

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE



SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG12LMCE	AOYG12LMCE

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SPECIFICATIONS

ELECTRICAL DATA

INDOOR UNIT		ASYG12LMCE
OUTDOOR UNIT		AOYG12LMCE
POWER SOURCE		230 V 50 Hz Single phase
Cooling	CAPACITY	3.40 kW
	POWER CONSUMPTION	0.97 kW
	EER	3.50 kW/kW
	RUNNING CURRENT	4.6 A
	MAXIMUM CURRENT	6.5 A
	MOISTURE REMOVAL	1.8 L/h
Heating	CAPACITY	4.00 kW
	POWER CONSUMPTION	1.02 kW
	COP	3.92 kW/kW
	RUNNING CURRENT	4.8 A
	MAXIMUM CURRENT	9.0 A

DIMENSIONS

INDOOR UNIT	H x W x D	270 x 870 x 204 mm
OUTDOOR UNIT	H x W x D	535 x 663 x 293 mm

WEIGHT

INDOOR UNIT	Net / Shipping	8.5 kg / 11 kg
OUTDOOR UNIT	Net / Shipping	26 kg / 30 kg

FAN MOTOR

INDOOR UNIT'S Discrimination		MFD-12CYBL
OUTDOOR UNIT'S Discrimination		MFE-40VVL
INDOOR UNIT Cooling	High	1,320 rpm
	Medium	1,160 rpm
	Low	930 rpm
	Quiet	680 rpm
INDOOR UNIT Heating	High	1,320 rpm
	Medium	1,160 rpm
	Low	980 rpm
	Quiet	710 rpm
OUTDOOR UNIT Cooling		860 rpm
OUTDOOR UNIT Heating		760 rpm

AIRFLOW

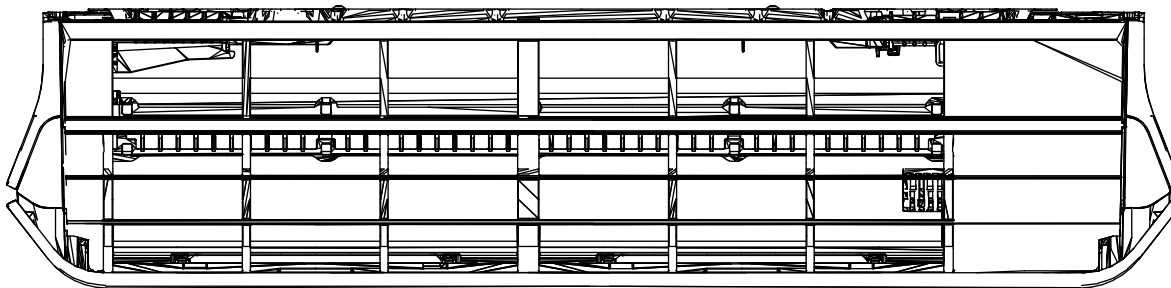
INDOOR UNIT Cooling	High	750 m ³ /h
	Medium	640 m ³ /h
	Low	480 m ³ /h
	Quiet	310 m ³ /h
INDOOR UNIT Heating	High	750 m ³ /h
	Medium	640 m ³ /h
	Low	520 m ³ /h
	Quiet	330 m ³ /h
OUTDOOR UNIT Cooling		1,830 m ³ /h
OUTDOOR UNIT Heating		1,600 m ³ /h

NOISE LEVEL

INDOOR UNIT Cooling	High	43 dB
	Medium	40 dB
	Low	32 dB
	Quiet	21 dB
OUTDOOR UNIT Heating	High	43 dB
	Medium	38 dB
	Low	33 dB
	Quiet	22 dB
OUTDOOR UNIT Cooling		50 dB
OUTDOOR UNIT Heating		50 dB

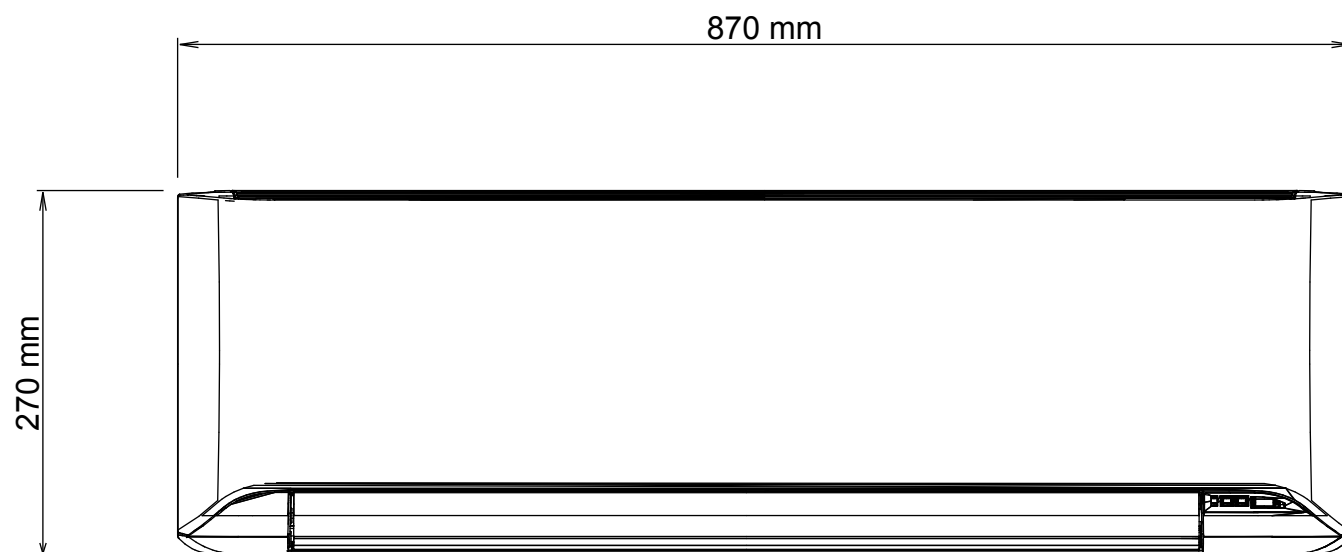
COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary
DISCRIMINATION		ASM89D10UFZ
WEIGHT (with oil)		8.9 kg
PRECHARGED REFRIGERANT		850 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Pipe length 15 m	850 g
	20 m	950 g
ADDITIONAL CHARGE		20 g/m
MAXIMUM PIPING HEIGHT		15m

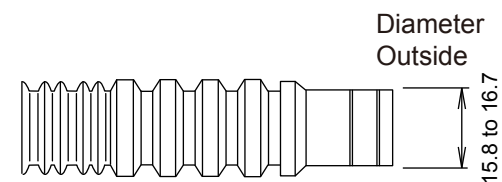
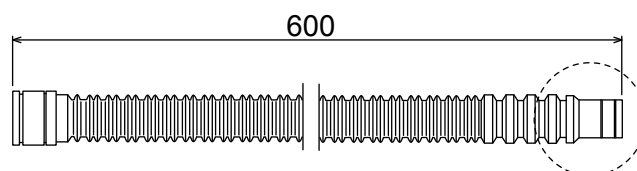


DIMENSIONS

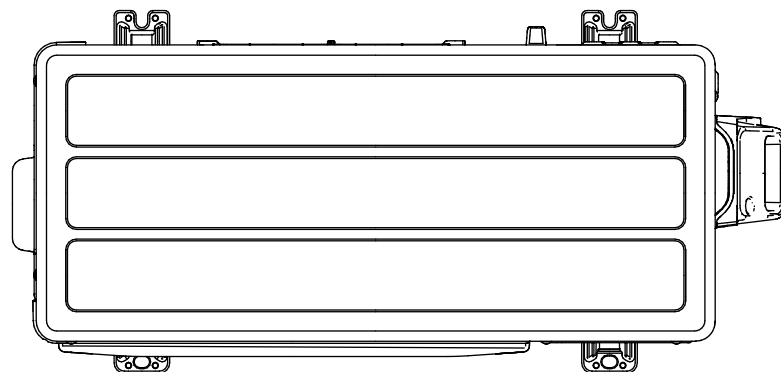
INDOOR UNIT



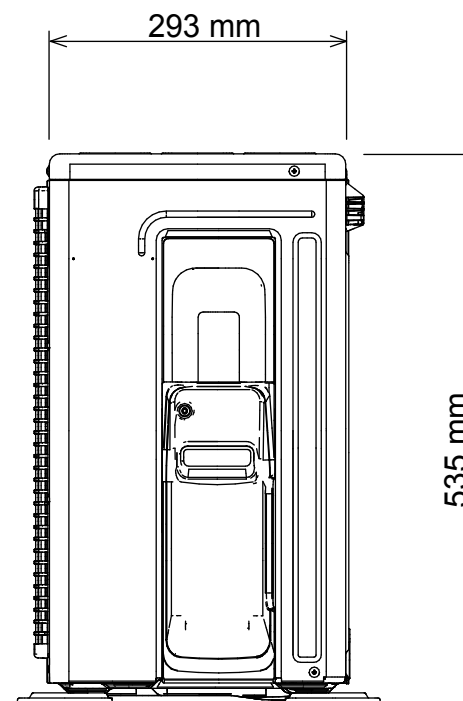
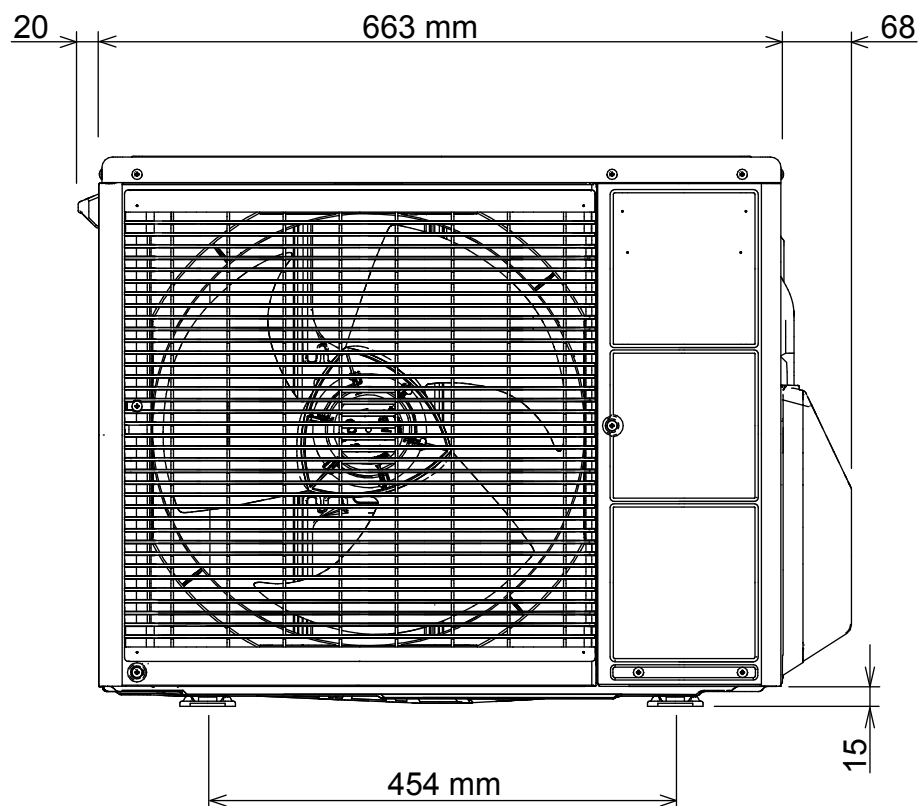
Drain hose



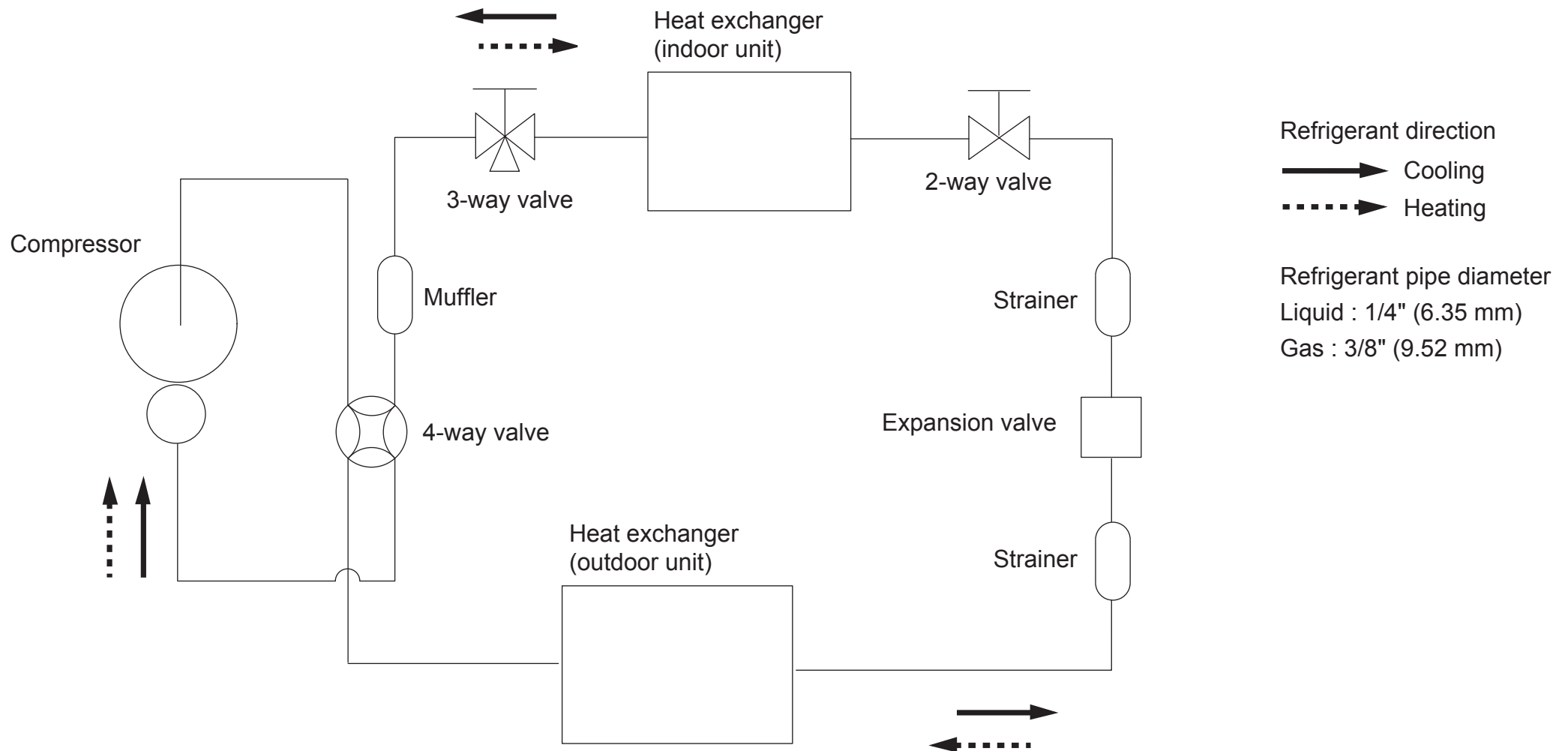
Inside : 13.8 mm



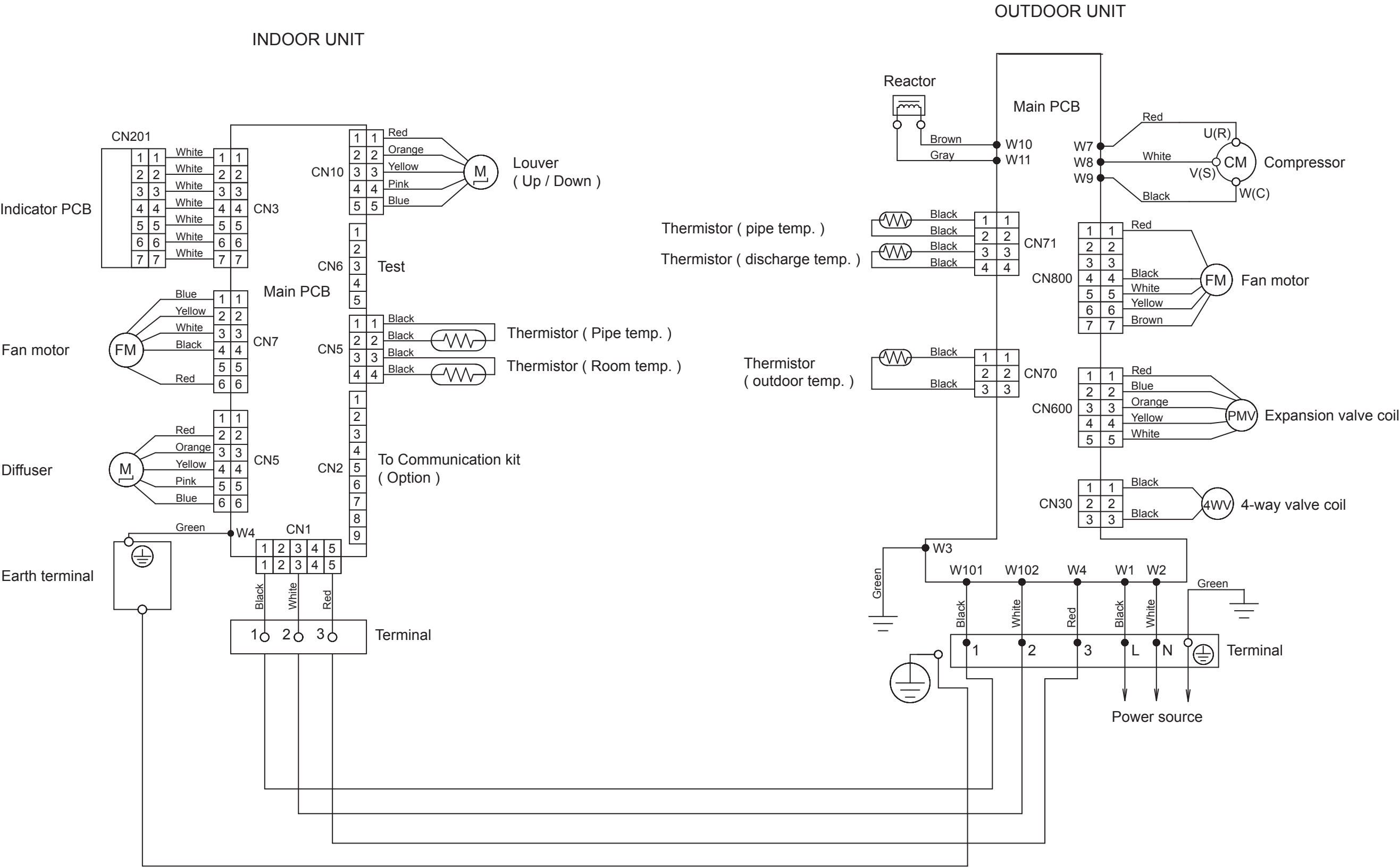
OUTDOOR UNIT



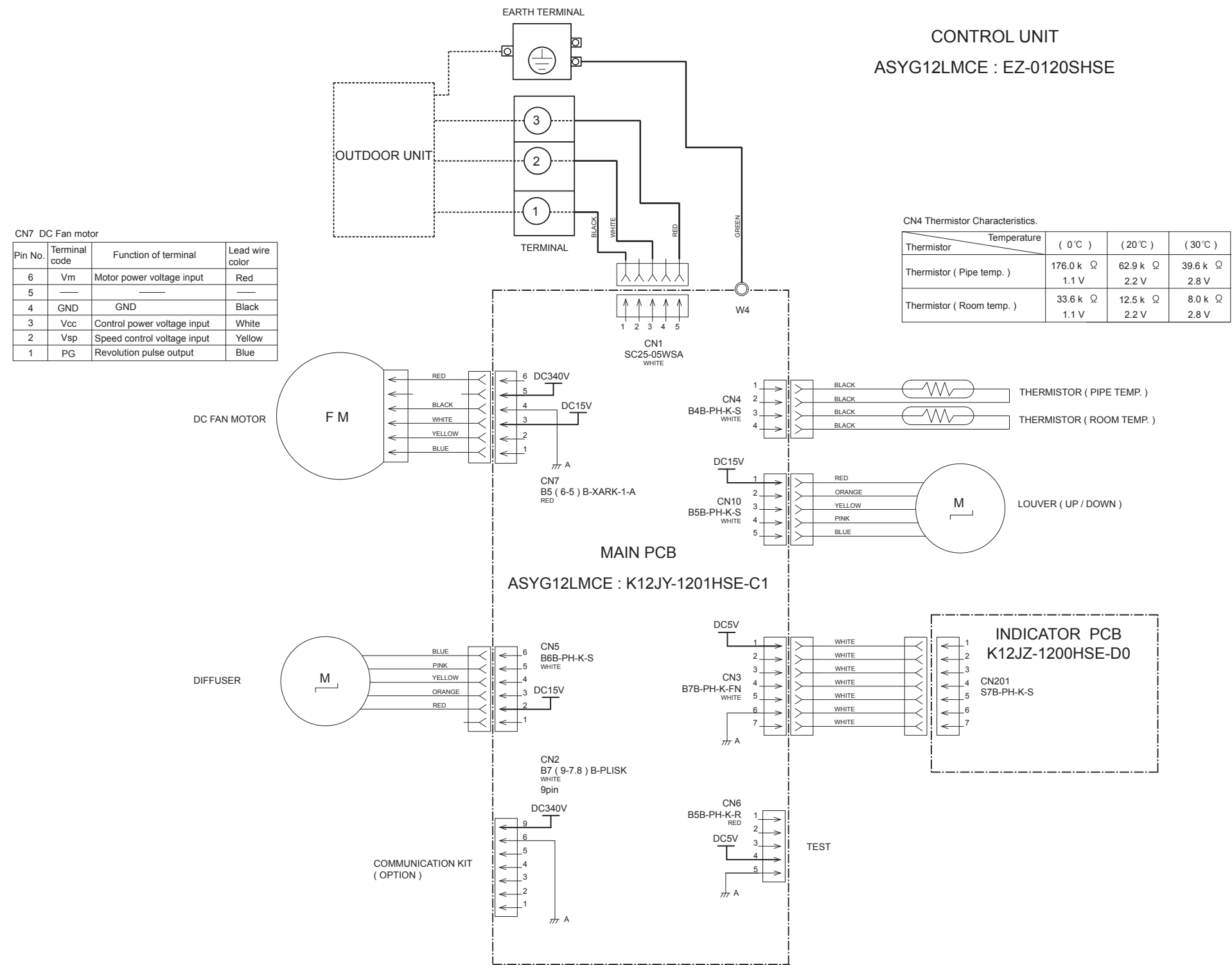
REFRIGERANT SYSTEM DIAGRAM



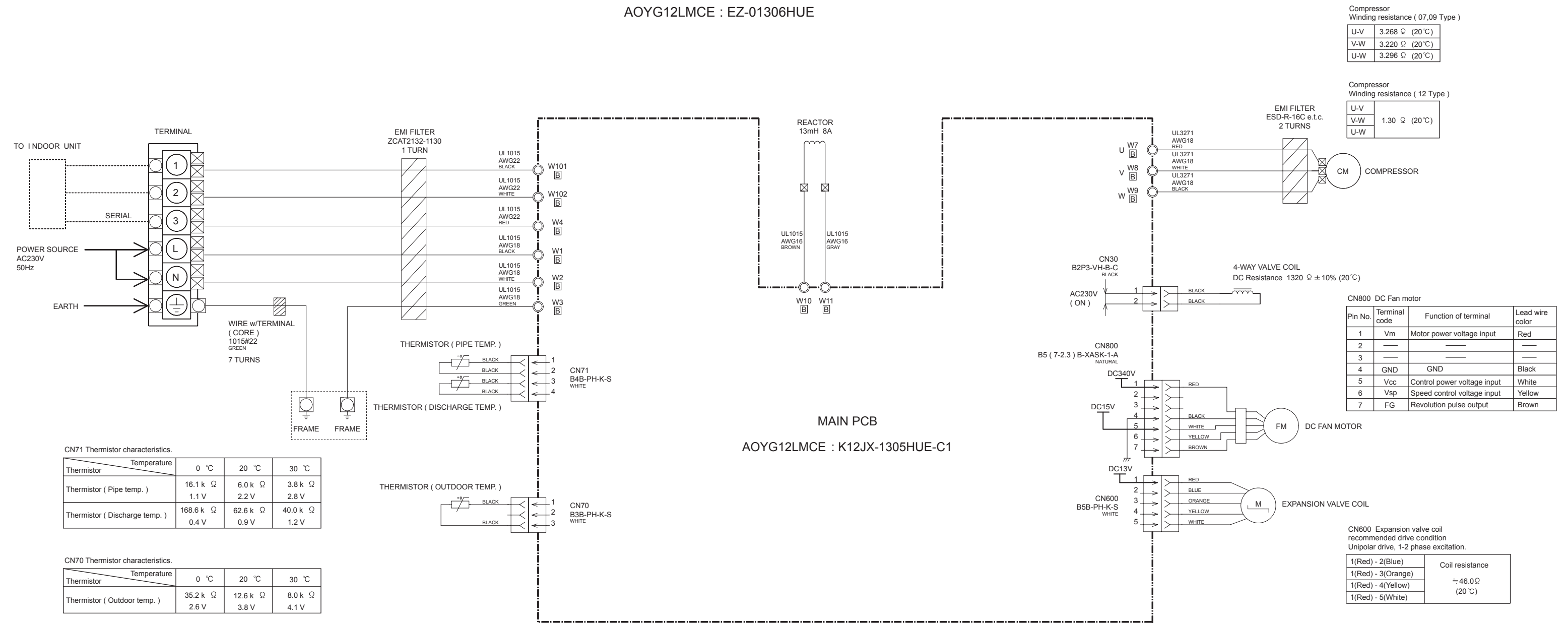
CIRCUIT DIAGRAM



PCB CIRCUIT DIAGRAM



INVERTER ASSEMBLY
AOYG12LMCE : EZ-01306HUE



Compressor
Winding resistance (07,09 Type)

U-V	3.268 Ω (20℃)
V-W	3.220 Ω (20℃)
U-W	3.296 Ω (20℃)

Compressor
Winding resistance (12 Type)

U-V	1.30 Ω (20℃)
V-W	
U-W	

CN800 DC Fan motor

Pin No.	Terminal code	Function of terminal	Lead wire color
1	Vm	Motor power voltage input	Red
2	—	—	—
3	—	—	—
4	GND	GND	Black
5	Vcc	Control power voltage input	White
6	Vsp	Speed control voltage input	Yellow
7	FG	Revolution pulse output	Brown

CN600 Expansion valve coil
recommended drive condition
Unipolar drive, 1-2 phase excitation.

1(Red) - 2(Blue)	Coil resistance ≈ 46.0 Ω (20℃)
1(Red) - 3(Orange)	
1(Red) - 4(Yellow)	
1(Red) - 5(White)	

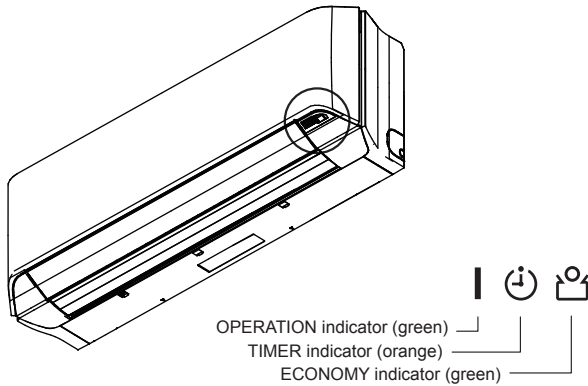
ERROR DETECTION

If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.

If you use a wired remote control, error codes will appear on the remote control display. See the lamp blinking patterns and error codes in the table.

An error display is displayed only during operation.

Troubleshooting with the indoor unit display



Troubleshooting with the Wired Remote Control Display (Option)

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



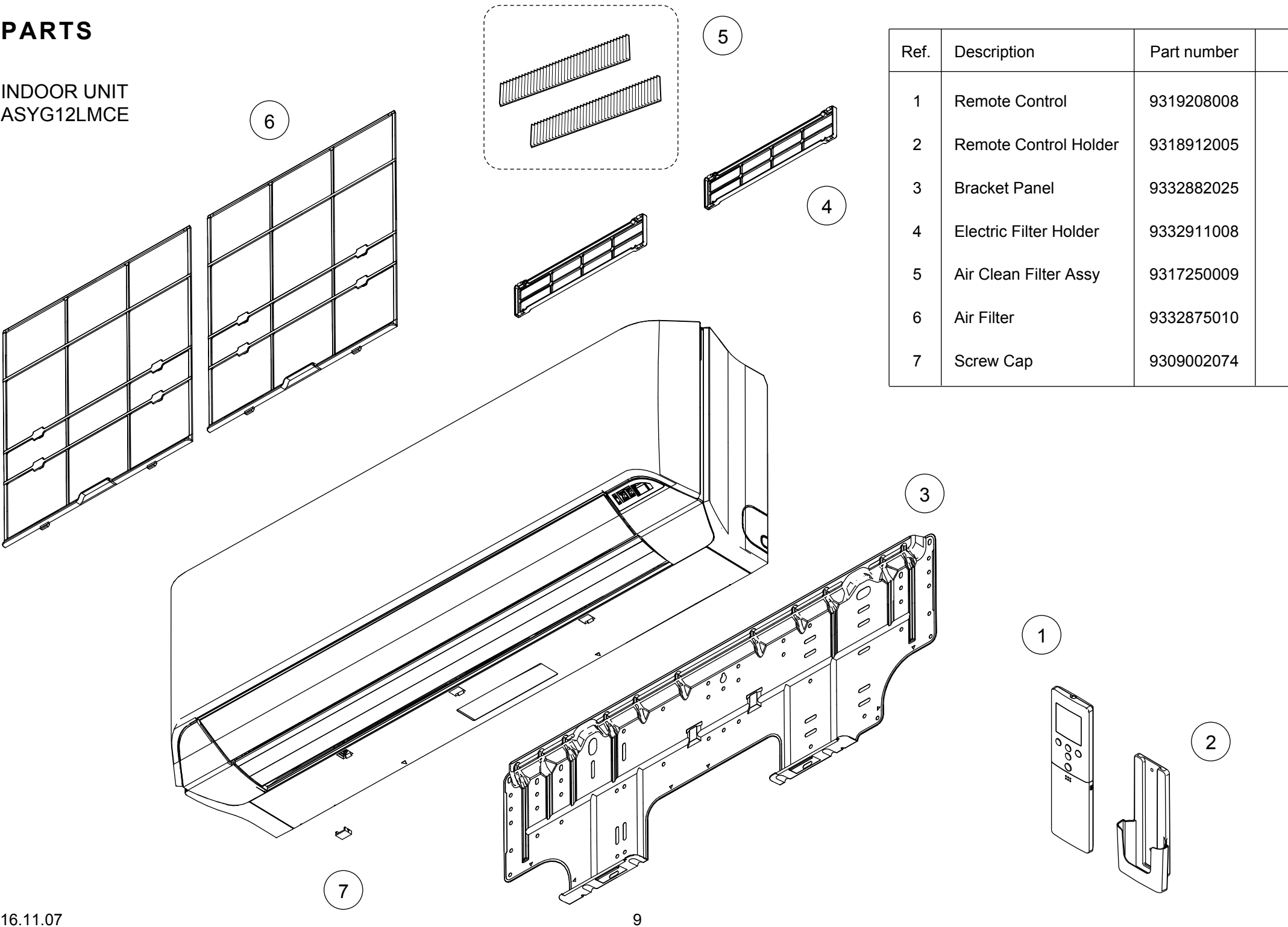
Error display			Wired remote controller Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	11	Serial communication error
●(1)	●(2)	◇	12	Wired remote controller communication error
●(1)	●(5)	◇	15	Check run unfinished
●(2)	●(1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
●(2)	●(2)	◇	22	Indoor unit capacity error
●(2)	●(3)	◇	23	Combination error
●(2)	●(4)	◇	24	• Connection unit number error (indoor slave unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
●(2)	●(7)	◇	27	Master unit, slave unit set-up error [Simultaneous Multi]
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(5)	◇	35	Manual auto switch error
●(4)	●(1)	◇	41	Room temp. sensor error
●(4)	●(2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor error
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(7)	◇	57	Damper error
●(5)	●(8)	◇	58	Intake grille error
●(5)	●(15)	◇	5U	Indoor unit error
●(6)	●(2)	◇	62	Outdoor unit main PCB model information error or communication error
●(6)	●(3)	◇	63	Inverter error
●(6)	●(4)	◇	64	Active filter error, PFC circuit error
●(6)	●(5)	◇	65	Trip terminal L error

●(6)	●(10)	◇	6A	Display PCB microcomputers communication error
●(7)	●(1)	◇	71	Discharge temp. sensor error
●(7)	●(2)	◇	72	Compressor temp. sensor error
●(7)	●(3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
●(7)	●(4)	◇	74	Outdoor temp. sensor error
●(7)	●(5)	◇	75	Suction Gas temp. sensor error
●(7)	●(6)	◇	76	• 2-way valve temp. sensor error • 3-way valve temp. sensor error
●(7)	●(7)	◇	77	Heat sink temp. sensor error
●(8)	●(2)	◇	82	• Sub-cool Heat Ex. gas inlet temp. sensor error • Sub-cool Heat Ex. gas outlet temp. sensor error
●(8)	●(3)	◇	83	Liquid pipe temp. sensor error
●(8)	●(4)	◇	84	Current sensor error
●(8)	●(6)	◇	86	• Discharge pressure sensor error • Suction pressure sensor error • High pressure switch error
●(9)	●(4)	◇	94	Trip detection
●(9)	●(5)	◇	95	Compressor rotor position detection error
●(9)	●(7)	◇	97	Outdoor unit fan motor error
●(9)	●(9)	◇	99	4-way valve error
●(10)	●(1)	◇	A1	Discharge temp. error
●(10)	●(3)	◇	A3	Compressor temp. error
●(10)	●(4)	◇	A4	High pressure error
●(10)	●(5)	◇	A5	Low pressure error
●(13)	●(2)	◇	J2	Branch boxes error [Flexible Multi]

Display mode ● : 0.5s ON / 0.5s OFF
◇ : 0.1s ON / 0.1s OFF
() : Number of flashing

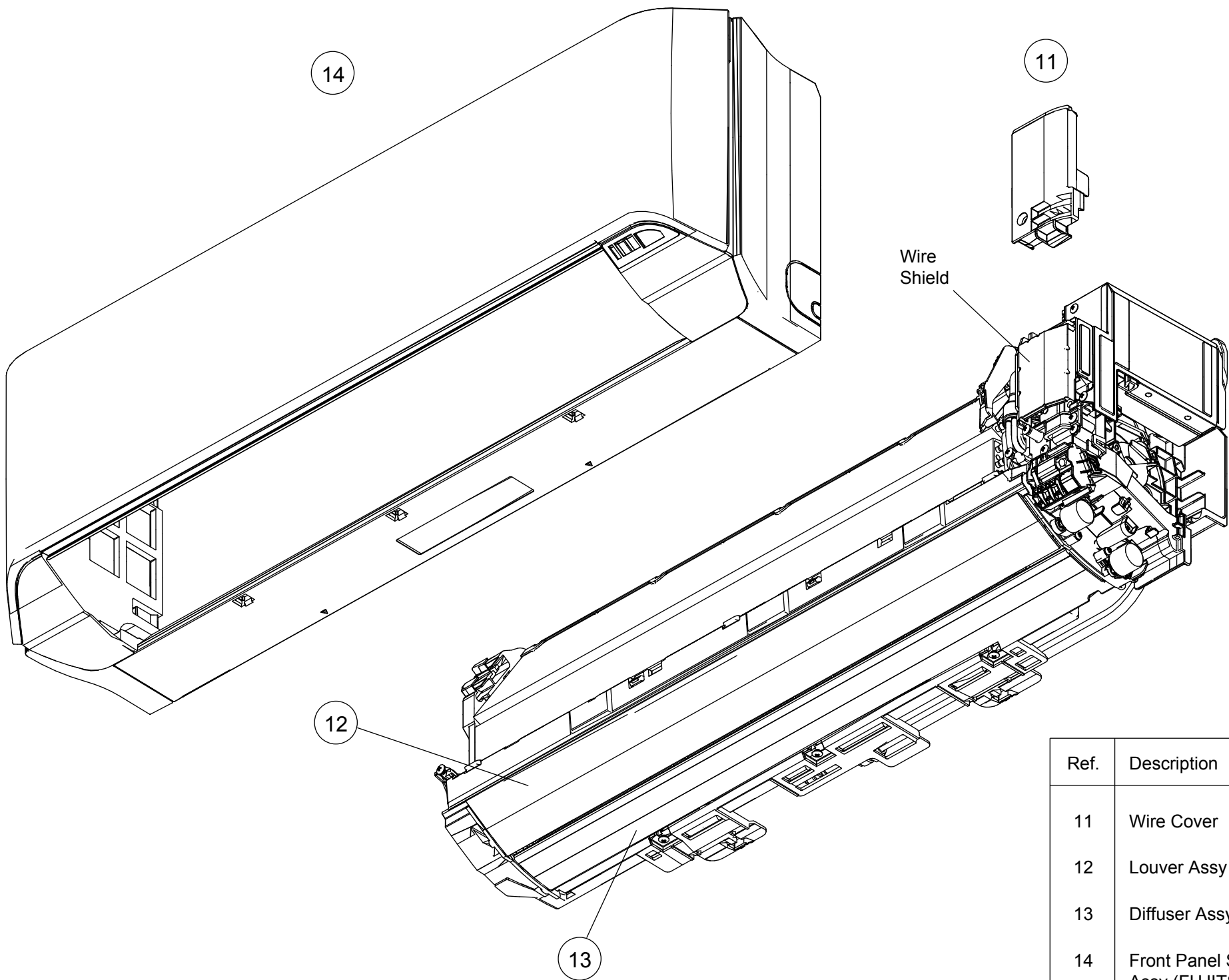
PARTS

INDOOR UNIT
ASYG12LMCE

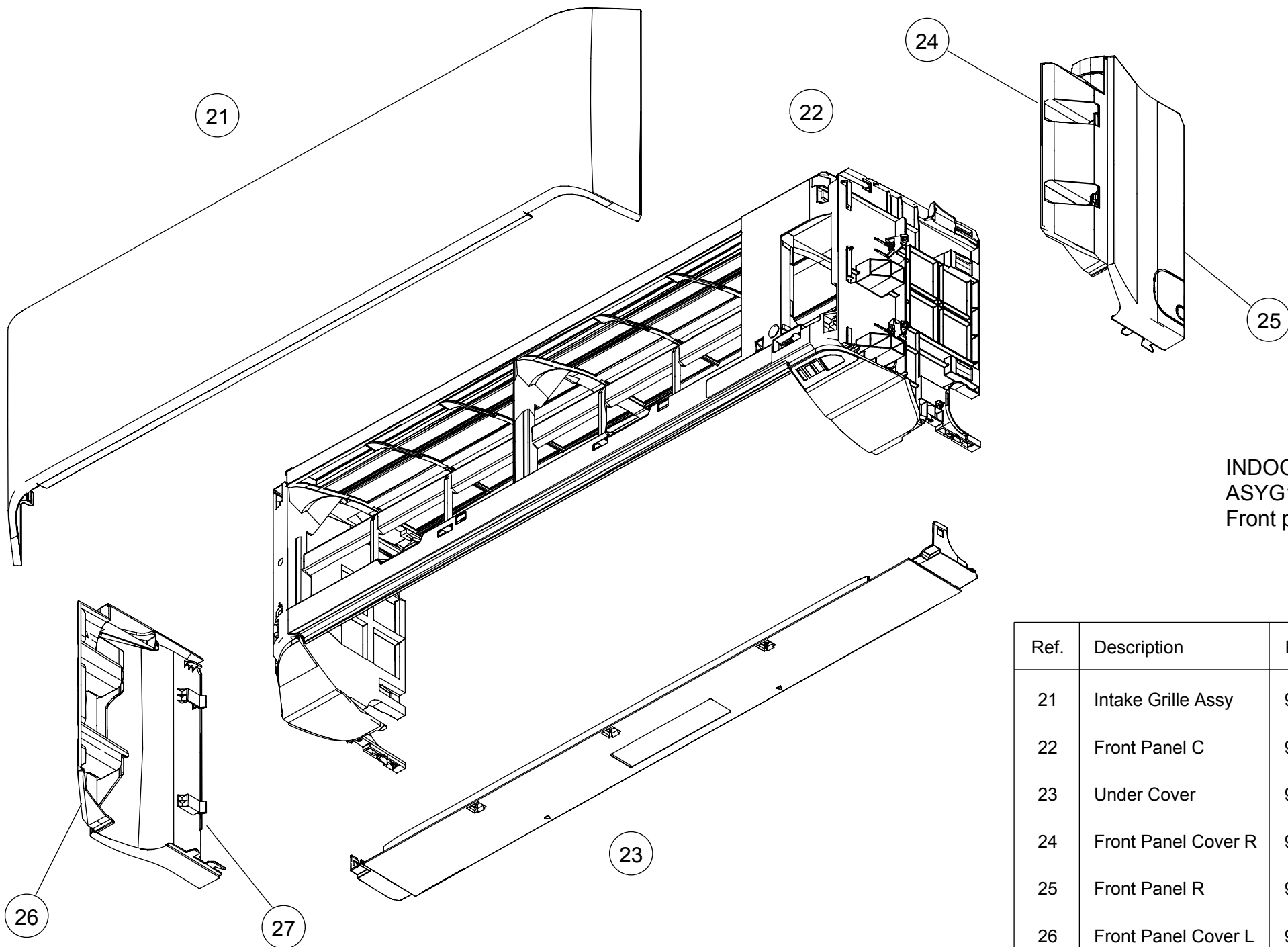


Ref.	Description	Part number	
1	Remote Control	9319208008	
2	Remote Control Holder	9318912005	
3	Bracket Panel	9332882025	
4	Electric Filter Holder	9332911008	
5	Air Clean Filter Assy	9317250009	
6	Air Filter	9332875010	
7	Screw Cap	9309002074	

INDOOR UNIT
ASYG12LMCE

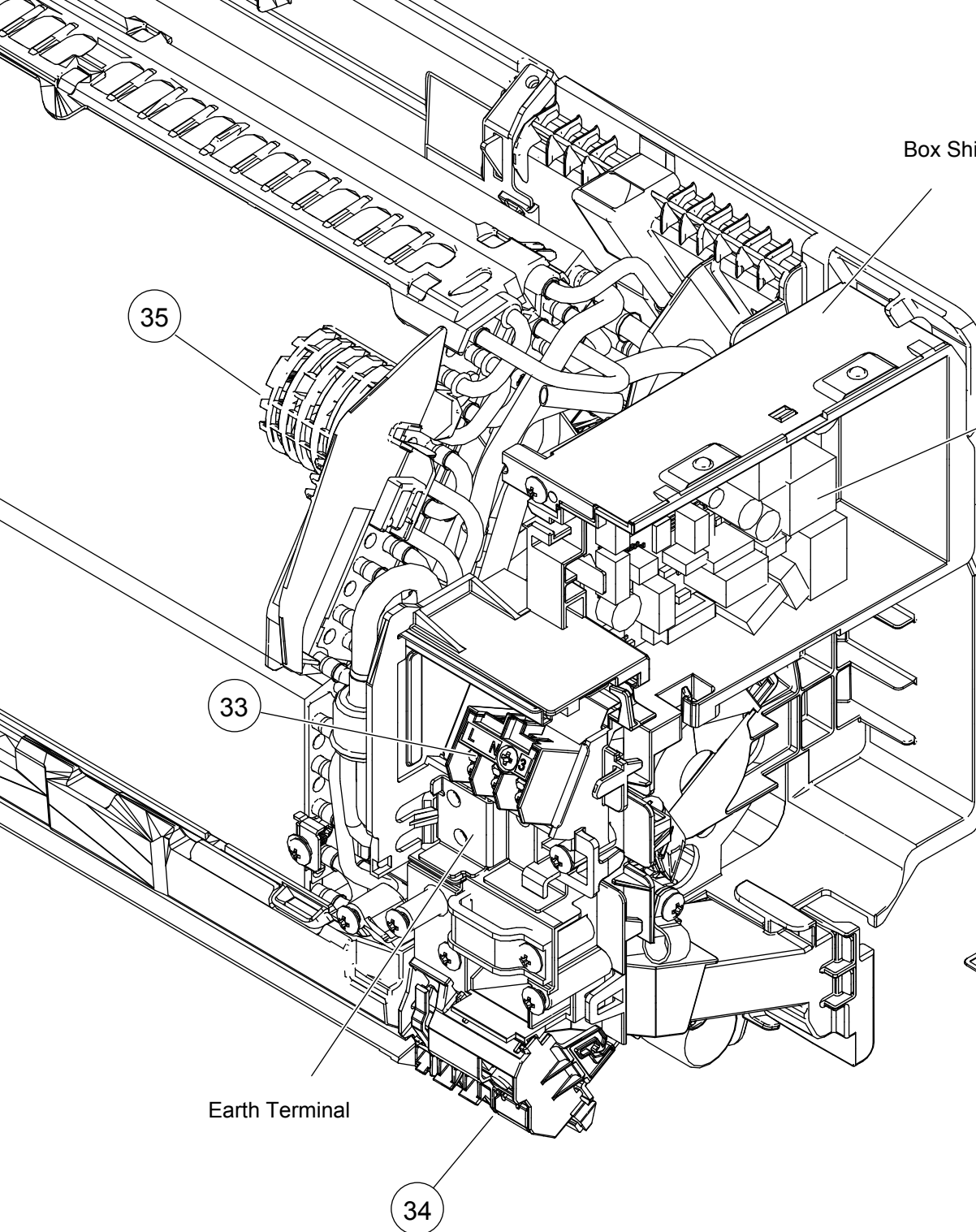


Ref.	Description	Part number	
11	Wire Cover	9333504018	
12	Louver Assy	9333353043	
13	Diffuser Assy	9332998085	
14	Front Panel Sub Assy (FUJITSU)	9333525051	



INDOOR UNIT
ASYG12LMCE
Front panel sub assy

Ref.	Description	Part number	
21	Intake Grille Assy	9333526010	
22	Front Panel C	9333497020	
23	Under Cover	9333503011	
24	Front Panel Cover R	9333502014	
25	Front Panel R	9333500003	
26	Front Panel Cover L	9333501017	
27	Front Panel L	9333499000	



Box Shield Assy

32

31

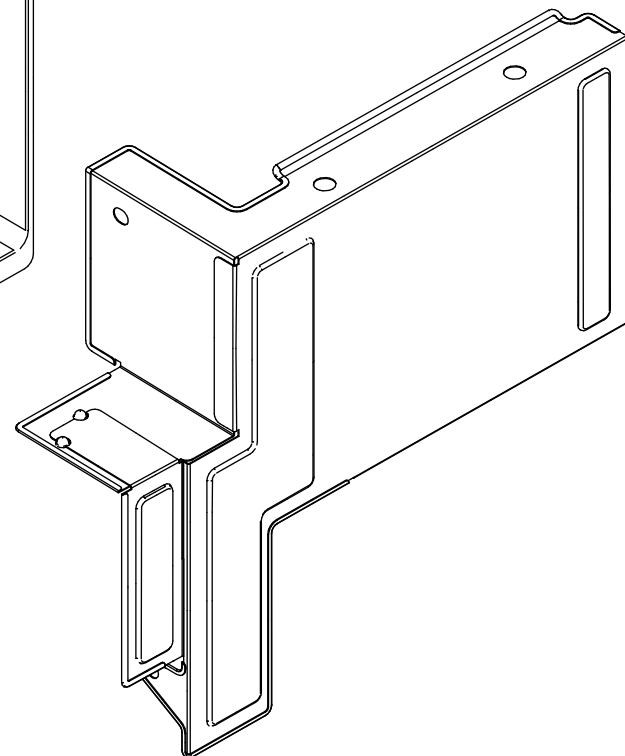
33

Earth Terminal

34

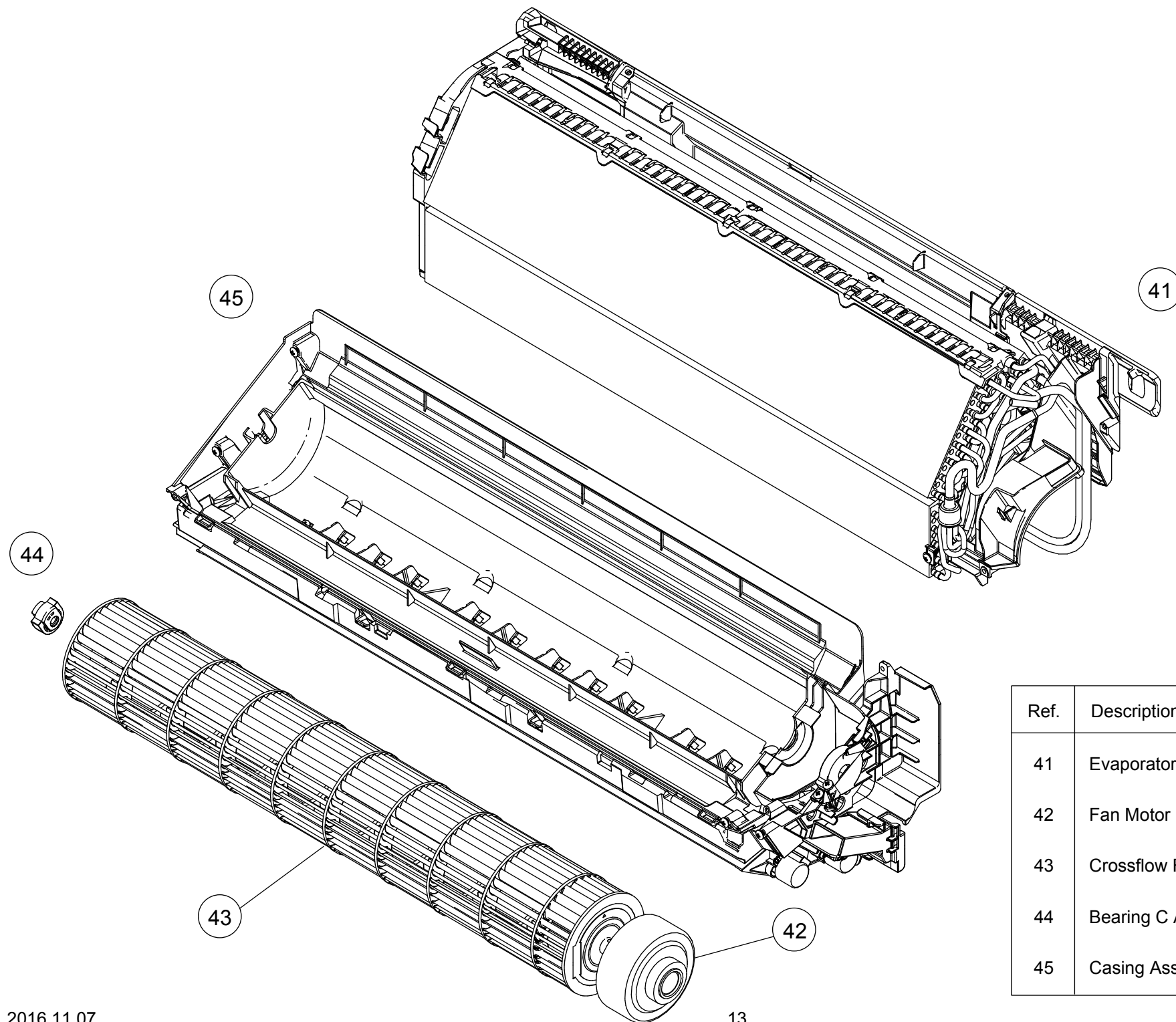
Ref.	Description	Part number	
31	Control Box	9332892000	
32	Main PCB	9709427026	
33	Terminal	9900720001	
34	Display Assy	9709430019	
35	Room Thermistor Holder	9332868005	
--	Thermistor Assy	9900930011	

Cover Shield



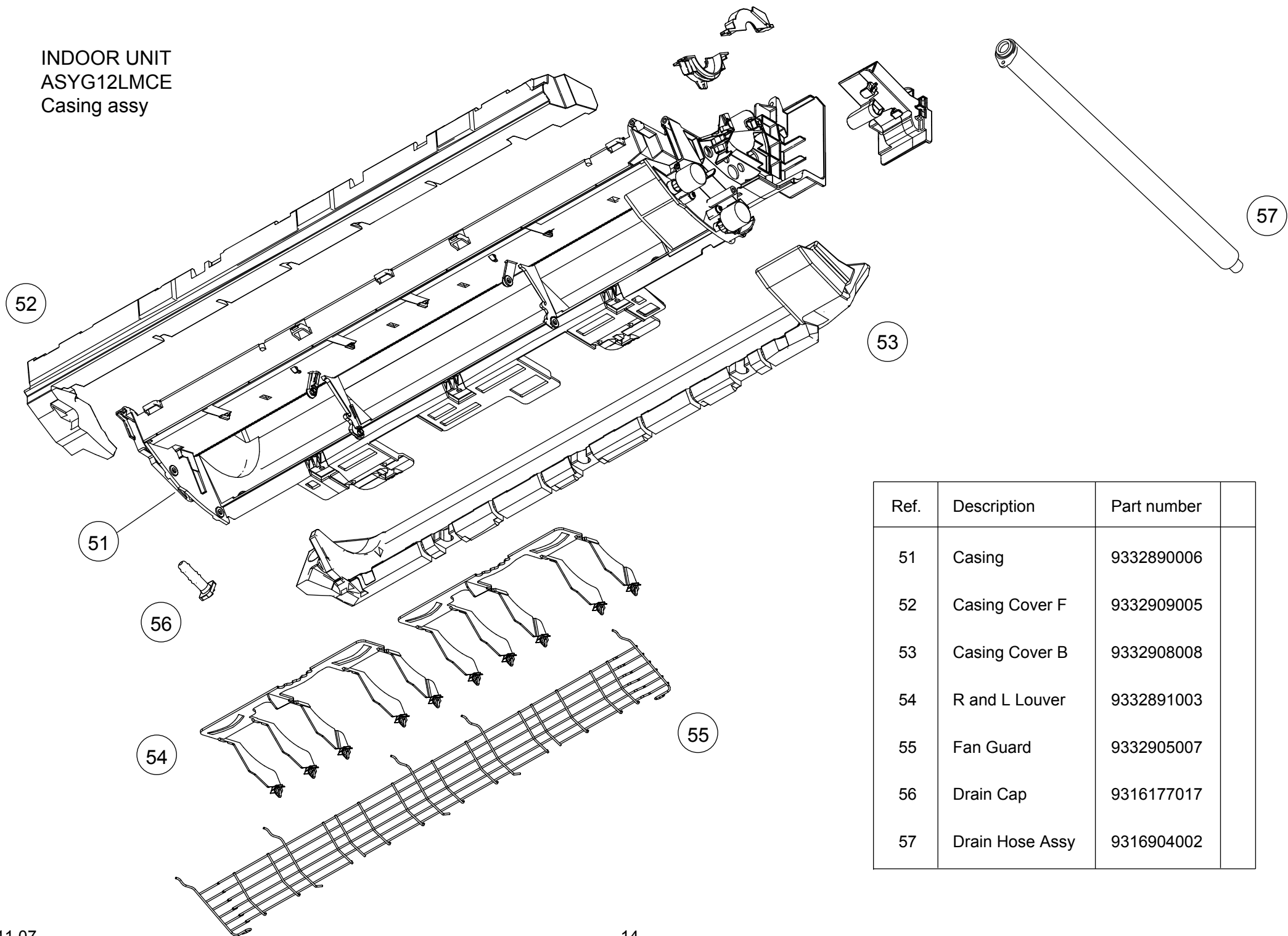
INDOOR UNIT
ASYG12LMCE
Control box

INDOOR UNIT
ASYG12LMCE
Evaporator
Fan



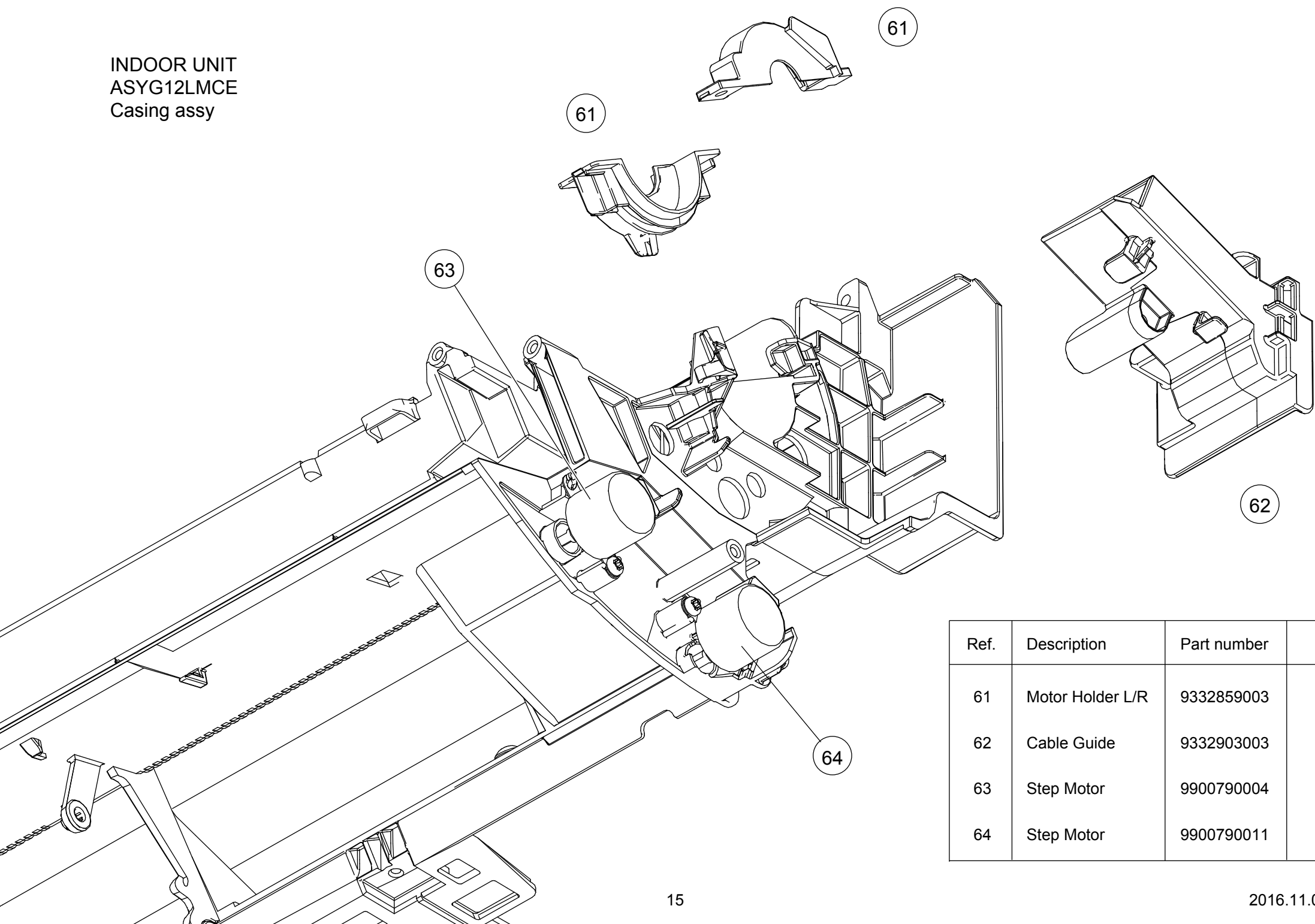
Ref.	Description	Part number	
41	Evaporator Total Assy	9332989090	
42	Fan Motor	9603269005	
43	Crossflow Fan Assy	9316830004	
44	Bearing C Assy	9306628017	
45	Casing Assy	9333009001	

INDOOR UNIT
ASYG12LMCE
Casing assy



Ref.	Description	Part number	
51	Casing	9332890006	
52	Casing Cover F	9332909005	
53	Casing Cover B	9332908008	
54	R and L Louver	9332891003	
55	Fan Guard	9332905007	
56	Drain Cap	9316177017	
57	Drain Hose Assy	9316904002	

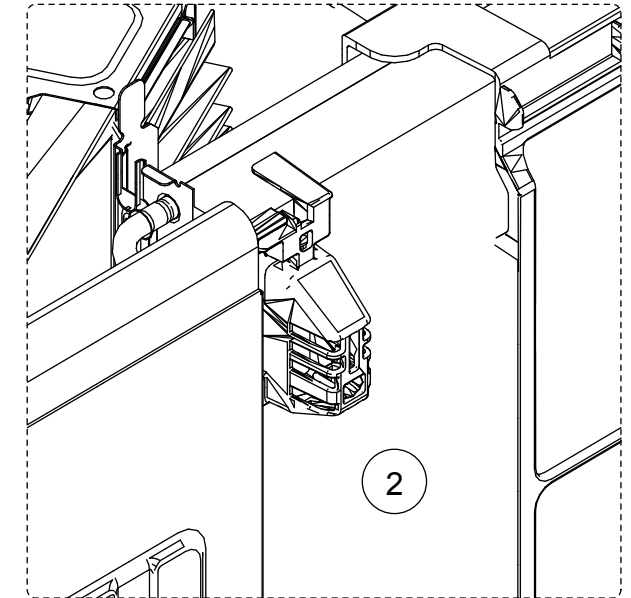
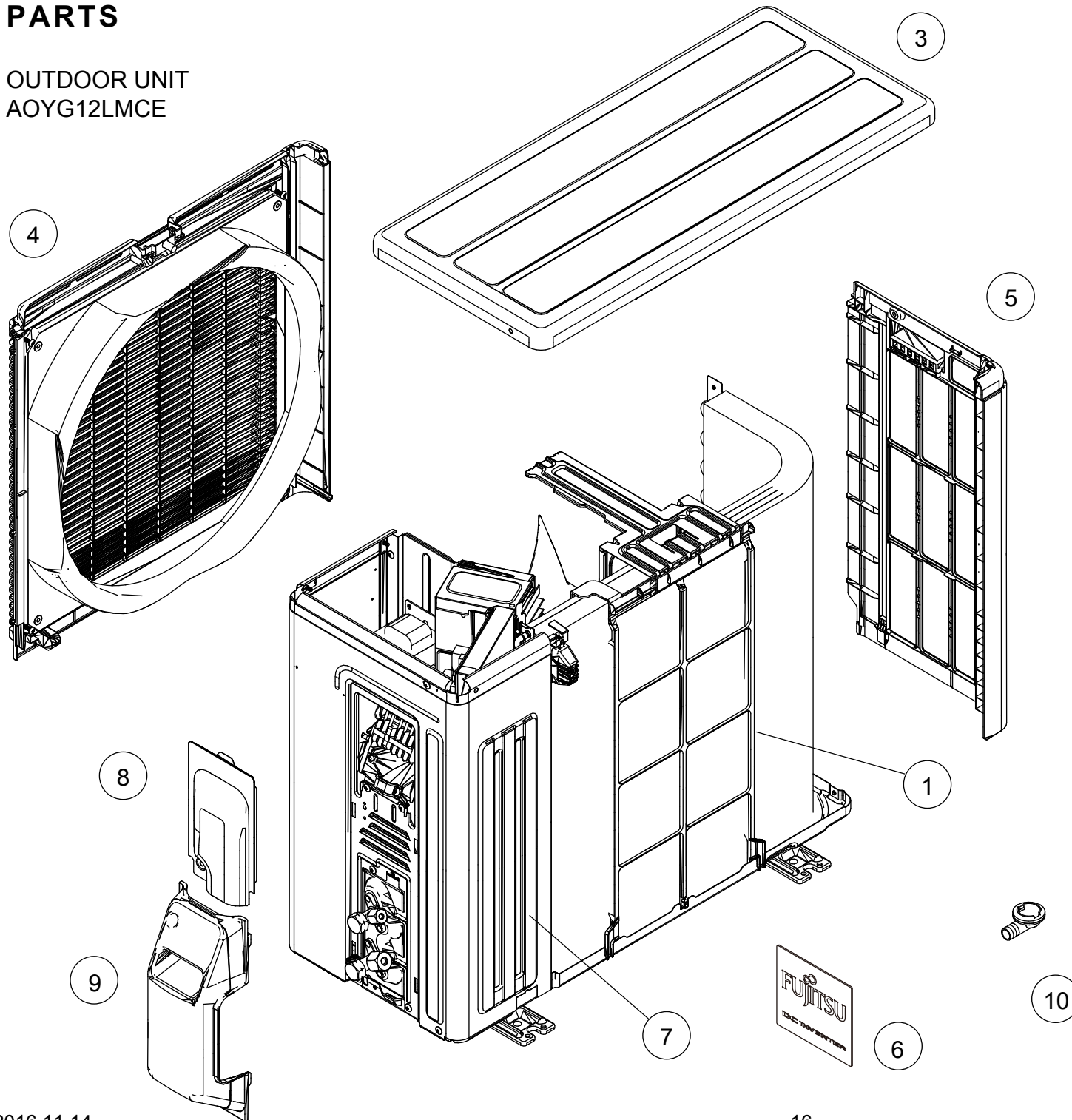
INDOOR UNIT
ASYG12LMCE
Casing assy



Ref.	Description	Part number	
61	Motor Holder L/R	9332859003	
62	Cable Guide	9332903003	
63	Step Motor	9900790004	
64	Step Motor	9900790011	

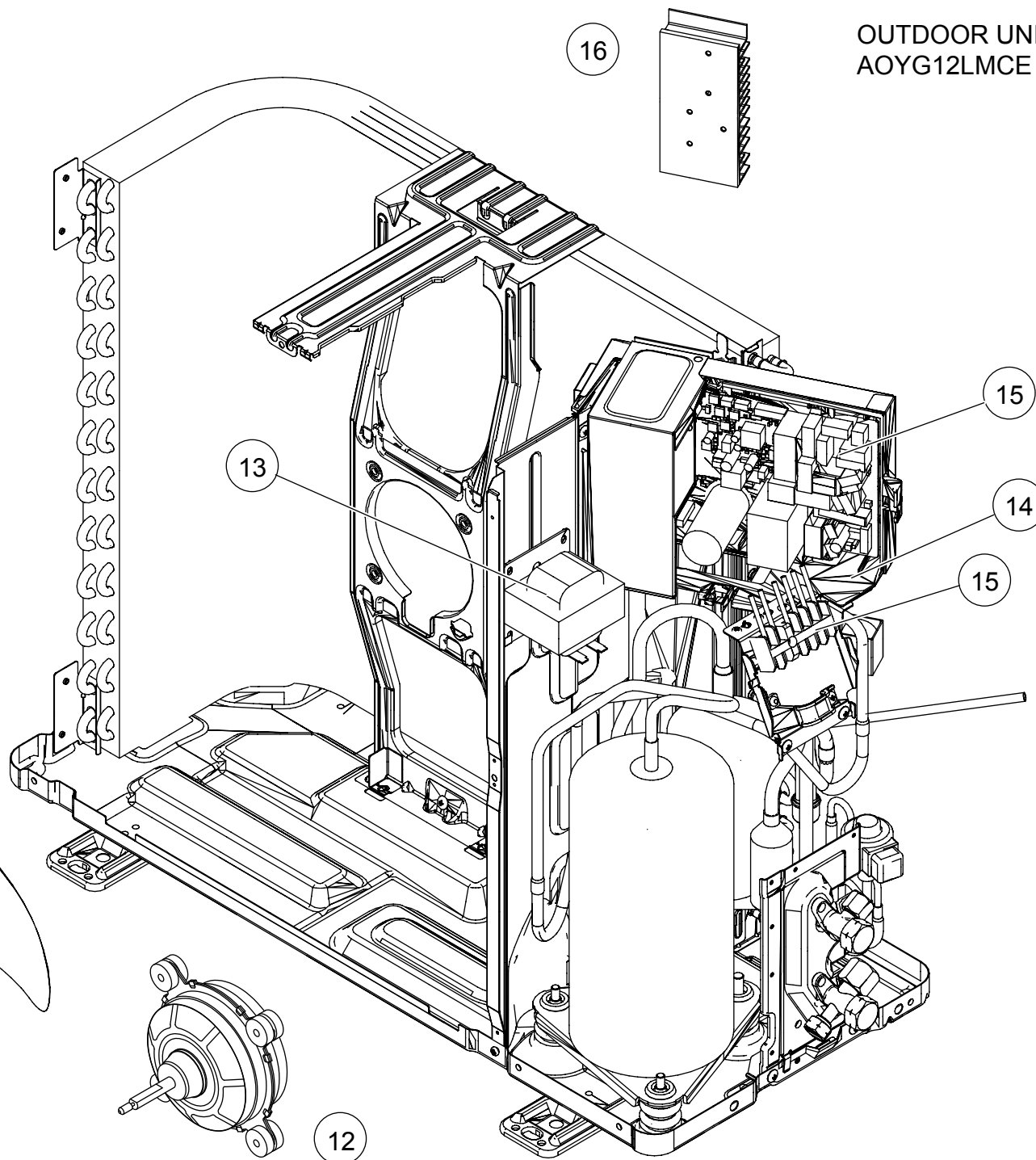
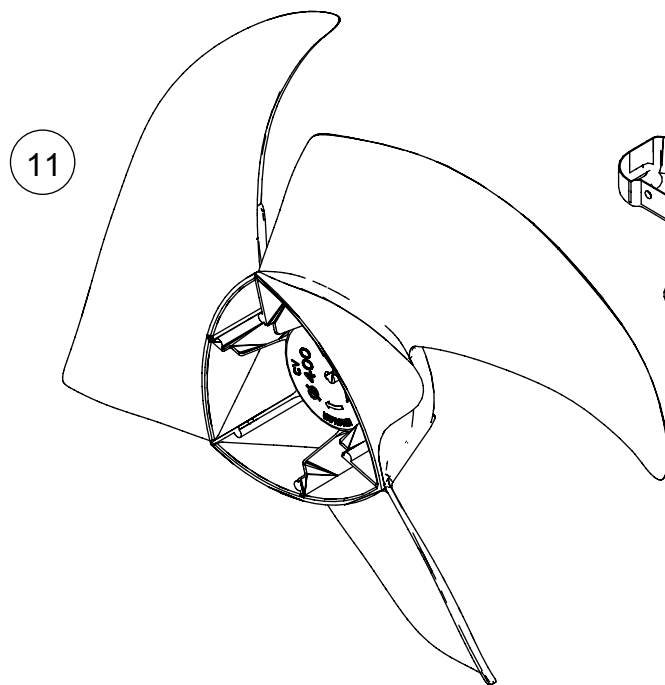
PARTS

OUTDOOR UNIT
AOYG12LMCE

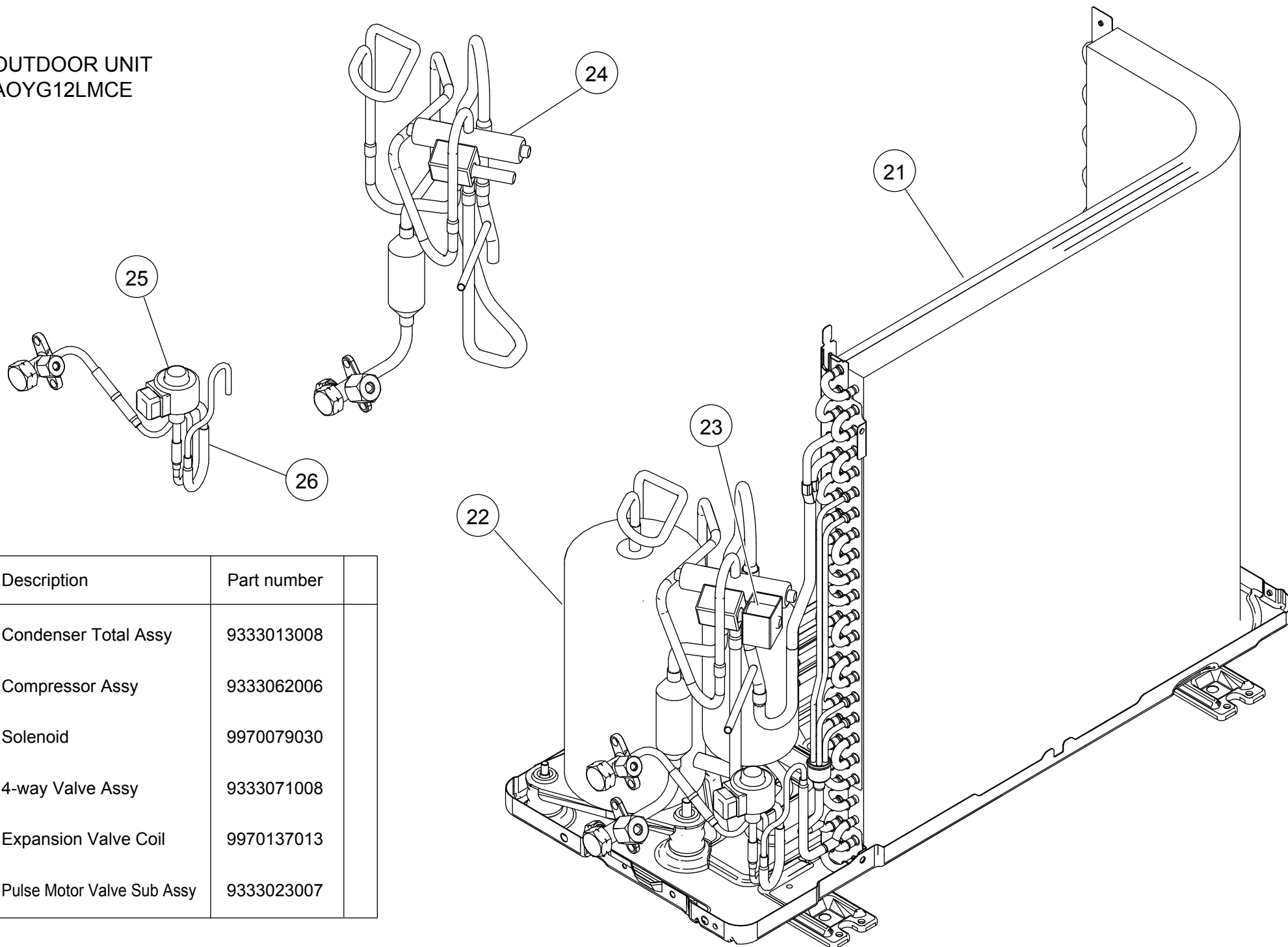


Ref.	Description	Part number
1	Protective Net	9332855005
2	Thermistor Holder	9332505009
3	Top Panel Assy	9332977004
4	Front Panel Assy	9332965001
5	Cabinet Left Assy	9332962000
6	Emblem	9319151007
7	Cabinet Right Assy	9332963007
8	Switch Cover A Assy	9332964011
9	Switch Cover B	9332843002
10	Drain Assy	9332574005

Ref.	Description	Part number	
11	Propeller Fan	9309909014	
12	Fan Motor	9603074012	
13	Reactor Assy	9900872014	
14	PCB Holder	9332506013	
15	Main PCB with Terminal	9709434208	
16	Heat Sink B	9332522006	
--	Thermistor Assy	9900901011	
--	Thermistor	9900880019	



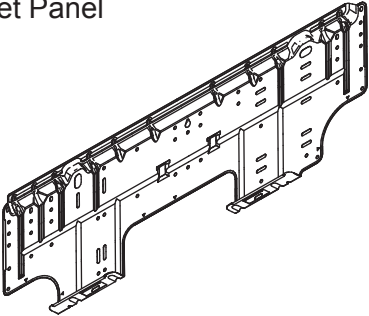
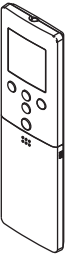
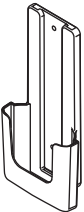
OUTDOOR UNIT
AOYG12LMCE

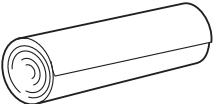
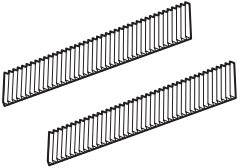
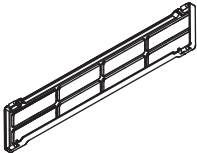


Ref.	Description	Part number	
21	Condenser Total Assy	9333013008	
22	Compressor Assy	9333062006	
23	Solenoid	9970079030	
24	4-way Valve Assy	9333071008	
25	Expansion Valve Coil	9970137013	
26	Pulse Motor Valve Sub Assy	9333023007	

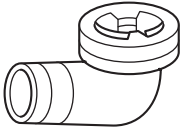
ACCESSORIES

INDOOR UNIT

Name and Shape	Part number
Bracket Panel 	9332882025
Remote Control 	9319208008
Remote Control Holder 	9318912005
Battery (penlight) 	0600185541

Name and Shape	Part number
Cloth tape 	9310519004
Tapping screw (M4 x 25 mm) 	0700076046
Tapping screw (M3 x 12 mm) 	0700019036
Air cleaning filter assy 	9317250009
Filter holder 	9332911008

OUTDOOR UNIT

Name and Shape	Part number
Drain pipe assy 	9332574005

1611G4555