FUJITSU

SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE

SERVICE MANUAL

Indoor unit	Outdoor unit
ASTG18KUCA	AOTG18KUCA

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FUJITSU GENERAL LIMITED

SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cool & heat inverter
INDOOR UNIT		ASTG18KUCA
OUTDOOR UNIT		AOTG18KUCA
COOLING CAPACITY		5.00 kW
HEATING CAPACITY		6.00 kW
POWER SOURCE		240 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	5.6 A
	Heating	6.7 A
INPUT WATTS	Cooling	1.31 kW
	Heating	1.58 kW
E.E.R.	Cooling	3.82 kW/kW
COP	Heating	3.8 kW/kW
MOISTURE REMOVAL		2.6 L/h
AIR CIRCULATION HIGH	Cooling	950 m^3/h
	Heating	980 m^3/h
MAXIMUM CURRENT	Cooling	9.5 A
	Heating	13.5 A

FAN MOTOR

POWER SOURCE		240 V
INDOOR UNIT Cooling	High	1,510 r.p.m.
	Medium	1,290 r.p.m.
	Low	1,070 r.p.m.
	Quiet	840 r.p.m.
INDOOR UNIT Heating	High	1,550 r.p.m.
	Medium	1,300 r.p.m.
	Low	1,100 r.p.m.
	Quiet	860 r.p.m.
OUTDOOR UNIT Cooling		890 r.p.m.
OUTDOOR UNIT Heating		660 r.p.m.

NOISE LEVEL

INDOOR UNIT Cooling	High	47 dB
	Medium	43 dB
	Low	37 dB
	Quiet	29 dB
INDOOR UNIT Heating	High	46 dB
	Medium	42 dB
	Low	36 dB
	Quiet	29 dB
OUTDOOR UNIT Cooling		51 dB
OUTDOOR UNIT Heating		48 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE	Hermetic type, 6 pole, 3 phase, DC inverter motor, Rotary
DISCRIMINATION	N-SG17ND1B
WEIGHT (with oil)	10.6 kg
PRECHARGED REFRIGERANT	1,270 g
MAXIMUM PIPING LENGTH	20 m
MAXIMUM PIPING HEIGHT	15 m
REFRIGERANT TYPE	R32

DIMENSIONS

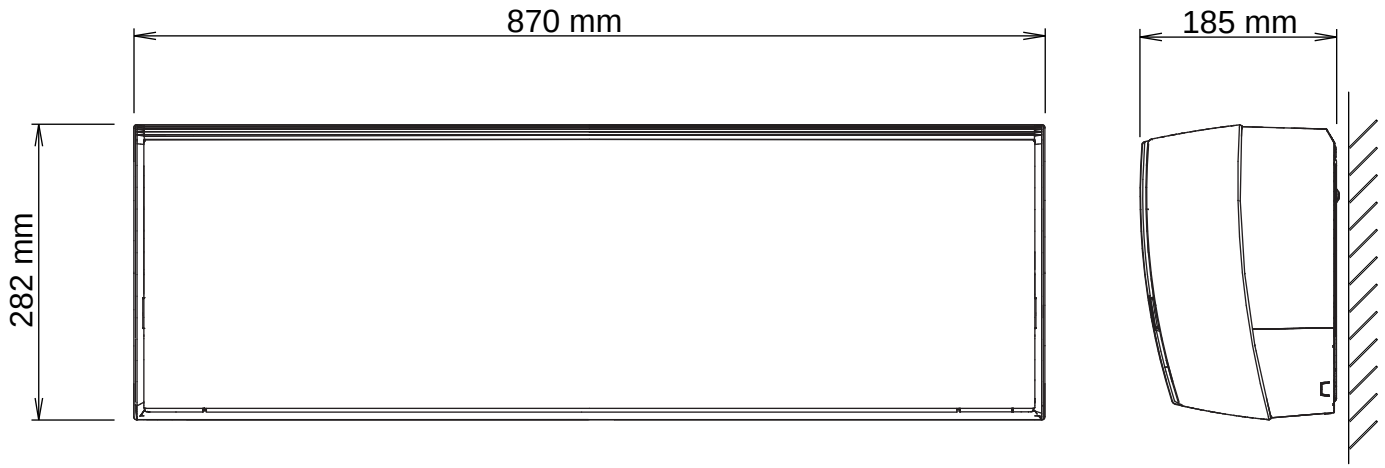
INDOOR UNIT H x W x D	282 x 870 x 185 mm
OUTDOOR UNIT H x W x D	620 x 790 x 290 mm

WEIGHT

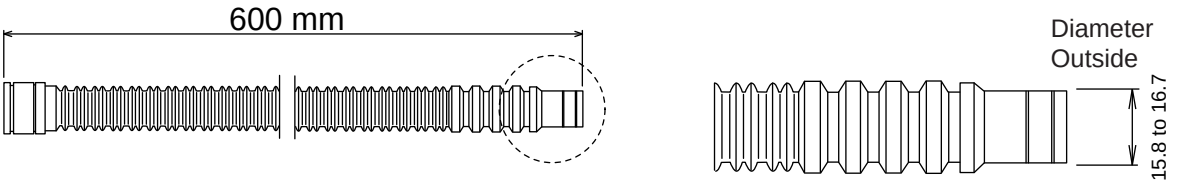
INDOOR UNIT Net / Shipping	9.5 kg / 12.0 kg
OUTDOOR UNIT Net / Shipping	40 kg / 44 kg

DIMENSIONS

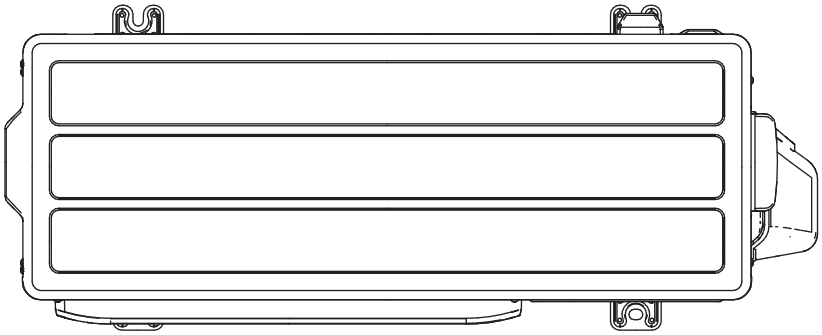
INDOOR UNIT



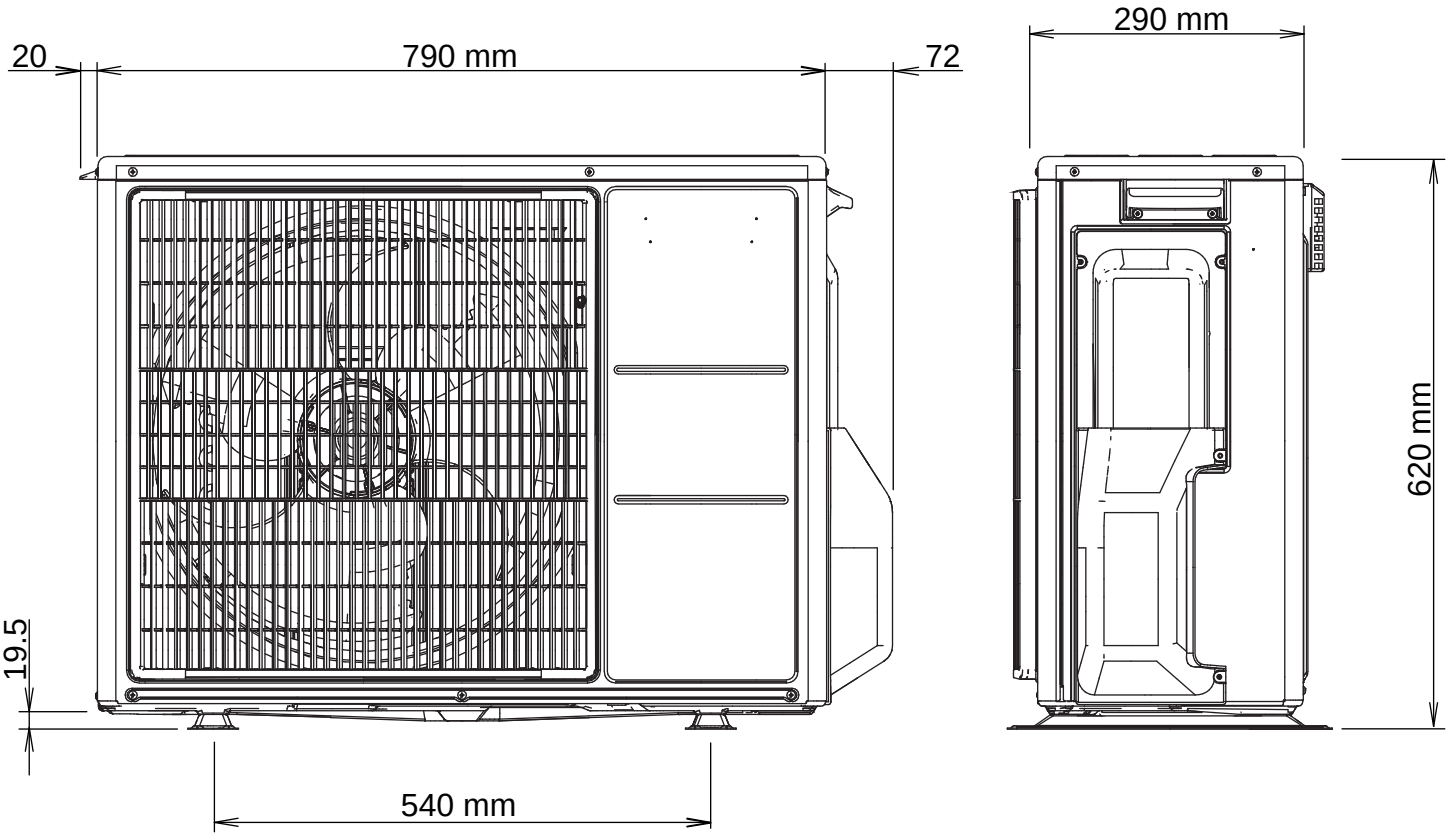
Drain hose



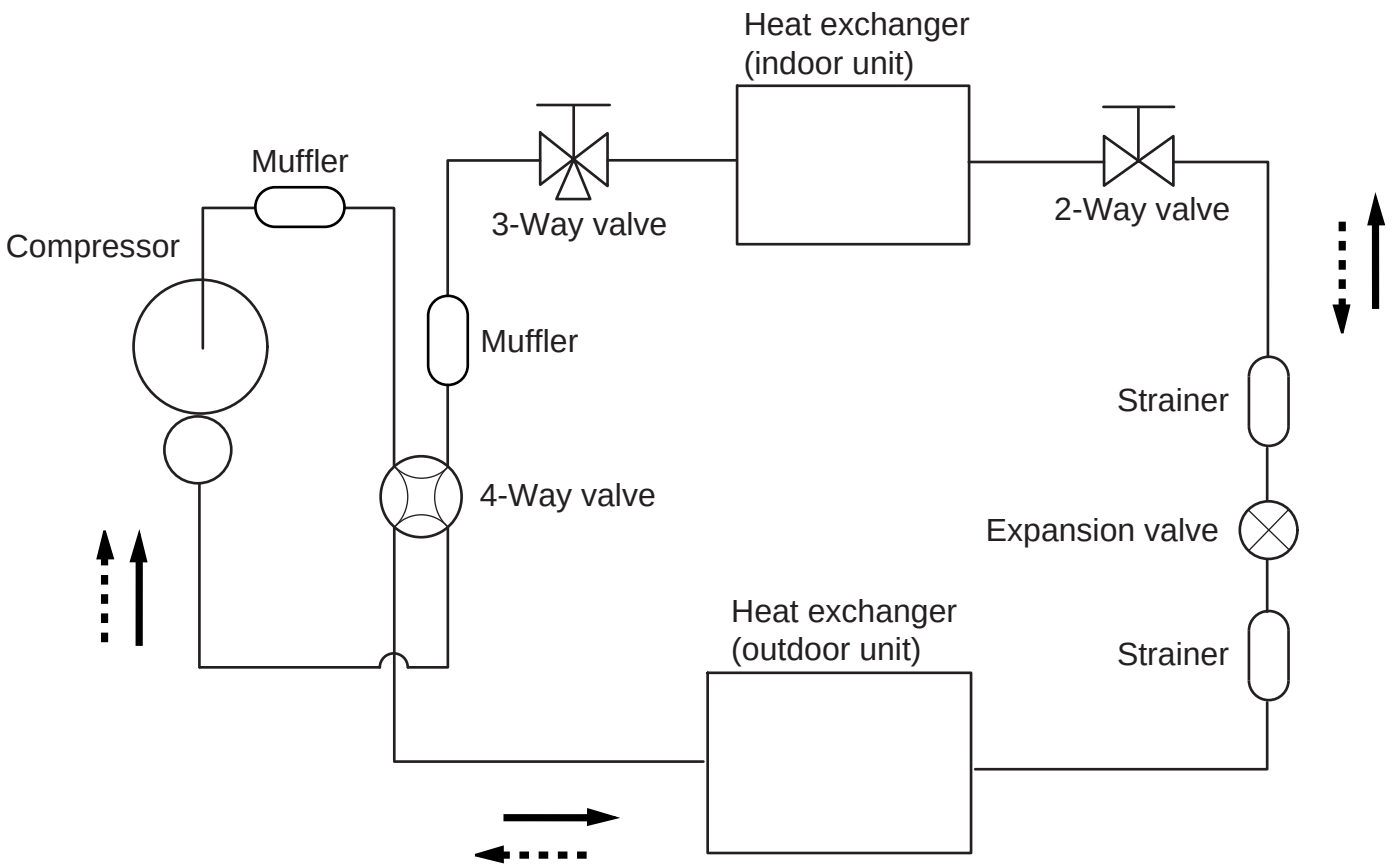
Inside : 13.8 mm



OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM



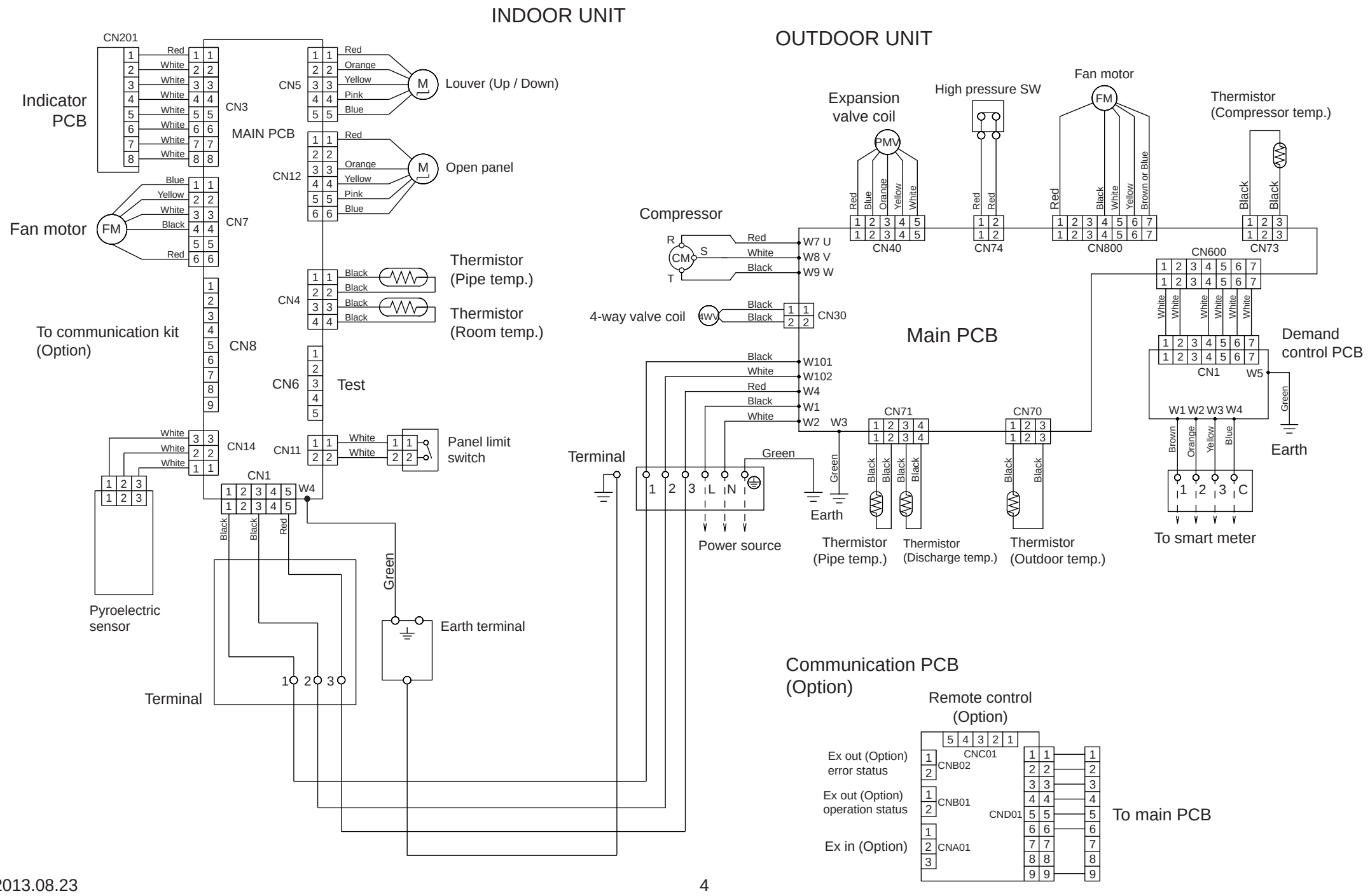
Refrigerant direction

Cooling

Heating

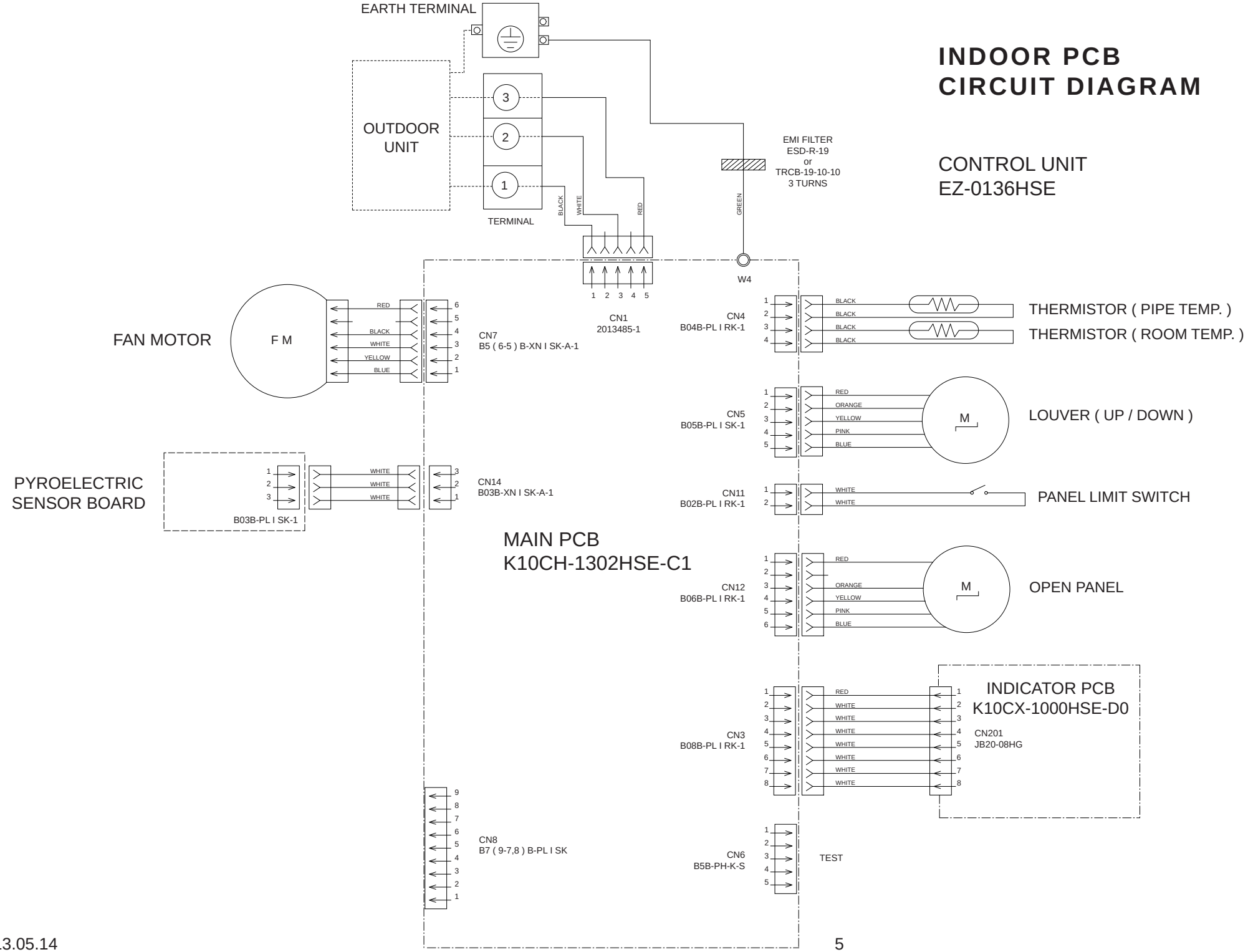
Refrigerant pipe diameter
Liquid : 1/4" (6.35 mm)
Gas : 1/2" (12.7 mm)

CIRCUIT DIAGRAM



INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT
EZ-0136HSE



INDOOR UNIT
MAIN PCB
K10CH-1302HSE-C1

POWER SOURCE
AC240V
50Hz

CN1
2013485-1
BLACK
WHITE
RED
TO TERMINAL

F1
3.15A
250V

VA1
470V
<ERZV>

C1
0.1
<LE>

C3
0.01
<KY>

C2
0.01
<KY>

L1
<SS11V>

L5
20*20*18
0.6A - 10mH

W4

D5
S1NBC60

340V

D12
ST03D-140

C4
68/
420V

D3
D1FL20U
15V

C10
100/
25V

R24
100k
<1/10W>

D11
D1FL20U

T1
TEE16

C16
330/
25V

D4
D1FL20U

L2
BLm18
<BD102>

D13
RD8.2FM

13V

JM2
0R0

5V

JM3
0R0

5V-2

C9
470/
25V

JM4

I C8
TNY277

R11
27k

R6
150

R7
1.2k

C11
0.1
<F>

R10
10k
1%

Q6
2SA1576A
<R>

I C6
TL431

R9
10k
1%

C26
10/
25V

Q5
2SC4081
<R>

R8
2.7k

I C2
GK-LV3011E5

C29
1000p
<E>

R12
1.0k
<1/2W>

R15
1.0k

C21
0.01
<B>

S-D I

R13
10k

R14
1.0k

Q1
RT1N241M

C20
0.01
<B>

WARIKOMI

S-DO

I C13-1
uLN2003

Q7
DTA124EUA
15V-2

I C14-7
uLN2003

15V CUT

I C13-8
uLN2003

I C14-8
uLN2003

P-SW

R70
1.0k

R69
1.0k

C40
0.1
<F>

CN11
B02B-PL I RK-1

PANEL LIMIT SWITCH

CN12
B06B-PL I RK-1

I C14-1 uLN2003
I C14-2 uLN2003
I C14-3 uLN2003
I C14-4 uLN2003

OPEN PANEL MOTOR

I C13-2 uLN2003
I C13-3 uLN2003
I C13-4 uLN2003
I C13-5 uLN2003

LOUVER (UP / DOWN)

CN14
B03B-XN I SK-A-1

TO PYROELECTRIC SENSOR BOARD

C91
0.1
<F>

R90
10k

R92
1.0k

C92
0.1
<F>

I C1
uPD78F1154AGK

C18
10/
25V

C24
1.0
<F>

C19
1.0
<F>

13VTR-CUT
PWM
15V CUT
LED3
LED2
LED1
P-SW
SSR
HA-I N
HA-OUT
S-D I
S-DO
W-OUT
ERROR
LED-DEM
W-I N
5VCUT
WARIKOMI

I C15
M93C66

R55
10k

C36
0.1
<F>

R44
10k

R17 220 <1/10W>

R76

R75
0R0

CN5
B05B-PL I SK-1

TO I NDICATOR PCB

CN3
B08B-PL I RK-1

Q13
DTC143EUA

R78

LED1

R29
1.0k
<1/4W>

R79

LED2

Q15
DTC143EUA

R28
1.0k
<1/4W>

R80

LED3

Q16
DTC143EUA

R27
1.0k
<1/4W>

R21
10k

R20
1.0k

C23
1000p
<B>

CN9
B07B-PASK-1

FLASH

R89
470

R87, R88
10k x 2

R54
470

R47, R48, R52, R53
100 x 4

C7
470
<1/16W>

I C13-6
uLN2003

X1
8.00MHz
<CSTLS>

C30
12p

C32
12p

R65
0R0

X3
32.768kHz
<MC-146>

C17
1.0
<F>

CN6
B5B-PH-K-S

TEST

R49
10k

R51
10k

R62 - R64
100 <1/10W> x 3

I C14-5
uLN2003

I C13-7
uLN2003

R43
10k

BZ1
KPT-1340P22

R36
10k

R37
22

R46
1.0k

R45
10k

C41
0.1
<F>

C25
1000p
<B>

C50
1000p
<B>

I C14-6
uLN2003

Q3
DTA124EUA

R25
10k
1%

R26
8.2k
1%

C6
10/
25V

CN7
B5 (6-5) B-XN I SK-A-1

FAN MOTOR

CN4
B04B-PL I RK-1

THERMISTOR (ROOM TEMP.)

THERMISTOR (PIPE TEMP.)

L4
0R0

L6
0R0

L3
0R0

R38
1.0k

R39
10k
1%

C28
0.1
<F>

R40
1.0k

R41
49.9k
1%

C31
0.1
<F>

R30, R22, R71
100k x 3

R19
10k

CN8
B7 (9-7,8) B-PL I SK

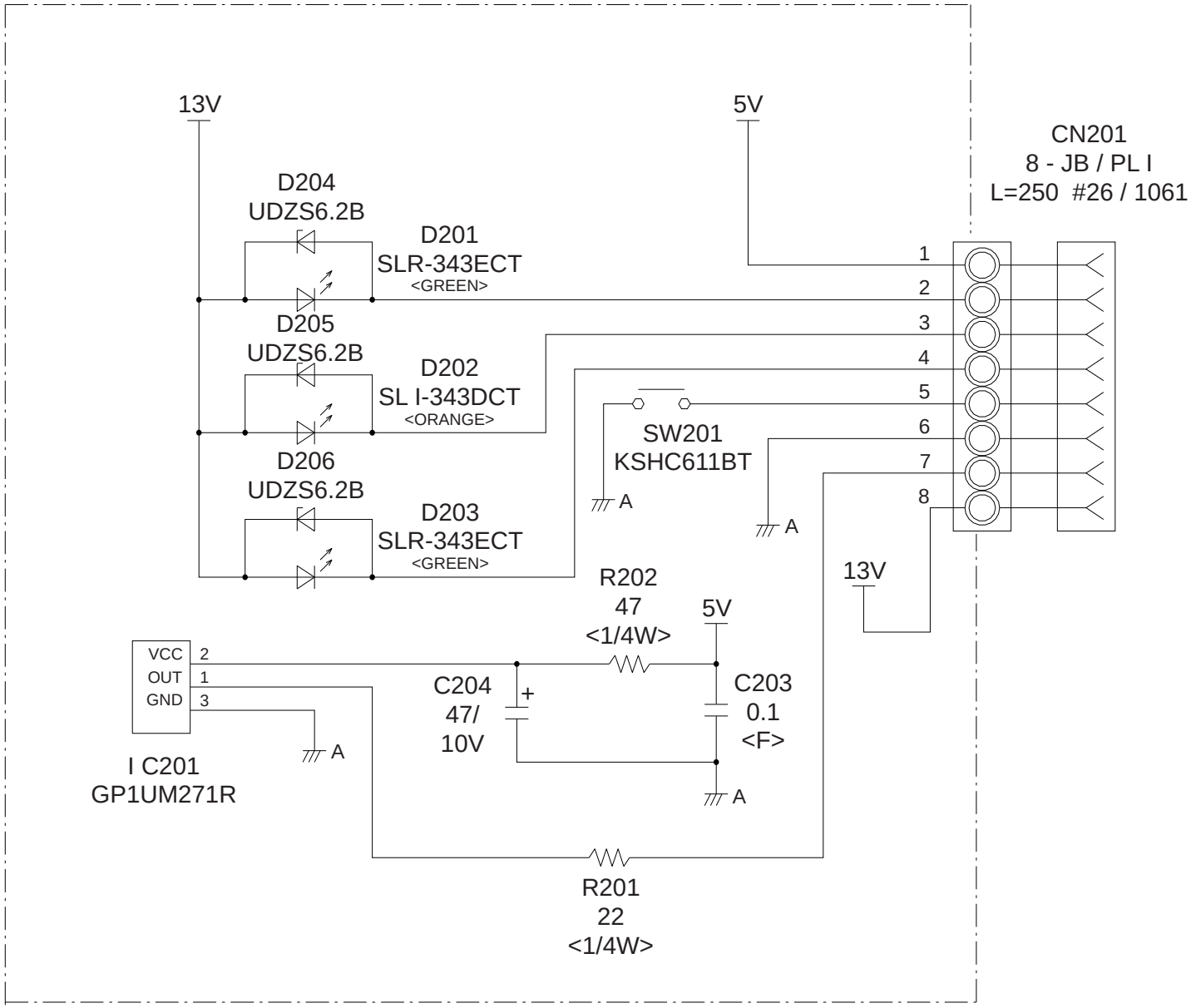
TO COMMUNICATION KIT
(OPTION)

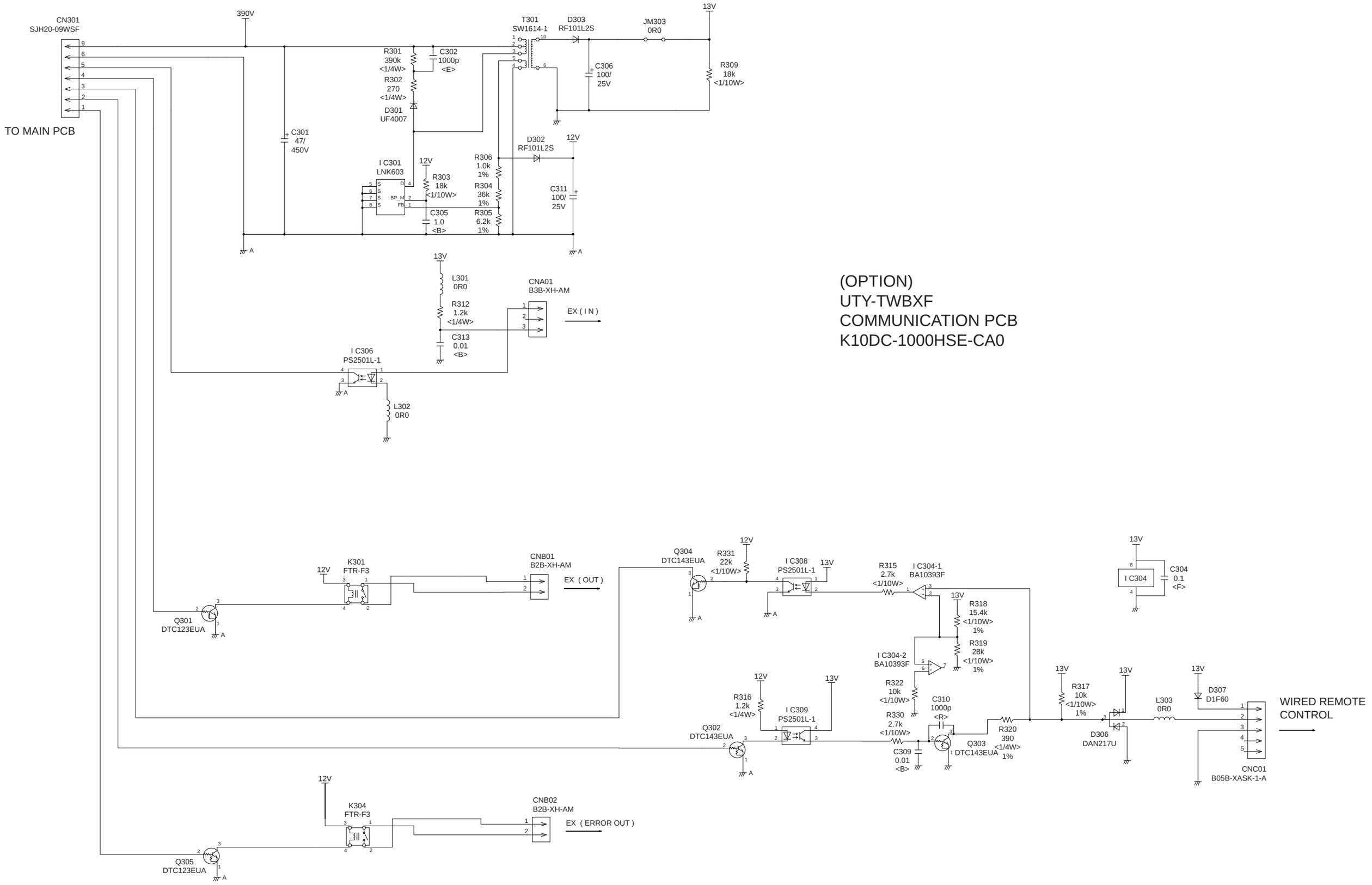
C14
0.01
<B>

C15
0.1
<F>

R23 1.0k
R60 100
R42 1.0k
R61 100
R59 100

INDOOR UNIT
INDICATOR PCB
K10CX-1000HSE-D0

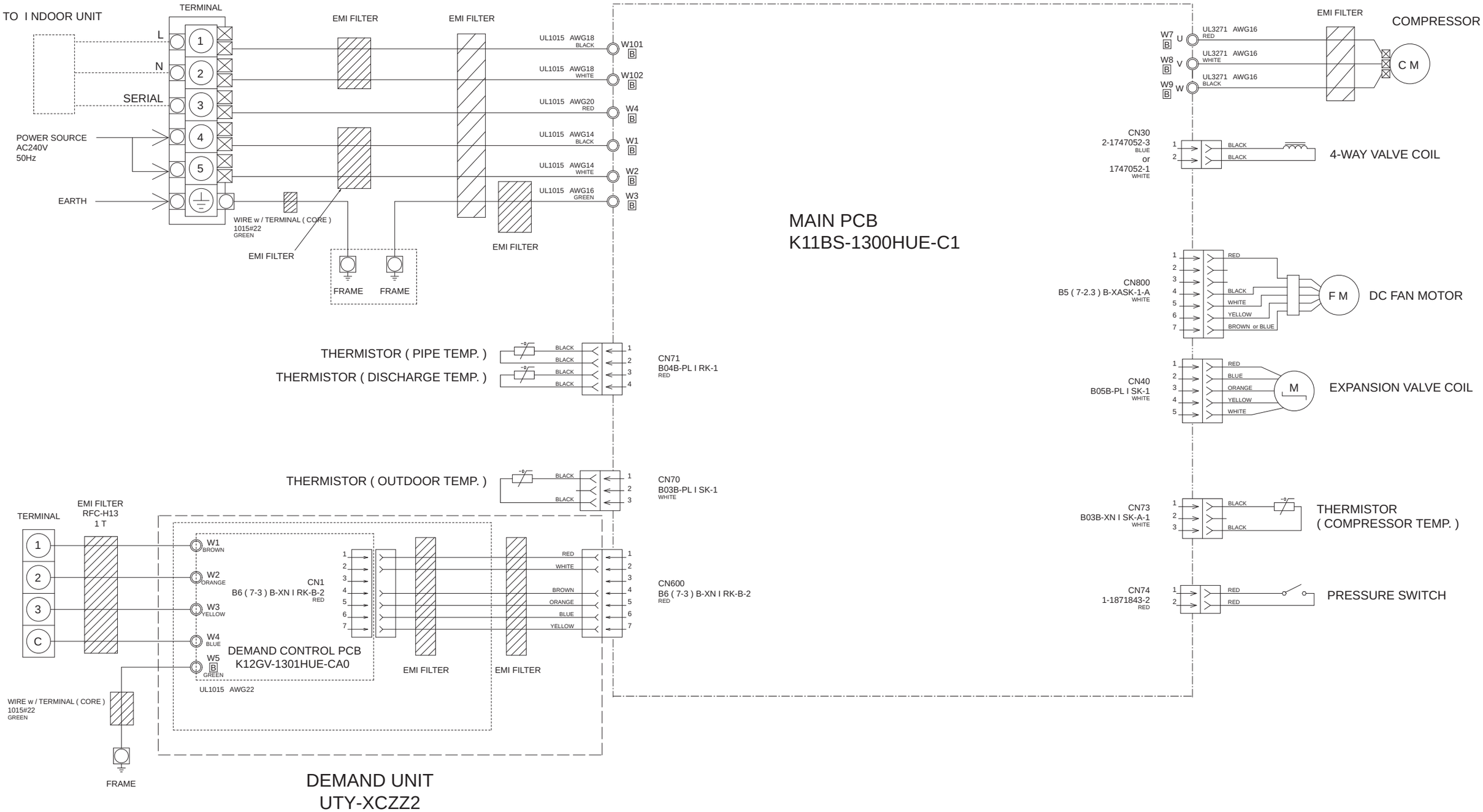




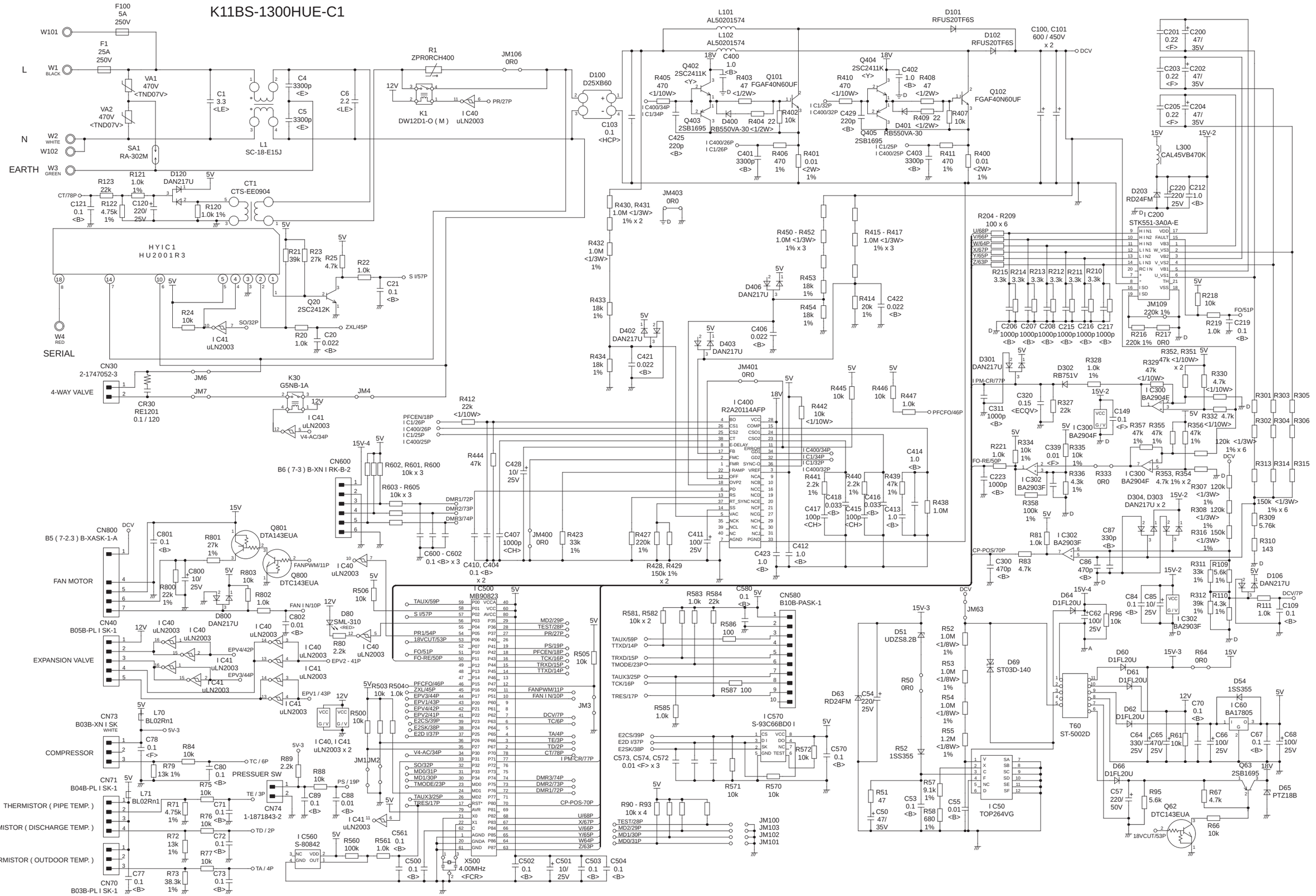
(OPTION)
UTY-TWBXF
COMMUNICATION PCB
K10DC-1000HSE-CA0

OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
EZ-013AHUE



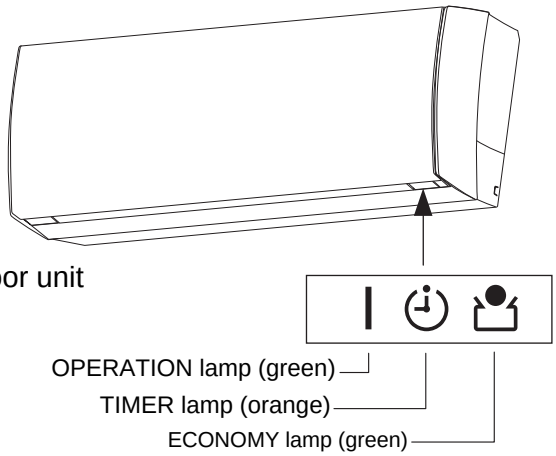
OUTDOOR UNIT
MAIN PCB
K11BS-1300HUE-C1



ERROR DETECTION

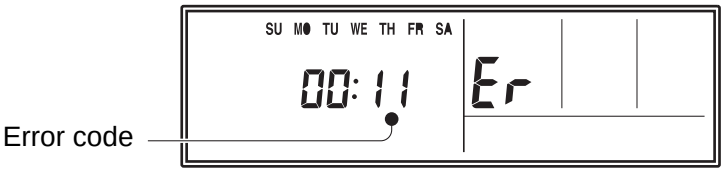
INDOOR UNIT
REMOTE CONTROL

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.



Wired remote control display (Option)

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



● : 0.5s on / 0.5s off

◇ : 0.1s on / 0.1s off

( ) : Number of flashing

Lamps			Wired remote control	Description
OPERATION	TIMER	ECONOMY		
● (1)	● (1)	◇	11	Serial communication error
● (1)	● (2)	◇	12	Wired remote control 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

Lamps			Wired remote control	Description
OPERATION	TIMER	ECONOMY		
● (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]

OUTDOOR UNIT

LED	ERROR
on	Discharge temperature abnormal
0.5 second on / 0.5 second off	IPM overcurrent protection
0.1 second on / 0.1 second off	Thermistor abnormal
2.0 second on / 2.0 second off	CT abnormal
0.1 second on / 2.0 second off	Compressor location abnormal
5.0 second on / 5.0 second off	Fan abnormal

DEMAND RESPONSE (DR) and indoor unit operation

This product is designed to be compatible with
Air Conditioning Demand Response program.

To utilize the function, Demand Response adapter kit that interconnects your air conditioner and Demand Response Enabling Device (DRED) needs to be installed in your air conditioning system, and you need a separate arrangement.

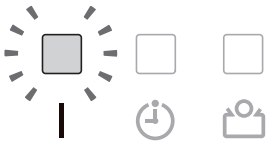
When your electricity supplier activates one of the following 3 DR modes, the air conditioner switches over to the appropriate operation, and the OPERATION indicator (green) on the indoor unit blinks to inform you it has been entered to the DR mode.

Blinking pattern

ON (4 seconds) → OFF (0.5 seconds) → ON (0.5 seconds) → OFF (0.5 seconds) →

The indicator will keep blinking until the unit finishes the function.

OPERATION indicator
(indoor unit)



Note: Shape, number, and the arrangement of the indicators are unit-dependent. Some indoor units may not have the indicators unless the optional control panel or IR receiver kit has been installed.

DR mode	Description of operation in this mode
DR mode 1	Compressor off.
DR mode 2	The air conditioner continues to cool or heat during the Demand Response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 50% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.
DR mode 3	The air conditioner continues to cool or heat during the Demand Response event, but the electrical energy consumed by the air conditioner in a half hour period is not more than 75% of the total electrical energy that would be consumed if operating at the rated capacity in a half hour period.

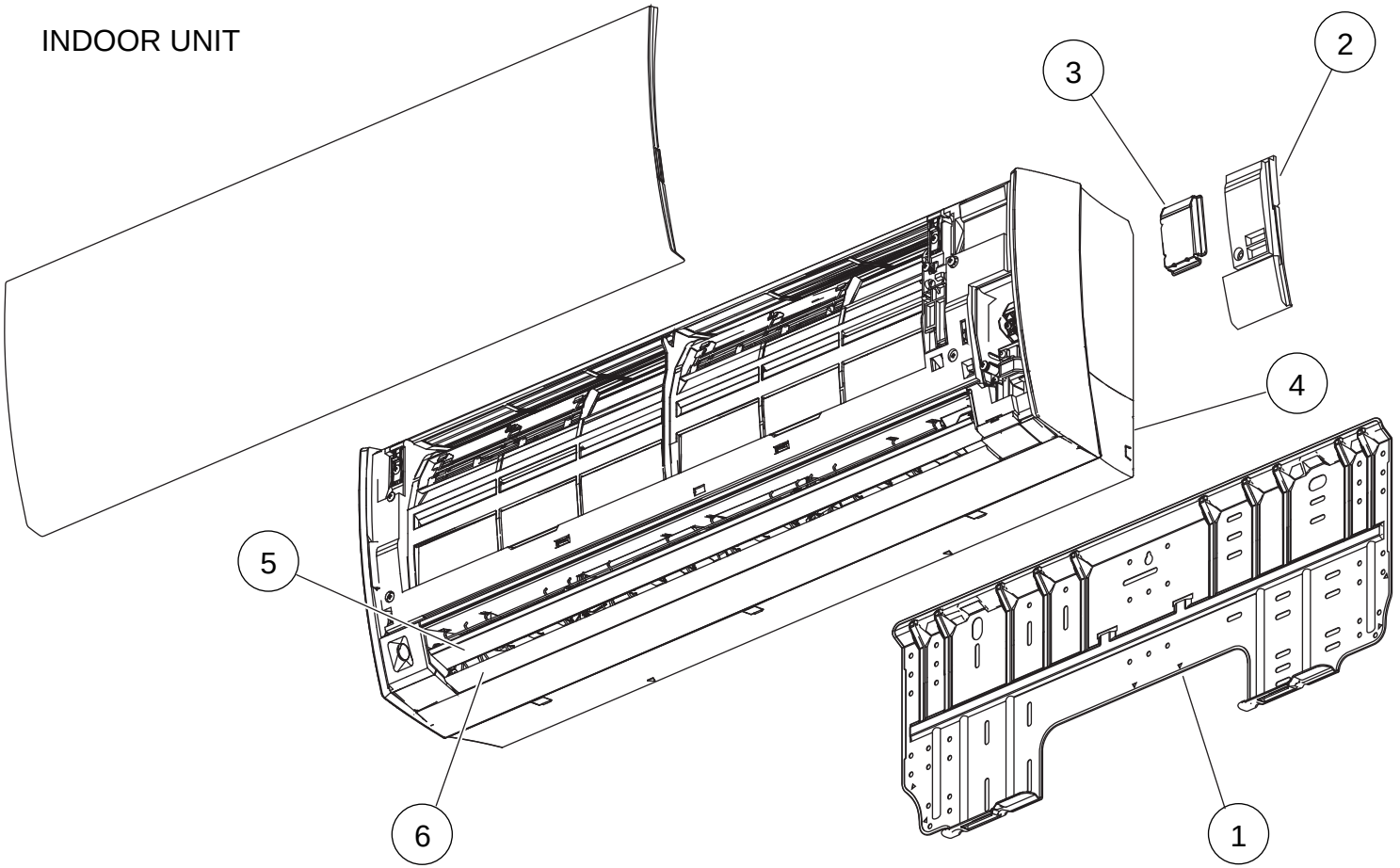
When the unit goes into a DR mode, it performs moderate operation though the cooling or heating effect may be reduced. You cannot override this function with changing the temperature setting by using the remote control or other actions unless the unit finishes the function.

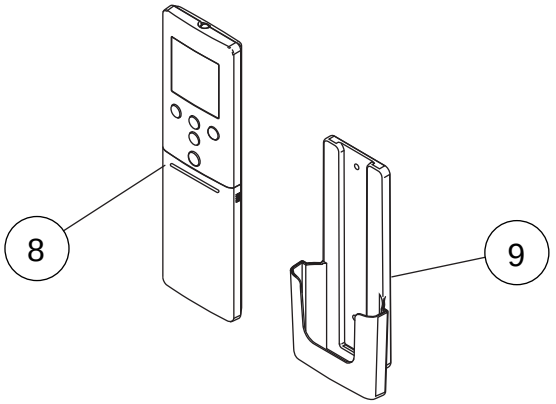
Note: Stopping the operation of the air conditioner by using the remote control or by OFF timer are valid in DR mode. If the timer operation is interfered by an interruption of power supply such as a blackout and the power supply is resumed, no indication of the DR mode is performed.
During the DR mode, no indication of "filter sign" is performed.
Powerful operation is performedwithin the operable range of the DR mode.

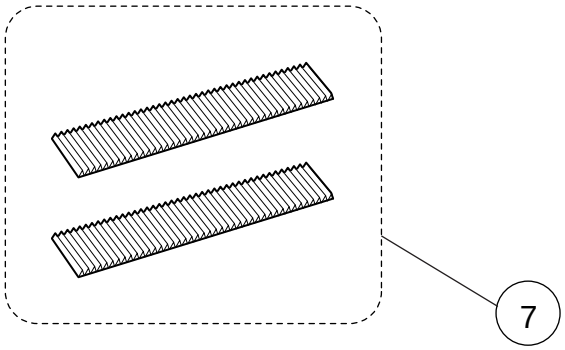
When the unit finishes the function, it will perform the operation that was previously performed before entering the DR mode.
When this air conditioner is connected to a DRED, and you have operational issues, contact your electricity supplier first to check whether they are activating any of the DR mode described above.
If the air conditioner is under demand controlling, consult on the issues with your electricity supplier.
If they are not demand controlling the air conditioner, refer to your warranty card for the contact details of Fujitsu General (AUST.) PTY LIMITED or
visit our website : www.fujitsugeneral.com.au

PARTS

INDOOR UNIT

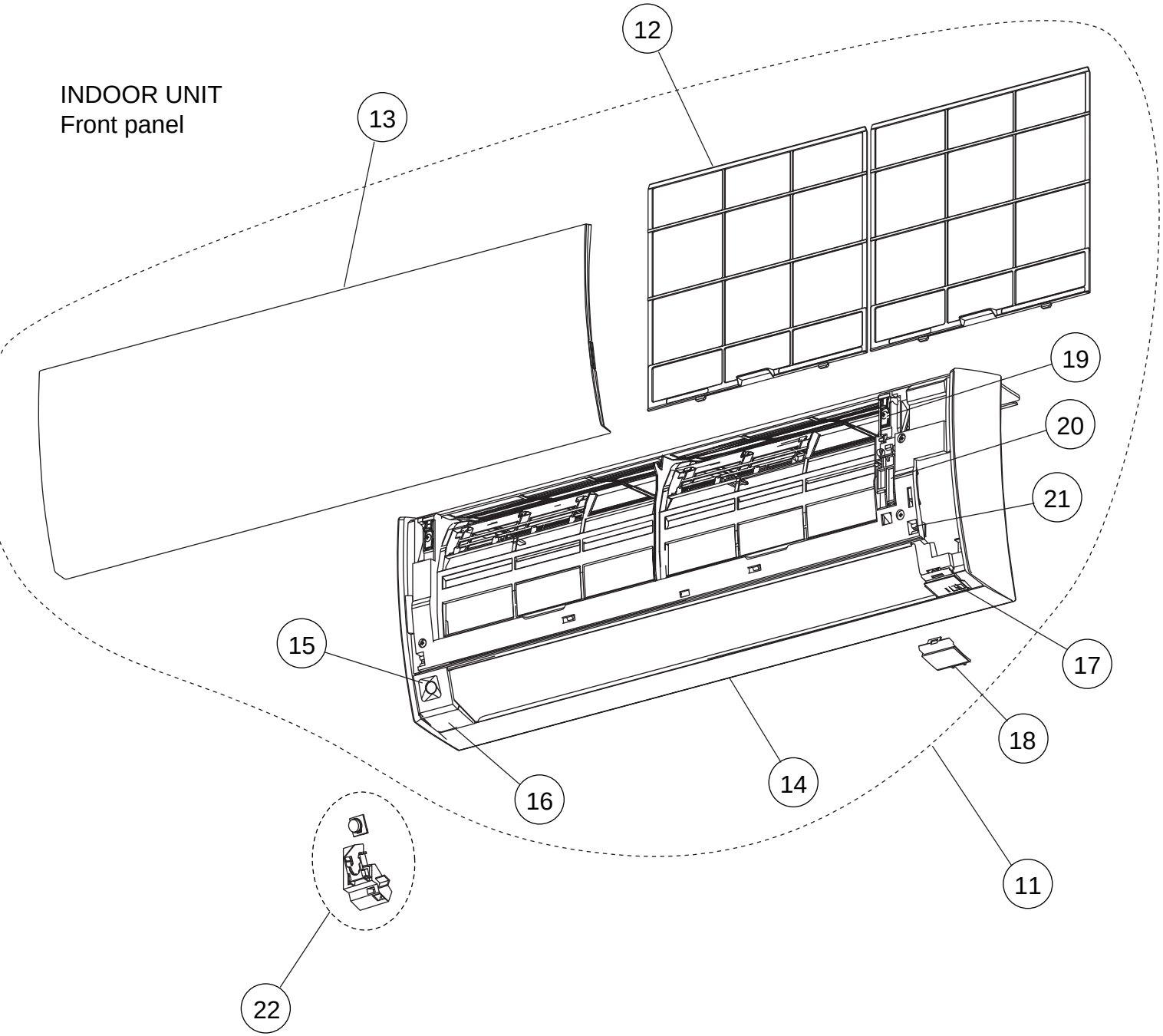




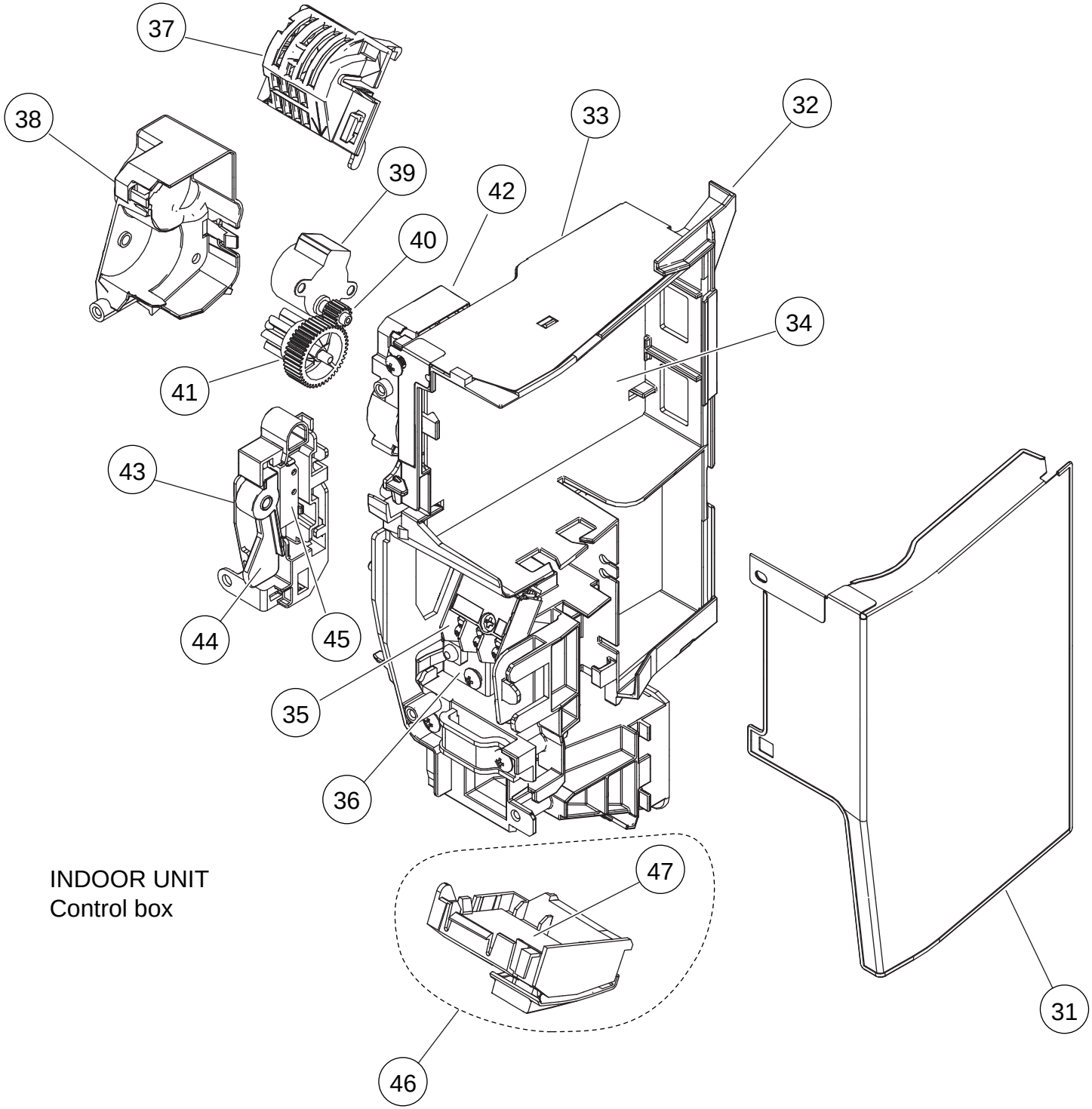


Ref.	Description	Part number	
1	Bracket Panel	9318913002	
2	Wire Cover	9318911015	
3	Wire Shield	9318919004	
4	Under Cover	9318879018	
5	Louver (Upper)	9318880007	
6	Louver (Lower)	9318881004	
7	Air Clean Filter Assy	9317250009	
8	Remote Control	9319207001	
9	Remote Control Holder	9318912005	

INDOOR UNIT
Front panel



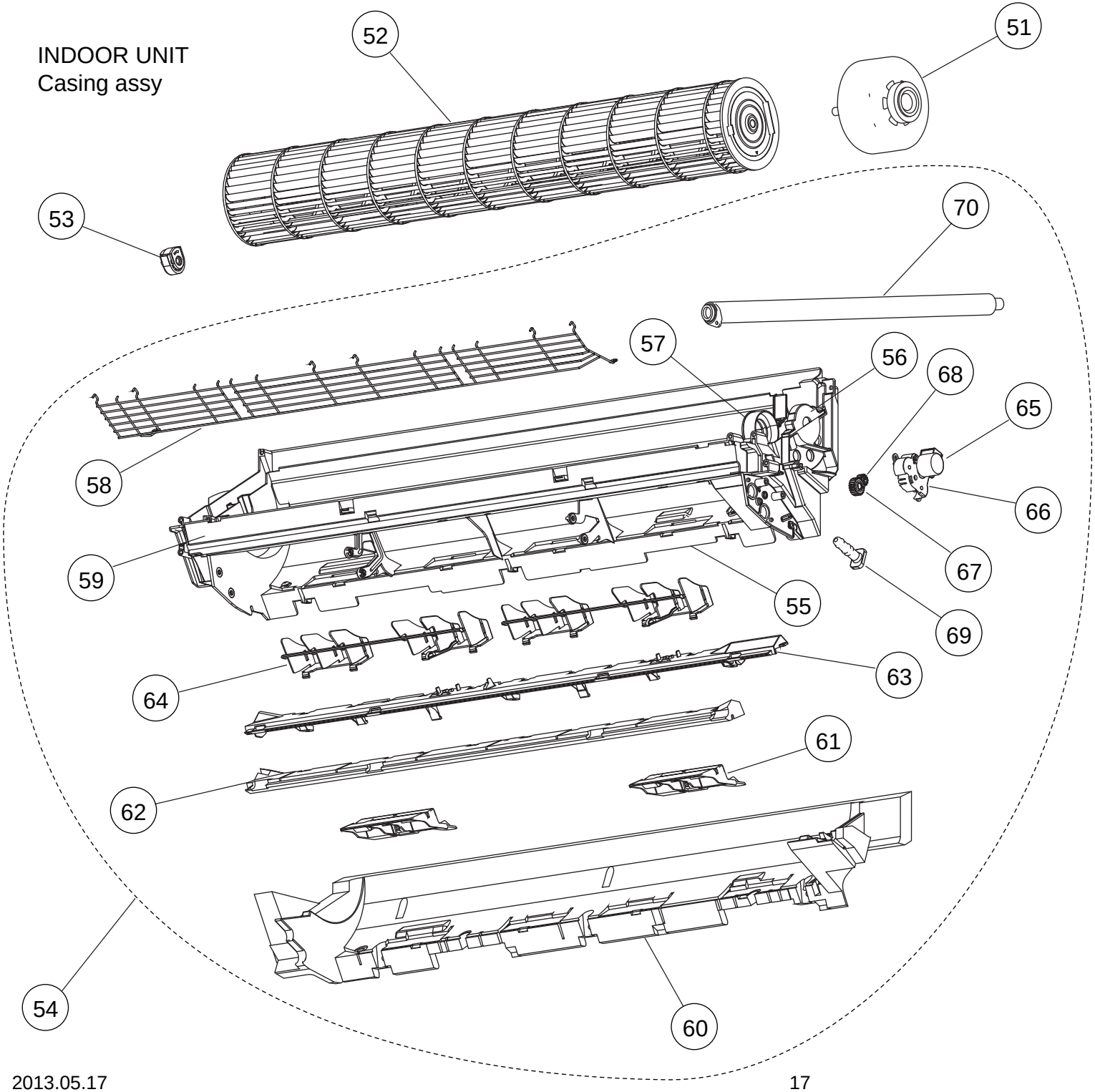
Ref.	Description	Part number	
11	Front Panel Total Assy	9319348230	
12	Air Filter	9318883015	
13	Intake Grille Assy	9319351155	
14	Front Panel	9318876000	
15	Front Panel Cover T	9318909005	
16	Display Plate Holder L	9318894004	
17	Display Plate Holder R	9318895001	
18	Display Plate R	9318893007	
19	Arm Cover	9318900002	
20	Grille Stay	9318899016	
21	Grille Clamper B	9316951006	
22	Pyroelectric Sensor Assy	9319346045	



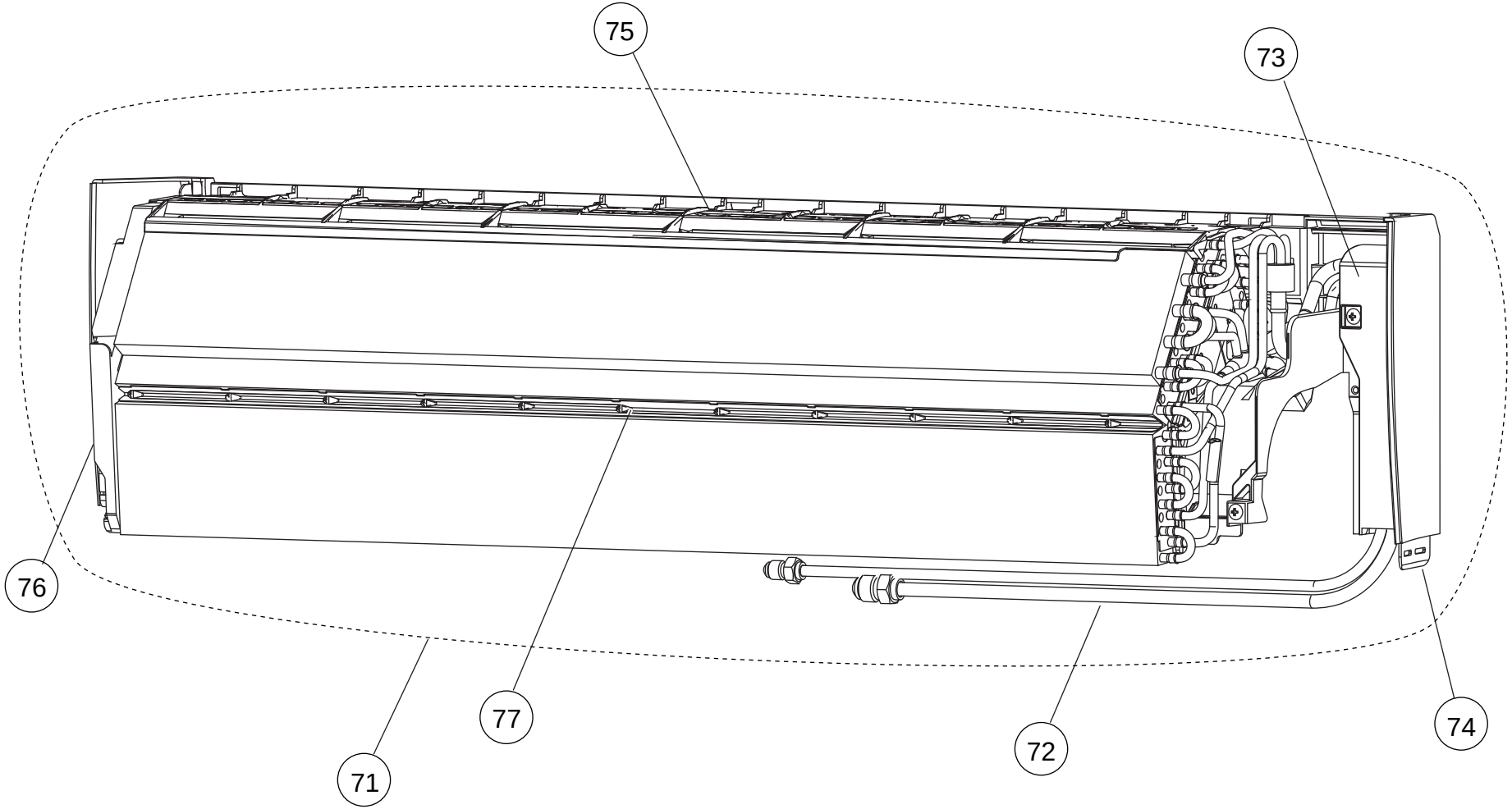
INDOOR UNIT
Control box

Ref.	Description	Part number	
31	Cover Shield A	9318916003	
32	Control Box	9318882049	
33	Box Shield Assy	9319344010	
34	Main PCB	9708713359	
35	Terminal	9900720018	
36	Earth Terminal	9318918007	
37	Room Thermistor Holder	9319068008	
38	Gear Cover	9318902006	
39	Step Motor	9900384166	
40	Gear B	9319294001	
41	Panel Gear	9319293004	
42	Gear Case	9318903003	
43	Switch Case	9319332000	
44	Grille Key Top	9319334004	
45	Micro Switch	9900625009	
46	Display Assy	9708823010	
47	Display PCB	9708824017	
--	Thermistor Assy	9900627003	

INDOOR UNIT
Casing assy

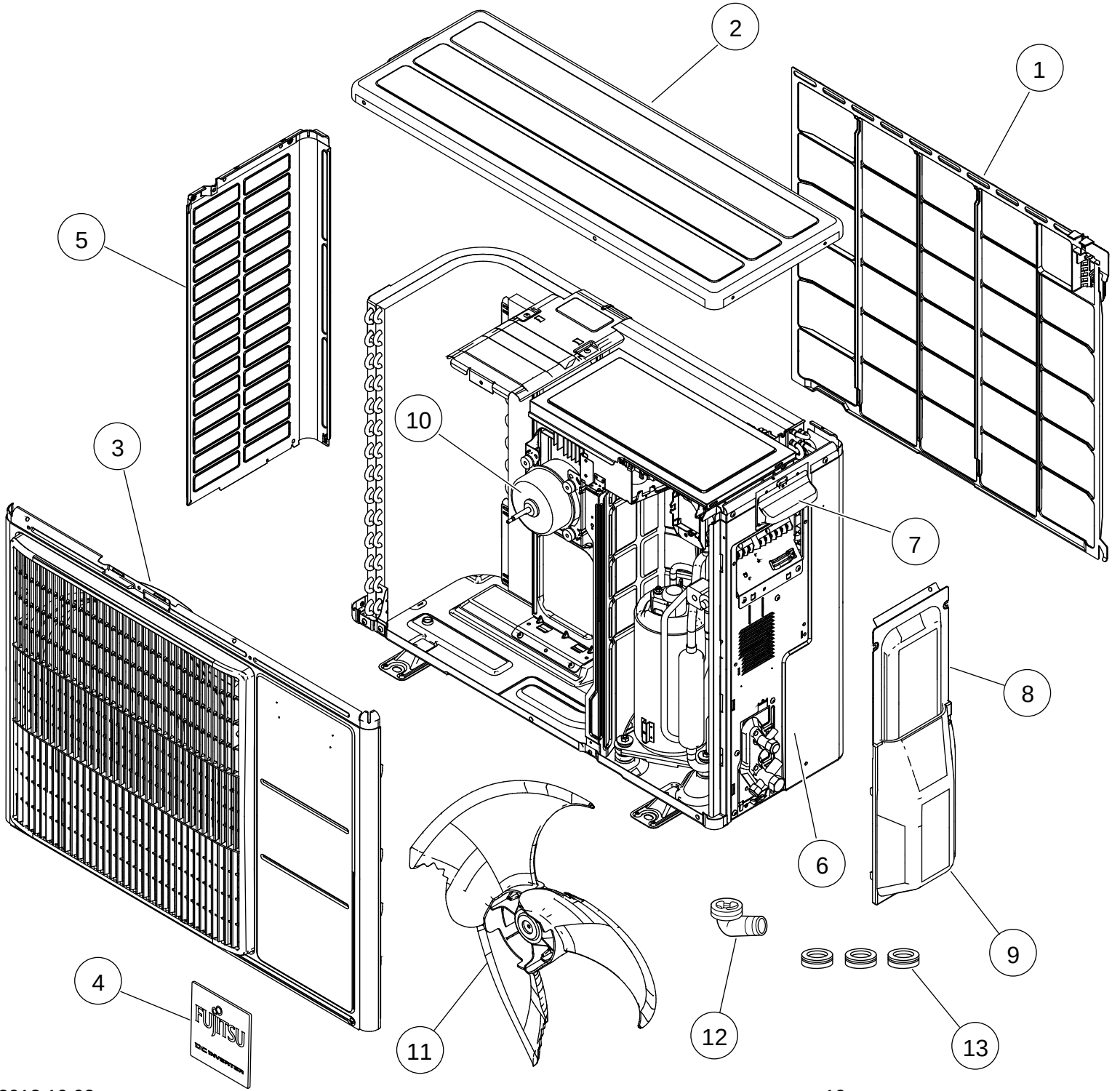


Ref.	Description	Part number	
51	Fan Motor	9603318000	
52	Crossflow Fan Assy	9319361000	
53	Bearing C Assy	9306628017	
54	Casing Assy	9319342061	
55	Casing	9318873009	
56	Motor Cover	9316601000	
57	Motor Cover	9319910017	
58	Fan Guard	9318924008	
59	Casing Cover F	9318923001	
60	Casing Cover B	9318920017	
61	Pipe Bracket	9318889000	
62	Panel Cover	9319296012	
63	Louver Holder	9318886009	
64	R and L Louver	9318885002	
65	Motor Step	9900384128	
66	Louver Gear Holder	9318905007	
67	Louver Gear	9318904000	
68	Gear A	9309994003	
69	Drain Cap	9316177017	
70	Drain Hose Assy	9316904002	



INDOOR UNIT
Evaporator

Ref.	Description	Part number	
71	Evaporator Total Assy	9319327099	
72	Joint Pipe Assy	9320407018	
73	Joint Pipe Holder	9318901009	
74	Base	9318874006	
75	Filter Guide	9318887006	
76	Evaporator Holder L	9318875003	
77	Air Seal	9319295008	

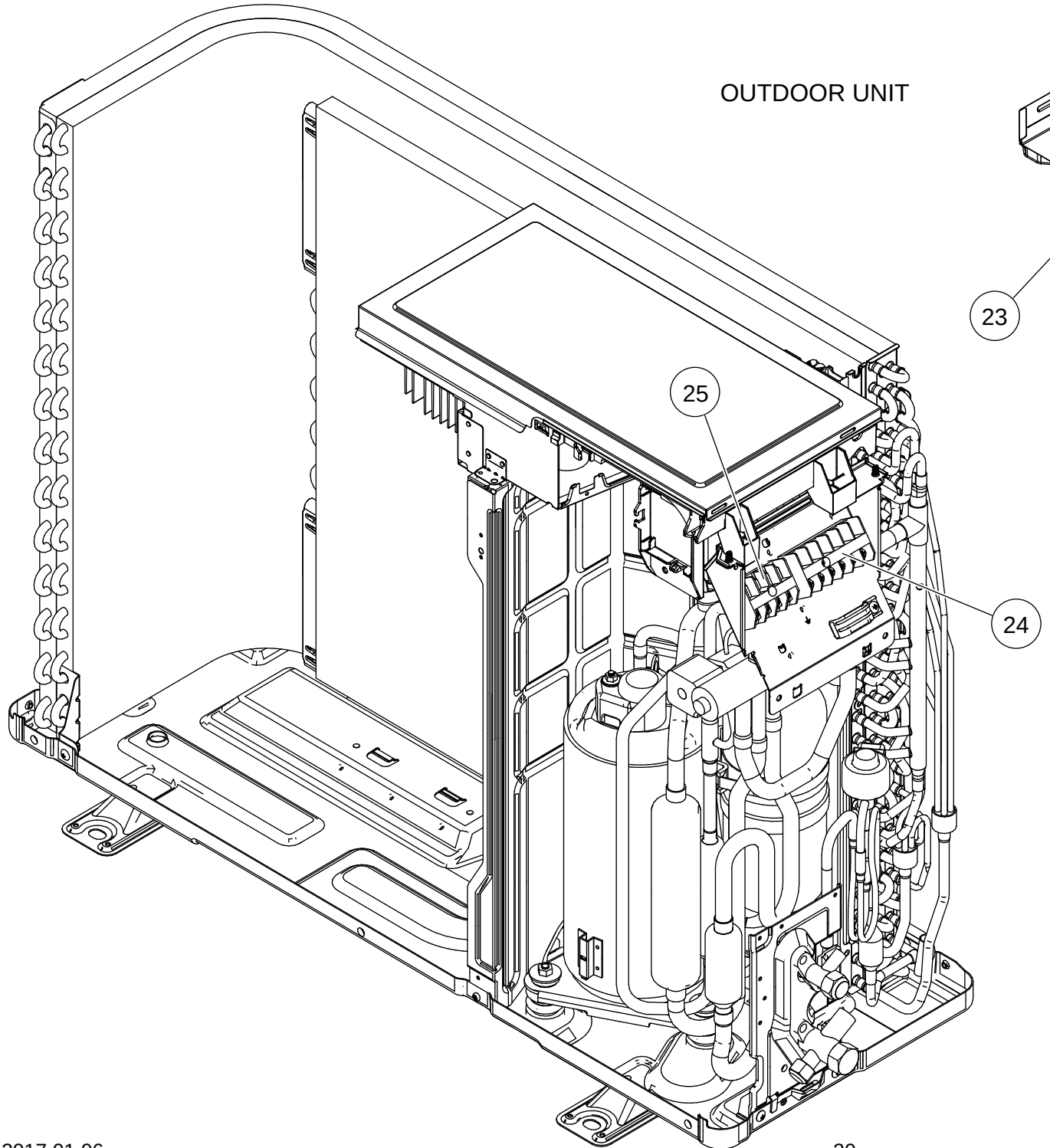


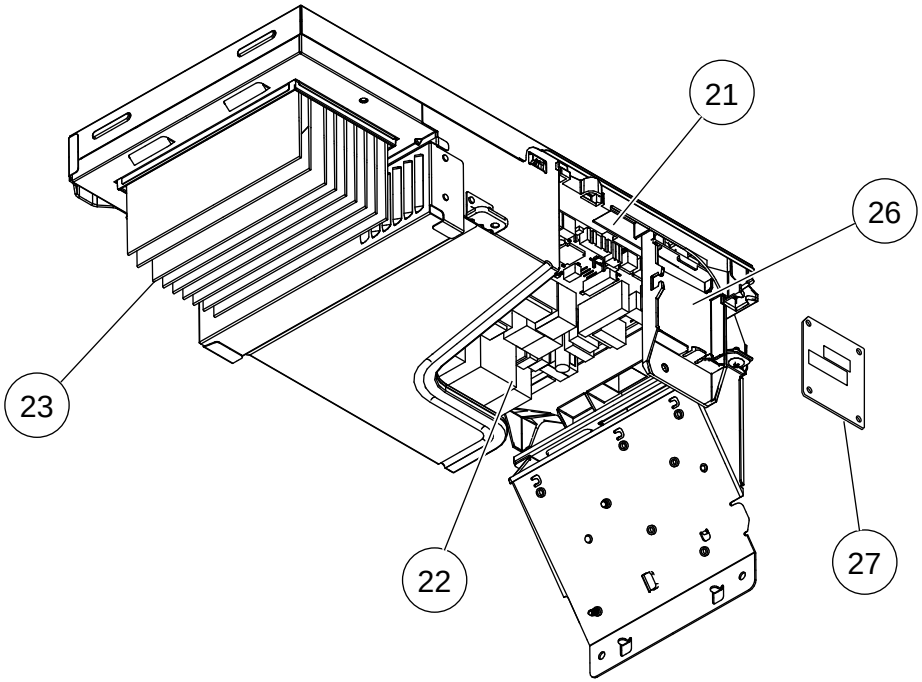
PARTS

OUTDOOR UNIT

Ref.	Description	Part number	
1	Protective Net	9331640015	
2	Top Panel Assy	9318464139	
3	Front Panel Assy	9320114022	
4	Emblem	9319151007	
5	Cabinet Left Assy	9318461015	
6	Cabinet Right Assy	9318462050	
7	Grip	9317588003	
8	Switch Cover A Assy	9320402006	
9	Switch Cover B	9379206013	
10	Fan Motor	9602724024	
11	Propeller Fan	9320027001	
12	Drain Assy	9303029022	
13	Drain Cap	313166024302	

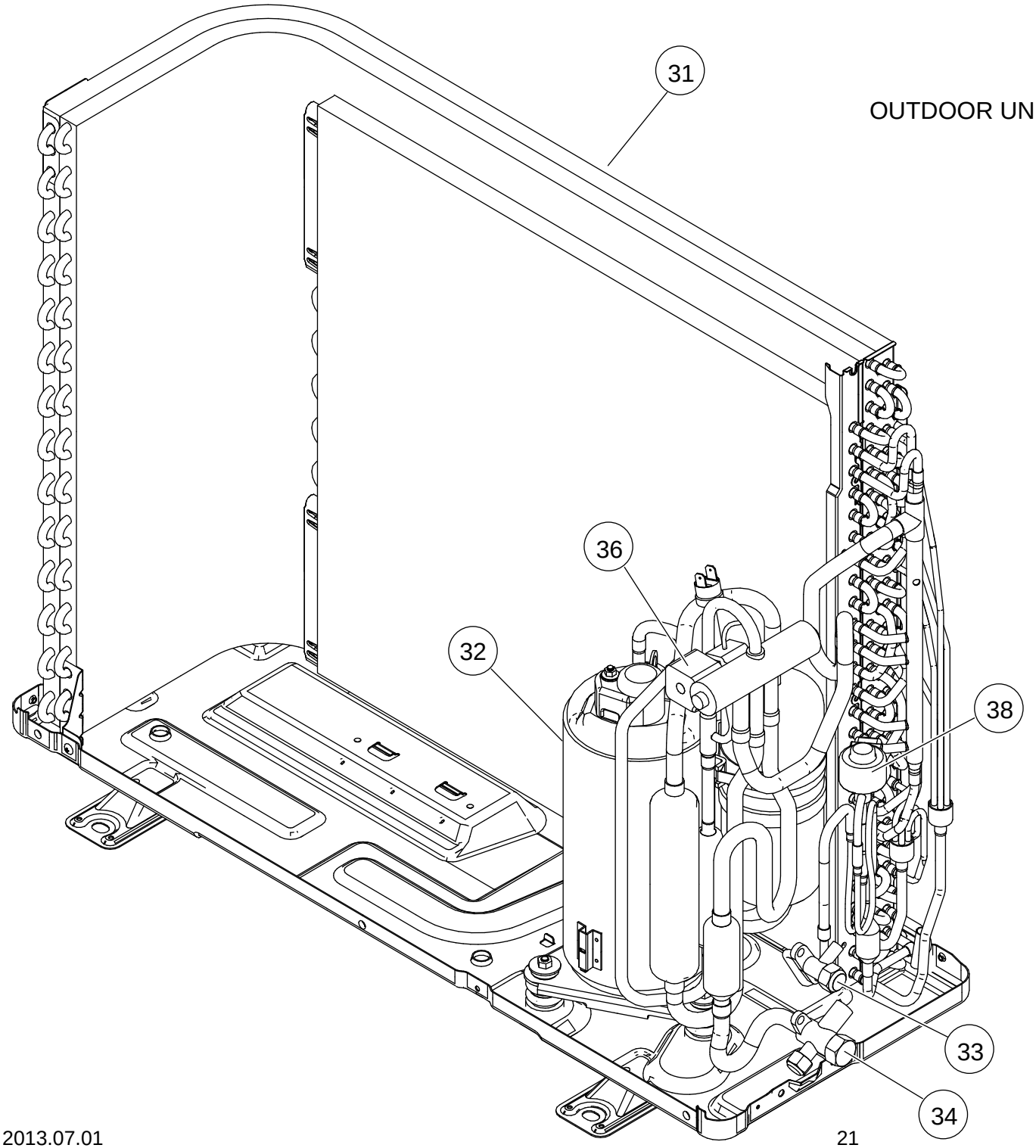
OUTDOOR UNIT

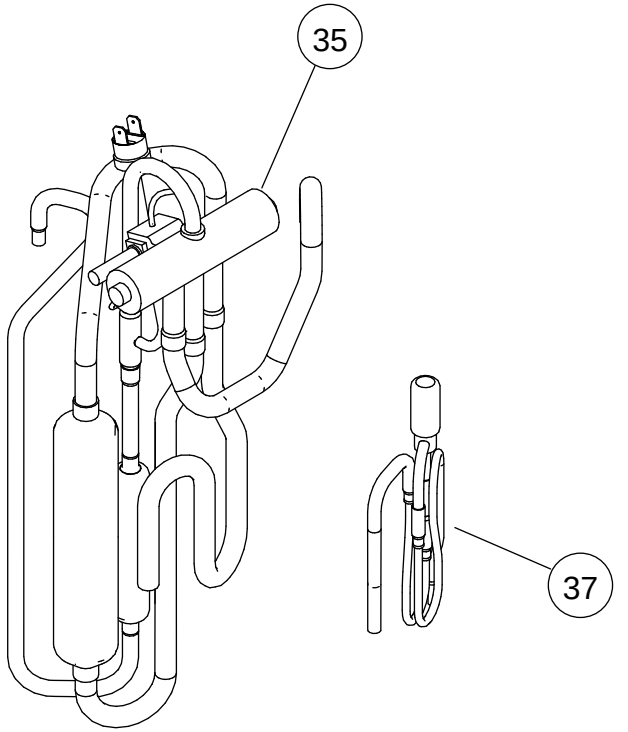




Ref.	Description	Part number	
21	PCB Holder	9319547015	
22	Main PCB with grease	9709680032	
23	Heat Sink	9319540009	
24	Terminal 6P	9900380007	
25	Terminal 4P	9306488116	
26	PCB Holder	9332746006	
27	Demand Control PCB	9709315040	
--	Outdoor Thermistor	9900565008	
--	Compressr Thermistor	9900777012	
--	Thermistor Assy	9900727017	

OUTDOOR UNIT

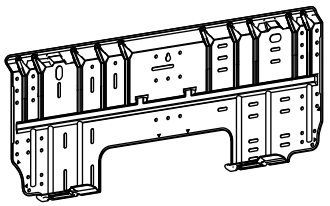
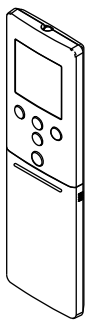
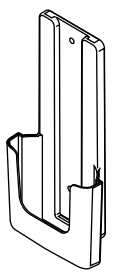


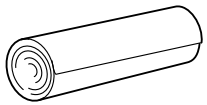
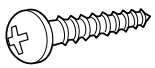
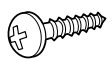
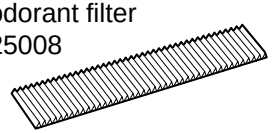
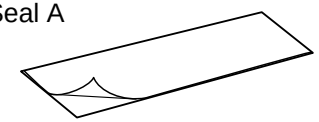


Ref.	Description	Part number	
31	Condenser Total Assy	9317089289	
32	Compressor Assy	9810311009	
33	2-way Valve Assy	9320396008	
34	3-way Valve Sub Assy	9317109079	
35	4-way Valve Assy	9320422004	
36	Solenoid	9970110023	
37	Pulse Motor Valve Assy	9320152017	
38	Expansion Valve Coil	9970095030	

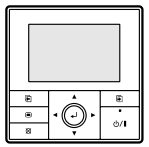
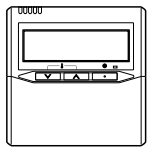
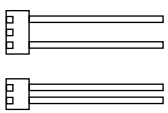
ACCESSORIES

INDOOR UNIT

Name and parts number	Q'ty
Bracket panel  9318913002	1
Remote control  9332438024	1
Remote control holder  9318912005	1

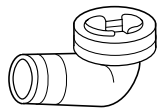
Name and parts number	Q'ty
Battery 0600185077	2
Cloth tape  9380117007	1
Tapping screw (big)  0700076046	5
Tapping screw (small)  0700019036	2
Ion deodorant filter 9311925008 	1
Electric filter 9312153077	1
Seal A  9304536000	1

Refer to each installation manual
for the method of installing optional parts.

Model name
Wired remote control * UTY-RVNYN  For air conditioner operation
Wired remote control * UTY-RNNYN  For air conditioner operation
Simple remote control * UTY-RSNYN For air conditioner operation
External connect kit * UTY-XWZXZ5  For control input/output port
Communication kit UTY-TWBXF1 For the installation of optional parts

* Optional communication kit is necessary
for the installation.

OUTDOOR UNIT

Parts name	Q'ty
Drain pipe 	1
Drain cap	3
Cable tie	1

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