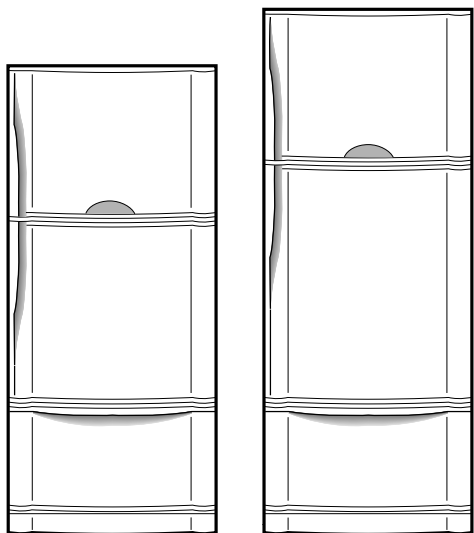


# SHARP SERVICE MANUAL

SX026SE40BPST



**SJ-V35L**

**SJ-V39L**

## REFRIGERATOR-FREEZER

### MODELS

**SJ-V35L-GY**  
**SJ-V39L-GY**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

DESTINATION ..... T

**Refrigerant; HFC-134a**

Refer to "HFC-134a COOLING UNIT" Service Manual for handling this refrigerant.

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## SPECIFICATIONS

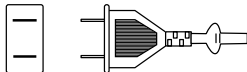
Items		SJ-V35L	SJ-V39L
Type		3-Door	3-Door
Outer dimensions	Height	1578mm(62.2")	1777mm(70.0")
	Width	635mm(25.0")	635mm(25.0")
	Depth	670mm(26.4")	670mm(26.4")
Rated storage volume		315 liter(11.1 cu.ft) F: 88 liter(3.1 cu.ft) R: 142 liter(5.0 cu.ft) V: 85 liter(3.0 cu.ft)	368 liter(13.0 cu.ft) F: 88 liter(3.1 cu.ft) R: 195 liter(6.9 cu.ft) V: 85 liter(3.0 cu.ft)
Rated gross volume		318 liter(11.2 cu.ft) F: 89 liter(3.1 cu.ft) R:143 liter(5.1 cu.ft) V: 86 liter(3.0 cu.ft)	371 liter(13.1 cu.ft) F: 89 liter(3.1 cu.ft) R: 196 liter(7.0 cu.ft) V: 86 liter(3.0 cu.ft)
Defrosting	System	Heater system	
	Start	Automatic	
	Finish	Automatic	
Temperature control		Automatic (Adjustable)	
No-frost freezer		Yes	
Interior lamp		1	
Caster		4	
Evaporating pan		1	
Freezer Compartment	Freezer shelf	2	
	Freezing room	1	
	Ice cube maker	1	
	Ice cube box	1	
	Freezer pocket (S)	1	
	Freezer pocket (L)	1	
Refrigerator Compartment	Chilled case	1	
	Refrigerator shelf(S)	1	
	Refrigerator shelf(L)	-	1
	Three position adjustable shelf	1	
	Egg pocket	1	-
	Egg holder(S)	1	-
	Egg holder(L)	1	2
	Utility pocket	1	-
	Utility pocket	-	3
	Small pocket	-	3
	Bottle pocket (S)	1	
	Bottle pocket (L)	1	
Vegetable Compartment (Vegetable case 1, Parting Plate 1, Fruit case 1)		Yes	
Deodorizing system		Yes	

**COLOR**

Items	SJ-V35L-GY, SJ-V39L-GY
Outside color	Gray
Inside color	White

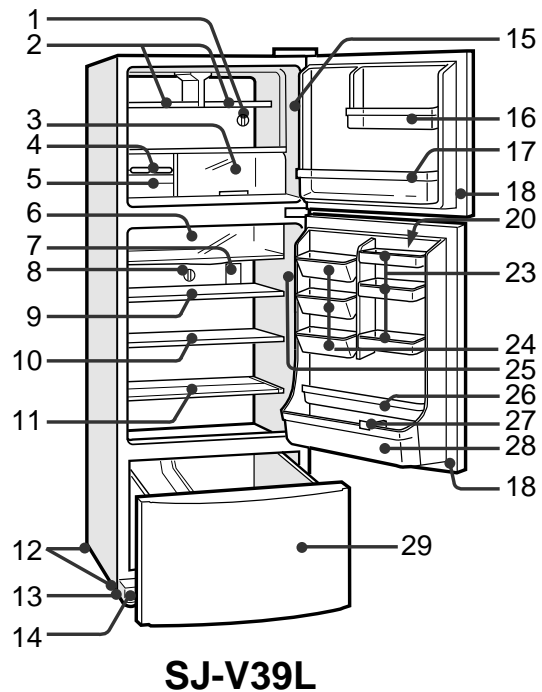
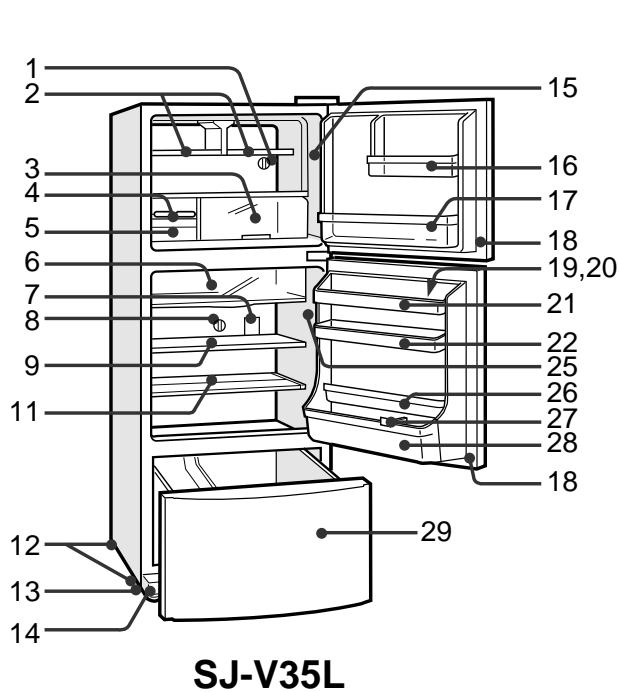
**RATING**

Items		SJ-V35L	SJ-V39L
Rated voltage	(V~)	220-240	
Rated frequency	(Hz)	50	
Climate class		T	
Rated input	(W)	139-145	165-175
Rated input of heating elements	(W)	128-152	
Defrosting input	(W)	128-152	
Refrigerant (Charging quantity)		HFC-134a(115g)	HFC-134a(120g)
Net weight	(kg)	69	73
Source cord		2pin	
Plug type		A-1	



## DESIGNATION OF VARIOUS PARTS

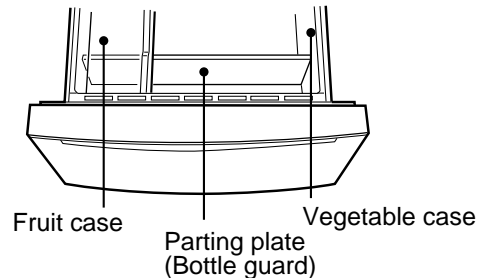
### EXTERNAL DESCRIPTION



The names in parenthesis are the denominations used in the REPLACEMENT PARTS LIST.

1. Freezer temp. control knob
2. Freezer shelf (Free case)
3. Freezing room
4. Ice cube maker
5. Ice cube box (Ice storage box)
6. Chilled case
7. Light (Lamp)
8. Refrigerator temp. control knob
9. Refrigerator shelf (S) (Refrigerator tray)
10. Refrigerator shelf (L) (Refrigerator tray L)
11. Three position adjustable shelf (Free set shelf)
12. Caster
13. Adjustable feet (Adjustable leg)
14. Evaporating pan & Evaporating pan cover
15. Fan switch
16. Freezer pocket (S) (F-door pocket S HS)
17. Freezer pocket (L) (F-door pocket L HS)
18. Magnetic door seal (Door packing)
19. Egg holder (S) (Egg tray)
20. Egg holder (L) (Egg tray)
21. Egg pocket (Door pocket HS)
22. Utility pocket (Door pocket HS)
23. Utility pocket (Door pocket S HS)
24. Small pocket (Dressing pocket)
25. Fan & light switch
26. Bottle pocket (S) (Bottle pocket S)
27. Bottle holder (Bottle guard)
28. Bottle pocket (L) (Bottle pocket HS)

### 29. Vegetable compartment



# CONSTRUCTIONS

→ Mark; Cold air flow

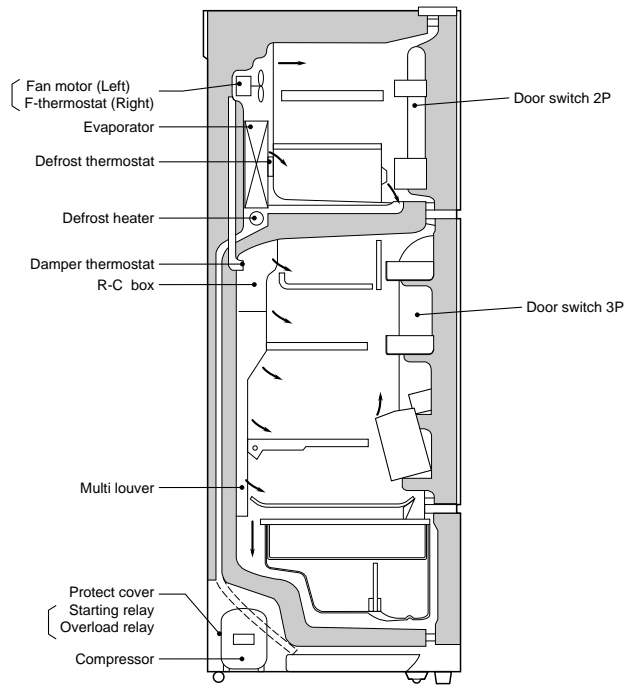


Figure D-1 (SJ-V35L)

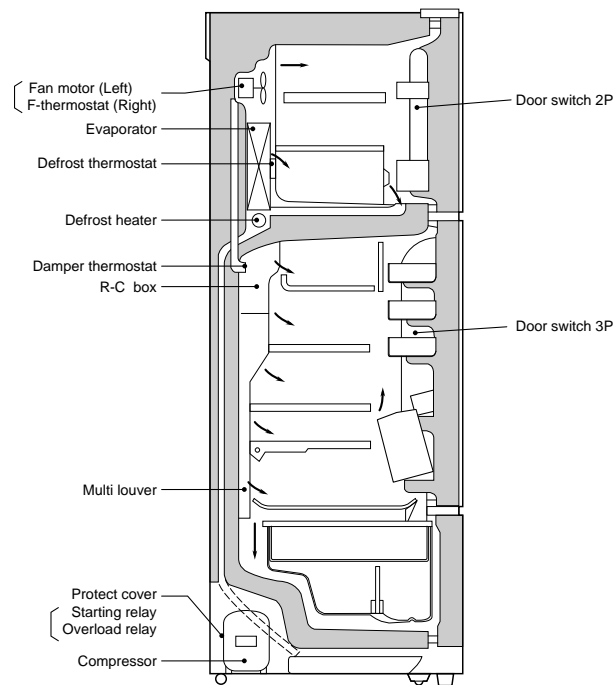


Figure D-2 (SJ-V39L)

## LIST OF ELECTRICAL PARTS

ITEMS	TYPE NAME	RATING	SPECIFICATIONS
Damper thermostat	MM1-6129		Open : 0.5°C , Close : -4°C
Defrost thermostat	US602S	250V,8A	Open : 10°C , Close : 1°C
Timer	ND0804M2PR	200-240V 50/ 60Hz	Integration type Cycle time : 8h43m(50Hz) Delay time : 4m50s(50Hz)
Thermo. fuse (defrost)	SF70E	250V,10A	Cut off temperature : 72°C
Door switch (Freezer compartment)	PS100-01T	250V,0.5A	2 terminals type push-button
Door switch (Refrigerator compartment)	PS100-T	250V,0.5A	3 terminals type push-button
Fan motor	3R00044B	220/240V,50Hz	
Lamp	—	240V,10W	E-12
Lamp socket	—	250V,1A	E-12 (Hard plastic body type)
F-thermostat	MM1-8038		ON : -20°C , OFF : -25°C
Defrost heater	MM1-4021	220/230/240V	378Ω with deodorizer
Compressor	FL1568SZ	220/230/240V 50Hz	Main : 13.3Ω Aux : 25.6Ω Cooling capacity 188W <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">Terminal shape</div>  </div>
Starting relay	PETOSAT	300V	22Ω
Protector	2.0C36A1	—	130°C / 60°C

# WIRING DIAGRAM

Be sure to replace the electrical parts with specified ones for maintaining the safety and performance of the set.

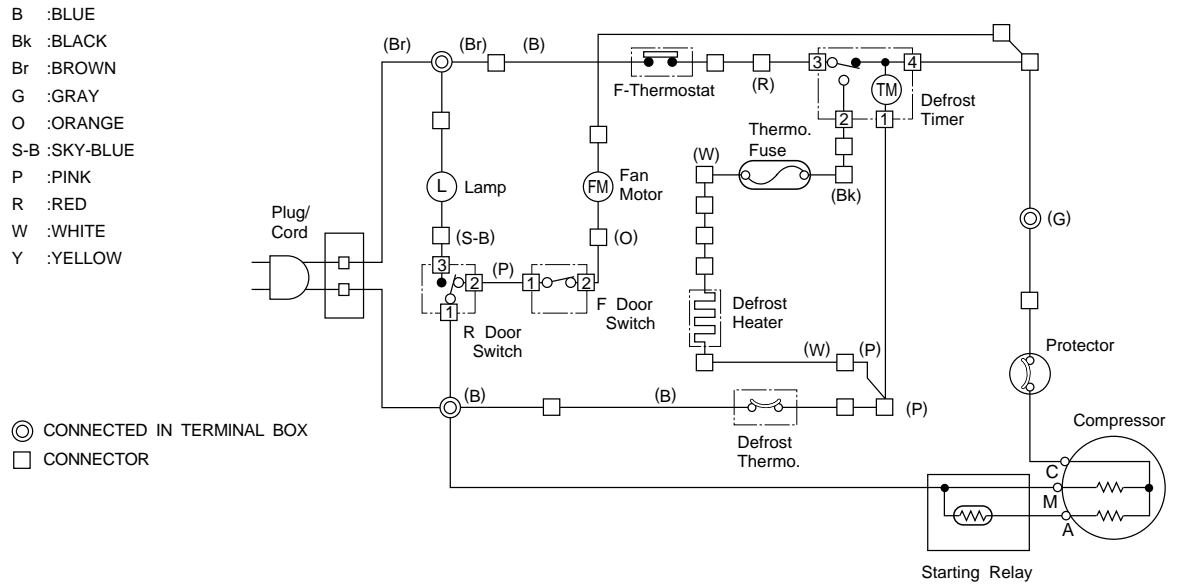


Figure W-1. Wiring Diagram

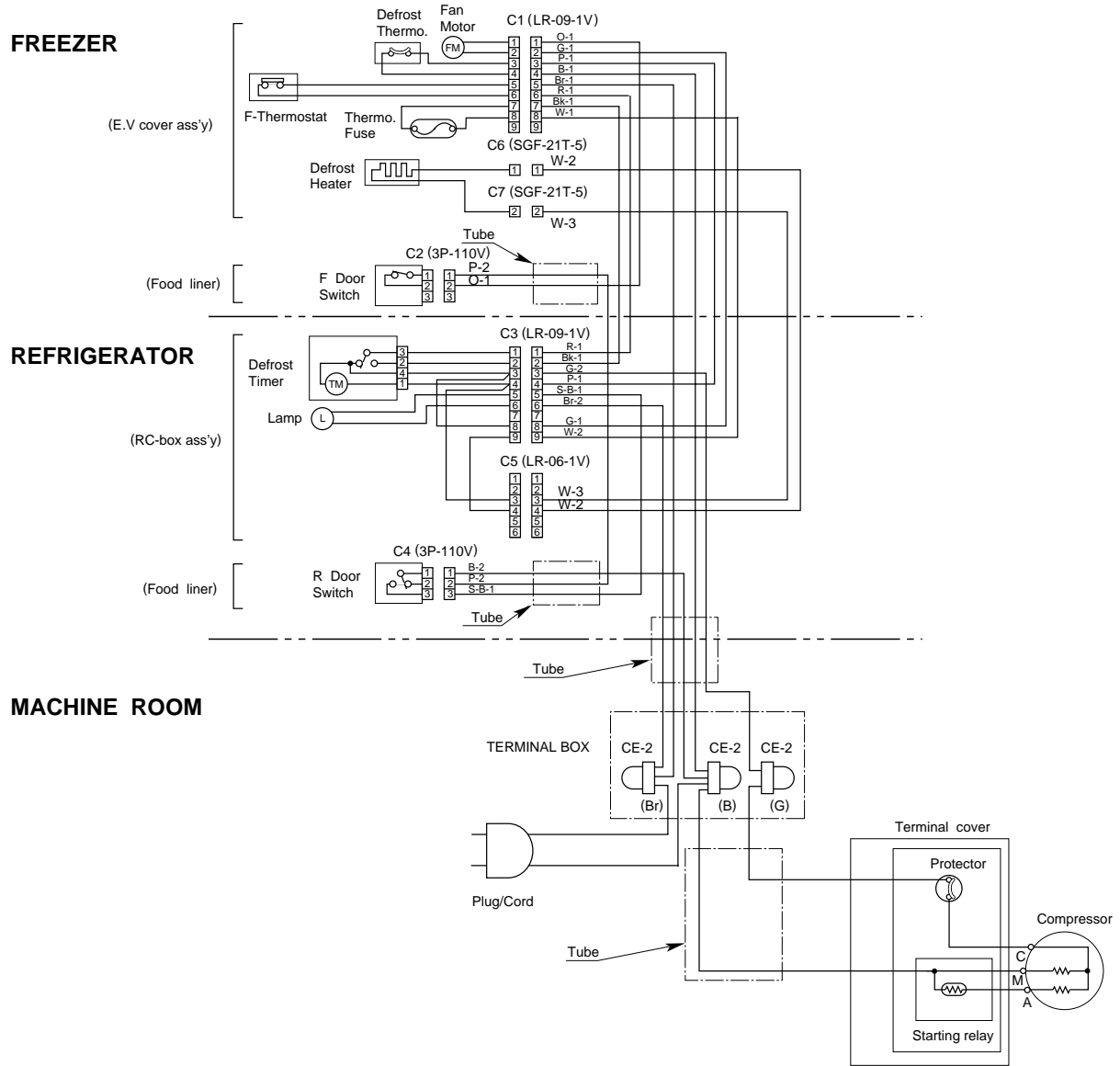


Figure W-2. Electric Accessories Layout



## FUNCTIONS

### 1. ADJUSTABLE TEMPERATURE CONTROL

#### (1) Temperature control of freezer

- Thermostat (senses freezer temperature) operates on ON/OFF switchover to control the compressor and allows the freezer temperature to keep at a suitable temperature.
- However adjust the freezer temp. control knob as follows depending upon the storing condition of foods.

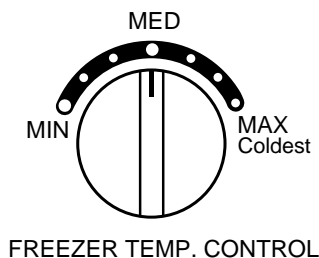


Figure F-1.

KNOB SETTING	PURPOSE	VALUE OF TEMPERATURE	
		refrigerator	chilled room
MAX(Coldest)	● For making ice rapidly or fast freezing.	Approx. 0°C	Approx. -3°C
↑	● When restocking with fresh food.		
MED	● For normal freezing.	Approx. 3°C	Approx. 1°C
↓	● For storing frozen food for a short period (up to one month).	Approx. 6°C	Approx. 4°C
MIN	● When frozen food or ice cream is not stored.		

#### (2) Temperature control of refrigerator

- Damper-thermostat senses temperature of the refrigerator and changes the opening angle of the damper automatically. However, as the Damper-thermostat has no function to switch on or off the compressor and cool air circulating fan, the freezer temperature control causes temperature in the refrigerator to vary to some extent.
- However, adjust the refrigerator temp. control knob as follows depending upon the cooling condition.

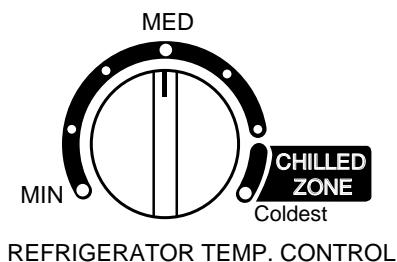


Figure F-2.

KNOB SETTING	PURPOSE	VALUE OF TEMPERATURE	
		refrigerator	chilled room
CHILLED ZONE (Coldest)	● For keeping freshness of food longer.	Approx. 0°C	Approx. -3°C
↑	● When the refrigerator does not provide sufficient cooling.		
MED	● For normal operation.	Approx. 3°C	Approx. 1°C
↓	● When the refrigerator provides excessive cooling.	Approx. 6°C	Approx. 4°C
MIN			

The values shown above refer to the case where the freezer temp. control knob is set at "MED".

- NOTE:
- The refrigerator temperature is affected also by the freezer temperature. If the freezer temp. control knob is set at the position "MAX", the temperature tends to be lower than the following values, and if set at near the position "MIN", temperature tends to be higher.
  - If the refrigerator is operated for a long time with the freezer temperature control sets the "MAX" position, foods stored in the refrigerator compartment may also freeze.
  - When refrigerator temperature control sets to the "CHILLED ZONE", some foods stored may freeze. In this case adjust control set back to the "MED" position.
  - When refrigerator temperature control sets to the "CHILLED ZONE", some foods stored in fresh cases may also become frozen.

The values shown above refer to the measurement carried out center area and 1/3 of overall height from the bottom at each of the refrigerator and the freezer after machine has been operated at an ambient temperature of 30°C with no food stored and the door closed until the temperature is stabilized.

The values vary depending upon frequency of opening and closing the door, ambient temperature, amount of stored foods and manner of storing foods.

## 2. DEFROSTING

### (1) No defrosting operation is necessary

No defrosting operation is necessary.

As this machine is so designed that a built-in evaporator cools air and a fan circulates cooled air, neither the freezer nor the refrigerator is frosted, though the evaporator is frosted.

The frosted evaporator is defrosted automatically due to the function of defrosting timer and heater, requiring no defrosting operation.

### (2) Where is melted frost brought

1. Melted frost is brought into the evaporating pan at the bottom of the set and is evaporated here by the heat of sub condenser.
2. Be sure to use the evaporating pan as inserted so as to be level with the outer case.

### (3) The following circuit diagrams in the table show automatic defrosting function of the refrigerator with timer and defrost thermostat.

Operation	Electric diagram	Description
1. Cooling (Normal)	<ul style="list-style-type: none"> <li>● Defrost thermostat ON</li> <li>● Compressor running</li> <li>● Timer motor running</li> </ul> <p style="text-align: center;"><b>Figure F-4.</b></p>	<p>The integration timer integrates running time of the compressor. When it reaches cycle time of defrost timer, the timer contact is changed to start defrosting.</p>
2. Defrosting (Time 20 to 30 min.)	<ul style="list-style-type: none"> <li>● Defrost thermostat ON</li> <li>● Compressor stops</li> <li>● Timer motor stops</li> </ul> <p style="text-align: center;"><b>Figure F-5 .</b></p>	<ul style="list-style-type: none"> <li>● The timer contact is changed to start defrosting, the timer motor stops, and power is supplied to the defrost heater.</li> <li>● It takes about 20 to 30 min. to defrost. When little frosted the defrosting takes little time. When much frosted, the defrosting takes much time.</li> </ul>
3. Drain (Time approx. 5 min.)	<ul style="list-style-type: none"> <li>● Defrost thermostat OFF</li> <li>● Compressor stops</li> <li>● Timer motor running</li> </ul> <p style="text-align: center;"><b>Figure F-6.</b></p>	<p>When the defrost thermostat becomes OFF, the timer motor at rest starts running. During the operation time (delay time of defrost timer), defrosted water is drained outside the refrigerator.</p>
4. Cooling (start)	<ul style="list-style-type: none"> <li>● Defrost thermostat OFF</li> <li>● Compressor running</li> <li>● Timer motor running</li> </ul> <p style="text-align: center;"><b>Figure F-7.</b></p>	<ul style="list-style-type: none"> <li>● Timer contact is changed to cooling operation and the compressor starts running and the timer motor stops.</li> <li>● Defrost thermostat contact becomes ON when it's cooled. And the timer motor starts running. (Figure F-4.)</li> </ul>

**(4) As a reference to determine the causes of trouble, malfunction and phenomena are described below. Refer to the following when repairing.**

1. Disconnection of defrost heater

As off-cycle defrosting is performed, the defrosting time is extremely prolonged. Each time defrosting is started, the freezer temperature rises and a portion of ice and stored foods are melted.

2. Melted thermo. fuse or opened-circuit due to the defect of defrost thermostat.

When the above mentioned trouble occurs in cooling operation, the timer motor does not run, defrosting will not take place, and consequently freezing is caused. In the above mentioned condition, when the timer shaft is turned by hand to defrost, the timer motor runs during the operation time. However, the motor stops from the time when the contact is changed, and freezing causes.

**NOTE:**

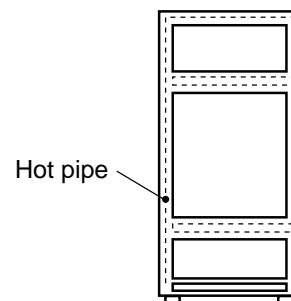
- As the thermo. fuse assembly is intended to prevent dangers, do not use it under shorted condition even for a short period.

**3. DEW PREVENTION**

The hot pipe, namely D.P.-condenser, is arranged around the flange part of cabinet and the C-partition plate, preventing dew from being generated on the cabinet.

**NOTE:**

- D.P.-condenser pipe may be felt hot if touched by hand while the compressor is in operation.
- If you are asked about this, please explain that the hot pipe serve to prevent the dew generation.



**Figure F-8.**

**4. INSPECTION OF INITIAL STARTING**

**(1) Inspection of cooling unit**

1. Set the temperature control knob to "MAX" and check that the compressor starts to operate.
2. Depress the door switch to run the fan and check that cool air is blown out of the cold air outlet of the freezer and the refrigerator.
3. When the compressor does not work, check that the timer is not set to "defrost" position.
4. It takes about two or three hours to put food in the refrigerator after starting operation.

**NOTE:**

- Return the temperature control knob to "MED" position afterward.
- When the refrigerator is operated initially after installed, the compressor may vibrate excessively for 1 to 2 min. However, vibration becomes normal if it is continuously operated.

**(2) Inspection of defrost device**

Operate the refrigerator for 20 to 30 min. and then check the defrost device in the following procedures :  
Allow 5 min. to restart the compressor since immediate starting after stopping will cause unsmooth operation.

1. Turn the timer shaft clockwise with a screw driver.  
At this time, make certain the timer clinks and the compressor stops.
2. After more than 5 min., turn the shaft further to operate.  
Make certain cooling operation is started again.

## DEODORIZING OPERATION

Deodorization is performed with the aid of a deodorizing heater which uses a conventional glass pipe heater having a deodorizing function.

### 1. Operation

The deodorizing system is arranged in the cool air passage, so that deodorization effect is always maintained. Therefore, any operation is not necessary.

### 2. Component Parts and Deodorizing Principle

(1) This deodorizing heater uses the porous catalyst layer laid on the surface of radiant heater glass pipe (high-quality quartz glass). The deodorizing catalyst consists of zeolite, alumina, silica, noble metal, and rare-earth oxide. It adsorbs and decomposes the following odors.

It adsorbs:

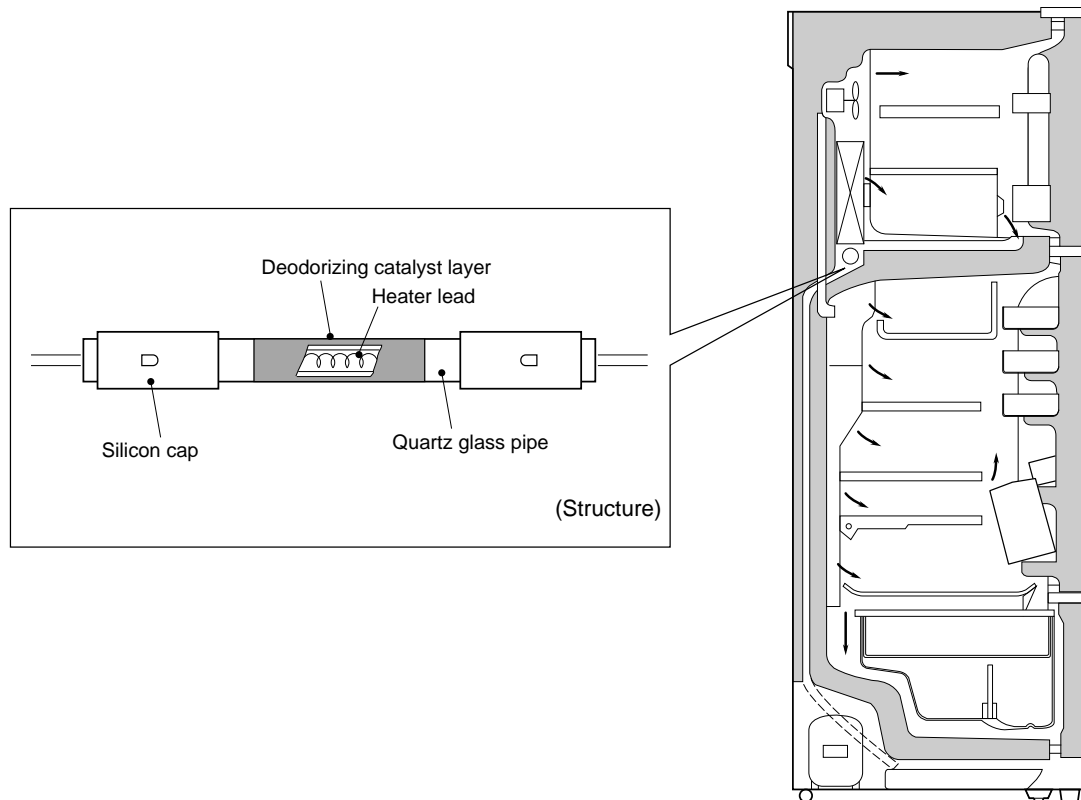
Stench odor evolved from vegetables and fruits ... Methyl mercaptan,

Stench odor evolved from meats and fishes ... Trimethylamine,

Stench odor evolved from fermentation foods ... Aliphatic acids.

The noble metal and rare-earth oxides act as catalysts which oxidize and remove the adsorbed stench ingredients at a temperature of over 250°C.

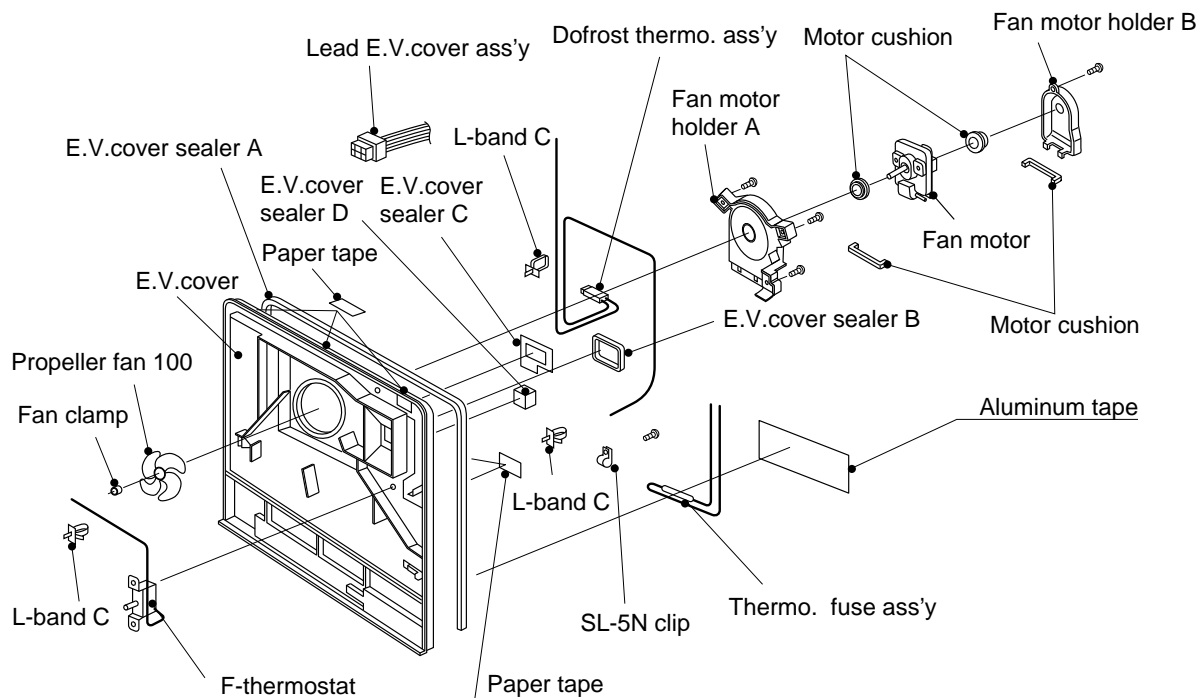
(2) In normal cool state, this deodorizing heater adsorbs the stench ingredients. In defrosting state where the heater is heated, it oxidizes and removes the adsorbed stench ingredients by a catalysis.



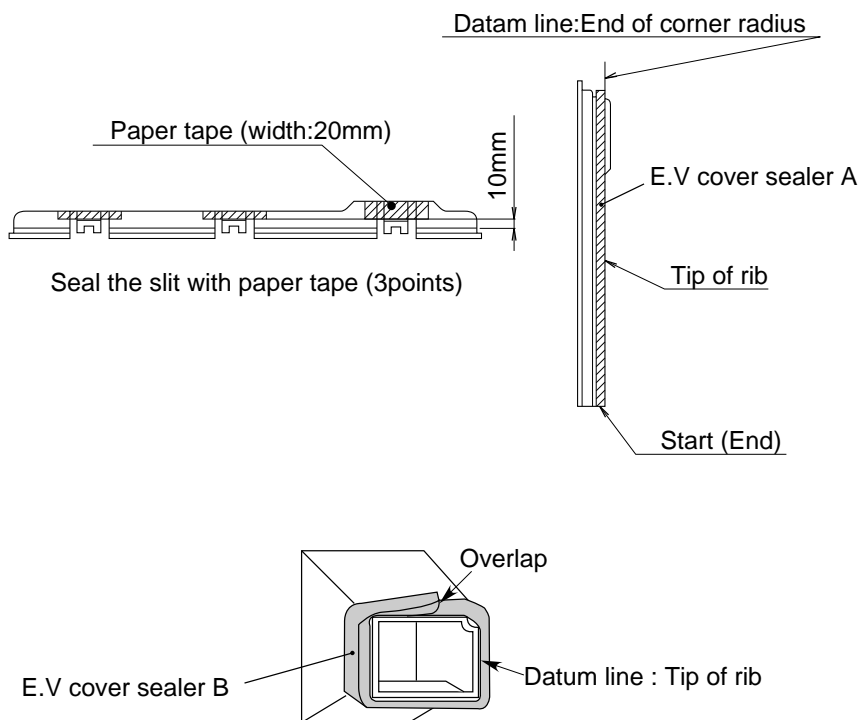
# ASSEMBLING PROCEDURES OF MAIN PARTS AND CAUTIONS

**CAUTION: DISCONNECT THE UNIT FROM THE POWER SUPPLY BEFORE ANY REPAIRING.**

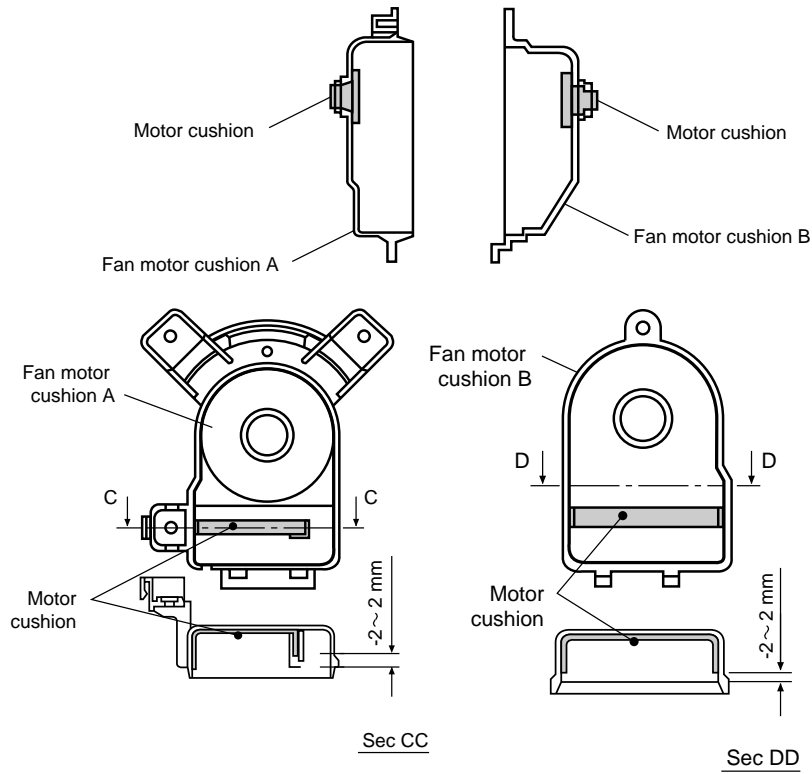
## 1. E.V COVER ASSEMBLY



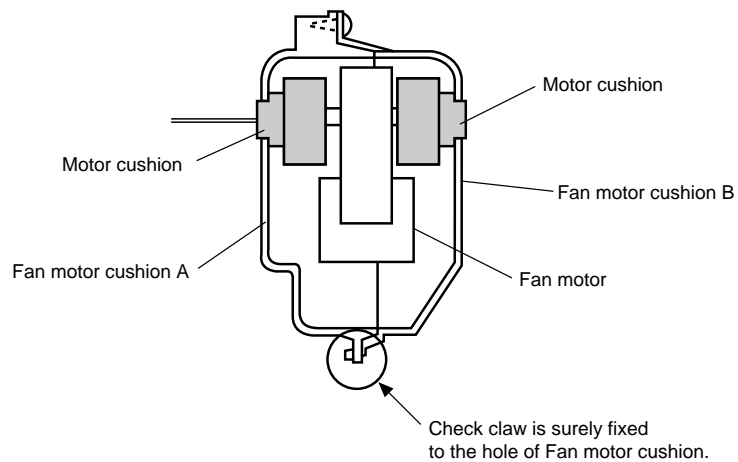
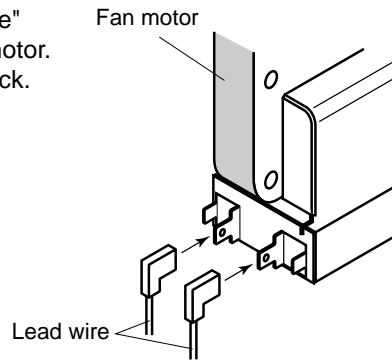
### (1) Sticking of E.V cover sealer A, B



**(2) Fixing of Fan motor**



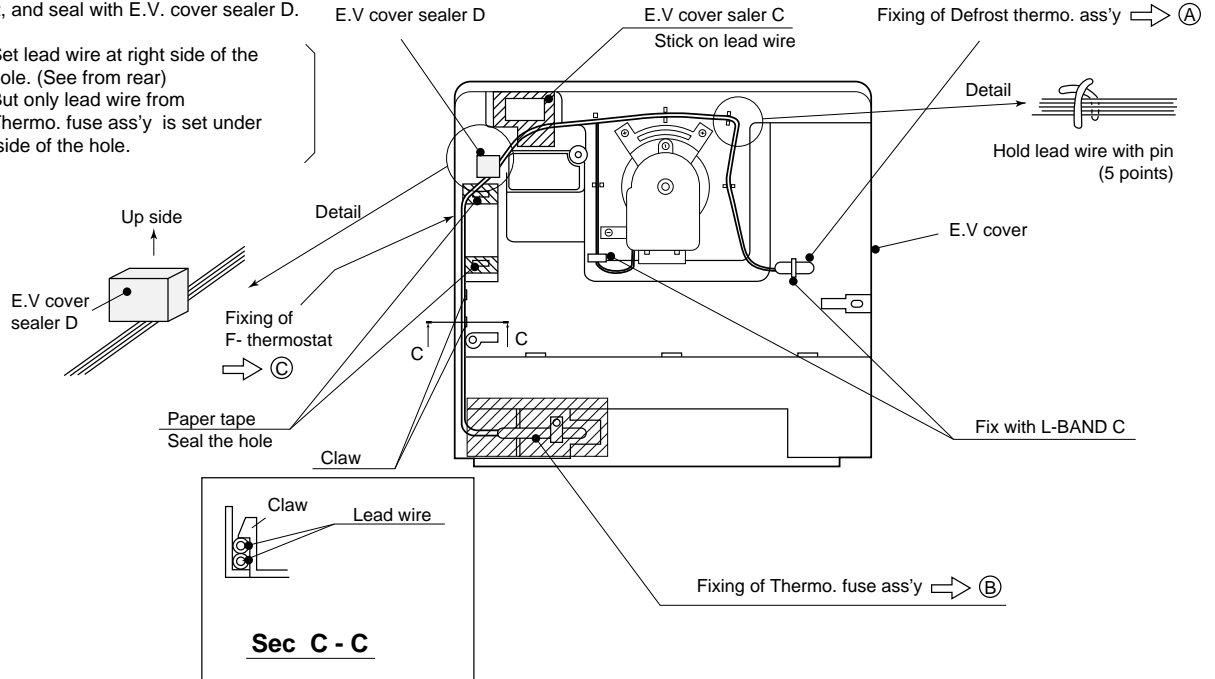
Insert terminal of Lead wire "Orange" and "Gray" to the terminal of Fan motor.  
Lead ev-cover ass'y has positive lock.



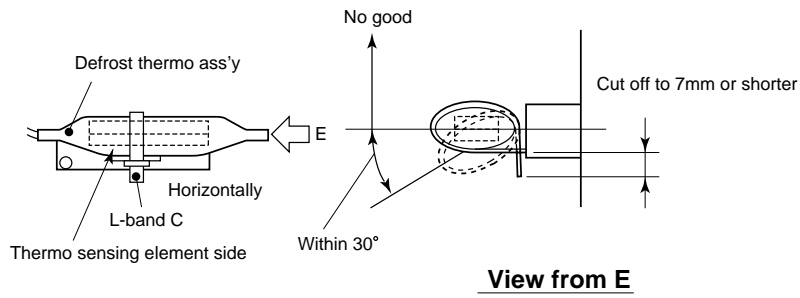
### (3) Wiring of Lead wire

Take out lead wire from square hole to front, and seal with E.V. cover sealer D.

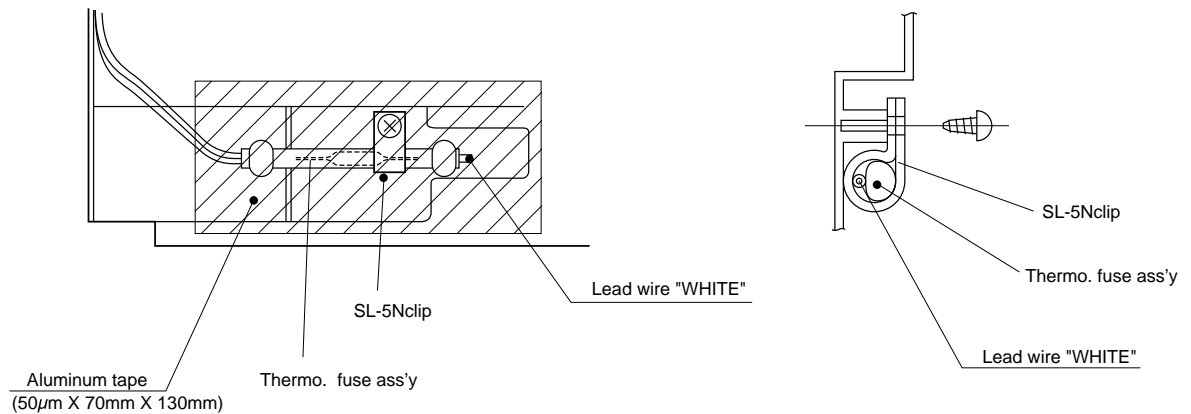
- Set lead wire at right side of the hole. (See from rear)
- But only lead wire from Thermo. fuse ass'y is set under side of the hole.



#### (A) Fixing of Defrost thermo. ass'y

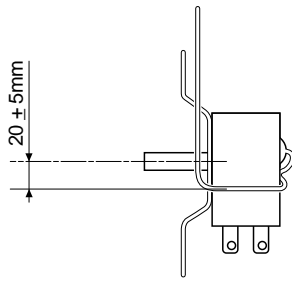


#### (B) Fixing of thermo. fuse ass'y

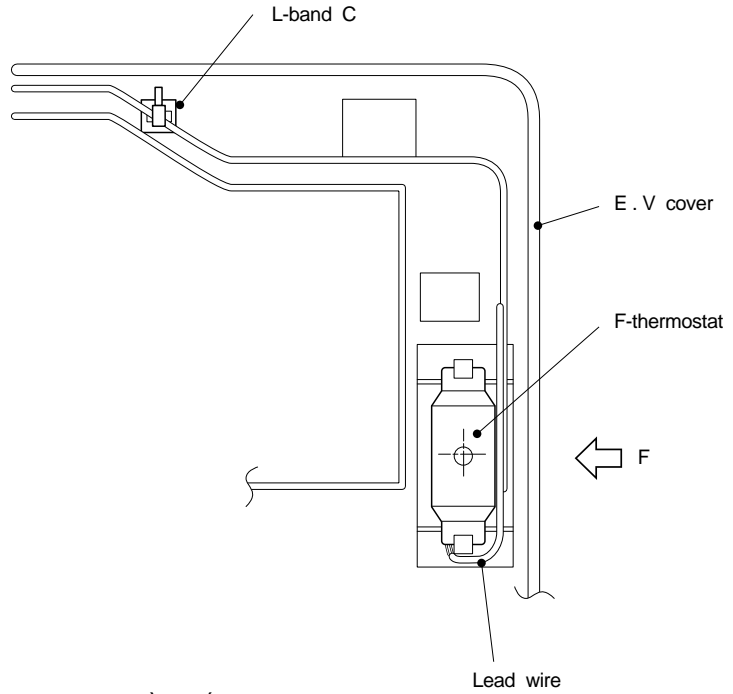
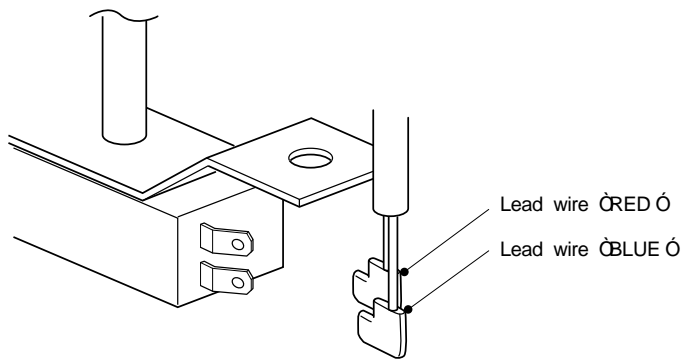


**C) Fixing of F-thermostat**

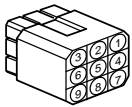
Forming of capillary tube



**View from F**



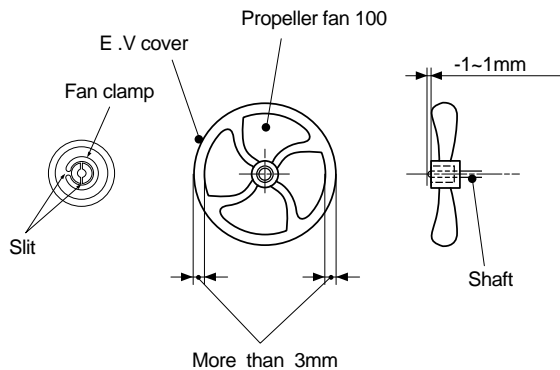
**(4) Wiring of Connector**



- No. 3 — Pink lead of Defrost thermo. ass'y
- No. 4 — Blue lead of Defrost thermo. ass'y
- No. 7 — Black lead of Thermo. fuse ass'y
- No. 8 — White lead of Thermo. fuse ass'y

**(5) Fixing of Fan**

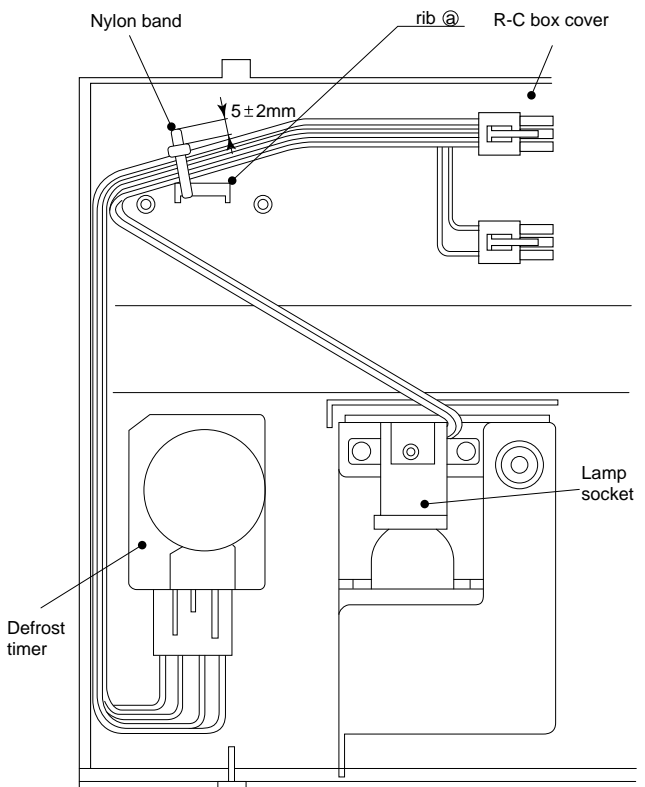
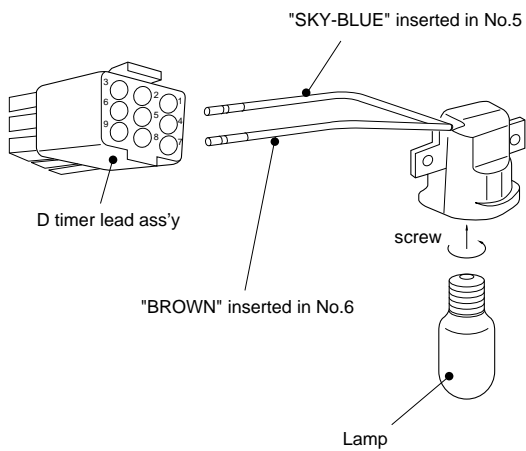
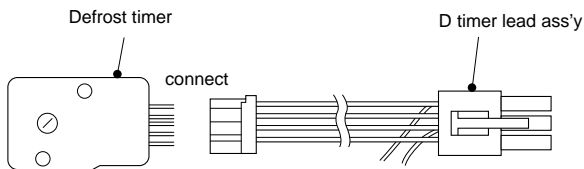
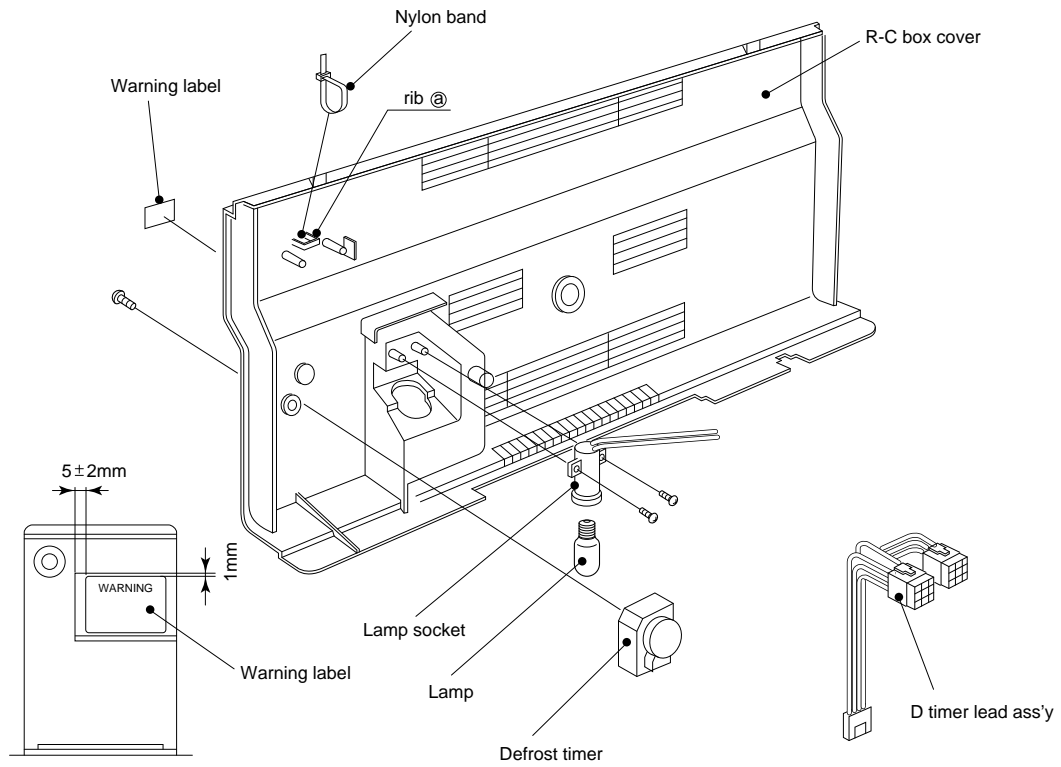
Set Fan clamp to Propeller fan 100 and insert it to the shaft of Fan motor.



Slit of each Fan clamp and Propeller fan should not be at same position.





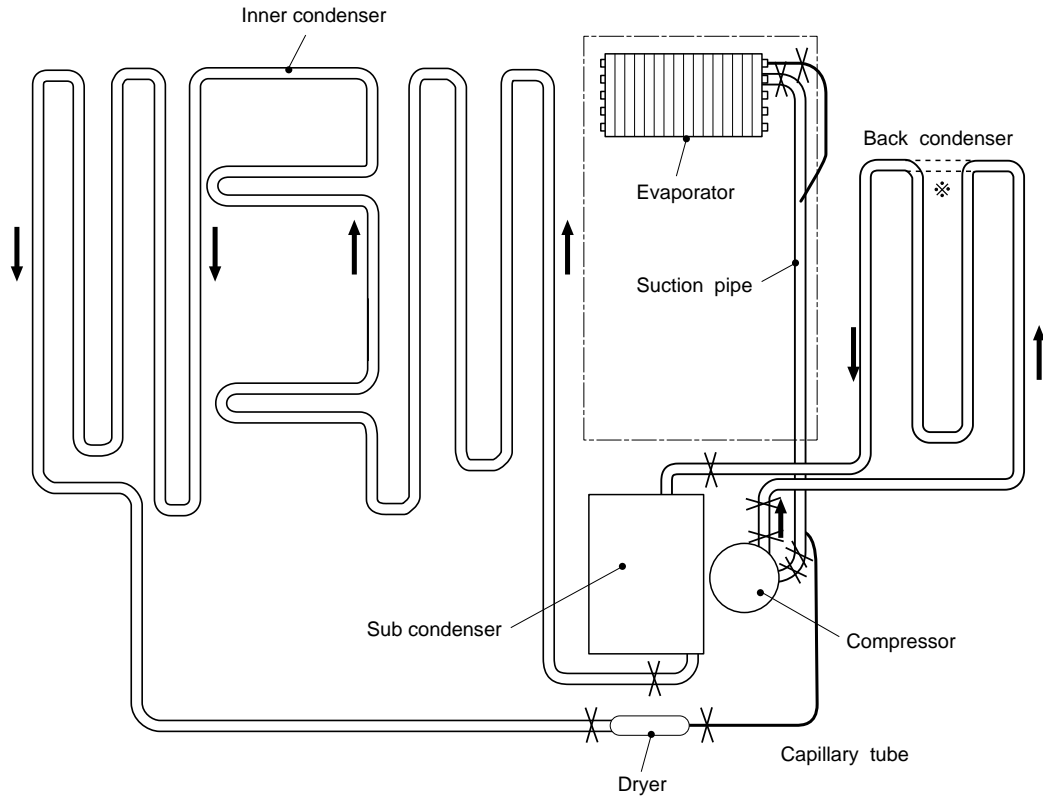
## 2. R-CBOX COVER ASSEMBLY



# COOLING UNIT

## Cooling unit

 Mark : Refrigerant flow  
 Mark : Brazing portion



\* Only for SJ-V35L

Figure C-1.

## Location

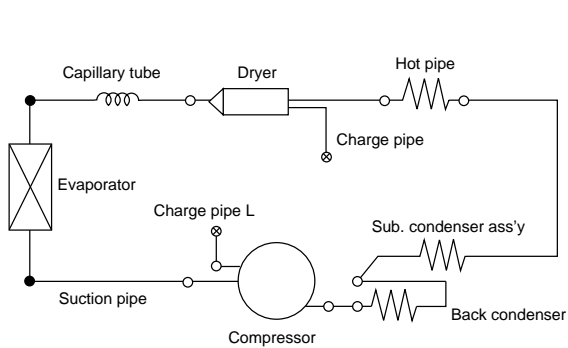


Figure C-2.

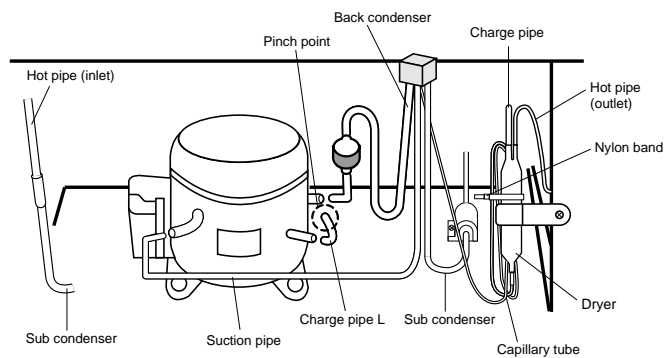


Figure C-3.