

SPLIT TYPE  
ROOM AIR CONDITIONER  
WALL MOUNTED TYPE

# SERVICE MANUAL



Indoor unit	Outdoor unit
ASU30RLXB	AOU30RLXB
ASU36RLXB	AOU36RLXB

# under confirmation

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# SPECIFICATIONS

under confirmation

## ELECTRICAL DATA

TYPE		Cool & heat inverter	
INDOOR UNIT		ASU30RLXB	ASU36RLFb
OUTDOOR UNIT		AOU30RLXB	AOU36RLXB
COOLING CAPACITY		30,000 Btu/h 5.28 kW	34,000 Btu/h 6.50 kW
HEATING CAPACITY		21,600 Btu/h 6.30 kW	27,600 Btu/h 8.10 kW
POWER SOURCE		208 V / 230 V	208 V / 230 V
FREQUENCY		60 Hz	60 Hz
RUNNING CURRENT	Cooling	6.2 A	7.9 A
	Heating	8.0 A	10.5 A
INPUT WATTS	Cooling	1.35 kW	1.76 kW
	Heating	1.80 kW	2.38 kW
EER	Cooling	13.3 Btu/kW 3.90 kW/kW	12.5 Btu/kW 3.69 kW/kW
COP	Heating	12.0 Btu/kW 3.50 kW/kW	11.6 Btu/kW 3.40 kW/kW
MOISTURE REMOVAL		5.9 Pt/h 2.8 L/h	6.3 Pt/h 3.0 L/h
AIR CIRCULATION HIGH		541 cfm 920 m3/h	659 cfm 1,120 m3/h
MAXIMUM CURRENT		14.5 A	15.5 A

## FAN MOTOR

POWER SOURCE		230 V	230 V
INDOOR UNIT	High	1,260 r.p.m.	1,480 r.p.m.
	Medium	1,020 r.p.m.	1,220 r.p.m.
	Low	900 r.p.m.	1,020 r.p.m.
	Quiet	770 r.p.m.	900 r.p.m.
OUTDOOR UNIT	Cool	620 r.p.m.	800 r.p.m.
	Heat	620 r.p.m.	850 r.p.m.

## NOISE LEVEL

INDOOR UNIT	Cooling	43 dB	49 dB
	Heating	44 dB	49 dB
OUTDOOR UNIT	Cooling	47 dB	54 dB
	Heating	50 dB	55 dB

## COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, 6 pole, DC inverter motor, Rotary	
DISCRIMINATION		N-TF30ND1A	
WEIGHT WITH OIL		34.2 lb	15.5 kg
PRECHARGED REFRIGERANT		4 lb 10 oz	2,100 g
REFRIGERANT TYPE		R410A	
FULL CHARGE	Pipe length 66 ft	20 m	4 lb 10 oz 2,100 g
	164 ft	50 m	7 lb 4 oz 3,300 g
ADDITIONAL CHARGE		0.43 oz/ft	40 g/m

## DIMENSIONS

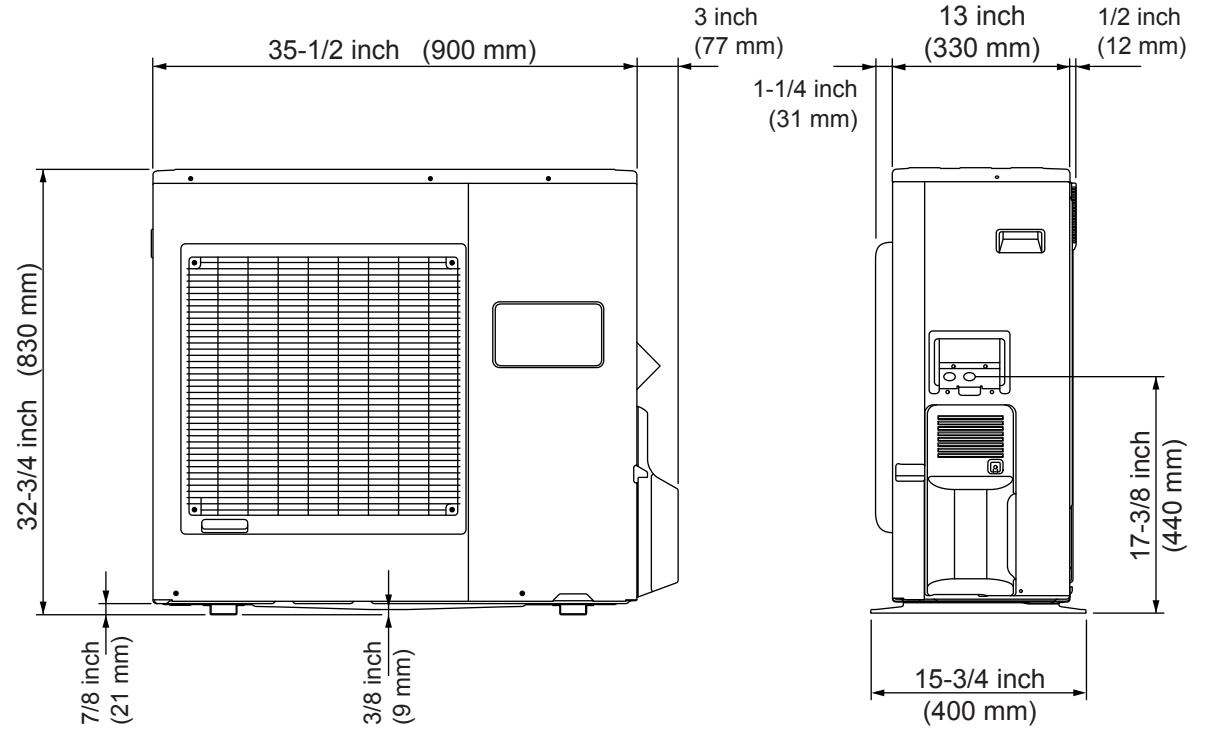
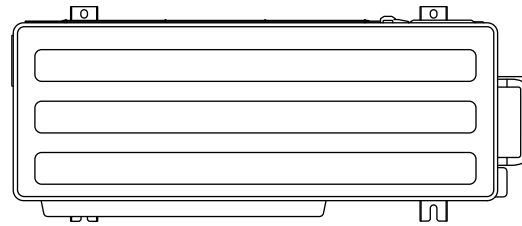
INDOOR UNIT	H x W x D	12-5/8 x 39-1/4 x 9 inch	320 x 998 x 228 mm
OUTDOOR UNIT	H x W x D	32-3/4 x 35-3/8 x 13 inch	830 x 900 x 330 mm

## WEIGHT

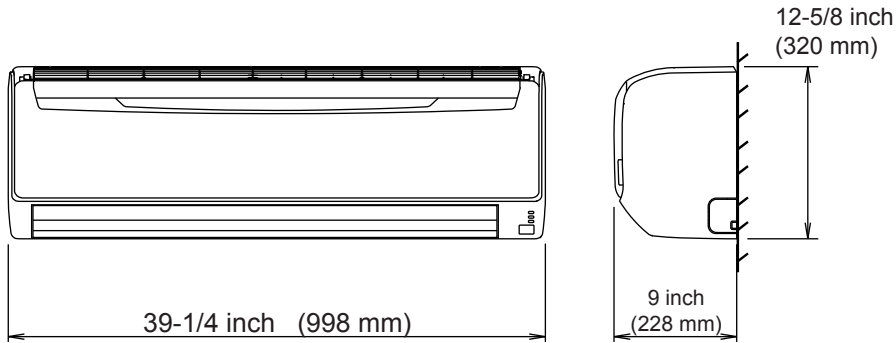
INDOOR UNIT	Shipping / Net	40 lbs / 31 lbs	18 kg / 14 kg
OUTDOOR UNIT	Shipping / Net	150 lbs / 135 lbs	68 kg / 61 kg

# DIMENSIONS

## OUTDOOR UNIT

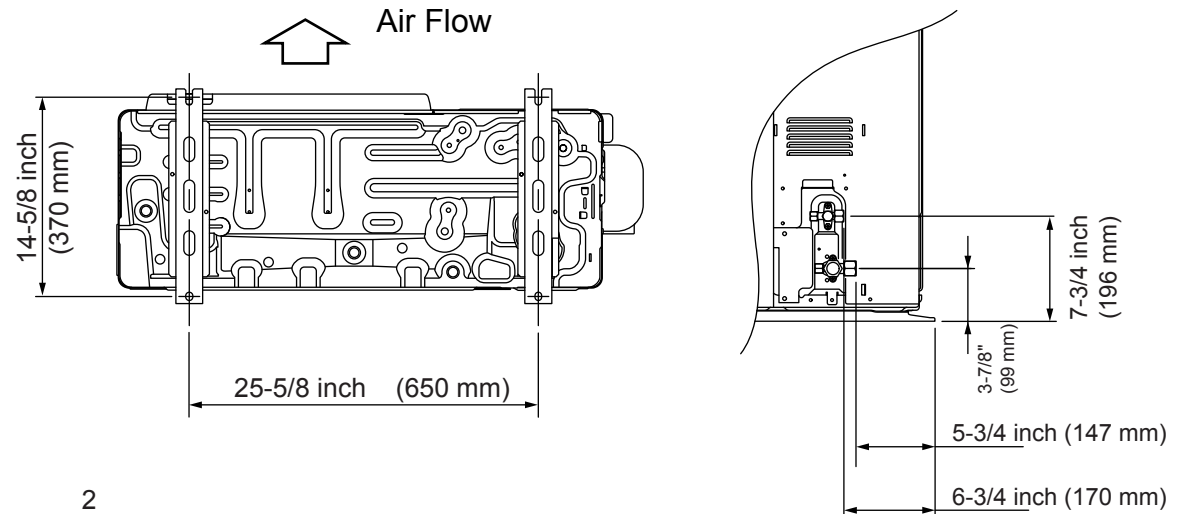


## INDOOR UNIT

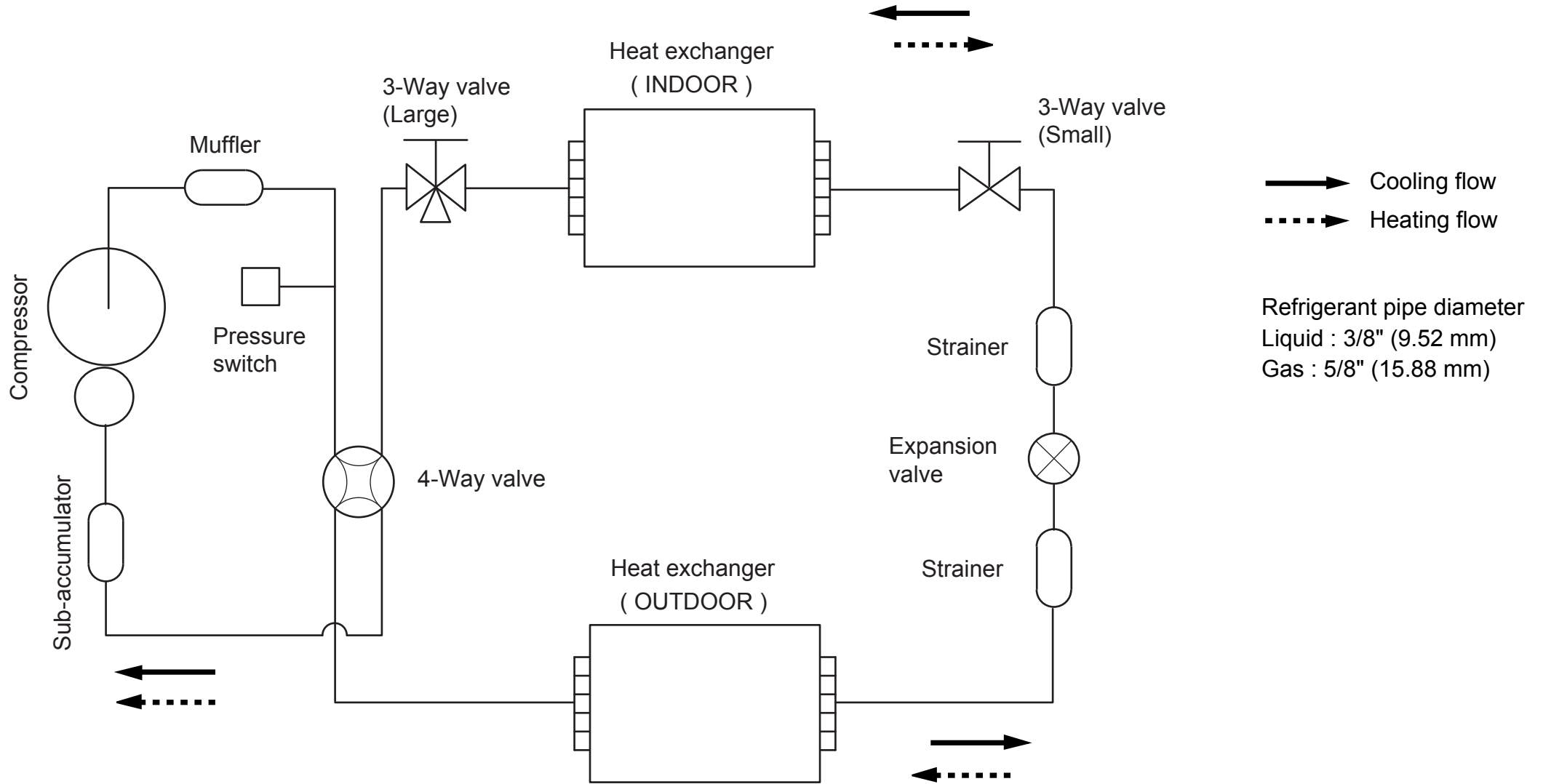


Drain pipe diameter  
 Inside : 5/8 inch (16 mm)  
 Outside : 1-3/32 inch (28 mm)

Liquid pipe diameter : 3/8 inch (9.52 mm)  
 Gas pipe diameter : 5/8 inch (15.88 mm)

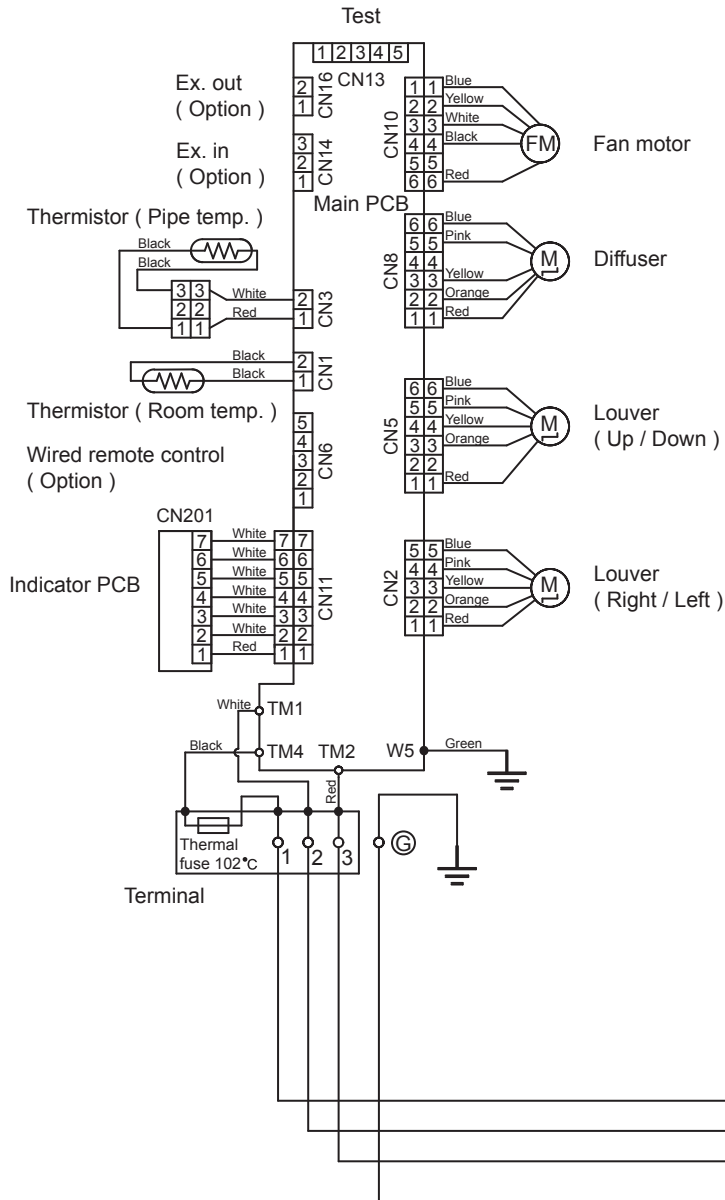


# REFRIGERANT SYSTEM DIAGRAM

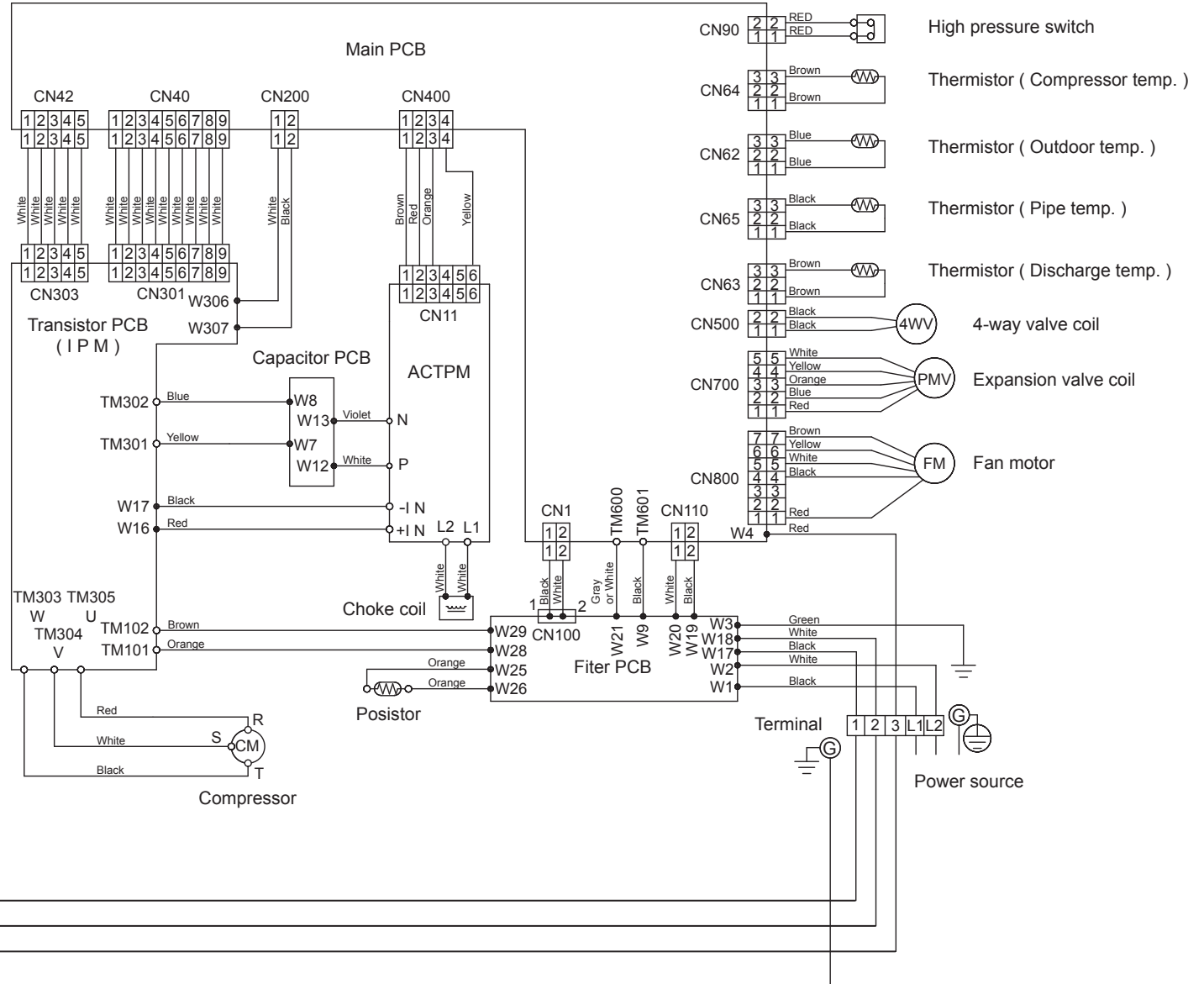


# CIRCUIT DIAGRAM

## INDOOR UNIT

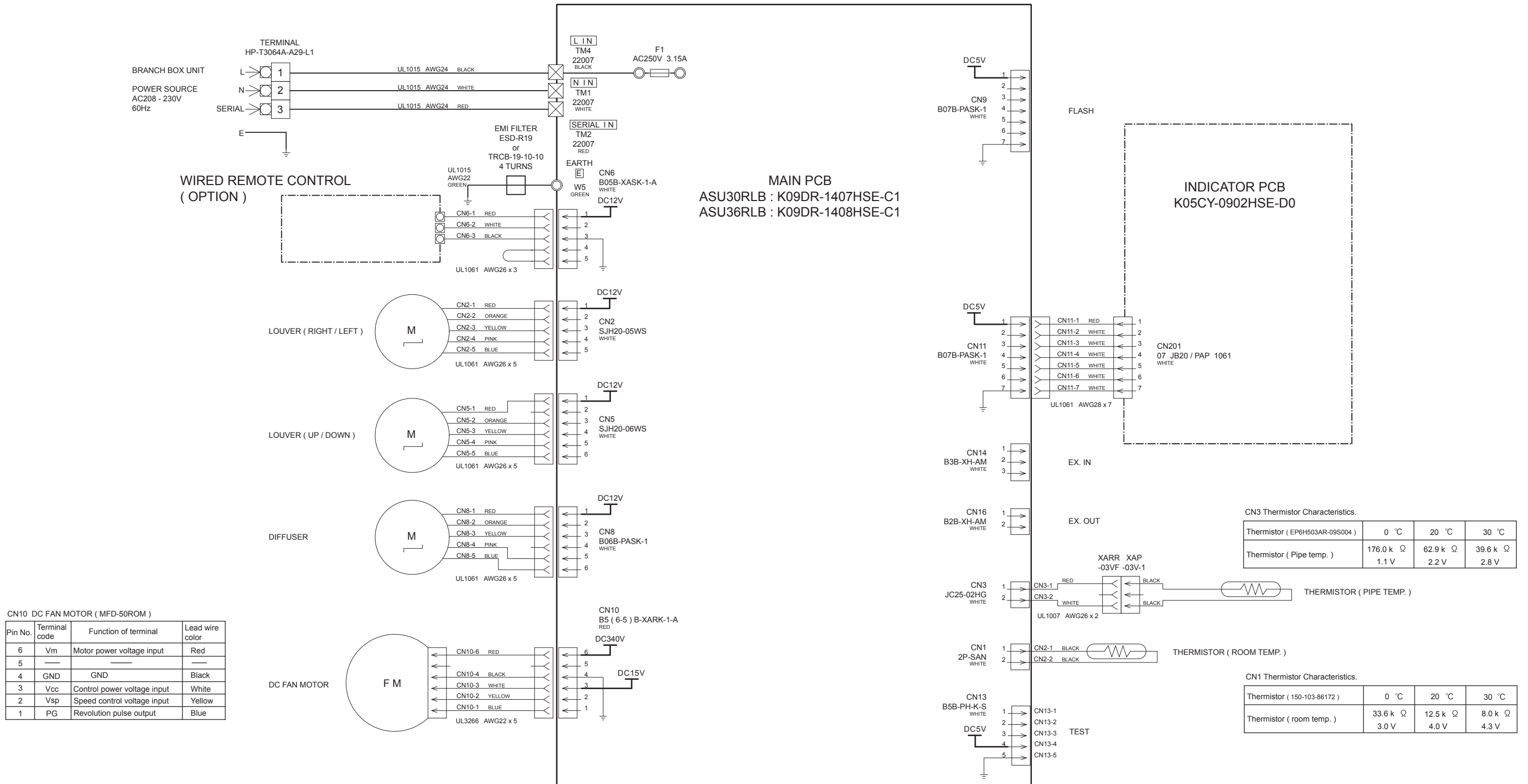


## OUTDOOR UNIT



# INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT  
 ASU30RLXB : EZ-01404HSE  
 ASU36RLXB : EZ-01405HSE



CN10 DC FAN MOTOR (MFD-50ROM)

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

CN3 Thermistor Characteristics.

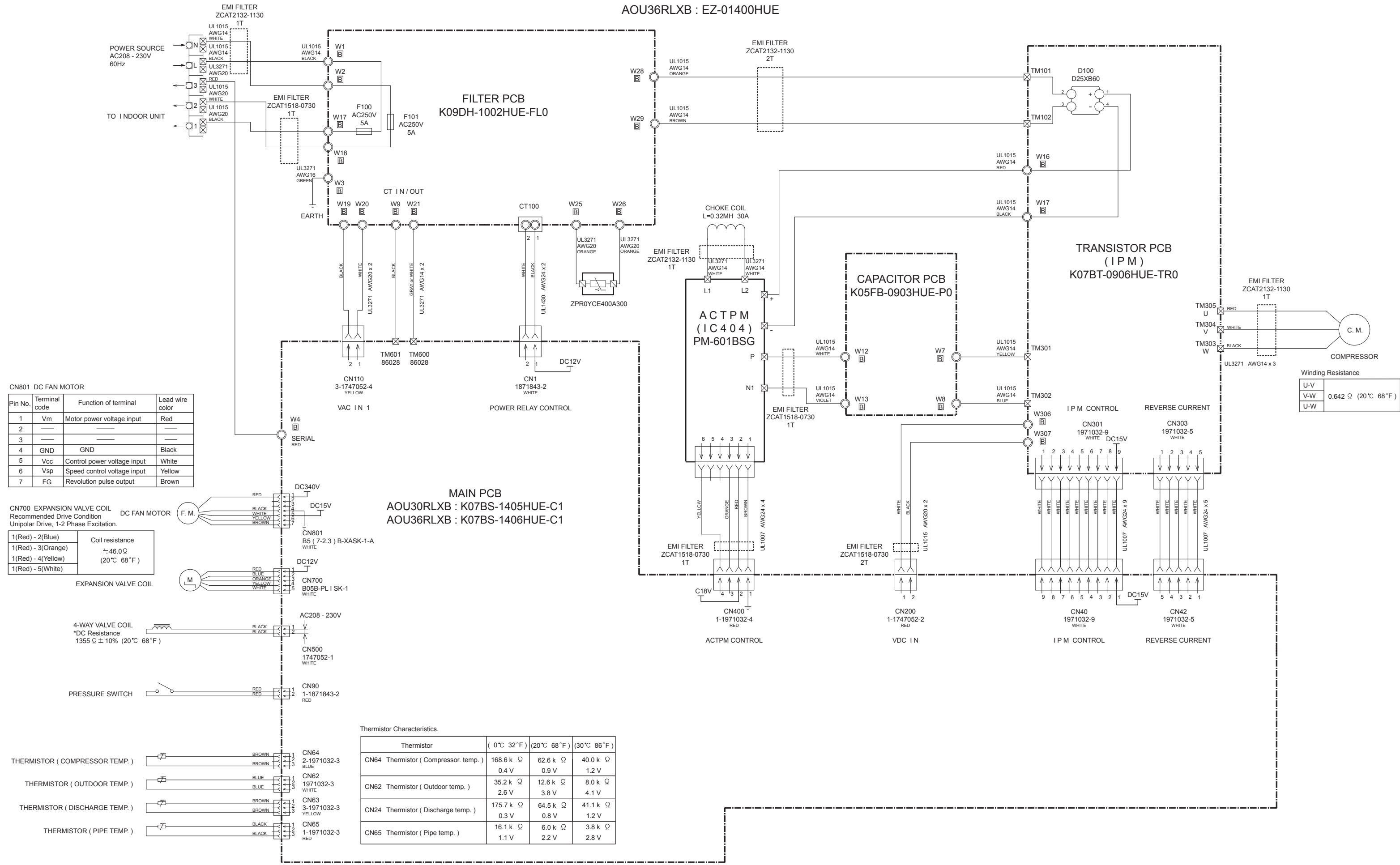
Thermistor ( EP6H503AR-09S004 )	0 °C	20 °C	30 °C
Thermistor ( Pipe temp. )	176.0 k Ω	62.9 k Ω	39.6 k Ω
	1.1 V	2.2 V	2.8 V

CN1 Thermistor Characteristics.

Thermistor ( 150-103-86172 )	0 °C	20 °C	30 °C
Thermistor ( room temp. )	33.6 k Ω	12.5 k Ω	8.0 k Ω
	3.0 V	4.0 V	4.3 V

# OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY  
 AOU30RLXB : EZ-014YHUE  
 AOU36RLXB : EZ-01400HUE



**CN801 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

**CN700 EXPANSION VALVE COIL**  
 Recommended Drive Condition  
 Unipolar Drive, 1-2 Phase Excitation.

Terminal	Coil resistance
1(Red) - 2(Blue)	≈ 46.0 Ω (20°C 68°F)
1(Red) - 3(Orange)	
1(Red) - 4(Yellow)	
1(Red) - 5(White)	

**Thermistor Characteristics.**

Thermistor	( 0°C 32°F )	(20°C 68°F)	(30°C 86°F)
CN64 Thermistor ( Compressor temp. )	168.6 k Ω 0.4 V	62.6 k Ω 0.9 V	40.0 k Ω 1.2 V
CN62 Thermistor ( Outdoor temp. )	35.2 k Ω 2.6 V	12.6 k Ω 3.8 V	8.0 k Ω 4.1 V
CN24 Thermistor ( Discharge temp. )	175.7 k Ω 0.3 V	64.5 k Ω 0.8 V	41.1 k Ω 1.2 V
CN65 Thermistor ( Pipe temp. )	16.1 k Ω 1.1 V	6.0 k Ω 2.2 V	3.8 k Ω 2.8 V

**Winding Resistance**

U-V	0.642 Ω (20°C 68°F)
V-W	
U-W	

# ERROR DETECTION

● : 0.5s ON / 0.5s OFF

() : Number of flashing

◇ : 0.1s ON / 0.1s OFF

## INDOOR UNIT

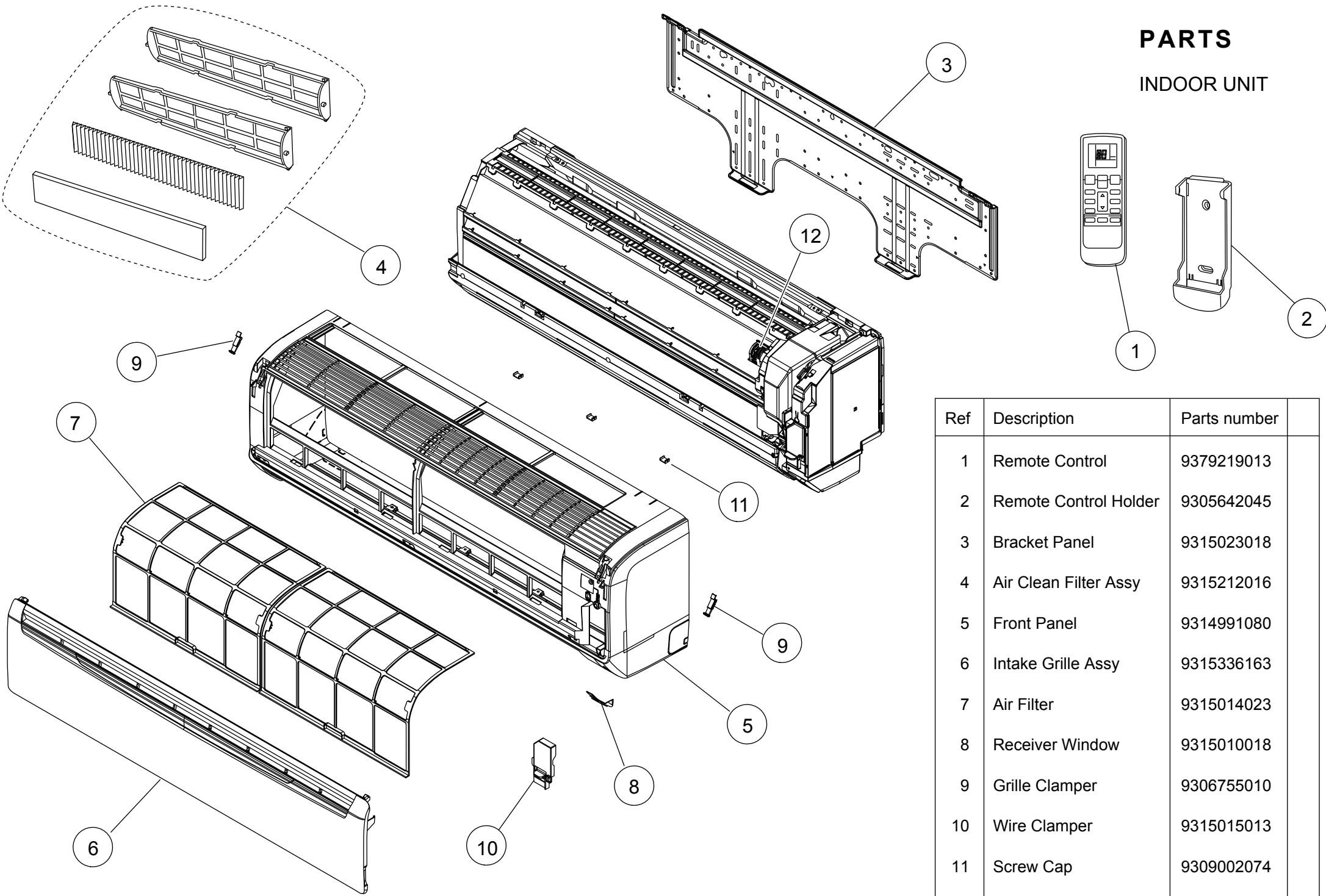
General section	Detail section	LED			Wired remote control error code
		OPERATION (Green)	TIMER (Orange)	ECONOMY (Green)	
Communication error System error	Serial communication error	● (1)	● (1)	◇	11
	Remote controller communication error	● (1)	● (2)	◇	12
	Scan error	● (1)	● (5)	◇	15
Field setting error	Initial setting error (for simultaneous multi)	● (2)	● (1)	◇	21
	Indoor unit capacity error	● (2)	● (2)	◇	22
	Connection disabled (series error)	● (2)	● (3)	◇	23
	Connection unit number error	● (2)	● (4)	◇	24
	Master unit and slave unit setting error	● (2)	● (7)	◇	27
Indoor unit PCB, switch error	Indoor unit main PCB error	● (3)	● (2)	◇	32
	Manual auto switch error	● (3)	● (5)	◇	35
Indoor unit sensor error	Indoor room thermistor error	● (4)	● (1)	◇	41
	Indoor heat Ex. thermistor error	● (4)	● (2)	◇	42
Indoor unit actuator error	Indoor unit fan motor error	● (5)	● (1)	◇	51
	Water drain error	● (5)	● (3)	◇	53
	Damper error	● (5)	● (7)	◇	57
	Indoor unit error	—	—	—	5U
Outdoor unit PCB error Circuit parts error Switch error	Outdoor unit main PCB error	● (6)	● (2)	◇	62
	Inverter PCB error	● (6)	● (3)	◇	63
	Active filter error, PFC circuit error	● (6)	● (4)	◇	64
	IPM error	● (6)	● (5)	◇	65
	Display panel error	● (6)	● (10)	◇	6A
Outdoor unit sensor error	Discharge thermistor error	● (7)	● (1)	◇	71
	Compressor thermistor error	● (7)	● (2)	◇	72
	Outdoor unit heat Ex. thermistor error	● (7)	● (3)	◇	73
	Outdoor thermistor error	● (7)	● (4)	◇	74
	Suction gas thermistor error	● (7)	● (5)	◇	75
	Operation valve thermistor error	● (7)	● (6)	◇	76
	Heat sink thermistor error	● (7)	● (7)	◇	77
Outdoor unit sensor 2 error	Sub-cool heat Ex.gas thermistor error	● (8)	● (2)	◇	82
	Liquid pipe thermistor error	● (8)	● (3)	◇	83
	Current sensor error	● (8)	● (4)	◇	84
	Pressure sensor error (Pressure sensor or switch error)	● (8)	● (6)	◇	86
Outdoor unit actuator error	Trip detection	● (9)	● (4)	◇	94
	Compressor motor control error	● (9)	● (5)	◇	95
	Outdoor unit fan motor 1 error	● (9)	● (7)	◇	97
	4-way valve error	● (9)	● (9)	◇	99
Refrigerant circuit error	Discharge temperature error	● (10)	● (1)	◇	A1
	Compressor temperature error	● (10)	● (3)	◇	A3
	Pressure error 1	● (10)	● (4)	◇	A4
	Pressure error 2	● (10)	● (5)	◇	A5

under confirmation need to refer to the installation manual

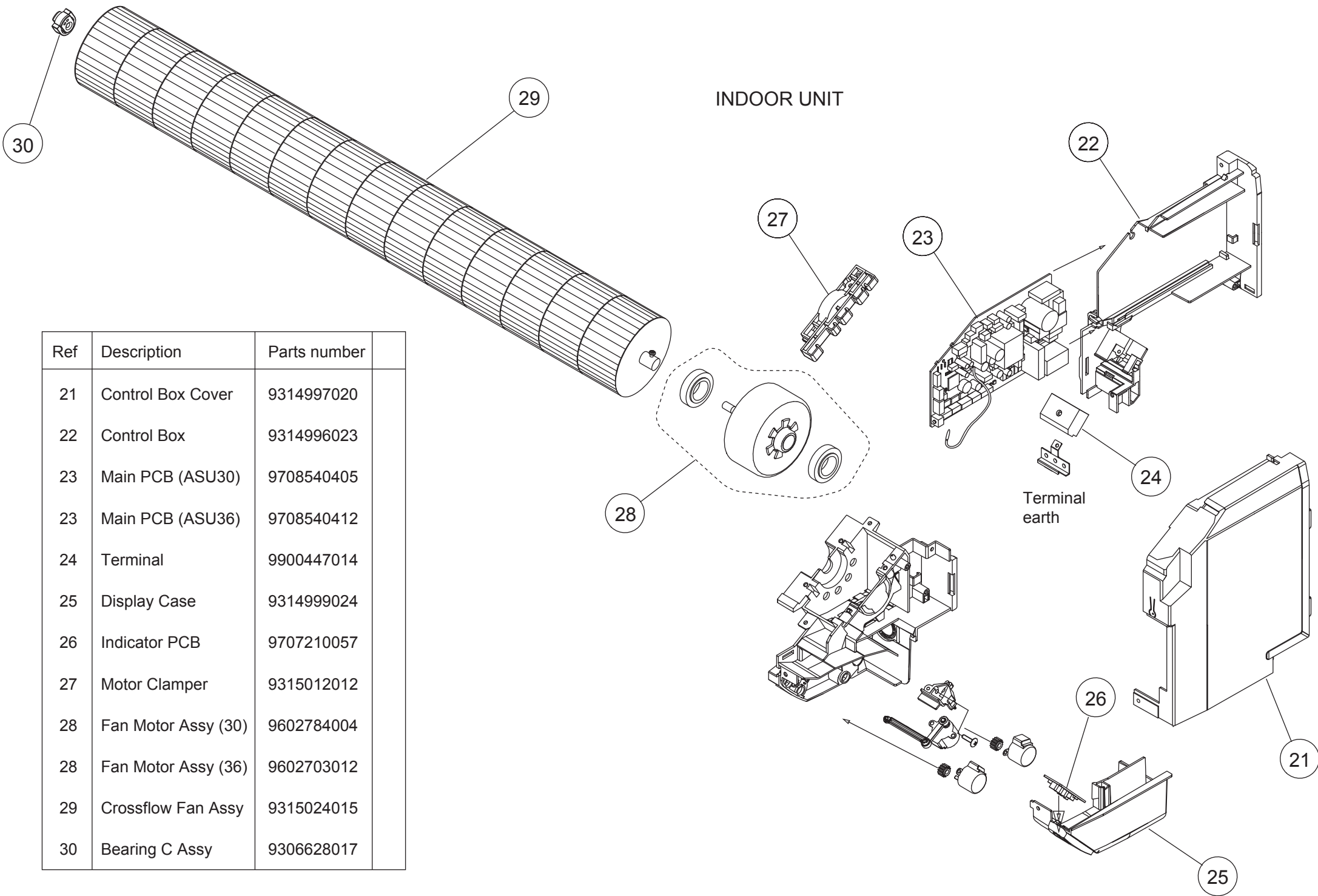


# PARTS

## INDOOR UNIT



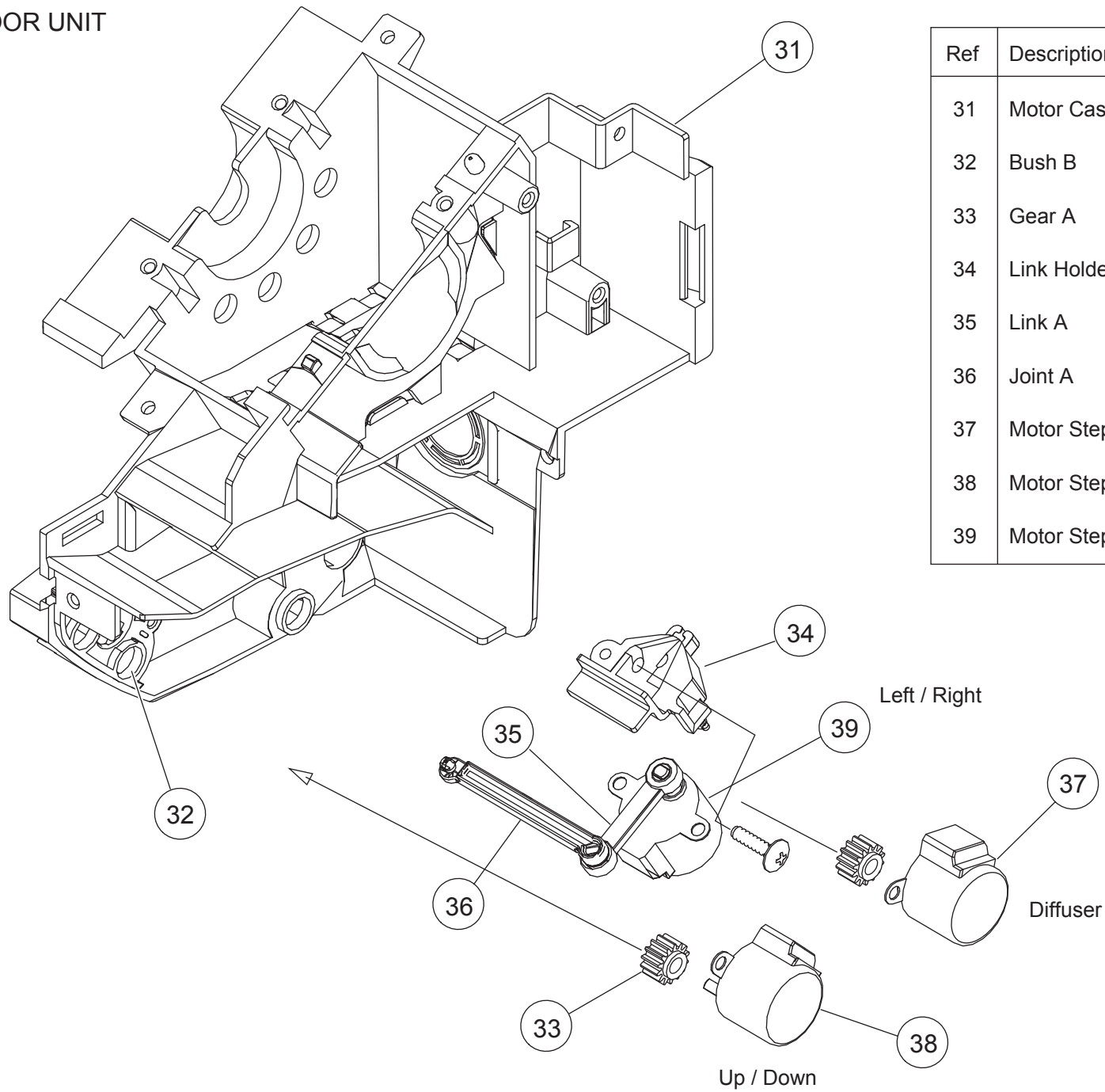
Ref	Description	Parts number
1	Remote Control	9379219013
2	Remote Control Holder	9305642045
3	Bracket Panel	9315023018
4	Air Clean Filter Assy	9315212016
5	Front Panel	9314991080
6	Intake Grille Assy	9315336163
7	Air Filter	9315014023
8	Receiver Window	9315010018
9	Grille Clamper	9306755010
10	Wire Clamper	9315015013
11	Screw Cap	9309002074
12	Room Thermistor Holder	9315252012



Ref	Description	Parts number
21	Control Box Cover	9314997020
22	Control Box	9314996023
23	Main PCB (ASU30)	9708540405
23	Main PCB (ASU36)	9708540412
24	Terminal	9900447014
25	Display Case	9314999024
26	Indicator PCB	9707210057
27	Motor Clamber	9315012012
28	Fan Motor Assy (30)	9602784004
28	Fan Motor Assy (36)	9602703012
29	Crossflow Fan Assy	9315024015
30	Bearing C Assy	9306628017

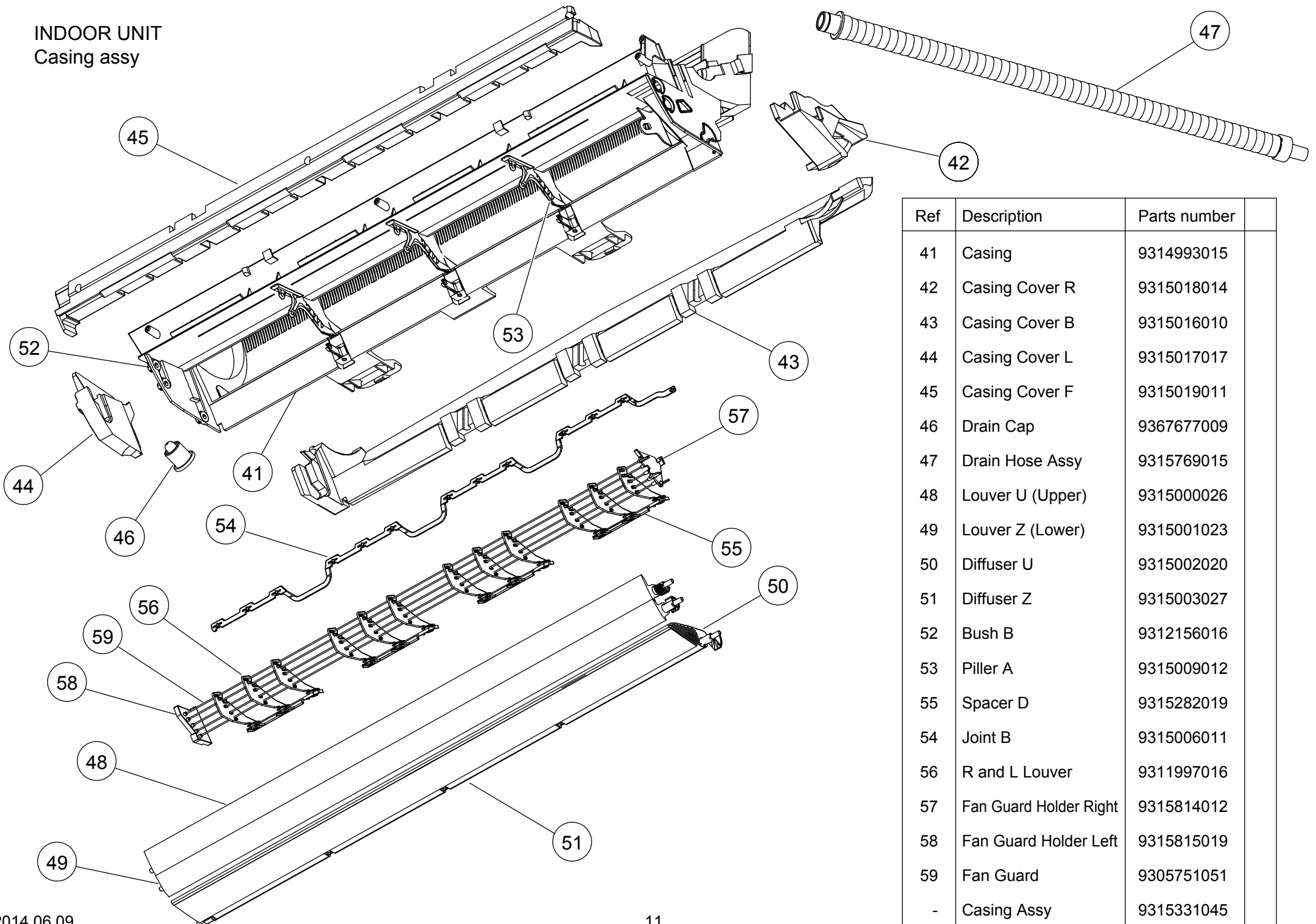
Terminal  
earth

# INDOOR UNIT



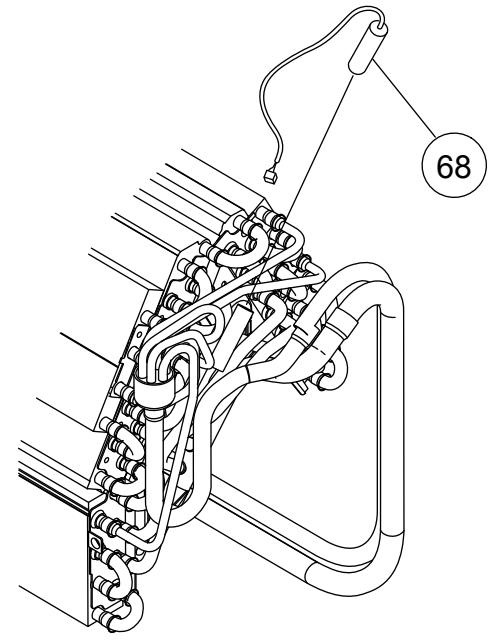
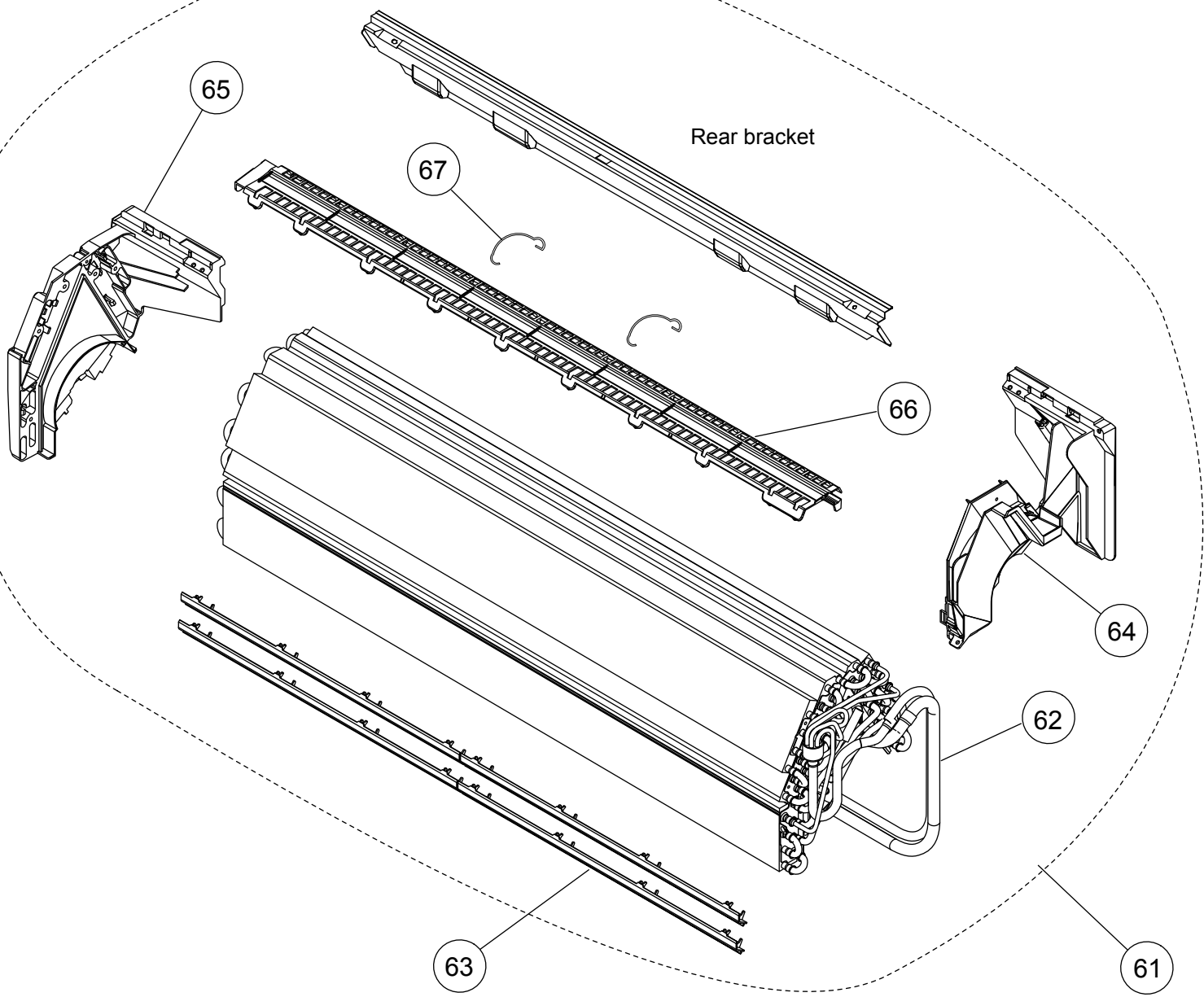
Ref	Description	Parts number
31	Motor Case	9314998027
32	Bush B	9312156016
33	Gear A	9309994003
34	Link Holder	9315007018
35	Link A	9315008015
36	Joint A	9315005014
37	Motor Step (Red)	9900384029
38	Motor Step (Green)	9900384036
39	Motor Step (Blue)	9900139063

INDOOR UNIT  
Casing assy



Ref	Description	Parts number
41	Casing	9314993015
42	Casing Cover R	9315018014
43	Casing Cover B	9315016010
44	Casing Cover L	9315017017
45	Casing Cover F	9315019011
46	Drain Cap	9367677009
47	Drain Hose Assy	9315769015
48	Louver U (Upper)	9315000026
49	Louver Z (Lower)	9315001023
50	Diffuser U	9315002020
51	Diffuser Z	9315003027
52	Bush B	9312156016
53	Pillar A	9315009012
55	Spacer D	9315282019
54	Joint B	9315006011
56	R and L Louver	9311997016
57	Fan Guard Holder Right	9315814012
58	Fan Guard Holder Left	9315815019
59	Fan Guard	9305751051
-	Casing Assy	9315331045

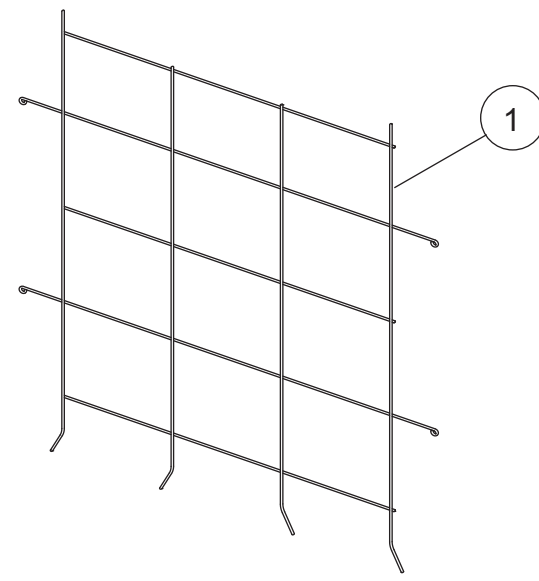
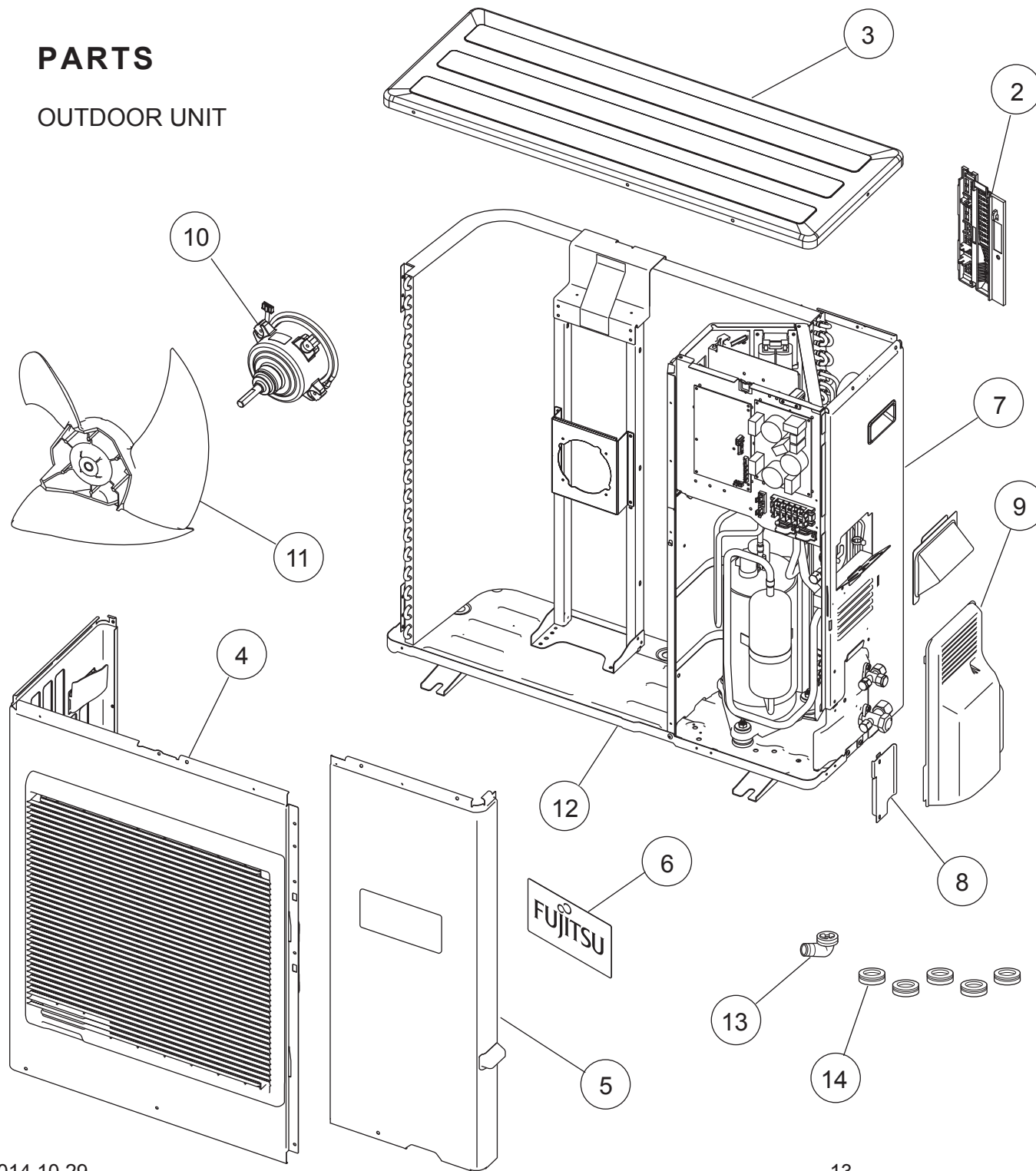
INDOOR UNIT  
Evaporator



Ref	Description	Parts number
61	Evaporator Total Assy	9315338020
62	Connection Pipe Assy	9315355010
63	Water Seal	9315251015
64	Evaporator Holder R	9314994012
65	Evaporator Holder L	9314995019
66	Filter Guide	9315013019
67	Filter Guard	9315411013
68	Pipe Thermistor	9900551018

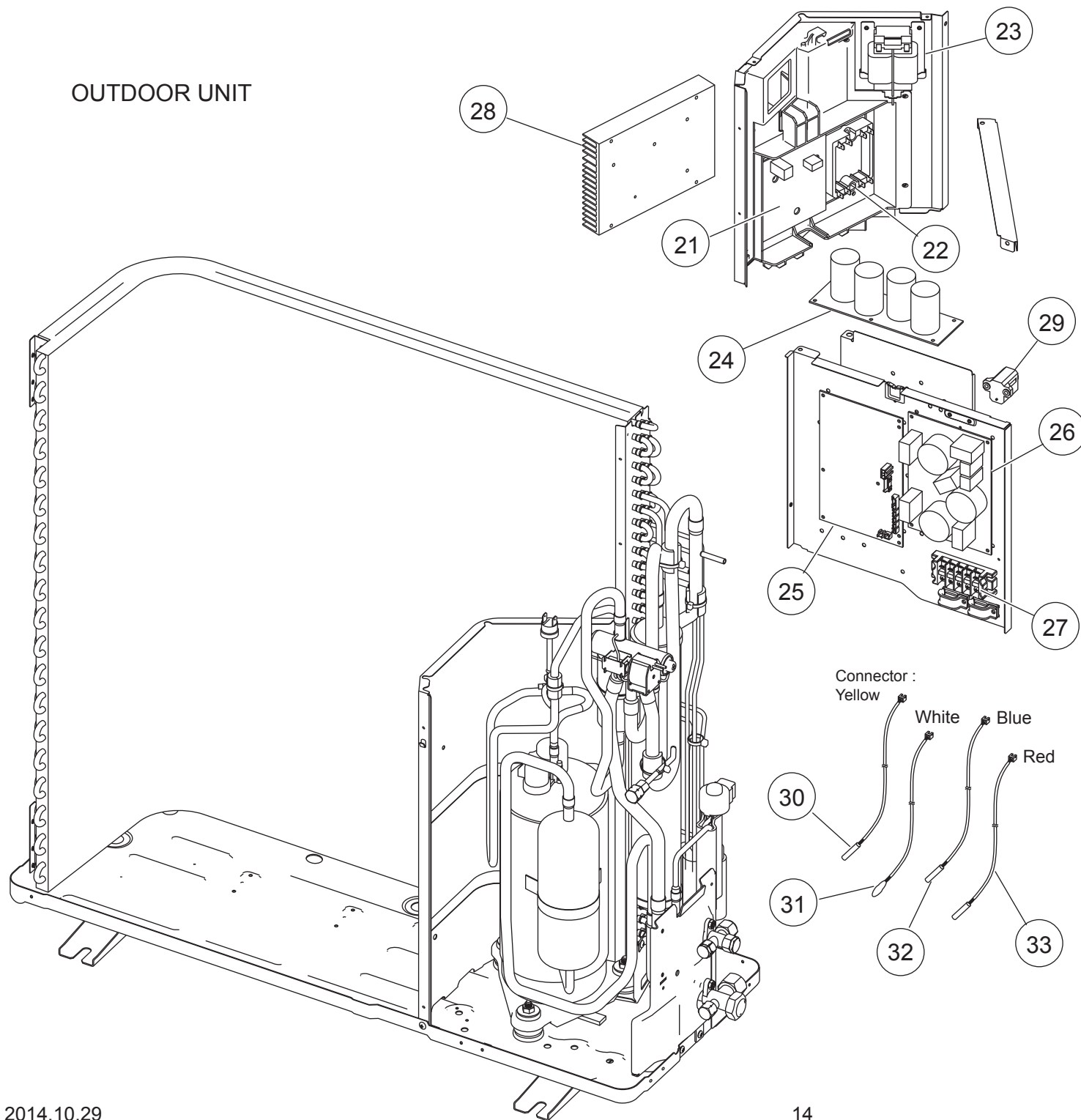
# PARTS

## OUTDOOR UNIT



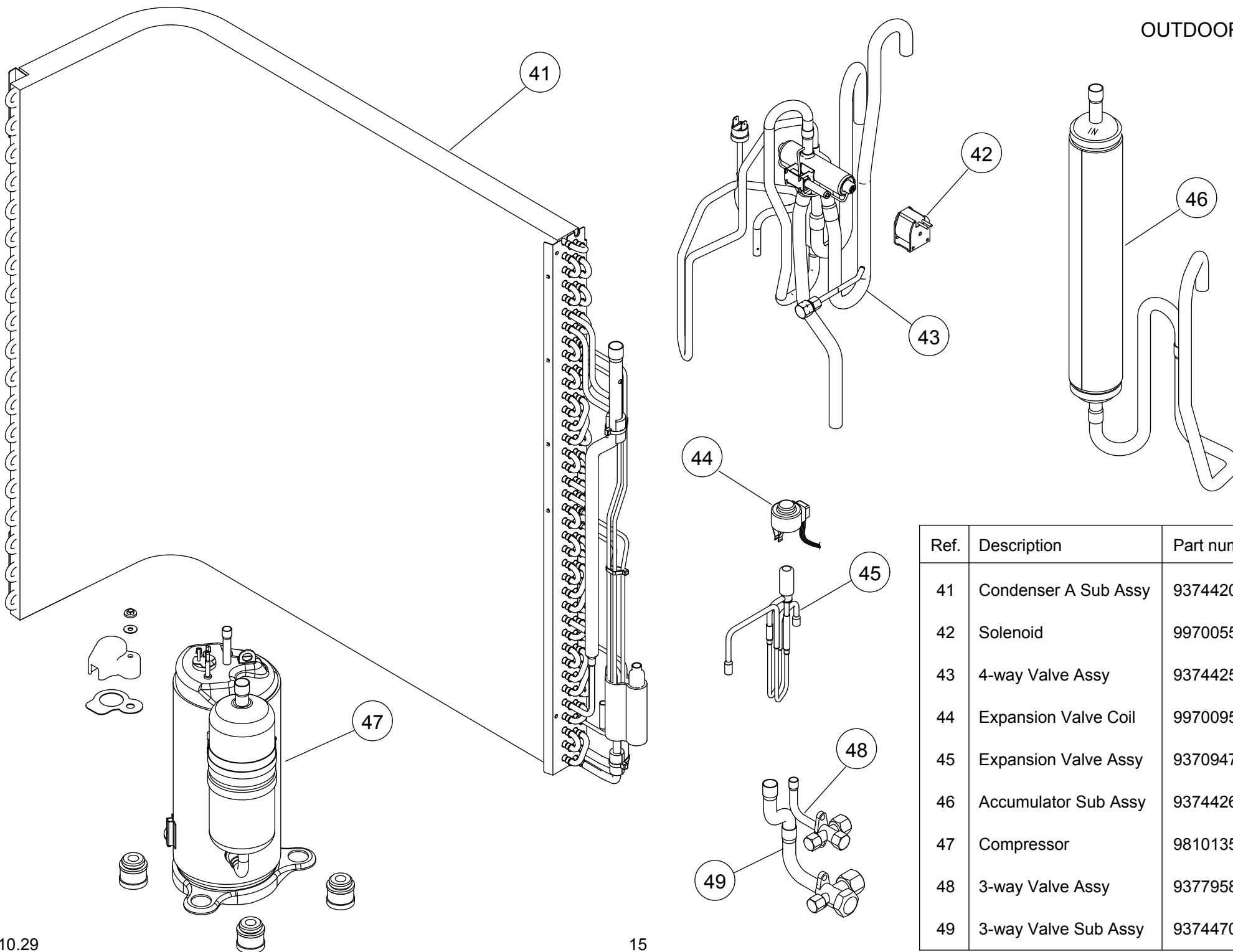
Ref.	Description	Part number
1	Protective Net	9375381011
2	Thermo Holder	9375211011
3	Top Panel Sub Assy	9374417032
4	Front Panel Sub Assy	9374414079
5	Service Panel Sub Assy	9374415052
6	Emblem Rear	9351355005
7	Right Panel Sub Assy	9374416134
8	Cover Plate	9375117016
9	Valve Cover	9374174010
10	Fan Motor	9602843015
11	Propeller Fan Assy	9366378020
12	Base Assy	9374166206
13	Drain Assy	9303029015
14	Drain Cap	313166024302

# OUTDOOR UNIT



Ref.	Description	Part number
21	Transistor PCB	9708512112
22	ACTPM	9707592016
23	Choke Coil	9900223014
24	Capacitor PCB	9709894040
25	Main PCB (AOU30RLXB)	9708511719
25	Main PCB (AOU36RLXB)	9708511726
26	Filter PCB	9708513072
27	Terminal	9900203023
28	Heat Sink	9378530010
29	Thermistor	9704265012
30	Discharge Thermistor	9900461003
31	Outdoor Thermistor	9900463007
32	Compressor Thermistor	9900466015
33	Heat Exchanger Thermistor	9900514013

OUTDOOR UNIT



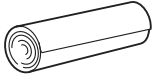
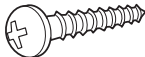

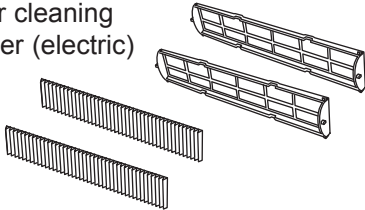
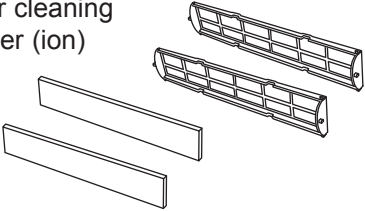
Ref.	Description	Part number
41	Condenser A Sub Assy	9374420308
42	Solenoid	9970055034
43	4-way Valve Assy	9374425198
44	Expansion Valve Coil	9970095030
45	Expansion Valve Assy	9370947144
46	Accumulator Sub Assy	9374426133
47	Compressor	9810135001
48	3-way Valve Assy	9377958013
49	3-way Valve Sub Assy	9374470044



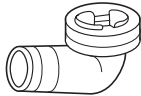
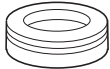
# ACCESSORIES

## INDOOR UNIT

Name and Shape	Part number
Wall hook bracket 	9315023018
Remote control 	9314990212
Remote control holder 	9305642045
Battery (penlight) 	0600185541
Insulation (Drain hose) 	9361756007

Name and Shape	Part number
Cloth tape 	9310519004
Tapping screw (big) 	0700076046
Tapping screw (small) 	0700019036
Air cleaning filter (electric) 	UTR-FA13-1
Air cleaning filter (ion) 	UTR-FA13-2

## OUTDOOR UNIT

Name and Shape	Part number
Drain assy 	9303029015
Drain cap 	313166024302

under confirmation  
refer to the installation manual

1410G4389