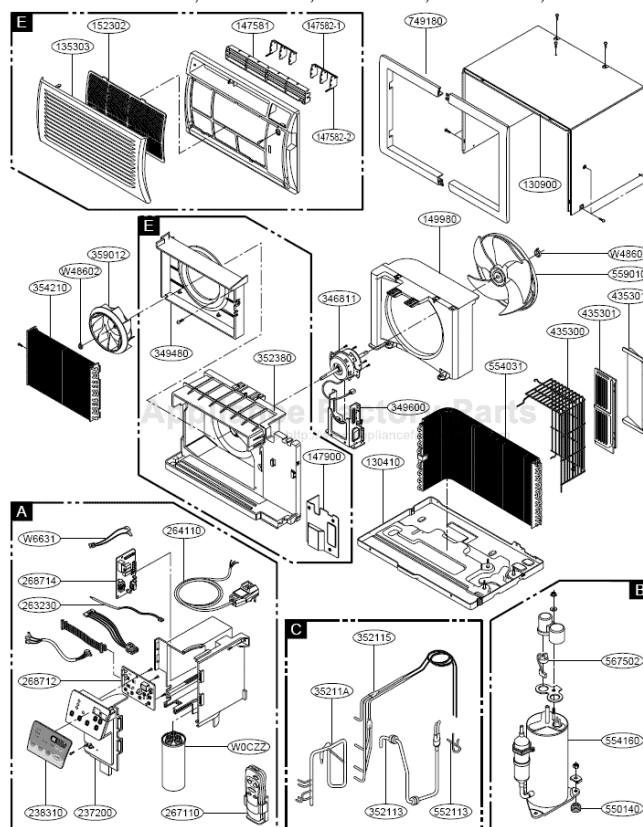


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# FRIEDRICH US10B30A-A Owner's Manual

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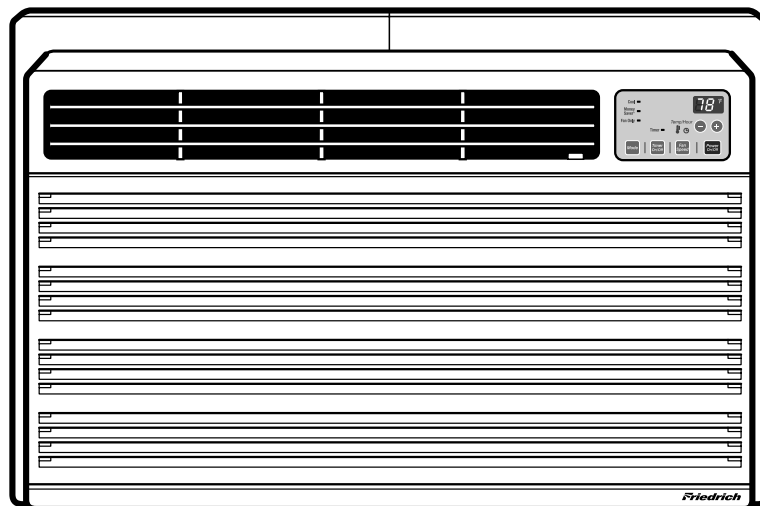


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***Friedrich***

# Thru-the-Wall Series Service and Parts Manual



## Thru-the-Wall Series

115 Volts • US08B • US10B • US12B  
230 Volts • US10B • US12B

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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, turn off the air conditioner 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.
3. After servicing the unit, make an insulation resistance test to protect the customer from being exposed to shock hazards.

### 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 or green & yellow) 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.
4. The value should be over 1MΩ.

# 1.3 SPECIFICATIONS

## 1.3.1 FOR US08B10A-A/US10B10A-A/US12B10A-A

ITEMS	MODELS		US08B10A-A	US10B10A-A	US12B10A-A	REMARK
POWER SUPPLY			1Ø, 115V, 60Hz			
COOLING CAPACITY (Btu/h)			8,000	9,800	11,500	
INPUT (W)			830	1,110	1,310	
RUNNING CURRENT (A)			7.5	10.2	12.0	
E.E.R (Btu/w.h)			9.6	8.8	9.4	
REFRIGERANT (R-22) CHARGE(g)			540g(19.1OZ)	475g(16.8OZ)	485g(17.1OZ)	
OPERATING TEMPERATURE	INDOOR (°C)	26.7(DB) 19.4(WB)				
	OUTDOOR (°C)	35(DB) 23.9(WB)				
EVAPORATOR			2 ROW 12STACKS	3 ROW 12STACKS		
CONDENSER			2ROW 17STACKS, L-BENDING TYPE			LOUVERED-FIN TYPE
FAN, INDOOR			TURBO FAN			
FAN, OUTDOOR			PROPELLER TYPE FAN WITH SLINGER-RING			
FAN SPEEDS, FAN/COOLING			3/3			
FAN MOTOR			6 POLES	4POLES		
OPERATION CONTROL			ELECTRIC			
ROOM TEMP. CONTROL			THERMISTOR			
AIR DIRECTION CONTROL			VERTICAL LOUVER(RIGHT & LEFT)			
			HORIZONTAL LOUVER(UP & DOWN)			
CONSTRUCTION			TOP-DOWN			
PROTECTOR	COMPRESSOR	EXTERNAL OVERLOAD PROTECTOR				
	FAN MOTOR	INTERNAL THERMAL PROTECTOR				
POWER CORD			2.3m (3WIRES WITH GROUNDING)			
			ATTACHMENT PLUG(CORD-CONNECTED TYPE, LCDI)			
DRAIN SYSTEM			SPLASHED BY FAN SLINGER			
NET WEIGHT (lbs/kg)			73/33	78/35	80/36	
DIMENSION (W x H x D)	(inch)	24 x 14 <sup>13/32</sup> x 20 <sup>3/32</sup>				
	(mm)	610 x 366 x 499				
SLEEVE DIMESION (W x H x D)	(inch)	25 <sup>7/8</sup> x 15 <sup>17/32</sup> x 16 <sup>23/32</sup>				OPTIONAL PART
	(mm)	656 x 394 x 425				
SLEEVE DEPTH WITH FRONT GRILLE	(inch)	20 <sup>1/2</sup>				
	(mm)	521				

### 1.3.2 FOR US10B30A-A/US12B30A-A

ITEMS		MODELS		REMARK
		US10B30A-A	US12B30A-A	
POWER SUPPLY		1Ø, 230/208V, 60Hz		
COOLING CAPACITY	(Btu/h)	10,000/9,800	11,700/11,400	
INPUT	(W)	1,060/1,040	1,250/1,210	
RUNNING CURRENT	(A)	4.7/5.2	5.8/6.2	
E.E.R.	(Btu/W.h)	9.4/9.4	9.4/9.4	
OPERATING TEMPERA-TURE	INDOOR (°C)	490g(17.3OZ)	475g(16.8OZ)	
	OUTDOOR (°C)	26.7(DB) 19.4(WB)		
REFRIGERANT (R-22) CHARGE(g)		35(DB) 23.9(WB)		
EVAPORATOR		2 ROW 12STACKS	3 ROW 12STACKS	
CONDENSER		2ROW 17STACKS, L-BENDING TYPE		LOUVERED-FIN TYPE
FAN, INDOOR		TURBO FAN		
FAN, OUTDOOR		PROPELLER TYPE FAN WITH SLINGER-RING		
FAN SPEEDS (FAN/COOLING/HEATING)		3/3		
FAN MOTOR		6 POLES	4POLES	
OPERATION CONTROL		ELECTRIC		
ROOM TEMP. CONTROL		THERMISTOR		
AIR DIRECTION CONTROL		VERTICAL LOUVER(RIGHT & LEFT)		
		HORIZONTAL LOUVER(UP & DOWN)		
CONSTRUCTION		TOP-DOWN		
PROTECTOR	COMPRESSOR	EXTERNAL OVERLOAD PROTECTOR		
	FAN MOTOR	INTERNAL THERMAL PROTECTOR		
POWER CORD		1.4m (3WIRES WITH GROUNDING)		
		ATTACHMENT PLUG(CORD-CONNECTED TYPE, LCDI)		
DRAIN SYSTEM		SPLASHED BY FAN SLINGER		
NET WEIGHT	(lbs/kg)	78/35	80/36	
DIMENSION (W x H x D)	(inch)	24 x 14 <sup>13</sup> / <sub>32</sub> x 20 <sup>3</sup> / <sub>32</sub>		
	(mm)	610 x 366 x 499		
SLEEVE DIMESION (W x H x D)	(inch)	25 <sup>7</sup> / <sub>8</sub> x 15 <sup>17</sup> / <sub>32</sub> x 16 <sup>23</sup> / <sub>32</sub>		OPTIONAL PART
	(mm)	656 x 394 x 425		
SLEEVE DEPTH WITH FRONT GRILLE	(inch)	20 <sup>1</sup> / <sub>2</sub>		
	(mm)	521		

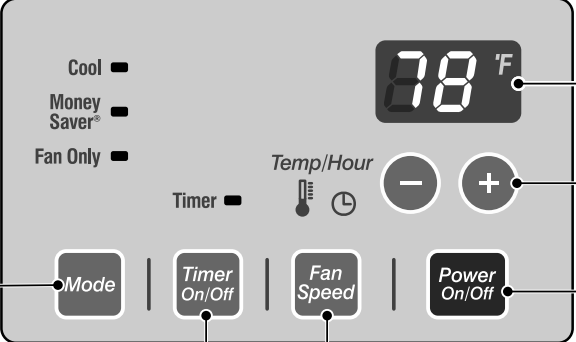
## 1.4 FEATURES

- Designed for cooling only.
- Powerful and quiet.
- Slide out chassis for the simple installation and service.
- Built in adjustable THERMOSTAT.
- Washable one-touch filter.
- Compact size.

## 1.5 CONTROL LOCATIONS

### 1.5.1 COOLING ONLY MODEL

#### • OPERATION



The diagram shows the control panel of the air conditioner. It includes a digital display showing '78 °F'. To the left of the display are three indicator lights: 'Cool', 'Money Saver', and 'Fan Only'. Below the display are two buttons: a minus sign (-) and a plus sign (+). To the right of the display is a 'REMOTE CONTROL SIGNAL RECEIVER'. Below the display are four buttons: 'Mode', 'Timer On/Off', 'Fan Speed', and 'Power On/Off'. There are also two indicator lights: 'Cool' and 'Money Saver'. Below the 'Timer On/Off' button is a 'TIMER' section. Below the 'Fan Speed' button is a 'FAN SPEED' section. Below the 'Power On/Off' button is a 'POWER' section. Below the 'Mode' button is a 'MODE' section.

**REMOTE CONTROL SIGNAL RECEIVER**

**TEMPERATURE SETTING**

- Use this button to automatically control the temperature of the room. The temperature can be set within a range of 60°F to 86°F by increments of 1°F.
- The setting appears in the display.

**POWER**

- To turn the air conditioner ON, push this button. To turn the air conditioner OFF, push the button again.
- This button takes priority over any other button.
- When you first turn it on, the unit is in cool mode, at High fan speed, and set at a temperature setting of 72°F.

**FAN SPEED**

- Every time you push this button, it advances the setting as follows: {High → Low → Med → High}

**TIMER**

- SHUT-OFF TIME

- You will usually use shut-off time while you sleep.
- If unit is running, use Timer to set number of hours until shut-off.
- For your sleeping comfort, once Timer is set, the Temperature setting will raise 2°F after 30 min., and once again after another 30 min.
- Push Timer button to advance setting from 1 Hour → 2 Hours → ..... → 12 Hours maximum.

- START TIME

- If unit is off, use Timer to set number of hours before unit starts.
- Push Timer button to advance setting from 1 Hour → 2 Hours → ..... → 12 Hours maximum.

**MODE**

- Push this button to shift mode of operation from COOL → MONEY SAVER → FAN.
- COOL :

  - Fan runs continuously for normal cooling operation.

- MONEY SAVER:

  - The fan stops when the compressor stops cooling. Approximately every 3 minutes the fan will turn on and the unit will check the room air to determine if cooling is needed.

- FAN :

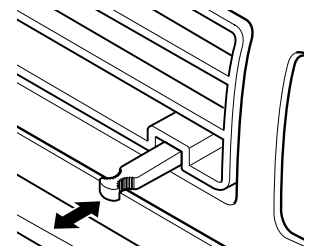
  - Fan-only operation.

#### • VENTILATION

Push the lever to the "CLOSE" position to cool, heat or recirculate room air only.  
Pull the lever to the "OPEN" position to exhaust smoke or stale air from the room.  
This feature is best used in conjunction with the FAN ONLY position.

#### CAUTION

When the air conditioner has been operating in the cooling and is turned off or set to the fan only position, wait at least 3 minutes before resetting to the cooling operation again.



**PULL OPEN / PUSH CLOSE**

## 2. DISASSEMBLY INSTRUCTIONS

— Prior to disassembling the unit, make sure that the POWER is off and the power cord is unplugged from the wall receptacle.

### 2.1 MECHANICAL PARTS

#### 2.1.1 FRONT GRILLE

1. Open the inlet grille downward.
2. Remove the screw which fastens the front grille.
3. Pull the front grille from the right side.
4. Remove the front grille. (See Fig. 1)
5. Re-install the component by referring to the removal procedure.

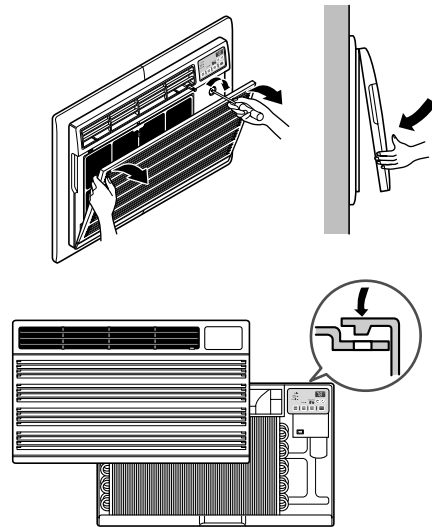


Figure 1

#### 2.1.2 CABINET

1. After disassembling the FRONT GRILLE, remove the 6 screws which fasten the cabinet at the both sides and the top. (See Fig. 2)  
Keep these for later use.

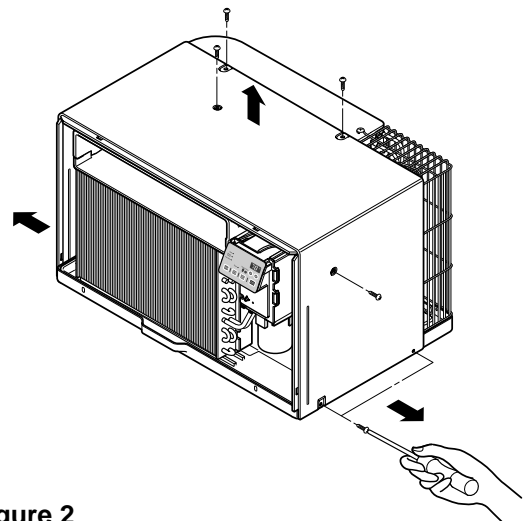


Figure 2

#### 2.1.3 CONTROL BOX

1. Remove the front grille. (Refer to section 2.1.1)
2. Remove the screw which fasten the control box. (See Fig. 3)
3. Pull the control box from the barrier. (See Fig. 3)
4. Discharge the capacitor by placing a 20,000 ohm resistor across the capacitor terminals.
5. Disconnect two wire housings in the control box.
6. Pull the control box forward completely.
7. Re-install the components by referring to the removal procedure. (See Fig. 3)  
(Refer to the circuit diagram found on page 19 in this manual and on the control box.)

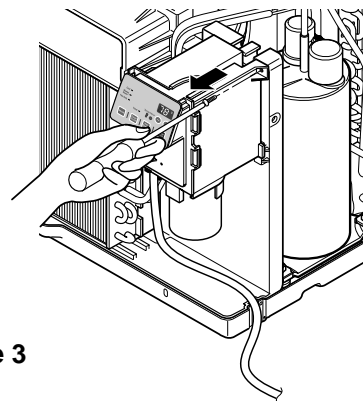


Figure 3

## 2.2 AIR HANDLING PARTS

### 2.2.1 ORIFICE, AND TURBO FAN

1. Remove the front grille. (Refer to section 2.1.1)
2. Remove the cabinet. (Refer to section 2.1.2)
3. Remove the 2 screws which fasten the evaporator at the left side and the right side. (See Fig. 4)
4. Move the evaporator to the side carefully.

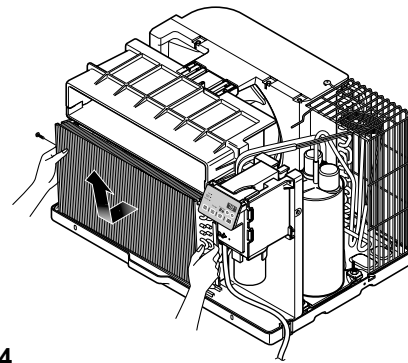


Figure 4

5. Remove the orifice. (See Fig. 5)

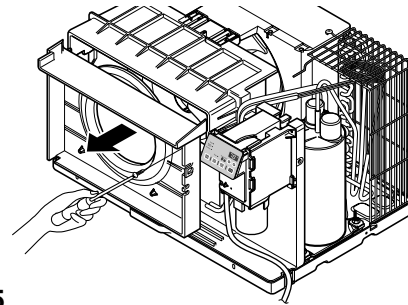


Figure 5

8. Using handheld pliers, remove the clamp which secures the turbo fan. (See Fig. 6)

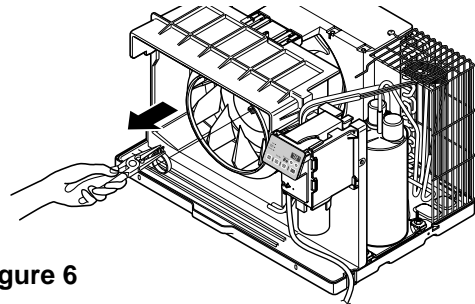


Figure 6

9. Remove the turbo fan with pliers or your hand, without touching blades. (See Fig. 7)
10. Re-install the components by referring to the removal procedures, above.

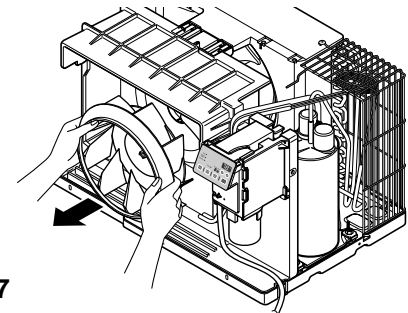


Figure 7

### 2.2.2 FAN

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the brace. (Refer to section 2.2.1)
3. Remove the 7 screws which fasten the condenser.
4. Move the condenser to the side carefully.
5. Using handheld pliers, remove the clamp which secures the fan.
6. Remove the fan. (See Fig. 8)
7. Re-install the components by referring to the removal procedures, above.

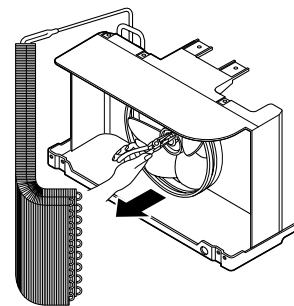


Figure 8

### 2.2.3 SHROUD

1. Remove the fan. (Refer to section 2.2.2)
2. Remove the shroud. (See Fig. 9)
3. Re-install the components by referring to the removal procedures, above.

## 2.3 ELECTRICAL PARTS

### 2.3.1 MOTOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the clamp cord and disconnect the wire housing in control box. (Refer to section 2.1.3)
3. Remove the turbo fan. (Refer to section 2.2.2)
4. Remove the fan. (Refer to section 2.2.2)
5. Remove the 4 or 2 screws which fasten the motor. (See Fig. 10)
6. Remove the motor.
7. Re-install the components by referring to the removal procedures, above.

### 2.3.2 COMPRESSOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Discharge the refrigerant system using a Freon™ Recovery System.  
Install a valve for recovery before venting the Freon. Remove the valve when finished.
3. Disconnect the 3 leads from the compressor.
4. After purging the unit completely, unbraid the suction and discharge tubes at the compressor connections.
5. Remove the 3 nuts and the 3 washers which fasten the compressor. (See Fig. 11)
6. Remove the compressor.
7. Re-install the components by referring to the removal procedures, above.

### 2.3.3 CAPACITOR

1. Remove the control box. (Refer to section 2.1.3)
2. Remove the 1 screw
3. Open the control box
4. Disconnect all the leads on the capacitor terminals.
5. Re-install the components by referring to the removal procedures, above.

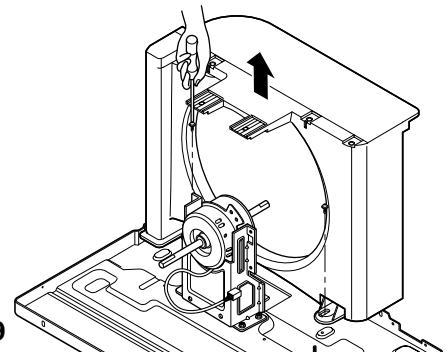


Figure 9

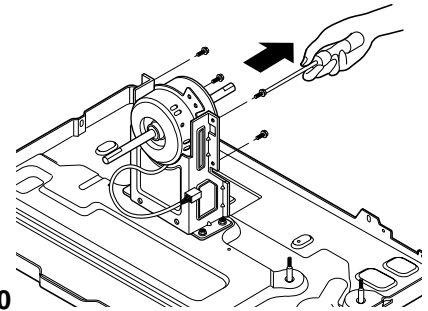


Figure 10

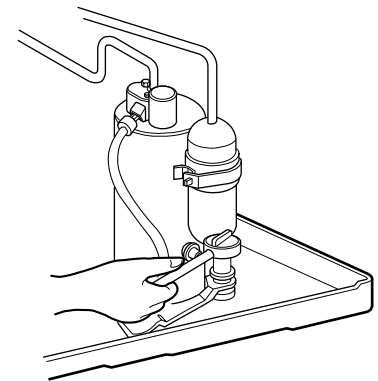


Figure 11

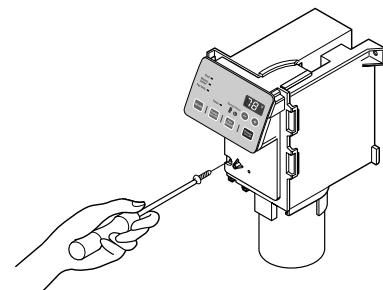


Figure 12

### 2.3.4 POWER CORD

1. Remove the control box. (Refer to section 2.1.3)
2. Unfold the control box. (Refer to section 2.3.3)
3. Disconnect the grounding screw from the Base pan.
4. Disconnect 2 receptacles.
5. Remove a screw which fastens the clip cord.
6. Pull the power cord. (See Fig. 13)
7. Re-install the components by referring to the removal procedure, above.  
(Use only one ground-marked hole,  $\oplus$ , for ground connection.)
8. If the supply cord of this appliance is damaged, it must be replaced with the factory-authorized and specified cord.

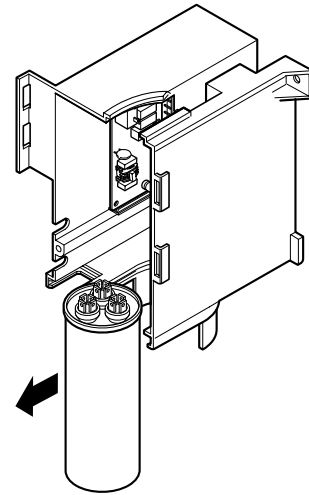


Figure 13

### 2.3.5 ELECTRONIC CONTROL BOARD

1. Remove the control box. (Refer to section 2.1.3)
2. Unfold the control box. (Refer to section 2.3.3)
3. Disconnect all the leads of Electronic control board terminals.
4. Remove the Electronic control board. (See Fig. 14)
5. Re-install the components by referring to the removal procedures, above.

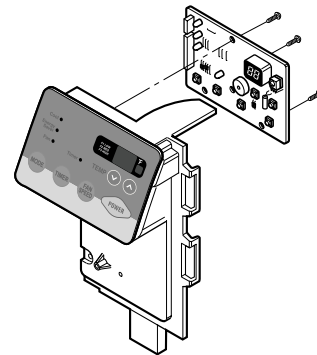


Figure 14

## 2.4 REFRIGERATION CYCLE

### CAUTION

Discharge the refrigerant system using a Freon™ Recovery System.  
Install a valve for the recovery, before venting the Freon, remove the valve when finished.

### 2.4.1 CONDENSER

1. Remove the cabinet. (Refer to section 2.1.2)
2. Remove the brace.  
(Refer to section 2.2.1)
3. Remove the 7 screws which fasten the condenser.
4. After discharging the refrigerant completely into a Freon™ Recovery System, unbraid the interconnecting tube at the condenser connections.
5. Remove the condenser.
6. Re-install the components by referring to the notes – on pages 11-13. (See Fig. 15)

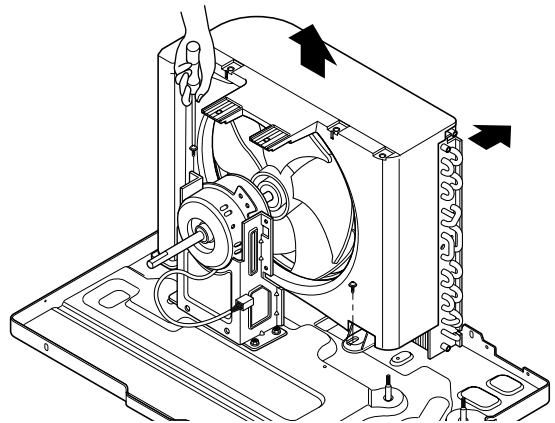


Figure 15

### 2.4.2 EVAPORATOR

1. Remove the cabinet. (Refer to section 2.1.2)
2. Discharge the refrigerant completely – into a Freon™ Recovery System.
3. Remove the 2 screws which fasten the evaporator at the left side and the right side.
4. Move the evaporator to the side carefully and then unbraid the interconnecting tube at the evaporator connectors.
5. Remove the evaporator.
6. Re-install the components by referring to the notes – on pages 11-13. (See Fig. 16)

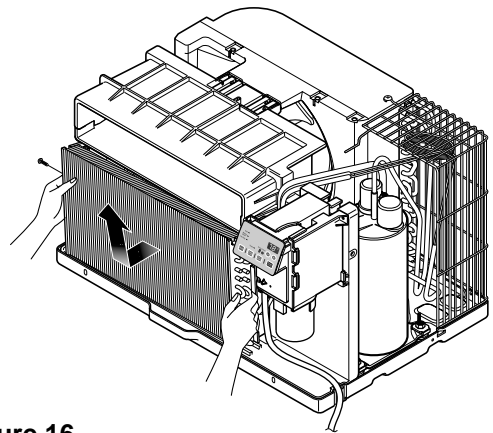


Figure 16

### 2.4.3 CAPILLARY TUBE

1. Remove the cabinet. (Refer to section 2.1.2)
2. After discharging the refrigerant completely – into a Freon™ Recovery System, unbraid the interconnecting tube at the capillary tube.
3. Remove the capillary tube.
4. Re-install the components by referring to the notes – on page 11-13.

## NOTES

— Replacement of the refrigeration cycle.

1. When replacing refrigeration components, be sure to discharge the refrigerant system using a Freon™ recovery System.  
Install a valve for the recovery, before venting the Freon, remove the valve when finished.
2. After discharging the unit completely, remove the desired component, and unbrazed the pinch-off tubes.
3. Solder service valves into the pinch-off tube ports, leaving the valves open.
4. Solder the pinch-off tubes with Service valves.
5. Evacuate as follows.
  - 1) Connect the vacuum pump, as illustrated Fig. 17A.
  - 2) Start the vacuum pump, slowly open manifold valves A and B with two full turns counterclockwise and leave the valves closed. The vacuum pump is now pulling through valves A and B up to valve C by means of the manifold and entire system.

### CAUTION

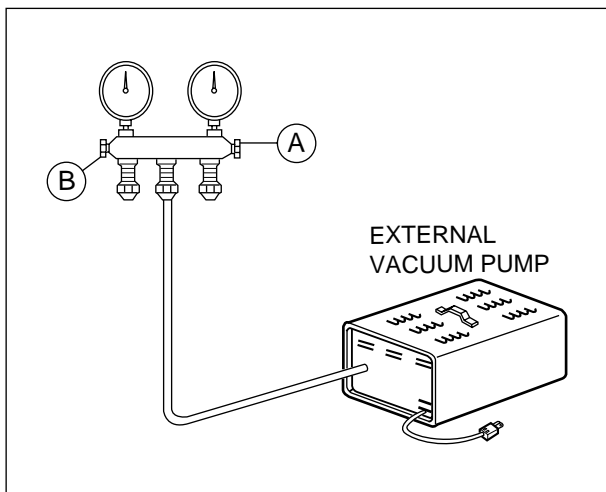
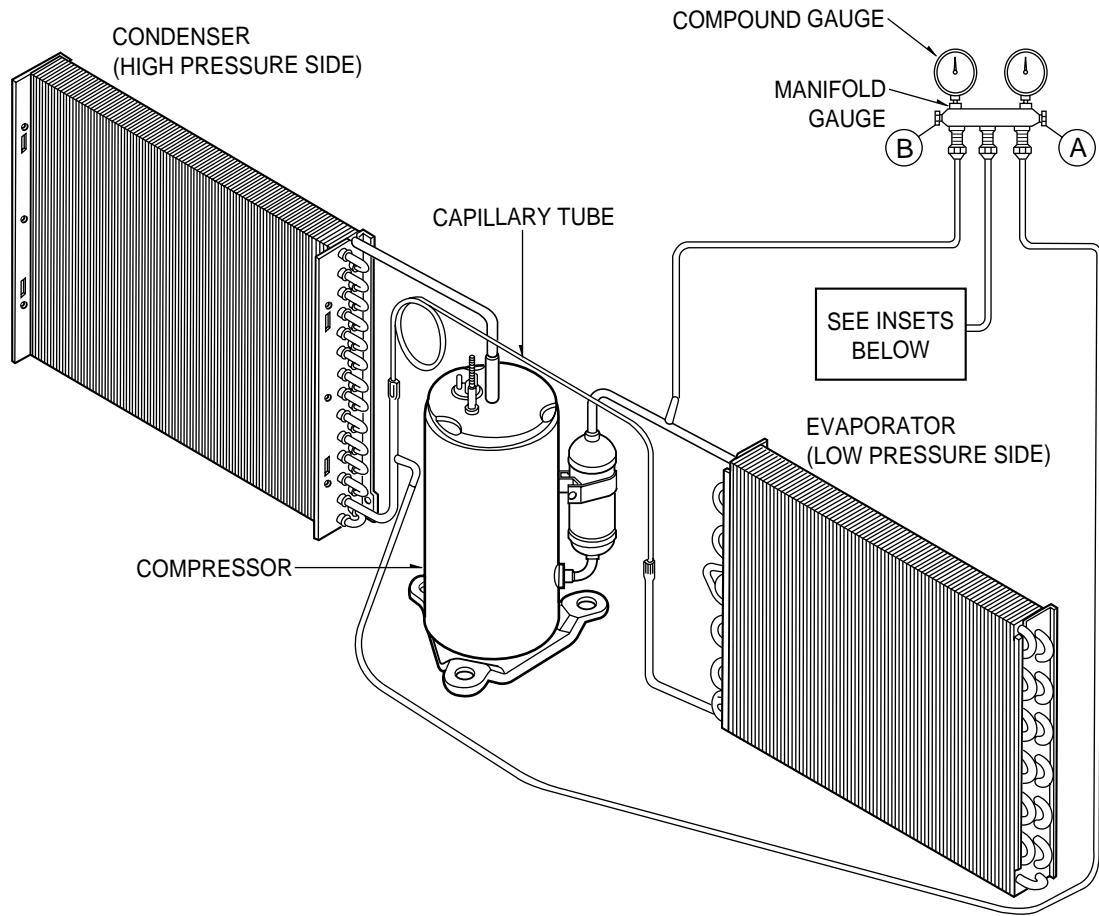
If high vacuum equipment is used, just crack valves A and B for a few minutes, then open slowly with the two full turns counterclockwise. This will keep oil from foaming and being drawn into the vacuum pump.

- 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 Fig. 17B. Open valve C.  
Discharge the line at the manifold connection.
- 5) The system is now ready for final charging.

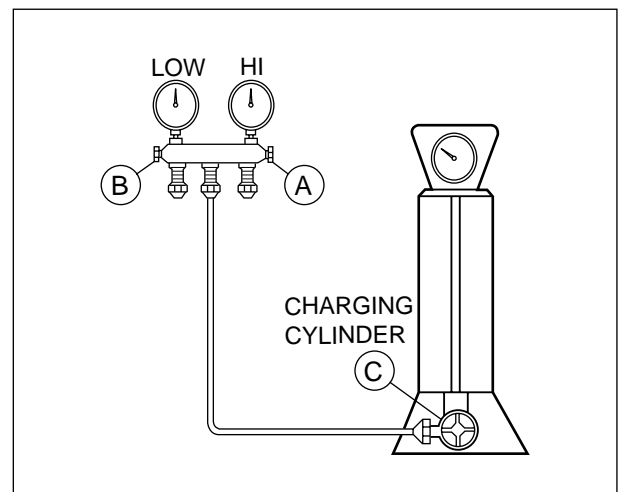
6. Recharge as follows :

- 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 Fig. 17B. 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, and 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.
  - 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 solder and solder pinch-off tube closed. Turn off the unit, allow it to set for a while, and then test for leakage add the pinch-off connection.

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



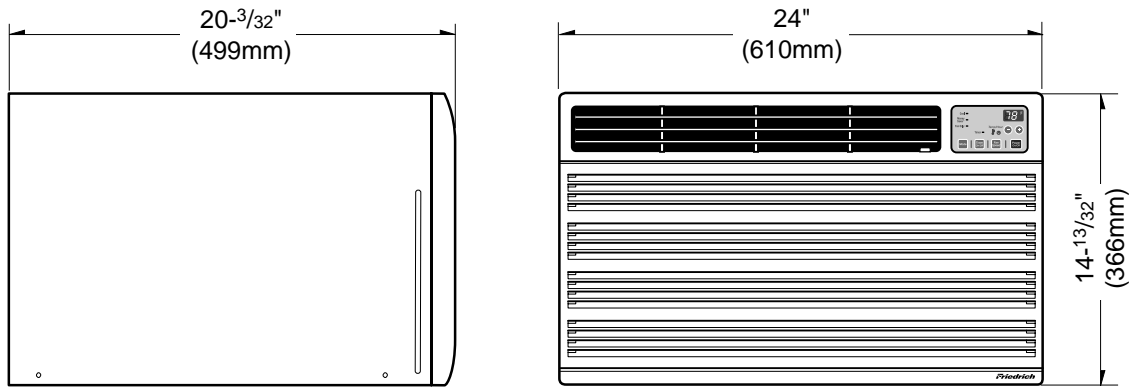
**Figure 17A-Pulling Vacuum**



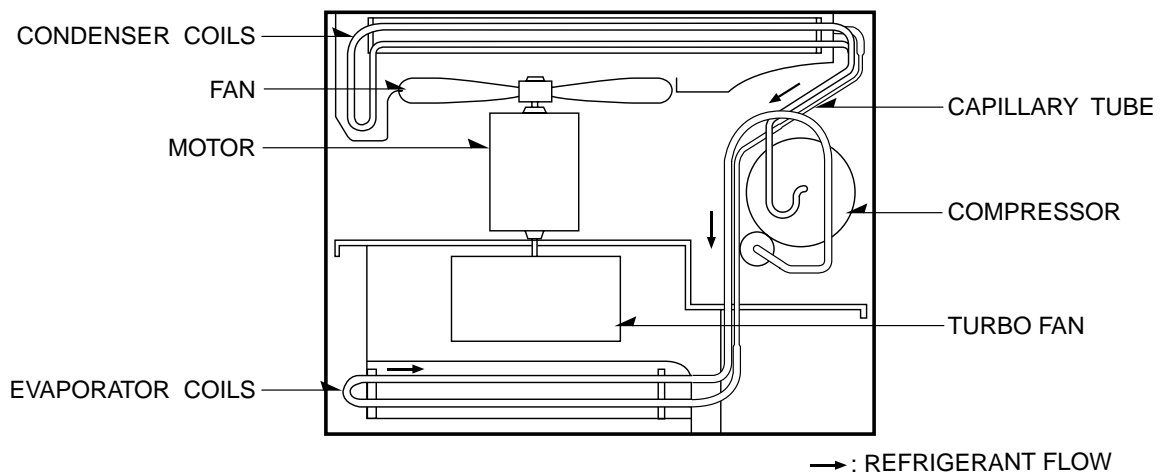
**Figure 17B-Charging**

# 3. TROUBLESHOOTING GUIDE

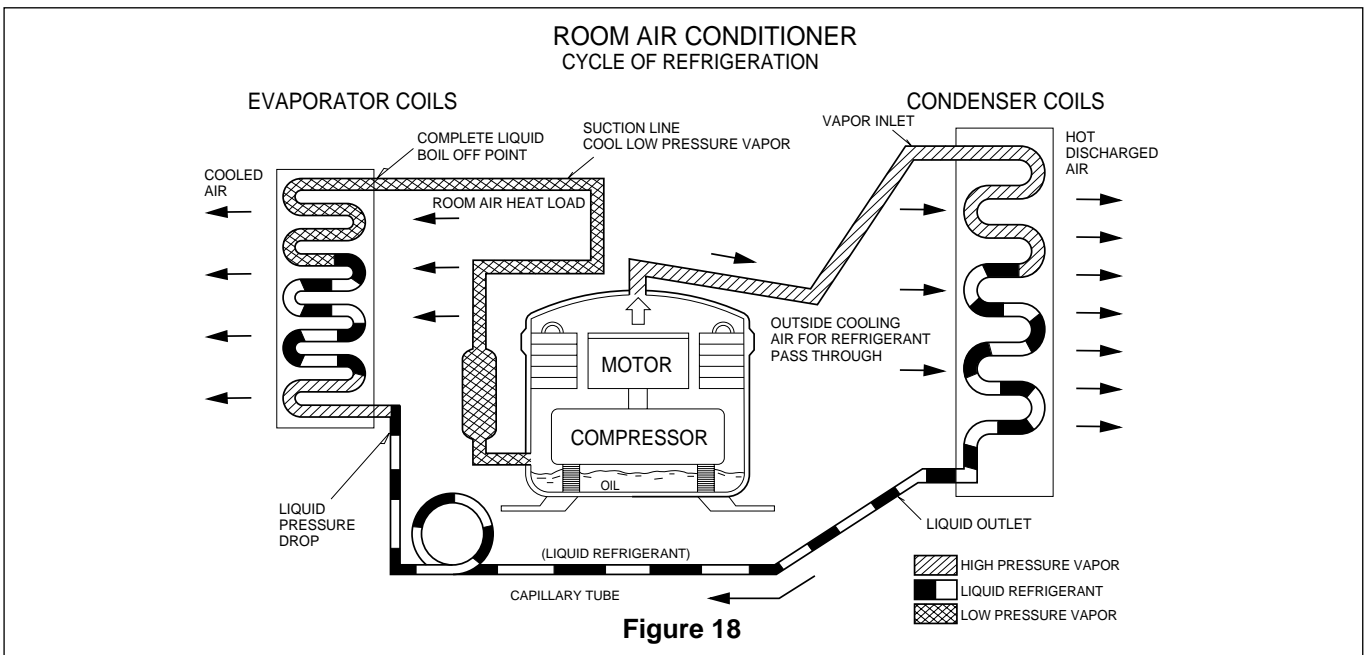
## 3.1 OUTSIDE DIMENSIONS



## 3.2 PIPING SYSTEM



Following is a brief description of the important components and their functions in the refrigeration system. Refer to Fig. 18 to follow the refrigeration cycle and the flow of the refrigerant in the cooling cycle.

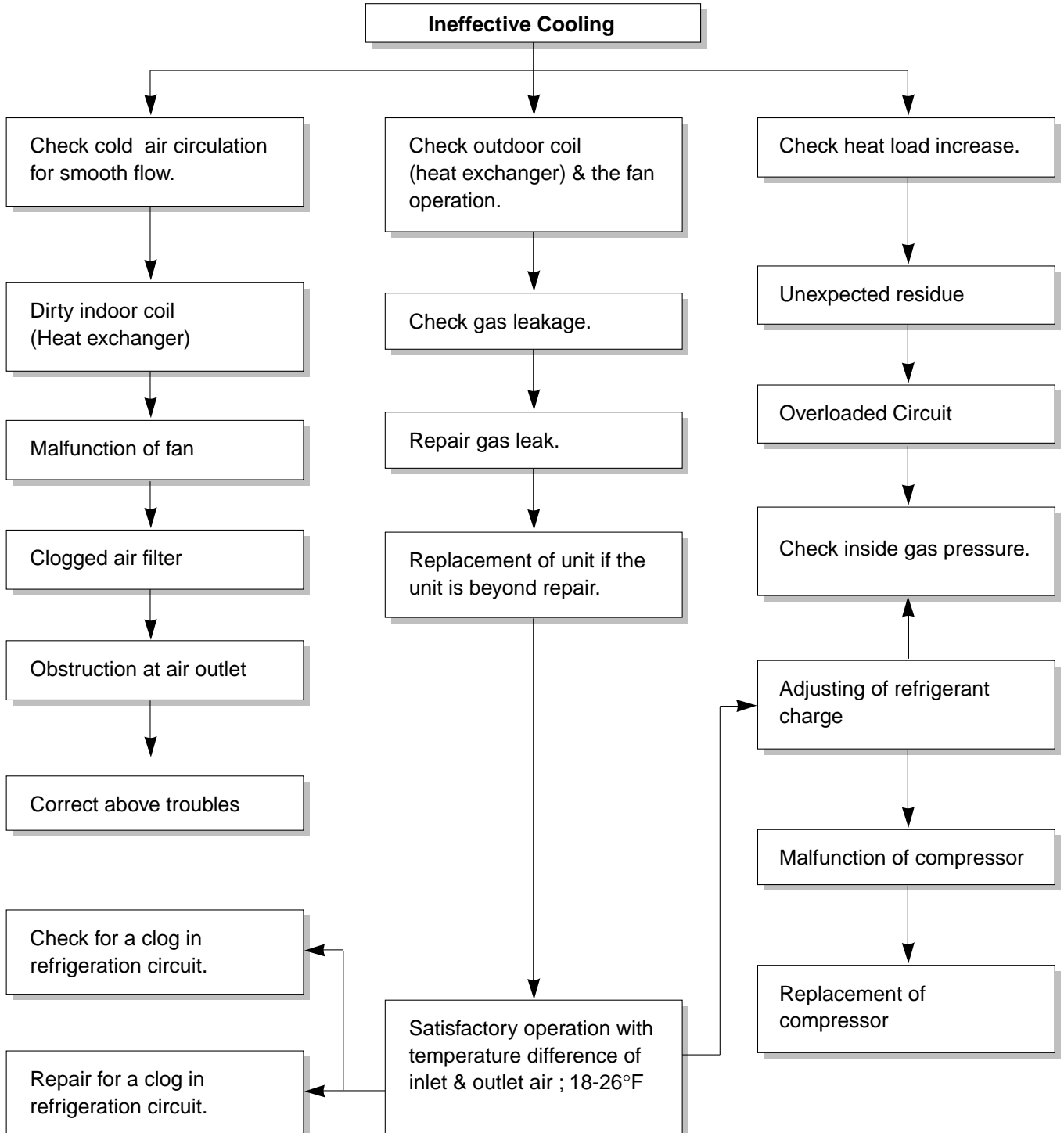


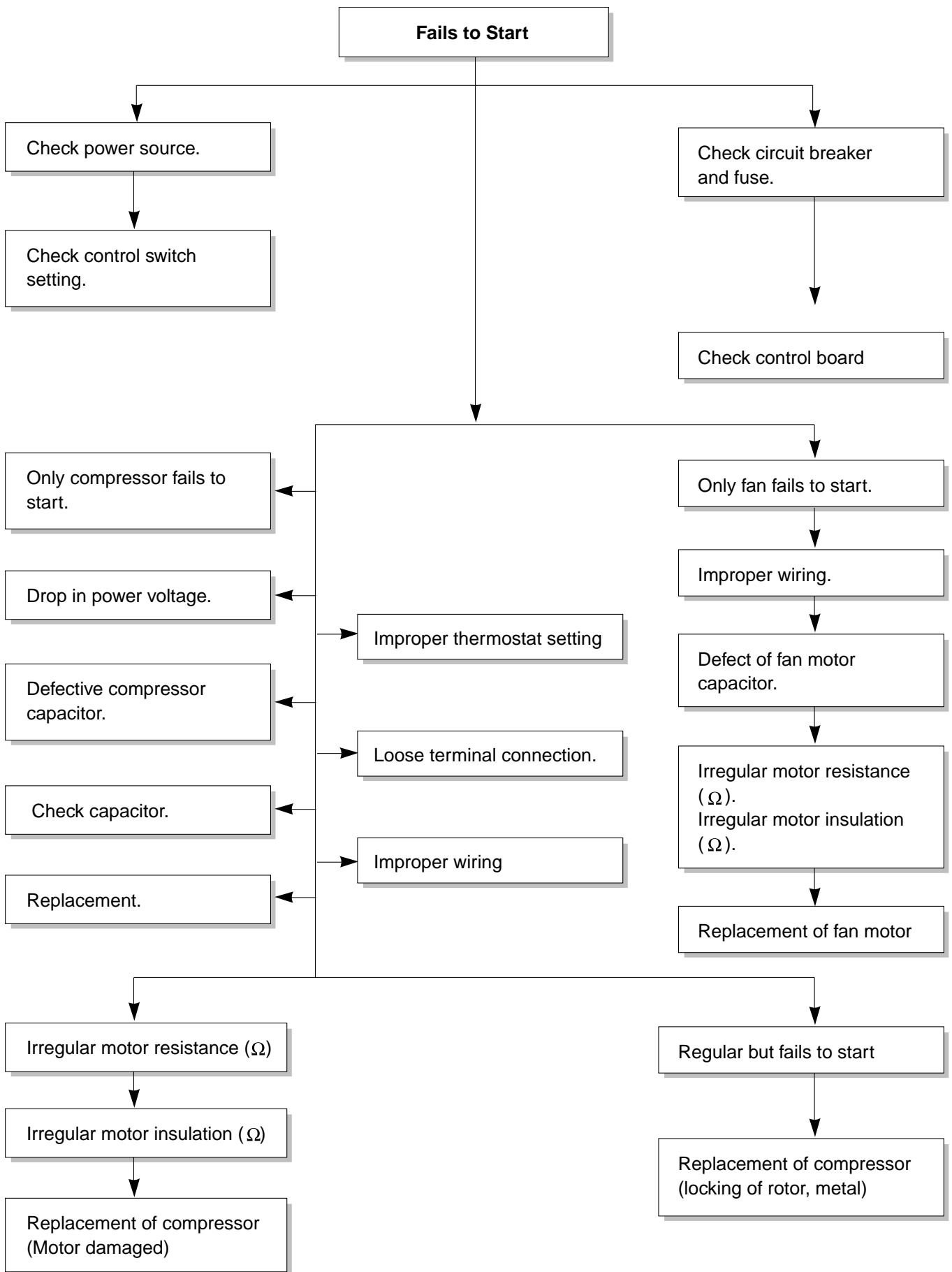
### 3.3 TROUBLESHOOTING GUIDE

In general, possible trouble is classified in two causes.

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/or improper application.

#### Unit is running but cooling is ineffective





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. 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 $\pm 10\%$ 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 condenser fans must have $\frac{1}{4}$ to $\frac{5}{16}$ inch clearance to the base. If it is hitting 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	Cycles on overload.	Check voltage. See limits on page 17. 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.
Fan motor noise.	Grommets	Check grommets; if worn or missing, replace them.
	Fan	If cracked, out of balance, or partially missing, replace it.
	Turbo fan	If cracked, out of balance, or partially missing, replace it.
	Loose set screw	Tighten it.
	Worn bearings	If knocking sounds continue when running or loose, replace the motor. If the motor hums or noise appears to be internal while running, replace motor.

<b>COMPLAINT</b>	<b>CAUSE</b>	<b>REMEDY</b>
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.
	Capacitor (Discharge capacitor before servicing.)	Check the capacitor. Replace if not within $\pm 10\%$ of manufacturers 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.)

## ROOM AIR CONDITIONER VOLTAGE LIMITS

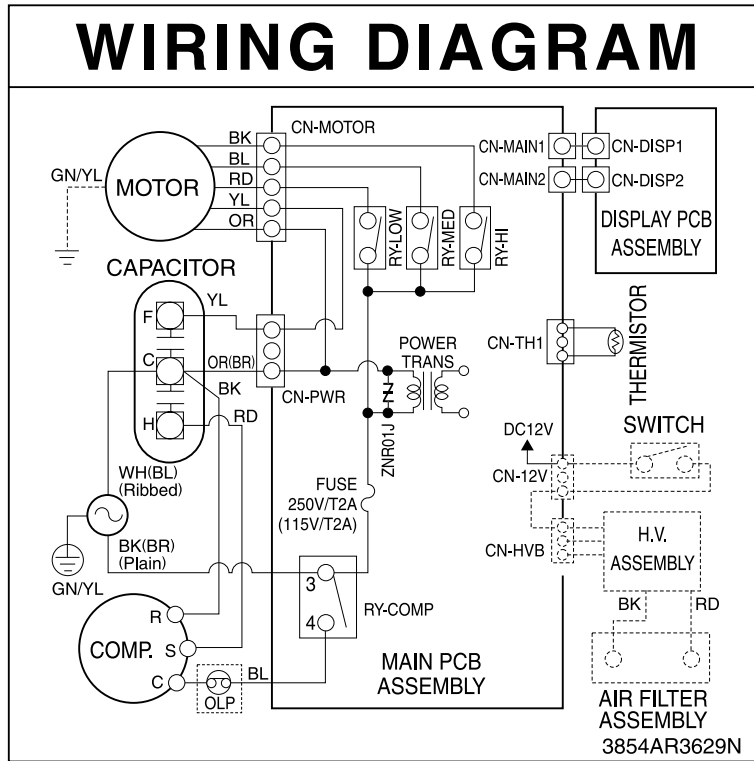
<b>NAME PLATE RATING</b>	<b>MINIMUM</b>	<b>MAXIMUM</b>
115V	103.5V	126.5V
208/230V	187V	253V

<b>COMPLAINT</b>	<b>CAUSE</b>	<b>REMEDY</b>
Compressor cycles on overload.	Voltage	Check the voltage. See the limits on the preceding page. 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.)
	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 (do not damage fins). 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 cycle. 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 or heating	Air filter	If restricted, clean or replace.
	Exhaust damper door	Close if open.
	Unit undersized	Determine if the unit is properly sized for the area to be cooled.
Excessive noise.	Blower 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 and carefully rearrange tubing not to contact cabinet, compressor, shroud, and barrier.

# 4. SCHEMATIC DIAGRAM

## 4.1 CIRCUIT DIAGRAM

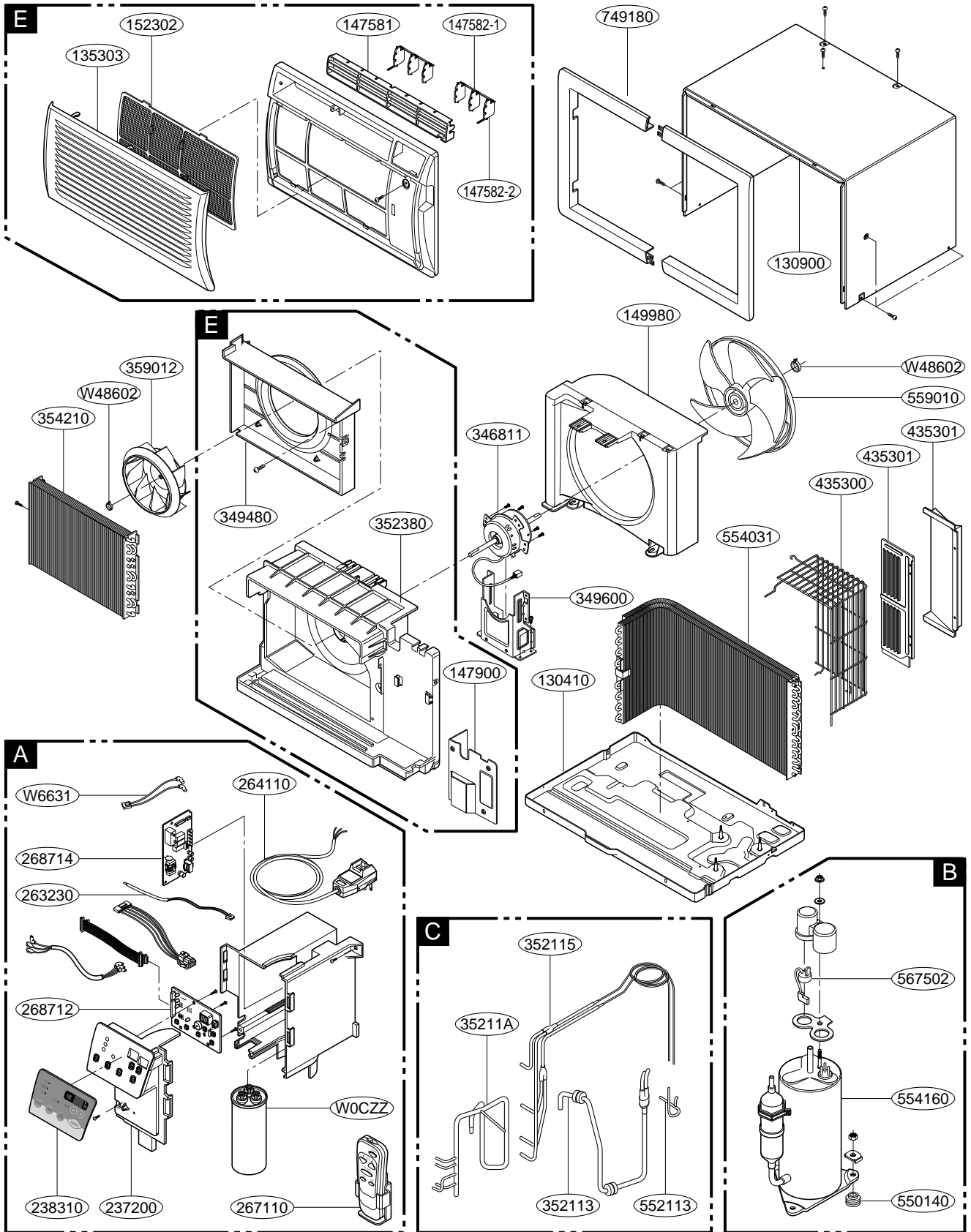
• MODEL : US08B10A-A, US10B10A-A, US12B10A-A, US10B30A-A, US12B30A-A



LOCATION NO.	DESCRIPTION	PART NO.					Q'TY PER SET	REMARKS
		US08B10A-A	US10B10A-A	US12B10A-A	US10B30A-A	US12B30A-A		
264110	POWER CORD	67300012	67300012	67300013	67300015	67300015	1	
346811	FAN MOTOR	67303021	67303022	67303023	67303024	67303025	1	
W0CZZ	CAPACITOR	67300710	67300717	67300717	67300708	67300708	1	
567502	OVERLOAD PROTECTOR	67301406	67301409	67301407	67301413	67500056	1	

# 5. EXPLODED VIEW

• MODEL: US08B10A-A, US10B10A-A, US12B10A-A, US10B30A-A, US12B30A-A



# 6. REPLACEMENT PARTS LIST

• MODEL: US08B10A-A

LOCATION NO.	Model	Friedrich #	LGE # Description	Qty	
130900	US08B10A-A	67303708	3090A20017D CABINET ASSEMBLY	1	EA
147582-1	US08B10A-A	67306256	4758A30045A LOUVER, VERTICAL	1	EA
147582-2	US08B10A-A	67306257	4758A30045B LOUVER, VERTICAL	1	EA
147581	US08B10A-A	67306205	4758A20058A LOUVER HORIZONTAL	1	EA
135303	US08B10A-A	67306106	3530A11001A GRILLE, INLET	1	EA
135312	US08B10A-A	67306012	3531A18005A GRILLE ASSEMBLY,FRONT	1	EA
263230	US08B10A-A	67307803	6323A20004E THERMISTOR ASSEMBLY	1	EA
268714	US08B10A-A	67307609	6871A01001A PWB(PCB) ASSEMBLY,MAIN	1	EA
267110	US08B10A-A	67307701	6711A20056U REMOTE CONTROLLER ASSEMBLY	1	EA
W0CZZ	US08B10A-A	67300710	6120AR2194P CAPACITOR,DRAWING	1	EA
264110	US08B10A-A	67300012	6411A20048W POWER CORD ASSEMBLY	1	EA
268712	US08B10A-A	67307608	6871A20448A PWB(PCB) ASSEMBLY,DISPLAY	1	EA
237200	US08B10A-A	67305506	3720A20251A PANEL,CONTROL	1	EA
238310	US08B10A-A	67500114	3831A10037E ESCUTCHEON	1	EA
W48602	US08B10A-A	67302500	3H02932B CLAMP,SPRING	1	EA
359012	US08B10A-A	67302607	5900A20009A FAN,TURBO	1	EA
349480	US08B10A-A	67303409	4948A20045A ORIFICE	1	EA
559010	US08B10A-A	67303202	5900AR1173A FAN ASSEMBLY,AXIAL	1	EA
149980	US08B10A-A	67500112	4998A20003A SHROUD	1	EA
W48602	US08B10A-A	67302500	3H02932B CLAMP,SPRING	1	EA
346811	US08B10A-A	67303021	4681A20175B MOTOR ASSEMBLY,SINGLE	1	EA
435300	US08B10A-A	67307201	3530A30002A GRILLE,REAR	1	EA
435301	US08B10A-A	67307205	3530A30015A GRILLE,REAR	1	EA
130410	US08B10A-A	67500108	3041A10046J BASE ASSEMBLY,SINGLE	1	EA
567502	US08B10A-A	67301406	6750U-L005A O.L.P	1	EA
550140	US08B10A-A	67305001	4H00982E ISOLATOR,COMP	1	EA
749180	US08B10A-A	67308102	3210A20075A FRAME	1	EA

• **MODEL: US10B10A-A**

LOCATION NO.	Model	Friedrich #	LGE # Description	Qty	
130900	US10B10A-A	67303708	3090A20017D CABINET ASSEMBLY	1	EA
147582-1	US10B10A-A	67306256	4758A30045A LOUVER, VERTICAL	1	EA
147582-2	US10B10A-A	67306257	4758A30045B LOUVER, VERTICAL	1	EA
147581	US10B10A-A	67306205	4758A20058A LOUVER HORIZONTAL	1	EA
135303	US10B10A-A	67306106	3530A11001A GRILLE, INLET	1	EA
135312	US10B10A-A	67306012	3531A18005A GRILLE ASSEMBLY, FRONT	1	EA
263230	US10B10A-A	-	6323A20004S THERMISTOR ASSEMBLY	1	EA
268714	US10B10A-A	67307609	6871A01001A PWB(PCB) ASSEMBLY, MAIN	1	EA
267110	US10B10A-A	67307701	6711A20056U REMOTE CONTROLLER ASSEMBLY	1	EA
W0CZZ	US10B10A-A	67300717	0CZZA20007A CAPACITOR, DRAWING	1	EA
264110	US10B10A-A	67300012	6411A20048W POWER CORD ASSEMBLY	1	EA
268712	US10B10A-A	67307608	6871A20448A PWB(PCB) ASSEMBLY, DISPLAY	1	EA
237200	US10B10A-A	67305506	3720A20251A PANEL, CONTROL	1	EA
238310	US10B10A-A	67500114	3831A10037E ESCUTCHEON	1	EA
W48602	US10B10A-A	67302500	3H02932B CLAMP, SPRING	1	EA
359012	US10B10A-A	67302607	5900A20009A FAN, TURBO	1	EA
349480	US10B10A-A	67303409	4948A20045A ORIFICE	1	EA
559010	US10B10A-A	67303202	5900AR1173A FAN ASSEMBLY, AXIAL	1	EA
149980	US10B10A-A	67500112	4998A20003A SHROUD	1	EA
W48602	US10B10A-A	67302500	3H02932B CLAMP, SPRING	1	EA
346811	US10B10A-A	67303022	4681A20041L MOTOR ASSEMBLY, SINGLE	1	EA
352380	US10B10A-A	67302724	5238A20033A AIR GUIDE	1	EA
349600	US10B10A-A	67303606	4960A20008A MOUNT, MOTOR	1	EA
435300	US10B10A-A	67307201	3530A30002A GRILLE, REAR	1	EA
435301	US10B10A-A	67307205	3530A30015A GRILLE, REAR	1	EA
130410	US10B10A-A	67500109	3041A10046P BASE ASSEMBLY, SINGLE	1	EA
567502	US10B10A-A	67301409	6750U-L031A O.L.P	1	EA
550140	US10B10A-A	67305001	4H00982E ISOLATOR, COMP	1	EA
749180	US08B10A-A	67308102	3210A20075A FRAME	1	EA

• **MODEL: US12B10A-A**

LOCATION NO.	Model	Friedrich #	LGE # Description	Qty	
130900	US12B10A-A	67303708	3090A20017D CABINET ASSEMBLY	1	EA
147582-1	US12B10A-A	67306256	4758A30045A LOUVER, VERTICAL	1	EA
147582-2	US12B10A-A	67306257	4758A30045B LOUVER, VERTICAL	1	EA
147581	US12B10A-A	67306205	4758A20058A LOUVER HORIZONTAL	1	EA
135303	US12B10A-A	67306106	3530A11001A GRILLE, INLET	1	EA
135312	US12B10A-A	67306012	3531A18005A GRILLE ASSEMBLY, FRONT	1	EA
263230	US12B10A-A	-	6323A20004S THERMISTOR ASSEMBLY	1	EA
268714	US12B10A-A	67307609	6871A01001A PWB(PCB) ASSEMBLY, MAIN	1	EA
267110	US12B10A-A	67307701	6711A20056U REMOTE CONTROLLER ASSEMBLY	1	EA
W0CZZ	US12B10A-A	67300717	0CZZA20007A CAPACITOR, DRAWING	1	EA
264110	US12B10A-A	67300013	6411A20048F POWER CORD ASSEMBLY	1	EA
268712	US12B10A-A	67307608	6871A20448A PWB(PCB) ASSEMBLY, DISPLAY	1	EA
237200	US12B10A-A	67305506	3720A20251A PANEL, CONTROL	1	EA
238310	US12B10A-A	67500114	3831A10037E ESCUTCHEON	1	EA
W48602	US12B10A-A	67302500	3H02932B CLAMP, SPRING	1	EA
359012	US12B10A-A	67302607	5900A20009A FAN, TURBO	1	EA
349480	US12B10A-A	67303409	4948A20045A ORIFICE	1	EA
559010	US12B10A-A	67303202	5900AR1173A FAN ASSEMBLY, AXIAL	1	EA
149980	US12B10A-A	67500112	4998A20003A SHROUD	1	EA
W48602	US12B10A-A	67302500	3H02932B CLAMP, SPRING	1	EA
346811	US12B10A-A	67303023	4681A20041K MOTOR ASSEMBLY, SINGLE	1	EA
352380	US12B10A-A	67302724	5238A20033A AIR GUIDE	1	EA
349600	US12B10A-A	67303606	4960A20008A MOUNT, MOTOR	1	EA
435300	US12B10A-A	67307201	3530A30002A GRILLE, REAR	1	EA
435301	US12B10A-A	67307205	3530A30015A GRILLE, REAR	1	EA
130410	US12B10A-A	67500110	3041A10046C BASE ASSEMBLY, SINGLE	1	EA
567502	US12B10A-A	67301407	6750U-L029A O.L.P	1	EA
550140	US12B10A-A	67305001	4H00982E ISOLATOR, COMP	1	EA
749180	US12B10A-A	67308102	3210A20075A FRAME	1	EA

• **MODEL: US10B30A-A**

LOCATION NO.	Model	Friedrich #	LGE # Description	Qty	
130900	US10B30A-A	67303708	3090A20017D CABINET ASSEMBLY	1	EA
147582-1	US10B30A-A	67306256	4758A30045A LOUVER, VERTICAL	1	EA
147582-2	US10B30A-A	67306257	4758A30045B LOUVER, VERTICAL	1	EA
147581	US10B30A-A	67306205	4758A20058A LOUVER HORIZONTAL	1	EA
135303	US10B30A-A	67306106	3530A11001A GRILLE, INLET	1	EA
135312	US10B30A-A	67306012	3531A18005A GRILLE ASSEMBLY, FRONT	1	EA
263230	US10B30A-A	-	6323A20004S THERMISTOR ASSEMBLY	1	EA
268714	US10B30A-A	67307610	6871A01001B PWB(PCB) ASSEMBLY, MAIN	1	EA
267110	US10B30A-A	67307701	6711A20056U REMOTE CONTROLLER ASSEMBLY	1	EA
W0CZZ	US10B30A-A	67300708	6120AR2194D CAPACITOR, DRAWING	1	EA
264110	US10B30A-A	67300015	6411A20048J POWER CORD ASSEMBLY	1	EA
268712	US10B30A-A	67307608	6871A20448A PWB(PCB) ASSEMBLY, DISPLAY	1	EA
237200	US10B30A-A	67305506	3720A20251A PANEL, CONTROL	1	EA
238310	US10B30A-A	67500114	3831A10037E ESCUTCHEON	1	EA
W48602	US10B30A-A	67302500	3H02932B CLAMP, SPRING	1	EA
359012	US10B30A-A	67302607	5900A20009A FAN, TURBO	1	EA
349480	US10B30A-A	67303409	4948A20045A ORIFICE	1	EA
559010	US10B30A-A	67303202	5900AR1173A FAN ASSEMBLY, AXIAL	1	EA
149980	US10B30A-A	67500112	4998A20003A SHROUD	1	EA
W48602	US10B30A-A	67302500	3H02932B CLAMP, SPRING	1	EA
346811	US10B30A-A	67303024	4681A20175A MOTOR ASSEMBLY, SINGLE	1	EA
352380	US10B30A-A	67302724	5238A20033B AIR GUIDE	1	EA
435300	US10B30A-A	67307201	3530A30002A GRILLE, REAR	1	EA
435301	US10B30A-A	67302705	3530A30015A GRILLE, REAR	1	EA
130410	US10B30A-A	67500111	3041A10046D BASE ASSEMBLY, SINGLE	1	EA
567502	US10B30A-A	67301413	6750U-L028A O.L.P	1	EA
550140	US10B30A-A	67305001	4H00982E ISOLATOR, COMP	1	EA
352115	US10B30A-A	-	5211A29024F TUBE ASSEMBLY, EVAPORATOR IN	1	EA
552113	US10B30A-A	-	5211A21809A TUBE ASSEMBLY, CONDENSER OUT	1	EA
352113	US10B30A-A	-	5211A21421C TUBE ASSEMBLY, DISCHARGE SINGLE	1	EA
35211A	US10B30A-A	-	5211A21420A TUBE ASSEMBLY, SUCTION SINGLE	1	EA
749180	US10B30A-A	67308102	3210A20075A FRAME	1	EA

• **MODEL: US12B30A-A**

LOCATION NO.	Model	Friedrich #	LGE # Description	Qty	
130900	US12B30A-A	67303708	3090A20017D CABINET ASSEMBLY	1	EA
147582-1	US12B30A-A	67306256	4758A30045A LOUVER, VERTICAL	1	EA
147582-2	US12B30A-A	67306257	4758A30045B LOUVER, VERTICAL	1	EA
147581	US12B30A-A	67306205	4758A20058A LOUVER HORIZONTAL	1	EA
135303	US12B30A-A	67306106	3530A11001A GRILLE, INLET	1	EA
135312	US12B30A-A	67306012	3531A18005A GRILLE ASSEMBLY, FRONT	1	EA
263230	US12B30A-A	-	6323A20004S THERMISTOR ASSEMBLY	1	EA
268714	US12B30A-A	67307610	6871A01001B PWB(PCB) ASSEMBLY, MAIN	1	EA
267110	US12B30A-A	67307701	6711A20056U REMOTE CONTROLLER ASSEMBLY	1	EA
W0CZZ	US12B30A-A	67300708	6120AR2194D CAPACITOR, DRAWING	1	EA
264110	US12B30A-A	67300015	6411A20048J POWER CORD ASSEMBLY	1	EA
268712	US12B30A-A	67307608	6871A20448A PWB(PCB) ASSEMBLY, DISPLAY	1	EA
237200	US12B30A-A	67305506	3720A20251A PANEL, CONTROL	1	EA
238310	US12B30A-A	67500114	3831A10037E ESCUTCHEON	1	EA
W48602	US12B30A-A	67302500	3H02932B CLAMP, SPRING	1	EA
359012	US12B30A-A	67302607	5900A20009A FAN, TURBO	1	EA
349480	US12B30A-A	67303409	4948A20045A ORIFICE	1	EA
559010	US12B30A-A	67303202	5900AR1173A FAN ASSEMBLY, AXIAL	1	EA
149980	US12B30A-A	67500112	4998A20003A SHROUD	1	EA
W48602	US12B30A-A	67302500	3H02932B CLAMP, SPRING	1	EA
346811	US12B30A-A	67303025	4681A20041J MOTOR ASSEMBLY, SINGLE	1	EA
352380	US12B30A-A	67302724	5238A20033A AIR GUIDE	1	EA
349600	US12B30A-A	67303606	4960A20008A MOUNT, MOTOR	1	EA
435300	US12B30A-A	67307201	3530A30002A GRILLE, REAR	1	EA
435301	US12B30A-A	67302705	3530A30015A GRILLE, REAR	1	EA
130410	US12B30A-A	67500110	3041A10046C BASE ASSEMBLY, SINGLE	1	EA
567502	US12B30A-A	67500056	6750U-L058A O.L.P	1	EA
550140	US12B30A-A	67305001	4H00982E ISOLATOR, COMP	1	EA
749180	US12B30A-A	67308102	3210A20075A FRAME	1	EA



FRIEDRICH AIR CONDITIONING CO.  
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