

INVERTER SPLIT TYPE
AIR CONDITIONER (50Hz)
DUCT TYPE

SERVICE MANUAL



Indoor unit	Outdoor unit
ARYA24LATU	AOYA24LACL
ARYA24LATU	AOYA24LALL
ARYA24LATU	AOYB24LACL
ARYA24LATU	AOYB24LALL
ARYF24LBTU	AOYA24LALL
ARYF24LBTU	AOYB24LALL

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Inverter Cool & Heat	
INDOOR UNIT		ARYA24LATU, ARYF24LBTU	
OUTDOOR UNIT		AOYA24LA_L	AOYB24LA_L
COOLING CAPACITY		7.10 kW	
HEATING CAPACITY		8.00 kW	
POWER SOURCE		230 V	
FREQUENCY		50 Hz	
RUNNING CURRENT	Cooling	9.7 A	10.1 A
	Heating	9.7 A	10.2 A
INPUT WATTS	Cooling	2.21 kW	2.32 kW
	Heating	2.21 kW	2.33 kW
E.E.R.	Cooling	3.21 kW/kW	3.06 kW/kW
	Heating	3.61 kW/kW	3.43 kW/kW
STARTING CURRENT		10.0 A	
MOISTURE REMOVAL		2.5 L/hr	
MAXIMUM CURRENT		13.5 A	

Note : The above list shows values at the external static pressure of 30Pa, setting the fan speed high notch. (indoor unit)

FAN SPEED

INDOOR UNIT	Discrimination	MFG-24RV
	High	830 r.p.m.
	Med	700 r.p.m.
	Low	600 r.p.m.
	Quiet	550 r.p.m.
OUTDOOR UNIT	Discrimination	MFE-24ROAM
	Cooling	1,050 r.p.m.
	Heating	1,050 r.p.m.

Note : The above list shows values at the external static pressure of 30Pa, setting the fan speed high notch. (indoor unit)

AIR FLOW

INDOOR UNIT	High	1,100 m³/h
	Med	950 m³/h
	Low	800 m³/h
	Quiet	600 m³/h
OUTDOOR UNIT	Cooling	2,470 m³/h
	Heating	2,470 m³/h

Note : The above list shows values at the external static pressure of 30Pa, setting the fan speed high notch. (indoor unit)

NOISE LEVEL

INDOOR UNIT	High speed	31 dB
	Med speed	29 dB
	Low speed	27 dB
	Quiet	25 dB
OUTDOOR UNIT	Cooling	52 dB
	Heating	53 dB

Note : Static pressure : 30Pa
Duct length : Inlet 1m, Outlet 2m (indoor unit)

MEASUREMENT

DIMENSIONS H x W x D	Indoor unit	270 x 1,135 x 700 mm
	Outdoor unit	578 x 790 x 315 mm
WEIGHT Gross / Net	Indoor unit	45 kg / 38 kg
	Outdoor unit	48 kg / 44 kg

COMPRESSOR AND REFRIGERANT

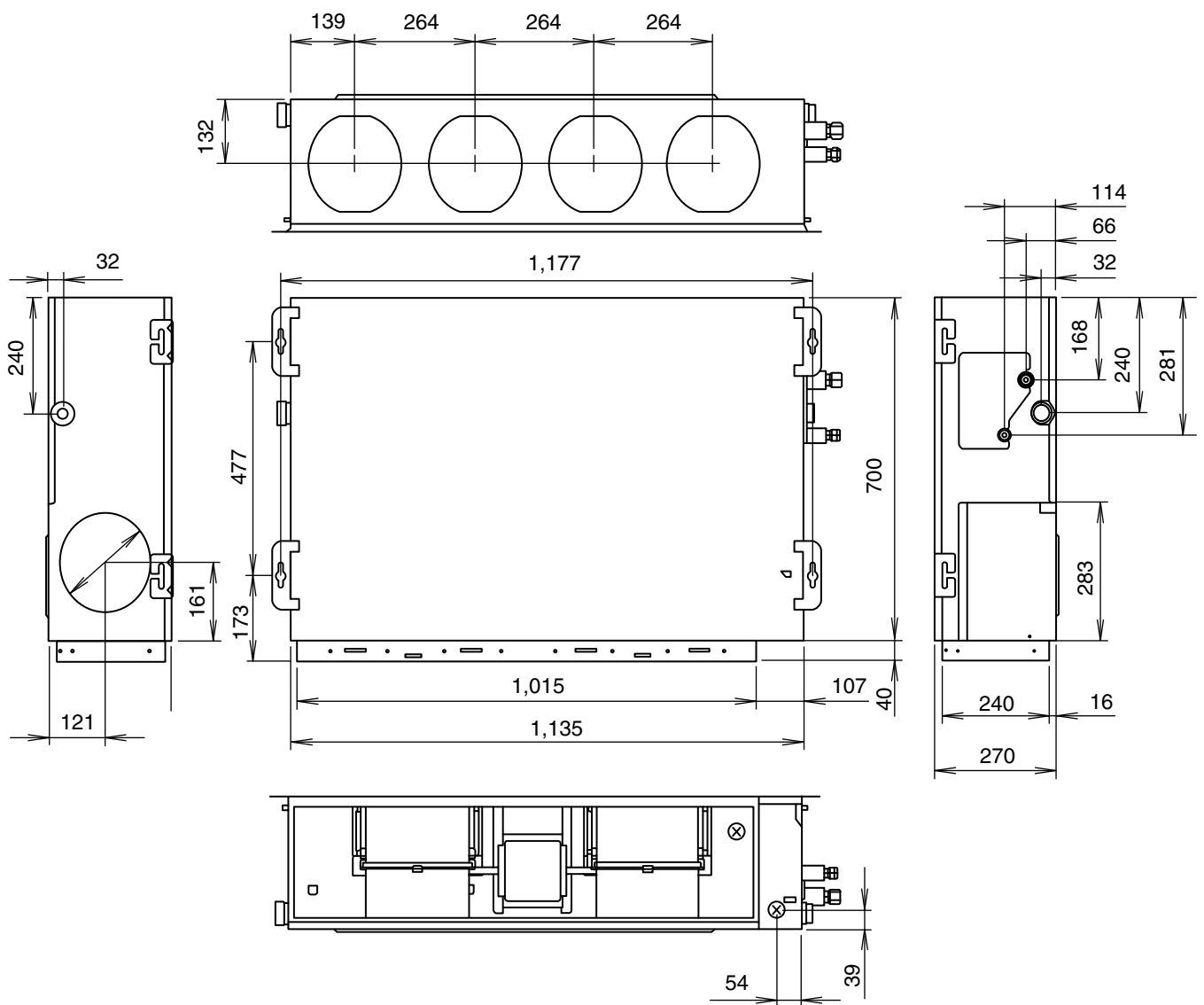
TYPE		Hermetic type, 4 poles, DC motor, Twin Rotary
DISCRIMINATION		DA150AIF-20NA
COMPRESSOR WEIGHT (with oil)		10.0 kg
PRECHARGED REFRIGERANT		1,700 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Pipe Length 15 m	1,700 g
	20 m	1,800 g
	25 m	1,900 g
	30 m	2,000 g
ADDITIONAL CHARGE		20 g/m
MAXIMUM PIPE HEIGHT		20 m

When you dismantle indoor units which are installed, take care not to make parts fall down, especially motors.

DIMENSIONS

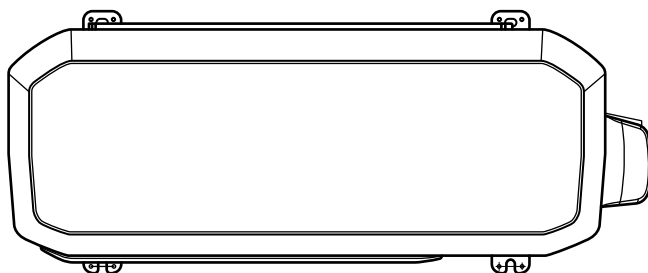
INDOOR UNIT

Unit : mm

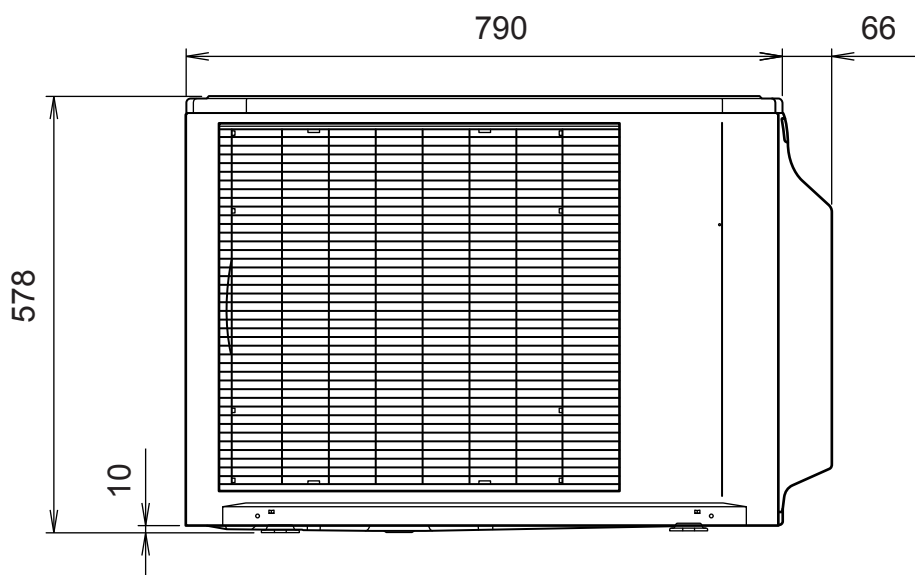


OUTDOOR UNIT

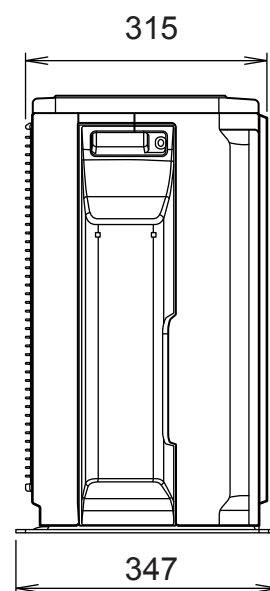
Unit : mm



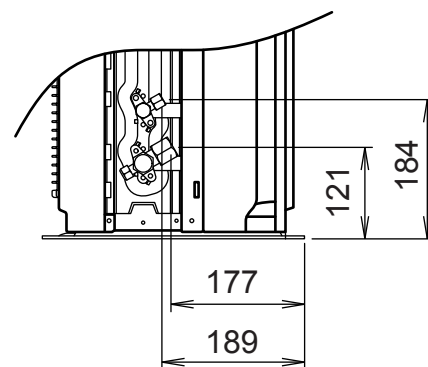
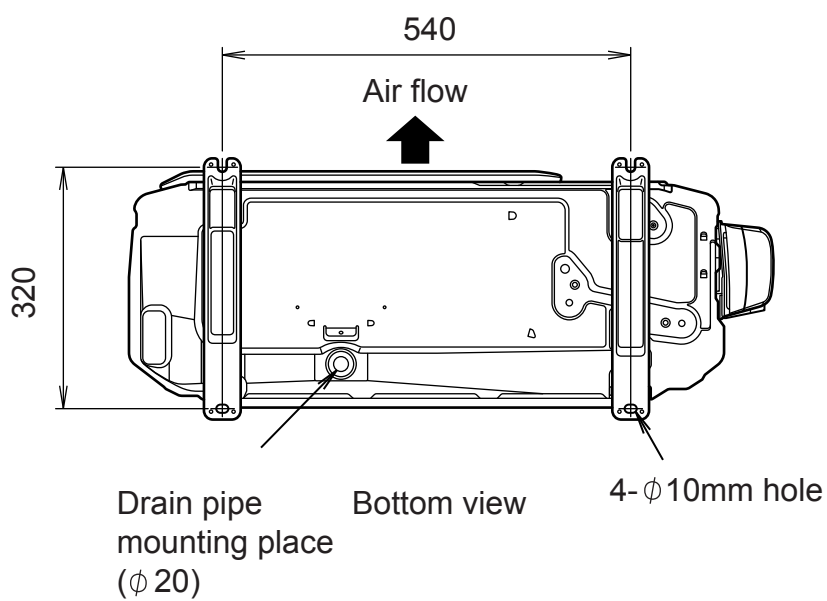
Top view



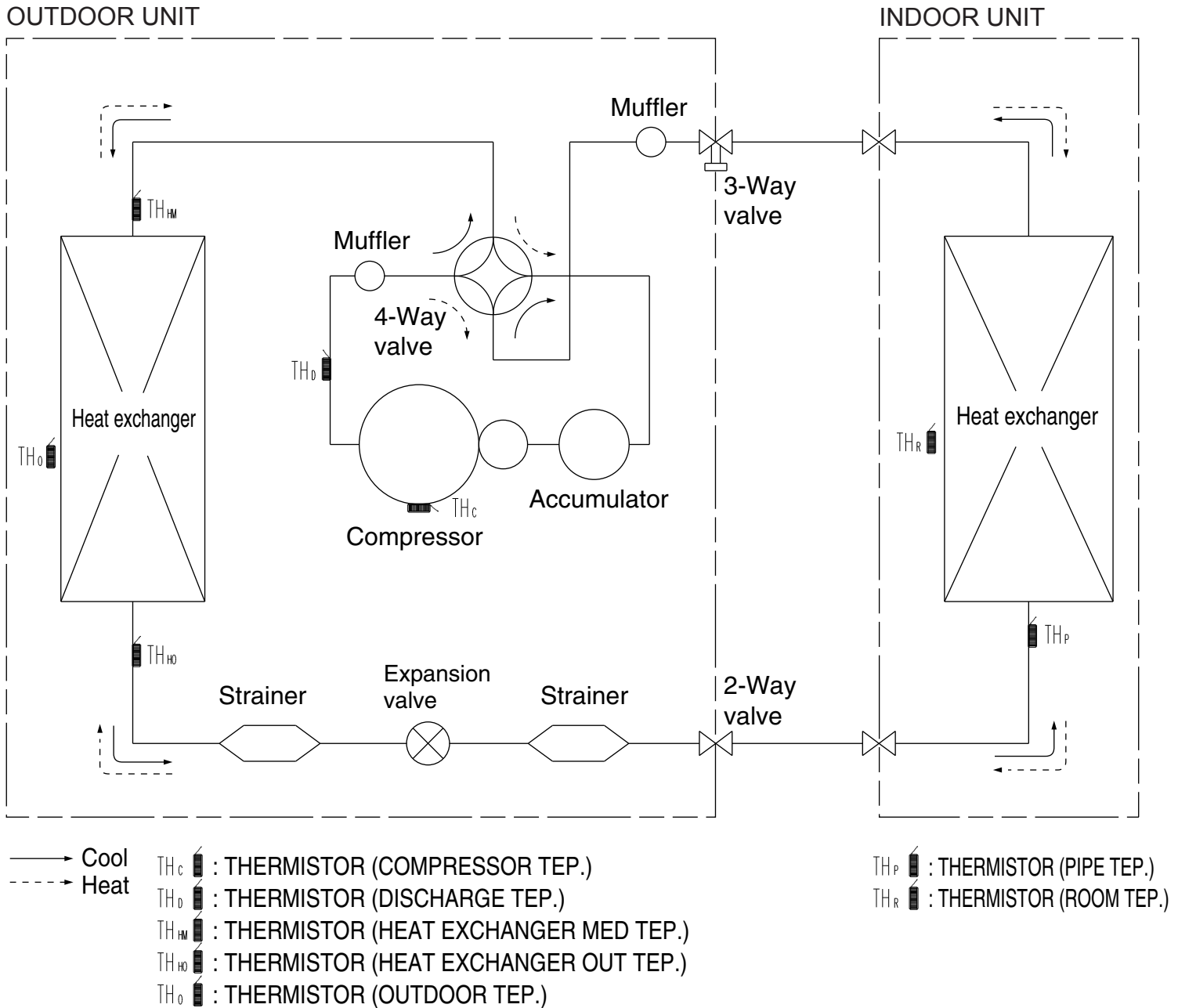
Front view



Side view



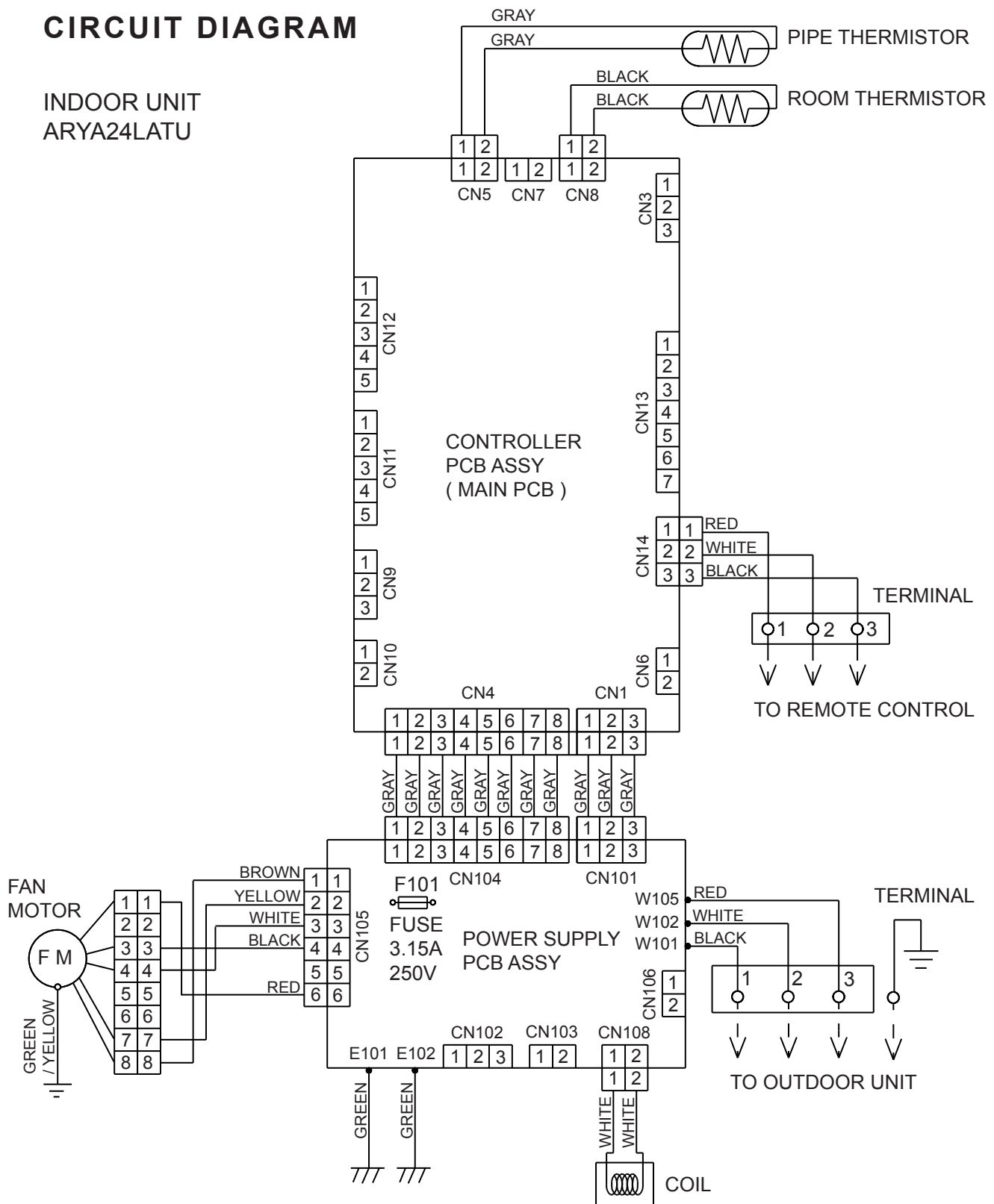
REFRIGERANT SYSTEM DIAGRAM



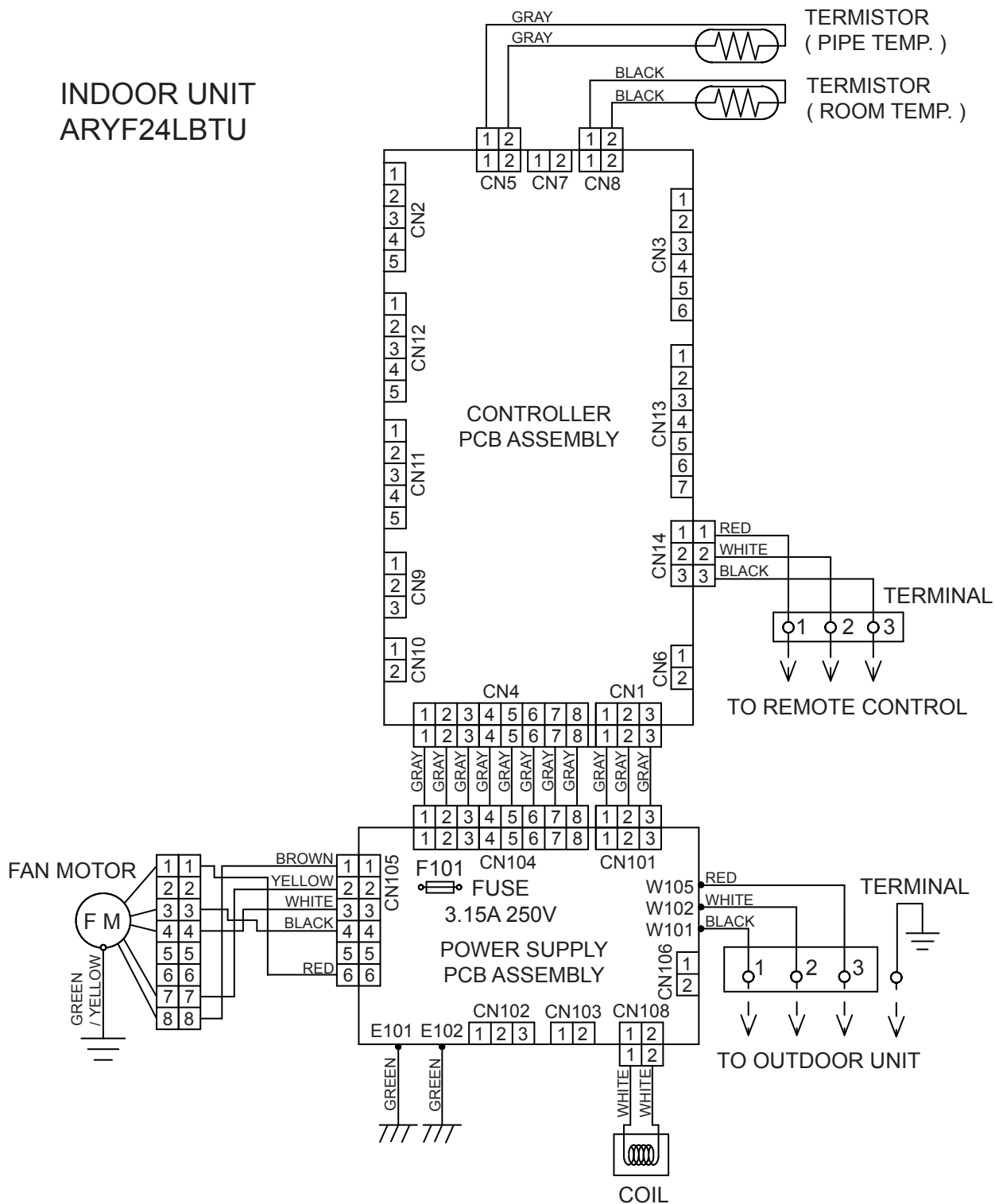
Refrigerant pipe diameter
 Liquid : 1/4" (6.35 mm)
 Gas : 5/8" (15.88 mm)

CIRCUIT DIAGRAM

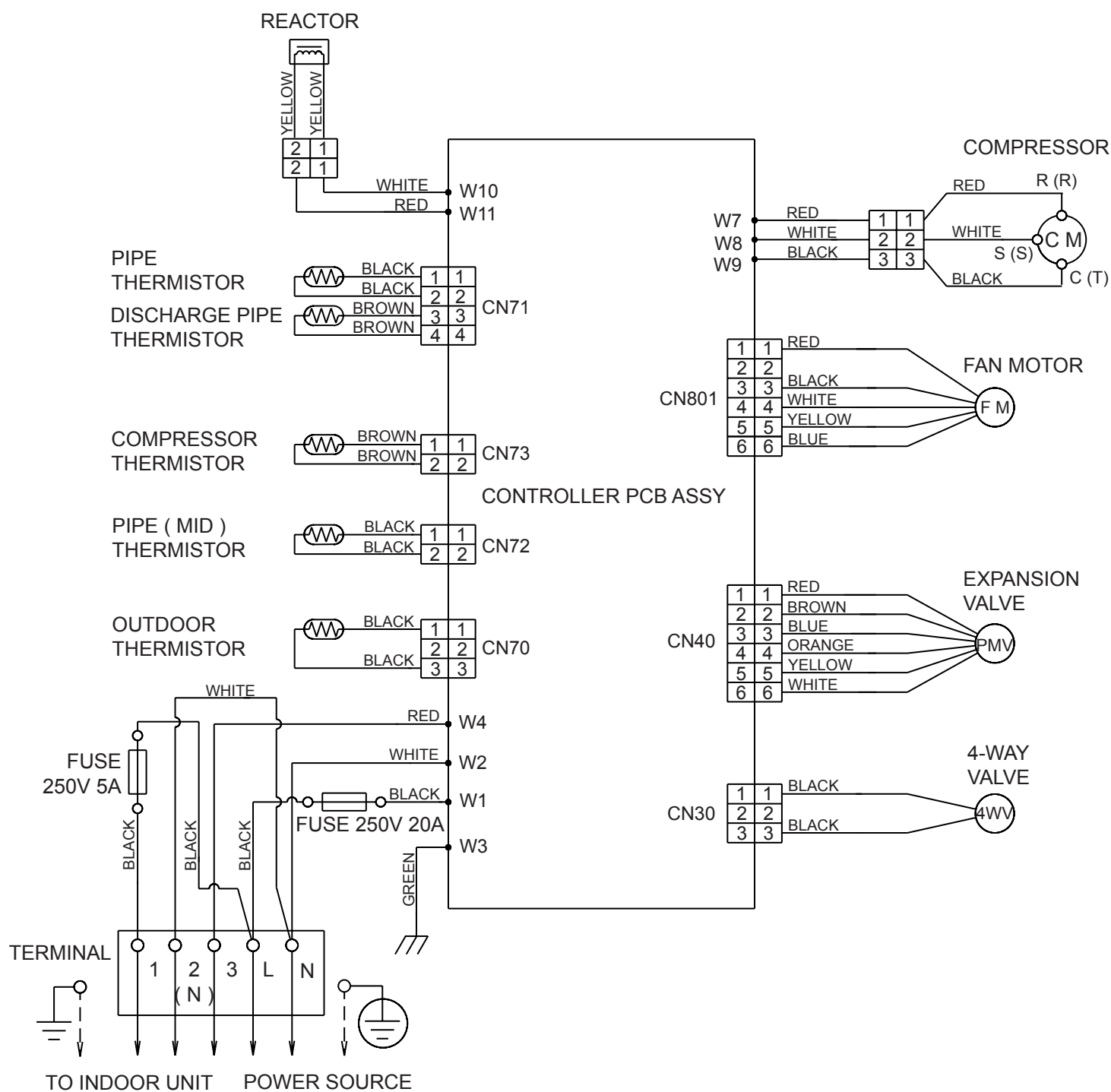
INDOOR UNIT
ARYA24LATU



INDOOR UNIT ARYF24LBTU



OUTDOOR UNIT



PCB Circuit Diagrams

not available at time of publication

ERROR CONTENTS

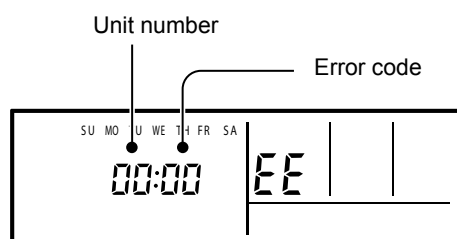
REMOTE CONTROL UNIT

Troubleshooting at the remote control LCD

This is possible only on the wired remote control.

[SELF-DIAGNOSIS]

If an error occurs, the following display will be shown.
("EE" will appear in the set room temperature display.)



Ex. Self-diagnosis

Code	Error contents
01 13 26 27	Indoor signal error
00	Wired remote controller abnormal
02	Indoor room temperature sensor error
04	Indoor heat exchanger temperature sensor (middle) error
28	Indoor heat exchanger temperature sensor (inlet) error
09	Float switch operated
0C	Outdoor discharge pipe temperature sensor error
06	Outdoor heat exchanger temperature sensor (outlet) error
0A	Outdoor temperature sensor error
15	Compressor temperature sensor error
1d	2-way valve temperature sensor error
1E	3-way valve temperature sensor error
29	Outdoor heat exchanger temperature sensor (middle) error
20	Indoor manual auto switch abnormal
2A	Power supply frequency detection error
17	IPM protection
18	CT error
1A	Compressor location error
1b	Outdoor fan error
1F	Connected indoor unit abnormal
1c	Outdoor unit computer communication error
12	Indoor fan abnormal
0F	Discharge temperature error
24	Excessive high pressure protection on cooling
2c	4-way valve abnormal
16	Pressure switch abnormal
2b	Compressor temperature error
19	Active filter abnormal
25	PFC circuit error

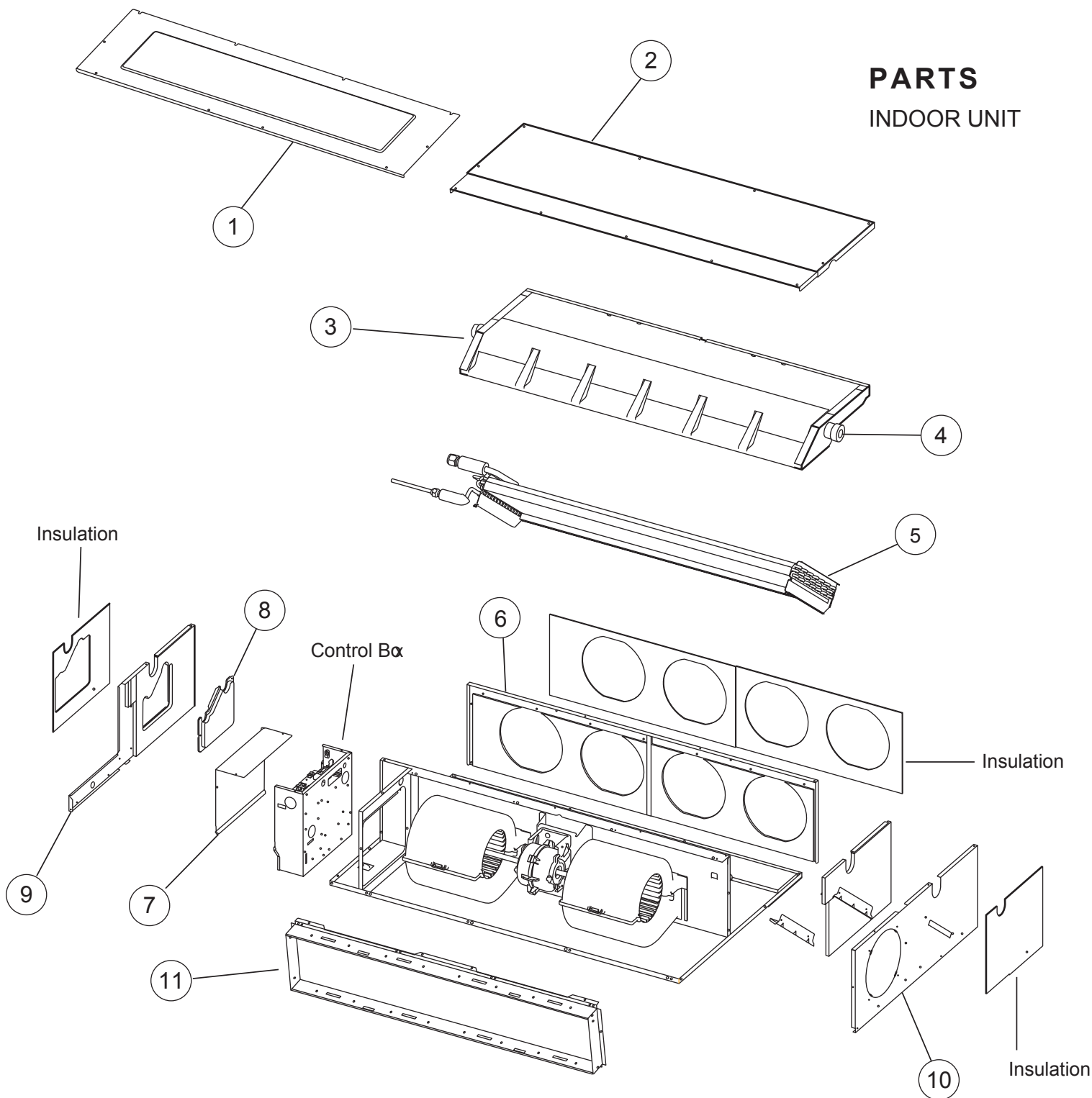
If "CO" appears in the unit number display, there is a remote controller error. Refer to the installation instruction sheet included with the remote controller.

OUTDOOR UNIT

Error contents	LED
Thermistor malfunction	on 0.1 sec / off 0.1 sec
Abnormal discharge temperature	on
Current surge protection	on 0.5 sec / off 0.5 sec
CT abnormality	on 2.0 sec / off 2.0 sec
Compressor position detection malfunction	on 0.1 sec / off 2.0 sec
Fan malfunction	on 5.0 sec / off 5.0 sec
PAM voltage abnormality	on 5.0 sec / off 0.1 sec
Timer short	on 1.0 sec / off 1.0 sec
Compressor temperature protection (permanent stop)	on 2.0 sec / off 5.0 sec
PFC surge protection (permanent stop)	on 5.0 sec / off 2.0 sec

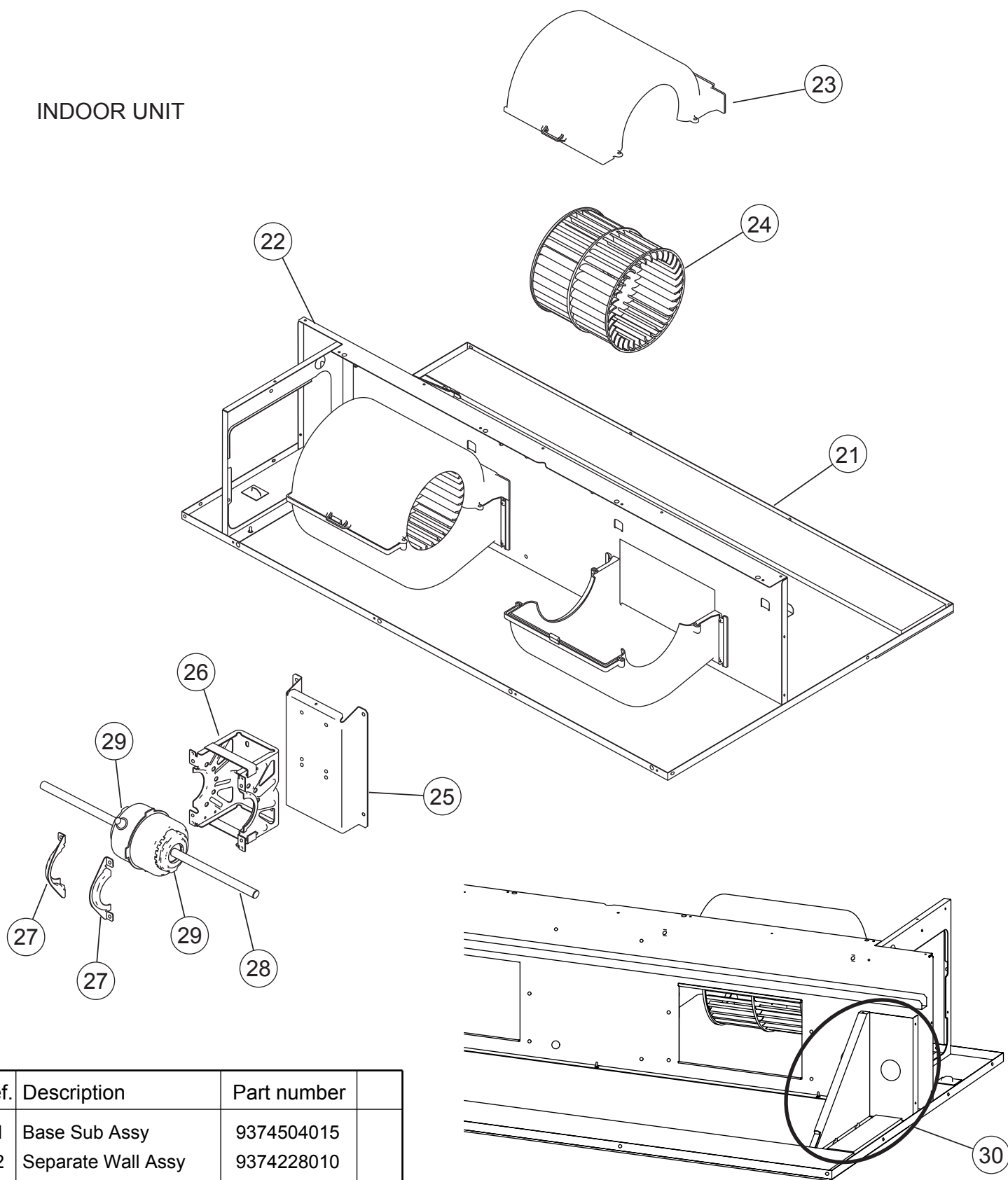
PARTS

INDOOR UNIT



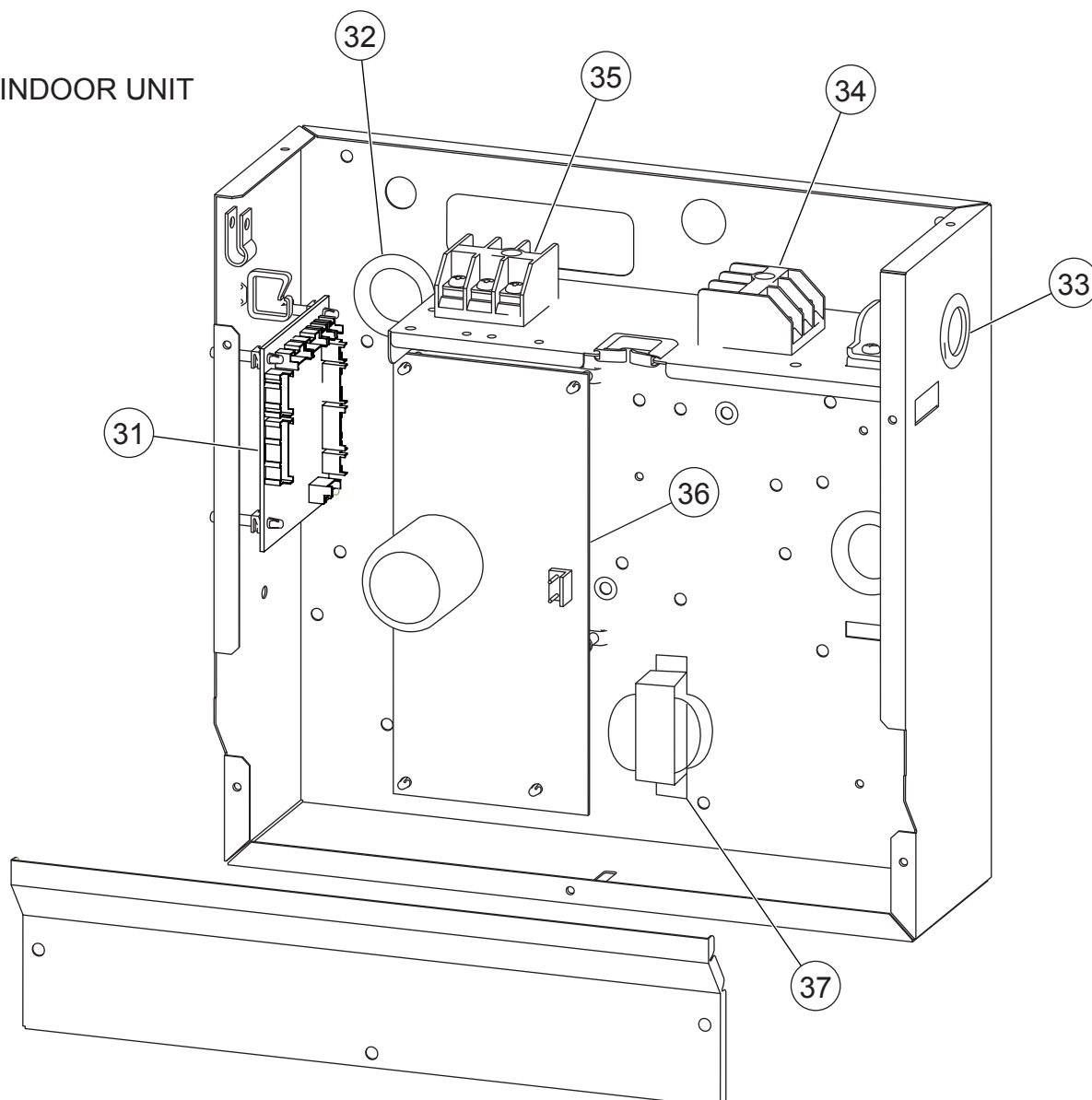
Ref.	Description	Part number	
1	Intake Cover Sub Assy	9374512010	
2	Main Panel Sub Assy	9374511013	
3	Drain Pan Sub Assy	9374513017	
4	Drain Cap	9356541007	
5	Evaporator Assy	9374518012	
6	Outlet Panel Sub Assy	9374510016	
7	Control Cover-A Sub Assy	9374516018	
8	Bracket (pipe) Sub Assy	9374514014	
9	Cabinet R Sub Assy	9374508013	
10	Cabinet L Sub Assy	9374509010	
11	Intake Frame Assy	9374216017	

INDOOR UNIT



Ref.	Description	Part number	
21	Base Sub Assy	9374504015	
22	Separate Wall Assy	9374228010	
23	Casing B	9374234011	
24	Sirocco Fan Assy	9356531039	
25	Bracket Motor Assy A	9374230020	
26	Bracket Motor Assy B	9358591000	
27	Bracket Motor C	9358594001	
28	Motor, Induction	9602433018	
29	Rubber	9385102002	
30	Bracket (Eva.) R	9374207015	
--	Bracket (Eva.) L	9374208012	

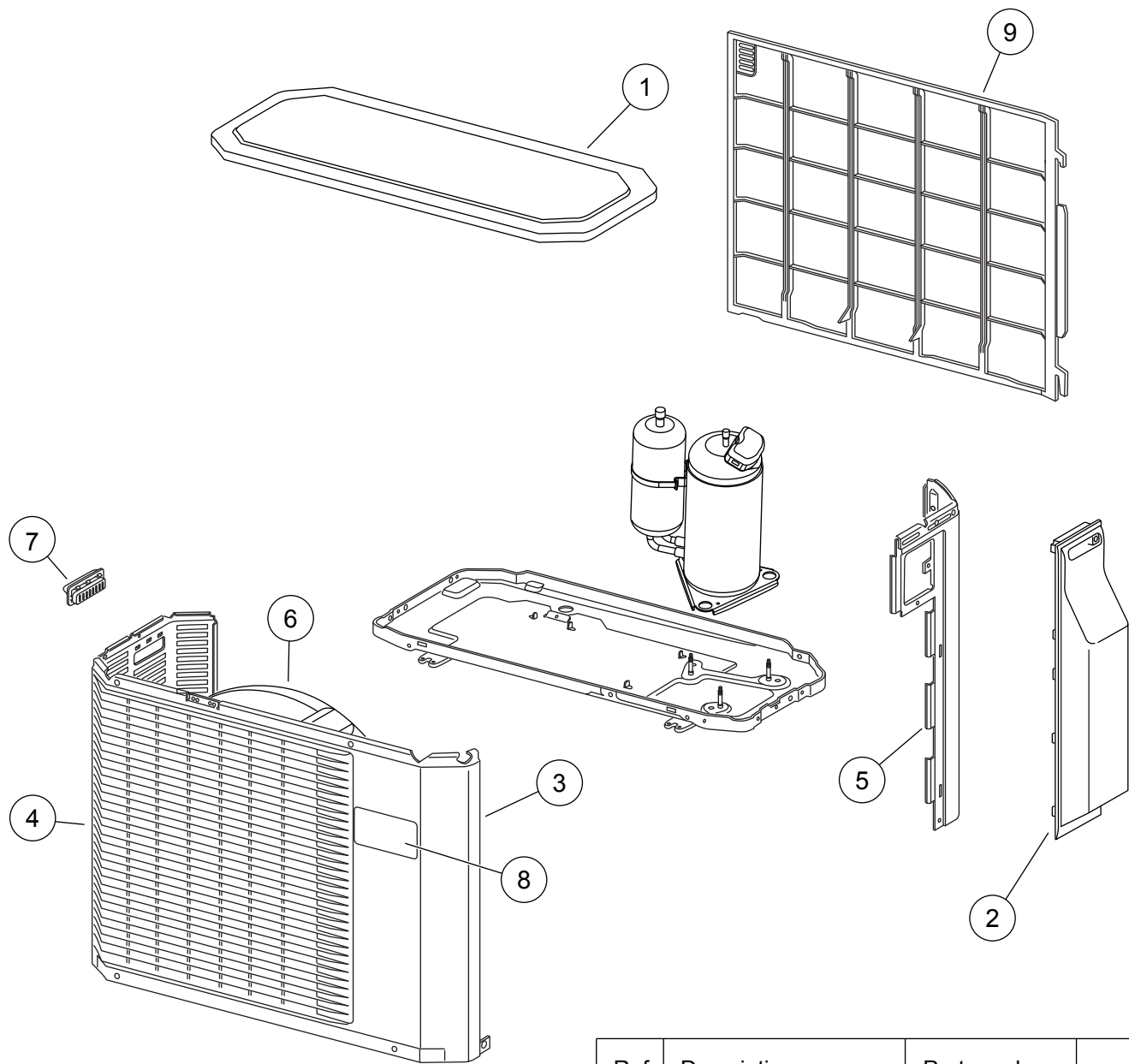
INDOOR UNIT



Ref.	Description	Part number	
31	Controller PCB Assy (LATU)	9707393064	
31	Controller PCB Assy (LBTU)	9707393491	
32	Cap (Power)	9352173011	
33	One Touch Bush	9374407019	
34	Terminal 3P	9703345012	
35	Terminal 3P	9306489045	
36	Power Supply PCB Assy (LATU)	9707398045	
36	Power Supply PCB Assy (LBTU)	9707398144	
37	Reactor Assy	9707457018	
--	Room Thermistor	9703299025	
--	Pipe Thermistor	9703297021	
--	Remote Control	9372266199	
--	Wire Assembly	9372714010	

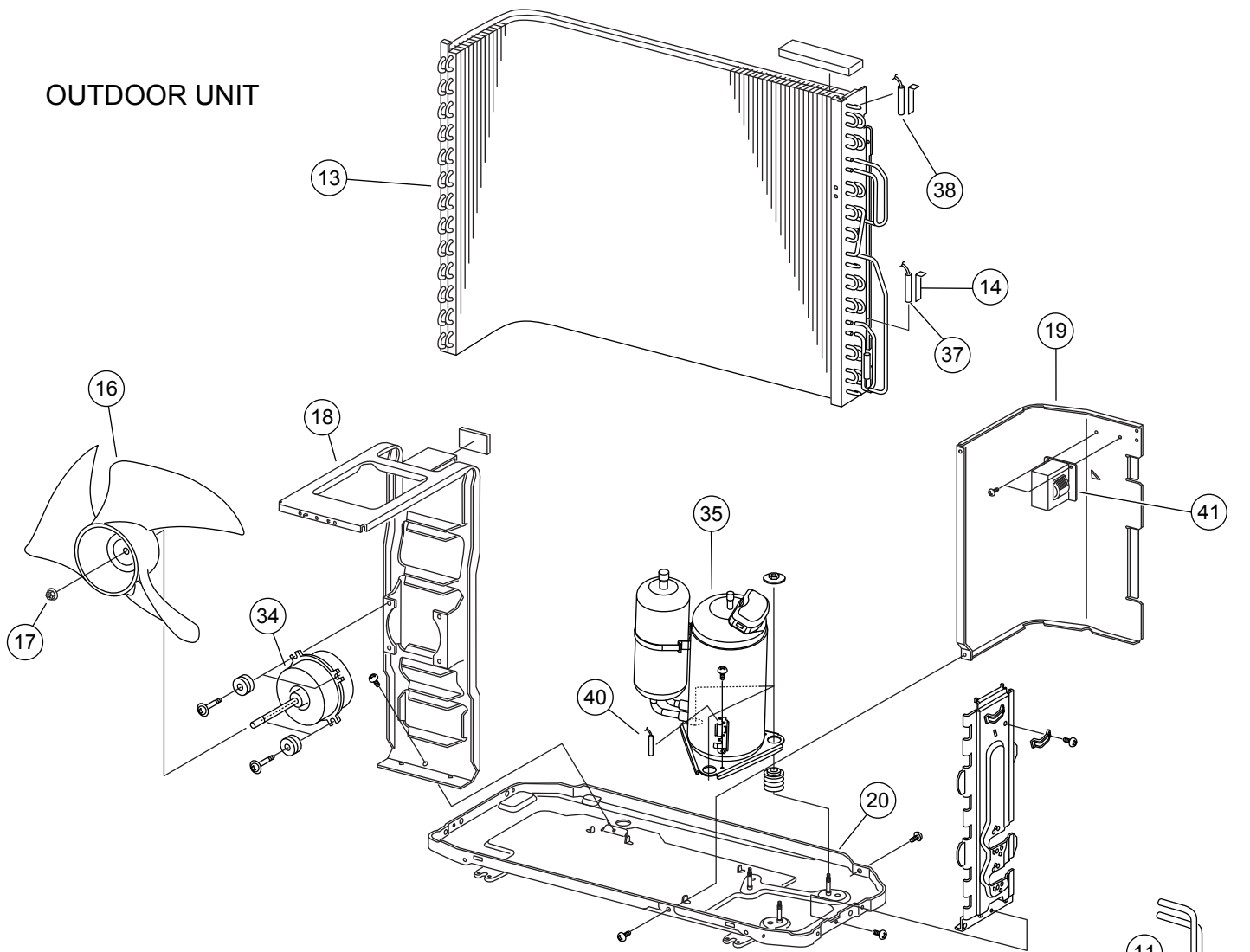
PARTS

OUTDOOR UNIT

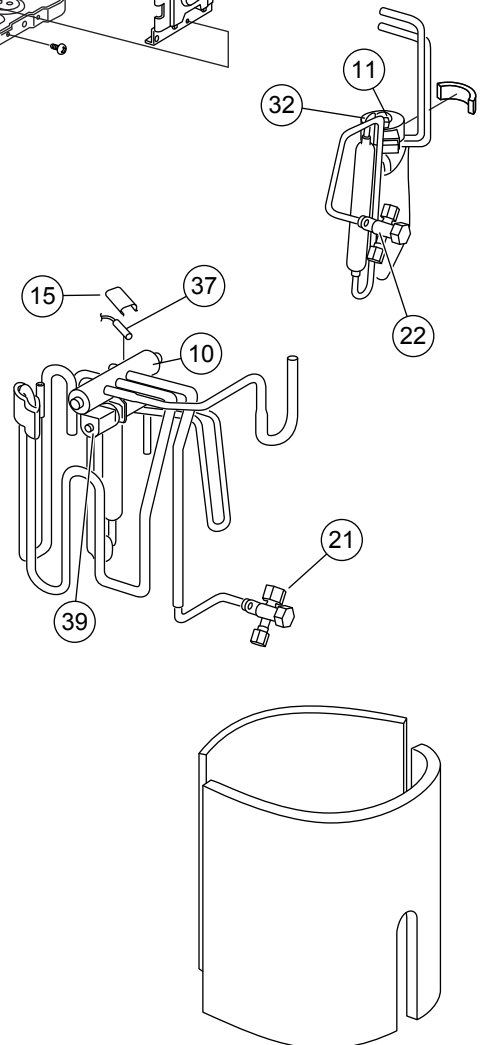


Ref.	Description	Part number	
1	Top Panel Assy	9309230057	
2	Cover (Switch) Assy	9309237032	
3	Cabinet Assy	9314809019	
4	Blow Down Grille	9308884015	
5	Cabinet Right Assy	9309236028	
6	Fan Ring	9308885012	
7	Grip	9308880017	
8	Emblem	9315210012	
9	Protective Net	9315033017	

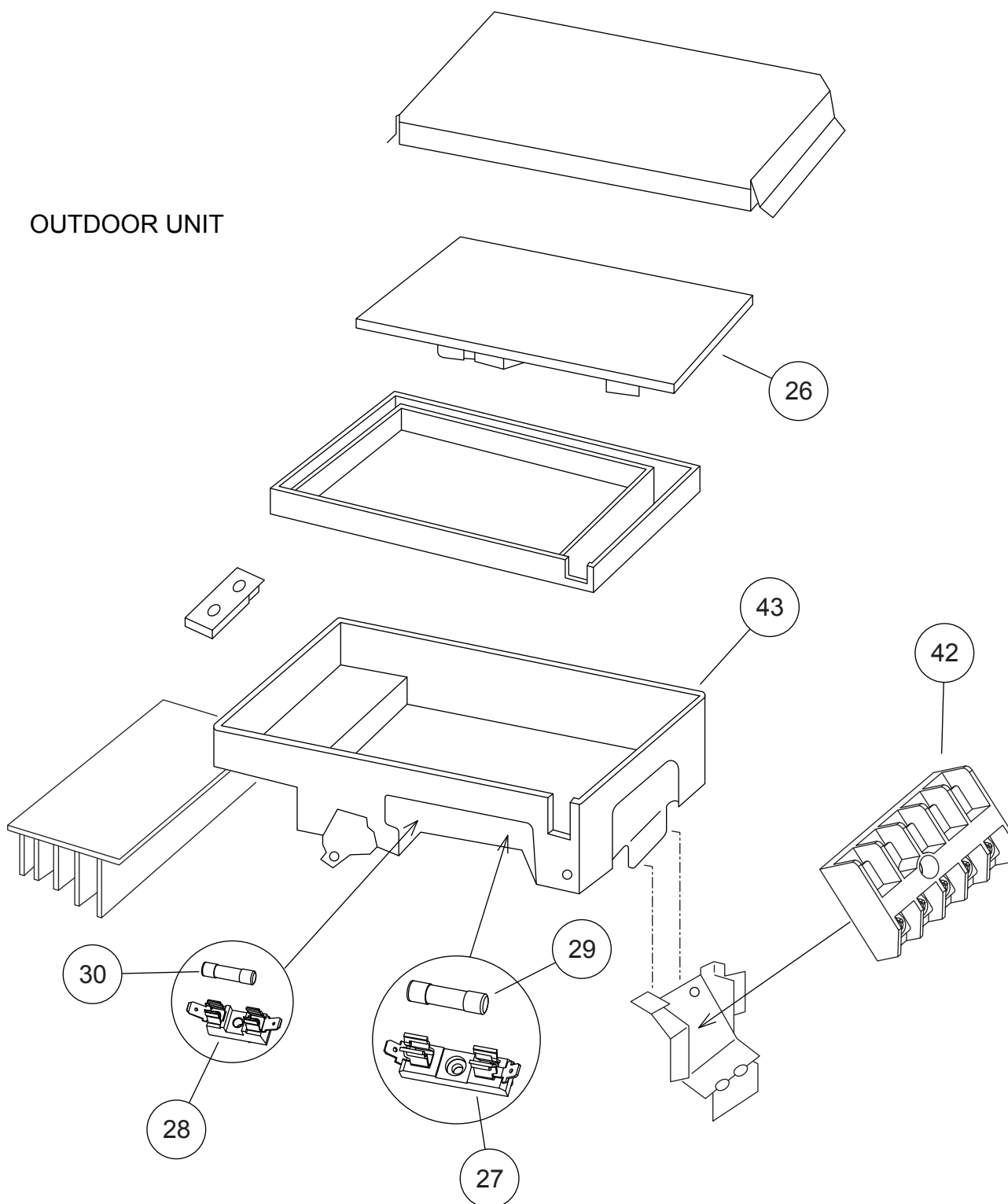
OUTDOOR UNIT



Ref.	Description	Part number	
10	4-Way Valve	9900163013	
11	Pulse Motor Valve Assy	9315310019	
13	Condenser Assy	9315302014	
14	Thermistor Spring A	313728262708	
15	Thermistor Spring	9357804002	
16	Propeller Fan	9309909014	
17	Nut	9304902003	
18	Motor Bracket	9308872029	
19	Separator Assy	9312971015	
20	Base Assy	9315296030	
21	3-Way Valve Assy	9315414014	
22	2-Way Valve Assy	9313062019	
32	Expansion Valve Coil	9900057039	
34	Fan Motor	9602451012	
35	Compressor Assy	9315297037	
37	Thermistor Assy	9900148027	
38	Heat Exchanger Thermistor	9900403010	
39	Solenoid Coil	9970055010	
40	Compressor Thermistor	9900156046	
41	Reactor Assy	9900354015	
--	Outdoor Thermistor	9900210045	
--	Condenser Assy B	9315303011	



OUTDOOR UNIT

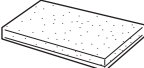
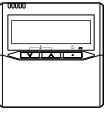
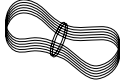


Ref.	Description	Part number	
26	Inverter PCB Assy (AOYA)	9707427028	
26	Inverter PCB Assy (AOYB)	9707427127	
27	Fuse Holder	0501454012	
28	Fuse Holder	0501456016	
29	Fuse	0600382018	
30	Fuse	0600372163	
42	Terminal	9703874031	
43	Inverter Case Assy	9315690012	

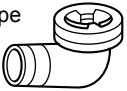
ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Application (part number)
Hanger 	4	For suspending the indoor unit from ceiling (9356563009)
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling (313005446653)
Special nut B (small flange) 	4	(313005446759)
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe) (9378173569)
Coupler heat insulation (small) 	1	For indoor side pipe joint (small pipe) (9378173521)

Name and Shape	Q'ty	Application (part number)
Drain hose insulation 	1	Insulates the drain hose and vinyl hose (313806217708)
Binder 	1 (small)	For remote control and remote control cord (313361275805)
	1 (large)	For fixing the drain hose (312300787605)
Remote control 	1	For air conditioner operation (9372266199)
Remote control cord 	1	For connecting a remote control (9372714010)
Screw (M4 x 16) 	2	For installing a remote control (0700181108)

OUTDOOR UNIT

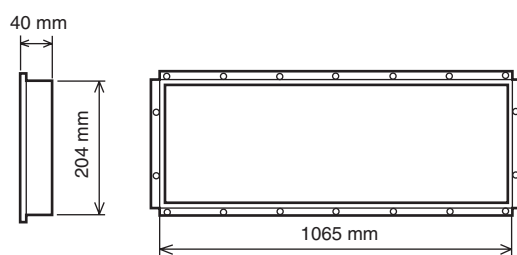
Name and Shape	Q'ty	Application	Part number
Drain pipe 	1	For outdoor unit drain piping work.	9303029015

OPTIONAL PARTS

When connecting the square duct and round duct, use the optional square flange or round flange and flexible duct.

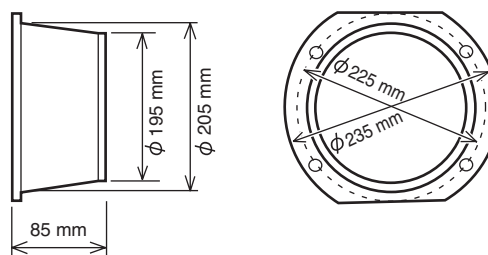
Square flange

Model name : UTD-SF045T (P/N 9098180007)



Round flange

Model name : UTD-RF204 (P/N 9093160004)



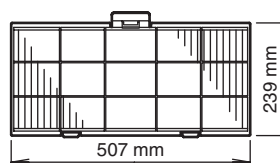
Flexible duct

Model name : UTD-RD202 (P/N 9074165004)



Long-life filter

Model name : UTD-LF25NA (P/N 9079892004)



External control set

Model name : UTD-ECS5A (P/N 9077359004)

Drain pump unit

Model name : UTZ-PX1BBA (P/N 9052976004)

Receiver unit

Model name : UTY-LRHX1 (P/N 9048213007)

Remote sensor

Model name : UTD-RS100 (P/N 9072619004)

