website http://www.lgservice.com

LG

LG Room Air Conditioner

SERVICE MANUAL

MODELS:

LS-C1863R/W/B/D/M/CM0
LS-H1863R/W/B/D/M/CM0
LS-C2463R/W/B/D/M/CM0
LS-H2463R/W/B/D/M/CM0
LS-C1823R/W/B/D/M/CM0
LS-C1823R/W/B/D/M/CM2
LS-H1823R/W/B/D/M/CM0
LS-C2423R/W/B/D/M/CM0
LS-H2423R/W/B/D/M/CM0
AS-H2463R/D/M/WM1
AS-H1863B/M/R/WM0
AS-H2463R/D/M/WM1
LS-C2463B/C/D/M/RM1
LS-C1823RM1
LS-H1863B/D/M/R/WM1

AS-H1863*M3
AS-H2463*M3
LS-H1863*M3
LS-C2463*M3
LS-H2463*M3
LS-C1863*M3
LS-C2463*M4

CAUTION

- **BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.**
- **ONLY FOR AUTHORIZED SERVICE PERSONNEL.**

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LG Model Name

2004

1	2	-	3	4	5	6	7	8	9	10

Code	Type	Code of Model	Meaning
1	Producing Center, Refrigerant	A~Z	L: Chang-won R22 A: Chang-won R410A C: Chang-won R407C T: China U: China R410A K: Turkey R22 E: Turkey R410A H: Thailand N: India Z: Brazil D: Indonesia X: Mexico V: Vietnam S: Out Sourcing
2	Product Type	A~Z	S: Split Type Air Conditioner
3	Cooling/Heating/Inverter	A~Z	C: Cooling only H: Heat pump X: C/O + E/Heater Z: H/P + E/Heater V: AC Inverter C/O N: AC Inverter H/P Q: DC Inverter C/O W: DC Inverter H/P
4, 5	Capacity	0~9	Cooling/Heating Capacity Ex. "09" → 9,000 Btu/h
6	Electric Range	1~9 A~Z	1: 115V/60Hz, 2: 220V/60Hz 3: 208-230V/60Hz 5: 200-220V/50Hz 6: 220-240V/50Hz 7: 110V, 50/60Hz 8: 380-415V/50Hz 9: 380-415V/60Hz A: 220V, 50Hz, 3Phase B: 208~230V, 60Hz, 3Phase C: 575V, 50Hz, 3Phase D: 440~460, 60Hz, 3Phase E: 265V, 60Hz F: 200V, 50/60Hz
7	Chassis	1~9	Name of Chassis of Unit Ex. 3 → S3 Chassis
8	Look	A~Z	Look, Color (Artcool Model)
9	Function	A~Z	

Basic	A
Basic+4Way	B
Plasma Filter	C
Plasma Filter+4 Way	D
Tele+LCD	E
Tele+LCD+Nano plasma+4Way	F
Nano Plasma F+(A/changeover)+A/clean+Low A	G
Nano Plasma F+(A/changeover)+A/clean+4way+Low A	H
Tele+LED+4way	I
Internet	J
Plasma F+4Way+Oxy generator	K
Nano Plasma F+(A/changeover)+A/clean	L
Nano Plasma F+(A/changeover)+A/clean+4way	M
Nano Plasma F+(A/changeover)+A/clean+PTC	N
Nano Plasma F+(A/changeover)+Autoclean+4way+PTC	P
Nano Plasma F+(A/changeover)+A/clean+4way+Low A+PTC	Q
Negative ION+A/Clean	R
(Nano)Plasma+Negative ION+A/Clean	S
4way+(Nano)Plasma F+Negative ION+Healthy dehumidification+A/Clean	T
Nano Plasma F+4Way+(A/changeover)+A/clean+Oxy generator	U
4way+(Nano)Plasma F+Negative ION+Healthy dehumidification+A/Clean+Oxy generator	V
Dry Contact	W
Wired Remocon	8

Code	Type	Code of Model	Meaning
10	Serial No.	1~9	LG Model Development Serial No.

* ARTCOOL COLOR

R	Mirror
W	White Wood
B	Blue
D	Wood
M	Metal
C	Cherry

N	Walnut
A	Gogh
S	Sisley
Q	Quran
K	Mecca

Dimensions

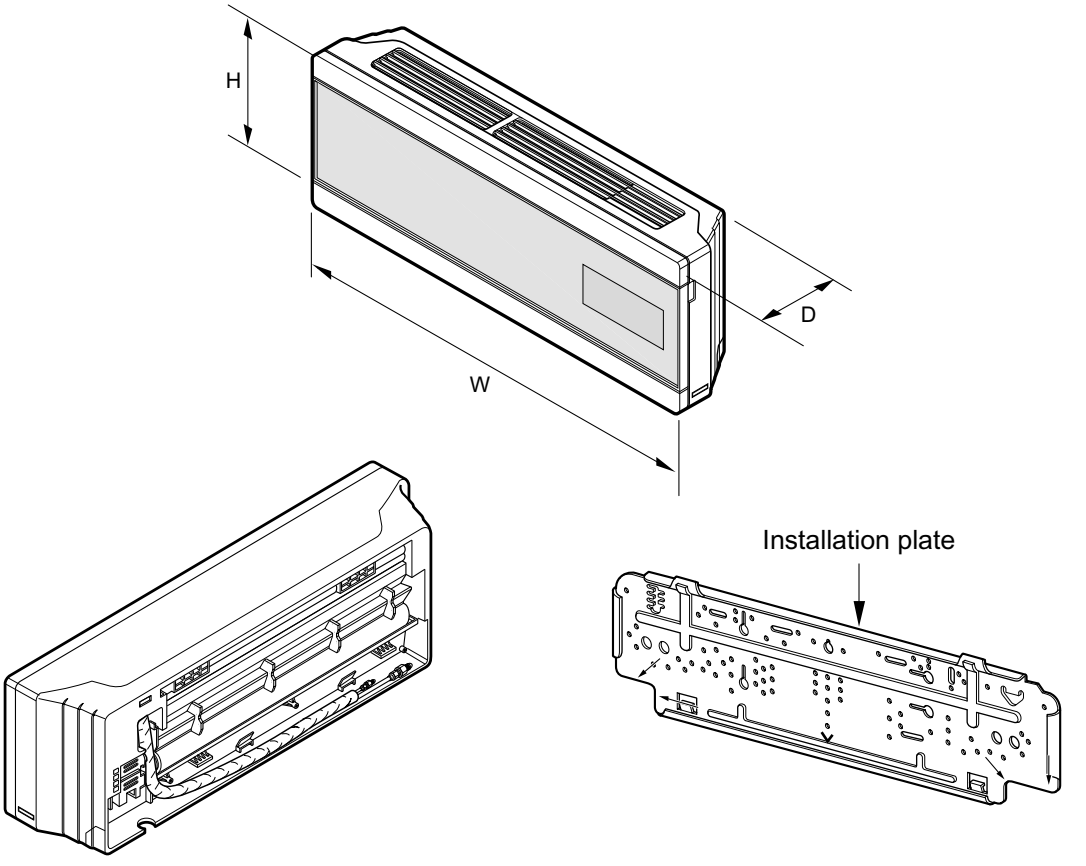
Symbols used in this Manual

This symbol alerts you to the risk of electric shock.

This symbol alerts you to hazards that may cause harm to the air conditioner.

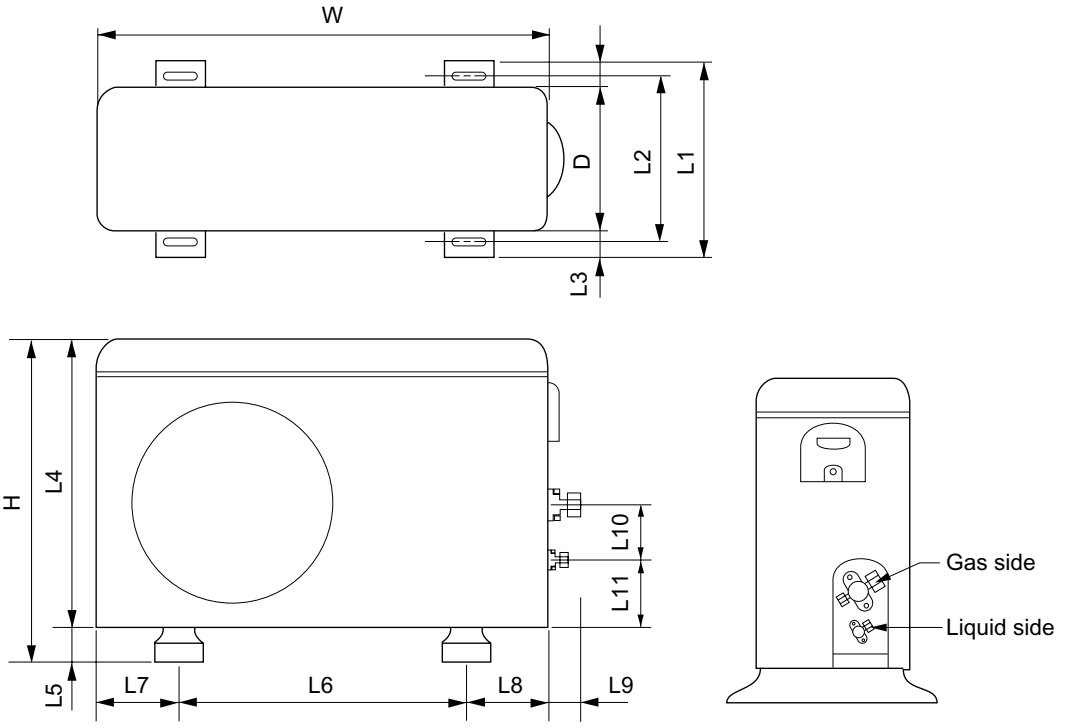
NOTICE **This symbol indicates special notes.**

Indoor Unit

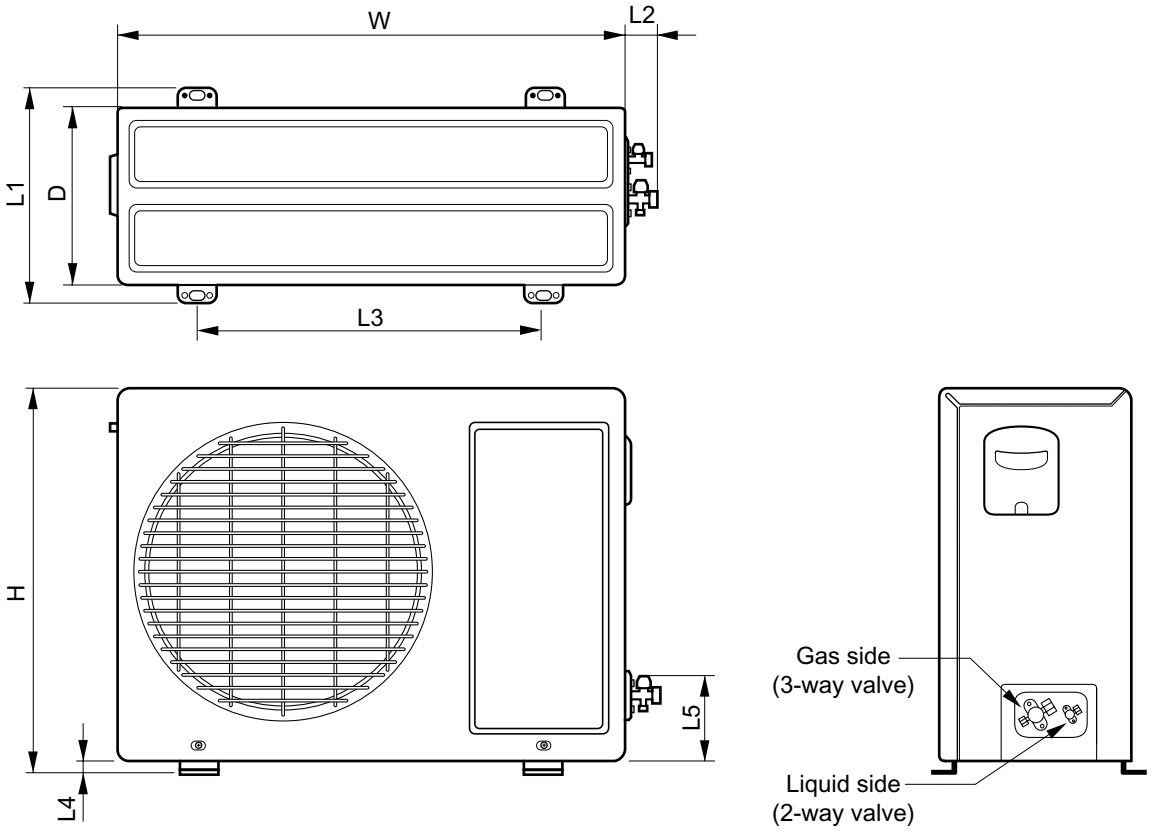


Dimension \ Model		INDOOR UNIT
W	mm	1170
H	mm	315
D	mm	173

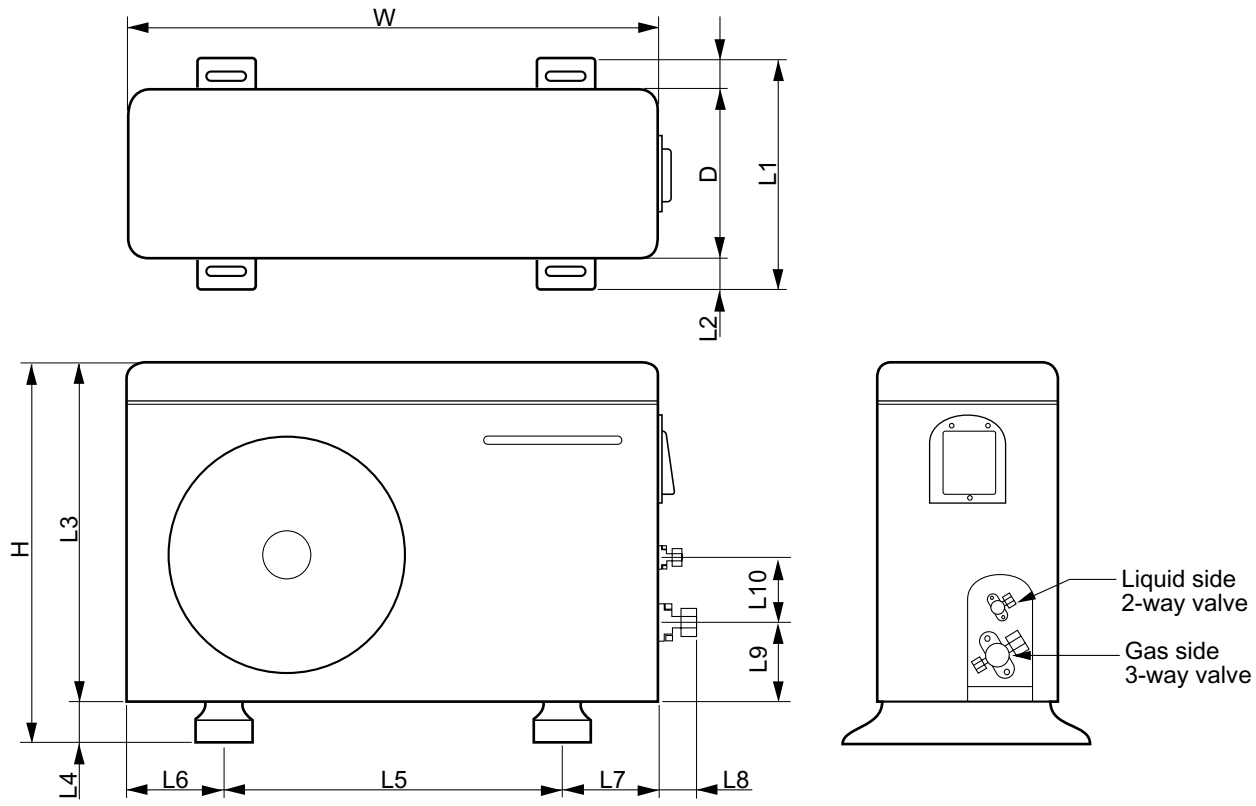
Outdoor Unit



DIM		MODEL LS-C1863R/W/B/D/M/CM0, LS-H1863R/W/B/D/M/CM0 LS-C2463R/W/B/D/M/CM0, LS-H2463R/W/B/D/M/CM0 LS-H2423R/W/B/D/M/CM0, AS-H1863B/M/R/WM0 AS-H2463B/M/R/WM0, LS-C2463B/C/D/M/RM1 LS-C1823RM1, LS-H1863B/D/M/R/WM1 LS-H1863*M3, LS-C2463*M3, LS-H2463*M3 LS-C1863*M3, LS-C2463*M4	**AS-H2463R/D/M/WM1**
W	mm	870	870
H	mm	655	800
D	mm	320	320
L1	mm	370	370
L2	mm	340	340
L3	mm	25	25
L4	mm	630	775
L5	mm	25	25
L6	mm	546	546
L7	mm	162	162
L8	mm	162	162
L9	mm	54	54
L10	mm	74.5	74.5
L11	mm	79	79



DIM	MODEL / unit	**LS-C1823R/W/B/D/M/CM2, AS-H1863*M3 LS-C2423R/W/B/D/M/CM0, AS-H2463*M3**
W	mm	840
H	mm	577
D	mm	276
L1	mm	287
L2	mm	64
L3	mm	518
L4	mm	10
L5	mm	100



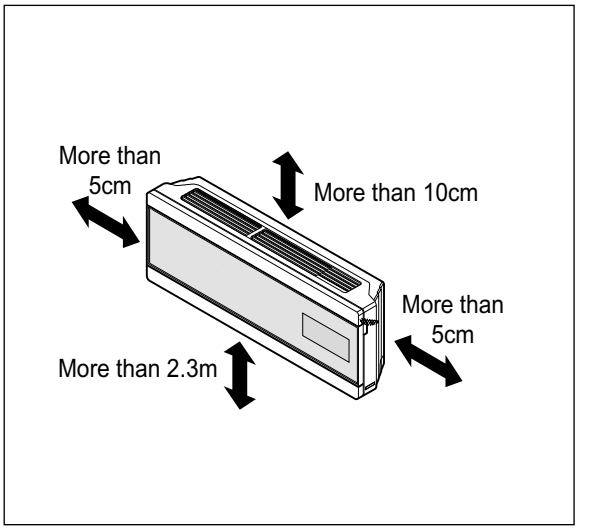
DIM / MODEL	unit	**LS-C1823R/W/B/D/M/CM0** **LS-H1823R/W/B/D/M/CM0**
W	mm	801
H	mm	555
D	mm	262
L1	mm	339
L2	mm	37
L3	mm	543.6
L4	mm	11.4
L5	mm	591
L6	mm	105
L7	mm	105
L8	mm	72.5
L9	mm	86.4
L10	mm	77

Installation

Select the best Location

Indoor unit

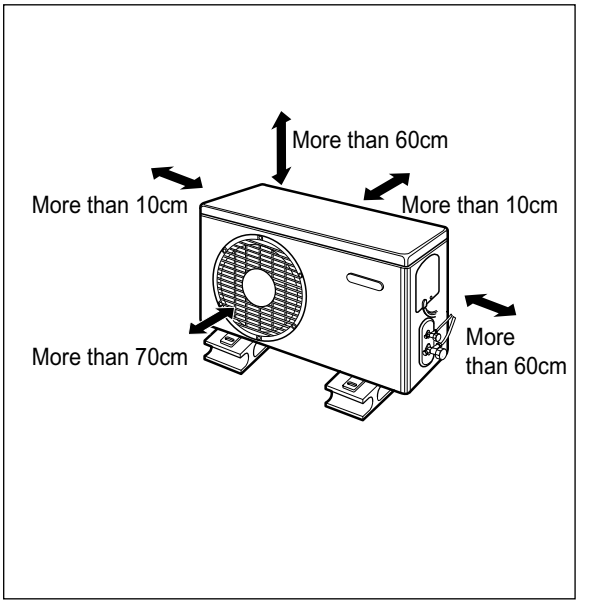
1. Do not have any heat or steam near the unit.
2. Select a place where there are no obstacles in front of the unit.
3. Make sure that condensation drainage can be conveniently routed away.
4. Do not install near a doorway.
5. Ensure that the interval between a wall and the left (or right) of the unit is more than 50cm. The unit should be installed as high as possible on the wall, allowing a minimum of 10cm from ceiling.
6. Use a stud finder to locate studs to prevent unnecessary damage to the wall.



CAUTION: Install the indoor unit on the wall where the height from the floor is more than 2 meters.

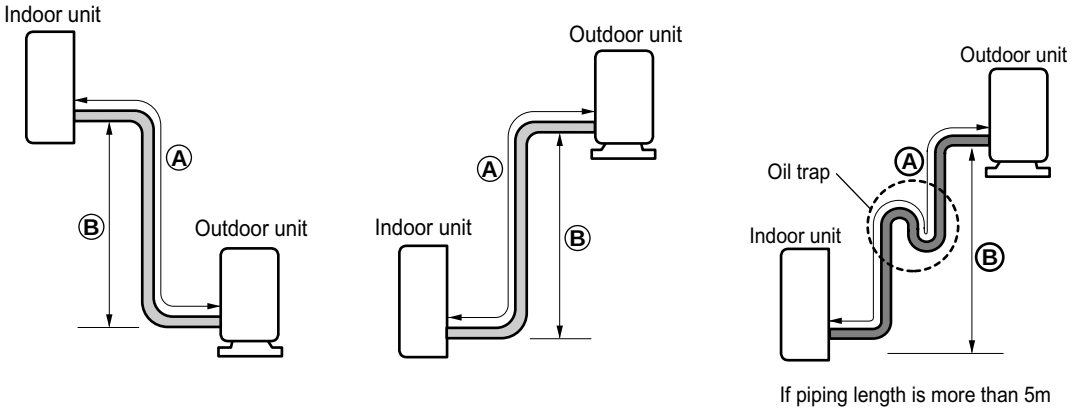
Outdoor unit

1. If an awning is built over the unit to prevent direct sunlight or rain exposure, make sure that heat radiation from the condenser is not restricted.
2. Ensure that the space around the back and sides is more than 10cm. The front of the unit should have more than 70cm of space.
3. Do not place animals and plants in the path of the warm air.
4. Take the weight of the air conditioner into account and select a place where noise and vibration are minimum.
5. Select a place where the warm air and noise from the air conditioner do not disturb neighbors.



Piping Length and Elevation

Capacity (Btu/h)	Pipe Size		Standard Length (m)	Max. Elevation B (m)	Max. Length A (m)	Additional Refrigerant (g/m)
	GAS	LIQUID				
5k~14k	3/8"(Ø9.52)	1/4"(Ø6.35)	4 or 7.5	7	15	20
	1/2"(Ø12.7)	1/4"(Ø6.35)	4 or 7.5	7	15	20
18k~28k	1/2"(Ø12.7)	1/4"(Ø6.35)	4 or 7.5	15	30	20
	5/8"(Ø15.88)	1/4"(Ø6.35)	4 or 7.5	15	30	20
	5/8"(Ø15.88)	3/8"(Ø9.52)	4 or 7.5	15	30	30
30k~38k	5/8"(Ø15.88)	3/8"(Ø9.52)	7.5	15	30	30
	3/4"(Ø19.05)	3/8"(Ø9.52)	7.5	15	30	50



If piping length is more than 5m

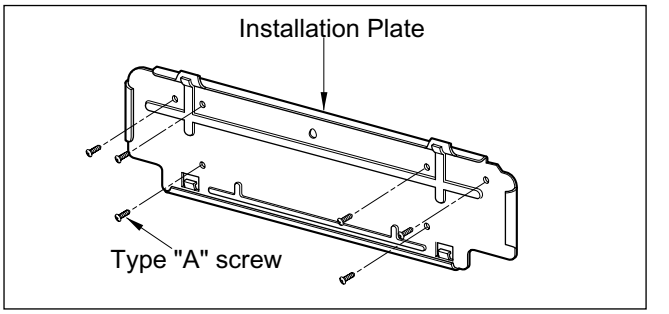
CAUTION: Capacity is based on standard length and maximum allowance length is on the basis of reliability.
Oil trap should be installed every 5~7 meters.

Fixing Installation Plate

The wall you select should be strong and solid enough to prevent vibration

1. Mount the installation plate on the wall with type "A" screws. If mounting the unit on a concrete wall, use anchor bolts.

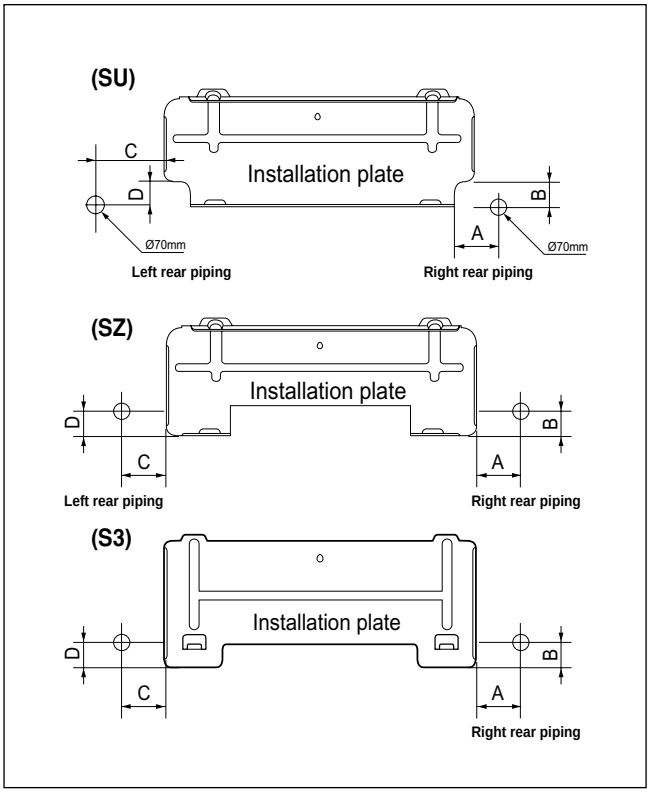
• Mount the installation plate horizontally by aligning the centerline using a level.



2. Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate-routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

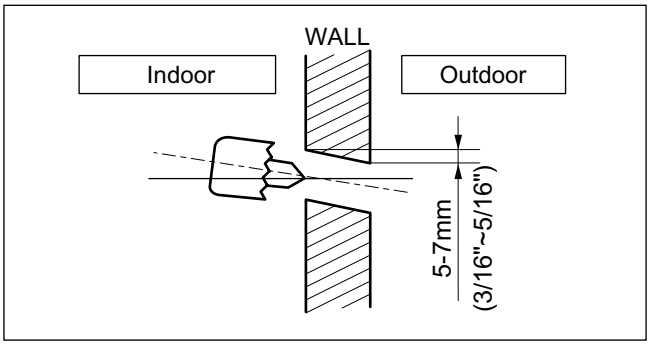
CHASSIS (Grade)	Distance (mm)			
	A	B	C	D
SZ (7k~9k)	35	33	156	33
SU (11k~14k)	92	44	67	44
S3 (18k~26k)	58	3	292	3

• For S3 chassis, the center of the unit is different from that of the Installation plate.



Drill a Hole in the Wall

• Drill the piping hole with a ø70mm hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.

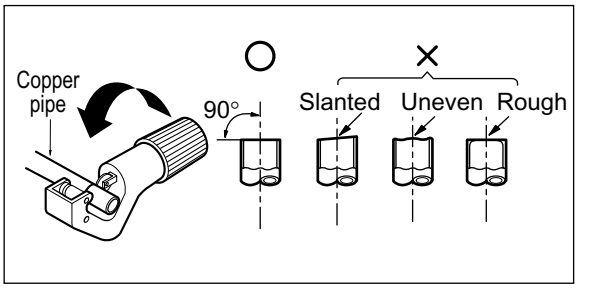


Flaring Work

Main cause for gas leakage is due to defect in flaring work. Carry out correct flaring work in the following procedure.

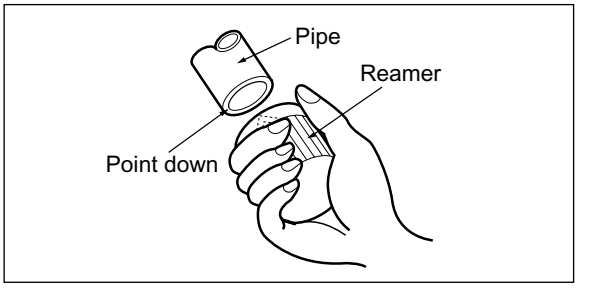
Cut the pipes and the cable.

1. Use the piping kit accessory or the pipes purchased locally.
2. Measure the distance between the indoor and the outdoor unit.
3. Cut the pipes a little longer than measured distance.
4. Cut the cable 1.5m longer than the pipe length.



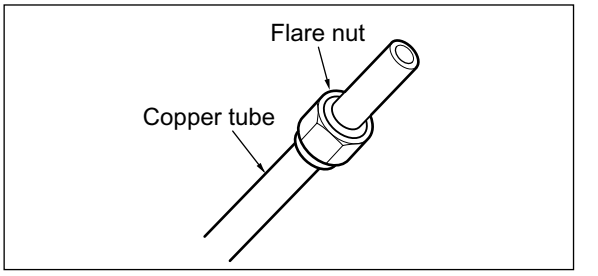
Burrs removal

1. Completely remove all burrs from the cut cross section of pipe/tube.
2. Put the end of the copper tube/pipe in a downward direction as you remove burrs in order to avoid dropping burrs into the tubing.



Putting nut on

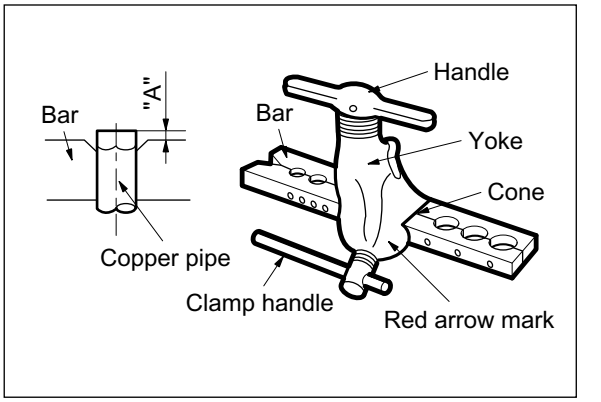
• Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.
(not possible to put them on after flaring work)



Flaring work

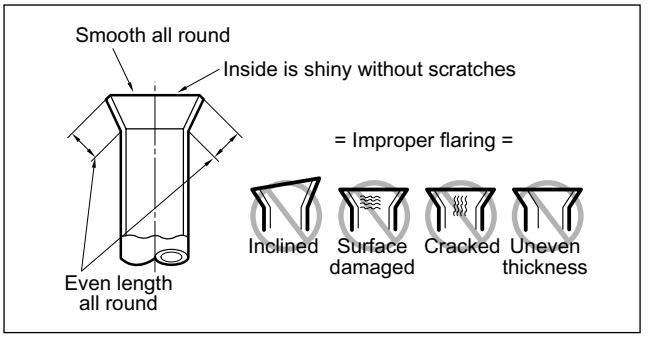
1. Firmly hold copper pipe in a die in the dimension shown in the table below.
2. Carry out flaring work with the flaring tool.

Outside diameter		A
mm	inch	mm
Ø6.35	1/4	0~0.5
Ø9.52	3/8	0~0.5
Ø12.7	1/2	0~0.5
Ø15.88	5/8	0~1.0
Ø19.05	3/4	1.0~1.3



Check

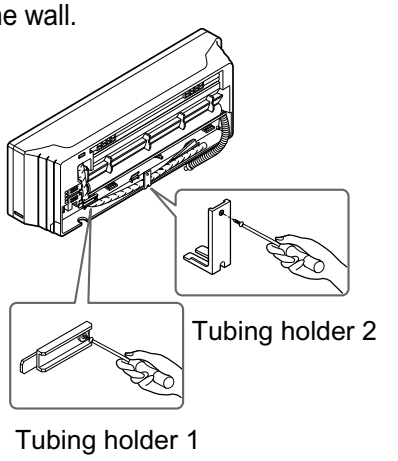
1. Compare the flared work with the figure by.
2. If a flared section is defective, cut it off and do flaring work again.



Connecting the Piping

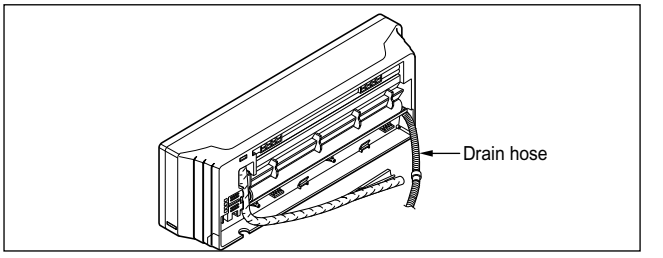
Indoor

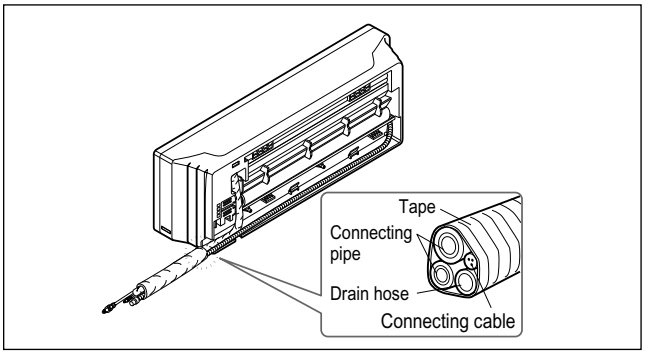
1. Prepare the indoor unit's piping and drain hose for installation through the wall.
2. Remove the plastic tubing retainer(see the illustration by) and pull the tubing and drain hose away from chassis.
3. Replace only the plastic tubing holder 1, not the holder 2 in the original position.



For right rear piping

1. Route the indoor tubing and the drain hose in the direction of rear right.
2. Insert the connecting cable into the indoor unit from the outdoor unit through the piping hole.
   - Do not connect the cable to the indoor unit.
   - Make a small loop with the cable for easy connection later.
3. Tape the tubing, drain hose, and the connecting cable. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the uper side can cause drain pan to overflow inside the unit.

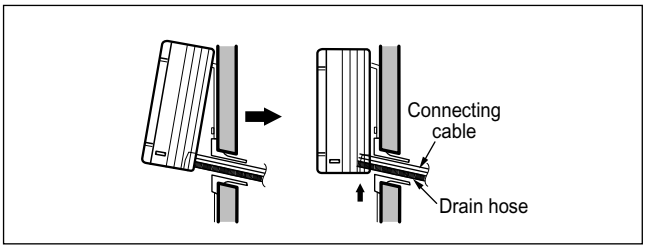




CAUTION: If the drain hose is routed inside the room, insulate the hose with an insulation material* so that dripping from "sweating"(condensation) will not damage furniture or floors.
***Foamed polyethylene or equivalent is recommended.**

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

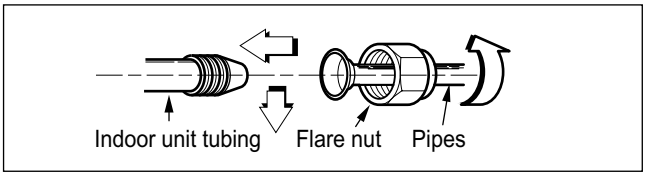
   Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots(clicking sound).

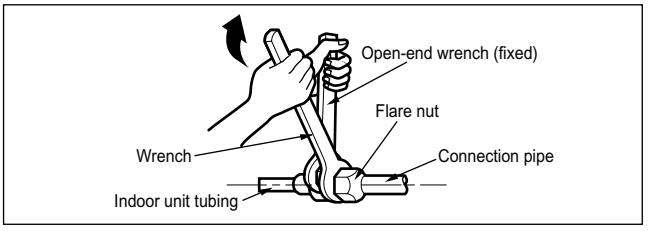


Connecting the piping to the indoor unit and drain hose to drain pipe.

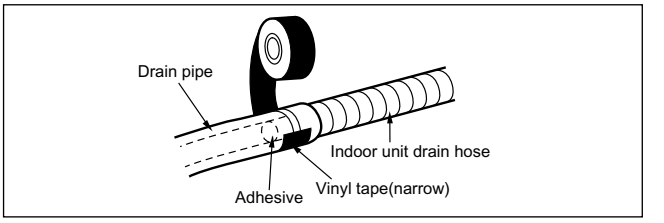
1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
2. Tighten the flare nut with a wrench.

Outside diameter		Torque
mm	inch	kg·m
Ø6.35	1/4	1.8
Ø9.52	3/8	4.2
Ø12.7	1/2	5.5
Ø15.88	5/8	6.6



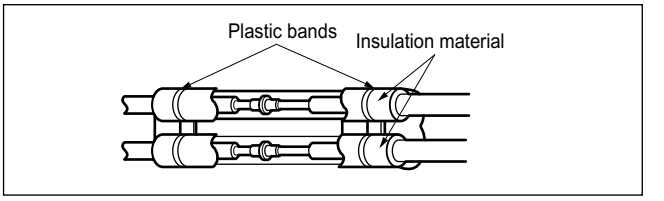


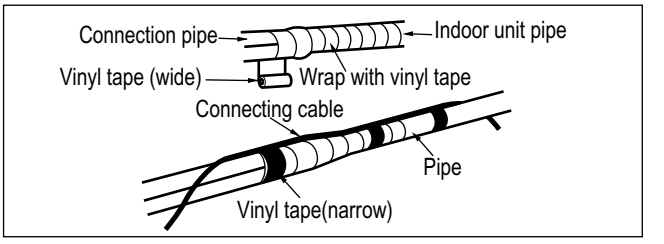
3. When extending the drain hose at the indoor unit, install the drain pipe.



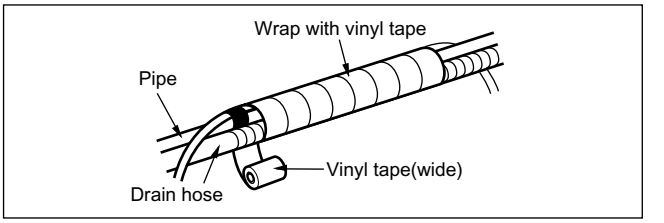
Wrap the insulation material around the connecting portion.

1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
2. Wrap the area which accommodates the rear piping housing section with vinyl tape.



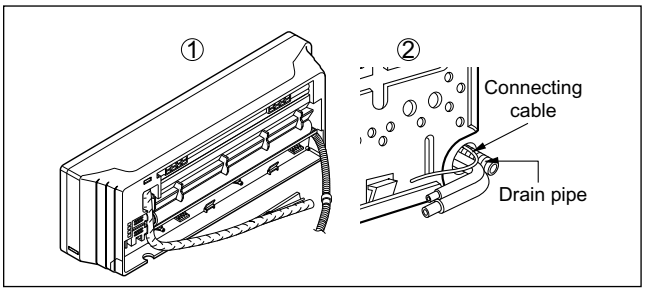


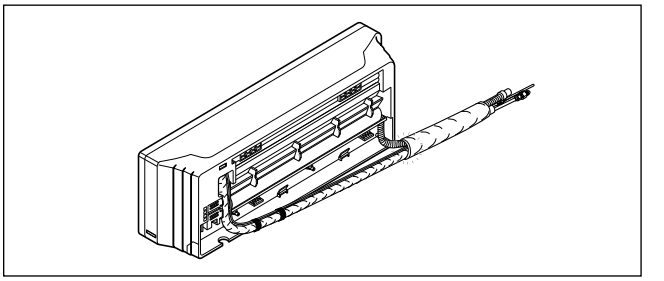
3. Bundle the piping and drain hose together by wrapping them with vinyl tape for enough to cover where they fit into the rear piping housing section.



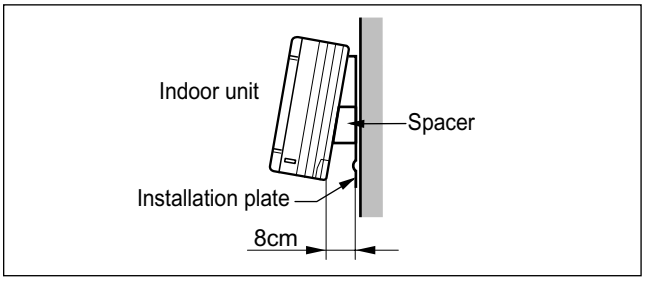
For left rear piping

1. Route the indoor tubing and the drain hose to the required piping hole position.
2. Insert the piping, drain hose, and the connecting cable into the piping hole.
3. Insert the connecting cable into the indoor unit.
   - Don't connect the cable to the indoor unit.
   - Make a small loop with the cable for easy connection later.
4. Tape the drain hose and the connecting cables.



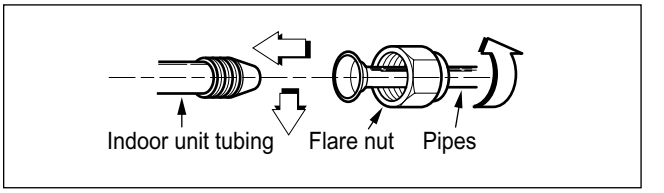


5. Indoor unit installation
   - Hang the indoor unit from the hooks at the top of the installation plate.
   - Insert the spacer etc. between the indoor unit and the installation plate and separate the bottom of the indoor unit from the wall.



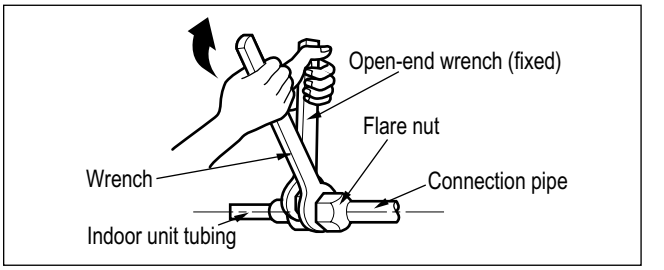
Connecting the piping to the indoor unit and the drain hose to drain pipe.

1. Align the center of the pipes and sufficiently tighten the flare nut by hand.

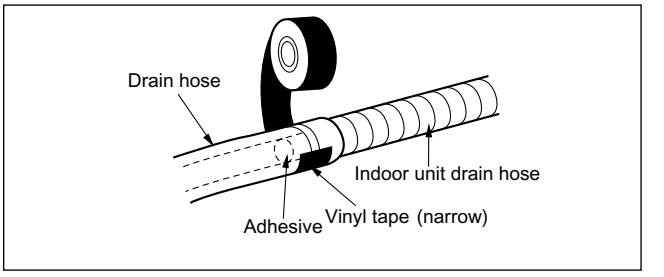


2. Tighten the flare nut with a wrench.

Outside diameter		Torque
mm	inch	kg·m
Ø6.35	1/4	1.8
Ø9.52	3/8	4.2
Ø12.7	1/2	5.5
Ø15.88	5/8	6.6

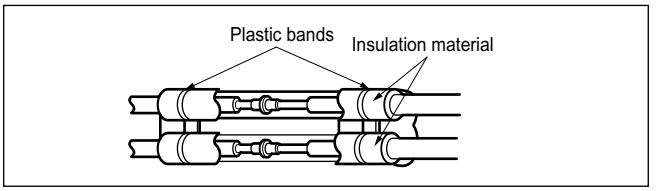


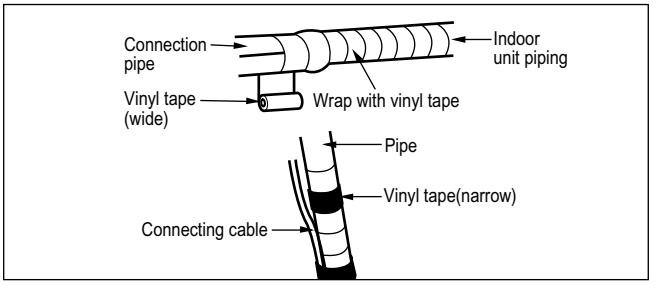
3. When extending the drain hose at the indoor unit, install the drain pipe.



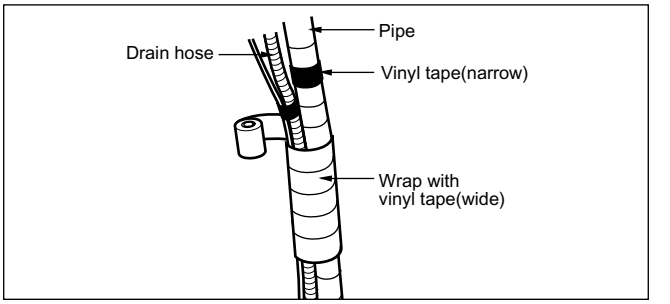
Wrap the insulation material around the connecting portion.

1. Overlap the connection pipe heat insulation and the indoor unit pipe heat insulation material. Bind them together with vinyl tape so that there may be no gap.
2. Wrap the area which accommodates the rear piping housing section with vinyl tape.

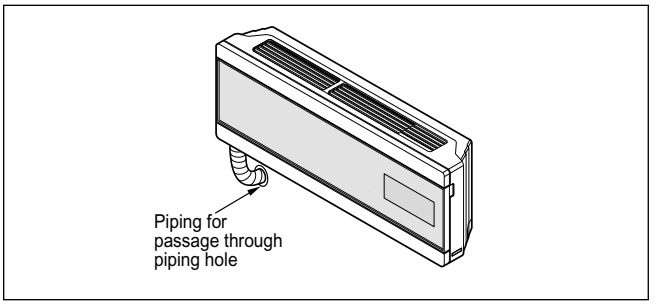




3. Bundle the piping and drain hose together by wrapping them with cloth tape over the range within which they fit into the rear piping housing section.

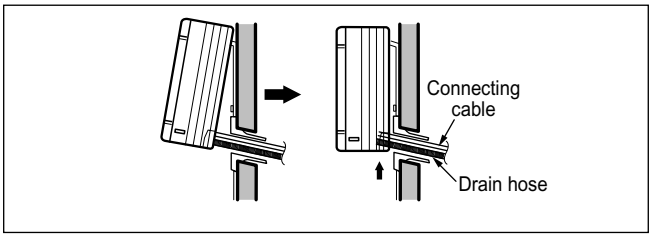


Reroute the pipings and the drain hose across the back of the chassis.



Indoor unit installation

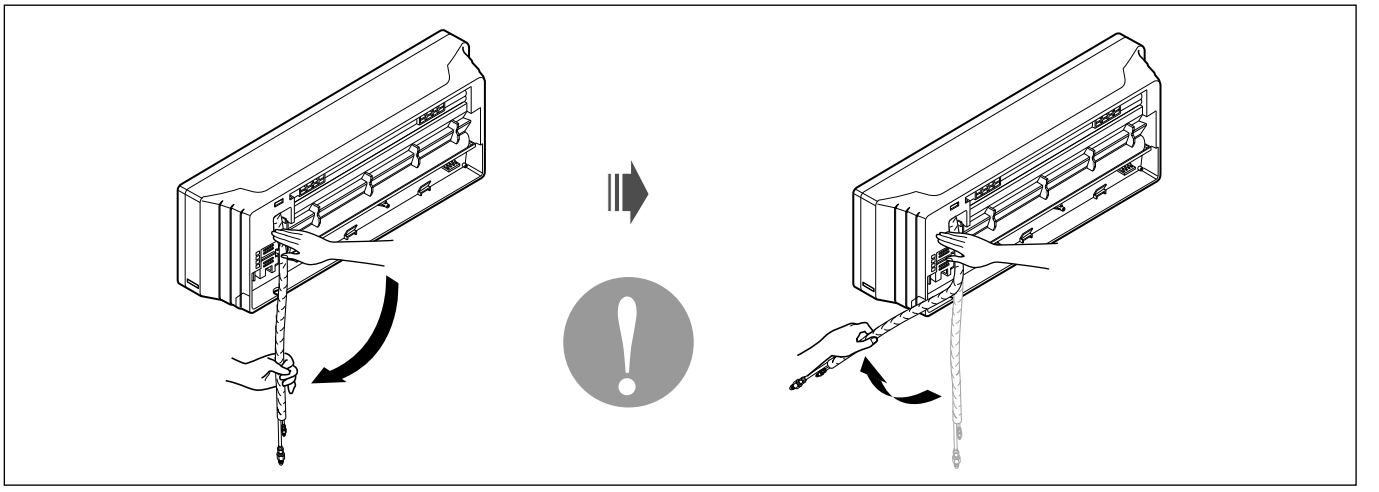
1. Remove the spacer.
2. Ensure that the hooks are properly seated on the installation plate by moving it left and right.
3. Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots(clicking sound).



CAUTION: Installation Information
For left piping. Follow the instruction below.

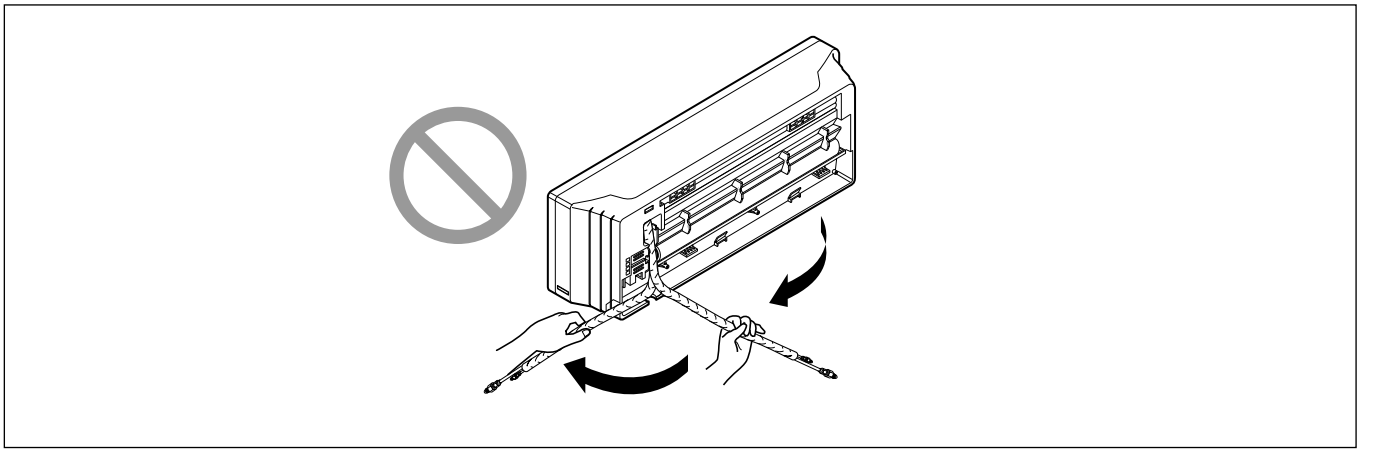
Good case

• Press on the upper side of clamp and unfold the tubing to downward slowly.



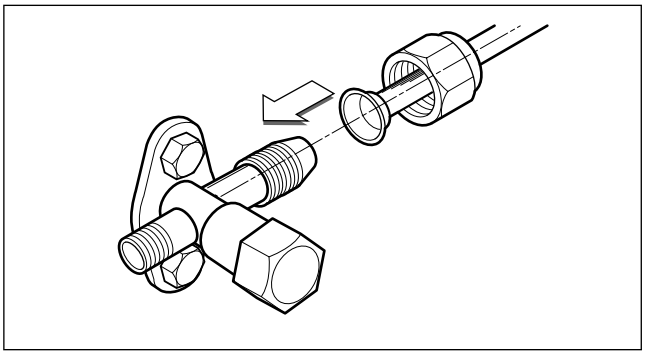
Bad case

• Following bending type from right to left may cause damage to the tubing.



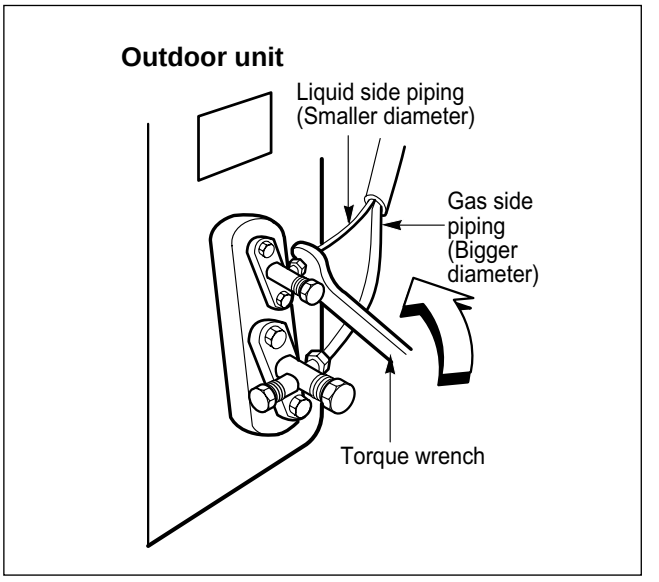
Outdoor

Align the center of the pipings and sufficiently tighten the flare nut by hand.



Finally, tighten the flare nut with torque wrench until the wrench clicks.

- When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.



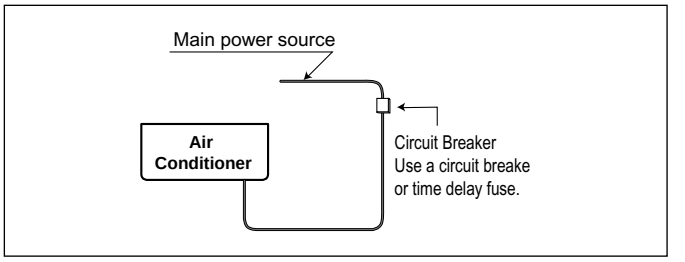
Outside diameter		Torque
mm	inch	kg.m
Ø6.35	1/4	1.8
Ø9.52	3/8	4.2
Ø12.7	1/2	5.5
Ø15.88	5/8	6.6
Ø19.05	3/4	6.6

Connecting the Cables to the Indoor Unit.

- **Connect the cables to the indoor unit by connecting the wires to the terminals on the control board dividually according to the outdoor unit connection.** (Ensure that the color of the wires of the outdoor unit and the terminal No. are the same as those of the indoor unit.)
- **Before connecting the cables to the terminal block, remove the cables in the holder of the control cover and do it.**

CAUTION:
- **The above circuit diagram is subject to change without notice.**
- **The earth wire should be longer than the common wires.**
- **When installing, refer to the circuit diagram behind the panel front of the indoor unit.**
- **Connect the wires firmly so that they may not be pulled out easily.**
- **Connect the wires according to color codes, referring to the wiring diagram.**

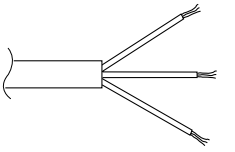
CAUTION: If a power plug is not used, provide a circuit breaker between power source and the unit as shown by.



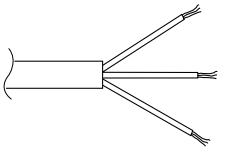
CAUTION: The power cord connected to the "A" unit should be selected according to the following specifications(Type "B" approved by HAR or SAA).

(mm²)

NORMAL CROSS -SECTIONAL AREA	Grade	
	5k~9k	12k~14K
	0.75	1.0
Unit(A)	Indoor	Indoor
Cable Type(B)	H05VV-F	H05VV-F

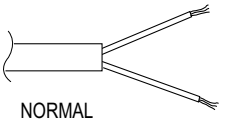


The power connecting cable connecting the indoor and outdoor unit should be selected according to the following specifications (Type "B" approved by HAR or SAA).

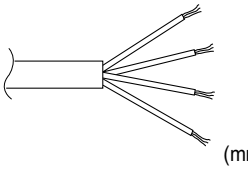


(mm²)

NORMAL CROSS -SECTIONAL AREA	Grade
	7k~14k
	1.0
Cable Type(B)	H07RN-F



NORMAL CROSS-SECTIONAL AREA 0.75mm²



(mm²)

NORMAL CROSS -SECTIONAL AREA	Grade	
	30k, 32k	36k, 38k
	0.75	0.75
Cable Type(B)	H07RN-F	H07RN-F

Connecting the Cables to the Outdoor Unit

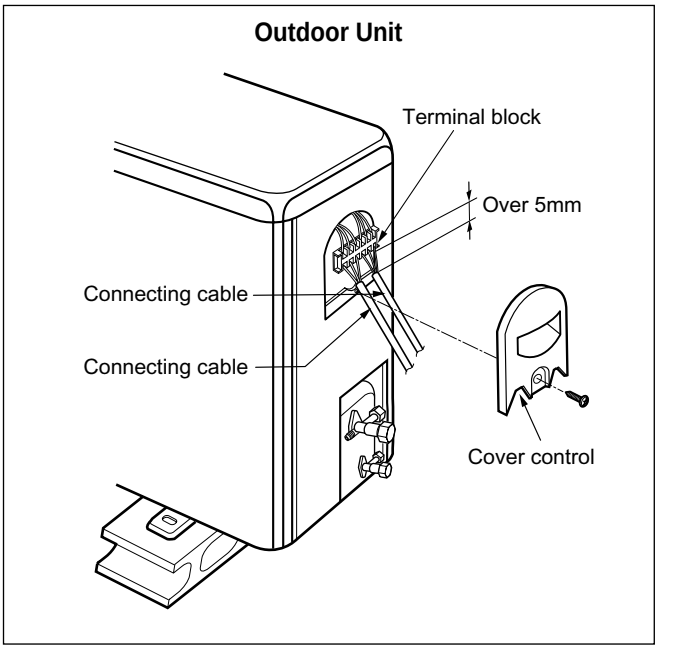
1. **Remove the control cover from the unit by loosening the screw.**
   Connect the wires to the terminals on the control board individually.

2. **Secure the cable onto the control board with the cord clamp.**

3. **Refix the control cover to the original position with the screw.**

4. **Use a recognized circuit breaker "A" between the power source and the unit.**
   A disconnecting device to adequately disconnect all supply lines must be fitted.

Circuit Breaker (A)	Grade			
	7ks~18k	~26k	~30k	~38k
	15	20	30	40



CAUTION: After the confirmation of the above conditions, prepare the wiring as follows:

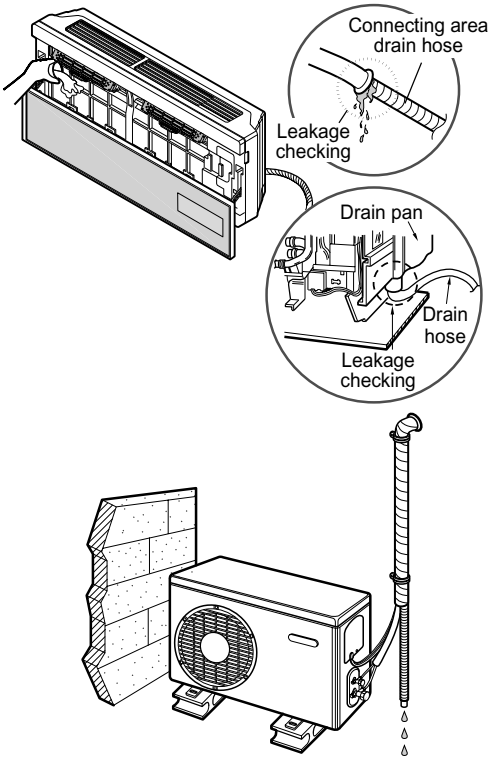
1) Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, be guided by the circuit diagram posted on the inside of control cover.
2) The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could cause burn-out of the wires.)
3) Specification of power source.
4) Confirm that electrical capacity is sufficient.
5) See to that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
6) Confirm that the cable thickness is as specified in the power source specification.
(Particularly note the relation between cable length and thickness. (Refer to page 24))
7) Always install an earth leakage circuit breaker in a wet or moist area.
8) The following would be caused by voltage drop.
- Vibration of a magnetic switch, which will damage the contact point, fuse breaking, disturbance of the normal function of the overload.

9) The means for disconnection from a power supply shall be incorporated in the fixed wiring and have an air gap contact separation of at least 3mm in each active(phase) conductors.

Checking the Drainage

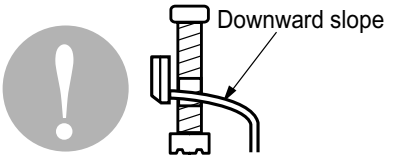
1. Checking the drainage.

- Pour a glass of water on the evaporator.
- Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.

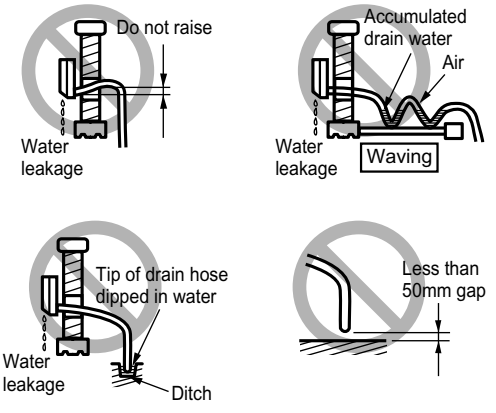


2. Drain piping

- The drain hose should point downward for easy drain flow.



- Do not make drain piping like the following.



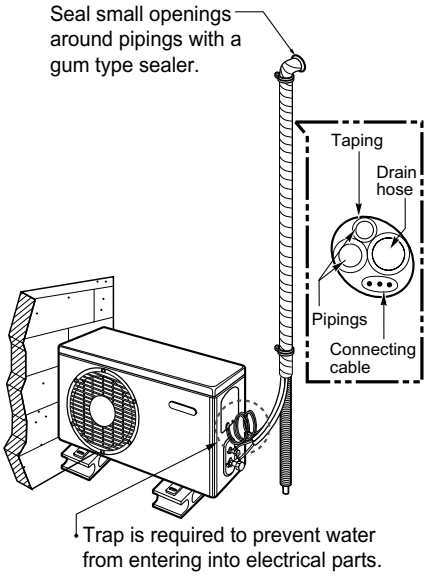
Forming the Piping

1. Form the piping by wrapping the connecting portion of the indoor unit with insulation material and secure it with two kinds of vinyl tapes.

- If you want to connect an additional drain hose, the end of the drain outlet should be routed above the ground. Secure the drain hose appropriately.

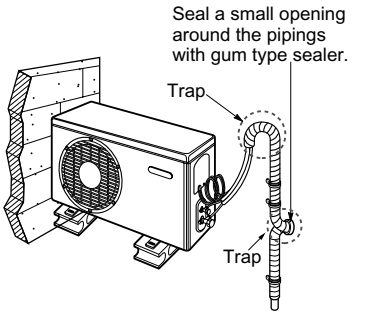
2. In cases where the outdoor unit is installed below the indoor unit perform the following.

- Tape the piping, drain hose and connecting cable from down to up.
- Secure the tapped piping along the exterior wall using saddle or equivalent.



3. In cases where the Outdoor unit is installed above the Indoor unit perform the following.

- Tape the piping and connecting cable from down to up.
- Secure the taped piping along the exterior wall. Form a trap to prevent water entering the room.
- Fix the piping onto the wall by saddle or equivalent.



Air Purging

Air and moisture remaining in the refrigerant system have undesirable effects as indicated below.

- Pressure in the system rises.
- Operating current rises.
- Cooling(or heating) efficiency drops.
- Moisture in the refrigerant circuit may freeze and block capillary tubing.
- Water may lead to corrosion of parts in the refrigeration system.

Therefore, the refrigerant system must be leak tested and evacuated to remove any noncondensables and moisture from the system.

Air Purging with Vacuum Pump

1. Preparation

- Check that each tube(both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed. Remove the service valve caps from both the gas and the liquid side on the outdoor unit. Note that both the liquid and the gas side service valves on the outdoor unit are kept closed at this stage.

2. Leak test

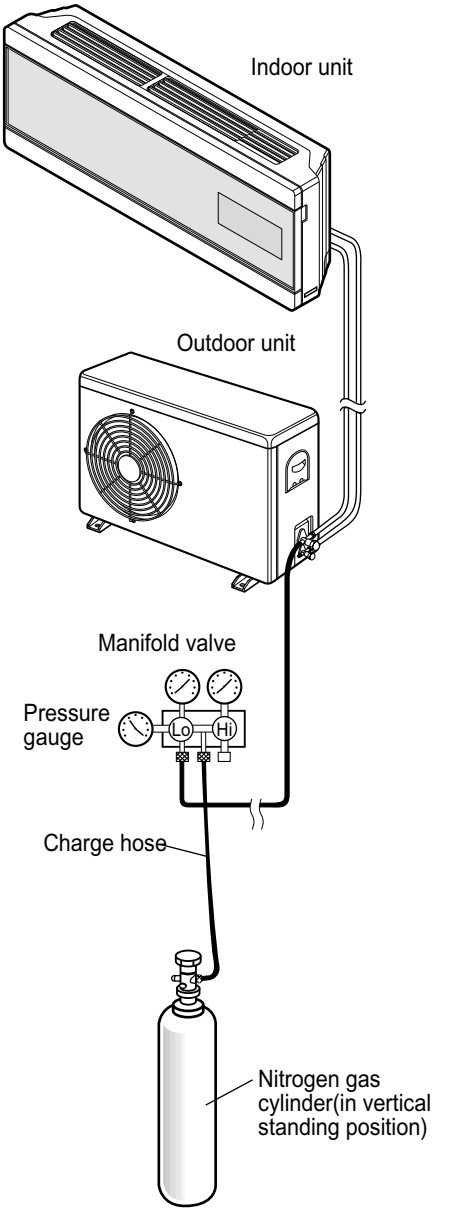
- Connect the manifold valve(with pressure gauges) and dry nitrogen gas cylinder to this service port with charge hoses.

CAUTION: Be sure to use a manifold valve for air purging. If it is not available, use a stop valve for this purpose. The "Hi" knob of the manifold valve must always be kept close.

- Pressurize the system to no more than 150 P.S.I.G. with dry nitrogen gas and close the cylinder valve when the gauge reading reached 150 P.S.I.G. Next, test for leaks with liquid soap.

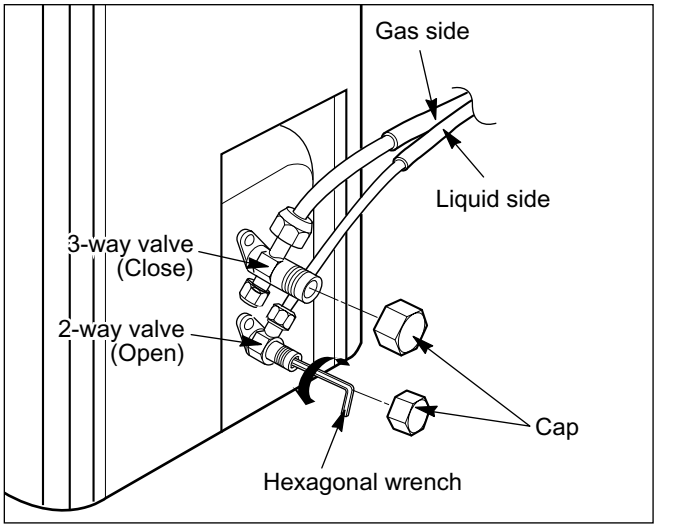
CAUTION: To avoid nitrogen entering the refrigerant system in a liquid state, the top of the cylinder must be higher than its bottom when you pressurize the system. Usually, the cylinder is used in a vertical standing position.

- Do a leak test of all joints of the tubing(both indoor and outdoor) and both gas and liquid side service valves.
  Bubbles indicate a leak. Be sure to wipe off the soap with a clean cloth.
- After the system is found to be free of leaks, relieve the nitrogen pressure by loosening the charge hose connector at the nitrogen cylinder. When the system pressure is reduced to normal, disconnect the hose from the cylinder.



Soap water method

(1) Remove the caps from the 2-way and 3-way valves.
(2) Remove the service-port cap from the 3-way valve.
(3) To open the 2-way valve turn the valve stem counterclockwise approximately 90°, wait for about 2~3 sec, and close it.
(4) Apply a soap water or a liquid neutral detergent on the indoor unit connection or outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping.
(5) If bubbles come out, the pipes have leakage.

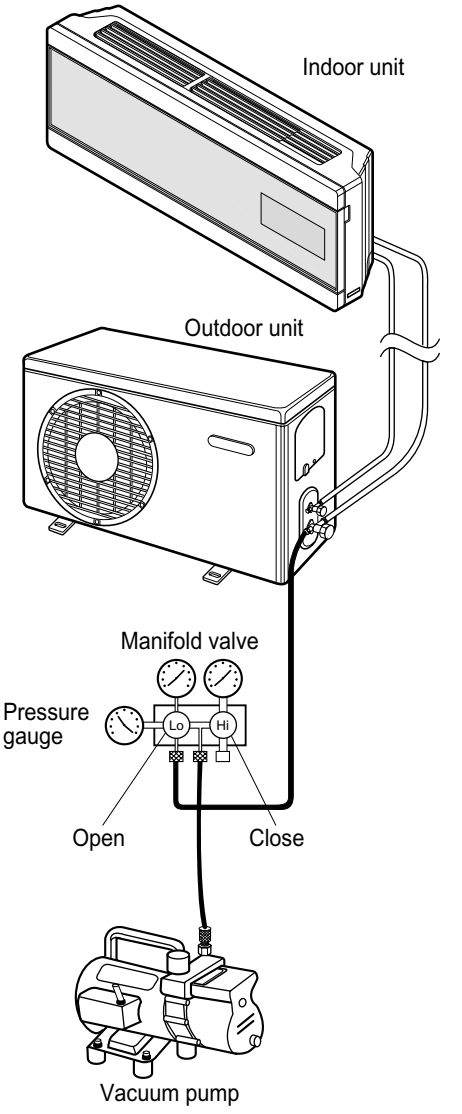


3. Evacuation

- Connect the charge hose end described in the preceding steps to the vacuum pump to evacuate the tubing and indoor unit.
  Confirm the "Lo" knob of the manifold valve is open. Then, run the vacuum pump.
  The operation time for evacuation varies with tubing length and capacity of the pump. The following table shows the time required for evacuation.

Required time for evacuation when 30 gal/h vacuum pump is used	
If tubing length is less than 10m (33 ft)	if tubing length is longer than 10m (33 ft)
10 min. or more	15 min. or more

- When the desired vacuum is reached, close the "Lo" knob of the manifold valve and stop the vacuum pump.



4. Finishing the job

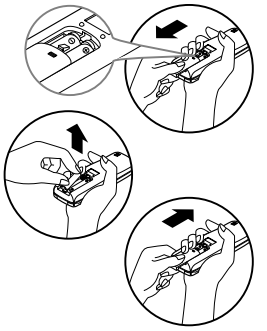
- With a service valve wrench, turn the valve stem of liquid side valve counter-clockwise to fully open the valve.
- Turn the valve stem of gas side valve counter-clockwise to fully open the valve.
- Loosen the charge hose connected to the gas side service port slightly to release the pressure, then remove the hose.
- Replace the flare nut and its bonnet on the gas side service port and fasten the flare nut securely with an adjustable wrench. This process is very important to prevent leakage from the system.
- Replace the valve caps at both gas and liquid side service valves and fasten them tight.

This completes air purging with a vacuum pump.
The air conditioner is now ready to test run.

Test Running

1. Check that all tubing and wiring have been properly connected.
2. Check that the gas and liquid side service valves are fully open.

Prepare remote controller

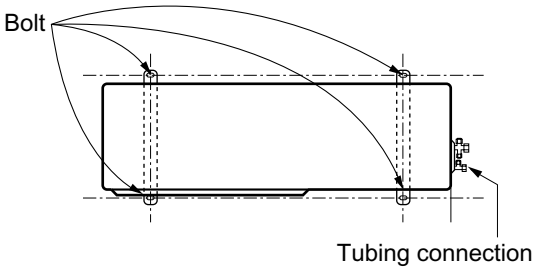


1. Remove the battery cover by pulling it according to the arrow direction.
2. Insert new batteries making sure that the (+) and (–) of battery are installed correctly.
3. Reattach the cover by pushing it back into position.

NOTICE
- Use 2 AAA(1.5volt) batteries. Do not use rechargeable batteries.
- Remove the batteries from the remote control if the system is not going to be used for a long time.

Settlement of outdoor unit

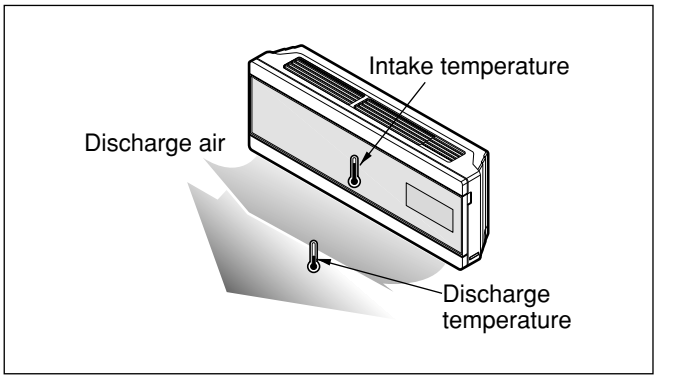
- Anchor the outdoor unit with a bolt and nut(ø10mm) tightly and horizontally on a concrete or rigid mount.
- When installing on the wall, roof or rooftop, anchor the mounting base securely with a nail or wire assuming the influence of wind and earthquake.
- In the case when the vibration of the unit is conveyed to the hose, secure the unit with an anti-vibration bushing.



Evaluation of the performance

Operate unit for 15~20 minutes, then check the system refrigerant charge:

1. Measure the pressure of the gas side service valve.
2. Measure the temperature of the intake and discharge of air.
3. Ensure the difference between the intake temperature and the discharge is more than 8°C(46°F) (Cooling) or (Heating).



4. For reference; the gas side pressure of optimum condition is as below.(Cooling)

Refrigerant	Outside ambient TEMP.	The pressure of the gas side service valve.
R-22	35°C (95°F)	4~5kg/cm²G(56.8~71.0 P.S.I.G.)
R-410A	35°C (95°F)	8.5~9.5kg/cm²G(120~135 P.S.I.G.)

NOTICE If the actual pressure is higher than shown, the system is most likely over-charged, and charge should be removed. If the actual pressure are lower than shown, the system is most likely undercharged, and charge should be added.

The air conditioner is now ready for use.

PUMP DOWN

This is performed when the unit is to be relocated or the refrigerant circuit is serviced.

Pump Down means collecting all refrigerant in the outdoor unit without loss in refrigerant gas.

CAUTION:

Be sure to perform Pump Down procedure with the unit cooling mode.

Pump Down Procedure

1. Connect a low-pressure gauge manifold hose to the charge port on the gas side service valve.
2. Open the gas side service valve halfway and purge the air from the manifold hose using the refrigerant gas.
3. Close the liquid side service valve(all the way in).
4. Turn on the unit's operating switch and start the cooling operation.
5. When the low-pressure gauge reading becomes 1 to 0.5kg/cm2 G(14.2 to 7.1 P.S.I.G.), fully close the gas side valve stem and then quickly turn off the unit. At that time, Pump Down has been completed and all refrigerant gas will have been collected in the outdoor unit.

Operation

Function of Controls

DISPLAY

1) C/O Model (high quality LCD remote controller supplied)

Operation Indicator
- On while in appliance operation, off while in appliance pause

Timer Indicator
- On while in timer mode (on/off) and in sleep timer mode, off when timer mode is completed or canceled.

Comp. Running Indicator
- While in appliance operation, on while in outdoor unit compressor running, off while in compressor off

Plasma Indicator
- On while in plasma mode, off while plasma mode is canceled.

Auto restart Indicator
- On while auto restart mode, off while auto restart mode is canceled.

Auto restart
- In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.
  If your want to use this operation, press the Auto Restart Button.

Power(Forced Operation)
- Operation starts, when this button is pressed and stops when you press the button again.

2) H/P Model (high quality LCD remote controller supplied)

Operation Indicator
- On while in appliance operation, off while in appliance pause

Timer Indicator
- On while in timer mode (on/off) and in sleep timer mode, off when timer mode is completed or canceled

Defrost Indicator
- Off except when hot start during heating mode operation or while in defrost control.

Plasma Indicator
- On while in plasma mode, off while plasma mode is canceled.

Auto restart Indicator
- On while auto restart mode, off while auto restart mode is canceled.

Auto restart
- In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.
  If your want to use this operation, press the Auto Restart Button.

Power(Forced Operation)
- Operation starts, when this button is pressed and stops when you press the button again.

■ Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temp, the compressor and the outdoor fan stop.
- When it reaches 0.5°C above the setting temp, they start to operate again.

  Compressor ON Temp=> Setting Temp+0.5°C

  Compressor OFF Temp => Setting Temp-0.5°C
- While in compressor running, operating with the airflow speed set by the remote controller. While in compressor not running, operating with the low airflow speed regardless of the setting.

■ Healthy Dehumidification Mode

- When the dehumidification operation input by the remote controller is received, the intake air temperature is detected and the setting temp is automatically set according to the intake air temperature.

  26°C ≤ Intake Air Temp => 25°C

  24°C ≤ Intake Air Temp < 26°C => Intake Air Temp-1°C

  18°C ≤ Intake Air Temp < 24°C => Intake Air Temp-0.5°C

  Intake Air Temp < 18°C => 18°C
- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temp is between compressor on temp. and compressor off temp., 10-min dehumidification operation and 4-min compressor off repeat

  Compressor ON Temp. => Setting Temp+0.5°C

  Compressor OFF Temp. => Setting Temp-0.5°C
- In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

■ Heating Mode Operation

- When the intake air temp reaches +3°Cabove the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

  Compressor ON Temp. => Setting Temp.

  Compressor OFF Temp. => Setting Temp.+3°C
- While in compressor on, the indoor fan is off when the indoor pipe temp. is below 26®¨C , when above 28°C , it operates with the low or setting airflow speed (while in sleep mode, with the medium airflow speed).
- While in compressor off, the indoor fan is off when the indoor pipe temp is below 33°C , when above 35°C , it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temp.
- While in defrost control, both of the indoor and outdoor fans are turned off.

■ Defrost Control

- While in heating mode operation in order to protect the evaporator pipe of outdoor unit from freezing, reversed to cooling cycle to defrost the evaporator pipe of the outdoor unit.
- Defrost control is available 30 minutes later since heating mode operation started, and it will not prolong over 6 minutes.
- Deicing starts only when the outdoor pipe temperature falls below -6°C after 30 minutes passed from starting of heating operating and more than 10 minutes operation of compressor.
- Deicing ends after 6 minutes passed from starting of deice operation or when the outdoor pipe temperature rises over 12°C even if before 6 minutes.

■ Fuzzy Operation (C/O Model)

- According to the temperature set by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

  Compressor ON Temp => Setting Temp+0.5°C

  Compressor OFF Temp => Setting Temp+0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

26°C ≤ Intake Air Temp => 25°C

24°C ≤ Intake Air Temp<26°C => Intake Air Temp+1°C

22°C ≤ Intake Air Temp<24°C => Intake Air Temp+0.5°C

18°C ≤ Intake Air Temp<22°C => Intake Air Temp

Intake Air Temp<18°C => 18°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature

■ Fuzzy Operation (H/P Model)

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temp at that moment as follows.

  24°C ≤ Inatake Air Temp => Fuzzy Operation for Cooling

  21°C ≤ Inatake Air Temp<24°C => Fuzzy Operation for Dehumidification

  Inatake Air Temp<21°C => Fuzzy Operation for Heating
- If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

1) Fuzzy Operation for Cooling

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

  Compressor ON Temp => Setting Temp+0.5°C

  Compressor OFF Temp => Setting Temp+0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

  26°C ≤ Intake Air Temp => 25°C

  24°C ≤ Intake Air Temp<26°C => Intake Air Temp+1°C

  22°C ≤ Intake Air Temp<24°C => Intake Air Temp+0.5°C

  18°C ≤ Intake Air Temp<22°C => Intake Air Temp

  Intake Air Temp < 18°C => 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

2) Fuzzy Operation for Dehumidification

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

  Compressor ON Temp => Setting Temp+0.5°C

  Compressor OFF Temp => Setting Temp+0.5°C

- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

  26°C ≤ Intake Air Temp => 25°C

  24°C ≤ Intake Air Temp<26°C => Intake Air Temp+1°C

  22°C ≤ Intake Air Temp<24°C => Intake Air Temp+0.5°C

  18°C ≤ Intake Air Temp<22°C => Intake Air Temp

  Intake Air Temp < 18°C => 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

3) Fuzzy Operation for Heating

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 3°C or more above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

  Compressor ON Temp => Setting Temp
  Compressor OFF Temp => Setting Temp + 3°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.
  20°C ≤ Intake Air Temp => Intake Air Temp + 0.5°C
  Intake Air Temp < 20°C => 20°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

■ Airflow Speed Selection

- The airflow speed of the indoor fan is set to high, medium, low, or chaos by the input of the airflow speed selection key on the remote controller.

■ On-Timer Operation

- When the set time is reached after the time is input by the remote controller, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

■ Off-Timer Operation

- When the set time is reached after the time is input by the remote controller, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

■ Off-Timer <=> On-Timer Operation

• When the set time is reached after the on/off time is input by the remote controller, the on/off-timer operation is carried out according to the set time.

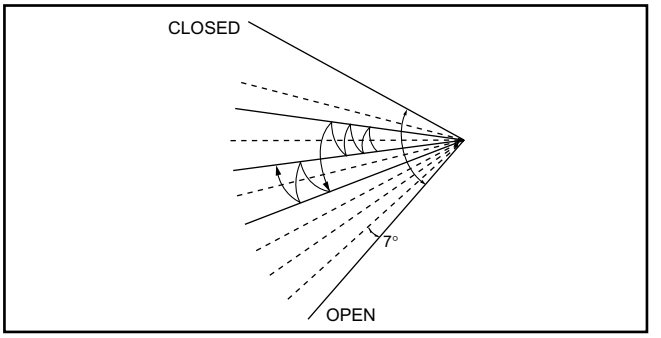
■ Sleep Timer Operation

• When the sleep time is reached after <1,2,3,4,5,6,7,0(cancel) hr> is input by the remote controller while in appliance operation, the operation of the appliance stops.
• While the appliance is on pause, the sleep timer mode cannot be input.
• While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C After another 30 min elapse, it increases by 1°C again.
• When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low.
• When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

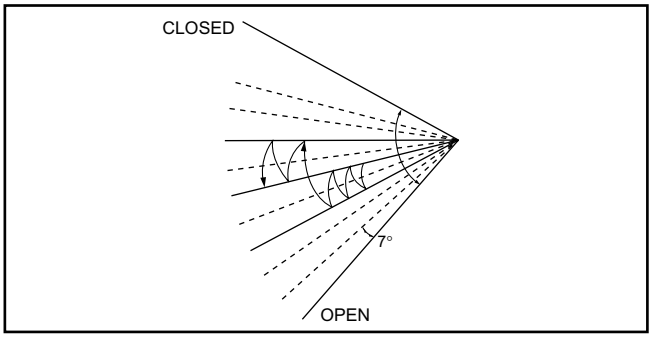
■ Chaos Swing Mode

• By the Chaos Swing key input, the vane automatically operates with the Chaos Swing or they are fixed to the desired direction.

< Cooling Mode >



< Heating Mode >



■ Chaos Natural Wind Mode

• When the Chaos Natural Wind mode is selected and then operated, the high, medium, or low speed of the air-flow mode is operated for 2~15 sec randomly by the Chaos Simulation."

■ Jet Cool Mode Operation (C/O Model)

• If the Jet Cool key is input at any operation mode while in appliance operation, the Jet Cool mode operates.
• In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
• In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C
• When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
• During the JET COOL function at any moment, the A/C starts to blow the cool air with side louvers closed at extremely high speed for 30 minutes setting the room temp. automatically to 18°C.

■ Jet Cool Mode Operation (H/P Model)

• While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated."
• In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
• In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C
• When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
• During the JET HEAT function at any moment, the A/C starts to blow the hot air with side louvers closed at extremely high speed for 60 minutes setting the room temp. automatically to 30°C.

■ Auto Restarting Operation

- When the power is restored after a sudden power failure while in appliance operation, the mode before the power failure is kept on the memory and the appliance automatically operates in the mode on the memory.
- Operation Mode that is kept on the memory
  - State of Operation ON/OFF
  - Operation Mode/Setting Temp/Selected Airflow Speed
  - Sleep Timer Mode/Remaining Time of Sleep Timer (unit of hour)

■ Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

	Cooling Model	Heat pump Model		
		Room Temp. ≥ 24°C	21°C ≤ Room Temp. < 24°C	Room Temp. < 21°C
Operating mode	Cooling	Cooling	Healthy Dehumidification	Heating
Indoor Fan Speed	High	High	High	High
Setting Temperature	22°C	22°C	23°C	24°C

- While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

■ Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets. If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

■ Protection of the evaporator pipe from frosting

- If the indoor pipe temp is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temp is 7°C or higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

■ Buzzer Sounding Operation

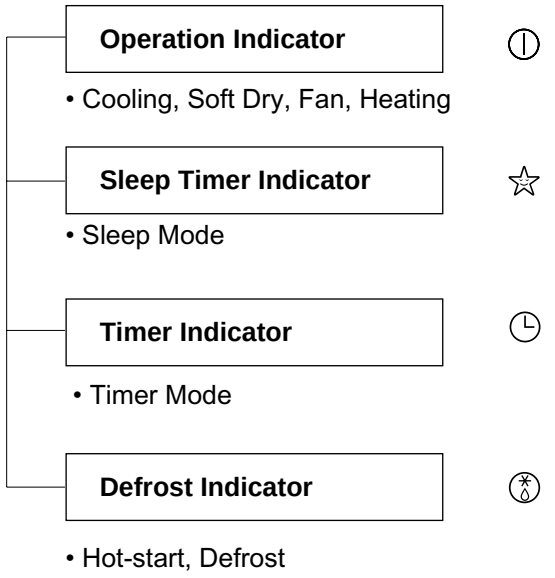
- When the appliance-operation key is input by the remote control, the short "beep-beep-" sounds.
- When the appliance-pause key is input by the remote control, the long "beep – beep" sounds.
- When a key is input by the remote control while the slide switch on the main unit of the appliance is on the forced operation position, the error sound "beep-beep-beep-beep-beep-" is made 10 times to indicate that the remote control signal cannot be received.

■ Air Cleaner Operation

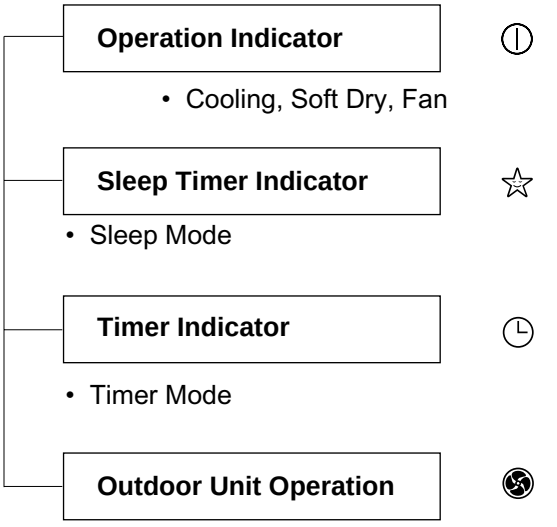
- When an air cleaner function is selected during Air Conditioner operation
  - Plasma air cleaner function will be operated while in any operation mode with selecting the function.
  - The function is to be stopped while it is operating with selecting the function.
- When an air cleaner function is selected during operation off
  - The function will be only operated.
- When inlet grille of air conditioner is opened during plasma operation, High Voltage Generator(H.V.B) is to be stopped. When inlet grille of air conditioner is closed during plasma operation, High Voltage Generator(H.V.B) will be operated again.

Display Function

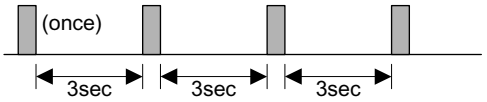
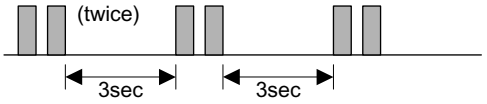
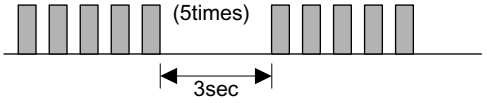
1. Heating Model



2. Cooling Model



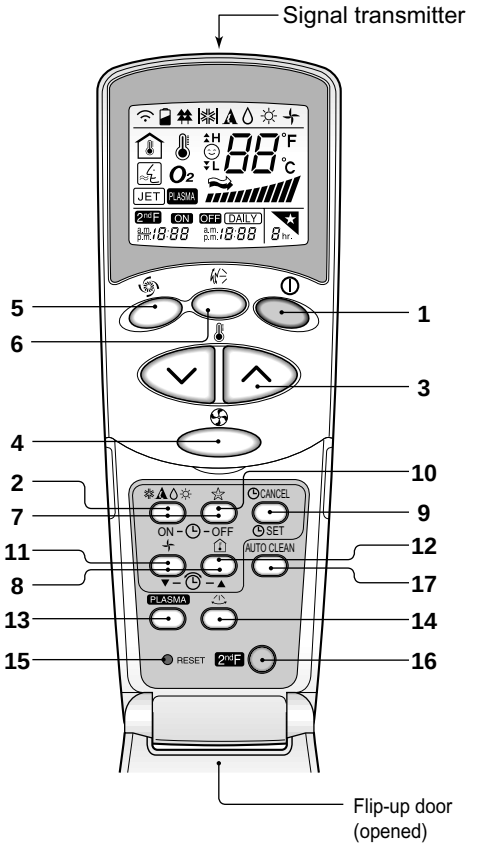
Self-diagnosis Function

Error Code	Error Display LED (Indoor body operation LED)	Error contents	SVC check point
1		• Indoor room temperature thermistor open/short • Indoor pipe temperature thermistor open/short.	• Indoor Thermistor assembly check
2		• Outdoor pipe temperature thermistor open/short.	• Outdoor Thermistor assembly check
5		• Poor communication.	• Communication line/circuit check

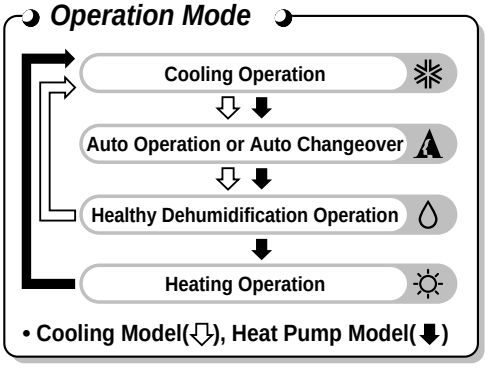
Remote Control Operations

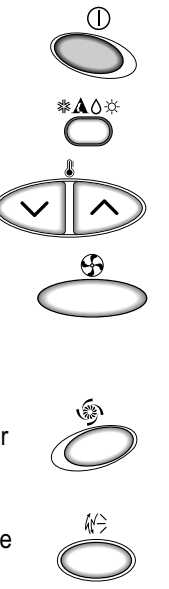
The controls will look like the following.

Controls



Operation Mode





1. START/STOP BUTTON
Operation starts when this button is pressed and stops when the button is pressed again.

2. OPERATION MODE SELECTION BUTTON
Used to select the operation mode.

3. ROOM TEMPERATURE SETTING BUTTONS
Used to select the room temperature.

4. INDOOR FAN SPEED SELECTOR
Used to select fan speed in four steps low, medium, high and CHAOS.

5. JET COOL/HEATING(OPTIONAL)
Used to start or stop the speed cooling. (Speed cooling/heating operates at super high fan speed in cooling/heating mode.)

6. CHAOS SWING BUTTON
Used to stop or start louver movement and set the desired up/down airflow direction.

7. ON/OFF TIMER BUTTONS
Used to set the time of starting and stopping operation.

8. TIME SETTING BUTTONS
Used to adjust the time.

9. TIMER SET/CANCEL BUTTON
Used to set the timer when the desired time is obtained and to cancel the Timer operation.

10. SLEEP MODE AUTO BUTTON
Used to set Sleep Mode Auto operation.

11. AIR CIRCULATION BUTTON
Used to circulate the room air without cooling or heating.

12. ROOM TEMPERATURE CHECKING BUTTON
Used to check the room temperature.

13. NANO PLASMA(OPTIONAL)
Used to start or stop the plasma-purification function.

14. HORIZONTAL AIRFLOW DIRECTION CONTROL BUTTON (OPTIONAL)
Used to set the desired horizontal airflow direction.

15. RESET BUTTON
Used prior to resetting time or after replacing batteries.

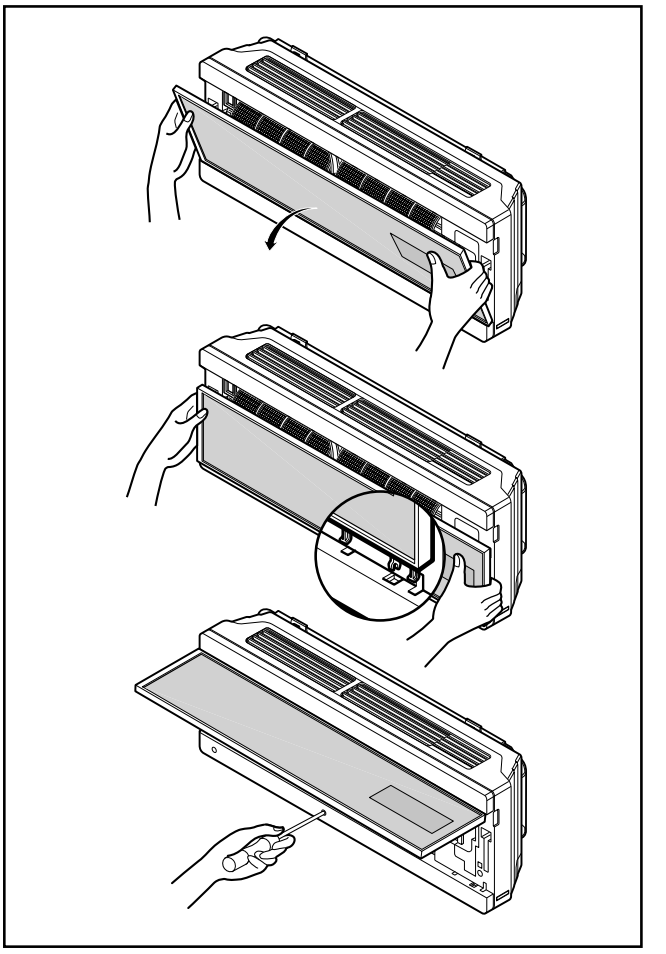
16. 2nd F Button
Used prior to using modes printed in blue at the bottom of buttons.

17. AUTO CLEAN(OPTIONAL)
Used to set Auto Clean mode.

Disassembly

Indoor Unit

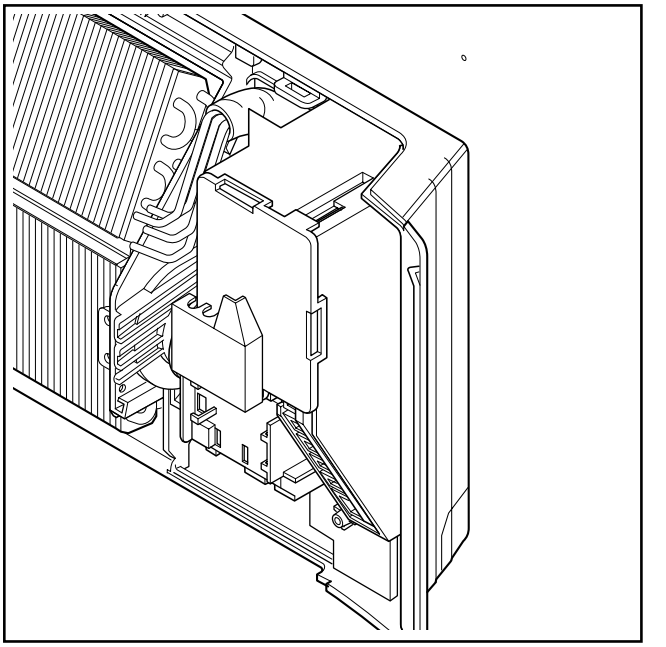
WARNING: Disconnect the unit from power supply before making any checks. Be sure the power switch is set to "OFF"



To remove the Grille from the Chassis.

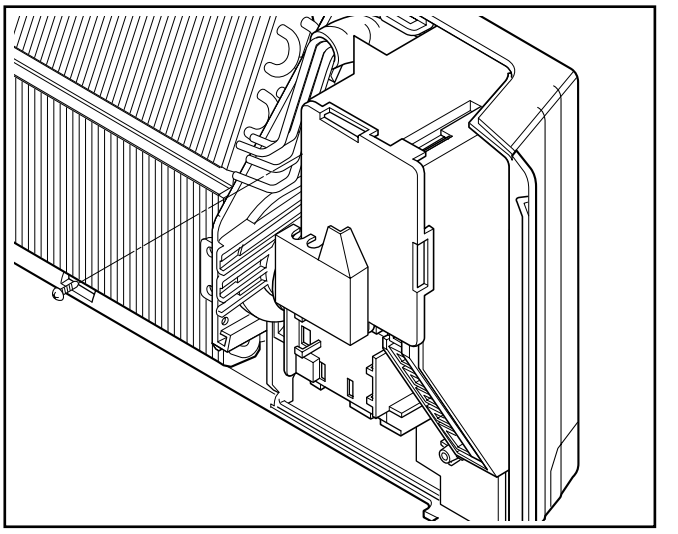
- Hold up Inlet Grille Horizentally.
- To remove the Grille, pull the lower left and right side of the grille toward you (slightly tilted) and lift it straight upward.
- To seperate connecter assembly and than to remove Inlet Grille assembly.

1. Before removing the control box, be sure to take out the wire screwed at the other end.



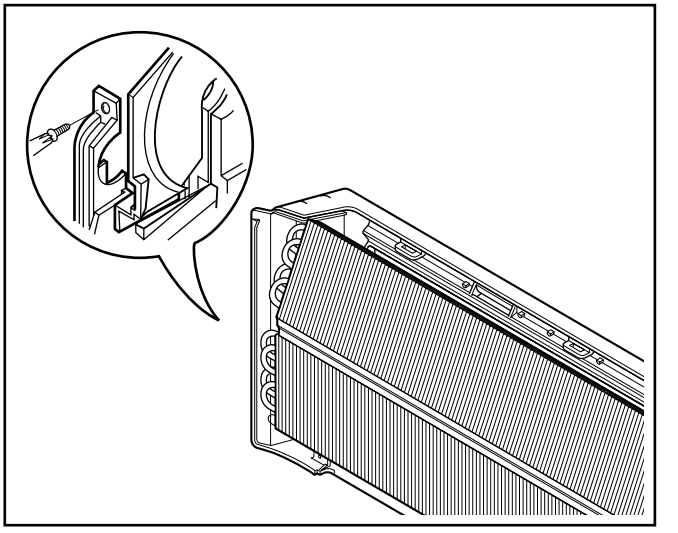
2. To remove the Control Box.

- Remove securing screws.
- Pull the control box out from the chassis carefully.



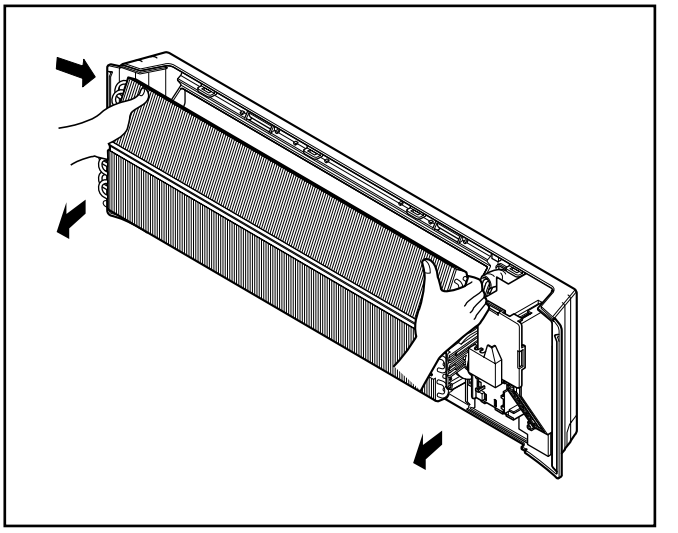
3. To remove the Discharge Grille.

- Unhook the discharge grille and pull the discharge grille out from the chassis carefully.

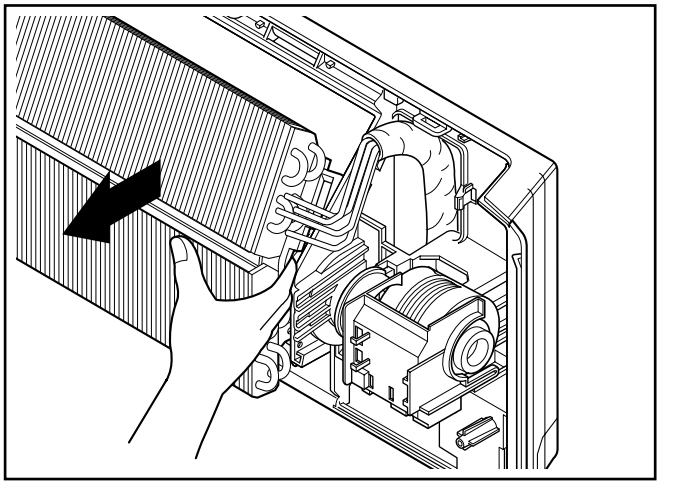


4. To remove the Evaporator.

- Remove 3 screws securing the evaporator(at the left 2EA in the Eva Holder, at the right 1EA).

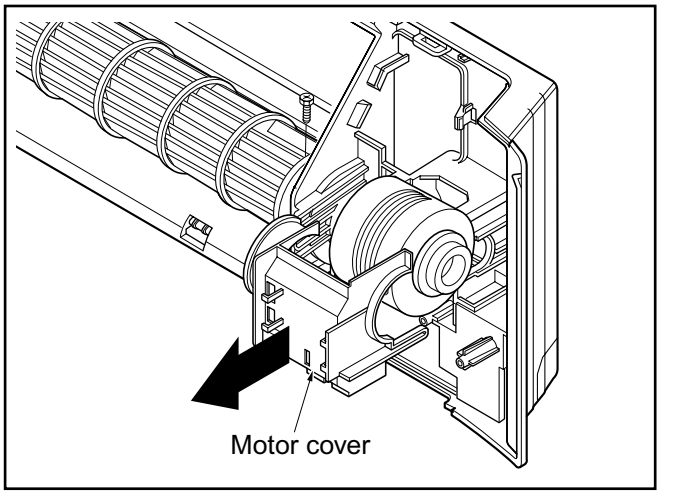


- Unhook the tab on the right inside of the chassis at the same time, slightly pull the evaporator toward you until the tab is clear of the slot.



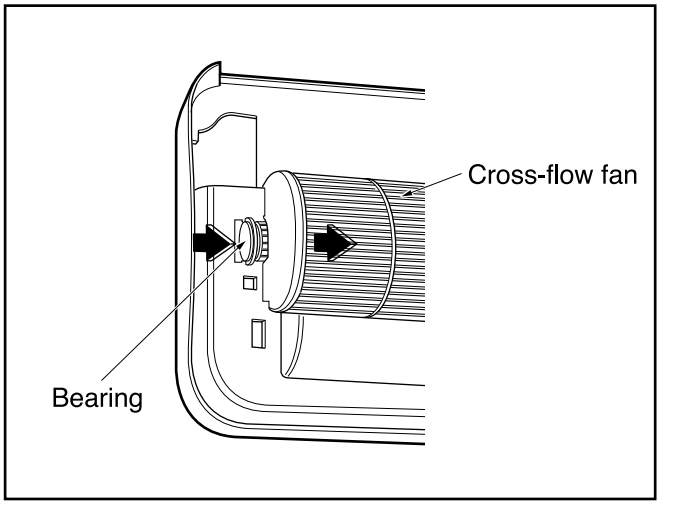
5. To remove the Motor Cover

- Remove 2 securing screw.
- Pull the motor cover out from the chassis carefully.



6. To remove the Cross-Flow Fan

- Loosen the screw securing the cross-flow fan to the fan motor (do not remove).
- Lift up the right side of the cross-flow fan and the fan motor, separate the fan motor from the cross-flow fan.

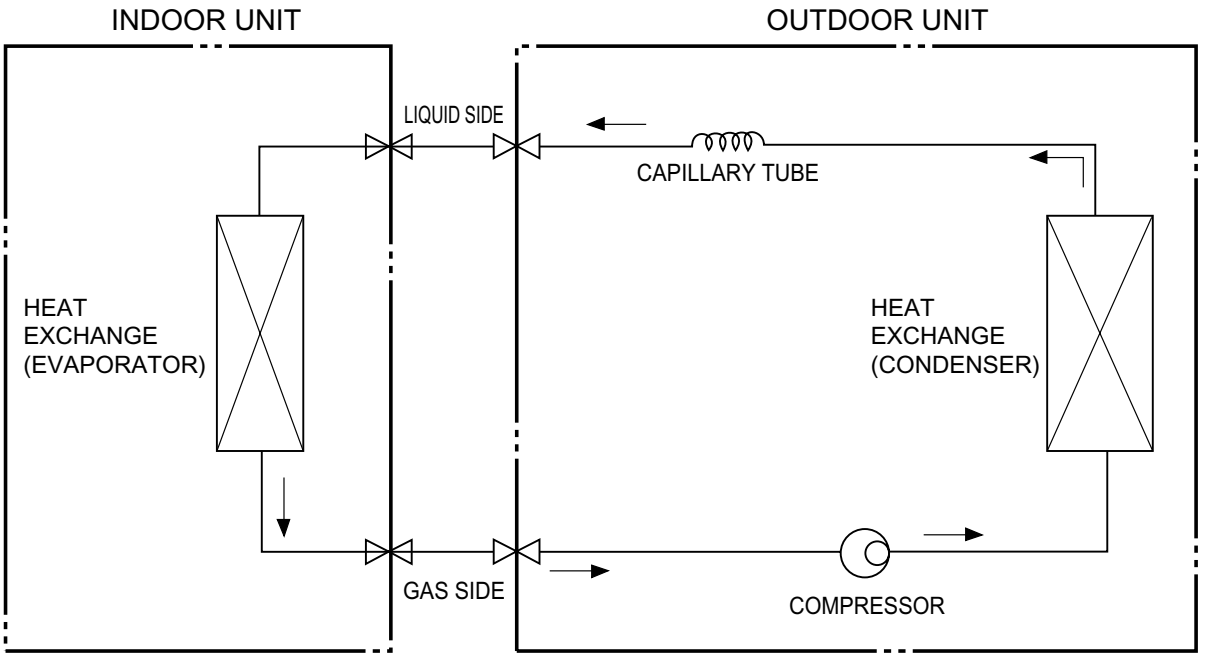


- Remove the left end of the cross-flow fan from the self-aligning bearing.

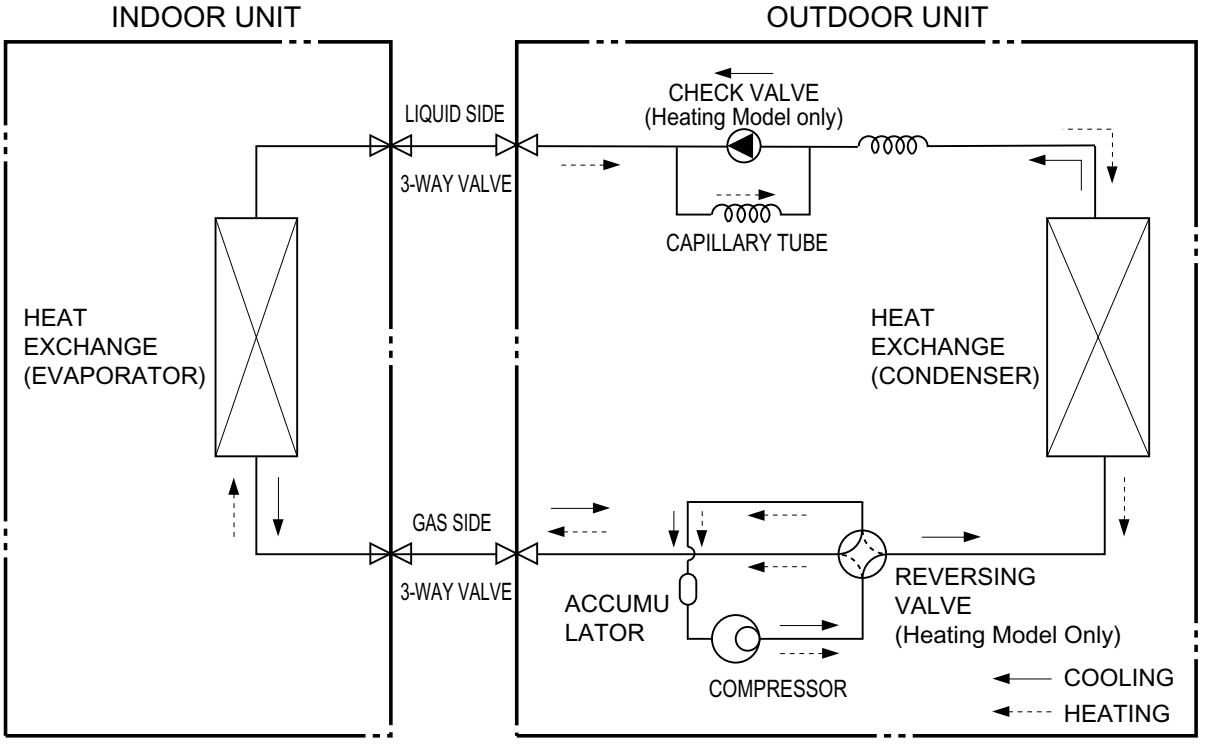
Troubleshooting Guide

Refrigeration Cycle Diagram

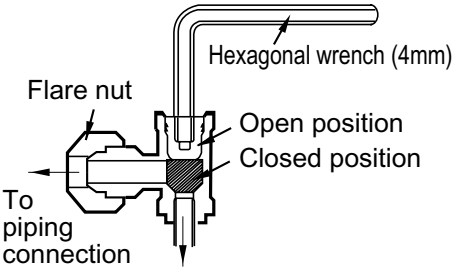
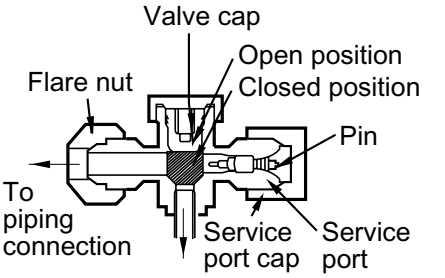
(1) Cooling Only Models



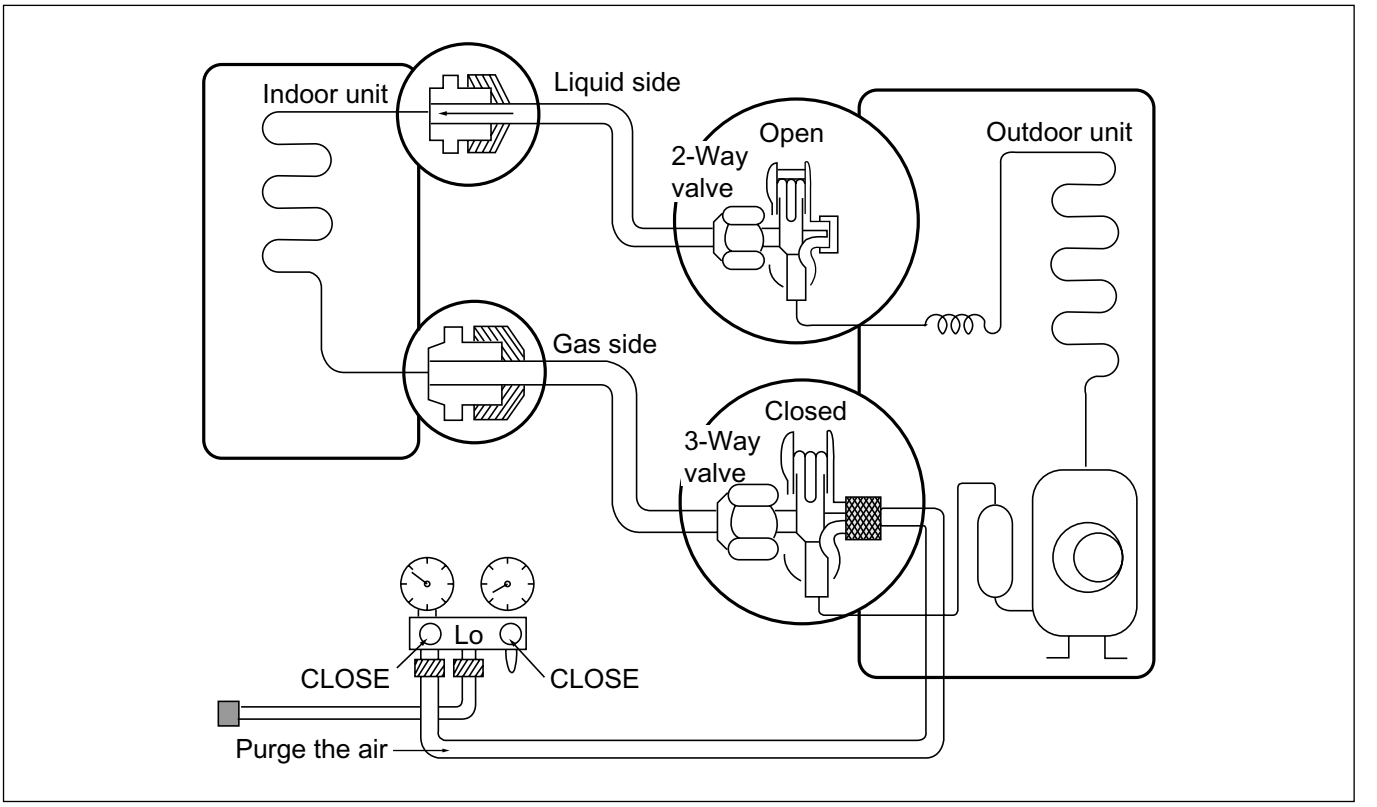
(2) Cooling & Heating Models



2-way, 3-way Valve

		2-way Valve (Liquid Side)	3-way Valve (Gas Side)	
		 To outdoor unit	 To outdoor unit	
	Works	Shift position	Shift position	Service port
	Shipping	Closed (with valve cap)	Closed (with valve cap)	Closed (with cap)
1.	Air purging (Installation)	Open (counter-clockwise)	Closed (clockwise)	Open (push-pin or with vacumm pump)
	Operation	Open (with valve cap)	Open (with valve cap)	Closed (with cap)
2.	Pumping down (Transfering)	Closed (clockwise)	Open (counter-clockwise)	Open (connected manifold gauge)
3.	Evacuation (Servicing)	Open	Open	Open (with charging cylinder)
4.	Gas charging (Servicing)	Open	Open	Open (with charging cylinder)
5.	Pressure check (Servicing)	Open	Open	Open (with charging cylinder)
6.	Gas releasing (Servicing)	Open	Open	Open (with charging cylinder)

Pumping Down



• Procedure

(1) Confirm that both the 2-way and 3-way valves are set to the open position.
- Remove the valve stem caps and confirm that the valve stems are in the raised position.
- Be sure to use a hexagonal wrench to operate the valve stems.

(2) Operate the unit for 10 to 15 minutes.

(3) Stop operation and wait for 3 minutes, then connect the charge set to the service port of the 3-way valve.
- Connect the charge hose with the push pin to the service port.

(4) Air purging of the charge hose.
- Open the low-pressure valve on the charge set slightly to air purge from the charge hose.

(5) Set the 2-way valve to the closed position.

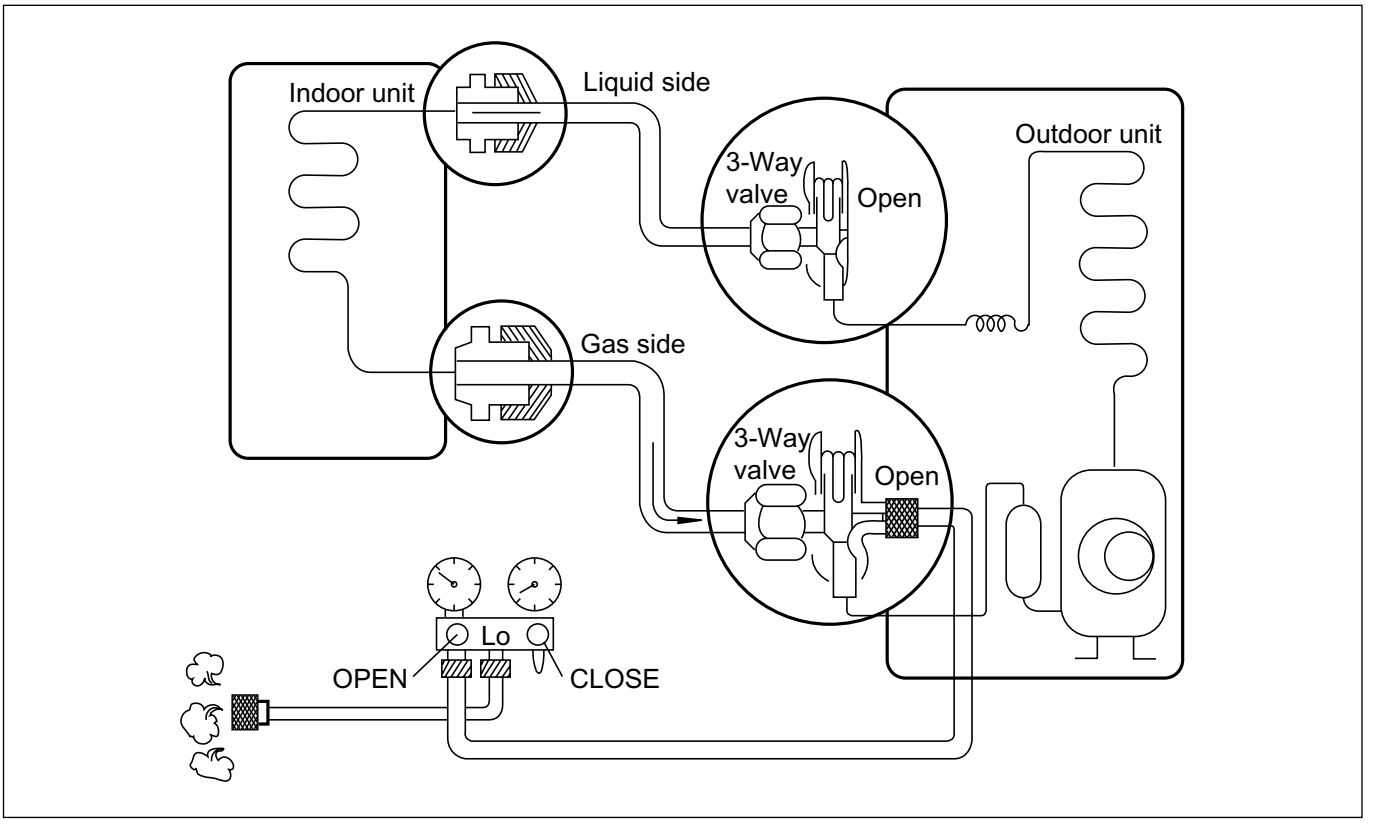
(6) Operate the air conditioner at the cooling cycle and stop it when the gauge indicates 1kg/cm²g.

(7) Immediately set the 3-way valve to the closed position.
- Do this quickly so that the gauge ends up indicating 3 to 5kg/cm²g.

(8) Disconnect the charge set, and mount the 2-way and 3-way valve's stem nuts and the service port nut.
- Use torque wrench to tighten the service port nut to a torque of 1.8 kg.m.
- Be sure to check for gas leakage.

Balance Refrigerant of the 3-way Valve

(Gas leakage)



• Procedure

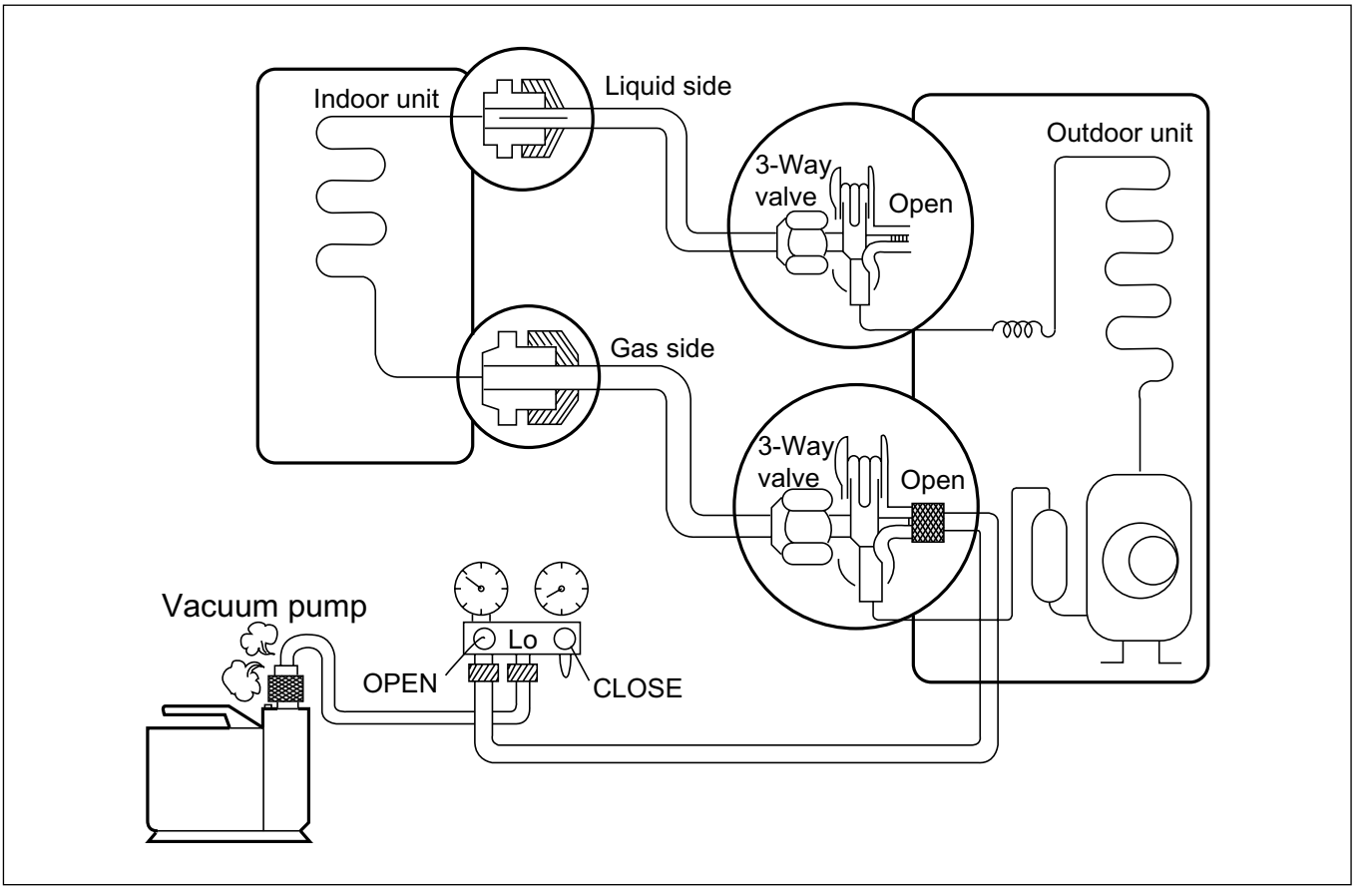
(1) Confirm that both the 2-way and 3-way valves are set to the back seat.

(2) Connect the charge set to the 3-way valve's port.
- Leave the valve on the charge set closed.
- Connect the charge hose to the service port.

(3) Open the valve (Lo side) on the charge set and discharge the refrigerant until the gauge indicates 0 kg/cm²G.
- If there is no air in the refrigerant cycle (the pressure when the air conditioner is not running is higher than 1 kg/cm²G), discharge the refrigerant until the gauge indicates 0.5 to 1 kg/cm²G. if this is the case, it will not be necessary to apply a evacuatin.
- Discharge the refrigerant gradually; if it is discharged too suddenly, the refrigeration oil will also be discharged.

Evacuation

(All amount of refrigerant leaked)



• Procedure

(1) Connect the vacuum pump to the center hose of charge set center hose

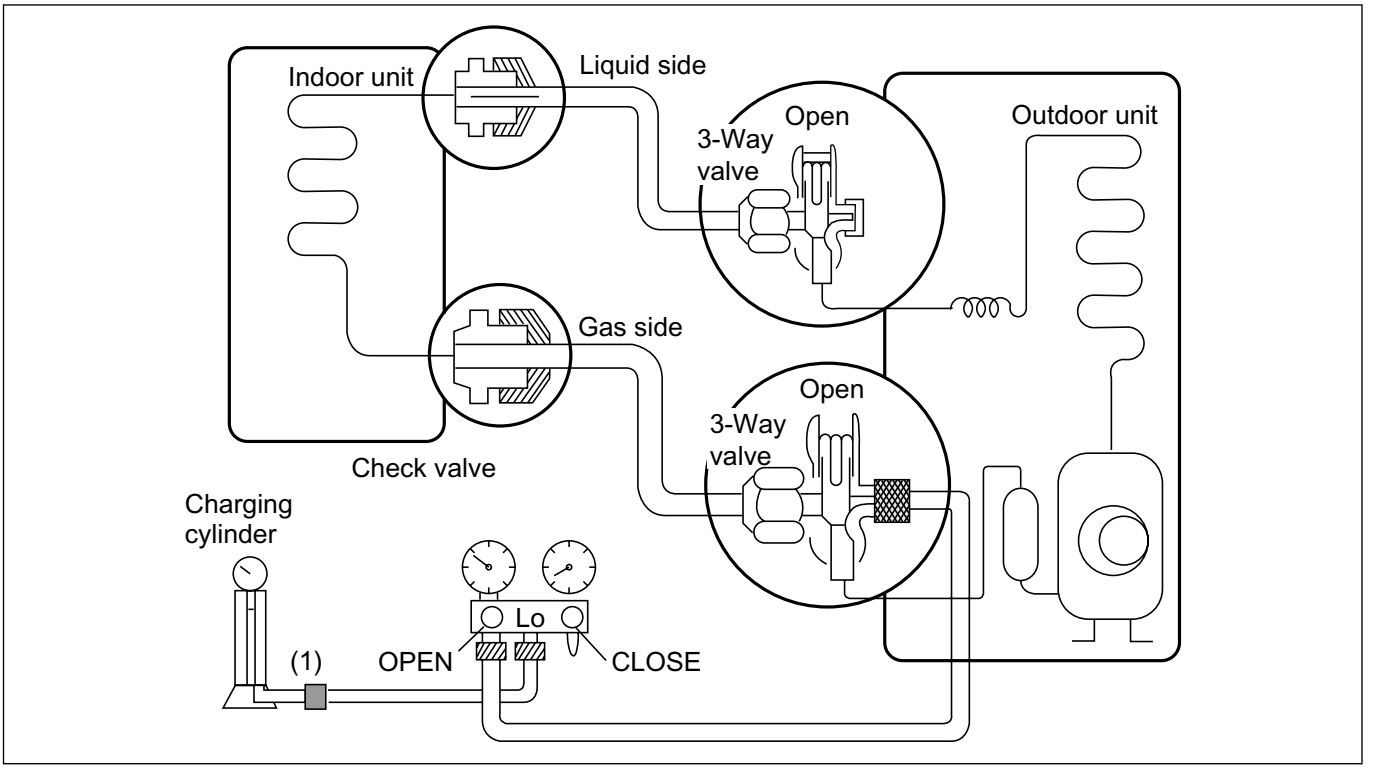
(2) Evacuation for approximately one hour.
– Confirm that the gauge needle has moved toward -76 cmHg (vacuum of 4 mmHg or less).

(3) Close the valve (Lo side) on the charge set, turn off the vacuum pump, and confirm that the gauge needle does not move (approximately 5 minutes after turning off the vacuum pump).

(4) Disconnect the charge hose from the vacuum pump.
– Vacuum pump oil.
If the vacuum pump oil becomes dirty or depleted, replenish as needed.

Gas Charging

(After Evacuation)



• Procedure

(1) Connect the charge hose to the charging cylinder.
- – Connect the charge hose which you dis-connected from the vacuum pump to the valve at the bottom of the cylinder.
- – If you are using a gas cylinder, also use a scale and reverse the cylinder so that the system can be charged with liquid.

(2) Purge the air from the charge hose.
- – Open the valve at the bottom of the cylinder and press the check valve on the charge set to purge the air. (Be careful of the liquid refrigerant). The procedure is the same if using a gas cylinder.

(3) Open the valve (Lo side on the charge set and charge the system with liquid refrigerant.
- – If the system can not be charged with the specified amount of refrigerant, it can be charged with a little at a time (approximately 150g each time) while operating the air conditioner in the cooling cycle; however, one time is not sufficient, wait approximately 1 minute and then repeat the procedure (pumping down-pin).

This is different from previous procedures. Because you are charging with liquid refrigerant from the gas side, absolutely do not attempt to charge with larger amounts of liquid refrigerant while operating the air conditioner.

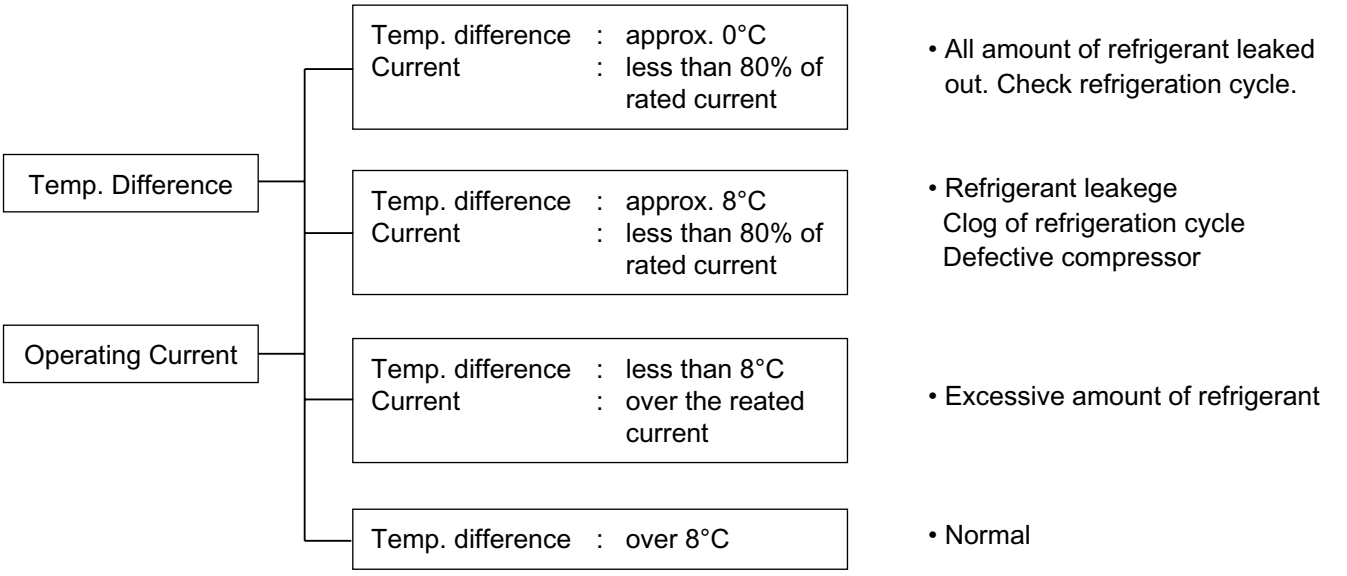
(4) Immediately disconnect the charge hose from the 3-way valve's service port.
- – Stopping partway will allow the gas to be discharged.
- – If the system has been charged with liquid refrigerant while operating the air conditioner turn off the air conditioner before disconnecting the hose.

(5) Mount the valve stem nuts and the service port nut.
- – Use torque wrench to tighten the service port nut to a torque of 1.8 kg.m.
- – Be sure to check for gas leakage.

Cycle Parts

Trouble analysis

1. Check temperature difference between intake and discharge air and operating current.



NOTICE

Temperature difference between intake and discharge air depends on room air humidity. When the room air humidity is relativery higher, temperature difference is smaller. When the room air humidity is relatively lower temperature difference is larger.

2. Check temperature and pressure of refrigeration cycle.

Suction pressure (Compared with the normal value)	Temperature (Compared with the normal valve)	Cause of Trouble	Description
Higher	High	Defective compressor Defective 4-way reverse valve	Current is low.
	Normal	Excessive amount of refrigerant	High pressure does not quickly rise at the beginning of operation.
Lower	Higher	Insufficient amount of refrigerant (Leakage) Clogging	Current is low. Current is low.

NOTICE

1. The suction pressure is usually 4.5~6.0 kg/cm^{2}G(Cooling) at normal condition.
2. The temperature can be measured by attaching the thermometer to the low pressure tubing and wrap it with putty.

Electronic Parts

Product does not operate at all.

(* Refer to Electronic Control Device drawing and Schematic diagram.)

Turn off Main Power

(After 10 seconds)

Turn on Main Power

Does "beeping" sound is made from the Indoor Unit?

NO

Check the voltage of power(About AC 220V, 60Hz)
(About AC 220/240V, 50Hz)

- Main power's voltage
- Voltage applied to the unit
- Connecting method of Indoor/Outdoor connecting cable
- Check PWB Assembly
  - Fuse
  - Pattern damage
  - Varistor(ZNR01N)

Check the connection housing for contacting

- Connector related to CN-POWER1, 2
- Connector related to CN-MOTOR
- Connector contacting of Outdoor Fan/Compressor
- Display PWB Assembly Check

YES

Primarily, the operating condition of Micom is OK.

Check each load(Indoor/Outdoor Fan Motor, Compressor, Stepping Motor) and contacting condition of related connector

Main PCB Board Operation Check		
Items	Content	Remedy
• SMPS Transformer (Indoor unit) - Input Voltage - Output Voltage	- About AC220V/240V±10% - Check the power voltage - About DC12V	• Replace Trans
⇩ • IC04D(7805) Output	• DC +5V	• Replace IC04D
⇩ • IC01A(Reset IC) OSC01B(8MHz)	• Voltage of Micom No. 36, (DC +4.5V over) and Soldering condition.	• Replace faulty parts

The product does not operate with the remote controller.

Turn on Main Power

While the compressor has been stopped, the compressor does not operate owing to the delaying function for 3 minutes after stopped.

When the compressor stopped Indoor Fan is driven by a low speed. At this point the wind speed is not controlled by the remote controller. (When operated in the Sleeping Mode, the wind speed is set to the low speed by force.)

Cause by the remote control

When the mark( ) is displayed in LCD screen, replace battery.

Check the connecting circuit between the remote controller MICOM (No. ㉚) - R17(2Ω) - IR LED - TR - R16(2.2KΩ).

Caused by other parts except the remote control

Check the contact of CN-D1, 2 connector.

Check Display PWB Assembly
- Voltage between CN-D2 ⑧ - ⑨ : DC +5V

Check point

- Check the connecting circuit between PIN ① - R02L(1K) - C01L(680PF) - MICOM PIN ㊸
- Check Receiver Assembly

Compressor/Outdoor Fan are unable to drive.

Turn on Main Power

Operate "Cooling Mode(❋)" by setting the desired temperature of the remote controller is less than one of the indoor temperature by 1°C at least.

When in Air Circulation Mode, Compressor/Outdoor Fan is stopped.

Check the sensor for indoor temperature is attached as close as to be effected by the temperature of Heat Exchanger(EVA).

When the sensor circuit for indoor temperature and connector are in bad connection or are not engaged, Compressor/Outdoor Fan is stopped.

- Check R02H(12.1k), R04H(6.2k), Micom Pin ㉖, ㉗
- Check the indoor temperature sensor is disconnected or not(About 10kΩ / at 25°C).

Check Relay(RY - COMP) for driving compressor.

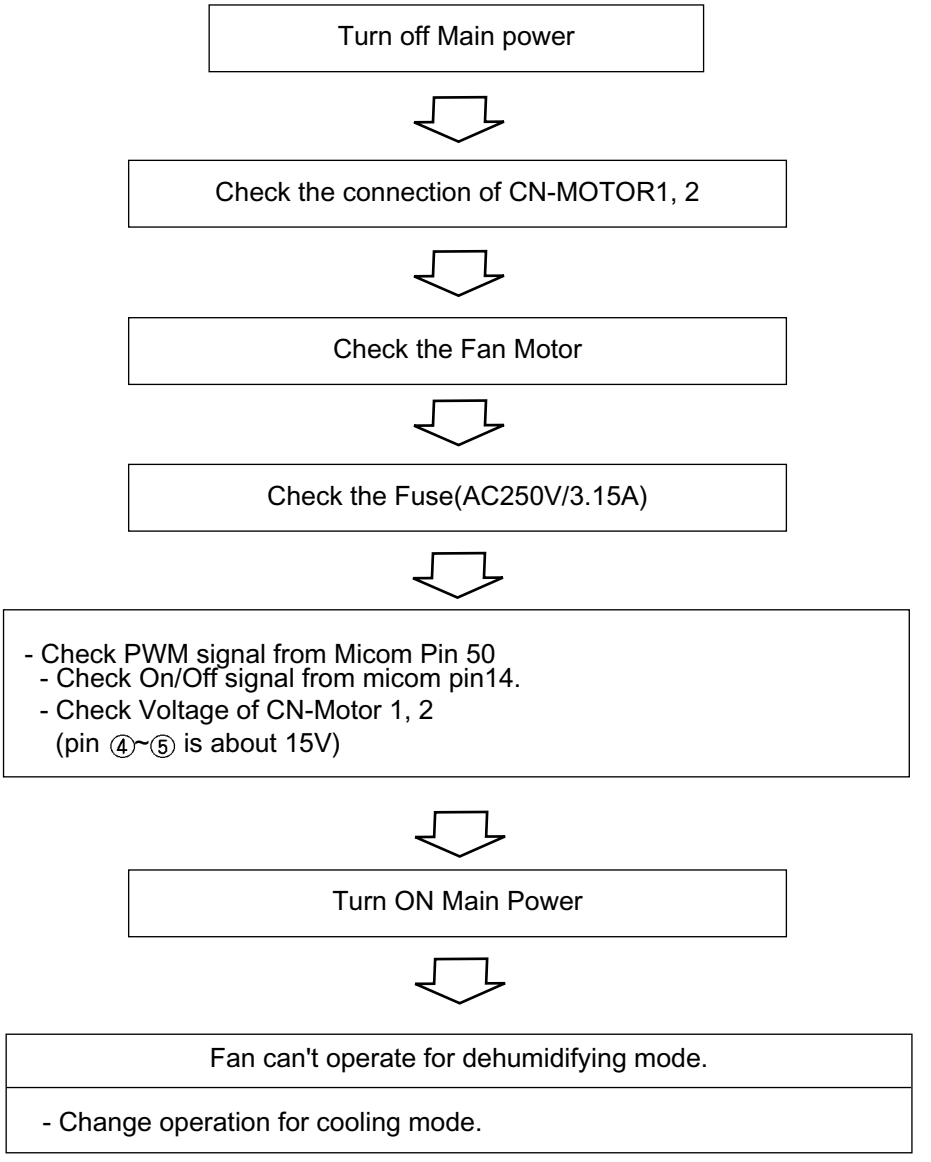
- When the power(About AC220V/240V) is applied to the connecting wire terminal support transferred to compressor, PWB Assembly is normal.
- Check the circuit related to the relay.

Check point	COMP ON	COMP OFF
Between Micom(No. 63) and GND	DC5V	DC0V
Between IC02M(No. 14) and GND	Below DC 1V (app)	About DC12V

Turn off Main Power

- Check the electrical wiring diagram of outdoor side.
- Check the abnormal condition for the component of Compressor/Outdoor Fan Motor.
- Check the "open" or "short" of conmecting wires between indoor and outdoor.

When Indoor Fan does not operate.



When Louvers do not operate.

- Confirm that the Louver is normally geared with the shaft of Stepping Motor.
- If the regular torque is detected when rotating the Louver with hands ⇒ Normal

⇩

- Check the connecting condition of CN-UD, LR1, LR2 Connector.
- Check the soldering condition(on PWB) of CN-UD LR1, LR2 Connector.

⇩

Check the operating circuit of the Louvers.

- Confirm that there is DC +12V between pin① of CN-UD and GND.
- Confirm that there is a soldering short at following terminals.
  - Between ㊺, ㊻, ㊼, ㊽, ㊿, (55), (56), (57), (59), (60), (61), (62) of MICOM
  - Between ④, ⑤, ⑥, ⑦, ⑩, ⑪, ⑫, ⑬ of IC02M
  - Between ③, ④, ⑤, ⑥, ⑪, ⑫, ⑬, ⑭ of IC03M
  - Between ②, ③, ④, ⑤, ⑫, ⑬, ⑭, ⑮ of IC04M
  - Between ②, ③, ④, ⑤ of CN-UD/LR1/LR2

⇩

If there are no problems after above checks

- Confirm the assembly conditions that are catching and interfering parts in the rotation radial of the Louvers.

When Heating does not operate

Turn ON Main Power

Operate “Heating Mode(☼)” by setting the desired temperature of the remote control is higher than one of the indoor temperature by 2°C at least.

In heating Mode, the indoor fan operates in case the pipe temperature is higher than 28°C.

Check the connector of intake and pipe sensor(thermistors)

- Check the related circuit of RY-4WAY
- Check the indoor room temperature is disconnected or not (about 10KΩ/at 25°C).
- Check the indoor pipe temperature is disconnected or not (about 5KΩ/at 25°C).

Check the DC voltage on the PWB ASSEMBLY

- The details of check are as followings

- Comp Relay.

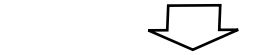
Check point	Comp ON	Comp OFF
Between Micom (NO.63) and GND	DC 5V	DC 0V
Between IC02M (NO.14) and GND	Below DC 1V	About DC 12V

- Outdoor fan Relay

Check point	Fan ON	Fan OFF
Between Micom (NO.53) and GND	DC 5V	DC 0V
Between IC03M (NO.11) and GND	Below DC 1V	About DC 12V

- 4 way Relay

Check point	4 way ON	4 way OFF
Between Micom (NO.51) and GND	DC 5V	DC 0V
Between IC03M (No.9) and GND	Below DC1V	About 12V

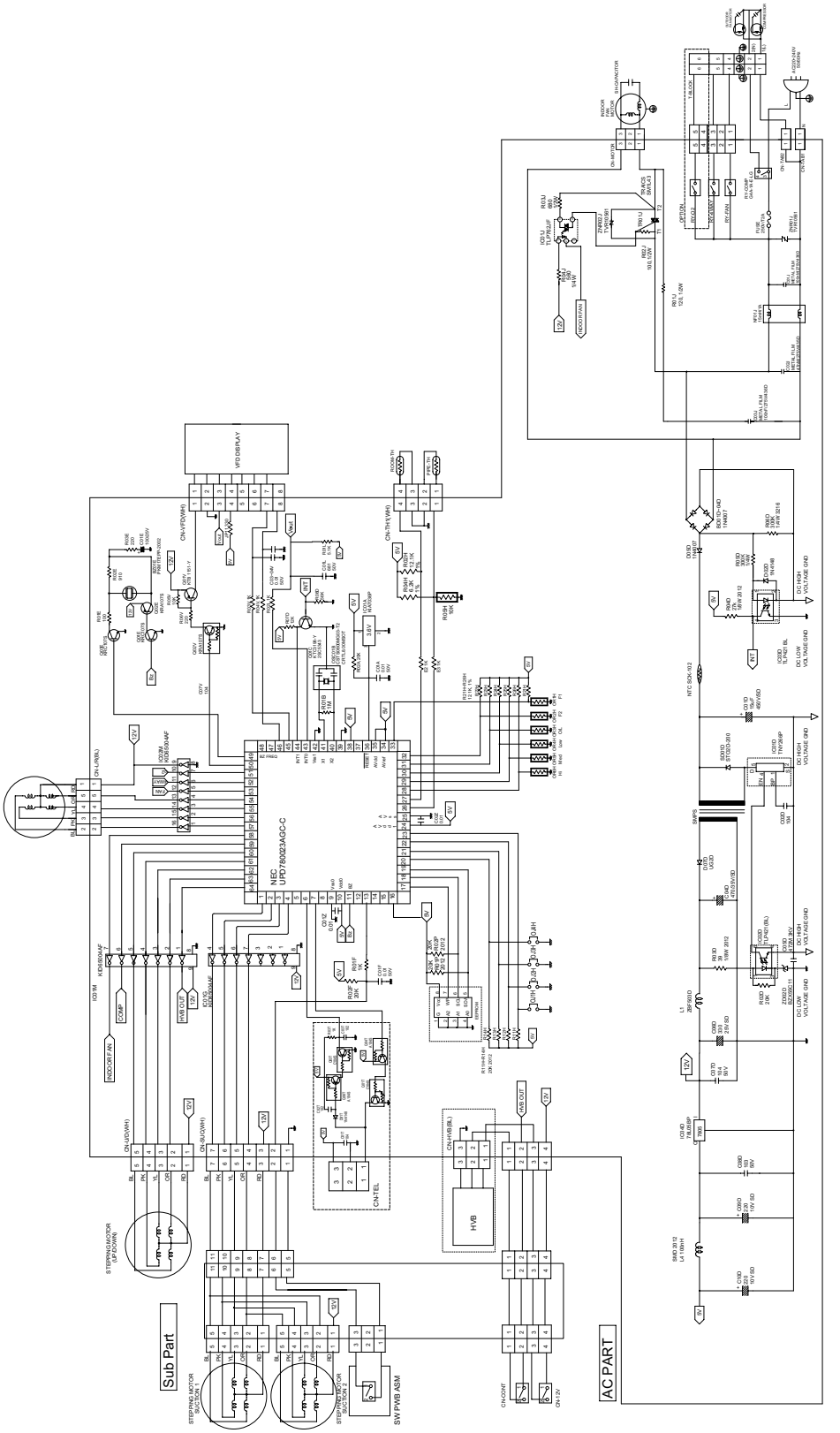


Turn off Main Power

- Check the electrical wiring diagram of outdoor side.
- Check the abnormal condition for the component of Compressor/Outdoor Fan Motor, 4 way.
- Check the "open" or "short" of connecting wires between indoor and outdoor.

Schematic Diagram

Electric Control Device

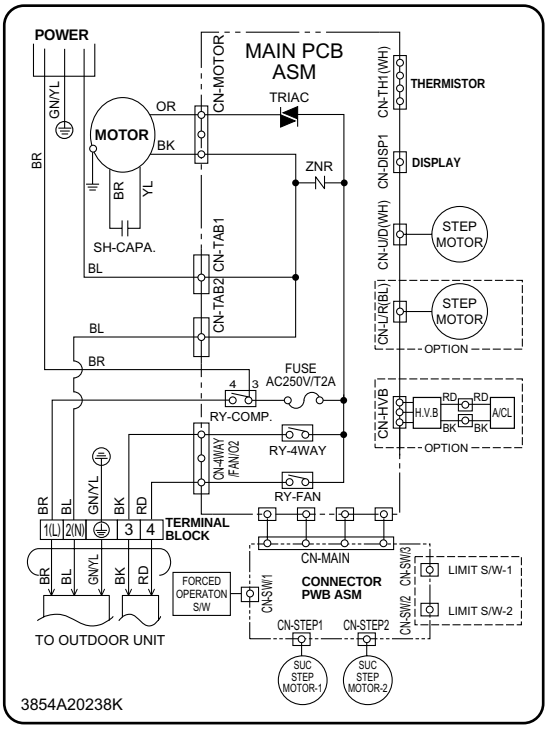


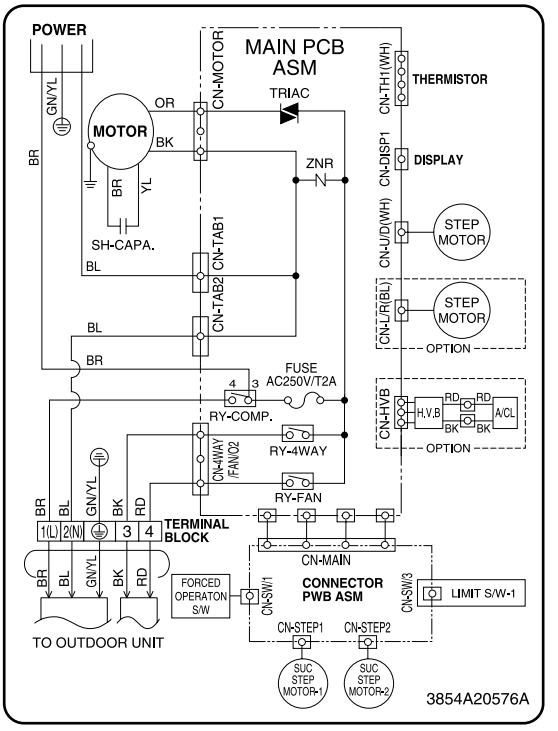
Wiring Diagram

Indoor Unit

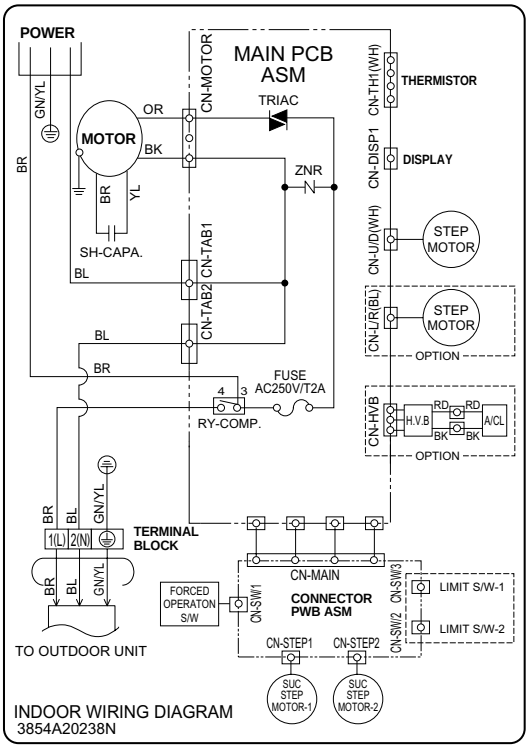
Heat pump

AS-H1863*M3 LS-H1863*M3
AS-H2463*M3 LS-H2463*M3

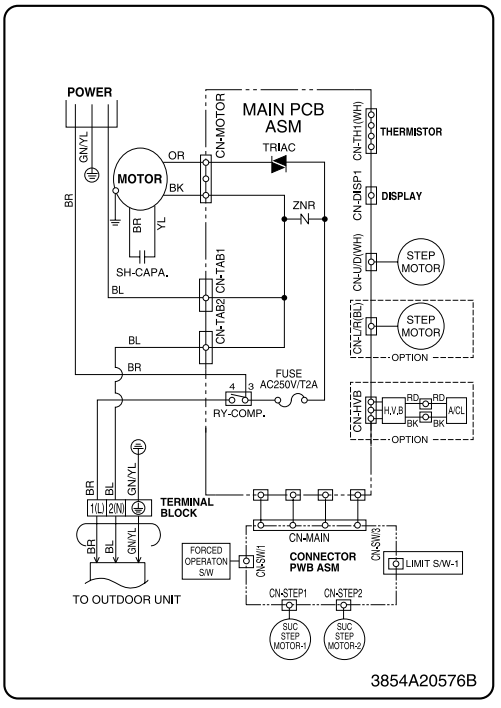




Cooling only

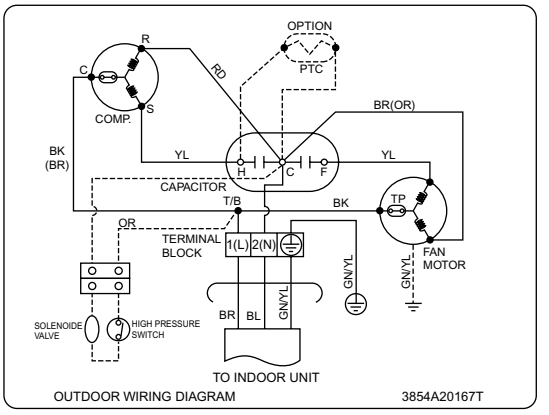


LS-C1863*M3, LS-C2463*M4

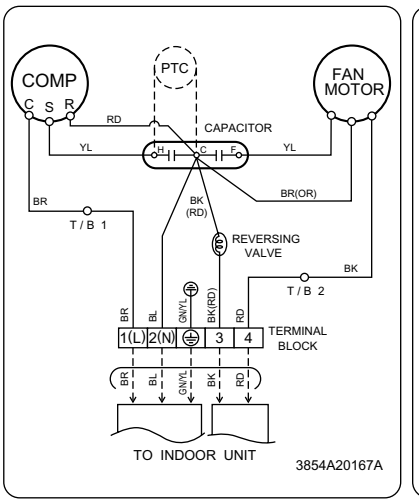


Outdoor Unit

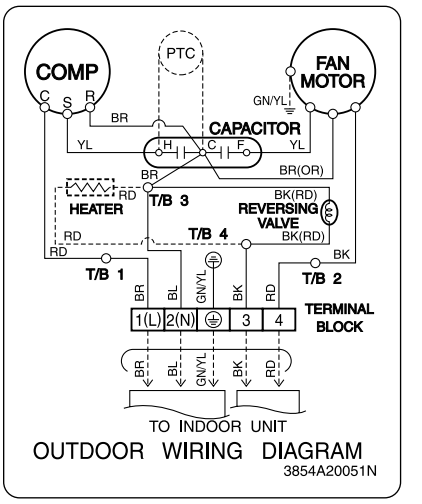
LS-C1863_Series
LS-C2463_Series



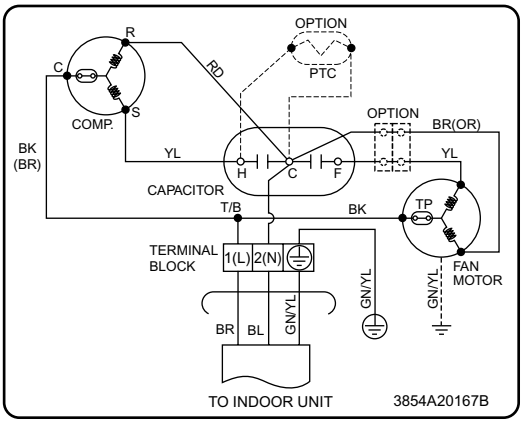
AS-H1863_Series LS-H2463_Series
AS-H2463_Series LS-H1863_Series
LS-H2423_Series LS-H2463*M3



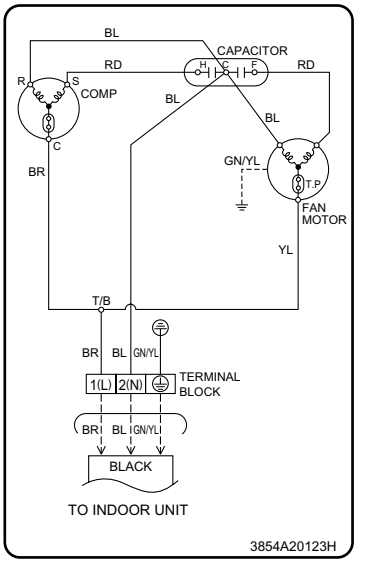
AS-H1863RM0



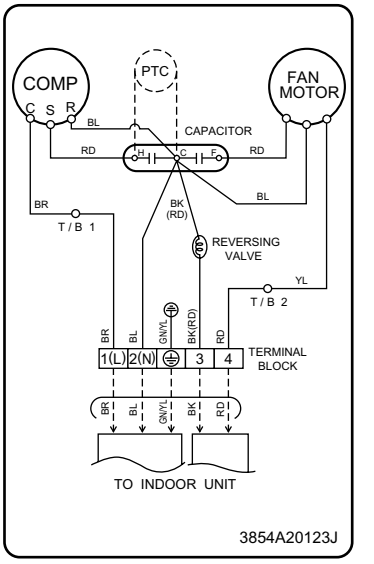
LS-C2423_Series
LS-C2463_Series



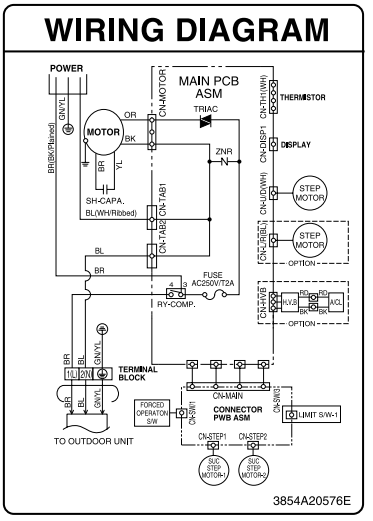
LS-C1823_Series
LS-C1863*M3



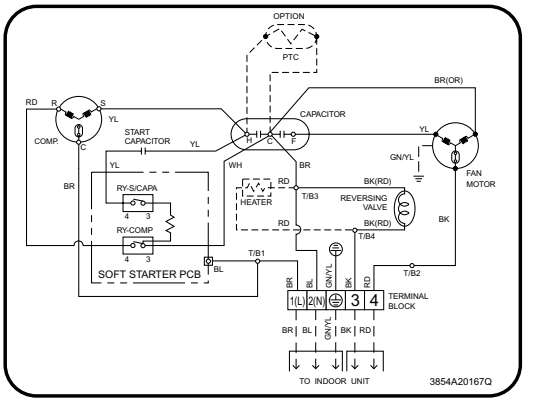
LS-H1823_Series



LS-C1823R/W/B/D/M/CM2



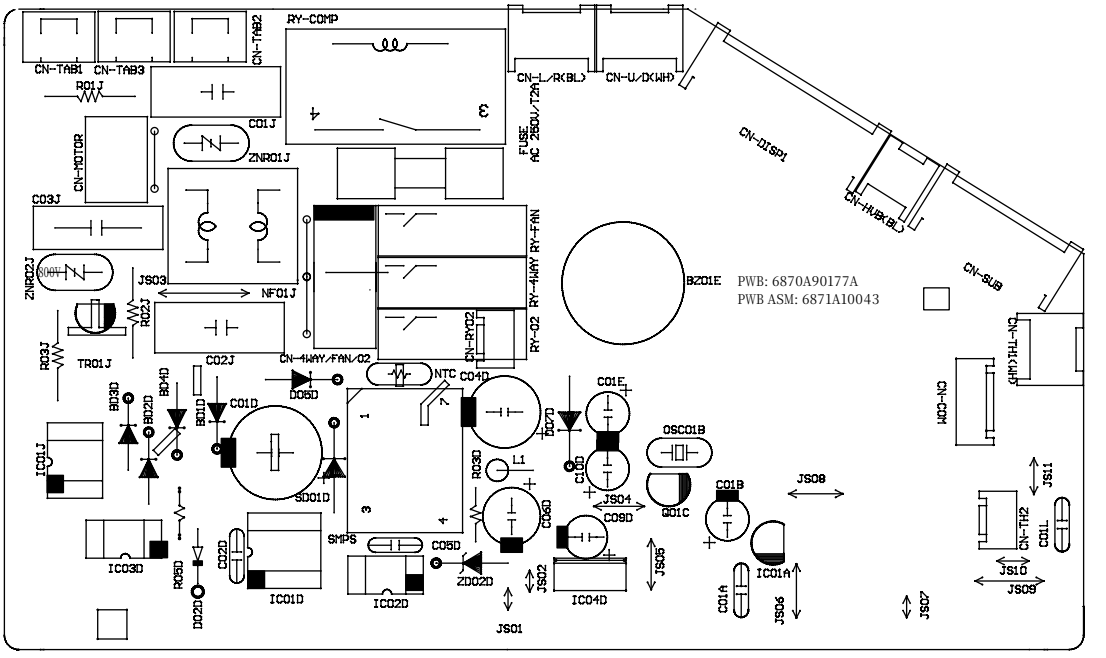
AS-H2463R/D/M/WM1



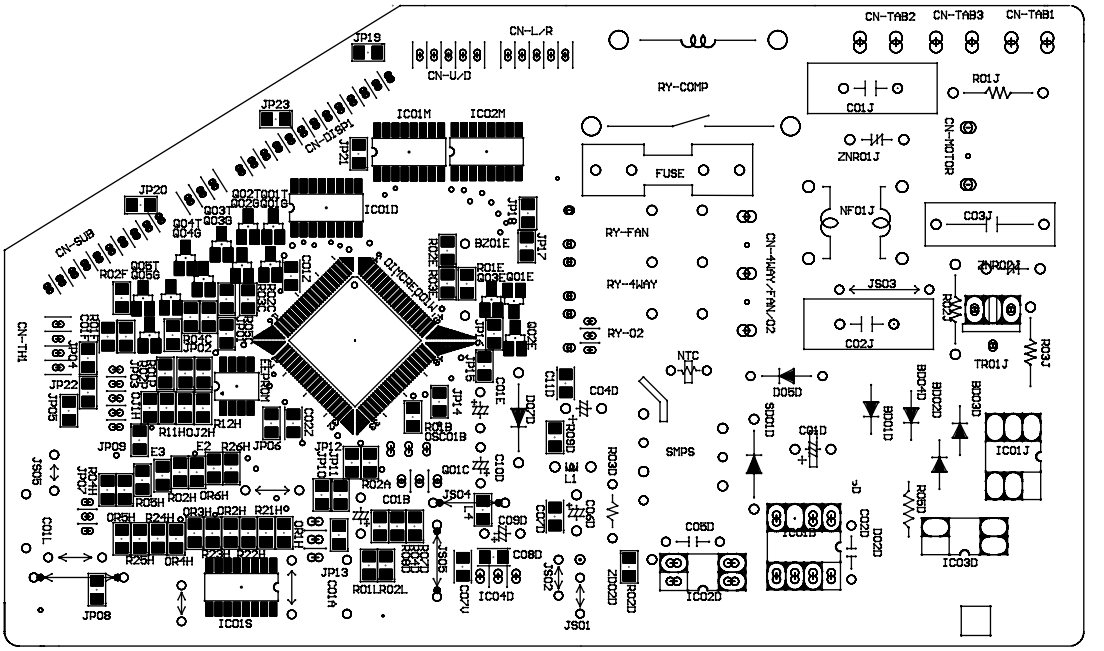
Components Location

MAIN P.W.B ASSEMBLY (AC PART)

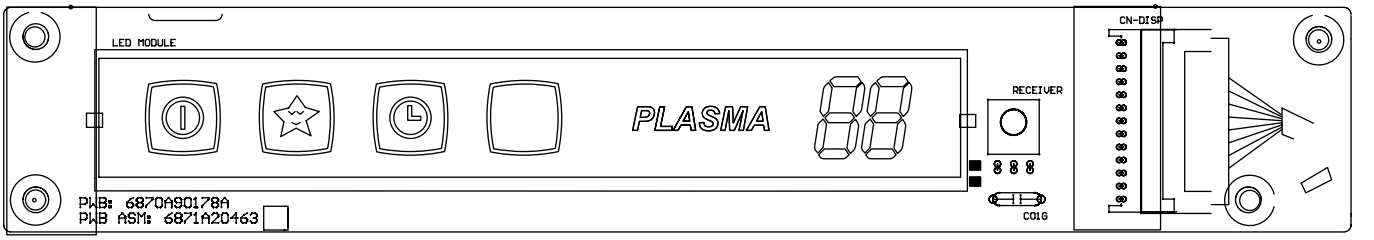
• TOP VIEW



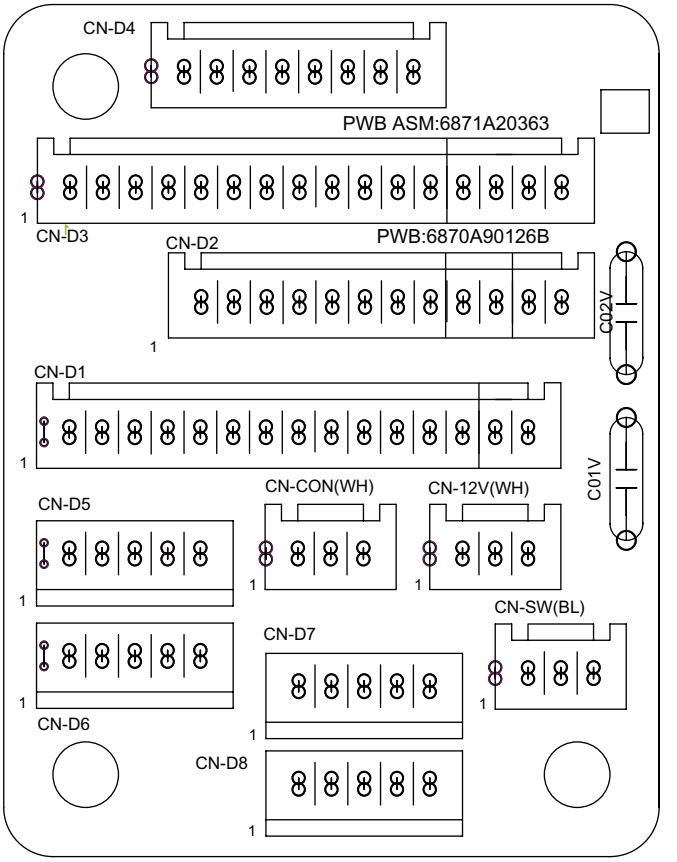
• BOTTOM VIEW



DISPLAY ASSEMBLY



SUB P.W.B ASSEMBLY



Product Specifications

Table-1

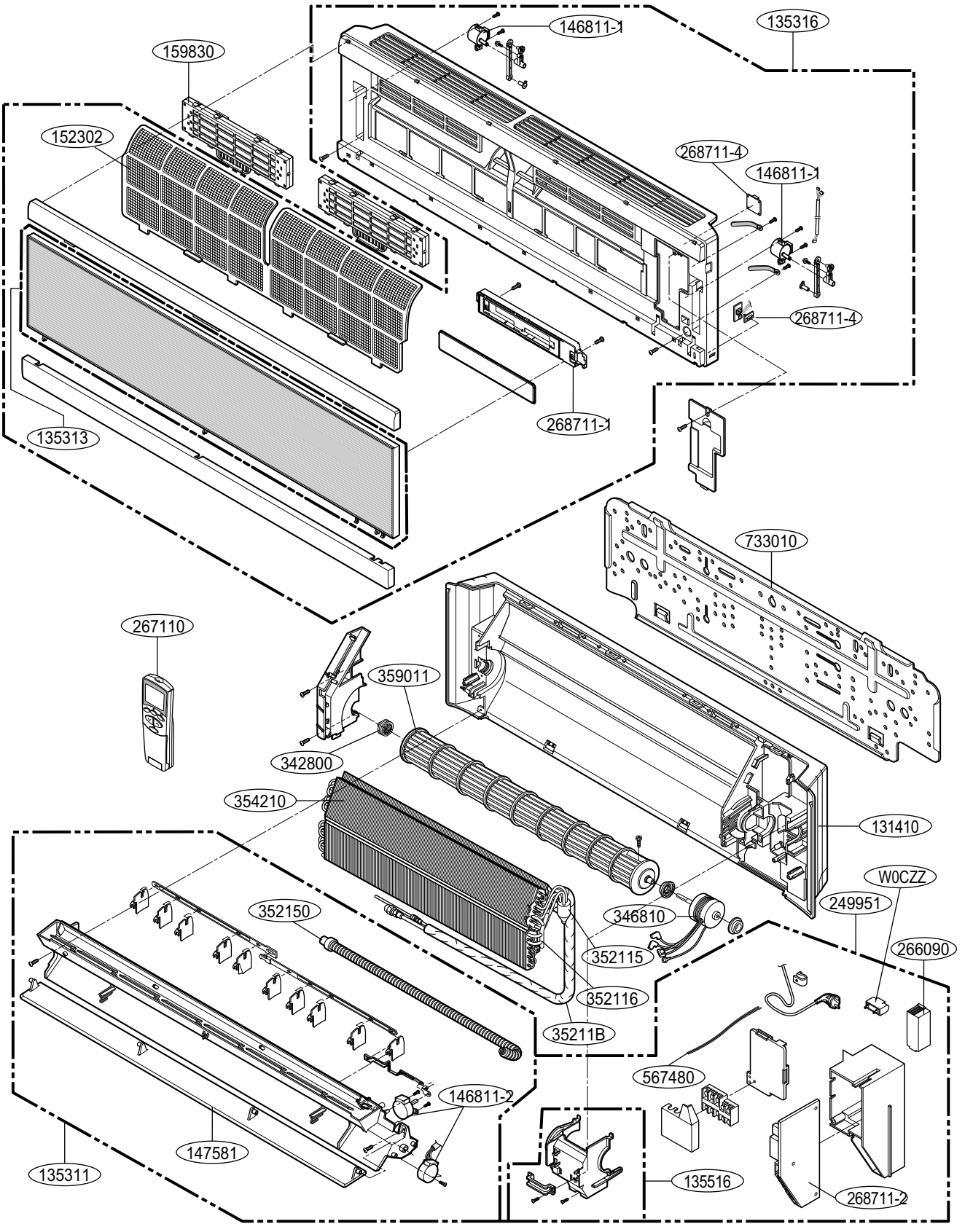
Item / Model Name		Unit	LS-H1863*M0 LS-H1863*M1 LS-H1863*M3	LS-H2463*M0 LS-H2463*M3	LS-H1823*M0	LS-H2423*M0	AS-H2463*M0
Cooling Capacity		Btu/h	18,000	24,000	18,000	24,000	22,500
Heating Capacity			19,000	24,000	19,000	24,000	22,500
Moisture Removal		*l*/h	2	3	2	3	3
Power Source		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220, 60	1, 220, 60	1, 220-240, 50
Air Circulation	Indoor	m^3/min	13	15.5	13	15.5	15.5
	Outdoor		42	48	34	48	48
Noise Level	Indoor	dB (A)±3	40	44	40	44	44
	Outdoor		51	55	51	55	55
Input	Cooling	W	1,860	2,700	1,860	2,525	2,500
	Heating		1,870	2,650	1,730	2,525	2,500
Running Current	Cooling	A	9.2	12.6	8.5	12	11.0
	Heating		9.2	12.6	8.1	12	11.0
E.E.R.	Cooling	Btu/hW	9.7	8.9	9.68	9.5	9
C.O.P	Heating		2.98	2.65	3.2	2.78	2.65
Motor Output	Indoor	W	26.7	26.7	15.7	30	26.7
	Outdoor		61	82.9	45	67.2	82.9
Dimensions (W x H x D)	Indoor	mm	1170*315*170	1170*315*170	1170*315*170	1170*315*170	1170*315*170
	Outdoor		870*655*320	870*655*320	801*555*262	870*655*320	870*655*320
Net. Weight	Indoor	kg	13(28.7)	13(28.7)	13(28.7)	13(28.7)	13(28.7)
	Outdoor		60(132)	60(132)	38	60(132)	60(132)
Refrigerant		g	1310	1500	1360	1470	1480
Airflow Direction Control (Up & Down)			O	O	O	O	O
Remocon Type			L.C.D Wireless	L.C.D Wireless	L.C.D Wireless	L.C.D Wireless	L.C.D Wireless
Service Valve	Liquid	inch(mm)	1/4(6.35)	3/8(9.52)	1/4(6.35)	3/8(9.52)	3/8(9.52)
	Gas		1/2(12.7)	5/8(15.88)	5/8(15.88)	5/8(15.88)	5/8(15.88)
Sleeping Operation			O	O	O	O	O
Drain Hose			O	O	O	O	O
Connecting Cable(p*mm^2)			14:3*1.5	12:3*2.5	14:3*1.5	12:3*2.5	12:3*2.5
Power Cord(p*mm^2)			14:3*1.5	12:3*2.5	14:3*1.5	12:3*2.5	12:3*2.5

Table-2

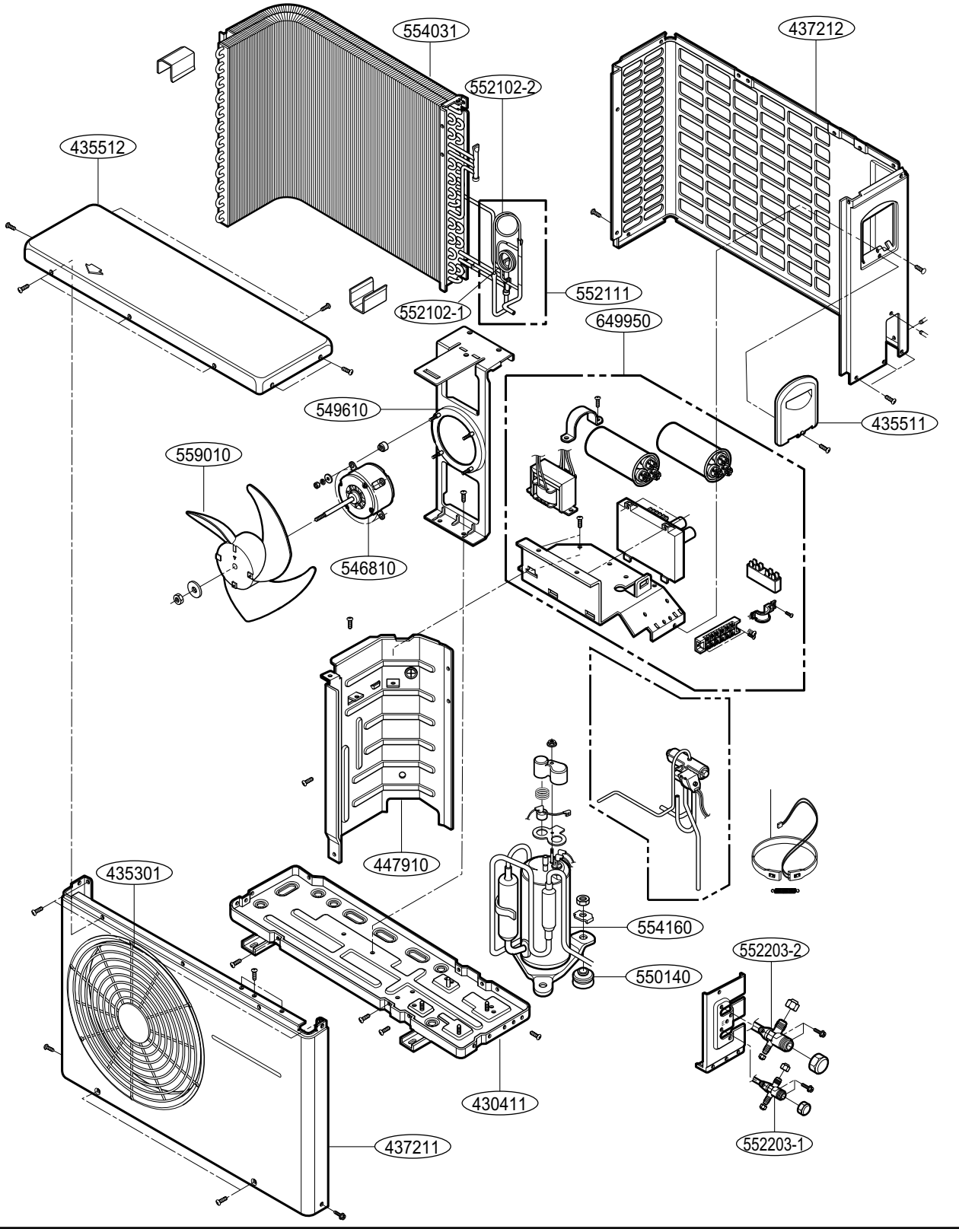
Item \ Model Name		Unit	LS-C1863*M0 LS-C1863*M3	LS-C2463*M1 LS-C2463*M0 LS-C2463*M3 LS-C2463*M4	LS-C1823*M1 LS-C1823*M0	LS-C1823*M2	LS-C2423*M0	AS-H1863*M0 AS-H1863*M3	AS-H2463R/D/M/WM1 AS-H2463*M0 AS-H2463*M3
Cooling Capacity		Btu/h	18,000	24,000	18,000	18,000	24,000	18,000	24,000
Heating Capacity		Btu/h	-	-	-	-	-	18,900	24,500
Moisture Removal		*l*/h	2	3	2	2	3	2	3
Power Source		Ø, V, Hz	1, 220~240, 50	1, 220-240, 50	1, 220, 60	1, 220, 60	1, 220, 60	1,220~240,50	1,220~240,50
Air Circulation	Indoor	m^3/min	13	15.5	13	13	15.5	13	15.5
	Outdoor	m^3/min	42	48	34	48	48	42	48
Noise Level	Indoor	dB (A)±3	40	44	40	42	44	40	44
	Outdoor	dB (A)±3	51	55	51	53	55	51	55
Input	Cooling	W	1,900	2,700	1,950	1,830	2,400	1,750	2,550
	Heating	W	-	-	-	-	-	1,730	2,475
Running Current	Cooling	A	9.4	12.8	9	8.5	11	8	10.5
	Heating	A	-	-	-	-	-	8	10.5
E.E.R.	Cooling	Btu/hW	9.47	8.9	9.23	9.38	10	10.28	9.38
C.O.P	Heating		-	-	-	-	-	10.92	9.889
Motor Output	Indoor	W	26.7	26.7	15.7	15.7	30	25.6	25.6
	Outdoor	W	61	82.9	45	76.5	76.5	61	82.9
Dimensions (W x H x D)	Indoor	mm	1170*315*170	1170*315*170	1170*315*170	1170*315*170	1170*315*170	1170*315*170	1170*315*170
	Outdoor	mm	870*655*320	870*655*320	801*555*262	870*577*276	840*577*276	870*655*320	870*800*320
Net. Weight	Indoor	kg	13(28.7)	13(28.7)	13(28.7)	13(28.7)	13(28.7)	13(28.7)	13(28.7)
	Outdoor	kg	56(123.5)	60(132)	38	42(92.4)	47(103.6)	60(132)	65(140.5)
Refrigerant		g	1,140	1,470	1,240	1,300	1,270	1,210	1,980
Airflow Direction Control (Up & Down)			O	O	O	O	O	O	0
Remocon Type			L.C.D Wireless	L.C.D Wireless	L.C.D Wireless	L.C.D Wireless	L.C.D Wireless	L.C.D Wireless	L.C.D Wireless
Service Valve	Liquid	inch(mm)	1/4(6.35)	3/8(9.52)	1/4(6.35)	1/4(6.35)	3/8(9.52)	1/4(6.35)	3/8(9.52)
	Gas	inch(mm)	1/2(12.7)	5/8(15.88)	5/8(15.88)	5/8(15.88)	5/8(15.88)	1/2(12.7)	5/8(15.88)
Sleeping Operation			O	O	O	O	O	O	0
Drain Hose			O	O	O	O	O	O	0
Connecting Cable(p*mm^2)			14:3*1.5	12:3*2.5	14:3*1.5	14:3*1.5	12:3*2.5	14:3*1.5	12:3*2.5
Power Cord(p*mm^2)			14:3*1.5	12:3*2.5	14:3*1.5	14:3*1.5	12:3*2.5	14:3*1.5	12:3*2.5

Exploded View

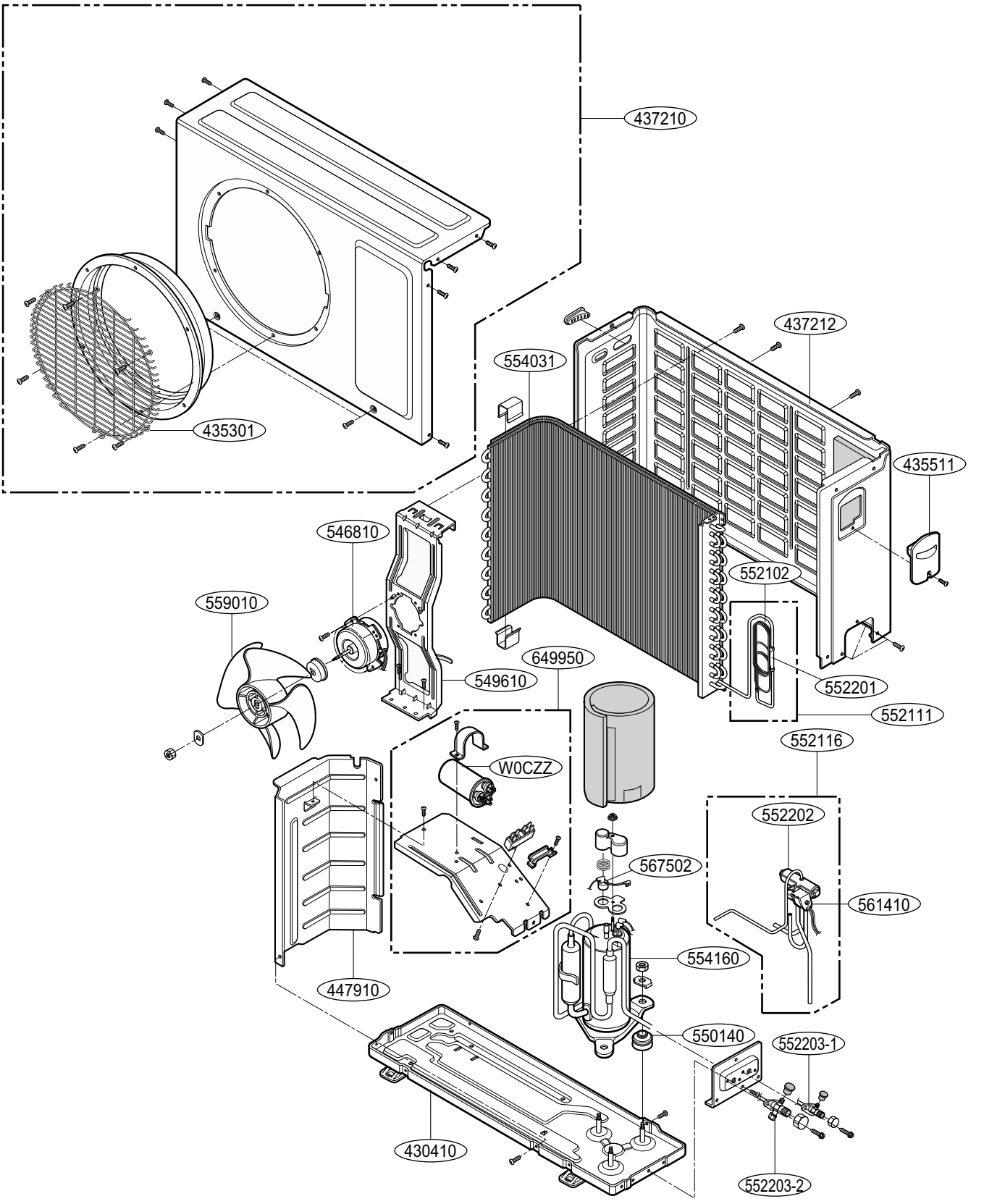
Indoor Unit



Outdoor Unit (LS-C1863R/W/B/D/M/CM0, LS-H1863R/W/B/D/M/CM0, LS-C2463R/W/B/D/M/CM0, LS-H2463R/W/B/D/M/CM0, LS-C1823R/W/B/D/M/CM0, LS-H1823R/W/B/D/M/CM0, LS-H2423R/W/B/D/M/CM0, AS-H1863*M0, AS-H2463*M0, AS-H2463R/D/M/WM1 LS-C2463B/C/D/M/RM1, LS-C1823RM1, LS-H1863*M1, AS-H1863*M3, AS-H2463*M3 LS-H1863*M3, LS-C1863*M3, LS-C2463*M4, LS-H2463WM3



Outdoor Unit (LS-C2423R/W/B/D/M/CM0, LS-C1823R/W/B/D/M/CM2)



Replacement Parts List

Indoor Unit

LOCATION No.	DESCRIPTION		PART No.					REMARKS
			LS-C2423*M0	LS-H2423*M0	LS-C2463*M0	LS-H2463*M0	LS-H1863*M1	
131410	CHASSIS ASSEMBLY		3141A20012A	3141A20012A	3141A20012A	3141A20012A	3141A20012A	R
135311	GRILLE ASSEMBLY,DISCHARGE(INDOOR)		3531A20231C	3531A20231C	3531A20231C	3531A20231C	3531A20231F	R
135312	GRILLE ASSEMBLY, FRONT(INDOOR)	MIRROR	3531A20263A	3531A20263G	3531A20263N	3531A20267H	3531A20291J	R
		BLUE	3531A20263C	3531A20263J	3531A20267A	3531A20263J	3531A20291C	R
		WHITE	3531A20263F	3531A20263M	3531A20263F	3531A20263M	3531A20291G	R
		WOOD	-	-	3531A20267B	3531A20267G	3531A20291E	R
		METAL	3531A20263B	3531A20263H	3531A20267C	3531A20267J	3531A20291A	R
		CHERRY	-	-	3531A20263E	3531A20263L	-	R
135314	GRILLE ASSEMBLY,INLET	MIRROR	3531A20232B	3531A20232B	3531A20232B	3531A20232B	3531A20290E	R
		BLUE	3531A20244B	3531A20244B	3531A20244B	3531A20244B	3531A20290B	R
		WHITE	3531A20244E	3531A20244E	3531A20244E	3531A20244E	3531A20290D	R
		WOOD	-	-	3531A20244C	3531A20244C	3531A20290C	R
		METAL	3531A20244A	3531A20244A	3531A20244A	3531A20244A	3531A20290A	R
		CHERRY	-	-	3531A20244D	3531A20244D	-	R
135516	COVER ASSEMBLY,MOTOR		3551A20099M	3551A20099M	3551A20099M	3551A20099M	3551A20099N	R
145200	LINK		4520A20008A	4520A20008A	4520A20008A	4520A20008A	4520A20008A	R
145201	LINK		-	-	-	-	4520A20027A	R
146811	MOTOR ASSEMBLY,STEP		4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	R
146811	MOTOR ASSEMBLY,STEP		4681A20055D	4681A20055D	4681A20055D	4681A20055D	4681A20055D	R
152302	FILTER(MECH),A/C		5230A20047A	5230A20047A	5230A20047A	5230A20047A	5230A20047A	R
159830	AIR CLEANER ASSEMBLY		5983A10006X	5983A10006X	5983A10006U	5983A10006X	5983A20010E	R
159901	VANE,HORIZONTAL		5990A20042B	5990A20042B	5990A20042B	5990A20042B	5990A20042B	R
249951	CONTROL BOX ASSEMBLY,INDOOR		4995A20379G	4995A20379F	4995A20375N	4995A20379H	4995A20379N	R
263230	THERMISTOR ASSEMBLY		6323A20004H	6323A20004H	6323A20004H	6323A20004H	6323A20004H	R
264110	POWER CORD ASSEMBLY		6411A20026C	6411A20026C	6411A30001K	6411A20026V	6411A20026W	R
266090	H.V ASSEMBLY		6609A10005A	6609A10005A	6609A10005A	6609A10005D	6609A10005D	R
267110	REMOTE CONTROLLER ASSEMBLY		6711A20077U	6711A20073Y	6711A20077U	6711A20073Y	6711A20073Y	R
268712	PWB(PCB) ASSEMBLY,DISPLAY		-	-	-	-	6871A20463A	R
268714	PWB(PCB) ASSEMBLY,MAIN		6871A10143M	6871A10143L	6871A10143P	6871A10056K	6871A10143T	R
342800	BEARING		4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	R
346810	MOTOR ASSEMBLY,INDOOR		4681A20003F	4681A20003F	4681A20067A	4681A20067A	4681A20067A	R
35211B	TUBE ASSEMBLY,TUBING		5211A30439D	5211A30439D	5211A30439D	5211A30439D	5211A30038Z	R
352150	HOSE ASSEMBLY,DRAIN		5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	R
354210	EVAPORATOR ASSEMBLY,FIRST		5421A20211B	5421A20211B	5421A20211A	5421A20211B	5421A20211B	R
359011	FAN ASSEMBLY,CROSS FLOW		5901A20017C	5901A20017C	5901A20017C	5901A20017C	5901A20017C	R
668713	PWB(PCB) ASSEMBLY,SUB		6871A20259A	6871A20259A	6871A20259A	6871A20259A	6871A20259A	R
668713	PWB(PCB) ASSEMBLY,SUB		6871A20258C	6871A20258C	6871A20258C	6871A20258C	6871A20258E	R
733010	PLATE ASSEMBLY,INSTALL		3301A10002A	3301A10002A	3301A10002A	3301A10002A	3301A10002A	R
W0CZZ	CAPACITOR,DRAWING		3H01487G	3H01487G	3H01487G	3H01487G	-	R

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(GCSC WEBSITE http://biz.LGservice.com)

LOCATION No.	DESCRIPTION		PART No.							REMARKS
			LS-C1823*M0	LS-H1823*M0	LS-C1823*M2	LS-C1863*M0	LS-H1863*M0	AS-H1863*M0 (SUFFIX:****EEU)	AS-H1863RM0 (SUFFIX:****LAP)	
131410	CHASSIS ASSEMBLY		3141A20012A	3141A20012A	3141A20012A	3141A20012A	3141A20012A	3141A20012A	3141A20012A	R
135311	GRILLE ASSEMBLY,DISCHARGE(INDOOR)		3531A20231C	3531A20231C	3531A20231C	3531A20231G	3531A20231C	3531A20231F	3531A20231C	R
135312	GRILLE ASSEMBLY, FRONT(INDOOR)	MIRROR	3531A20230P	3531A20263G	3531A20303B	3531A20263N	3531A20267H	3531A20291J	3531A20263G	R
		BLUE	3531A20263C	3531A20263J	3531A20303C	3531A20263C	3531A20267F	3531A20291C	-	R
		WHITE	3531A20263F	3531A20263M	3531A20303D	3531A20263F	3531A20263M	3531A20291G	-	R
		WOOD	-	-	3531A20303G	3531A20267B	3531A20267G	-	-	R
		METAL	3531A20263B	3531A20263H	3531A20303E	3531A20267C	3531A20267J	3531A20291A	-	R
		CHERRY	-	-	3531A20303F	3531A20263E	3531A20263L	-	-	R
135314	GRILLE ASSEMBLY,INLET	MIRROR	3531A20232B	3531A20232B	3531A20290E	3531A20232B	3531A30232B	3531A20290E	3531A20232B	R
		BLUE	3531A20244B	3531A20244B	3531A20290B	3531A20244B	3531A20244B	3531A20290B	-	R
		WHITE	3531A20244E	3531A20244E	3531A20290D	3531A20244E	3531A20244E	3531A20290D	-	R
		WOOD	-	-	3531A20290C	3531A20244C	3531A20244C	-	-	R
		METAL	3531A20244A	3531A20244A	3531A20290A	3531A20244A	3531A20244A	3531A20290A	-	R
		CHERRY	-	-	3531A20290F	3531A20244D	3531A20244D	-	-	R
135516	COVER ASSEMBLY,MOTOR		3551A20099N	3551A20099N	3551A20099N	3551A20099N	3551A20099M	3551A20099N	3551A20099N	R
145200	LINK		4520A20008A	4520A20008A	4520A20008A	4520A20008A	4520A20008A	4520A20008A	4520A20008A	R
145201	LINK		4520A20027A	4520A20027A	4520A20027A	4520A20027A	4520A20027A	4520A20027A	-	R
146811	MOTOR ASSEMBLY,STEP		4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	R
146811	MOTOR ASSEMBLY,STEP		4681A20055D	4681A20055D	4681A20055D	4681A20055D	4681A20055D	4681A20055D	4681A20055D	R
152302	FILTER(MECH),A/C		5230A20047B	5230A20047A	5230A20047A	5230A20047A	5230A20047A	5230A20047A	5230A20047A	R
159830	AIR CLEANER ASSEMBLY		5983A10006X	5983A10006X	5983A10006X	5983A10006X	5983A10006U	5983A20010E	5983A10006X	R
159901	VANE,HORIZONTAL		5990A20042B	5990A20042B	5990A20042B	5990A20042B	5990A20042B	5990A20042B	5990A20042B	R
249951	CONTROL BOX ASSEMBLY,INDOOR		4995A20379K	4995A20379M	4995A20486P	4995A20379L	4995A20379M	4995A20486K	4995A20379U	R
263230	THERMISTOR ASSEMBLY		6323A20004H	6323A20004H	6323A20004H	6323A20004H	6323A20004H	6323A20004H	6323A20004H	R
264110	POWER CORD ASSEMBLY		6411A20026V	6411A20026W	3H03671G	6411A20026V	6411A30001K	6411A20026W	6411A20026Z	R
266090	H.V ASSEMBLY		6609A10005A	6609A10005A	6609A10005A	6609A10005A	6609A10005A	6609A10005D	6609A10005A	R
267110	REMOTE CONTROLLER ASSEMBLY		6711A20077U	6711A20073Y	6711A20091J	6711A20077U	6711A20073Y	6711A20073Y	6711A20048G	R
268712	PWB(PCB) ASSEMBLY, DISPLAY		6871A20463B	6871A20463A	6871A20463F	6871A20463B	6871A20463A	6871A20463A	-	R
268714	PWB(PCB) ASSEMBLY,MAIN		6871A10143Q	6871A10143S	6871A10056Q	6871A10143R	6871A10143T	6871A10143V	6871A10143V	R
342800	BEARING		4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	R
342800	BEARING		4280A20006D	4280A20006D	4280A20006D	*	*	-	-	R
346810	MOTOR ASSEMBLY,INDOOR		4681A20003B	4681A20003B	4681A20003B	4681A20067A	4681A20067A	4681A20067C	4681A20067C	R
35211B	TUBE ASSEMBLY,TUBING		5211A30439A	5211A30439A	5211A30439A	5211A30038Z	5211A30038Z	5211A30038Z	5211A30038Z	R
352150	HOSE ASSEMBLY,DRAIN		5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	R
354210	EVAPORATOR ASSEMBLY,FIRST		5421A20211B	5421A20211B	5421A20211A	5421A20211B	5421A20211A	5421A20211A	5421A20211A	R
359011	FAN ASSEMBLY,CROSS FLOW		5901A20017C	5901A20017C	5901A20017C	5901A20017C	5901A20017C	5901A20017C	5901A20017C	R
668713	PWB(PCB) ASSEMBLY,SUB		6871A20259A	6871A20259A	6871A20259A	6871A20258C	6871A20259A	6871A20259A	6871A20259A	R
668713	PWB(PCB) ASSEMBLY,SUB		6871A20258C	6871A20258C	6871A20258C	6871A20259A	6871A20258C	6871A20258E	6871A20258C	R
733010	PLATE ASSEMBLY,INSTALL		3301A10002A	3301A10002A	3301A10002A	3301A10002A	3301A10002A	3301A10002A	3301A10002A	R
W0CZZ	CAPACITOR,DRAWING		3H01487G	3H01487G	3H01487G	3H01487G	3H01487G	3H01487G	3H01487G	R

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LOCATION No.	DESCRIPTION		PART No.					REMARKS
			AS-H2463*M0	AS-H2463R/D/M/WM1	LS-C2463B/C/D/M/RM1	LS-C1823RM1	AS-H1863*M0 (Suffix:A**BSHA)	
131410	CHASSIS ASSEMBLY		3141A20012A	3141A20012A	3141A20012A	3141A20012A	3141A20012A	R
135311	GRILLE ASSEMBLY, DISCHARGE(INDOOR)		3531A20231F	3531A20231C	3531A20231F	3531A20231F	3531A20231G	R
135312	GRILLE ASSEMBLY, FRONT (INDOOR)	MIRROR	3531A20291J	3531A20263G	3531A20291K	3531A20291N	3531A20291J	R
		BLUE	3531A20291C	-	3531A20291D	-	-	R
		WHITE	3531A20291G	3531A20263M	-	-	-	R
		WOOD	-	3531A20263K	3531A20291F	-	-	R
		METAL	3531A20291A	3531A20263H	3531A20291B	-	3531A20291A	R
		CHERRY	-	-	3531A20291M	-	-	R
135314	GRILLE ASSEMBLY, INLET	MIRROR	3531A20290E	3531A20232B	3531A20290E	3531A20290E	3531A20290E	R
		BLUE	3531A20290B	-	3531A20290B	-	-	R
		WHITE	3531A20290D	3531A20244E	-	-	-	R
		WOOD	-	3531A20244C	3531A20290C	-	-	R
		METAL	3531A20290A	3531A20244A	3531A20290A	-	3531A20290A	R
		CHERRY	-	-	3531A20290F	-	-	R
135516	COVER ASSEMBLY, MOTOR		3551A20099M	3551A20099N	3551A20099M	3551A20099N	3551A20099N	R
145200	LINK		4520A20008A	4520A20008A	4520A20008A	4520A20008A	4520A20012A	R
145201	LINK		4520A20027A	-	4520A20027A	4520A20027A	4520A20027A	R
146811	MOTOR ASSEMBLY, STEP		4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	R
146811	MOTOR ASSEMBLY, STEP		4681A20055D	4681A20055D	4681A20055D	4681A20055D	4681A20055D	R
152302	FILTER(MECH), A/C		5230A20047A	5230A20047A	5230A20047A	5230A20047A	5230A20047A	R
159830	AIR CLEANER ASSEMBLY		5983A20010E	5983A10006X	5983A20010E	5983A20010G	5983A25004K	R
159901	VANE, HORIZONTAL		5990A20042A	5990A20042B	5990A20042B	5990A20042B	5990A20042B	R
249951	CONTROL BOX ASSEMBLY, INDOOR		4995A20379R	4995A20379V	4995A20379J	4995A20486C	4995A20313V	R
263230	THERMISTOR ASSEMBLY		6323A20004H	6323A20004H	6323A20004H	6323A20004H	6323A20004H	R
264110	POWER CORD ASSEMBLY		6411A20026V	6411A20026Z	6411A20026V	6411A20026W	6411A20026W	R
266090	H.V ASSEMBLY		6609A10005D	6609A10005A	6609A10005D	6609A10005D	6609A10005D	R
267110	REMOTE CONTROLLER ASSEMBLY		6711A20073Y	6711A20048G	6711A20077U	6711A20077U	6711A20083P	R
268712	PWB(PCB) ASSEMBLY, DISPLAY		6871A20463A	-	6871A20463B	6871A20463F	6871A20463A/E	R
268714	PWB(PCB) ASSEMBLY, MAIN		6871A10143U	6871A10143W	6871A10143P	6871A10056C	6871A10056R	R
342800	BEARING		4280A2004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	R
346810	MOTOR ASSEMBLY, INDOOR		4681A20067A	4681A20067C	4681A20067A	4681A20003B	4681A20067C	R
35211B	TUBE ASSEMBLY, TUBING		5211A30439D	5211A30439D	5211A30439D	5211A30439A	5211A30038Z	R
352150	HOSE ASSEMBLY, DRAIN		5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	R
354210	EVAPORATOR ASSEMBLY, FIRST		5421A20211A	5421A20211B	5421A20211B	5421A20211A	5421A20211A	R
359011	FAN ASSEMBLY, CROSS FLOW		5901A20017C	5901A20017C	5901A20017C	5901A20017C	5901A20017C	R
668713	PWB(PCB) ASSEMBLY, SUB		6871A20259A	6871A20052A	6871A20259A	6871A20259A	6871A20259A	R
668713	PWB(PCB) ASSEMBLY, SUB		6871A20258E	6871A20258C	6871A20258E	6871A20258E	6871A20258E	R
733010	PLATE ASSEMBLY, INSTALL		3301A10002A	3301A10002A	3301A10002A	3301A10002A	3301A10002A	R
W0CZZ	CAPACITOR, DRAWING		3H01487G	3H01487G	3H01487G	3H01487G	3H01487G	R

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LOCATION No.	DESCRIPTION		PART No.		REMARKS
			ASNH1863*M3 (AS-H1863*M3)	ASNH2463*M3 (AS-H2463*M3)	
131410	CHASSIS ASSEMBLY		3141A20012A	3141A20012A	
135311	GRILLE ASSEMBLY, DISCHARGE(INDOOR)		3531A20231F	3531A20231F	
135312	GRILLE ASSEMBLY, FRONT (INDOOR)	MIRRIOR("R")	3531A20291J	3531A20291J(M)	
		BLUE("B")	3531A20291C	3531A20291C	
		WHITE("W")	-	-	
		WOOD("D")	-	-	
		METAL("M")	3531A20291A	3531A20291A(R)	
135314	GRILLE ASSEMBLY, INLET	MIRRIOR("R")	3531A20290E	3531A20290E(M)	
		BLUE("B")	3531A20290B	3531A20290B	
		WHITE("W")	-	-	
		WOOD("D")	-	-	
		METAL("M")	3531A20290A	3531A20290A(R)	
135516	COVER ASSEMBLY, MOTOR		3551A20099N	3551A20099M	
145200	LINK		4520A20008A	4520A20008A	
145201	LINK		4520A20027A	4520A20027A	
146811	MOTOR ASSEMBLY, STEP		4681A20055A	4681A20055A	
146811	MOTOR ASSEMBLY, STEP		4681A20055D	4681A20055D	
152302	FILTER(MECH), A/C		5230A20047A	5230A20047A	
159830	AIR CLEANER ASSEMBLY		5983A25004D	5983A25004D	
159901	VANE, HORIZONTAL		5990A20042B	5990A20042B	
249951	CONTROL BOX ASSEMBLY, INDOOR		4995A20486K	4995A20379R	
263230	THERMISTOR ASSEMBLY		6323A20004H	6323A20004H	
264110	POWER CORD ASSEMBLY		6411A20026W	6411A20026V	
266090	H.V ASSEMBLY		6609A10005D	6609A10005D	
267110	REMOTE CONTROLLER ASSEMBLY		6711A90031Y	6711A90031Y	
268712	PWB(PCB) ASSEMBLY, DISPLAY		6871A20463A	6871A20463E	
268714	PWB(PCB) ASSEMBLY, MAIN		6871A10143V	6871A10143U	
342800	BEARING		4280A20004A	4280A20004A	
346810	MOTOR ASSEMBLY, INDOOR		4681A20067C	4681A20067A	
35211B	TUBE ASSEMBLY, TUBING		5211A30038Z	5211A30439D	
352115	TUBE ASSEMBLY, EVAPORATOR IN		5211A14007B	5211A14007B	
352116	TUBE ASSEMBLY, EVAPORATOR OUT		5211A10474B	5211A10474A	
352150	HOSE ASSEMBLY, DRAIN		5251AR1222R	5251AR1222R	
354210	EVAPORATOR ASSEMBLY, FIRST		5421A20211A	5421A20211A	
359011	FAN ASSEMBLY, CROSS FLOW		5901A20017C	5901A20017C	
668713	PWB(PCB) ASSEMBLY, SUB		6871A20259A	6871A20259A	
668713	PWB(PCB) ASSEMBLY, SUB		6871A20258E	6871A20258E	
733010	PLATE ASSEMBLY, INSTALL		3301A10002A	3301A10002A	
W0CZZ-1	CAPACITOR, DRAWING		3H01487G	3H01487G	

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LOCATION No.	DESCRIPTION		PART No.			REMARKS
			LSNH1863*M3	LSNC2463*M3	LSNH2463*M3	
131410	Chassis Assembly		3141A20012A	3141A20012A	3141A20012A	R
346810	Motor Assembly,AC,Indoor		4681A20067A	4681A20067A	4681A20067A	R
135516	Cover Assembly,Motor		3551A20099N	3551A20099M	3551A20099M	R
359011	Fan Assembly,Cross Flow		5901A20017C	5901A20017C	5901A20017C	R
354210	Evaporator Assembly,First		5421A20211B	5421A20211B	5421A20211B	R
352115	Tube Assembly,Evaporator(In)		5211A14007B	5211A14007A	5211A14007B	R
352116	Tube Assembly,Evaporator(Out)		5211A10474B	5211A10474A	5211A10474A	R
35211B	Tube Assembly,Tubing		5211A30038Z	5211A30439D	5211A30439D	R
249951	Case Assembly,Control(Indoor)		4995A20379N	4995A20379J	4995A20379H	R
264110	Power Cord		6411A20026W	6411A20026V	6411A20026V	R
263230	Thermistor,NTC		6323A20004H	6323A20004H	6323A20004H	R
266090	HVPS,DC/DC		6609A10005D	6609A10005D	6609A10005D	R
268714	PCB Assembly,Main		6871A10143T	6871A10056L	6871A10056K	R
W0CZZ-1	Capacitor,Film,Box		3H01487G	3H01487G	3H01487G	R
352150	Hose Assembly,Drain		5251AR1222R	5251AR1222R	5251AR1222R	R
135311	Grille Assembly,Discharge(Indoor)		3531A20231F	3531A20231F	3531A20231F	R
146811	Motor Assembly,DC,Stepping		4681A20055A	4681A20055A	4681A20055A	R
159901	Louver,Horizontal		5990A20042B	5990A20042B	5990A20042B	R
135316	Grille Assembly,Front(Indoor)	B : BLUE	3531A20291L	3531A20291D	3531A20291C	R
		C : CHERRY	3531A20291G	3531A20291M	3531A20291L	R
		D : WOOD	3531A20291A	3531A20291F	3531A20291E	R
		M : METAL	3531A20291E	3531A20291B	3531A20291A	R
		R : MIRRIOR	3531A20291C	3531A20291K	3531A20291J	R
		W : WHITE	3531A20291J	3531A20291H	3531A20291G	R
135314	Grille Assembly,Inlet	B : BLUE	3531A20290F	3531A20290B	3531A20290B	R
		C : CHERRY	3531A20290D	3531A20290F	3531A20290F	R
		D : WOOD	3531A20290A	3531A20290C	3531A20290C	R
		M : METAL	3531A20290C	3531A20290A	3531A20290A	R
		R : MIRRIOR	3531A20290B	3531A20290E	3531A20290E	R
		W : WHITE	3531A20290E	3531A20290D	3531A20290D	R
268712	PCB Assembly,Display		6871A20463A	6871A20463B	6871A20463A	R
152302	Filter,Air		5230A20047A	5230A20047A	5230A20047A	R
146811	Motor Assembly,DC,Stepping		4681A20055D	4681A20055D	4681A20055D	R
668713-2	PCB Assembly,Sub		6871A20259A	6871A20259A	6871A20259A	R
668713-1	PCB Assembly,Sub		6871A20258E	6871A20258E	6871A20258E	R
342800	Bearing		4280A20004A	4280A20004A	4280A20004A	R
733010	Plate Assembly,Installation		3301A10002A	3301A10002A	3301A10002A	R
267110	Remote Controller Assembly		6711A90031Y	6711A90032U	6711A90031Y	R
159830	Filter Assembly,Air Cleaner		5983A25004L	5983A25004L	5983A25004L	R

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LOCATION No.	DESCRIPTION		PART No.		REMARKS
			LS-C1863*M3	LSNC1863*M3.A**CIDA	
131410	CHASSIS ASSEMBLY		3141A20012A	3141A20012A	
135311	GRILLE ASSEMBLY,DISCHARGE(INDOOR)		3531A20231C	3531A20231F	
135312	GRILLE ASSEMBLY,FRONT(INDOOR)	MIRRIOR("R")	3531A20291K		
		BLUE("B")	3531A20291D		
		METAL("M")	3531A20291B		
		WOOD("D")	3531A20291F		
		WHITE("W")	3531A20291H		
		CHERRY("C")	3531A20291M	3581A20303R	
135314	GRILLE ASSEMBLY,INLET	MIRRIOR("R")	3531A20290E		
		BLUE("B")	3531A20290B		
		METAL("M")	3531A20290A		
		WOOD("D")	3531A20290C		
		WHITE("W")	3531A20290D		
		CHERRY("C")	3531A20290F	3531A20290F	
135516	COVER ASSEMBLY,MOTOR		3551A20099N	3551A20099N	
145200	LINK		4520A20008A	4520A20008A	
145201	LINK		4520A20027A	4520A20027A	
146811	MOTOR ASSEMBLY,STEP		4681A20055A	4681A20055A	
146811	MOTOR ASSEMBLY,STEP		4681A20055D	4681A20055D	
152302	FILTER(MECH),A/C		5230A20047A	5230A20047A	
159830	AIR CLEANER ASSEMBLY		5983A25004L	5983A25004L	
159901	VANE,HORIZONTAL		5990A20379X	5990A20042B	
249951	CONTROL BOX ASSEMBLY,INDOOR		4995A20486B	4995A20486B	
263230	THERMISTOR ASSEMBLY		6323A20004H	6323A20004H	
264110	POWER CORD ASSEMBLY		6411A20026W	6411A20026W	
266090	H.V ASSEMBLY		6609A10005D	6609A10005D	
267110	REMOTE CONTROLLER ASSEMBLY		6711A90032U	6711A90032U	
268714	PWB(PCB) ASSEMBLY,MAIN		6871A10056B	6871A10056B	
342800	BEARING		4280A20004A	4280A20004A	
346810	MOTOR ASSEMBLY,INDOOR		4681A20067C	4681A20067C	
35211B	TUBE ASSEMBLY,TUBING		5211A30038Z	5211A30038Z	
352115	TUBE ASSEMBLY,EVAPORATOR IN		5211A14007A	5211A14007A	
352116	TUBE ASSEMBLY,EVAPORATOR OUT		5211A10474B	5211A10474B	
352150	HOSE ASSEMBLY,DRAIN		5251AR1222R	5251AR1222R	
354210	EVAPORATOR ASSEMBLY,FIRST		5421A20211B	5421A20211B	
359011	FAN ASSEMBLY,CROSS FLOW		5901A20017C	5901A20017C	
668713	PWB(PCB) ASSEMBLY,SUB		6871A20259A	6871A20259A	
668713	PWB(PCB) ASSEMBLY,SUB		6871A20258E	6871A20258E	
733010	PLATE ASSEMBLY,INSTALL		3301A10002A	3301A10002A	
W0CZZ-1	CAPACITOR,DRAWING		3H01487G	3H01487G	
268712	PWB(PCB) ASSEMBLY,DISPLAY	MIRRIOR("R")	6871A20463F	6871A20463F	
		BLUE("B")	6871A20463B	6871A20463B	
		METAL("M")	6871A20463B	6871A20463B	
		WOOD("D")	6871A20463B	6871A20463B	
		WHITE("W")	6871A20463B	6871A20463B	
		CHERRY("C")	6871A20463B	6871A20463B	

LOCATION No.	DESCRIPTION		PART No.	REMARKS
			LS-C2463*M4	
131410	CHASSIS ASSEMBLY		3141A20012A	
135311	GRILLE ASSEMBLY,DISCHARGE(INDOOR)		3531A20231F	
135312	GRILLE ASSEMBLY,FRONT(INDOOR)	MIRRIOR("R")	3531A20291K	
		BLUE("B")	3531A20291D	
		METAL("M")	3531A20291B	
		WOOD("D")	3531A20291F	
		WHITE("W")	3531A20291H	
		CHERRY("C")	3531A20291M	
135314	GRILLE ASSEMBLY,INLET	MIRRIOR("R")	3531A20290E	
		BLUE("B")	3531A20290B	
		METAL("M")	3531A20290A	
		WOOD("D")	3531A20290C	
		WHITE("W")	3531A20290D	
		CHERRY("C")	3531A20290F	
135516	COVER ASSEMBLY,MOTOR		3551A20099M	
145200	LINK		4520A20008A	
145201	LINK		4520A20027A	
146811	MOTOR ASSEMBLY,STEP		4681A20055A	
146811	MOTOR ASSEMBLY,STEP		4681A20055D	
152302	FILTER(MECH),A/C		5230A20047A	
159830	AIR CLEANER ASSEMBLY		5983A25004L	
159901	VANE,HORIZONTAL		5990A20042B	
249951	CONTROL BOX ASSEMBLY,INDOOR		4995A20486M	
263230	THERMISTOR ASSEMBLY		6323A20004H	
264110	POWER CORD ASSEMBLY		6411A20026V	
266090	H.V ASSEMBLY		6609A10005D	
267110	REMOTE CONTROLLER ASSEMBLY		6711A90032U	
268714	PWB(PCB) ASSEMBLY,MAIN		6871A10056J	
342800	BEARING		4280A20004A	
346810	MOTOR ASSEMBLY,INDOOR		4681A20067C	
35211B	TUBE ASSEMBLY,TUBING		5211A30439D	
352115	TUBE ASSEMBLY,EVAPORATOR IN		5211A14007A	
352116	TUBE ASSEMBLY,EVAPORATOR OUT		5211A10474A	
352150	HOSE ASSEMBLY,DRAIN		5251AR1222R	
354210	EVAPORATOR ASSEMBLY,FIRST		5421A20211B	
359011	FAN ASSEMBLY,CROSS FLOW		5901A20017C	
668713	PWB(PCB) ASSEMBLY,SUB		6871A20259A	
668713	PWB(PCB) ASSEMBLY,SUB		6871A20258E	
733010	PLATE ASSEMBLY,INSTALL		3301A10002A	
W0CZZ	CAPACITOR,DRAWING		3H01487G	
268712	PWB(PCB) ASSEMBLY,DISPLAY	MIRRIOR("R")	6871A20463F	
		BLUE("B")	6871A20463B	
		METAL("M")	6871A20463B	
		WOOD("D")	6871A20463B	
		WHITE("W")	6871A20463B	
		CHERRY("C")	6871A20463B	

Outdoor Unit

LOCATION No.	DESCRIPTION	PART No.				REMARKS
		LS-C2423*M0	LS-H2423*M0	LS-C2463*M0	LS-H2463*M0	
430410	BASE ASSEMBLY, WELD[OUTDOOR]	3041A10027C	3041A20022G	3041A20022G	3041A20022G	R
435301	GRILLE, DISCHARGE	3530A20007J	3530A20007B	3530A20007B	3530A20007B	R
435511	COVER ASSEMBLY , CONTROL(OUTDOOR)	3551A30079M	3551A30007X	3551A30018W	3551A30007X	R
437210	PANEL ASSEMBLY, FRONT(OUTDOOR)	3721A20113A	3721A20005H	3721A20005H	3721A20005H	R
437212	PANEL ASSY, REAR	3721A20114F	3720AP0003D	3720AP0003D	3720AP0003D	R
447910	BARRIER ASSEMBLY, OUTDOOR	4791A20023A	2H02110M	2H02110M	2H02110M	R
546810	MOTOR ASSEMBLY, OUTDOOR	4681A20028T	4681A20008B	4681A20013D	4681A20013D	R
550140	ISOLATOR, COMP	-	5040A30017B	5040A30017B	5040A30017B	R
	GROMMET	4022U-L005A	-	-	-	R
552102	TUBE, CAPILLARY BEND	5210A21238T	5210A21238W	5210A21238V	*	R
552111	TUBE ASSEMBLY, CAPILLARY	*	5211A10242H	*	5211A10039Q	R
552116	TUBE ASSEMBLY, REVERSING	*	5211A30042W	*	5211A20529L	R
552201	VALVE, CHECK	*	*	*	3A01020H	R
552202	VALVE, REVERSING	*	3A02027A	*	3A02027A	R
554031	CONDENSER ASSEMBLY, BENT	5403A20164B	5403A20022R	5403A10013B	5403A10013B	R
554160	COMPRESSOR	2520UHFK2DB	5417A20012N	5416A20016F	5416A20016F	R
559010	FAN ASSEMBLY, PROPELLER	5901A10032B	1A00195B	1A00195B	1A00195B	R
561410	COIL ASSEMBLY, REVERSING VALVE	*	6141AR3733F	*	3A02028Y	R
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A20261X	4995A10059A	4995A10042E	4995A11002B	R
552102-1	TUBE, CAPILLARY BEND	*	*	*	5210A21238J	R
552102-2	TUBE, CAPILLARY BEND	*	*	*	5424AR3479F	R
552203-1	VALVE, SERVICE	5220A20002C	2A00393C	2A00392N	5220A20002A	R
552203-2	VALVE, SERVICE	*	*	5220A20002A	2A00392N	R
552203-3	VALVE, SERVICE	2A00392E	2A00392N	*	*	R
W0CZZ	CAPACITOR, DRAWING	2A00986Y	6120AR2359U	2A00986Y	2A00986Y	R

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LOCATION No.	DESCRIPTION	PART No.						REMARKS
		LS-C1823*M0	LS-H1823*M0	LS-C1823*M2	LS-C1863*M0	LS-H1863*M0	AS-H1863*M0	
430410	BASE ASSEMBLY, WELD[OUTDOOR]	2H02079T	2H02079T	3041A10027P	3041A20022G	3041A20022G	3041A30003F	R
435301	GRILLE, DISCHARGE	1H00840C	1H00840C	3530A20007J	3530A20007B	3530A20007B	3530A20007B	R
435511	COVER ASSEMBLY, CONTROL(OUTDOOR)	3551A20030C	3551A20030D	3551A30079A	3551A20215F	3551A30007X	3551A30018N	R
435512	COVER ASSEMBLY, TOP(OUTDOOR)	3H03465J	3H03465J	*	3H03266K	3H03266K	3H03266K	R
437210	PANEL ASSEMBLY, FRONT(OUTDOOR)	2H02674V	2H02674V	3721A20260A	3721A20004G	3721A20005H	3721A20005H	R
437212	PANEL ASSY, REAR	1H00697M	1H00697W	3721A20114F	3720AP0003Z	3720AP0003D	3720AP0003D	R
447910	BARRIER ASSEMBLY, OUTDOOR	4791AR7047A	3H03466K	3791A20023C	2H02110M	2H02110M	2H02110M	R
546810	MOTOR ASSEMBLY, OUTDOOR	4681AR1392R	4681AR1392R	4681A20028E	4681A20013S	4681A20013S	4681A20013A	R
550140	ISOLATOR, COMP	4H00982E	4H00982E	4H00982E	5040A30017B	5040A30017B	4H00982E	R
552102	TUBE, CAPILLARY BEND	5210A31442C	*	5210A30041Y	*	*	*	R
552111	TUBE ASSEMBLY, CAPILLARY	5211A21202B	5211A21202D	5211A21381F	5211A20133U	5211A30331D	5211A10039P	R
552116	TUBE ASSEMBLY, REVERSING	*	5211A21200D	*	*	5221AR2938M	5211A20529N	R
552201	VALVE, CHECK	*	3A01020H	*	*	3A01020H	5220A30004A	R
552202	VALVE, REVERSING	*	3A02027G	*	*	*	5220AR3228C	R
554031	CONDENSER ASSEMBLY, BENT	5403A20072Q	5403AR6027V	5403A20164B	5403A90039Q	5403A10013B	5403A20022R	R
554160	COMPRESSOR	2520UMDK2JA	2520UMBK2UA	2520UMKK1FA	5416A20016A	5416A20016A	2520UTEP2AA	R
559010	FAN ASSEMBLY, PROPELLER	5900AR1119B	5900AR1119B	5901A10032A	1A00195B	1A00195B	1A00195B	R
561410	COIL ASSEMBLY, REVERSING VALVE	*	6141A20010E	*	*	6141AR3733F	3A02028G	R
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4781AR1459P	4781AR1459T	4995A00006K	4995A10136D	4995A10002W	4995A10002X	R
552102-1	TUBE, CAPILLARY BEND	*	5210A31442G	*	5210A30147S	5210A30147Q	5210A31380A	R
552102-2	TUBE, CAPILLARY BEND	*	5210A31442F	*	5210A30147Y	5424AR3811B	5424AR3479V	R
552203-1	VALVE, SERVICE	2H02200E	2H02200E	5220A20005B	2H02479F	2H02479F	5220A20005B	R
552203-2	VALVE, SERVICE	2A00392N	2A00392N	2A00392E	2H01890P	2H01890P	5220A20006J	R
W0CZZ-2	CAPACITOR, DRAWING	2A00986Z	2H01451S	6120AR2194F	6120AR2194K	6120AR2194K	2A00986Y	R

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LOCATION No.	DESCRIPTION	PART No.					REMARKS
		AS-H2463*M0	AS-H2463R/D/M/WM1	LS-C2463B/C/D/M/RM1	LS-C1823RM1	LS-H1863*M1	
430410	BASE ASSEMBLY, WELD[OUTDOOR]	3041A30003F	3041A30003F	3041A20022G	2H02079T	3041A10027A	R
435301	GRILLE, DISCHARGE	3530A20007B	3530A30007J	3530A20007B	1H00840C	3530A20007J	R
435511	COVER ASSEMBLY, CONTROL(OUTDOOR)	3551A30007X	3551A30061M	3551A30018W	3551A20030C	3551A30079N	R
435512	COVER ASSEMBLY, TOP(OUTDOOR)		-	3H03266K	3H03465J	-	R
437210	PANEL ASSEMBLY, FRONT(OUTDOOR)	3721A20005H	1A00197A	3721A20005H	2H02674V	3721A20113A	R
437212	PANEL ASSY, REAR	3720AP0003D	1A00202F	3720AP0003D	1H00697M	3721A20114F	R
447910	BARRIER ASSEMBLY, OUTDOOR	2H02110M	4791A30004G	2H02110M	4791AR7047A	4791A20023C	R
546810	MOTOR ASSEMBLY, OUTDOOR	4681A20013D	4681A20008N	4681A20013D	4681AR1392R	4681A20028P	R
550140	ISOLATOR, COMP	4H00982E	4H00982E	5040A30017B	4H00982E	4022U-L005A	R
552102	TUBE, CAPILLARY BEND	5210A30216P	5210A20474J	5210A21238V	5210A31442C	5210A31655F	R
552111	TUBE ASSEMBLY, CAPILLARY	5211A10039U	5211A30769B	-	5211A21202B	-	R
552116	TUBE ASSEMBLY, REVERSING	5211A20529M	5211A20529P	-	-	5211A20270R	R
552201	VALVE, CHECK	5220A30004A	3A01020H	-	-	-	R
552202	VALVE, REVERSING	5220AR3228C	3A02027A	-	-	3A02027G	R
552203-1	VALVE, SERVICE	5220A20013A	5220A20013A	2A00392N	2H02200E	5220A20005B	R
552203-2	VALVE, SERVICE	5220A20001R	5220A20001R	5220A20002A	2A00392N	2H01890P	R
554031	CONDENSER ASSEMBLY, BENT	5403A20022R	5403A20066F	5403A10013B	5403A20072Q	5403A20205A	R
554160	COMPRESSOR SET	2520UXFP2AA	2520UXFP2BA	5416A20016F	2520UMDK2JA	2520UHFP2EA	R
559010	FAN ASSEMBLY, PROPELLER	1A00195B	1A00195B	1A00195B	5900AR1119B	5901A10032A	R
561410	COIL ASSEMBLY, REVERSING VALVE	3A02028Y	3A02028Y	-	-	3A02028Y	R
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A10002L	4995A10167A	4995A10042E	4781AR1459P	4995A20261R	R
W0CZZ	CAPACITOR, DRAWING	2A00986Y	2A00986Y	2A00986Y	2A00986Z	0CZZA10001A	R

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LOCATION No.	DESCRIPTION	PART No.		REMARKS
		ASUH1863UM3 (AS-H186*M3)	ASUH2463UM3 (AS-H246*M3)	
430410	BASE ASSEMBLY, WELD[OUTDOOR]	3041A30003F	3041A30003H	
435301	GRILLE, DISCHARGE	3530A20007B	3530A20007B	
435511	COVER ASSEMBLY, CONTROL(OUTDOOR)	3551A30018N	3551A30007X	
435512	COVER ASSEMBLY, TOP(OUTDOOR)	3H03266K	3H03266K	
437210	PANEL ASSEMBLY, FRONT(OUTDOOR)	3721A20005H	3721A20005H	
437212	PANEL ASSEMBLY, REAR(OUTDOOR)	3720AP0003D	3720AP0003D	
447910	BARRIER ASSEMBLY, OUTDOOR	2H02110M	2H02110M	
546810	MOTOR ASSEMBLY, OUTDOOR	4681A20013A	4681A20013D	
549610	MOUNT ASSEMBLY, MOTOR(OUTDOOR)	4961A30002A	4961A20003D	
550140	ISOLATOR, COMP	4H00982E	4H00982E	
552102	TUBE, CAPILLARY BEND	-	5210A30216P	
552102-1	TUBE, CAPILLARY BEND	5210A31380A	-	
552102-2	TUBE, CAPILLARY BEND	5424AR3479V	-	
552111	TUBE ASSEMBLY, CAPILLARY	5211A10039P	5211A10039U	
552116	TUBE ASSEMBLY, REVERSING	5211A20529N	5211A20529M	
552201	VALVE, CHECK	5220A30004A	5220A30004A	
552202	VALVE, REVERSING	5220AR3228C	5220AR3228C	
552203-1	VALVE, SERVICE	5220A20005B	5220A20013C	
552203-2	VALVE, SERVICE	5220A20006J	5220A20001R	
554031	CONDENSER ASSEMBLY, BENT	5403A20022R	5403A20022R	
554160	COMPRESSOR SET	2520UTEP2AA	2520UXFP2AA	
559010	FAN ASSEMBLY, PROPELLER	1A00195B	1A00195B	
561410	COIL ASSEMBLY, REVERSING VALVE	3A02028G	3A02028Y	
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A10002X	4995A10002L	
W0CZZ-2	CAPACITOR, DRAWING	2A00986Y	2A00986Y	

NOTE) *Please ensure GCSC since these parts may be changed depending upon the buyer's request.
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LOCATION No.	DESCRIPTION	PART No.	REMARKS
		LSUH1863UM3	
430410	BASE ASSEMBLY, WELD[OUTDOOR]	3041A10027A	
435301	GRILLE, DISCHARGE	3530A20007J	
435511	COVER ASSEMBLY, CONTROL(OUTDOOR)	3551A30079N	
437210	PANEL ASSEMBLY, FRONT(OUTDOOR)	3721A20113A	
437212	PANEL ASSEMBLY, REAR(OUTDOOR)	3721A20114F	
447910	BARRIER ASSEMBLY, OUTDOOR	4791A20023C	
546810	MOTOR ASSEMBLY, OUTDOOR	4681A20028P	
549610	MOUNT ASSEMBLY, MOTOR(OUTDOOR)	4961A20017B	
550140	GROMMET	4022U-L005A	
552102	TUBE, CAPILLARY BEND	5210A31655F	
552116	TUBE ASSEMBLY, REVERSING	5211A20270R	
552202	VALVE, REVERSING	3A02027G	
552203-1	VALVE, SERVICE	5220A20005B	
552203-2	VALVE, SERVICE	2H01890P	
554031	CONDENSER ASSEMBLY, BENT	5403A20205A	
554160	COMPRESSOR SET	2520UHFP2EA	
559010	FAN ASSEMBLY, PROPELLER	5901A10032A	
561410	COIL ASSEMBLY, REVERSING VALVE	3A02028Y	
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A90261R	

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LOCATION No.	DESCRIPTION	PART No.			REMARKS
		LSUC2463UM3	LSUH2463UM3	LSUC1863UM3	
552203-2	Valve,Service	5220A20002A	2A00392N	5220A20005B	R
554031	Condenser Assembly,Bending	5403A10013B	5403A10013B	5403A20072M	R
554160	Compressor	5416A20016F	5416A20016F	2520UHCP2CA	R
550140	Damper,Compressor	5040A30017B	5040A30017B	-	R
550140	Damper	-	-	4022U-L005A	R
552203-1	Valve,Service	2A00392N	5220A20002A	2H01890P	R
552111	Tube Assembly,Capillary	-	5211A10039Q	5211A20291J	R
552201	Valve,Check	-	3A01020H	-	R
552102-2	Tube,Capillary Bending	-	5424AR3479F	-	R
552102	Tube,Capillary Bending	5210A21238V	-	5210A31405C	R
552102-1	Tube,Capillary Bending	-	5210A21238J	-	R
447910	Barrier Assembly,Outdoor	2H02110M	2H02110M	4791AR7047A	R
549610	Bracket Assembly,Motor(Outdoor)	4961A20003D	4961A20003D	1H00838A	R
546810	Motor Assembly,AC,Outdoor	4681A20013D	4681A20013D	4681A20126A	R
559010	Fan Assembly,Propeller	1A00195B	1A00195B	5900AR1119B	R
437212	Panel Assembly,Rear(Outdoor)	3720AP0003D	3720AP0003D	1H00697M	R
649950	Case Assembly,Control(Outdoor)	4995A10042E	4995A11002B	4995A91459M	R
W0CZZ-2	Array Capacitor	2A00986Y	2A00986Y	-	R
561410	Solenoid	-	3A02028Y	-	R
437211	Panel Assembly,Front(Outdoor)	3721A20005H	3721A20005H	2H02674V	R
435301	Grille,Discharge	3530A20007B	3530A20007B	1H00840C	R
435511	Cover Assembly,Control(Outdoor)	3551A30018W	3551A30007X	3551A20030C	R
435512	Cover Assembly,Top(Outdoor)	3H03266K	3H03266K	3H03465D	R
552116	Tube Assembly,Reverse	-	5211A20529L	-	R
552202	Valve,Reverse	-	3A02027A	-	R
430411	Base Assembly,Weld(Outdoor)	3041A20022G	3041A20022G	3041A10045B	R

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LOCATION No.	DESCRIPTION	PART No.	REMARKS
		LSUC2463UM4	
430410	BASE ASSEMBLY,WELD[OUTDOOR]	3041A20022G	
435301	GRILLE,DISCHARGE	3530A20007B	
435511	COVER ASSEMBLY,CONTROL(OUTDOOR)	3551A30061P	
435512	COVER ASSEMBLY,TOP(OUTDOOR)	3H03266K	
437210	PANEL ASSEMBLY,FRONT(OUTDOOR)	3721A20005H	
437212	PANEL ASSEMBLY,REAR(OUTDOOR)	3720AP0003D	
447910	BARRIER ASSEMBLY,OUTDOOR	2H02110M	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A20013D	
549610	MOUNT ASSEMBLY,MOTOR(OUTDOOR)	4961A20003D	
550140	ISOLATOR,COMP	5040A30017B	
552102	TUBE,CAPILLARY BEND	5210A21238V	
552111	TUBE ASSEMBLY,CAPILLARY	5211A21202J	
552203-1	VALVE,SERVICE	5220A20002A	
552203-2	VALVE,SERVICE	2A00392N	
554031	CONDENSER ASSEMBLY,BENT	5403A10013B	
554160	COMPRESSOR	5416A20016F	
559010	FAN ASSEMBLY,PROPELLER	1A00195B	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10042U	
W0CZZ	CAPACITOR,DRAWING	2A00986Y	

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