

SPLIT TYPE  
ROOM AIR CONDITIONER  
FLOOR TYPE

# SERVICE MANUAL



|             |              |
|-------------|--------------|
| Indoor unit | Outdoor unit |
| AGYG14LVCB  | AOYG14LVCN   |

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# SPECIFICATIONS

## ELECTRICAL DATA

|                      |         |                      |
|----------------------|---------|----------------------|
| TYPE                 |         | Cool & heat inverter |
| INDOOR UNIT          |         | AGYG14LVCB           |
| OUTDOOR UNIT         |         | AOYG14LVCN           |
| COOLING CAPACITY     |         | 4.20 kW              |
| HEATING CAPACITY     |         | 5.20 kW              |
| POWER SOURCE         |         | 230 V                |
| FREQUENCY            |         | 50 Hz                |
| RUNNING CURRENT      | Cooling | 5.2 A                |
|                      | Heating | 6.5 A                |
| INPUT WATTS          | Cooling | 1.14 kW              |
|                      | Heating | 1.44 kW              |
| E.E.R.               | Cooling | 3.68 kW/kW           |
| COP                  | Heating | 3.61 kW/kW           |
| MOISTURE REMOVAL     |         | 2.1 L/hr             |
| AIR CIRCULATION HIGH | Cooling | 650 m3/hr            |
|                      | Heating | 650 m3/hr            |
| MAXIMUM CURRENT      | Cooling | 9.5 A                |
|                      | Heating | 14.5 A               |

## FAN MOTOR

|                                                |        |                      |
|------------------------------------------------|--------|----------------------|
| POWER SOURCE                                   |        | 230 V                |
| INDOOR UNIT cooling<br>(upper fan / lower fan) | High   | 1,330 / 1,120 r.p.m. |
|                                                | Medium | 1,100 / 930 r.p.m.   |
|                                                | Low    | 890 / 750 r.p.m.     |
|                                                | Quiet  | 660 / 560 r.p.m.     |
| INDOOR UNIT heating<br>(upper fan / lower fan) | High   | 1,330 / 1,120 r.p.m. |
|                                                | Medium | 1,100 / 930 r.p.m.   |
|                                                | Low    | 860 / 730 r.p.m.     |
|                                                | Quiet  | 660 / 560 r.p.m.     |
| OUTDOOR UNIT Cooling                           |        | 1,000 r.p.m.         |
| OUTDOOR UNIT Heating                           |        | 780 r.p.m.           |

## NOISE LEVEL

|                      |        |       |
|----------------------|--------|-------|
| INDOOR UNIT Cooling  | High   | 44 dB |
|                      | Medium | 38 dB |
|                      | Low    | 31 dB |
|                      | Quiet  | 22 dB |
| INDOOR UNIT Heating  | High   | 43 dB |
|                      | Medium | 37 dB |
|                      | Low    | 29 dB |
|                      | Quiet  | 22 dB |
| OUTDOOR UNIT Cooling |        | 52 dB |
| OUTDOOR UNIT Heating |        | 51 dB |

## COMPRESSOR AND REFRIGERANT

|                        |                  |                                                                    |
|------------------------|------------------|--------------------------------------------------------------------|
| COMPRESSOR TYPE        |                  | Hermetic type,<br>4 pole, 3 phase,<br>DC inverter motor,<br>Rotary |
| DISCRIMINATION         |                  | 808-213-80                                                         |
| WEIGHT (with oil)      |                  | 9.3 kg                                                             |
| PRECHARGED REFRIGERANT |                  | 1,300 g                                                            |
| FULL CHARGE            | Pipe length 15 m | 1,300 g                                                            |
|                        | 20 m             | 1,400 g                                                            |
| ADDITIONAL CHARGE      |                  | 20 g/m                                                             |
| MAXIMUM PIPING HEIGHT  |                  | 15 m                                                               |
| REFRIGERANT TYPE       |                  | R410A                                                              |

## DIMENSIONS

|              |           |                    |
|--------------|-----------|--------------------|
| INDOOR UNIT  | H x W x D | 600 x 740 x 200 mm |
| OUTDOOR UNIT | H x W x D | 620 x 790 x 290 mm |

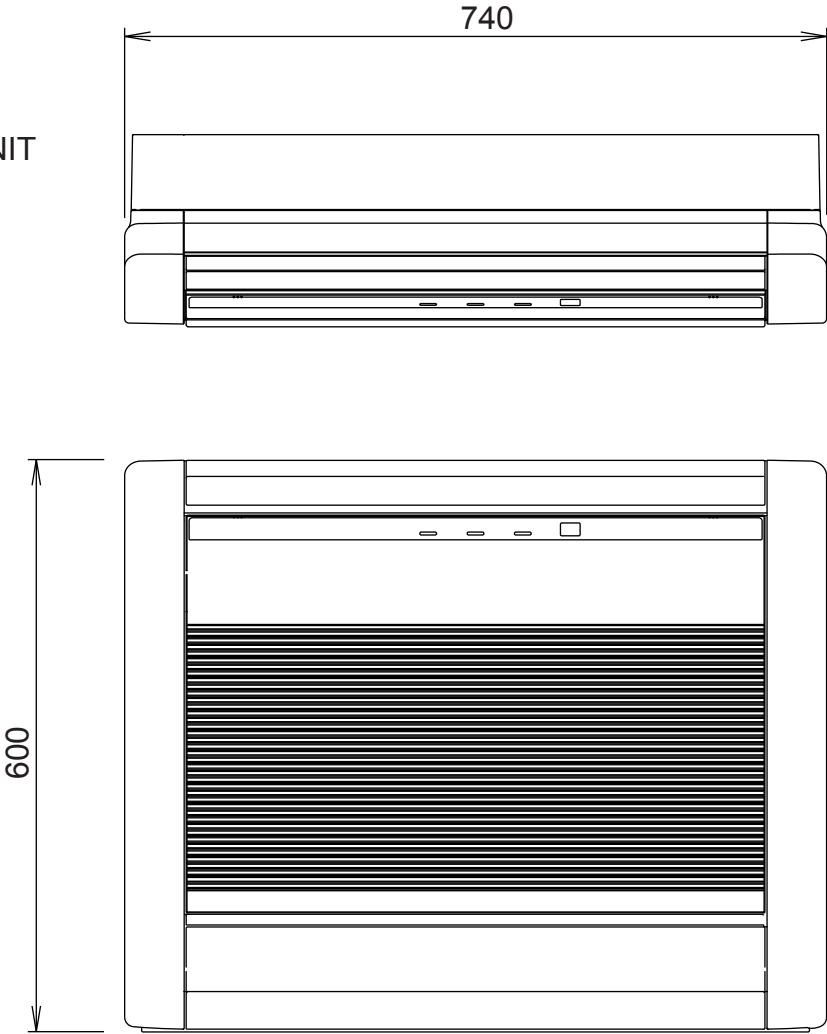
## WEIGHT

|              |                |               |
|--------------|----------------|---------------|
| INDOOR UNIT  | Net / Shipping | 14 kg / 17 kg |
| OUTDOOR UNIT | Net / Shipping | 40 kg / 43 kg |

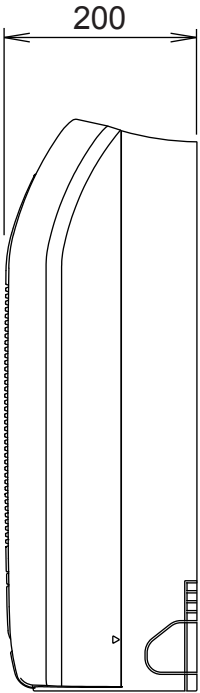
DIMENSIONS

unit : mm

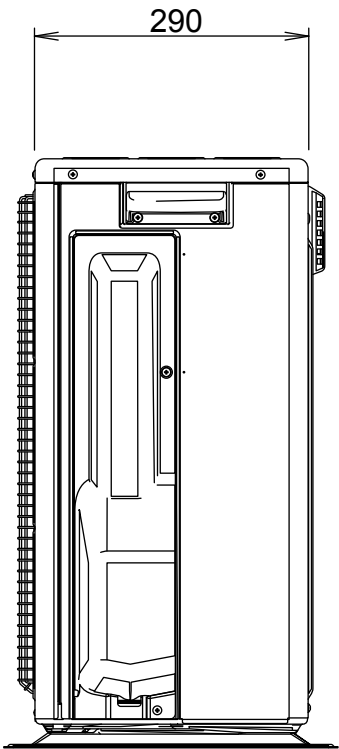
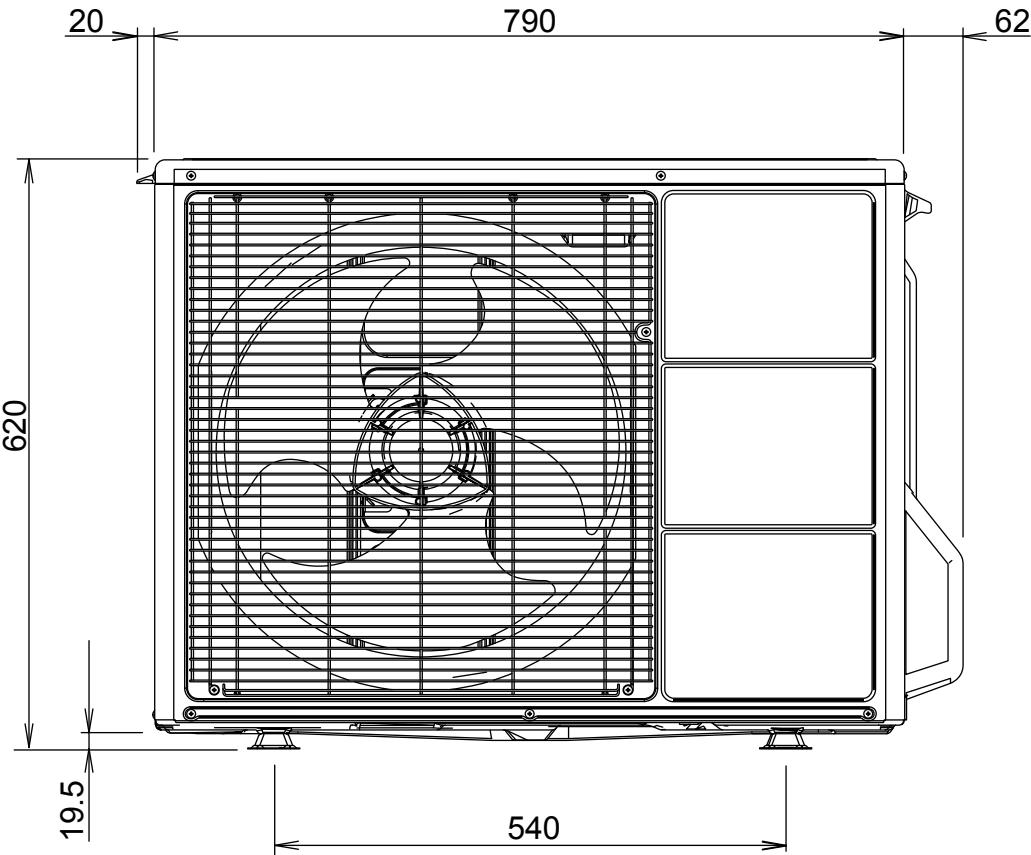
INDOOR UNIT



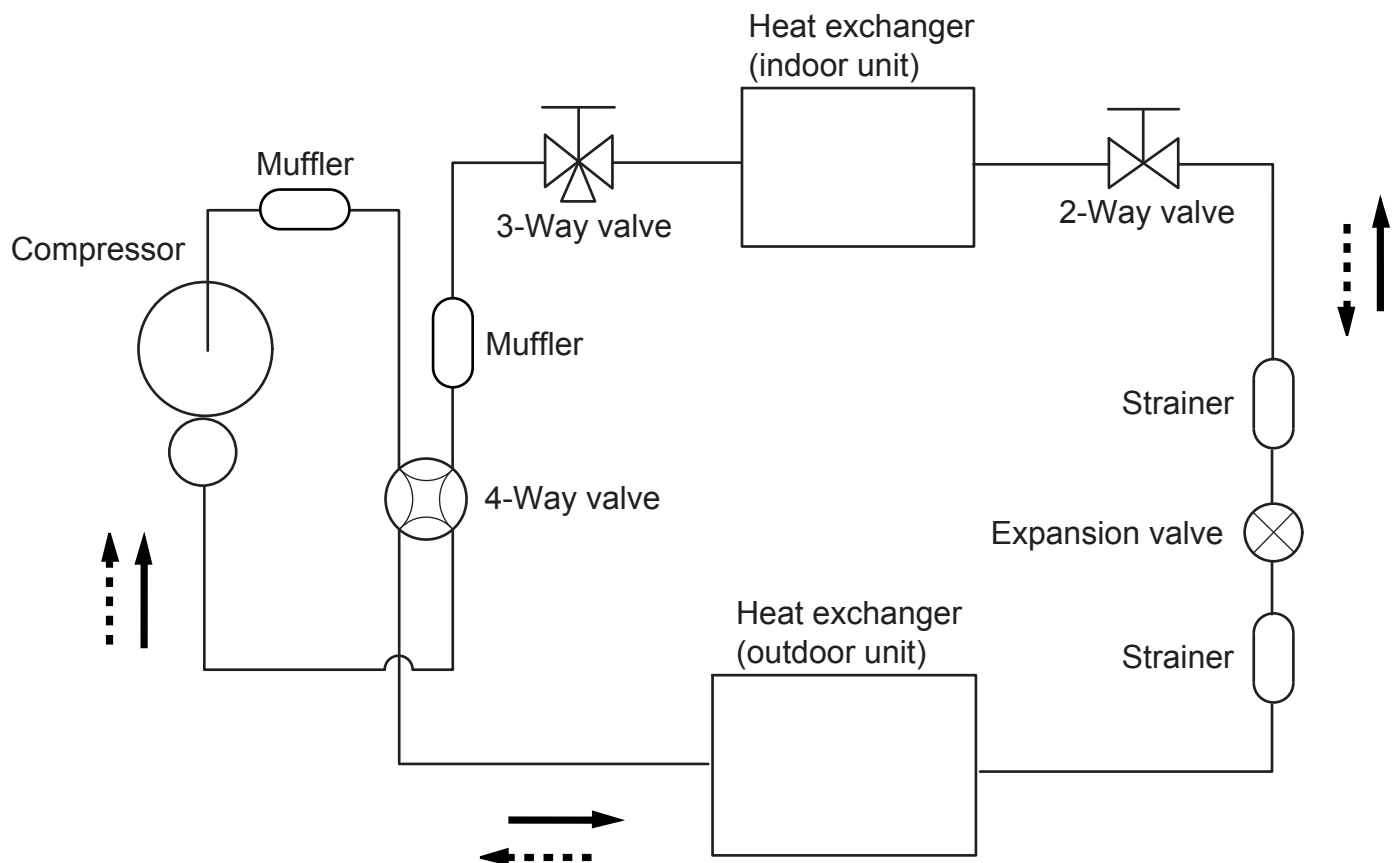
Drain hose length : 600 mm  
Drain pipe diameter  
Inside : 14.2 mm  
Outside : 16.2 mm



OUTDOOR UNIT



## REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

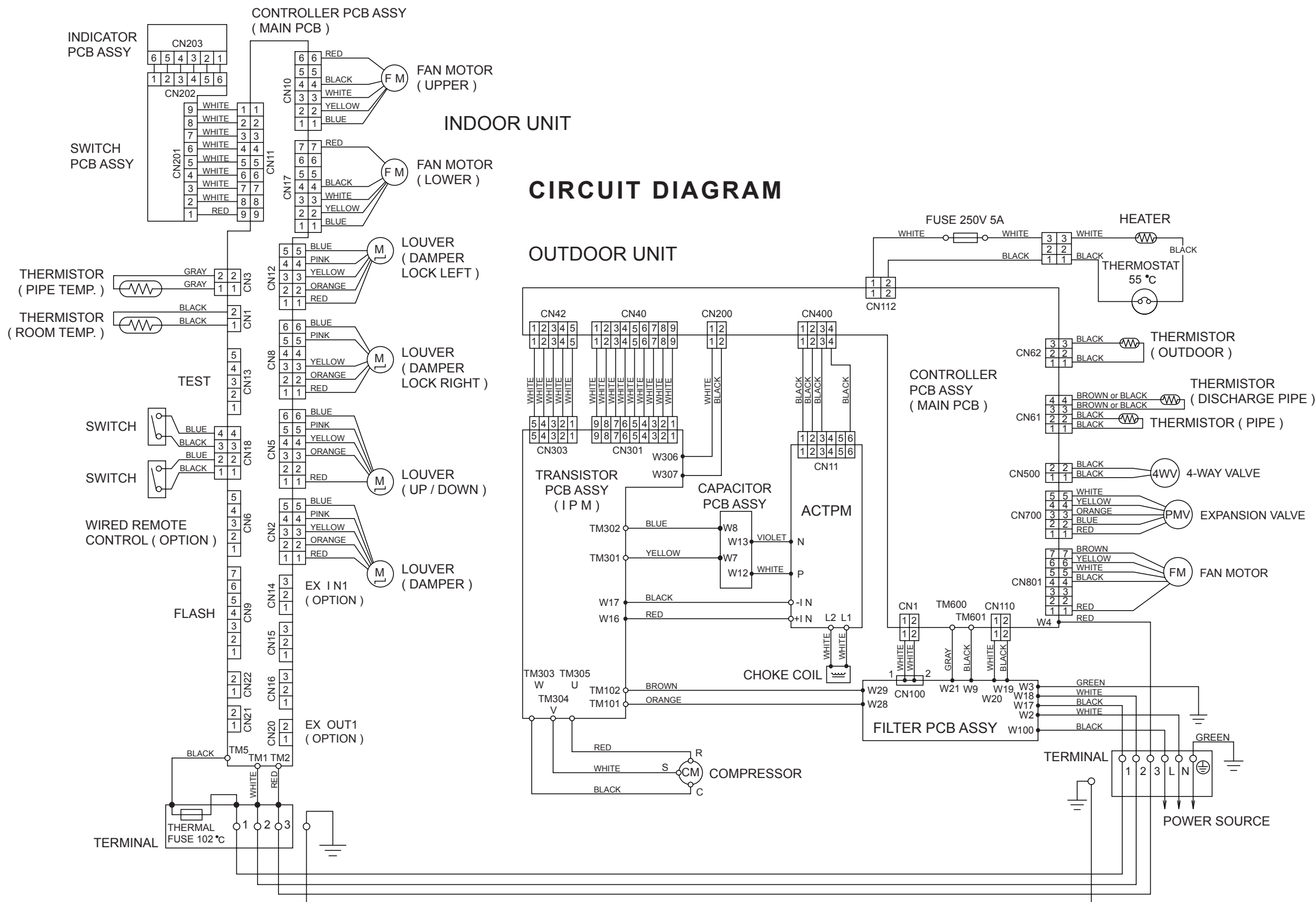
————→ Cooling

- - - - -> Heating

Refrigerant pipe diameter

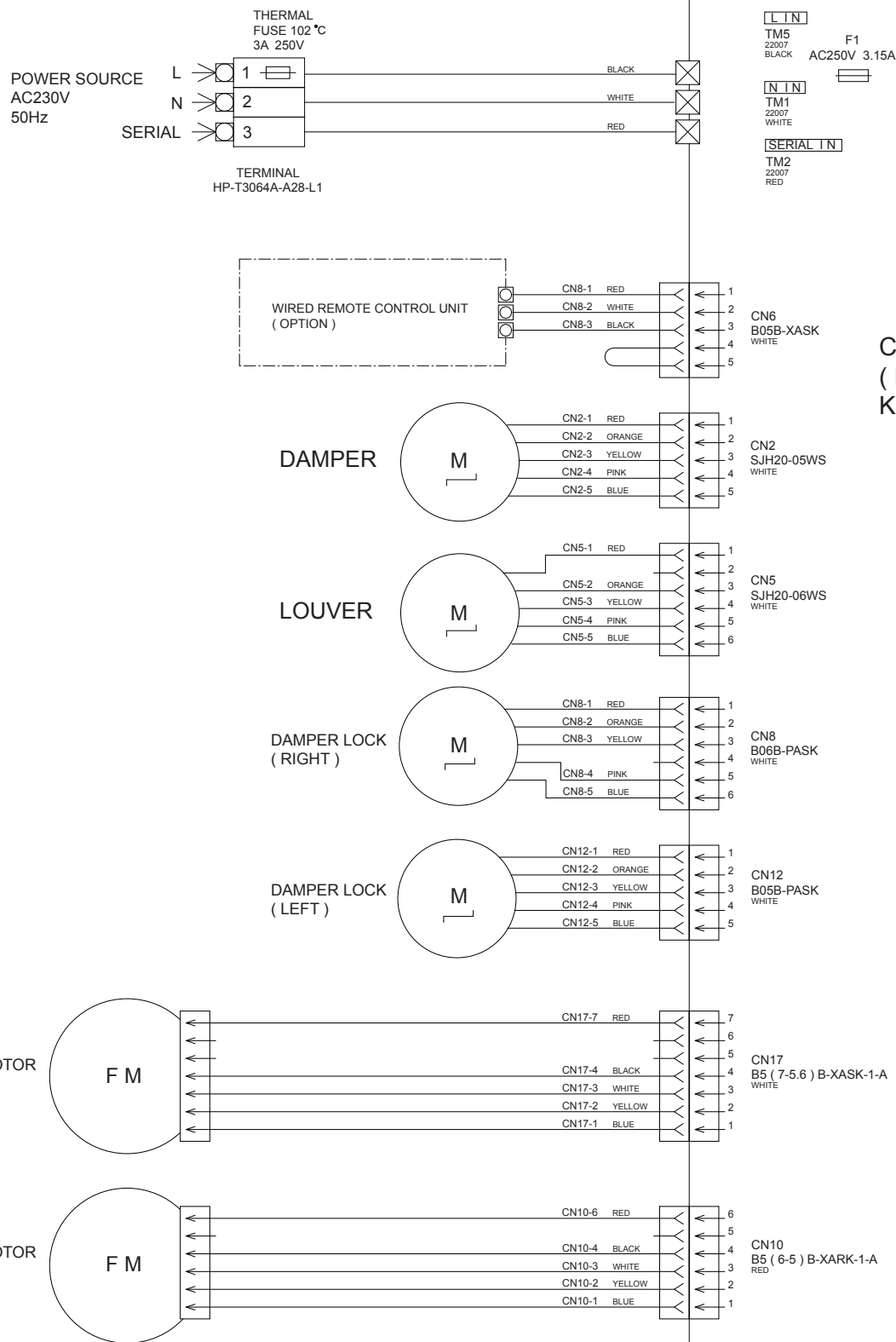
Liquid : 1/4" (6.35 mm)

Gas : 1/2" (12.7 mm)

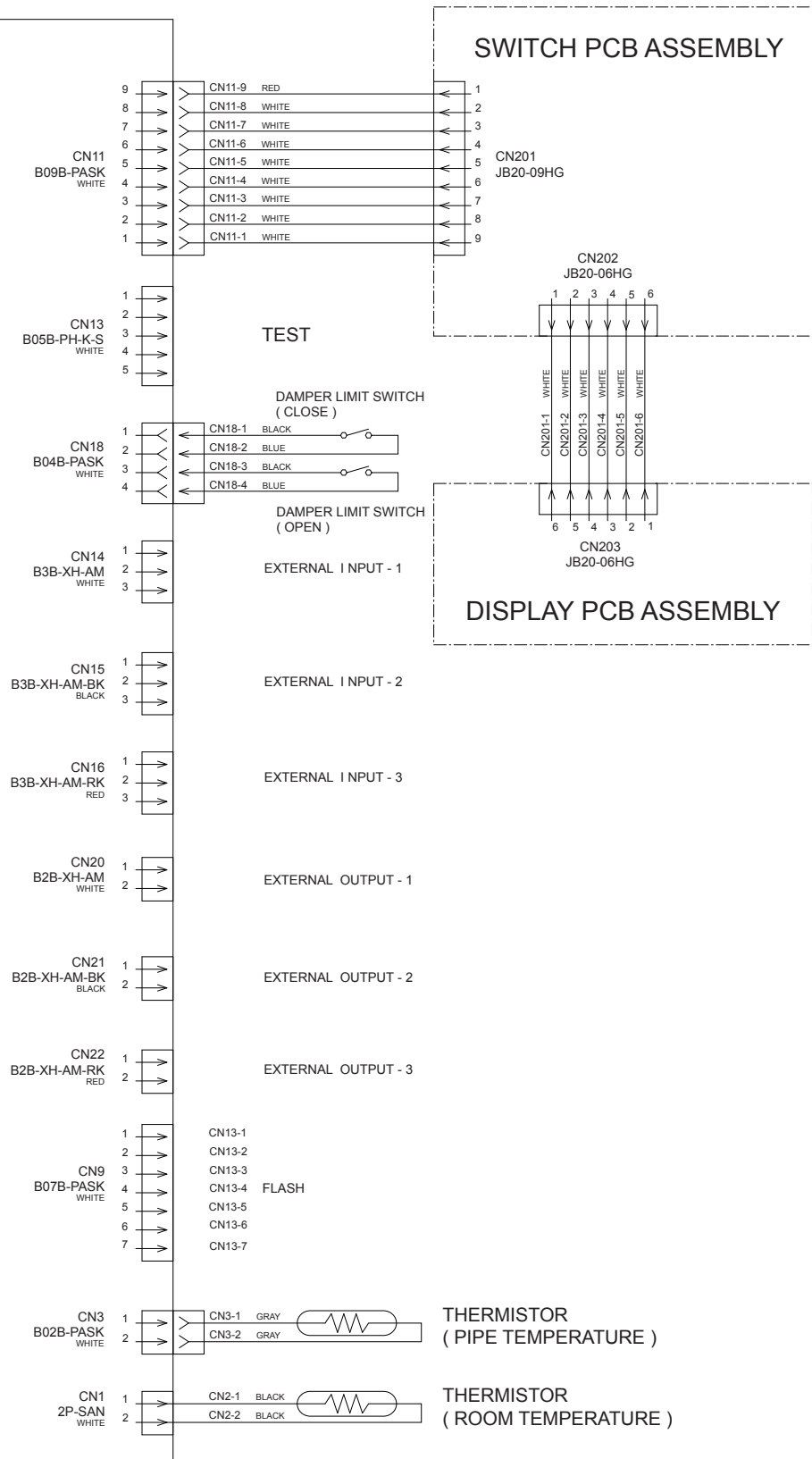


INDOOR PCB  
CIRCUIT DIAGRAM

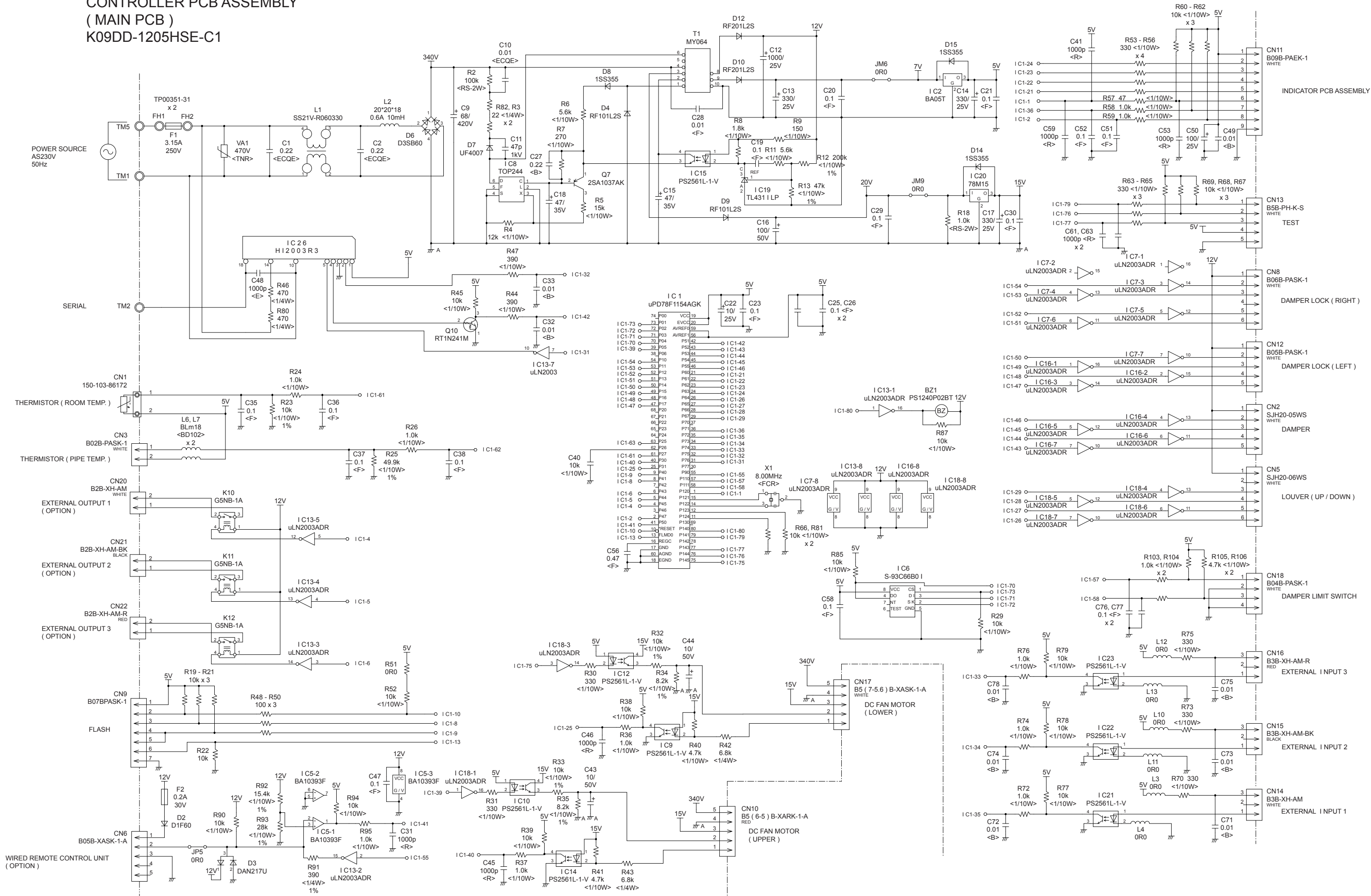
CONTROL UNIT  
EZ-0121BHSE



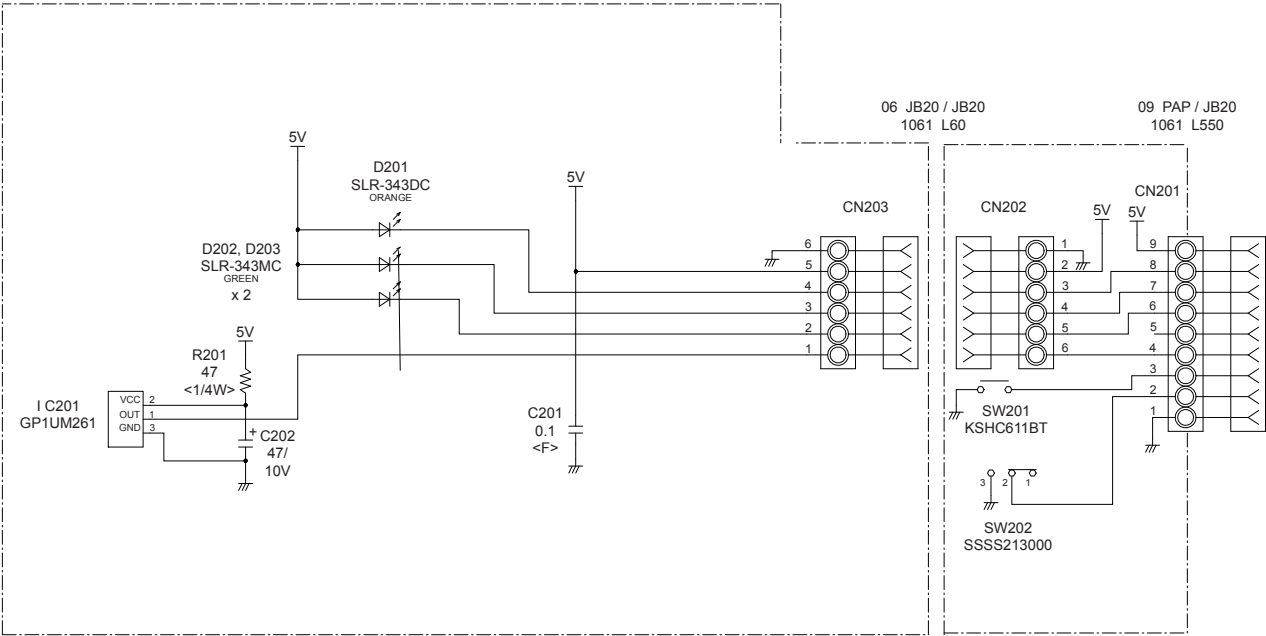
INDICATOR PCB ASSEMBLY  
( SWITCH + DISPLAY )  
K06DD-0801HSE-F0



INDOOR UNIT  
CONTROLLER PCB ASSEMBLY  
( MAIN PCB )  
K09DD-1205HSE-C1

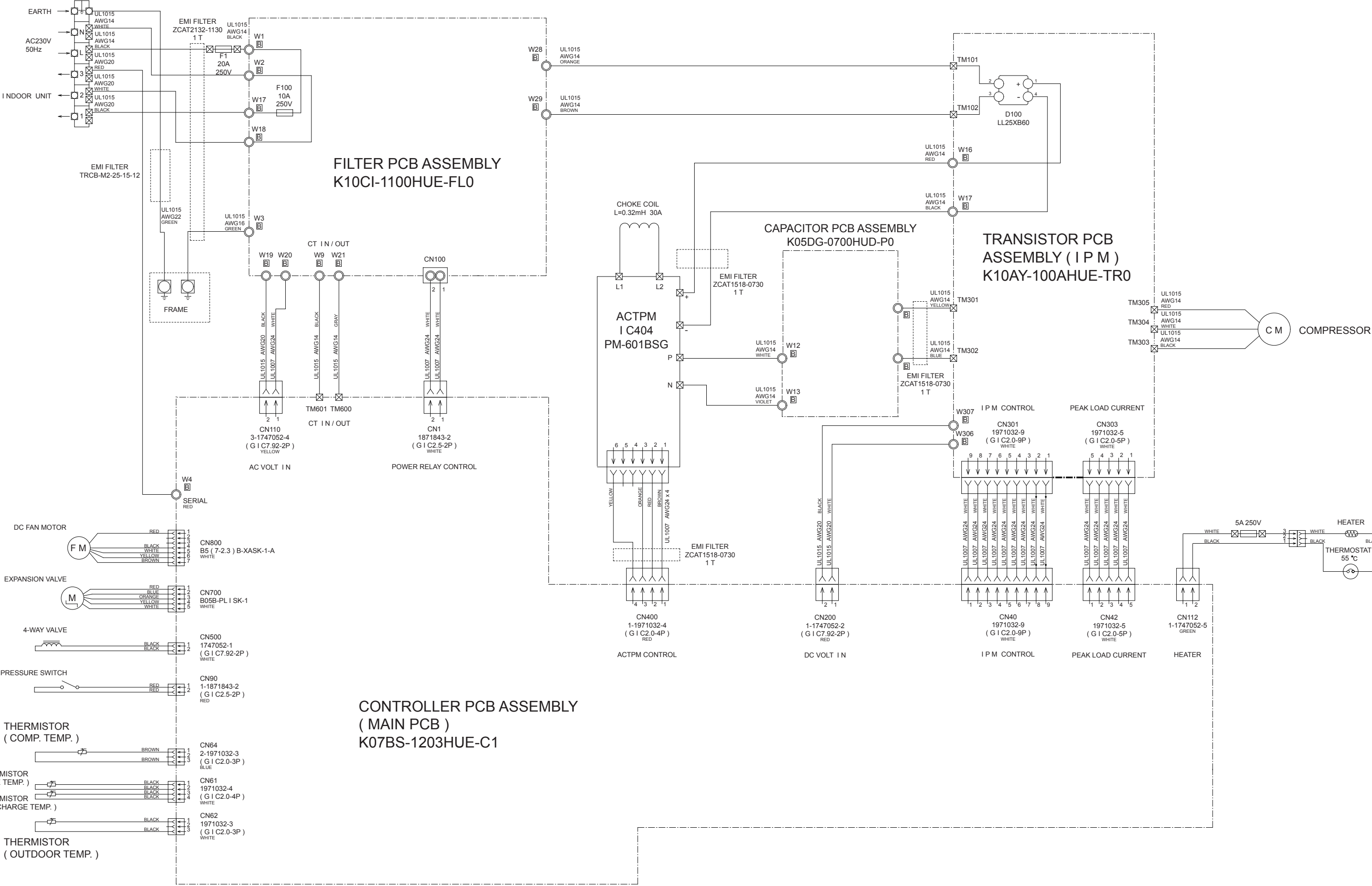


INDOOR UNIT  
INDICATOR PCB ASSEMBLY  
K06DD-0801HSE-F0



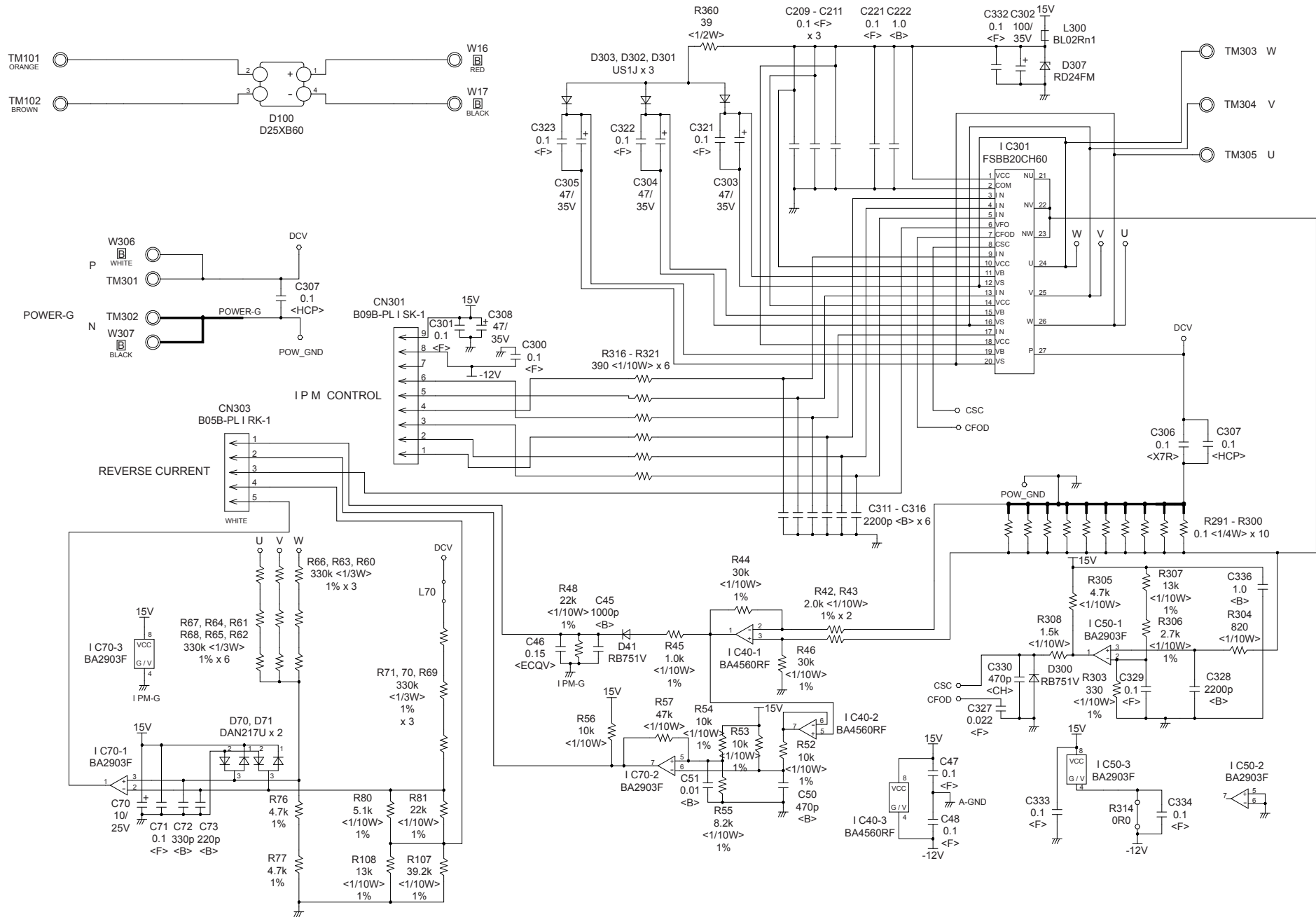
OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY  
EZ-01111HUE

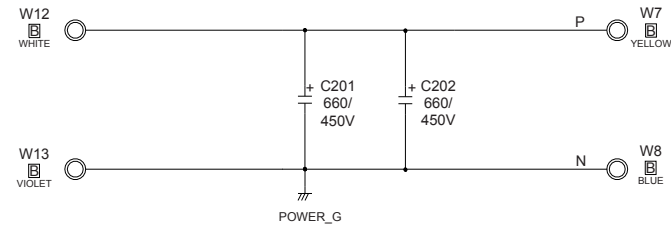




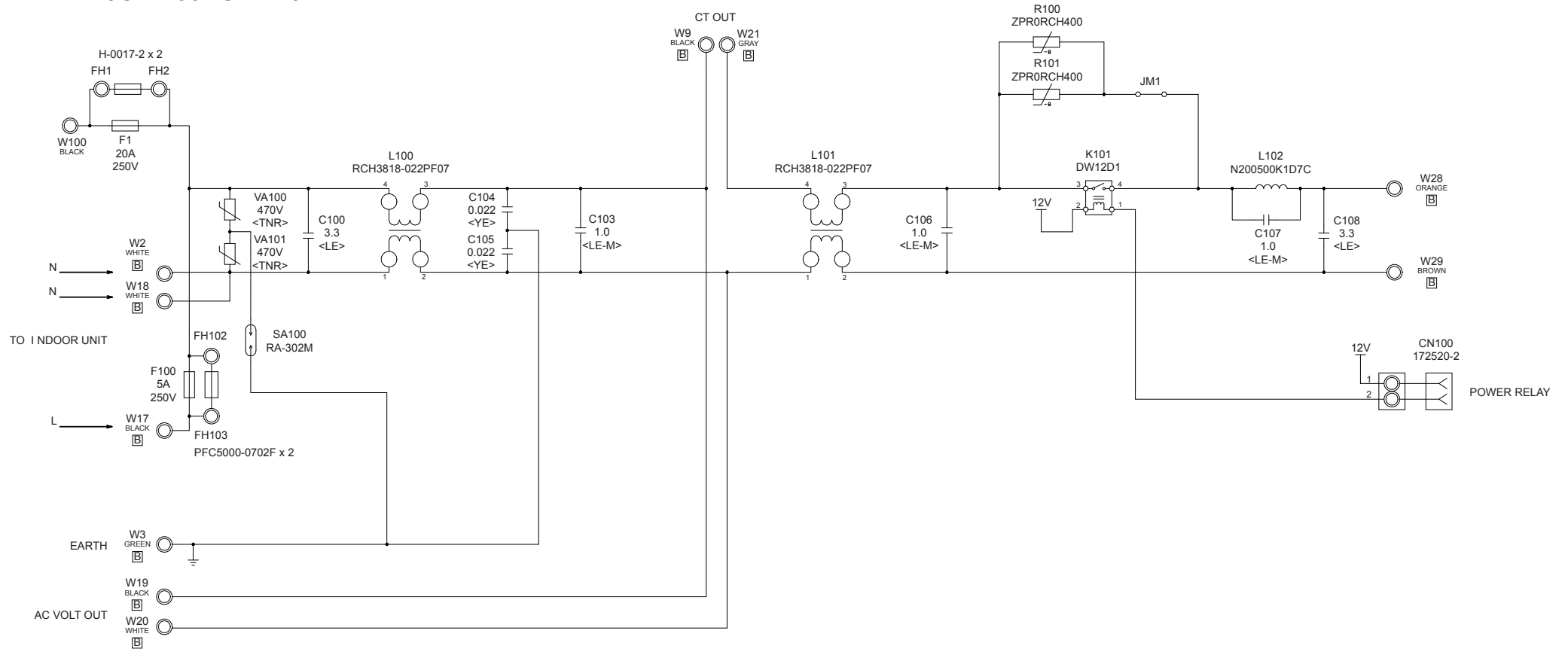
OUTDOOR UNIT  
TRANSISTOR PCB ASSEMBLY ( I P M )  
K10AY-100AHUE-TR0



# OUTDOOR UNIT CAPACITOR PCB ASSY K05DG-0700HUD-P0



## OUTDOOR UNIT FILTER PCB ASSEMBLY K10CI-1100HUE-FL0

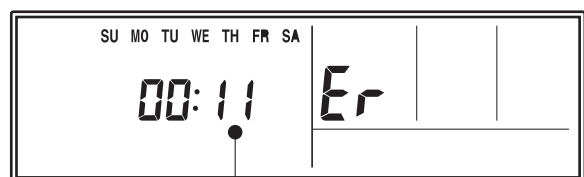


# ERROR DETECTION

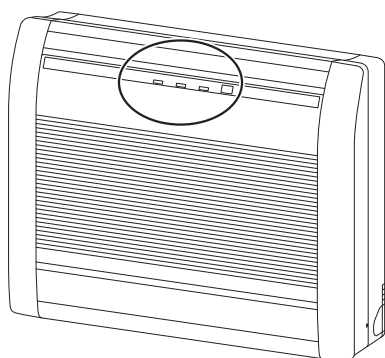
If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.  
If you use a wired remote control, error codes will appear on the remote control display.  
See the lamp blinking patterns and error codes in the table.  
An error display is displayed only during operation.

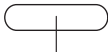
## Wired remote control display (Option)

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



## Indoor unit display



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

| Error display          |                     |                      | Wired remote control Error code | Description                                                          |
|------------------------|---------------------|----------------------|---------------------------------|----------------------------------------------------------------------|
| OPERATION lamp (green) | TIMER lamp (orange) | ECONOMY lamp (green) |                                 |                                                                      |
| ● (1)                  | ● (1)               | ◇                    | 11                              | Serial communication error                                           |
| ● (1)                  | ● (2)               | ◇                    | 12                              | Wired remote control communication error                             |
| ● (3)                  | ● (2)               | ◇                    | 32                              | Indoor unit PCB model information error                              |
| ● (3)                  | ● (5)               | ◇                    | 35                              | Manual auto switch error                                             |
| ● (4)                  | ● (1)               | ◇                    | 41                              | Inlet air temp. sensor error                                         |
| ● (4)                  | ● (2)               | ◇                    | 42                              | Indoor unit Heat Ex. Middle temp. sensor error                       |
| ● (5)                  | ● (1)               | ◇                    | 51                              | Indoor unit fan motor error                                          |
| ● (5)                  | ● (7)               | ◇                    | 57                              | Damper error                                                         |
| ● (6)                  | ● (2)               | ◇                    | 62                              | Outdoor unit main PCB model information error or communication error |
| ● (6)                  | ● (4)               | ◇                    | 64                              | Active filter error                                                  |
| ● (6)                  | ● (5)               | ◇                    | 65                              | Trip terminal L error                                                |
| ● (7)                  | ● (1)               | ◇                    | 71                              | Discharge temp. sensor error                                         |
| ● (7)                  | ● (3)               | ◇                    | 73                              | Outdoor unit Heat Ex. liquid temp. sensor error                      |
| ● (7)                  | ● (4)               | ◇                    | 74                              | Outdoor temp. sensor error                                           |
| ● (8)                  | ● (4)               | ◇                    | 84                              | Current sensor error                                                 |
| ● (9)                  | ● (4)               | ◇                    | 94                              | Trip detection                                                       |
| ● (9)                  | ● (5)               | ◇                    | 95                              | Compressor rotor position detection error (permanent stop)           |
| ● (9)                  | ● (7)               | ◇                    | 97                              | Outdoor unit fan motor error                                         |
| ● (9)                  | ● (9)               | ◇                    | 99                              | 4-way valve error                                                    |
| ● (10)                 | ● (1)               | ◇                    | A1                              | Discharge temp. error                                                |

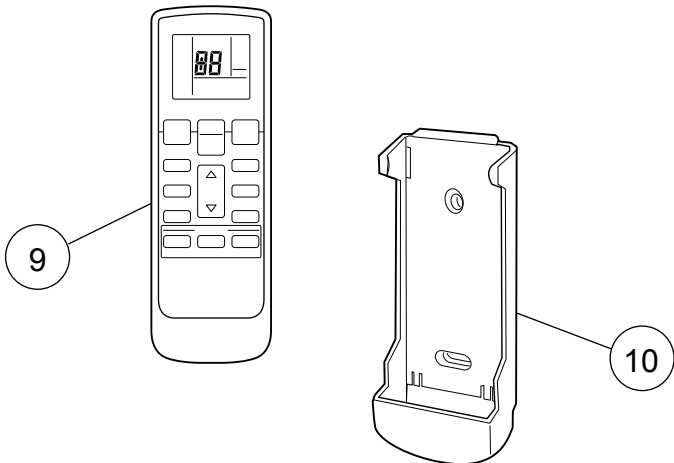
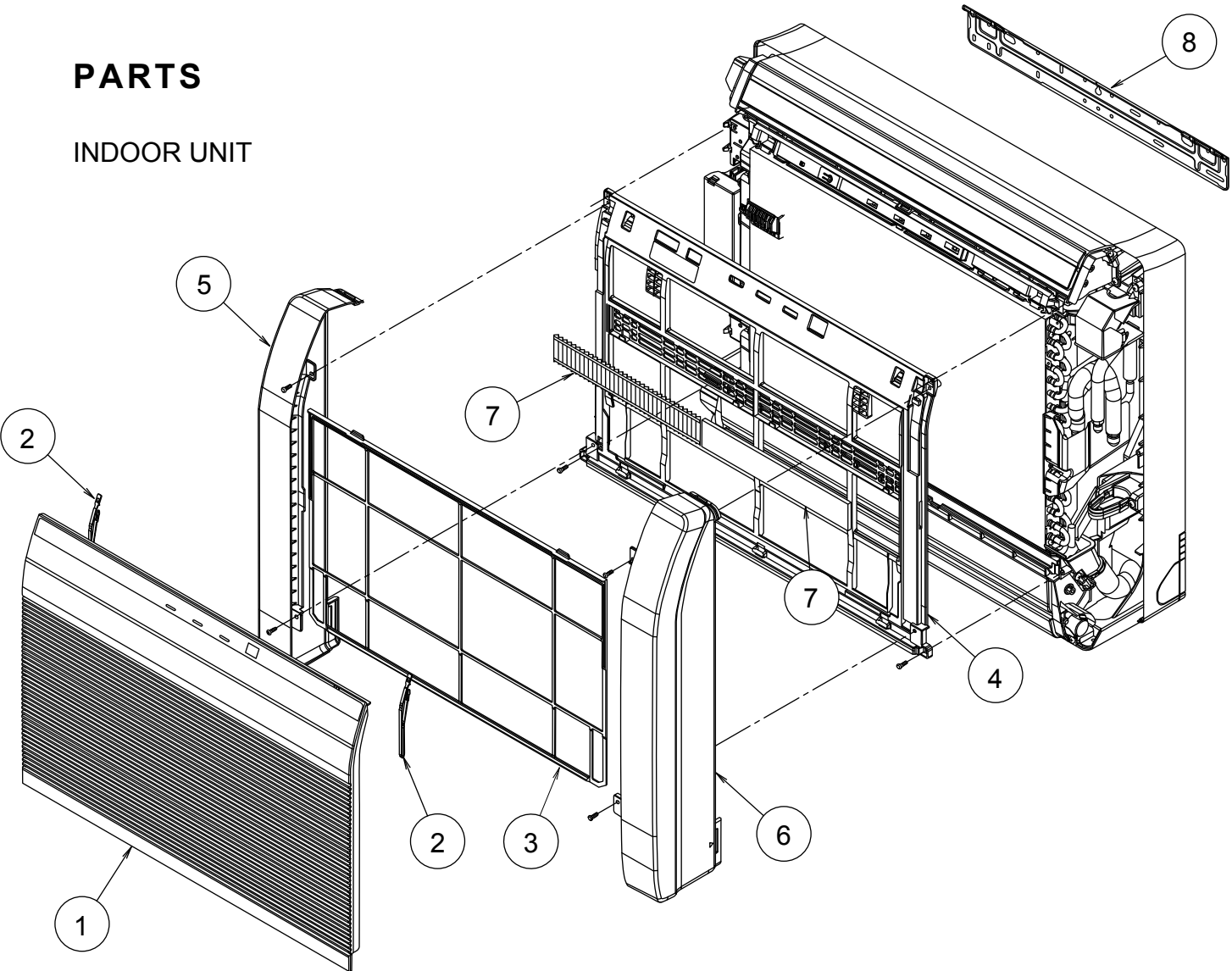
● : 0.5s on / 0.5s off  
 ◇ : 0.1s on / 0.1s off  
 ( ) : Number of flash

#### 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                   |

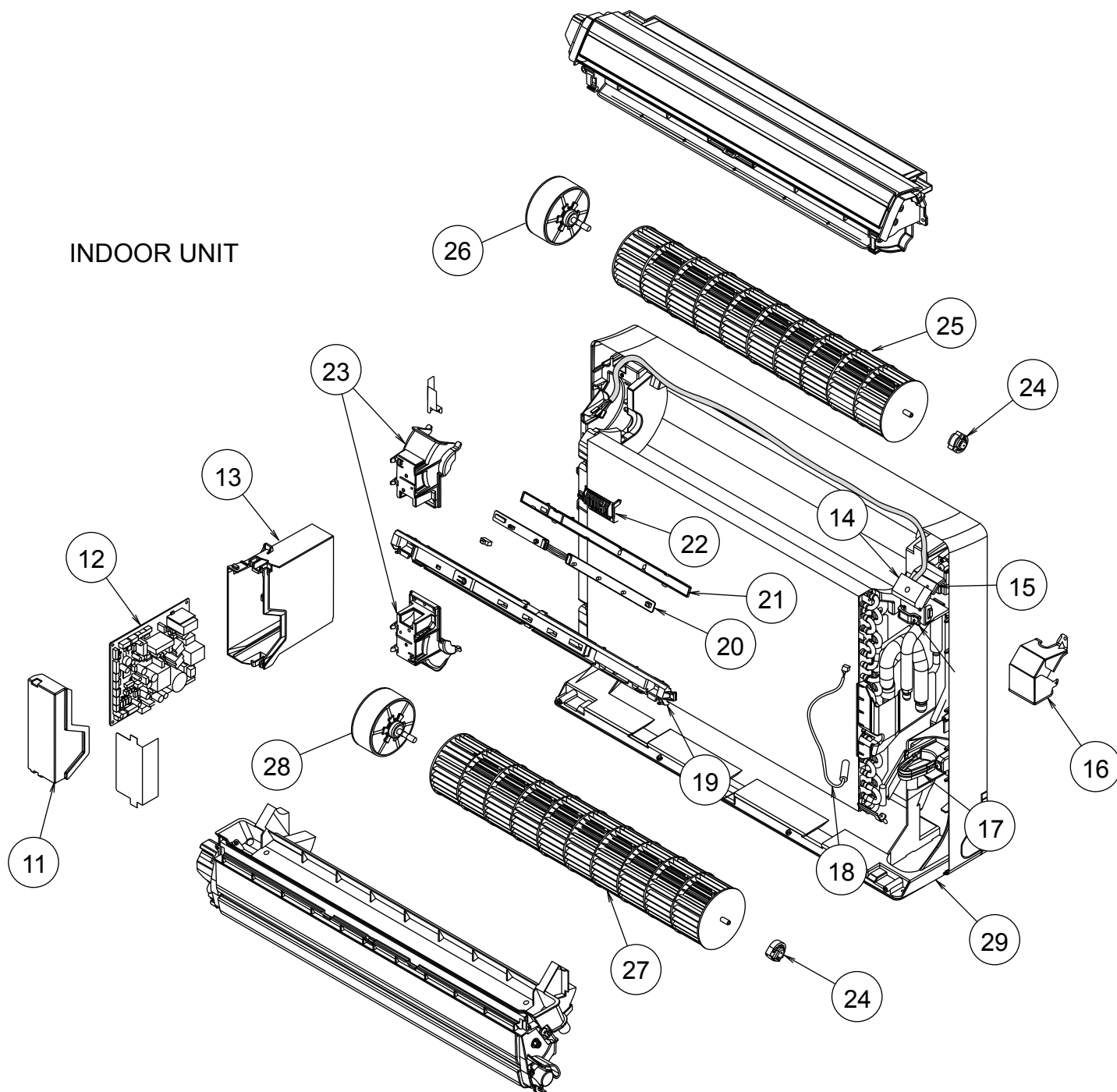
# PARTS

## INDOOR UNIT



| Ref | Description           | Parts number |  |
|-----|-----------------------|--------------|--|
| 1   | Intake Grille Assy    | 9316418059   |  |
| 2   | Rope Assy             | 9316458017   |  |
| 3   | Air Filter            | 9316189010   |  |
| 4   | Front Panel           | 9316185012   |  |
| 5   | Front Panel L         | 9316187016   |  |
| 6   | Front Panel R         | 9316186019   |  |
| 7   | Air Clean Filter Assy | 9316474017   |  |
| 8   | Bracket Panel         | 9316272019   |  |
| 9   | Remote control        | 9379219006   |  |
| 10  | Remote Control Holder | 9305642045   |  |

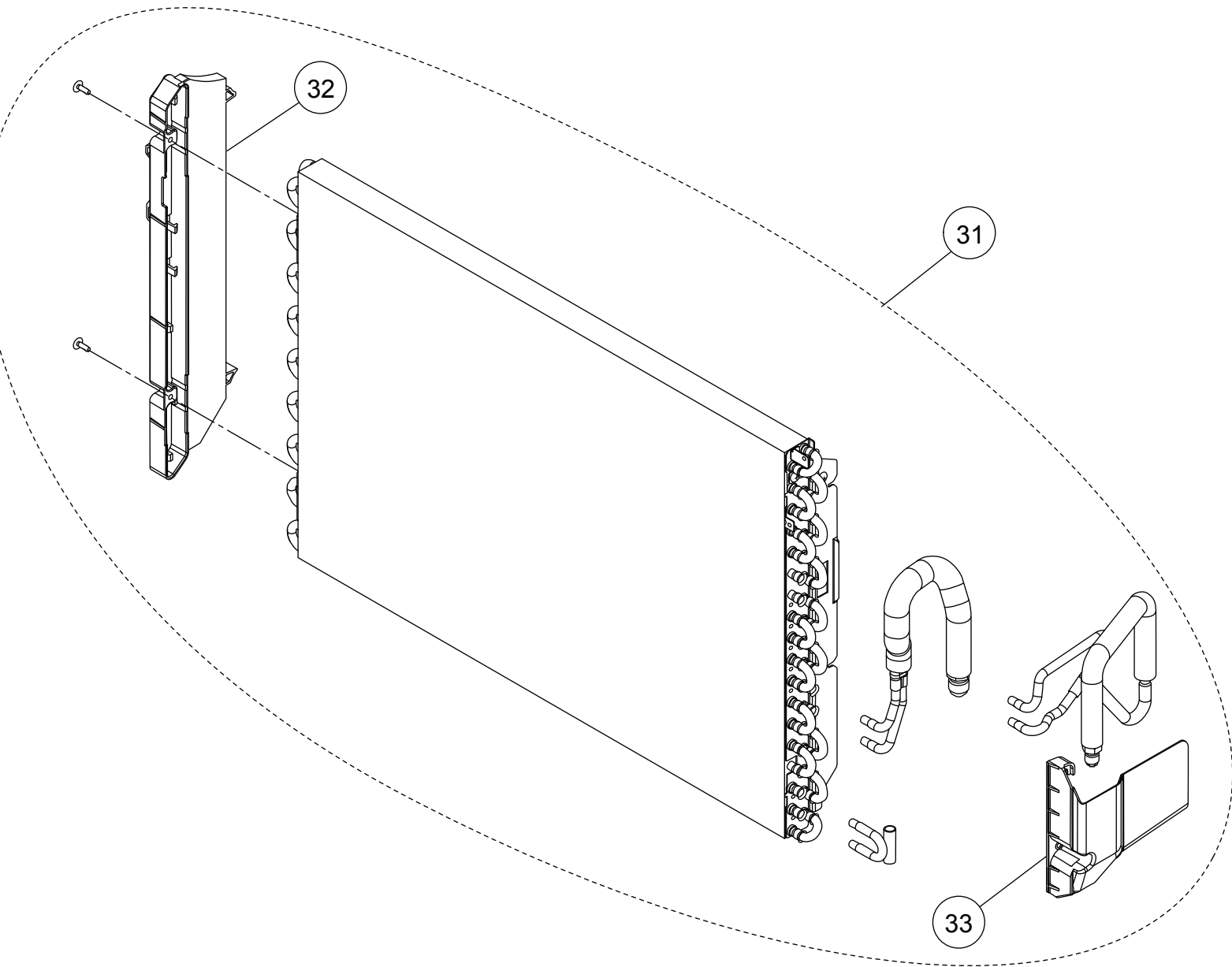
## INDOOR UNIT



| Ref | Description         | Parts number |
|-----|---------------------|--------------|
| 11  | Control Cover       | 9316201019   |
| 12  | Controller PCB Assy | 9708532127   |
| 13  | Control Box         | 9316200012   |
| 14  | Terminal            | 9900385026   |
| 15  | Terminal Bracket    | 9316269019   |
| 16  | Terminal Cover      | 9316307018   |
| 17  | Pipe Bracket        | 9316270015   |
| 18  | Pipe Thermistor     | 9900425012   |
| 19  | Display Case        | 9316194014   |
| 20  | Display PCB Assy    | 9707571042   |

| Ref | Description          | Parts number |
|-----|----------------------|--------------|
| 21  | Display Cover        | 9316191013   |
| 22  | Thermistor Holder    | 9316192010   |
| 23  | Motor Holder         | 9316195011   |
| 24  | Bearing C Assy       | 9306628017   |
| 25  | Crossflow Fan Assy   | 9312004034   |
| 26  | Fan Motor, MFD-14TXN | 9602850006   |
| 27  | Crossflow Fan B Assy | 9316309012   |
| 28  | Fan Motor, MFD-14SXN | 9602851003   |
| 29  | Base                 | 9316193017   |

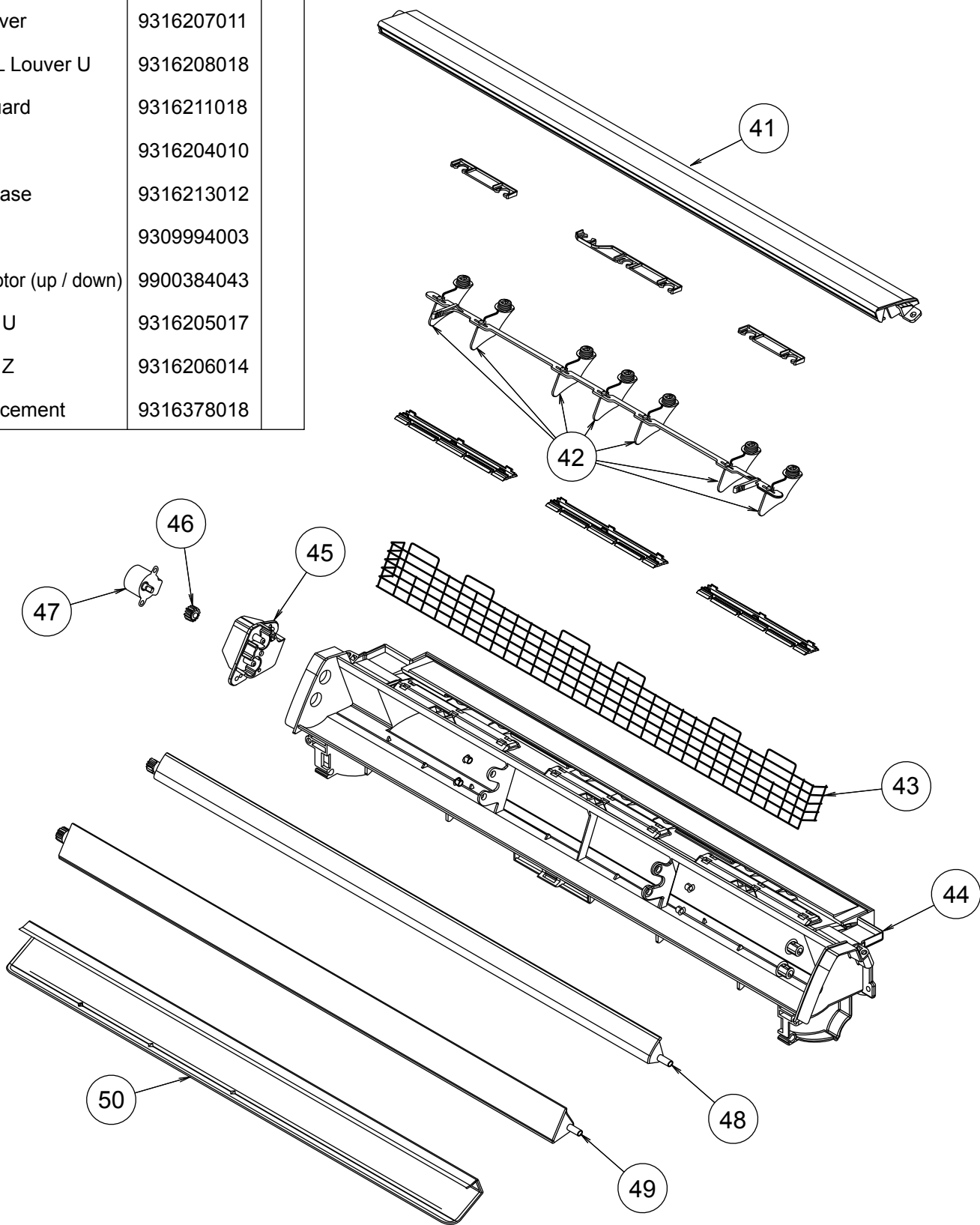
INDOOR UNIT



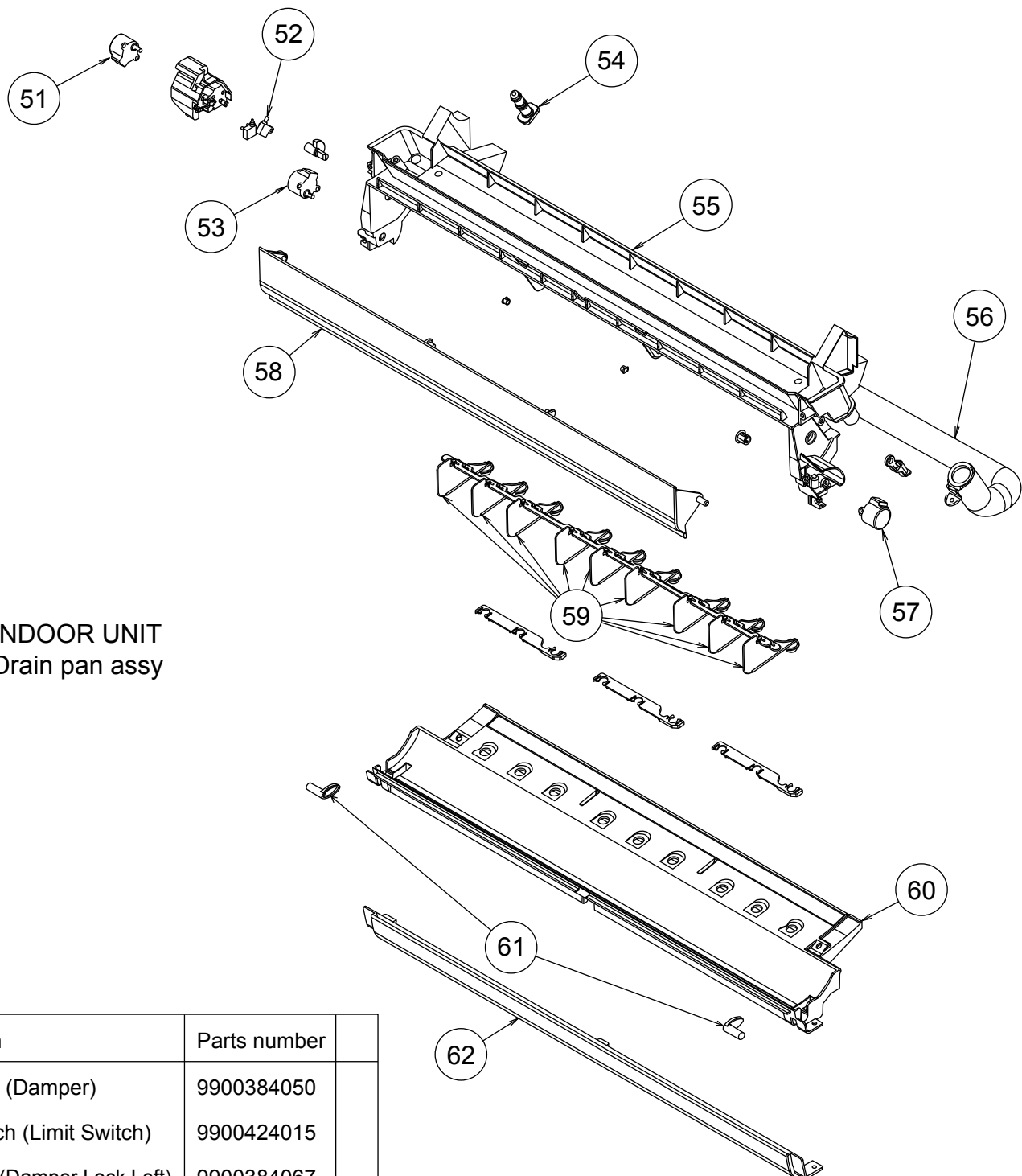
| Ref | Description           | Parts number |  |
|-----|-----------------------|--------------|--|
| 31  | Evaporator Total Assy | 9316091023   |  |
| 32  | Evaporator Holder     | 9316199019   |  |
| 33  | Water Seal            | 9316271012   |  |

INDOOR UNIT  
Casing assy

| Ref | Description            | Parts number |  |
|-----|------------------------|--------------|--|
| 41  | Top Cover              | 9316207011   |  |
| 42  | R and L Louver U       | 9316208018   |  |
| 43  | Fan Guard              | 9316211018   |  |
| 44  | Casing                 | 9316204010   |  |
| 45  | Gear Case              | 9316213012   |  |
| 46  | Gear A                 | 9309994003   |  |
| 47  | Step Motor (up / down) | 9900384043   |  |
| 48  | Louver U               | 9316205017   |  |
| 49  | Louver Z               | 9316206014   |  |
| 50  | Reinforcement          | 9316378018   |  |



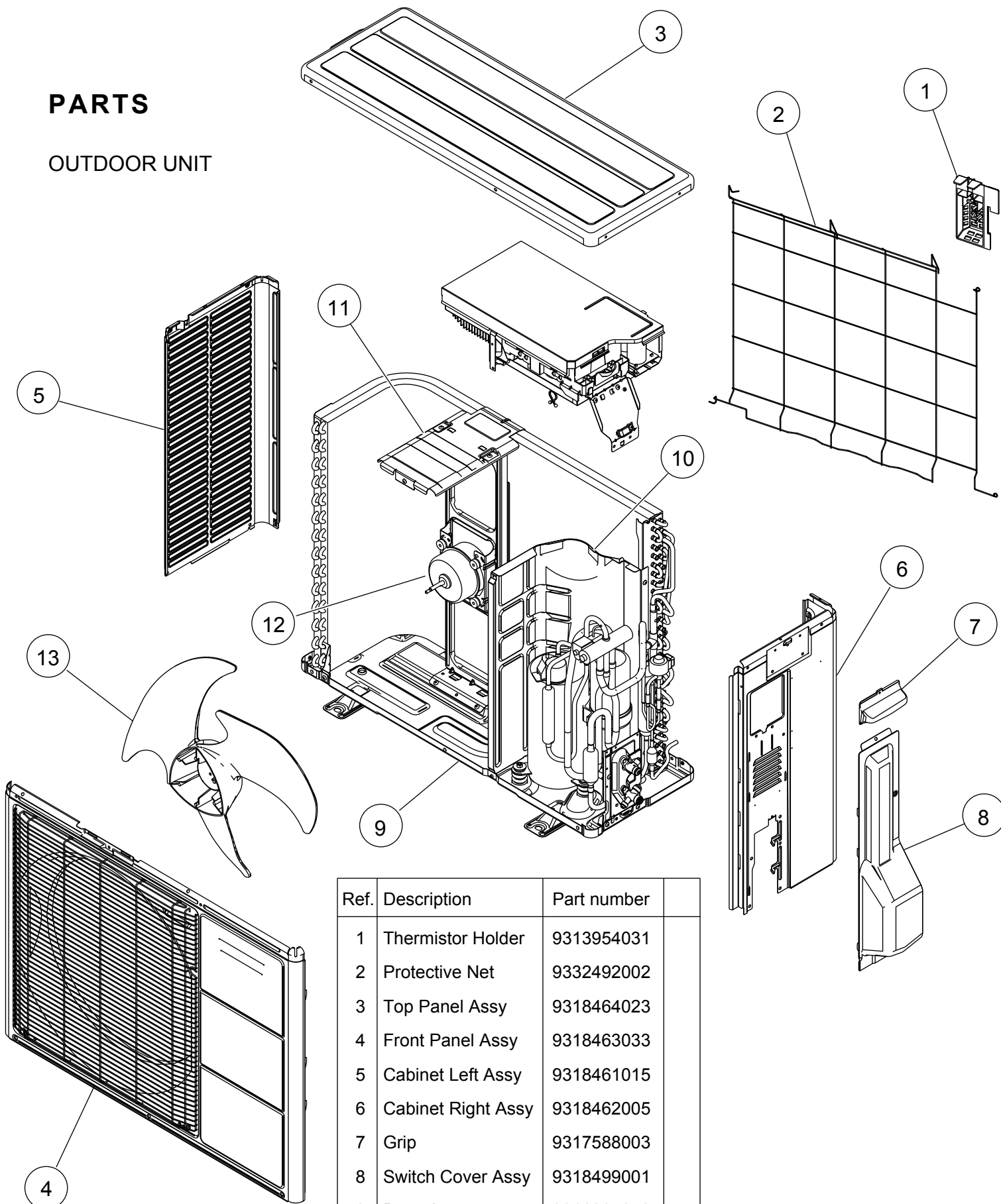
INDOOR UNIT  
Drain pan assy



| Ref | Description                    | Parts number |  |
|-----|--------------------------------|--------------|--|
| 51  | Motor Step (Damper)            | 9900384050   |  |
| 52  | Micro Switch (Limit Switch)    | 9900424015   |  |
| 53  | Motor Step (Damper Lock Left)  | 9900384067   |  |
| 54  | Drain Cap                      | 9316177017   |  |
| 55  | Drain Pan U                    | 9316214019   |  |
| 56  | Drain Hose Assy                | 9314147029   |  |
| 57  | Step Motor (Damper Lock Right) | 9900384074   |  |
| 58  | Damper                         | 9316216013   |  |
| 59  | R and L Louver Z               | 9316334014   |  |
| 60  | Drain Pan Z                    | 9316215016   |  |
| 61  | Stopper                        | 9316219014   |  |
| 62  | Under Cover                    | 9316374010   |  |
| --  | Fan Guard Z                    | 9316918009   |  |

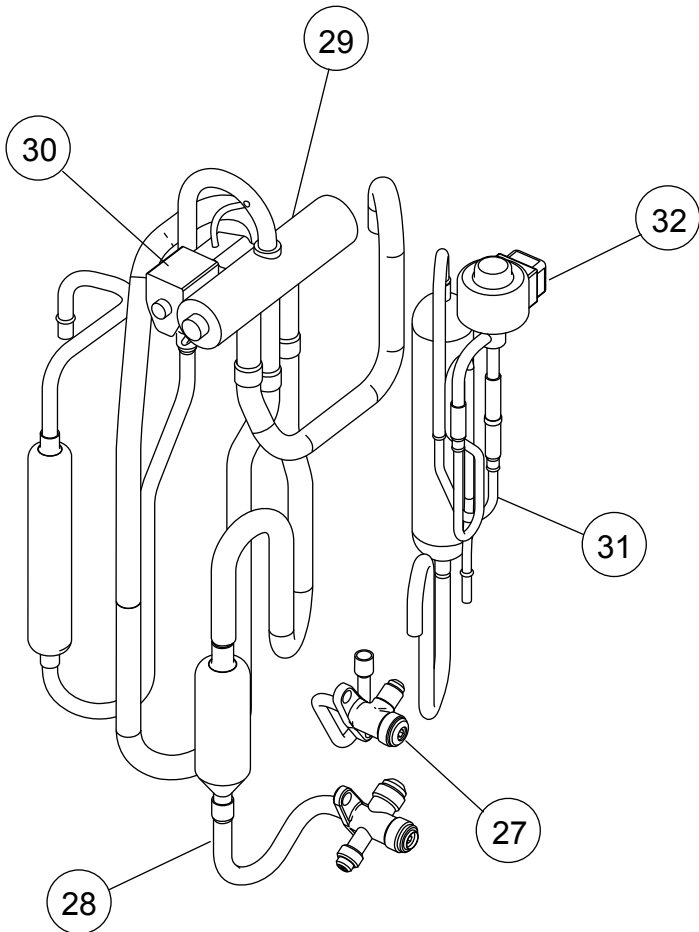
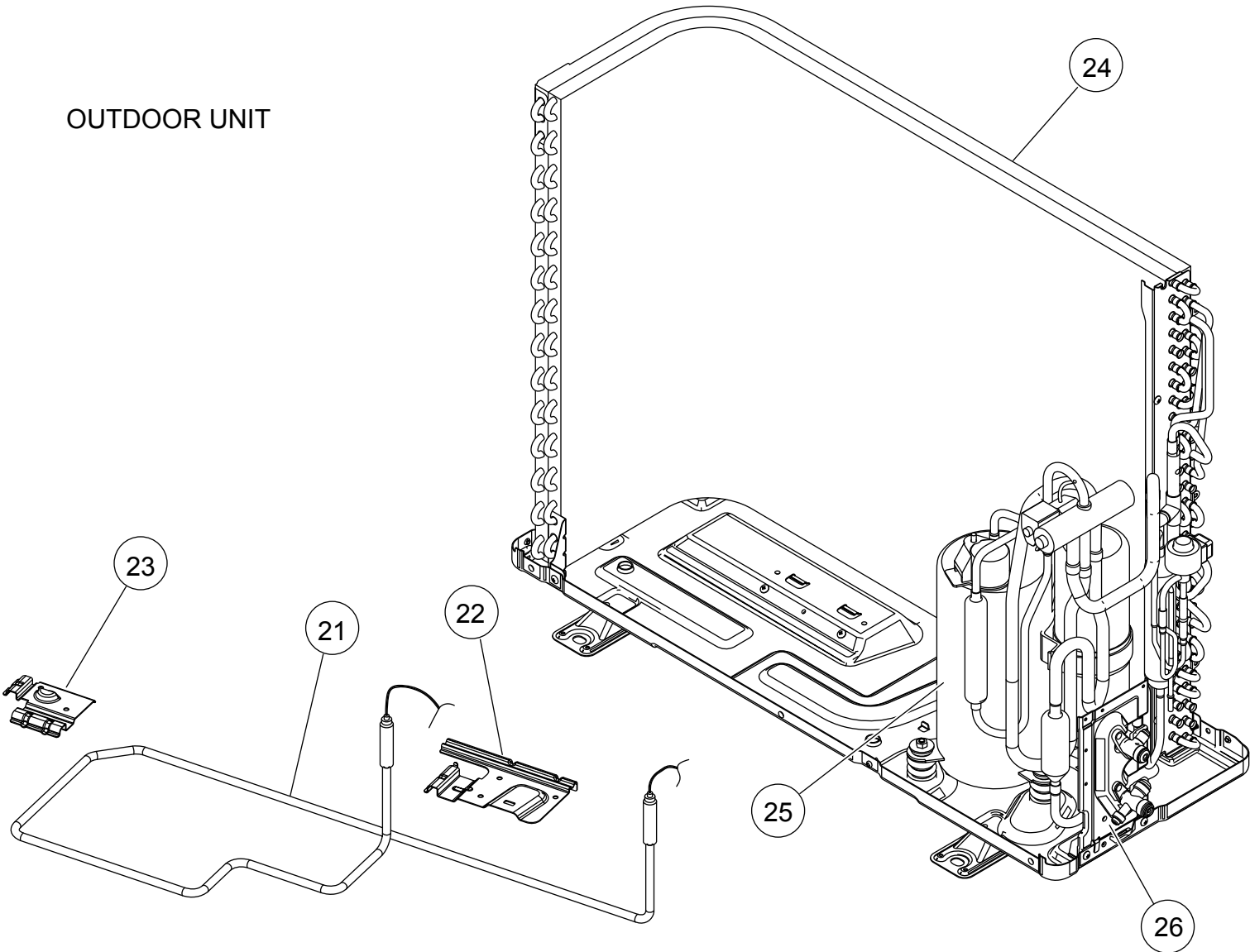
# PARTS

## OUTDOOR UNIT



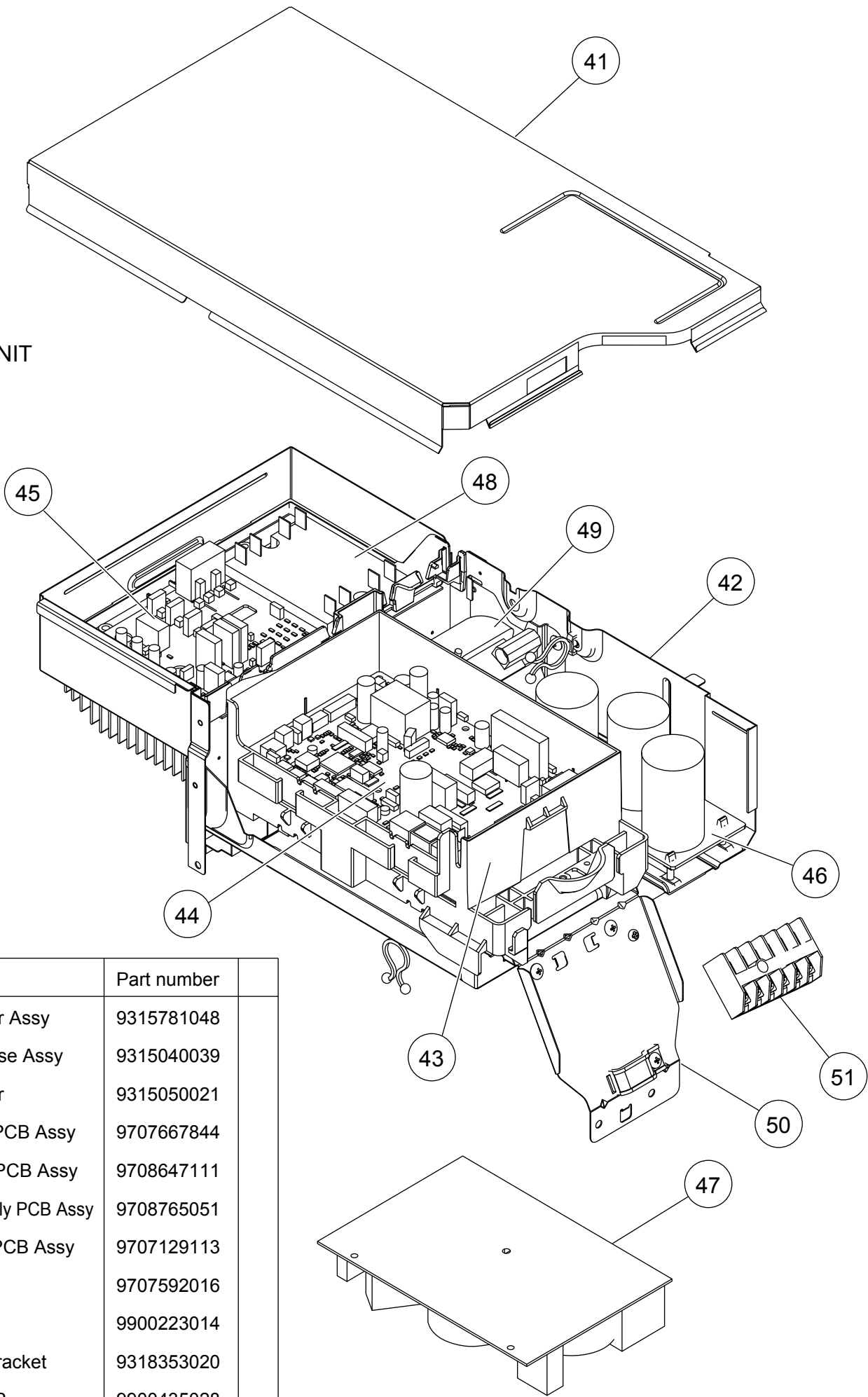
| Ref. | Description        | Part number |
|------|--------------------|-------------|
| 1    | Thermistor Holder  | 9313954031  |
| 2    | Protective Net     | 9332492002  |
| 3    | Top Panel Assy     | 9318464023  |
| 4    | Front Panel Assy   | 9318463033  |
| 5    | Cabinet Left Assy  | 9318461015  |
| 6    | Cabinet Right Assy | 9318462005  |
| 7    | Grip               | 9317588003  |
| 8    | Switch Cover Assy  | 9318499001  |
| 9    | Base Assy          | 9316885059  |
| 10   | Separator          | 9315899033  |
| 11   | Motor Bracket Assy | 9316041011  |
| 12   | Fan Motor          | 9602724000  |
| 13   | Propeller Fan      | 9313808013  |
| --   | Emblem             | 9319151007  |

OUTDOOR UNIT



| Ref. | Description            | Part number |  |
|------|------------------------|-------------|--|
| 21   | Heater Unit Assy       | 9900616014  |  |
| 22   | Heater Holder A        | 9318631005  |  |
| 23   | Heater Holder B        | 9318651003  |  |
| 24   | Condenser Total Assy   | 9317089104  |  |
| 25   | Compressor Assy        | 9318334005  |  |
| 26   | Valve Bracket          | 9331649001  |  |
| 27   | 2-way Valve Assy       | 9317171014  |  |
| 28   | 3-way Valve Sub Assy   | 9317109062  |  |
| 29   | 4-way Valve Assy       | 9318457018  |  |
| 30   | Solenoid               | 9970110023  |  |
| 31   | Pulse Motor Valve Assy | 9315587022  |  |
| 32   | Expansion Valve Coil   | 9970095030  |  |

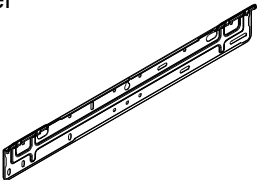
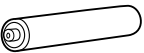
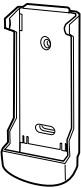
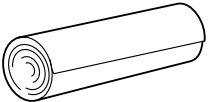
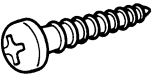
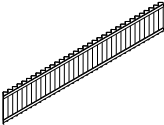
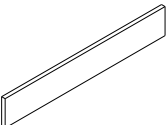
OUTDOOR UNIT



| Ref. | Description           | Part number |
|------|-----------------------|-------------|
| 41   | Case Cover Assy       | 9315781048  |
| 42   | Inverter Case Assy    | 9315040039  |
| 43   | PCB Holder            | 9315050021  |
| 44   | Controller PCB Assy   | 9707667844  |
| 45   | Transistor PCB Assy   | 9708647111  |
| 46   | Power Supply PCB Assy | 9708765051  |
| 47   | Capacitor PCB Assy    | 9707129113  |
| 48   | ACTPM                 | 9707592016  |
| 49   | Choke Coil            | 9900223014  |
| 50   | Terminal Bracket      | 9318353020  |
| 51   | Terminal 6P           | 9900435028  |
| --   | Outdoor Thermistor    | 9900544041  |
| --   | Thermistor Assy       | 9900648008  |

## ACCESSORIES

### INDOOR UNIT

| Name and Shape                                                                                                                         | Q'ty | Use                                         | Part No.   |
|----------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------|------------|
| Bracket panel<br>                                     | 1    | For indoor unit installation                | 9316272019 |
| Remote control<br>                                    | 1    | Use for air conditioner operation           | 9379219006 |
| Battery (penlight)<br>                                | 2    | For remote control                          | 0600185541 |
| Remote control holder<br>                           | 1    | Hold a remote control                       | 9305642045 |
| Cloth tape<br>                                      | 1    | For indoor unit installation                | 9310519004 |
| Tapping screw (big)<br>( $\phi 4 \times 25$ )<br>   | 9    | For wall hook bracket and body installation | 0700076046 |
| Tapping screw (small)<br>( $\phi 3 \times 12$ )<br> | 2    | Install a remote control holder             | 0700019036 |
| Electric filter<br>                                 | 1    | With 2 sheets                               | 9312153015 |
| Ion deodorant filter<br>                            | 1    | With 2 sheets                               | 9311925033 |

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