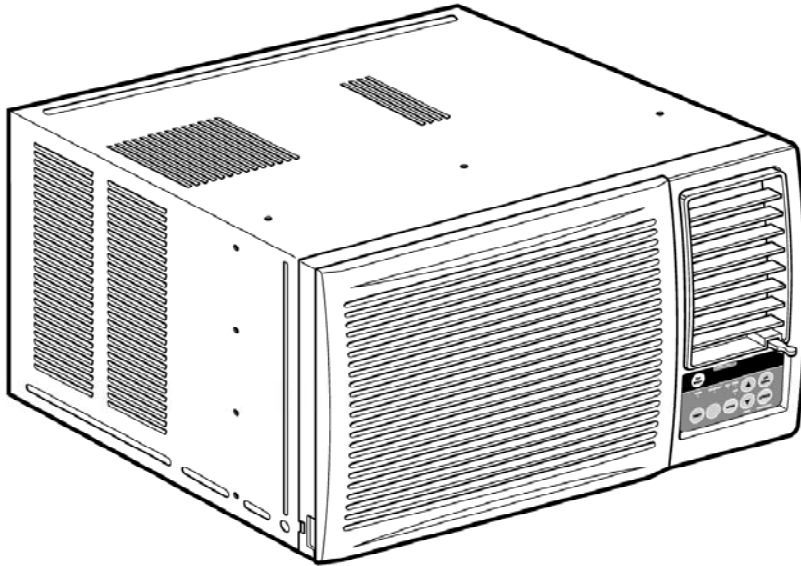


Service Manual

Room Air Conditioner



CW-XC65HU
CW-XC85HU
CW-XC85HK

⚠ WARNING

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

Panasonic[®]

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1. PREFACE

This **SERVICE MANUAL** provides various service information, including the mechanical and electrical parts etc. This room air conditioner was manufactured and assembled under a strict quality control system. The refrigerant is charged at the factory. Be sure to read the safety precautions prior to servicing the unit.

1.1 SAFETY PRECAUTIONS

1. When servicing the unit, set the **ROTARY SWITCH** or **POWER SWITCH** to **OFF** and unplug the power cord.
2. Observe the original lead dress.
If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

1.2 INSULATION RESISTANCE TEST

1. Unplug the power cord and connect a jumper between 2 pins (black and white).
2. The grounding conductor (green) is to be open.
3. Measure the resistance value with an ohm meter between the jumpered lead and each exposed metallic part on the equipment. As to Mechanical type, measure the all positions (except off) of the **ROTARY SWITCH**.
4. The value should be over 1MΩ.

1.3 SPECIFICATIONS

		CW-XC65HU	CW-XC85HU	CW-XC85HK
POWER SUPPLY	Ø, V, Hz	1, 115, 60		
COOLING CAPACITY	Btu/h.	6,000	7,800	7,800
POWER INPUT	W	560	720	720
RUNNING CURRENT	A	5.2	6.6	6.6
EER	Btu/h.W	10.7	10.8	10.8
OPERATING CONDITION	INDOOR	°F(°C) DB : 80(26.7) WB : 67(19.4)		
	OUTDOOR	°F(°C) DB : 95(35) WB : 75(23.9)		
REFREIGERANT (R-22) CHARGE		320g(11.3 oz)	445g(15.7 oz)	
EVAPORATOR		2 ROW 14 STACKS, SLIT-FIN TYPE	2 ROW 12 STACKS, LOUVERED-FIN TYPE	
CONDENSER		2 ROW 16 STACKS, LOUVERED-FIN TYPE		
FAN	INDOOR	TURBO FAN		
	OUTDOOR	PROPELLER TYPE FAN WITH SLINGER-RING		
FAN SPEED	FAN/COOLING	3/3		
FAN MOTOR		6 POLES		
OPERATION CONTROL		REMOTE CONTROLLER		
ROOM TEMP. CONTROL		THERMISTOR		
AIR DIRECTION CONTROL	VERTICAL	MANUAL		
	HORIZONTAL	MANUAL	AUTO	MANUAL
CONSTRUCTION		SLIDE IN-OUT CHASSIS		
PROTECTOR	COMPRESSOR	OVERLOAD PROTECTOR		
	FAN MOTOR	INTERNAL TERMINAL PROTECTOR		
POWER CORD		3WIRE WITH GROUNDING		
		ATTACHMENT PLUG(CORD-CONNECTED TYPE)		
DRAIN SYSTEM		DRAIN PIPE OR SPLASHED BY FAN SLINGER		
NET WEIGHT	lbs(kg)	60(27)	66(30)	
DIMENSION(W*H*D)		18 ^{15/32} * 13 ^{29/32} * 20 ^{21/32} (469 * 353 * 525)		

* DB: Dry Bulb

** WB: Wet Bulb

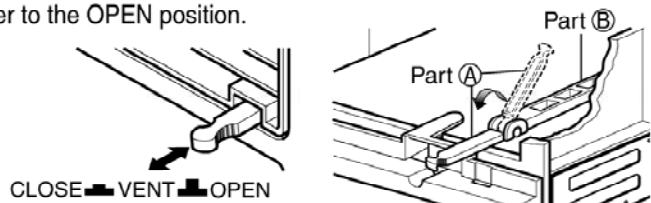
* The specifications will be changed without notice for further improvement.

1.4 ABOUT THE CONTROLS ON THE AIR CONDITIONER

VENTILATION

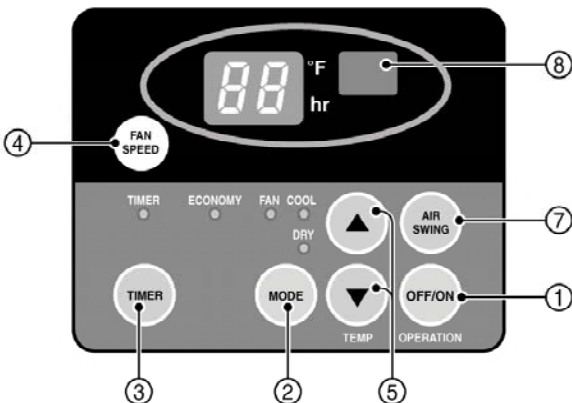
The ventilation lever must be in the CLOSE position in order to maintain the best cooling conditions. When fresh air is necessary in the room, set the ventilation lever to the OPEN position. The damper is opened and room air is drawn out.

NOTE: Before using the ventilation feature, and prior to installing the front grille, pull down part (A) until level with part (B).

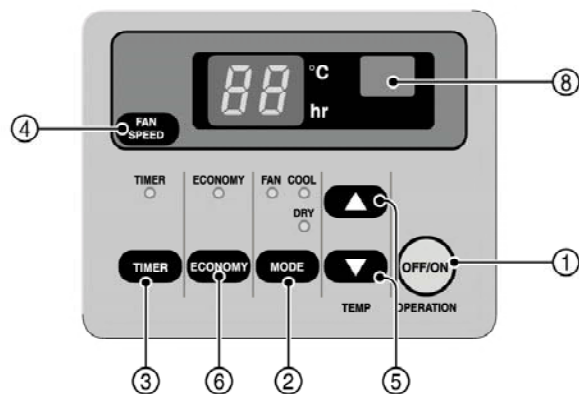


CONTROL

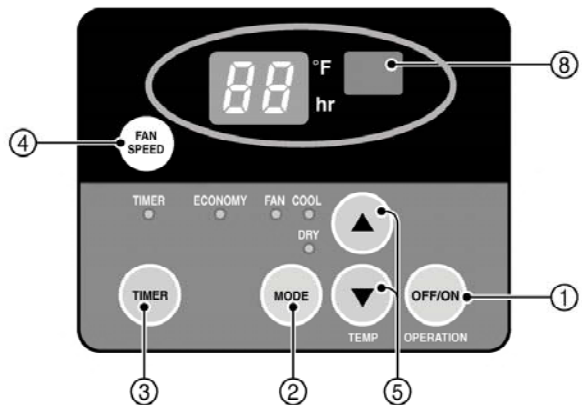
Model: CW-XC85HU



Models: CW-XC85HK



Models: CW-XC65HU



① OPERATION

- To turn the air conditioner ON, push the OFF/ON button. To turn the air conditioner OFF, push the button again.
- This button takes priority over any other buttons.
- When you first turn it on, the air conditioner is on the High cool mode and the temp. at 72°F (22°C)

② MODE

- Every time you push this button, it will toggle between COOL, FAN, DRY. (Models: CW-XC65HK, CW-XC85HK)
- Every time you push this button, it will toggle between COOL, ECONOMY, FAN and DRY. (Models: CW-XC65HU, CW-XC85HU)

③ ON/OFF TIMER

- Every time you push the TIMER button, timer is set as follows. (1Hour → 2Hours → 3Hours → 4Hours → 5Hours → 6Hours → 7Hours → 8Hours → 9Hours → 10Hours → 11Hours → 12Hours → 0)
- The Setting Temperature will be raised by 2°F(1°C) 30 min. later and by 2°F(1°C) after another 30 min.

④ FAN SPEED

- Every time you push this button it is set as follows. {High(F3) → Low(F1) → Med(F2) → High(F3)...}.

⑤ TEMPERATURE SETTING

- This button can automatically control the temperature of the room. The temperature can be set within a range of 60°F to 86°F by 1°F (16°C to 30°C by 1°C) Select the lower number for lower temperature of the room.

⑥ ECONOMY

(Models: CW-XC65HK, CW-XC85HK)

- If you push the button, the fan stops when the compressor stops cooling.
- Approximately every 3 minutes the fan will turn on and check the room air to determine if cooling is needed.

⑦ AIR SWING

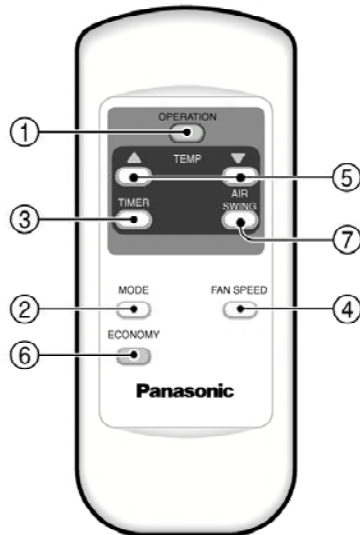
- This button can automatically control the air flow direction.

⑧ REMOTE CONTROL SIGNAL RECEIVER

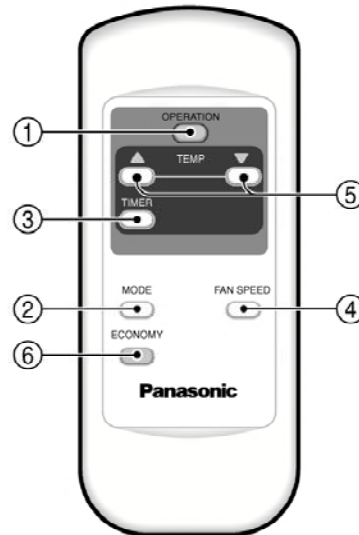
REMOTE CONTROL

Precaution: The Remote Controller will not function properly if strong light strikes the sensor window of the air conditioner or if there are obstacles between the Remote Controller and the air conditioner.

Model: CW-XC85HU



Models: CW-XC65HU, CW-XC85HK



① OPERATION

- To turn the air conditioner ON, push the button. To turn the air conditioner OFF, push the button again.
- This button takes priority over any other buttons.
- When you first turn it on, the air conditioner is on the High cool mode and the temp. at 72°F (22°C).

② MODE

- Every time you push this button, it will toggle between COOL, FAN, DRY. (Models: CW-XC85HK)
- Every time you push this button, it will toggle between COOL, ECONOMY, FAN and DRY. (Models: CW-XC65HU, CW-XC85HU)

③ ON/OFF TIMER

- STOPPING OPERATION
- Every time you push this button, when the air conditioner is operating, timer is set as follows. (1Hour → 2Hours → 3Hours → 4Hours → 5Hours → 6Hours → 7Hours → 8Hours → 9Hours → 10Hours → 11Hours → 12Hours → O)
- The Setting Temperature will be raised by 2°F (1°C) 30 min. later and by 2°F (1°C) after another 30 min.
- STARTING OPERATION
- Every time you push this button, when the air conditioner is not operating, timer is set as follows. (1Hour → 2Hours → 3Hours → 4Hours → 5Hours → 6Hours → 7Hours → 8Hours → 9Hours → 10Hours → 11Hours → 12Hours → O)

④ FAN SPEED

- Every time you push this button it is set as follows. {High(F3) → Low(F1) → Med(F2) → High(F3)...}.

⑤ TEMPERATURE SETTING

- This button can automatically control the temperature of the room. The temperature can be set within a range of 60°F to 86°F by 2°F. (16°C to 30°C by 1°C) Select the lower number for lower temperature of the room.

⑥ ECONOMY

- If the switch is set to "On", the fan stops when the compressor stops cooling. Approximately every 3 minutes the fan will turn on and check the room air to determine if cooling is needed.

⑦ AIR SWING

- This button can automatically control the air flow direction.

⑧ DRY

- When this unit is in dry mode, the fan rotates in low speed. The fan stops when the compressor stops cooling. Approximately every 3 minutes the fan will turn on and the unit checks the room air temperature to set itself.

2. DISASSEMBLY INSTRUCTIONS

— Before the following disassembly, POWER SWITCH set to OFF and disconnect the power cord.

2.1 MECHANICAL PARTS

2.1.1 FRONT GRILLE

1. Open the Inlet grille upward or downward.
2. Remove the screw which fastens the front grille.
3. Pull the front grille from the right side.
4. Remove the front grille.
5. Re-install the component by referring to the removal procedure, above.(See Figure 1)

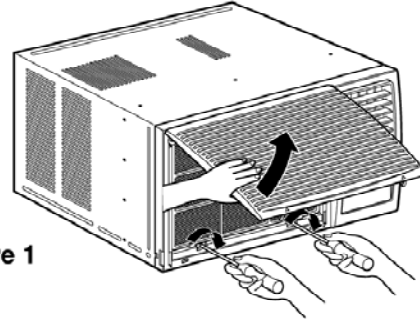


Figure 1

2.1.2 CABINET

1. After disassembling the FRONT GRILLE, remove the 2 screws which fasten the cabinet at both sides.
2. Remove the 2 screws which fasten the cabinet at back.
3. Pull the base pan forward. (See Figure 2)
4. Remove the cabinet.
5. Re-install the component by referring to the removal procedure, above.

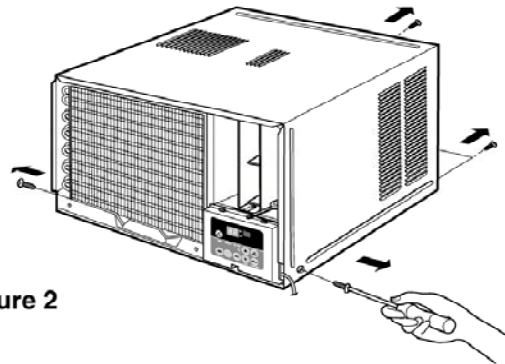


Figure 2

2.1.3 CONTROL BOX

1. Disconnect the unit from the power source.
2. Remove the front grille. (Refer to section 2.1.1)
3. Remove the cabinet. (Refer to section 2.1.2)
4. Remove the screw which fastens the control box cover.
5. Remove the housing which connects motor wire in the control box.
6. Remove the 3 leads from the compressor. (Refer to section 2.3.1)
7. Discharge the capacitor by placing a 20,000 ohm resistor across the capacitor terminals.
8. Remove the 2 screws which fasten the control box.(See Figure 3)
9. Pull the control box forward completely.
10. Re-install the components by referring to the removal procedure, above. (See Figure 3)
(Refer to the circuit diagram found on page 28 in this manual or on the control box.)

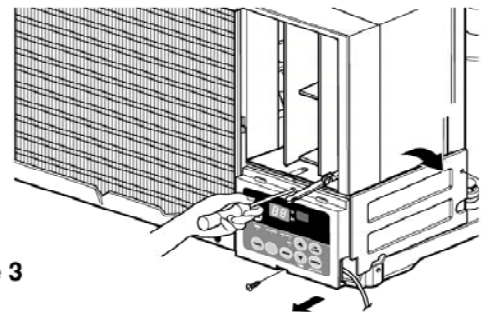


Figure 3

2.2 AIR HANDLING PARTS

2.2.1 AIR GUIDE AND BLOWER

1. Remove the front grille. (Refer to section 2.1.1)
2. Remove the cabinet. (Refer to section 2.1.2)
3. Remove the control box. (Refer to section 2.1.3)
4. Remove the 3 screws which fasten the brace.
5. Remove the brace.
6. Remove the 2 screws which fasten the evaporator.
7. Move the evaporator forward and pulling it upward slightly. (See Figure 4)
8. Move the evaporator to the left carefully.
9. Pull out the hook of orifice by pushing the tabs and remove it. (See Figure 5)
10. Remove the clamp with a hand plier which secures the blower.
11. Remove the blower.
12. Remove the 4 screws which fasten the air guide from the barrier.
13. Move the air guide backward, pulling out from the base pan.
14. Re-install the components by referring to the removal procedure, above.

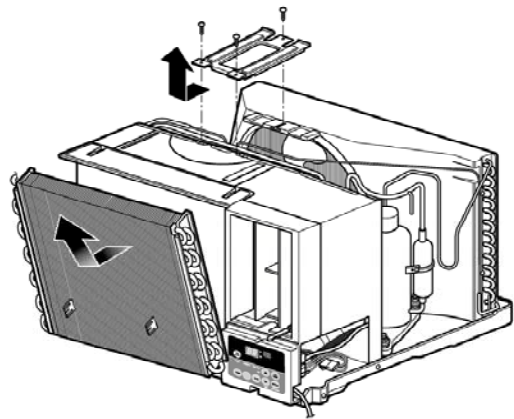


Figure 4

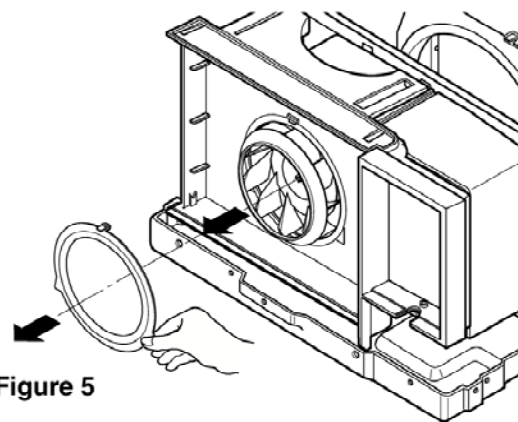


Figure 5

2.2.2 FAN AND SHROUD

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the brace (Refer to section 2.2.1)
3. Remove the 3 screws which fasten the condenser.
4. Move the condenser to the left carefully.
5. Remove the clamp which secures the fan.
6. Remove the fan and then pull out the shroud. (See Figure 6)
7. Re-install by referring to the removal procedure.

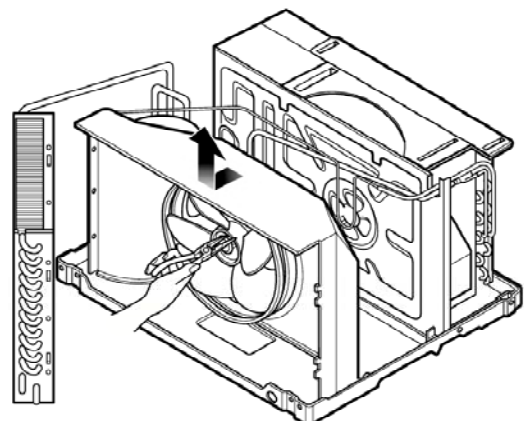


Figure 6

2.3 ELECTRICAL PARTS

2.3.1 OVERLOAD PROTECTOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the nut which fastens the terminal cover.
3. Remove the terminal cover. (See Figure 7)
4. Remove all the leads from the overload protector.
5. Remove the overload protector.
6. Re-install the component by referring to the removal procedure, above.

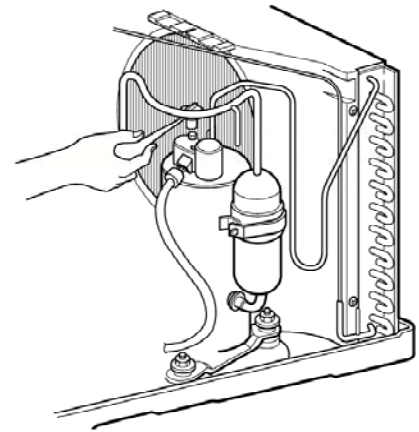


Figure 7

2.3.2 COMPRESSOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Discharge the refrigerant system using a Freon™ Recovery System.
If there is no valve to attach the recovery system, install one (such as a WATCO A-1) before venting the Freon™. Leave the valve in place after servicing the system.
3. Remove the overload protector. (Refer to section 2.3.1)
4. After purging the unit completely, unbrazed the suction and discharge tubes at the compressor connections.
5. Remove the 3 nuts and the 3 washers which fasten the compressor.
6. Remove the compressor. (See Figure 8)
7. Re-install the components by referring to the removal procedure, above.

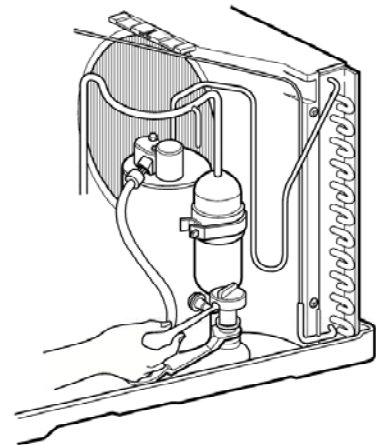


Figure 8

2.3.3 CAPACITOR

1. Remove the control box. (Refer to section 2.1.3)
2. Remove the screw which fastens control panel from control box.
3. Remove the screw which located in the front.
4. Open the bottom side of control box.
5. Remove the screw and the clamp which fastens the capacitor.
6. Disconnect all the leads of capacitor terminals.
7. Re-install the components by referring to the removal procedure, above. (See Figure 9)

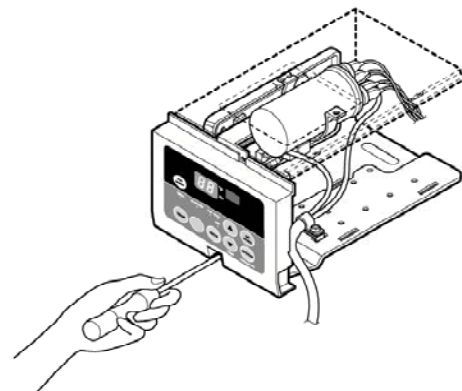


Figure 9

2.3.4 POWER CORD

1. Remove the control box. (Refer to section 2.1.3)
2. Open the control box. (Refer to section 2.3.3)
3. Disconnect the grounding screw from the control box.
4. Disconnect the 2 receptacles.
5. Remove a screw which fastens the clip cord. (See Figure 10)
6. Remove the power cord.
7. Re-install the component by referring to the above removal procedure, above. (Use only one ground-marked hole for ground connection.)
8. If the supply cord of this appliance is damaged, it must be replaced by the special cord. (The special cord means the cord which has the same specification marked on the supply cord attached at the unit.)

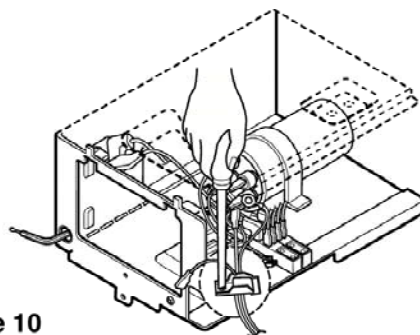


Figure 10

2.3.5 THERMOSTAT (For XC85CU)

1. Remove the control box. (Refer to section 2.1.3)
2. Open the control box. (Refer to section 2.3.3)
3. Disconnect the thermistor terminals from main P.C.B assembly.
4. Remove the thermistor.
5. Re-install the components by referring to the above removal procedure. (See Figure 11)

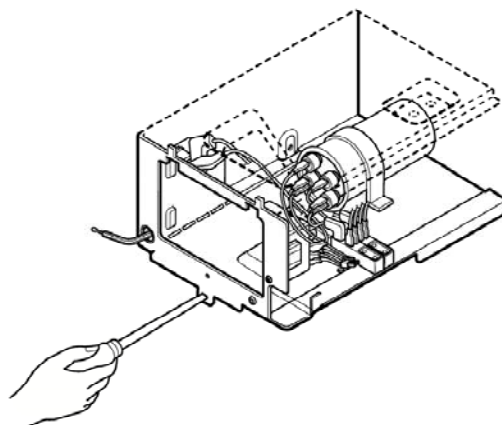


Figure 11

2.3.6 THERMISTOR (Except XC85CU)

1. Remove the control box. (Refer to section 2.1.3)
2. Open the control box. (Refer to section 2.3.3)
3. Disconnect the thermistor terminals from main P.C.B assembly.
4. Remove the thermistor.
5. Re-install the components by referring to the above removal procedure. (See Figure 11)

2.3.7 SYNCHRONOUS MOTOR (For CW-XC85HU)

1. Remove the control box. (Refer to section 2.1.3)
2. Unfold the control box. (Refer to section 2.3.3)
3. Remove the crankshaft.
4. Disconnect all the leads of the synchronous motor.
5. Remove the 2 screws which fasten the synchronous motor. (See Fig. 12)
6. Re-install the components by referring to the removal procedure, above.

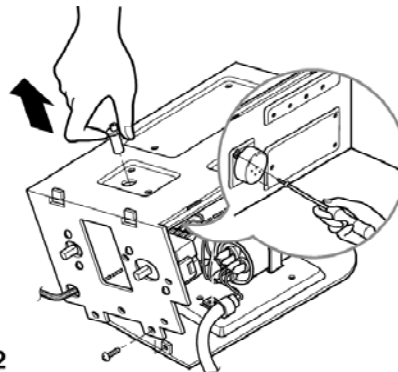


Figure 12

2.3.8 MOTOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the evaporator. (Refer to section 2.2.1)
3. Remove the orifice. (Refer to section 2.2.1)
4. Remove the blower. (Refer to section 2.2.1)
5. Remove the fan. (Refer to section 2.2.2)
6. Remove the control box cover and housing of the motor in the control box. (Refer to section 2.1.3)
7. Remove the 2 screws which fasten the motor from the mount motor. (See Figure 13)
8. Remove the motor.
9. Re-install the components by referring to the removal procedure, above. (See Figure 13)

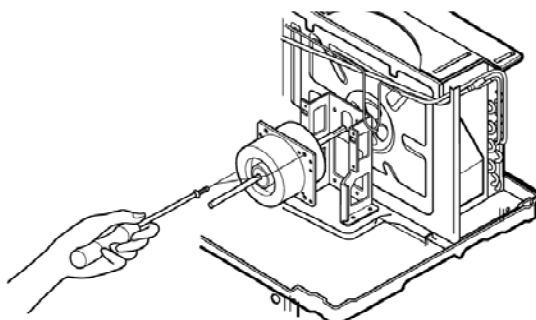


Figure 13

2.4 REFRIGERATING CYCLE

CAUTION

Discharge the refrigerant system using a Freon™ Recovery System.

If there is no valve to attach the recovery system, install one (such as a WATCO A-1) before venting the Freon™. Leave the valve in place after servicing the system.

2.4.1 CONDENSER

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the 3 screws which fasten the brace.(Refer to section 2.2.1)
3. Remove the 3 screws which fasten the condenser and shroud.
4. After discharging the refrigerant completely, unbrazed the interconnecting tube at the condenser connections.
5. Remove the condenser carefully.
6. Re-install the component by referring to notes. (See Figure 13)

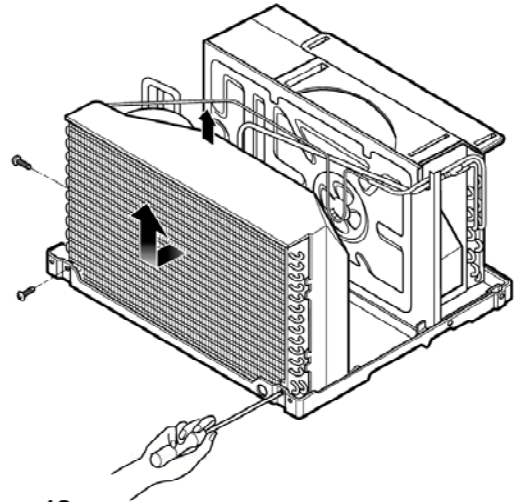


Figure 13

2.4.2 EVAPORATOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the 2 screws which fasten the evaporator.
3. Move the evaporator sideways carefully. (Refer to section 2.2.1)
4. After discharging the refrigerant completely, unbrazed the interconnecting tube at the evaporator connections.
5. Remove the evaporator carefully.
6. Re-install the component by referring to notes. (See Figure 14)

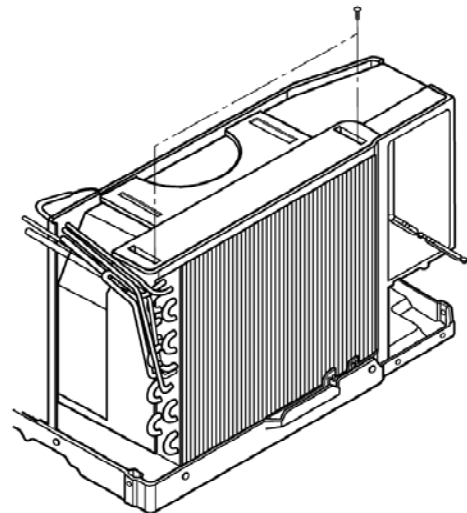


Figure 14

2.4.3 CAPILLARY TUBE

1. Remove the cabinet. (Refer to section 2.1.2)
2. After discharging the refrigerant completely, unbrazed the interconnecting tube at the capillary tube.(See caution above)
3. Remove the capillary tube.
4. Re-install the component by referring to notes.

NOTES

— Replacement of the refrigeration cycle.

1. When replacing the refrigeration cycle, be sure to Discharge the refrigerant system using a Freon™ recovery System.
If there is no valve to attach the recovery system, install one (such as a WATCO A-1) before venting the Freon™. Leave the valve in place after servicing the system.
2. After discharging the refrigerant from unit completely, remove the desired component, and unbrazed the pinch-off tubes.
3. Braze service valves into the pinch-off tube ports, leaving the valves open.
4. Braze the pinch-off tubes with Service valves.
5. Evacuate as follows.
 - 1) Connect the vacuum pump, as illustrated figure 15A.
 - 2) Start the vacuum pump, slowly open manifold valves A and B with two full turns counterclockwise and leave the valves open. The vacuum pump is now pulling through valves A and B up to valve C (figure 15B) by means of the manifold and entire system.

CAUTION

If high vacuum equipment is used, just slightly loosen the valves A and B for a few minutes, then open slowly with the two full turns counterclockwise. This will keep oil from foaming and being drawn into the vacuum pump.

- 3) Operate the vacuum pump for 20 to 30 minutes, until 600 microns of vacuum is obtained. Close valves A and B, and observe vacuum gauge for a few minutes. A rise in pressure would indicate a possible leak or moisture remaining in the system. With valves A and B closed, stop the vacuum pump.
- 4) Remove the hose from the vacuum pump and place it on the charging cylinder. See figure 15B.
Open valve C.
Discharge the line at the manifold connection.
- 5) The system is now ready for final charging.

6. Recharge as follows :

- 1) Refrigeration cycle systems are charged from the High-side. If the total charge cannot be put in the High-side, the balance will be put in the suction line through the access valve which you installed as the system was opened.
- 2) Connect the charging cylinder as shown in figure 15B.
With valve C open, discharge the hose at the manifold connection.
- 3) Open valve A and allow the proper charge to enter the system. Valve B is still closed.
- 4) If more charge is required, the high-side will not take it. Close valve A.
- 5) With the unit running, open valve B and add the balance of the charge.
 - a. Do not add the liquid refrigerant to the Low-side.
 - b. Watch the Low-side gauge; allow pressure to rise to 30 lbs (0.2Mp).
 - c. Turn off valve B and allow pressure to drop.
 - d. Repeat steps b. and c. until the balance of the charge is in the system.
- 6) When satisfied the unit is operating correctly, use the pinch-off tool with the unit still running and clamp on to the pinch-off tube. Using a tube cutter, cut the pinch-off tube about 2 inches from the pinch-off tool. Use sil-fos brazing rod and braze pinch-off tube closed. Turn off the unit, allow it to set for a while, and then test the leakage of the pinch-off connection.

Equipment needed: Vacuum pump, Charging cylinder, Manifold gauge, Brazing equipment. Pin-off tool capable of making a vapor-proof seal, Leak detector, Tubing cutter, Hand Tools to remove components, Service valve.

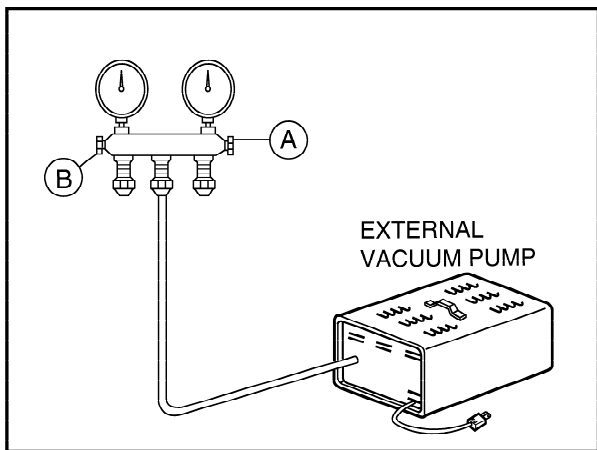
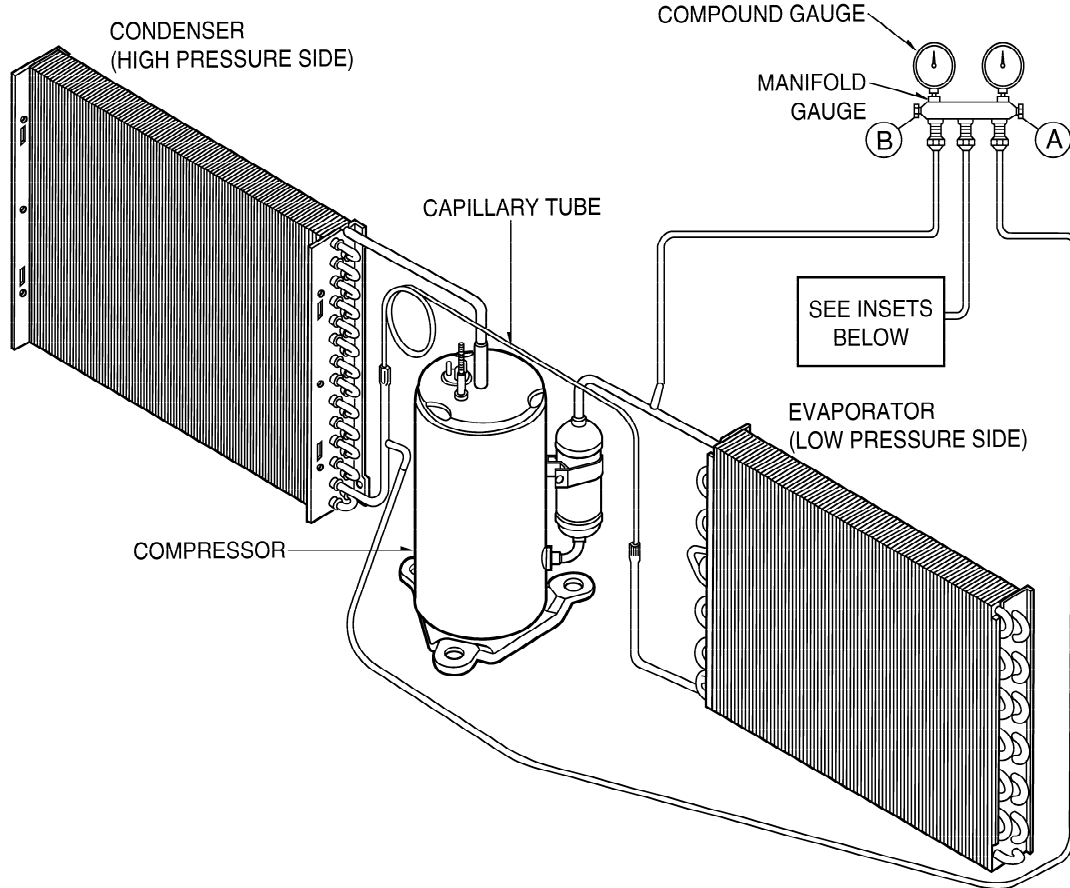


Figure 15A-Pulling Vacuum

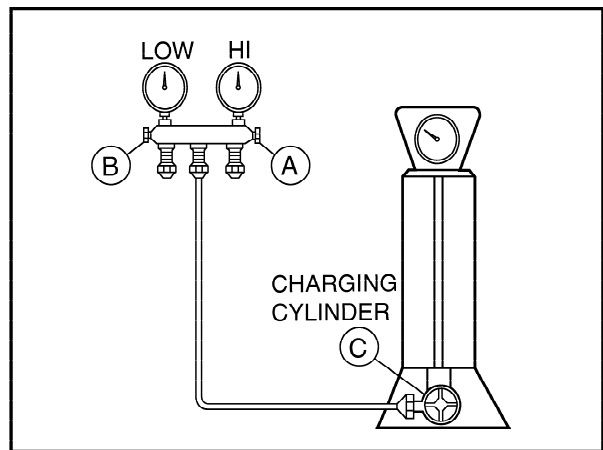


Figure 15B-Charging

3. INSTALLATION

3.1 SELECT THE BEST LOCATION

1. To prevent vibration and noise, make sure the unit is installed securely and firmly.
2. Install the unit where the sunlight does not shine directly on the unit.
3. The outside of the cabinet must extend outward for at least 28cm(11") and there should be no obstacles, such as a fence or wall, within 50.8cm(20") from the back of the cabinet because it will prevent heat radiation of the condenser. Restriction of outside air will greatly reduce the cooling efficiency of the air conditioner.

CAUTION

All side louvers of the cabinet must remain exposed to the outside of the structure.

4. Install the unit a little slanted so the back is slightly lower than the front (about 12.7cm(1/2")). This will help force condensed water to the outside.
5. Install the unit from the bottom about 76.2cm(30")~152.4cm(60") above the floor level.

3.2 CHECK OF INSTALLATION

The setting conditions must be checked prior to initial starting. The under mentioned items are especially important checking points when the installation is finished.

1. Grounding wire (Green or Green and Yellow) is provided in the power cord. The green wire must be grounded.
2. Connect to a single-outlet 15A circuit.
3. To avoid vibration or noise, make sure the air conditioner is installed securely.
4. Avoid placing furniture or draperies in front of the air inlet and outlet.

3.3. HOW TO SECURE THE DRAIN PIPE

In humid weather, excess water may cause the BASE PAN to overflow. To drain the water, remove the DRAIN CAP and secure the DRAIN PIPE to the rear hole of the BASE PAN. Press the drain pipe into the hole by pushing down and away from the fins to avoid injury. (See Fig.17)

Optional(CW3H02502C)

1. Remove the rubber plug and slide the chassis out from the cabinet. (See Fig.18)
2. Install the drain pan over the corner of the cabinet where you removed the plug with 4 (or 2) screws. (See Fig.19)
3. Connect the drain hose to the outlet located at the bottom of the drain pan. You can purchase the drain hose or tubing locally to satisfy your particular needs. (Drain hose is not supplied). (See Fig.19)
4. Select the most appropriate connection from among the right figures (by considering the hole of the unit) to fit drain pan to your own unit. (See Fig.19)
5. Slide the chassis back into the cabinet. Reinstall the cabinet screws. Secure the cabinet to chassis by using screws. (See Fig.20)

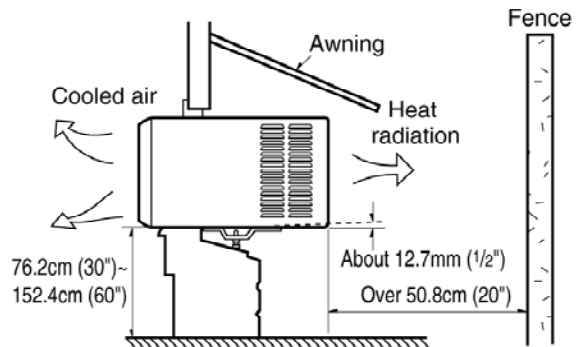


Figure 16

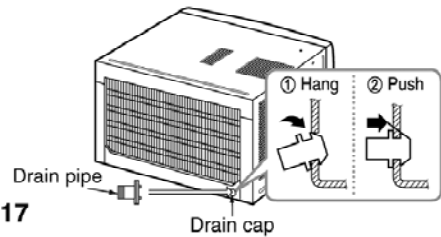


Figure 17

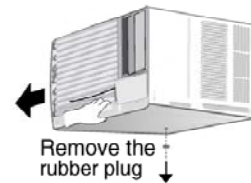


Figure 18

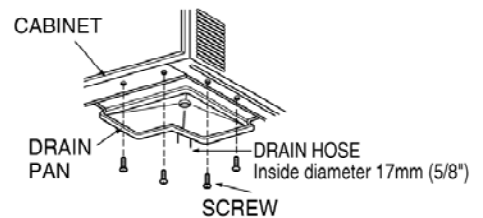


Figure 19

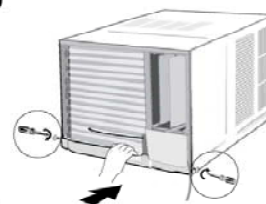
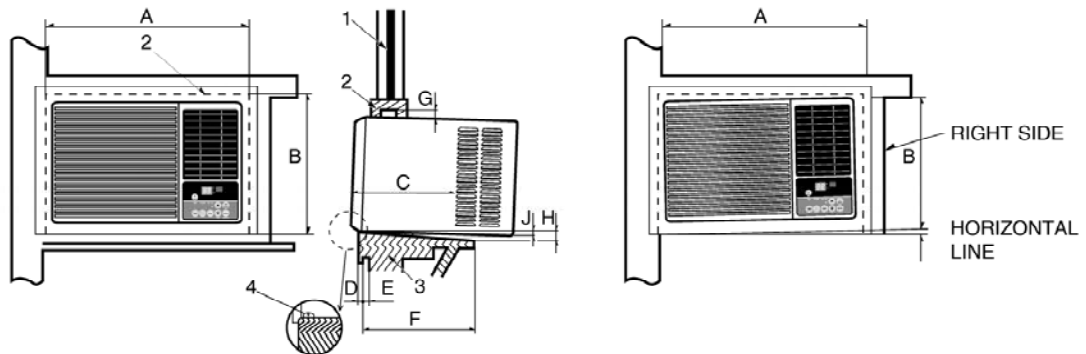


Figure 20

3.4 HOW TO INSTALL

3.4.1 WHEN USING GASKET



- 1. WINDOW (WIDTH-A, HEIGHT-B)
- 2. GASKET
- 3. WALL

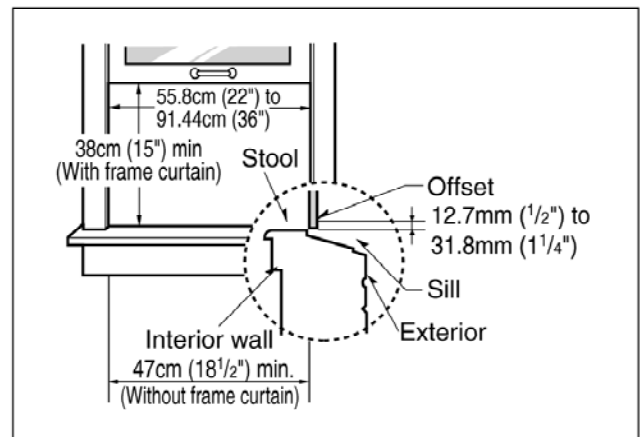
- 4. DETAILS 5.1 x 30 ROUND HEAD WOOD SCREWS

A	B	C	D	E	F	G	H	J	K
495mm (19 1/2")	366mm (14 7/16")	250mm (10")	30mm (1 1/16")	0~25mm (0~1")	OVER 420mm (OVER 16 17/32")	12mm (1/2")	32mm (1 1/4")	5~10mm (3/16"~25/64")	0~5mm (0~3/16")

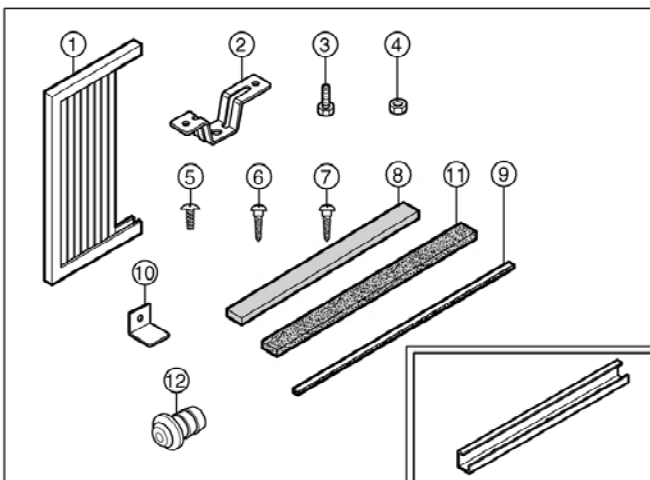
3.4.2 WHEN USING INSTALLATION KITS

A. WINDOW REQUIREMENTS

This unit is designed for installation in standard double hung windows with actual opening widths from 55.88cm(22") to 91.44cm(36"). The top and bottom window sash must open sufficiently to allow a clear vertical opening of 38.1cm(15") from the bottom of the upper sash to the window sill.



B. INSTALLATION KITS CONTENTS



■ Top retainer bar is in the product package.

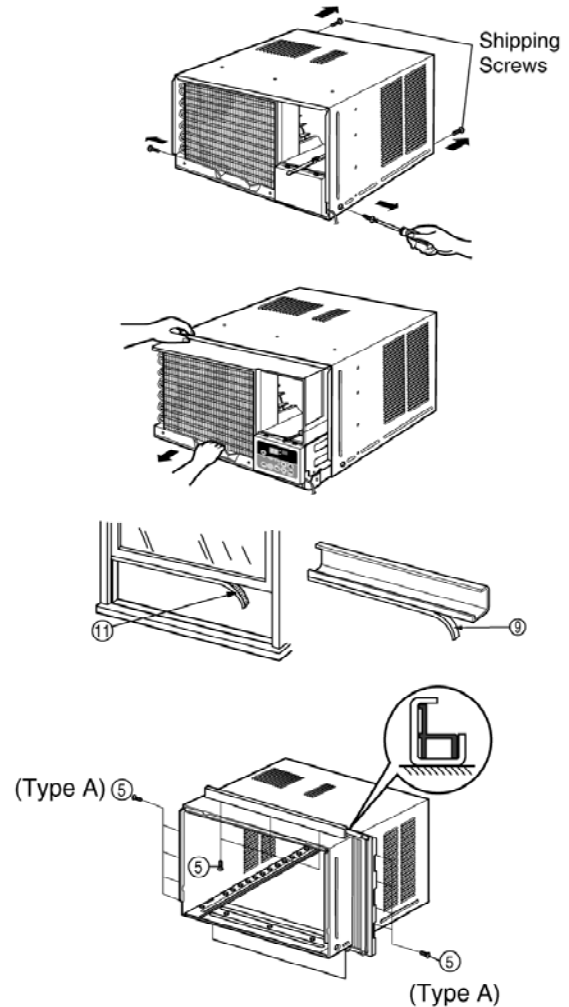
NO.	NAME OF PARTS	Q'TY
1	FRAME CURTAIN	2
2	SILL SUPPORT	2
3	BOLT	2
4	NUT	2
5	SCREW(TYPE A) [10mm(25/64")]	16
6	SCREW(TYPE B) D5.1mm(3/16"), 16mm(5/8")	3
7	SCREW(TYPE C) D4.1mm(5/32"), 16mm(5/8")	5
8	FOAM-STRIP	1
9	FOAM-PE [466mm(18 11/32") x 10mm(3/8") x 2mm(1/16")]	1
10	WINDOW LOCKING BRACKET	1
11	FOAM-PE [920mm(36 3/16") x 30mm(1 1/16") x 2mm(1/16")]	1
12	DRAIN PIPE	1

SUGGESTED TOOL REQUIREMENTS

SCREWDRIVER(+, -), RULER, KNIFE, HAMMER, PENCIL, LEVEL

PREPARATION OF CHASSIS

1. Remove the screws which fasten the cabinet at both sides and at the back.
2. Slide the unit from the cabinet by gripping the base pan handle and pulling while bracing the cabinet.
3. Cut the window sash seal to the proper length. Peel off the backing and attach the FOAM-PE ⑫ to the underside of the window sash.
4. Remove the backing from the top upper guide FOAM-PE ⑨ and attach it to the bottom of the upper guide.
5. Attach the upper guide onto the top of the cabinet with 3 type A screws.
6. Fasten the curtains to the unit with 4 Type A screws.

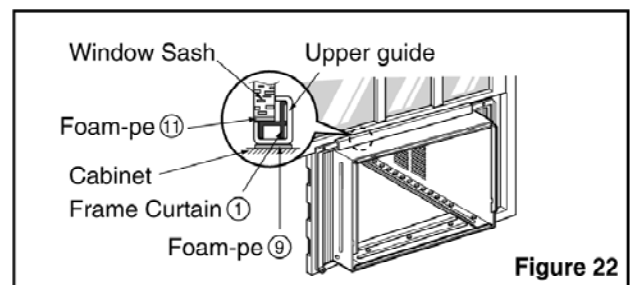
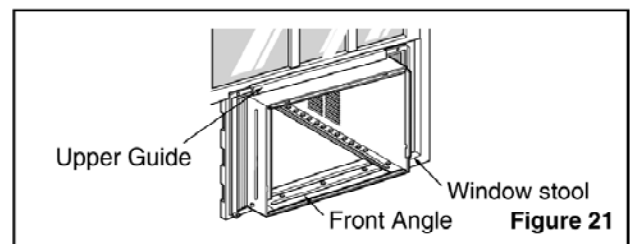


CABINET INSTALLATION

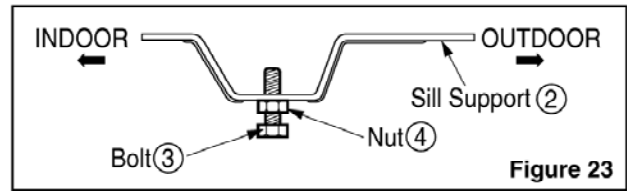
1. Open the window. Mark a line on center of the window stool(or desired air conditioner location). Carefully place the cabinet on the window stool and align the center mark on the bottom front with the center line marked in the window stool.
2. Pull the bottom window sash down behind the upper guide until it meets.

NOTE:

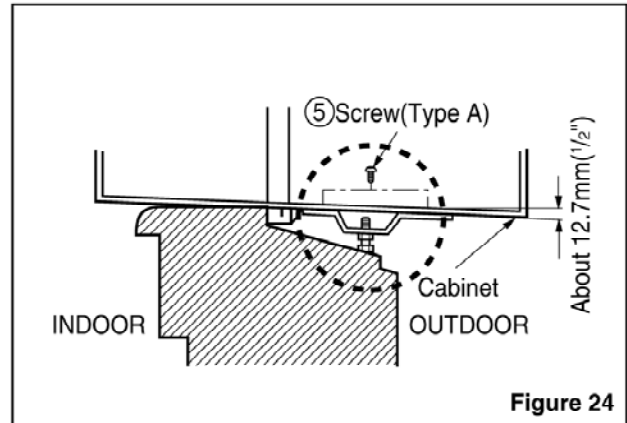
- Do not pull the window sash down so tightly that the movement of Frame Curtain is restricted.



3. Loosely assemble the sill support using the parts in Figure 23.

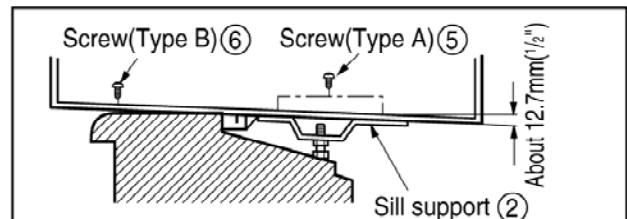


4. Select the position that will place the sill support near the outer most point on sill (See Figure 24)

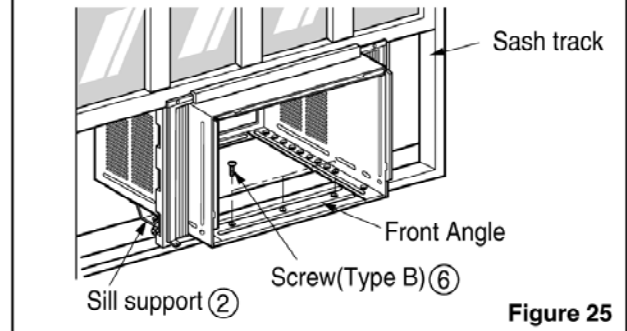


5. Attach the sill support to the cabinet track hole in relation to the selected position using 2 Type A screws in each support (See Figure 24).

6. The cabinet should be installed with a very **slight tilt (about 1/2") downward** toward the outside (See Figure 25).
Adjust the bolt and the nut of sill support for balancing the cabinet.



7. Attach the cabinet to the window stool by driving the screws ⑥ (Type B) through the front angle into window sill.

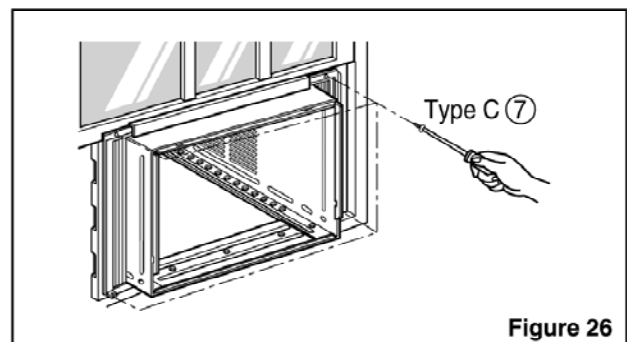


8. Pull each Frame curtain fully to each window sash track, and repeat step 2.

9. Attach each Frame curtain the window sash using screws ⑦(Type C).(See Figure 26)

CAUTION: DO NOT DRILL A HOLE IN THE BOTTOM PAN.

The unit is designed to operate with approximately 12.7mm(1/2") of water in bottom pan.



10. Slide the unit into the cabinet.(See Figure 25)

CAUTION: For security purposes, reinstall screws at cabinet's sides.

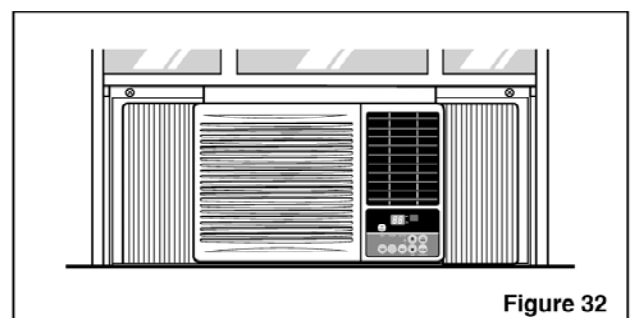
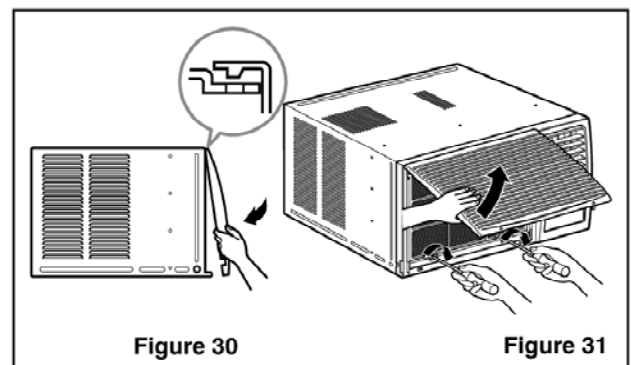
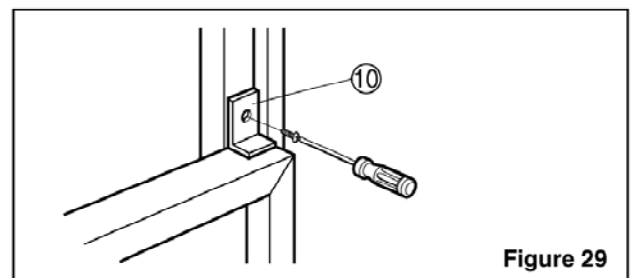
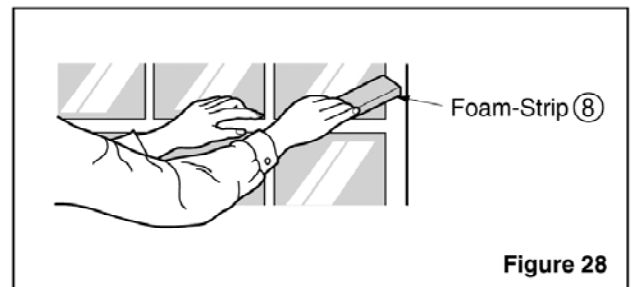
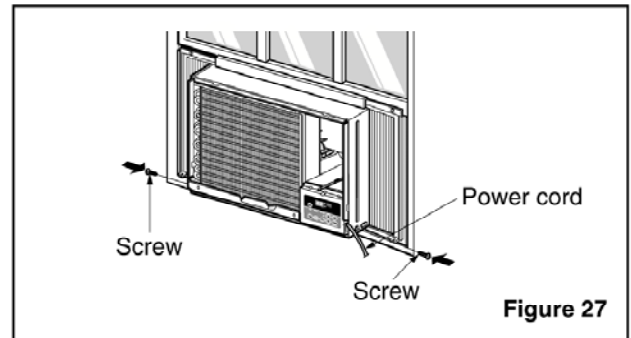
11. Cut the foam-strip ⑧ to the proper length and insert between the upper window sash and the lower window sash.
(See Figure 28)

12. Attach the window locking bracket ⑩ with a type C screw. (See Figure 29)

13. Attach the front grille to the cabinet by inserting the tabs on the grille into the tabs on the front of the cabinet. Push the grille in until it snaps into place.
(See Figure 30)

14. Lift the inlet grille and secure it with two type A screw through the front grille.
(See Figure 31)

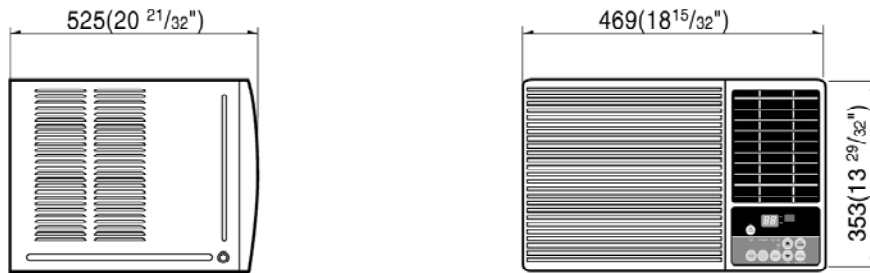
15. **Window installation of room air conditioner is now completed. See ELECTRICAL DATA for attaching power cord to electrical outlet.**



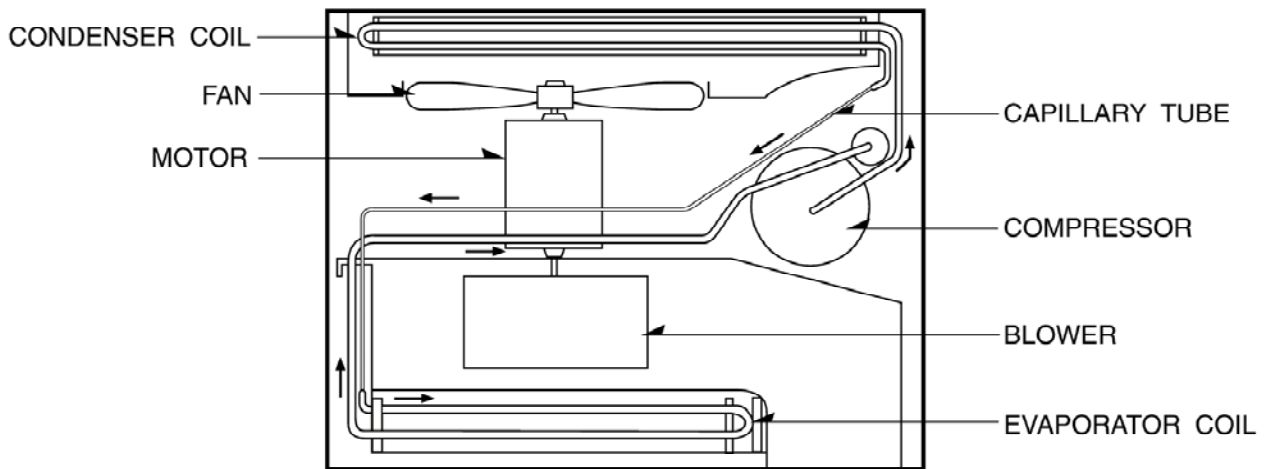
4. TROUBLESHOOTING GUIDE

4.1 OUTSIDE DIMENSIONS

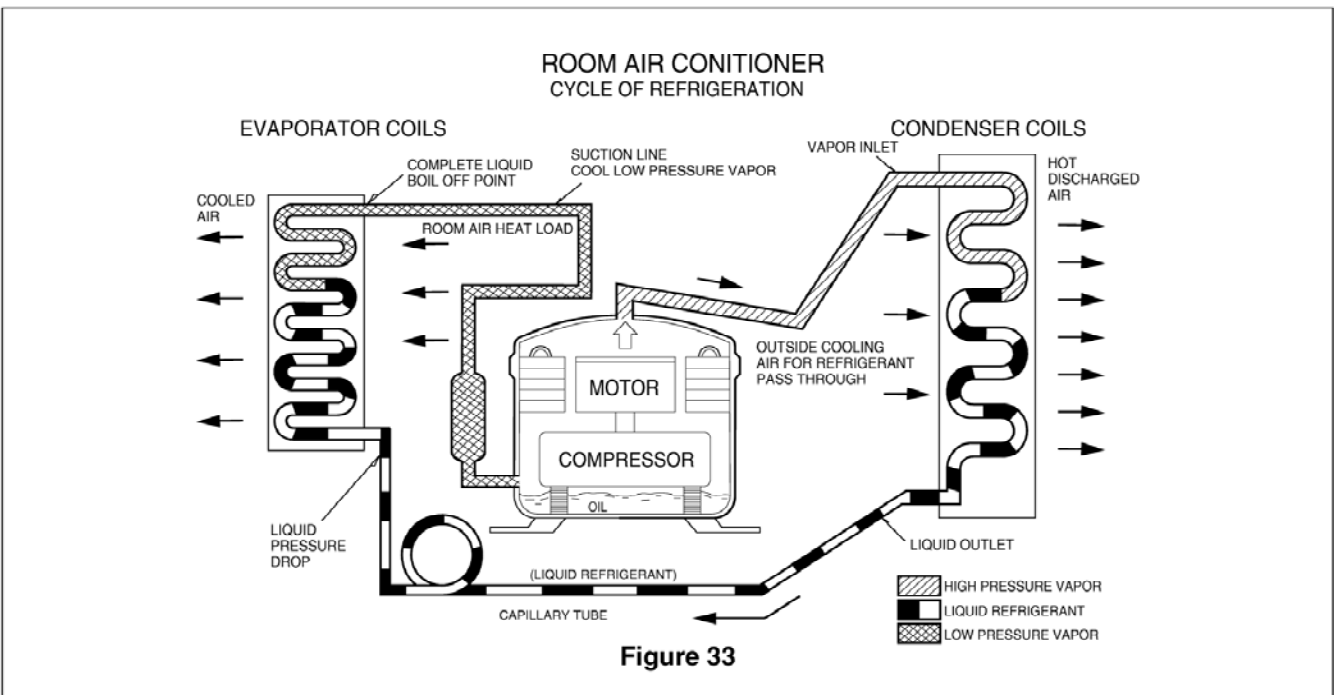
unit: mm(inch)



4.2 PIPING SYSTEM



Following is a brief description of the important components and their function in what is called the refrigeration system. Reference should be made to Figure 33 to follow the refrigeration cycle and the flow of the refrigerant in the cooling cycle.

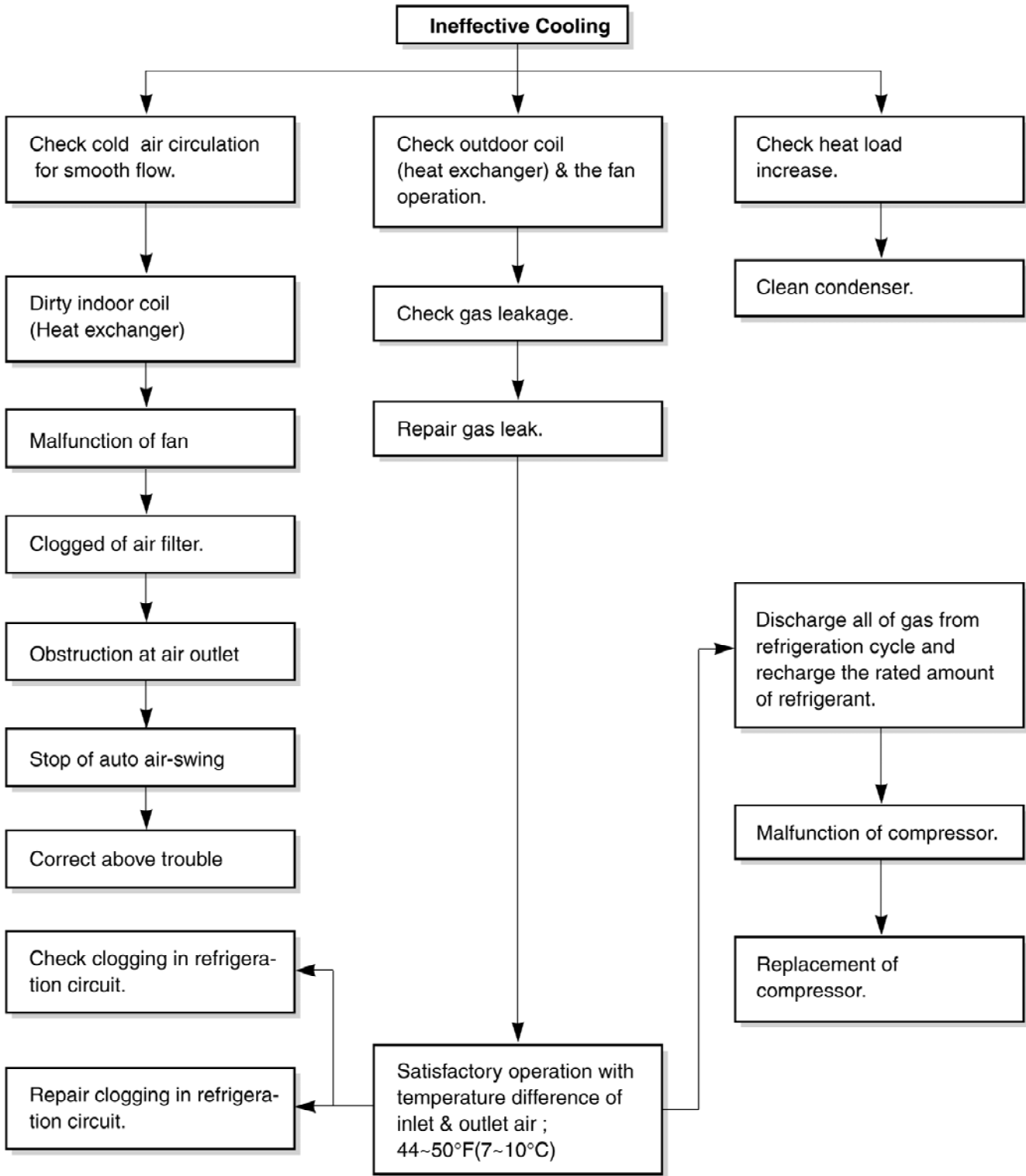


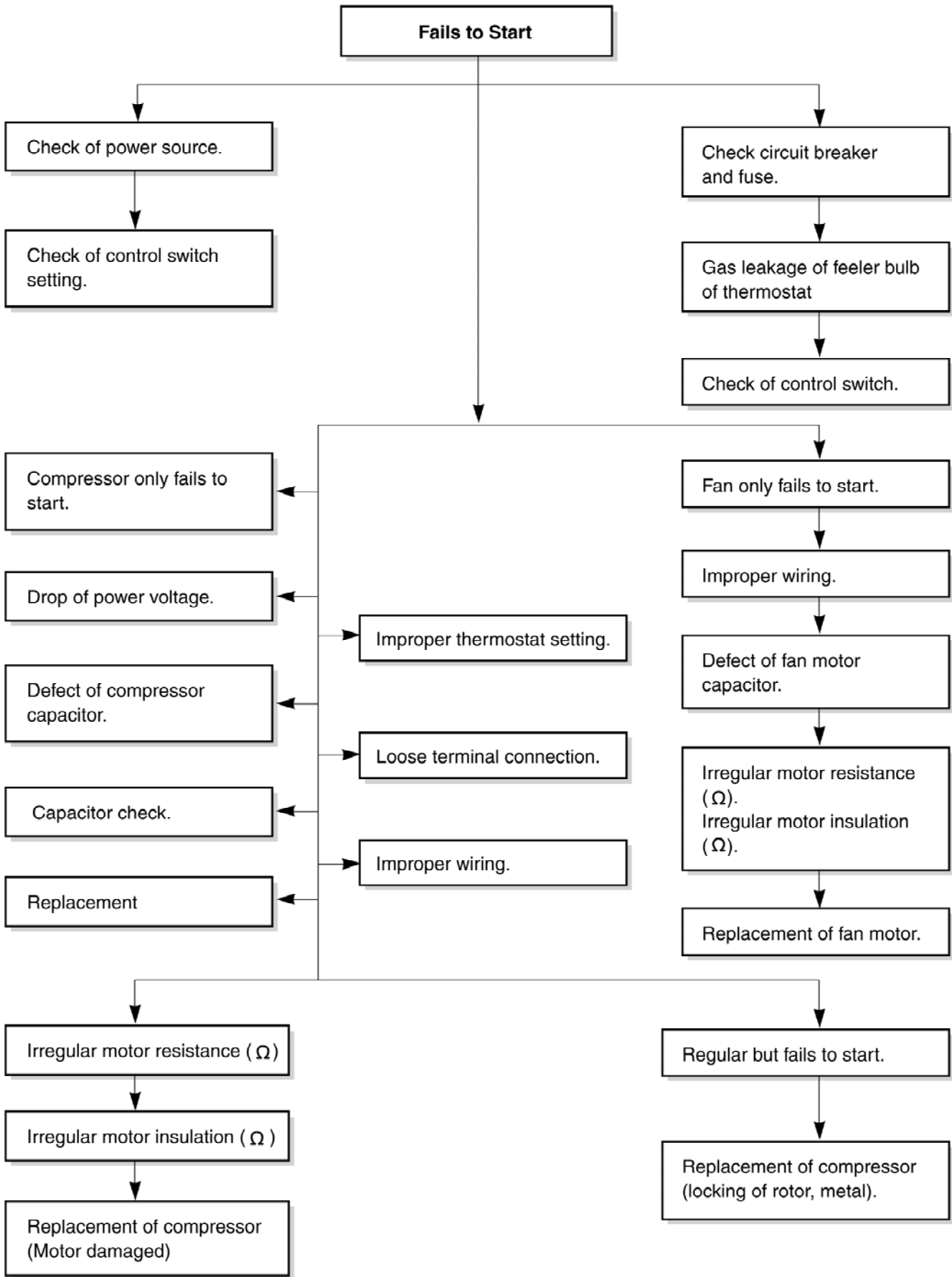
4.3 TROUBLESHOOTING GUIDE

In general, possible trouble is classified in two kinds.

The one is called Starting Failure which is caused from an electrical defect, and the other is ineffective Air Conditioning caused by a defect in the refrigeration circuit and improper application.

Unit runs but poor cooling.

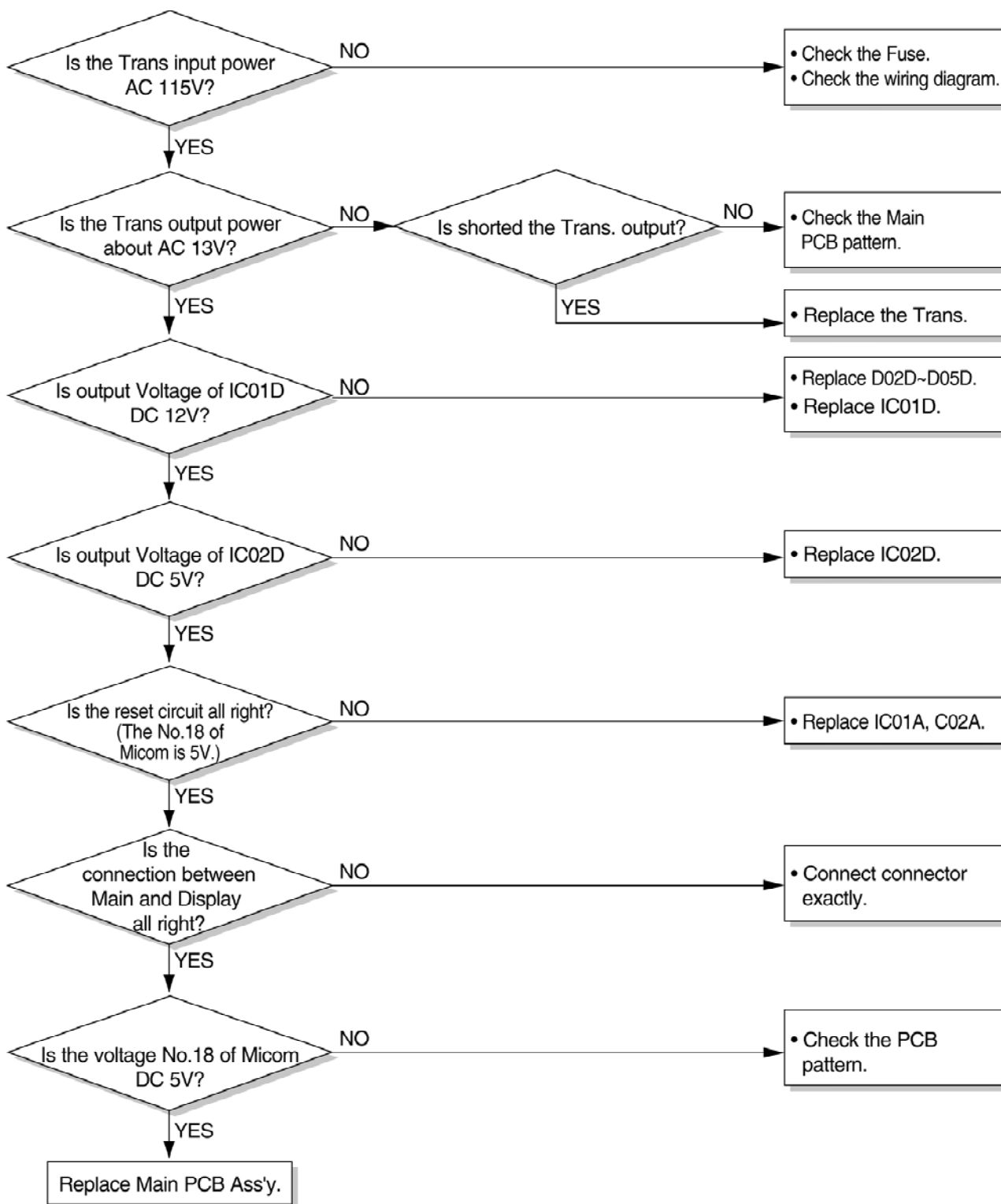




■ ELECTRICAL PARTS TROUBLESHOOTING GUIDE: CW-XC65HU, CW-XC85HU, CW-XC85HK,

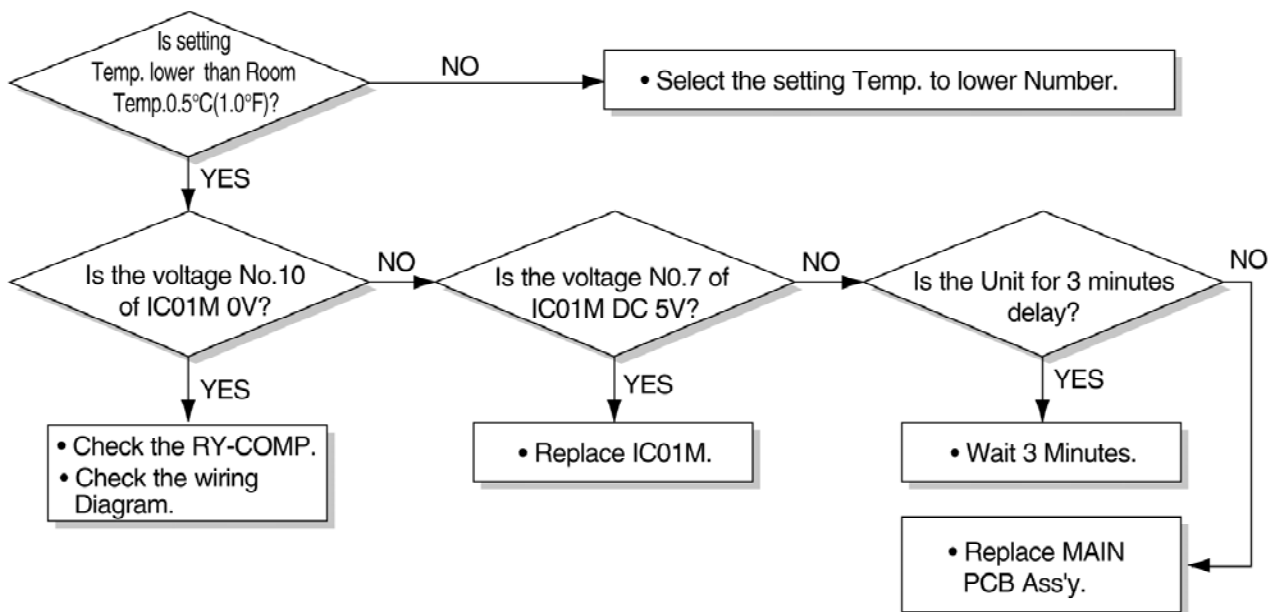
Possible Trouble 1

The unit does not operate.



Possible Trouble 2

The compressor does not operate.



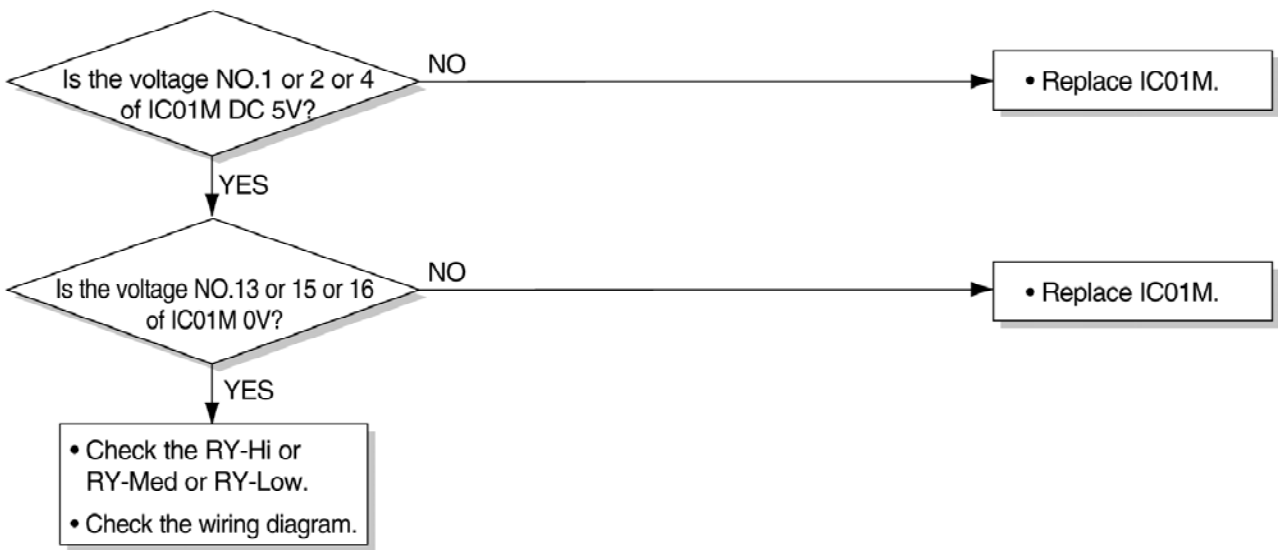
Possible Trouble 3

The compressor always operate.



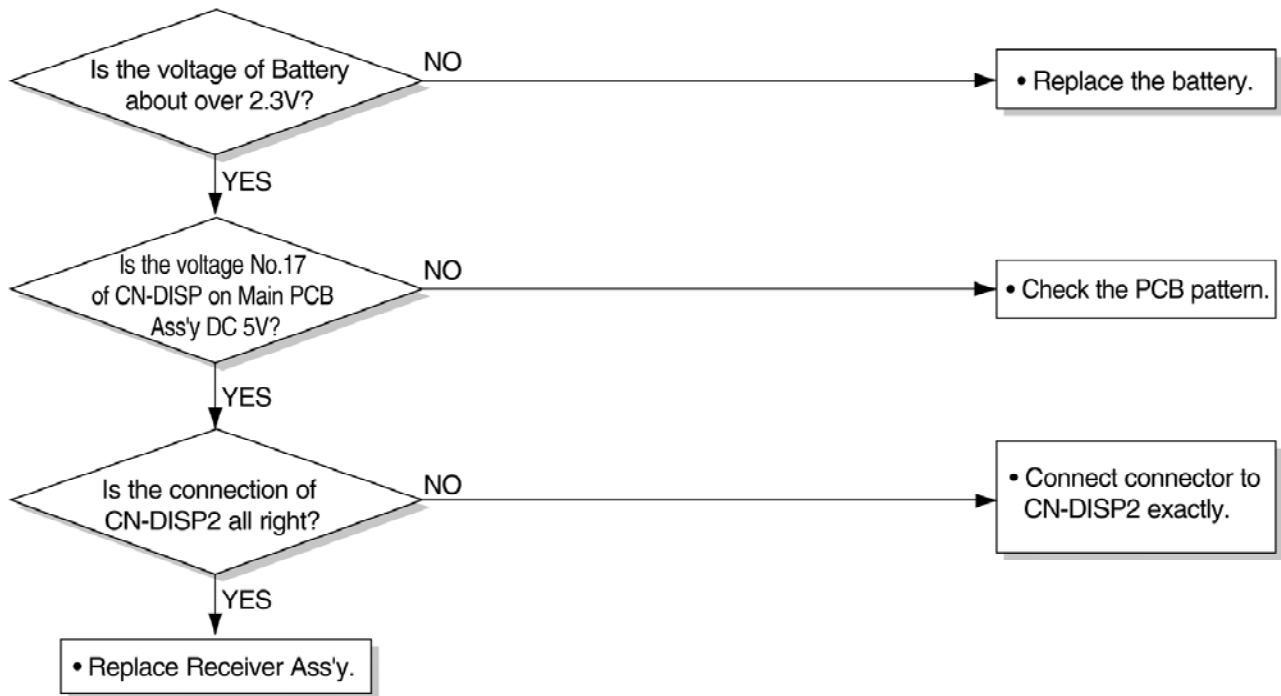
Possible Trouble 4

FAN does not operate.

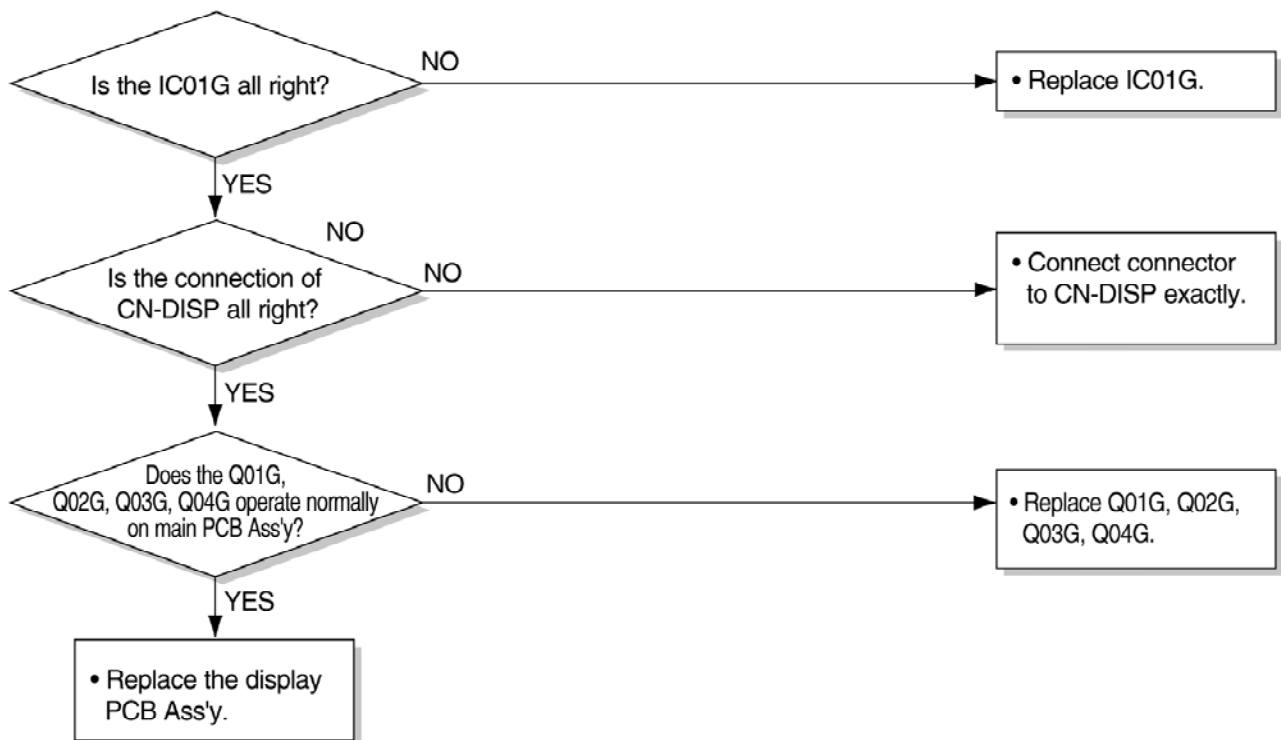


Possible Trouble 5

Remote controller does not operate.

**Possible Trouble 6**

It displays abnormally on display PCB Ass'y.



ROOM AIR CONDITIONER VOLTAGE LIMITS

NAME PLATE RATING	MINIMUM	MAXIMUM
AC 115V ± 10%	AC 103.5V	AC 126.5V

COMPLAINT	CAUSE	REMEDY
Fan motor will not run.	No power	Check voltage at outlet. Correct if none.
	Power supply cord	Check voltage to rotary switch and control box. If none, check power supply cord. Replace cord if circuit is open.
	Rotary switch	Check switch continuity. Refer to wiring diagram for terminal identification. Replace switch if defective.
	Wire disconnected or connection loose	Connect wire. Refer to wiring diagram for terminal identification. Repair or replace loose terminal.
	Capacitor (Discharge capacitor before testing.)	Test capacitor. Replace if not within ±10% of manufacturer's rating. Replace if shorted, open, or damaged.
	Will not rotate	Fan blade hitting shroud or blower wheel hitting scroll. Realign assembly. Units using slinger ring for condenser fan must have 1/4 to 5/16 inch clearance to the base. If it hits the base, shim up the bottom of the fan motor with mounting screw(s). Check fan motor bearings; if motor shaft will not rotate, replace the motor.
Fan motor runs intermittently	Revolves on overload.	Check voltage. If not within limits, call an electrician.
		Test capacitor. Check bearings. Does the fan blade rotate freely? If not, replace fan motor.
		Pay attention to any change from high speed to low speed. If the speed does not change, replace the motor.

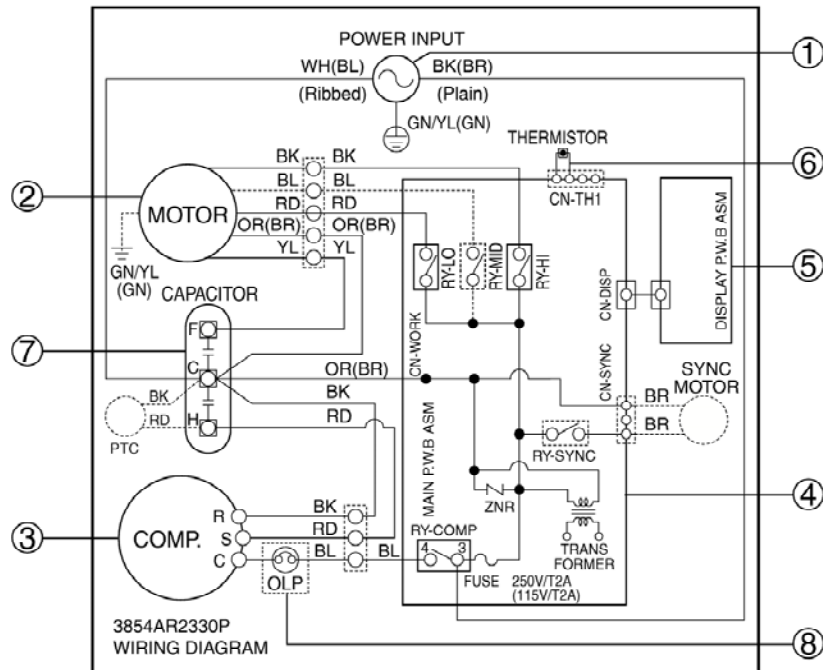
COMPLAINT	CAUSE	REMEDY
Fan motor noise.	Fan	If cracked, out of balance, or partially missing, replace it.
	Turbo	If cracked, out of balance, or partially missing, replace it.
	Loose clamper	Tighten it.
	Worn bearings	If knocking sounds continue when running or loose, replace the motor. If the motor hum or noise appears to be internal while running, replace motor.
Compressor will not run, but fan motor runs.	Voltage	Check voltage. See the limits on the preceding page. If not within limits, call an electrician.
	Wiring	Check the wire connections, if loose, repair or replace the terminal. If wires are off, refer to wiring diagram for identification, and replace. Check wire locations. If not per wiring diagram, correct.
	Rotary	Check for continuity, refer to the wiring diagram for terminal identification. Replace the switch if circuit is open.
	Thermostat	Check the position of knob. If not at the coldest setting, advance the knob to this setting and restart unit. (only for CW-C83GU) Check continuity of the thermostat. Replace thermostat if circuit is open.
	Thermistor	Check the TEMP control. If not at the lowest number, set TEMP control to this setting and restart the unit. Check the continuity of the thermistor. Replace the thermistor if the circuit is open.
	Capacitor (Discharge capacitor before servicing.)	Check the capacitor. Replace if not within $\pm 10\%$ of manufacturer's rating. Replace if shorted, open, or damaged.
	Compressor	Check the compressor for open circuit or ground. If open or grounded, replace the compressor.
	Overload	Check the compressor overload, if externally mounted. Replace if open. (If the compressor temperature is high, remove the overload, cool it, and retest.)
Compressor cycles on overload.	Voltage	Check the voltage. If not within limits, call an electrician.
	Overload	Check overload, if externally mounted. Replace if open. (If the compressor temperature is high, remove the overload, cool, and retest.)

COMPLAINT	CAUSE	REMEDY
Compressor cycles on overload(Cont'd)	Fan motor	If not running, determine the cause. Replace if required.
	Condenser air flow restriction	Remove the cabinet. inspect the interior surface of the condenser; if restricted, clean carefully with a vacuum cleaner (do not damage fins) or brush. Clean the interior base before reassembling.
	Condenser fins (damaged)	If condenser fins are closed over a large area on the coil surface, head pressures will increase, causing the compressor to overload. Straighten the fins or replace the coil.
	Capacitor	Test capacitor.
	Wiring	Check the terminals. If loose, repair or replace.
	Refrigerating system	Check the system for a restriction.
Insufficient cooling	Air filter	If restricted, clean or replace.
	Ventilation damper door	Close if open.
	Unit undersized	Determine if the unit is properly sized for the area to be cooled.
Excessive noise.	Turbo or fan	Check the set screw or clamp. If loose or missing, correct. If the blower or fan is hitting air guide, rearrange the air handling parts.
	Copper tubing	Remove the cabinet carefully and rearrange tubing not to contact cabinet, compressor, shroud, and barrier.

5. SCHEMATIC DIAGRAM

5.1 CIRCUIT DIAGRA

Model: CW-XC65HU, CW-XC85HU, CW-XC85HK

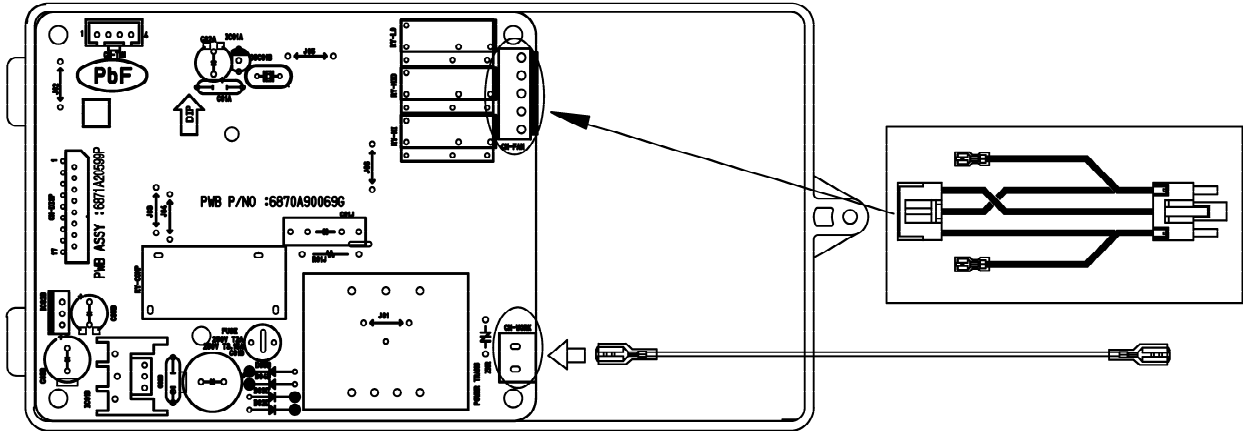


* SYNC MOTOR : only for CW-XC85HU

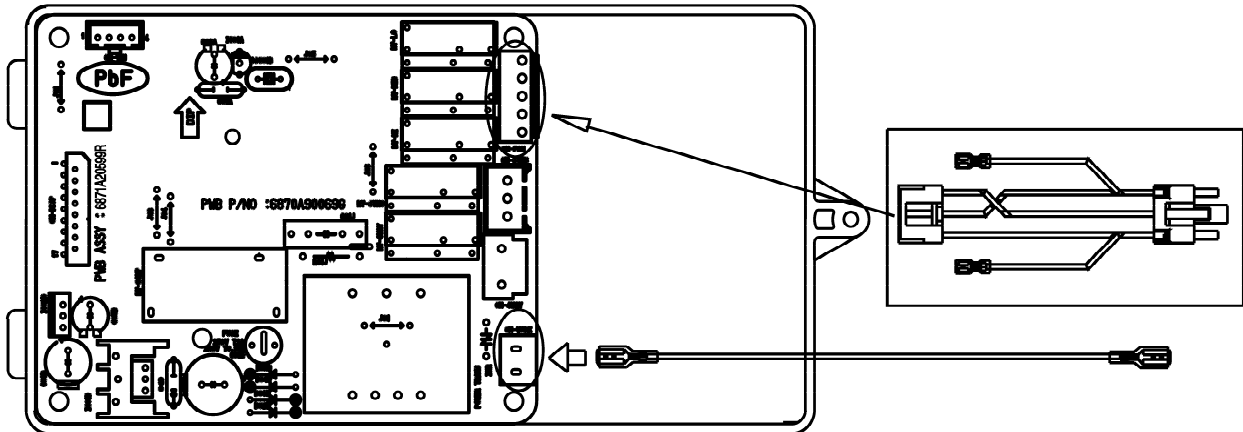
LOCATION NO.	DESCRIPTION	Q'TY PER SET
1	POWER CORD	1
2	MOTOR ASSY	1
3	COMPRESSOR	1
4	MAIN P.C.B ASSY	1
5	DISPLAY P.C.B ASSY	1
6	THERMISTOR	1
7	CAPACITOR	1
8	OVER LOAD PROTECTOR	1

5.3 COMPONENTS LOCATION(FOR MAIN P.C.B ASM)

■ MODEL: CW-XC65HU, CW-XC85HK

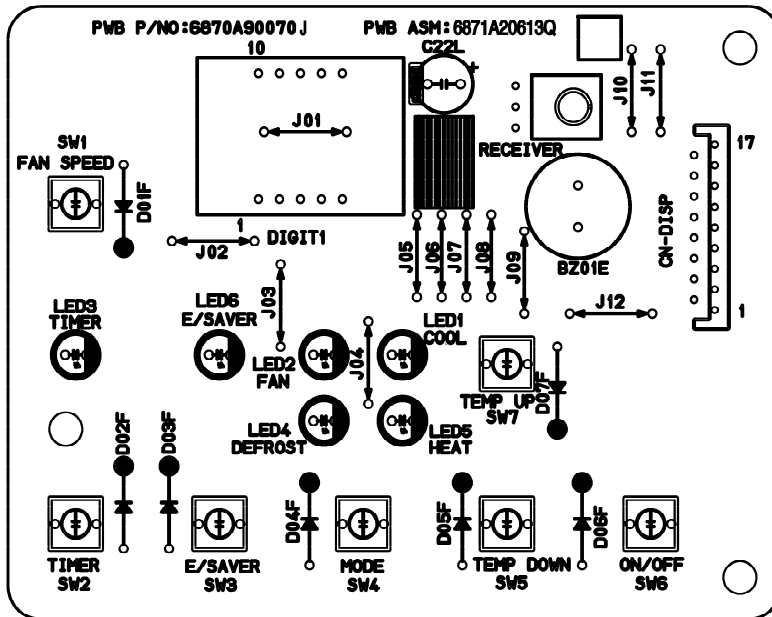


■ MODEL: CW-XC85HU

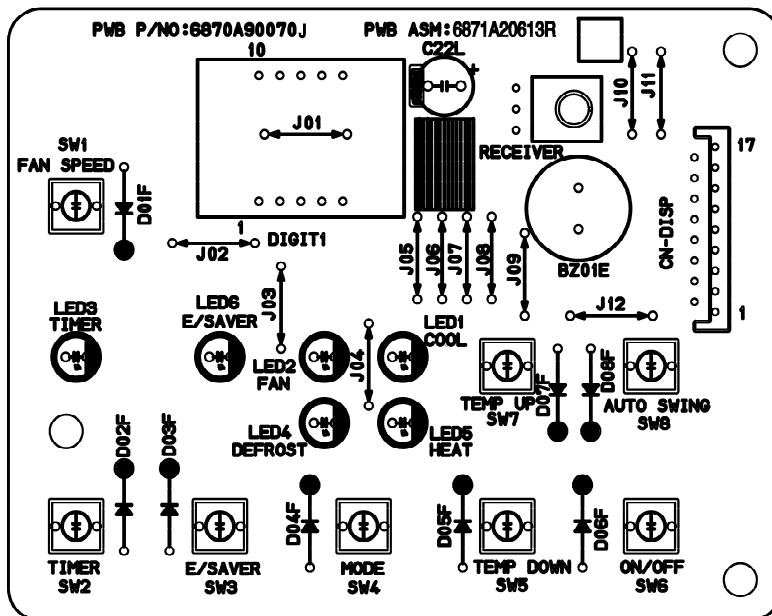


5.4 COMPONENTS LOCATION(FOR DISPLAY P.C.B ASM)

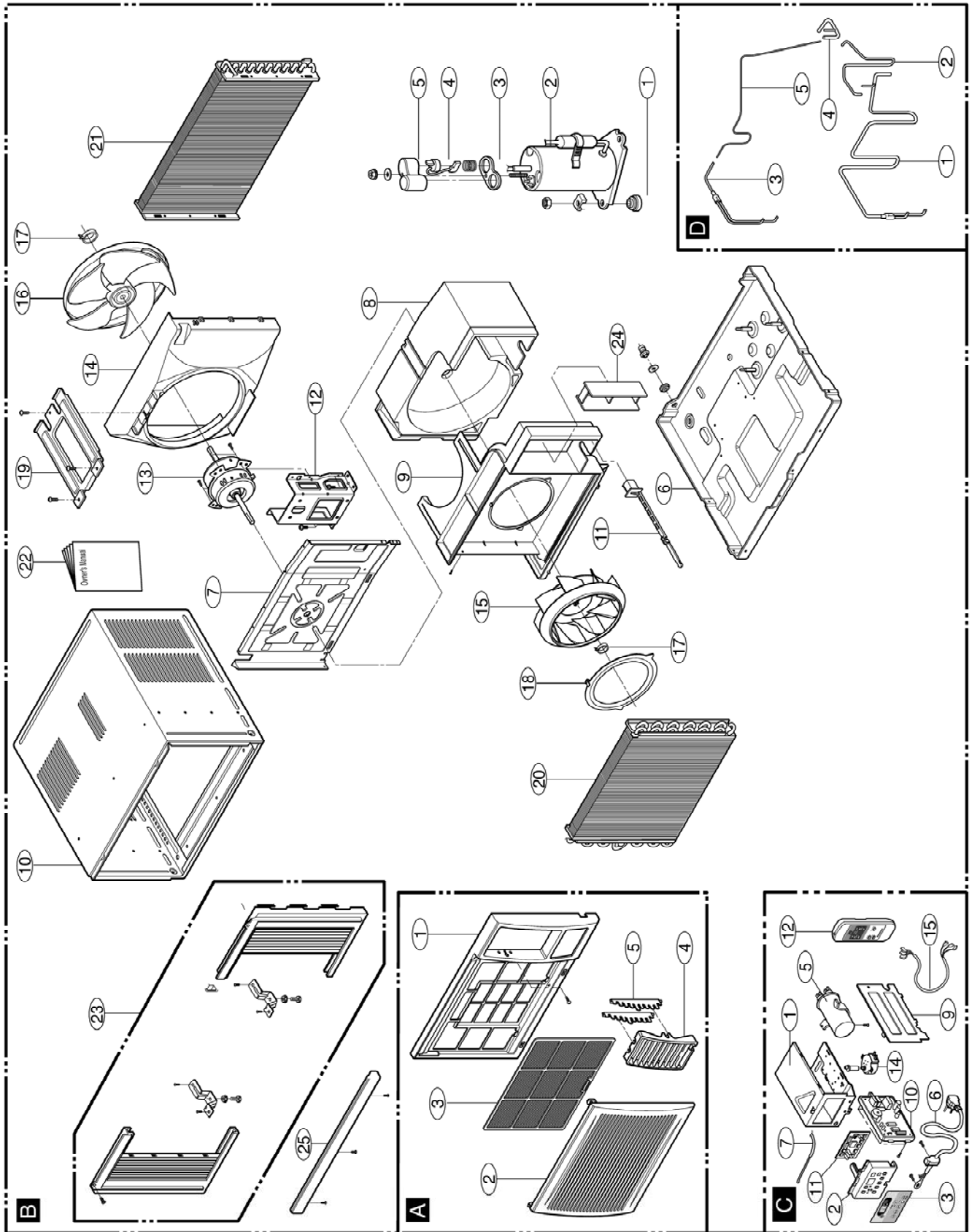
■ MODEL: CW-XC65HU, CW-XC85HK



■ MODEL: CW-XC85HU



6. EXPLODED VIEW



7. REPLACEMENT PARTS LIST

R: RECOMMANDABLE PARTS

LEF. No	DESCRIPTION	PART NO.			REMARK
		CW-XC65HU	CW-XC85HU	CW-XC85HK	
A	FRONT GRILLE ASSY	CW353110187A	CW353110187D	CW353110187A	
1	GRILLE, FRONT	CW353010134A	CW353010134A	CW353010134A	
2	INLET, GRILLE	CW353010135A	CW353010135A	CW353010135A	
3	AIR FILTER ASS'Y	CW523120004M	CW523120004M	CW523120004M	
4	HORIZONTAL, LOUVER	CW475820004F	CW475820004F	CW475820004F	
5	VERTICAL, LOUVER		CW475820005A	CW475830008A	
B	COMP&ACCESSORY ASSY				
1	ANTI-VIBRATION BUSH	CW4830R4335A	CW4830R4335A	CW4830R4335A	
2	COMPRESSOR SET	CW2520ABC2JA	2520UCBA016	2520UCBA016	R
3	GASKET	CW4986TL001G	CW4986TL001G	CW4986TL001G	
4	OVERLOAD PROTECTOR	CWL00013	CWL00013	CW6750-L005A	R
5	COVER, TERMINAL	CW3550TL006A	CW3550TL006A	CW3550TL006A	
6	BASE PAN WELD ASSEMBLY	CW304128001B	CW304128001B	CW304128001B	
7	BARRIER, SINGLE	CW479010008A	CW479010008A	CW479010008A	
8	SCROLL	CW307220004A	CW307220004A	CW307220004A	
9	AIR GUIDE ASSEMBLY	CW523930002D	CW523930002E	CW523930002D	
10	CABINET ASSEMBLY, SINGLE	CW309128001B	CW309128001B	CW309128001B	
11	DAMPER ASS'Y	CW490130001A	CW490130001A	CW490130001A	
12	MOUNT, MOTOR	CW496020014A	CW496020014A	CW496020014A	
13	MOTOR ASSEMBLY, SINGLE	CW468120073Z	CW468120027J	CW468120027J	R
14	SHROUD	CW499810019A	CW499810010A	CW499810010A	
15	FAN, TURBO	CW590010008A	CW590010008A	CW590010008A	R
16	FAN, AXIAL	CW590020015B	CW590020015A	CW590020015A	R
17	CLAMP, SPRING	CWL00027	CWL00027	CWL00027	
18	ORIFICE	CW494830007B	CW494830007B	CW494830007B	
19	BRACE	CW480030001A	CW480030001A	CW480030001A	
20	EVAPORATOR ASSEMBLY	CW542120061M	CW542120132B	CW542120132B	
21	CONDENSER ASSEMBLY, FIRST	CW540320092D	CW540320213B	CW540320213B	
22	OPERATING INSTRUCTION	CW382820391N	CW382820391N	CW382820827A	
23	INSTALLATION KIT	CW312710015E	CW312710015E	CW312710015E	R
24	VERTICAL, LOUVER		CW475820004A		
25	UPPER GUIDE	CW5210R3196F	CW5210R3196F	CW5210R3196F	
C	CONTROL BOX ASSEMBLY, SINGLE	CW499520296N	CW499520296J	CW499520296P	
1	CONTROL BOX, SINGLE	CW499410007A	CW499410007B	CW499410007A	
2	PANEL, CONTROL	CW372020053A	CW372020053B	CW372020053A	
3	ESCUTCHEON	CW383120035V	CW383120035W	CW383120035W	
4	KNOB ASS'Y				
5	CAPACITOR, DRAWING	CW0CZZ20005B	CW2H01450M	CW2H01451M	R
6	POWER CORD ASSEMBLY	CW641120048V	CW641120048V	CW641120048V	R
7	THERMISTOR ASSEMBLY	CW632320003S	CW632320003S	CW632320003S	R
8	THERMOSTAT ASSEMBLY				
9	COVER, CONTROL (INDOOR)	CW355030036B	CW355030036B	CW355030036B	
10	PWB(PCB) ASSEMBLY, MAIN	CW687120599P	CW687120599R	CW687120599P	R
11	PWB(PCB) ASSEMBLY, DISPLAY	CW687120613Q	CW687120613R	CW687120613Q	R
12	REMOTE CONTROLLER ASSEMBLY	CW671190018B	CW671190018A	CW671190018B	R
13	ROTARY, SWITCH				
14	MOTOR ASS'Y, SYNC.		CW2H01102D		R
15	CONNECTOR ASSEMBLY	CW6631A3842N	CW6631A3843N	CW663120116A	
16				CW685090001F	
D	PIPE				
1	TUBE ASSEMBLY, SUCTION INDOOR	CW521120130T	CW521120130S	CW521120130S	
2	TUBE ASSEMBLY, DISCHARGE SINGLE	CW521120708E	CW521121201B	CW521121201B	
3	TUBE ASSEMBLY, EVAPORATOR	CW521120131H	CW521120131L	CW521120131L	
4	TUBE ASSEMBLY, CONNECTOR	CW521110067G	CW5211R3399A	CW5211R3399A	
5	TUBE, CAPILLARY	CW5424R3411A	CW521000040A	CW521000040A	

