

Window

Y9USC/E 09 / 12 / 18 B5R

SERVICE MANUAL



Y9USC-09 B5R; Y9USE-09 B5R
Y9USC-12 B5R; Y9USE-12 B5R
Y9USC-18 B5R; Y9USE-18 B5R



Service manual

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1. PRECAUTION

1.1 SAFETY PRECAUTION

To prevent injury to the user or other people and property damage, the following instructions must be followed.

Incorrect operation due to ignoring instruction will cause harm or damage.

BEFORE SERVICE UNIT, BE SURE TO READ THIS SERVICE MANUAL AT FIRST.

1.2 WARNING

- 1.2.1 DO NOT USE DAMAGED POWER CORDS, PLUGS, OR A LOOSE SOCKET.
- 1.2.2 ALWAYS USE THE POWER PLUG AND SOCKET WITH THE GROUND TERMINAL
- 1.2.3 DO NOT MODIFY OR EXTEND THE POWER CORD
- 1.2.4 DO NOT TURN THE AIR-CONDITIONER ON OR OFF BY PLUGGING OR UNPLUGGING THE POWER PLUG
- 1.2.5 USE A DEDICATED POWER OUTLET FOR THIS APPLIANCE
- 1.2.6 GRASP THE PLUG TO REMOVE THE CORD FROM THE OUTLET. DO NOT TOUCH IT WITH WET HANDS.
- 1.2.7 DO NOT PLACE A HEATER OR OTHER APPLIANCE NEAR THE POWER CABLE
- 1.2.8 DO NOT ALLOW WATER TO RUN INTO ELECTRICAL PARTS
- 1.2.9 DO NOT STORE OR USE FLAMMABLE GAS OR COMBUSTIBLES NEAR THE AIR CONDITIONER
- 1.2.10 UNPLUGGING THE UNIT IF STRANGE SOUNDS, ODORS, OR SMOKE COMES FROM IT
- 1.2.11 BE CAUTION THAT WATER COULD NOT ENTER THE PRODUCT

1.3 CAUTION

- 1.3.1 USE A SOFT CLOTH TO CLEAN. DO NOT USE HARSH DETERGENTS, SOLVENTS, ETC
- 1.3.2 DO NOT TOUCH THE METAL PARTS OF THE PRODUCT WHEN REMOVING THE AIR FILTER. THEY ARE VERY SHARP
- 1.3.3 DO NOT STEP ON OR PUT ANYTHING ON THE PRODUCT
 - 1.3.1 DO NOT INSERT HANDS OR OTHER OBJECTS THROUGH THE AIR INLET OR OUTLET WHILE THE AIR CONDITIONER IS PLUGGED IN

1.4 FEATURES

Designed for HEAT PUMP..

Powerful cooling & heating..

Slide-in and slide-out chassis for the simple installation and service.

Side air-intake, side cooled-air discharge.

WASHABLE ONE-TOUCH FILTER AND EASY REMOVED PANEL.

Super compact design.

Reliable and efficient rotary compressor is equipped.

Unique Quiet Design.

Fresh air switch

1.5 DIAGRAM PANEL

Auto louver

When the switch is on ,the louver motor will operate and begin auto louver function. When the switch is off, the louver motor will stop.

Thermostat

Set the temperature desired

Selector

Selector operation function on COOL, HEAT or FAN ONLY with HIGH, MID or LOW fan speed.

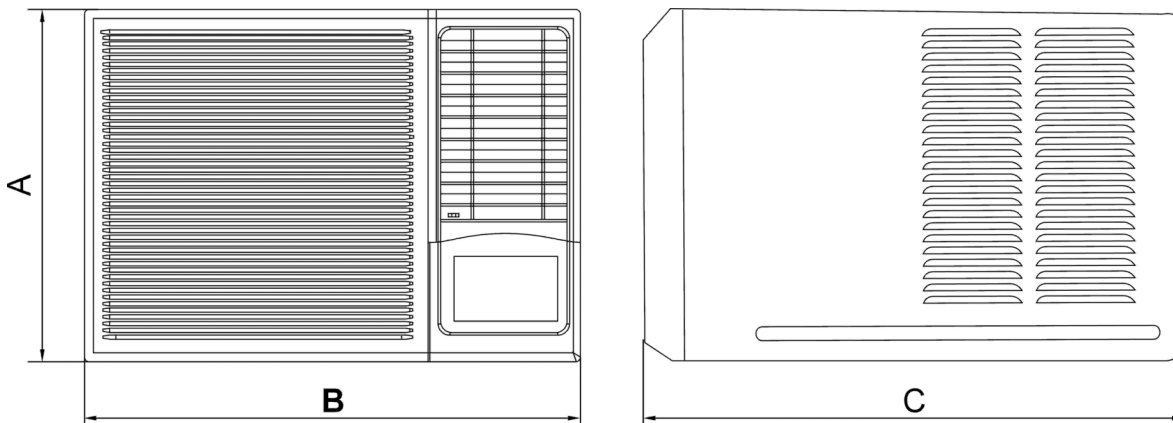
Test run

Turn the knob to this position to operate the unit in FORCED COOLING. Under this mode, the unit will operate in cooling immediately.

Wait three minutes before restarting

To protect the compressor, please do NOT restart the unit in COOLING or HEATING mode in three minutes.

1.6 OUTSIDE DIMENSIONS



Model		A (mm)	B (mm)	C (mm)
Y9USC-09 B5R	Y9USE-09 B5R	346	450	535
Y9USC-12 B5R	Y9USE-12 B5R	400	560	650
Y9USC-18 B5R	Y9USE-18 B5R	434	660	650

1.7 SPECIFICATION

Model			Y9USC-09 B5R	Y9USE-09 B5R
Factory Model			CE-KC26/E1N2	CE-KCR26/E1N2
Power supply		Ph-V-Hz	1Ph , 220-240V~, 50Hz	1Ph , 220-240V~, 50Hz
Cooling	Capacity	Btu/h	9000	9000
	Input	W	1050	1110
	Rated current	A	4.7	4.7
	EER	Btu/w.h W/W	8.6,2.51	8.6,2.51
Heating	Capacity	Btu/h		9000
	Input	W		980
	Rated current	A		4.4
	COP	W/W		2.7
Moisture Removal		L/h	0.9	0.9
Max. input consumption		W	1400	1450
Max. current		A	7.3	7.5
Starting current		A	24	24
Plug type				
Thermostat type			Mechanical control	Mechanical control
Compressor	Model		PG180X1C-4DZ3	PG180X1C-4DZ3
	Type		ROTARY	ROTARY
	Brand		TOSHIBA	TOSHIBA
	Capacity	Btu/h	10650	10650
	Input	W	995	995
	Rated current(RLA)	A	4.6	4.6
	Locked rotor Amp(LRA)	A	24	24
	Thermal protector		UP3QE0591-T61	UP3QE0591-T61
	Capacitor	uF	30	30
	Refrigerant oil	ml	400	400
Refrigerant type			R407C/510g	R407C/550g
Design pressure		MPa	2.6	2.6
Fan motor	Model		YSK60-4C	YSK60-4C
	Brand		Welling,Broad	Welling,Broad
	Input	W	112/98/86	112/98/86
	Capacitor	uF	2.5	2.5
	Speed(hi/mi/lo)	r/min	1270/1170/1050	1270/1170/1050
Evaporator	a.Number of rows		3	3
	b.Tube pitch(a)x row pitch(b)	mm	21X13.37	21X13.37
	c.Fin spacing	mm	1.2	1.2
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	7x0.25, innergroove tube	7x0.25, innergroove tube
	f.Coil length x height x width	mm	248X294X40.11	248X294X40.11
	g.Number of circuits		2	2
Indoor air flow (Hi/Mi/Lo)		m3/h	420/380/330	420/380/330
Indoor noise level (Hi/Mi/Lo)		dB(A)	51/48/45	51/48/45

Condenser	a.Number of rows		3	3
	b.Tube pitch(a)x row pitch(b)	mm	21X13.37	21X13.37
	c.Fin spacing	mm	1.3	1.3
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	7x0.25, innergroove tube	7x0.25, innergroove tube
	f.Coil length x height x width	mm	370X315X40.11	370X315X40.11
	g.Number of circuits		2	2
Outdoor air flow (Hi/Mi/Lo) m3/h	m3/h		700/620/540	700/620/540
Outdoor noise level (Hi/Mi/Lo) dB(A)	dB(A)		58/55/52	58/55/52
Dimension (W*H*D)	mm		450×350×540	450×350×540
Packing (W*H*D)	mm		495×435×580	495×435×580
Net/Gross weight	Kg		35/39	37/41
Operation temp	°C		16 31	16 31
Ambient temp	°C		17 ~ 43	-10 ~ 43
Application area	m2		14-20	14-20
Qty'per 20' & 40'HQ Fcl	Pieces		220/572	220/572

Service manual

Model		Y9USC-12 B5R	Y9USE-12 B5R
Factory Model		CE-KC35/E1N2	CE-KCR35/E1N2
Power supply		Ph-V-Hz	1Ph , 220-240V~, 50Hz
Cooling	Capacity	Btu/h	12000
	Input	W	1420
	Rated current	A	6.3
	EER	Btu/w.h W/W	8.5,2.48
Heating	Capacity	Btu/h	12000
	Input	W	1210
	Rated current	A	5.4
	COP	W/W	2.9
Moisture Removal		L/h	1.1
Max. input consumption		W	1760
Max. current		A	9.1
Starting current		A	
Plug type			
Thermostat type			Mechanical control
Compressor	Model		PG225X2C-4FT
	Type		ROTARY
	Brand		TOSHIBA
	Capacity	Btu/h	13540
	Input	W	1290
	Rated current(RLA)	A	6
	Locked rotor Amp(LRA)	A	Not Fixed
	Thermal protector		INTERNAL
	Capacitor	uF	35
	Refrigerant oil	ml	480
Refrigerant type			R407C/870g
Design pressure		MPa	2.6
Fan motor	Model		YSK70-6C
	Brand		Welling,Broad
	Input	W	113/104/100
	Capacitor	uF	2.5
	Speed(hi/mi/lo)	r/min	900/800/700
Evaporator	a.Number of rows		3
	b.Tube pitch(a)x row pitch(b)	mm	25.4X22
	c.Fin spacing	mm	1.7
	d.Fin type (code)		Hydrophilic aluminium
	e.Tube outside dia.and type	mm	9.53x0.27, innergroove tube
	f.Coil length x height x width	mm	317X355.6X66
	g.Number of circuits		2
Indoor air flow (Hi/Mi/Lo)		m3/h	550/500/450
Indoor noise level (Hi/Mi/Lo)		dB(A)	50/47/44

Condenser	a.Number of rows		3	3
	b.Tube pitch(a)x row pitch(b)	mm	25.4X22	25.4X22
	c.Fin spacing	mm	1.7	1.7
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	9.53x0.27, innergroove tube	9.53x0.27, innergroove tube
	f.Coil length x height x width	mm	475X381X66	475X381X66
	g.Number of circuits		2	2
Outdoor air flow (Hi/Mi/Lo) m3/h		m3/h	850/780/700	850/780/700
Outdoor noise level (Hi/Mi/Lo) dB(A)		dB(A)	58/55/52	58/55/52
Dimension (W*H*D)		mm	560×400×650	560×400×650
Packing (W*H*D)		mm	620×445×770	620×445×770
Net/Gross weight		Kg	48/53	54/59
Operation temp		℃	16 31	16 31
Ambient temp		℃	17 ~ 43	-10 ~ 43
Application area		m2	18-26	18-26
Qty'per 20' & 40'HQ Fcl		Pieces	133/340	133/340

Service manual

Model			Y9USC-18 B5R	Y9USE-18 B5R
Factory Model			CE-KC46/E1N2	CE-KCR46/E1N2
Power supply		Ph-V-Hz	1Ph , 220-240V~, 50Hz	1Ph , 220-240V~, 50Hz
Cooling	Capacity	Btu/h	18000	18000
	Input	W	2100	2100
	Rated current	A	9.3	9.3
	EER	Btu/w.h W/W	8.6,2.5	8.6,2.5
Heating	Capacity	Btu/h		18000
	Input	W		2000
	Rated current	A		9.6
	COP	W/W		2.7
Moisture Removal		L/h	2.0	2.0
Max. input consumption		W	3020	3020
Max. current		A	15.8	15.8
Starting current		A		
Plug type				
Thermostat type			Mechanical control	Mechanical control
Compressor	Model		PG290X2C-4FT1	PG290X2C-4FT1
	Type		ROTARY	ROTARY
	Brand		TOSHIBA	TOSHIBA
	Capacity	Btu/h	17700	17700
	Input	W	1700	1700
	Rated current(RLA)	A	8.2	8.2
	Locked rotor Amp(LRA)	A	Not Fixed	Not Fixed
	Thermal protector		UP3QE0391-T39	UP3QE0391-T39
	Capacitor	uF	35	35
	Refrigerant oil	ml	520	520
Refrigerant type			R407C/870g	R407C/1150g
Design pressure		MPa	2.6	2.6
Fan motor	Model		YSK93-6C	YSK93-6C
	Brand		Welling,Broad	Welling,Broad
	Input	W	143/130/120	143/130/120
	Capacitor	uF	4	4
	Speed(hi/mi/lo)	r/min	900/800/700	900/800/700
Evaporator	a.Number of rows		2	2
	b.Tube pitch(a)x row pitch(b)	mm	25.4*22	25.4x22
	c.Fin spacing	mm	1.3	1.5
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Ø9.53x0.27, innergroove tube	Ø9.53x0.27, innergroove tube
	f.Coil length x height x width	mm	365x381x44	365x381x44
	g.Number of circuits		2	2
Indoor air flow (Hi/Mi/Lo)		m3/h	660/610/560	660/610/560
Indoor noise level (Hi/Mi/Lo)		dB(A)	52/49/46	52/49/46

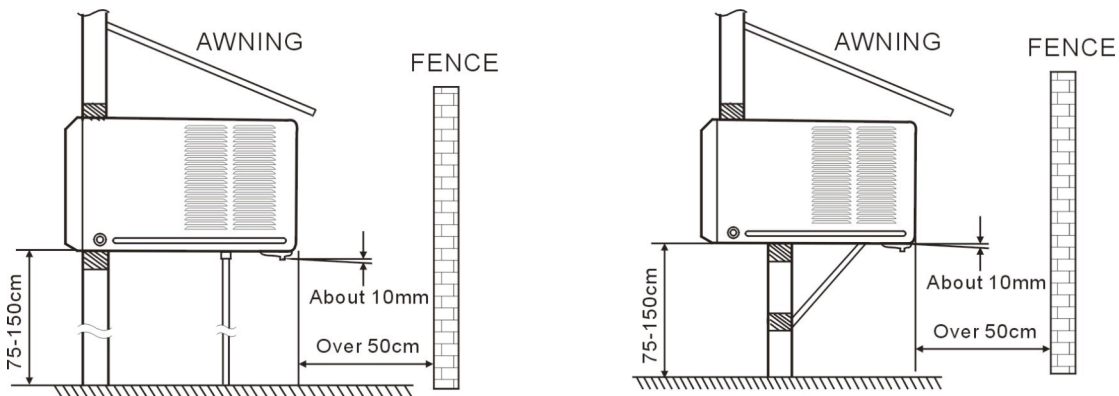
Condenser	a.Number of rows		2	3
	b.Tube pitch(a)x row pitch(b)	mm	25.4x22	25.4x22
	c.Fin spacing	mm	1.4	1.7
	d.Fin type (code)		Hydrophilic aluminium	Hydrophilic aluminium
	e.Tube outside dia.and type	mm	Ø9.53x0.27, innergroove tube	Ø9.53x0.27, innergroove tube
	f.Coil length x height x width	mm	560x406x44	560x406x66
	g.Number of circuits		2	2
Outdoor air flow (Hi/Mi/Lo) m3/h	m3/h		1200/1100/1000	1200/1100/1000
Outdoor noise level (Hi/Mi/Lo) dB(A)	dB(A)		60/57/54	60/57/54
Dimension (W*H*D)	mm		660×435×640	660×435×640
Packing (W*H*D)	mm		750×520×740	750×520×740
Net/Gross weight	Kg		55/60	59/64
Operation temp	°C		16 31	16 31
Ambient temp	°C		17 ~ 43	-10 ~ 45
Application area	m2		30-40	30-40
Qty'per 20' & 40'HQ Fcl	Pieces		94/240	94/240

Note:

- The noise data is based on hemi-anechoic chamber, during actual operation; these values are normally somewhat different as a result of ambient condition.
- The above design and specifications are subject to change without prior notice for product improvement.

2 INSTALLATION

2.1 SELECT THE BEST LOCATION



1. To avoid 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. If the unit receives direct sunlight, build an awning to shade the cabinet.
3. There should be no obstacle, such as a fence or wall, within 50cm from the back of the unit because it will prevent heat radiation of the condenser.
4. Restriction of outside air will greatly reduce the cooling and heating efficiency of the air conditioner.
5. Install the unit on a slight angle so that condensate formed will not enter the room (about 10mm or 1/4 bubble with level).
6. Install the unit with its bottom portion 75~150cm above the floor level.
7. The power cord must be connected to an independent circuit. The yellow/green wire must be grounded.

CAUTION

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

2.2 CHECK OFF 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.

Grounding wire (yellow/Green) is provided in the power cord. The wire must be grounded.

Ensure that the unit is connected to a suitably rated and dedicated circuit.

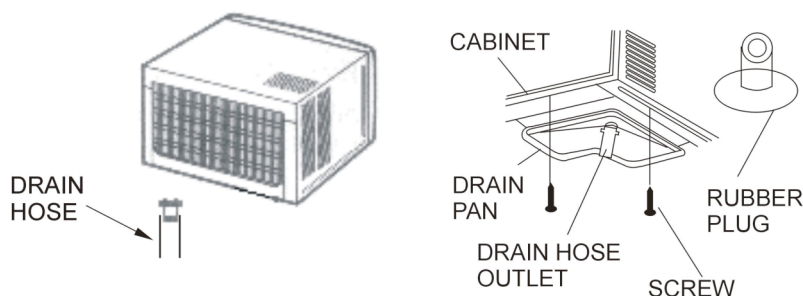
To avoid vibration or noise, make sure the air conditioner is installed securely.

Avoid placing furniture or draperies in front of the air inlet and outlet.

2.3 HOW TO DRAIN

The base pan may overflow due to high humidity. To drain the excess water, remove the drain cap from the bottom of the unit (if fitted) and attach a drain hose (not supplied).

1. Take the drain pan which is packed with the unit.
2. Remove the rubber plug from the bottom of the base pan (if fitted).
3. Install the drain pan over the area of the cabinet where you removed the plug, and secure with 2 screws provided.
4. 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 our particular needs (Drain hose is not supplied).



2.4. HOW TO INSTALL

2.4.1 INSTALLATION OF THE HOUSING

Step1

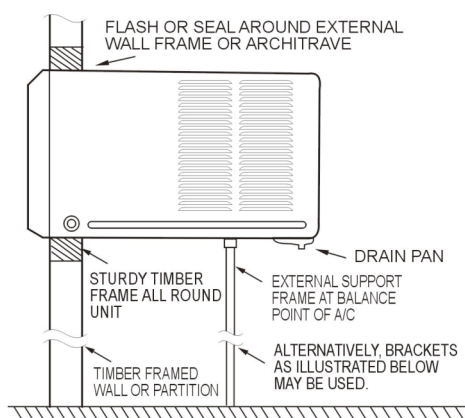
Remove the air conditioner from its packaging, remove fixing screws and slide the air conditioner out of its housing (refer to installation steps)

Step2

Prepare the hole in the wall so that the bottom of the housing is well supported, the top has minimum clearance and the air inlet louvers have clearance as shown below in options a and b. Holes from the outside through to the cavity should be sealed. The housing should slope down towards the rear by about 5mm to allow water formed during operation to drain.

Step3

Install the housing into the wall and secure. Ensure the foam seals are not damaged. Flash, seal or fill gaps around the inside and outside to provide satisfactory appearance and protection against the weather, insects and rodents.



NOTES: UNIT MAY BE SUPPORTED BY A SOLID FRAME FROM BELOW OR BY A HANGER FROM A SOLID OVERHEAD SUPPORT. Preferred to install the unit into a timber framed wall, partition or window.

2.4.2 INSTALLATION OF THE UNIT INTO THE HOUSING

Slide the unit into the housing until it is firmly against the rear of the housing. Care is required to ensure the foam sealing strips on the housing remain in position.

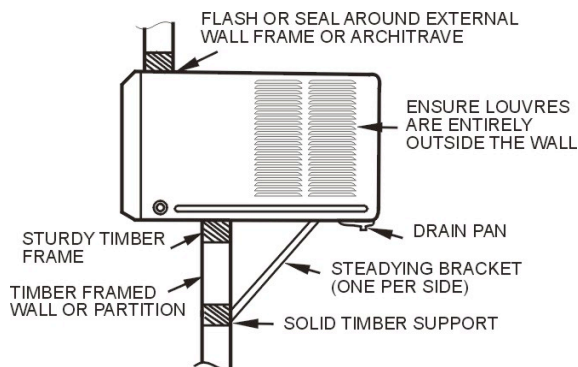
Connect the air conditioner to the power and position excess cord length beneath the air conditioner base.

Engage the chassis fixing brackets into the bottom housing rail and secure to the base with the screw provided.

Remove the front panel from it's carton and plastic bag and fit as per the installation instruction.

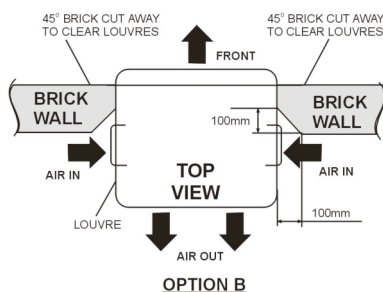
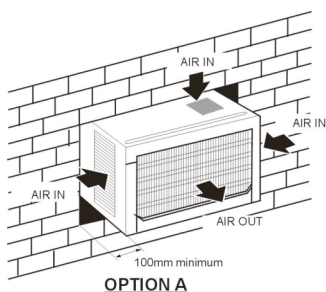
Switch unit on. Check for operation of the unit and check for vibration in the installation.

Fit the drain pan to the housing and run a drain line to a suitable location if required.



Alternative method of installation if external support cannot be provided.

2.4.3 INSTALLATION OF THE UNIT INTO THE WALL



2.4.4 INSTALLATION STEPS

Step 1. Remove the front panel and the air filter

Hold the slot under the front panel, then uplift it outwards, and remove the front panel (See Fig.1).

Pinch the handle under the air filter and make the air filter arched, remove it from the slot from underside to upside (See Fig.2).

Step 2. Remove the frame.

Remove the two fixing screws from the frame (See Fig.3).

Grasp the left corner of the frame's underside, then loosen the frame (See Fig.4).

Step 3. Installation.

Remove the two fixing screws on the chassis fixing brackets, then remove the chassis fixing brackets (See Fig.5).

Grasp the handle on the chassis and carefully slide the air conditioner out of the cabinet (See Fig.6).

Remove shipping pad from around compressor before operation and make sure the discharge points to the drain pan are aligned before the chassis is pushed into the cabinet (See Fig.7).

Push the unit chassis into the cabinet (See Fig.8).

Install the two chassis fixing brackets using the two fixing screws (See Fig.5).

Step 4. Install the frame.

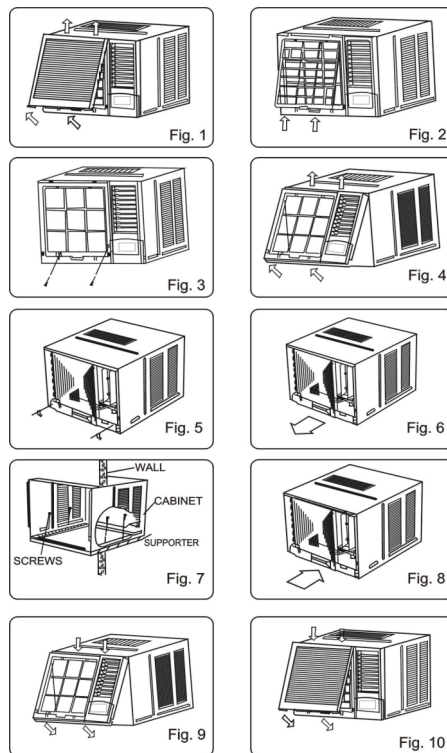
Install the frame making sure not to interfere with the temperature sensor cable (See Fig.9).

Fix the screws on the frame (See Fig.3).

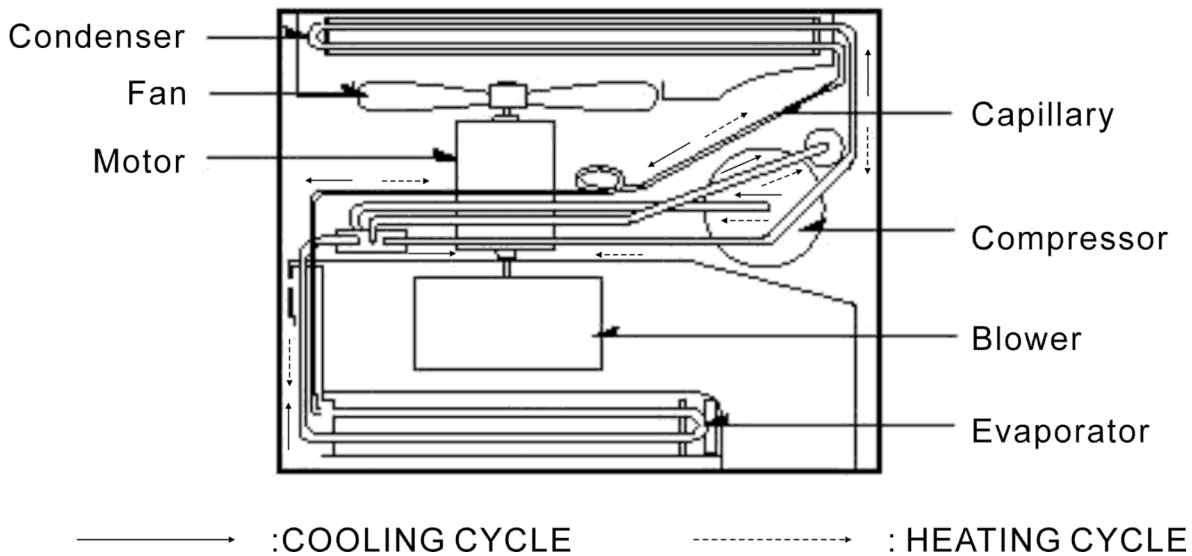
Step 5. Install the air filter and front panel.

Install the air filter into the frame's slot from upside to underside (See Fig.2).

Hang the front panel on the frame's buckle, then press the front panel into the frame's slot until you hear a click (See Fig.10).

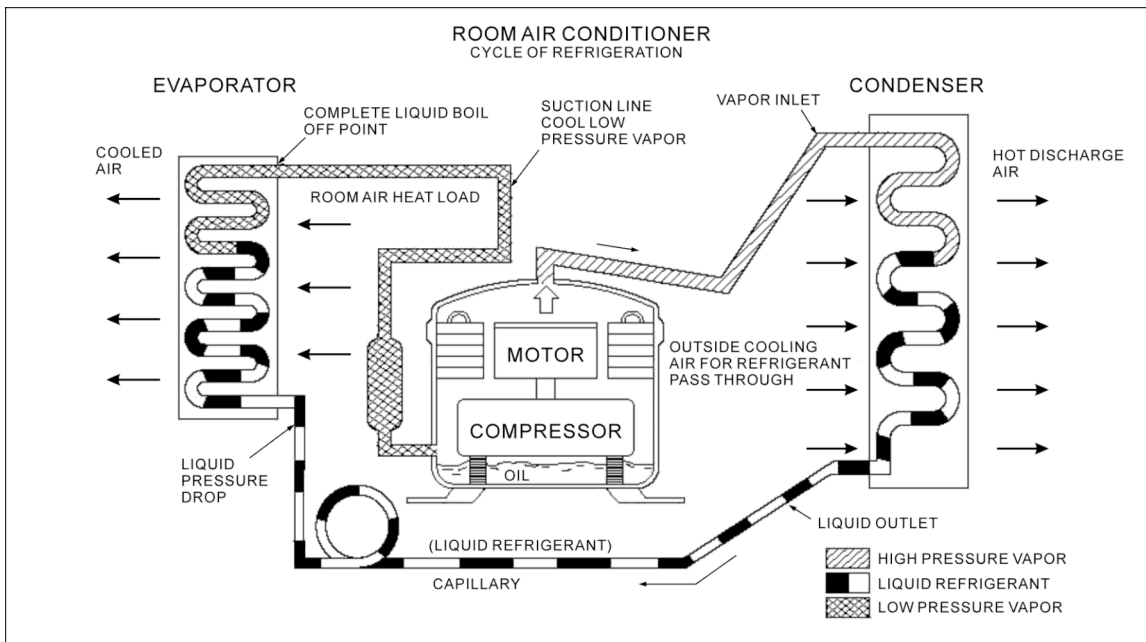


3 REFRIGERANT CYCLE DIAGRAM



The figure below is a brief description of the important components and their function in what is called the refrigeration system.

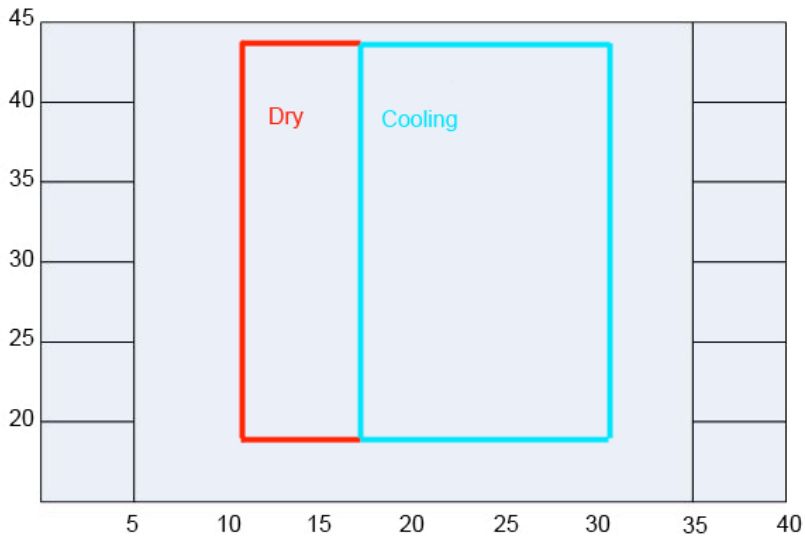
This will help to understand the refrigeration cycle and the flow of the refrigerant in the cooling cycle.



4 OPERATION LIMITS

4.1 COOLING OPERATION

Outdoor unit air temp. °C DB

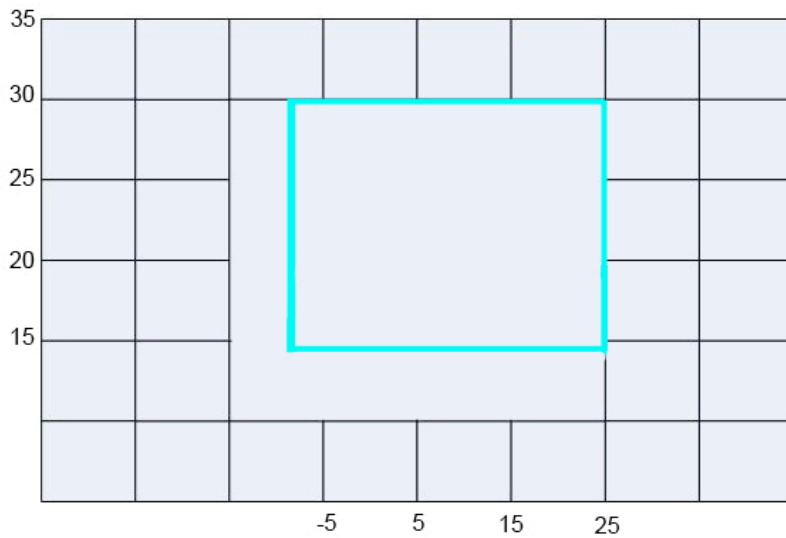


Indoor air temp. °C DB

Note: The chart is the result from the continuous operation under constant air temperature conditions. However, excludes the initial pull-down stage.

4.2 HEATING OPERATION

Indoor air temp. °C DB

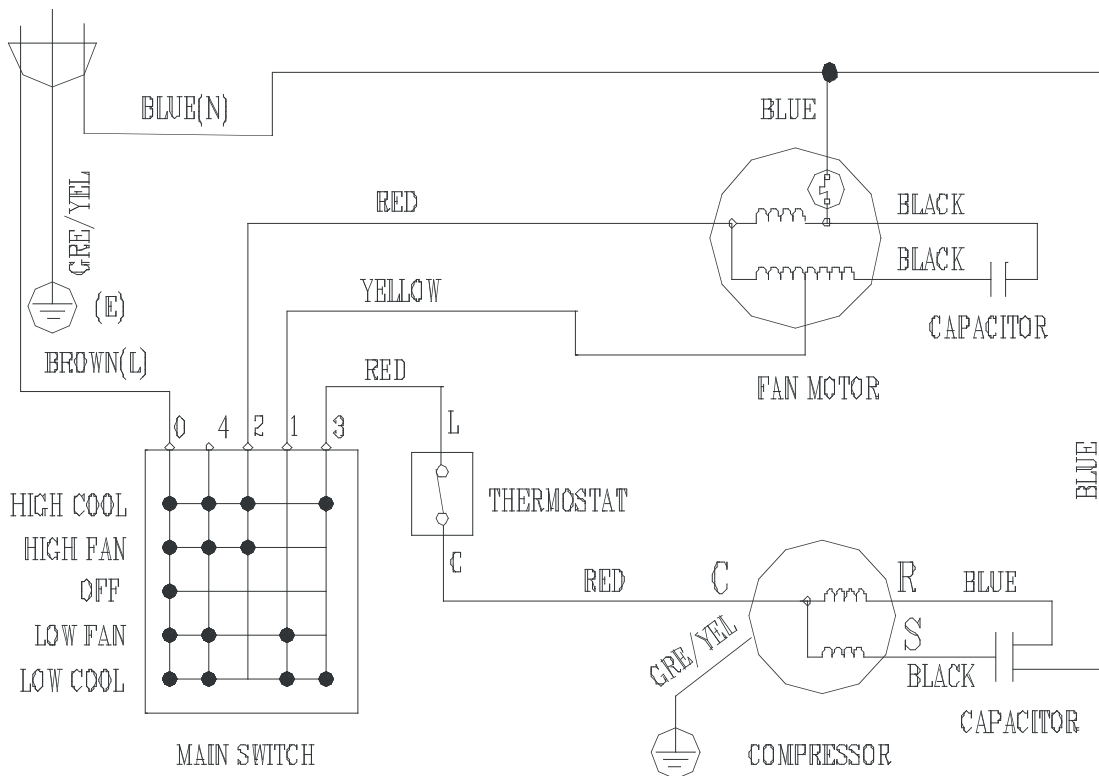


Outdoor unit air temp. °C DB

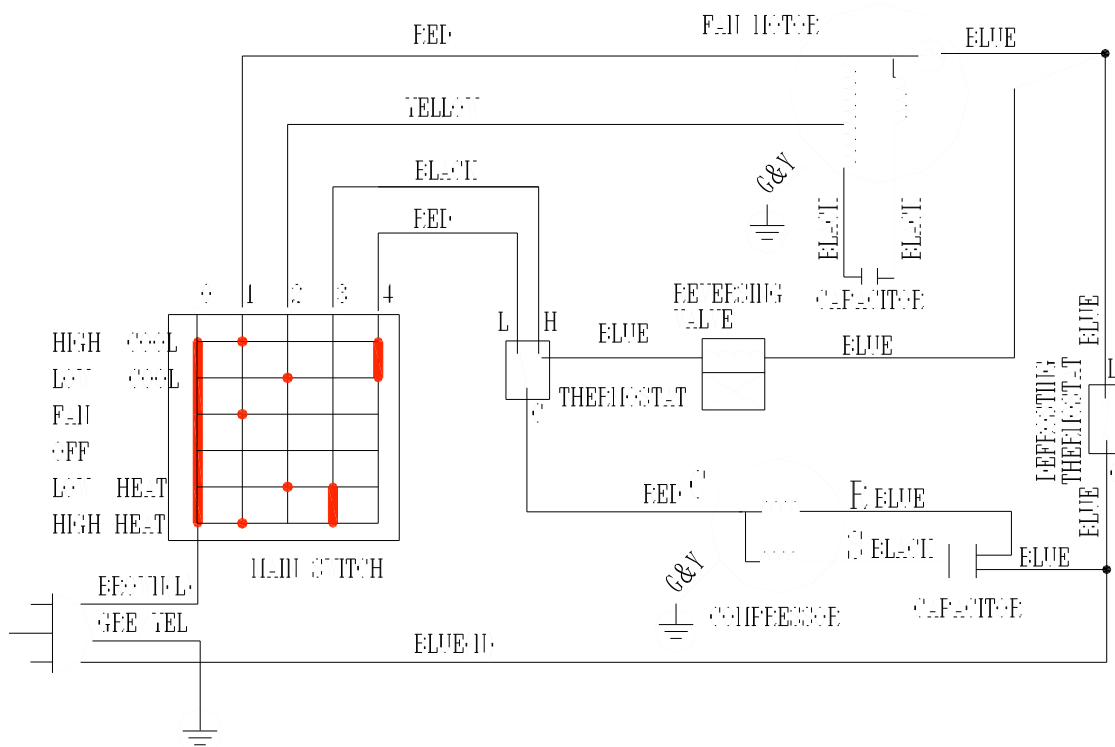
Note: The chart is the result from the continuous operation under constant air temperature conditions. However, excludes the initial pull-down stage.

5 SCHEMATIC DIAGRAM AND WIRING DIAGRAM

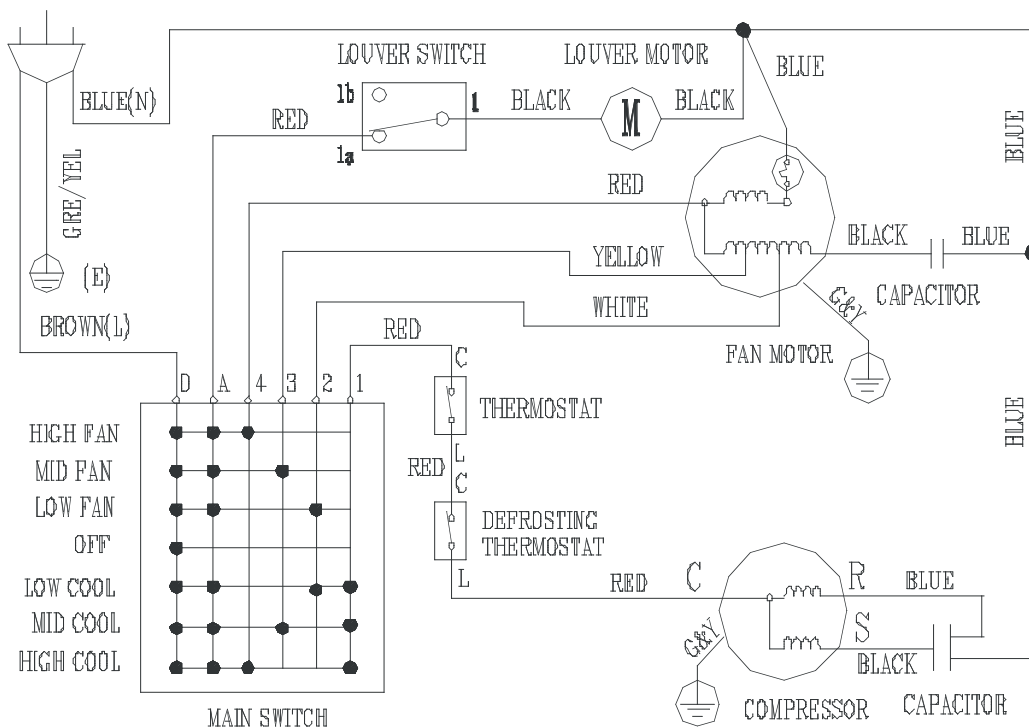
Y9USC-09 B5R:



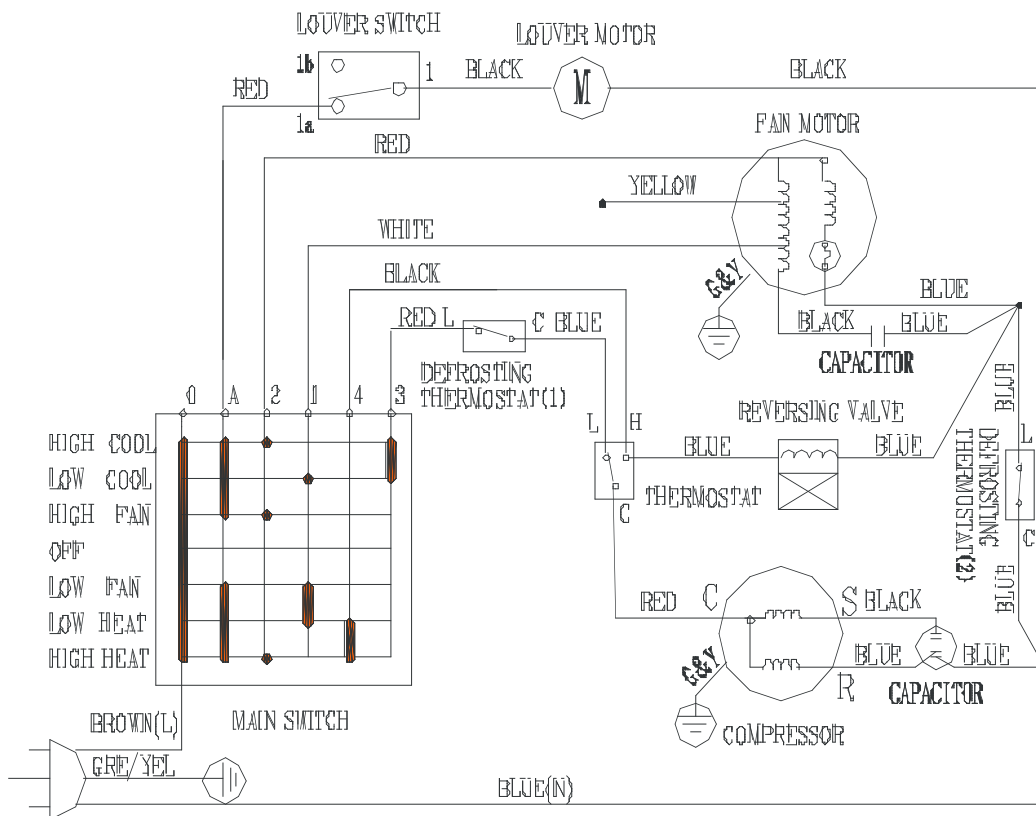
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Y9USC-12 B5R Y9USC-18 B5R:



Y9USE-12 B5R Y9USE-18 B5R:



6. TROUBLESHOOTING

In general, possible trouble is classified in three kinds. One is called Starting Failure which is caused from an electrical defect, another is ineffective Air Conditioning caused by a defect in the refrigeration circuit and improper application, and the other is called the Structure Damage.

ROOM AIRCONDITIONER

VOLTAGE LIMITS:

NAMEPLATE RATING	MINIMUM	MAXIMUM
220~240V	196V	253V

PROBLEM	POSSIBLE CAUSE	REMED
Fan motor will not run.	No power	Check voltage at electrical outlet. Correct if none.
	Power supply cord	Check voltage at the power cord terminal. Replace the power cord if none.
	Wire disconnected or connection loose	Connect wire. Refer to wiring diagram for terminal identification. Repair or replace loose terminal.
	Main switch failure	Check and replace the main switch if failure.
	Capacitor (Discharge capacitor before testing)	Test capacitor. Replace if not within +/-10% of manufacture's rating. Replace if shorted, open or damaged.
	Will not rotate	Fan blade hitting shroud or blower hitting scroll. Realign assembly. Check fan motor bearings. Replace the motor if motor shaft do not rotate.
Fan motor runs intermittently	Cycles on overload.	Check voltage. Call an electrician if not within limits.
		Test capacitor. Replace if not within +/-10% of manufacture's rating.
		Check bearings. Replace the motor if the fan blade cannot rotate freely.
		Pay attention to any change from high speed to low speed. Replace the motor if the speed does not change.
Fan motor noise.	Fan	Replace the fan if cracked, out of balance, or partially missing.
	Blower	Replace the blower if cracked, out of balance, or partially missing.
	Loose screws	Tighten them.
	Worn bearings	Replace the motor if knocking sounds continue when running or loose, or the motor hums or noise appears to be internal while running.

<p>The compressor not to stop even the room temp. has got to the setting temperature.</p>	<p>Thermostat</p>	<p>Check and replace if the thermostat is damaged.</p>
<p>Insufficient cooling or heating.</p>	<p>Air filter</p>	<p>Clean or replace if restricted.</p>
	<p>Vent. door</p>	<p>Close if open.</p>
	<p>Unit undersized</p>	<p>Determine if the unit is properly sized for the area to be cooled or heated.</p>
	<p>Condenser and Evaporator</p>	<p>Clean or replace if restricted.</p>
	<p>Fan motor</p>	<p>Check the fan capacitor and replace if not within +/-10% of manufactures rating.</p>
	<p>Room structure</p>	<p>Take proper measures to make the door and windows sealed well if gap is found.</p>
	<p>Air flow</p>	<p>Clean or remove if any barrier is found to block the inlet/outlet wind flow of the unit.</p>
	<p>Sunlight</p>	<p>Add a awning if the condenser is exposed to the sunlight.</p>
	<p>Less refrigerant</p>	<p>Check the tubes for reasons of leakage. Recycle the refrigerant, correct the leakage points and recharge.</p>
	<p>Capillary tube</p>	<p>Regulate the flow if capillary tube and make the evaporating temperature appropriate if the evaporator is frosted. Replace if blocked. Repair joint if leaking.</p>
	<p>Compressor</p>	<p>The inlet and outlet valve of the compressor is damaged, making the low pressure connected with the high pressure. The refrigerating system can not produce high pressure and low pressure. Replace the compressor after checking for the reason.</p>
	<p>Heat sources</p>	<p>Reduce if too many.</p>
	<p>reverse valve</p>	<p>The seal in valve is damaged, making the low pressure connected with the high pressure. The refrigerating system can not produce high pressure and low pressure. Replace the reverse valve after checking for the reason.</p>
<p>Drainage</p>	<p>The drainage is blocked. It will increase the efficiency in cooling mode, but will cause the condenser to frost in heating mode.</p>	
<p>Stop instantly after startup.</p>	<p>Refrigerant</p>	<p>The amount of the refrigerant is too much, making the compressor load too big. Recycle and recharge the refrigerant after checking for the reason.</p>
	<p>Compressor</p>	<p>The compressor is seized. Replace after checking for the reason.</p>
<p>No cooling or heating.</p>	<p>No power</p>	<p>Check the voltage. Call an electrician if no within the limit.</p>
	<p>Wiring</p>	<p>Check the terminals. Repair and correct if loose.</p>
	<p>Temperature setting</p>	<p>Check and adjust the thermostat.</p>
	<p>Main switch setting</p>	<p>Check and adjust the main switch setting.</p>
	<p>Reverse valve wire</p>	<p>Check the resistance of reverse valve wire. Replace the wire if short, open or damaged.</p>
	<p>Reverse valve</p>	<p>If the reverse valve is blocked, the heating mode will not perform. Replace the reverse valve after checking the reason.</p>

Service manual

Compressor will not run while fan motor runs.	Voltage	Check voltage. Call Supply Authority if not within limits.
	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.
	Main switch failure	Check and replace the main switch if failure.
	Capacitor (Discharge capacitor before testing)	Check the capacitor. Replace if not within +/-10% of manufacturers rating. Replace if shorted, open, or damaged.
	Thermostat	Check the thermostat setting if not at the coolest (in cooling mode) or the warmest (in heating mode). Set it if not.
	Compressor	Check the compressor for open circuit or ground. If open or grounded, replace the compressor.
Excessive noise.	Copper tubing	Remove the cabinet and carefully rearrange tubing not to contact cabinet, compressor, shroud and barrier.
The unit starts and stops frequently.	Power supply	The input power supply voltage is too low. Call an electrician if not within limits.
	Outdoor temperature	When the outdoor temperature is too high, the compressor will protect.

