

# TECHNICAL & SERVICE MANUAL

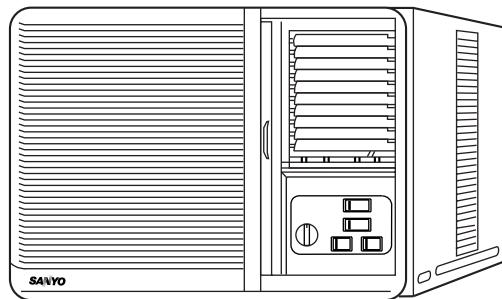
**SANYO**

**SA-123AH**

FILE NO.

## WINDOW TYPE AIR CONDITIONER

Model No.	Product Code No.	Destination
SA-123AH	1 851 006 98	Australia



**SA-123AH**

## **IMPORTANT!**

### **Please Read Before Starting**

This air conditioner meets strict safety and operating standards. As the installer or service person, it is an important part of your job to install or service the system so it operates safely and efficiently.

#### **For safe installation and trouble-free operation, you must:**

- Carefully read the INSTRUCTION MANUAL and INSTALLATION INSTRUCTIONS attached to each air conditioner before beginning.
- Follow each installation or repair step exactly as shown.
- Observe all local, state, and national electrical codes.
- Pay close attention to all warning and caution notices given in this manual.



**WARNING**

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



**CAUTION**

This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

#### **If Necessary, Get Help**

These instructions are all you need for most installation sites and maintenance conditions. If you require help for a special problem, contact our sales/service outlet or your certified dealer for additional instructions.

## **SPECIAL PRECAUTIONS**



#### **When Wiring**

**ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH. ONLY A QUALIFIED, EXPERIENCED ELECTRICIAN SHOULD ATTEMPT TO WIRE THIS SYSTEM.**

- All wiring must conform to local electrical codes.
- Each unit must be properly grounded with a ground (or earth) wire or through the supply wiring.
- DO NOT, under any circumstances, cut or remove the third (ground) prong from the power cord plug.
- DO NOT use an adapter Plug or extension cord.
- DO NOT use a damaged power cord, plug, or wall outlet. Replace them immediately.
- DO NOT change the internal wiring or any part of the system.
- DO NOT turn the air conditioner on and off by plugging and unplugging. Use the Operation switch.

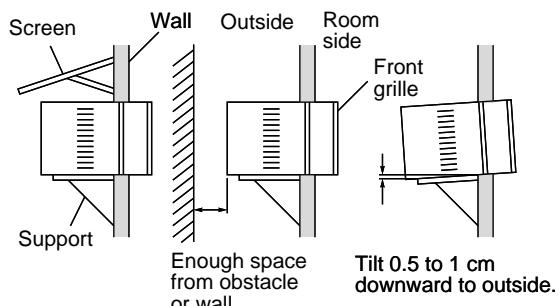
#### **When Transporting**

Be careful when picking up and moving the air conditioner. Get a partner to help, and bend your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut your fingers.

## **When Installing**

### **Place of Installation**

- If possible, install the unit in a shady location. If the site is exposed to the sun, you should provide a sun screen as shown in Fig. a.
- Install it at a spot where optimum cooling circulation can be obtained. No chairs or other obstructions are allowed in front of the air conditioner.
- The back of the air conditioner must extend outside. (Be sure the right and left intake vents are not obstructed by walls or windows.)
- Keep enough space from any outside obstruction (wall, bush, etc.).
- To provide water drainage, the unit must be tilted at a downward angle 0.5 to 1 cm to the outside.



**Fig. a**

- While installing the air conditioner, be sure to loosen the compressor locking nuts to avoid abnormal noise and vibration. (NOTE: Locking nuts are not provided on some models.)
- As a safety measure, it is recommended that two people install the unit: one to hold and balance the unit — the other to lower the window frame to secure the unit.
- Hold the unit securely, and be careful to not drop the cabinet or any parts if the air conditioner is being installed on an upper floor of a multistory building.

### **When Servicing**

- Turn the power OFF at the main power box (mains) before opening the unit to check or repair electrical parts and wiring.
- Keep fingers and clothing away from any moving parts.
- Clean up the site after you finish, remembering to check that no metal scraps or bits of tools have been left inside the unit being serviced.

### **Others**



**CAUTION**

- Ventilate any enclosed areas when installing or testing the refrigeration system. Escaped refrigerant gas, on contact with fire or heat, can produce dangerously toxic gas.
- Confirm upon completing installation that no refrigerant gas is leaking. If escaped gas comes in contact with a stove, gas water heater, electric room heater or other heat source, it can produce dangerously toxic gas.

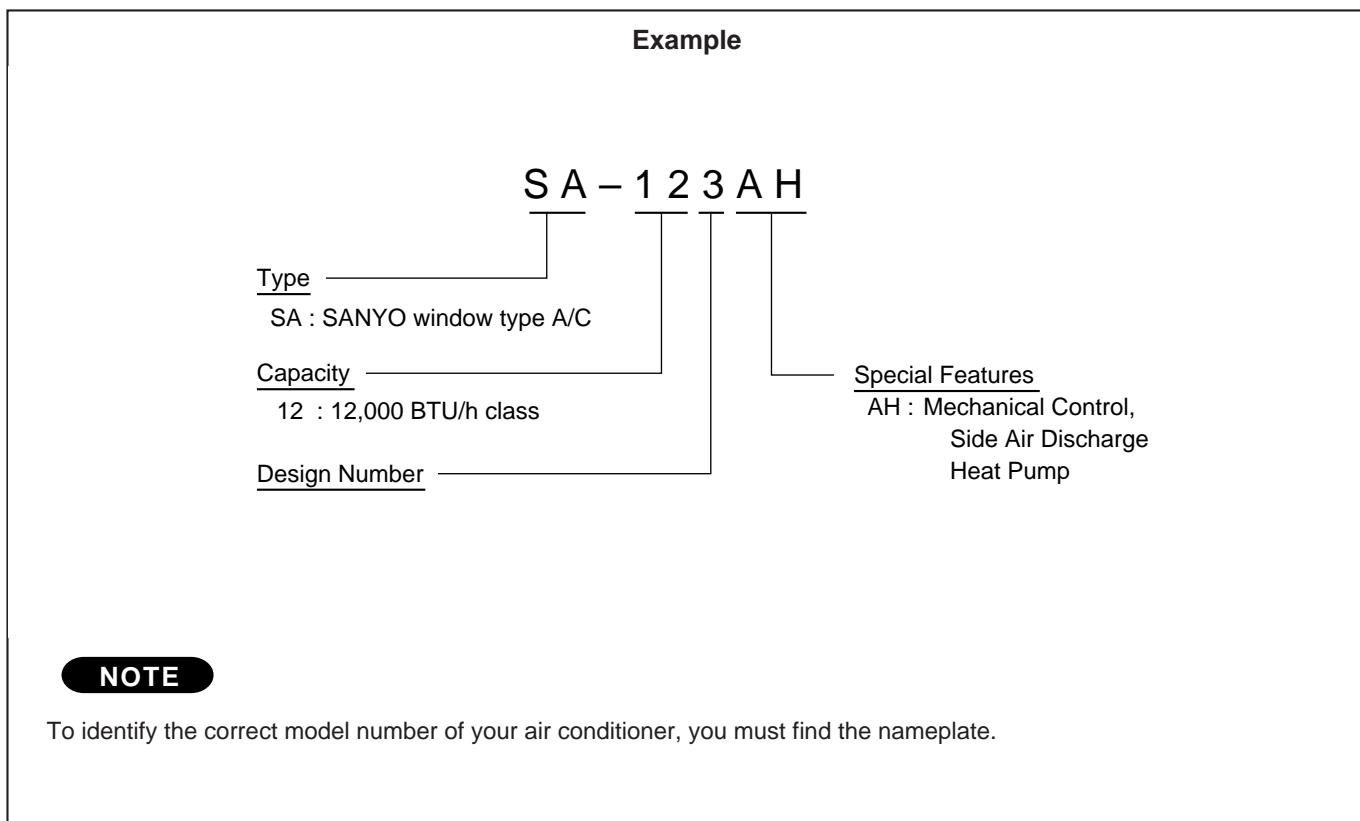
## HOW TO USE THIS MANUAL

This manual is designed to help service personnel to understand basic functions, operation and possible troubles and their remedies on SANYO window type air conditioners. You can use this manual both as a reference to find specific information about the capacity, construction of the unit, and as a source of information to help you set up and maintain the air conditioner. Please use this manual to make your work easier, keep the air conditioner functioning well, and keep your customer satisfied.

**Please read IMPORTANT ! precautional information on the previous page before you start actual work.**

## SANYO WINDOW TYPE A/C NOMENCLATURE

SANYO window type air conditioner is identified by a model number. Cooling or heating capacity, electrical information and special features included on the air conditioner are indicated on the model number.



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# 1. OPERATING RANGE

	Temperature	Indoor Air Intake Temp.	Outdoor Air Intake Temp.
Cooling	Maximum	32°C D.B. / 23°C W.B.	43°C D.B.
	Minimum	19°C D.B. / 14°C W.B.	19°C D.B.
Heating	Maximum	27°C D.B.	24°C D.B. / 18°C W.B.
	Minimum	16°C D.B.	-8°C D.B. / -9°C W.B.

## 2. SPECIFICATIONS

### 2-1. Unit Specifications

Model SA-123AH

<b>Power Source</b>	240V Single phase 50Hz	
<b>Voltage rating</b>	240 V	
<b>Performance</b>	Cooling	Heating
Capacity kW	3.30	3.70
BTU/h	11,300	12,600
Air circulation (High) m³/h	520	
Moisture removal (High) Liters/h	2.0	—
<b>Electrical Rating</b>	Cooling	Heating
Available voltage range V	216 ~ 264	
Running amperes A	6.1	5.7
Power input W	1,450	1,340
Power factor %	99	98
C.O.P. W/W	2.28	2.76
Starting amperes A	26	
<b>Features</b>		
Controls / Temperature control	Mechanical / Thermostat	
Control unit	—	
Timer	—	
Fan speeds	2	
Airflow direction (Indoor)	Horizontal	Auto
	Vertical	Manual
Air filter / Air exhaust	Washable / Yes	
Compressor	Rotary (Hermetic)	
Refrigerant / Amount charged at shipment g	R22 / 1,050	
Refrigerant control	Capillary tube	
Operation sound	Indoor : Hi / Lo dB-A	51 / 49
	Outdoor : Hi / Lo dB-A	59 / 56
Slide-out chassis	Yes	
Accessories	—	
<b>Dimensions &amp; Weight</b>		
Unit dimensions	Height mm	375
	Width mm	530
	Depth mm	620
Package dimensions	Height mm	435
	Width mm	600
	Depth mm	725
Weight	Net kg	50.0
	Shipping kg	54.0
Shipping volume	m³	0.19

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

**Remarks:**

Rating conditions are:

Cooling : Indoor air temperature 27°C D.B. / 19°C W.B.

Outdoor air temperature 35°C D.B. / 24°C W.B.

Heating : Indoor air temperature 20°C D.B.

Outdoor air temperature 7°C D.B. / 6°C W.B.

## 2-2. Major Component Specifications

Model **SA-123AH**

<b>Controller PCB</b>			
Part No.		—	—
Controls		—	—
Control circuit fuse		—	—
<b>Remote Control Unit</b>		—	
<b>Compressor</b>			
Type		Rotary (Hermetic)	
Compressor model		2K23S225BUC	
Source		220 ~ 240V Single phase 50Hz	
Nominal output	W	1,100	
Compressor oil ... Amount	cc	ATMOS M60 or SUNISO 4GDID ... 410	
Coil resistance (Ambient temp. 25°C)	Ω	C-R : 1.99 C-S : 2.85	
Safety devices	Type	Internal protector	
Overload relay		—	
Operating temp.	Open °C	Automatic opening	
	Close °C	Automatic reclosing	
Operating amp.(Ambient temp. 25°C)		—	
Run capacitor	μF	35.0	
	VAC	400	
<b>Fan &amp; Fan Motor</b>		Indoor	Outdoor
Type		Centrifugal	Propeller
Dia. / Depth	mm	ø180 / D85	ø320 / D —
Fan motor model ... Q'ty		YSK70-4A ... 1	
Source		220 ~ 240V Single phase 50Hz	
No. of poles ... rpm (240 V, High)		4 ... 1,150	
Nominal output	W	70	
Coil resistance (Ambient temp. 20°C)	Ω	WHT-BRN : 59.3 WHT-YEL : 20.4 YEL-ORG(PNK) : 58.3	
Safety devices	Type	Thermal protector	
Operating temp.	Open °C	130±5	
	Close °C	Automatic reclosing	
Run capacitor	μF	3.0	
	VAC	440	
<b>Heat Exch. Coil</b>			
Coil		Evaporator	Condenser
Rows		3	3
Fin pitch	mm	1.8	1.6
Face area	m <sup>2</sup>	0.095	0.155
<b>External Finish</b>		Acrylic baked-on enamel finish	

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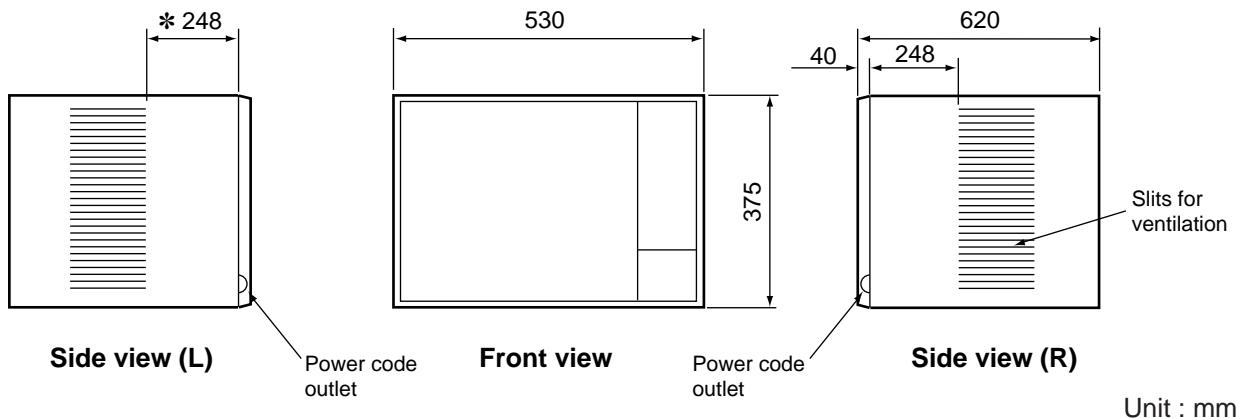
## 2-3. Other Component Specification

Model **SA-123AH**

<b>Auto Deflector Motor</b>		<b>SM006</b>
Rating		AC 220-240V, 50/60Hz, 20mA, 3/2.5 W, 5/6 rpm
Coil resistance	kΩ (at 20°C)	14.5 ± 10%
<b>Thermostat (Defrost thermo)</b>		<b>CT-7</b>
Rating		AC 250V, 50 / 60 Hz
Operating temp.	°C	Start of defrosting -8.5 ± 3 Release of defrosting 5±4
<b>4way Valve (Solenoid coil)</b>		<b>STF-01AJ (Coil), CHV-0202 (Valve)</b>
Rating		AC 220 V , 50 / 60 Hz, 6/5 W
Coil resistance	Ω (at 20°C)	-

### 3. DIMENSIONAL DATA

Model **SA-123AH**



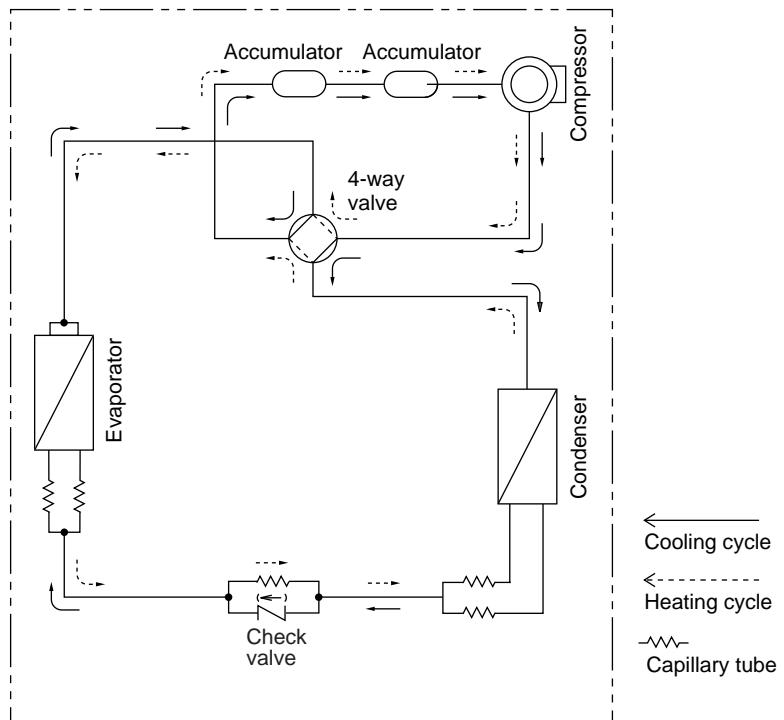
Unit : mm

#### NOTE

Dimension with "\*" mark indicates the maximum allowable wall thickness required for ventilating the unit.

## 4. REFRIGERANT FLOW DIAGRAM

Model SA-123AH



## 5. PERFORMANCE DATA

### 5-1. Cooling Capacity

Model **SA-123AH**

240V Single Phase 50Hz

RATING CAPACITY		3.30 kW						
AIR FLOW RATE		520 m <sup>3</sup> /h						
EVAPORATOR		CONDENSER						
ENT. TEMP. °C		OUTDOOR AMBIENT TEMP. °C						
W.B.	D.B.		20	25	30	35	40	43
15		TC	3.32	3.18	3.04	2.89	2.72	2.50
		CM	0.97	1.05	1.12	1.21	1.36	1.53
	21	SHC	2.20	2.13	2.05	1.98	1.89	1.79
	23	SHC	2.48	2.41	2.33	2.26	2.17	2.07
	25	SHC	2.76	2.69	2.61	2.54	2.45	2.35
	27	SHC	3.04	2.97	2.89	2.82	2.72	2.50
	29	SHC	3.32	3.18	3.04	2.89	2.72	2.50
17		TC	3.57	3.41	3.26	3.10	2.92	2.68
		CM	1.00	1.08	1.15	1.24	1.40	1.56
	21	SHC	1.91	1.83	1.76	1.69	1.60	1.50
	23	SHC	2.19	2.11	2.04	1.97	1.88	1.78
	25	SHC	2.47	2.39	2.32	2.25	2.16	2.06
	27	SHC	2.75	2.67	2.60	2.53	2.44	2.34
	31	SHC	3.03	2.95	2.88	2.81	2.72	2.62
19		TC	3.80	3.63	3.47	# 3.30	3.10	2.85
		CM	1.03	1.11	1.19	1.28	1.44	1.61
	21	SHC	1.60	1.53	1.45	1.38	1.30	1.19
	23	SHC	1.88	1.81	1.73	1.66	1.58	1.47
	25	SHC	2.16	2.09	2.02	1.94	1.86	1.75
	27	SHC	2.44	2.37	2.30	2.22	2.14	2.03
	29	SHC	2.72	2.65	2.58	2.50	2.42	2.31
21		TC	4.02	3.85	3.67	3.50	3.29	3.03
		CM	1.06	1.14	1.22	1.31	1.48	1.65
	23	SHC	1.57	1.50	1.43	1.36	1.27	1.17
	25	SHC	1.85	1.78	1.71	1.64	1.55	1.45
	27	SHC	2.13	2.06	1.99	1.92	1.83	1.73
	29	SHC	2.41	2.34	2.27	2.20	2.11	2.01
	31	SHC	2.69	2.62	2.55	2.48	2.39	2.29
23		TC	4.27	4.08	3.89	3.67	3.44	3.20
		CM	1.08	1.17	1.26	1.35	1.52	1.69
	25	SHC	1.53	1.45	1.38	1.30	1.21	1.13
	27	SHC	1.81	1.73	1.66	1.58	1.49	1.41
	29	SHC	2.09	2.01	1.94	1.86	1.77	1.69
	31	SHC	2.37	2.29	2.22	2.14	2.05	1.97

TC : Total Cooling Capacity (kW)

SHC : Sensible Heat Capacity (kW)

CM : Compressor Input (kW)

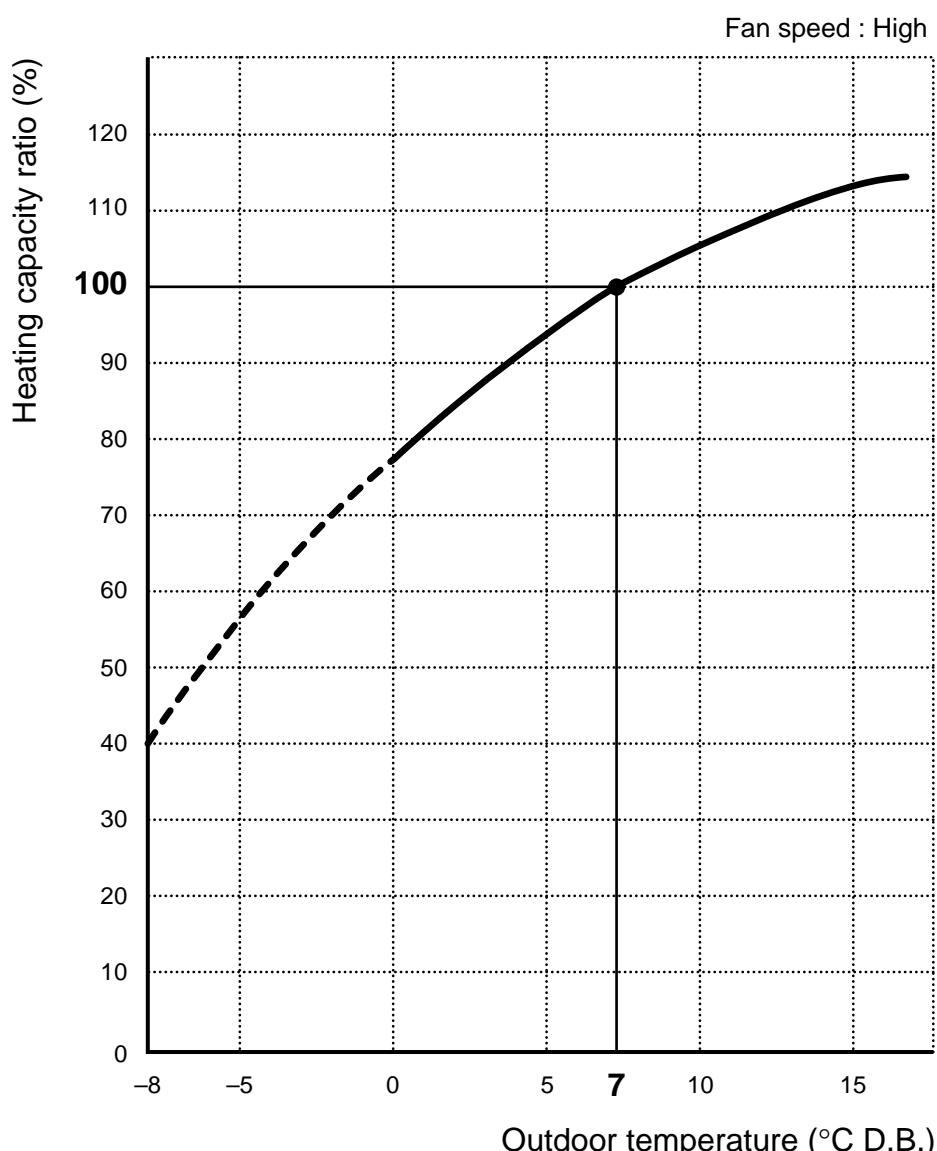
Rating conditions (#Mark) are

Outdoor Ambient Temp. 35°C D.B.

Indoor Unit Entering Air Temp. 27°C D.B. / 19°C W.B.

## 5-2. Heating Capacity

Model **SA-123AH**



**NOTE**

- 1) ●... Point of Rating condition  
Black dot in the chart indicate the following rating condition.  
Indoor :  $20^{\circ}\text{C}$  D.B.  
Outdoor :  $7^{\circ}\text{C}$  D.B. /  $6^{\circ}\text{C}$  W.B.
- 2) Above characteristics indicate instantaneous operation, which does not take into account defrost operation.
- 3) When the outdoor temperature is below freezing, the following problems may occur, depending on the temperature and humidity conditions:
  - The heating capacity may be substantially lowered.
  - Heating operation and defrosting may occur repeatedly in alternation.
  - If operation continues under the above condition, the outdoor heat exchanger may freezeThe above problem are not due to a malfunction. The air conditioner is simply not capable of continuous heating operation under such temperature and humidity conditions. In such cases, turn off the air conditioner and use another heating device.

## 6. ELECTRICAL DATA

### 6-1 Electrical Characteristics

Model **SA-123AH**

#### COOLING

		Fan Motor	Compressor	Complete Unit	
Performance at		240V Single phase 50Hz			
Rating Conditions	Running Amps. A	0.73	5.4	6.1	
	Power Input kW	0.173	1.28	1.45	
Full Load Conditions	Running Amps. A	0.73	7.1	7.8	
	Power Input kW	0.173	1.69	1.86	

Rating Conditions : Indoor Air Temperature 27°C D.B. / 19°C W.B.  
Outdoor Air Temperature 35°C D.B.

Full Load Conditions : Indoor Air Temperature 32°C D.B. / 23°C W.B.  
Outdoor Air Temperature 43°C D.B.

#### HEATING

		Fan Motor	Compressor	Complete Unit	
Performance at		240V Single phase 50Hz			
Rating Conditions	Running Amps. A	0.73	5.0	5.7	
	Power Input kW	0.173	1.17	1.34	
Full Load Conditions	Running Amps. A	0.73	7.8	8.5	
	Power Input kW	0.173	1.85	2.02	

Rating Conditions : Indoor Air Temperature 20°C D.B.  
Outdoor Air Temperature 7°C D.B. / 6°C W.B.

Full Load Conditions : Indoor Air Temperature 27°C D.B.  
Outdoor Air Temperature 24°C D.B. / 18°C W.B.

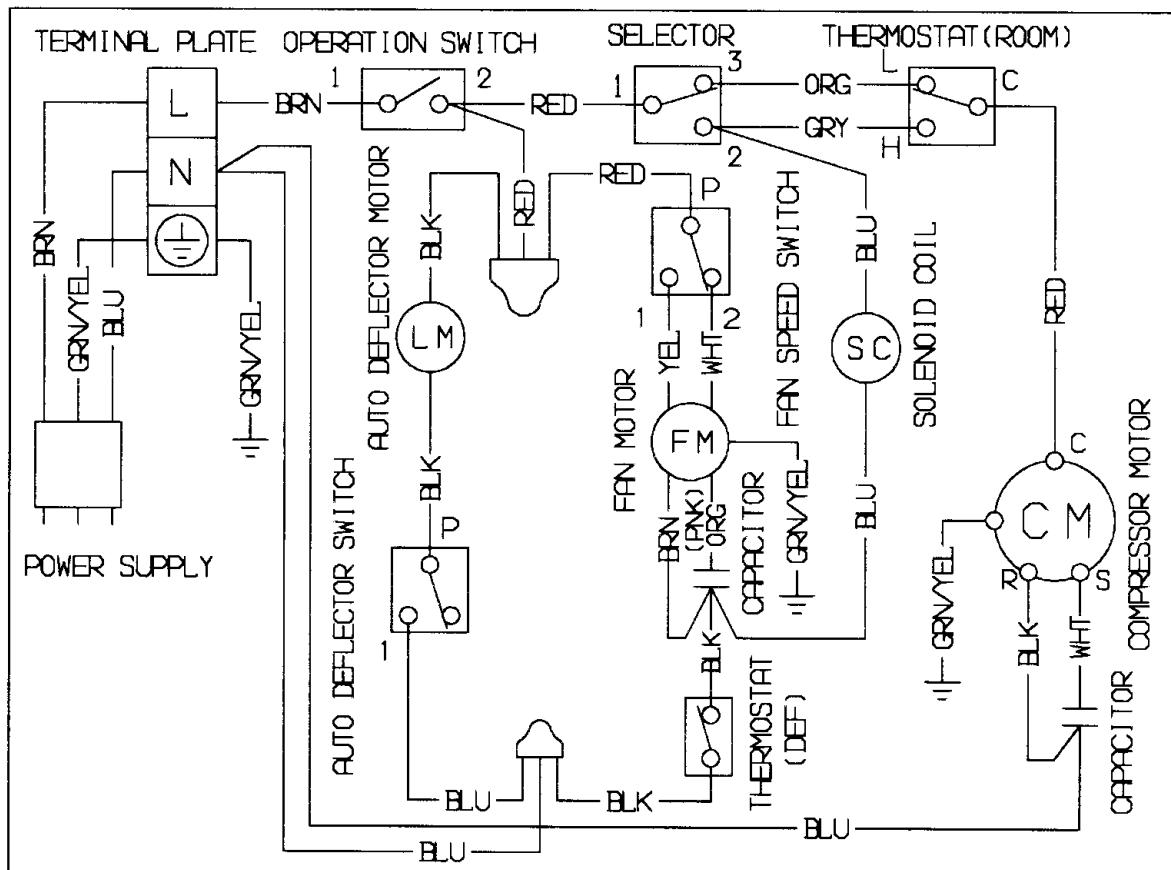
## 6-2 Electrical Wiring Diagrams

Model SA-123AH



**WARNING**

To avoid electrical shock hazard, be sure to disconnect power before checking, servicing and/or cleaning any electrical parts.



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## 7. TROUBLESHOOTING

### 7-1. Check before and after troubleshooting



**WARNING**

Hazardous voltage can cause ELECTRIC SHOCK or DEATH. Disconnect power or turn off circuit breaker before you start checking or servicing.

#### 7-1-1. Check power supply.

- Check that voltage is in specified range ( $\pm 10\%$  of the rating).
- Check that power is being supplied.

#### 7-1-2. Check lead wires and connectors.

- Check that coating of lead wires is not damaged.
- Check that lead wires and connectors are firmly connected.
- Check that wiring is correct.

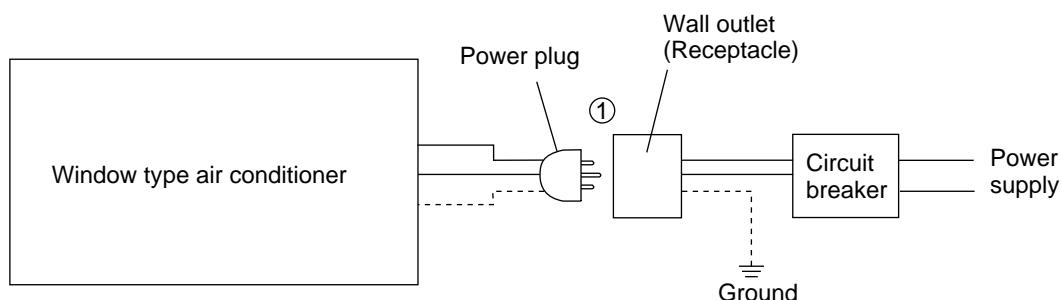
## 7-2. Air conditioner does not operate.

### 7-2-1. Circuit breaker trips (or fuse blows).

A. When the circuit breaker is set to ON, it is tripped soon. (Resetting is not possible.)

- There is a possibility of ground fault.
- Check insulation resistance.

If resistance value is  $2M\Omega$  or less, insulation is defective ("NO").



#### WARNING

\* Set circuit breaker to OFF.

- ① Pull the power plug out of the wall outlet.  
• Measure insulation resistance of unit.

NO

Insulation of unit is defective.

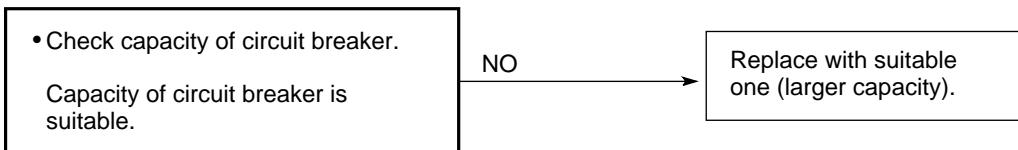
- Measure insulation resistance of electrical parts.  
(Example)  
Compressor, Fan motor,  
Capacitor, Relay etc.

#### NOTE

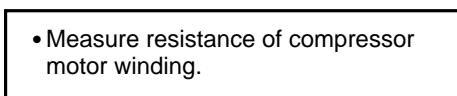
1. If any poorly insulated part is found, exclude that part from circuit with other parts properly connected, and then measure insulation resistance of entire air conditioner again to locate defective part.
2. Replace defective part with new one.

## B. Circuit breaker trips in several minutes after turning the air conditioner on.

- There is a possibility of short circuit.

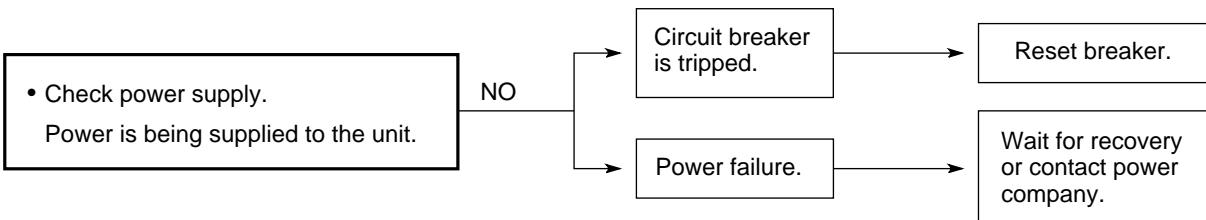


In case of Heating operation :

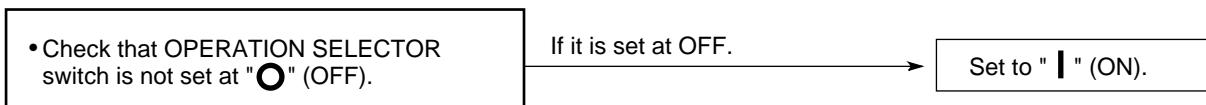


## 7-2-2. Neither fan motor nor compressor motor runs.

### A. Power is not supplied.

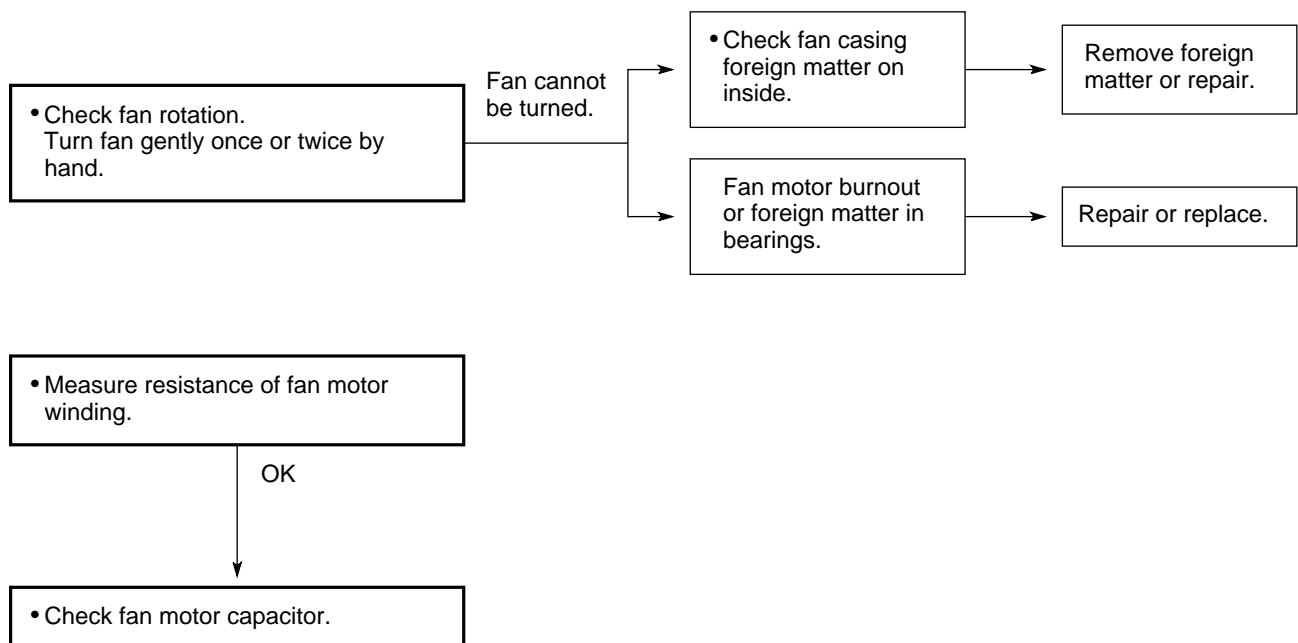


### B. Check OPERATION SELECTOR switch on the control panel.

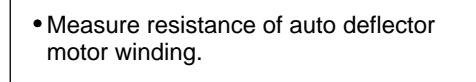


### 7-3. Some part of air conditioner does not operate.

#### 7-3-1. Only fan does not run.

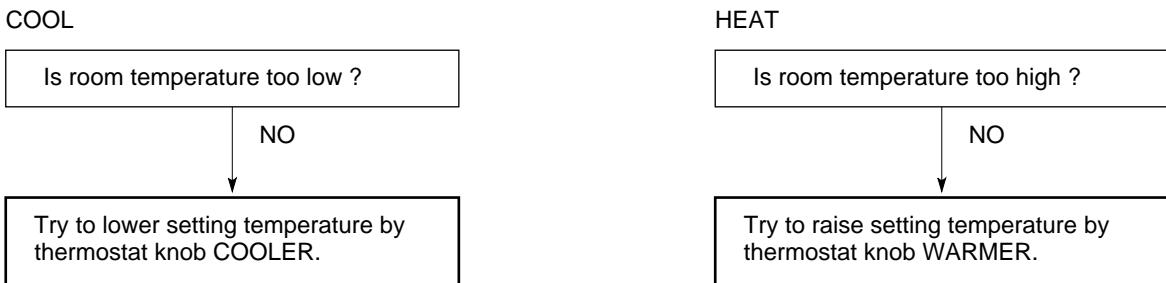


#### 7-3-2. Auto deflector switch does not work.

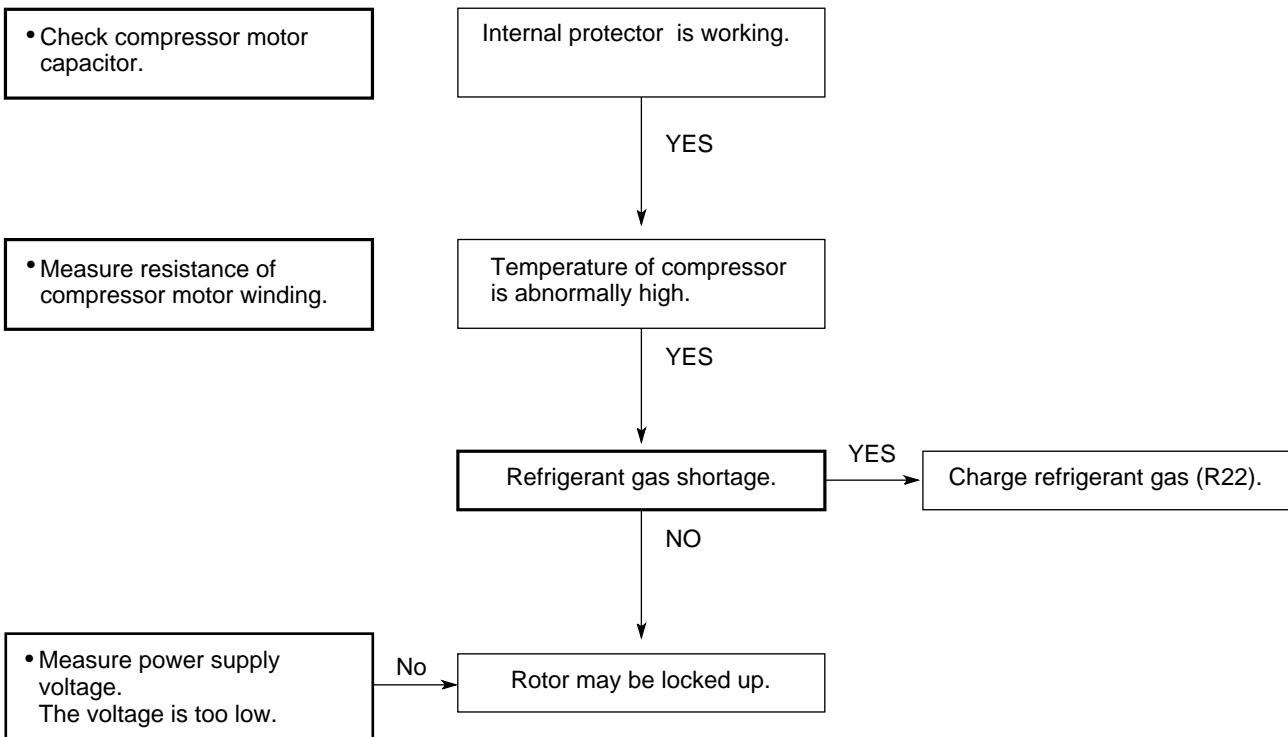


### 7-3-3. Only compressor does not run.

#### A. Check setting temperature.



#### B. Check compressor and electrical parts.



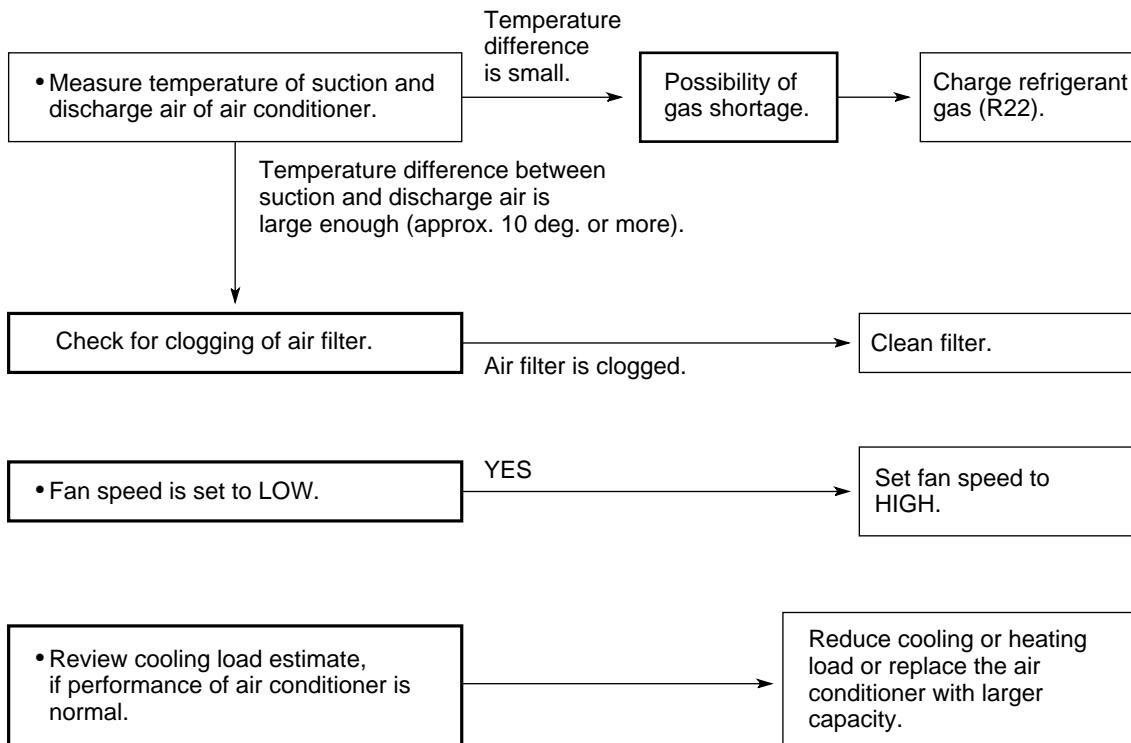
- If the unit is turned off during cooling (or heating), DO NOT restart it immediately, as this can damage it. Wait at least three minutes before starting it again.

## 7-4. Air conditioner operates, but abnormalities are observed.

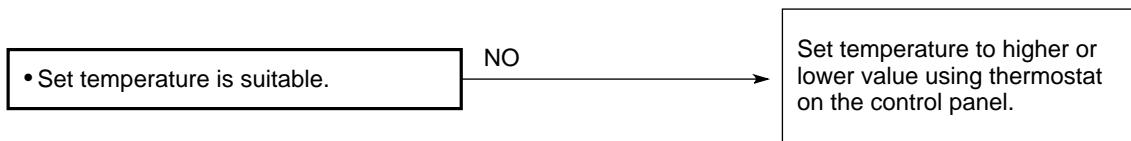
### 7-4-1. Operation does not switch from HEAT to COOL (or COOL to HEAT)

- Measure resistance of 4-way valve's winding.

### 7-4-2. Poor cooling or heating



### 7-4-3. Excessive cooling or heating



# 8. CHECKING ELECTRICAL COMPONENTS

## 8-1. Measurement of Insulation Resistance

- The insulation is in good condition if the resistance exceeds  $2M\Omega$ .

### 8-1-1. Power Cord and Unit

Clamp the grounding prong of the power plug with a lead clip of the insulation resistance tester and measure the resistance by placing a probe on either of the two power blade. (Fig. 1)

Then, also measure the resistance between the grounding prong and other power blade. (Fig. 1)

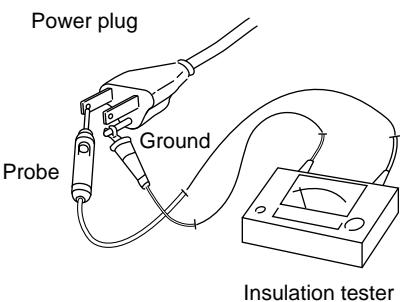


Fig. 1

#### NOTE

- The shape of the power plug may differ from that of the air conditioner which you are servicing.

### 8-1-2. Measurement of Insulation Resistance for Electrical Parts

Disconnect the lead wires of the desired electric part from terminal plate, switch, capacitor, etc. Similarly disconnect the connector. Then measure the insulation resistance. (Figs. 2 to 3)

Refer to Electric Wiring Diagram.

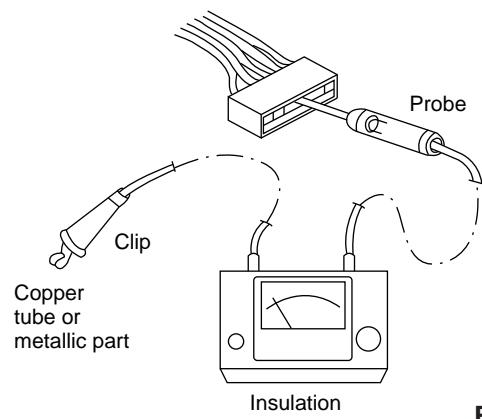


Fig. 2

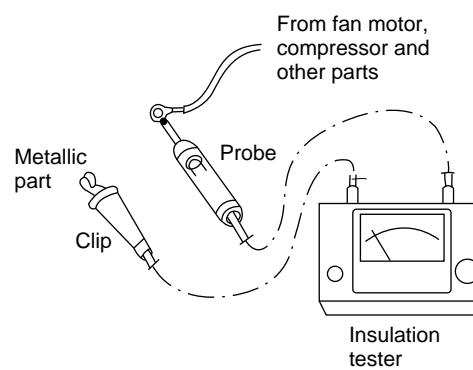


Fig. 3

## 8-2. Checking Motor Capacitor

Remove the lead wires from the capacitor terminals, and then place a probe on the capacitor terminals as shown in Fig. 4. Observe the deflection of the pointer, setting the resistance measuring range of the multimeter to the maximum value.

The capacitor is "good" if the pointer bounces to a great extent and then gradually returns to its original position.

The range of deflection and deflection time differ according to the capacity of the capacitor.

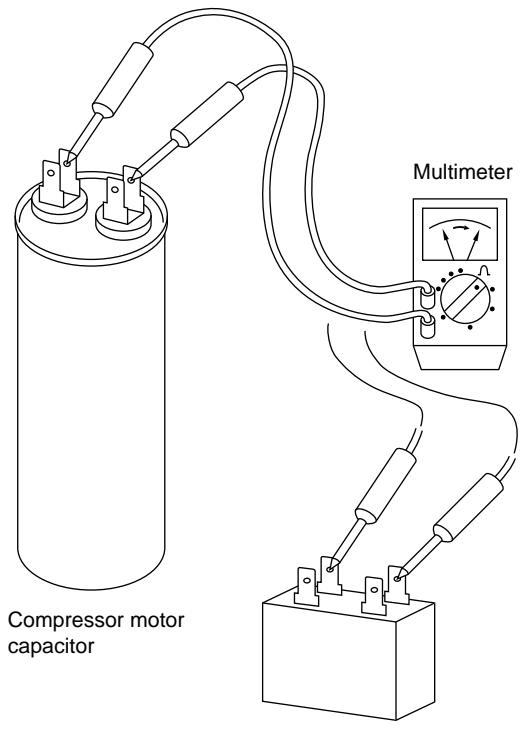


Fig. 4

## 8-3. Checking Fan Motor Winding

Referring to the electrical diagram, disconnect fan motor connectors, and measure the resistance between each lead wire with a tester.

The tester should be set in the X1 range. If the fan motor is hot, allow a few minutes until it gets cooled down.

When the resistances between each lead wire are those listed in "2-2. Major Component Specifications" the fan motor should be normal.

## 8-4. Checking Compressor Motor Winding

Checking compressor motor winding can be done in the similar manner.

Remove the terminal cover of the compressor motor, set the resistance measuring range of the multimeter to "X1Ω" and check the continuity between each pair out of the 3 terminals as shown in Fig. 5.

Refer to "2-2. Major Component Specifications" for coil resistance.

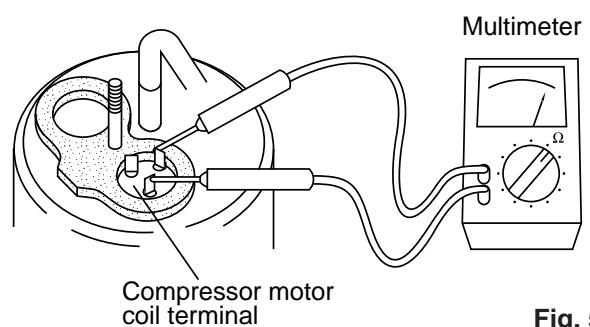


Fig. 5

# 9. DISASSEMBLY PROCEDURES

Model SA-123AH

## NOTE

These illustrations are based on typical view of a standard model. Consequently, the shape may differ from that of the air conditioner which you are servicing.

### 9-1. Removing Front Grille

- (1) Pull out the filter.
- (2) Remove the screw holding the grille in place. (Fig. 1)
- (3) Slide the side of the grille to the left and right to disengage the tabs on the left and right sides of the grille from the slots.
- (4) Pull the bottom portion of the grille toward you while paying attention to the ventilator lever. (Fig. 2 and 4)

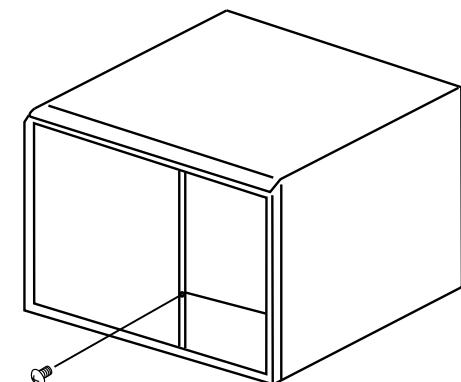


Fig. 1

Screw holding  
the grille

## NOTE

Pulling out too far on the bottom of the grille at this point could damage the tabs at the top. Do not pull the grille out more than 100 mm.

- (5) After confirming that the ventilator lever has been disengaged from the grille vent, slide the grille upward to free the two tabs at the top of the grille from the rectangular holes in the top of the cabinet. (Fig. 3 and 4)

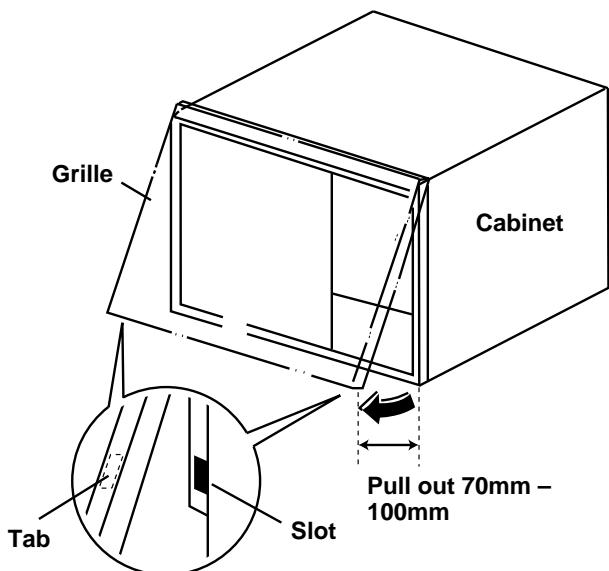


Fig. 2

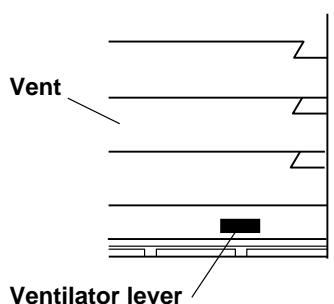


Fig. 4

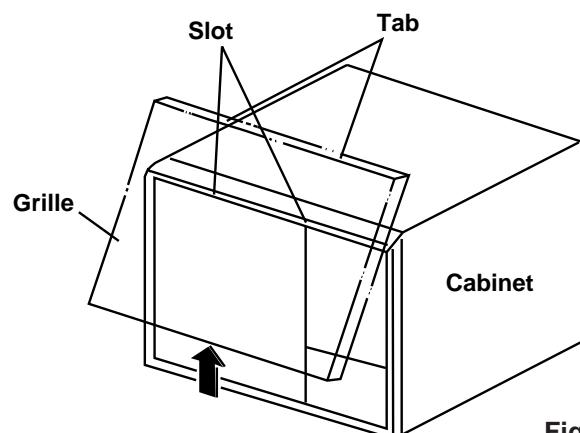


Fig. 3

## 9-2. Removing Electrical Component Box

- (1) Remove the front grille. (Fig. 5)  
Refer to "9-1. Removing Front Grille"
- (2) Remove screws securing the electrical component box.  
(Fig. 6)

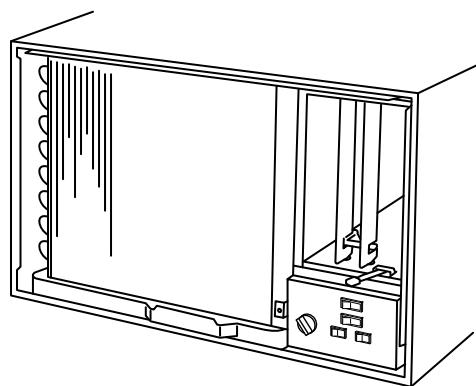


Fig. 5

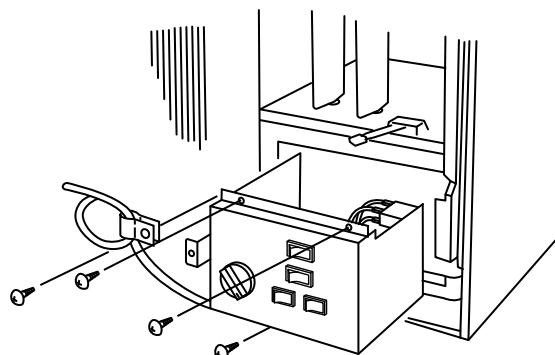


Fig. 6

## 9-3. Removing Cabinet

- (1) Remove screws holding the unit. (Fig. 7)
- (2) Remove the front grille.  
Refer to "9-1. Removing Front Grille"
- (3) Remove the stopper screw attached to the base pan of the unit (Fig. 8)
- (4) While holding top of the cabinet with one hand, grasp the handle with another hand and pull the unit toward you. (Fig. 9)

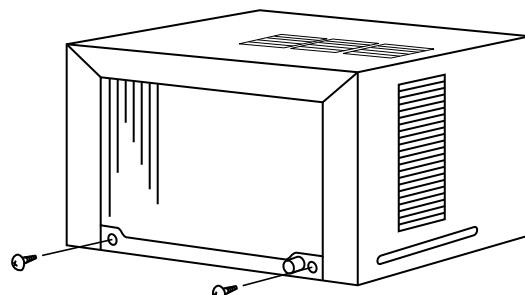


Fig. 7

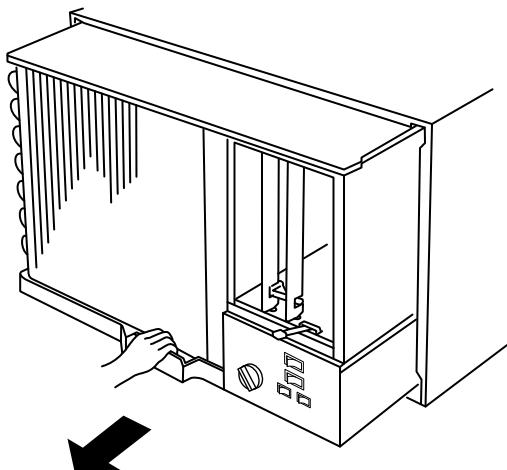


Fig. 9

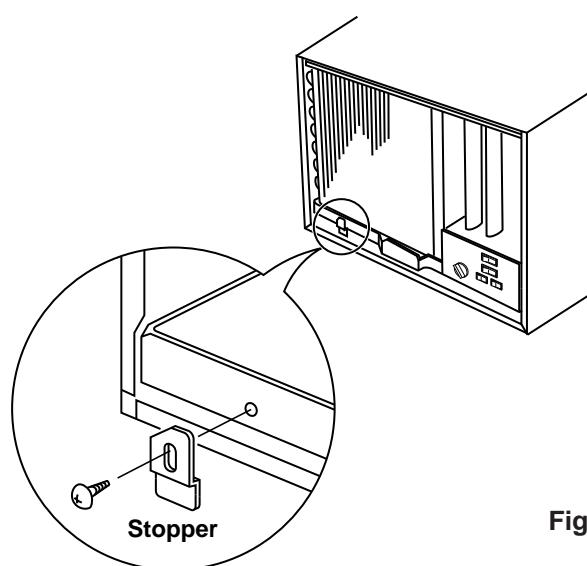


Fig. 8

## 9-4. Removing Evaporator

- (1) Remove screws holding top plate of evaporator.  
(Fig. 10)
- (2) Remove screws holding evaporator. (Fig. 10)
- (3) Grasp lower portion of the evaporator with both hands and tilt it slightly and lift it carefully from the drain pan so as not to distort the copper tube.

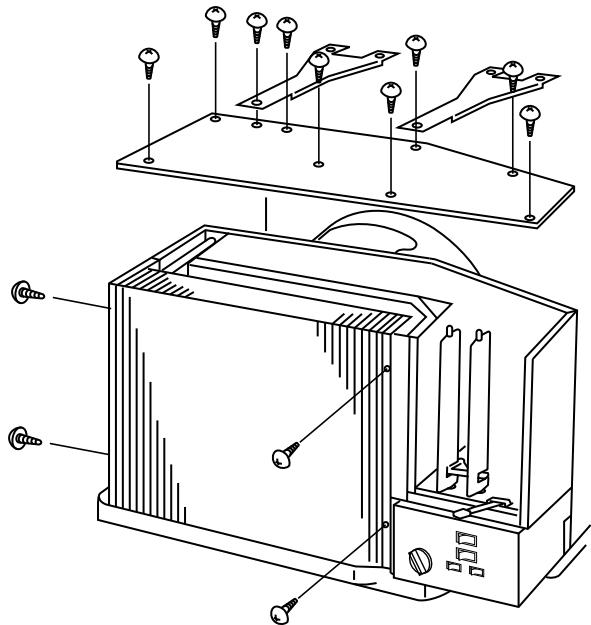


Fig. 10

## 9-5. Removing Blower Wheel

- (1) Remove the evaporator.  
Refer to "9-4. Removing Evaporator"
- (2) Loosen a nut holding blower wheel on motor shaft using hex wrench. (Fig. 11)
- (3) Remove the housing of blower wheel.
- (4) Extract the blower wheel from the motor shaft.

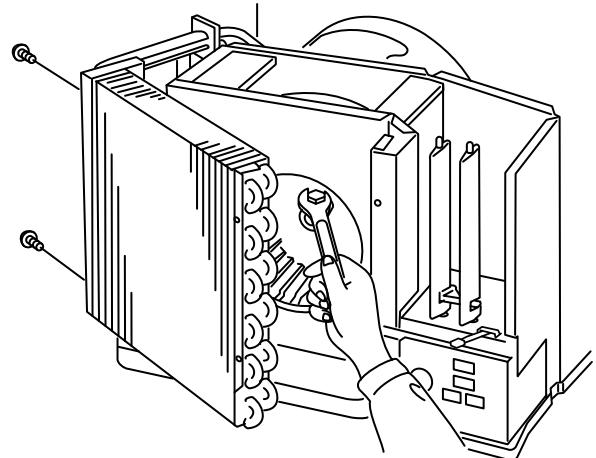


Fig. 11

## 9-6. Removing Condenser

- (1) Remove splasher plate A fixed to the condenser. (Fig. 12)
- (2) Remove other screws holding the condenser. (Fig. 12)
- (3) Grasp lower portion of the condenser with both hands and tilt it slightly and lift it carefully from the base pan so as not to distort the copper tube.

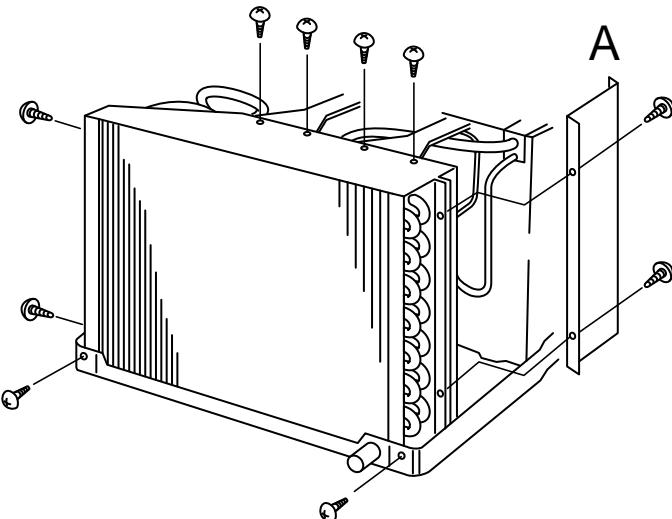


Fig. 12

## 9-7. Removing Propeller Fan

- (1) Remove the condenser.  
Refer to "9-6. Removing Condenser"
- (2) Loosen a nut holding propeller fan on motor shaft using hex. wrench. (Fig. 13)

**NOTE**

To loose the nut securing the propeller fan, hold the fan with one hand and turn the nut **COUNTERCLOCKWISE** with another hand.

- (3) Extract the propeller fan from the motor shaft.

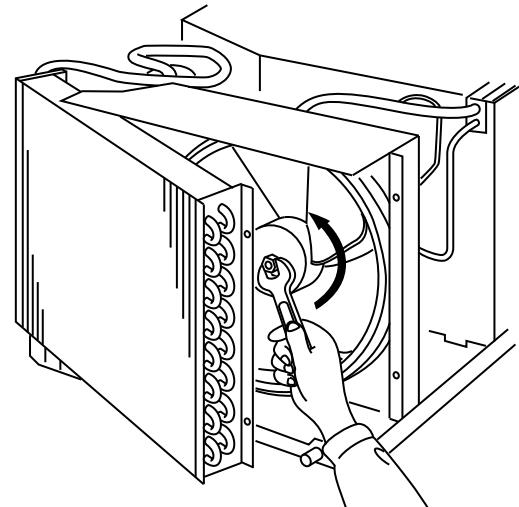


Fig. 13

## 9-8. Removing Fan Motor

- (1) Remove blower wheel.  
Refer to "9-5. Removing Blower Wheel"
- (2) Remove propeller fan.  
Refer to "9-7. Removing Propeller Fan"
- (3) Disconnect motor lead wires.  
Refer to "9-2. Removing Electrical Component Box"
- (4) Remove 4 screws of the fan motor mounting plate with a philip screwdriver. (Fig. 14)
- (5) Disengage the fan motor from the mounting plate.

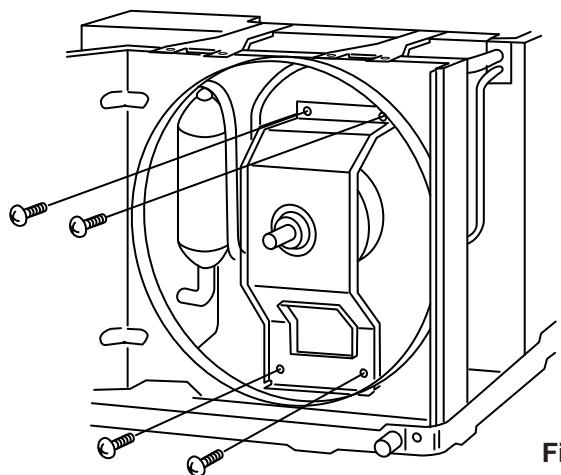
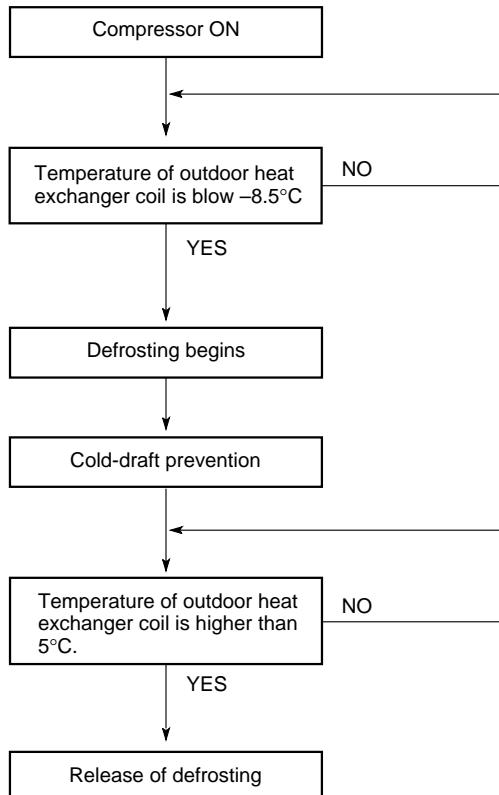


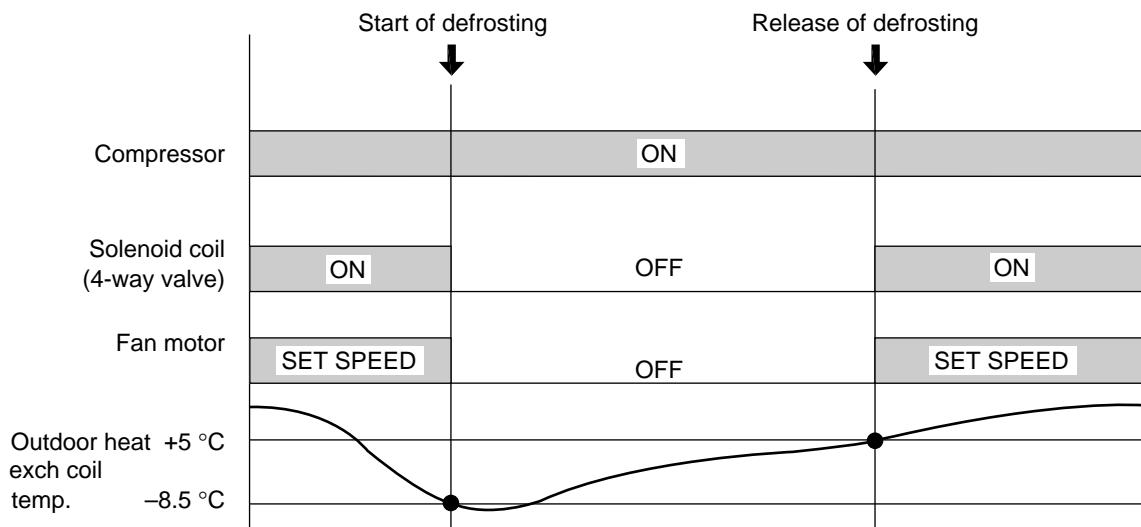
Fig. 14

# 10. FUNCTION

## ■ Defrosting Flowchart in Heating



## ■ Defrosting Mode Timing Chart



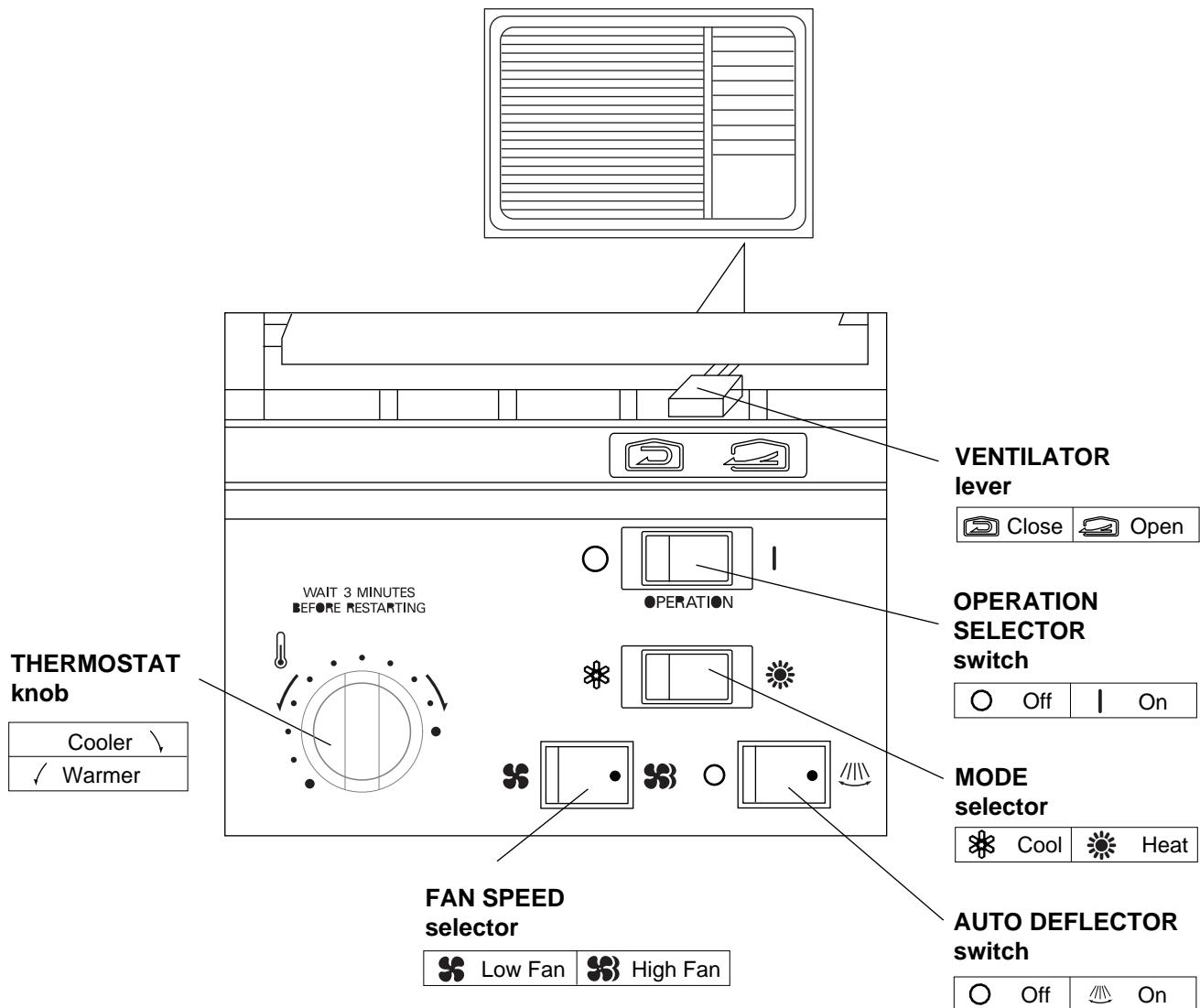
### NOTE

At the beginning and end of the defrosting operation, you may hear a loud noise lasting several seconds. This is not a malfunction. It is the sound of the 4-way valve switching and the sound of the refrigerant when the 4-way valve changes the direction of refrigerant flow.

## APPENDIX

Model SA-123AH

### Unit Display and Control Panel



- If the unit is turned off during cooling (or heating), DO NOT restart it immediately, as this can damage it. Wait at least three minutes before starting it again.

**SANYO**

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Osaka, Japan

**SM700511** 04/2002

Printed in Japan