerant (Charged) R22 | | kg (oz) | — | 1.45 (51.2) | |
| Dimension | Height | mm (inch) | 340 (13 - 13/32) | 1170 (46 - 3/32) | |
| | Width | mm (inch) | 1150 (45 - 9/32) | 900 (35 - 7/16) | |
| | Depth | mm (inch) | 260 (10 - 1/4) | 320 (12 - 5/8) | |
| Net Weight | | kg (lbs) | 18 (40) | 80 (176) | |
| Pipe Diameter | Gas | mm (inch) | 19.05 (3/4) | | |
| | Liquid | mm (inch) | 9.52 (3/8) | | |
| Height Difference | | m (ft) | 20 (65.6) | | |
| Pipe Length Range | | m (ft) | 3 (9.8) - 30 (98.4) | | |
| Additional Gas Amount | | g/m (oz/ft) | 30 (0.3) | | |
| Refrigeration Charge Less | | m (ft) | 7.5 (24.6) | | |
| Drain Hose | Inner diameter | mm | 16 | — | |
| | Length | mm | 650 | — | |
| Compressor | Type | | — | Hermetic motor | |
| | Motor Type | | — | Induction (2-poles) | |
| | Rated Output | W | — | 2.5k | |
| Fan | Type | | Cross-flow Fan | Propeller Fan | |
| | Material | | ASG30K1 or ASG32K1 | PP Resin | |
| | Motor Type | | PWM (2-poles) | Tap (6-poles) | |
| | Input power | W | — | 126.6 | |
| | Output power | W | 60 | 68 × 2 | |
| | Fan Speed | Lo (Cool) | rpm | 1120 | — |
| | | Me (Cool) | rpm | 1220 | — |
| | | Hi (Cool) | rpm | 1320 | 780 |
| SHi (Cool) | | rpm | — | — | |
| Heat Exchanger | Fin material | | Aluminium (Pre Coat) | Aluminium (Blue Coat) | |
| | Fin Type | | Corrugate Fin | Corrugate Fin | |
| | Row × Stage × FPI | | 2 × 14 × 17 | 1 × 44 × 17 | |
| | Size (W × H × L) | mm | 44 × 355.6 × 880 | 19.05 × 1117.6 × 868.8 | |
| Air Filter Type | Material | | P.P Honey Comb | — | |
| | Style | | One-touch | — | |

1. Cooling capacities are based on indoor temperature of 27°C D.B. (80.6°F D.B.), 19.0°C W.B. (66.2°F W.B.) and outdoor air temperature of 35°C D.B. (95°F D.B.), 24°C W.B. (75.2°F W.B.)

| Item | | Unit | |
|--|----------------|--------|--------|
| Power Source (Phase, Voltage, Cycle) | | ∅ | Single |
| | | V | 220 |
| | | Hz | 60 |
| Input power | | kW | 3.60 |
| Starting Current | | A | 104 |
| Running Current | Cooling | A | 17.5 |
| Maximum Current | | A | 21.8 |
| Power Factor | Cooling | % | 94 |
| Power factor means total figure of compressor, indoor fan motor and outdoor fan motor. | | | |
| Power Cord | Number of core | | — |
| | Length | m (ft) | — |
| Thermostat | | | — |
| Protection Device | | | — |

Note:

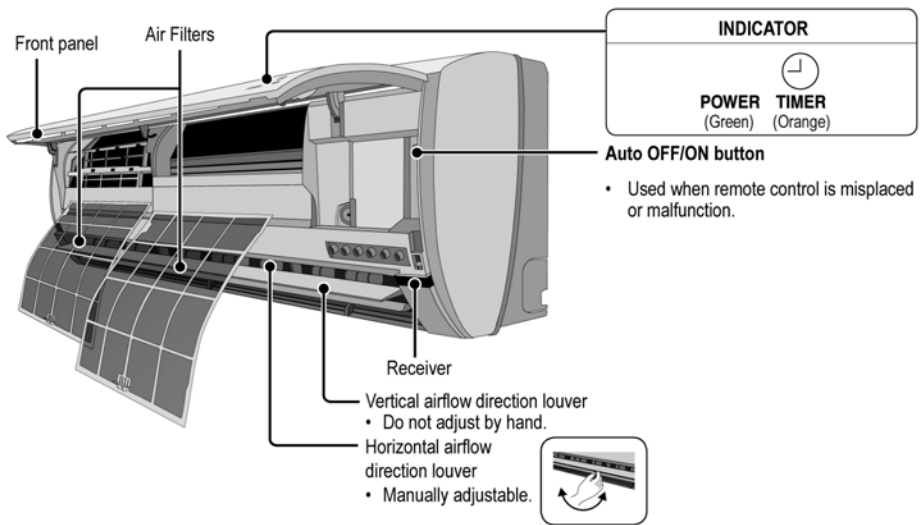
- Specification are subject to change without prior notice for further improvement.

3 Features

- **Long Installation Piping**
 - CS/CU-PC36HKV, long piping up to 30 meter.
- **Easy to use remote control**
- **Quality Improvement**
 - Random auto restart after power failure for safety restart operation.
 - Gas leakage detection.
 - Prevent compressor reverse cycle.
 - Inner protector to protect compressor.
 - Noise prevention during soft dry operation.
 - Blue Coated Condenser for high resistance to corrosion.
- **Operation Improvement**
 - 24-hour timer setting
- **Serviceability Improvement**
 - Removable and washable front panel

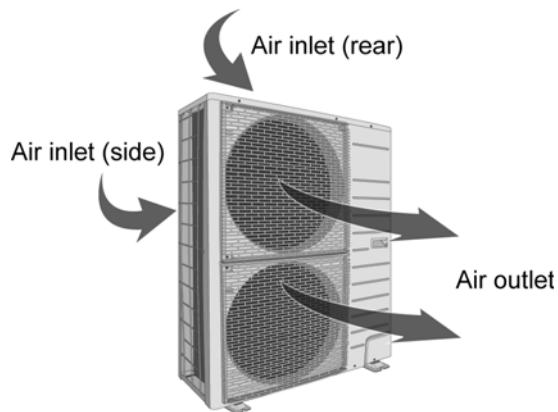
4 Location of Controls and Components

4.1. Indoor Unit

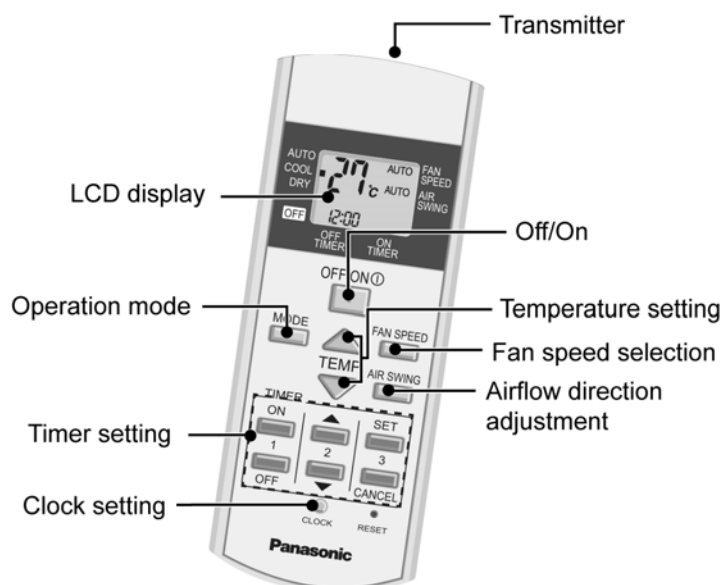


4.2. Outdoor Unit

- Outdoor unit shown is CU-PC36HK.



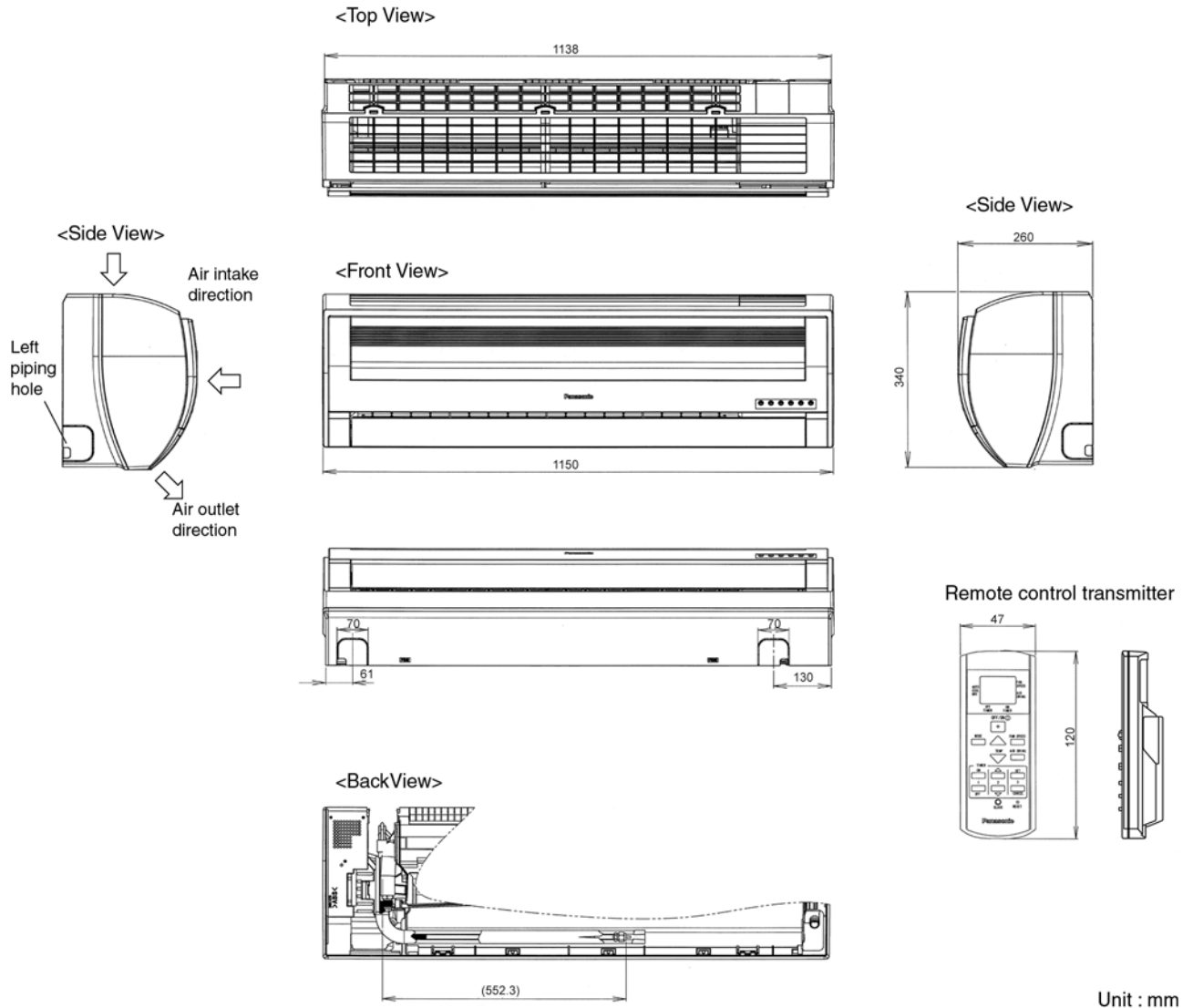
4.3. Remote Control



5 Dimensions

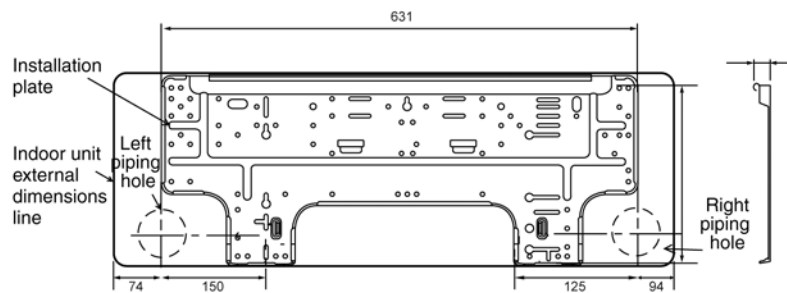
5.1. Indoor Unit & Remote Control

5.1.1. CS-PC36HKV



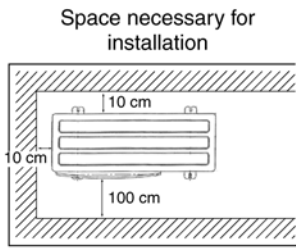
Unit : mm

Relative position between the indoor unit and the installation plate <Front View>



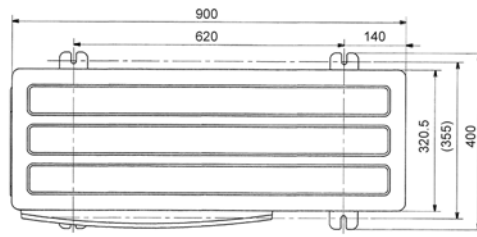
5.2. Outdoor Unit

5.2.1. CU-PC36HKV

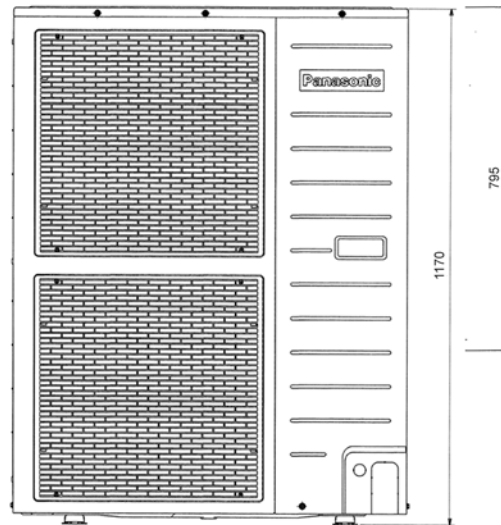


Anchor Bolt Pitch
261 x 474

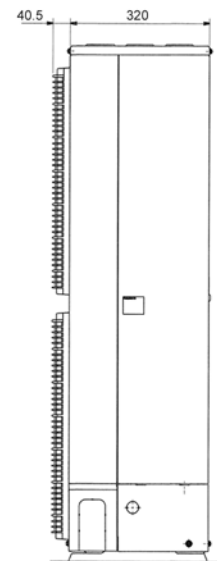
<Top View>



<Front View>

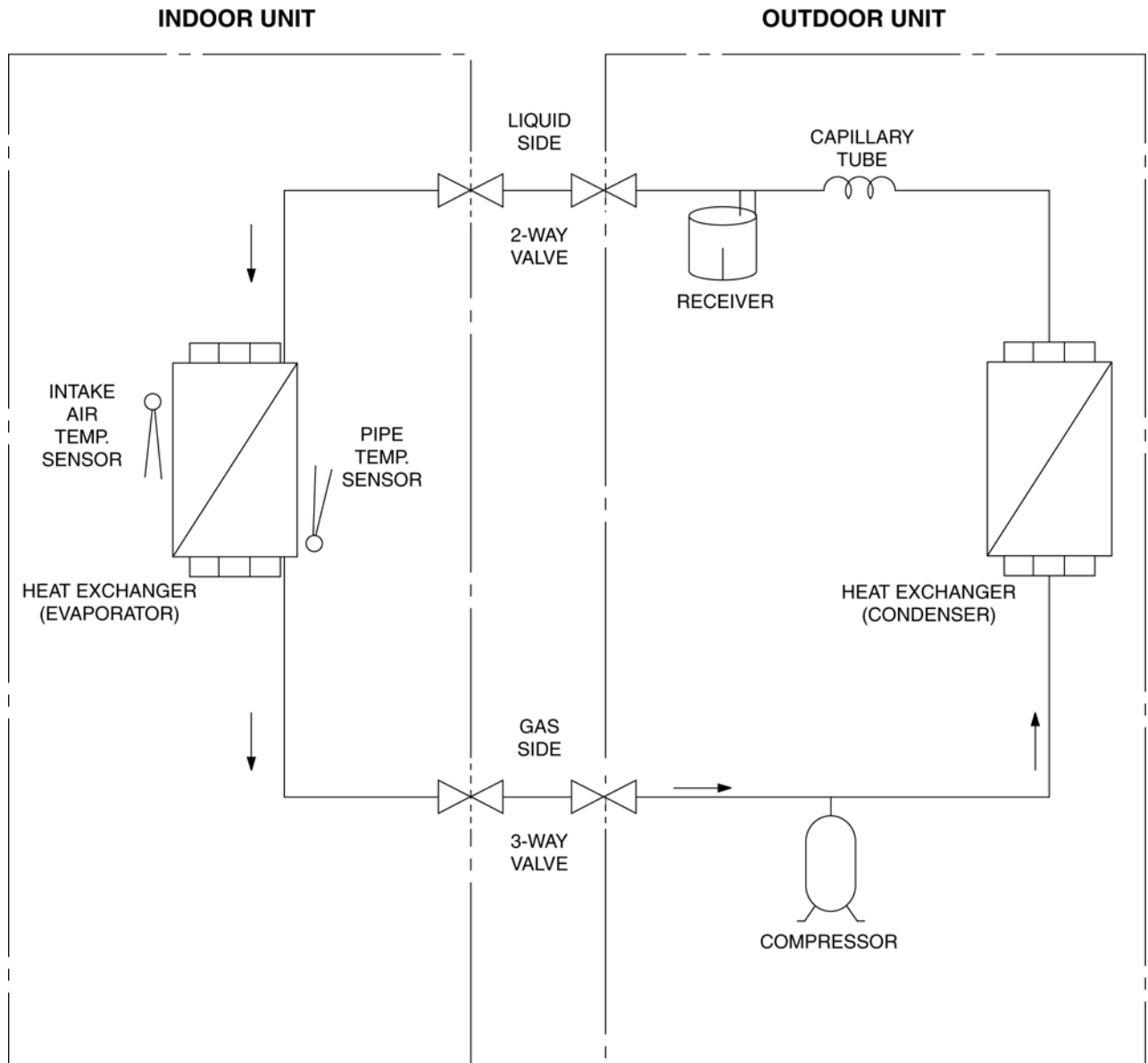


<Side View>

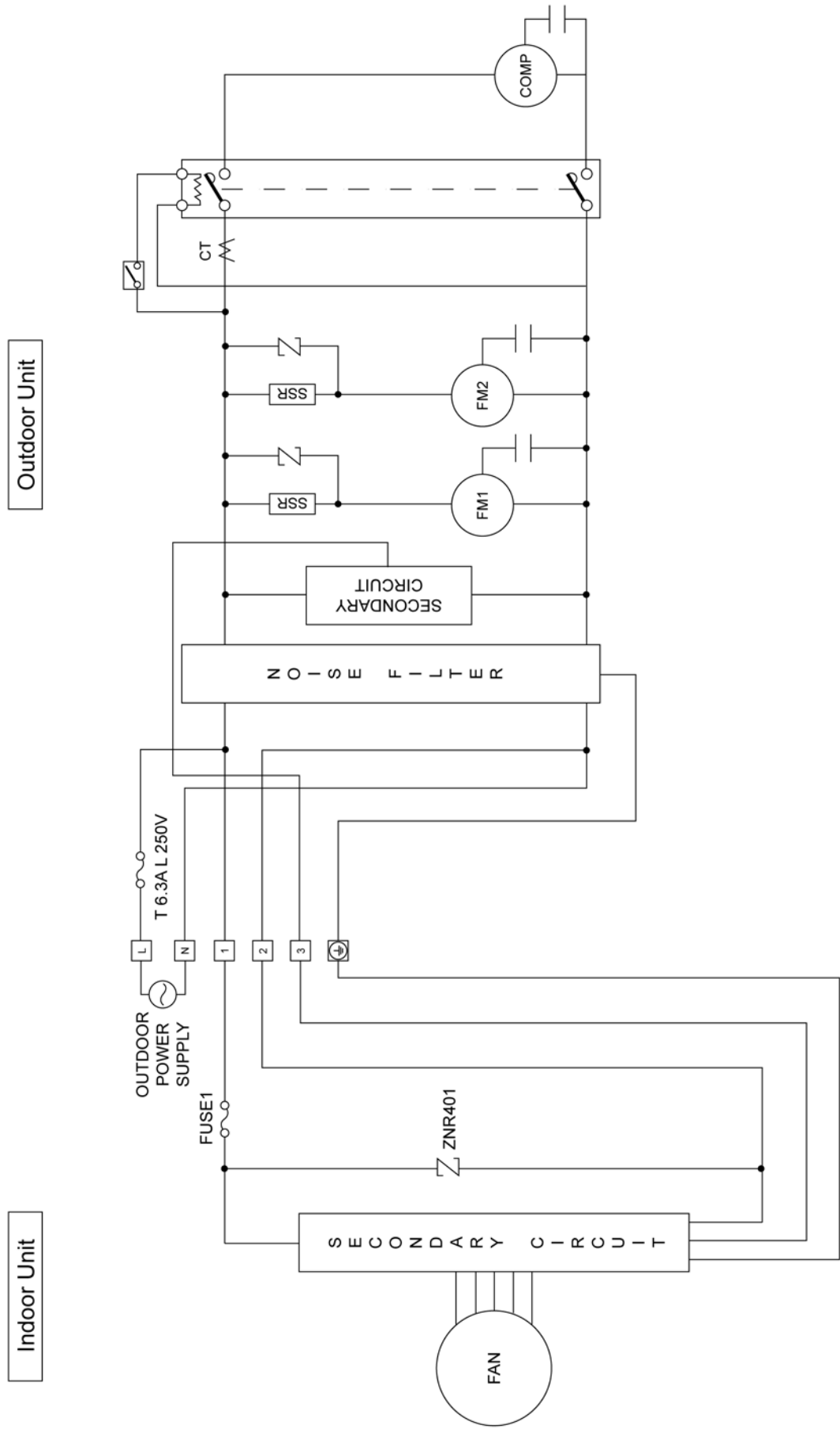


Unit : mm

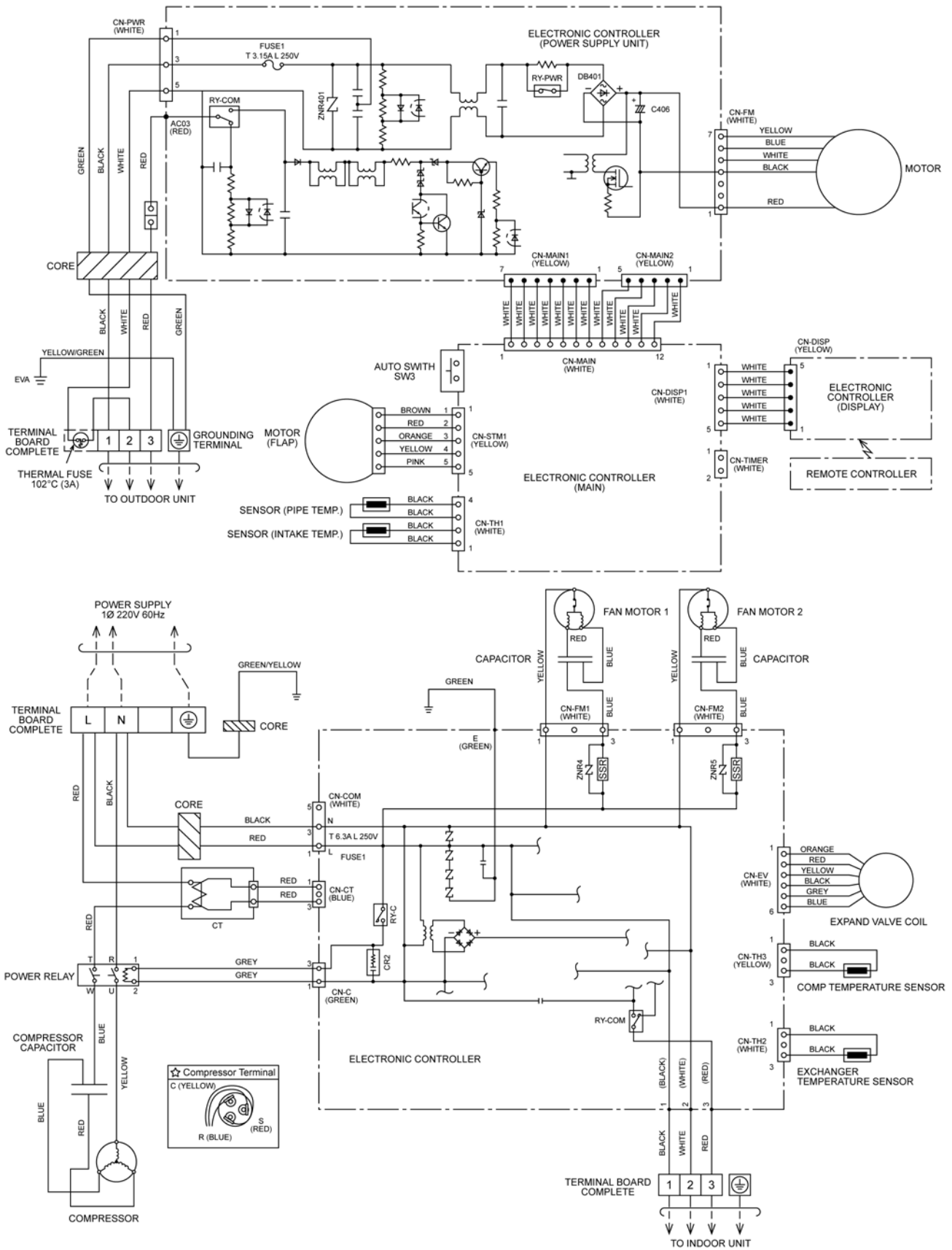
6 Refrigeration Cycle Diagram



7 Block Diagram

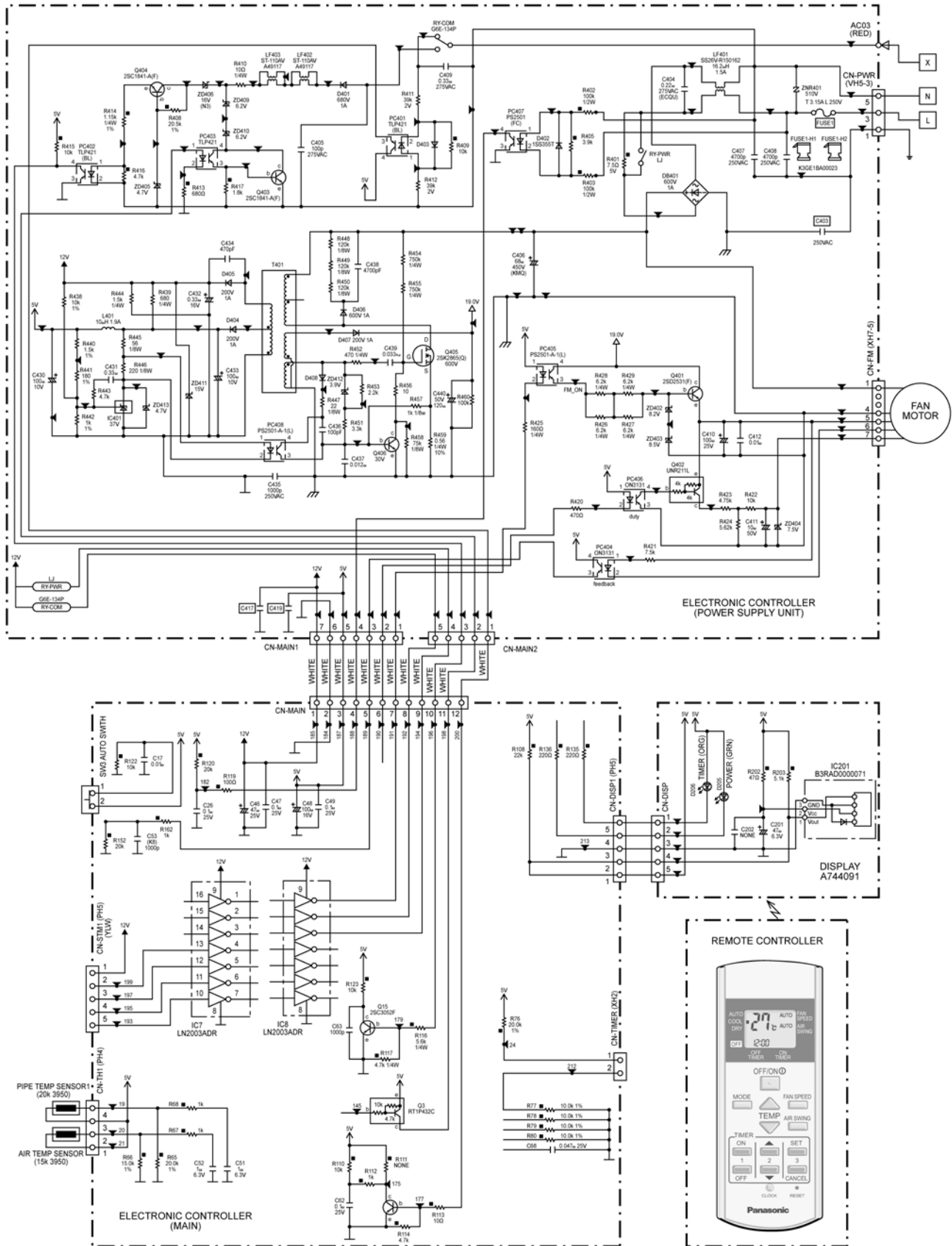


8 Wiring Connection Diagram

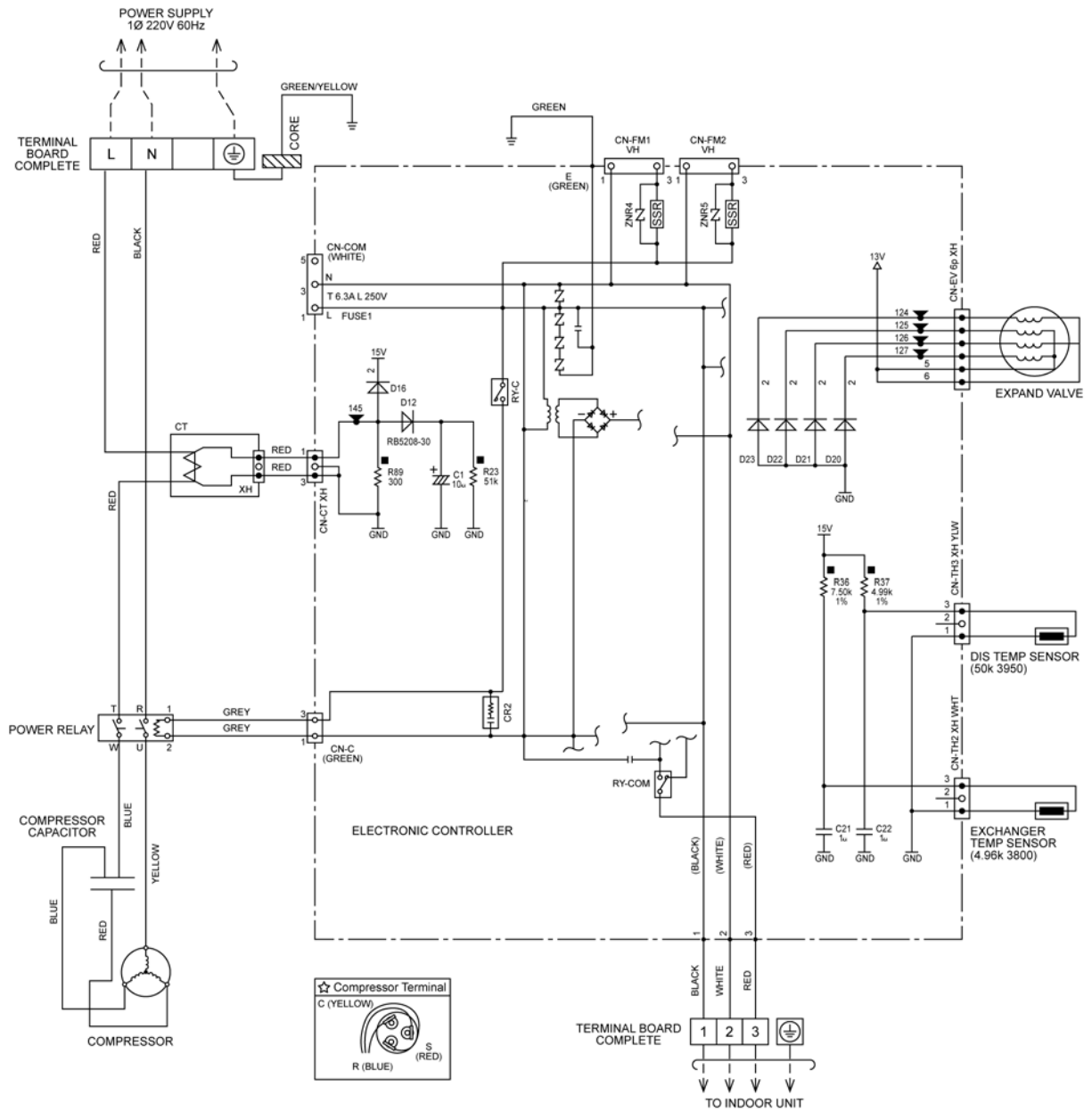


9 Electronic Circuit Diagram

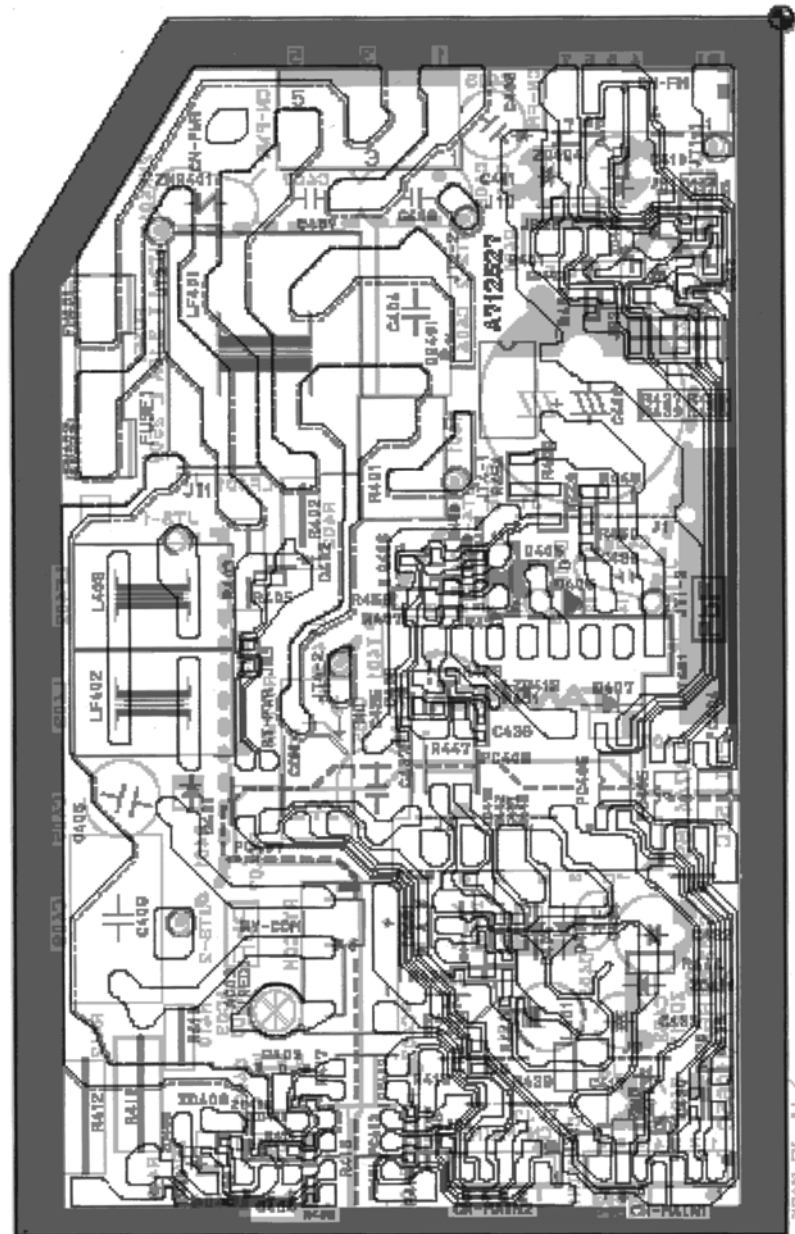
9.1. CS-PC36HKV



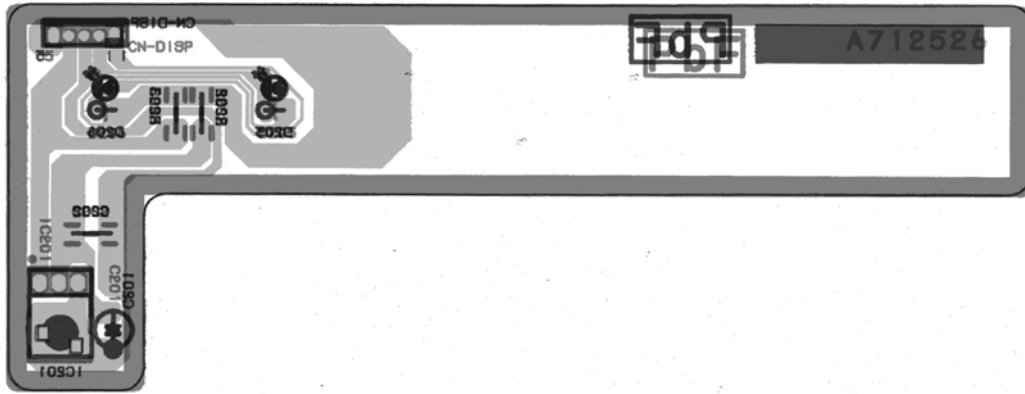
9.2. CU-PC36HKV



10.2. Outdoor Unit



10.3. Indicator



11 Installation Instruction

11.1. Select The Best Location

11.1.1. Indoor Unit

- Do not install the unit in excessive oil fume area such as kitchen, workshop and etc.
- There should not be any heat source or steam near the unit.
- There should not be any obstacles blocking the air circulation.
- A place where air circulation in the room is good.
- A place where drainage can be easily done.
- A place where noise prevention is taken into consideration.
- Do not install the unit near the door way.
- Ensure the spaces indicated by arrows from the wall, ceiling, fence or other obstacles.
- Recommended installation height for indoor unit shall be at least 2.5 m.

11.1.2. Outdoor Unit

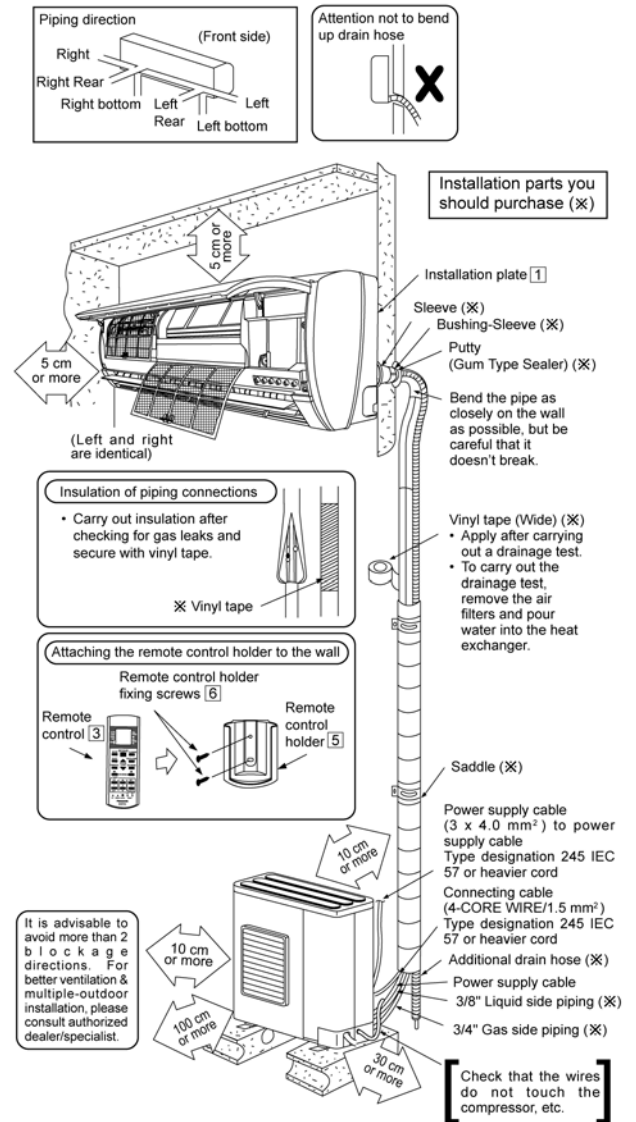
- If an awning is built over the unit to prevent direct sunlight or rain, be careful that heat radiation from the condenser is not obstructed.
- There should not be any animal or plant which could be affected by hot air discharged.
- Keep the spaces indicated by arrows from wall, ceiling, fence or other obstacles.
- Do not place any obstacles which may cause a short circuit of the discharged air.
- If piping length is over 7.5 m, additional refrigerant should be added as shown in the table.

| Model | Piping size | | Rated Length (m) | Max. Elevation (m) | Min. Piping Length (m) | Max. Piping Length (m) | Additional Refrigerant (g/m) |
|---------|-------------|--------|------------------|--------------------|------------------------|------------------------|------------------------------|
| | Gas | Liquid | | | | | |
| PC36HKV | 3/4" | 3/8" | 5 | 20 | 3 | 30 | 40 |

Example: For PC36HKV

If the unit is installed at a 10m distance, the quantity of additional refrigerant should 75 g $(10 - 7.5) \text{ m} \times 40 \text{ g/m} = 100 \text{ g}$

11.2. Indoor/Outdoor Unit Installation Diagram

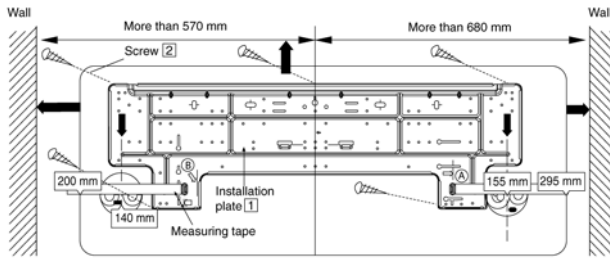


- This illustration is for explanation purposes only. The indoor unit will actually face a different way.

11.3. Indoor Unit

11.3.1. How To Fix Installation Plate

The mounting wall is strong and solid enough to prevent it from the vibration.



The centre of installation plate should be at more than 680 mm at right and 570mm at left of the wall.

The distance from installation plate edge to ceiling should more than 73 mm.

From installation plate left edge to unit's left side is 20 mm.

From installation plate right edge to unit's right is 130 mm.

- Ⓑ :
- For left side piping, piping connection for liquid should be about 155 mm from this line.
 - For left side piping, piping connection for gas should be about 190 mm from this line.
 - For left side piping, piping connection cable should be about 1100 mm from this line.

1. Mount the installation plate on the wall with 5 screws or more.

(If mounting the unit on the concrete wall, consider using anchor bolts.)

- Always mount the installation plate horizontally by aligning the marking-off line with the thread and using a level gauge.

2. Drill the piping plate hole with $\varnothing 70$ mm hole-core drill.

- Line according to the arrows marked on the lower left and right side of the installation plate. The meeting point of the extended line is the centre of the hole. Another method is by putting measuring tape at position as shown in the diagram above. The hole centre is obtained by measuring the distance namely 140 mm and 155 mm for left and right hole respectively.
- Drill the piping hole at either the right or the left and the hole should be slightly slanted to the outdoor side.

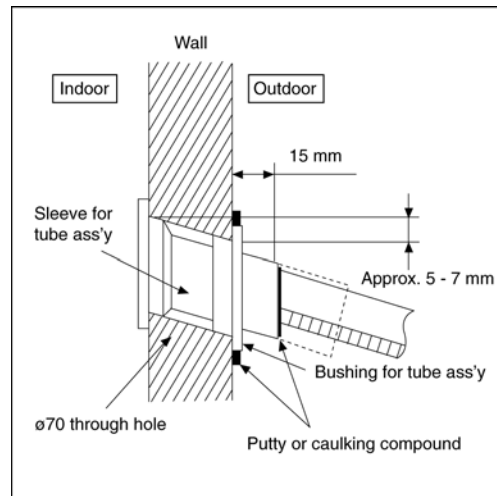
11.3.2. To Drill A Hole In The Wall And Install A Sleeve Of Piping

1. Insert the piping sleeve to the hole.
2. Fix the bushing to the sleeve.
3. Cut the sleeve until it extrudes about 15 mm from the wall.

Caution

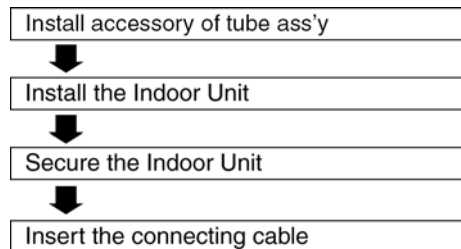
When the wall is hollow, please be sure to use the sleeve for tube ass'y to prevent dangers caused by mice biting the connecting cable.

4. Finish by sealing the sleeve with putty or caulking compound at the final stage.

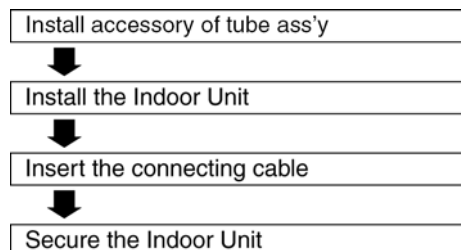


11.3.3. Indoor Unit Installation

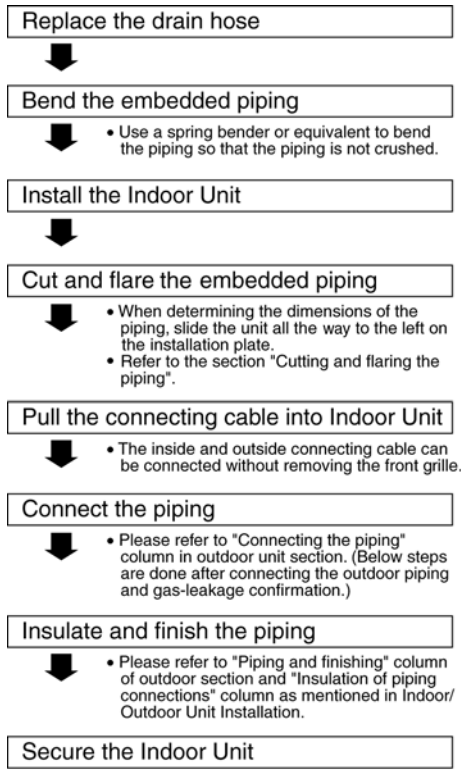
11.3.3.1. For the right rear piping



11.3.3.2. For the right and right bottom piping

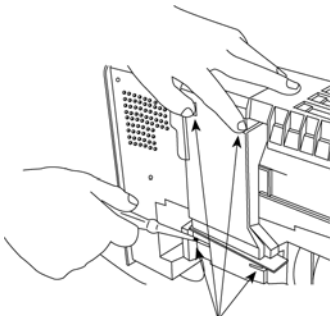


11.3.3.3. For the embedded piping



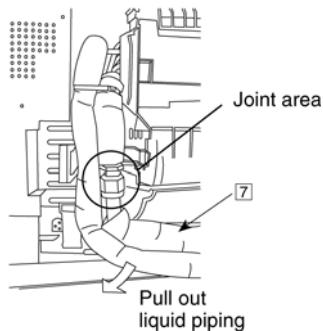
Install accessory of tube ass'y

1. Remove chassis back particular piece.

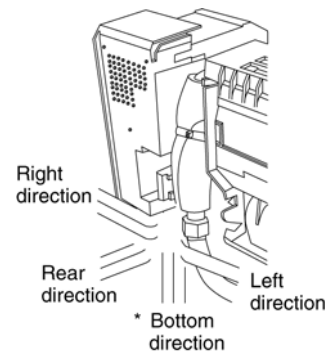


Release 4 position hooks

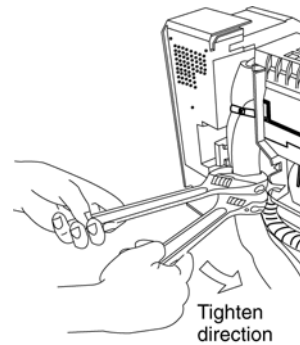
2. Connect tube ass'y 7 to gas side piping. Liquid side piping need to pull out to joint tube ass'y.



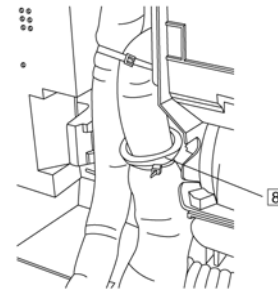
3. Set the piping direction.
(For bottom piping, need to perform cutting and flaring process.)



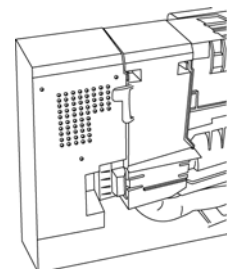
4. Use 2 spanner to tighten the nut. (tighten torque 65 N·m)



5. Check gas leak at joint area using tube connector 11 and connect to liquid side piping. (Refer indication label at chassis back for detail)
6. Cover the open tubing with the foam and bind it by band 8 .



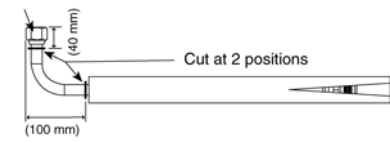
7. Close back the chassis back piece.



Cutting and flaring for bottom piping direction

1. Cut tube ass'y at 2 positions as below.

Union nut

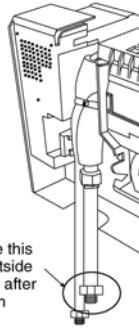


2. After cut rejoin back union nut to tube ass'y.
3. Perform flaring process at end of tube ass'y.

Flaring process

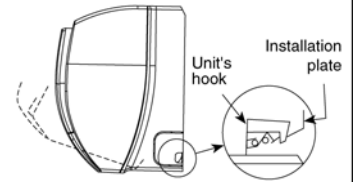


Make sure this area is outside of chassis after connection

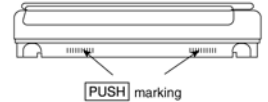


Secure the Indoor Unit

1. Press the lower left and right side of the unit against the installation plate until hooks engages with their slot (sound click).

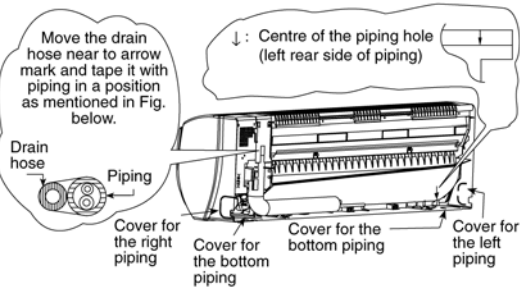


To take out the unit, push the **PUSH** marking at the bottom unit, and pull it slightly towards you to disengage the hooks from the unit.



Pull out the piping and drain hose

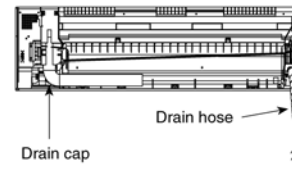
Move the drain hose near to arrow mark and tape it with piping in a position as mentioned in Fig. below.



(This can be used for left rear piping and left bottom piping also.)

Exchange the drain hose and the cap

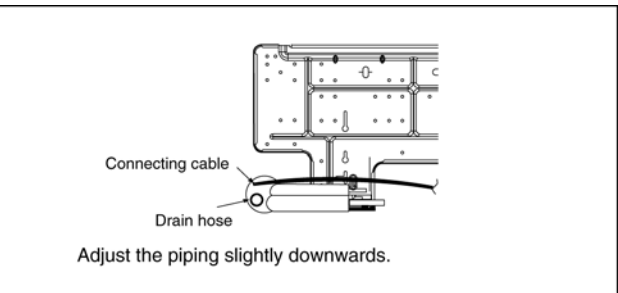
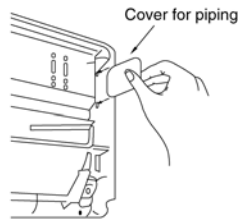
Rear view for left piping installation



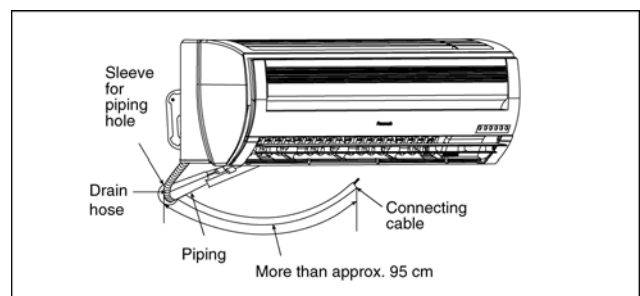
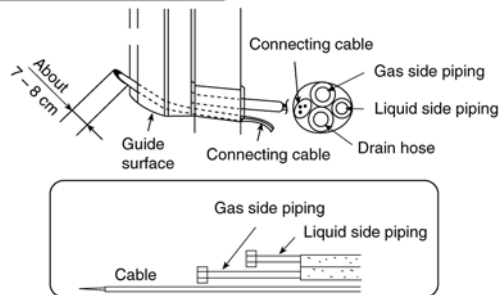
How to keep the cover

In case of the cover is cut, keep the cover at the rear of chassis as shown in the illustration for future reinstallation.

(Left, right and 2 bottom covers for piping.)

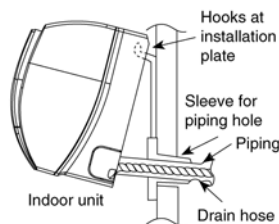


Insert the connecting cable

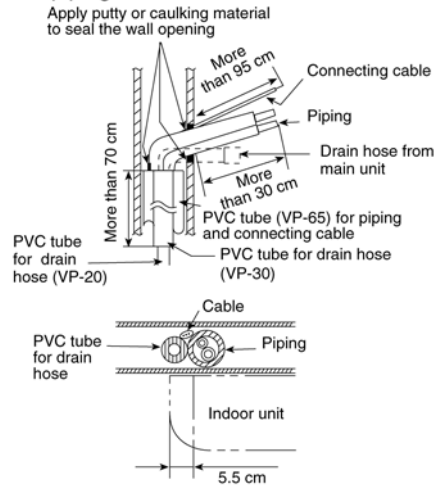


Install the indoor unit

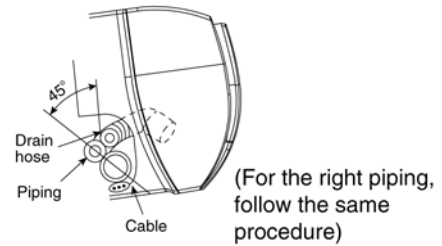
Hook the indoor unit onto the upper portion of installation plate. (Engage the indoor unit with the upper edge of the installation plate). Ensure the hooks are properly seated on the installation plate by moving it in left and right.



- How to pull the piping and drain hose out, in case of the embedded piping.



- In case of left piping how to insert the connecting cable and drain hose.



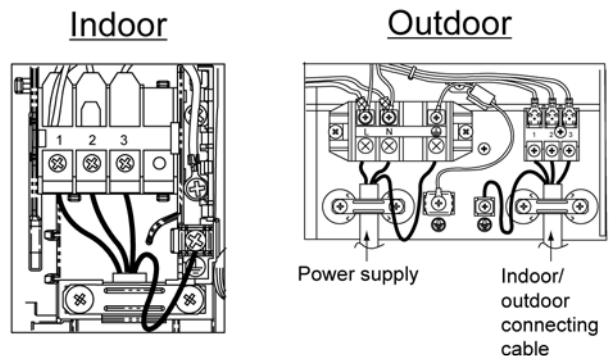
11.3.4. Connect The Cable To The Indoor Unit

1. The indoor and outdoor connecting cable can be connected without removing the front grille.
2. Connecting cable between indoor unit and outdoor unit shall be approved polychloroprene sheathed $4 \times 1.5 \text{ mm}^2$ flexible cord, type designation 245 IEC 57 or heavier cord.
 - Ensure the color of wires of outdoor unit and the terminal Nos. are the same to the indoor's respectively.
 - Earth lead wire shall be longer than the other lead wires as shown in the figure for the electrical safety in case of the slipping out of the cord from the anchorage.

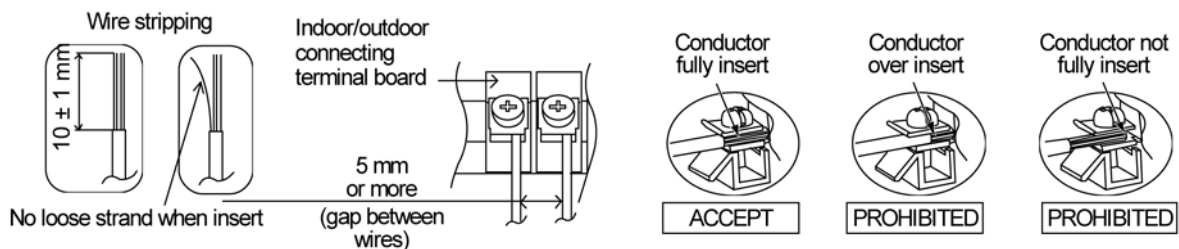
| | | | | |
|-------------------------------|--|---|---|---|
| Terminals on the indoor unit | | 1 | 2 | 3 |
| Colour of wires | | | | |
| Terminals on the outdoor unit | | 1 | 2 | 3 |

- Secure the cable onto the control board with the holder (clamper).

| Terminal screw | Tightening torque Ncm {kgfcm} |
|----------------|-------------------------------|
| M3 | 69-98 {7-10} |
| M4 | 157-196 {16-20} |
| M5 | 196-245 {20-25} |



11.3.4.1. Wire Stripping and Connecting Requirement



11.4. Outdoor Unit

11.4.1. Install The Outdoor Unit

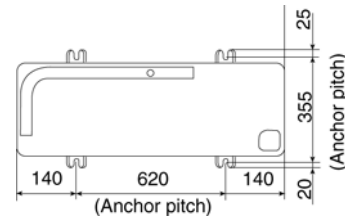
- After selecting the best location, start installation according to Indoor/Outdoor Unit Installation Diagram.

- If installing the unit to a concrete base or other solid base, use M10 or W3/8 bolts and nuts to secure the unit, and ensure that the unit is fully upright and level.

(The anchor bolt positions are shown in the diagram at the right side.)

In particular, install the unit at a distance from the neighbouring building which conforms to regulations specified by local noise emission regulation standards.

- Do not install the outdoor unit to the building's roof.
- If there is a possibility that vibration may be transmitted to the rooms of the building, place rubber insulation between the unit and the installation surface.



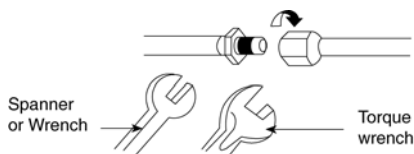
11.4.2. Connecting The Piping

11.4.2.1. Connecting The Piping To Indoor Unit

Please make flare after inserting flare nut (locate at joint portion of tube assembly) onto the copper pipe (in case of using long piping).

Connect the piping

- Connect tube ass'y 12 as shown in the picture.
- Align the center of piping and sufficiently tighten the flare nut with fingers.
- Further tighten the flare nut with torque wrench in specified torque as stated in the table.



| Model | Piping size (Torque) | |
|---------|----------------------|--------------|
| | Gas | Liquid |
| PC36HKV | 3/4" [100 Nm] | 3/8" [42 Nm] |

CAUTION

Do not over tighten, over tightening cause gas leakage.

11.4.2.2. Connecting The Piping To Outdoor Unit

Decide piping length and then cut by using pipe cutter. Remove burrs from cut edge. Make flare after inserting the flare nut (locate at valve) onto the copper pipe.

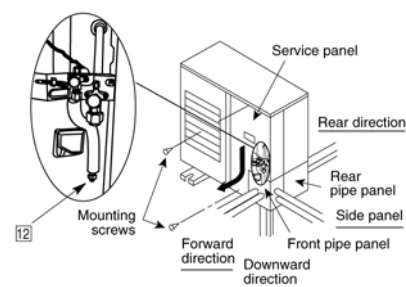
Align center of piping to valves and then tighten with torque wrench to the specified torque as stated in the table.

Local pipes can project in any of four directions.

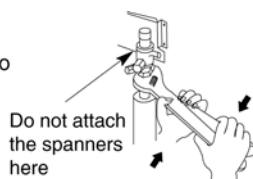
- Make holes in the pipe panels for the pipes to pass through.
- Be sure to install the pipe panels to prevent rain from getting inside the outdoor unit.

[Removing the service panel].

- Remove the two mounting screws.
 - Slide the service panel downward to release the pawls.
- After this, pull the service panel toward you to remove it.



Be sure to use two spanners to tighten.
(If the nuts are overtightened, it may cause the flares to break or leak.)

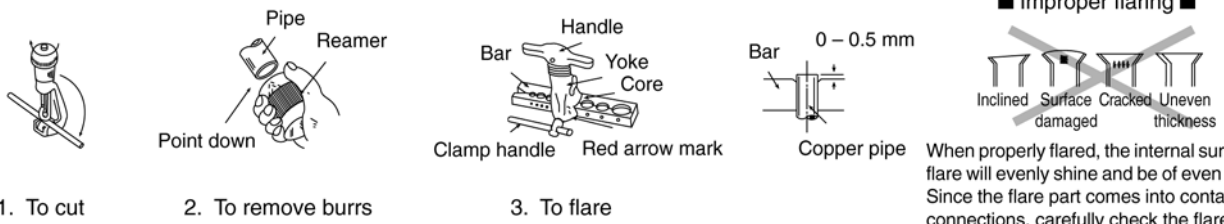


Close the tube joining area with putty heat insulator (local supply) without any gap as shown in right figure. (To prevent insects or small animal entering.)



11.4.2.3. Cutting And Flaring The Piping

1. Please cut using pipe cutter and then remove the burrs.
2. Remove the burrs by using reamer. If burrs is not removed, gas leakage may be caused.
Turn the piping end down to avoid the metal powder entering the pipe.
3. Please make flare after inserting the flare nut onto the copper pipes.



1. To cut
2. To remove burrs
3. To flare

11.4.3. Air Purging Of The Piping And Indoor Unit

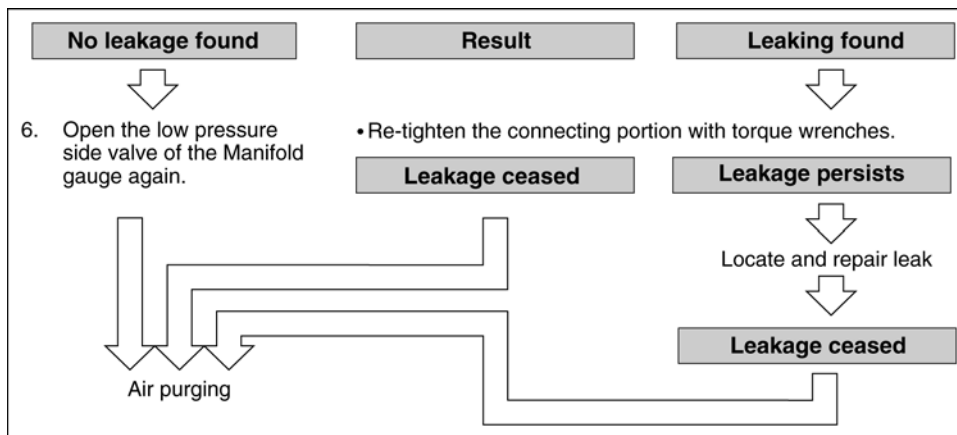
1) Checking a gas leakage

1. Remove the service port cap from 3-way valves.
2. Connect the Manifold gauge set to the service port of liquid side 3-way valve.
3. Connect the Charging Cylinder to the Manifold gauge set and open the valve of the Cylinder.
4. Open the low pressure side valve of the Manifold gauge for approx.10 seconds and then close.
5. Check gas-leakage of the connecting portion of pipings with the gas-leak detector.

<For the left pipings>

- 1) Measure the pressure.
- 2) Keep it for 5-10 minutes.

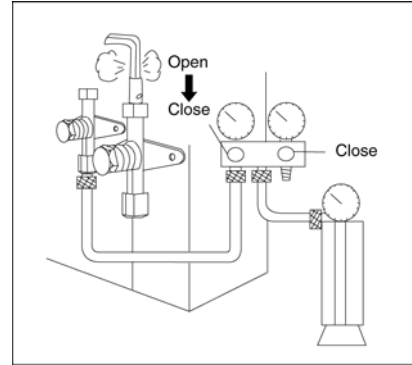
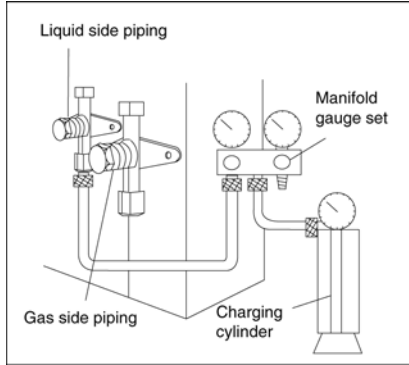
- Ensure if the pressure indicated on the gauge is as same as that of measured at first time.



2) Air Purging

The air remaining in the Refrigeration cycle which contains moisture may cause malfunction on the Compressor.

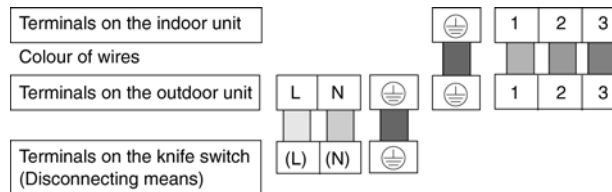
- To purge the air, push the pin on the Gas side 3-way valve for three seconds with a Hexagonal wrench and set it free for one minute.
 - Repeat this for three times.
- To balance the refrigerant, close the low pressure side valve on the Manifold gauge set and release refrigerant from the piping through service port until the gauge indicates 0.5 -0.3MPa.
- Set both 3-way valves to open position with the Hexagonal wrench for the unit operation.



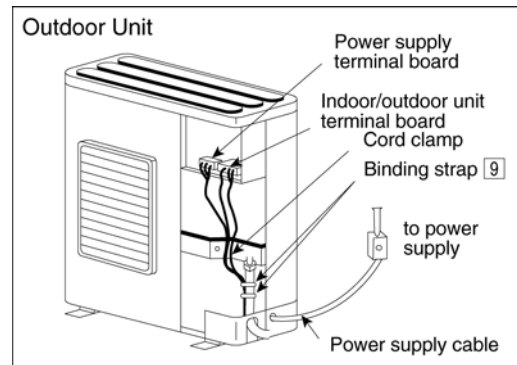
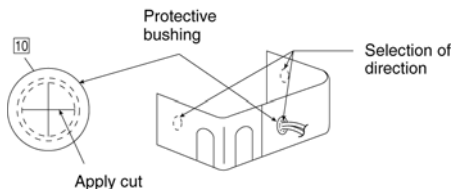
11.4.4. Connect The Cable To The Outdoor Unit

(FOR DETAIL REFER TO WIRING DIAGRAM AT UNIT)

- Remove the control board cover from the unit by loosening the screw.
- Connecting cable between indoor unit and outdoor unit shall be approved polychloroprene sheathed 4 x 1.5 mm² flexible cord, type designation 245 IEC 57 or heavier cord.



- Secure the cable onto the control board with the holder (clammer).
- Cable connection to the power supply through knife switch (Disconnecting means).
 - Connect the approved polychloroprene sheathed power supply cable (3 x 4.0 mm²), type designation 245 IEC 57 or heavier cord to the terminal board, and connect the other end of the cable to knife switch (Disconnecting means).
- Select required direction and apply protective bushing provided in accessories to protect cables from sharp edges.
- Once all wiring work has been completed, tie the wires and cord together with the binding strap so that they do not touch other parts such as the compressor and pipes.
- For wire stripping and connection requirement, refer to instruction ⑤ of indoor unit.
 - Note:** Knife switch (Disconnecting means) should have minimum 3.5 mm contact gap.
 - Secure the cable onto the control board with the holder (clammer).



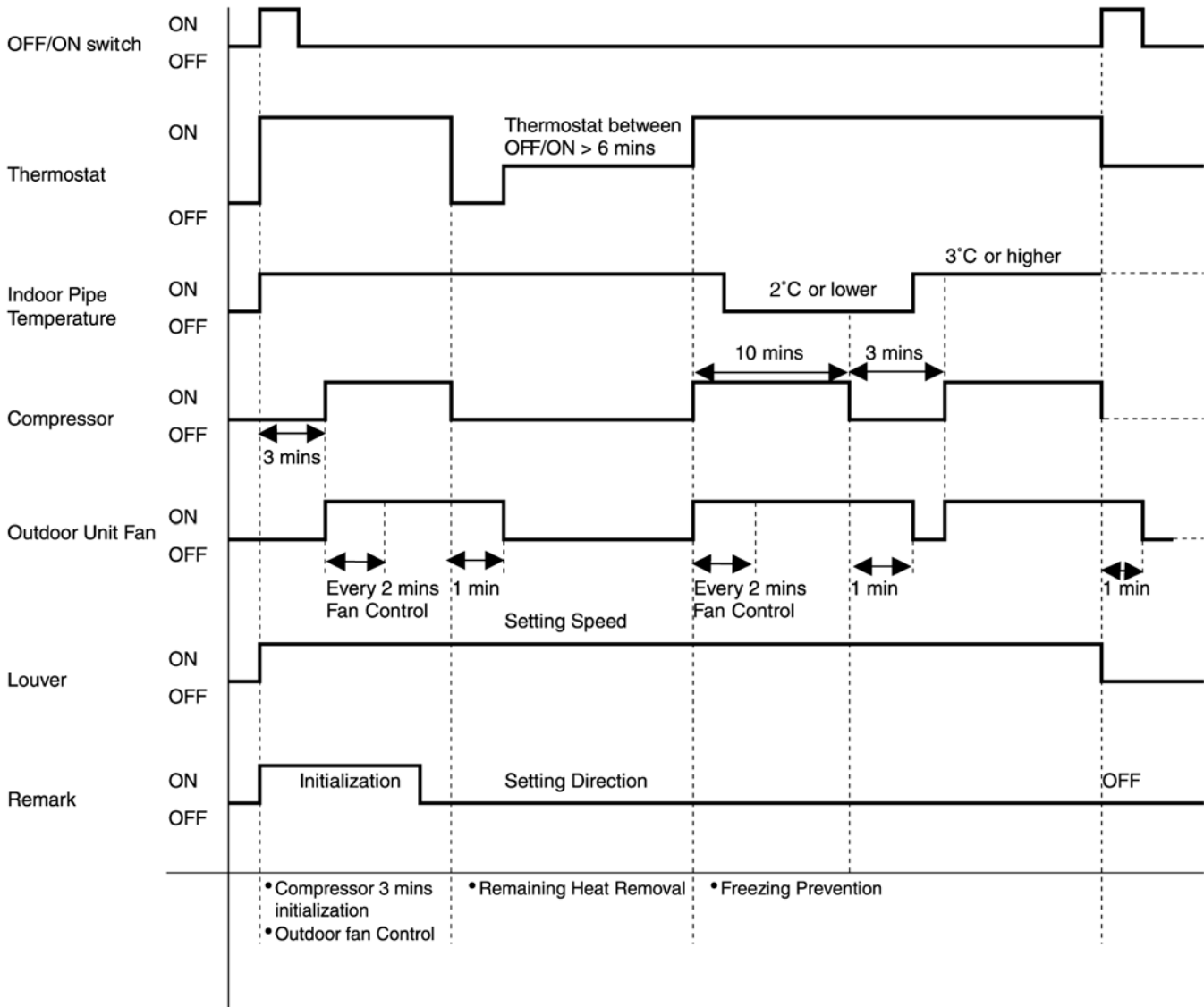
11.4.5. Pipe Insulation

1. Please carry out insulation at pipe connection portion as mentioned in Indoor/Outdoor Unit Installation Diagram. Please wrap the insulated piping end to prevent water from going inside the piping.
2. If drain hose or connecting piping is in the room (where dew may form), please increase the insulation by using POLY-E FOAM with thickness 6mm or above.

12 Operation Control

12.1. Cooling Operation

- Cooling operation can be set using remote control.
- This operation is applied to cool down the room temperature reaches the setting temperature set on the remote control.
- Cooling Operation Time Diagram.



12.2. Soft Dry Operation

- Soft Dry Operation can be set using remote control.
- Soft Dry operation is applied to dehumidify the room.
- When operation begins, the fan speed is fixed at Low speed while cooling operation is running until reaches the remote control setting temperature.

12.3. Auto Operation

- Automatic Mode can be set using remote control.
- This operation starts to judge the intake air temperature, setting temperature, and outdoor piping temperature. Then the unit starts to operate at determined operation mode.

12.4. Fan Operation

- Fan operation can be set using remote control.
- The indoor fan is operated at High, Medium or Low speed according to remote control setting.

12.5. Thermostat Control

- Depending on differences between room temperature and setting temperature, compressor operation is decided and starts operation.
- If temperature difference matches values shown below, thermostat switches off.

| | |
|----------|--------|
| Cooling | 0°C |
| Soft Dry | -1.0°C |

12.6. Indoor Fan Control

- Manual Fan Speed
Operation starts at High, Medium or Low speed set by remote control.
- Auto Fan Speed
When operation start, or shifting to thermostat ON condition from thermostat OFF condition, indoor fan operates as below.

| Thermostat & Compressor ON/OFF | | Thermostat & Compressor ON | | | Thermostat & Compressor OFF | | | Thermostat & Compressor ON | | |
|--------------------------------|------|----------------------------|--------|-----|-----------------------------|----------|---------|----------------------------|---------|-----|
| Time | | 40 sec. | 50sec. | - | 20 sec. | 160 sec. | 20 sec. | 40 sec. | 50 sec. | - |
| Cooling | Auto | Off | SSLo | Hi | SSLo | Off | SSLo | Off | SSLo | Me |
| Soft Dry | Auto | Off | SSLo | SLo | SSLo | Off | SSLo | Off | SSLo | SLo |

12.7. Odour Cut Control

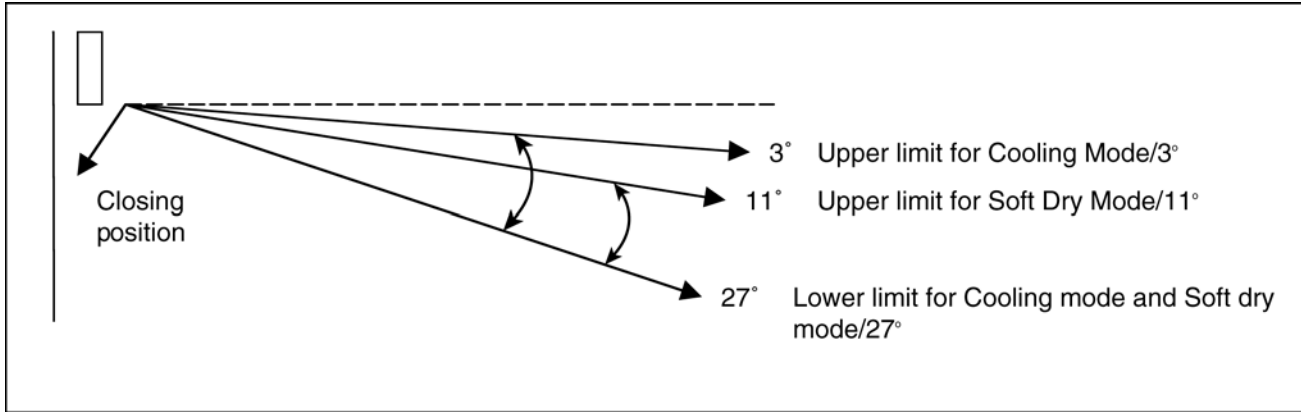
- Odour cut operation removes the odour generated at indoor heat exchanger by using drain water come out from indoor heat exchanger.
- Press "Odour" button at remote control to enable odour cut operation.
- Odour cut operation starts when compressor or thermostat is on.

| Thermostat & Compressor ON/OFF | | Thermostat & Compressor ON | | | Thermostat & Compressor OFF | | | Thermostat & Compressor ON | | |
|--------------------------------|--|----------------------------|--------|------------------|-----------------------------|----------|---------|----------------------------|---------|------------------|
| Time | | 40 sec. | 50sec. | - | 20 sec. | 160 sec. | 20 sec. | 40 sec. | 50 sec. | - |
| Cooling | | Off | SSLo | Normal Operation | SSLo | Off | SSLo | Off | SSLo | Normal Operation |
| Soft Dry | | Off | SSLo | SLo | SSLo | Off | SSLo | Off | SSLo | SLo |

12.8. Vertical Airflow Direction Control

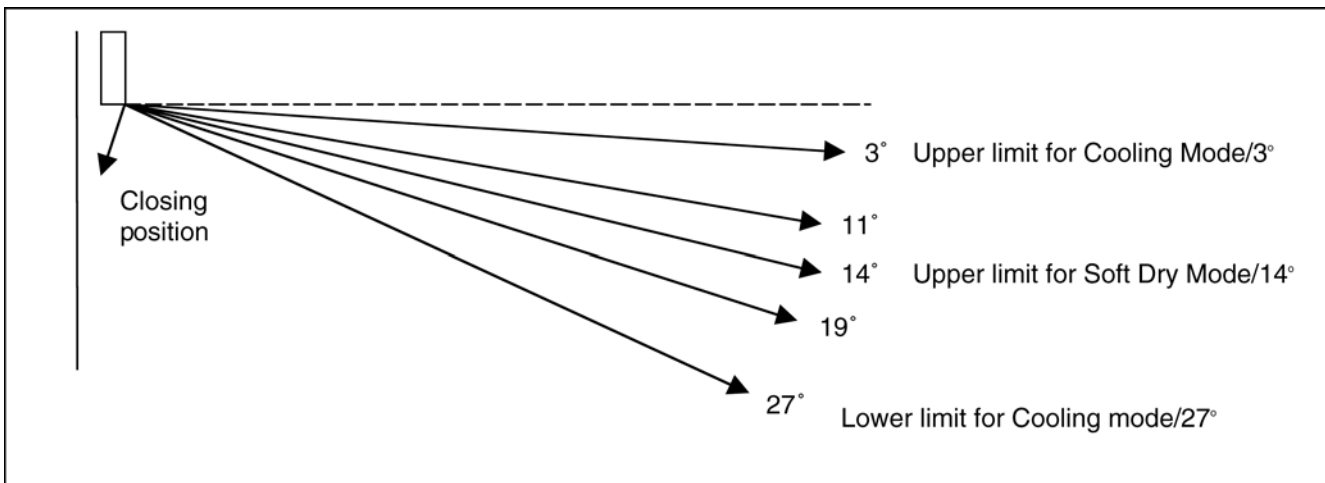
Auto Control

- When the vertical airflow direction is set to Auto using the remote control, the louver swings up and down as shown in the diagram.
- When stop operation using the remote control, the discharge vent is reset, and stop at the closing position.
- During Cooling operation or Soft Dry operation, indoor fan motor may stop to rotate at certain periods. At that condition, the louver will stop swinging and rest at the upper limit.



Manual Control

- When the vertical airflow direction is set to Manual using the remote control, the automatic airflow is released and the airflow direction louver move up and down in the range shown in the diagram.
- The louver can be adjusted by pressing the button to the desired louver position.
- When stop operation using the remote control, the discharge vent is reset, and stop at the closing position.



12.9. Horizontal Airflow Direction Control

- The horizontal airflow direction louvers can be adjusted manually by hand.

12.10. Outdoor Fan Control

- Outdoor fan speed changes according to outdoor pipe temperature.
- The fan speed is controlled by the timing of turning the outdoor fan ON and OFF within an interval.
- The unit compares current temperature (T2) with previous (2 seconds before) temperature (T1) and decides the outdoor fan ON time (X).

| Judgement | Outdoor fan ON time (X) |
|---|-------------------------|
| $45^{\circ}\text{C} < T2$ | $X = X + 100\text{ms}$ |
| $40^{\circ}\text{C} \leq T2 < 45^{\circ}\text{C} \ \& \ T2 \leq T1$ | $X = X + 50\text{ms}$ |
| $40^{\circ}\text{C} \leq T2 < 45^{\circ}\text{C} \ \& \ T2 < T1$ | $X = X$ |
| $35^{\circ}\text{C} \leq T2 < 40^{\circ}\text{C}$ | $X = X$ |
| $30^{\circ}\text{C} \leq T2 < 35^{\circ}\text{C} \ \& \ T2 \leq T1$ | $X = X - 50\text{ms}$ |
| $30^{\circ}\text{C} \leq T2 < 35^{\circ}\text{C} \ \& \ T2 < T1$ | $X = X$ |
| $T2 < 30^{\circ}\text{C}$ | $X = X - 50\text{ms}$ |

Outdoor fan ON time (X) is a variable with the range of 200ms to 1600ms or continuously ON.

- Every 2 minutes, the outdoor pipe temperature is detected and the outdoor unit fan speed is changed automatically.

12.10.1. Outdoor Fan Remaining Heat Removal Control

- When compressor stop, outdoor fan operates at High speed for 1 minute to remove the remaining heat.

13 Protection Control

13.1. Freeze Prevention Control

- After compressor starts operation for 4 minutes, the outdoor unit will stop its operation if indoor pipe temperature falls below 2°C for 6 minutes.
- After 3 minutes stops, compressor restarts operation if indoor pipe temperature is 3°C or more.
- This phenomenon is to protect the indoor heat exchanger from freezing and to prevent higher volume of refrigerant in liquid from returning to the compressor.

13.2. Dew Form Prevention Control

- During Cooling Operation, dew form prevention control activates if:
 - Indoor temperature falls between 24°C and 30°C.
 - Compressor and thermostat is ON.
 - Indoor fan speed is Low speed.
 - Setting temperature is less than 25°C.
 - During dew form prevention control, the louver is fixed at 30°.
- Fan speed and angle of horizontal louver (vertical airflow angle) will be adjusted accordingly in this control.
 - Fan speed will be increased slowly if the unit is in quiet mode but no change in normal cooling mode.
 - The angle of horizontal louver will be changed as below figure.

| Operation Mode | | Airflow direction auto-control | Airflow direction manual control |
|-------------------|---|--------------------------------|----------------------------------|
| Cooling, Soft Dry | A | 3° ~ 27° | 3°, 11°, 19°, 27° |
| | B | 11° ~ 19° | 11°, 14°, 17°, 19° |

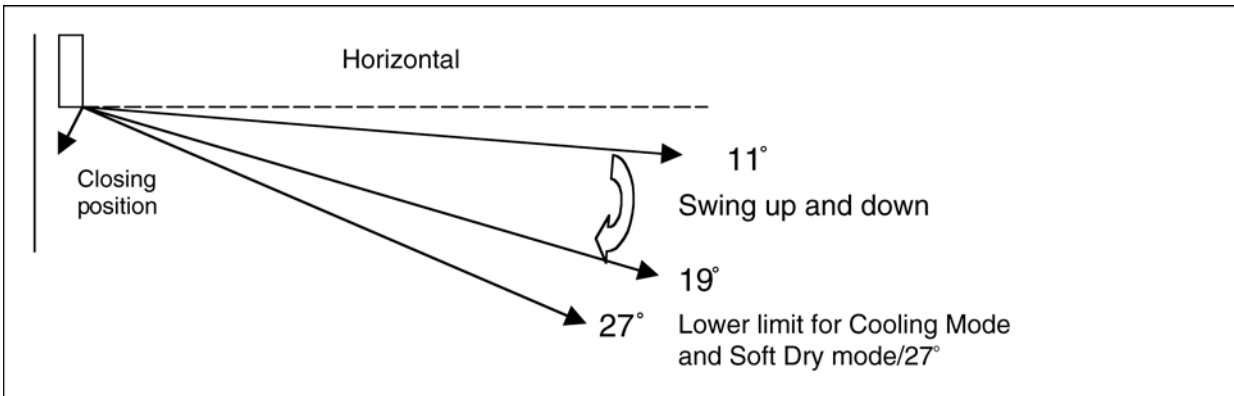
Note:

A = Normal operation angle of rotation

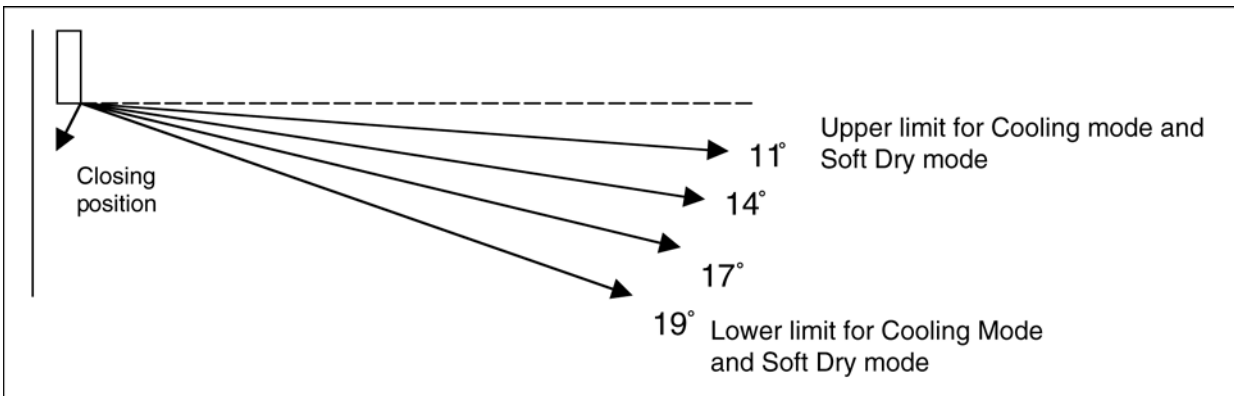
B = Dew prevention angle of rotation

Horizontal Louver Angle

During dew prevention, the horizontal louver angle in Auto-control are as below figure.



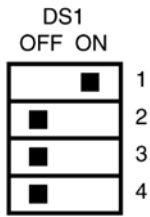
During dew prevention, the horizontal louver angle in Manual are as below figure.



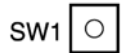
- Dew prevention control will be cancel when:
 - Any one of the condition above does not comply.

13.3. Test Run (Forced Cooling mode)

- Test run is necessary after installation is completed.
- To enable test run operation, at outdoor PCB, set the DS1 Switch 1 to ON position.



- Press Test Run button for 1 second.

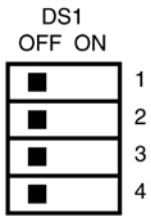


13.3.1. Valve Error

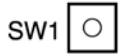
- During test run, if the 3-way valve is close, valve error is shown on wired remote control.
- This control is to protect the compressor.
- Valve error is detected if comply with conditions below:
 - Power is on for the first time and within 5 minutes from compressor starts (However, the unit is considered power on for first time when compressor starts operating continuously for 7 minutes).
 - Indoor heat exchanger temperature at compressor start - $3^{\circ}\text{C} <$ current indoor heat exchanger temperature for 1 minute.
 - Indoor suction temperature - $3^{\circ}\text{C} <$ current heat exchanger temperature for 5 minutes.

13.4. Pump down

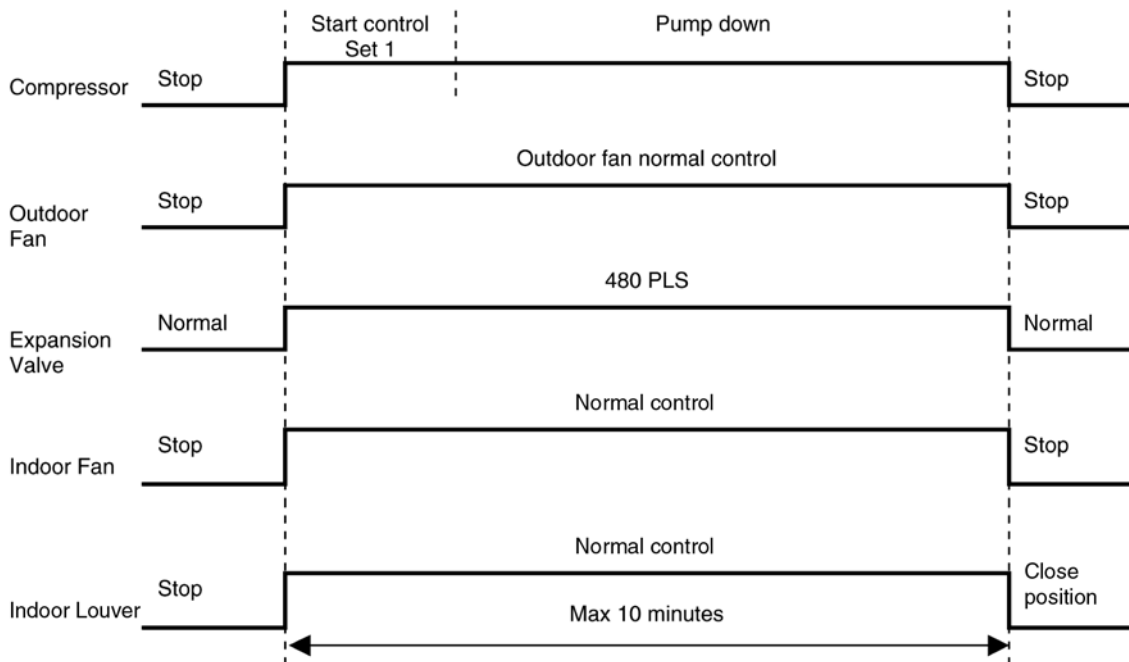
- To enable pump down operation, at outdoor PCB, set the DS1 to OFF position.



- Press Test Run button for 1 second.



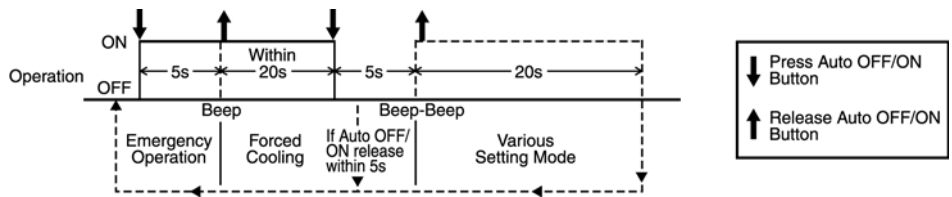
- During Pump Down operation, push the Test Run button again for 1 second to stop the pump down operation.
- The pump down operation run for 10 minutes.



14 Servicing Mode

14.1. Auto OFF/ON Button

- The “Auto OFF/ON Button” (behind the front grille) is used to operate the air conditioner if remote control is misplaced or malfunctioning.
- Forced cooling operation is possible by pressing the “Auto OFF/ON Button” for more than 5s where “beep” sound is heard then release the button.
- User able to select remote control transmission code and toggle remote control signal receiving sound under various setting mode.
- To enter various setting mode:
 - Press the “Auto OFF/ON Button” continuously for 5s (“beep” sound is heard) and release.
 - Within 20s, press the “Auto OFF/ON Button” continuously for 5s again (2 “beep” sound is heard) and release.
 - Various setting mode has limit up to 20s. Then return to normal operation.



14.1.1. Toggle Remote Control Signal Receiving Sound

- Under various setting mode, press the “Auto OFF/ON Button” to toggle the remote control sound.
 - Short “beep”: Turn ON remote control signal receiving sound.
 - Long “beep”: Turn OFF remote control signal receiving sound.
- After “Auto OFF/ON Button” is pressed, the 20s counter for various setting mode is restarted.

14.1.2. Select Remote Control Transmission Code

- There are 4 types of remote control transmission code could be selected and stored in EEPROM of indoor unit. The indoor unit will only operate when received signal with same transmission code from remote control. This could prevent signal interference when there are 2 or more indoor unit installed nearby together.
- To change remote control transmission code, short or open jumpers at the remote control printed circuit board.

| Remote Control Printed Circuit Board | Transmission Code Combination | | |
|--------------------------------------|-------------------------------|-------|--------------------|
| | J - A | J - B | Remote Control No. |
| | Short | Open | A (Default) |
| | Open | Open | B |
| | Short | Short | C |
| | Open | Short | D |

- Under various setting mode, after select the transmission code combination of remote control, press any button of remote control to transmit a signal to indoor unit. The transmission code will be stored in EEPROM.
- After signal is received, the various setting mode is cancelled and return to normal operation.

14.2. Remote Control Button

14.2.1. SET

- To change the type of remote control transmission signal (there are totally four types of transmission codes).
 - Modify the jumper (back of PCB) & connector (front of PCB) at remote control PCB.
 - Press with pointer for more than 10 seconds.
 - Face the transmitter towards indoor unit receiver and press the timer SET button (to send the signal) or if the timer SET button is not pressed for 30 seconds, the setting mode is cancelled.
 - Press timer CANCEL button to exit the setting mode.

14.2.2. CLOCK

- To change the remote control's clock-hour and minute.
 - Press once to enter the clock setting mode.
 - Use timer increment button timer decrement button to change the time.
 - Press once again to exit the setting mode.
- To change the time format (24 hours & 12 hours timer display).
 - Press for more than 5 seconds.

14.2.3. RESET

- To clear and restore the remote control setting to factory default.
 - Press for once to clear the memory.

14.2.4. TIMER “▲”

- Press continuously for 5 seconds, LED intensity for Remote Control dimmer code is transmitted.
- Above condition will not happen when Timer is set.

14.2.5. TIMER “▼”

- Press continuously for 10 seconds, set the operation and display changes as Celsius or Fahrenheit.
- Above condition will not happen when Timer is set.

14.3. Test Mode Timer Table

| Name | | Time | Test Mode (When test point Short-circuited) | Remarks |
|----------------------------------|----------|----------------|---|-----------------------------|
| Real Timer | | 1 hr. | 1 min. | |
| | | 10 min. | 10 sec. | |
| | | 1 min. | 1 sec. | |
| Timer Delay Safety Control | | 2 min. 58 sec. | 0 sec. | |
| Forced Operation | | 60 sec. | 0 sec. | |
| Timer Save Control | | 7 min. | 4.2 sec. | |
| Anti-Freezing | | 4 min. | 0 sec. | |
| Auto Mode Judgement | | 20 sec. | 0 sec. | |
| Soft Dry | OFF | 6 min. | 36 sec. | |
| | ON | 10 min. | 60 sec. | Soft Dry: 10 min. operation |
| Deodorizing Control | Cooling | 40 sec. | 4 sec. | |
| | | 70 sec. | 7 sec. | |
| | | 20 sec. | 2 sec. | |
| | Soft Dry | 180 sec. | 18 sec. | |
| | | 40 sec. | 4 sec. | |
| | 360 sec. | 36 sec. | | |
| Comp. Reverse Rotation Detection | | 5 min. | 30 sec. | Com. ON 5 min. and above |
| | | 2 min. | 0 sec. | |
| Comp./ Fan Motor Delay Timer | | 1.6 sec. | 0 sec. | |
| Random Auto Restart Control | | 0 ~ 62 sec. | 0 ~ 6.2 sec. | |

15 Troubleshooting Guide

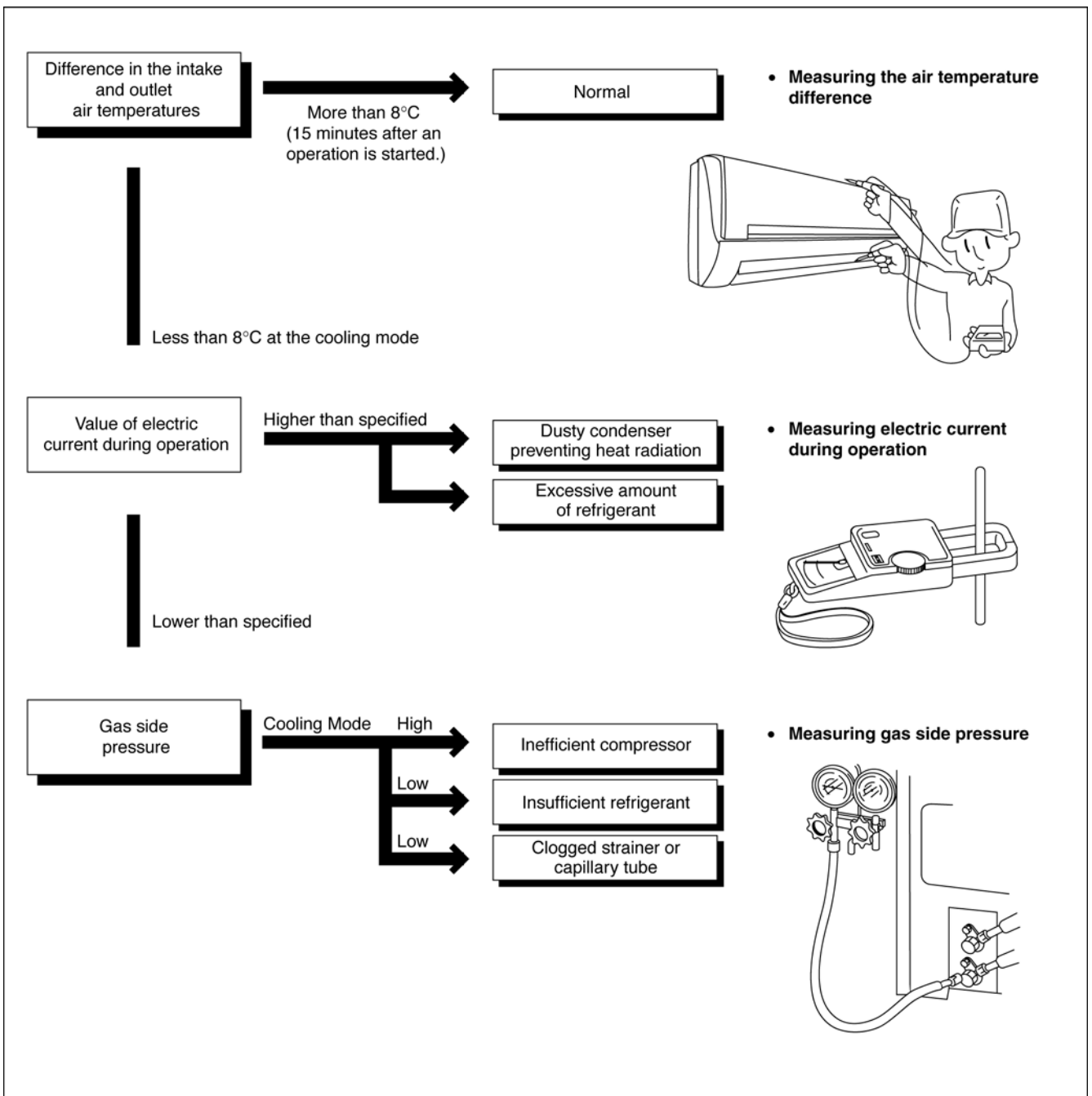
15.1. Refrigeration Cycle System

In order to diagnose malfunctions, make sure that there are no electrical problems before inspecting the refrigeration cycle. Such problems include insufficient insulation, problem with the power source, malfunction of a compressor and a fan. The normal outlet air temperature and pressure of the refrigeration cycle depends on various conditions, the standard values for them are shown in the table on the right.

Normal Pressure and Outlet Air Temperature (Standard)

| | Gas pressure Mpa (kg/cm ² G) | Outlet air temperature (°C) |
|--------------|---|-----------------------------------|
| Cooling Mode | 0.4 ~ 0.6 (4 ~ 6) | 12 ~ 16 |

* Condition: Indoor fan speed; High
Outdoor temperature: 35°C



15.2. Relationship Between The Condition Of The Air Conditioner And Pressure And Electric Current

| Condition of the air conditioner | Cooling Mode | | |
|---|--------------|---------------|-----------------------------------|
| | Low Pressure | High Pressure | Electric current during operation |
| Insufficient refrigerant (gas leakage) | ➔ | ➔ | ➔ |
| Clogged capillary tube or Strainer | ➔ | ➔ | ➔ |
| Short circuit in the indoor unit | ➔ | ➔ | ➔ |
| Heat radiation deficiency of the outdoor unit | ➔ | ➔ | ➔ |
| Inefficient compression | ➔ | ➔ | ➔ |

- Carry out the measurements of pressure, electric current, and temperature fifteen minutes after an operation is started.

15.3. Diagnosis Methods Of A Malfunction Of A Compressor

| Nature of fault | Symptom |
|--|--|
| Insufficient compressing of a compressor | <ul style="list-style-type: none"> • Electric current during operation becomes approximately 20% lower than the normal value. • The discharge tube of the compressor becomes abnormally hot (normally 70 to 90°C). • The difference between high pressure and low pressure becomes almost zero. |
| Locked compressor | <ul style="list-style-type: none"> • Electric current reaches a high level abnormally, and the value exceeds the limit of an ammeter. In some cases, a breaker turns off. • The compressor has a humming sound. |

15.4. Error Code Table

15.4.1. Self-diagnosis function

- The self-diagnosis LEDs (red) on the outdoor unit printed circuit board can be used to indicate where the location of a problem is.
Refer to the table below to remove the cause of the problem and then re-start the air conditioner system.
- If the problem disappears and operation returns to normal, the self-diagnosis LED will remain illuminated until operation is resumed.
●... flashing blank off ○... light off ✕...illuminated
- When the Timer LED at indoor unit signal receiver flashes, it indicates there is error.
- Diagnosis functions which are not applicable for this model is marked ★.

| Outdoor unit printed circuit board LED | | | | | | | Location of problem | Check location |
|--|---|---|---|---|---|---|--|--|
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | | |
| ★ | ✕ | ○ | ● | ● | ● | ○ | Drain level Float switch problem | Drain pump and drain pipe, indoor unit connectors |
| ★ | ✕ | ● | ○ | ○ | ○ | ○ | Louver switch problem | Louver motor, decorative panel connection terminal, or indoor unit louver motor connectors |
| | ✕ | ● | ○ | ○ | ○ | ● | D. C Fan motor problem | Indoor unit D. C Fan motor or connection terminals |
| | ✕ | ● | ○ | ● | ○ | ○ | Indoor temperature sensor problem | Indoor temperature sensor lead wire or indoor unit connector |
| ★ | ✕ | ● | ○ | ● | ○ | ○ | Remote control thermistor problem | Remote control thermistor |
| | ✕ | ● | ○ | ● | ○ | ○ | Pipe temp. sensor problem (indoor unit) | Pipe temperature sensor lead wire or indoor unit connector |
| ★ | ✕ | ● | ● | ○ | ● | ○ | Remote control transmission problem | Remote control unit cable and connection terminals |
| | ✕ | ● | ● | ○ | ● | ○ | Indoor/outdoor unit disconnection problem | Indoor/outdoor unit connection cable and connection terminals, or indoor unit and outdoor unit power supplies (indoor side) (waiting timer approx. 13 minutes) |
| | ✕ | ● | ● | ○ | ● | ● | Indoor/outdoor unit connection error problem | Indoor/outdoor unit connection wire (indoor side) |
| | ○ | ○ | ● | ○ | ● | ○ | Indoor/outdoor unit disconnection problem | Indoor/outdoor unit connection cable and connection terminals, or indoor unit and outdoor unit power supplies (waiting time approx. 13 minutes) |
| | ○ | ○ | ● | ○ | ○ | ○ | Indoor/outdoor unit connection error problem | Indoor/outdoor unit connection wire |
| | ○ | ○ | ● | ● | ○ | ○ | System problem | Total capacity for the number of indoor units is insufficient or over. Check the total capacity and the number of indoor units |
| ★ | ○ | ○ | ● | ● | ○ | ○ | Open phase, or reversed phase of supply | Check the main power supply terminal board connections or switch over any two of the power supply wires |
| ★ | ○ | ○ | ○ | ○ | ○ | ● | Suction pressure protection | Insufficient refrigerant |
| | ○ | ○ | ○ | ○ | ○ | ○ | High-pressure cut-off | Check the Refrigeration system |
| ★ | ○ | ○ | ○ | ● | ● | ○ | 4 way valve information | Check the 4 way valve or lead wire |
| | ○ | ○ | ● | ○ | ● | ○ | 3 way valve problem | Check the Refrigeration system |
| | ○ | ○ | ○ | ○ | ○ | ● | Compressor overcurrent protection | Open phase or lock in compressor |
| | ○ | ○ | ○ | ● | ○ | ● | Compressor discharge temp. protection | Insufficient refrigerant |
| | ○ | ○ | ○ | ○ | ○ | ○ | Outdoor heat exchanger outlet temperature sensor problem | Outdoor heat exchanger outlet temperature sensor (EXCHANGER TEMPERATURE SENSOR) lead wire, connector |
| | ○ | ○ | ○ | ○ | ○ | ○ | Compressor discharge temperature sensor problem | Compressor discharge temperature sensor (COMP. TEMPERATURE SENSOR) lead wire, connector |
| ★ | ○ | ○ | ● | ● | ○ | ● | High pressure switch open circuit problem | High-pressure switch lead wire, connector |
| ★ | ○ | ○ | ● | ● | ○ | ○ | Low pressure sensor problem | Low-pressure sensor lead wire, connector |
| | ○ | ○ | ○ | ● | ○ | ○ | Current detector open circuit | Outdoor unit P.C.B. fault or connector |

15.4.2. About the test operation

- Test operation can be carried out using the remote control unit or by using the switch on the printed circuit board inside the outdoor unit.
- If carrying out test operation at the printed circuit board of the outdoor unit, follow the procedure given below. (If using the remote control unit to carry out test operation, refer to the installation manual which is supplied with the indoor unit.)
- Press the SW1 with the PUMP DOWN setting mode for 1 second or more. The LED will operate as follows during test operation. (Be sure to select cooling mode first, and run the units in this mode for 5 minutes or more.)
- Press the TEST switch once more to cancel test operation mode. (Test operation will be cancelled automatically after 30 minutes.)

15.4.3. About the pump down operation

- Operate the pump down according to the following procedures.
 1. Confirm the valve on the liquid side and the gas side is surely open.
 2. Press the SW1 with the PUMP DOWN setting mode on outdoor printed circuit board for 1 second or more. Perform the cooling operation for 10 minutes or more.
 3. Set the liquid side 3 way valve to the close position and until when the gauge indicates at 0.01 a (0.1kg/cm² G).
 4. Immediately set the gas side valve to the close position and press the SW1 (stop the operation unit).

16 Disassembly and Assembly Instructions

WARNING

- Cautions! When handling electronic controller, be careful of electrostatic discharge.
- Be sure to return the wiring to its original position.
- There are many high voltage components within the heat sink cover so never touch the interior during operation. Wait at least two minutes after power has been turned off.

16.1. Indoor Electronic Controllers Removal Procedures

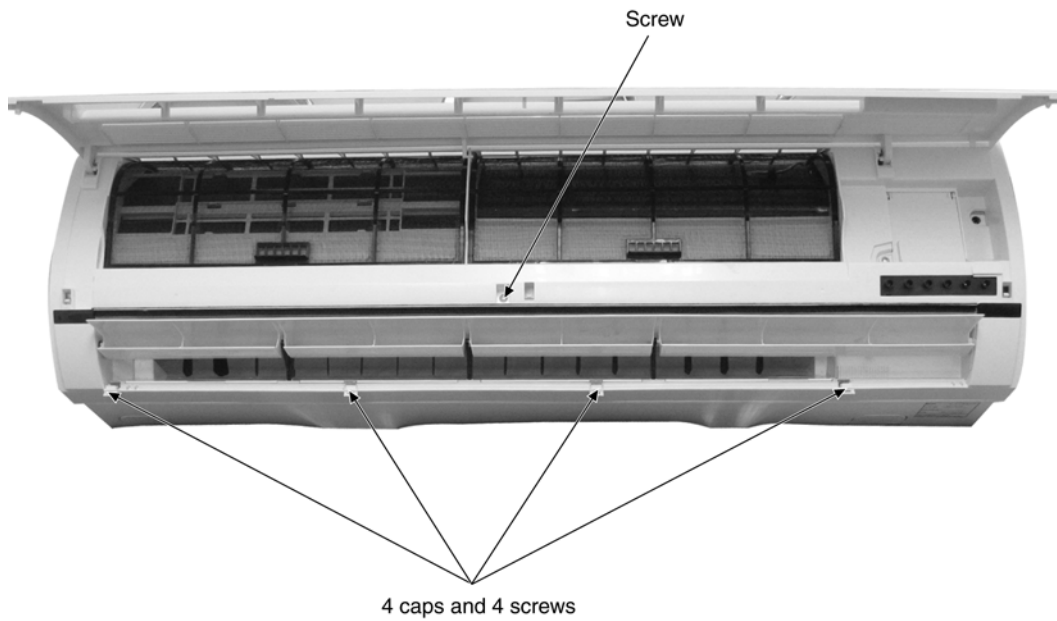


Fig. 1

- Remove the screw at the middle of the Front Grille. (Fig. 1)
- Remove 4 caps and 5 screws at the bottom of the Front Grille. (Fig.1)

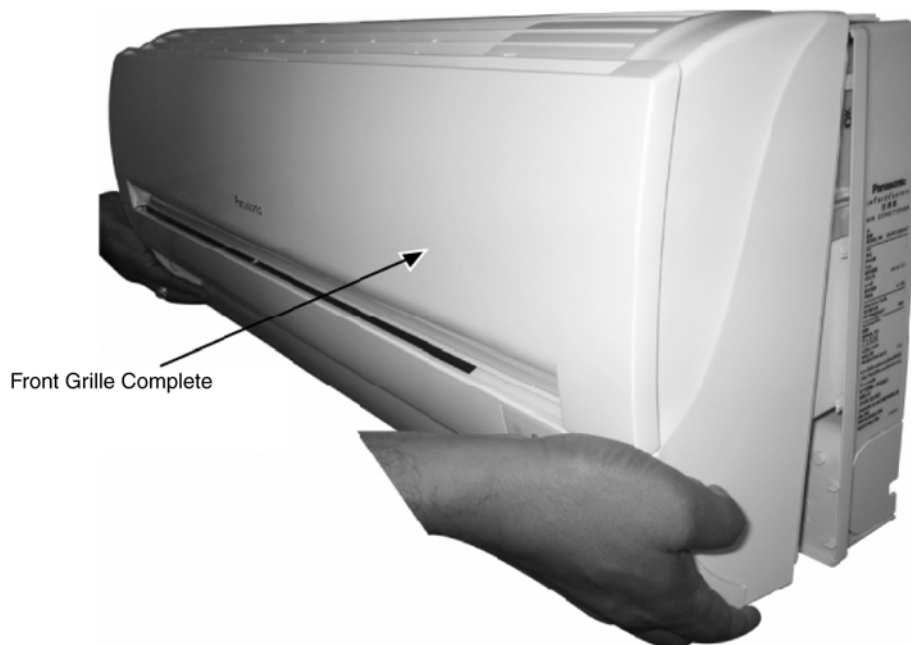


Fig. 2

- Remove the Front Grille Complete. (Fig. 2)

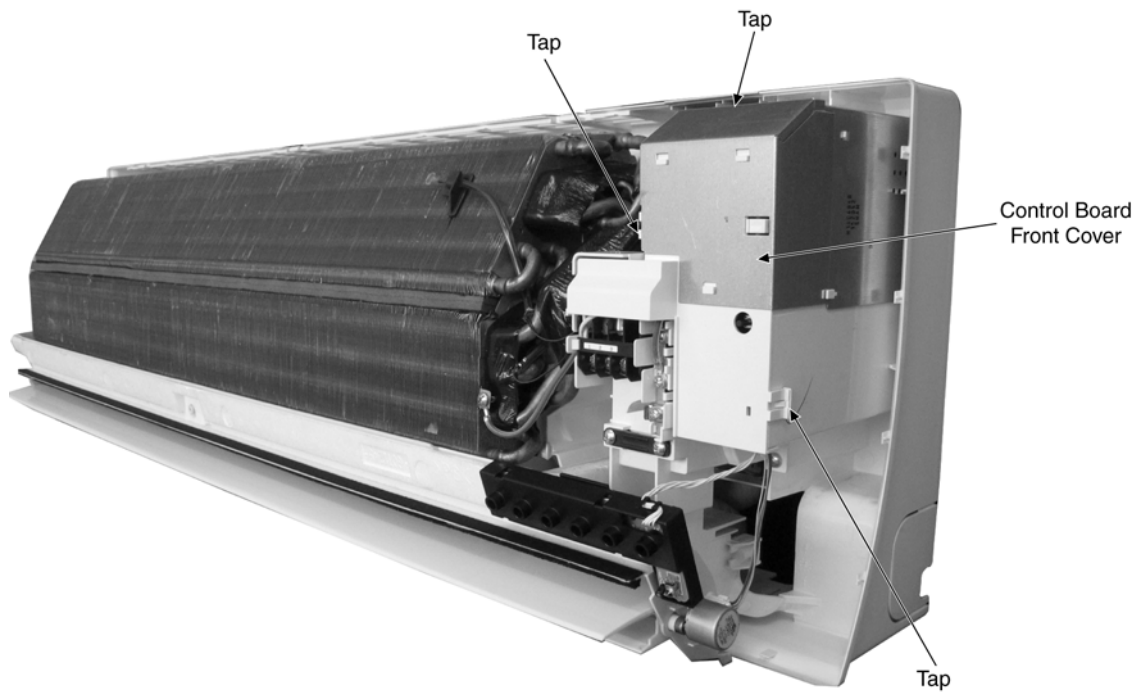


Fig. 3

- Release the taps on the top, on the left and on the right side of Control Board Front Cover. (Fig. 3)
- Then remove the Control Board Front Cover. (Fig. 3)

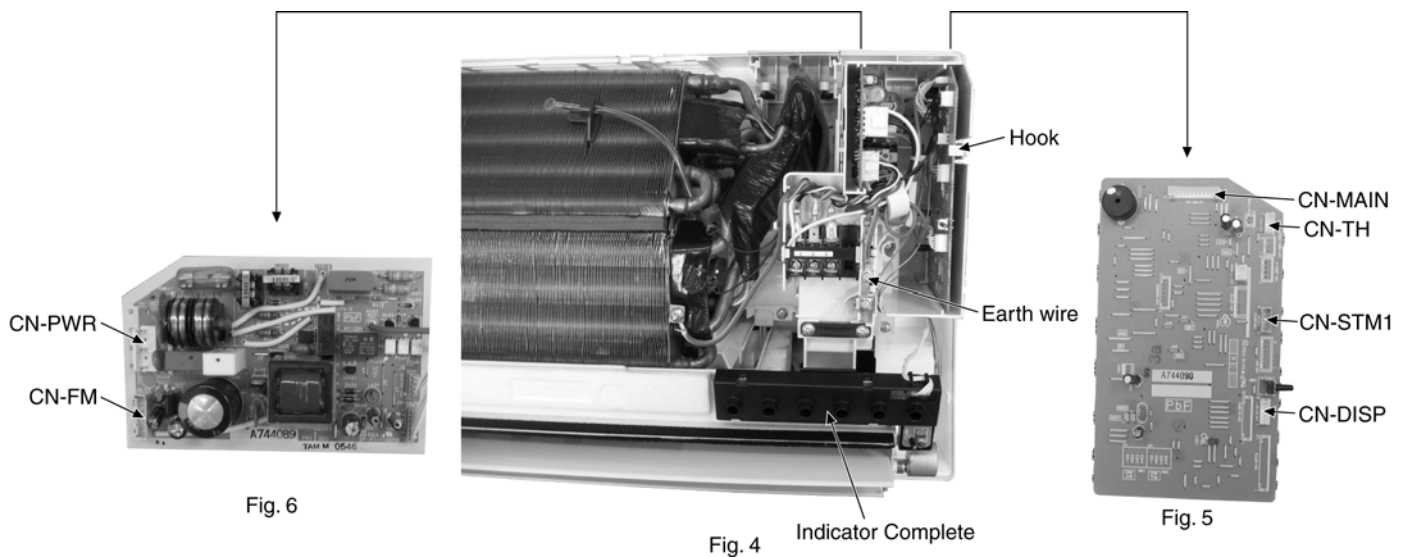


Fig. 6

Fig. 4 Indicator Complete

Fig. 5

- How to remove PCBs from the control board.
 - Remove the Indicator Complete. (Fig. 4)
 - Remove the earth wire. (Fig. 4)
 - Release CN-DISP. (Fig. 5)
 - Release CN-STM1. (Fig. 5)
 - Release CN-TH. (Fig. 5)
 - Release CN-MAIN. (Fig. 5)
 - Release CN-PWR. (Fig. 6)
 - Release CN-FM. (Fig. 6)
 - Pull the hook and remove the PCBs.

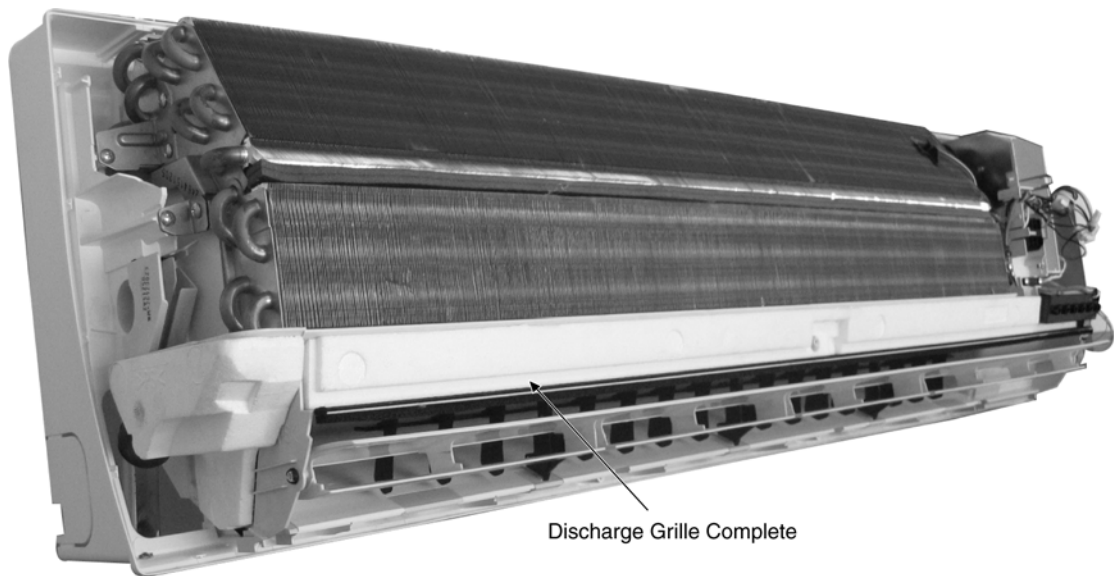


Fig. 7

- Pull down the Discharge Grille Complete. (Fig. 7)

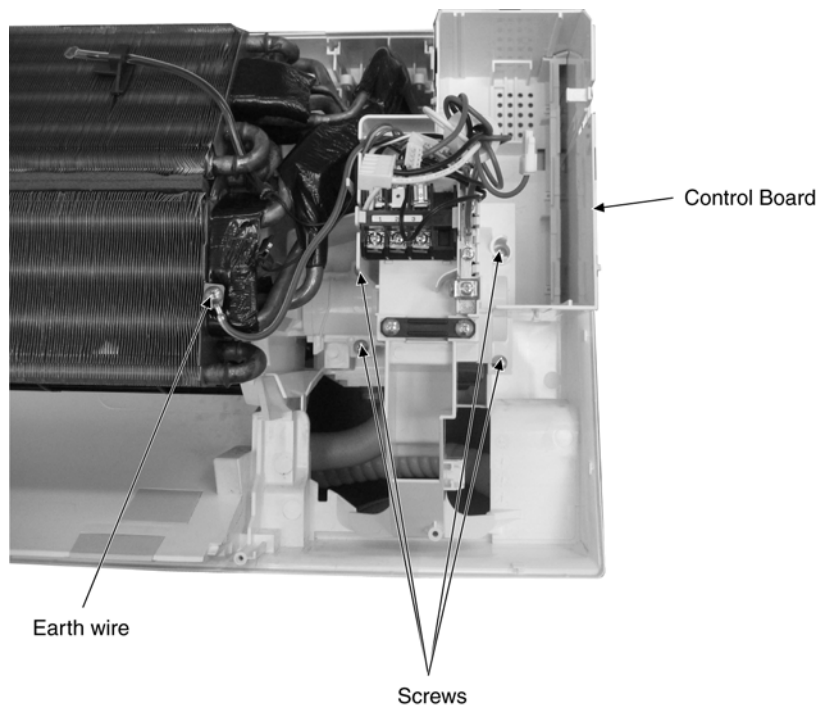


Fig. 8

- Remove the earth wire from the evaporator. (Fig. 8)
- Remove 2 screws on the left and right side of the control board. (Fig. 8)
- Then pull out the control board from the unit. (Fig.8)

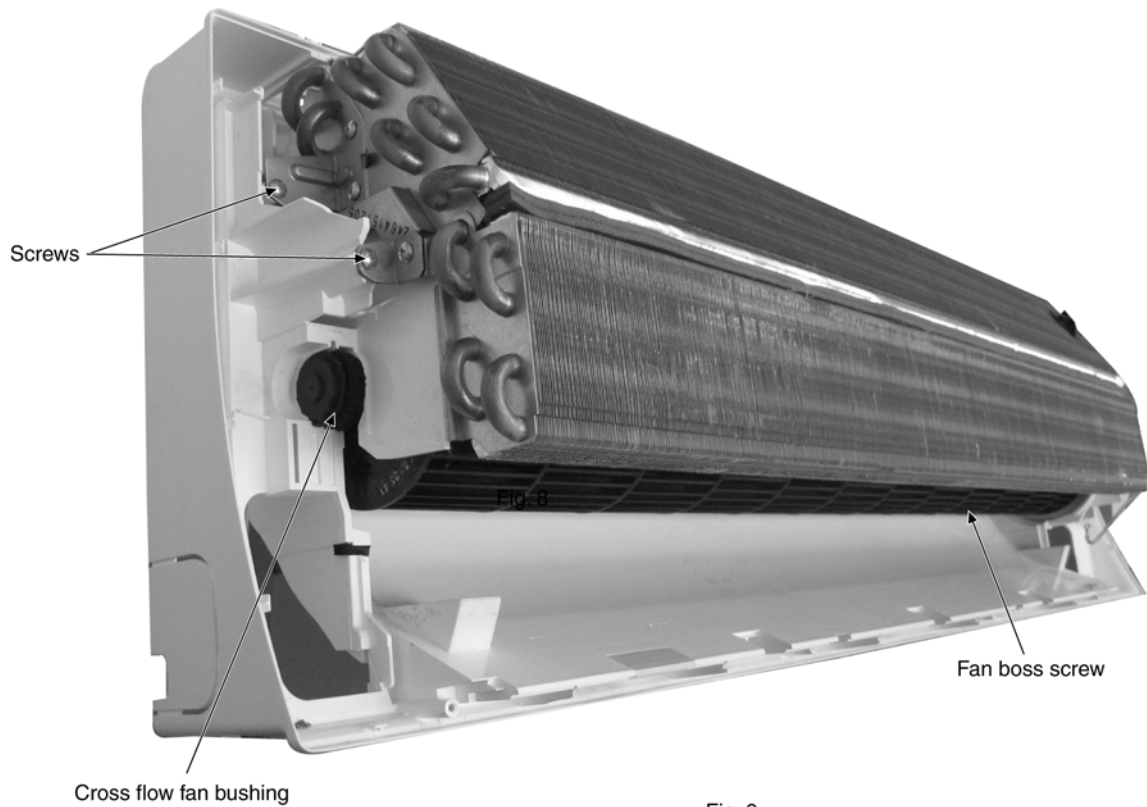


Fig. 9

- Remove the cross flow fan bushing from the chassis. (Fig. 9)
- Remove the screws on the left side of evaporator. (Fig. 9)
- Loosen the fan boss screw at the cross flow fan. (Fig. 9)

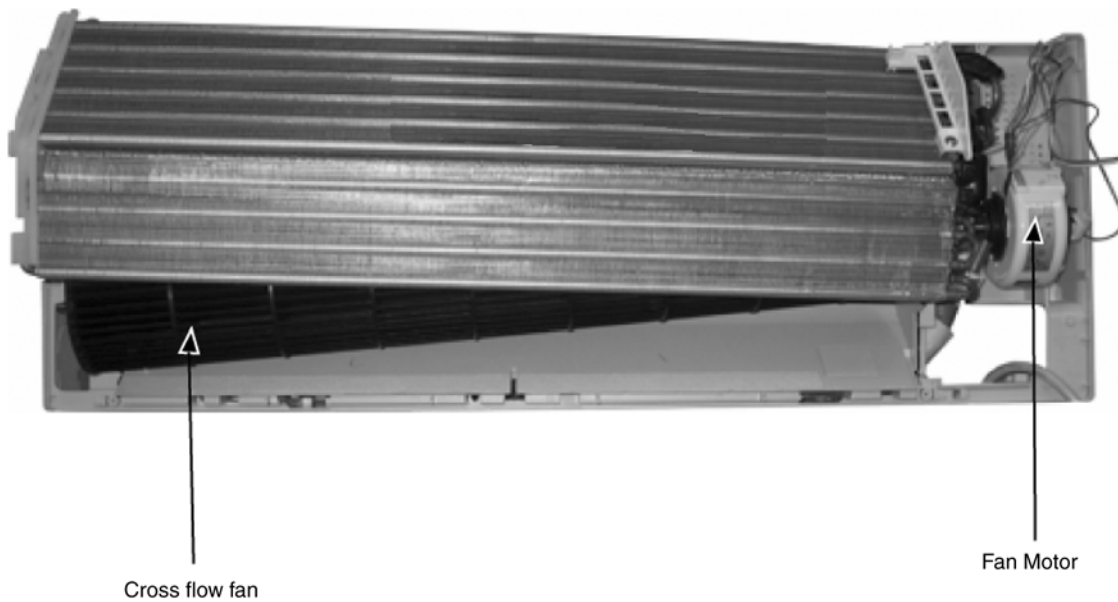


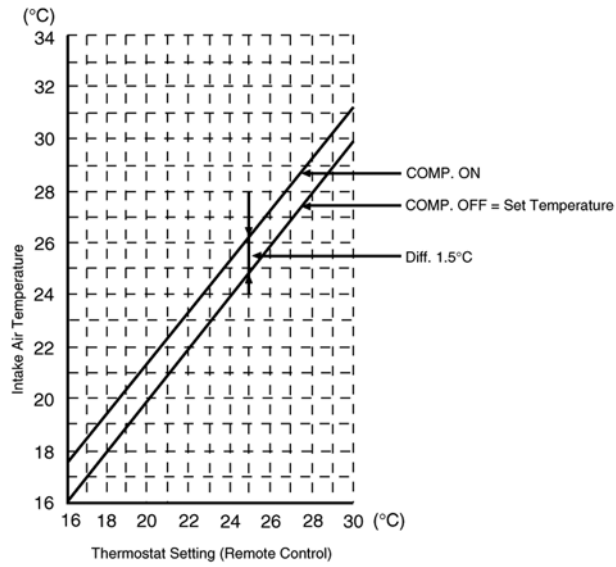
Fig. 10

- Push up the evaporator and remove cross flow fan by pulling both cross flow fan and fan motor. (Fig. 10)

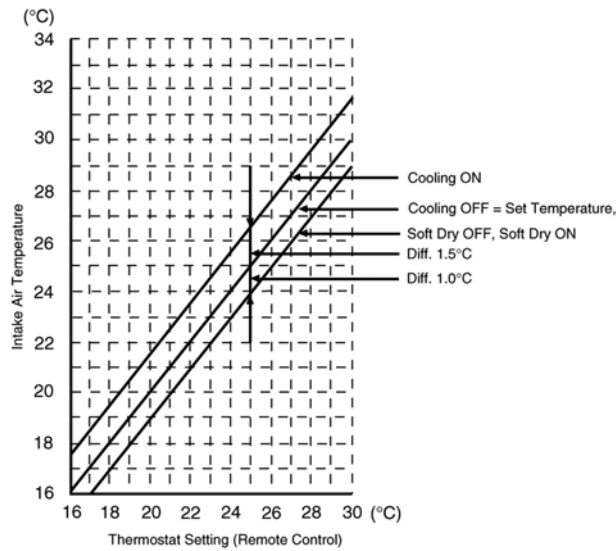
17 Technical Data

17.1. Thermostat Characteristics

Cooling



Soft Dry



17.2. Operation Characteristics

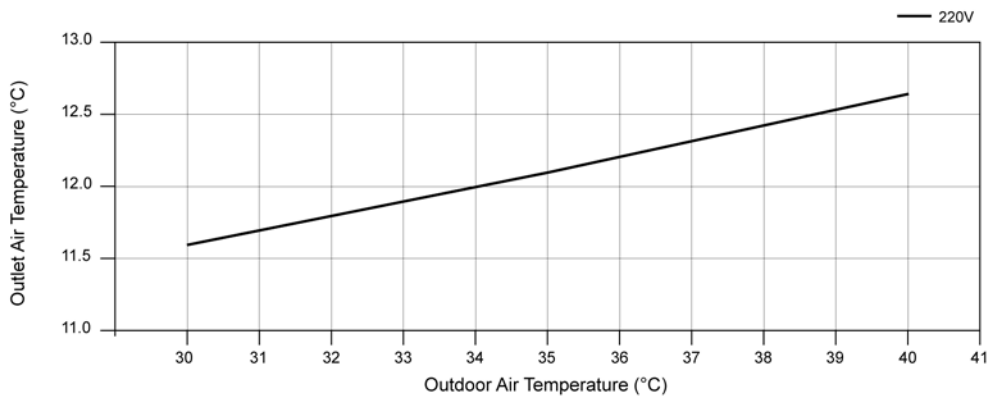
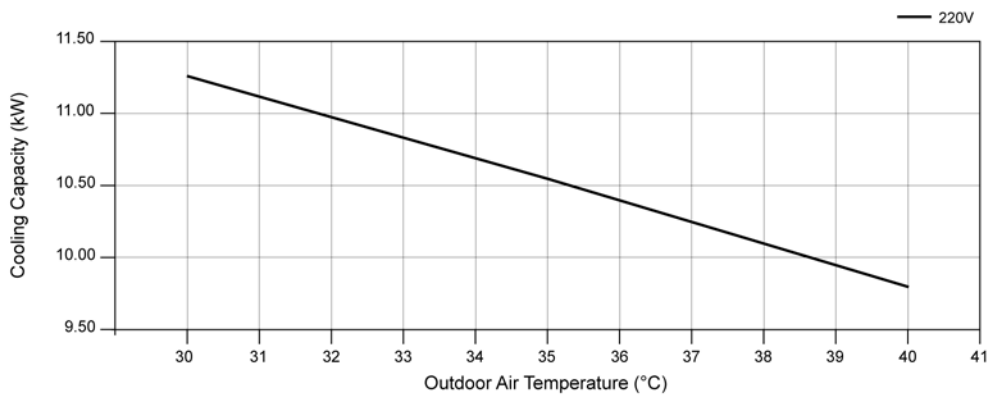
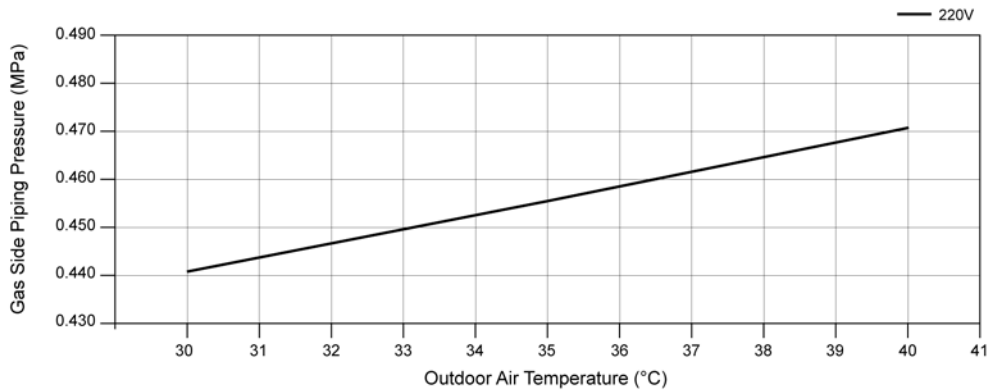
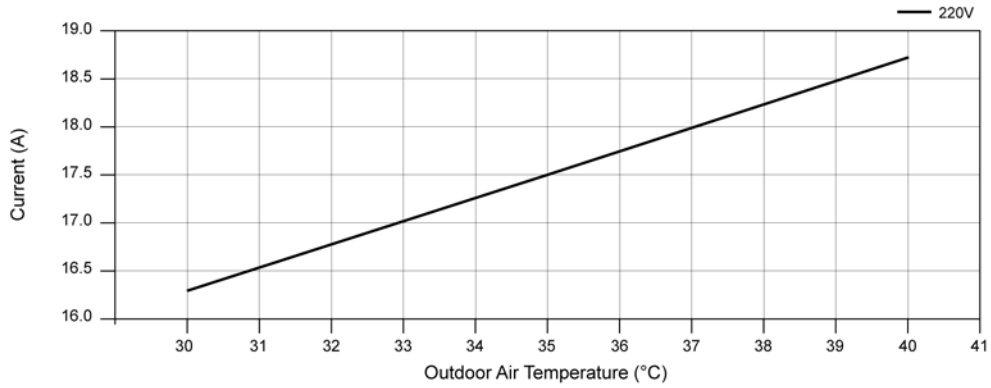
17.2.1. CS-PC36HKV CU-PC36HKV

● Cooling Characteristic

Room temperature : 27°C (DBT), 19°C (WBT)

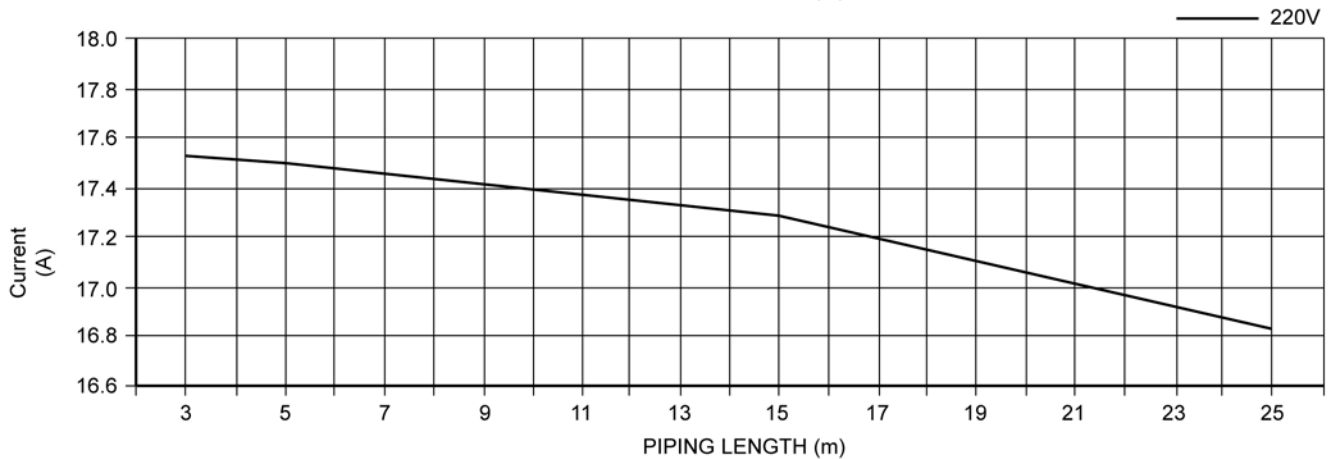
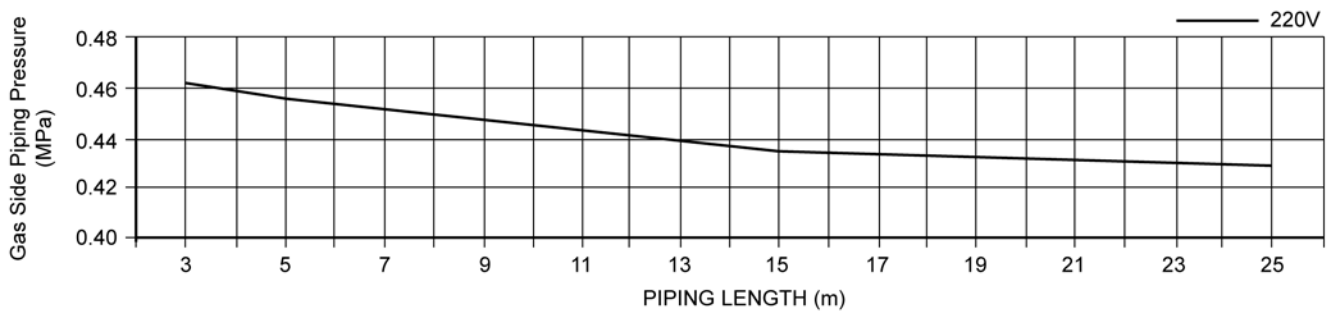
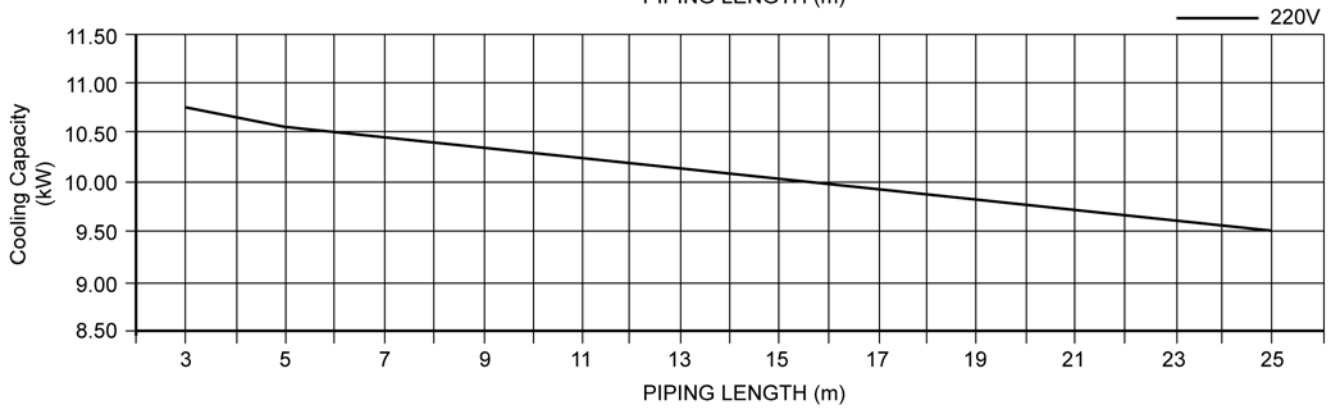
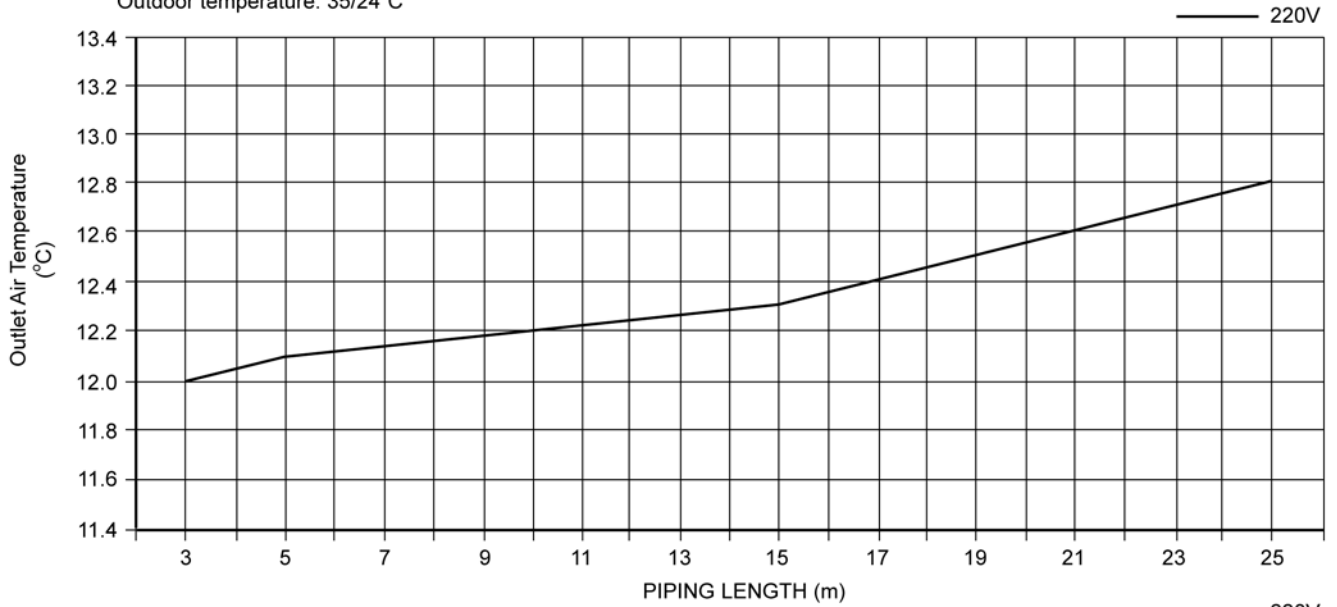
Operation condition : High fan speed

Piping length : 25m



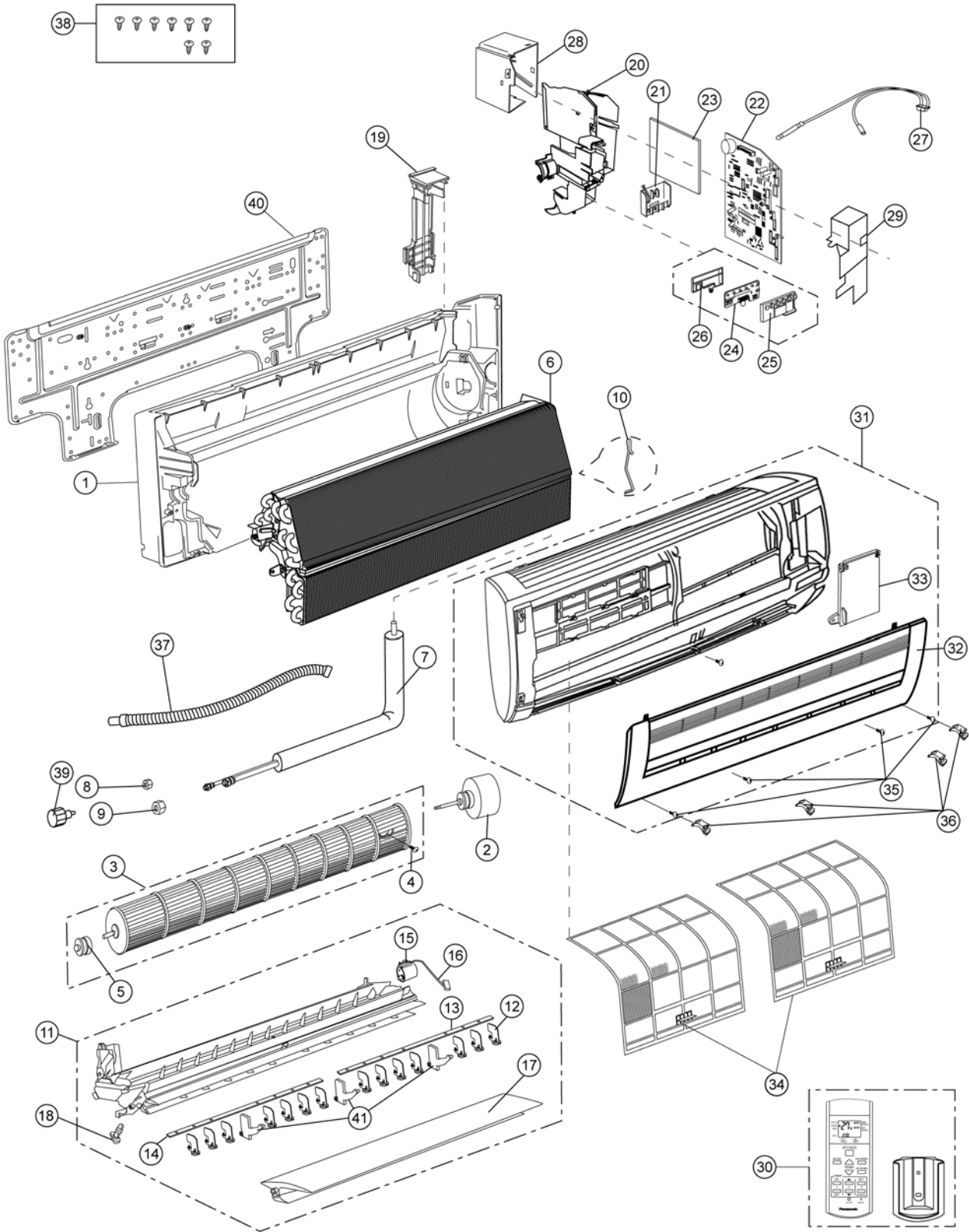
• Piping Length Characteristic

[Condition] Room temperature: 27/19°C
 Operation condition: High fan speed
 Outdoor temperature: 35/24°C



18 Exploded View and Replacement Parts List

18.1. Indoor Unit



Note:
The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.

<Model: CS-PC36HKV>

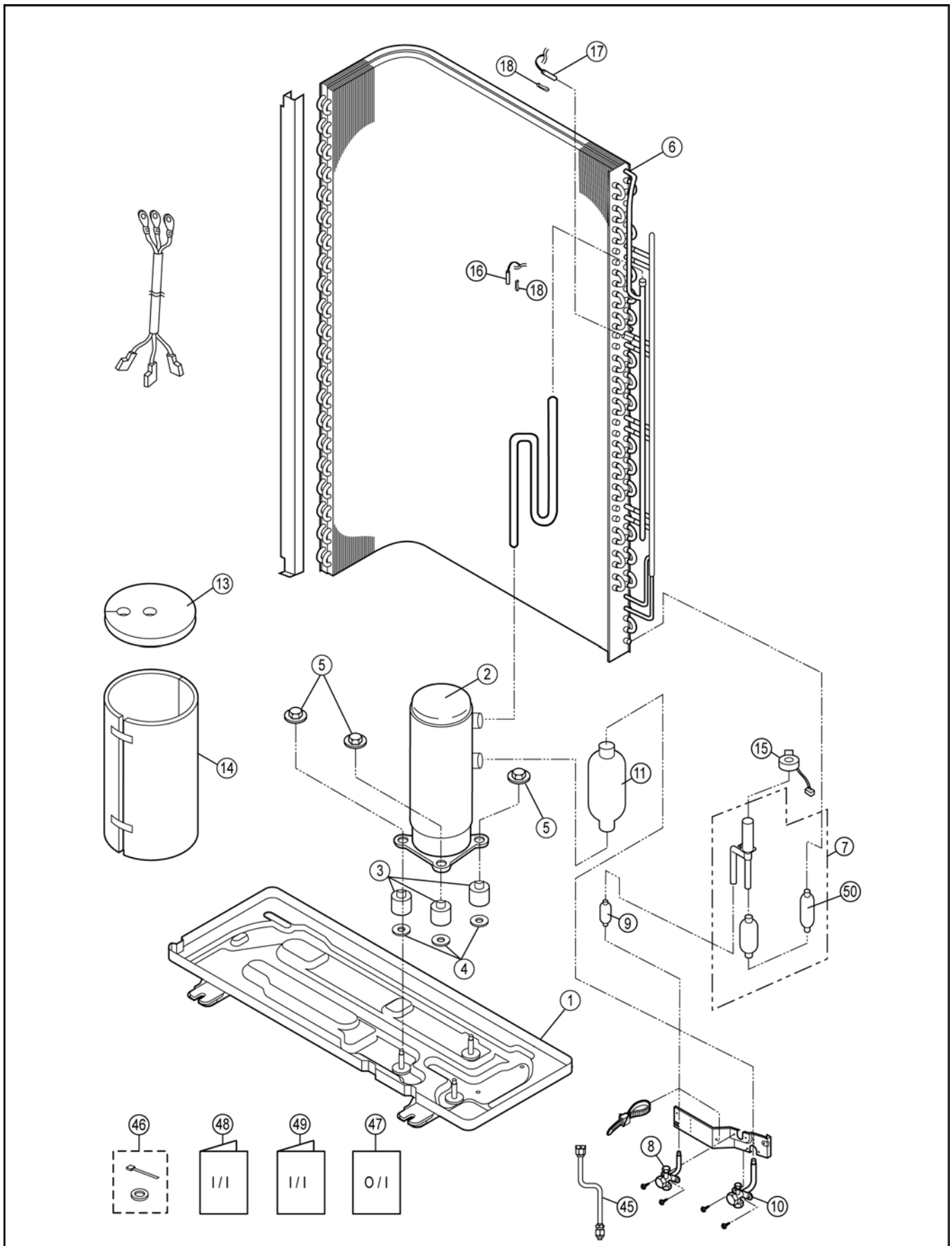
| REF. NO. | PART NAME & DESCRIPTION | QTY. | CS-PC36HKV | REMARKS |
|----------|-----------------------------------|------|--------------|---------|
| 1 | CHASSY COMPLETE | 1 | CWD50C1477 | |
| 2 | FAN MOTOR DC 60W 3PH | 1 | ARW42A8P60AC | O |
| 3 | CROSS FLOW FAN COMPLETE | 1 | CWH02C1044 | |
| 4 | SCREW - CROSS FLOW FAN | 1 | CWH551146 | |
| 5 | BEARING ASS'Y | 1 | CWH64K007 | |
| 6 | EVAPORATOR COMPLETE | 1 | CWB30C2533 | |
| 7 | TUBE ASS'Y COM | 1 | CWT01C3637 | |
| 8 | FLARE NUT (3/8") | 1 | CWT25005 | |
| 9 | FLARE NUT (5/8") | 1 | CWT251037 | |
| 10 | INTAKE AIR SENSOR HOLDER | 1 | CWH32143 | |
| 11 | DISCHARGE GRILLE COMPLETE | 1 | CWE20C2492 | |
| 12 | VERTICAL VANE | 14 | CWE241196 | |
| 13 | CONNECTING BAR | 1 | CWE261094 | |
| 14 | CONNECTING BAR | 1 | CWE261095 | |
| 15 | A.S.MOTOR, DC SINGLE 12V 300OHM | 1 | CWA981154J | O |
| 16 | LEAD WIRE - AIR SWING MOTOR | 1 | CWA67C6023 | |
| 17 | HORIZONTAL VANE | 1 | CWE241197 | |
| 18 | CAP - DRAIN TRAY | 1 | CWH4612103 | |
| 19 | BACK COVER CHASSIS | 1 | CWD932631 | |
| 20 | CONTROL BOARD - CASING | 1 | CWH102299 | |
| 21 | TERMINAL BOARD COMPLETE | 1 | CWA28C2307 | O |
| 22 | ELECTRONIC CONTROLLER - MAIN | 1 | CWA73C2131 | O |
| 23 | ELECTRONIC CONTROLLER - POWER | 1 | CWA744089 | |
| 24 | ELEC. CONT. - INDICATOR AND RCVR | 1 | CWE39C1150 | O |
| 25 | INDICATOR HOLDER | 1 | CWD932633 | |
| 26 | INDICATOR HOLDER | 1 | CWD932634 | |
| 27 | SENSOR COMPLETE | 1 | CWA50C2356 | O |
| 28 | CONTROL BOARD TOP COVER | 1 | CWH131265 | |
| 29 | CONTROL BOARD FRONT COVER | 1 | CWH131266 | |
| 30 | REMOTE CONTROL COMPLETE | 1 | CWA75C2811 | O |
| 31 | FRONT GRILLE COMPLETE | 1 | CWE11C3402 | |
| 32 | INTAKE GRILLE COMPLETE | 1 | CWE22C1269 | |
| 33 | GRILLE DOOR | 1 | CWE141092 | |
| 34 | AIR FILTER | 2 | CWD001193 | |
| 35 | SCREW - FRONT GRILLE | 4 | XTT4+16CFJ | |
| 36 | CAP - FRONT GRILLE | 4 | CWH521142 | |
| 37 | DRAIN HOSE | 1 | CWH85284 | |
| 38 | BAG COMPLETE - INSTALLATION SCREW | 1 | CWH82C1423 | |
| 39 | BAG COMPLETE - TUBE CONNECTOR | 1 | CWH82C1425 | |
| 40 | INSTALLATION PLATE | 1 | CWH361079 | |
| 41 | FULCRUM | 3 | CWH621063 | |

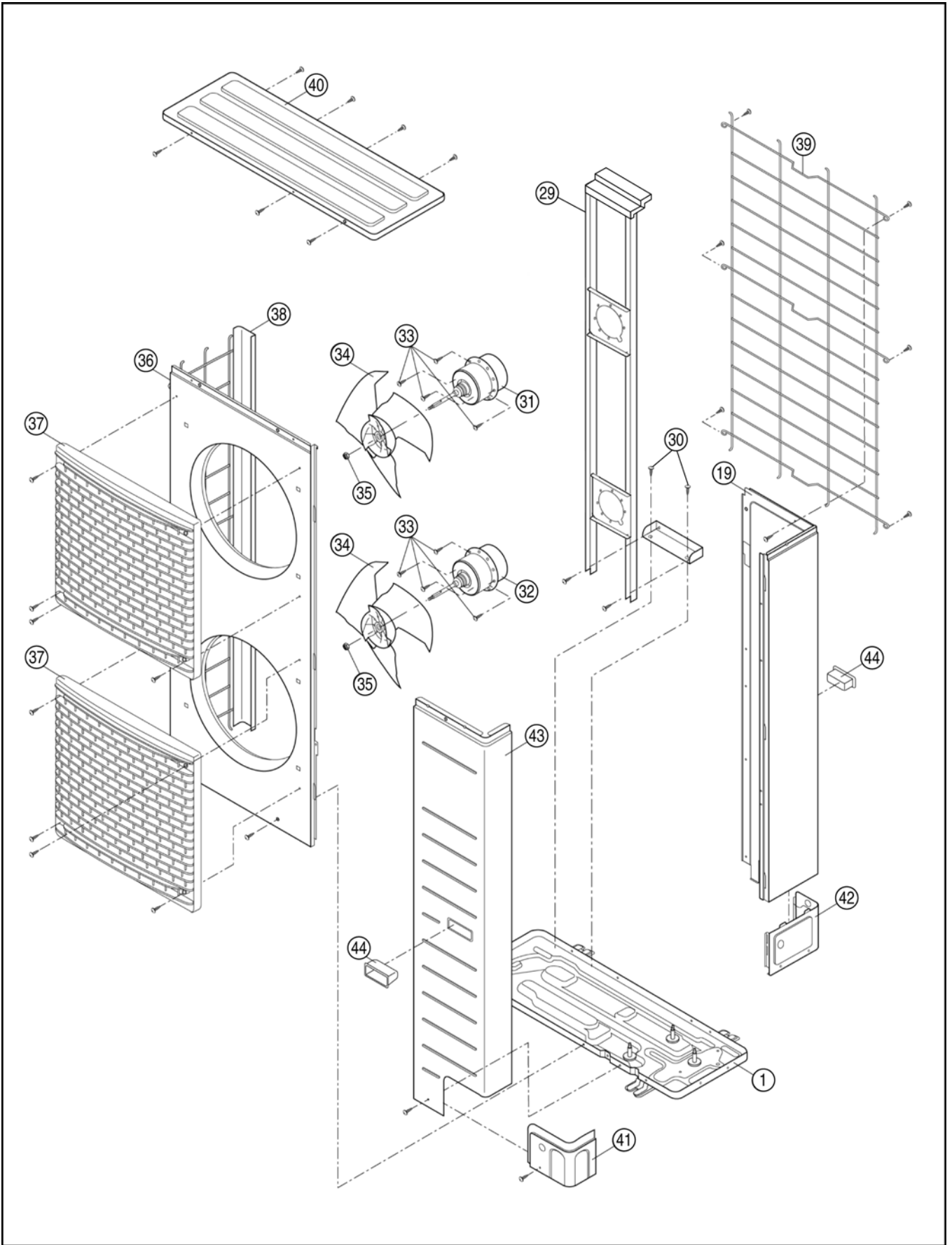
(Note)

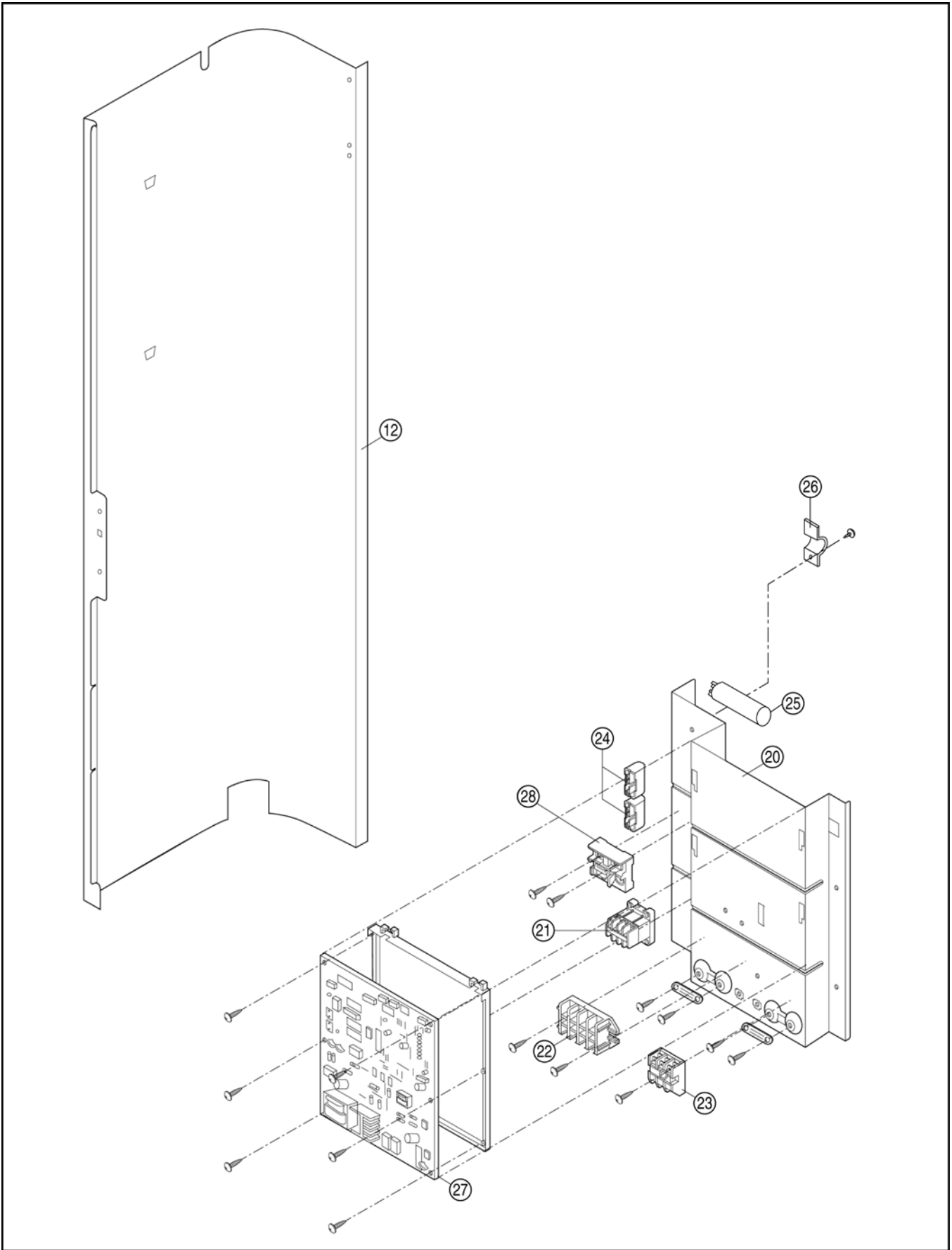
- All parts are supplied from PHAAM, Malaysia (Vendor Code: 061).
- "O" marked parts are recommended to be kept in stock.

18.2. Outdoor Unit

18.2.1. CU-PC36HKV







Note:
The above exploded view is for the purpose of parts disassembly and replacement.
The non-numbered parts are not kept as standard service parts.

<Model: CU-PC36HKV>

| REF. NO. | PART NAME & DESCRIPTION | QTY. | CU-PC36HKV | REMARKS |
|----------|--|------|----------------|---------|
| 1 | BASE PAN ASS'Y | 1 | CWD52K1157 | |
| 2 | COMPRESSOR | 1 | ZR40K3-PFV-512 | O |
| 3 | ANTI - VIBRATION BUSHING | 3 | CWH501020 | |
| 4 | PACKING | 3 | CWB811017 | |
| 5 | NUT FOR COMP. MOUNT. | 3 | CWH561049 | |
| 6 | CONDENSER COMPLETE | 1 | CWB32C2345 | |
| 7 | TUBE ASS'Y (EXP. VALVE + STRAINER) | 1 | CWT01C4494 | |
| 8 | 3-WAYS VALVE (LIQUID) | 1 | CWB011295 | O |
| 9 | STRAINER | 1 | CWB111032 | |
| 10 | 3-WAYS VALVE (GAS) | 1 | CWB011299 | O |
| 11 | RECEIVER | 1 | CWB141041 | |
| 12 | SOUND PROOF BOARD | 1 | CWH151079 | |
| 13 | SOUND PROOF MATERIAL | 1 | CWG302311 | |
| 14 | SOUND PROOF MATERIAL | 1 | CWG302389 | |
| 15 | V-COIL COMPLETE | 1 | CWA43C2203 | |
| 16 | PIPE SENSOR (DISCHARGE) | 1 | CWA50C2406 | |
| 17 | PIPE SENSOR (COIL) | 1 | CWA50C2390 | |
| 18 | SPRING FOR SENSOR | 2 | CWH711010 | |
| 19 | CABINET REAR PLATE | 1 | CWE02C1034 | |
| 20 | CONTROL BOARD | 1 | CWH10K1070 | |
| 21 | COMPRESSOR RELAY | 1 | K6C5E8A00001 | |
| 22 | TERMINAL BOARD ASS'Y | 1 | CWA28K1107 | |
| 23 | TERMINAL BOARD ASS'Y | 1 | CWA28K1076J | |
| 24 | CAPACITOR - FAN MOTOR (3 μ F/460V) | 2 | DS461305BPQA | O |
| 25 | CAPACITOR - COMP. | 1 | DS371556CPNA | O |
| 26 | HOLDER CAPACITOR | 1 | CWH30071 | |
| 27 | ELECTRONIC CONTROLLER - MAIN | 1 | CWA73C3400 | O |
| 28 | TRANSFORMER | 1 | CWA401060 | |
| 29 | BRACKET FAN MOTOR | 1 | CWD54K1042 | |
| 30 | SCREW - BRACKET FAN MOTOR | 2 | CWH551040J | |
| 31 | FAN MOTOR AC 70W SINGLE | 1 | CWA951615 | O |
| 32 | FAN MOTOR AC 70W SINGLE | 1 | CWA951616 | O |
| 33 | SCREW - FAN MOTOR | 8 | CWH551040J | |
| 34 | PROPELLER FAN ASS'Y | 2 | CWH03K1017 | |
| 35 | NUT PROPELLER FAN | 2 | CWH561038J | |
| 36 | CABINET FRONT PLATE | 1 | CWE061092A | |
| 37 | DISCHARGE GRILLE | 2 | CWE201075 | |
| 38 | CABINET SIDE PLATE | 1 | CWE04K1022A | |
| 39 | WIRE NET | 1 | CWD041101A | |
| 40 | CABINET TOP PLATE COMPLETE | 1 | CWE03C1032 | |
| 41 | PIPE COVER (FRONT) | 1 | CWD601074A | |
| 42 | PIPE COVER (BACK) | 1 | CWD60K1003A | |
| 43 | CABINET FRONT PLATE | 1 | CWE06C1163 | |
| 44 | HANDLE | 2 | CWE161008 | |
| 45 | TUBE ASS'Y. (FLARE NUT - LIQ. SIDE) | 1 | CWT01C3768 | |
| 46 | WIRING COVER AND BAND | 1 | CWH82C1105 | |
| 47 | OPERATING INSTRUCTION | 1 | CWF565929 | |
| 48 | INSTALLATION INSTRUCTION | 1 | CWF613380 | |
| 49 | INSTALLATION INSTRUCTION | 1 | CWF613407 | |
| 50 | RECEIVER | 1 | CWB14010 | |

(Note)

- All parts are supplied from PHAAM, Malaysia (Vendor Code: 061).
- "O" marked parts are recommended to be kept in stock.