

SPLIT TYPE  
ROOM AIR CONDITIONER  
WALL MOUNTED TYPE

# SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG07LLCA	AOYG07LLC
ASYG09LLCA	AOYG09LLC
ASYG12LLCA	AOYG12LLC

## CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM... .	3
CIRCUIT DIAGRAM.....	4
INDOOR PCB CIRCUIT DIAGRAM.....	5
OUTDOOR PCB CIRCUIT DIAGRAM... .	9
ERROR DETECTION.....	13
PARTS (INDOOR UNIT).....	14
PARTS (OUTDOOR UNIT).....	19
ACCESSORIES.....	23

# SPECIFICATIONS

## ELECTRICAL DATA

TYPE		Cool & heat inverter		
INDOOR UNIT		ASYG07LLCA	ASYG09LLCA	ASYG12LLCA
OUTDOOR UNIT		AOYG07LLC	AOYG09LLC	AOYG12LLC
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 <sup>3</sup> /h		
	Heating	740 m <sup>3</sup> /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
		15 m	750 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

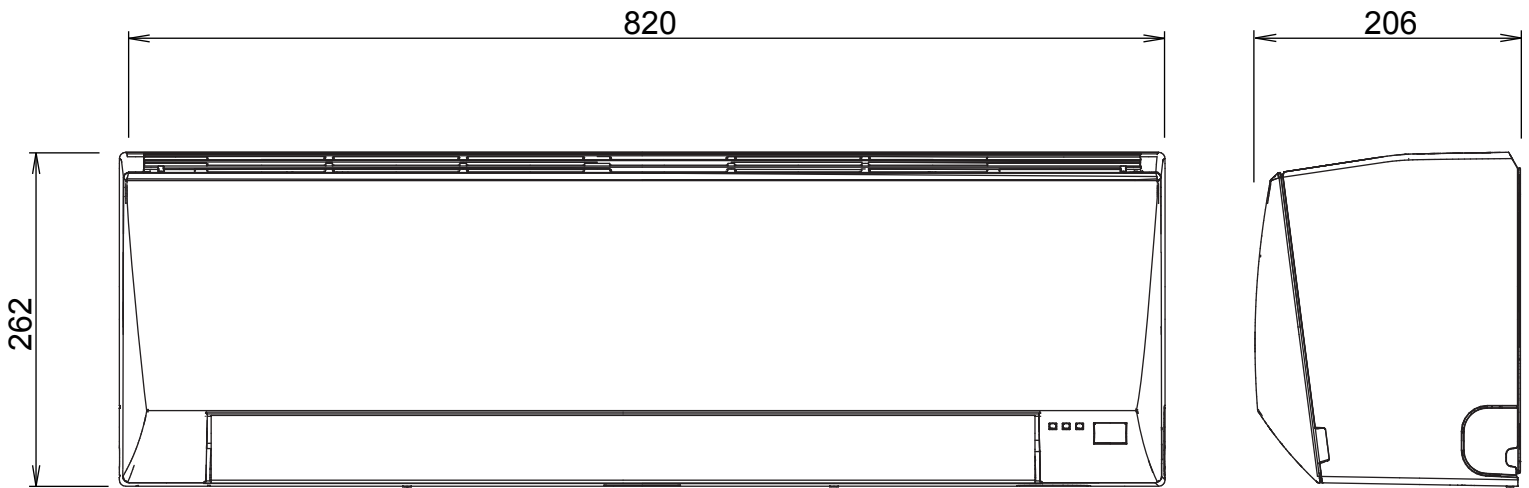
## WEIGHT

INDOOR UNIT Net / Shipping	7.0 / 9.0	7.5 kg / 9.5 kg
OUTDOOR UNIT Net / Shipping	24 kg / 28 kg	26 / 29

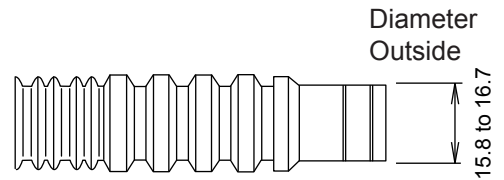
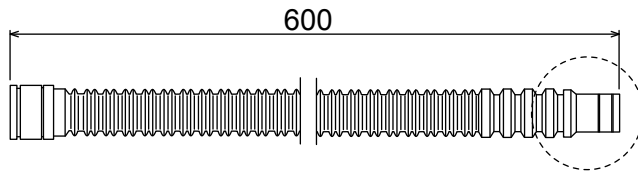
# DIMENSIONS

unit : mm

## INDOOR UNIT

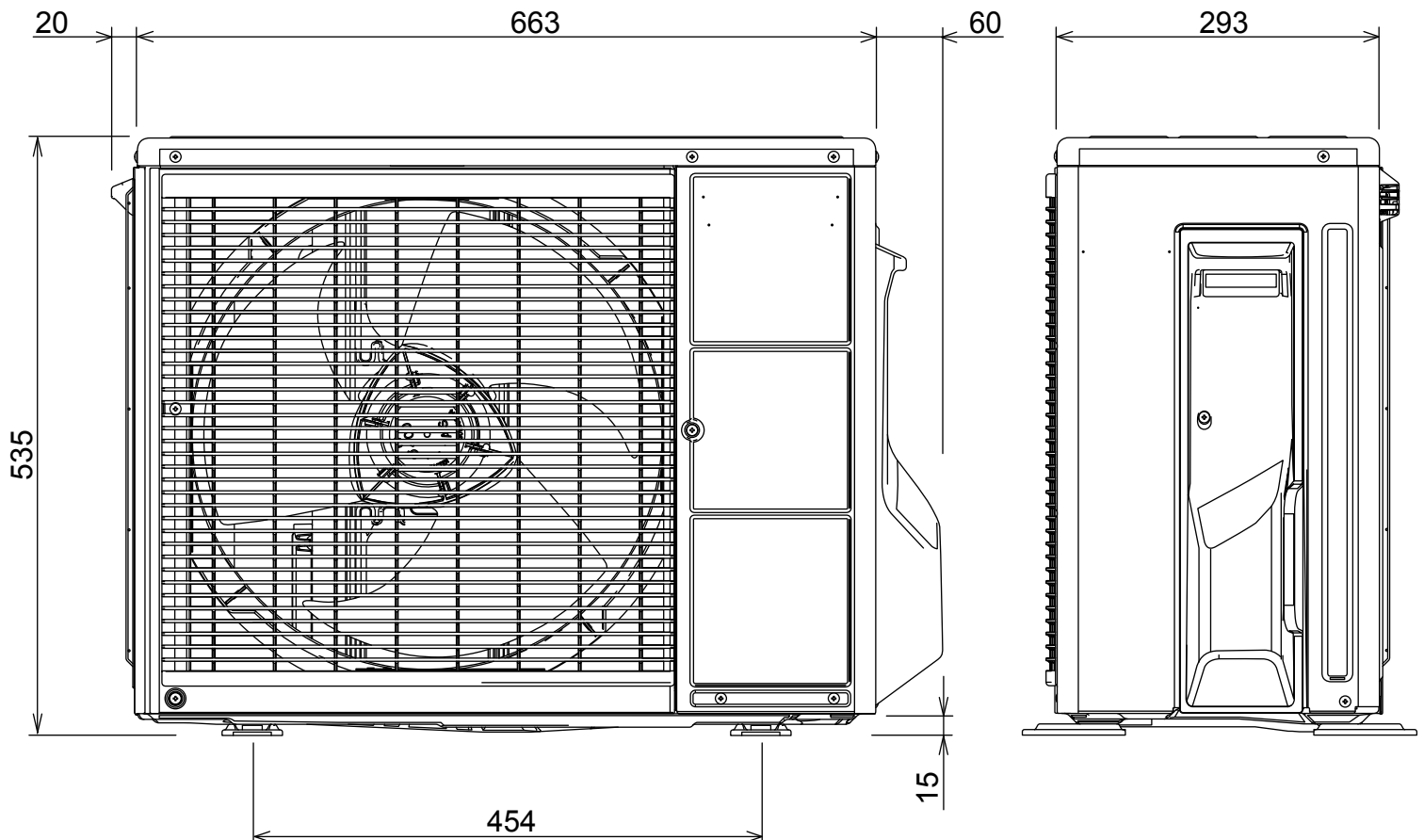


Drain hose

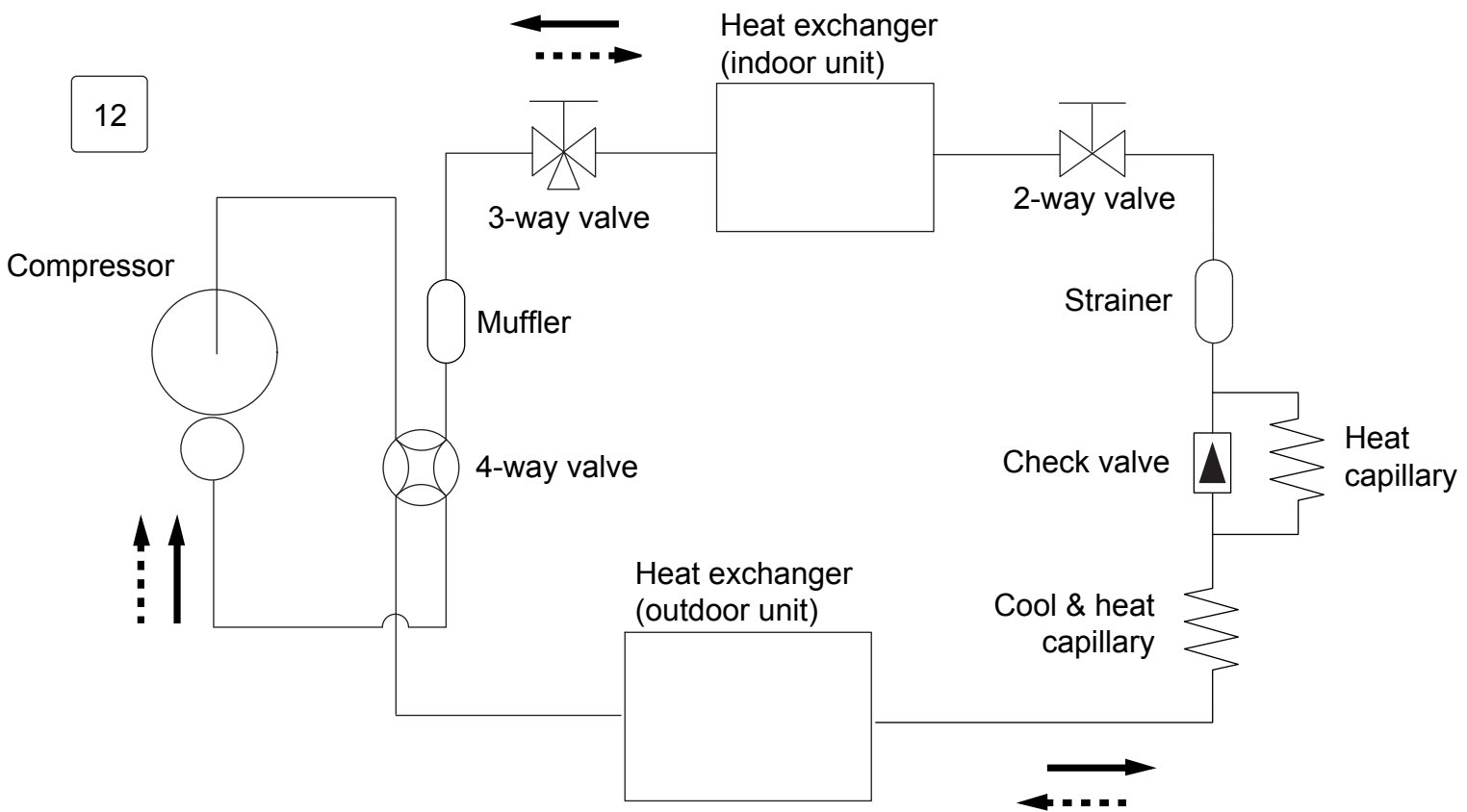
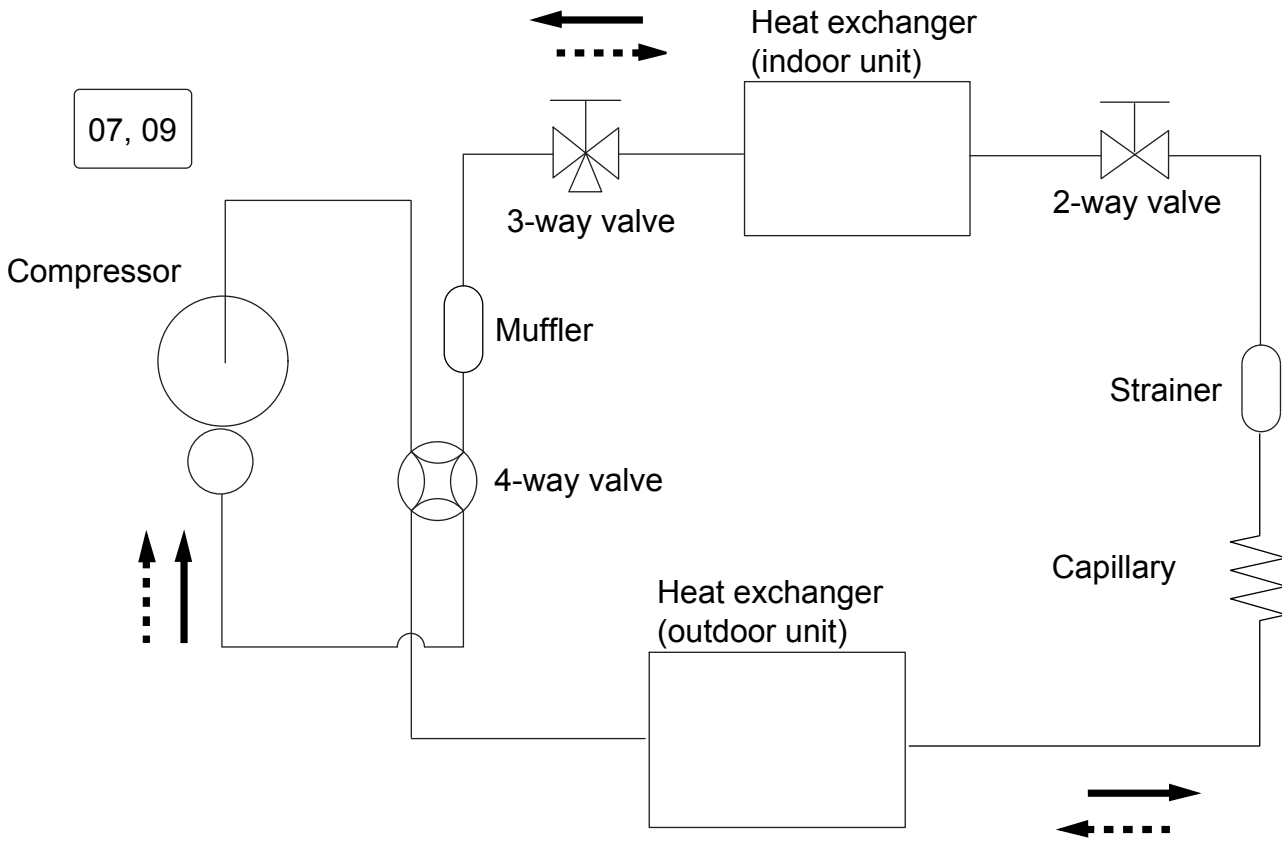


Inside : 13.8 mm

## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

—————▶ Cooling

.....▶ Heating

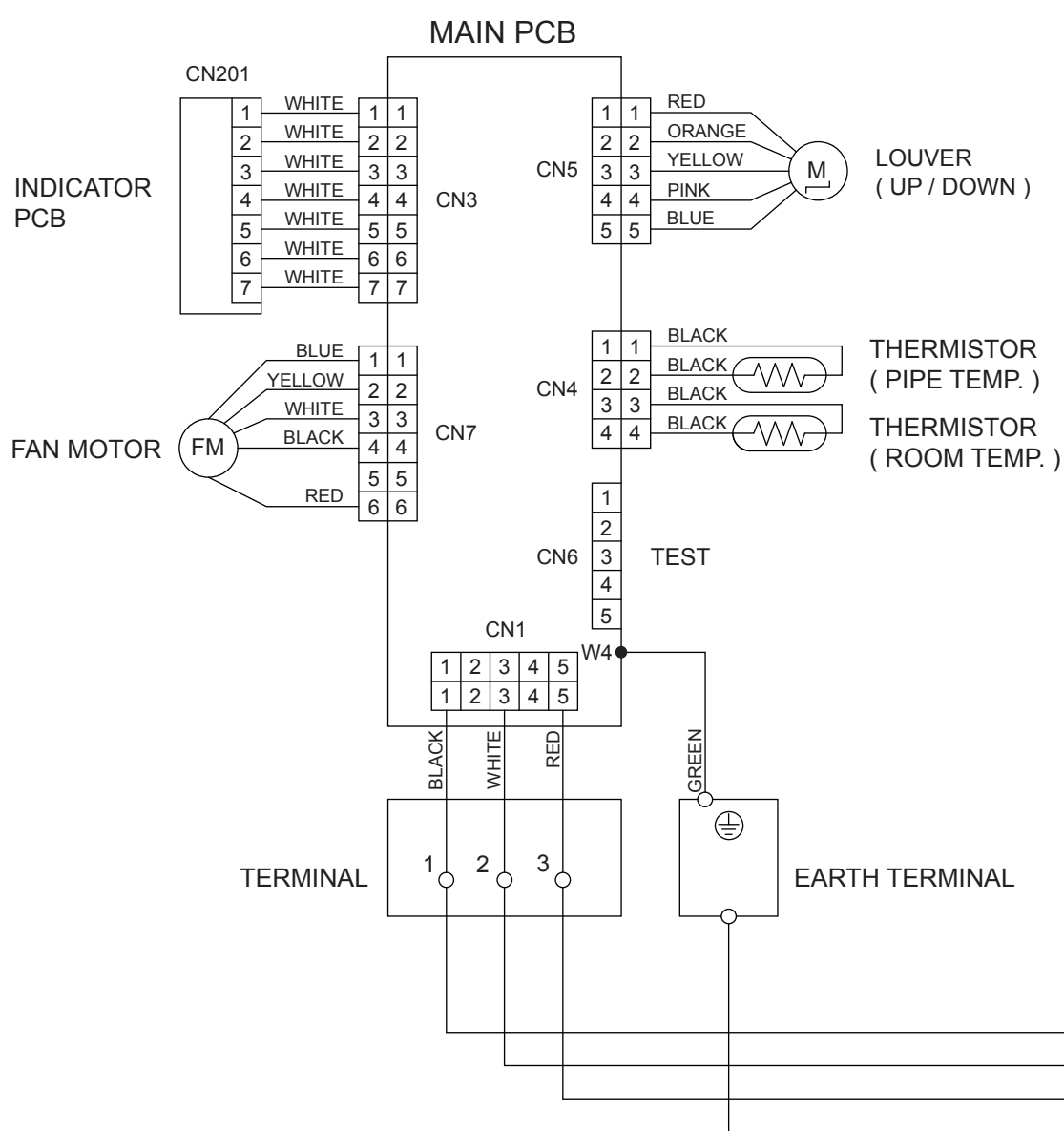
Refrigerant pipe diameter

Liquid : 1/4" (6.35 mm)

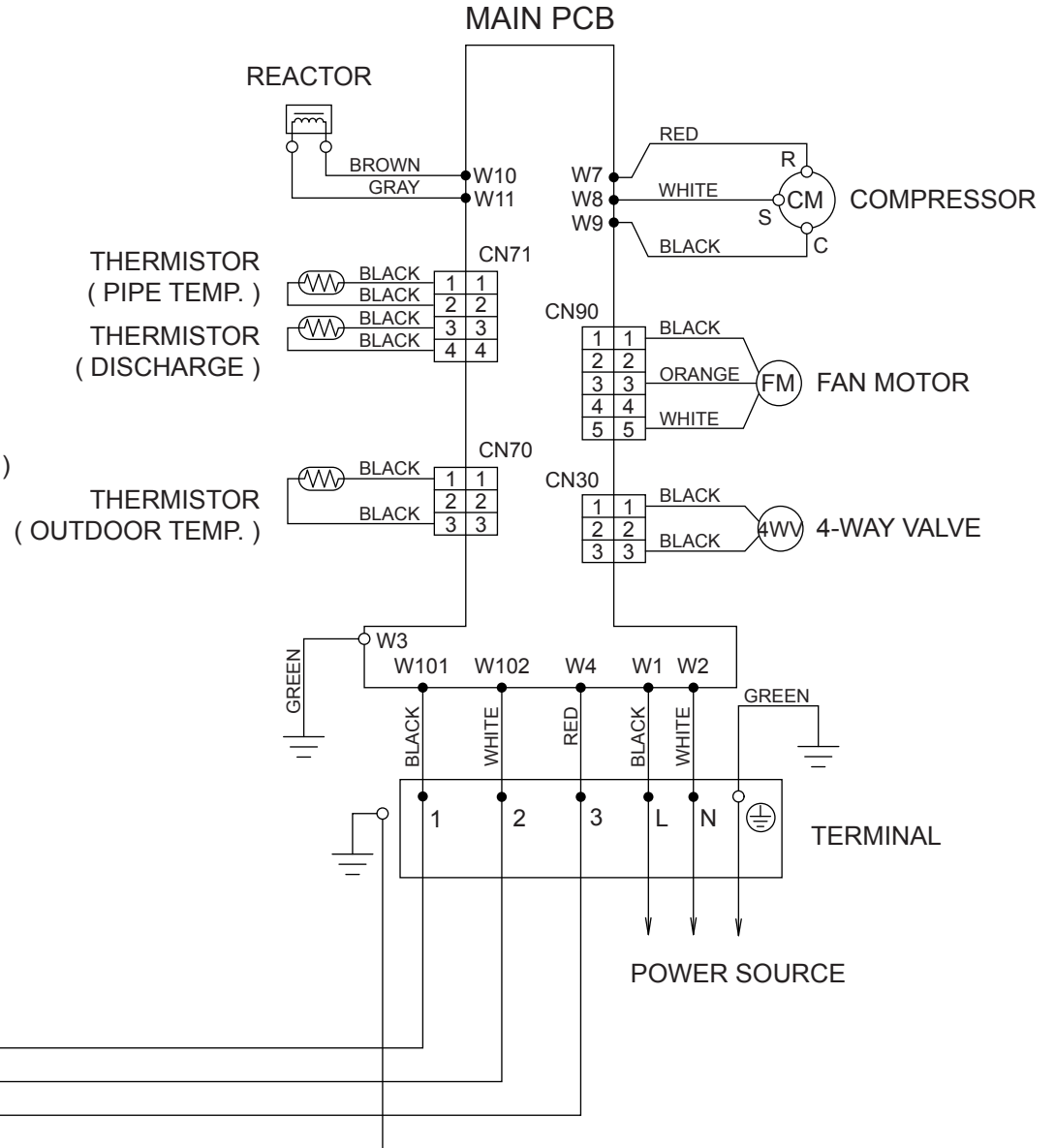
Gas : 3/8" (9.52 mm)

# CIRCUIT DIAGRAM

## INDOOR UNIT

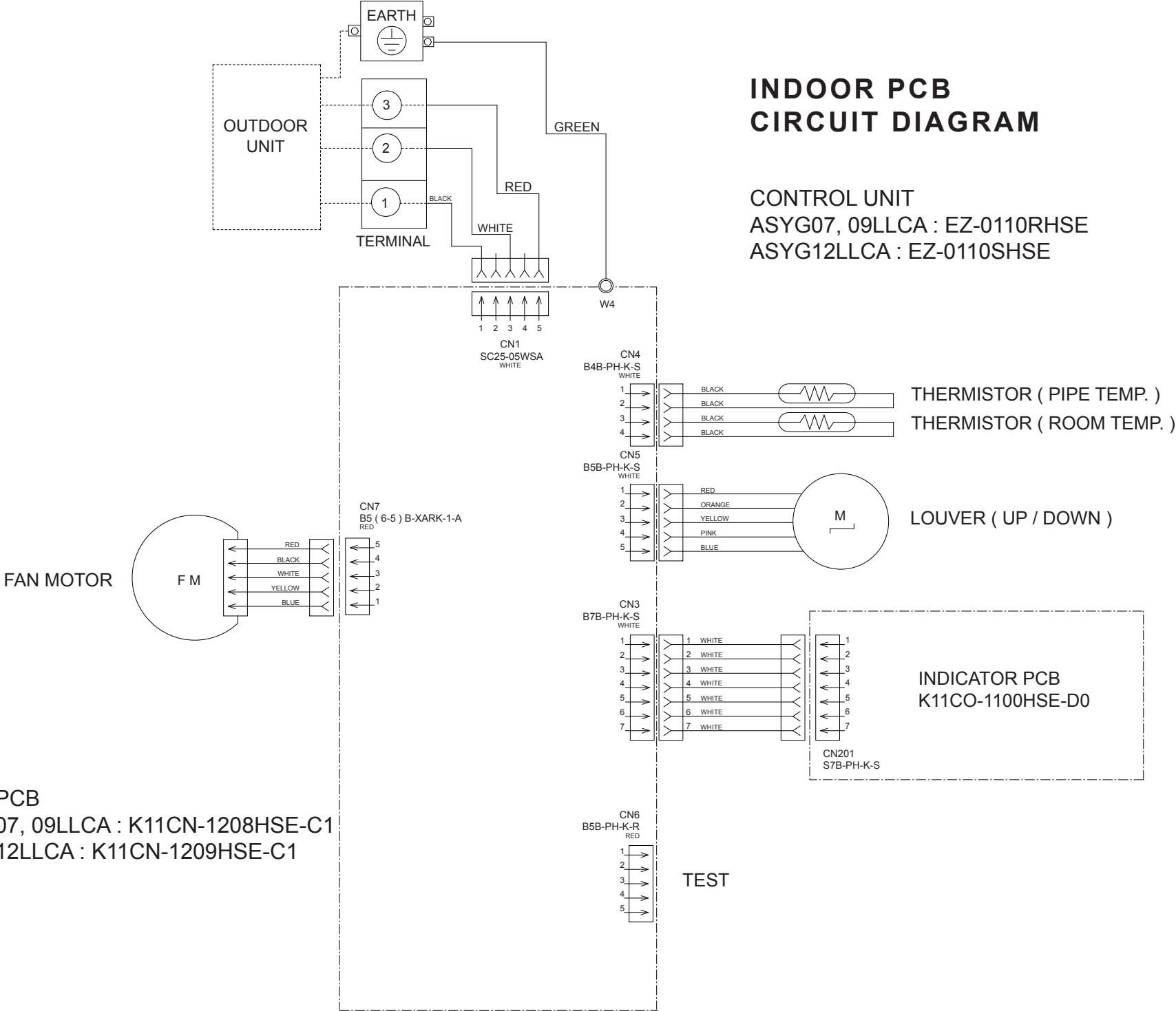


## OUTDOOR UNIT

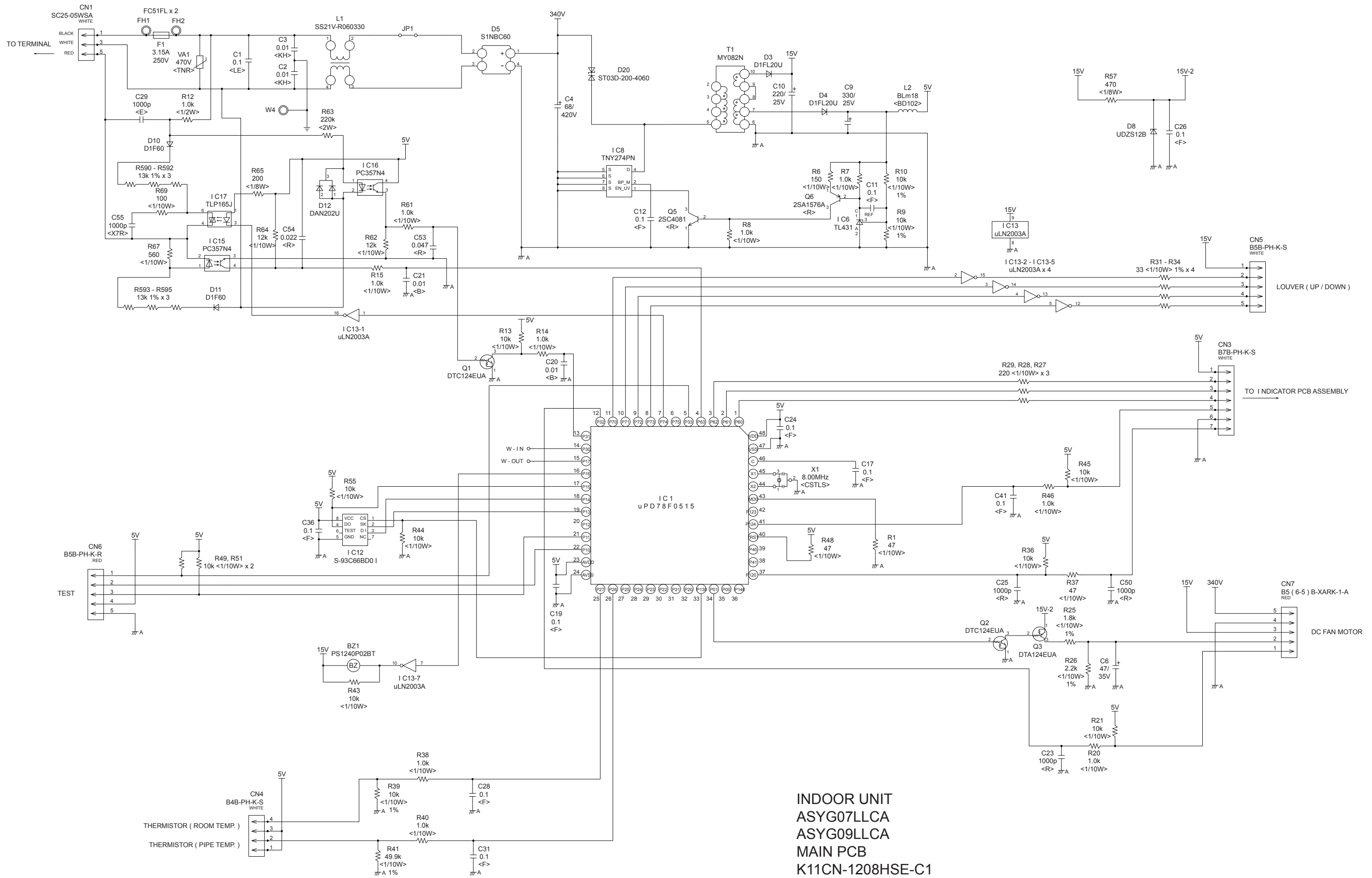


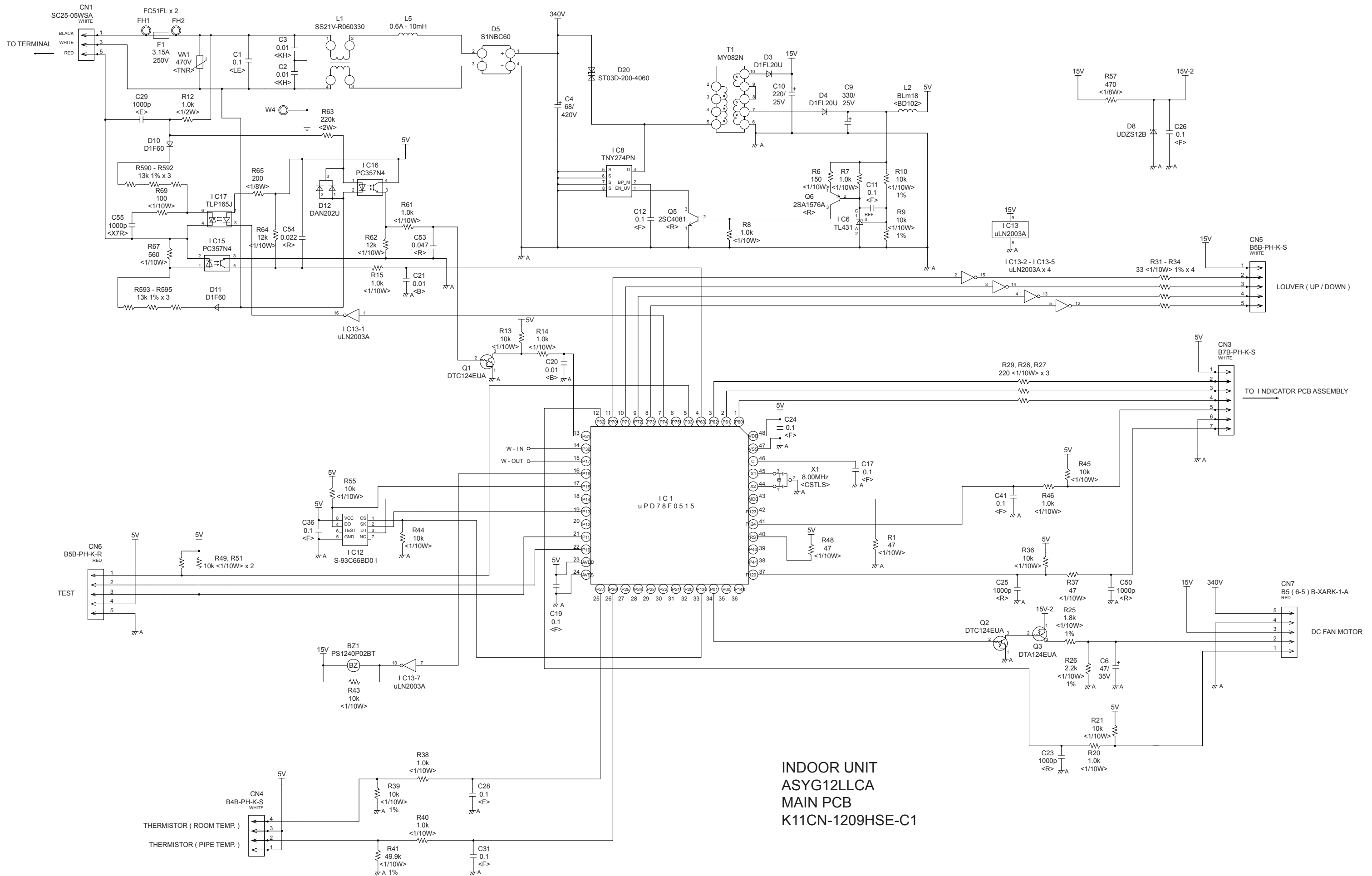
# INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT  
 ASYG07, 09LLCA : EZ-0110RHSE  
 ASYG12LLCA : EZ-0110SHSE



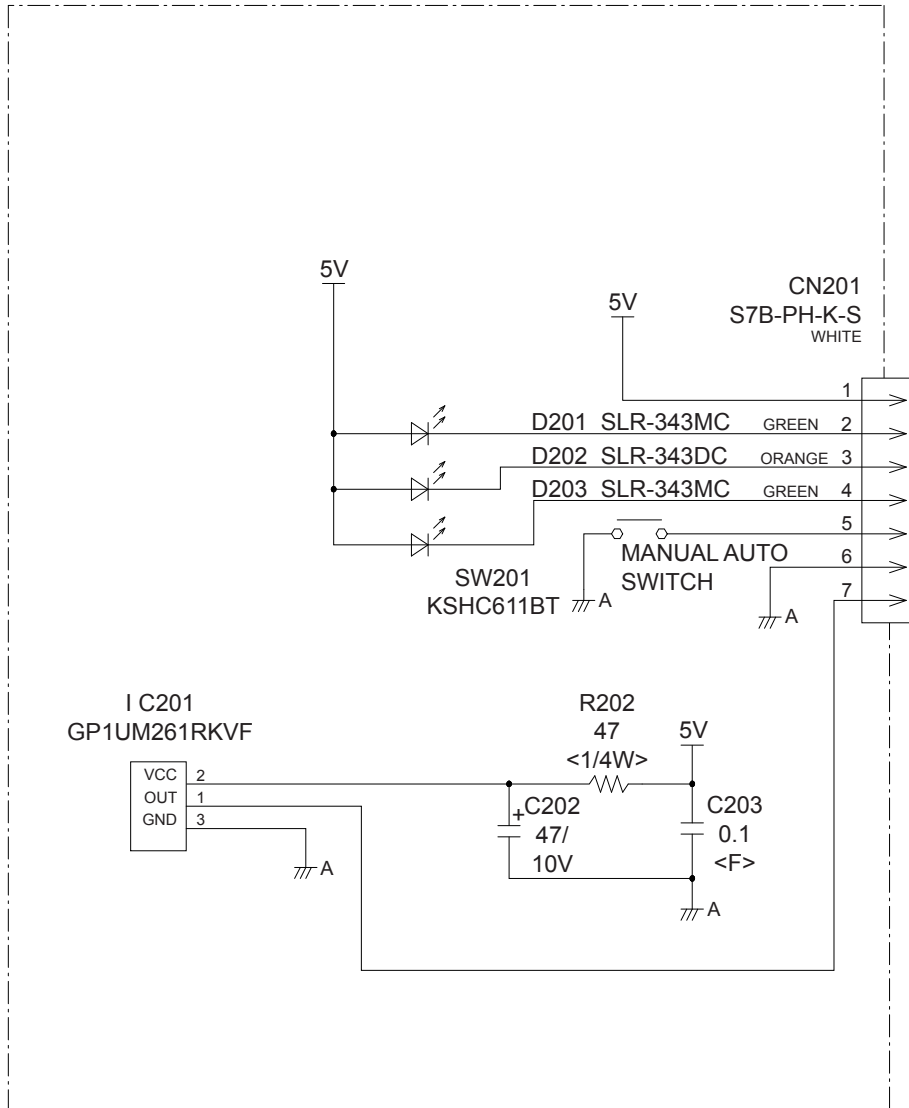
MAIN PCB  
 ASYG07, 09LLCA : K11CN-1208HSE-C1  
 ASYG12LLCA : K11CN-1209HSE-C1





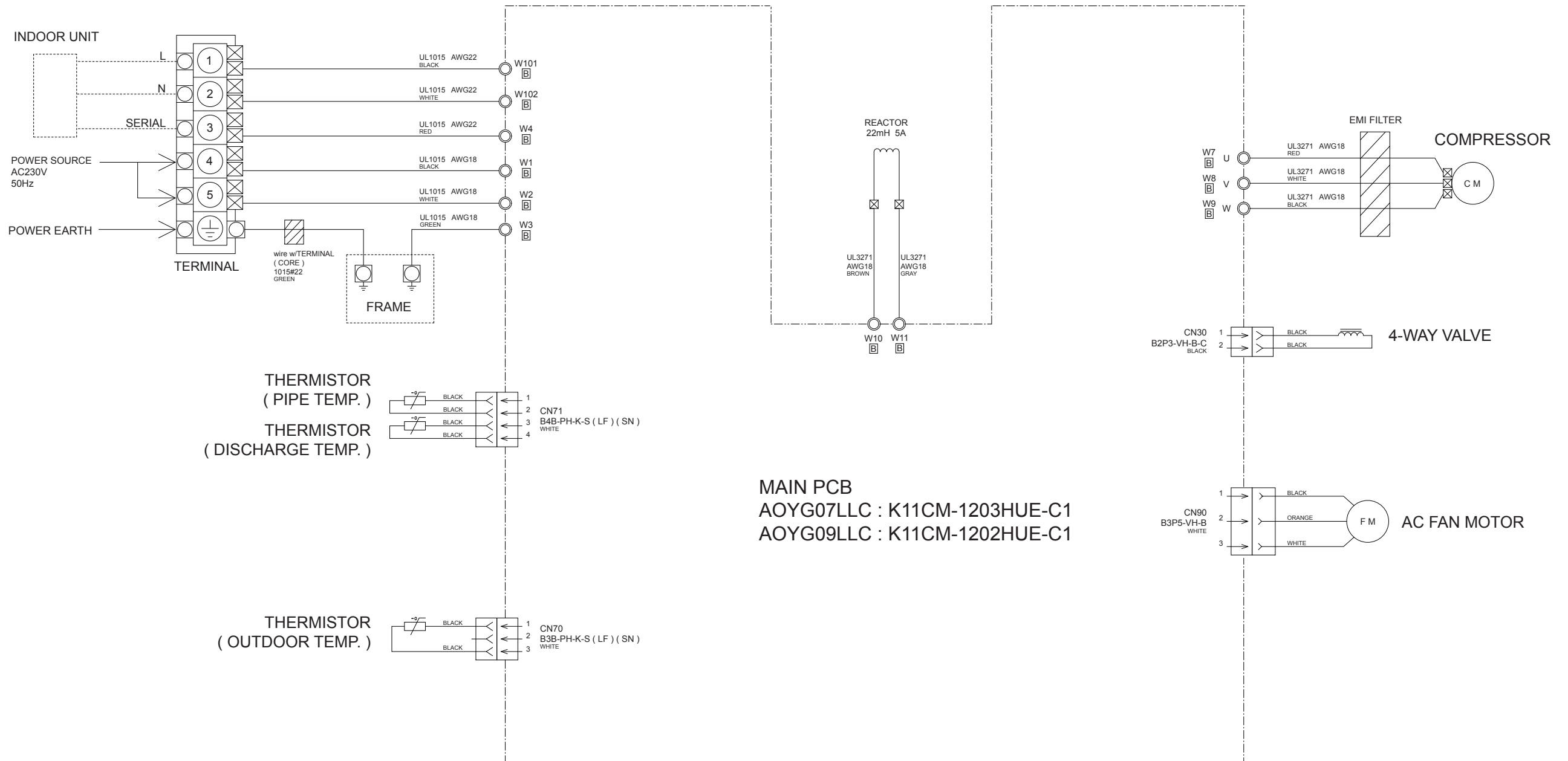


INDOOR UNIT  
 INDICATOR PCB  
 K11CO-1100HSE-D0

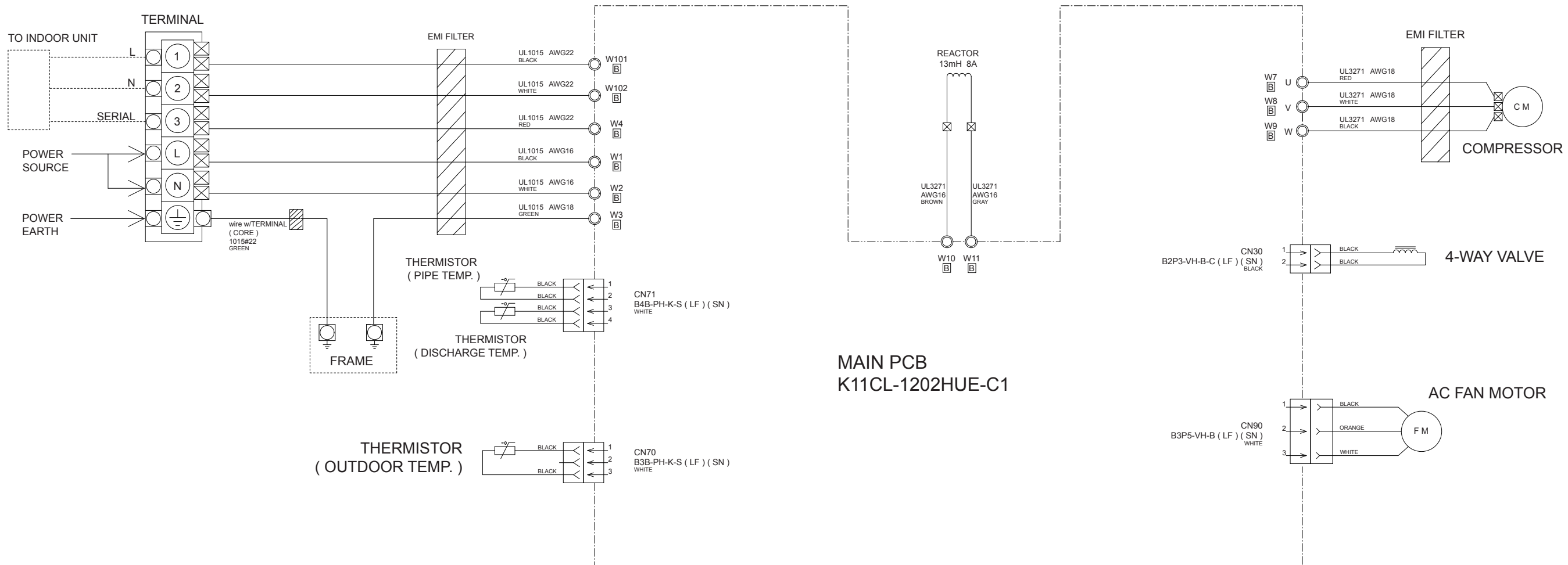


# OUTDOOR PCB CIRCUIT DIAGRAM

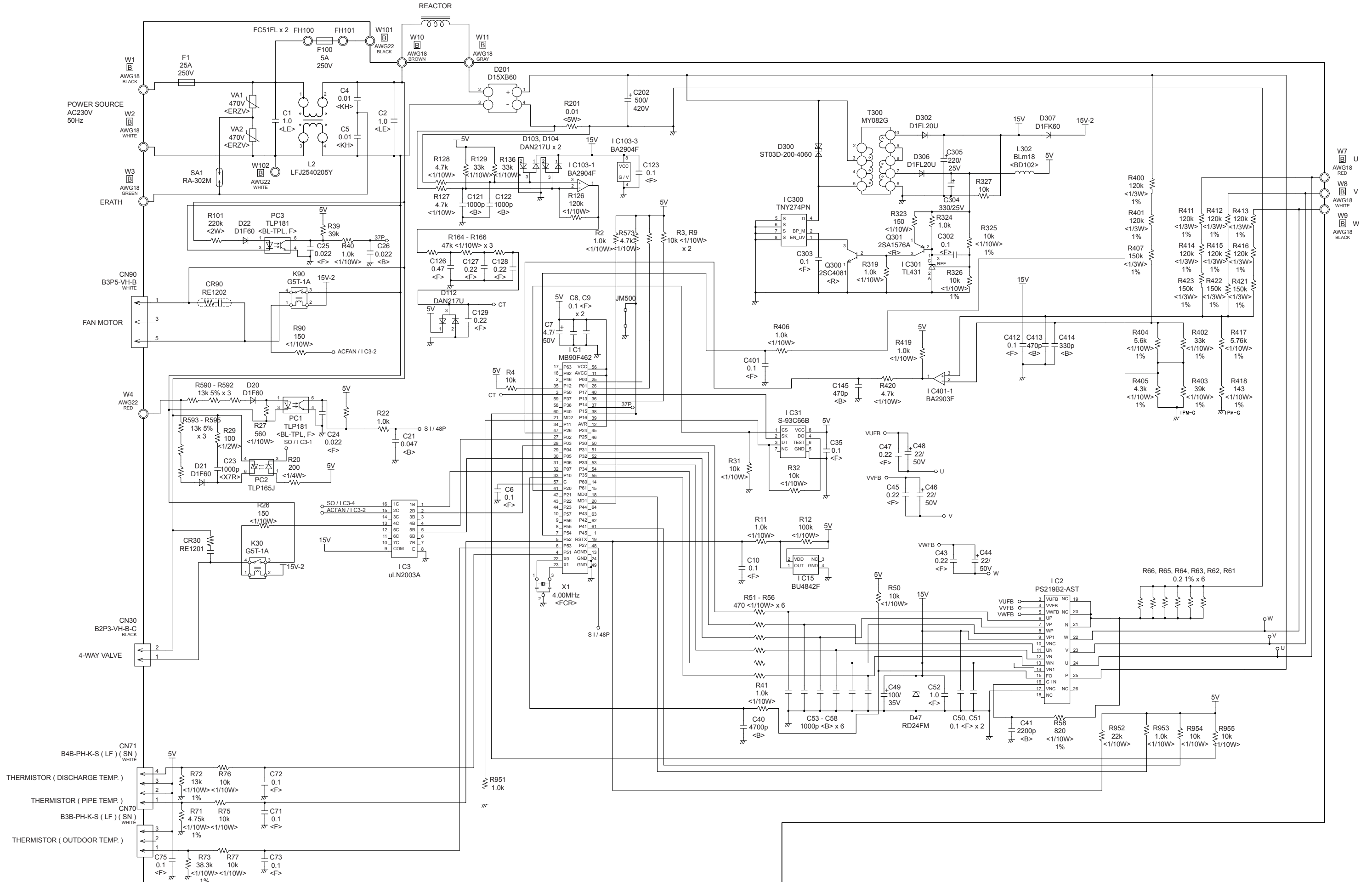
INVERTER ASSEMBLY  
 AOYG07LLC : EZ-0121LHUE  
 AOYG09LLC : EZ-0111KHUE



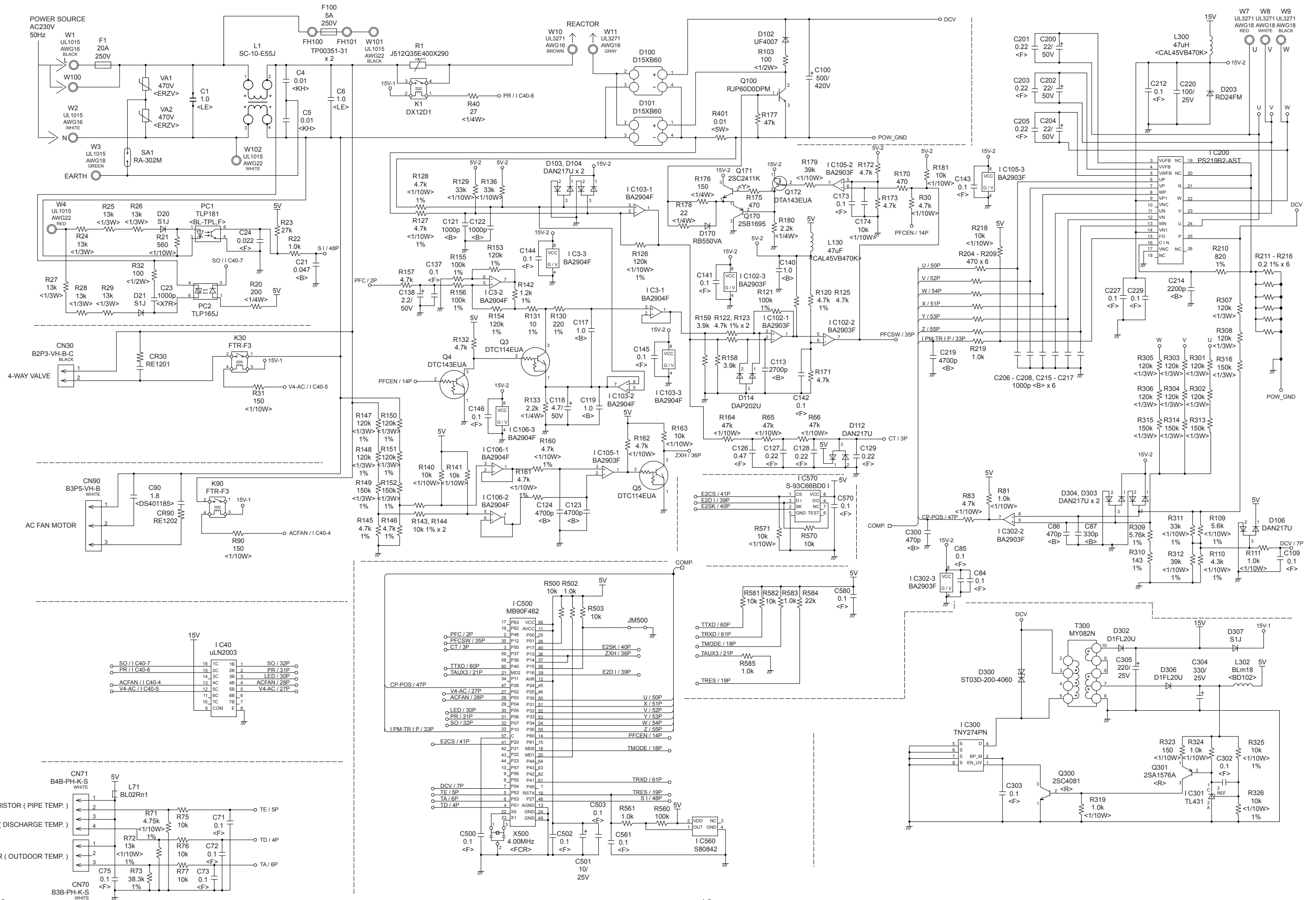
OUTDOOR UNIT  
 AOYG12LLC  
 INVERTER ASSEMBLY  
 EZ-0111LHUE



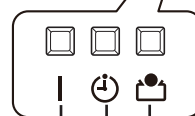
OUTDOOR UNIT  
 MAIN PCB  
 AOYG07LLC : K11CM-1203HUE-C1  
 AOYG09LLC : K11CM-1202HUE-C1



OUTDOOR UNIT  
AOYG12LLC  
MAIN PCB  
K11CL-1202HUE-C1



# ERROR DETECTION



OPERATION lamp (green)      TIMER lamp (orange)      ECONOMY lamp (green)

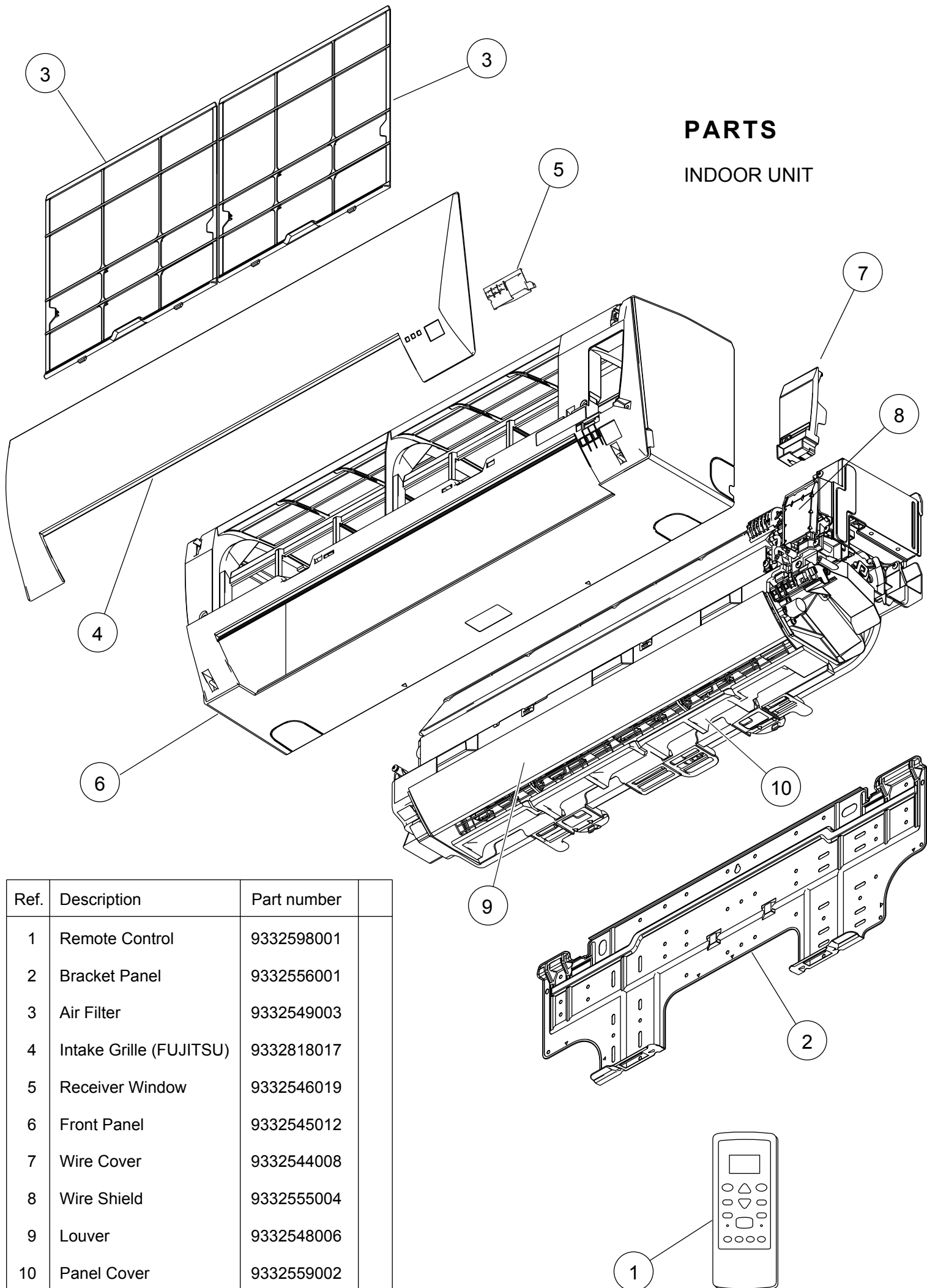
TROUBLESHOOTING  
with the indoor unit display

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)

# PARTS

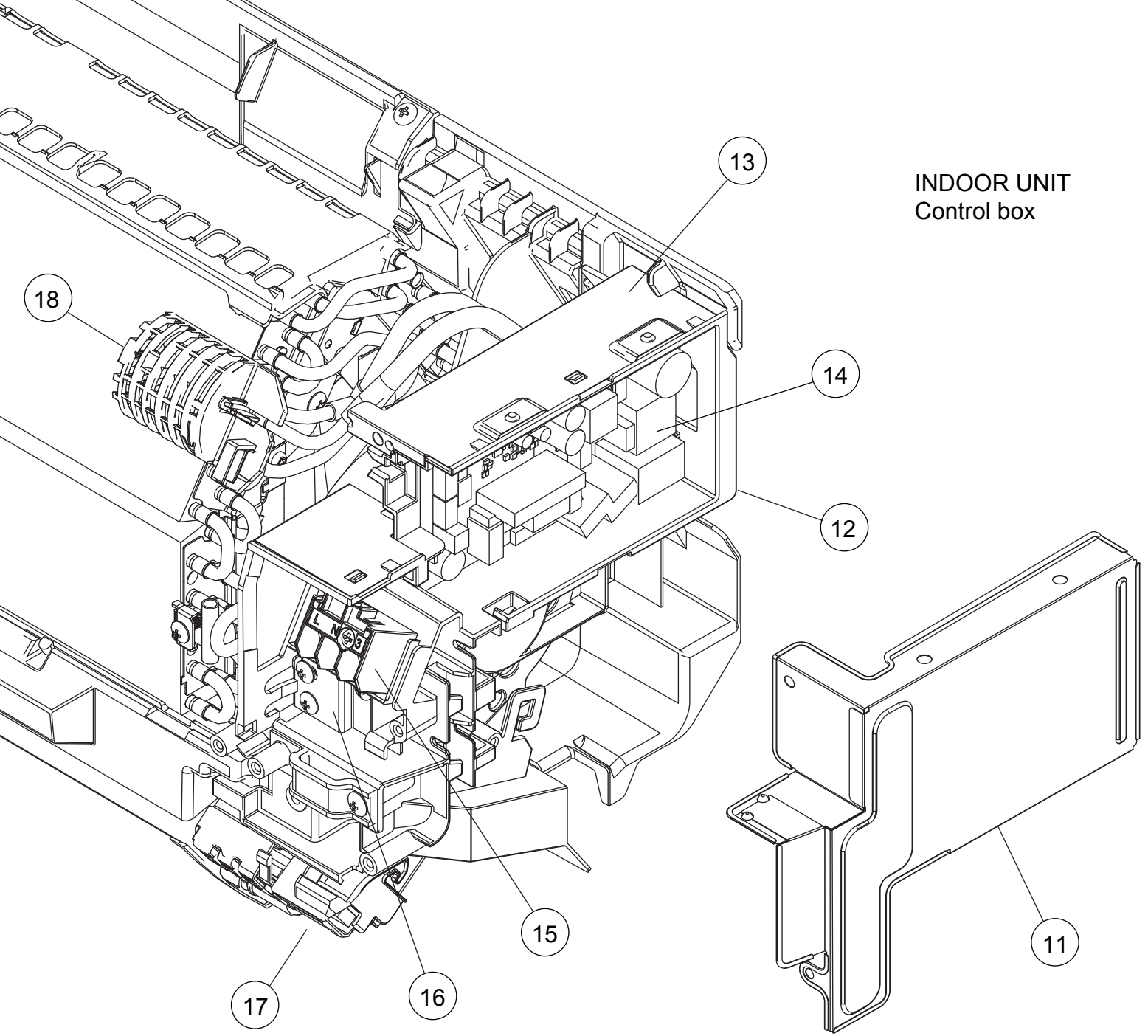
## INDOOR UNIT



Ref.	Description	Part number
1	Remote Control	9332598001
2	Bracket Panel	9332556001
3	Air Filter	9332549003
4	Intake Grille (FUJITSU)	9332818017
5	Receiver Window	9332546019
6	Front Panel	9332545012
7	Wire Cover	9332544008
8	Wire Shield	9332555004
9	Louver	9332548006
10	Panel Cover	9332559002

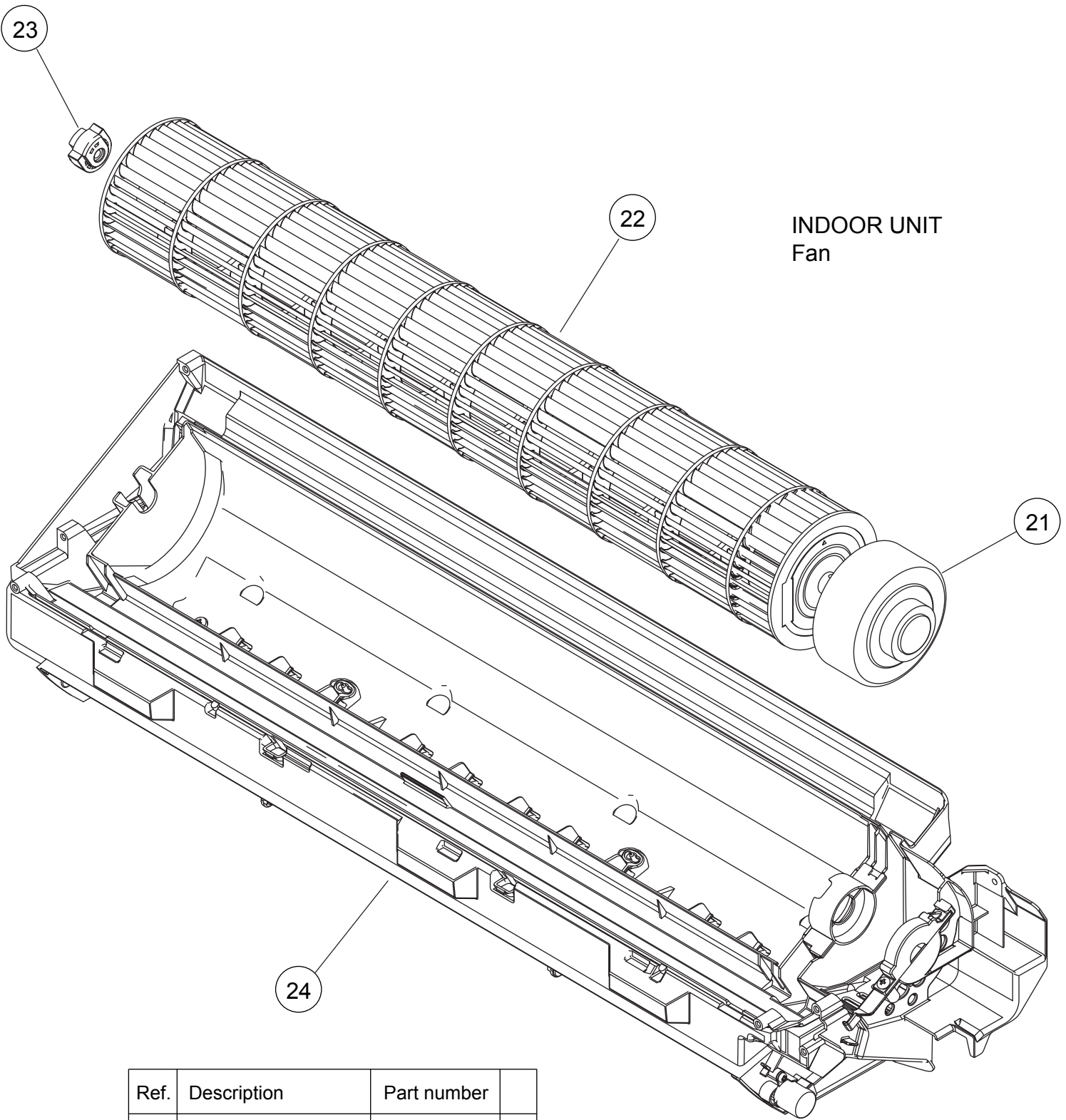


INDOOR UNIT  
Control box



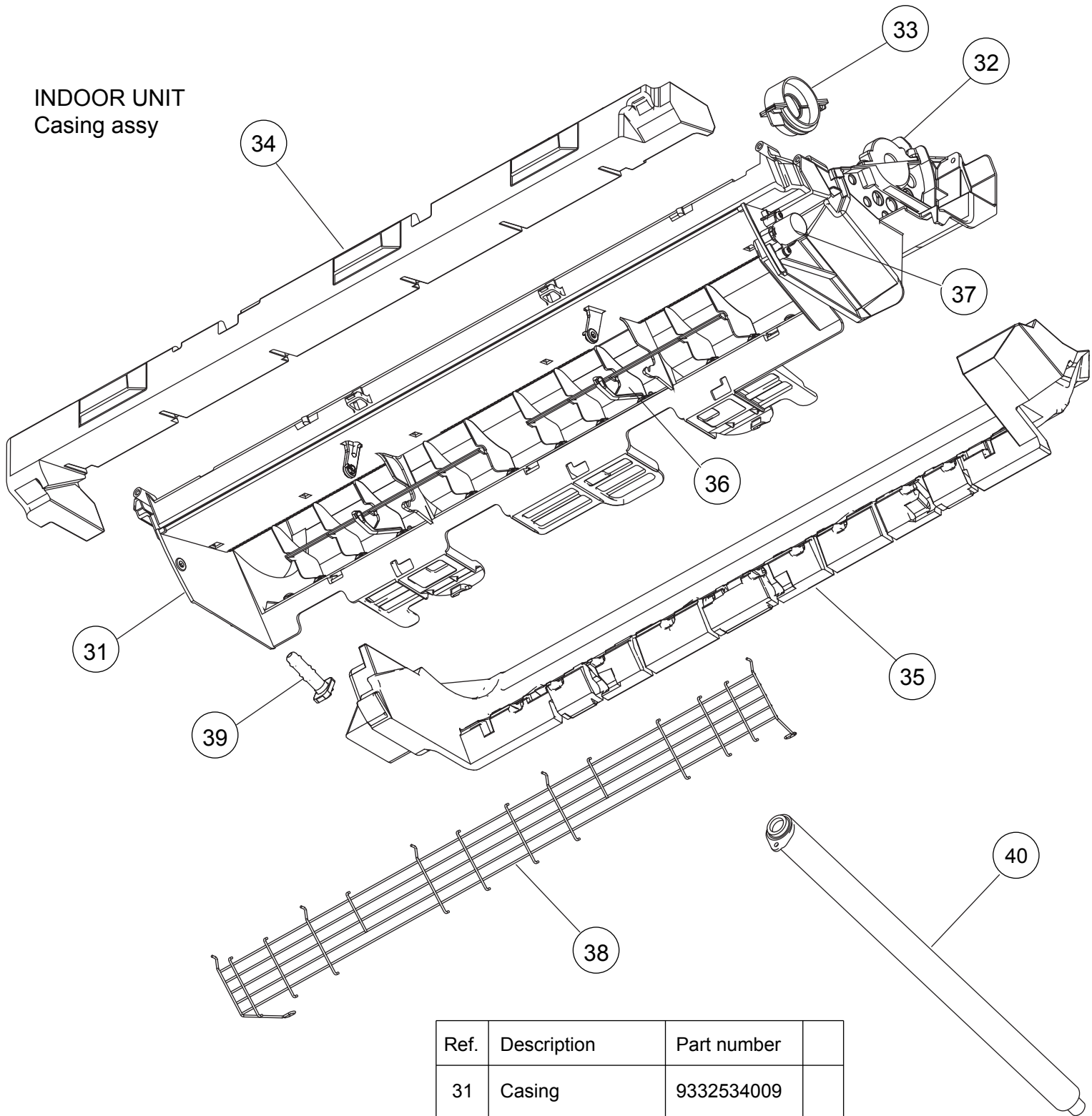
Ref.	Description	Part number
11	Cover Shield	9332554007
12	Control Box	9332542004
13	Box Shield Assy	9332561005
14	Main PCB (07, 09)	9709170137
14	Main PCB (12)	9709170144
15	Terminal	9900720001
16	Earth Terminal	9332553024
17	Display Assy	9709173015
18	Room Thermistor Holder	9316895003
--	Thermistor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





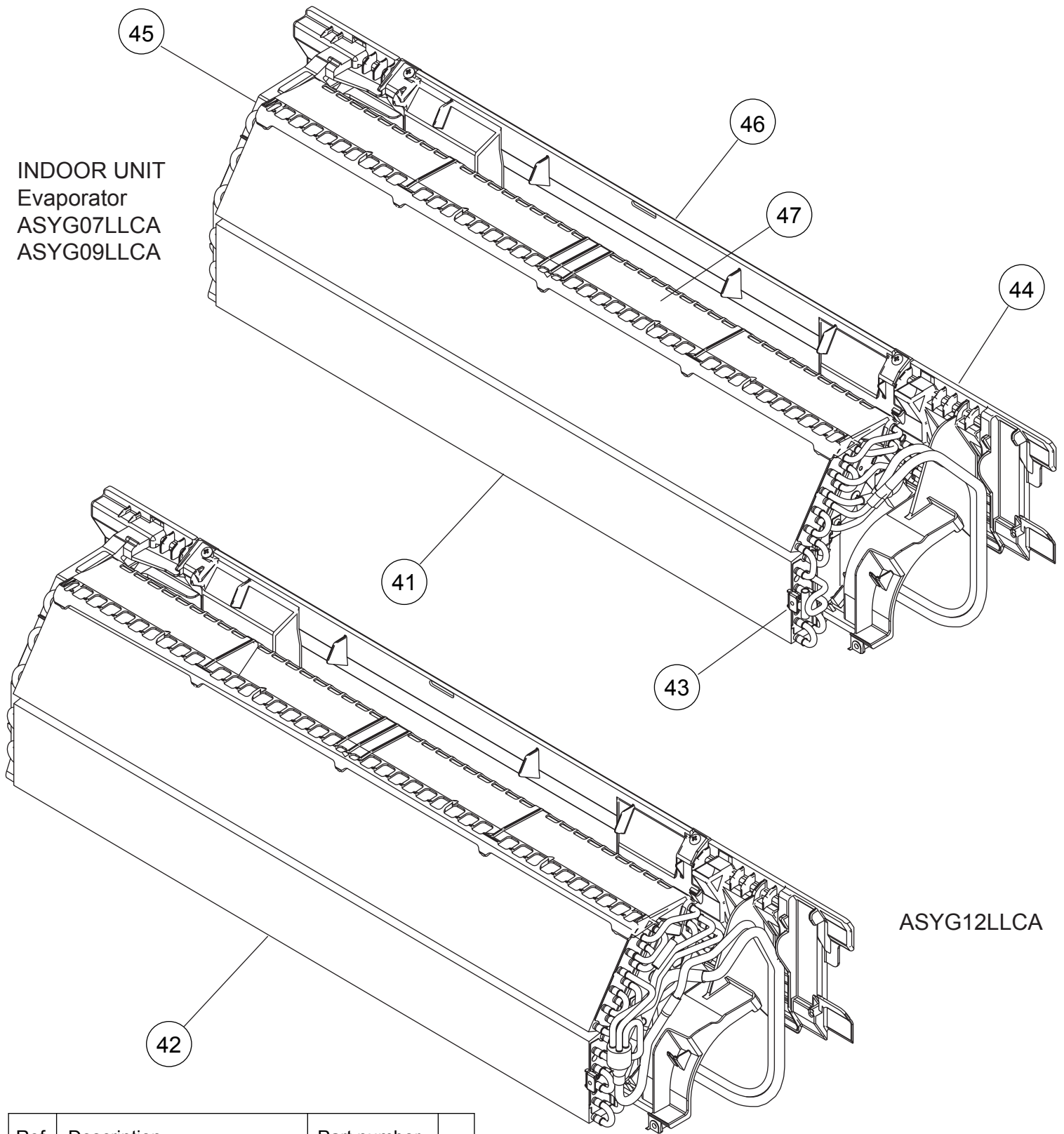
Ref.	Description	Part number
21	Fan Motor	9603180003
22	Crossflow Fan Assy	9316830004
23	Bearing C Assy	9306628017
24	Casing Assy	9332613018

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  
ASYG07LLCA  
ASYG09LLCA

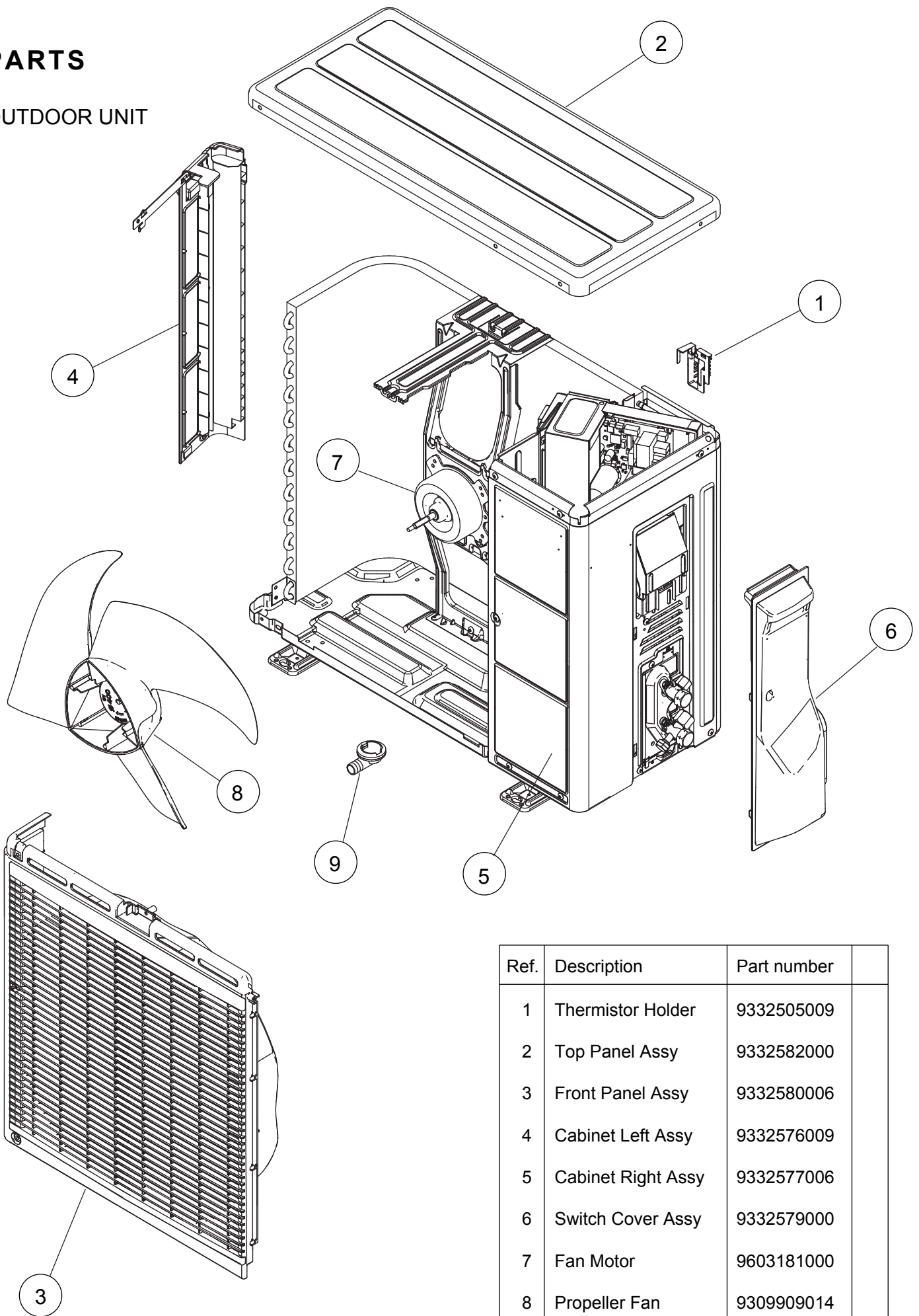


ASYG12LLCA

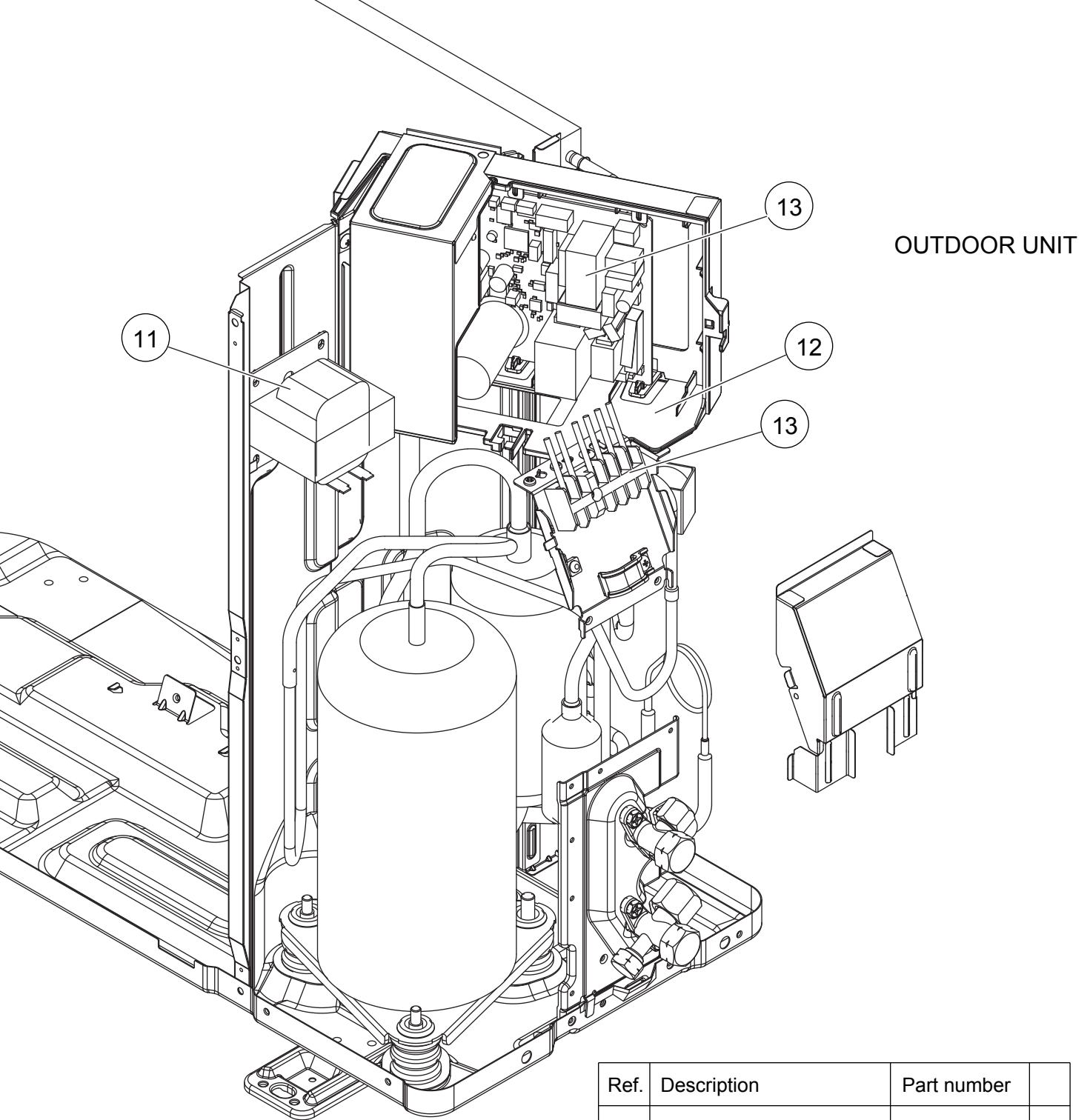
Ref.	Description	Part number
41	Evaporator Total Assy (07, 09)	9316893085
42	Evaporator Total Assy (12)	9316893092
43	Earth Terminal	9316579002
44	Evaporator Holder R	9332538007
45	Evaporator Holder L	9332539004
46	Rear Bracket	9332540017
47	Filter Guide	9332541007

# PARTS

## OUTDOOR UNIT



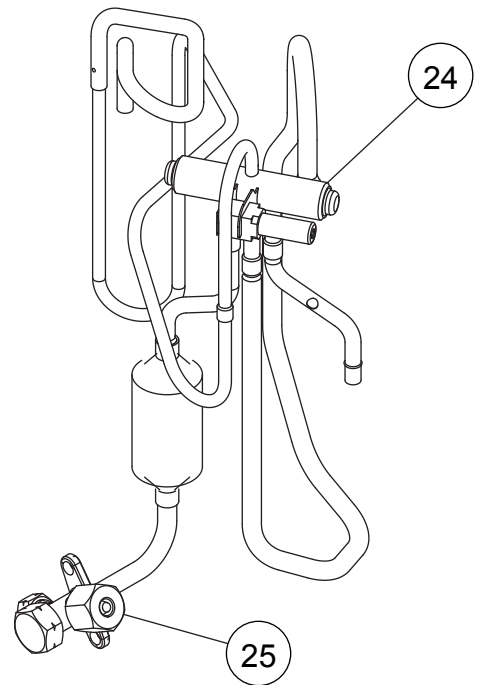
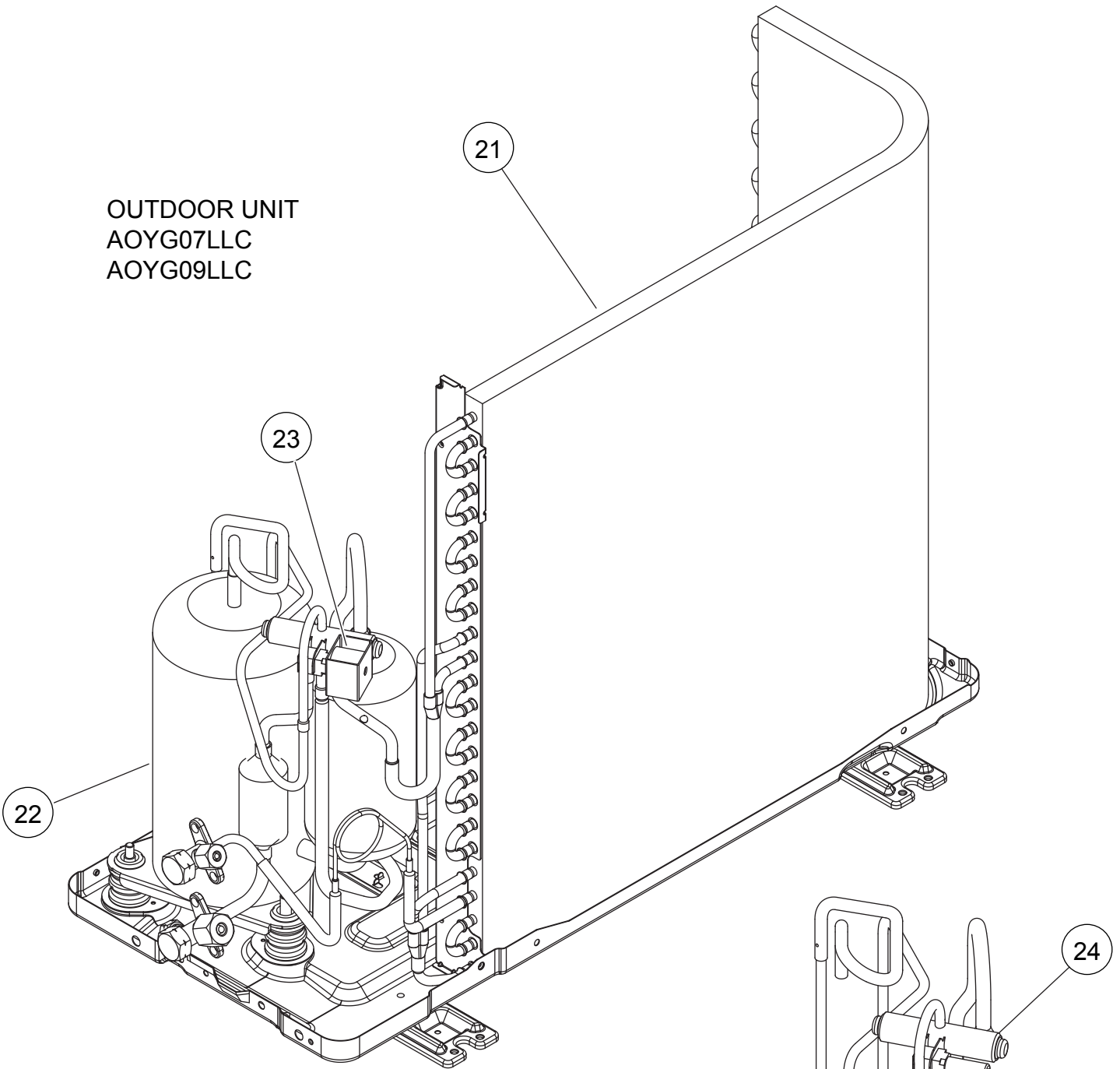
Ref.	Description	Part number
1	Thermistor Holder	9332505009
2	Top Panel Assy	9332582000
3	Front Panel Assy	9332580006
4	Cabinet Left Assy	9332576009
5	Cabinet Right Assy	9332577006
6	Switch Cover Assy	9332579000
7	Fan Motor	9603181000
8	Propeller Fan	9309909014
9	Drain Assy	9332574005
--	Emblem	9319396019



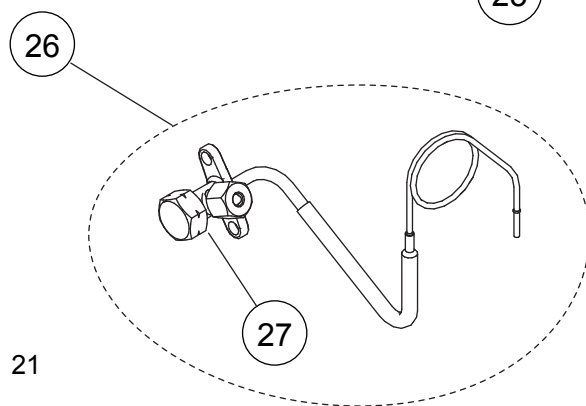
Ref.	Description	Part number
11	Reactor Assy (07, 09)	9900711016
11	Reactor Assy (12)	9900710019
12	PCB Holder	9332506006
13	Main PCB with Terminal (07)	9709178065
13	Main PCB with Terminal (09)	9709178058
13	Main PCB with Terminal (12)	9709183052
--	Thermistor Assy	9900719012
--	Thermistor	9900717018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



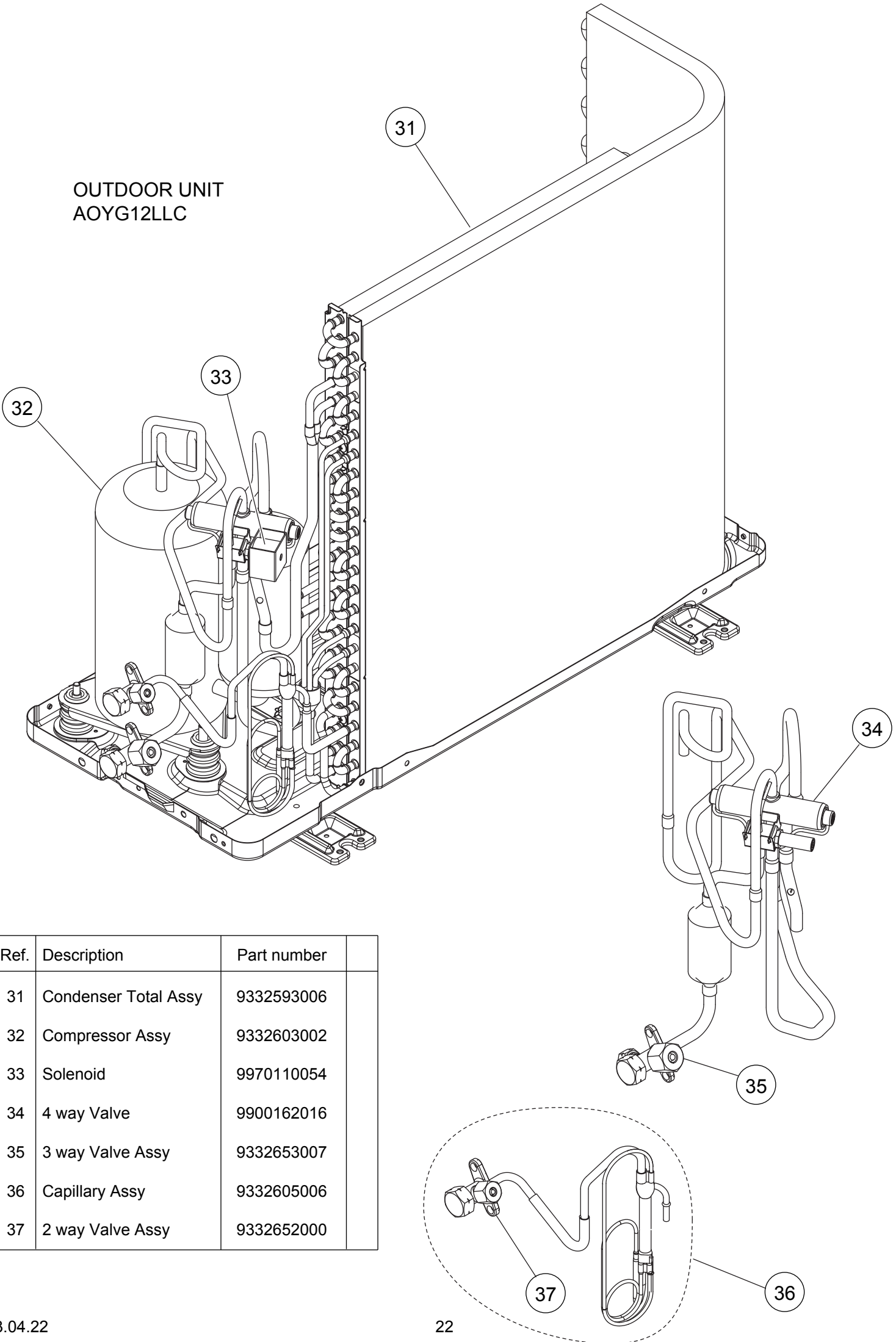
OUTDOOR UNIT  
 AOYG07LLC  
 AOYG09LLC



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



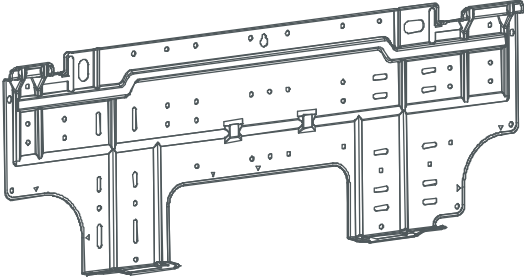
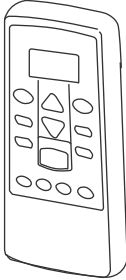

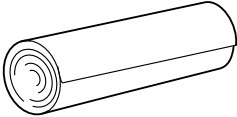
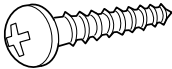
OUTDOOR UNIT  
AOYG12LLC



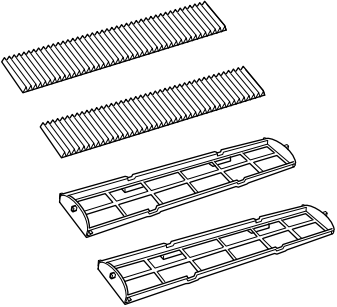
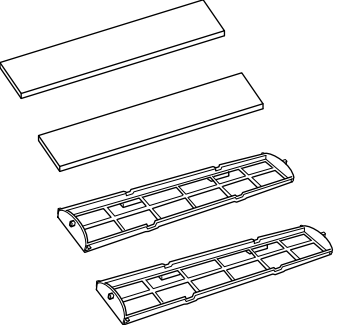
Ref.	Description	Part number
31	Condenser Total Assy	9332593006
32	Compressor Assy	9332603002
33	Solenoid	9970110054
34	4 way Valve	9900162016
35	3 way Valve Assy	9332653007
36	Capillary Assy	9332605006
37	2 way Valve Assy	9332652000

# ACCESSORIES

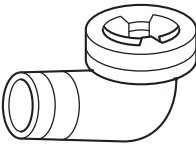
## INDOOR UNIT

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 (Apple catechin) 	UTR-FA03-2 9312829002
Air cleaning filter (Ion deodorant) 	UTR-FA03-3 9312830008

## OUTDOOR UNIT

Name and Shape	Part number
Drain pipe assy 	9332574005



1111G3994