

**SPLIT TYPE  
AIR CONDITIONER (50Hz)**

**DUCT type**

# SERVICE MANUAL

| Models | Indoor unit | Outdoor unit |
|--------|-------------|--------------|
|        | ARY36FUAN   | AOY36FNAXT   |
|        | ARY36UUAN   | AOY36UNAXT   |

## C O N T E N T S

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FUJITSU GENERAL LIMITED

# SPECIFICATIONS

|                       |            |                   |
|-----------------------|------------|-------------------|
| TYPE                  | COOLING    | COOLING & HEATING |
| INDOOR UNIT           | ARY36FUAN  | ARY36UUAN         |
| OUTDOOR UNIT          | AOY36FNAXT | AOY36UNAXT        |
| COOLING CAPACITY (kW) | 10.5       |                   |
| HEATING CAPACITY (kW) | —          | 12.7              |

## ELECTRICAL DATA

|                            |         |                |       |
|----------------------------|---------|----------------|-------|
| POWER SOURCE               |         | 3N ~ 400V 50Hz |       |
| RUNNING CURRENT (A)        | COOLING | 6.40           | 6.10  |
|                            | HEATING | —              | 6.20  |
| INPUT WATTS (kW)           | COOLING | 3.85           | 3.60  |
|                            | HEATING | —              | 3.65  |
| POWER FACTOR (%)           | COOLING | 86.8           | 85.2  |
|                            | HEATING | —              | 85.0  |
| E.E.R. (kW/kW)             | COOLING | 2.73           | 2.92  |
|                            | HEATING | —              | 3.48  |
| STARTING CURRENT (A)       |         | 37             |       |
| MOISTURE REMOVAL (ℓ/hr)    |         | 3.5            |       |
| AIR CIRCULATION-Hi (m³/hr) | INDOOR  | 1,750          |       |
|                            | OUTDOOR | 7,000          | 6,100 |

## COMPRESSOR

|                       |                                                                  |       |  |
|-----------------------|------------------------------------------------------------------|-------|--|
| TYPE                  | Hermetic type, 2 poles, 3 phase,<br>Induction motor, Twin Rotary |       |  |
| DISCRIMINATION        | 5JD420PAA02                                                      |       |  |
| REFRIGERANT R410A (g) | 2,000                                                            | 3,200 |  |

## FAN MOTOR

|              |                    |            |  |
|--------------|--------------------|------------|--|
| INDOOR UNIT  | DISCRIMINATION     | MFA-45PTAT |  |
|              | HI-SPEED (r.p.m.)  | 1,340      |  |
|              | MED-SPEED (r.p.m.) | 1,280      |  |
|              | LO-SPEED (r.p.m.)  | 1,210      |  |
| OUTDOOR UNIT | DISCRIMINATION     | MFB-30PTT  |  |
|              | HI-SPEED (r.p.m.)  | 780        |  |
|              | LO-SPEED (r.p.m.)  | 400        |  |

## DIMENSIONS

|              |                |                   |  |
|--------------|----------------|-------------------|--|
| INDOOR UNIT  | H x W x D (mm) | 270 x 1,135 x 700 |  |
| OUTDOOR UNIT |                | 1,165 x 900 x 330 |  |

## WEIGHT

|              |                  |         |          |
|--------------|------------------|---------|----------|
| INDOOR UNIT  | GROSS / NET (kg) | 50 / 43 |          |
| OUTDOOR UNIT |                  | 87 / 80 | 101 / 94 |

|              |            |                   |
|--------------|------------|-------------------|
| TYPE         | COOLING    | COOLING & HEATING |
| INDOOR UNIT  | ARY36FUAN  | ARY36UUAN         |
| OUTDOOR UNIT | AOY36FNAXT | AOY36UNAXT        |

#### NOISE LEVEL

|                   |                |                   |
|-------------------|----------------|-------------------|
| INDOOR UNIT       | HI-SPEED (dB)  | 43                |
|                   | MED-SPEED (dB) | 41                |
|                   | LO-SPEED (dB)  | 39                |
| OUTDOOR UNIT (dB) |                | 54                |
|                   |                | COOL 54 / HEAT 55 |

Note : Static pressure : 100Pa

Duct length : Inlet 1m, Outlet 2m

#### REFRIGERANT CHARGE (R410A)

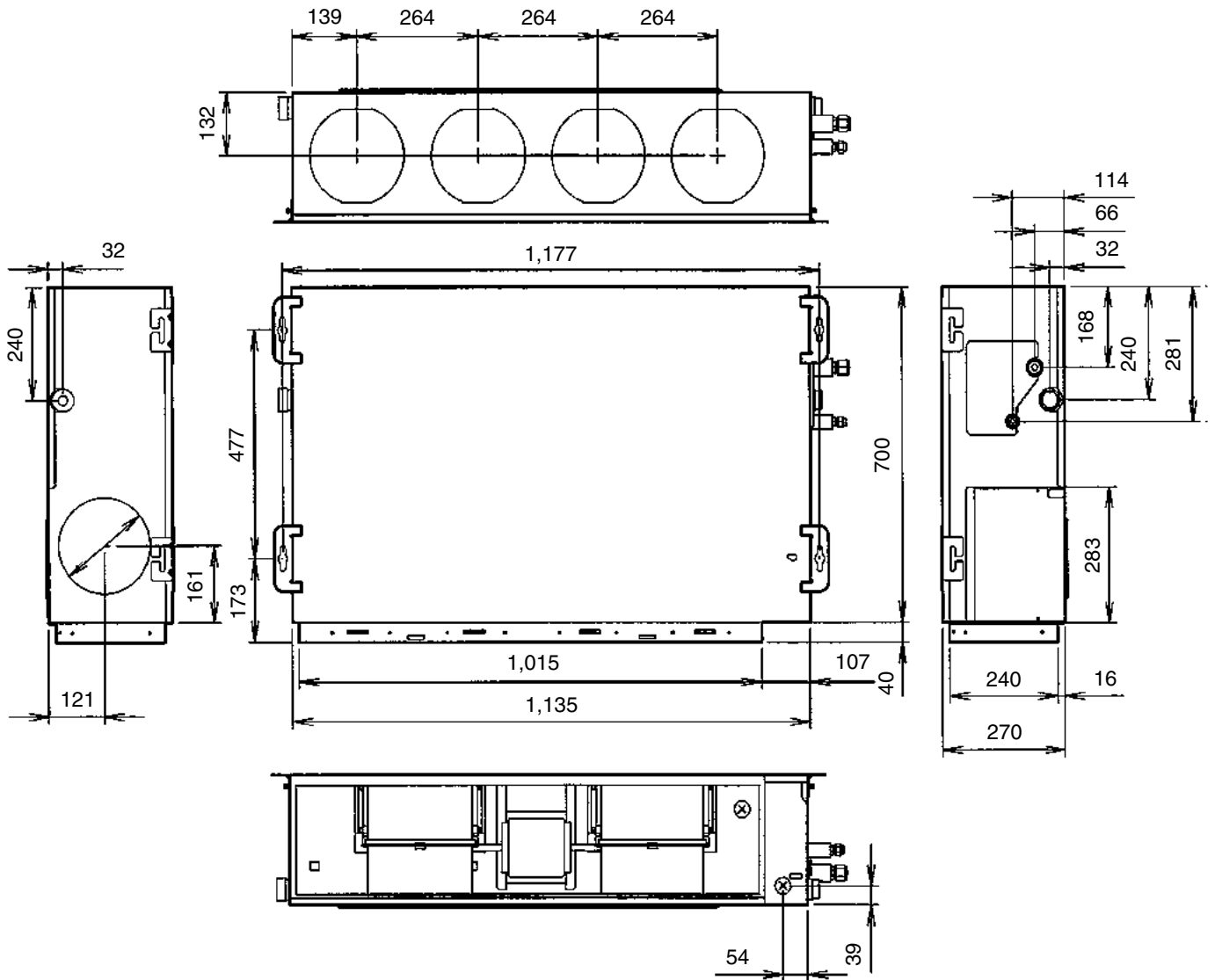
|                              |                  |         |         |
|------------------------------|------------------|---------|---------|
| MAX PIPE LENGTH / HEIGHT (m) |                  | 50 / 30 |         |
| FULL CHARGE<br>AMOUNT        | PIPE LENGTH 20 m | 2,000 g | 3,200 g |
|                              | 25 m             | 2,150 g | 3,350 g |
|                              | 30 m             | 2,300 g | 3,500 g |
|                              | 35 m             | 2,450 g | 3,650 g |
|                              | 40 m             | 2,600 g | 3,800 g |
|                              | 45 m             | 2,750 g | 3,950 g |
|                              | 50 m             | 2,900 g | 4,100 g |
| ADDITIONAL REFRIGERANT       |                  | 30 g/m  |         |

## DIMENSIONS

## INDOOR UNIT

**Models : ARY36FUAN  
ARY36UUAN**

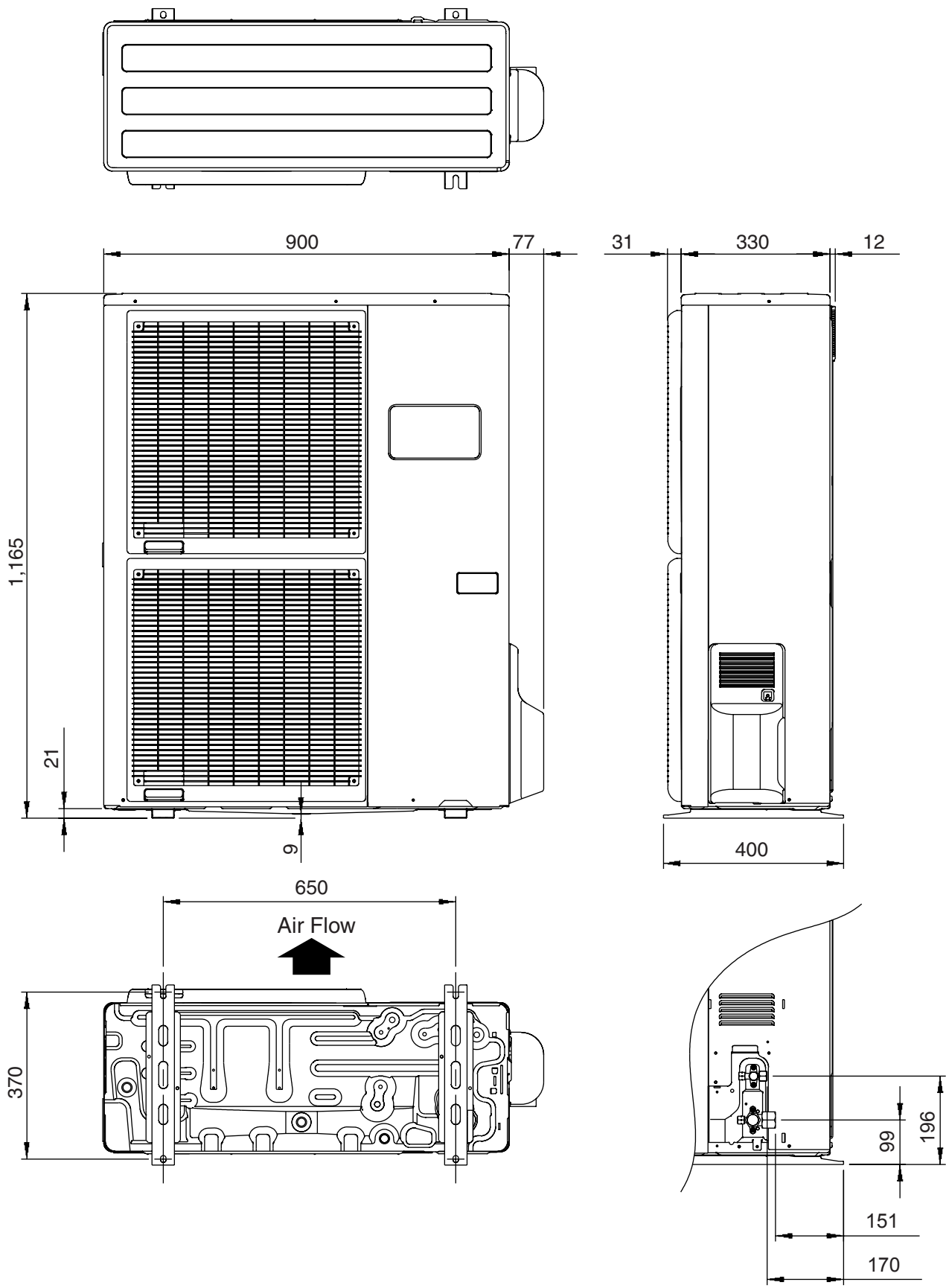
(Unit : mm)



INDOOR UNIT

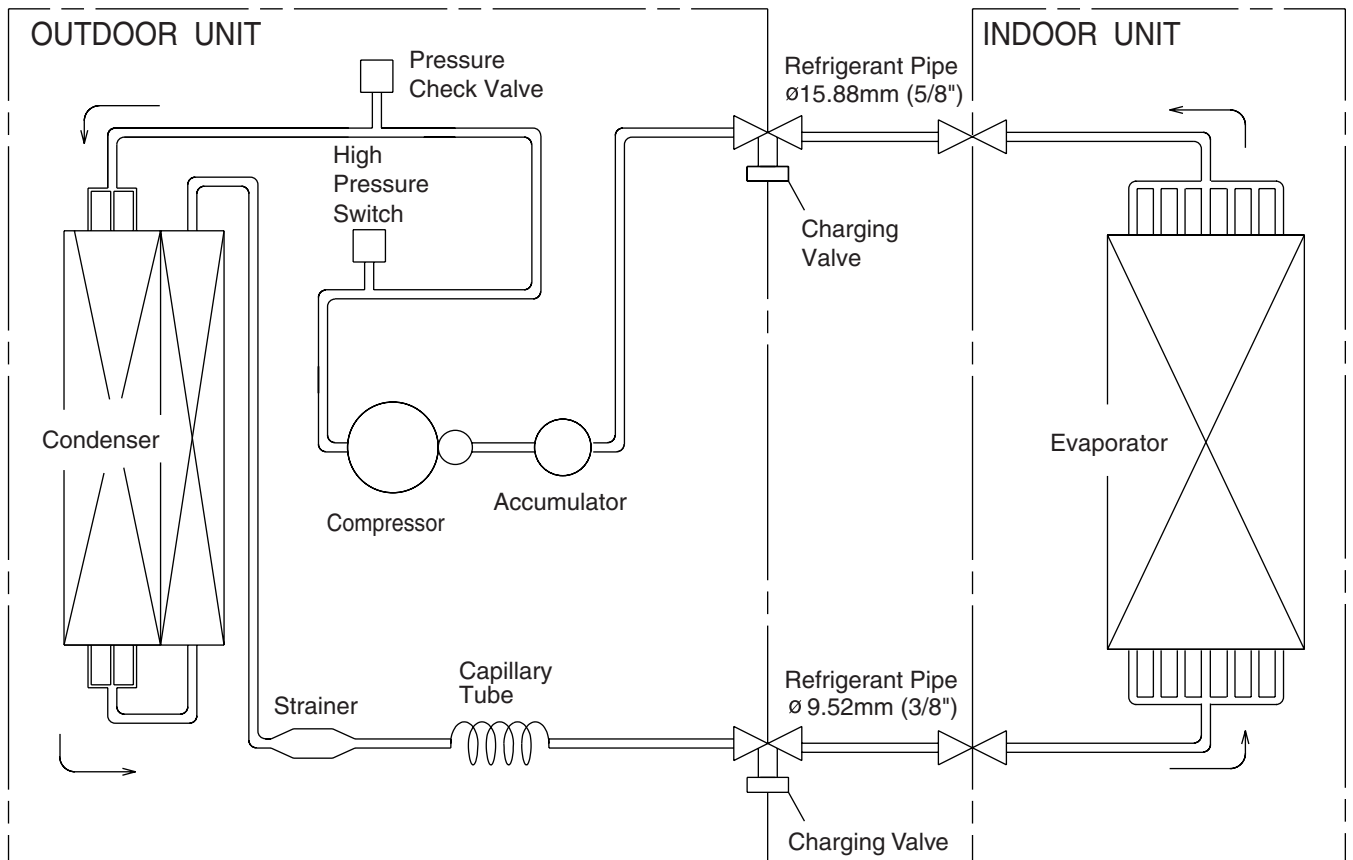
Models : AOY36FNAXT  
AOY36UNAXT

(Unit : mm)

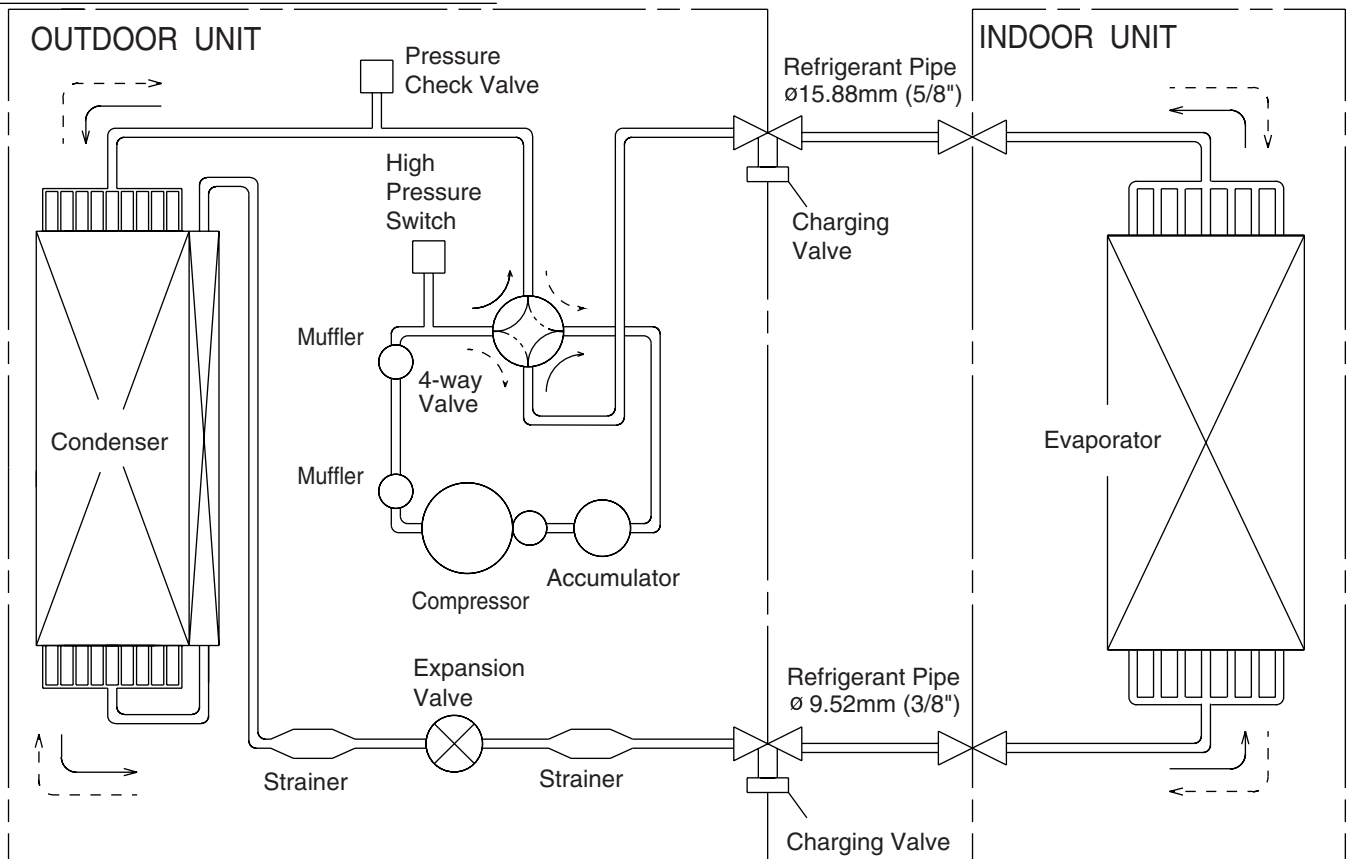


# REFRIGERANT SYSTEM DIAGRAM

**Models : ARY36FUAN / AOY36FNAXT**



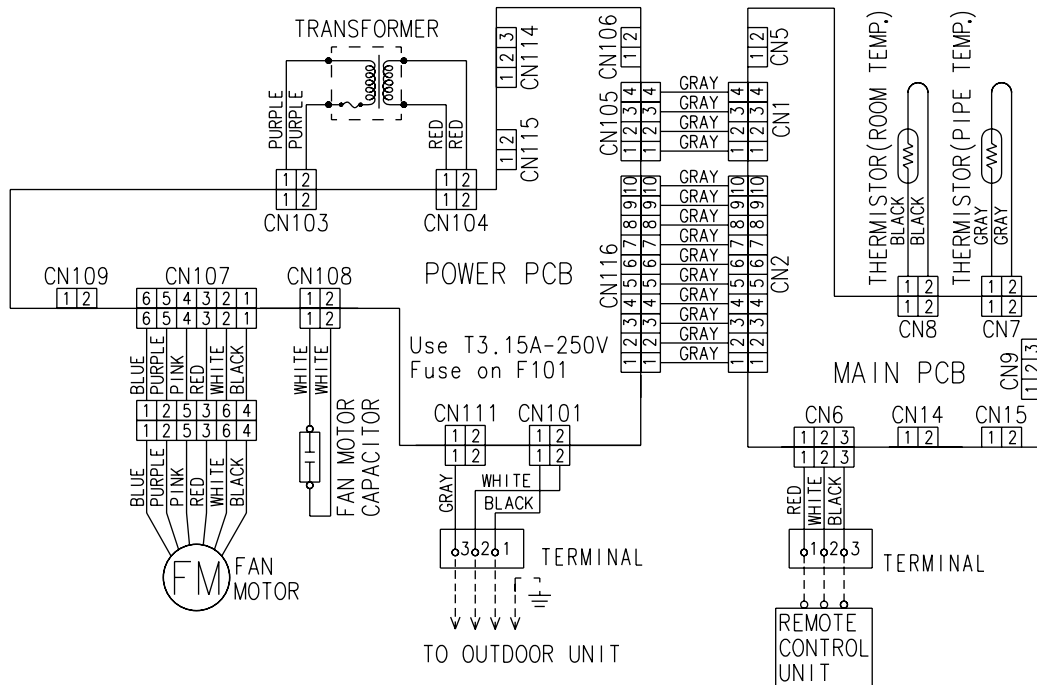
**Models : ARY36UUAN / AOY36UNAXT**



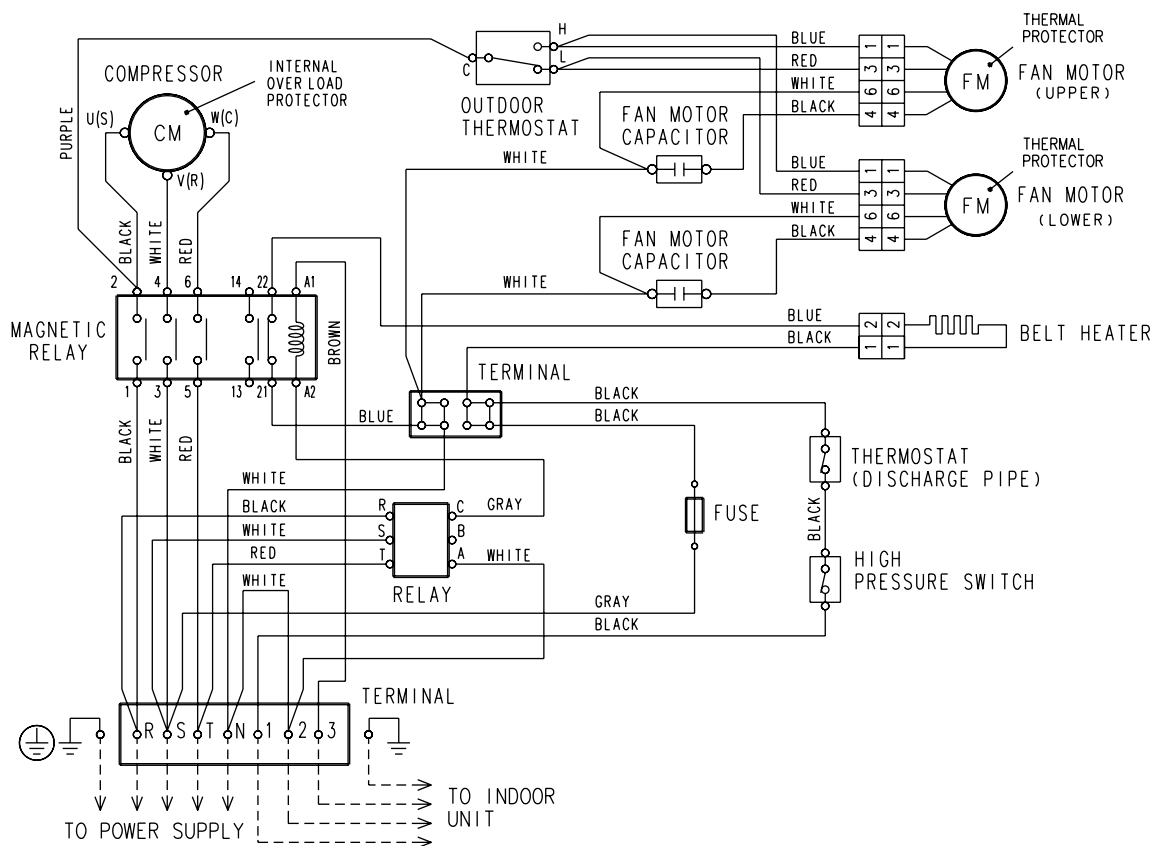
→ : COOL  
 ---> : HEAT

# CIRCUIT DIAGRAM

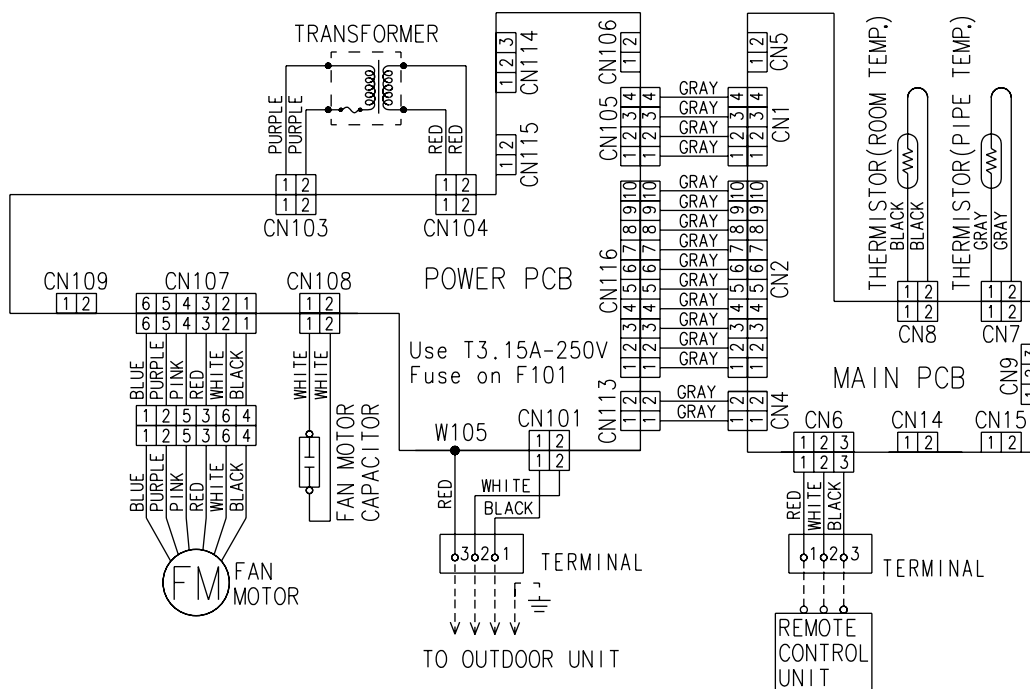
**Model : ARY36FUAN**



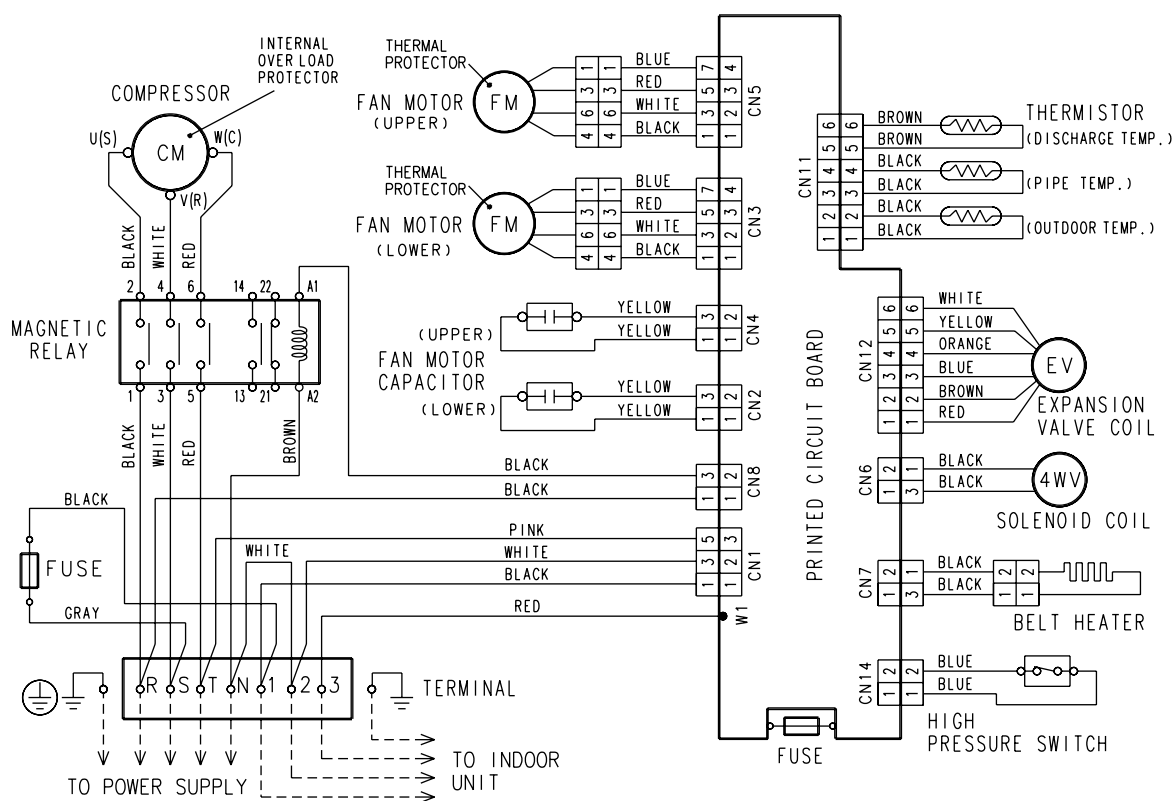
**Model : AOY36FNAXT**



**Model : ARY36UUAN**

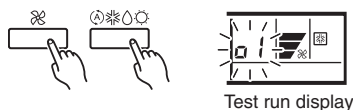


**Model : AOY36UNAXT**



# ERROR CONTENTS

- (1) Stop the air conditioner operation.
- (2) Press the master control button and the fan control button simultaneously for 2 seconds or more to start the test run.



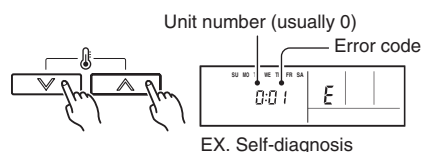
- (3) Press the start/stop button to stop the test run.

## [SELF-DIAGNOSIS]

When the error indication "E:EE" is displayed, follow the following items to perform the self-diagnosis. "E:EE" indicates an error has occurred.

### 1. REMOTE CONTROLLER DISPLAY

- (1) Stop the air conditioner operation.
- (2) Press the set temperature buttons  $\Delta$  /  $\nabla$  simultaneously for 5 seconds or more to start the self-diagnosis.  
Refer to the following tables for the description of each error code.



- (3) Press the set temperature buttons  $\Delta$  /  $\nabla$  simultaneously for 5 seconds or more to stop the self-diagnosis.

| Error code | Error contents                                                                     |
|------------|------------------------------------------------------------------------------------|
| <b>00</b>  | Communication error<br>(indoor unit $\longleftrightarrow$ remote controller)       |
| <b>01</b>  | Communication error<br>(indoor unit $\longleftrightarrow$ outdoor unit)            |
| <b>02</b>  | Room temperature sensor open                                                       |
| <b>03</b>  | Room temperature sensor short-circuited                                            |
| <b>04</b>  | Indoor heat exchanger temperature sensor open                                      |
| <b>05</b>  | Indoor heat exchanger temperature sensor short-circuited                           |
| <b>06</b>  | Outdoor heat exchanger temperature sensor open                                     |
| <b>07</b>  | Outdoor heat exchanger temperature sensor short-circuited                          |
| <b>08</b>  | Power source connection error                                                      |
| <b>09</b>  | Float switch operated                                                              |
| <b>0A</b>  | Outdoor temperature sensor open                                                    |
| <b>0b</b>  | Outdoor temperature sensor short-circuited                                         |
| <b>0c</b>  | Discharge pipe temperature sensor or compressor temperature sensor open            |
| <b>0d</b>  | Discharge pipe temperature sensor or compressor temperature sensor short-circuited |
| <b>0E</b>  | Outdoor high pressure abnormal                                                     |
| <b>0F</b>  | Discharge pipe temperature or compressor temperature abnormal                      |
| <b>11</b>  | Model abnormal                                                                     |
| <b>12</b>  | Indoor fan abnormal                                                                |
| <b>13</b>  | Outdoor signal abnormal                                                            |
| <b>14</b>  | Outdoor EEPROM abnormal                                                            |

### 2. OUTDOOR UNIT LEDS

#### Heat & Cool model (reverse cycle) only

When a malfunction occurs in the outdoor unit, the LEDs on the circuit board light to indicate the error. Refer to the following table for the description of each error according to the LEDs.

#### LED layout

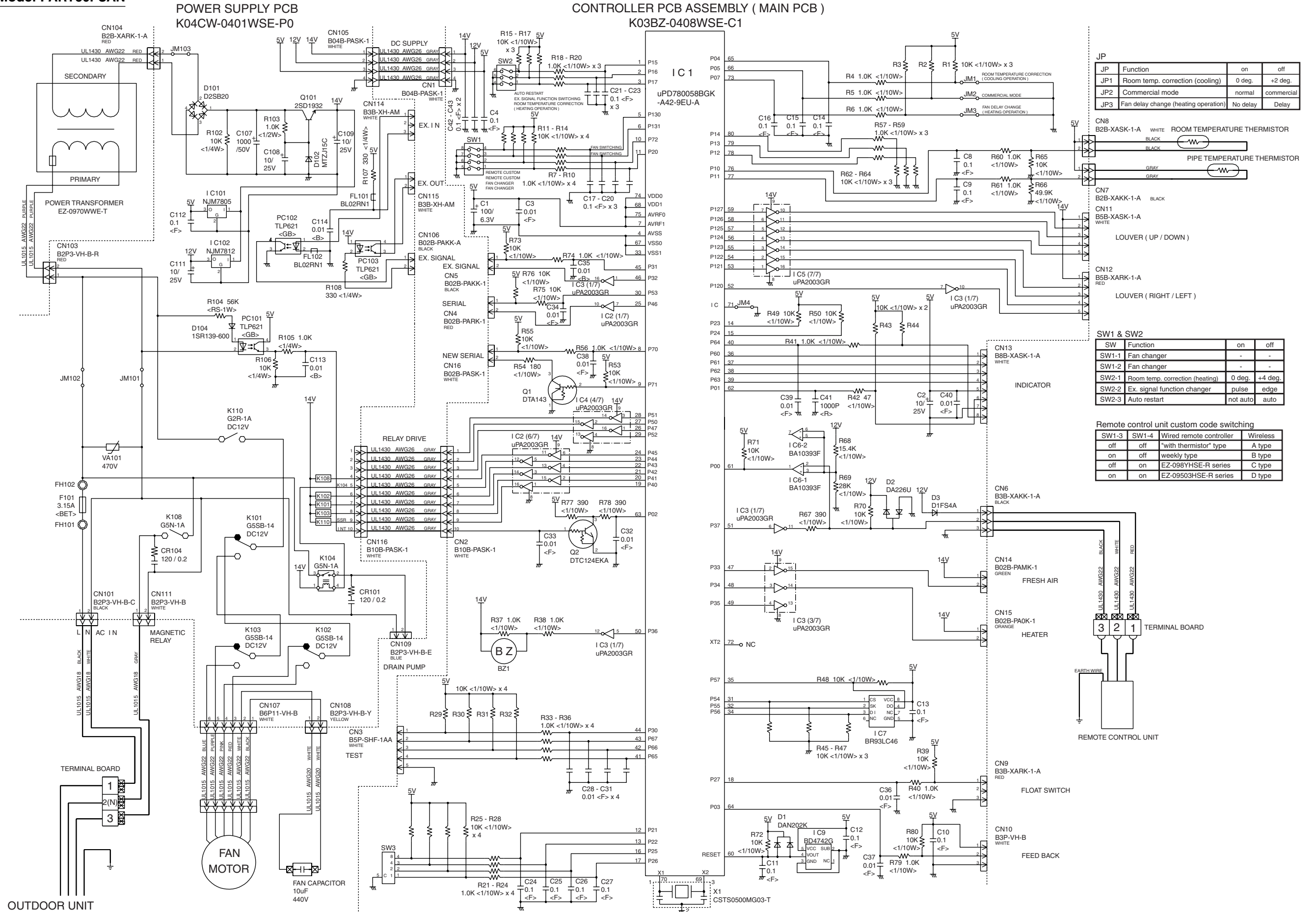


| LED1        | LED2     | Error contents                    |
|-------------|----------|-----------------------------------|
| flash       | flash    | Model abnormal or EEPROM abnormal |
| 1 flash     | Lighting | Power source connection error     |
| 2 flash     | Lighting | Discharge temp. sensor error      |
| 3 flash     | Lighting | Heat exchanger temp. sensor error |
| 4 flash     | Lighting | Outdoor temp. sensor error        |
| 5 flash     | Lighting | Communication signal error        |
| 6 flash     | Lighting | Indoor unit error                 |
| 7 flash     | Lighting | Discharge temp. abnormal          |
| 8 flash     | Lighting | High pressure abnormal            |
| 9 flash     | Lighting | Compressor temp. abnormal         |
| 10 flash    | Lighting | Compressor temp. sensor error     |
| Dislighting |          | No error. Protect operation       |

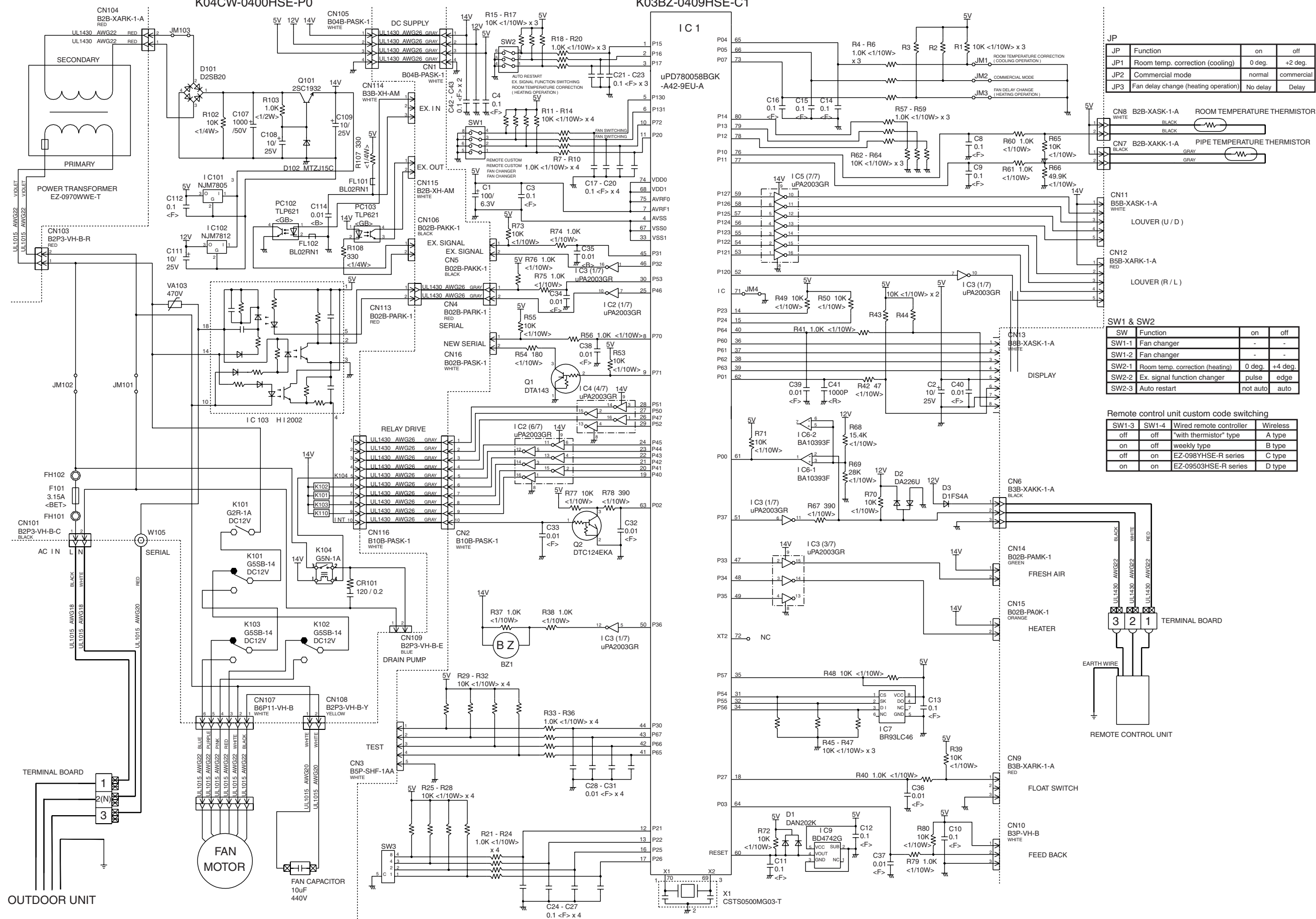
When the fault is cleared, the LED lamp goes off.

However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

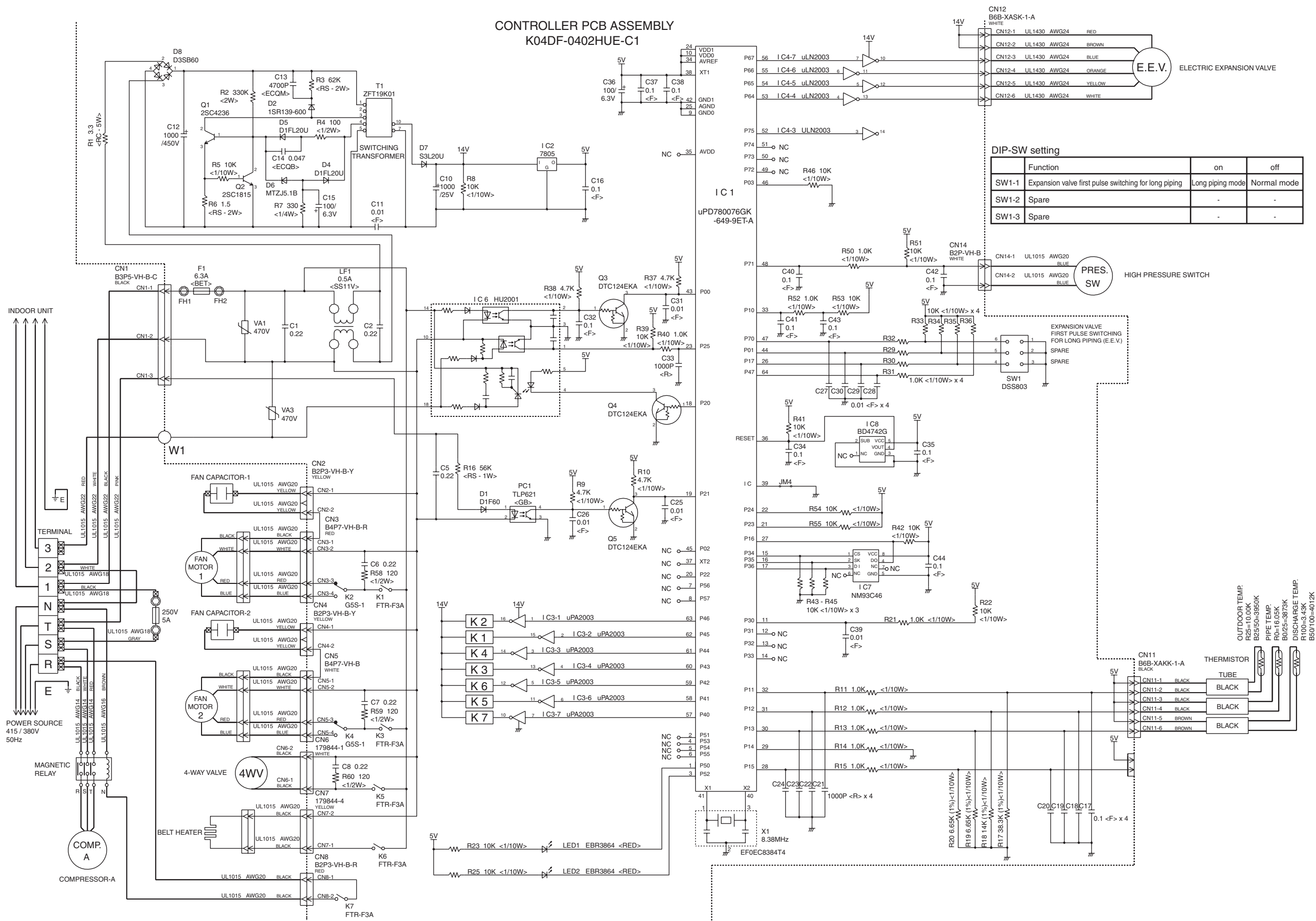
**Model : ARY36FUAN**



**Model : ARY36UUAN**

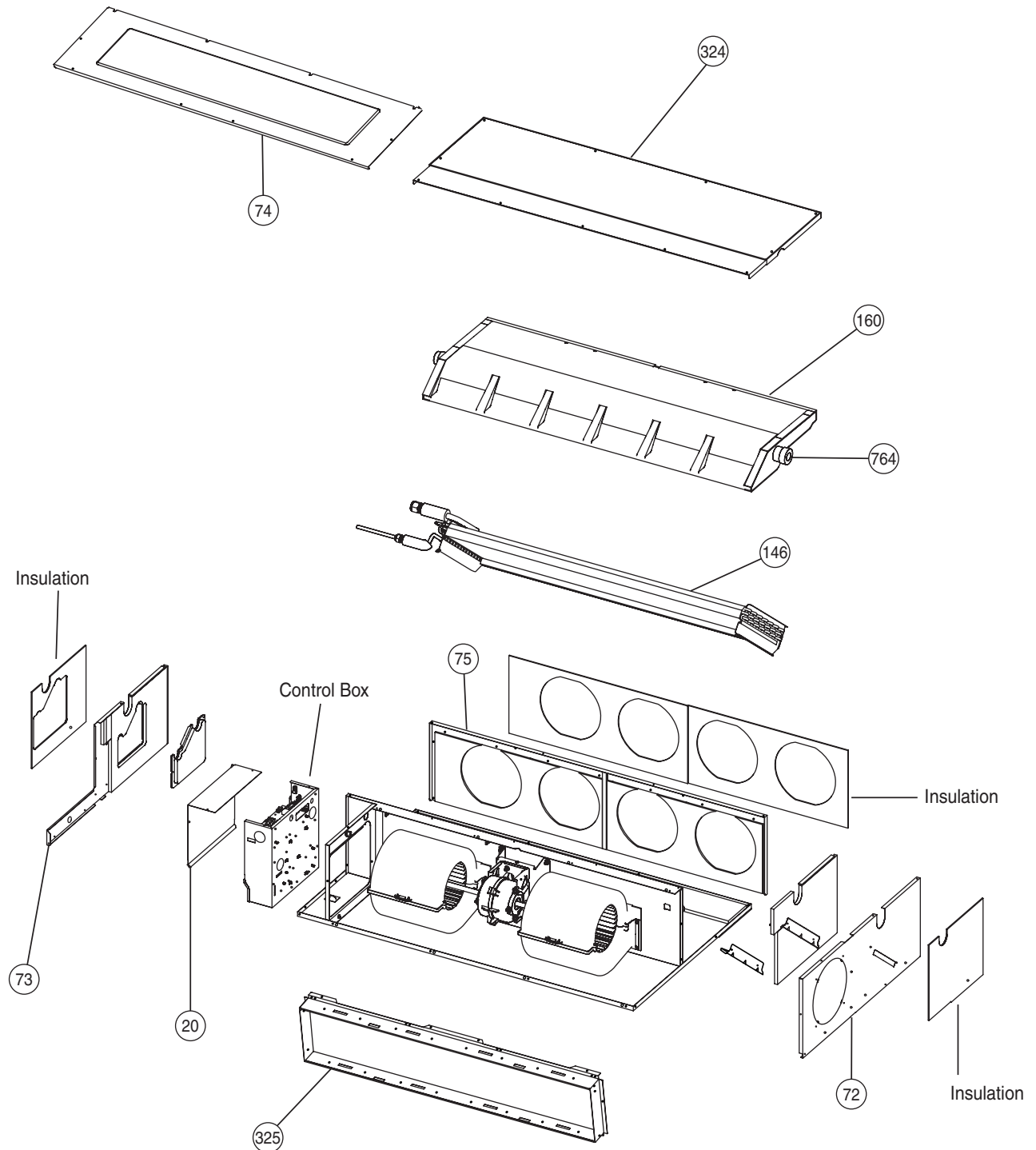


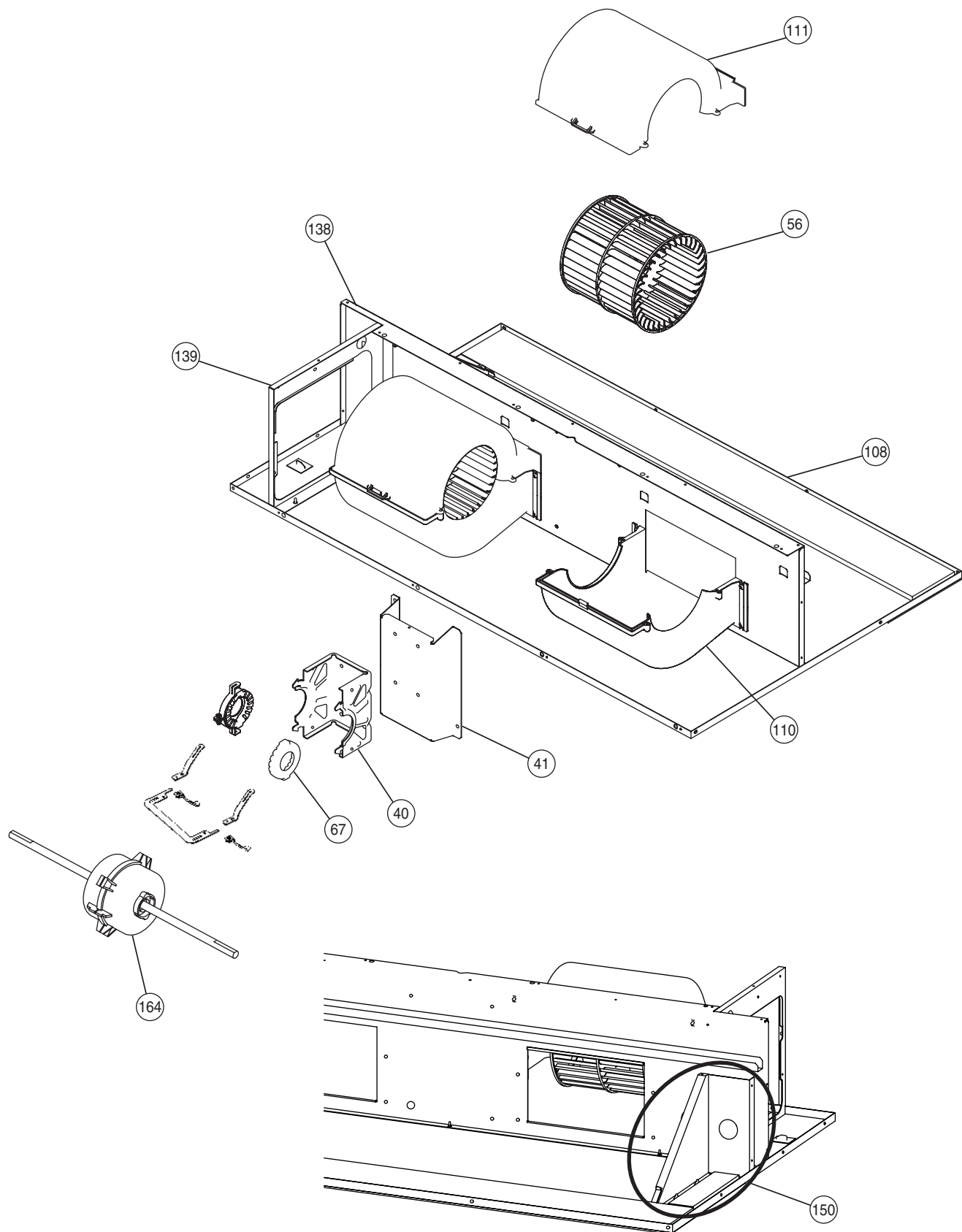
**Model : AOY36UNAXT**

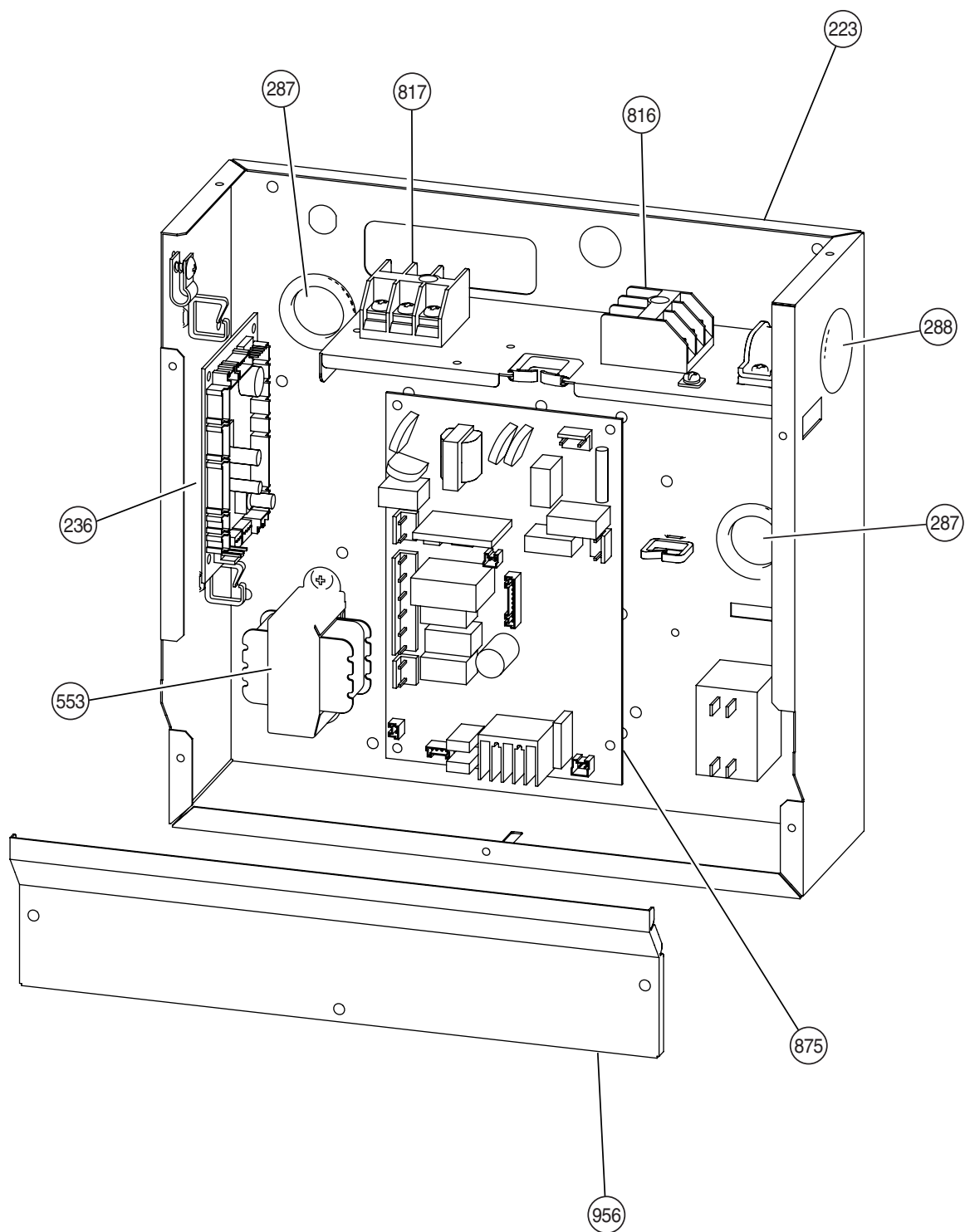


# DISASSEMBLY ILLUSTRATION

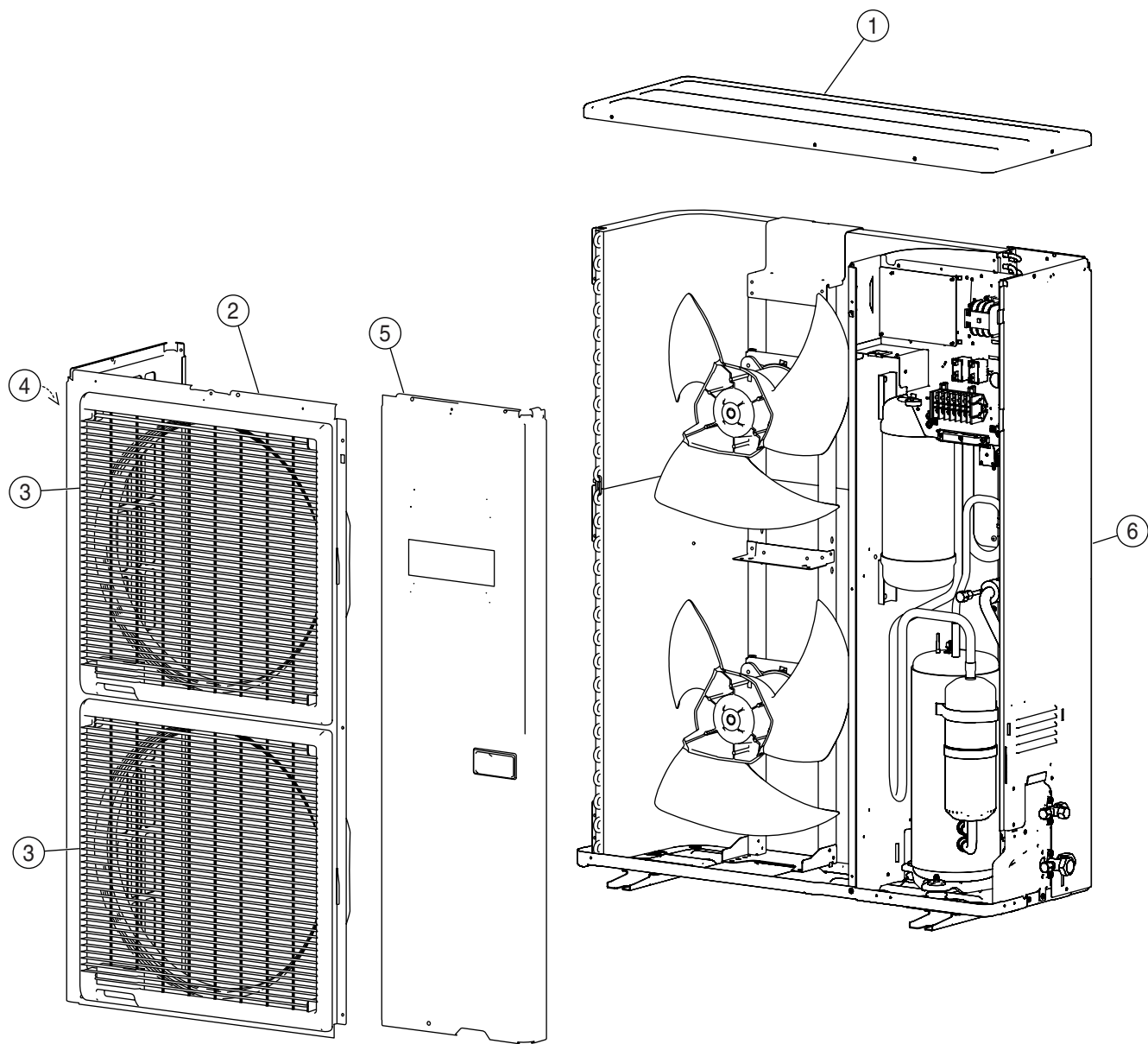
Models : ARY36FUAN  
ARY36UUAN



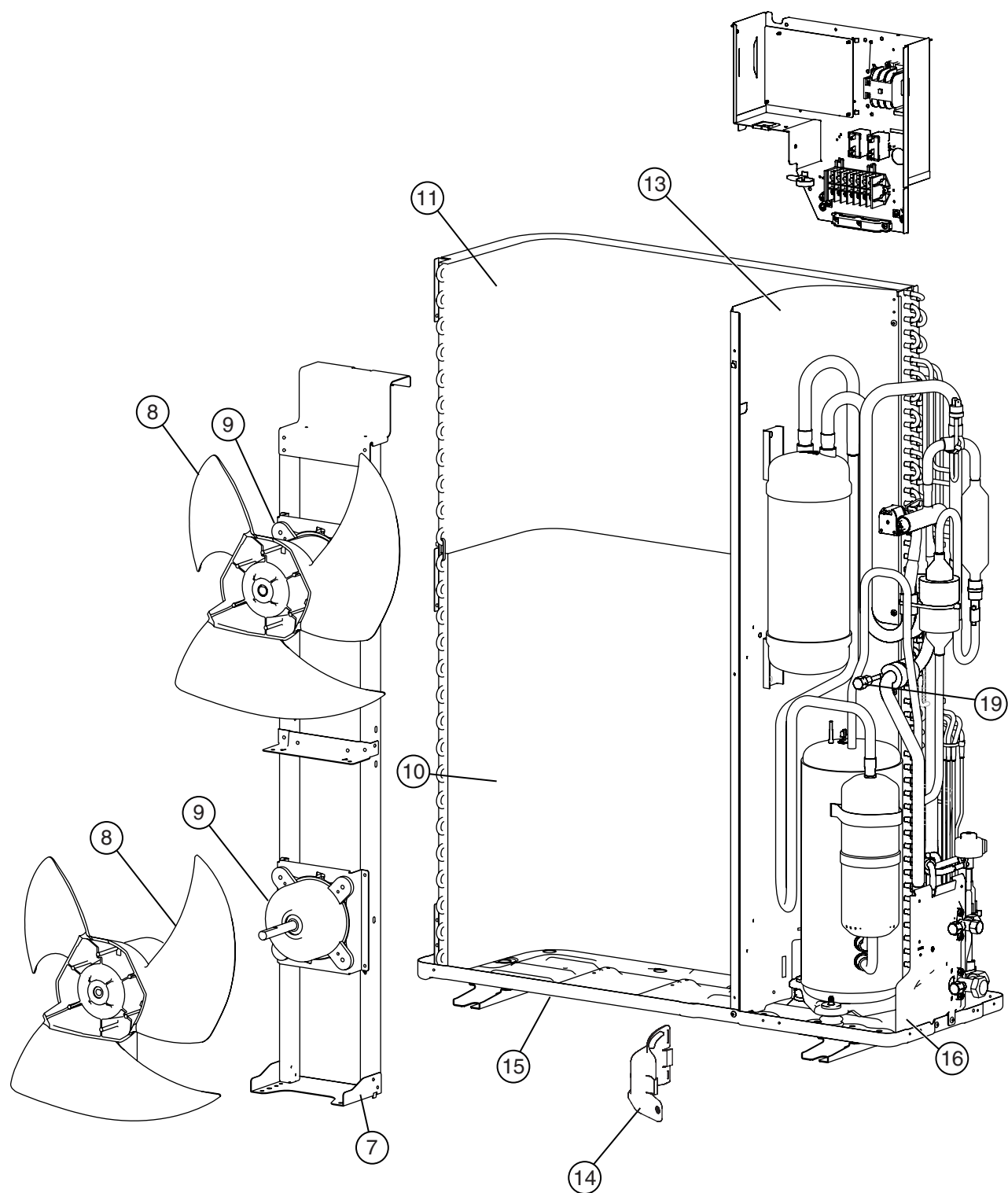




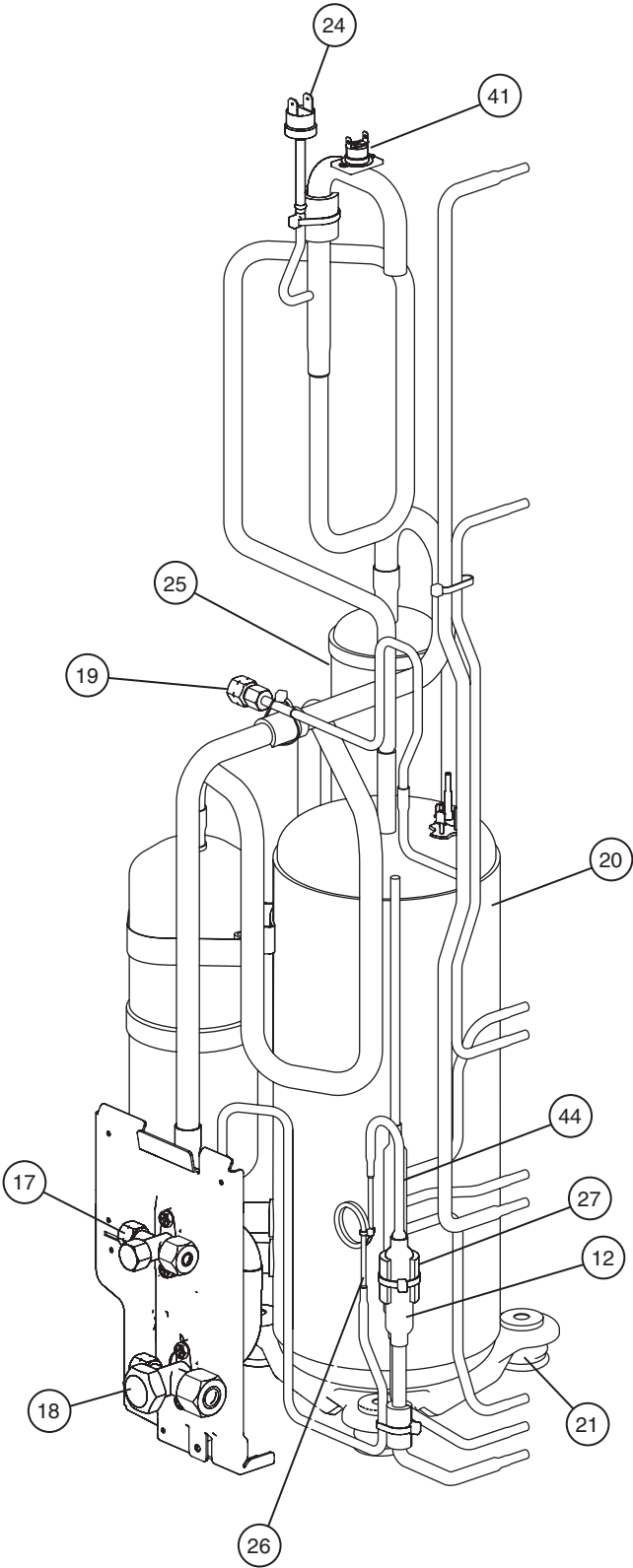
Models : AOY36FNAXT  
AOY36UNAXT



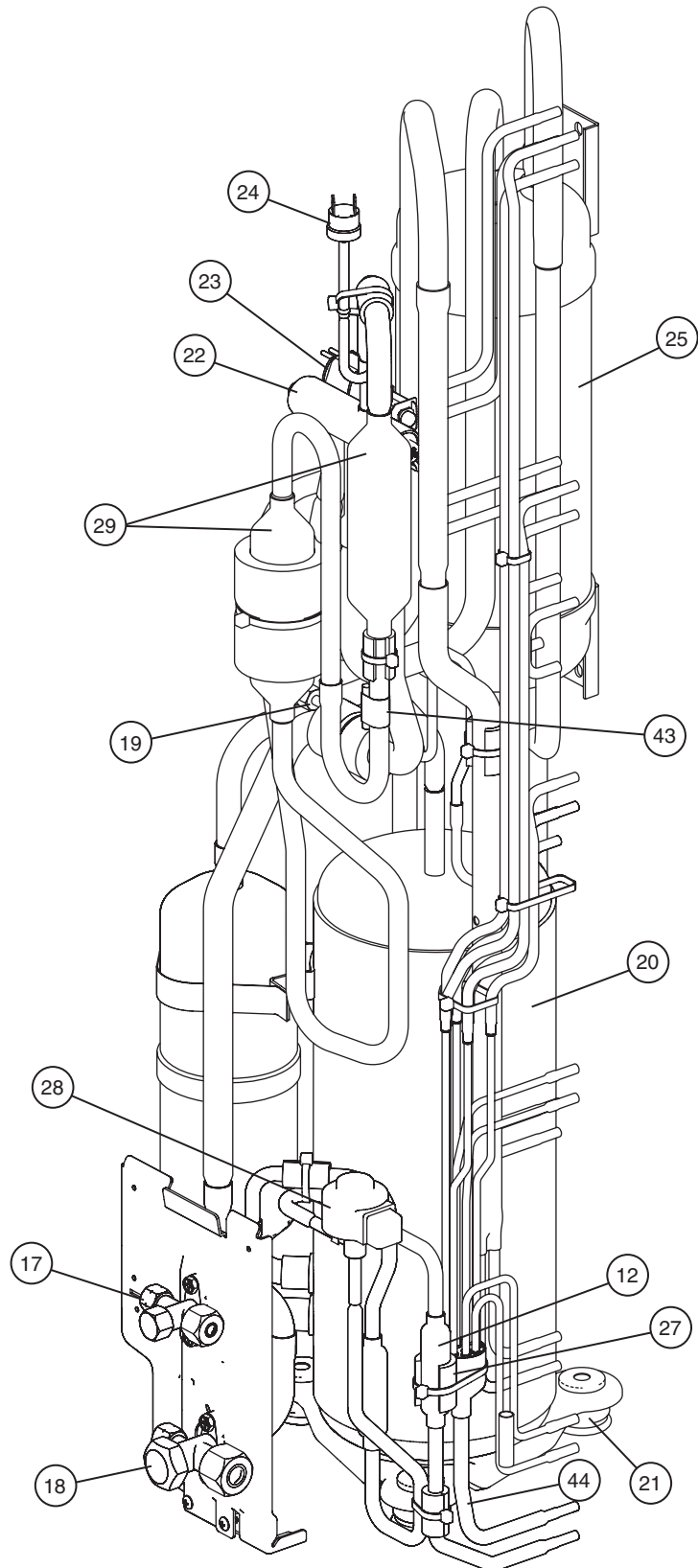
Models : AOY36FNAXT  
AOY36UNAXT



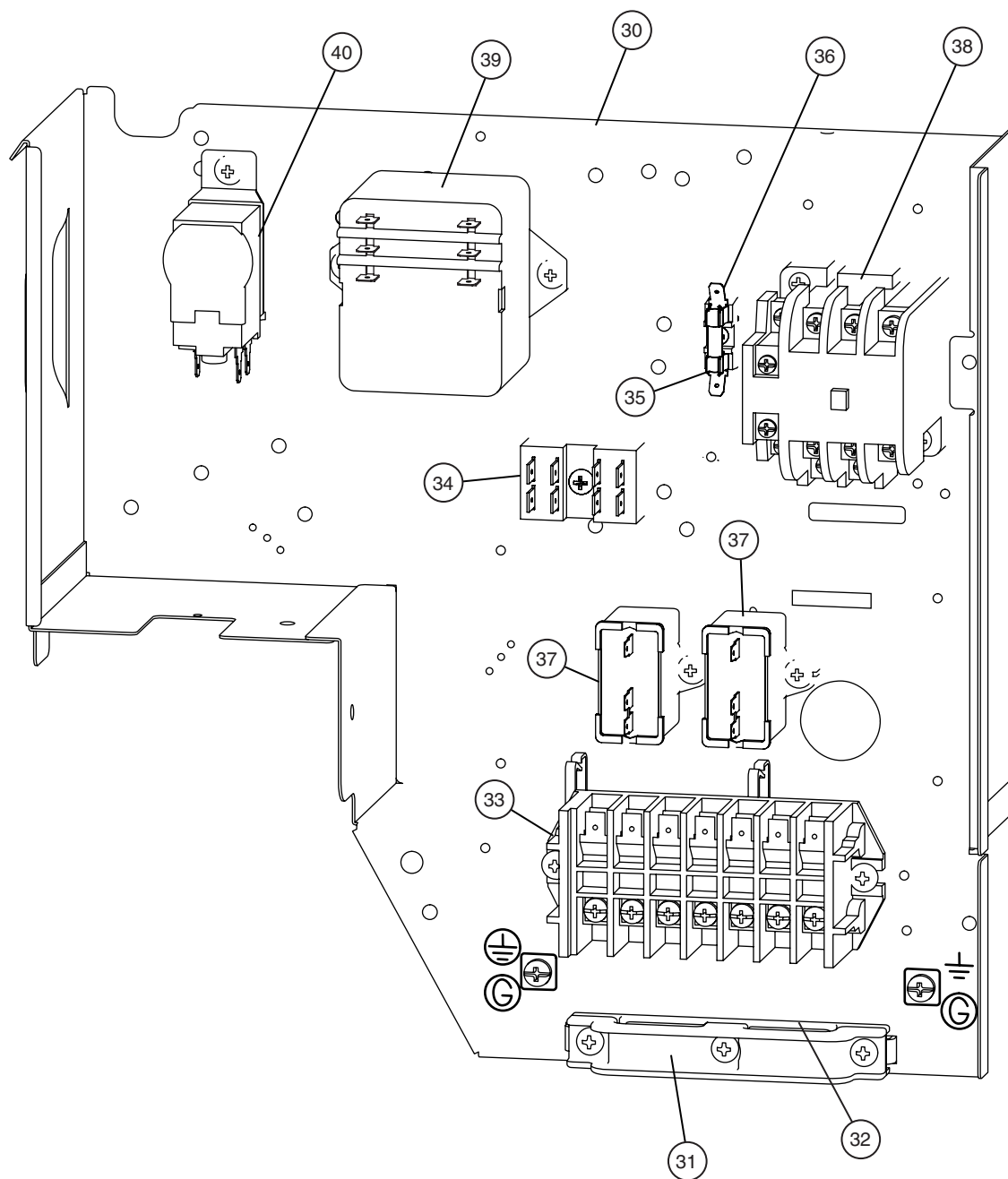
**Model : AOY36FNAXT**



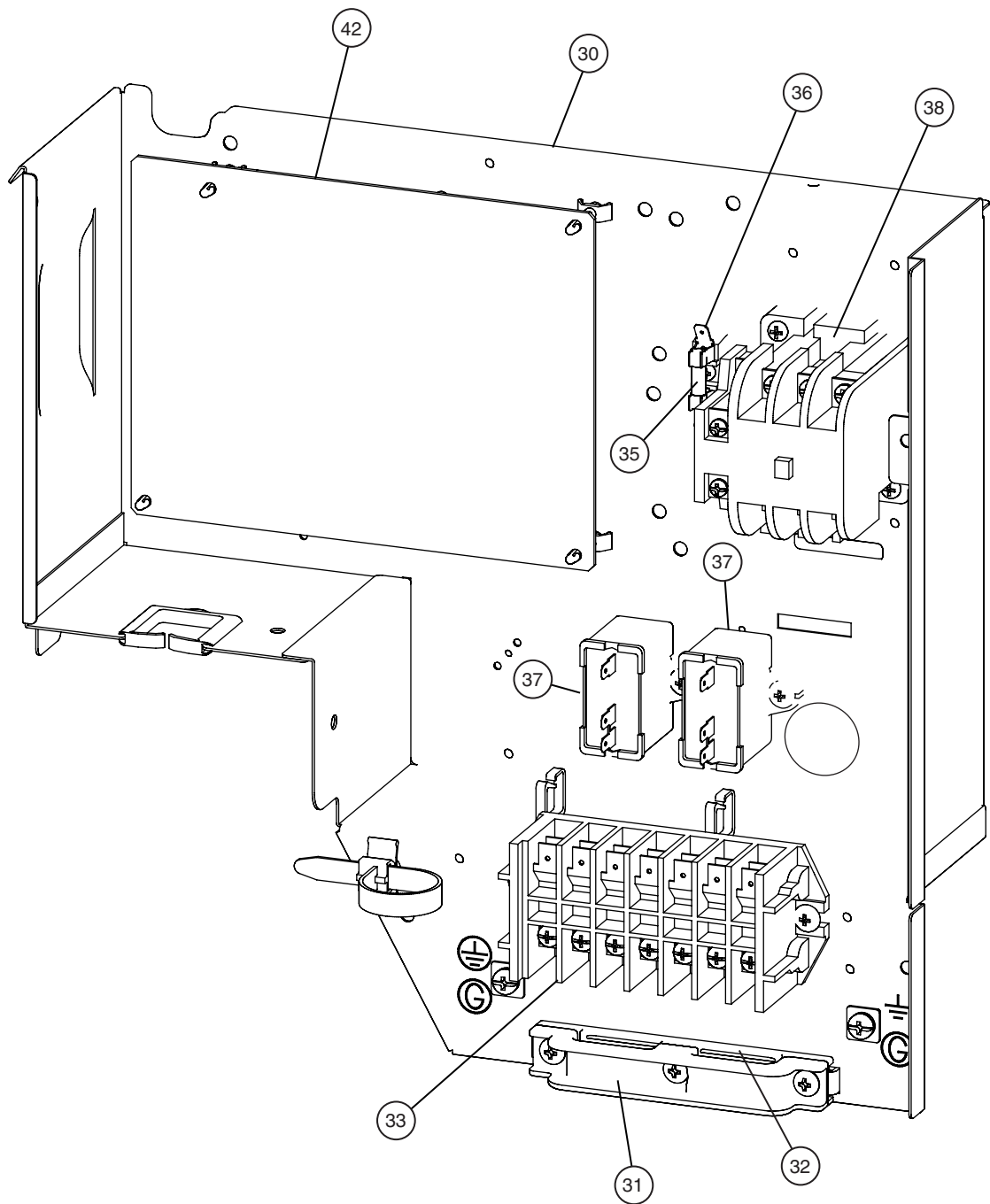
**Model : AOY36UNAXT**



**Model : AOY36FNAXT**



**Model : AOY36UNAXT**



# PARTS LIST

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

## INDOOR UNIT

| Ref. No. | Description                  | Part No.     |              | Ord. Q'ty | Ref. No. | Description                        | Part No.     |              | Ord. Q'ty |
|----------|------------------------------|--------------|--------------|-----------|----------|------------------------------------|--------------|--------------|-----------|
|          |                              | ARY36FUAN    | ARY36UUAN    |           |          |                                    | ARY36FUAN    | ARY36UUAN    |           |
| 20       | Control Cover-A Sub Assy     | 9374516018   | 9374516018   |           | 288      | One Touch Bush                     | 9374407019   | 9374407019   |           |
| 40       | Motor Mount                  | 9374281015   | 9374281015   |           | 324      | Main Panel Sub Assy                | 9374511013   | 9374511013   |           |
| 41       | Bracket Motor Assy           | 9374230013   | 9374230013   |           | 325      | Intake Frame Assy                  | 9374216017   | 9374216017   |           |
| 56       | Sirocco Fan Assy             | 9356531022   | 9356531022   |           | 553      | Transformer (Power)                | 9704129017   | 9704129017   |           |
| 67       | Rubber                       | 313659068604 | 313659068604 |           | 764      | Drain Cap                          | 9356541007   | 9356541007   |           |
| 72       | Cabinet-L Sub Assy           | 9374509010   | 9374509010   |           | 816      | Terminal-3P                        | 9703345012   | 9703345012   |           |
| 73       | Cabinet-R Sub Assy           | 9374508013   | 9374508013   |           | 817      | Terminal-3P                        | 9306489045   | 9306489045   |           |
| 74       | Intake Cover Sub Assy        | 9374512010   | 9374512010   |           | 875      | Power Supply PCB Assy              | 9705668027   | 9705668010   |           |
| 75       | Outlet Panel Sub Assy        | 9374510016   | 9374510016   |           | 956      | Control Cover -B                   | 9374222018   | 9374222018   |           |
| 108      | Base Sub Assy                | 9374504015   | 9374504015   |           | —        | Thermistor Spring-A                | 313728262708 | 313728262708 |           |
| 110      | Casing-A                     | 9374233014   | 9374233014   |           | —        | Room Temperature Thermistor        | 9703299025   | 9703299025   |           |
| 111      | Casing-B                     | 9374234011   | 9374234011   |           | —        | Pipe Temperature Thermistor        | 9703297021   | 9703297021   |           |
| 138      | Separate Wall Assy           | 9374228010   | 9374228010   |           | —        | Remote Control Unit Assy           | 9372266021   | 9372266014   |           |
| 139      | Panel (Control Box) Sub Assy | 9374506019   | 9374506019   |           | —        | RFM (Motor Band)                   | 9374646012   | 9374646012   |           |
| 146      | Evaporator Total Assy        | 9374517015   | 9374517015   |           | —        | Control Box-B                      | 9374220014   | 9374220014   |           |
| 150      | Bracket (Eva. )-R            | 9374207015   | 9374207015   |           | —        | Motor Band-A Assy                  | 9374647019   | 9374647019   |           |
| 160      | Drain Pan Sub Assy           | 9374513017   | 9374513017   |           | —        | Wire w/Connector                   | 9704856012   | 9704856012   |           |
| 164      | Motor, Induction             | 9600830093   | 9600830093   |           | —        | Wire w/Connector                   | —            | 9705245020   |           |
| 223      | Control Box-A                | 9374219018   | 9374219018   |           | —        | Wire w/Connector                   | 9705243026   | 9705243026   |           |
| 236      | Controller PCB Assy          | 9705246089   | 9705246096   |           | —        | Wire w/Connector                   | 9705244023   | 9705244023   |           |
| 287      | Cap (Power)                  | 9352173011   | 9352173011   |           | —        | Capacitor, Plastic (For Fan Motor) | 9900269173   | 9900269173   |           |

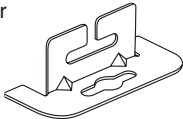
When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

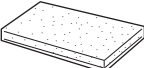
# OUTDOOR UNIT

| Ref. No. | Description                 | Part No.     |              | Ord. Q'ty | Ref. No. | Description                        | Part No.     |              | Ord. Q'ty |
|----------|-----------------------------|--------------|--------------|-----------|----------|------------------------------------|--------------|--------------|-----------|
|          |                             | AOY36FNAXT   | AOY36UNAXT   |           |          |                                    | AOY36FNAXT   | AOY36UNAXT   |           |
| 1        | Top Panel Sub Assy          | 9374417018   | 9374417018   |           | 25       | Accumulator                        | 9374338016   | 9371615011   |           |
| 2        | Front Panel-L, Painted      | 9374094042   | 9374094042   |           | —        | Insulation (Accumulator)           | 9374435029   | 9374435012   |           |
| 3        | Fan Guard                   | 9374330010   | 9374330010   |           | 26       | Capillary Assy                     | 9372197318   | —            |           |
| 4        | Side Grip                   | 9374173013   | 9374173013   |           | 27       | Capillary Holder Rubber            | 313394274808 | 313394274808 |           |
| 5        | Service Panel Sub Assy      | 9374415021   | 9374415021   |           | 28       | Expansion Valve Assy               | —            | 9370947090   |           |
| 6        | Right Panel Sub Assy        | 9374416028   | 9374416028   |           | 29       | Muffler                            | —            | 9372369036   |           |
| 7        | Motor Bracket Sub Assy      | 9374418022   | 9374418022   |           | 30       | Control Box Assy                   | 9374164011   | 9374164011   |           |
| 8        | Propeller Fan Assy          | 9366378013   | 9366378013   |           | 31       | Double Clamp-U                     | 9374175017   | 9374175017   |           |
| 9        | Motor, Induction            | 9601671060   | 9601671060   |           | 32       | Double Clamp-L                     | 9374176014   | 9374176014   |           |
| —        | Condenser-A Sub Assy        | 9374420063   | 9374420032   |           | 33       | Terminal HP-T3041-B7-L0            | 9363276039   | 9363276039   |           |
| 10       | Condenser-A Assy            | 9374433049   | 9374433032   |           | 34       | Terminal HP-T4005-21               | 9701971015   | —            |           |
| —        | Condenser-B Sub Assy        | 9374422043   | 9374422036   |           | 35       | Fuse 5A-250V                       | 0600376086   | 0600376086   |           |
| 11       | Condenser-B Assy            | 9374434046   | 9374434039   |           | 36       | Fuse Holder                        | 0501456016   | 0501456016   |           |
| —        | Thermo. Holder              | 9374177011   | 9374177011   |           | 37       | Capacitor, Plastic (For Fan Motor) | 9900270049   | 9900270049   |           |
| 12       | Strainer Assy               | 9372524015   | 9372524015   |           | 38       | Magnetic Relay                     | 9900227012   | 9900227012   |           |
| 13       | Separate Wall-L             | 9374135028   | 9374135028   |           | 39       | Relay                              | 9900287016   | —            |           |
| 14       | Cap Foot                    | 9374345014   | 9374345014   |           | 40       | Outdoor Thermostat                 | 9900275013   | —            |           |
| —        | Accumulator Support-B Assy  | 9355350006   | —            |           | —        | Shield Tube-S                      | 9352307041   | —            |           |
| —        | Accumulator Holder Rubber   | 9354022010   | —            |           | 41       | Thermostat Overheat                | 9354061002   | —            |           |
| 15       | Base Assy                   | 9374166046   | 9374166046   |           | —        | Thermistor Assy                    | —            | 9900274016   |           |
| —        | M8 Project Bolt             | 313497178809 | 313497178809 |           | 42       | Controller PCB Assy                | —            | 9705677036   |           |
| —        | Valve Cover                 | 9374174010   | 9374174010   |           | —        | Varistor                           | —            | 0000515610   |           |
| 16       | Valve Plate                 | 9374099016   | 9374099016   |           | —        | Fuse 6.3A-250V                     | —            | 0600222574   |           |
| 17       | 3-Way Valve Assy (3/8)      | 9372205044   | 9372205044   |           | —        | Fuse Holder                        | —            | 0500158072   |           |
| 18       | 3-Way Valve Assy (5/8)      | 9372205075   | 9372205075   |           | —        | Wire w/Connector-A Assy (Fan)      | 9374398034   | —            |           |
| 19       | Check Joint Assy            | 9372802038   | 9372802038   |           | —        | Wire w/Connector Assy (Fan)        | —            | 9374398058   |           |
| —        | Belt Heater                 | 9361140257   | 9361140257   |           | —        | Wire w/Connector-B Assy (Fan)      | —            | 9374398027   |           |
| 20       | Compressor Assy             | 9372558096   | 9372558096   |           | —        | Wire w/Connector-A Assy (Heater)   | 9374399024   | 9374399017   |           |
| 21       | Rubber Seat (For Comp. )-A  | 9351049010   | 9351049010   |           | —        | Wire Assy (Switch)                 | 9374402014   | —            |           |
| —        | Terminal Cover (Compressor) | 9371511016   | 9371511016   |           | —        | Wire w/Terminal Assy (Comp. )      | 9374395026   | 9374395026   |           |
| —        | Cover Gasket (Compressor)   | 9371512013   | 9371512013   |           | —        | Wire w/Connector Assy (Relay)      | —            | 9374397013   |           |
| —        | Gasket Washer               | 9351053017   | 9351053017   |           | —        | Protective Net-L                   | 9374255023   | 9374255023   |           |
| —        | Special Nut M5              | 9300301015   | 9300301015   |           | 43       | Thermistor Spring                  | —            | 9372140017   |           |
| —        | Special Nut M8              | 9355091008   | 9355091008   |           | 44       | Outlet Pipe (Condenser)-A Assy     | 9374266036   | 9974266029   |           |
| —        | Compressor Cover-A          | 9374430024   | 9374430024   |           | —        | Drain Pipe (I-Yipe)                | —            | 9301102000   |           |
| —        | Compressor Cover-B          | 9374431021   | 9374431021   |           | —        | Drain Packing                      | —            | 9301143003   |           |
| 22       | 4-Way Valve                 | —            | 9900164010   |           | —        | Drain Cap                          | —            | 313166024302 |           |
| 23       | Solenoid                    | —            | 9900165055   |           |          |                                    |              |              |           |
| 24       | Pressure Switch             | 9900276010   | 9900186012   |           |          |                                    |              |              |           |

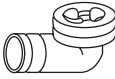
# STANDARD ACCESSORIES

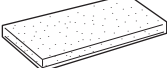
## INDOOR UNIT ACCESSORIES

| Name and Shape                                                                                                        | Q'ty | Application                                 |
|-----------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------|
| Hanger<br>                           | 4    | For suspending the indoor unit from ceiling |
| Special nut A (large flange)<br>     | 4    | For suspending the indoor unit from ceiling |
| Special nut B (small flange)<br>     | 4    |                                             |
| Coupler heat insulation (large)<br>  | 1    | For indoor side pipe joint (gas pipe)       |
| Coupler heat insulation (small)<br> | 1    | For indoor side pipe joint (liquid pipe)    |

| Name and Shape                                                                                                    | Q'ty      | Application                             |
|-------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------|
| Binder<br>                      | 1 (large) | For fixing the drain hose               |
|                                                                                                                   | 1 (small) | For fixing the remote controller cord   |
| Remote controller<br>           | 1         |                                         |
| Tapping screw (flush heads)<br> | 2         | For installing the remote controller    |
| Remote controller cord<br>      | 1         | For connecting the remote controller    |
| Drain hose insulation<br>      | 1         | Insulates the drain hose and vinyl hose |

## OUTDOOR UNIT ACCESSORIES

|                                                                                                   |   |                                                                                   |
|---------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------|
| Drain pipe<br> | 1 | For outdoor unit drain piping work<br>[Heat & Cool model<br>(Reverse cycle) only] |
| Drain cap<br>  | 2 |                                                                                   |

|                                                                                                           |   |                                                          |
|-----------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------|
| Insulation (seal)<br> | 1 | For filling in a gap at the entrance of connection cords |
|-----------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------|

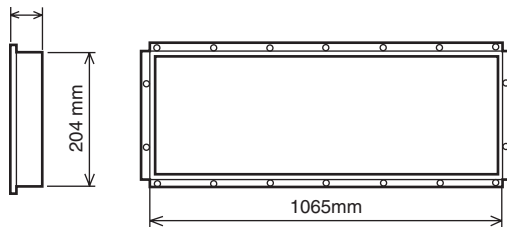
## OPTIONAL PARTS

When connecting the square duct and round duct, use the optional square flange or round flange.

### Square flange

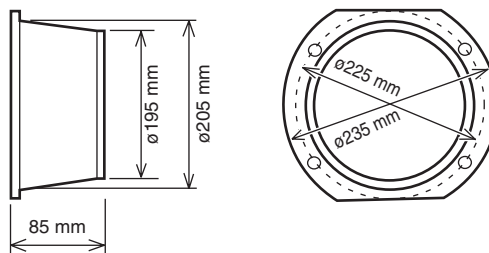
Model name : UTD-SF045T (P/N 9098180007)

40 mm



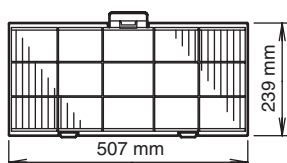
### Round flange

Model name : UTD-RF204 (P/N 9093160004)



### Long-life filter

Model name : UTD-LF25NA (P/N9079892004)



### Simple remote controller

Model name : UTB-YPB (P/N9077582006)

### Remote sensor

Model name : UTD-RS100 (P/N9072619004)

