

TOSHIBA

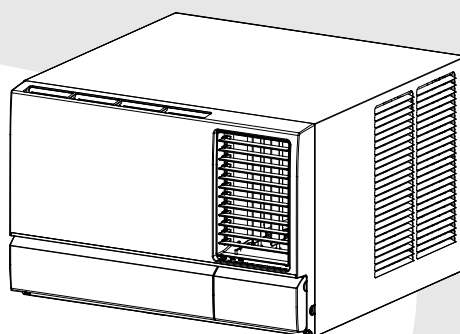
SERVICE MANUAL

FILE NO. SVM-06049-1

AIR-CONDITIONER

WINDOW TYPE

RAC-18G-AR
RAC-18G2B
RAC-18G2L
RAC-18GE2B



Revised May, 2007

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1. SPECIFICATIONS

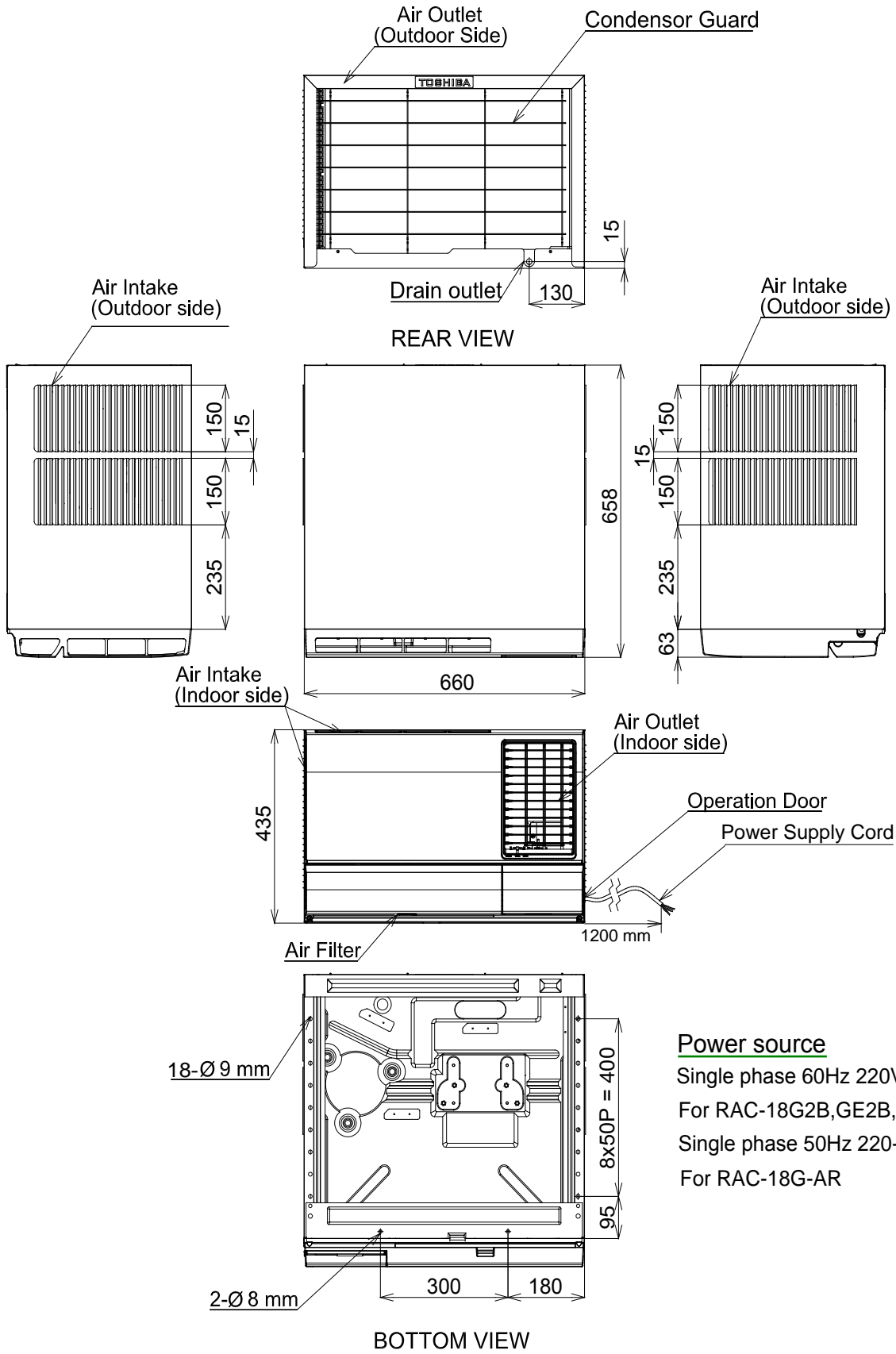
ITEM	MODEL	RAC-18GE2B		RAC-18G2B	RAC-18G-AR	RAC-18G2L
		COOLING (SSA)	HEATING	COOLING (SSA)	COOLING (JIS)	COOLING (JIS)
Capacity*	k cal/h	3,600	3,010	3,600	—	—
	Btu/h	4,200 (W)	3,500 (W)	4,200 (W)	5,000 (W)	4,700 (W)
Power source	Phase	Single		Single	Single	Single
	V	220		220	220 – 240	220
	Hz	60		60	50	60
Power consumption	W	2,700	3,670	2,700	2,140	2,200
Power factor	%	96	100	96	94	98
Running current	A	12.8	16.7	12.8	9.85	10.25
Starting current	A	45		45	42	45
Moisture removal	lit/h	3.0		3.0	3.0	3.0
Noise	Indoor (High/Low)	dB		57/51	55/51-57/53	56/50
	Outdoor (High/Low)	dB		62/57	62/57-64/59	62/57
Compressor output	W	1,500		1,500	1,700	1,500
Fan motor output	W	93		93	93	93
Refrigerant	Name of refrigerant	R22		R22	R22	R22
	Charge volume	kg		0.70	0.76	0.70
Air volume	High Fan	m ³ /h		800		
	Medium Fan	m ³ /h		—		
	Low Fan	m ³ /h		600		
Refrigerant control	Capillary tube					
Safety device	Over current relay for protection of compressor Thermal fuse for protection of fan motor Thermal relay and thermal fuse for protection of heater					
Control device	Selector switch, Thermostat, Auto louver switch					
Ventilation	Yes					
Auto louver	Yes					
Dimensions	Height	mm		435		
	Width	mm		660		
	Depth	mm		658		
Net weight	kg		55	53	53	55
Usable outdoor temperature range	°C		21-52			

Specifications are subject to change without notice.

Note : Capacity is based on the following temperature conditions. (*)

ITEM	MODE	SSA 385/386	JIS
		COOLING	COOLING
Indoor unit inlet air temperature	(DB)	32°C	27°C
	(WB)	23°C	19°C
Outdoor unit inlet air temperature	(DB)	52°C	35°C
	(WB)	31°C	24°C

2. CONSTRUCTION VIEWS



Power source
 Single phase 60Hz 220V
 For RAC-18G2B,GE2B,G2L
 Single phase 50Hz 220-240V
 For RAC-18G-AR

3. SPECIFICATIONS OF ELECTRICAL PARTS

3-1. RAC-18GE2B/18G2B/18G2L

No.	Parts name		Code	Specifications	
1	Compressor		RM6520GPH96	Output (Rated) 1,500W, 2 poles, Single phase, 208/230V, 60Hz	
				Winding resistance (Ω) (at 20°C)	Red-Black 1.029
2	Fan motor		FG-230-150B	Output (Rated) 150W, 6 poles, Single phase, 220-230V, 60Hz	
				Winding resistance (Ω) (at 20°C)	Red-Black 22.06
3	Auto louver motor		50SM16-54S	Output (Rated) 3W or less, 8 poles, Single phase, 220-240V, 50/60Hz	
				Winding resistance (k Ω) (at 20°C) 10.5	
4	Room thermostat (RAC-18GE2B)		YTB-T321	Differential 2°C Rated current 20A (at 250V) Closing current 80A (at 250V)	
	Room thermostat (RAC-18G-AR/18G2B/ 18G2L)		B-A106	Differential 2°C Rated current 25A Closing current 90A	
5	Selector switch (RAC-18GE2B)		2137	Rated current 3A (at 250V) between terminal 1-2, 3-4, 9-10 Rated current 25A (at 250V) between terminal } 5-6, 11-12 Closing current 100A (at 250V) between terminal } 5-6, 11-12	
	Selector switch (RAC-18G-AR/18G2B/ 18G2L)		2105B	Rated current 3A (at 250V) between terminal 1-2, 1-3 Rated current 25A (at 250V) between terminal 5-6, 1-4	
6	Running	for fan motor	DS45150BPQD	5 μ F, 450V	
	capacitor	for compressor	RS44B506U0218S	50 μ F, 440V	
7	Auto louver switch		3019B-W	Reated AC current, closing and cut-off current 250V, 3A	
8	Heater (RAS-18GE2B)		HG-2235	3.5kW, Thermal relay 60 \pm 3°C OFF, 45 \pm 5°C ON Thermal fuse 85°C ON	

3-2. RAC-18G-AR

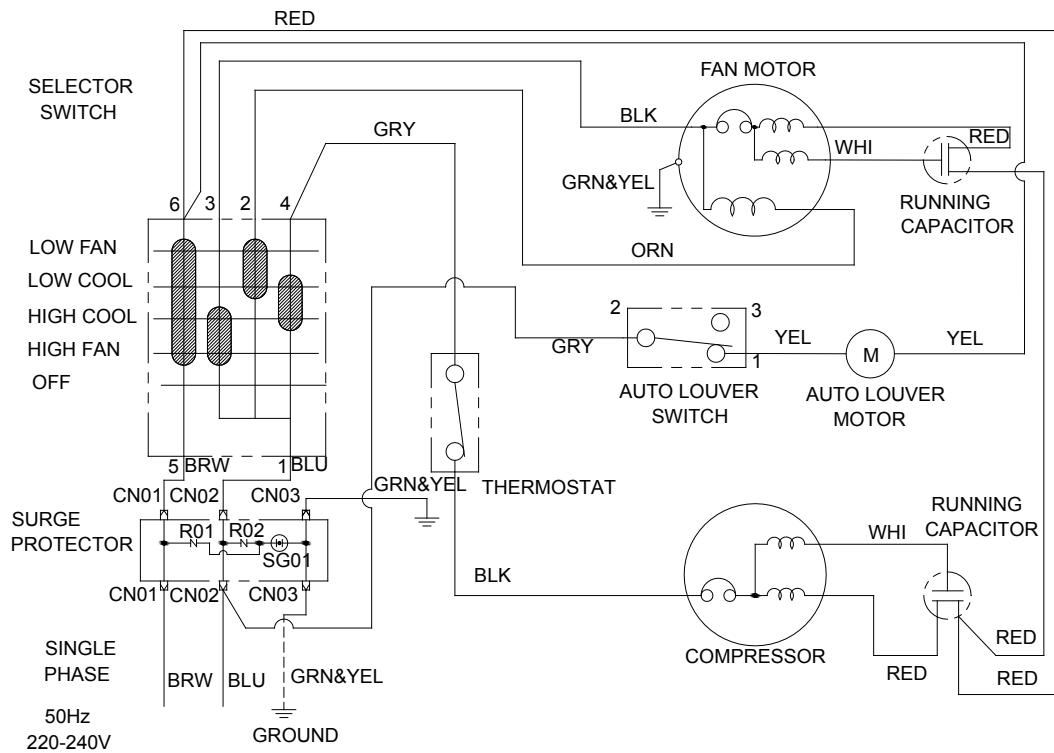
Different points from above model show below and another specifications are the same as above.

No.	Parts name		Code	Specifications	
1	Compressor		RM6523GNHE96	Output (Rated) 1,500W, 2 poles, Single phase, 230V, 50Hz	
				Winding resistance (Ω) (at 20°C)	Red-Black 1.194
2	Fan motor		FG-240-145A	Output (Rated) 145W, 6 poles, Single phase, 220-240V, 50Hz	
				Winding resistance (Ω) (at 20°C)	Red-Black 34.88
3	Running	for fan motor	DS441805BPQJ	8 μ F, 440V	
	capacitor	for compressor	RS44B606U0220S	60 μ F, 440V	

4. WIRING DIAGRAM

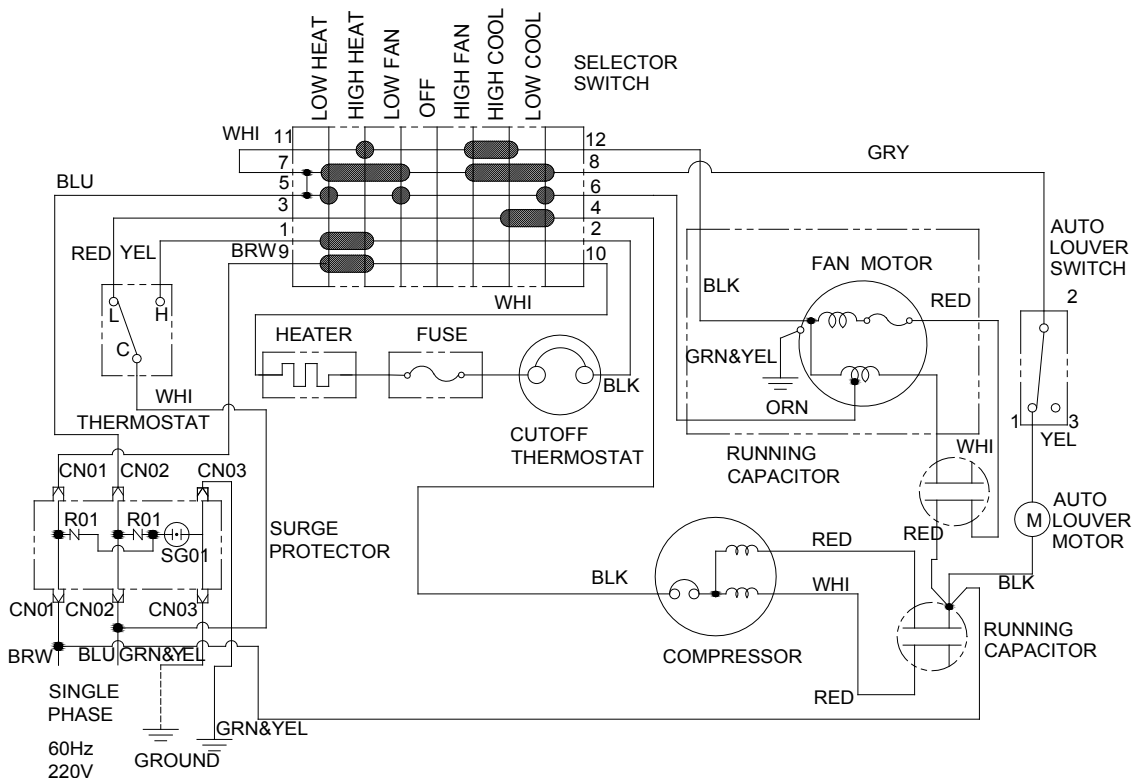
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4-1. RAC-18G-AR

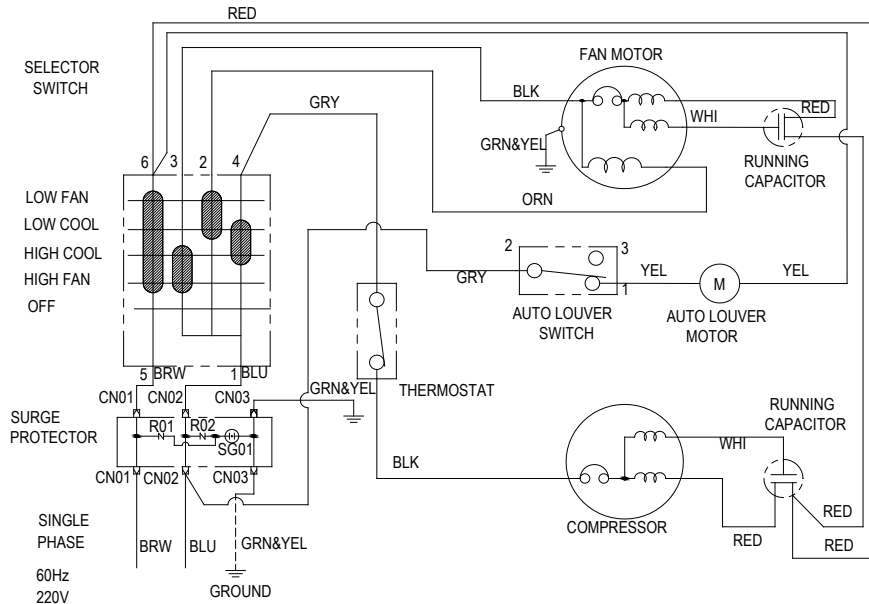


Color Identification	
BLK : Black	WHI : White
BLU : Blue	GRY : Gray
BRW : Brown	GRN : Green
ORN : Orange	YEL : Yellow
RED : Red	GRN & YEL : Green and Yellow

4-2. RAC-18GE2B

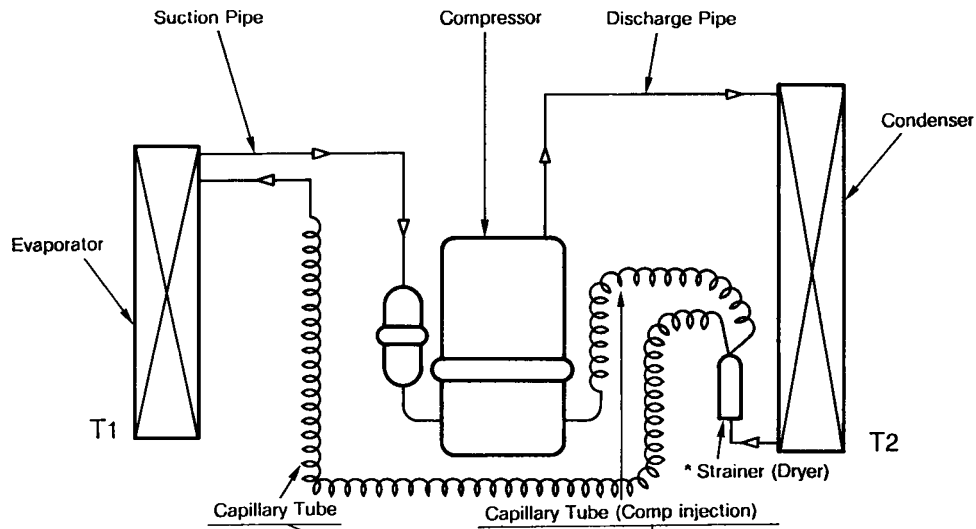


4-3. RAC-18G2B/18G2L



Color Identification	
BLK : Black	WHI : White
BLU : Blue	GRY : Gray
BRW : Brown	GRN : Green
ORN : Orange	YEL : Yellow
RED : Red	GRN & YEL : Green and Yellow

5. REFRIGERATING CYCLE DIAGRAM



RAC-18GE2B, 18G2B, 18G2L	1.5Ø X 500 mm 1.5Ø X 600 mm	0.8Ø X 650 mm
RAC-18G-AR	1.5Ø X 1100 mm 1.5Ø X 1000 mm	0.8Ø X 650 mm

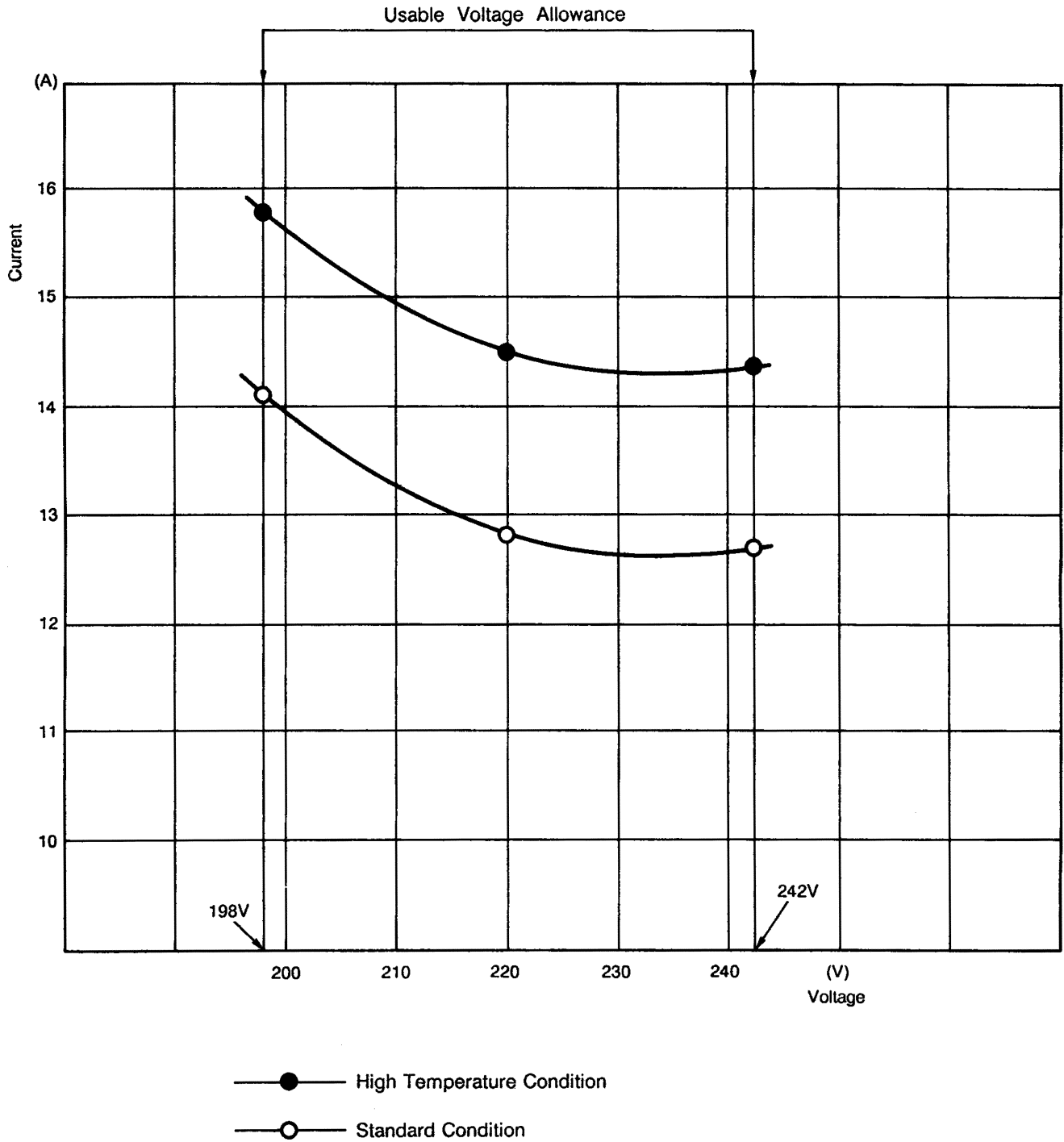
* When servicing the cycle, be sure to change the strainer for the dryer.

Conditions			Surface temp. of heat exchanger interchanging pipe (°C)		Ambient temp. conditions DB/WB (°C)	
			T ₁	T ₂	Indoor	Outdoor
RAC-18GE2B, 18G2B	Cooling	Standard	10	63	29/19	46/24
		High temperature	17	72	32/23	52/31
		Low temperature	2	39	21/16	21/16
RAC-18G2L	Cooling	Standard	7	52	27/19	35/24
		High temperature	17	72	32/23	52/31
		Low temperature	2	39	21/16	21/16
RAC-18G-AR	Cooling	Standard	9	53	27/19	35/24
		High temperature	17	71	32/23	52/31
		Low temperature	2	39	21/16	21/16

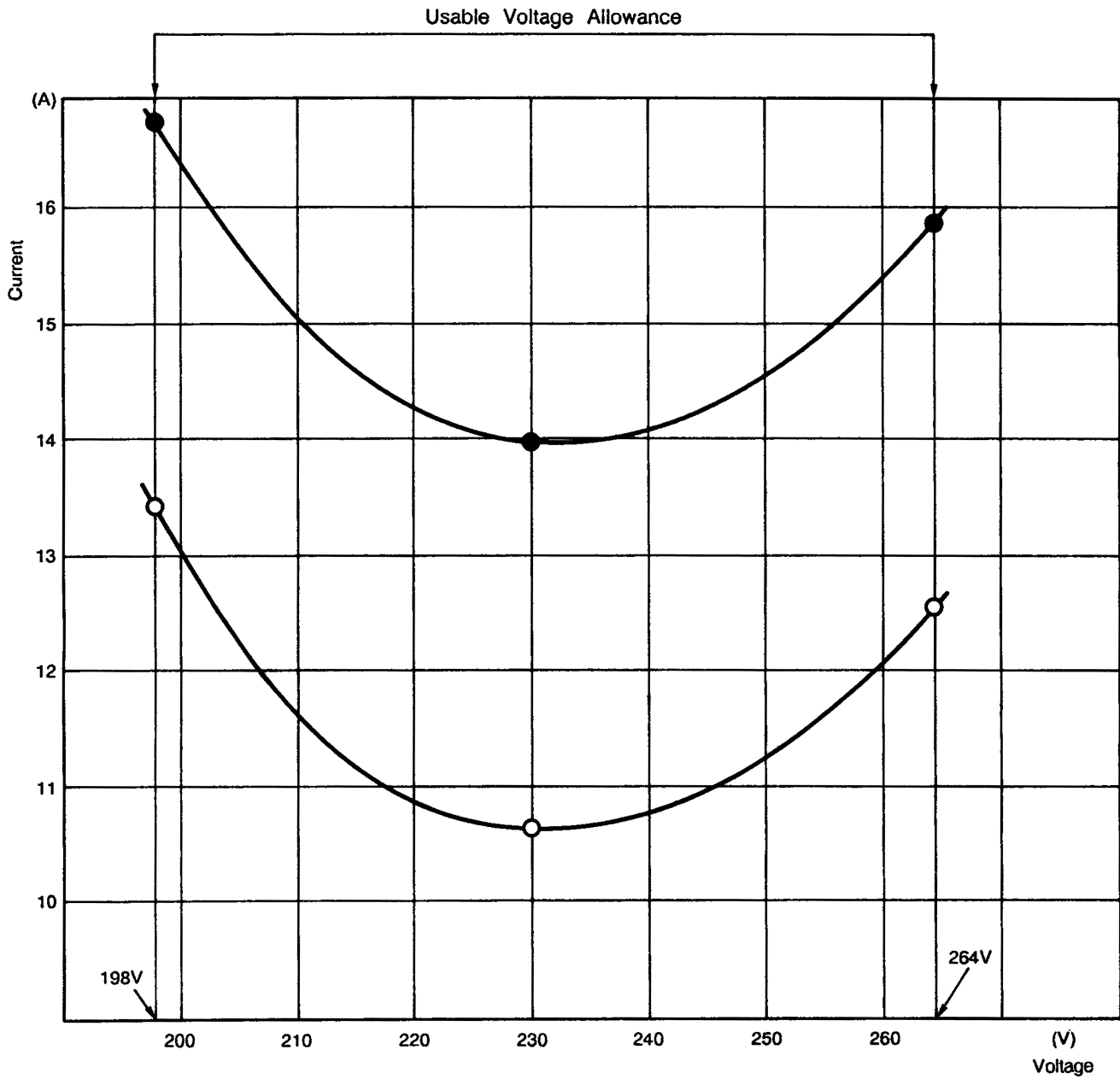
Note : Measure the heat exchanger temperature at the center of U-bend.
(By means of thermistor thermometer)

6. PERFORMANCE CHARACTER

6-1. RAC-18G2B/18GE2B/18G2L



6-2. RAC-18G-AR

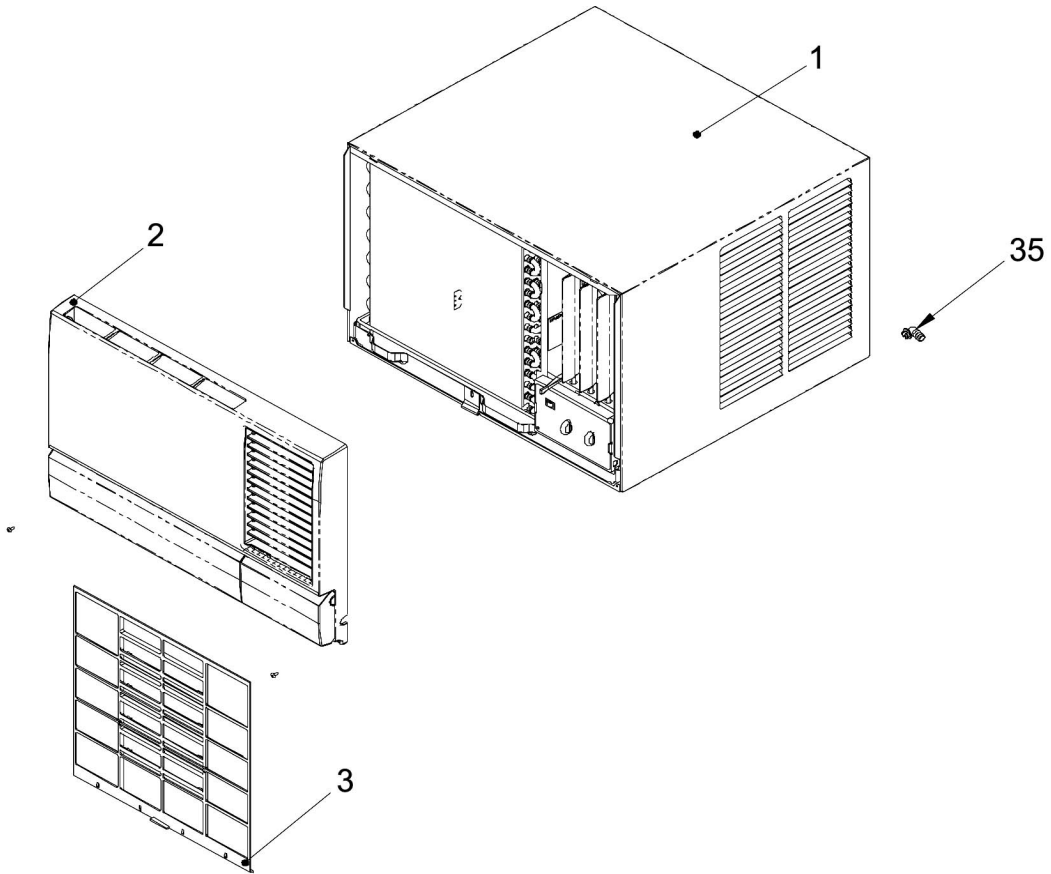


—●— High Temperature Condition

—○— Standard Condition

7. EXPLODED VIEWS AND PARTS LIST

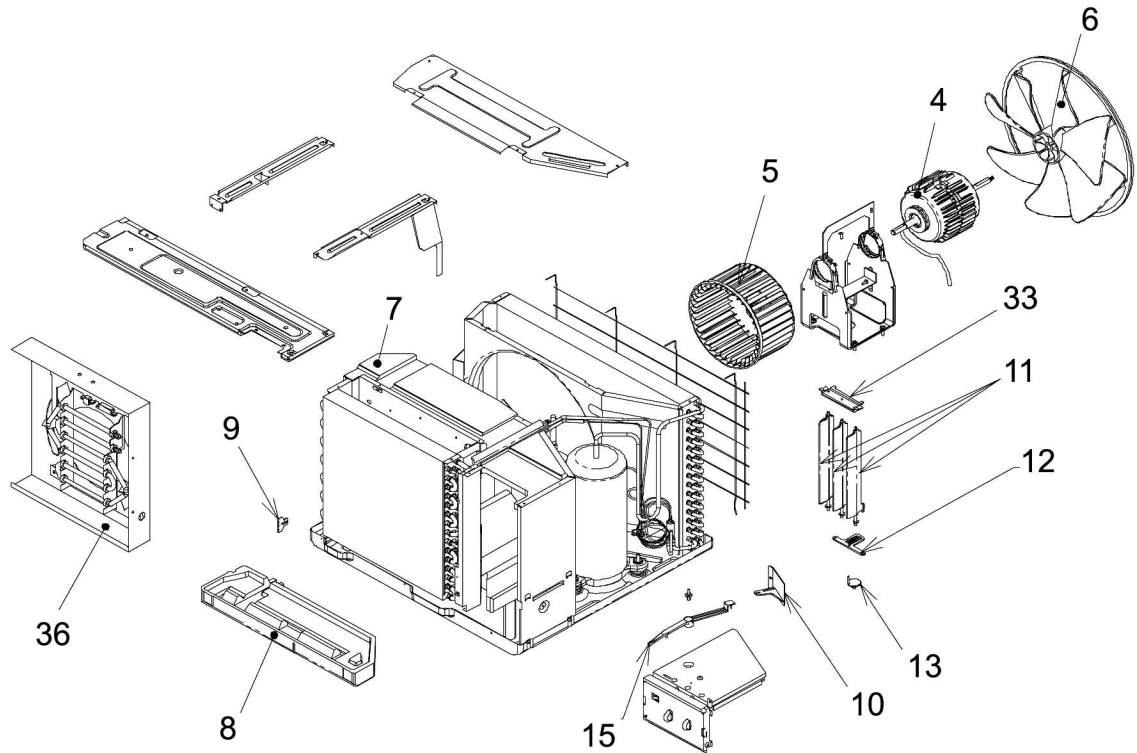
7-1. Cabinet Assy



Location No.	Part No.	Description
1	43T00463	CABINET ASSY
2	43T00465	FRONT PANEL ASSY

Location No.	Part No.	Description
3	43T80316	AIR FILTER
35	43T79005	ASM-D-ELBOW

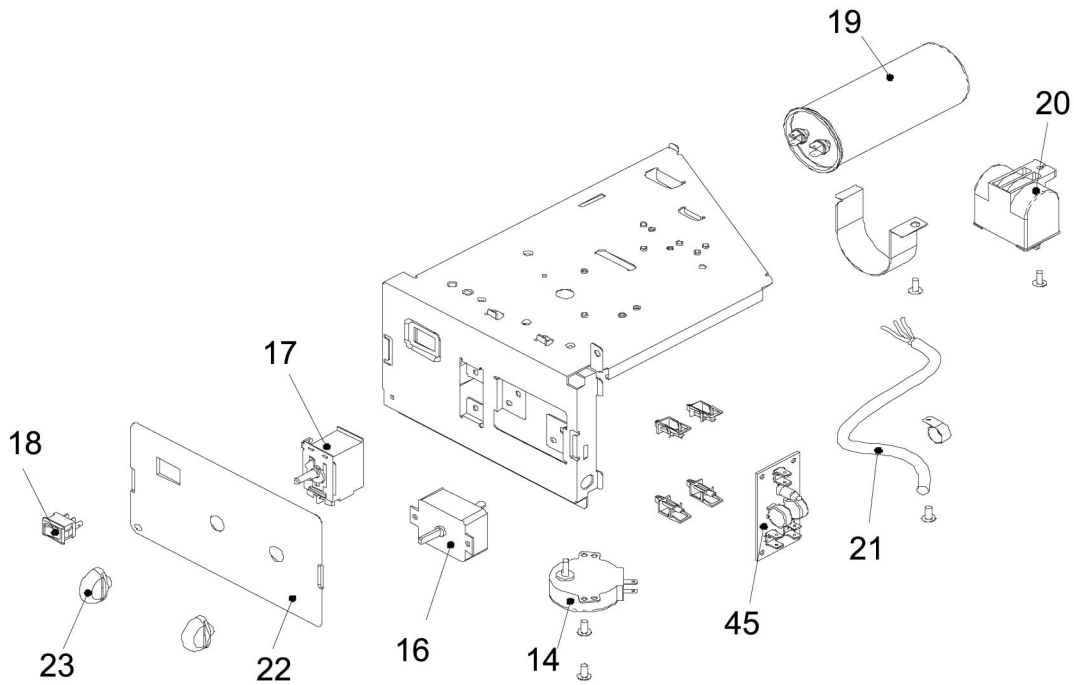
7-2. Main Assy



Location No.	Part No.	Description
4	43T21380	FAN MOTOR (For RAC-18G-AR)
5	43020242	SIROCCO FAN ASSY (For RAC-18G-AR)
5	43020241	SIROCCO FAN ASSY (For RAC-18G2B,G2L)
5	43020243	SIROCCO FAN ASSY (For RAC-18G2B,G2L)
6	43T20002	PROPELLER FAN
7	43T22311	INDOOR FAN CASE ASSY
7	43T22310	INDOOR FAN CASE ASSY (For RAC-18GE2B)
8	43T72003	DRAIN-PAN
8	43T72008	DRAIN-PAN (For RAC-18GE2B)

Location No.	Part No.	Description
9	43T63003	C-THERMO-HOLDER
9	43T63009	HOLDER;THERMOSAT (For RAC-18GE2B)
10	43T07007	VENTILATION DOOR
11	43T09394	GRILLE
12	43T09008	GRILLE CONNECTION PLATE (LOWER)
13	43T09002	ROTARY PLATE
15	43T07310	VENTILATION LEVER
33	43T09013	GRILLE CONNECTION PLATE CUPPER
36	43T21336	HEATER (For RAC-18GE2B)

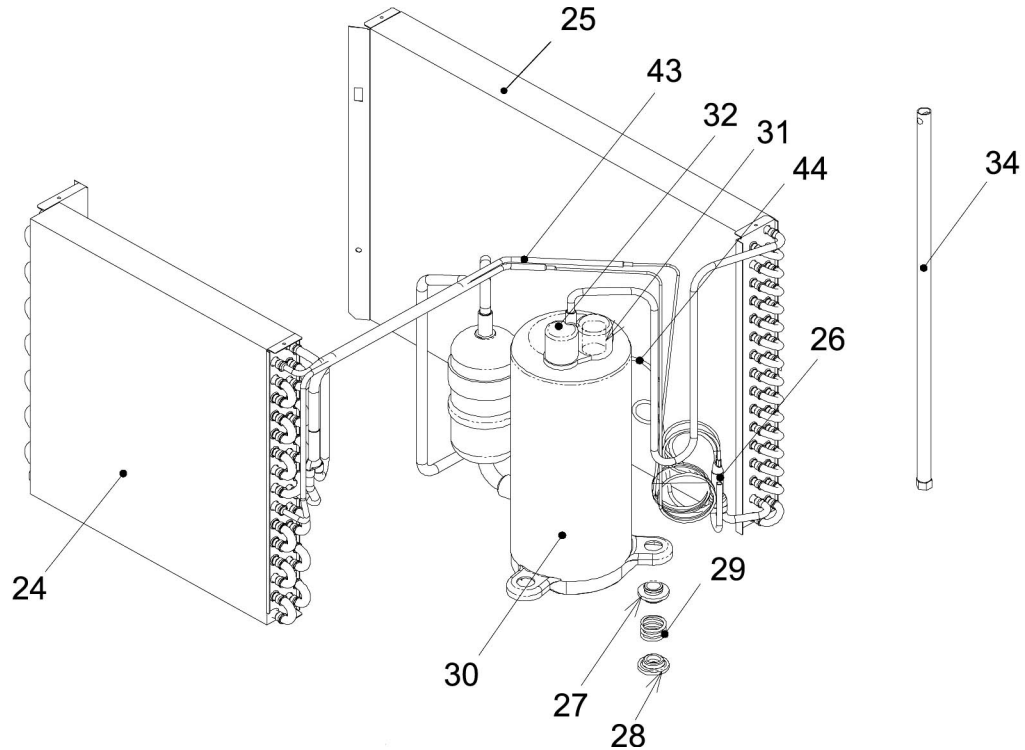
7-3. E-Parts Assy



Location No.	Part No.	Description
14	43T67304	GEAR-MOTOR-ASSY
16	43051320	ROTARY SWICH
16	43051321	ROTARY SWITCH (For RAC-18GE2B)
17	43T50319	THERMOSTAT
17	43T50007	YTB-THERMOSTAT (For RAC-18GE2B)
18	43T51005	SWITCH SEESAW
19	43T55340	MF CAPACITOR

Location No.	Part No.	Description
20	43T55344	METALLIZED FILM CAPA (For RAC-18G-AR)
20	43T55343	MF CAPACITOR (For RAC-18G2B,G2L,GE2B)
21	43T60368	POWER CORD ASSY
21	43T60369	POWER CORD ASSY (For RAC-18GE2B)
22	43T08415	SWITCH PANEL (For RAC-18G-AR,G2B)
22	43T08417	SWITCH PANEL (For RAC-18G2L)
22	43T08416	SWITCH PANEL (For RAC-18GE2B)
23	43T67303	KNOB ASSY
45	43T54315	SURGE PROTECTOR ASSY

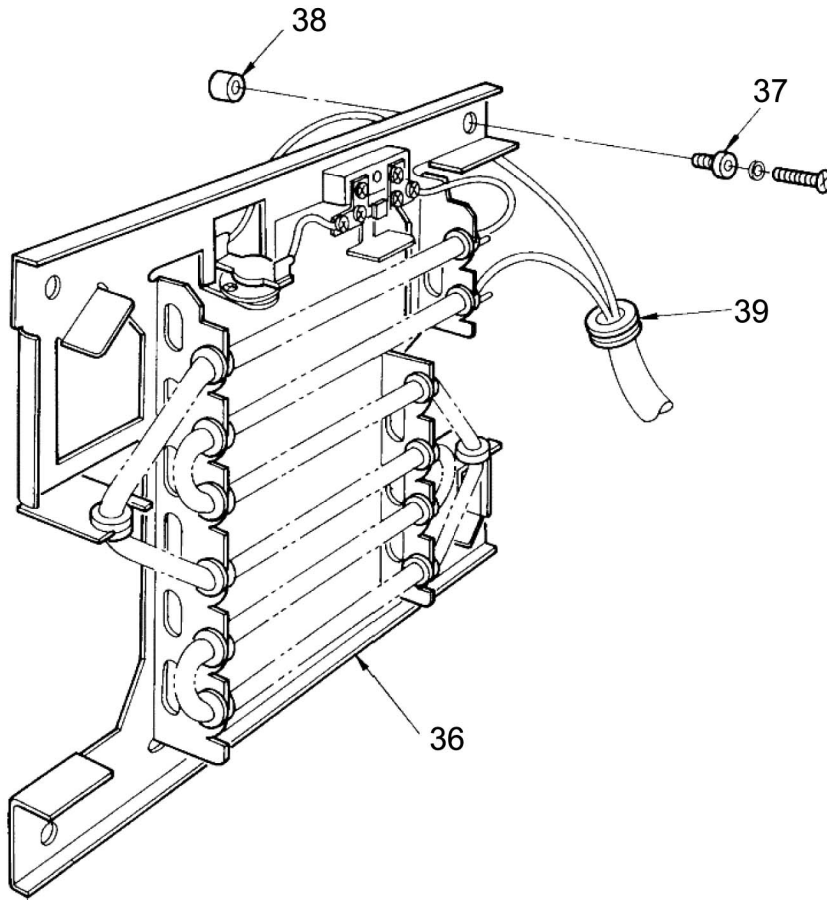
7-4. Refrigerator Assy



Location No.	Part No.	Description
24	43T44006	EVAPORATOR-ASSY
25	43T43002	CONDENSER-ASSY
25	43T43312	CONDENSOR ASSY (For RAC-18G2B, 18G2L, 18GE2B)
26	43T47346	PIPE-OUT-COND; ASSY
27	43T49011	SPRING BASE(UPPER)
28	43T49012	SPRING BASE (LOWER)
29	43T49013	BUFFER-SPRING
29	43T49035	BUFFER-SPRING (For RAC-18G2B, 18G2L, 18GE2B)
29	43T49035	BUFFER-SPRING (For RAC-18G2B, 18G2L, 18GE2B)

Location No.	Part No.	Description
30	43T41384	COMPRESSOR
30	43T41383	COMPRESSOR (For RAC-18G2B, 18G2L, 18GE2B)
31	43T54307	OL-RELAY (For RAC-18G2B, 18G2L, 18GE2B)
32	43T63001	HOLDER; OL-RELAY (For RAC-18G2B, 18G2L, 18GE2B)
34	43T89006	BOX-SPANNER
43	43T47356	AUX PIPE ASSY
43	43T47358	AUX PIPE ASSY (For RAC-18G2B, 18G2L, 18GE2B)
44	43T47359	INJ CAPI ASSY
44	43T47360	INJ CAPI ASSY (For RAC-18G2B, 18G2L, 18GE2B)

7-5. Heater Assy (RAC-18GE2B)



Location No.	Part No.	Description
36	43T21336	HEATER
37	43T11003	INSULATOR (A)

Location No.	Part No.	Description
38	43T11004	INSULATOR (B)
39	43T96002	BUSHING

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