

SPLIT TYPE  
AIR CONDITIONER  
CASSETTE TYPE (50Hz)

# SERVICE MANUAL



Indoor unit	Outdoor unit
AUXG18LRLB	AOYG18LBCA
AUXG24LRLB	AOYG24LBCA
UTG-UKYA-W	

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# SPECIFICATIONS

## ELECTRICAL DATA

TYPE		Cooling & Heating	
INDOOR UNIT		AUXG18LRLB	AUXG24LRLB
DECORATION PANEL		UTG-UKYA-W	
OUTDOOR UNIT		AOYG18LBCA	AOYG24LBCA
POWER SOURCE		230 V, 50 Hz, Single phase	
Cooling	CAPACITY	5.20 kW	6.80 kW
	POWER CONSUMPTION	1.42 kW	2.16 kW
	EER	3.66 kW/kW	3.15 kW/kW
	OPERATING CURRENT	6.2 A	9.5 A
	MAXIMUM CURRENT	10.0 A	13.5 A
	DEHUMIDIFICATION	2.2 L/h	2.7 L/h
Heating	CAPACITY	6.0 kW	7.8 kW
	POWER CONSUMPTION	1.50 kW	2.18 kW
	COP	4.00 kW/kW	3.58 kW/kW
	OPERATING CURRENT	6.6 A	9.6 A
	MAXIMUM CURRENT	13.5 A	18.5 A

## FAN MOTOR

INDOOR UNIT	MFF-T80VA2F
OUTDOOR UNIT	MFE-71TVAL

## FAN REVOLUTION

INDOOR UNIT	High	400 rpm	430 rpm
	Medium	360 rpm	400 rpm
	Low	340 rpm	360 rpm
	Quiet	300 rpm	330 rpm
OUTDOOR UNIT	Cooling	870 rpm	1,100 rpm
	Heating	780 rpm	1,050 rpm

## AIR CIRCULATION

INDOOR UNIT	High	1,050 m3/h	1,150 m3/h
	Medium	960 m3/h	1,050 m3/h
	Low	900 m3/h	980 m3/h
	Quiet	780 m3/h	870 m3/h
OUTDOOR UNIT	Cooling	1,900 m3/h	2,460 m3/h
	Heating	1,700 m3/h	2,340 m3/h

## NOISE LEVEL

INDOOR UNIT	High	33 dB	35 dB
	Medium	32 dB	33 dB
	Low	31 dB	32 dB
	Quiet	28 dB	29 dB
OUTDOOR UNIT	Cooling	51 dB	55 dB
	Heating	50 dB	56 dB

## COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE	Hermetic type, 6 pole, 3 phase, DC inverter motor, Rotary		
DISCRIMINATION	N-SF17ND1A		
WEIGHT (with oil)	10.6 kg		
PRECHARGED REFRIGERANT	1,800 g		
REFRIGERANT TYPE	R410A		
FULL CHARGE	Piping length	15 m	1,800 g
		20 m	1,900 g
		25 m	2,000 g
		30 m	2,100 g
ADDITIONAL CHARGE	20 g/m		
MAXIMUM PIPING HEIGHT DIFFERENCE	20 m		

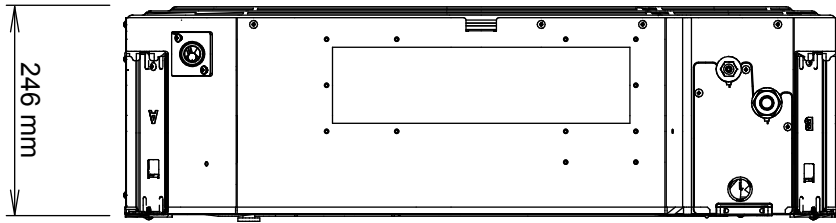
## DIMENSIONS

INDOOR UNIT	H x W x D	246 x 840 x 840 mm
DECORATION PANEL	H x W x D	53 x 950 x 950 mm
OUTDOOR UNIT	H x W x D	620 x 790 x 290 mm

## WEIGHT

INDOOR UNIT	Net / Shipping	24 kg / 29 kg
DECORATION PANEL	Net / Shipping	6.0 kg / 10.5 kg
OUTDOOR UNIT	Net / Shipping	41 kg / 45 kg

# DIMENSIONS

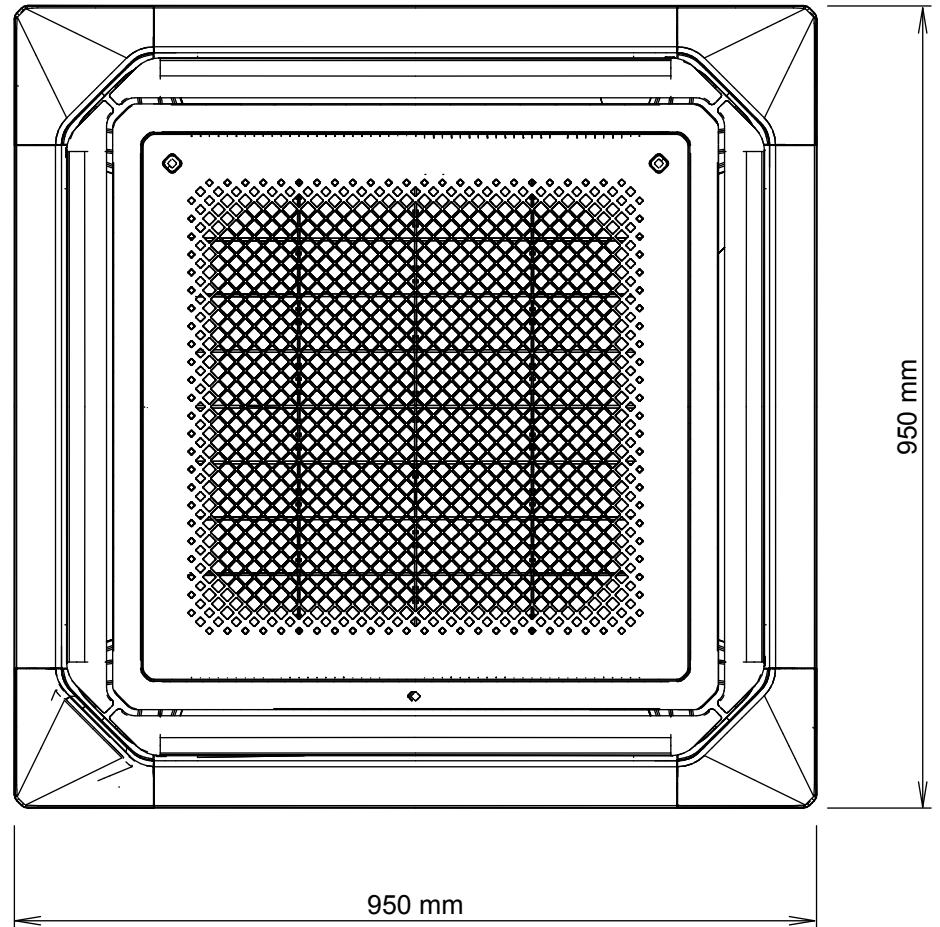
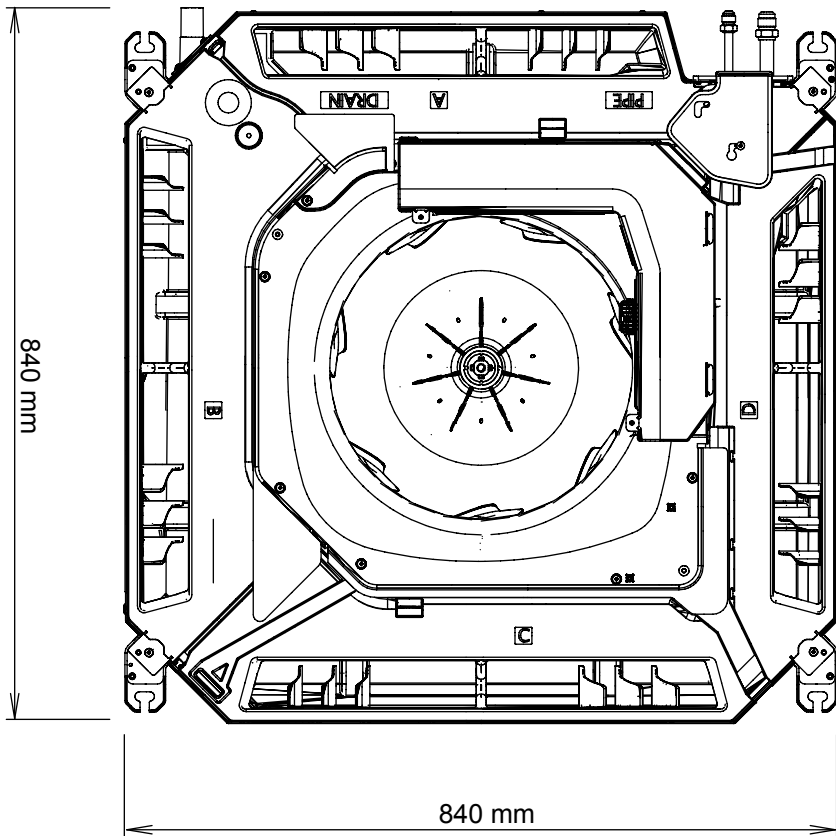


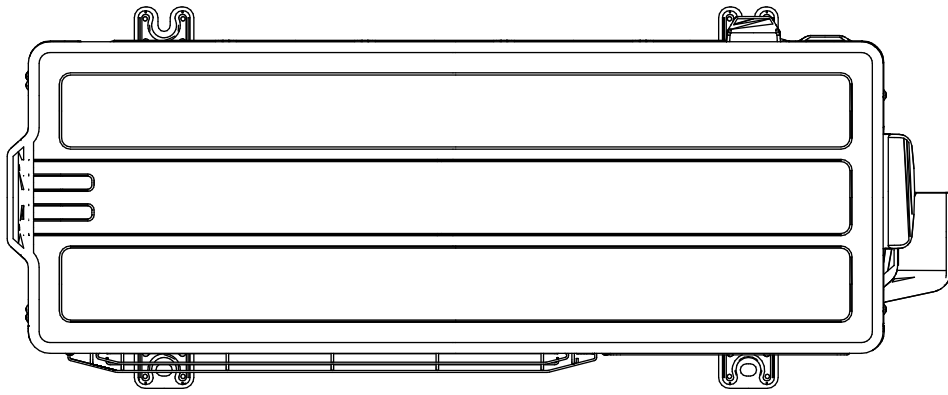
Drain pipe diameter  
Inside : 20 mm  
Outside : 26 mm

## INDOOR UNIT

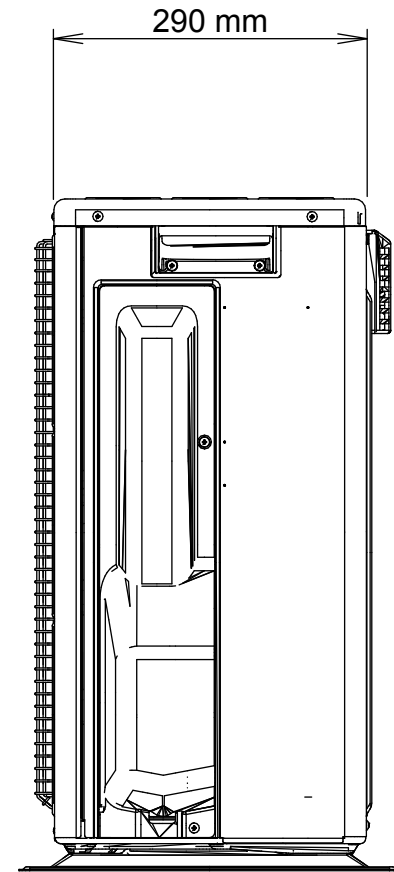
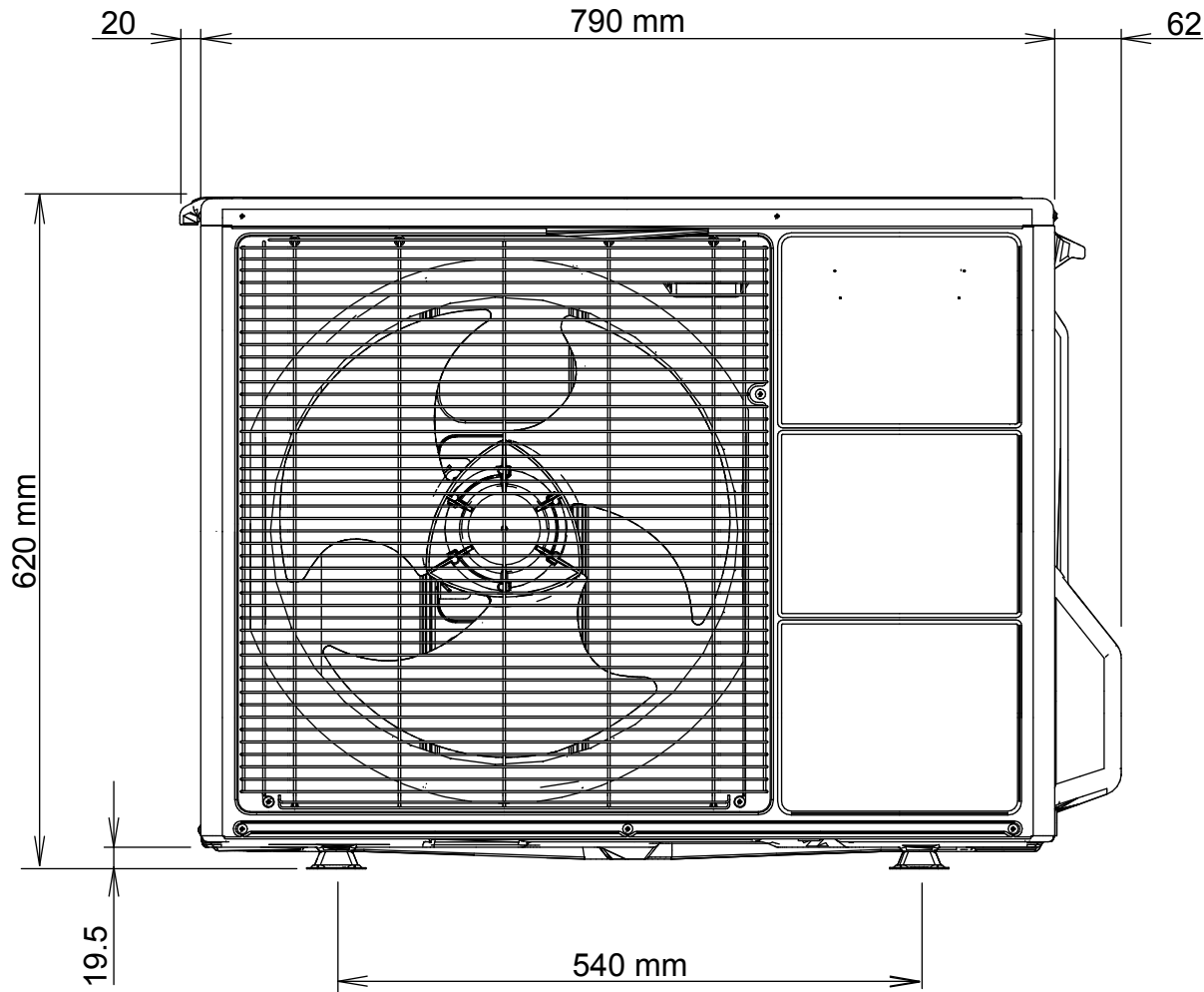


## DECORATION PANEL

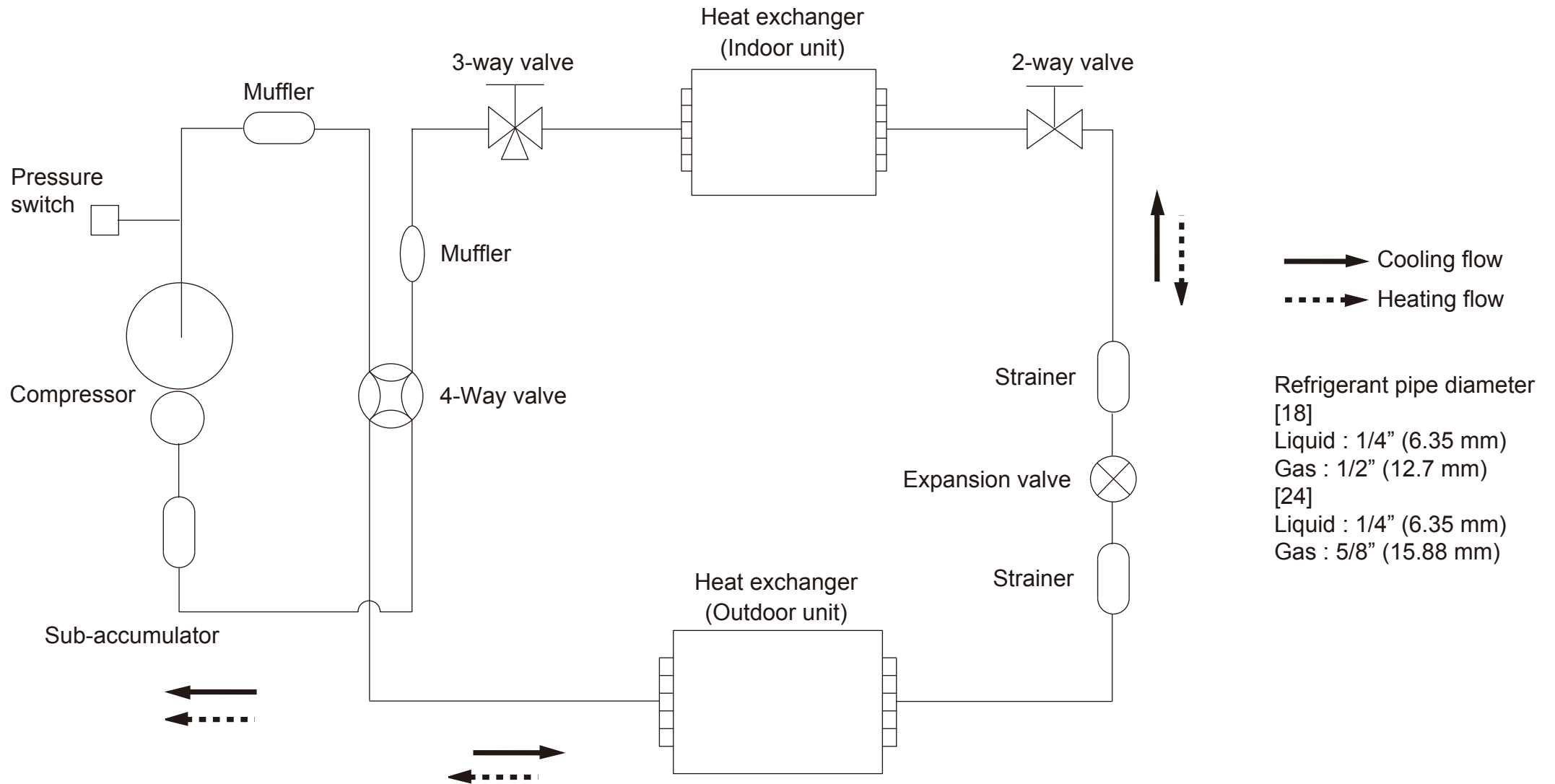




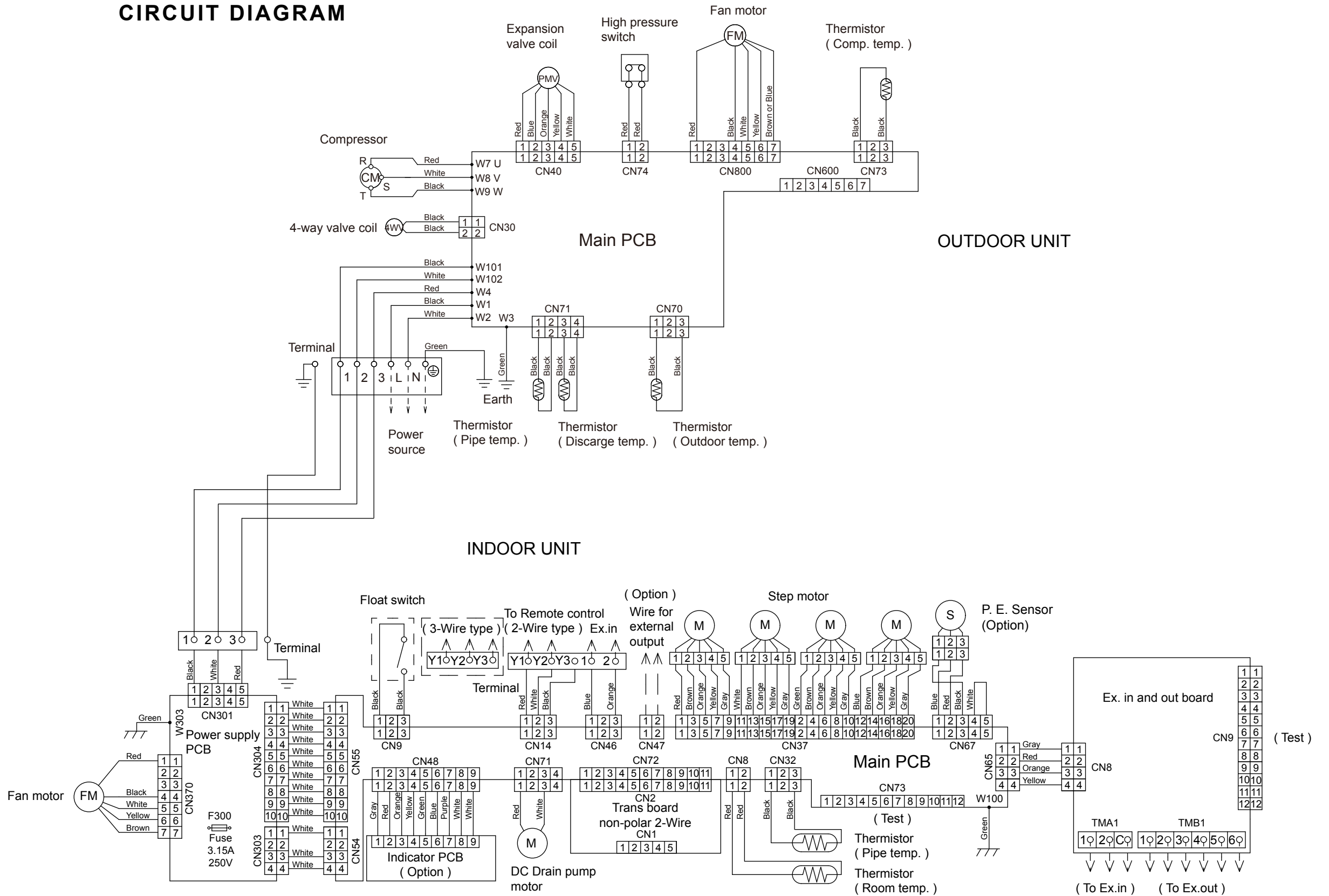
OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM



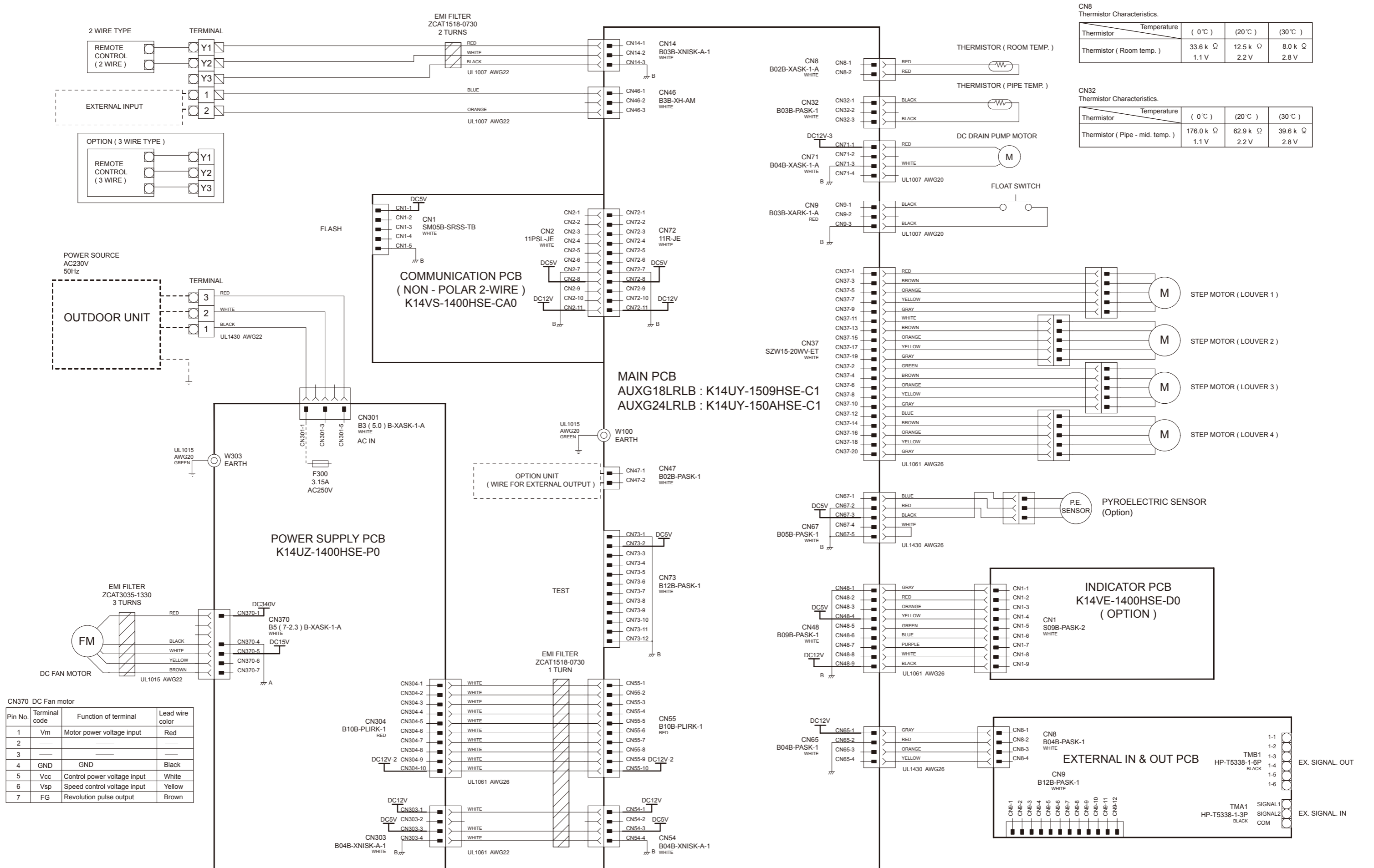
# CIRCUIT DIAGRAM



# PCB CIRCUIT DIAGRAM

## INDOOR UNIT

## CONTROL UNIT AUXG18LRLB : EZ-015WHSE AUXG24LRLB : EZ-015YHSE



CN8 Thermistor Characteristics.

Thermistor	Temperature ( 0°C )	( 20°C )	( 30°C )
Thermistor ( Room temp. )	33.6 k Ω	12.5 k Ω	8.0 k Ω
	1.1 V	2.2 V	2.8 V

CN32 Thermistor Characteristics.

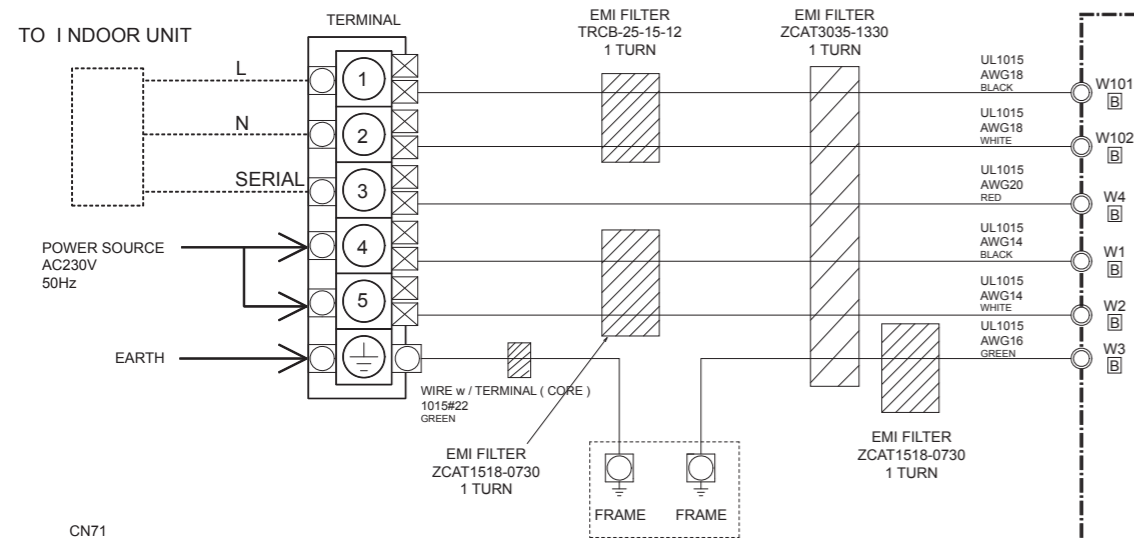
Thermistor	Temperature ( 0°C )	( 20°C )	( 30°C )
Thermistor ( Pipe - mid. temp. )	176.0 k Ω	62.9 k Ω	39.6 k Ω
	1.1 V	2.2 V	2.8 V

CN370 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

# OUTDOOR UNIT

# INVERTER ASSEMBLY AOYG18LBCA : EZ-015FHUE AOYG24LBCA : EZ-015GHUE

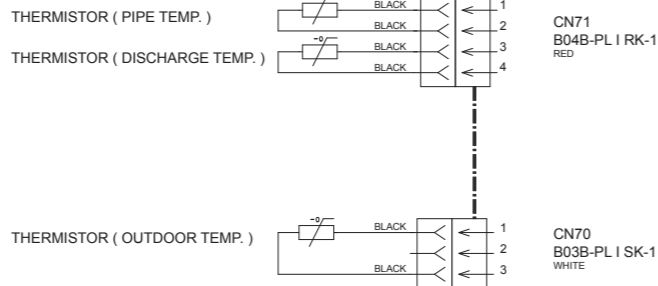


CN71 Thermistor Characteristics.

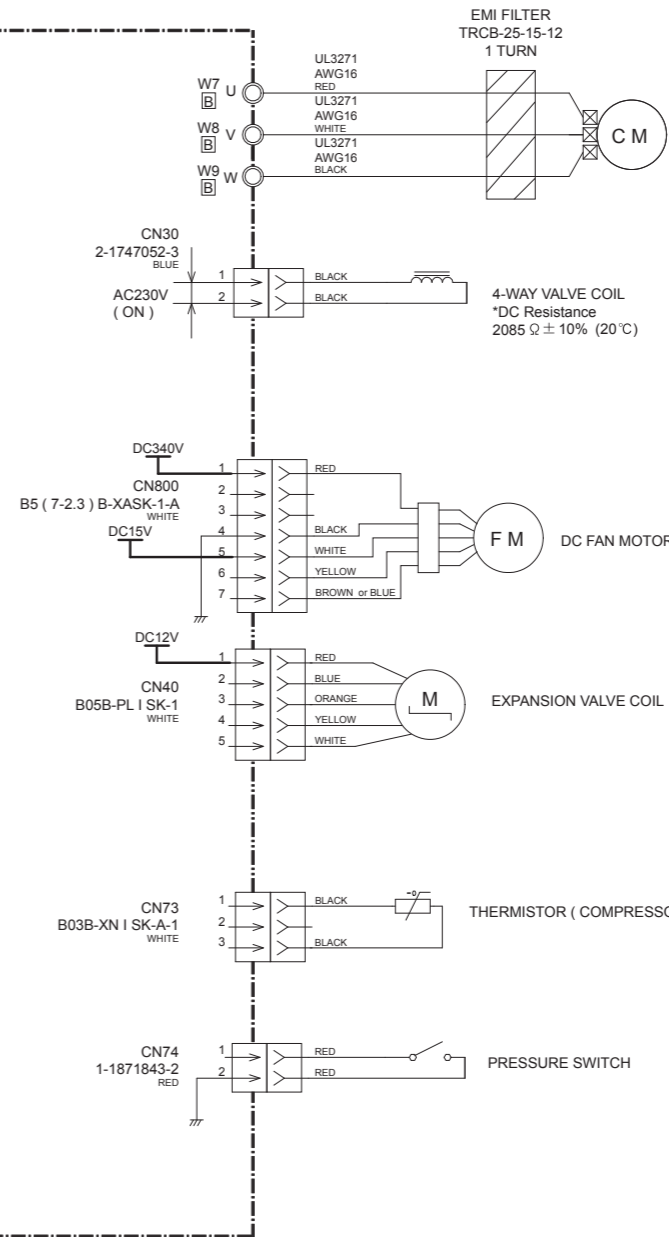
Thermistor	Temperature ( 0°C )	( 20°C )	( 30°C )
Thermistor ( Pipe temp. )	16.1 k Ω 1.1 V	6.0 k Ω 2.2 V	3.8 k Ω 2.8 V
Thermistor ( Discharge temp. )	168.6 k Ω 0.3 V	64.5 k Ω 0.8 V	41.1 k Ω 1.2 V

CN70 Thermistor Characteristics.

Thermistor	Temperature ( 0°C )	( 20°C )	( 30°C )
Thermistor ( Outdoor temp. )	35.2 k Ω 2.6 V	12.6 k Ω 3.8 V	8.0 k Ω 4.1 V



# MAIN PCB AOYG18LBCA : K11BS-1501HUE-C1 AOYG24LBCA : K11BS-1502HUE-C1



COMPRESSOR Winding Resistance

U-V	0.818 Ω ( 20°C )
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 or blue

CN40 EXPANSION VALVE COIL

Recommended Drive Condition  
Unipolar Drive, 1-2 Phase Excitation.

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

CN73 Thermistor Characteristics.

Thermistor	Temperature ( 0°C )	( 20°C )	( 30°C )
Thermistor ( Compressor temp. )	168.6 k Ω 0.3 V	64.5 k Ω 0.8 V	41.1 k Ω 1.2 V

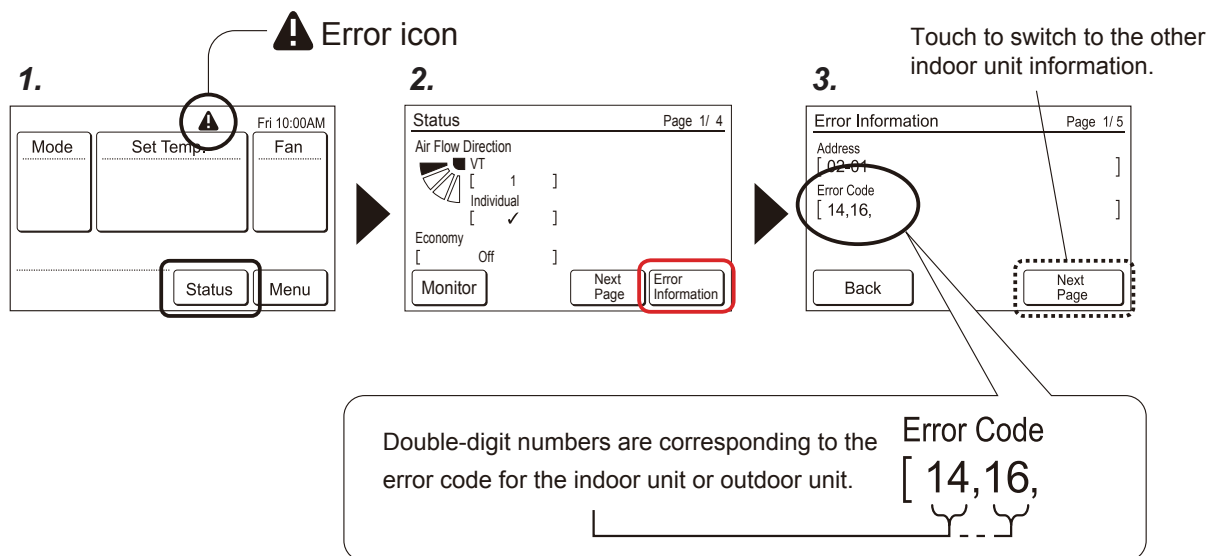


# ERROR DETECTION

## Troubleshooting at the remote control LCD

### UTY-RNRYZ1 (2-wire type)

1. If an error occurs, an error icon appears on the “Monitor mode screen”.  
Touch the [Status] button. The “Status” screen is displayed.
2. Touch the [Error Information] button. The “Error Information” screen is displayed.  
(When there are no errors, the [Error Information] will not be displayed.)
3. Double-digit numbers correspond to the error code in the table next page.  
Touch the [Next page] (or [Previous page]) to switch to the other connected indoor units.

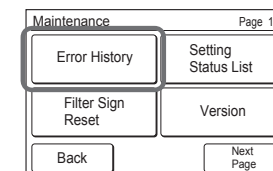


Triple-digit error code means the error of remote control itself.

Error code	Contents
CC.1	Sensor error
C2.1	Transmission PCB error
12.1	Wired remote control communication error
12.3	Number excess of device in wired remote control system
12.4	Wired remote control system start-up error
26.4	Address duplication in wired remote control system
26.5	Address setting error in wired remote control system
15.4	Data acquisition error

## Error History (Triple-digit)

- (1) Touch the [Error History] on the “Maintenance” screen.



- (2) “Error History” screen is displayed. When the screen has multiple pages, they can be switched by touching the [Next Page] or [Previous Page].

No.	Date	Time	Address	Code
1	2015/ 8/ 1	11:00AM	002-01	141
2	2015/ 7/30	2:53AM	002-02	143
3	2015/ 7/25	8:53AM	002-02	143
4	2015/ 7/22	11:00AM	002-01	141
5	2015/ 7/22	11:00AM	002-01	141
6	2015/ 7/21	11:00AM	002-01	141

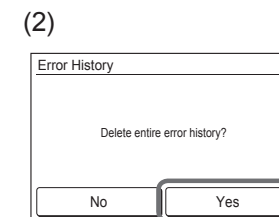
No.	Date	Time	Address	Code
7	2015/ 7/ 1	11:00AM	002-01	141
8	2015/ 7/10	2:53AM	002-02	143
9	2015/ 7/ 5	8:53AM	002-02	143
10	2015/ 7/ 2	11:00AM	002-01	141
11	2015/ 7/ 2	11:00AM	002-01	141

- (3) When the [Back] is touched after verification, the display returns to the “Maintenance” screen.

## Erase the Error History

- (1) Touch the [Erase All] on the “Error History” screen.
- (2) A verification screen is displayed. When the [Yes] is touched after the history is cleared, the display returns to the “Error History” screen.

No.	Date	Time	Address	Code
1	2015/ 8/ 1	11:00AM	002-01	141
2	2015/ 7/30	2:53AM	002-02	143
3	2015/ 7/25	8:53AM	002-02	143
4	2015/ 7/22	11:00AM	002-01	141
5	2015/ 7/22	11:00AM	002-01	141
6	2015/ 7/21	11:00AM	002-01	141



If you use a wired type remote control, error codes will appear on the remote control display. When you use a wireless remote control, the lamps on the IR receiver unit will output error codes by way of blinking patterns. See the lamp blinking patterns and error codes in the table. An error display is displayed only during running.

#### UTY-RNRYZ1

Double-digit error code means the error for the indoor unit or outdoor unit.

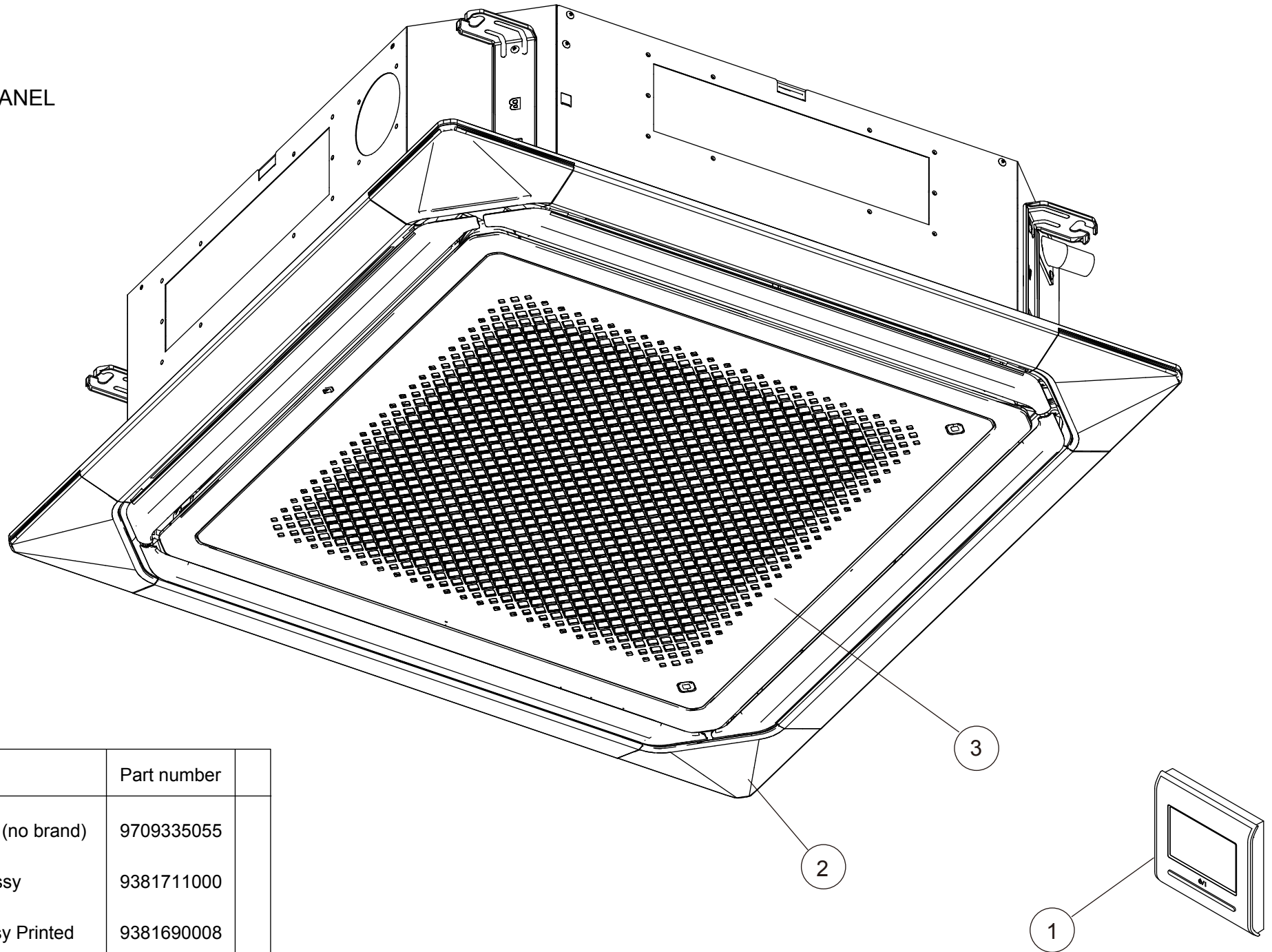
Display mode ● : 0.5s ON / 0.5s OFF  
 ◇ : 0.1s ON / 0.1s OFF  
 ( ) : Number of flashing

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
●(1)	●(6)	◇	16	Peripheral unit transmission PCB connection error
●(1)	●(8)	◇	18	External communication error
●(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 secondary unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
●(2)	●(6)	◇	26	Indoor unit address setting error
●(2)	●(7)	◇	27	Primary unit, secondary unit setup error [Simultaneous Multi]
●(2)	●(9)	◇	29	Connection unit number error in wired remote controller system
●(3)	●(1)	◇	31	Power supply interruption error
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(5)	◇	35	Manual auto switch error
●(3)	●(10)	◇	3A	Indoor unit communication circuit (wired remote controller) error
●(4)	●(1)	◇	41	Room temp. sensor error
●(4)	●(2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
●(4)	●(4)	◇	44	Human sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor error
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(7)	◇	57	Damper error
●(5)	●(15)	◇	5U	Indoor unit error
●(6)	●(1)	◇	61	Outdoor unit reverse/missing phase and wiring error
●(6)	●(2)	◇	62	Outdoor unit main PCB model information error or communication error

Error display			Wired remote control Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(6)	●(3)	◇	63	Inverter error
●(6)	●(4)	◇	64	Active filter error, PFC circuit error
●(6)	●(5)	◇	65	Trip terminal L error
●(6)	●(8)	◇	68	Outdoor unit rush current limiting resistor temp. rise 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 (permanent stop)
●(9)	●(7)	◇	97	Outdoor unit fan motor 1 error
●(9)	●(8)	◇	98	Outdoor unit fan motor 2 error
●(9)	●(9)	◇	99	4-way valve error
●(9)	●(10)	◇	9A	Coil (expansion 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]

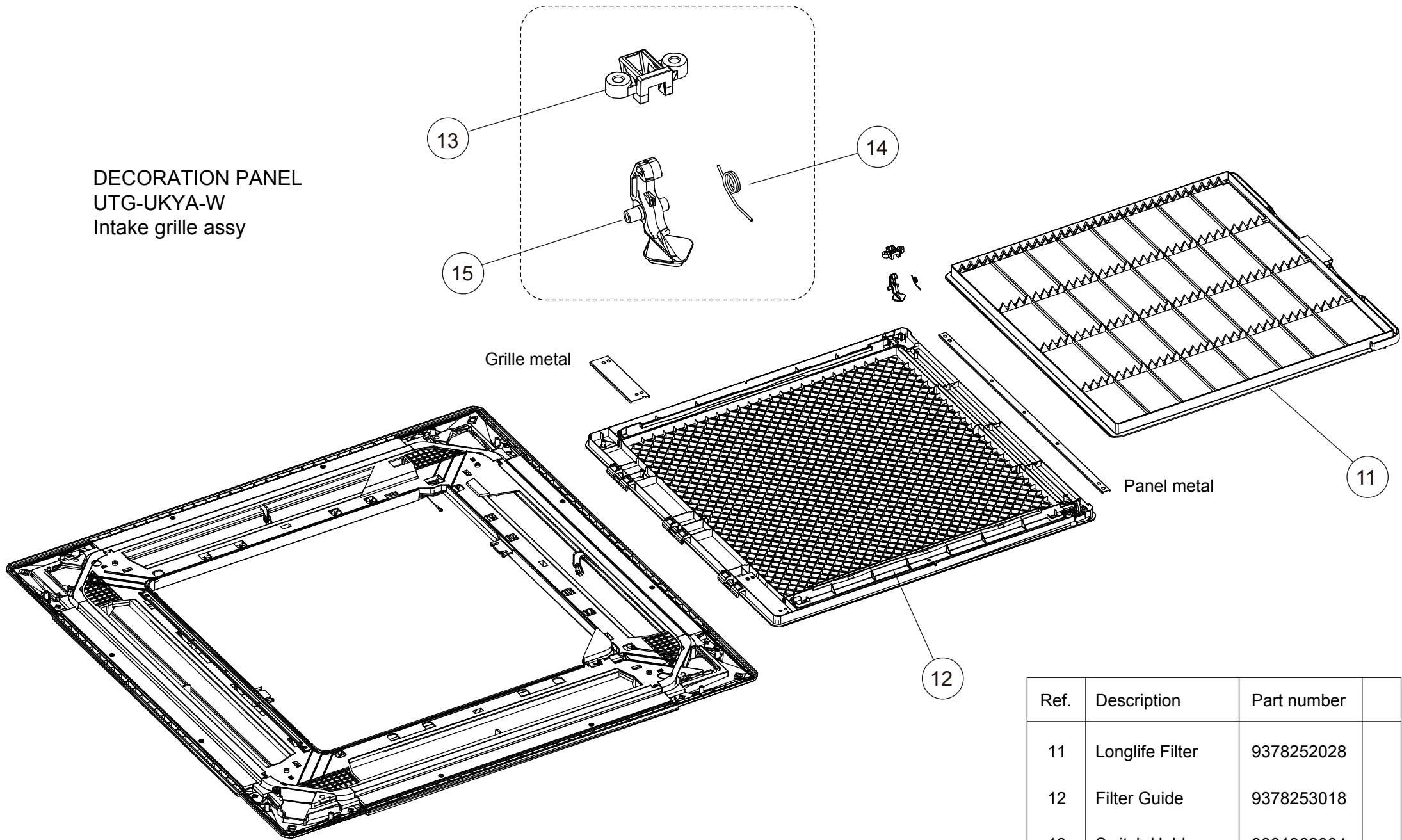
# PARTS

DECORATION PANEL  
UTG-UKYA-W

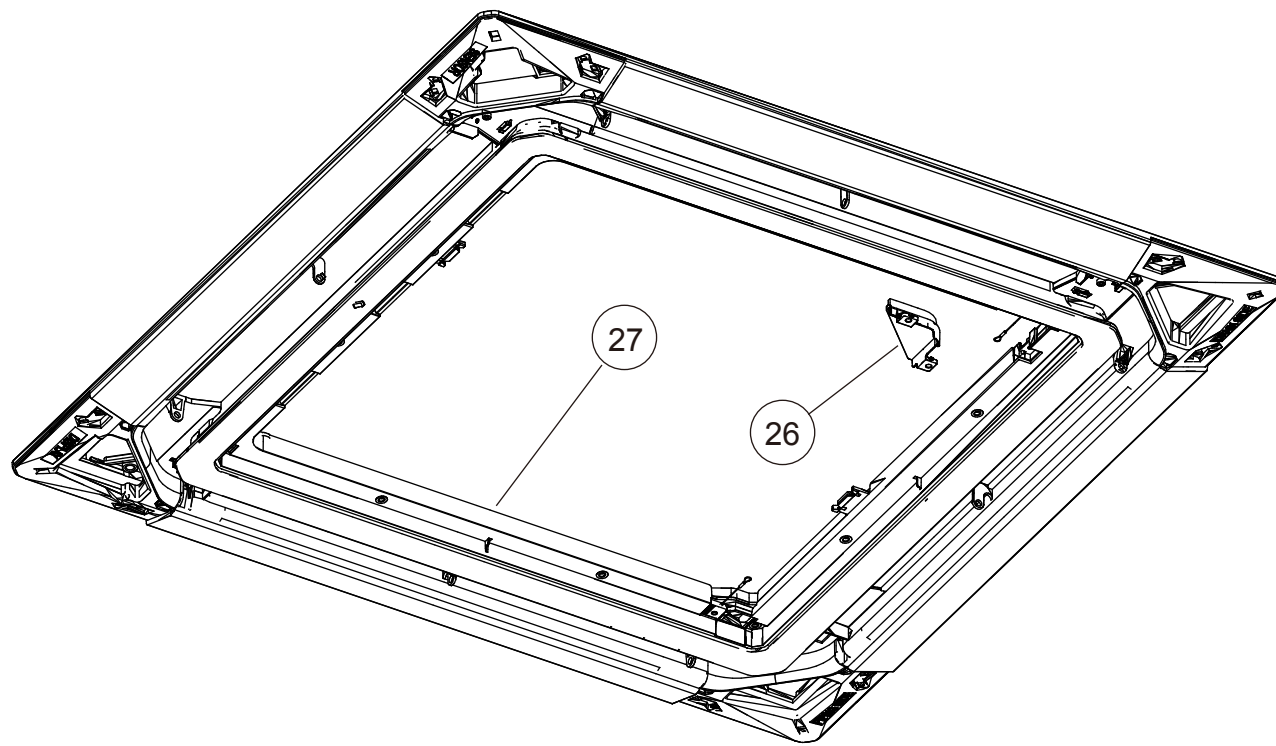


Ref.	Description	Part number	
1	Remote Control (no brand)	9709335055	
2	Corner Panel Assy	9381711000	
3	Intake Grille Assy Printed	9381690008	

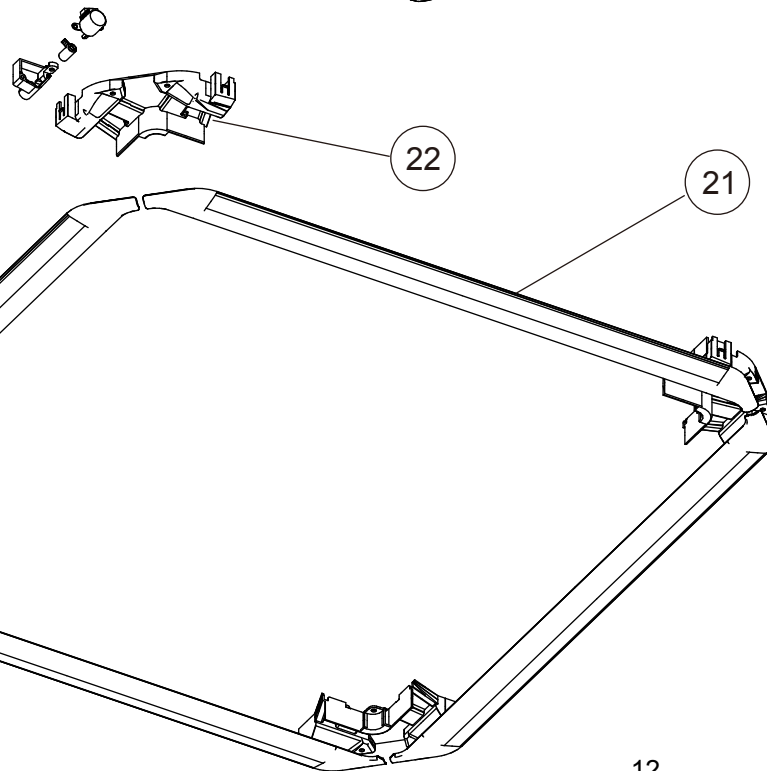
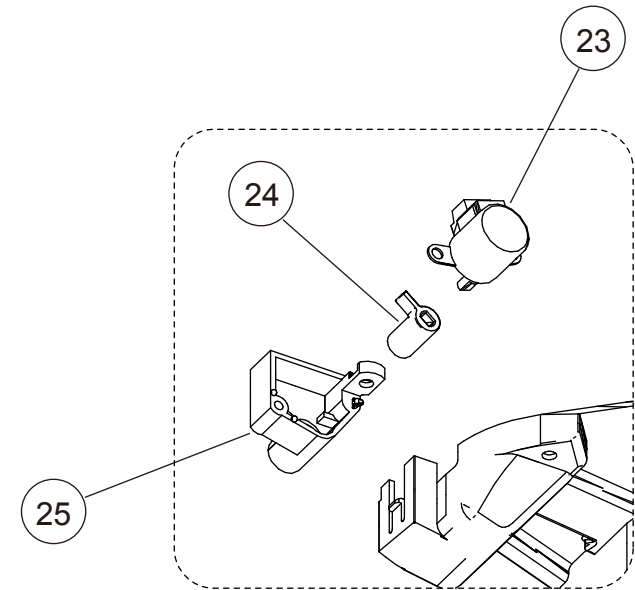
DECORATION PANEL  
 UTG-UKYA-W  
 Intake grille assy



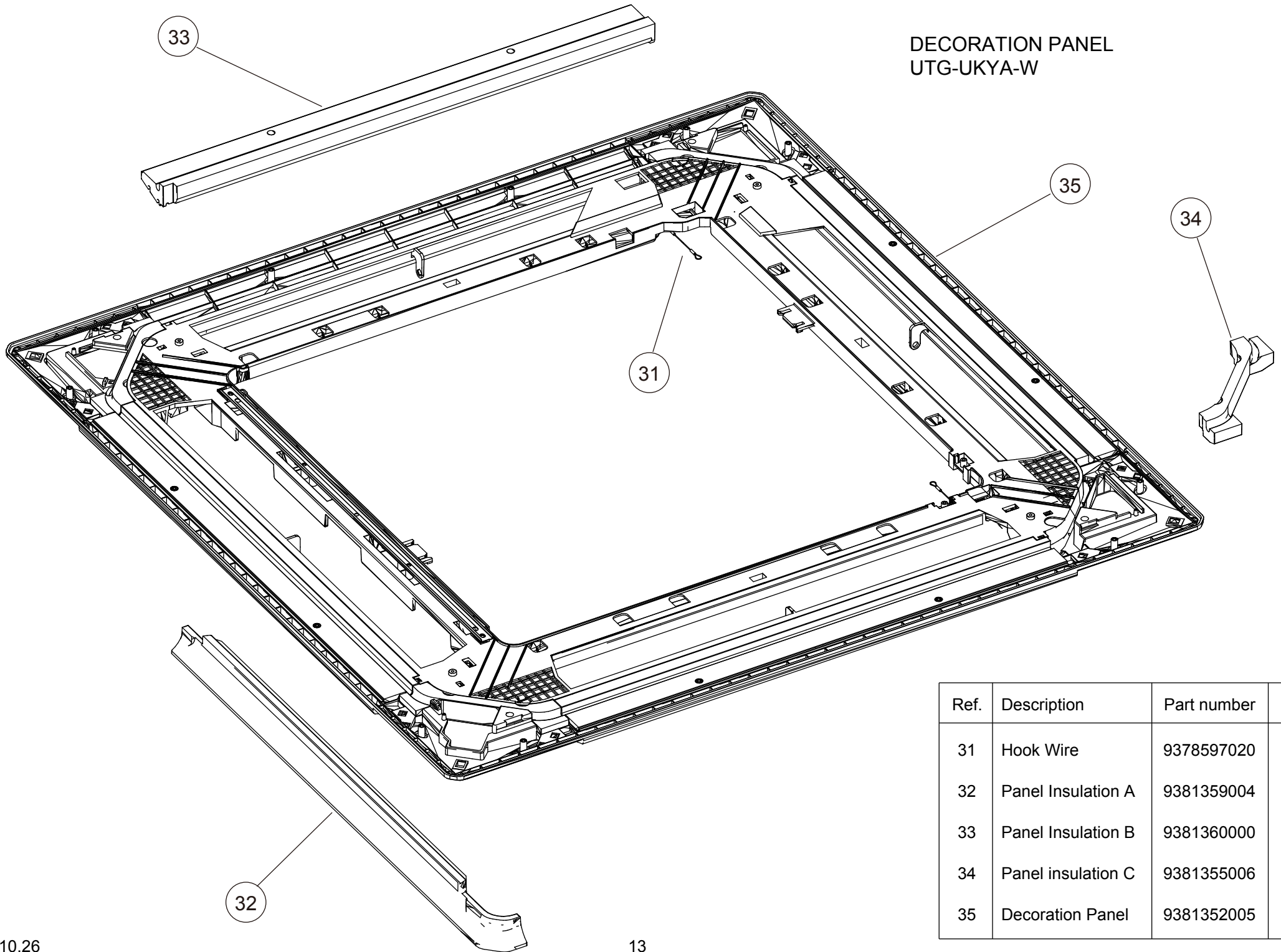
Ref.	Description	Part number
11	Longlife Filter	9378252028
12	Filter Guide	9378253018
13	Switch Holder	9381362004
14	Switch Spring	9381688005
15	Switch	9381363001



DECORATION PANEL  
UTG-UKYA-W



Ref.	Description	Part number
21	Louver Assy	9381693009
22	Motor Cover	9381354009
23	Step Motor	9900885007
24	Shaft Cover	9381357000
25	Motor Case	9381356003
26	Drain Cover Assy	9381713004
27	Bezel	9381353002

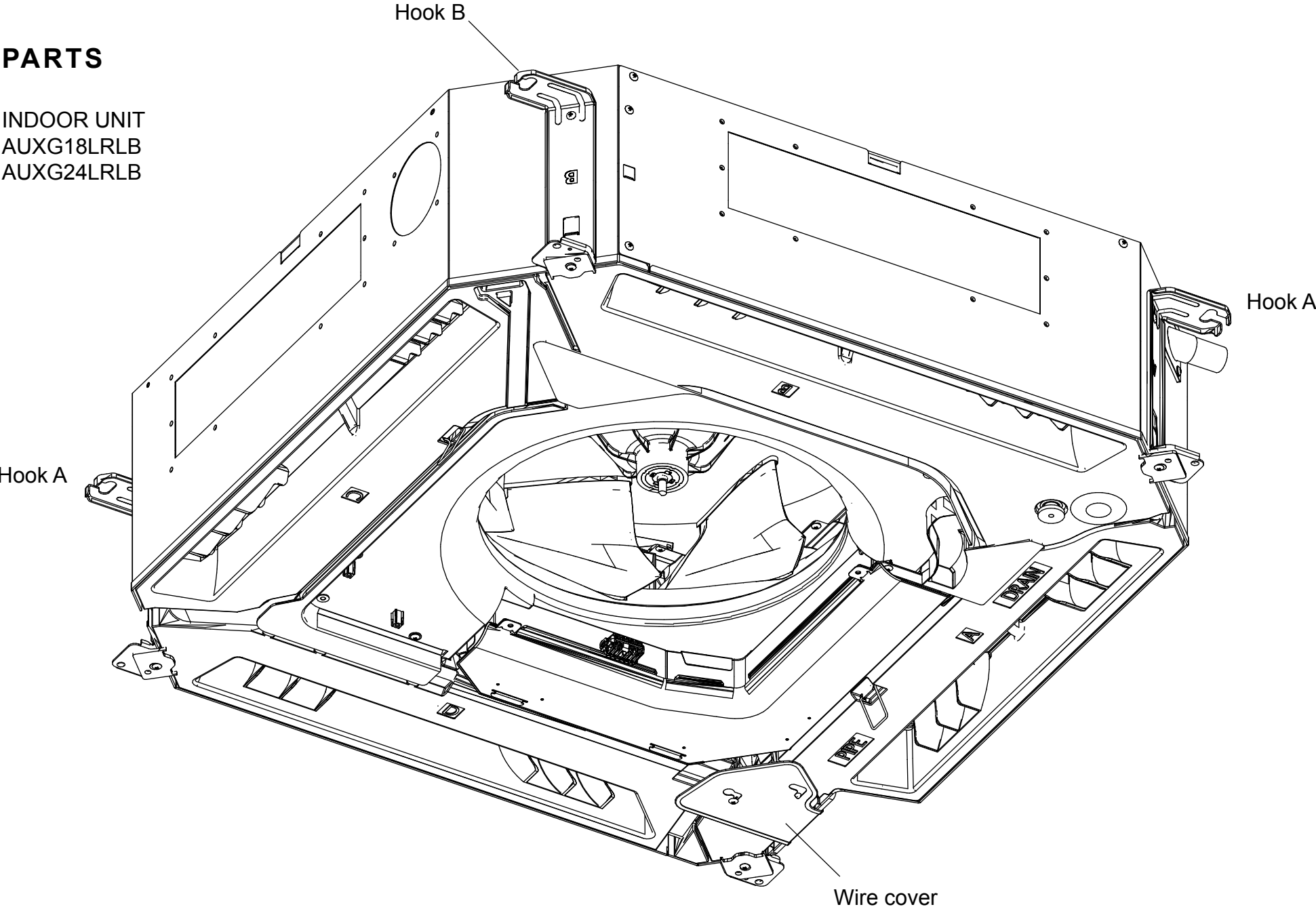


DECORATION PANEL  
UTG-UKYA-W

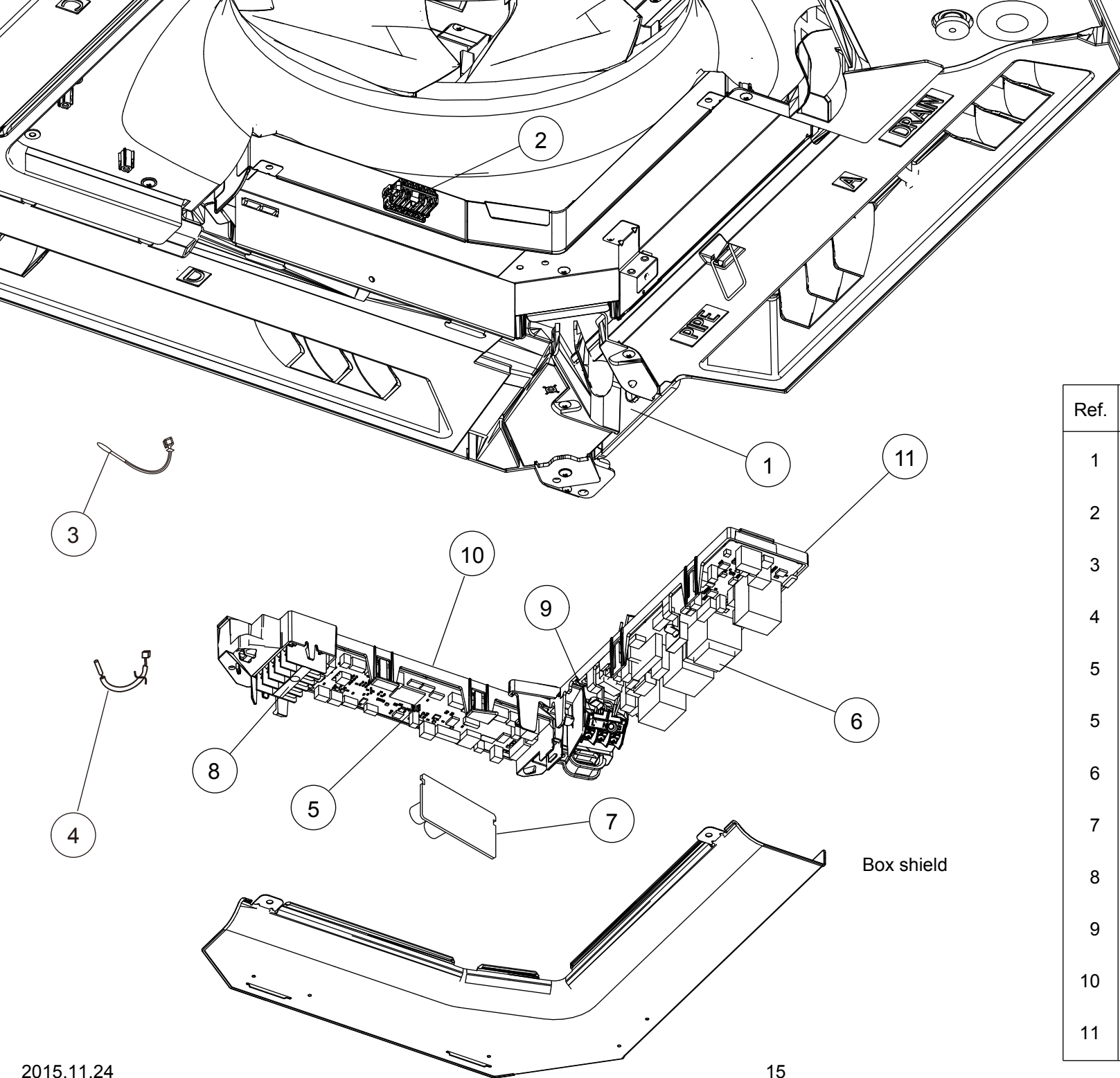
Ref.	Description	Part number
31	Hook Wire	9378597020
32	Panel Insulation A	9381359004
33	Panel Insulation B	9381360000
34	Panel insulation C	9381355006
35	Decoration Panel	9381352005

# PARTS

INDOOR UNIT  
AUXG18LRLB  
AUXG24LRLB



INDOOR UNIT  
AUXG18LRLB  
AUXG24LRLB

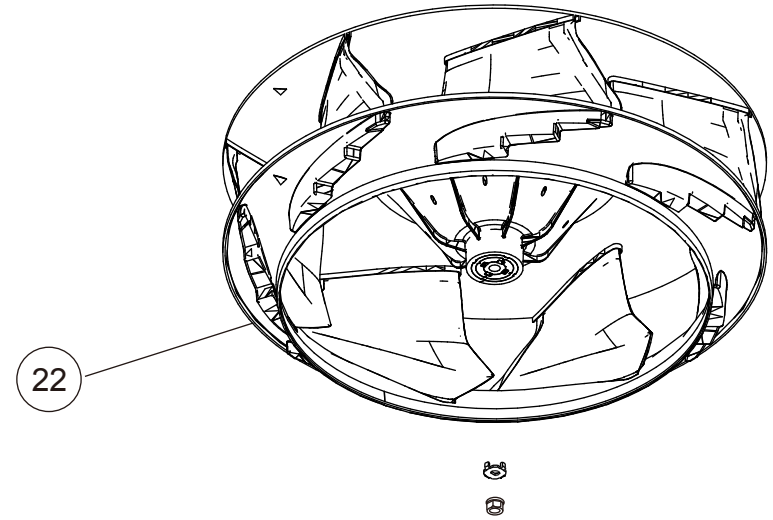
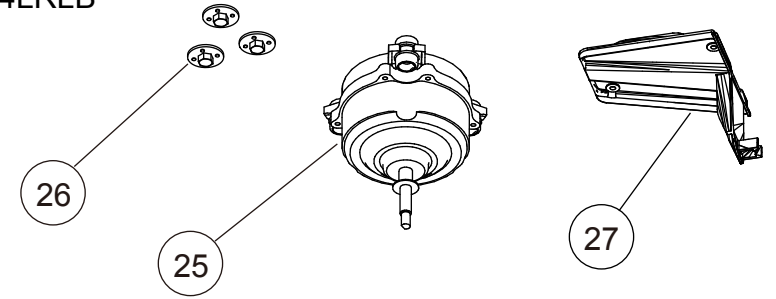
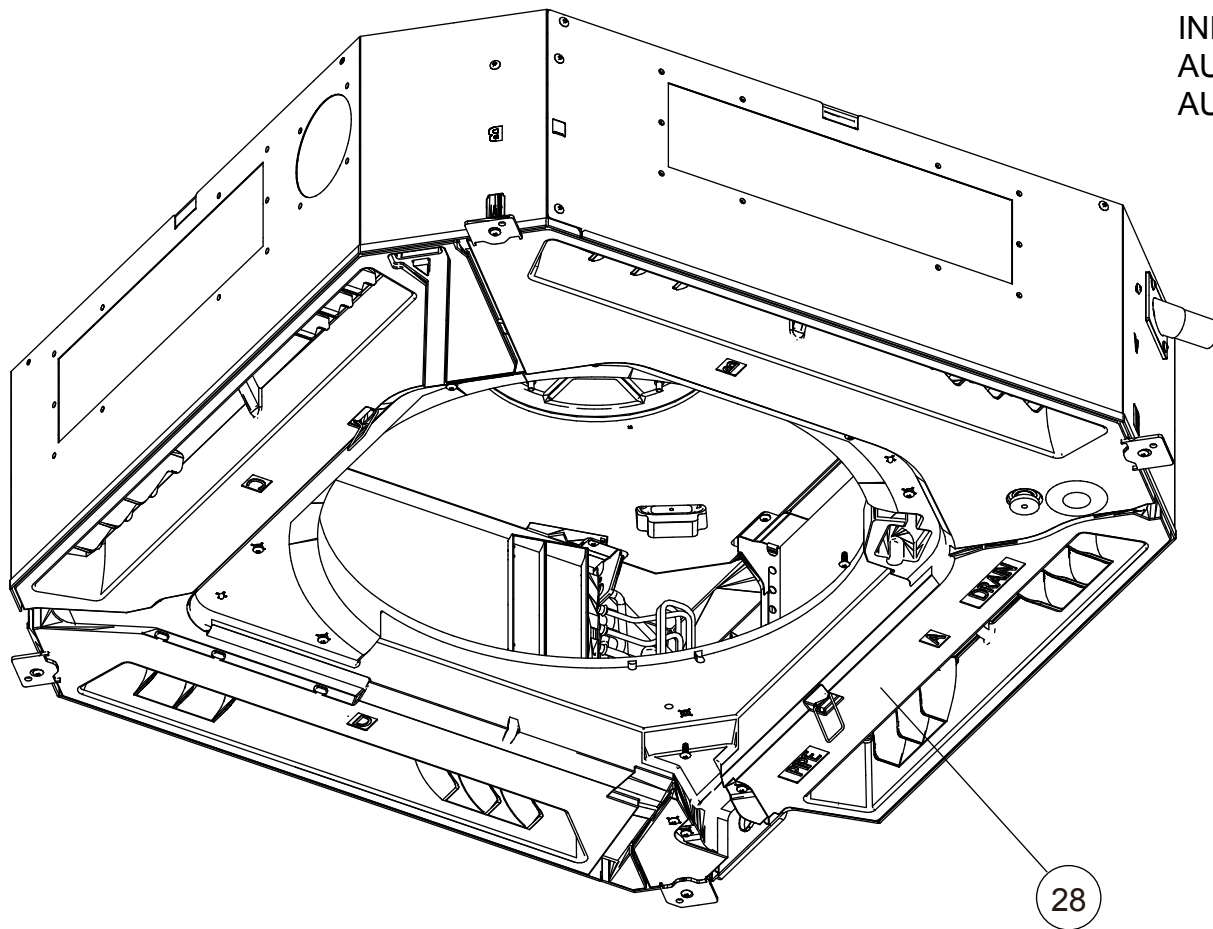


Ref.	Description	Part number
1	Cable Guide	9381376001
2	Room Thermistor Holder	9381348008
3	Room Thermistor	9900822002
4	Pipe Thermistor	9900903008
5	Main PCB (AUXG18LRLB)	9710016165
5	Main PCB (AUXG24LRLB)	9710016172
6	Power PCB	9710022005
7	PCB (Non-polar 2-wire)	9710019005
8	Remote Terminal 5P	9900896003
9	Power Terminal 3P	9900720032
10	Main PCB Holder	9381350001
11	Power PCB Holder	9381349005

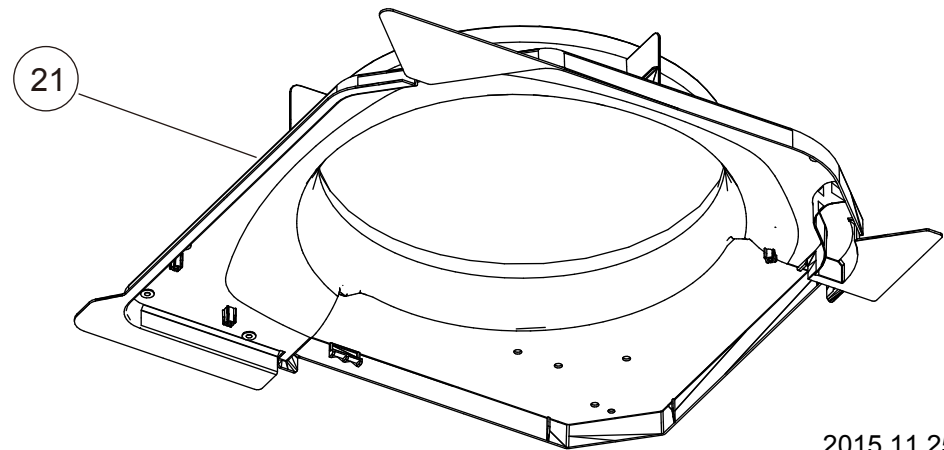
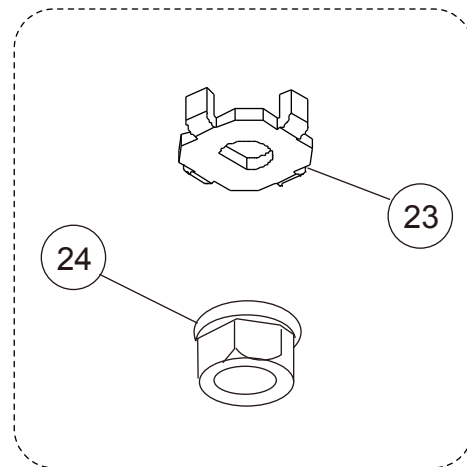
Box shield



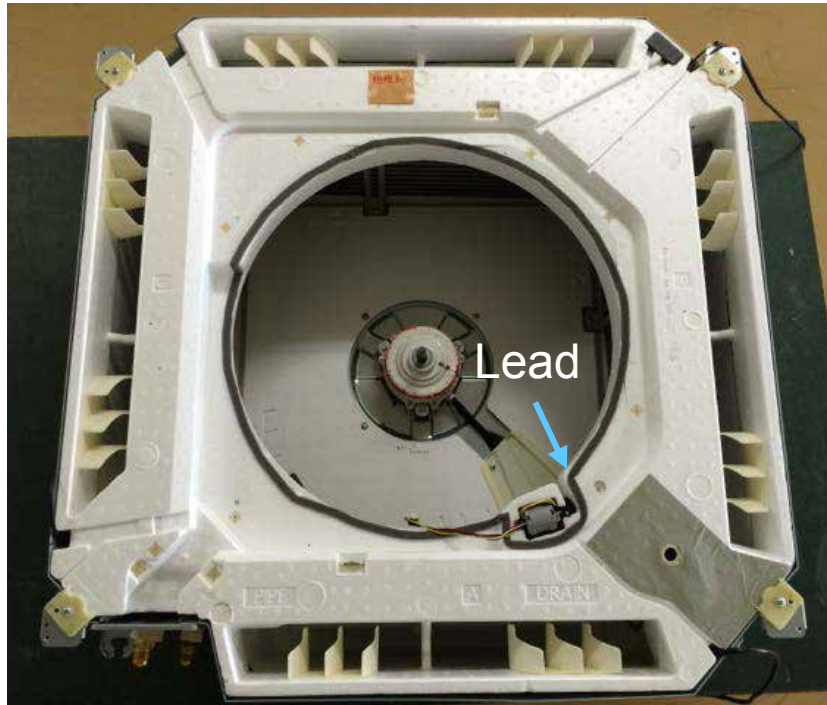
INDOOR UNIT  
AUXG18LRLB  
AUXG24LRLB



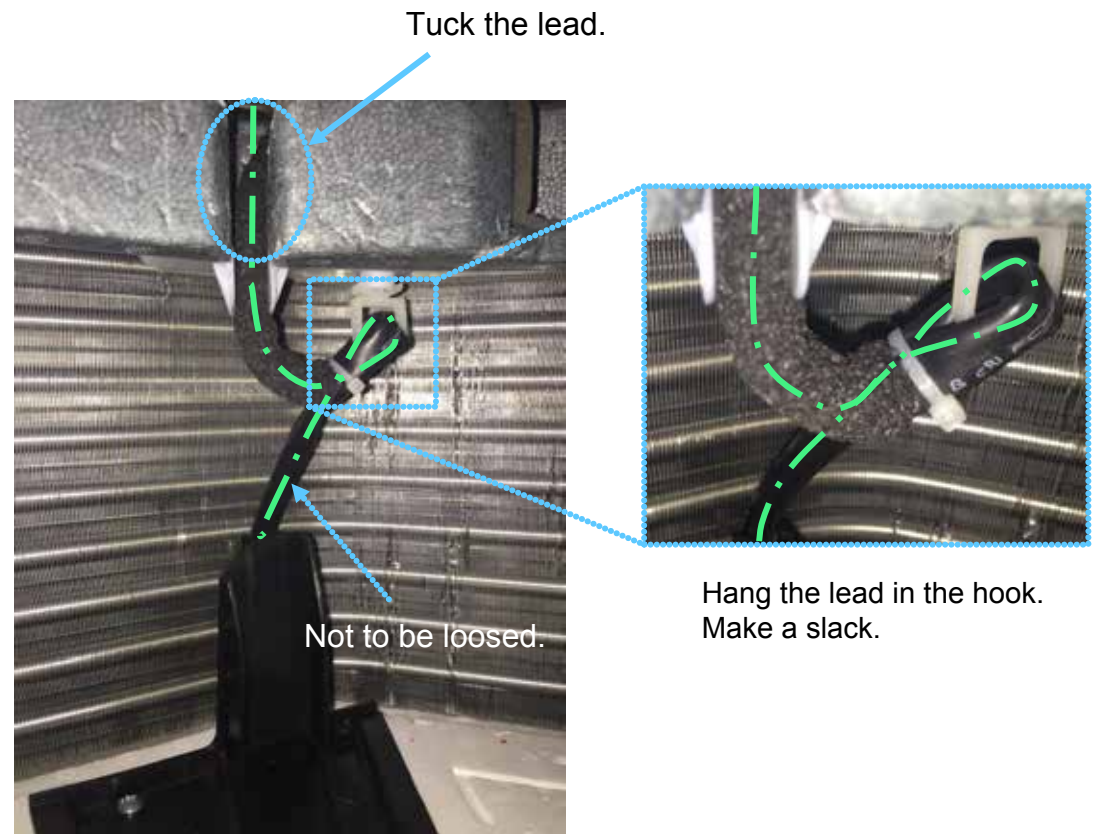
Ref.	Description	Part number
21	Bellmouth	9381484003
22	Turbo Fan Assy	9381303007
23	Turbo Fan Washer	9378394018
24	Nut	9356998009
25	Brushless Motor	9603443009
26	Special Nut	9378388017
27	Motor Wire Holder	9381351008
28	Drain Pan Sub Assy	9381789009



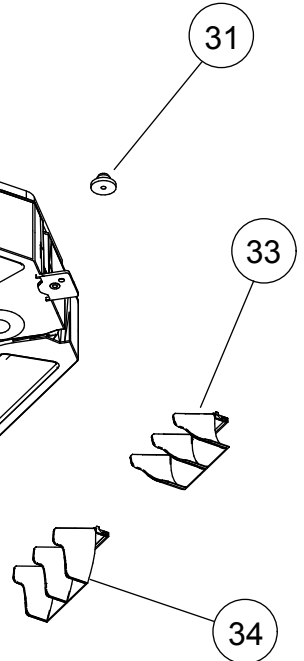
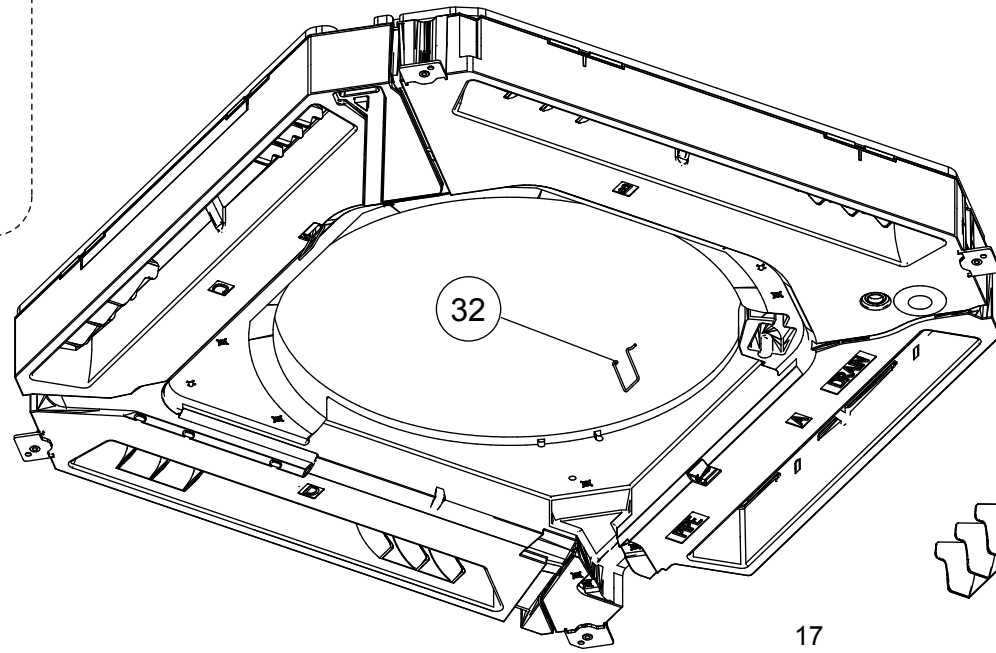
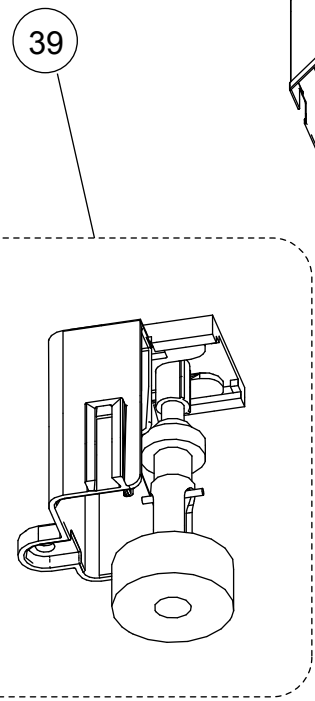
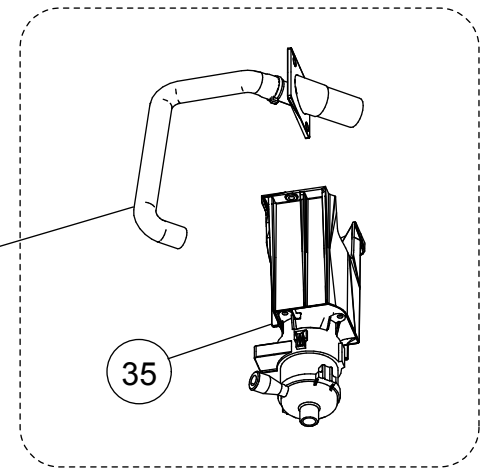
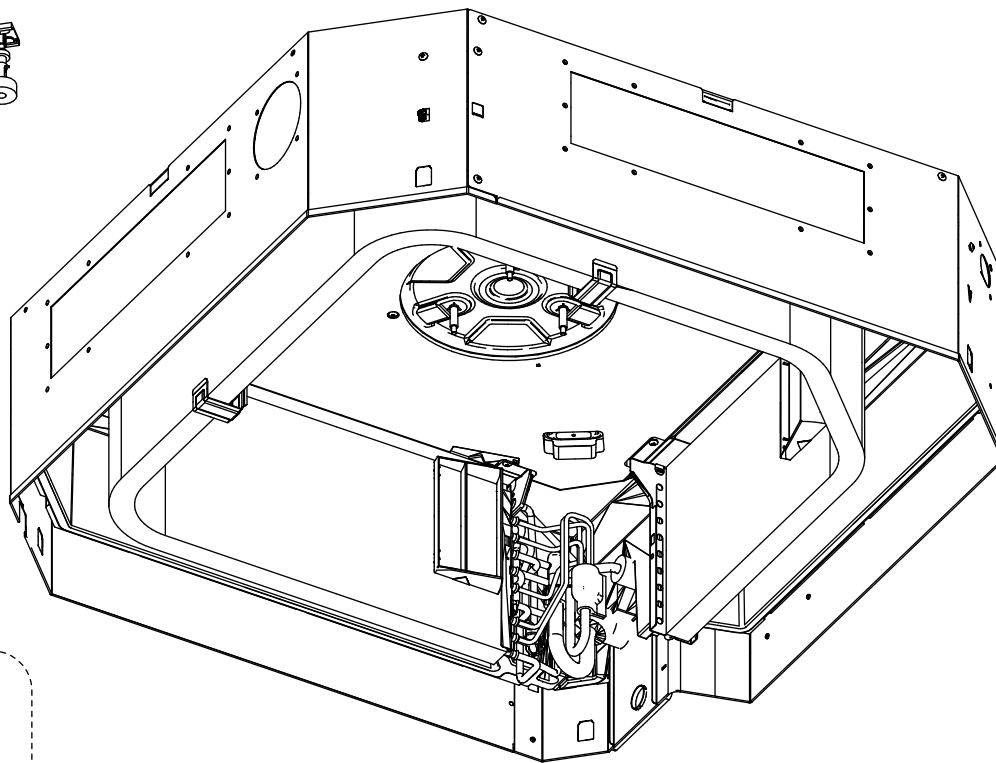
Drain pan



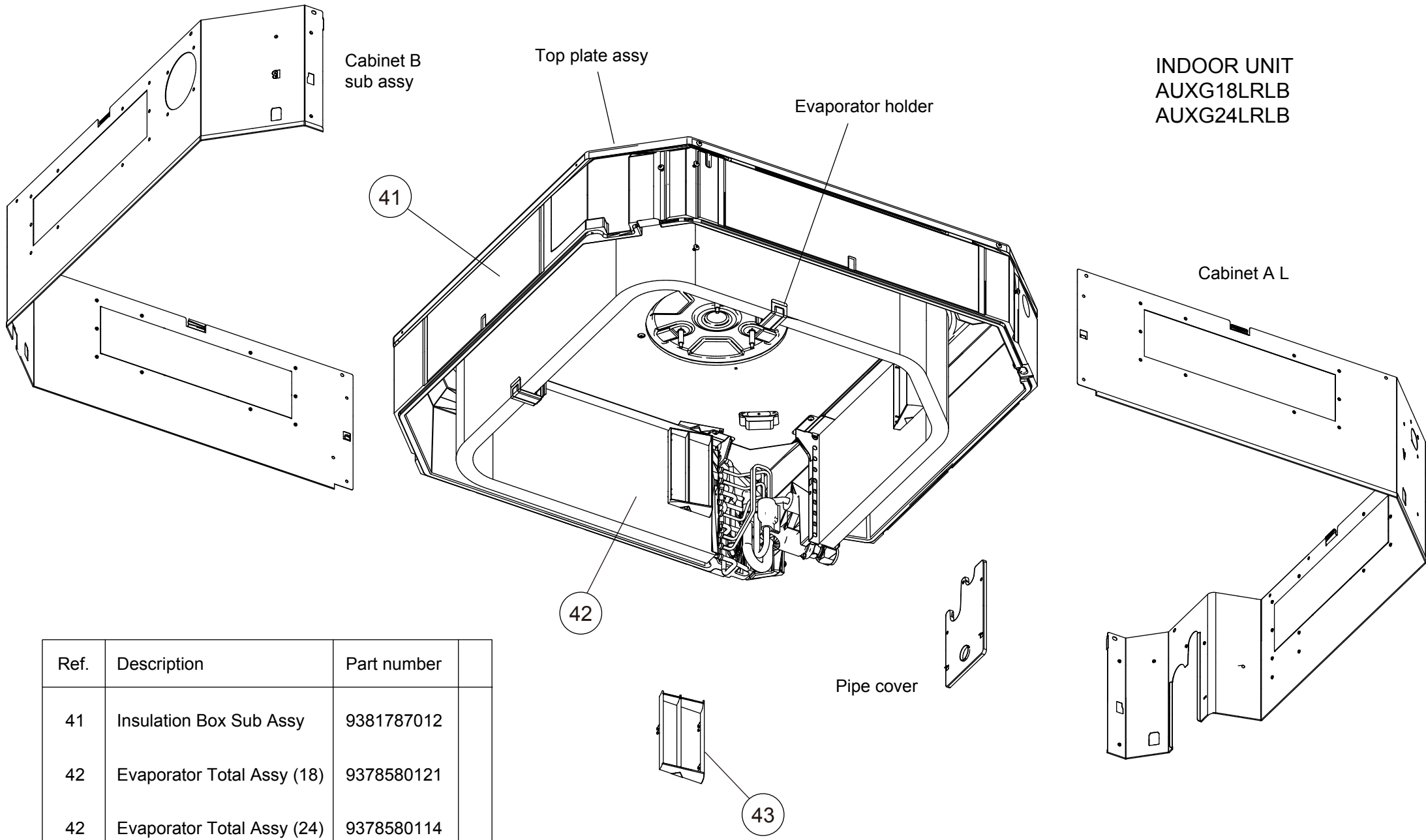
Hang the fan motor lead in the drain pan hooks.  
(when it is maintained)



INDOOR UNIT  
AUXG18LRLB  
AUXG24LRLB



Ref.	Description	Part number
31	Drain Cap	9375502010
32	Panel Hook	9375671013
33	Vane L	9381745012
34	Vane R	9381744008
35	Drain Pump Sub Assy	9381793006
36	Drain Port Sub Assy	9381788002
37	Drain Hose	9379665001
38	Hose Band	9379757010
39	Float Switch Sub Assy	9381794003



INDOOR UNIT  
AUXG18LRLB  
AUXG24LRLB

Cabinet A L

Cabinet B  
sub assy

Top plate assy

Evaporator holder

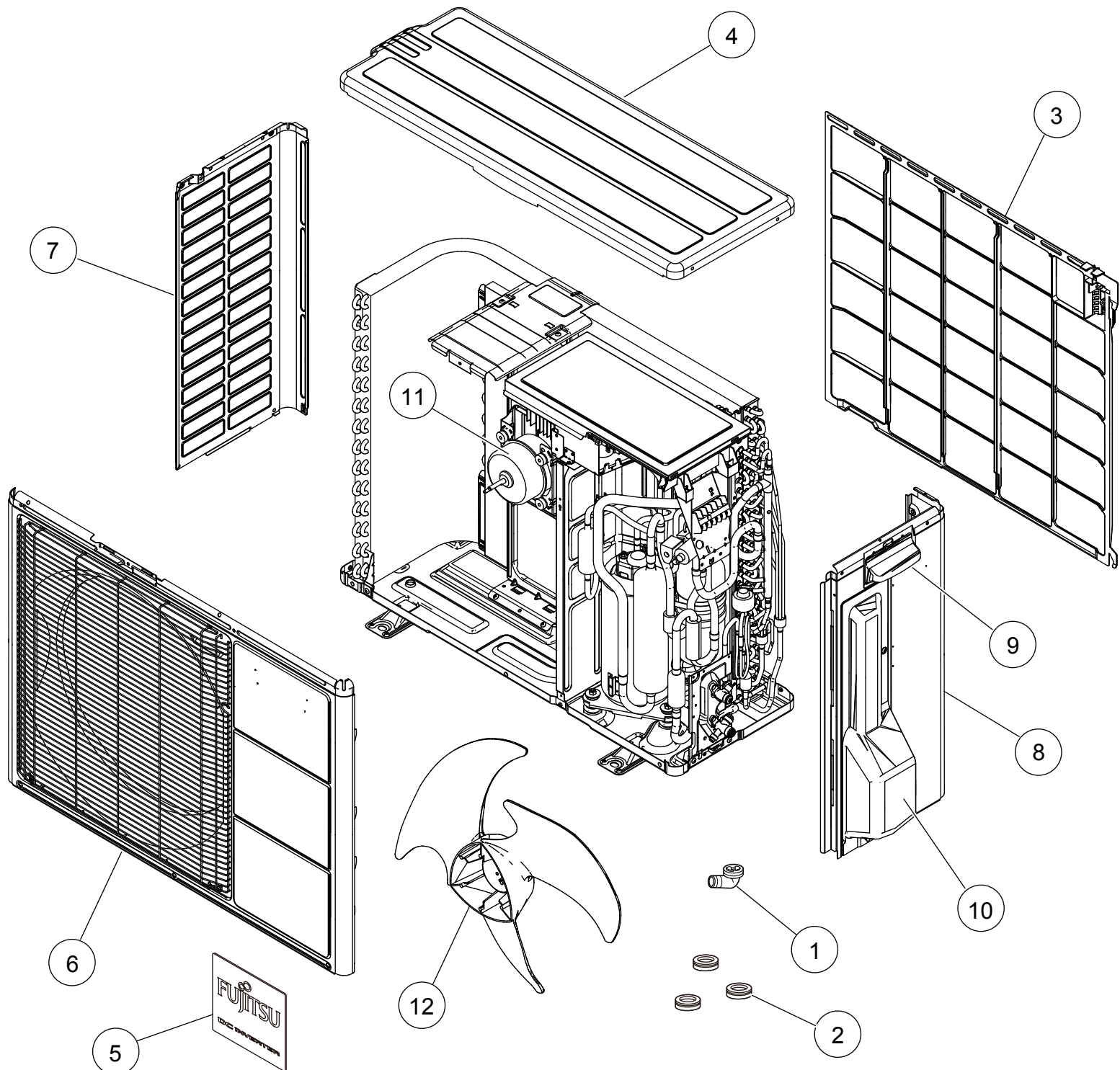
41

42

43

Pipe cover

Ref.	Description	Part number
41	Insulation Box Sub Assy	9381787012
42	Evaporator Total Assy (18)	9378580121
42	Evaporator Total Assy (24)	9378580114
43	Wind Guide Board	9382125004

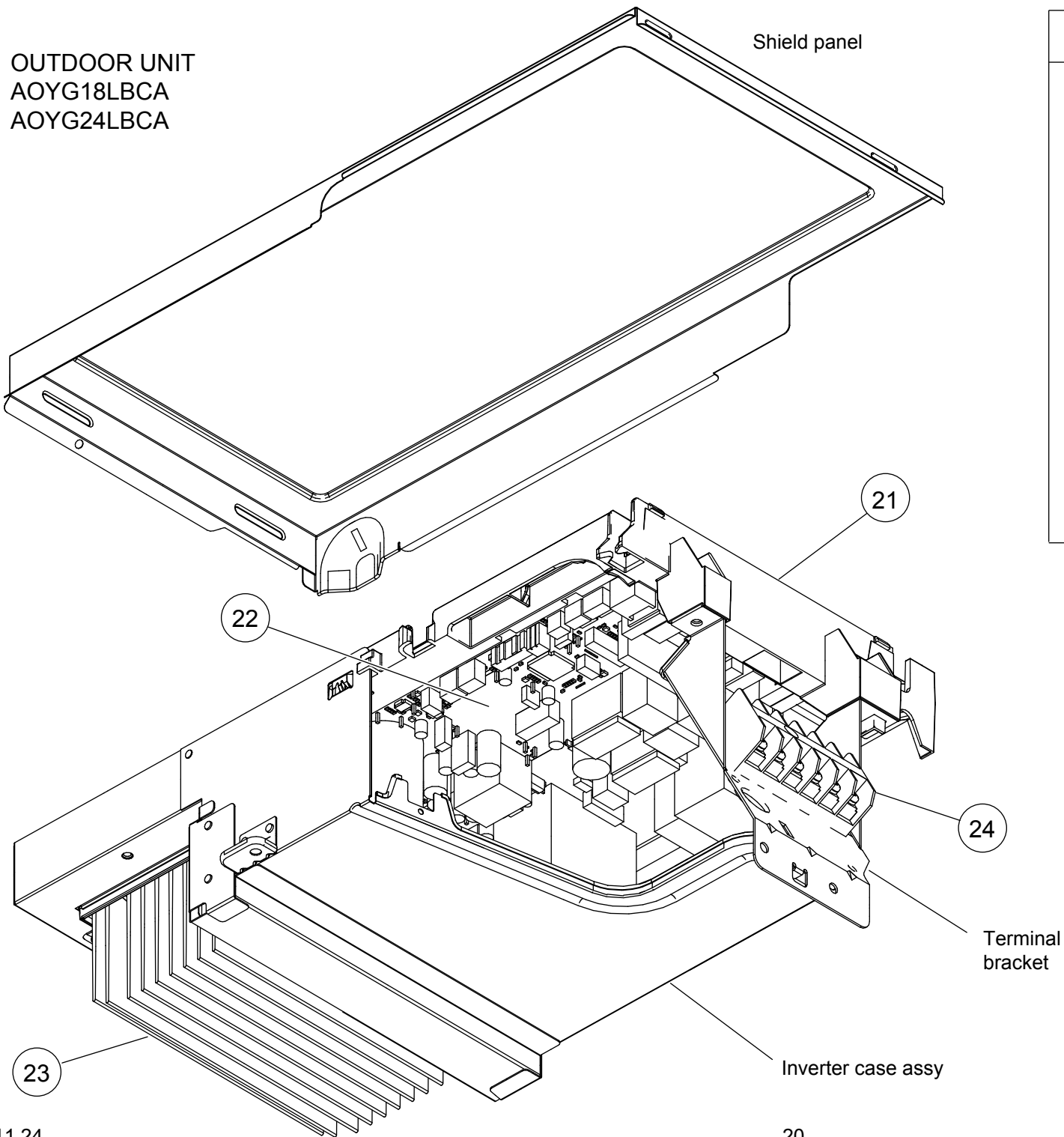


## PARTS

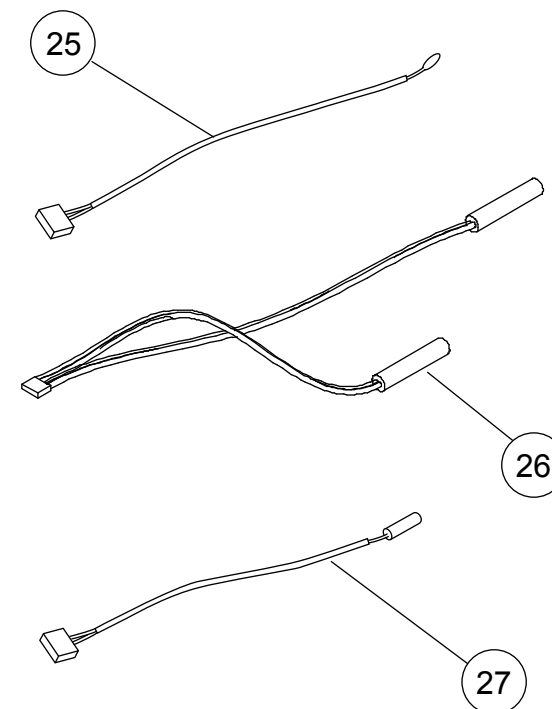
OUTDOOR UNIT  
AOYG18LBCA  
AOYG24LBCA

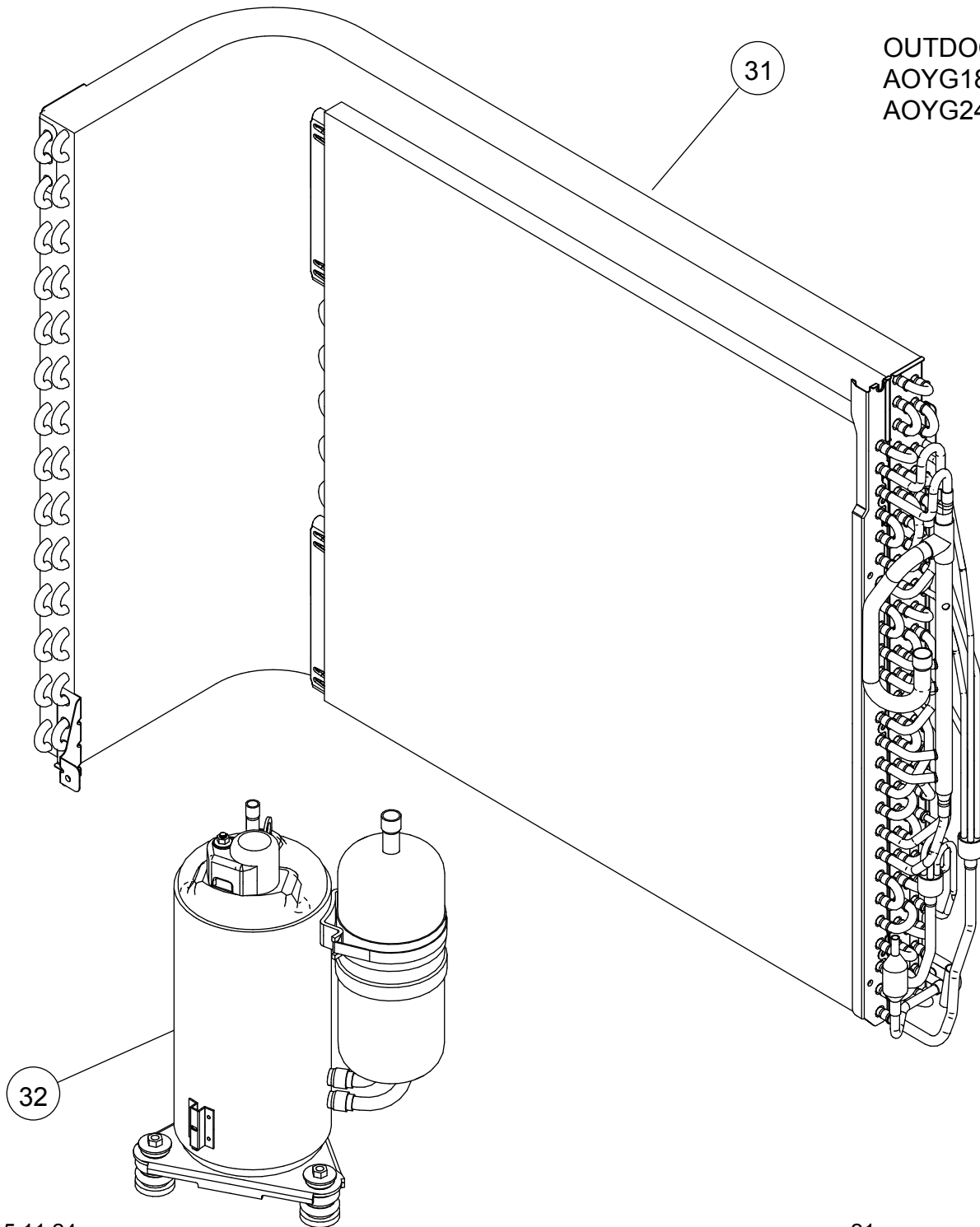
Ref.	Description	Part number
1	Drain Assy	9303029022
2	Drain Cap	313166024302
3	Protective Net	9331640015
4	Top Panel Assy	9318464139
5	Emblem	9319151007
6	Front Panel Assy	9318463040
7	Cabinet Left Assy	9318461015
8	Cabinet Right Assy	9318462012
9	Grip	9317588003
10	Switch Cover Assy	9318499001
11	Fan Motor	9602724017
12	Propeller Fan	9313808013

OUTDOOR UNIT  
AOYG18LBCA  
AOYG24LBCA

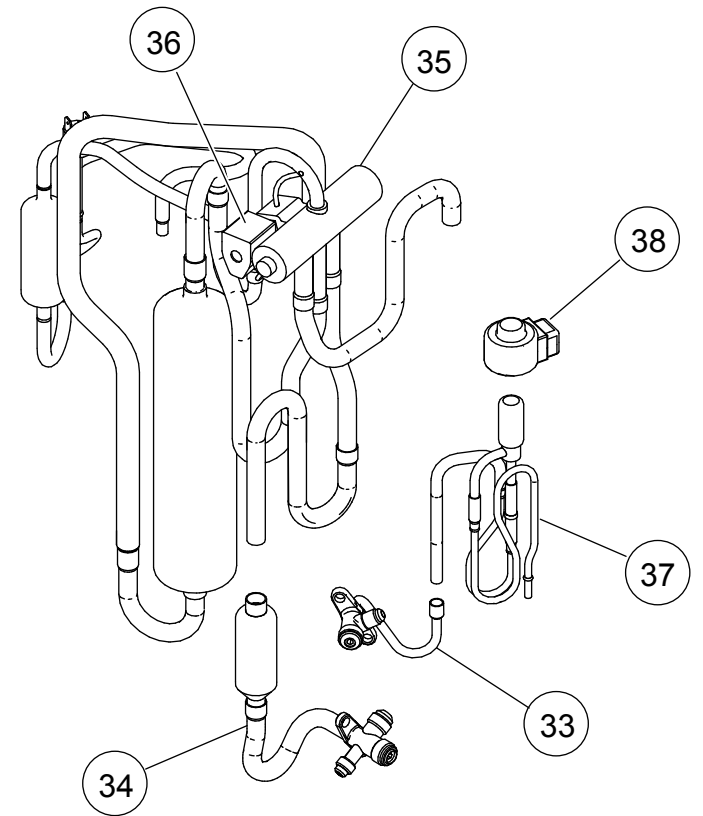


Ref.	Description	Part number
21	PCB Holder	9319547015
22	Main PCB (18LBCA)	9708995342
22	Main PCB (24LBCA)	9708995359
23	Heat Sink	9319540009
24	Terminal 6P	9900435028
25	Outdoor Thermistor	9900565008
26	Thermistor Assy	9900727017
27	Compressor Thermistor	9900777012





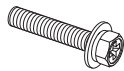

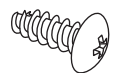
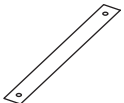
OUTDOOR UNIT  
AOYG18LBCA  
AOYG24LBCA




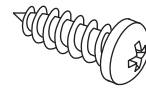

Ref.	Description	Part number
31	Condenser Total Assy	9317089166
32	Compressor	9810244000
33	2-way Valve Assy	9314554018
34	3-way Valve Sub Assy (18)	9317109017
34	3-way Valve Sub Assy (24)	9319098005
35	4-way Valve Assy	9319874012
36	Solenoid	9970110023
37	Pulse Motor Valve Sub Assy	9319886022
38	Expansion Valve Coil	9970095030

# ACCESSORIES


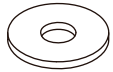



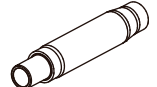




## DECORATION PANEL UTG-UKYA-W

Name and shape	Q'ty	Description
Hexagon Screw 	4	For mounting decoration panel
Washer 	4	For mounting decoration panel
Tapping screw 	2	For installing grille holding wire
Strap 	4	For installing corner panel


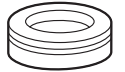
## WIRED REMOTE CONTROL

Name and shape	Q'ty	Name and shape	Q'ty
Wired remote control 	1	Screw (M4 × 16mm) 	2
		For installing the remote control	
		Cable tie 	1
		For remote control and remote control cable binding	

## INDOOR UNIT AUXG18LRLB AUXG24LRLB

Name and Shape	Q'ty	Description
Template (Carton top) 	1	For installing indoor unit
Washer 	8	For installing indoor unit
Coupler heat insulation (Large) 	1	For indoor side pipe joint (Gas pipe)
Coupler heat insulation (Small) 	1	For indoor side pipe joint (Liquid pipe)
Insulation 	1	For installing drain pipe
Drain hose 	1	For installing drain pipe VP25 (O.D.32, I.D.25)
Hose Band 	1	For installing drain hose
Drain hose heat insulation 	1	For installing drain pipe
Cable tie (Large) 	4	For fixing the connection pipe
Cable tie (Small) 	2	For electrical wiring

## OUTDOOR UNIT

Name and shape	Q'ty	Name and shape	Q'ty
Drain pipe 	1	Drain cap 	3



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