

SERVICE MANUAL



Indoor unit	Outdoor unit
RSG07LLCA	ROG07LLC
RSG09LLCA	ROG09LLC
RSG12LLCA	ROG12LLC

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SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter		
INDOOR UNIT		RSG07LLCA	RSG09LLCA	RSG12LLCA
OUTDOOR UNIT		ROG07LLC	ROG09LLC	ROG12LLC
COOLING CAPACITY		2.10 kW	2.50 kW	3.40 kW
HEATING CAPACITY		2.70 kW	3.20 kW	4.00 kW
POWER SOURCE		230 V		
FREQUENCY		50 Hz		
RUNNING CURRENT	Cooling	3.0 A	4.0 A	4.7 A
	Heating	3.4 A	4.7 A	5.1 A
INPUT WATTS	Cooling	0.550 kW	0.745 kW	1.015 kW
	Heating	0.630 kW	0.865 kW	1.080 kW
E.E.R.	Cooling	3.82 kW/kW	3.36 kW/kW	3.35 kW/kW
COP	Heating	4.29 kW/kW	3.70 kW/kW	3.70 kW/kW
MOISTURE REMOVAL		1.0 L/h	1.3 L/h	1.8 L/h
AIR CIRCULATION HIGH	Cooling	720 m ³ /h		
	Heating	740 m ³ /h		
MAXIMUM CURRENT	Cooling	6.0 A		7.0 A
	Heating	6.0 A		9.5 A

FAN MOTOR

POWER SOURCE		230 V	
INDOOR UNIT Cooling	High	1,320 r.p.m.	1,320 r.p.m.
	Medium	1,120 r.p.m.	1,120 r.p.m.
	Low	840 r.p.m.	860 r.p.m.
	Quiet	700 r.p.m.	700 r.p.m.
INDOOR UNIT Heating	High	1,360 r.p.m.	1,360 r.p.m.
	Medium	1,120 r.p.m.	1,120 r.p.m.
	Low	900 r.p.m.	900 r.p.m.
	Quiet	700 r.p.m.	700 r.p.m.
OUTDOOR UNIT	Cooling	740 r.p.m.	820 r.p.m.
	Heating	730 r.p.m.	810 r.p.m.

NOISE LEVEL

INDOOR UNIT	High	43 dB	
	Medium	38 dB	
	Low	33 dB	
	Quiet	22 dB	
OUTDOOR UNIT	Cooling	47 dB	51 dB
	Heating	48 dB	52 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION		ASM89D10UFZ	
WEIGHT (with oil)		8.9 kg	
PRECHARGED REFRIGERANT		650 g	750 g
REFRIGERANT TYPE		R410A	
FULL CHARGE	Pipe length 10 m	650 g	750 g
	15 m	750 g	850 g
ADDITIONAL CHARGE		20 g/m	
MAXIMUM PIPING HEIGHT		10 m	

DIMENSIONS

INDOOR UNIT H x W x D	262 x 820 x 206 mm
OUTDOOR UNIT H x W x D	535 x 663 x 293 mm

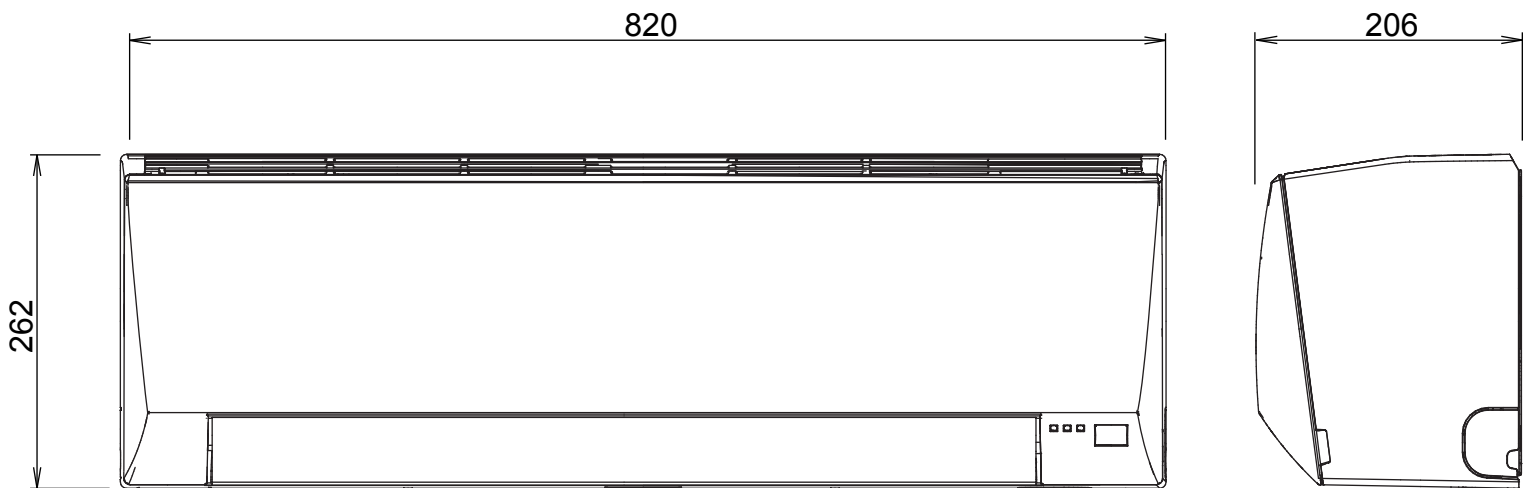
WEIGHT

INDOOR UNIT Net / Shipping	7.0 / 9.0	7.5 kg / 9.5 kg
OUTDOOR UNIT Net / Shipping	24 kg / 27 kg	26 / 28

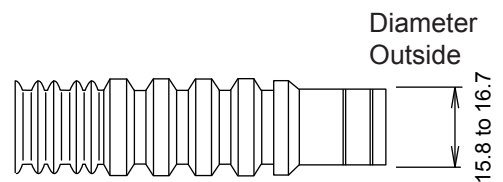
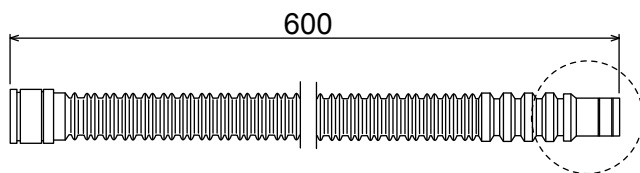
DIMENSIONS

unit : mm

INDOOR UNIT

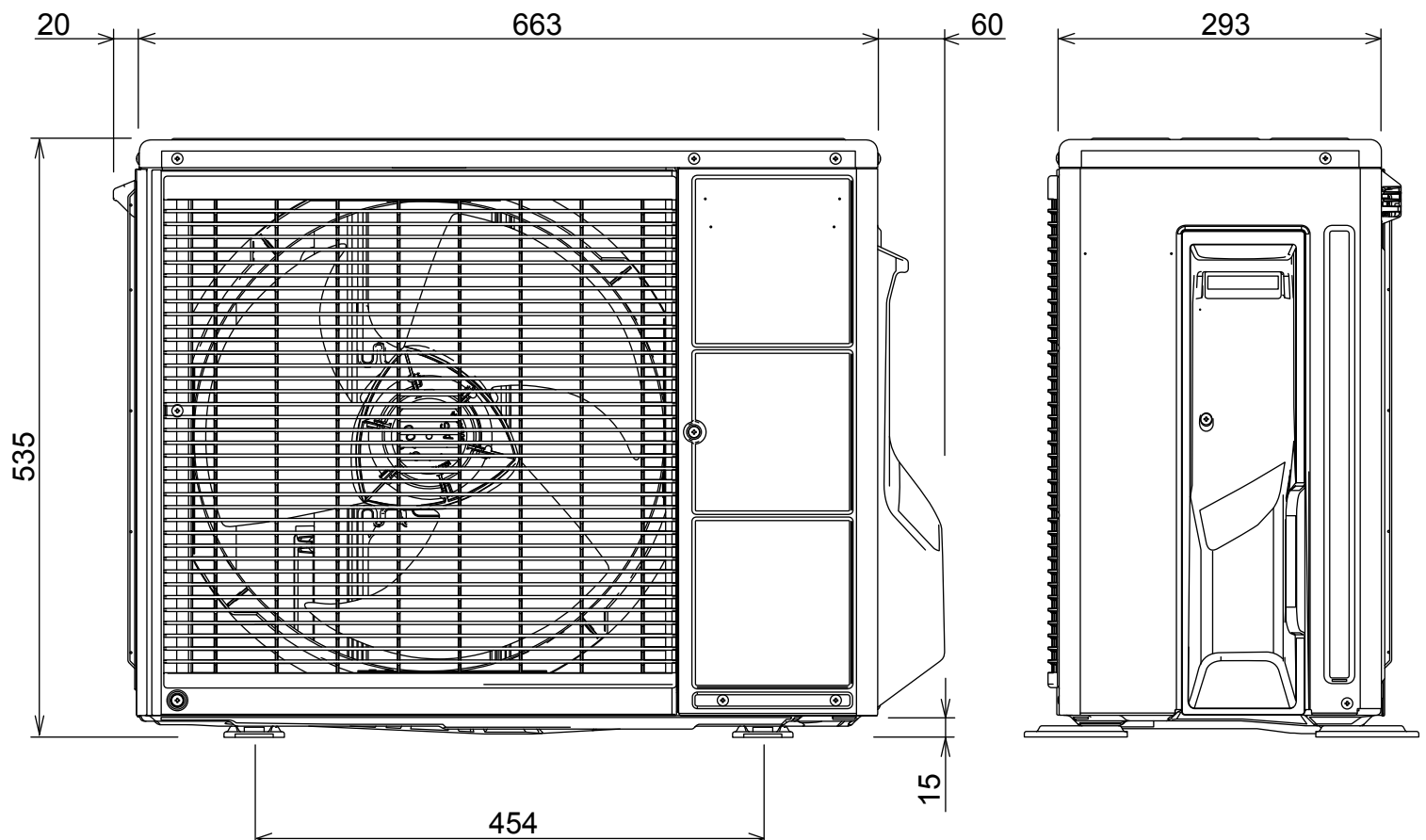


Drain hose

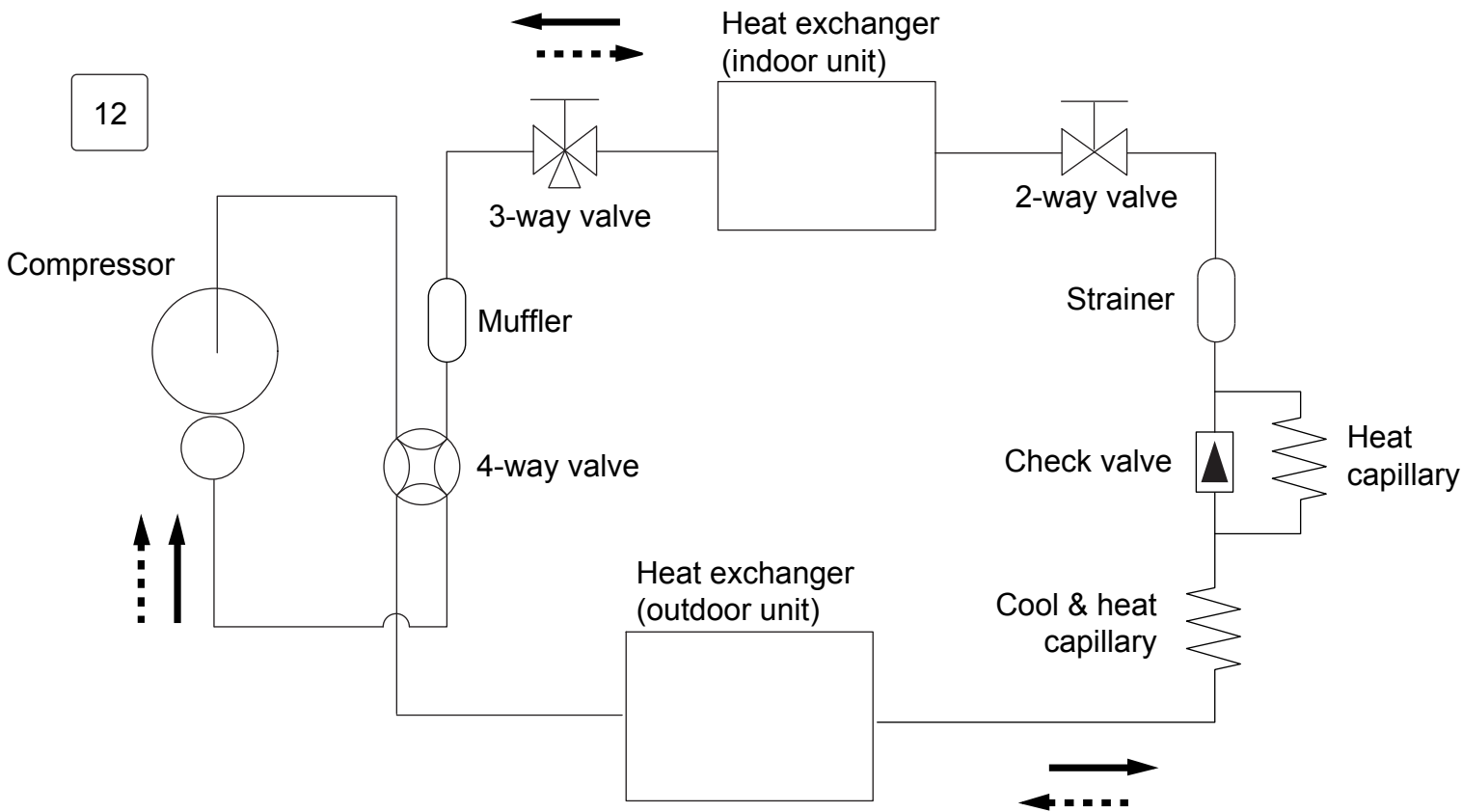
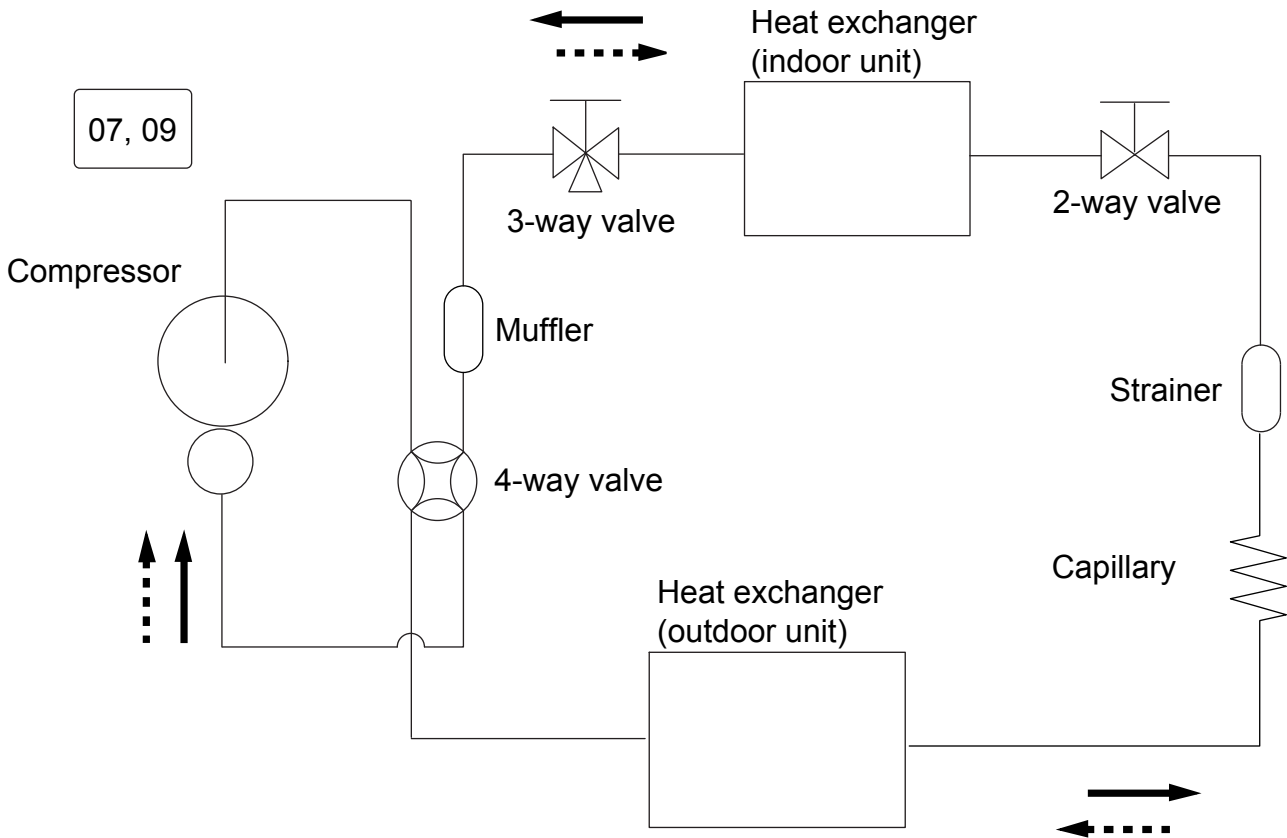


Inside : 13.8 mm

OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

————> Cooling

-----> Heating

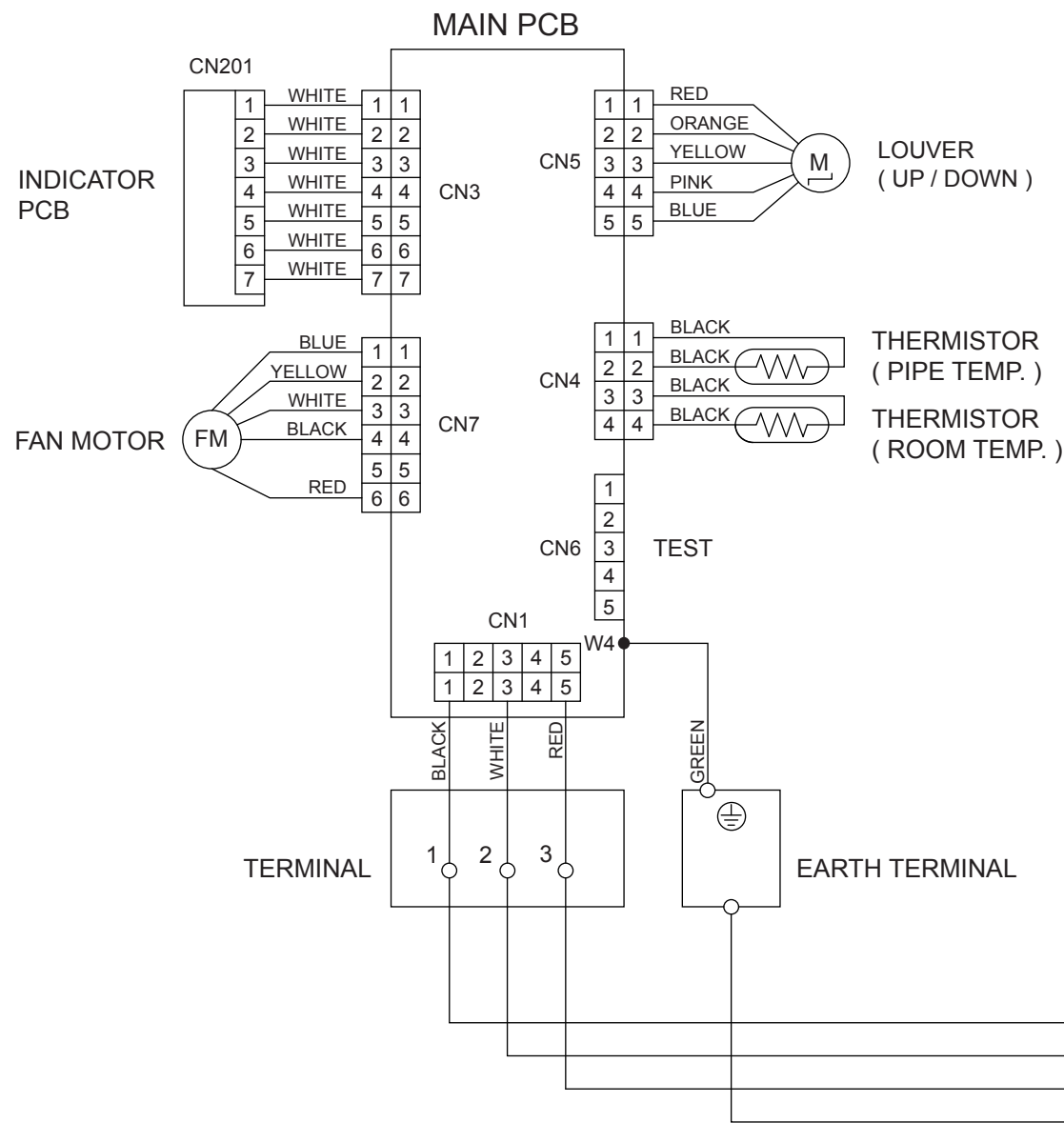
Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

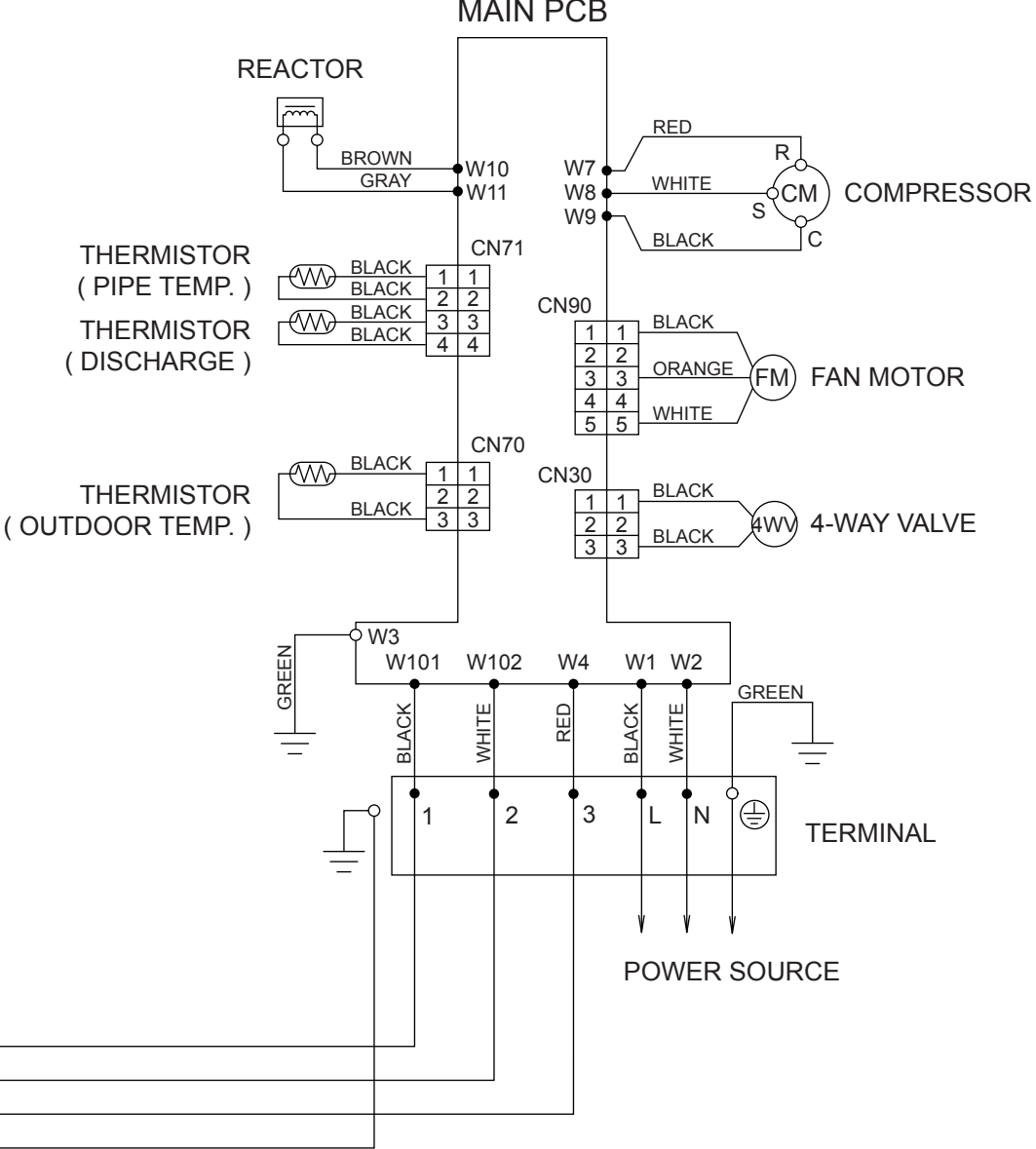
Gas : 3/8" (9.52 mm)

CIRCUIT DIAGRAM

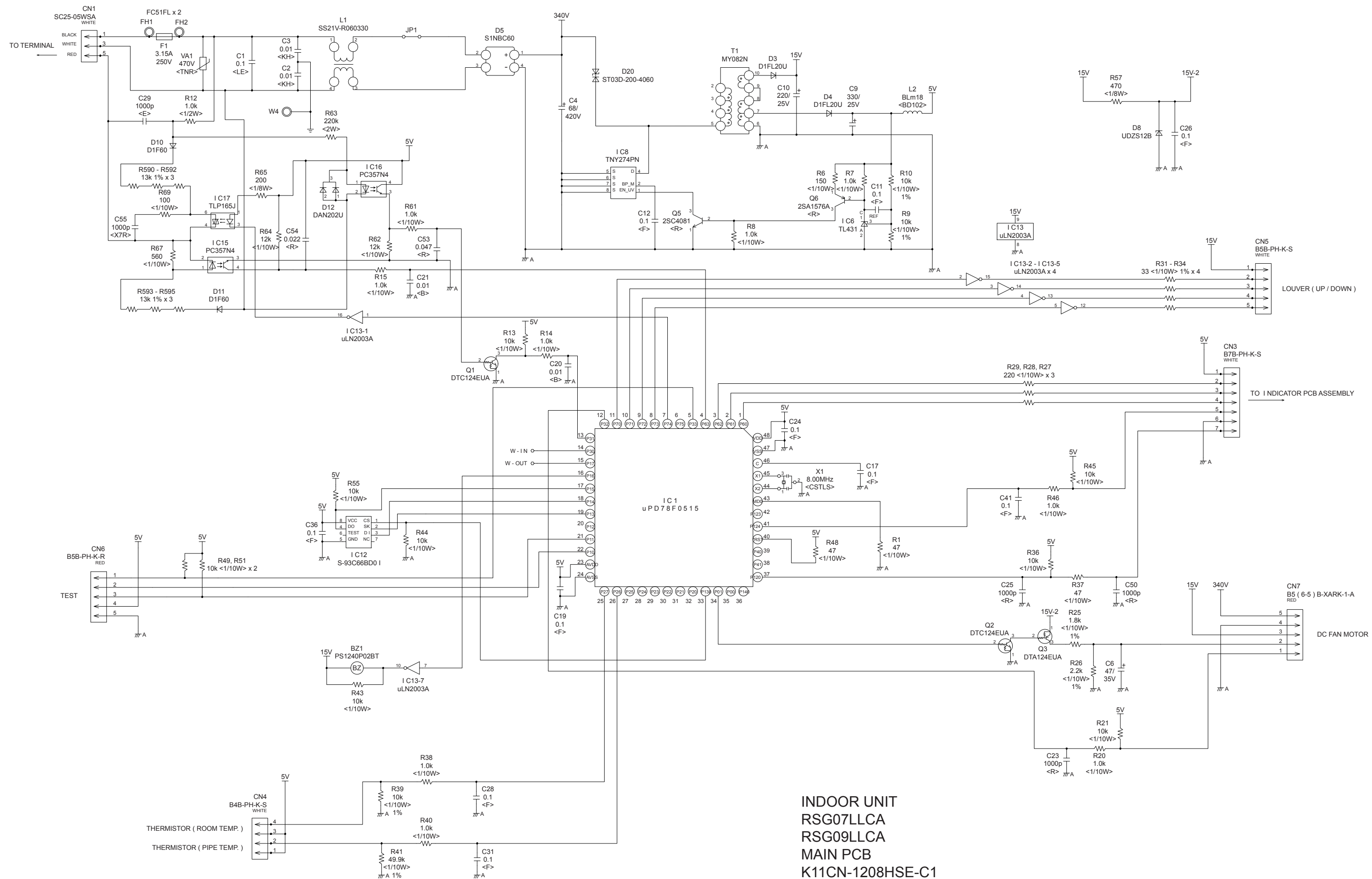
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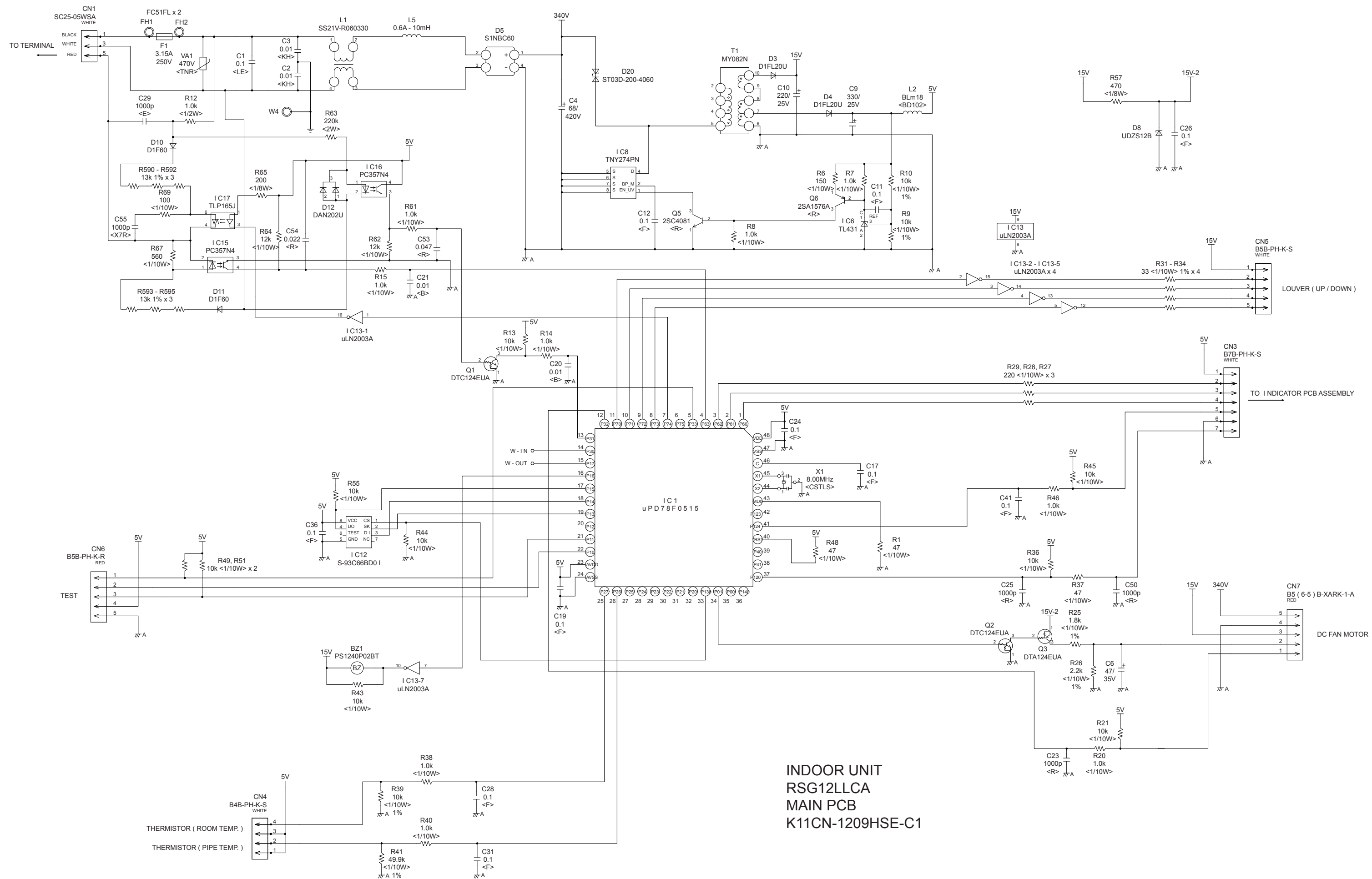


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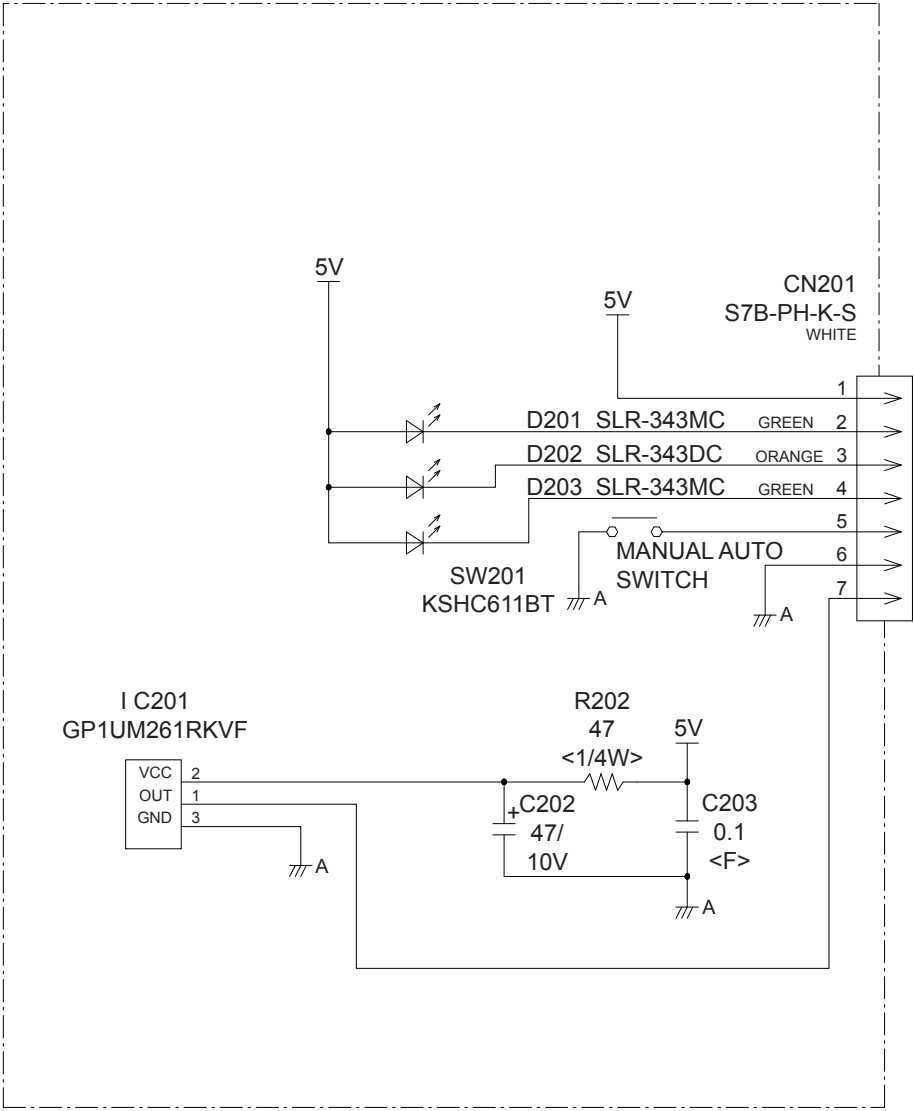






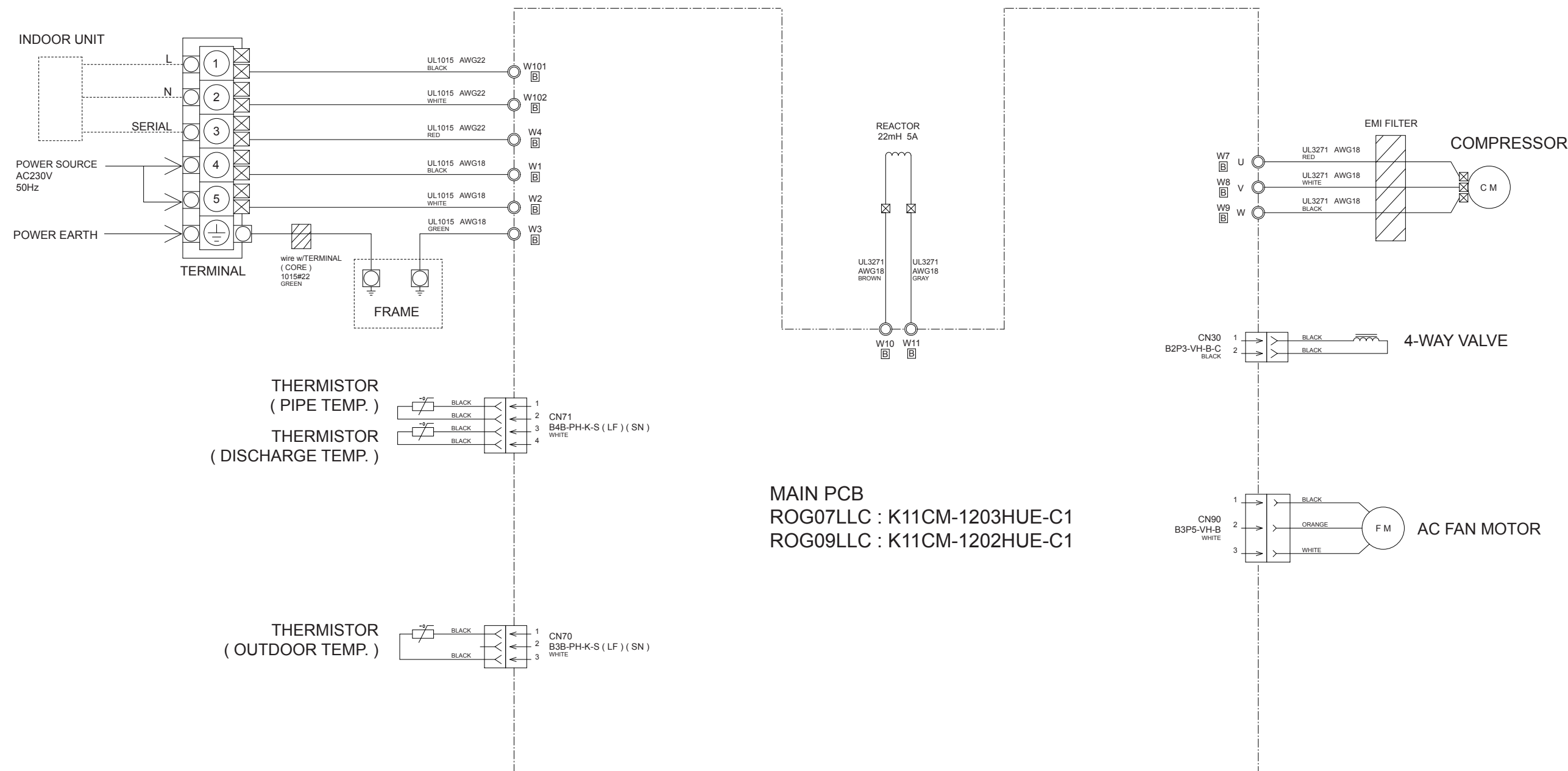


INDOOR UNIT
INDICATOR PCB
K11CO-1100HSE-D0

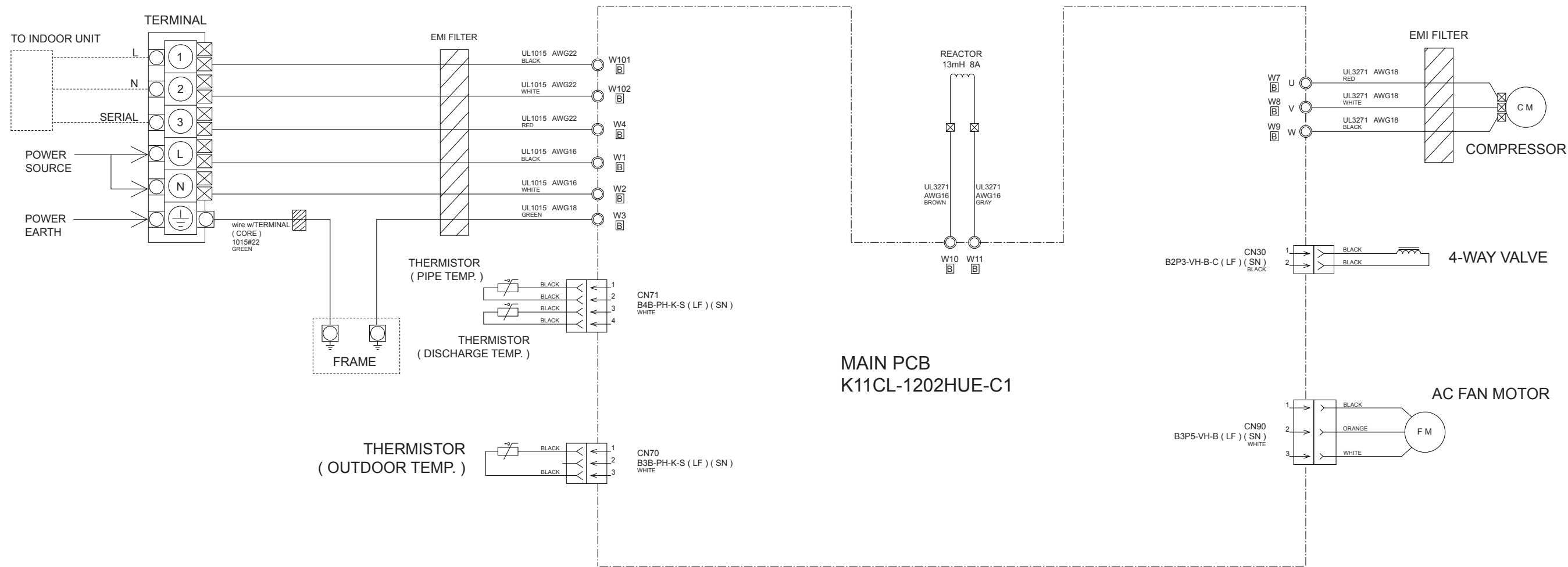


OUTDOOR PCB
CIRCUIT DIAGRAM

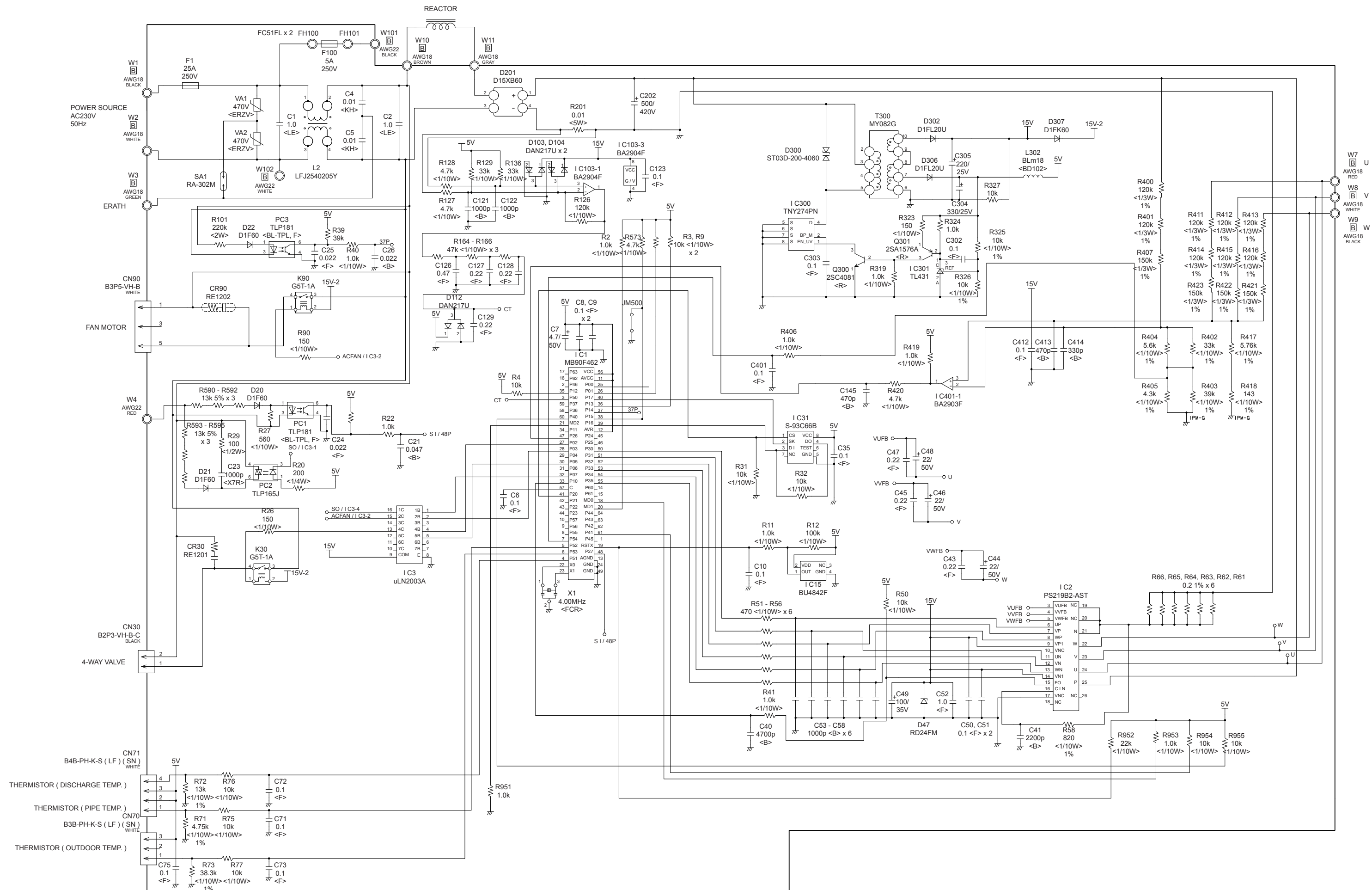
INVERTER ASSEMBLY
ROG07LLC : EZ-0121LHUE
ROG09LLC : EZ-0111KHUE



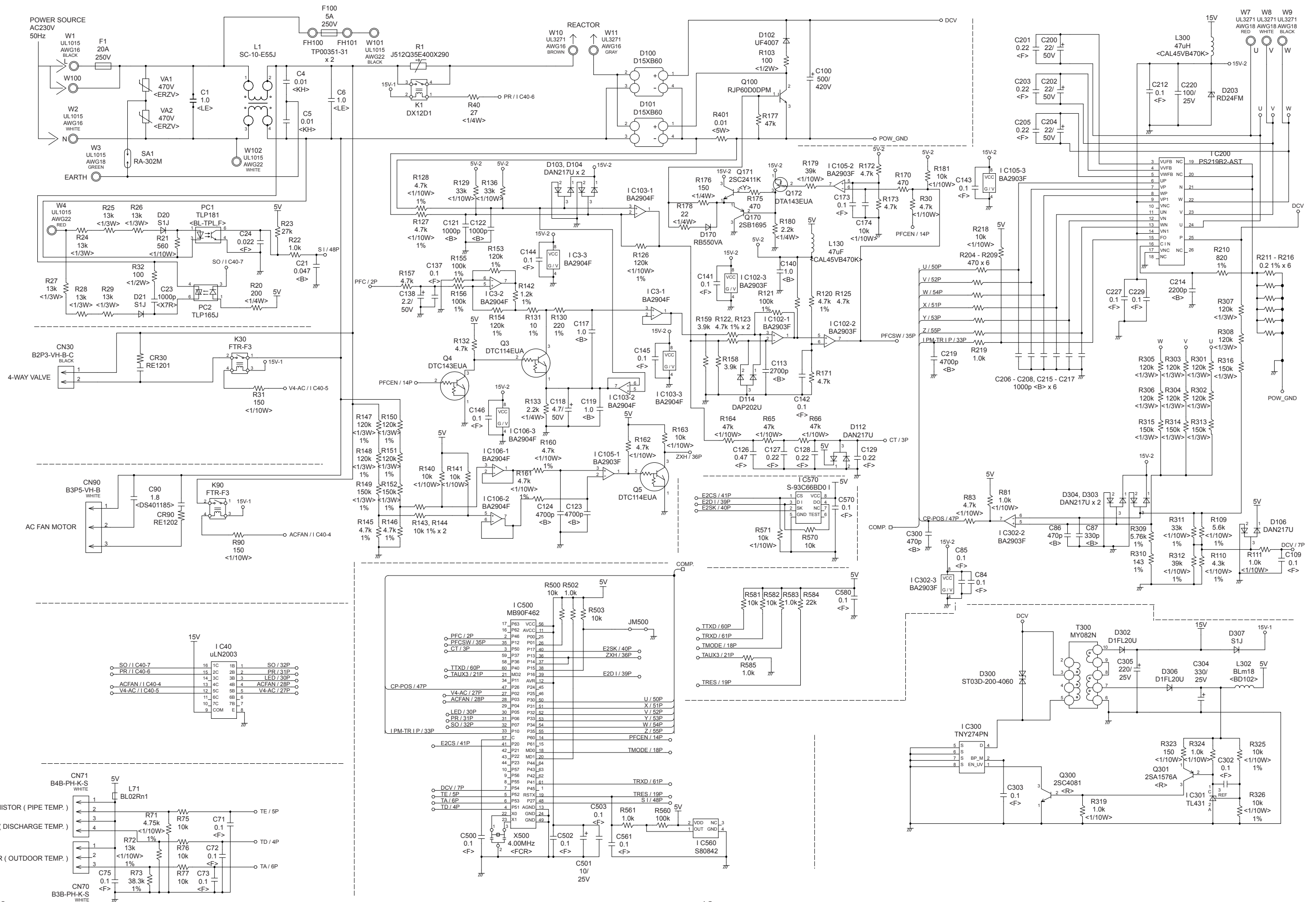
OUTDOOR UNIT
ROG12LLC
INVERTER ASSEMBLY
EZ-0111LHUE



OUTDOOR UNIT
MAIN PCB
ROG07LLC : K11CM-1203HUE-C1
ROG09LLC : K11CM-1202HUE-C1

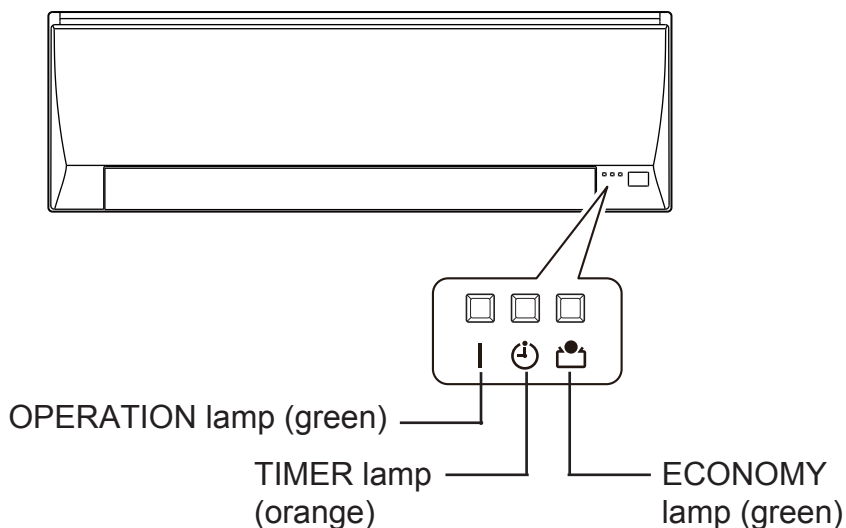


OUTDOOR UNIT
ROG12LLC
MAIN PCB
K11CL-1202HUE-C1



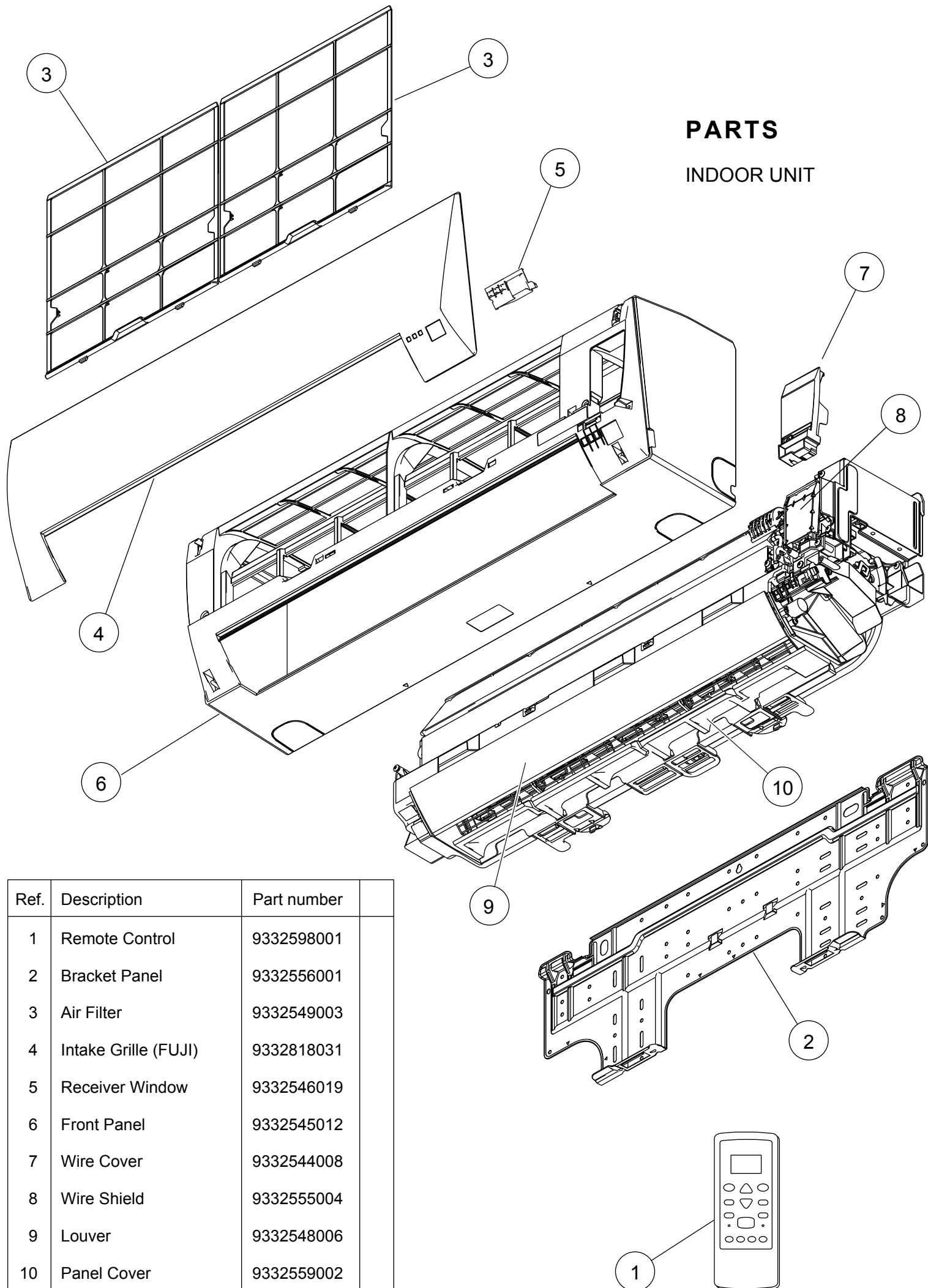
ERROR DETECTION

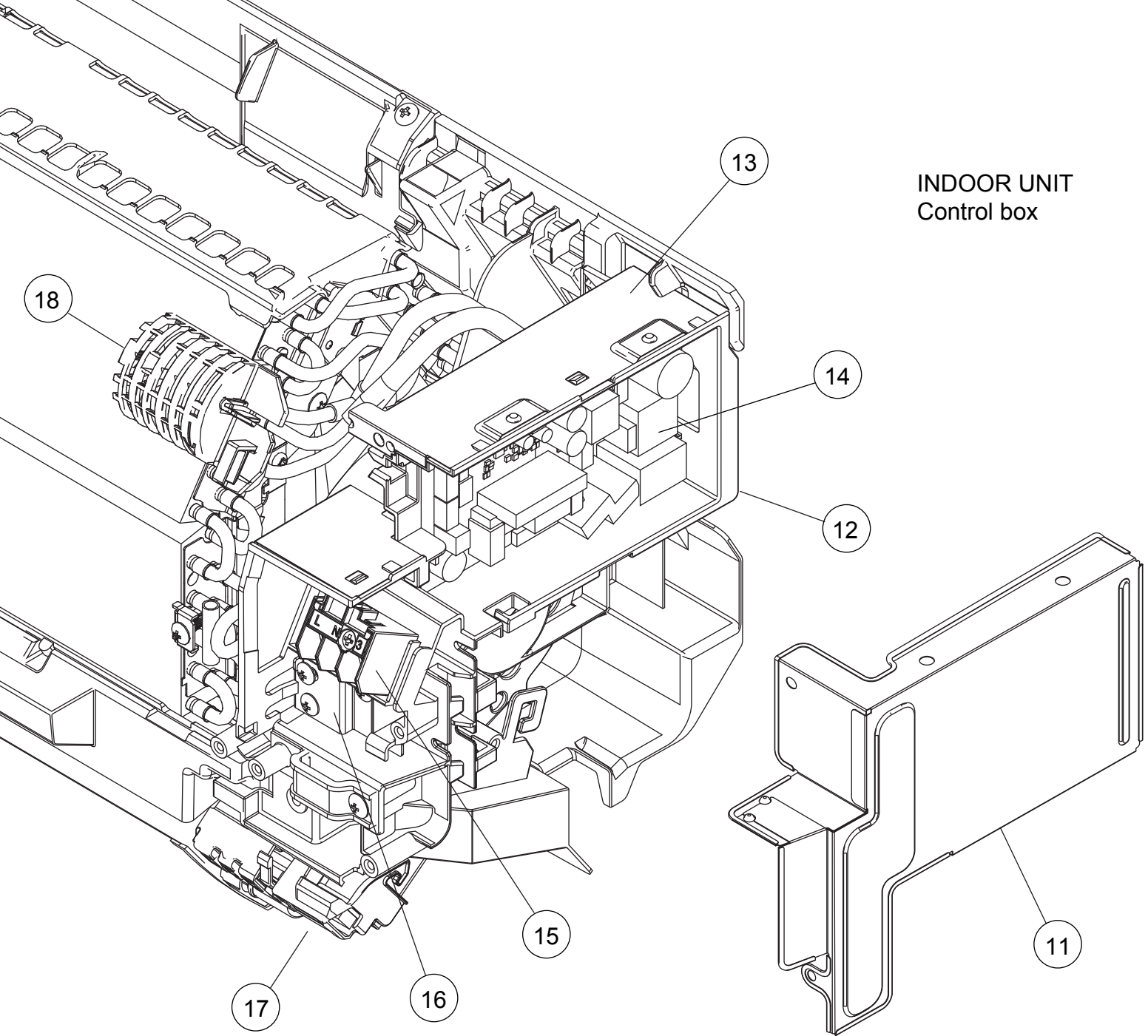
TROUBLESHOOTING
with the indoor unit display



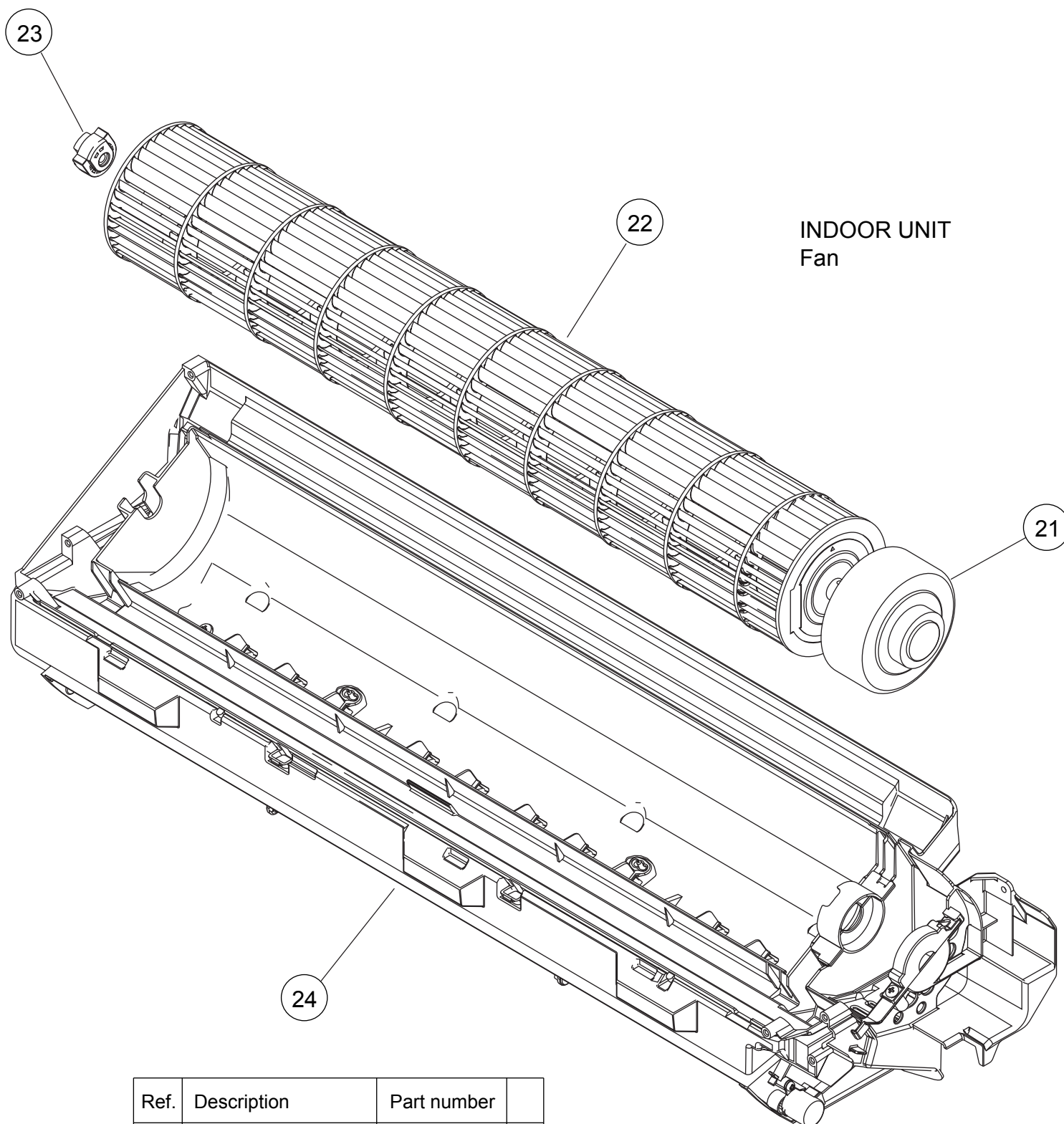
Error	OPERATION	TIMER	ECONOMY
Serial communication error	1 flash	1 flash	Rapid flash (0.1s on / 0.1s off)
Indoor unit PCB model information error	3	2	
Manual auto switch error	3	5	
Room temp. sensor error	4	1	
Indoor unit Heat Ex. Middle temp.sensor error	4	2	
Indoor unit fan motor error	5	1	
Indoor unit error	5	15	
Outdoor unit main PCB model information error or communication error	6	2	
Inverter error	6	3	
Active filter error, PFC circuit error	6	4	
Trip terminal L error	6	5	
Display PCB microcomputers communication error	6	10	
Discharge temp. sensor error	7	1	
Outdoor unit Heat Ex. liquid temp. sensor error	7	3	
Outdoor temp. sensor error	7	4	
Current sensor error	8	4	
Trip detection	9	4	
Compressor rotor position detection error	9	5	
4-way valve error	9	9	
Discharge temp. error	10	1	

(0.5s on / 0.5s off)



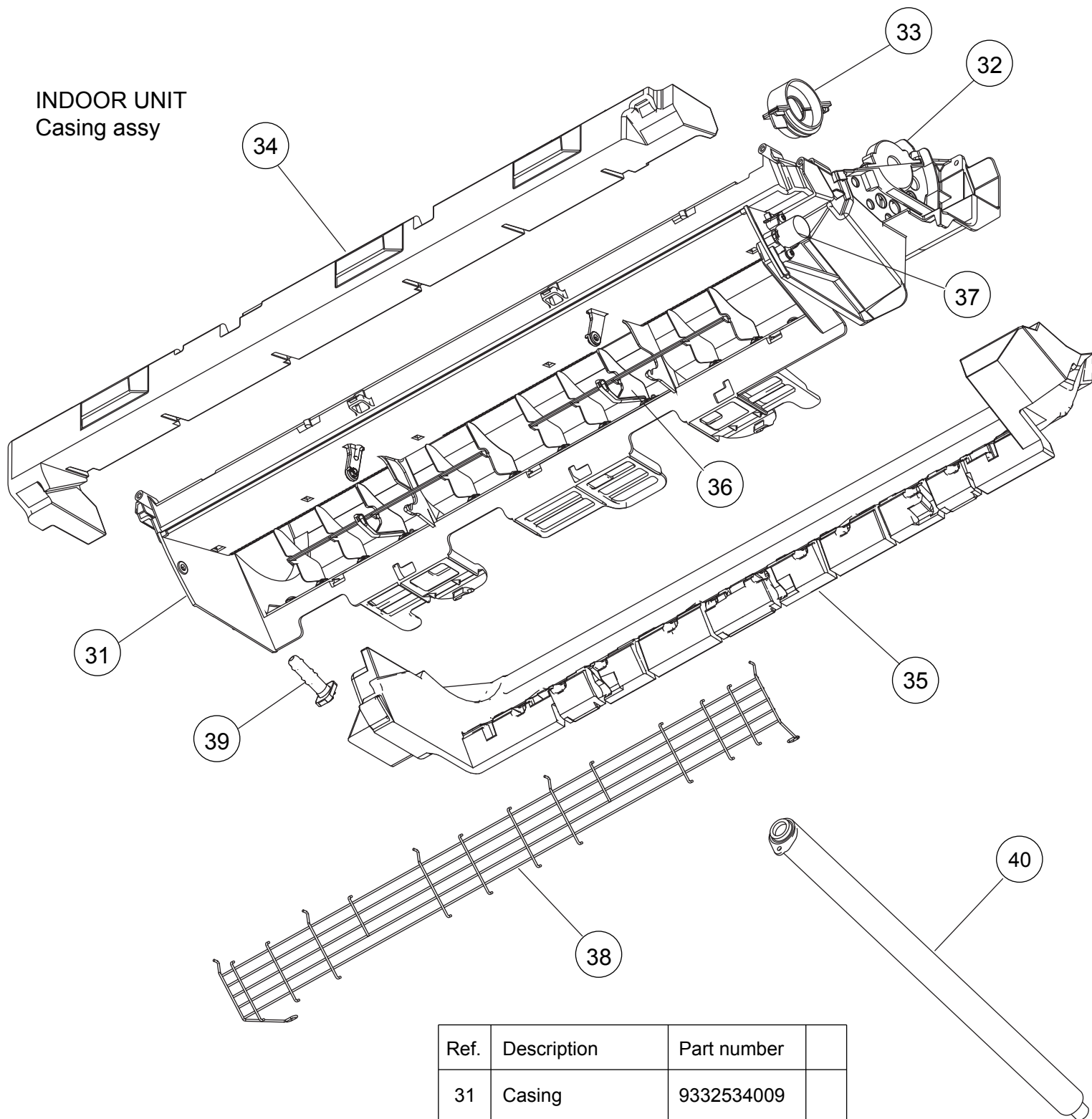


Ref.	Description	Part number	
11	Cover Shield	9332554007	
12	Control Box	9332542004	
13	Box Shield Assy	9332561005	
14	Main PCB (07, 09)	9709170137	
14	Main PCB (12)	9709170144	
15	Terminal	9900720001	
16	Earth Terminal	9332553024	
17	Display Assy	9709173015	
18	Room Thermistor Holder	9316895003	
--	Thermistor Assy	9900714024	



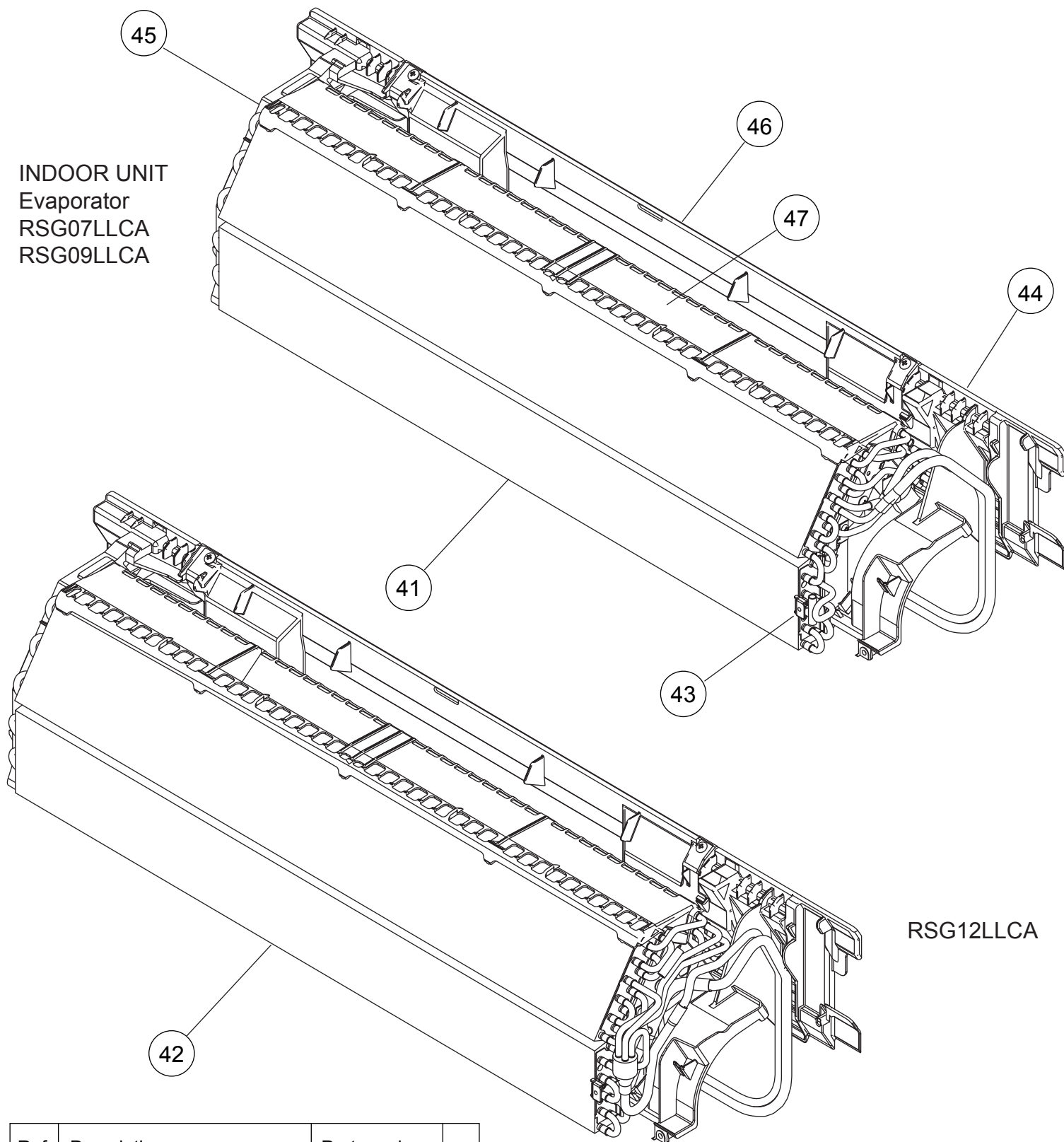
Ref.	Description	Part number	
21	Fan Motor	9603180003	
22	Crossflow Fan Assy	9316830004	
23	Bearing C Assy	9306628017	
24	Casing Assy	9332613018	

INDOOR UNIT
Casing assy



Ref.	Description	Part number	
31	Casing	9332534009	
32	Motor Cover	9316601000	
33	Motor Cover	9316568006	
34	Casing Cover F	9332558005	
35	Casing Cover B	9332557008	
36	R and L Louver	9332535006	
37	Step Motor	9900725006	
38	Fan Guard	9332551006	
39	Drain Cap	9316177017	
40	Drain Hose Assy	9316904002	

INDOOR UNIT
Evaporator
RSG07LLCA
RSG09LLCA

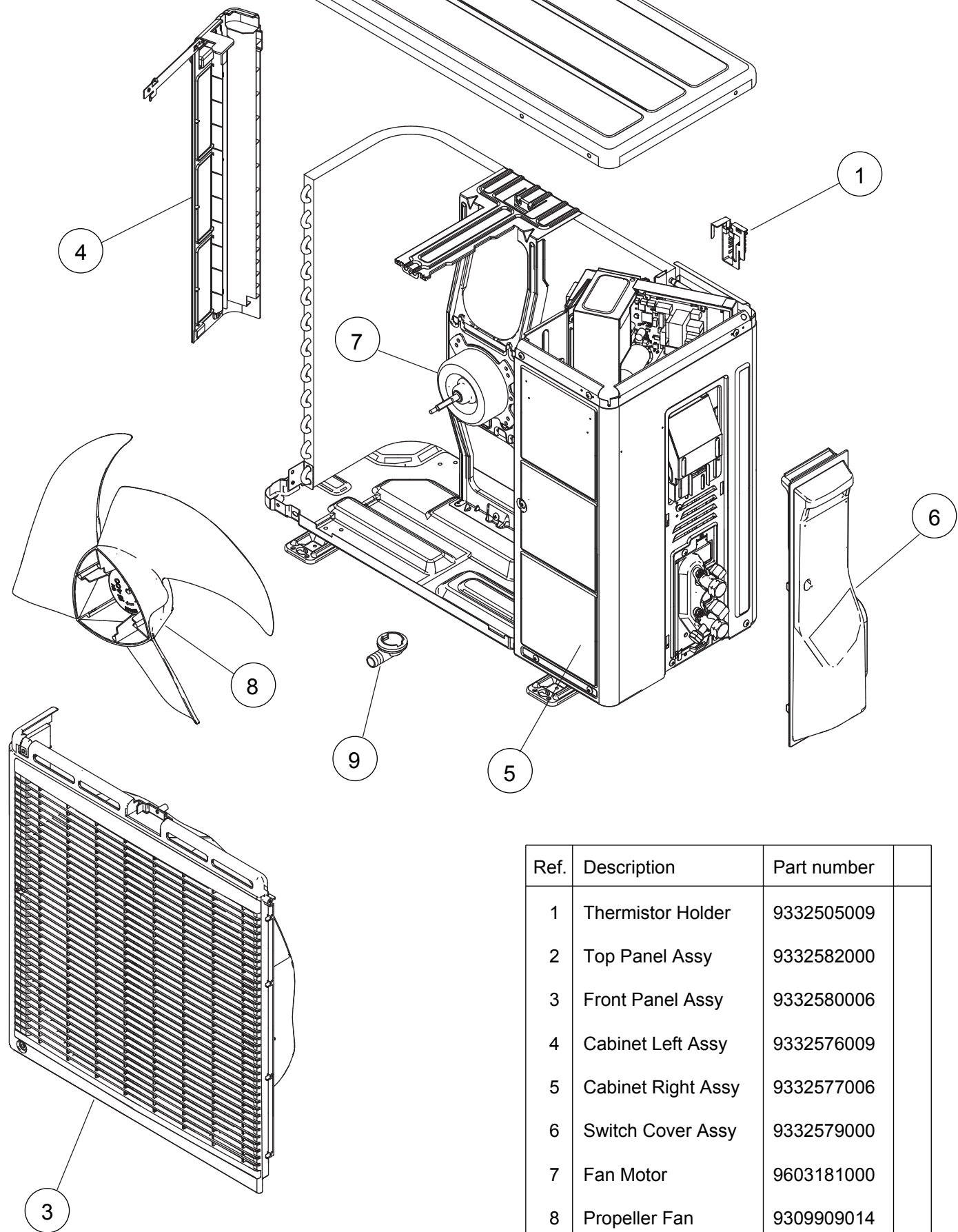


RSG12LLCA

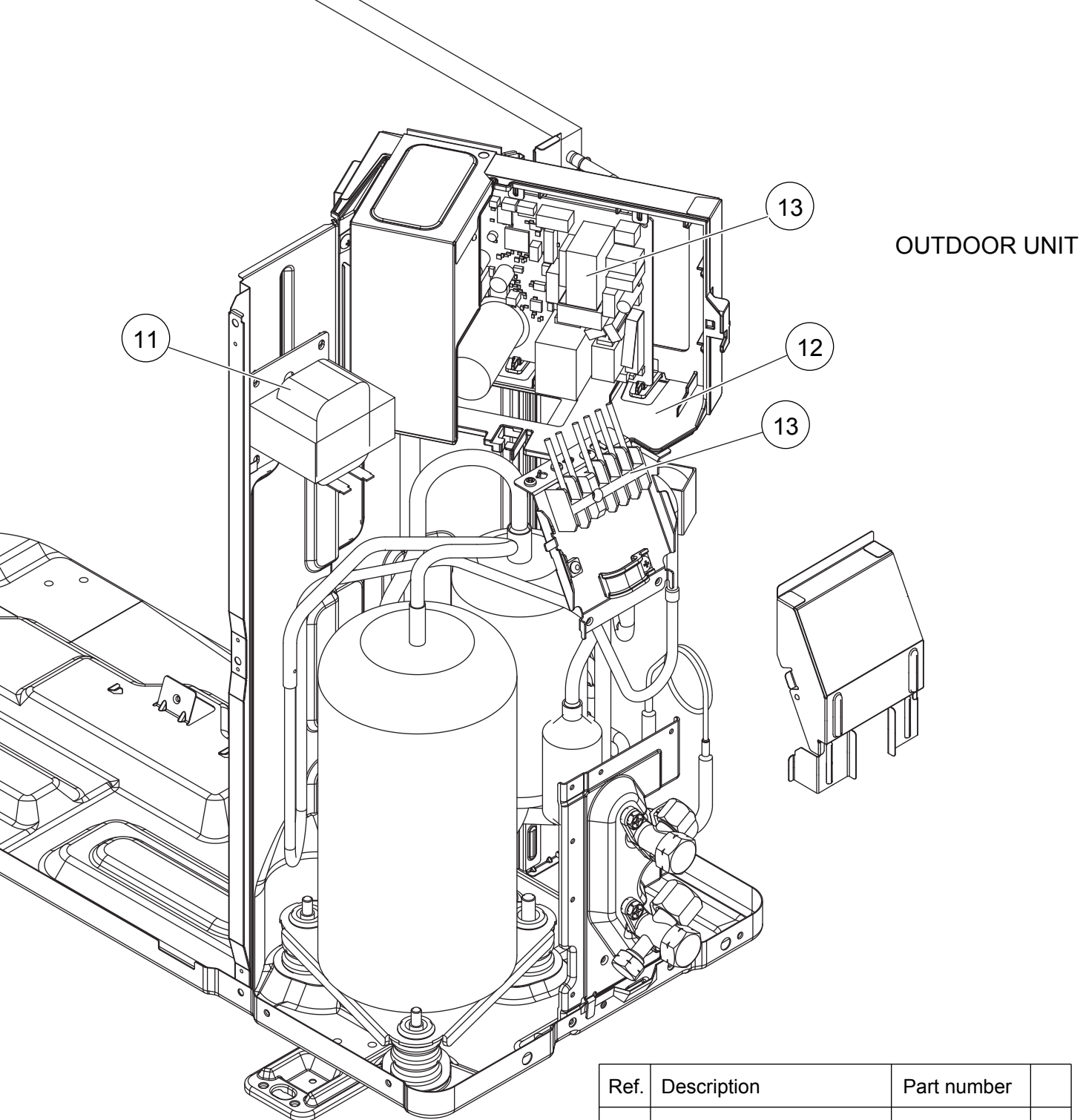
Ref.	Description	Part number	
41	Evaporator Total Assy (07, 09)	9316893085	
42	Evaporator Total Assy (12)	9316893092	
43	Earth Terminal	9316579002	
44	Evaporator Holder R	9332538007	
45	Evaporator Holder L	9332539004	
46	Rear Bracket	9332540017	
47	Filter Guide	9332541007	

PARTS

OUTDOOR UNIT

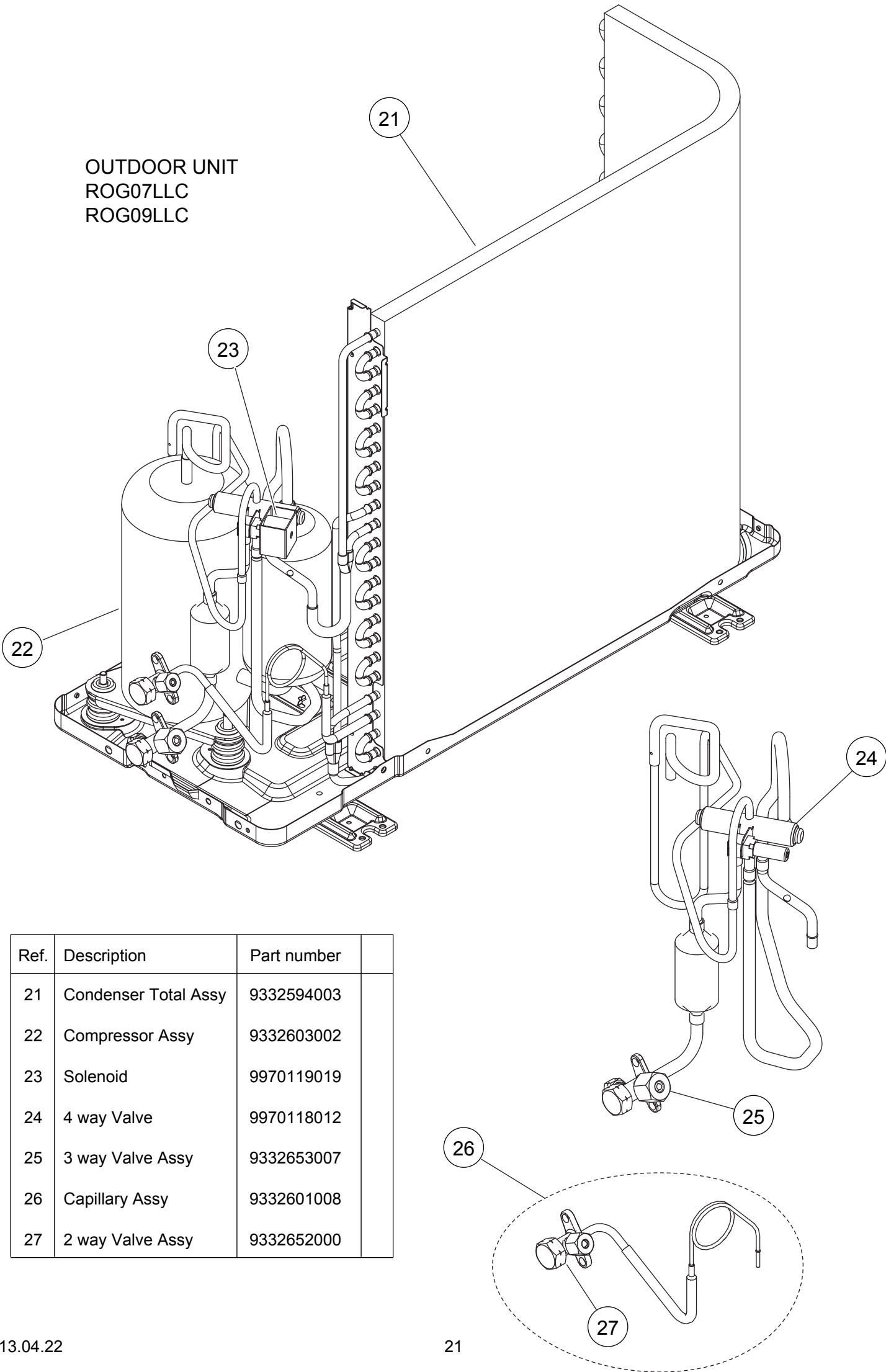


Ref.	Description	Part number	
1	Thermistor Holder	9332505009	
2	Top Panel Assy	9332582000	
3	Front Panel Assy	9332580006	
4	Cabinet Left Assy	9332576009	
5	Cabinet Right Assy	9332577006	
6	Switch Cover Assy	9332579000	
7	Fan Motor	9603181000	
8	Propeller Fan	9309909014	
9	Drain Assy	9332574005	
--	Emblem	9332679007	



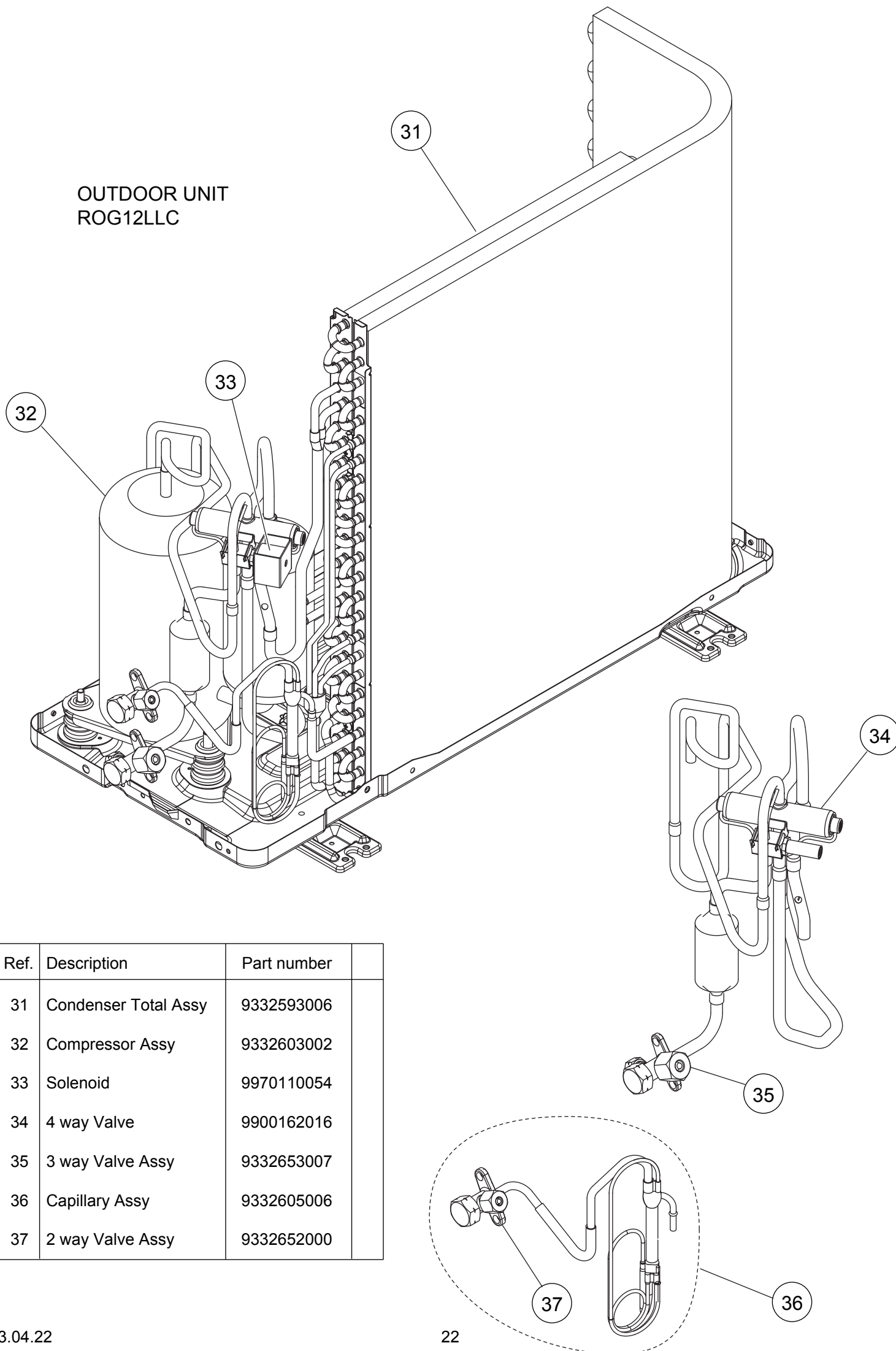
Ref.	Description	Part number	
11	Reactor Assy (07, 09)	9900711016	
11	Reactor Assy (12)	9900710019	
12	PCB Holder	9332506006	
13	Main PCB with Terminal (07)	9709178065	
13	Main PCB with Terminal (09)	9709178058	
13	Main PCB with Terminal (12)	9709183052	
--	Thermistor Assy	9900719012	
--	Thermistor	9900717018	
--	Heat Sink A (07, 09)	9332521009	
--	Heat Sink B (12)	9332522006	

OUTDOOR UNIT
ROG07LLC
ROG09LLC



Ref.	Description	Part number
21	Condenser Total Assy	9332594003
22	Compressor Assy	9332603002
23	Solenoid	9970119019
24	4 way Valve	9970118012
25	3 way Valve Assy	9332653007
26	Capillary Assy	9332601008
27	2 way Valve Assy	9332652000

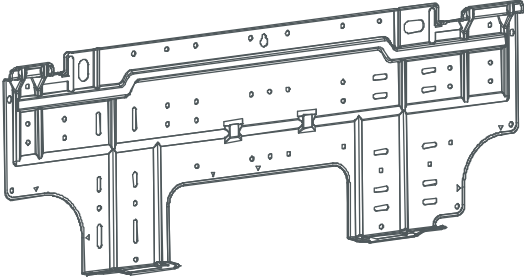
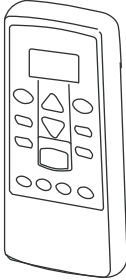
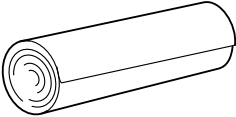
OUTDOOR UNIT ROG12LLC



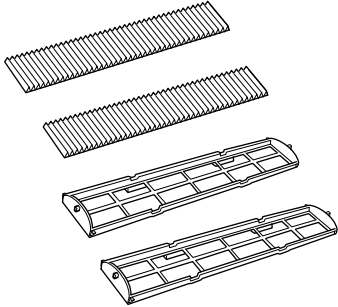
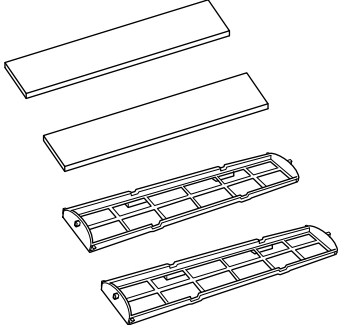
Ref.	Description	Part number
31	Condenser Total Assy	9332593006
32	Compressor Assy	9332603002
33	Solenoid	9970110054
34	4 way Valve	9900162016
35	3 way Valve Assy	9332653007
36	Capillary Assy	9332605006
37	2 way Valve Assy	9332652000

ACCESSORIES

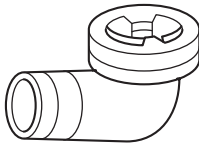
INDOOR UNIT

Name and Shape	Part number
Wall hook bracket 	9332556001
Remote control 	9332598001
Battery (penlight) 	0600185541
Cloth tape 	9310519004
Tapping screw (big) (φ 4 x 25) 	0700076046

OPTIONAL PARTS

Name and Shape	Part number
Air cleaning filter (Electric) 	UTR-FA03-2 9312829002
Air cleaning filter (Ion deodorant) 	UTR-FA03-3 9312830008

OUTDOOR UNIT

Name and Shape	Part number
Drain pipe assy 	9332574005

