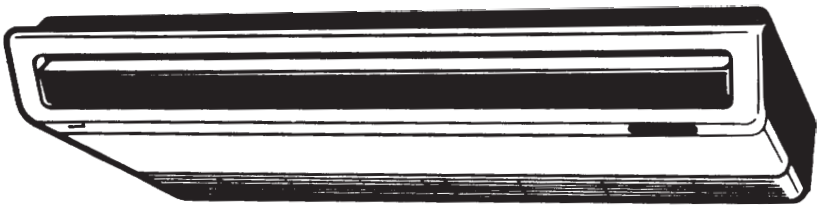
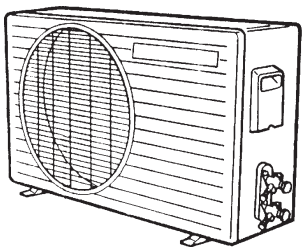
ORDER NO. MAC9710022C2

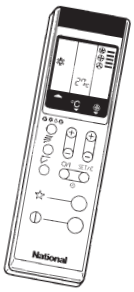
Service Manual

Room Air Conditioners

CS-C120TE / CU-C120TE
CS-C180TE / CU-C180TE
CS-C240TE / CU-C240TE







Contents

Panasonic

⚠ WARNING

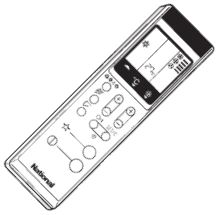
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

⚠ PRECAUTION OF LOW TEMPERATURE

In order to avoid frostbite, be assured of no refrigerant leakage during the installation or repairing of refrigeration circuit.

Functions

Remote Control Transmitter



Remote Control

Operation START/STOP

Operation Mode Selection

- Automatic Operation Mode
- Cooling Operation Mode
- Soft Dry Operation Mode
- Air Circulation Operation Mode

Indoor Fan Speed Selection / Time Setting

- High Speed
- Medium Speed
- Low Speed

.... up to 12
.... up to 1

Room Temperature Setting / Time Setting

- Temperature Setting (20°C to 30°C)
- (higher), (standard), (lower) ...Automatic Operation

.... up to 12
.... up to 1

Sleep Mode Auto-Control

- Starts/Stops when the button is pressed

Timer Operation Selection

- ON/OFF Dual Timer Setting

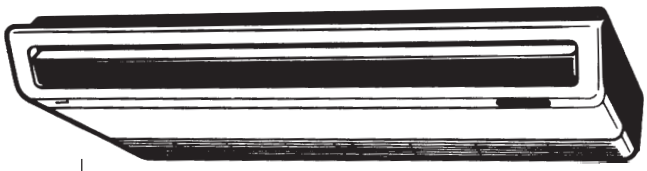
Timer Operation Set/Cancel

- Set/Cancel the selected Timer Operation

Airflow Direction Control

- Airflow Direction Manual Control
- Automatic Airflow Direction Control

Indoor Unit



Power Switch OFF/ON

Sensing The Room Temperature

- Room Temperature Sensor (thermistor)

Starting Current Control

- Indoor Fan is delayed for 1.6 seconds at the starting

Time Delay Safety Control

- Restarting is inhibited for apporox. 3 minutes

Circuit Protection Control

- 30 seconds forced operation of the compressor

Indoor Fan Speed Control

- High, Med, Low

Operation Indication Lamps (LED)

(green) ..... Lights up in operation
(red) ..... Automatic Airflow Direction in operation
(orange) .... Timer in operation
(orange) .... Sleep Mode Auto in operation

Soft Dry Operation Mode

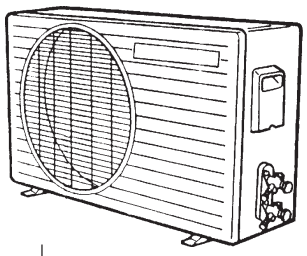
- Intermittent operation of Fan at low speed

Room Temperature Control

- Maintains the room temperature accordance with the Setting Temp.

Functions

Outdoor Unit



Overload Protector

Air Circulation Operation Mode

(Fan only operation)

- Low Fan Speed operation interlocked with the setting temp.

Automatic Restarting Control

- 7 minutes automatic restarting at Cooling, Soft Dry operation

Sleep Mode Auto Control

- (Can be obtained with Cooling, Soft Dry, Automatic Operation Mode.)
- The Fan is switched to Low fan speed and the unit will be stopped after 5 hours
- The setting temperature will be raised by 1°C at the starting and by 1°C one hour later
- When the room temperature becomes a level ideal for sleep, the operation 20 minutes off and 10 minutes on will be repeated
- 5 minutes automatic restarting is activated instead of 7 minutes

Anti-freezing Control For The Evaporator

- Compressor will be stopped when the Evaporator's piping temperature is 0°C or less for three minutes
- Restarting at 12°C or higher (Time Delay Safety Control has a priority)

Airflow Direction Control

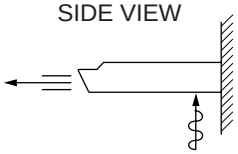
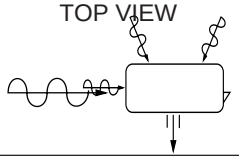
Automatic Airflow Direction Control

- The louver automatically swings up and down (Cooling, Soft Dry)
- The louver is set at 30° downward during Air Circulation Operation
- The louver is set at horizontal when the fan is stopped

Airflow Direction Manual Control

- Can be set within a range at horizontal to 30° downward

Product Specifications

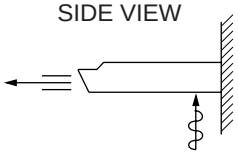
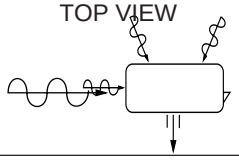
			Unit	CS-C120TE	CU-C120TE
Cooling Capacity			kW Btu/h	3.50 - 3.45 11,900 - 11,700	
Moisture Removal			ℓ/h Pint/h	2.0 4.2	
Power Source			Phase V Cycle	Single 240 - 220 50	
Airflow Method			OUTLET INTAKE	SIDE VIEW 	TOP VIEW 
Air Volume	Indoor Air (Lo)		m^3/min (cfm)	8.9 (314)	–
	Indoor Air (Me)		m^3/min (cfm)	9.6 (338)	–
	Indoor Air (Hi)		m^3/min (cfm)	10.0 (350)	–
Noise Level			dB (A)	High 44/43, Low 40/38	High 47/46
Electrical Data	Input		kW	1.30 - 1.27	
	Running Current		A	5.8 - 6.0	
	COP		W/W	2.7 - 2.7	
	Starting Current		A	25	
Piping Connection Port (Flare piping)			inch inch	G ; Half Union 1/2" L ; Half Union 1/4"	G ; 3-way valve 1/2" L ; 2-way valve 1/4"
Pipe Size (Flare piping)			inch inch	G (gas side) ; 1/2" L (liquid side) ; 1/4"	G (gas side) ; 1/2" L (liquid side) ; 1/4"
Drain Hose	Inner diameter		mm	20	–
	Length		m	2	–
Power Cord Length Number of core-wire			m	2.3 3 (1.0mm^2)	– –
Dimensions		Height	inch (mm)	6-1/2 (165)	19-29/32 (505)
		Width	inch (mm)	43-5/16 (1,100)	30-23/32 (780)
		Depth	inch (mm)	25-19/32 (650)	9-21/32 (245)
Net Weight			lb (kg)	62 (28)	82 (37)
Compressor		Type		–	Rotary (1 cylinder) rolling piston type
	Motor	Type		–	Induction (2-pole)
	Rated	Output	W	–	1,100
Air Circulation		Type		SIROCCO	Propeller Fan
		Material		STYLAC 181	AES + Glass Fiber 12%
	Motor	Type		Induction (4-pole)	Induction (6-pole)
		Input	W	45.6	58.6
		Rated Output	W	20	20
	Fan Speed	Low	rpm	980	–
		Medium	rpm	1,055	–
		High	rpm	1,100	730

Product Specifications

		Unit	CS-C120TE	CU-C120TE
Heat Exchanger	Description		Evaporator	Condenser
	Tube material		Copper	Copper
	Fin material		Aluminium	Aluminium
	Fin Type		Louver Fin	Corrugated Fin
	Row / Stage		(Plate fin configuration, forced draft) 1 × 10	2 × 19
	FPI		21	16
	Size (W × H × L)	mm	900 × 254 × 22	706 × 482 × 44
Refrigerant Control Device			–	Capillary Tube
Refrigeration Oil		(c.c)	–	SUNISO 4GDID or ATMOS M60 (410)
Refrigerant (R-22)		g (oz)	–	1,000 (35.5)
Thermostat			Electronic Control	–
Protection Device			–	Overload Protector
Capillary Tube	Length Flow Rate Inner Diameter	mm ℓ/min mm	– – –	625 13.5 1.6
Air Filter	Material Style		P.P. Honeycomb	–
Capacity Control			Capillary Tube	
Compressor Capacitor		μF, VAC	–	30 μF, 370VAC
Fan Motor Capacitor		μF, VAC	1.2 μF, 450VAC	1.2 μF, 400VAC

• Specifications are subject to change without notice for further improvement.

Product Specifications

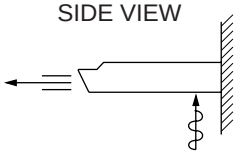
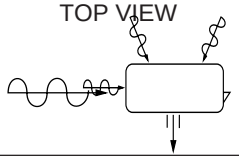
			Unit	CS-C180TE	CU-C180TE
Cooling Capacity			kW Btu/h	5.30 - 5.15 18,000 - 17,500	
Moisture Removal			ℓ/h Pint/h	2.9 6.1	
Power Source			Phase V Cycle	Single 240 - 220 50	
Airflow Method			OUTLET INTAKE	SIDE VIEW 	TOP VIEW 
Air Volume	Indoor Air (Lo)		m^3/min (cfm)	10.0 (354)	–
	Indoor Air (Me)		m^3/min (cfm)	10.7 (379)	–
	Indoor Air (Hi)		m^3/min (cfm)	11.5 (400)	–
Noise Level			dB (A)	High 51/50, Low 46/44	High 56/54
Electrical Data	Input		kW	2.19 - 2.08	
	Running Current		A	10.7 - 10.3	
	COP		W/W	2.4 - 2.5	
	Starting Current		A	52	
Piping Connection Port (Flare piping)			inch inch	G ; Half Union 1/2" L ; Half Union 1/4"	G ; 3-way valve 1/2" L ; 2-way valve 1/4"
Pipe Size (Flare piping)			inch inch	G (gas side) ; 1/2" L (liquid side) ; 1/4"	G (gas side) ; 1/2" L (liquid side) ; 1/4"
Drain Hose	Inner diameter		mm	20	–
	Length		m	2	–
Power Cord Length Number of core-wire			m	2.3 3 (1.5mm^2)	– –
Dimensions		Height	inch (mm)	6-1/2 (165)	26-31/32 (685)
		Width	inch (mm)	43-5/16 (1,100)	31-1/2 (800)
		Depth	inch (mm)	25-19/32 (650)	11-13/16 (300)
Net Weight			lb (kg)	66 (30)	126 (57)
Compressor		Type		–	Rotary (1 cylinder) rolling piston type
	Motor	Type		–	Induction (2-pole)
	Rated	Output	W	–	1,700
Air Circulation		Type		SIROCCO	Propeller Fan
		Material		STYLAC 181	CE10G15 JSR
	Motor	Type		Induction (4-pole)	Induction (4-pole)
		Input	W	67.7	120.5 (High)
		Rated Output	W	40	65
	Fan Speed	Low	rpm	1,170	545
		Medium	rpm	1,250	–
		High	rpm	1,340	880

Product Specifications

		Unit	CS-C180TE	CU-C180TE
Heat Exchanger	Description		Evaporator	Condenser
	Tube material		Copper	Copper
	Fin material		Aluminium	Aluminium
	Fin Type		Louver Fin	Corrugated Fin
	Row / Stage		(Plate fin configuration, forced draft) 2 × 10	2 × 26
	FPI		20	14
	Size (W × H × L)	mm	900 × 254 × 44	796 × 660 × 44
Refrigerant Control Device			–	Capillary Tube
Refrigeration Oil		(c.c)	–	SUNISO 4GDID or ATMOS M60 (700)
Refrigerant (R-22)		g (oz)	–	1,550 (54.7)
Thermostat			Electronic Control	–
Protection Device			–	Inner Protector
Capillary Tube	Length Flow Rate Inner Diameter	mm ℓ/min mm	– – –	625 13.5 1.6
Air Filter	Material Style		P.P. Honeycomb	–
Capacity Control			Capillary Tube	
Compressor Capacitor		μF, VAC	–	35 μF, 370VAC
Fan Motor Capacitor		μF, VAC	1.2 μF, 450VAC	3.5 μF, 400VAC

• Specifications are subject to change without notice for further improvement.

Product Specifications

			Unit	CS-C240TE	CU-C240TE
Cooling Capacity			kW Btu/h	6.35 - 6.30 21,600 - 21,500	
Moisture Removal			ℓ/h Pint/h	3.6 7.6	
Power Source			Phase V Cycle	Single 240 - 220 50	
Airflow Method			OUTLET INTAKE	SIDE VIEW 	TOP VIEW 
Air Volume	Indoor Air (Lo)		m^3/min (cfm)	10.5 (370)	–
	Indoor Air (Me)		m^3/min (cfm)	11.2 (395)	–
	Indoor Air (Hi)		m^3/min (cfm)	12.0 (420)	–
Noise Level			dB (A)	High 52/51, Low 47/45	High 59/57
Electrical Data	Input		kW	2.91 - 2.75	
	Running Current		A	13.6 - 13.3	
	COP		W/W	2.2 - 2.3	
	Starting Current		A	59	
Piping Connection Port (Flare piping)			inch inch	G ; Half Union 5/8" L ; Half Union 1/4"	G ; 3-way valve 5/8" L ; 2-way valve 1/4"
Pipe Size (Flare piping)			inch inch	G (gas side) ; 5/8" L (liquid side) ; 1/4"	G (gas side) ; 5/8" L (liquid side) ; 1/4"
Drain Hose	Inner diameter		mm	20	–
	Length		m	2	–
Power Cord Length Number of core-wire			m	2.3 3 (2.5mm^2)	– –
Dimensions		Height	inch (mm)	6-1/2 (165)	26-31/32 (685)
		Width	inch (mm)	43-5/16 (1,100)	31-1/2 (800)
		Depth	inch (mm)	25-19/32 (650)	11-13/16 (300)
Net Weight			lb (kg)	66 (30)	130 (59)
Compressor		Type		–	Rotary (1 cylinder) rolling piston type
	Motor	Type		–	Induction (2-pole)
	Rated	Output	W	–	2,200
Air Circulation		Type		SIROCCO	Propeller Fan
		Material		STYLAC 181	CE10G15 JSR
	Motor	Type		Induction (4-pole)	Induction (4-pole)
		Input	W	67.7	141.7 (High)
		Rated Output	W	40	80
	Fan Speed	Low	rpm	1,170	620
		Medium	rpm	1,250	–
		High	rpm	1,340	985

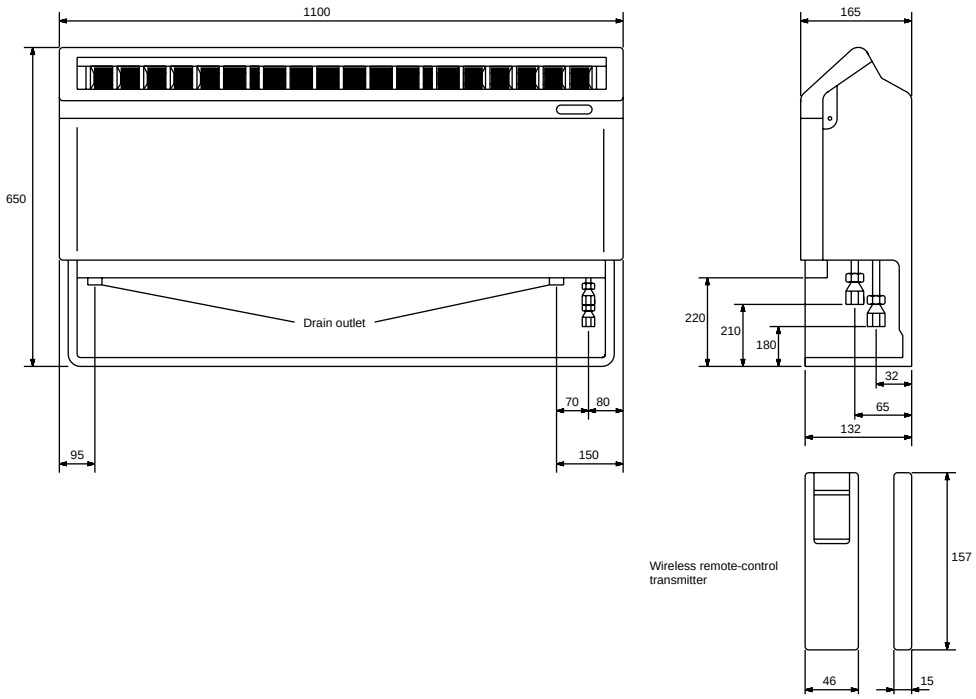
Product Specifications

		Unit	CS-C240TE	CU-C240TE
Heat Exchanger	Description		Evaporator	Condenser
	Tube material		Copper	Copper
	Fin material		Aluminium	Aluminium
	Fin Type		Louver Fin	Corrugated Fin
	Row / Stage		(Plate fin configuration, forced draft) 2 × 10	2 × 26
	FPI		20	14
	Size (W × H × L)	mm	900 × 254 × 44	796 × 660 × 44
Refrigerant Control Device			–	Capillary Tube
Refrigeration Oil		(c.c)	–	SUNISO 4GDID or ATMOS M60 (700)
Refrigerant (R-22)		g (oz)	–	1,900 (67.1)
Thermostat			Electronic Control	–
Protection Device			–	Inner Protector
Capillary Tube	Length Flow Rate Inner Diameter	mm ℓ/min mm	– – –	1,170 21.1 2.4
Air Filter	Material Style		P.P. Honeycomb	–
Capacity Control			Capillary Tube	
Compressor Capacitor		μF, VAC	–	45 μF, 370VAC
Fan Motor Capacitor		μF, VAC	1.2 μF, 450VAC	3.5 μF, 400VAC

• Specifications are subject to change without notice for further improvement.

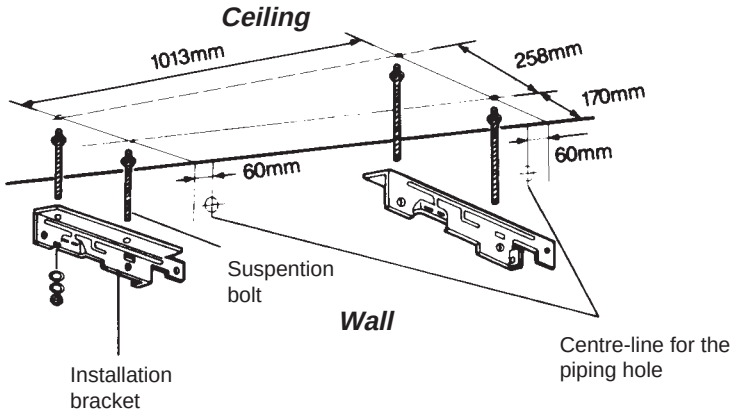
Dimensions

CS-C120T
CS-C180T
CS-C240T

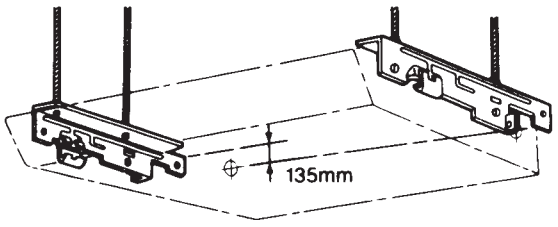


Relative Position Between The Indoor Unit And The Installation Parts

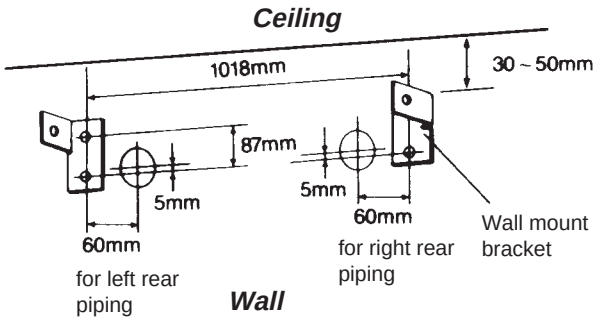
<Installation on the Ceiling>



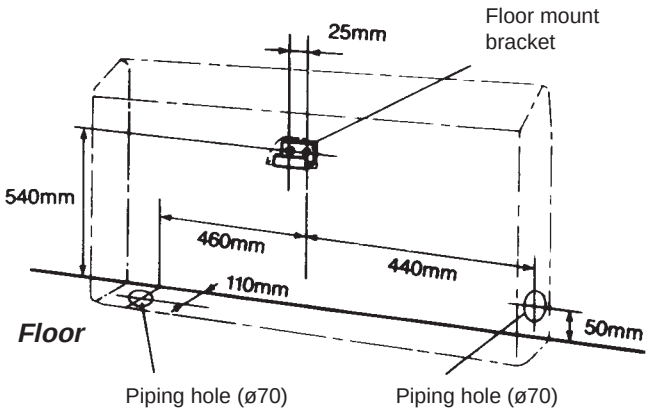
Relative position between the hole and the bracket



<Installation on the Wall>

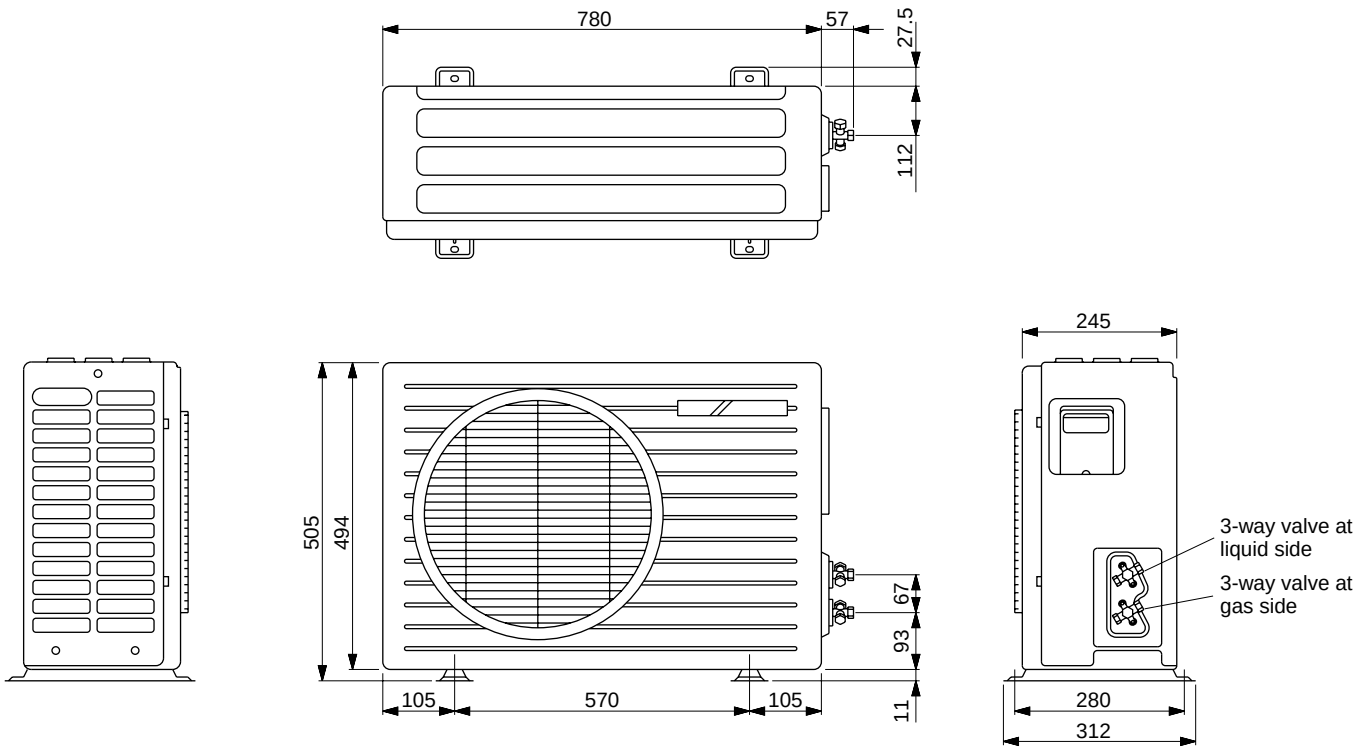


<Installation on the Floor>

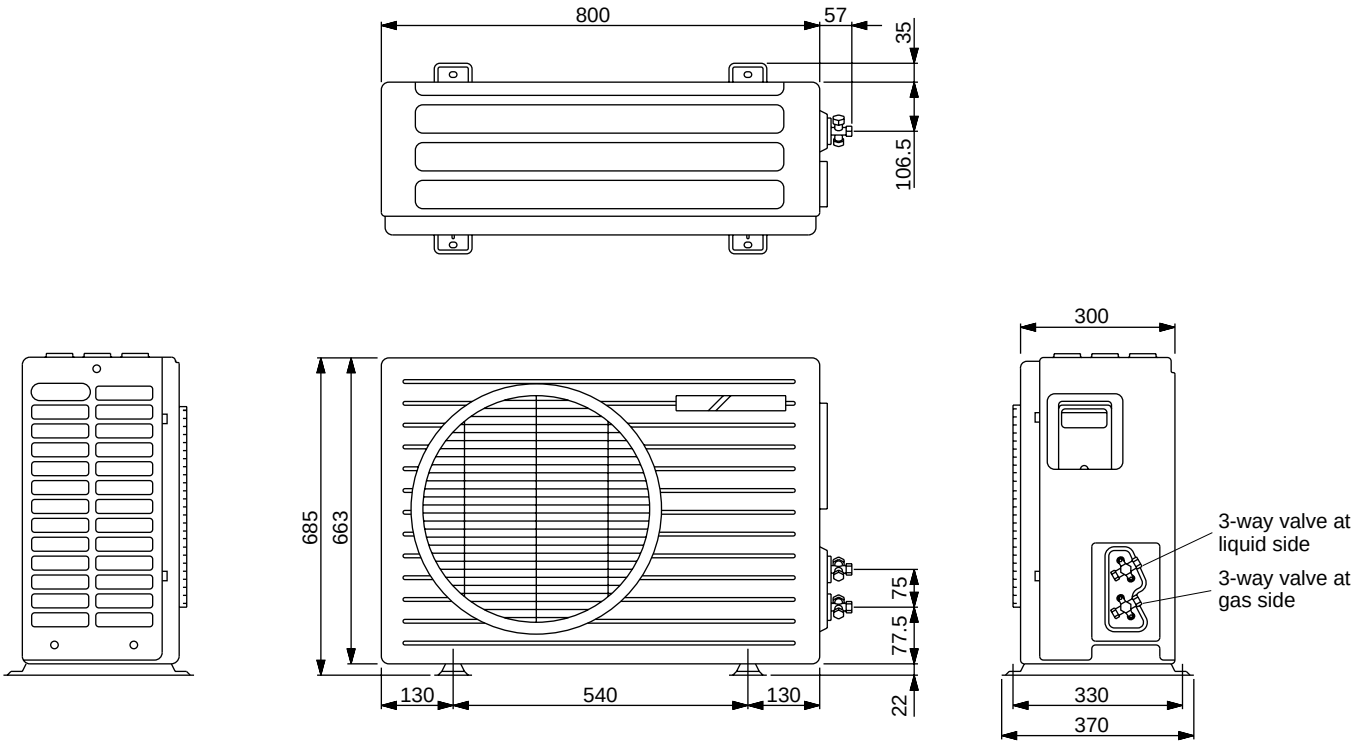


Dimensions

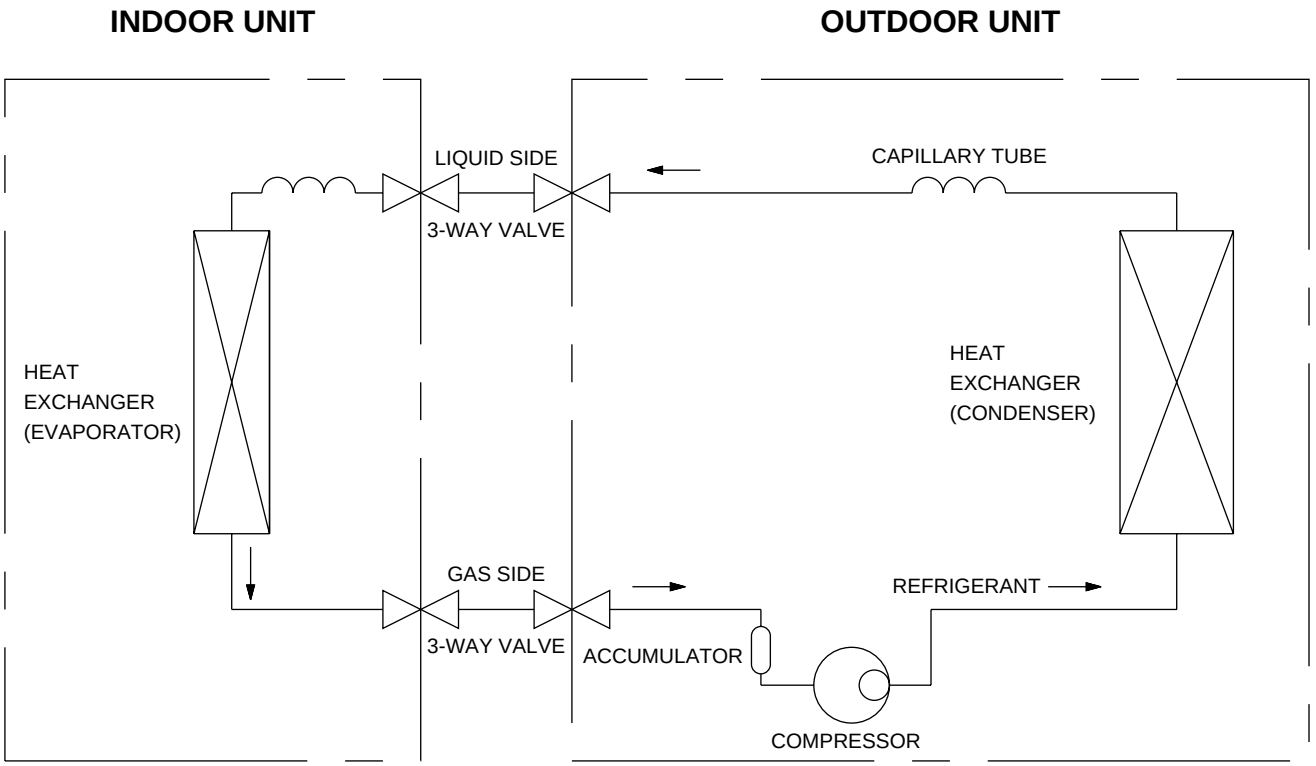
CU-C120T



CU-C180T
CU-C240T

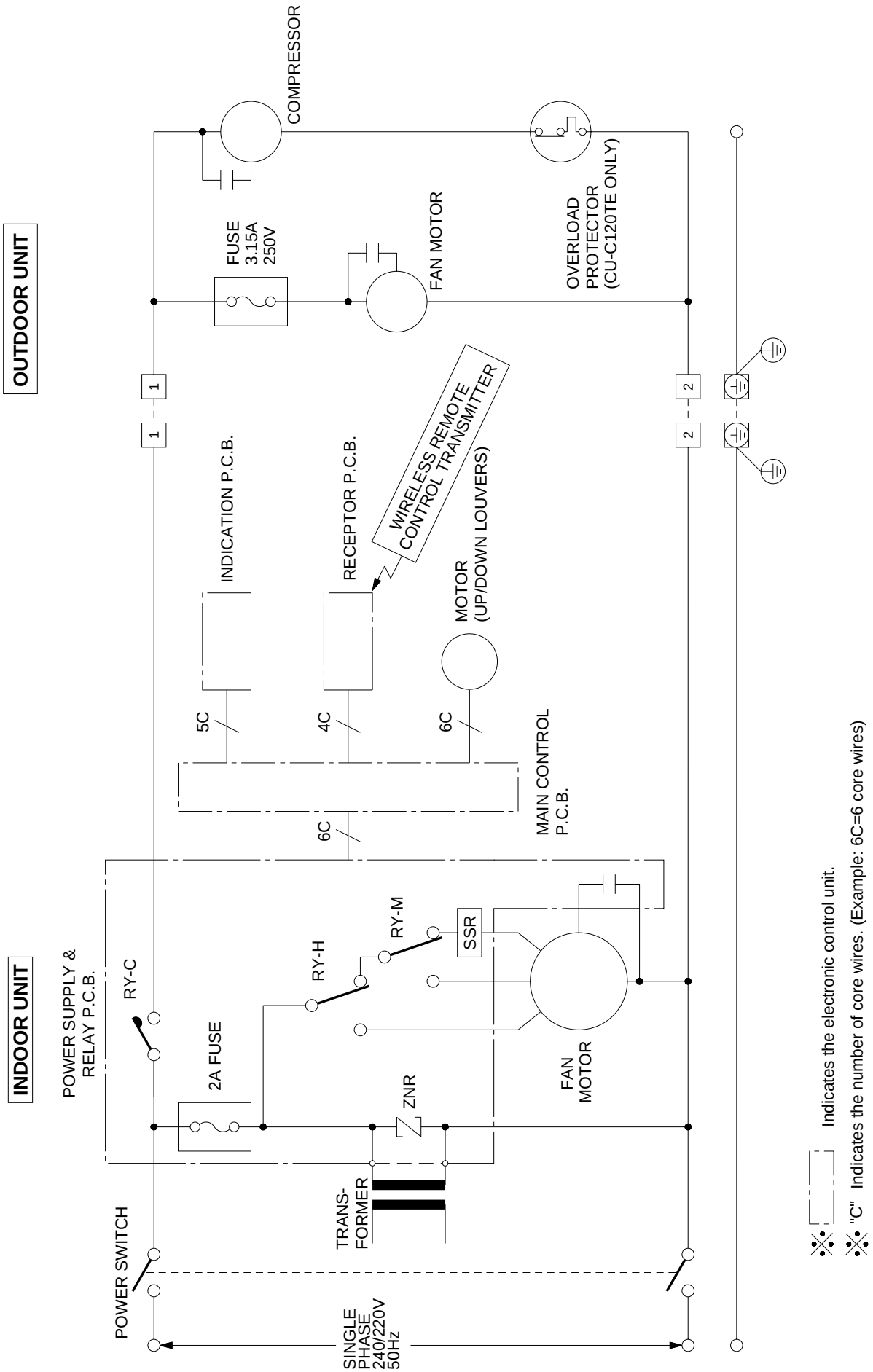


Refrigeration Cycle Diagram



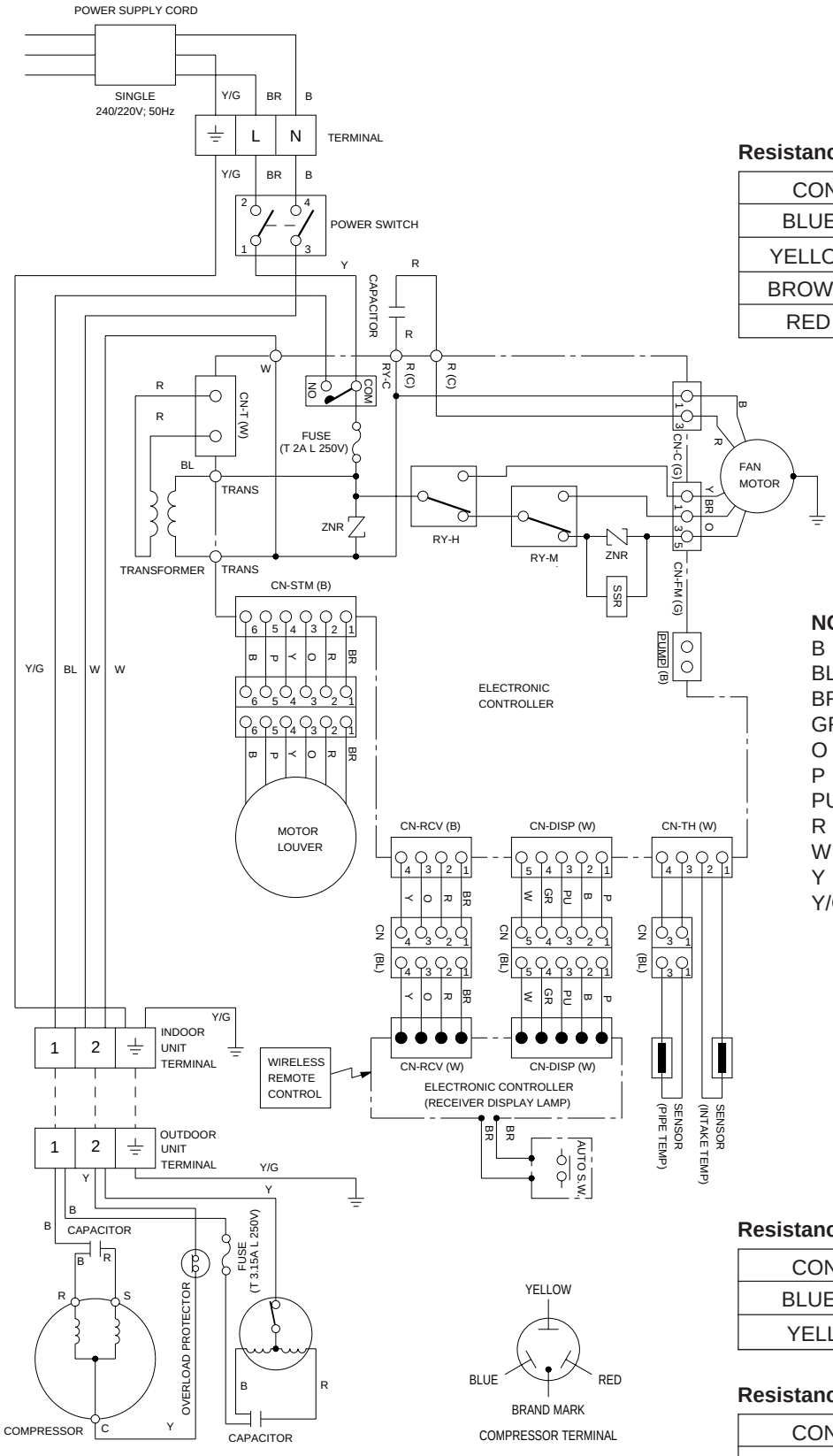
Model	Pipe Size		Max. Piping Length (m)	Max. Elevation (m)	Rated		Additional Refrigerant (g/m)
	GAS	LIQUID			Length (m)	Elevation (m)	
C120T	1/2"	1/4"	12	5	7	5	30
C180T	1/2"	1/4"	15	8	7	5	40
C240T	5/8"	1/4"	15	8	7	5	40

Block Diagram



Wiring Diagram

CS-C120T/CU-C120T



Resistance of Indoor Fan Motor Windings.

CONNECTION	CWA92138(Ω)
BLUE - YELLOW	282.3
YELLOW - BROWN	40.4
BROWN - ORANGE	52.7
RED - ORANGE	278.4

NOTE:

B	:	BLUE
BL	:	BLACK
BR	:	BROWN
GR	:	GRAY
O	:	ORANGE
P	:	PINK
PU	:	PURPLE
R	:	RED
W	:	WHITE
Y	:	YELLOW
Y/G	:	YELLOW/GREEN

Resistance of Outdoor Fan Motor Windings.

CONNECTION	CWA95244(Ω)
BLUE - YELLOW	312.9
YELLOW - RED	419.5

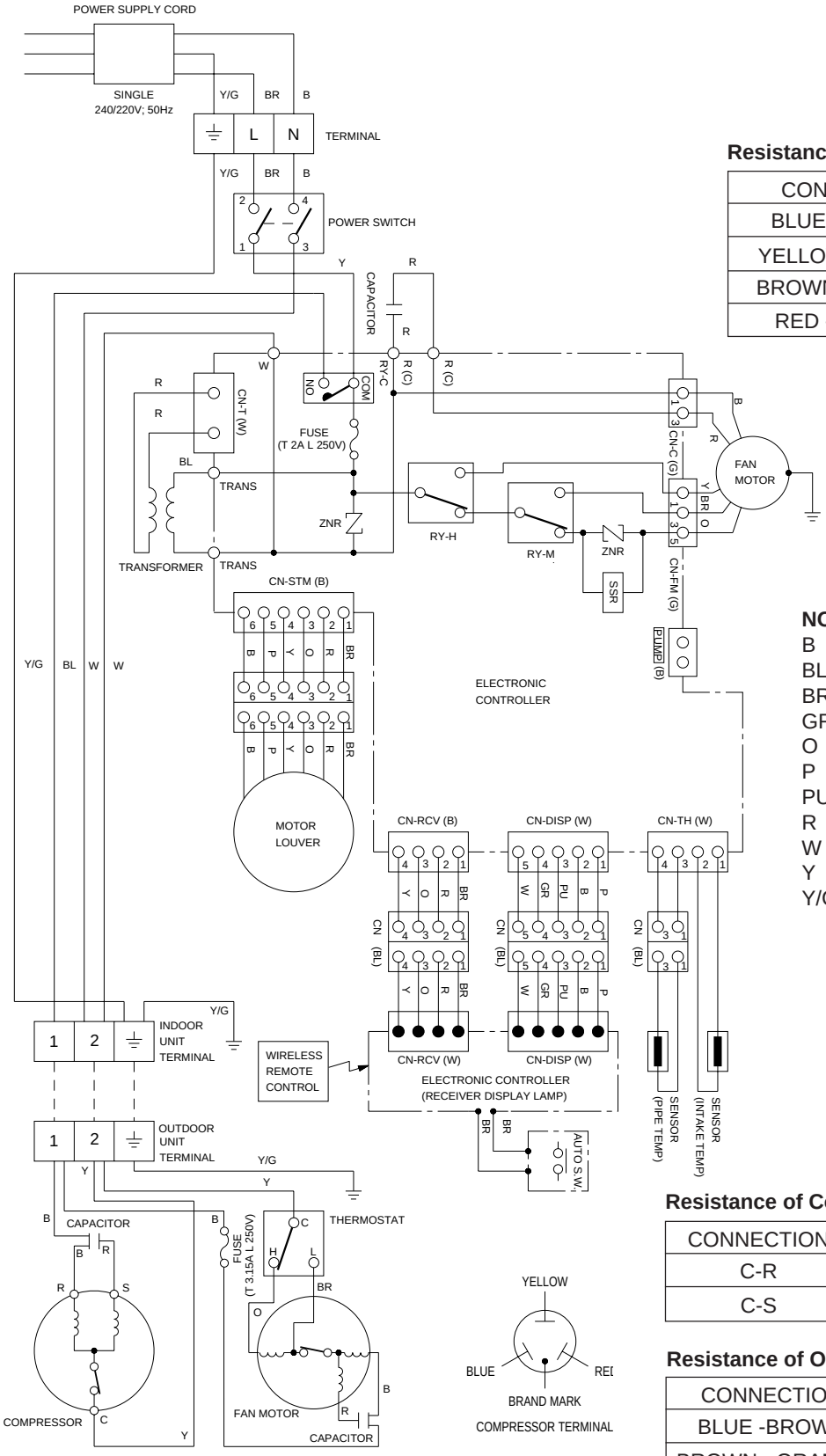
Resistance of Comp Windings.

CONNECTION	2KS224D5AA02(Ω)
C-R	2.45
C-S	3.86

* Resistance at 20°C of Ambient temp.

Wiring Diagram

CS-C180T/CU-C180T
CS-C240T/CU-C240T



Resistance of Indoor Fan Motor Windings.

CONNECTION	CWA92139(Ω)
BLUE - YELLOW	122.7
YELLOW - BROWN	87.0
BROWN - ORANGE	45.3
RED - ORANGE	193.0

NOTE:

B	:	BLUE
BL	:	BLACK
BR	:	BROWN
GR	:	GRAY
O	:	ORANGE
P	:	PINK
PU	:	PURPLE
R	:	RED
W	:	WHITE
Y	:	YELLOW
Y/G	:	YELLOW/GREEN

Resistance of Comp Windings.

CONNECTION	2JS356D3BA01(Ω)	2JS442D3BA01(Ω)
C-R	0.97	0.95
C-S	3.92	4.39

Resistance of Outdoor Fan Motor Windings.

CONNECTION	CWA92176(Ω)	CWA92177(Ω)
BLUE -BROWN	83.4	62.5
BROWN - ORANGE	67.3	60.2
RED - BROWN	66.5	69.0

* Resistance at 20°C of Ambient temp.

Operation Details

1) Cooling Mode Operation

When selecting the Cooling (❄) Mode Operation, the unit will operate according to the setting by the Remote Control and the operation is as the following.

Time Delay Safety Control

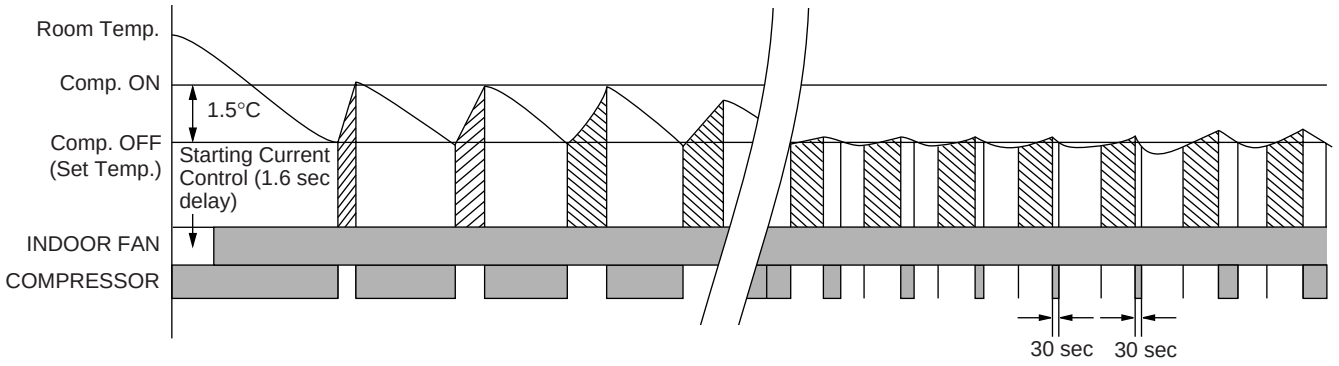
3 min. --- The Compressor is ceased for 3 minutes to balance the pressure in the refrigeration cycle. (Protection of compressor)

Automatic Restarting Control

7 min. --- The unit will automatically operate in 7 minutes even if the room temperature is not reached. (Prevention of raising the humidity)

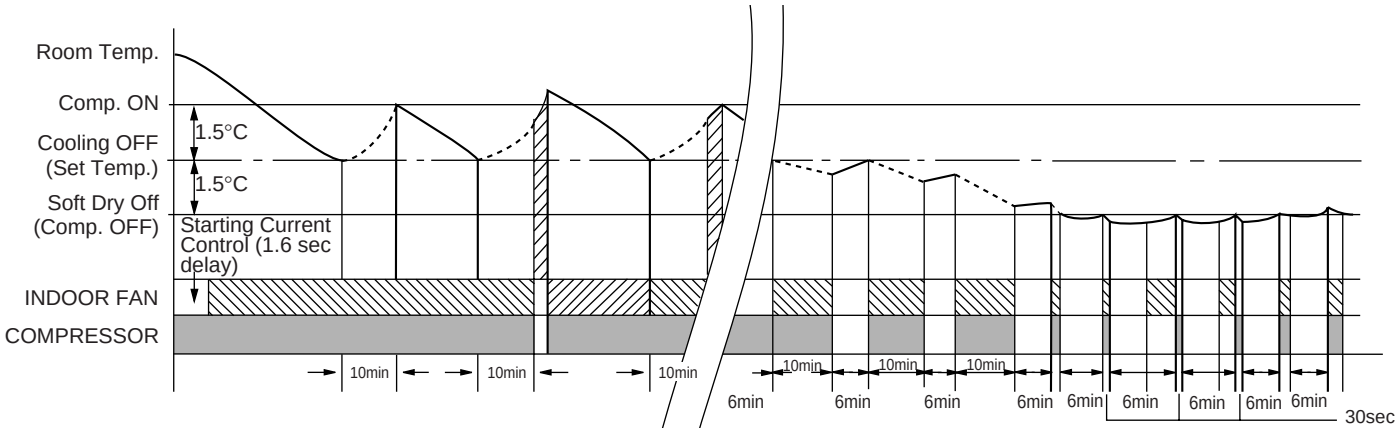
Compressor Forced Operation Control

30 sec. ---The compressor is switched ON at once, it is to be operated for 30 seconds. (Protection of compressor)



2) Soft Dry Mode Operation

When selecting the Soft Dry (💧) Mode Operation, the operation will be cooling until the Room Temperature reaches the Set Temp on the remote control, and then Soft Dry will activate.
(During Soft Dry operation, the fan of the indoor unit will operate at Low fan speed and stop at 4-second intervals, and operation will be switched on and off for up to 10 minutes on and 6 minutes off.)



Operation Details

3) Cooling Mode with Sleep Mode Auto Operation

When selecting the Cooling (❄) combined with the Sleep Mode Auto Operation (☆), the operation shows as the following.

--- Intermittent indoor fan operation at low speed.
(Repeated 4 seconds ON and 4 seconds OFF)

Time Delay Safety Control

3 min. --- The Compressor is ceased for 3 minutes to balance the pressure in the refrigeration cycle. (Protection of compressor)

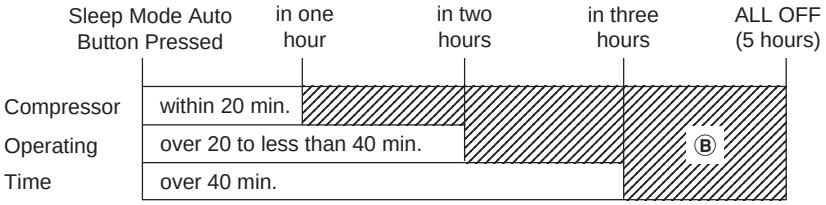
Automatic Restarting Control

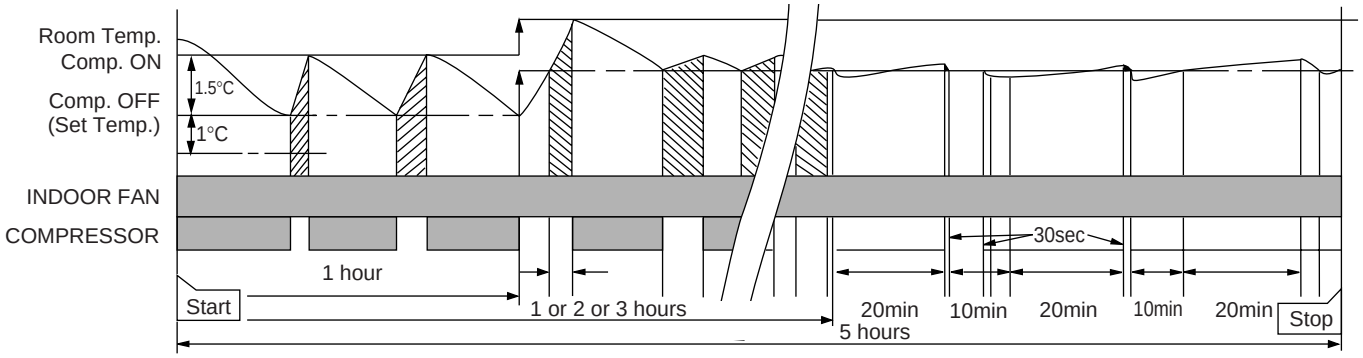
5 min. ---The length of time is changed from 7 min. to 5 min. during Sleep Mode Auto Control.

Compressor Forced Operation Control

30 sec. ---The compressor is switched ON at once, it is to be operated for 30 seconds.

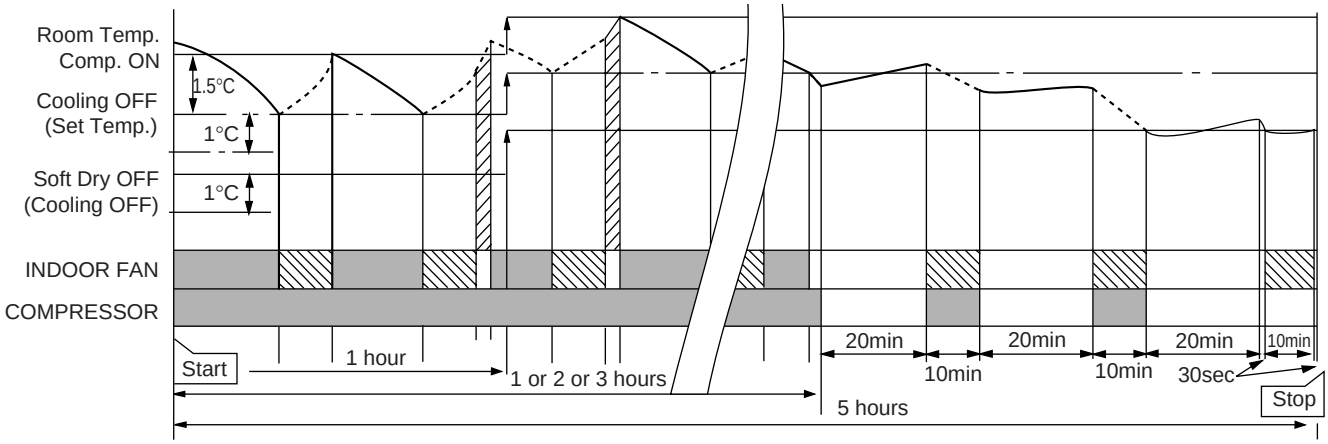
① The setting Temperature will be raise by 1°C at the start of operation and by 1°C one hour later.
② When the room temperature become a level ideal for sleep, the operation 10 minutes ON and 20 minutes OFF will be repeated.
③ The unit operation, A standard cooling (Soft Dry), or Ⓑ Sleep Mode operation is to be selected by the length of Compressor operating time within one hour after pressing the Sleep Mode Auto Button. (refer the table)





4) Soft Dry with Sleep Mode Auto Operation

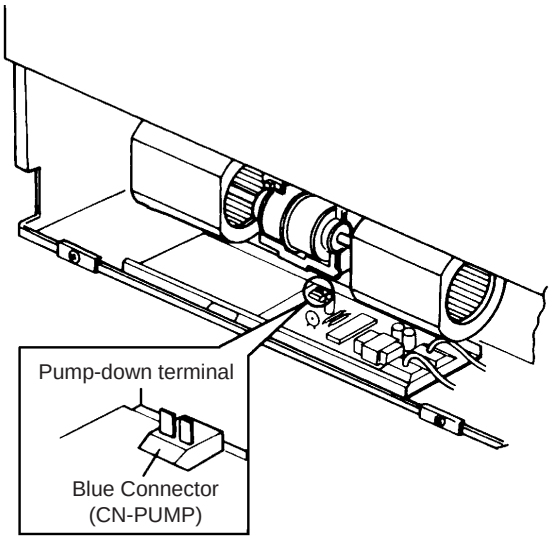
When selecting the Soft Dry (♢) combined with the Sleep Mode Auto Operation (☆), the operation shows as the following.



Servicing Information

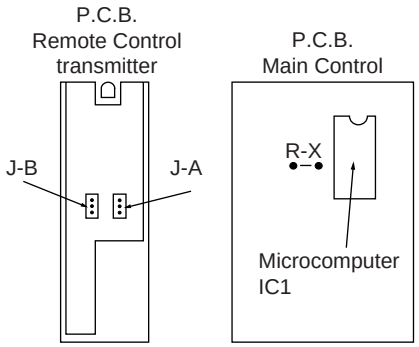
Pump-Down Terminal

- The thermostat will be switched ON (even if the room temperature is low) when the pump-down terminal is short-circuited (by using alligator-type clips or a similar method), thus permitting easy pump-down when the unit is to be moved to another place.



For changing the Wireless Remote Control Transmitter's Oscillation Code

- If two or more air conditioners are located in the same room, any one of four oscillation codes can be selected by simply adding parts to the Remote Control Printed Circuit Board and to the indoor unit Main Control P.C.B. (If the two or more air conditioners in one room have the same oscillation code, all of them will be activated by operation of one Remote Control transmitter.)



- By adding a jumper wire at the Remote Control P.C.B. side and a carbon resistor (1/4W) to the Main Control P.C.B. as shown in the table at the right, any one of four oscillation codes, including the one at the time of shipment from the plant (No.0), can be selected.

	P.C.B. Remote Control		P.C.B. Main Control	Remarks
	J-A	J-B	RX	
No. 0	—	—	—	As shipped from factory
No. 1	○	—	16kΩ	
No. 2	—	○	6.2Ω	
No. 3	○	○	0	

Troubleshooting Guide

Refrigeration cycle system

In order to diagnose malfunctions, make sure that there are no electrical problems before inspecting the refrigeration cycle. Such problems include insufficient insulation, problem with the power source, malfunction of a compressor or a fan.
The normal outlet air temperature and pressure of the refrigeration cycle depends on various conditions; the standard values for them are shown in the table on the right.

Normal Pressure and Outlet Air Temperature (Standard)

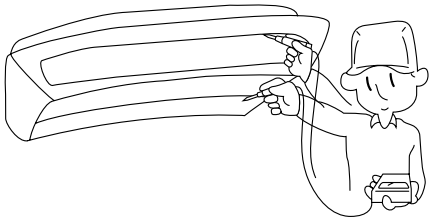
	Gas pressure MPa (kg/cm^2G)	Outlet air temperature (°C)
Cooling mode	0.4 ~ 0.6 (4 ~ 6)	12 ~ 16

★ Condition: Indoor fan speed; High
Outdoor temperature 35°C

Difference in the intake and outlet air temperatures

→ Above 8°C (15 minutes after an operation is started.) → Normal

- **Measure the air temperature difference**



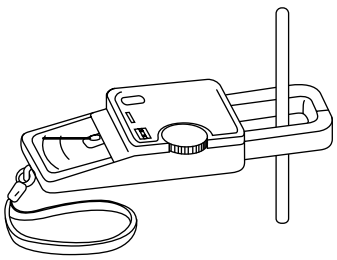
↓ Less than 8°C at cooling mode

Value of electric current during operation

→ Higher than specified → Dusty condenser preventing heat radiation

→ Higher than specified → Excessive amount of refrigerant

- **Measure the electric current during operation**



↓ Lower than specified

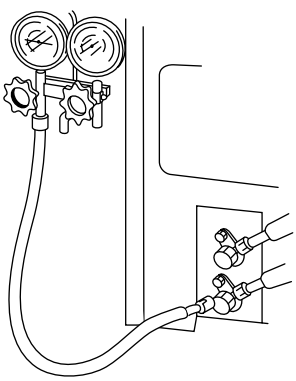
Gas side pressure

→ Cooling Mode High → Inefficient compressor

→ Low → Insufficient refrigerant

→ Low → Clogged strainer or capillary tube

- **Measure the gas side pressure**



Troubleshooting Guide

1. Relationship between the condition of the air conditioner and pressure and electric current

Condition of the air conditioner	Cooling Mode		
	Low Pressure	High Pressure	Electric current during operation
Insufficient refrigerant (gas leakage)	↘	↘	↘
Clogged capillary tube or Strainer	↘	↘	↘
Short circuit in the indoor unit	↘	↘	↘
Heat radiation deficiency of the outdoor unit	↗	↗	↗
Inefficient compression	↗	↘	↘

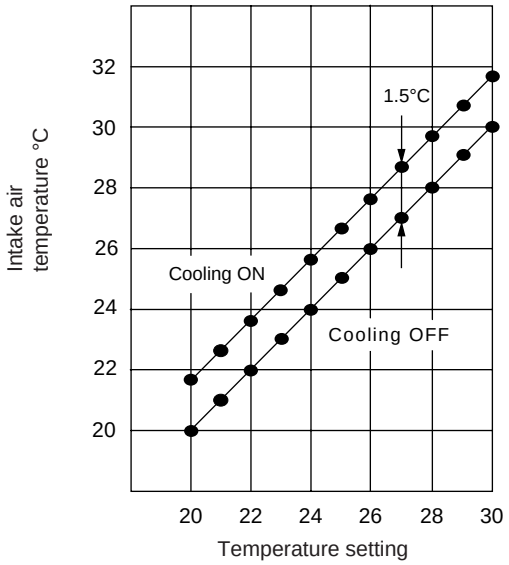
- Carry out the measurements of pressure, electric current, and temperature fifteen minutes after an operation is started.

2. Diagnosis methods of a malfunction of a compressor

Nature of fault	Symptom
Insufficient compressing of a compressor	• Electric current during operation becomes approximately 20% lower than the normal value. • The discharge tube of the compressor becomes abnormally hot (normally 70 to 90°C). • The difference between high pressure and low pressure becomes almost zero.
Locked compressor	• Electric current reaches a high level abnormally, and the value exceeds the limit of an ammeter. In some cases, a breaker turns off. • The compressor is a humming sound.

Technical Data

■ Thermostat characteristics

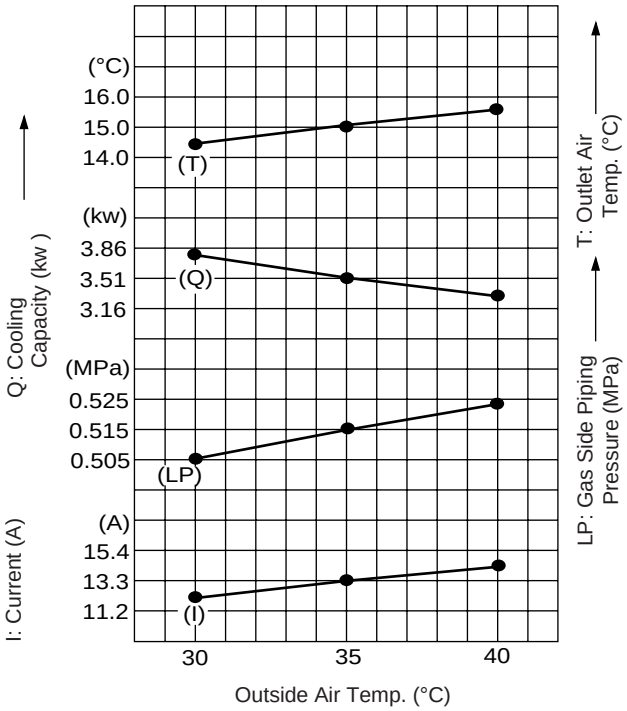


■ Operation characteristics

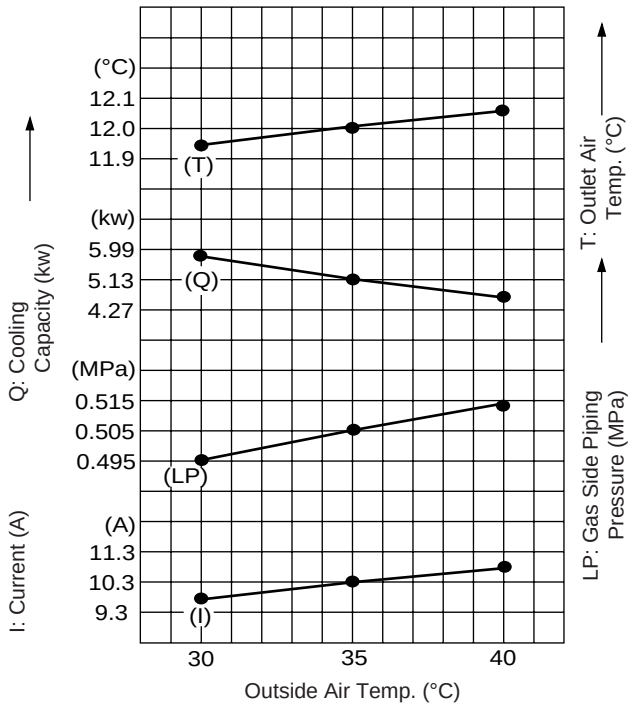
Cooling characteristics – Outdoor temperature

(Conditions: Room Temperature; 27°C (D.B.T.)
Cooling operation; at High Fan)

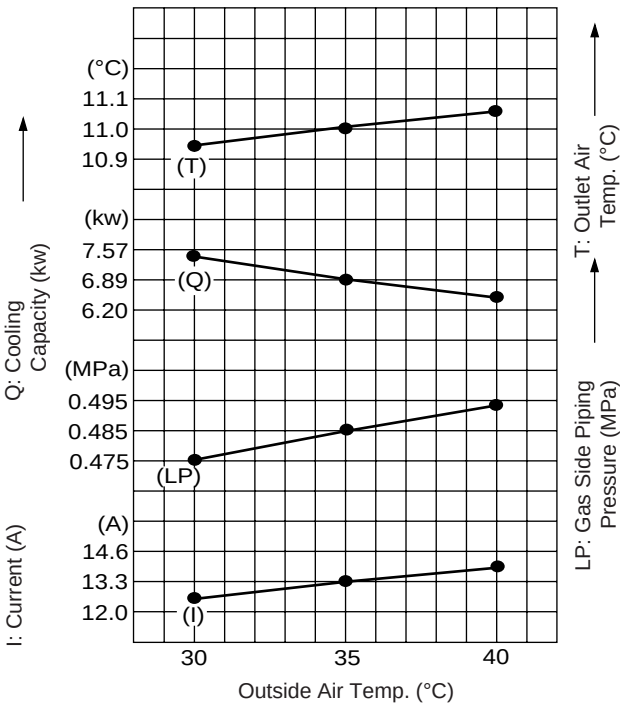
CS-C120T



CS-C180T

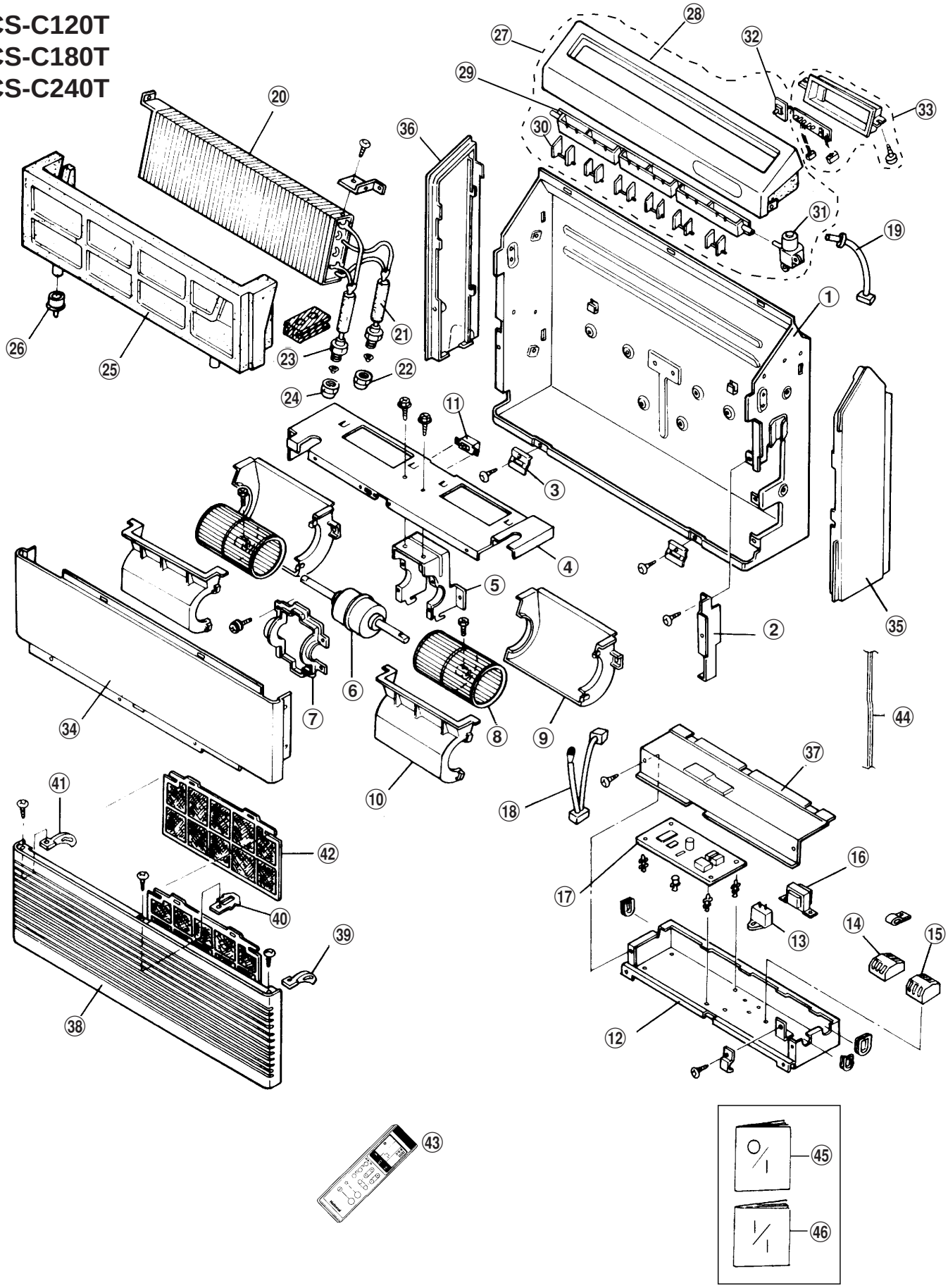


CS-C240T

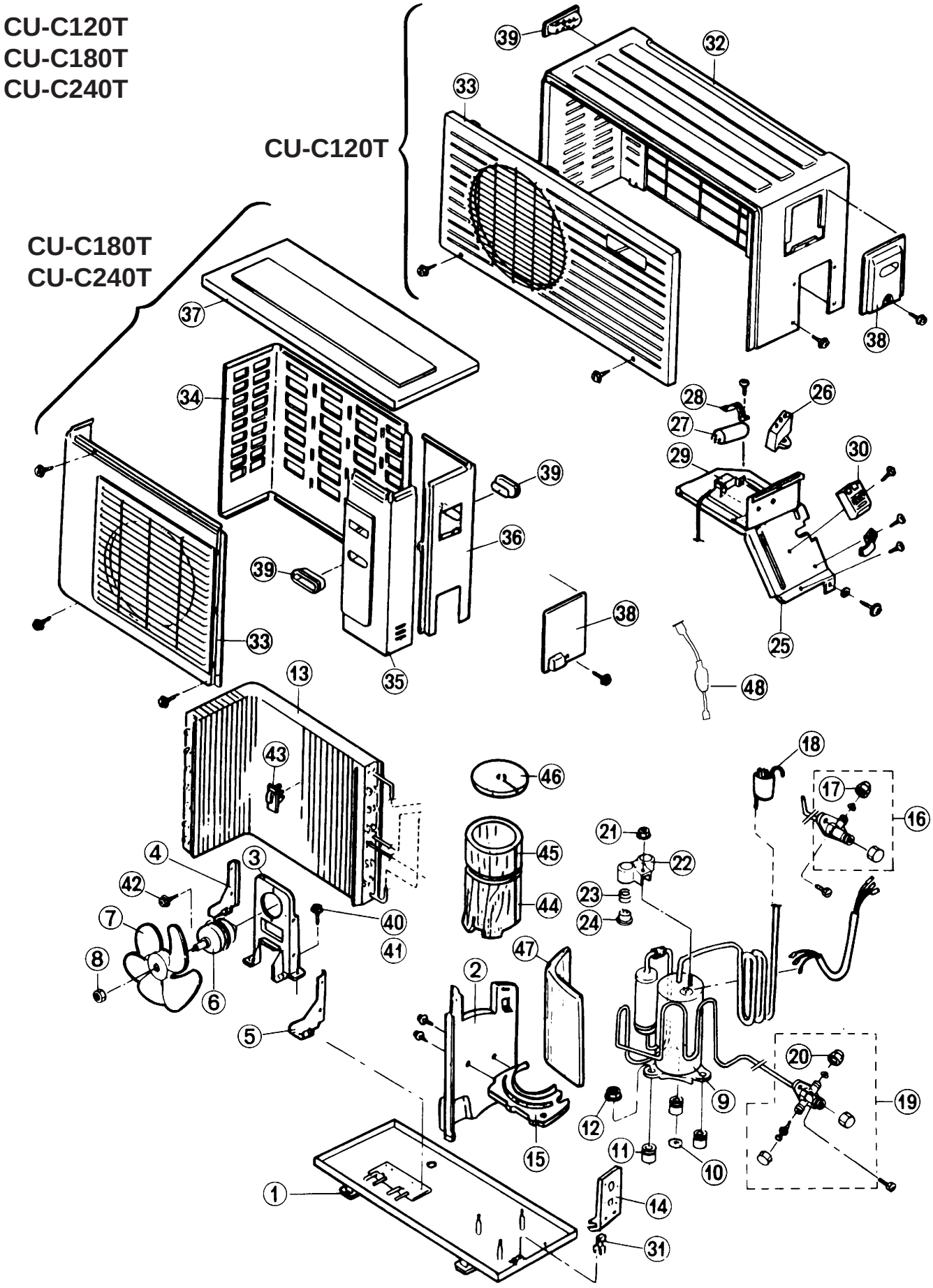


Exploded View

CS-C120T
CS-C180T
CS-C240T



Exploded View



Replacement Parts List

NO.	DESCRIPTION & NAME	Q'TY	CS-C120TE	CS-C180TE	CS-C240TE
1	BASE ASS'Y	1	CWD52K195B	←	←
2	PARTICULAR PLATE FOR BASE	1	CWD90811	←	←
3	PARTICULAR PIECE	2	CWD93592	←	←
4	PARTICULAR PLATE	1	CWD90821	←	←
5	FAN MOTOR BRACKET (BOTTOM)	1	CWD54152	←	←
6	FAN MOTOR	1	CWA92138	CWA92139	←
7	FAN MOTOR BRACKET (UPPER)	1	CWD54153	←	←
8	BLOWER WHEEL ASS'Y	2	CWH01K094	←	←
9	AIR GUIDER B.W. (BOTTOM)	2	CWD32104	←	←
10	AIR GUIDER B.W. (UPPER)	2	CWD32103	←	←
11	POWER SWITCH	1	CWA04014	CWA04033	←
12	CONTROL BOARD ASS'Y	1	CWH10K330	←	←
13	CAPACITOR FOR FAN MOTOR	1	CWA31342 (1.2MF/400VAC)	CWA31232 (1.2MF/450VAC)	←
14	TERMINAL BOARD (BIG)	1	CWA28K091	←	←
15	TERMINAL BOARD (SMALLER)	1	CWA28K156	←	←
16	TRANSFORMER	1	CWA40C192	←	←
17	P.C. BOARD - MAIN	1	CWA73802	←	←
18	SENSOR ASS'Y (INTAKE AIR)	1	CWA50C514	←	←
19	SENSOR - EVAPORATOR PIPE	1	CWA50C507	CWA50C505	←
20	EVAPORATOR	1	CWB30415	CWB30409	CWB30410
21	TUBE ASS'Y (LIQUID SIDE)	1	CWT01494	CWT01479	←
22	FLARE NUT	1	CWH6002140 (1/4")	←	←
23	TUBE ASS'Y (GAS SIDE)	1	CWT01495	CWT01480	CWT01481
24	FLARE NUT	1	CWT25007 (1/2")	←	CWT25004 (5/8")
25	DRAIN PAN ASS'Y	1	CWH40K025	←	←
26	TAP DRAIN TRAY	1	CWH4612103	←	←
27	DISCHARGE GRILLE COMPLETE	1	CWE20C230	←	←
28	DISCHARGE GRILLE	1	CWE20135	←	←
29	VANE - AIR SWING	1	CWE24233	←	←
30	VANE	12	CWE24234	←	←
31	AIR SWING MOTOR	1	CWA98K059	←	←
32	INDICATOR	1	CWE39142	←	←
33	RECEIVER COMPLETE	1	CWD76C003	←	←
34	CABINET FRONT PLATE	1	CWE06074A	←	←
35	CABINET RIGHT SIDE PLATE	1	CWE04109	←	←
36	CABINET LEFT SIDE PLATE	1	CWE04110	←	←
37	CONTROL BOARD COVER	1	CWH13292	←	←
38	INTAKE GRILLE	1	CWE22C052	←	←
39	HOLDER - INTAKE GRILLE (RIGHT)	1	CWD93594	←	←
40	HOLDER - INTAKE GRILLE (UPPER)	1	CWD93593	←	←
41	HOLDER - INTAKE GRILLE (LEFT)	1	CWD93607	←	←
42	AIR FILTER	2	CWD00112	←	←
43	REMOTE CONTROL COMPLETE	1	CWA75C262	←	←
44	POWER SUPPLY CORD	1	CWA20C541	CWA20C542	CWA20C543
45	OPERATING INSTRUCTIONS	1	CWF561485	←	←
46	INSTALLATION INSTRUCTIONS	1	CWF61574	←	←

(Note) • All parts are supplied from MAICO, Malaysia (Vendor Code: 061).

Replacement Parts List

NO.	DESCRIPTION & NAME	Q'TY	CU-C120TE	CU-C180TE	CU-C240TE
1	CHASSIS ASS'Y	1	CWD50K548A	CWD50K514B	←
2	SOUND PROOF BOARD	1	CWH15214	CWH15223	←
3	FAN MOTOR BRACKET	1	CWD54155	CWD54145	←
4	SUPPORTOR - F.M. BRACKET (LEFT)	1	—	CWD90835	←
5	SUPPORTOR - F.M. BRACKET (RIGHT)	1	—	CWD90836	←
6	FAN MOTOR	1	CWA95240	CWA92176	CWA92177
7	PROPELLER FAN	1	CWH03K002	CWH00K049	←
8	NUT - P. FAN	1	CWH56053	CWH56060	←
9	COMPRESSOR	1	2KS224D5AA02	2JS356D3BA01	2JS442D3BA01
10	PACKING - COMP. MOUNT.	1	—	CWB81047	←
11	BUSHING - COMP. MOUNT.	3	CWH50055	←	←
12	NUT - COMP. MOUNT.	3	CWH4582065	←	←
13	CONDENSER	1	CWBDCC003	CWB32C157	←
14	HOLDER - COUPLING	1	CWH35K019A	CWH35113B	CWH35114B
15	GUIDER - COMP.	1	—	CWD90830	←
16	3 - WAY VALVE (LIQUID SIDE)	1	CWB01378	CWB01363	←
17	FLARE NUT	1	CWH6002140 (1/4")	←	←
18	TUBE ASS'Y (STRAINER, CAPILLARY)	1	CWT00C687	CWT01531	←
19	3 - WAY VALVE (GAS SIDE)	1	CWB01379	CWB01364	CWB01377
20	FLARE NUT	1	CWT25007 (1/2")	←	CWT25004 (5/8")
21	NUT - TERMINAL COVER	1	CWH7080300	←	←
22	TERMINAL COVER - COMP.	1	CWH17006	←	←
23	HOLDER - OVERLOAD PROTECTOR	1	CWH7041200	—	—
24	OVERLOAD PROTECTOR	1	CWA12049	—	—
25	CONTROL BOARD	1	CWH10661	CWH10K331	←
26	CAPACITOR - F. MOTOR	1	CWA31602 (1.2MF, 400V)	CWA31609 (3.5MF, 400V)	←
27	CAPACITOR - COMP.	1	CWA31647 (30MF, 370V)	CWA31625 (35MF,370V)	CWA31626 (45MF, 370V)
28	HOLDER - CAPACITOR	1	CWH30057	←	CWH30060
29	THERMOSTAT	1	—	CWA15129	←
30	TERMINAL BOARD	1	CWA4711069	←	←
31	HOLDER - SENSOR	1	—	CWH32002	←
32	CABINET ASS'Y	1	CWE00K240B	—	—
33	CABINET FRONT PLATE	1	CWE06C050B	CWE06K024B	←
34	CABINET REAR PLATE	1	—	CWE02096B	←
35	CABINET FRONT PLATE	1	—	CWE06075B	←
36	CABINET SIDE PLATE	1	—	CWE04111B	←
37	CABINET TOP PLATE	1	—	CWE03049B	←
38	CONTROL BOARD COVER	1	CWH13C286	CWH13125C	←
39	HANDLE	1/2	CWE16037C (1)	CWE16000E (2)	←
40	SCREW - FAN MOTOR BRACKET	4/6	CWH4580399 (4)	CWH55101 (6)	←
41	SCREW - SUPPORTOR	10	—	CWH4580345	←
42	SCREW - FAN MOTOR MOUNT	2/4	CWH55027 (2)	CWH55252 (4)	←
43	HOLDER - F.M. LEAD WIRES	1	CWH31043	CWH31043	←
44	SOUND PROOF MATERIAL (COMP.)	1	—	CWG30563	←
45	SOUND PROOF MATERIAL (COMP.)	1	—	CWG30562	←
46	SOUND PROOF MATERIAL (COMP.)	1	—	CWG30561	←
47	SOUND PROOF MATERIAL	1	CWG30596	—	—
48	FUSE COMPLETE	1	CWA16C199	CWA16C200	←

(Note) ● All parts are supplied from MAICO, Malaysia (Vendor Code: 061).

Electronic Controller Parts List

CWA73802

SYMBOL	DESCRIPTION & NAME	PART NO.
BZ	BUZZER	A48039
D1	DIODE	A54RA15-01KB
DB1	DIODE BRIDGE	A54CS1VB20E
FUSE	FUSE	XBA2C20TR0
IC1	INTEGRATED CIRCUIT	A52MN158481Y
IC2	INTEGRATED CIRCUIT	A52C056
IC3	INTEGRATED CIRCUIT	A52MPA2003C
IC4	INTEGRATED CIRCUIT	A52SN74H4060
IC5	INTEGRATED CIRCUIT	A52C057
Q1	TRANSISTOR	A55DTD123YST
Q2, Q5	TRANSISTOR	A55C1740STPQ
Q3, Q6	TRANSISTOR	A55DTC114EST
Q4	TRANSISTOR	A55DTC143XST
RY-C	RELAY	A00042
RY-H, RY-M	RELAY	A00084
SSR	RELAY	A56D2N201LF
X1	RESONATOR	A45ST4.0MGWT
X2	RESONATOR	A45CSB512P
ZD1	ZENAR DIODE	A54D6.2EL2TB
ZNR1, ZNR2	ZNR	A54C057

(Note) ● All parts are supplied from MACC, Malaysia (Vendor Code: 086).

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