

SPLIT TYPE  
ROOM AIR CONDITIONER  
FLOOR TYPE

# SERVICE MANUAL



|             |              |
|-------------|--------------|
| Indoor unit | Outdoor unit |
| AGU15RLF    | AOU15RLFF    |

## CONTENTS

|                                 |    |
|---------------------------------|----|
| SPECIFICATIONS.....             | 1  |
| DIMENSIONS.....                 | 4  |
| REFRIGERANT SYSTEM DIAGRAM... . | 5  |
| CIRCUIT DIAGRAM.....            | 6  |
| INDOOR PCB CIRCUIT DIAGRAM..... | 7  |
| OUTDOOR PCB CIRCUIT DIAGRAM . . | 10 |
| ERROR DETECTION.....            | 14 |
| PARTS (INDOOR UNIT).....        | 15 |
| PARTS (OUTDOOR UNIT).....       | 20 |
| ACCESSORIES.....                | 23 |

# SPECIFICATIONS

## INDOOR UNIT

| Type                        |                        |           |               | Floor type                                                         |           |                    |  |
|-----------------------------|------------------------|-----------|---------------|--------------------------------------------------------------------|-----------|--------------------|--|
|                             |                        |           |               | Inverter, Heat pump                                                |           |                    |  |
| Model name                  |                        |           |               | AGU15RLF                                                           |           |                    |  |
| Power supply                |                        |           |               | 208/230 V ~60 Hz                                                   |           |                    |  |
| Power supply intake         |                        |           |               | Outdoor unit                                                       |           |                    |  |
| Available voltage range     |                        |           |               | 187—253 V                                                          |           |                    |  |
| Capacity                    | Cooling                | Rated     | kW            | 4.16                                                               |           |                    |  |
|                             |                        |           | Btu/h         | 14,200                                                             |           |                    |  |
|                             |                        | Min.—Max. | kW            | 0.90—5.20                                                          |           |                    |  |
|                             |                        |           | Btu/h         | 3,100—17,700                                                       |           |                    |  |
|                             | Heating                | Rated     | kW            | 5.28                                                               |           |                    |  |
|                             |                        |           | Btu/h         | 18,000                                                             |           |                    |  |
|                             |                        | Min.—Max. | kW            | 0.90—6.10                                                          |           |                    |  |
|                             |                        |           | Btu/h         | 3,100—20,800                                                       |           |                    |  |
|                             | Heating (17°F)*1       | Rated     | kW            | 3.4                                                                |           |                    |  |
|                             |                        |           | Btu/h         | 11,600                                                             |           |                    |  |
|                             |                        | Max.      | kW            | 5.57                                                               |           |                    |  |
|                             |                        |           | Btu/h         | 19,000                                                             |           |                    |  |
| Heating (5°F)*2             | Rated                  | kW        | 5.3           |                                                                    |           |                    |  |
|                             |                        | Btu/h     | 18,100        |                                                                    |           |                    |  |
|                             | Max.                   | kW        | 5.56          |                                                                    |           |                    |  |
|                             |                        | Btu/h     | 18,960        |                                                                    |           |                    |  |
| Input power                 | Cooling                | Rated     | kW            | 1.13                                                               |           |                    |  |
|                             |                        | Min.—Max. |               | 0.18—2.16                                                          |           |                    |  |
|                             | Heating                | Rated     |               | 1.58                                                               |           |                    |  |
|                             |                        | Min.—Max. |               | 0.18—3.30                                                          |           |                    |  |
|                             | Heating (17°F)*1       | Rated     |               | 1.30                                                               |           |                    |  |
|                             |                        | Max.      |               | 2.89                                                               |           |                    |  |
|                             | Heating (5°F)*2        | Rated     |               | 2.87                                                               |           |                    |  |
|                             |                        | Max.      |               | 2.91                                                               |           |                    |  |
| Current                     | Cooling                | Rated     | A             | 5.1                                                                |           |                    |  |
|                             | Heating                |           | 7.0           |                                                                    |           |                    |  |
| EER2                        | Cooling                |           | kW/kW         | 3.68                                                               |           |                    |  |
|                             |                        |           | Btu/h         | 12.5                                                               |           |                    |  |
| COP2                        | Heating                |           | kW/kW         | 3.34                                                               |           |                    |  |
|                             |                        |           | Btu/h         | 11.3                                                               |           |                    |  |
| SEER2                       | Cooling                |           | Btu/h         | 20.3                                                               |           |                    |  |
| HSPF2                       | Heating                |           | Btu/h         | 10.7                                                               |           |                    |  |
| Power factor                | Cooling                |           | %             | 96.3                                                               |           |                    |  |
|                             | Heating                |           |               | 98.1                                                               |           |                    |  |
| Moisture removal            |                        |           | pints/h (L/h) | 4.4 (2.1)                                                          |           |                    |  |
| Maximum operating current*3 |                        | Cooling   | A             | 9.8                                                                |           |                    |  |
|                             |                        | Heating   |               | 13.8                                                               |           |                    |  |
| Fan                         | Airflow rate           | Cooling   | HIGH          | CFM (m³/h)                                                         | 383 (650) |                    |  |
|                             |                        |           | MED           |                                                                    | 306 (520) |                    |  |
|                             |                        |           | LOW           |                                                                    | 235 (400) |                    |  |
|                             |                        |           | QUIET         |                                                                    | 159 (270) |                    |  |
|                             |                        | Heating   | HIGH          |                                                                    | 383 (650) |                    |  |
|                             |                        |           | MED           |                                                                    | 306 (520) |                    |  |
|                             |                        |           | LOW           |                                                                    | 230 (390) |                    |  |
|                             |                        |           | QUIET         |                                                                    | 159 (270) |                    |  |
|                             | Type × Qty             |           |               |                                                                    |           | Cross flow fan × 2 |  |
|                             | Motor output           |           |               |                                                                    | W         | 16 × 2             |  |
| Sound pressure level*4      | Cooling                | HIGH      | dB (A)        | 44                                                                 |           |                    |  |
|                             |                        | MED       |               | 38                                                                 |           |                    |  |
|                             |                        | LOW       |               | 31                                                                 |           |                    |  |
|                             |                        | QUIET     |               | 23                                                                 |           |                    |  |
|                             | Heating                | HIGH      |               | 43                                                                 |           |                    |  |
|                             |                        | MED       |               | 37                                                                 |           |                    |  |
|                             |                        | LOW       |               | 29                                                                 |           |                    |  |
|                             |                        | QUIET     |               | 23                                                                 |           |                    |  |
| Heat exchanger type         | Dimensions (H × W × D) |           | in (mm)       | 14-7/8 × 21-5/8 × 1-1/16 (378 × 550 × 26.6)                        |           |                    |  |
|                             | Fin pitch              |           | FPI           | 21                                                                 |           |                    |  |
|                             | Rows × Stages          |           |               | 2 × 18                                                             |           |                    |  |
|                             | Pipe type              |           |               | Copper tube                                                        |           |                    |  |
|                             | Fin type               |           |               | Aluminum                                                           |           |                    |  |
| Enclosure                   | Material               |           |               | Polystyrene                                                        |           |                    |  |
|                             | Color                  |           |               | White                                                              |           |                    |  |
| Dimensions (H × W × D)      | Net                    |           | in            | 23-5/8 × 29-1/8 × 7-7/8                                            |           |                    |  |
|                             |                        |           | mm            | 600 × 740 × 200                                                    |           |                    |  |
|                             | Gross                  |           | in            | 27-9/16 × 32-5/16 × 12-3/16                                        |           |                    |  |
|                             |                        |           | mm            | 700 × 820 × 310                                                    |           |                    |  |
| Weight                      | Net                    |           | lb (kg)       | 31 (14)                                                            |           |                    |  |
|                             | Gross                  |           |               | 37 (17)                                                            |           |                    |  |
| Connection pipe             | Size                   | Liquid    | in (mm)       | Ø 1/4 (Ø 6.35)                                                     |           |                    |  |
|                             |                        | Gas       |               | Ø 1/2 (Ø 12.70)                                                    |           |                    |  |
|                             | Method                 |           |               |                                                                    | Flare     |                    |  |
| Operation range             | Cooling                |           | °F (°C)       | 64 to 90 (18 to 32)                                                |           |                    |  |
|                             |                        |           | %RH           | 80 or less                                                         |           |                    |  |
|                             | Heating                |           | °F (°C)       | 60 to 88 (16 to 30)                                                |           |                    |  |
| Remote controller type      |                        |           |               | Wireless (Wired [option])                                          |           |                    |  |
| Drain hose                  | Material               |           |               | PP + LLDPE                                                         |           |                    |  |
|                             | Size                   |           | in (mm)       | Ø 9/16 (Ø 13.8) (I.D.), Ø 5/8 to Ø 11/16 (Ø 15.8 to Ø 16.7) (O.D.) |           |                    |  |

| Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Floor type          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Inverter, Heat pump |
| Model name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | AGU15RLF            |
| <b>NOTES:</b> <ul style="list-style-type: none"> <li>Specifications are based on the following conditions: <ul style="list-style-type: none"> <li>Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FDB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FDB (23.9°CWB).</li> <li>Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FDB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FDB (6.11°CWB).</li> <li>*1: Heating (17°F): Indoor temperature of 70°FDB (21.11°CDB)/60°FDB (15.56°CWB), and outdoor temperature of 17°FDB (-8.33°CDB)/15°FDB (-9.44°CWB).</li> <li>*2: Heating (5°F): Indoor temperature of 70°FDB (21.11°CDB)/60°FDB (15.56°CWB), and outdoor temperature of 5°FDB (-15.0°CDB)/4°FDB (-15.56°CWB).</li> <li>Test conditions are based on AHRI 210/240 2023.</li> <li>Pipe length: 24 ft (7.5 m.) Height difference: 0 m. (Between outdoor unit and indoor unit.)</li> </ul> </li> <li>Protective function might work when using it outside the operation range.</li> <li>*3: Maximum current is maximum value when operated within the operation range.</li> <li>*4: Sound pressure level: <ul style="list-style-type: none"> <li>Measured values in manufacturer's anechoic chamber.</li> <li>Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.</li> </ul> </li> </ul> |                     |

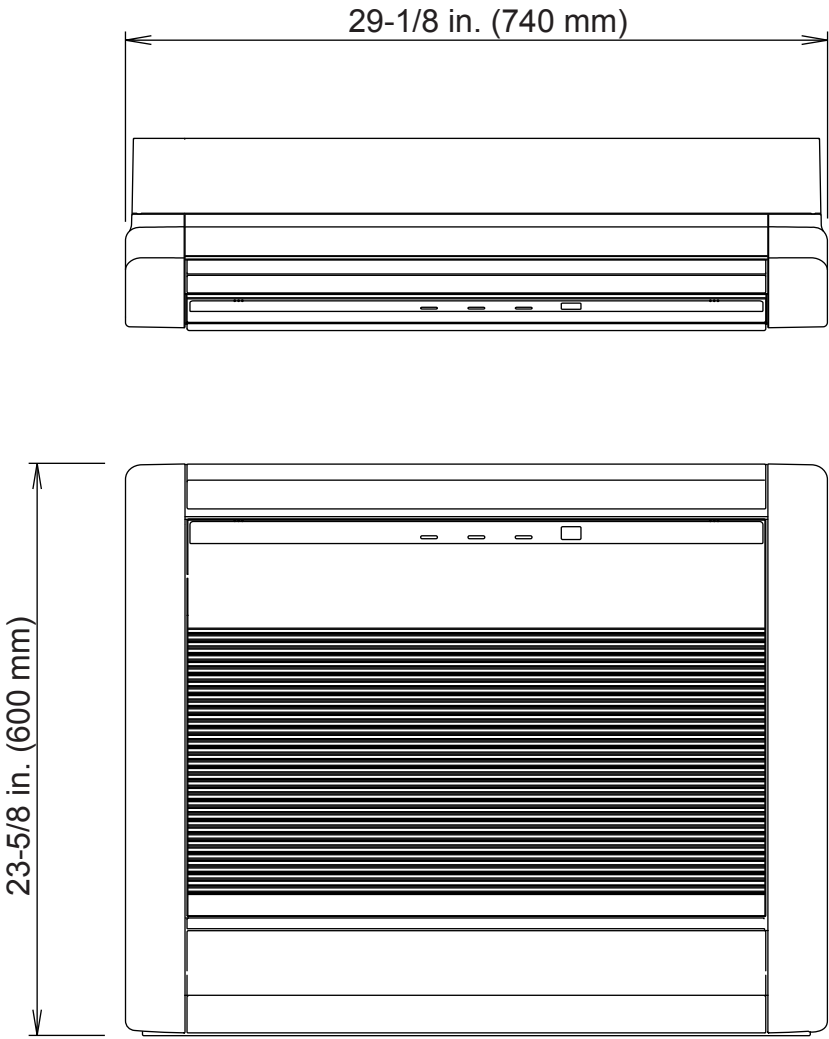
| M condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |           |           |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------|-----------|--------------|
| Model name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |           |           | AGU15RLF     |
| Capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cooling         | Rated     | kW        | 4.16         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Btu/h     | 14,200       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 | Min.—Max. | kW        | 0.90—5.20    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Btu/h     | 3,100—17,700 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Heating         | Rated     | kW        | 5.28         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Btu/h     | 18,000       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 | Min.—Max. | kW        | 0.90—6.10    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Btu/h     | 3,100—20,800 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Heating (17°F)* | Rated     | kW        | 3.4          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Btu/h     | 11,600       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 | Max.      | kW        | 5.57         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Btu/h     | 19,000       |
| Input power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cooling         | kW        | Rated     | 1.13         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Min.—Max. | 0.18—2.16    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Heating         |           | Rated     | 1.58         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Min.—Max. | 0.18—3.30    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Heating (17°F)* |           | Rated     | 1.30         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |           | Max.      | 2.89         |
| Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Cooling         | A         | 5.1       |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Heating         |           | 7.0       |              |
| EER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Cooling         | kW/kW     | 3.68      |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 | Btu/h     | 12.5      |              |
| COP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Heating         | kW/kW     | 3.34      |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 | Btu/h     | 11.3      |              |
| SEER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Cooling         | Btu/h     | 20.3      |              |
| HSPF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Heating         | Btu/h     | 11.2      |              |
| Power factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cooling         | %         | 96.3      |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Heating         |           | 98.1      |              |
| <b>NOTES:</b><br>Specifications are based on the following conditions: <ul style="list-style-type: none"><li>• Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FWB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).</li><li>• Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15.56°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).</li><li>• *: Heating (17°F): Indoor temperature of 70°FDB (21.11°CDB)/60°FWB (15.56°CWB), and outdoor temperature of 17°FDB (-8.33°CDB)/15°FWB (-9.44°CWB).</li><li>• Test conditions are based on AHRI 210/240 2017.</li><li>• Pipe length: 25 ft (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)</li></ul> |                 |           |           |              |

# OUTDOOR UNIT

| Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                        |                                                    | Inverter heat pump          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------|----------------------------------------------------|-----------------------------|
| Model name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                        |                                                    | AOU15RLFF                   |
| Power supply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                        |                                                    | 208/230 V ~ 60 Hz           |
| Available voltage range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |                        |                                                    | 187—253 V ~ 60 Hz           |
| Starting current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                        |                        | A                                                  | 7.0                         |
| Fan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Airflow rate           | Cooling                | CFM (m³/h)                                         | 1,457 (2,475)               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Heating                |                                                    | 1,386 (2,355)               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Type × Q'ty            | Propeller fan × 1      |                                                    |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Motor output           | W115                   |                                                    |                             |
| Sound pressure level *1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        | Cooling                | dB (A)                                             | 54                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Heating                |                                                    | 54                          |
| Heat exchanger type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                        | Dimensions (H × W × D) | in                                                 | 23-1/8 × 34-11/16 × 1-7/16  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                        | mm                                                 | 588 × 881 × 36.4            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Fin pitch              | FPI                                                | 20                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Rows × Stages          | 2 × 28                                             |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Pipe type              | Copper                                             |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Fin type               | Type (Material)                                    | Corrugate (Aluminum)        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                        | Surface treatment                                  | PC Fin                      |
| Compressor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Type × Q'ty            | Rotary × 1             |                                                    |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Motor output           | W                      | 1,000                                              |                             |
| Refrigerant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        | Type                   | R410A                                              |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Charge                 | lb oz                                              | 2lb 12oz                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                        | g                                                  | 1,250                       |
| Refrigerant oil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Type                   | FREOL α68SZ                                        |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Amount                 | in³ (cm³)                                          | 21.4 (350)                  |
| Enclosure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        | Material               | Steel sheet                                        |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Color                  | Beige<br>Approximate color of Munsell 10YR 7.5/1.0 |                             |
| Dimensions (H × W × D)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Net                    |                        | in                                                 | 24-7/16 × 31-1/8 × 11-7/16  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                        | mm                                                 | 620 ×790 × 290              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Gross                  |                        | in                                                 | 28-1/16 × 37-3/16 × 15-9/16 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                        | mm                                                 | 713 × 945 × 395             |
| Weight                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Net                    | lb (kg)                | 86 (39)                                            |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Gross                  |                        | 95 (43)                                            |                             |
| Connection pipe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Size                   | Liquid                 | in (mm)                                            | Ø 1/4 (Ø 6.35)              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Gas                    |                                                    | Ø 1/2 (Ø 12.7)              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Method                 | Flare                  |                                                    |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pre-charge length      | ft (m)                 | 49 (15)                                            |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Max. length            |                        | 66 (20)                                            |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Min. length            |                        | 10 (3)                                             |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Max. height difference |                        | 49 (15)                                            |                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        |                        |                                                    |                             |
| Operation range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Cooling                | °F (°C)                                            | 14 to 115 (-10 to 46)       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                        | Heating                |                                                    | -5 to 75 (-21 to 24)        |
| NOTES:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                        |                        |                                                    |                             |
| <div><div><div>• Specifications are based on the following conditions:</div><div><div>– Cooling: Indoor temperature of 80 °FDB (26.67 °CDB) / 67 °FDB (19.44 °CWB), and outdoor temperature of 95 °FDB (35 °CDB) / 75 °FDB (23.9 °CWB).</div><div>– Heating: Indoor temperature of 70 °FDB (21.11 °CDB) / 59 °FDB (15 °CWB), and outdoor temperature of 47 °FDB (8.33 °CDB) / 43 °FDB (6.11 °CWB).</div><div>– Pipe length: 24 ft (7.5 m), Height difference: 0 m. (Between outdoor unit and indoor unit.)</div></div></div><div><div>• Protective function might work when using it outside the operation range.</div><div>• *1: Sound pressure level</div><div><div>– Measured values in manufacturer's anechoic chamber.</div><div>– Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.</div></div></div></div> |                        |                        |                                                    |                             |

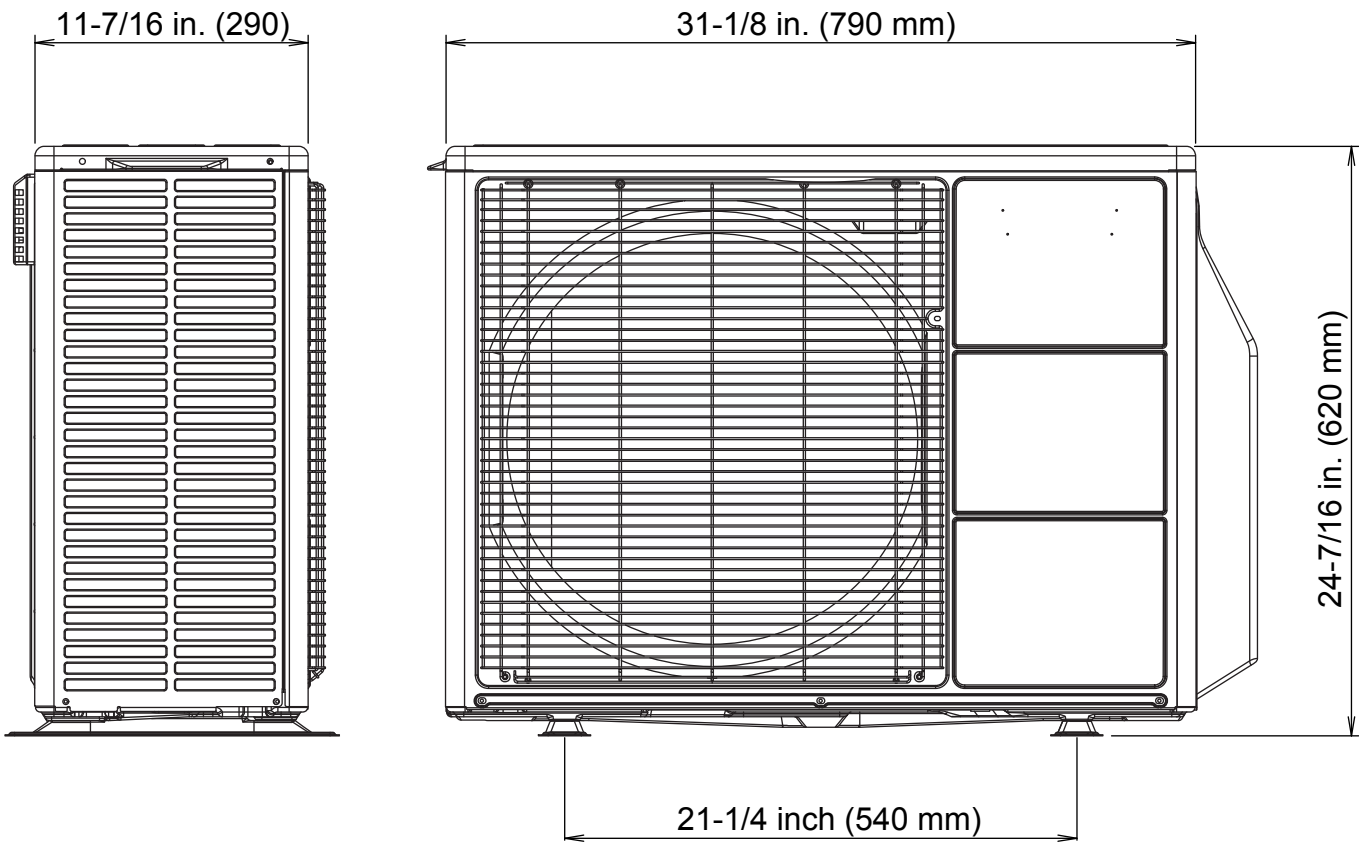
DIMENSIONS

INDOOR UNIT

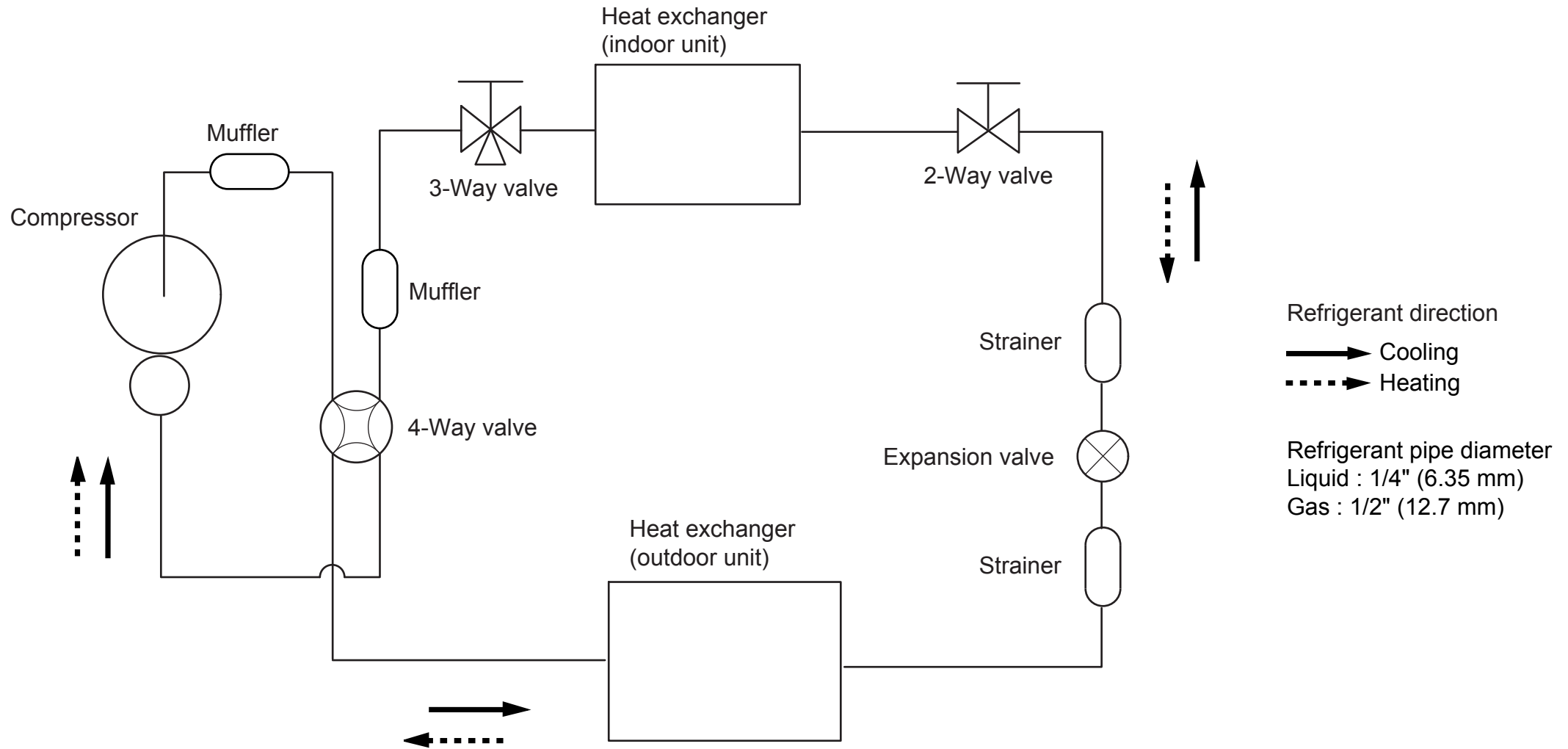


Drain hose length : 600 mm  
Drain pipe diameter  
Inside : 14.2 mm  
Outside : 16.2 mm

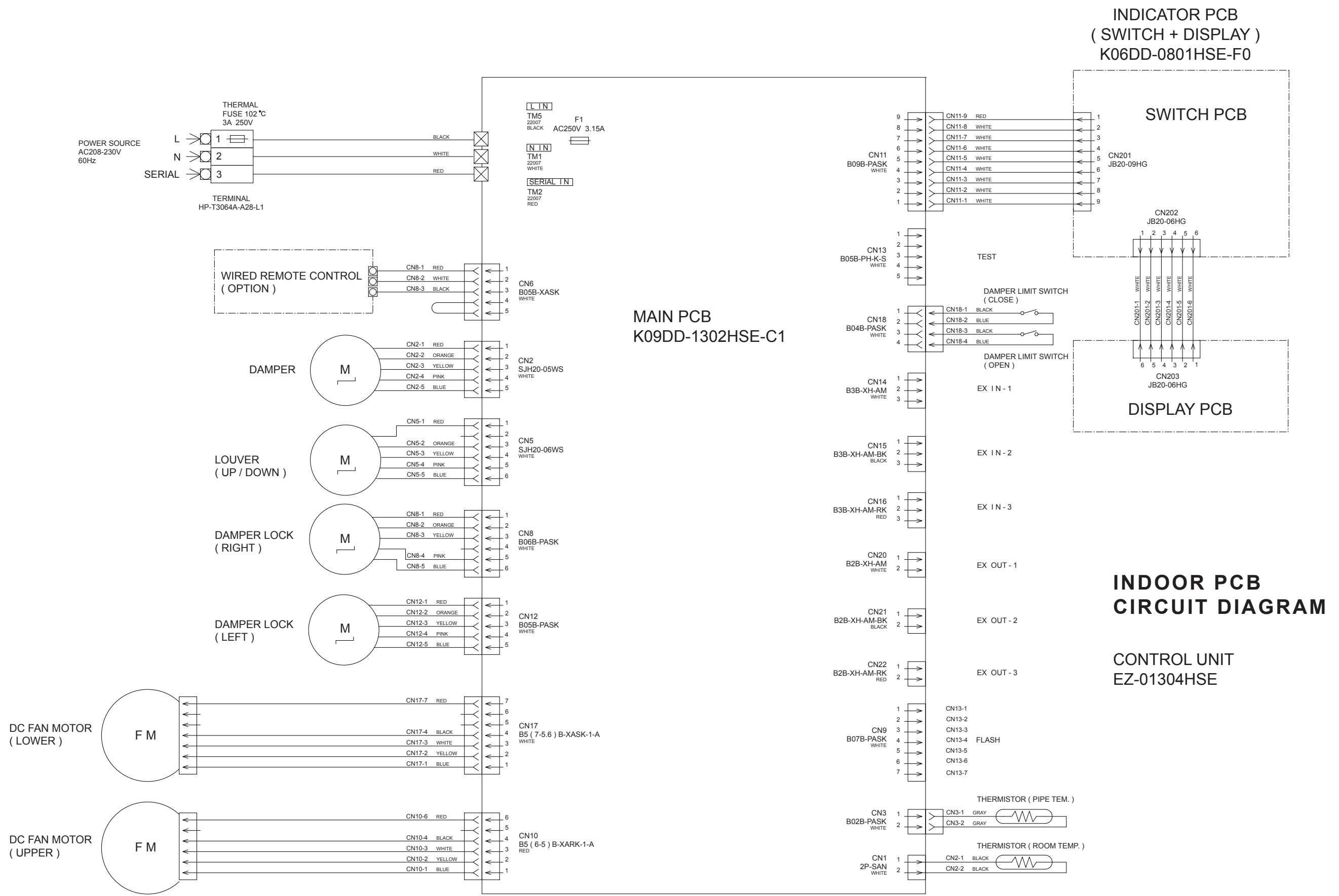
OUTDOOR UNIT



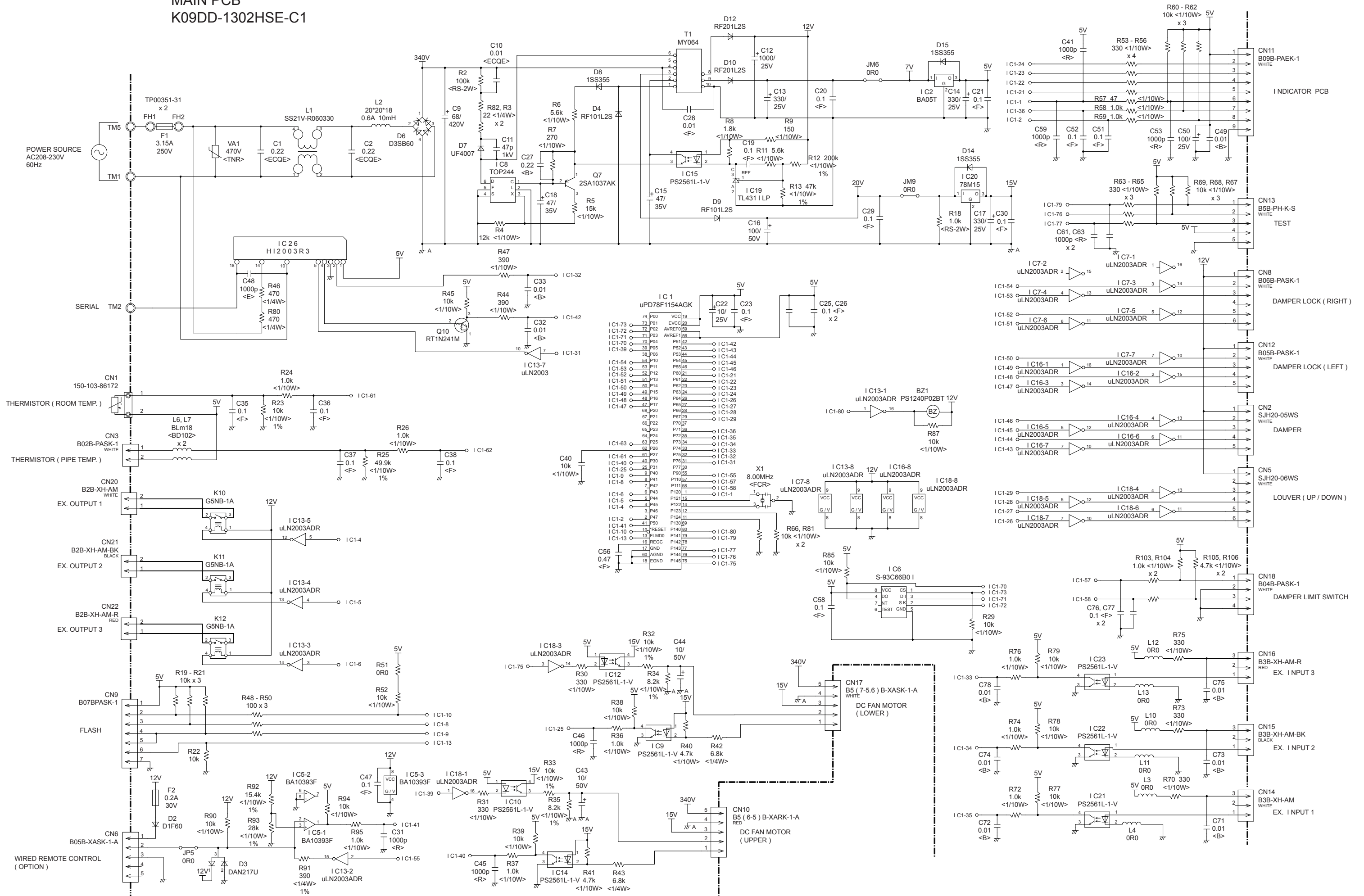
# REFRIGERANT SYSTEM DIAGRAM



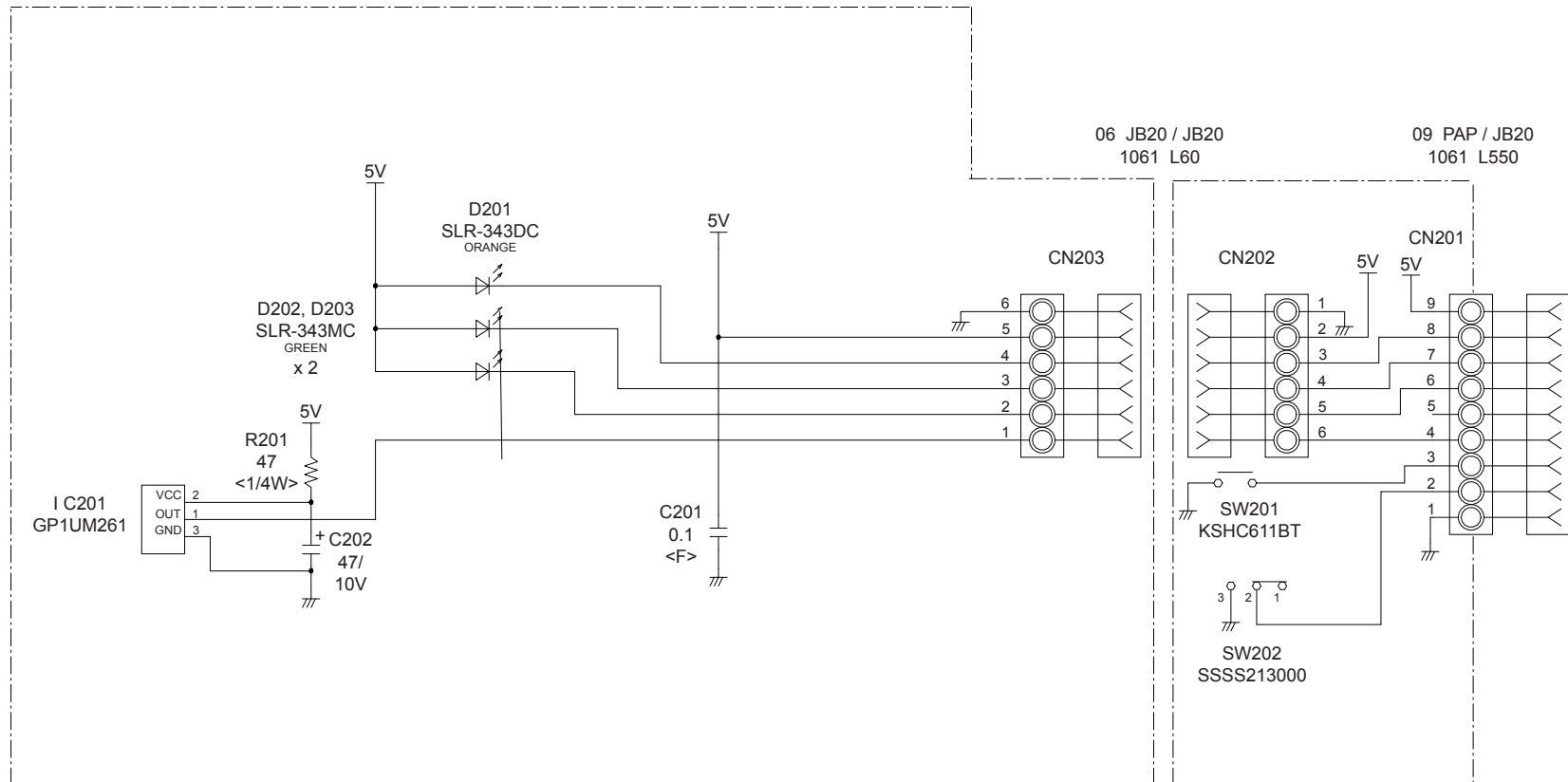




# MAIN PCB K09DD-1302HSE-C1

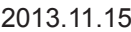


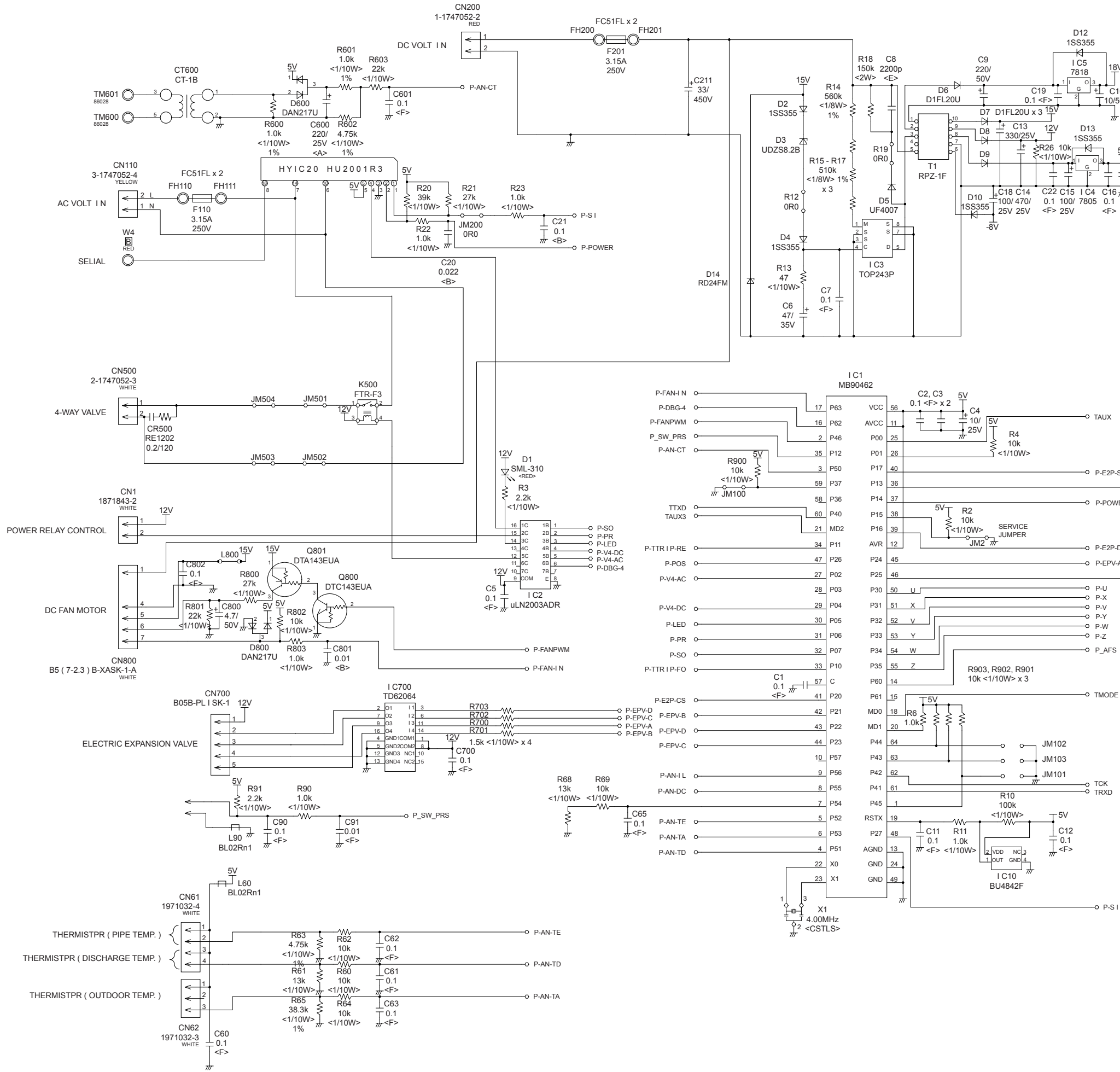
INDOOR UNIT  
INDICATOR PCB  
K06DD-0801HSE-F0



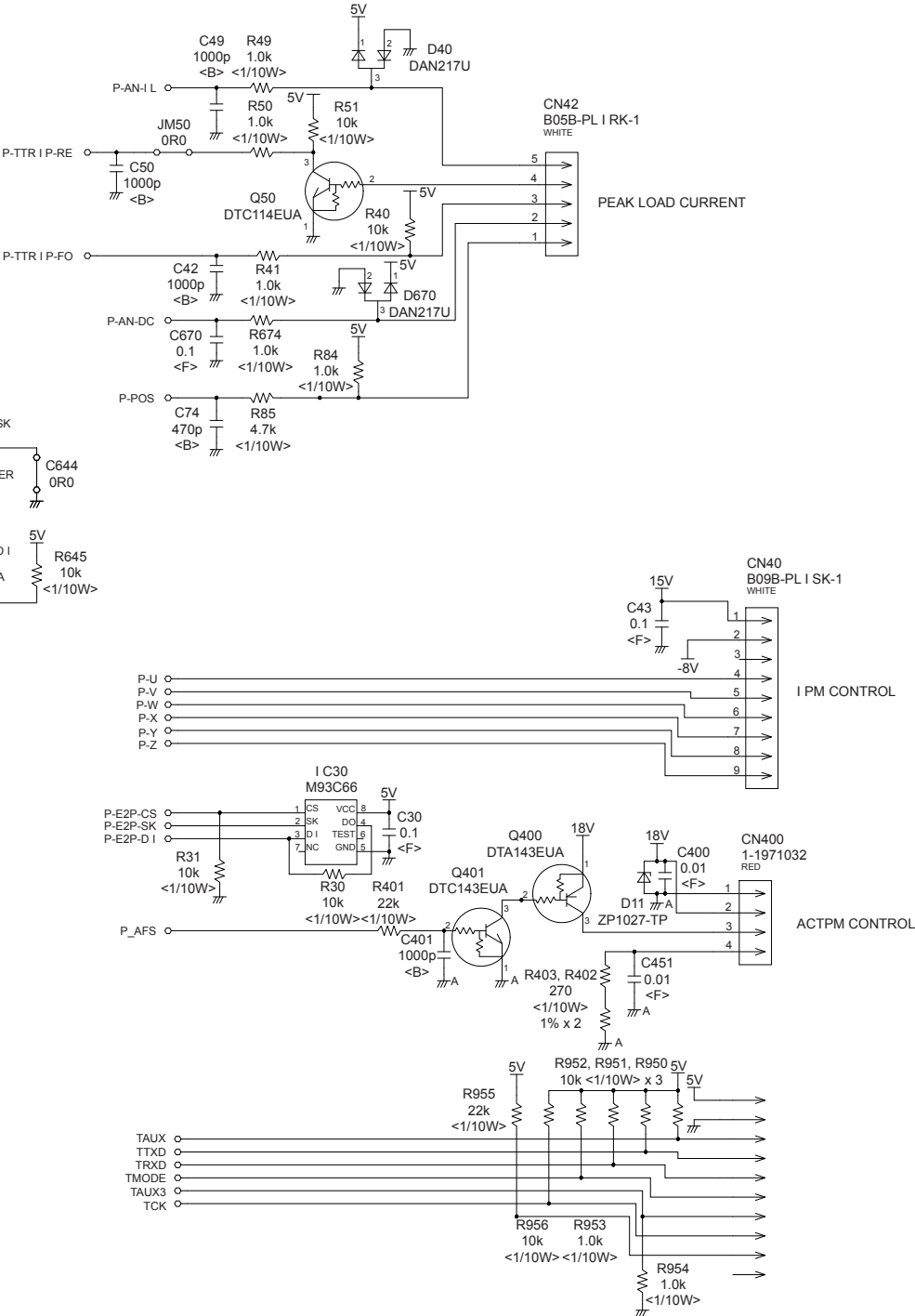
# INVERTER ASSEMBLY

## EZ-0130BHUE

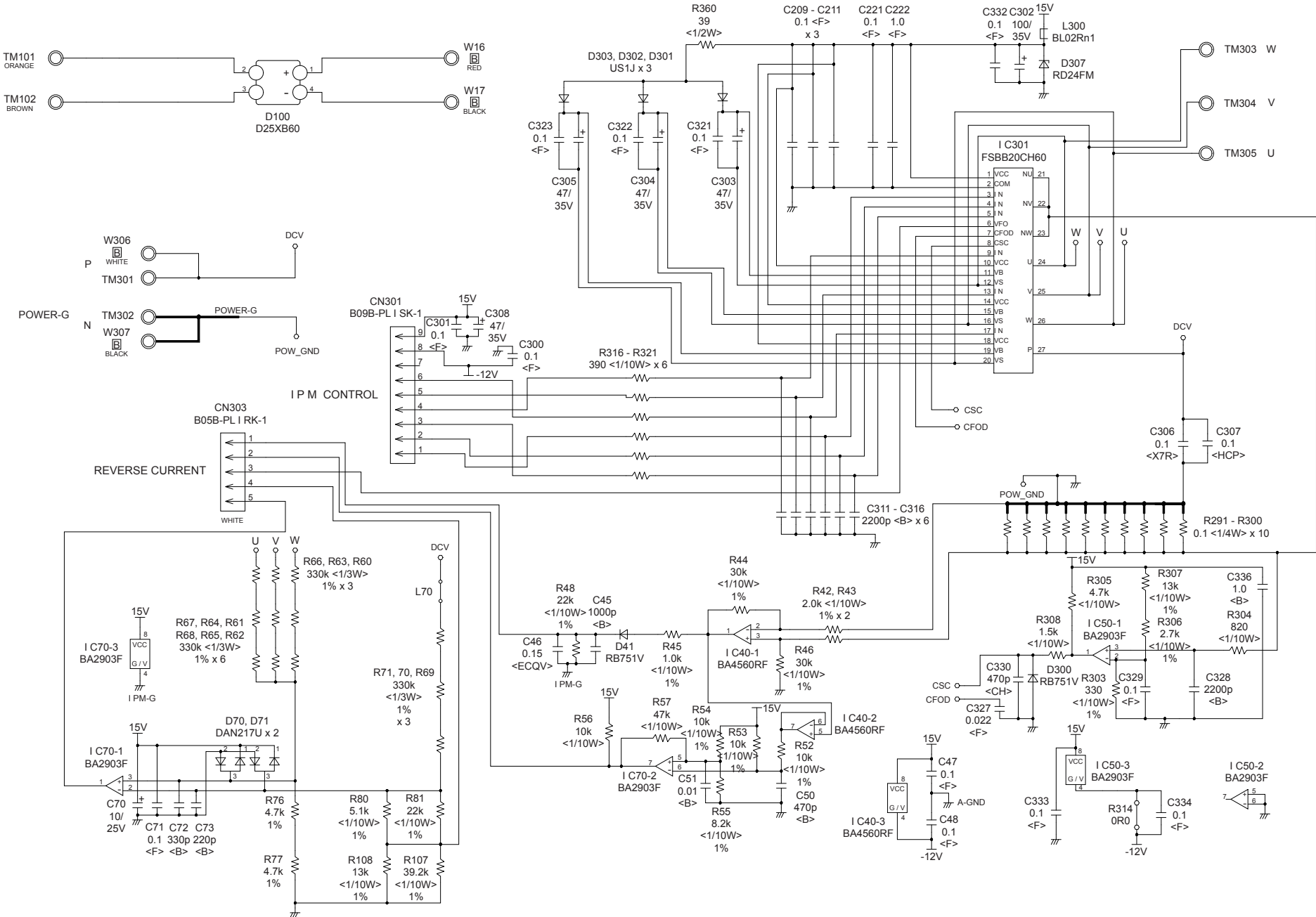




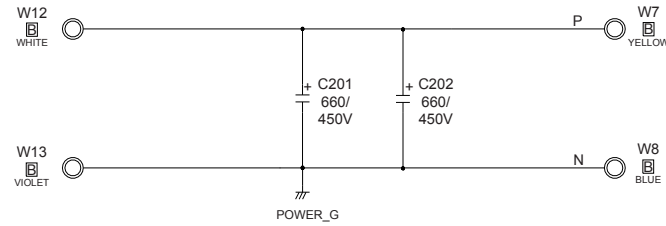
# OUTDOOR UNIT MAIN PCB K07BS-1300HUE-C1



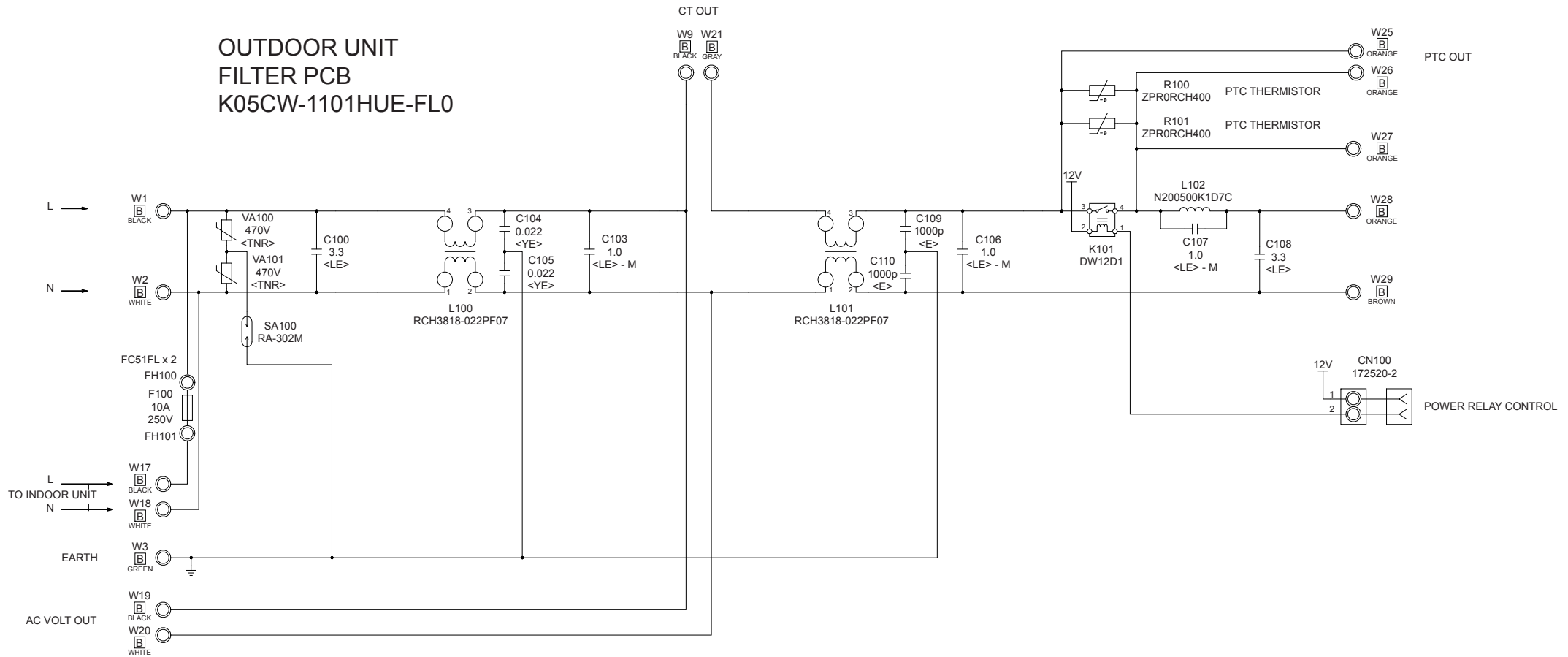
OUTDOOR UNIT  
TRANSISTOR PCB ( I P M )  
K10AY-100AHUE-TR0



OUTDOOR UNIT  
CAPACITOR PCB  
K05DG-0700HUD-P0



OUTDOOR UNIT  
FILTER PCB  
K05CW-1101HUE-FL0



# ERROR DETECTION

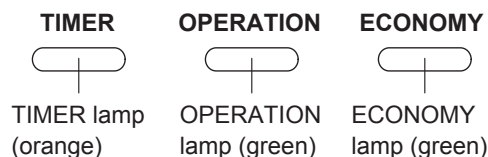
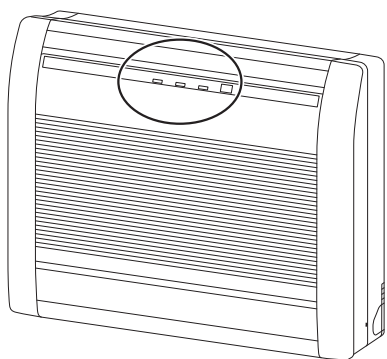
## INDOOR UNIT REMOTE CONTROL

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.

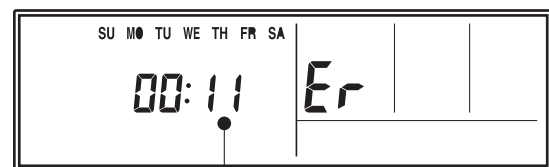
See the lamp blinking patterns and error codes in the table.

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.)



Error code

● : 0.5s on / 0.5s off  
◇ : 0.1s on / 0.1s off

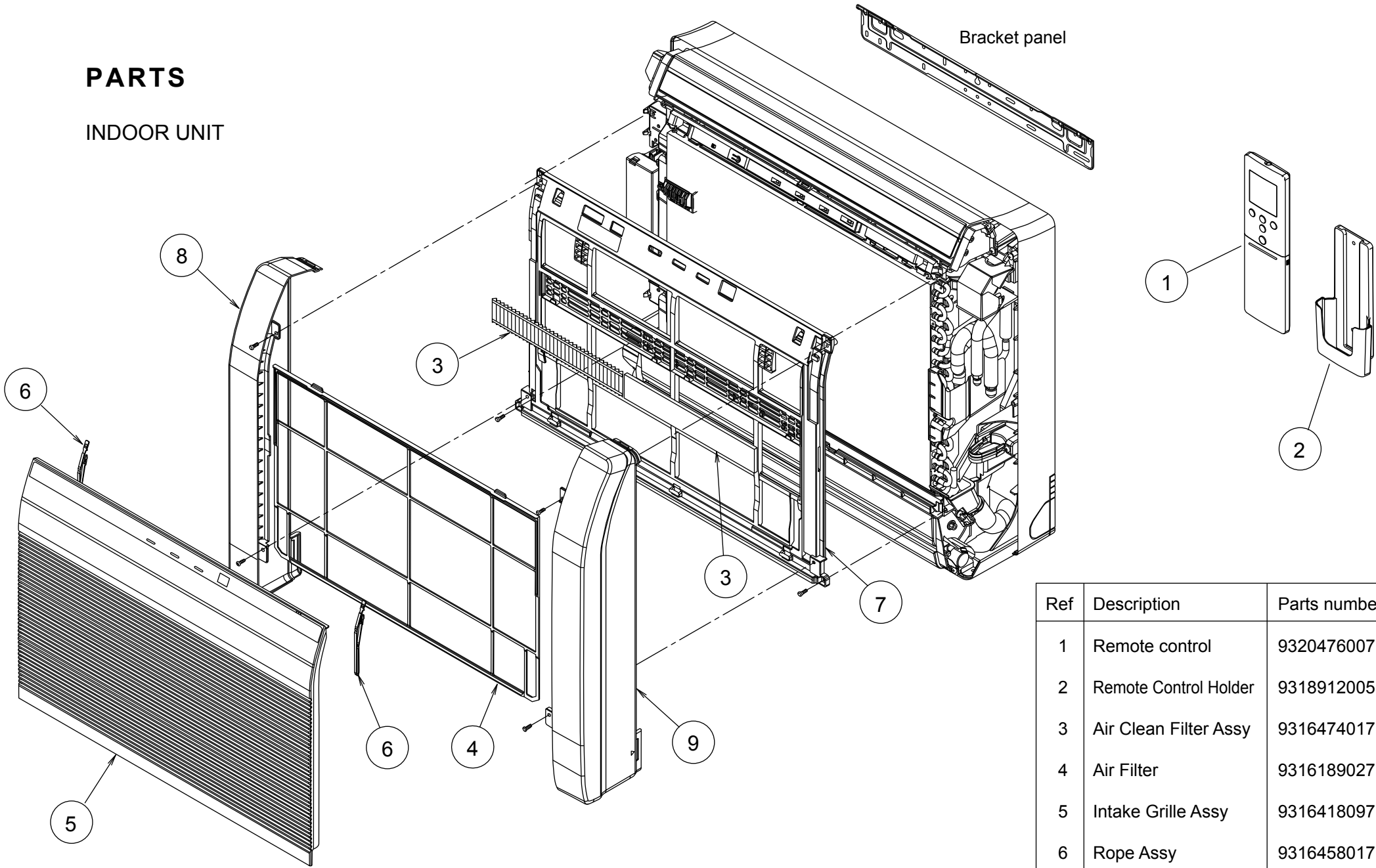
( ) : Number of flashing

| 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]<br>• 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)     | ● (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<br>• 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<br>• 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<br>• Suction pressure sensor error<br>• 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)  | ◇       | 12                   | Branch boxes error [Flexible Multi]                                                                   |

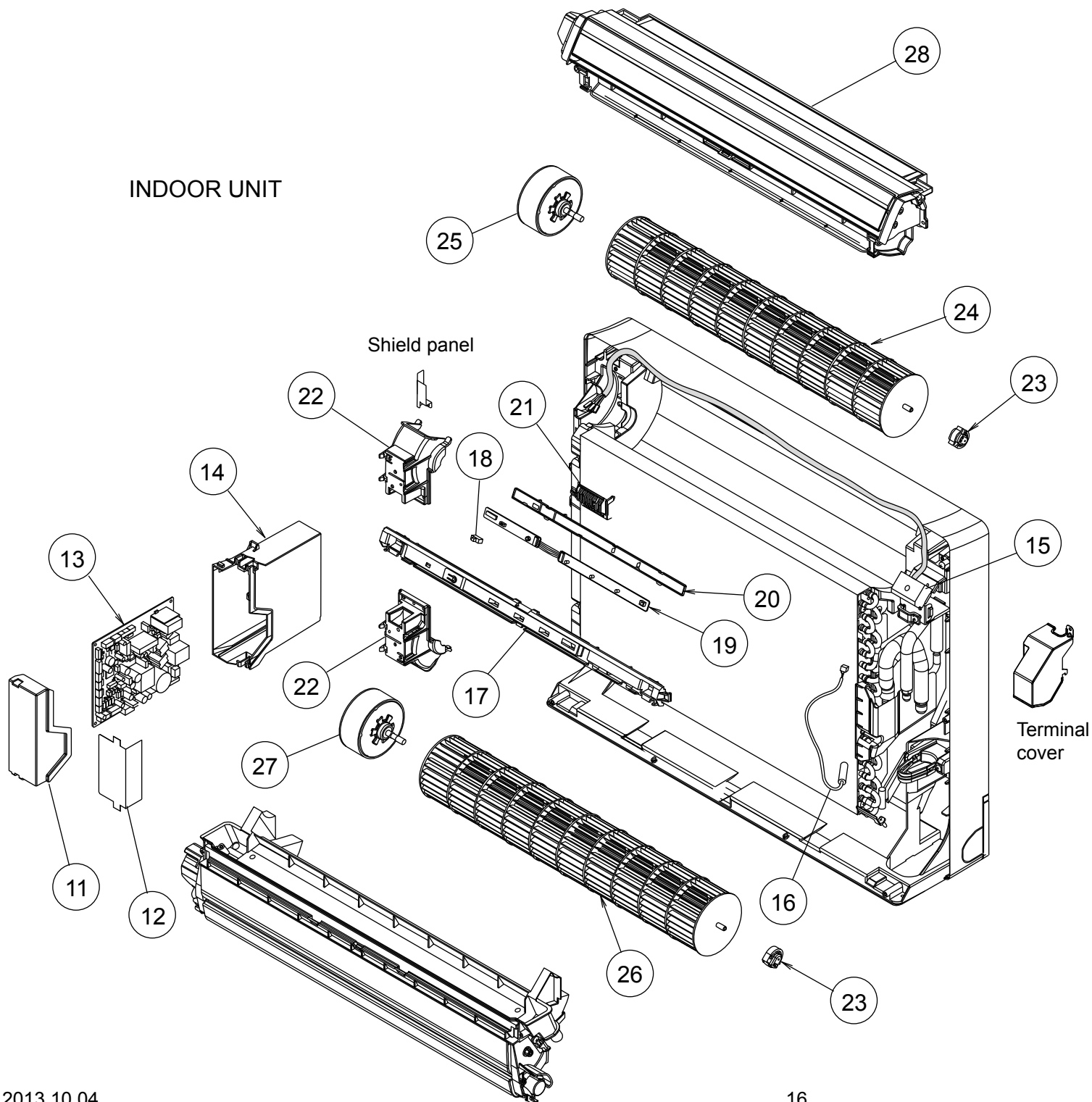
# PARTS

## INDOOR UNIT



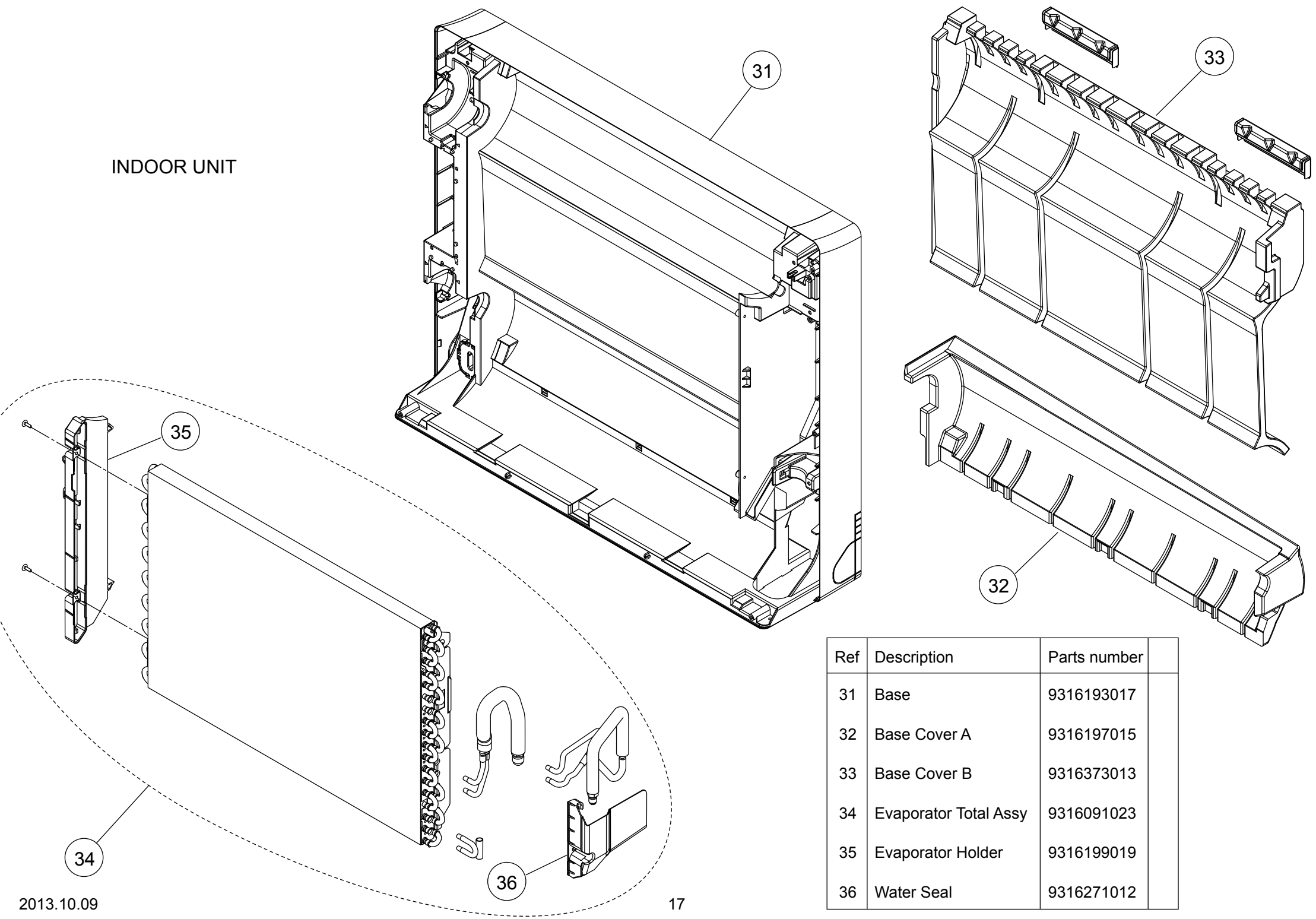
| Ref | Description           | Parts number |  |
|-----|-----------------------|--------------|--|
| 1   | Remote control        | 9320476007   |  |
| 2   | Remote Control Holder | 9318912005   |  |
| 3   | Air Clean Filter Assy | 9316474017   |  |
| 4   | Air Filter            | 9316189027   |  |
| 5   | Intake Grille Assy    | 9316418097   |  |
| 6   | Rope Assy             | 9316458017   |  |
| 7   | Front Panel           | 9316185012   |  |
| 8   | Front Panel L         | 9316187016   |  |
| 9   | Front Panel R         | 9316186019   |  |

## INDOOR UNIT



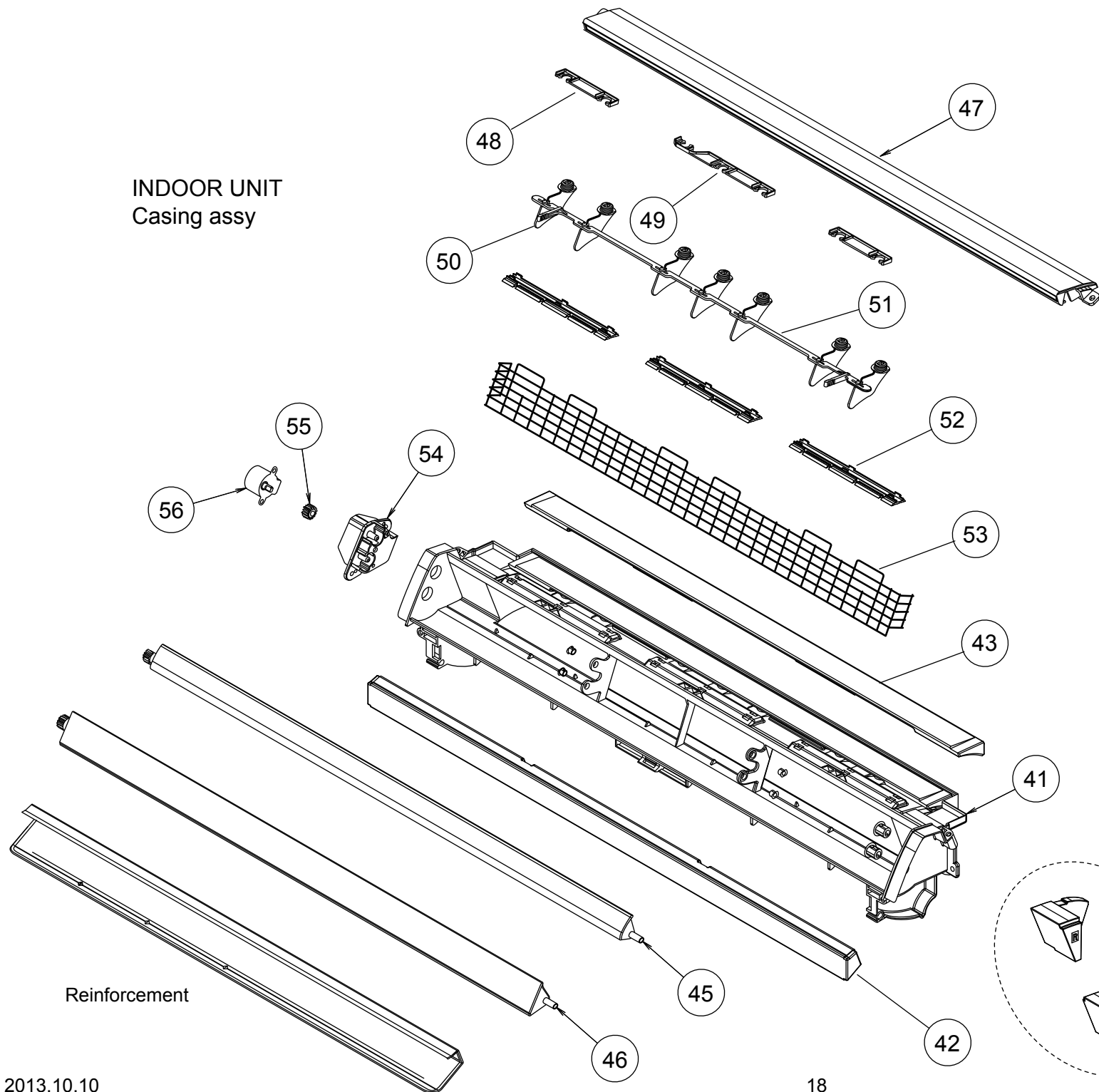
| Ref | Description           | Parts number |  |
|-----|-----------------------|--------------|--|
| 11  | Control Cover         | 9316201026   |  |
| 12  | Control Inner Cover   | 9316487017   |  |
| 13  | Main PCB              | 9708532158   |  |
| 14  | Control Box           | 9316200029   |  |
| 15  | Terminal              | 9900385026   |  |
| 16  | Pipe Thermistor       | 9900425012   |  |
| 17  | Display Case          | 9316194014   |  |
| 18  | Slide Switch Cover    | 9316267015   |  |
| 19  | Display PCB           | 9707571042   |  |
| 20  | Display Cover         | 9316191013   |  |
| 21  | Thermistor Holder     | 9316192010   |  |
| 22  | Motor Holder          | 9316195011   |  |
| 23  | Bearing C Assy        | 9306628017   |  |
| 24  | Crossflow Fan Assy    | 9312004034   |  |
| 25  | Fan Motor, MFD-14TXAN | 9602850013   |  |
| 26  | Crossflow Fan B Assy  | 9316309012   |  |
| 27  | Fan Motor, MFD-14SXAN | 9602851010   |  |
| 28  | Casing Assy           | 9316411012   |  |

INDOOR UNIT

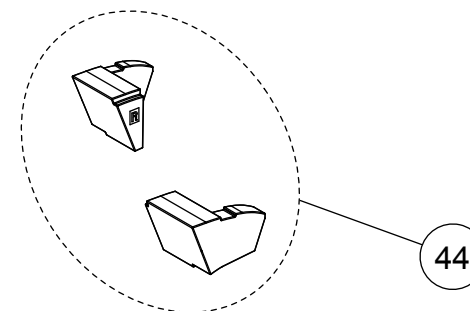


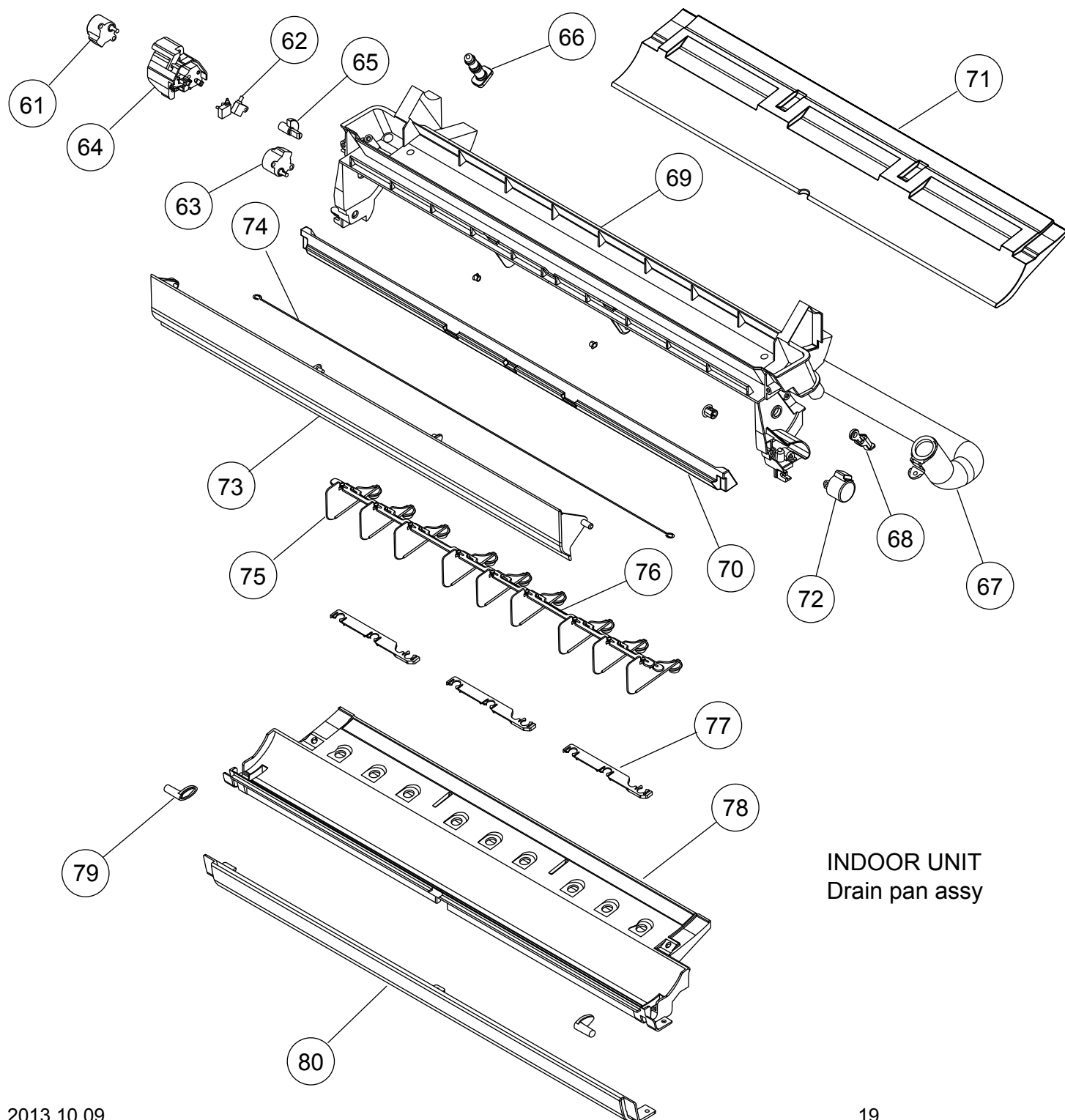
| Ref | Description           | Parts number |  |
|-----|-----------------------|--------------|--|
| 31  | Base                  | 9316193017   |  |
| 32  | Base Cover A          | 9316197015   |  |
| 33  | Base Cover B          | 9316373013   |  |
| 34  | Evaporator Total Assy | 9316091023   |  |
| 35  | Evaporator Holder     | 9316199019   |  |
| 36  | Water Seal            | 9316271012   |  |

INDOOR UNIT  
Casing assy



| Ref | Description            | Parts number |  |
|-----|------------------------|--------------|--|
| 41  | Casing                 | 9316204010   |  |
| 42  | Casing Cover F         | 9316308015   |  |
| 43  | Casing Cover B         | 9316273016   |  |
| 44  | Casing Cover LR        | 9316310018   |  |
| 45  | Louver U (upper)       | 9316205017   |  |
| 46  | Louver Z (lower)       | 9316206014   |  |
| 47  | Top Cover              | 9316207011   |  |
| 48  | Spacer C               | 9315281012   |  |
| 49  | Spacer D               | 9315282019   |  |
| 50  | R and L Louver U       | 9316208018   |  |
| 51  | Joint U                | 9316209015   |  |
| 52  | Guard Holder           | 9316210011   |  |
| 53  | Fan Guard              | 9316211018   |  |
| 54  | Gear Case              | 9316213012   |  |
| 55  | Gear A                 | 9309994003   |  |
| 56  | Step Motor (up / down) | 9900384043   |  |



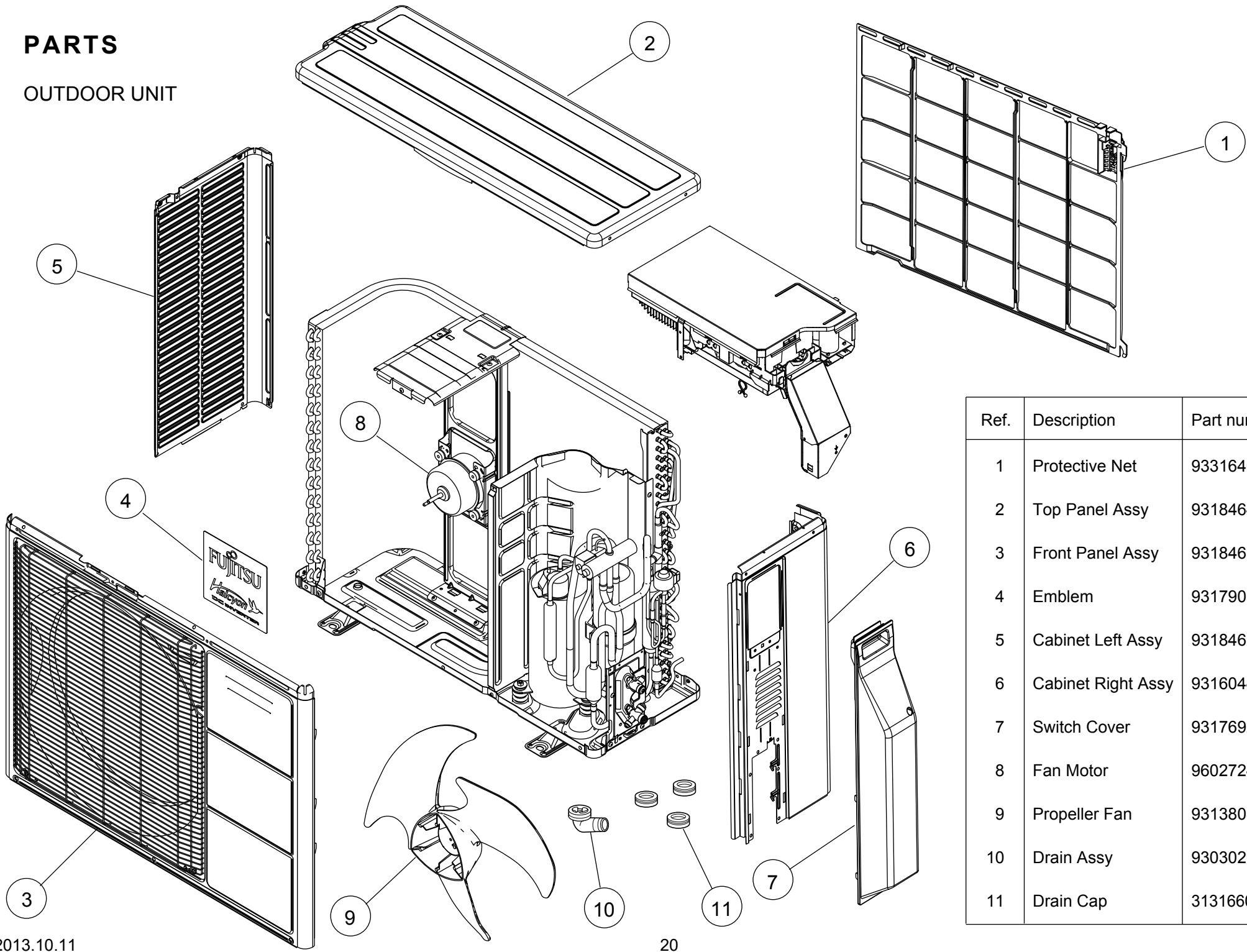


INDOOR UNIT  
Drain pan assy

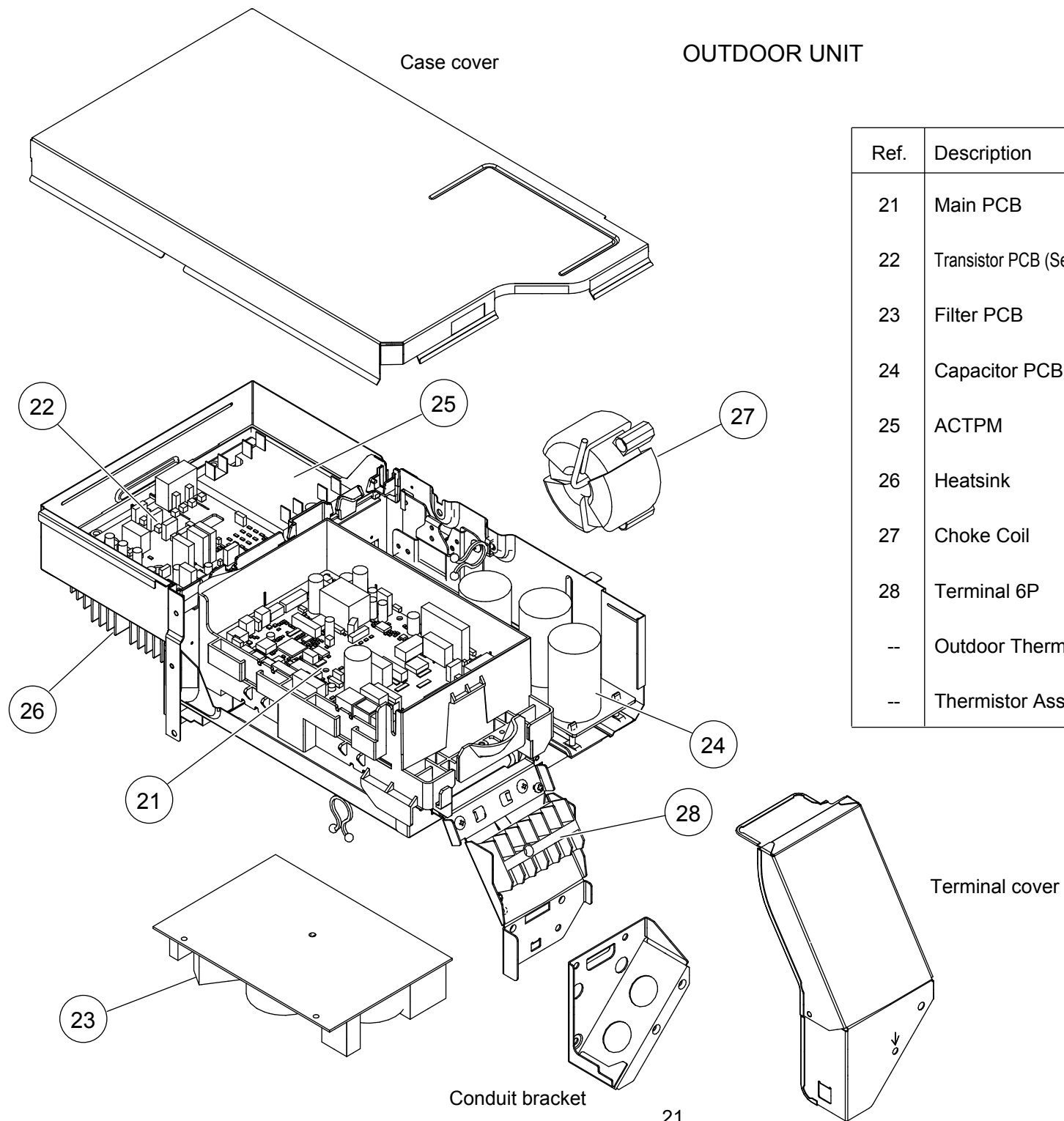
| Ref | Description                    | Parts number |  |
|-----|--------------------------------|--------------|--|
| 61  | Motor Step (Damper)            | 9900384050   |  |
| 62  | Micro Switch (Limit Switch)    | 9900424015   |  |
| 63  | Motor Step (Damper Lock Left)  | 9900384067   |  |
| 64  | Limit Switch Cover             | 9316217010   |  |
| 65  | Key Top                        | 9316218017   |  |
| 66  | Drain Cap                      | 9316177017   |  |
| 67  | Drain Hose Assy                | 9314147029   |  |
| 68  | Drain Holder                   | 9316384019   |  |
| 69  | Drain Pan U                    | 9316214019   |  |
| 70  | Drain Cover F                  | 9316274013   |  |
| 71  | Drain Cover B                  | 9316386013   |  |
| 72  | Step Motor (Damper Lock Right) | 9900384074   |  |
| 73  | Damper                         | 9316216013   |  |
| 74  | Fan Guard Z                    | 9316918009   |  |
| 75  | R and L Louver Z               | 9316334014   |  |
| 76  | Joint Z                        | 9316335011   |  |
| 77  | Spacer D                       | 9315282019   |  |
| 78  | Drain Pan Z                    | 9316215016   |  |
| 79  | Stopper                        | 9316219014   |  |
| 80  | Under Cover                    | 9316374010   |  |

PARTS

OUTDOOR UNIT

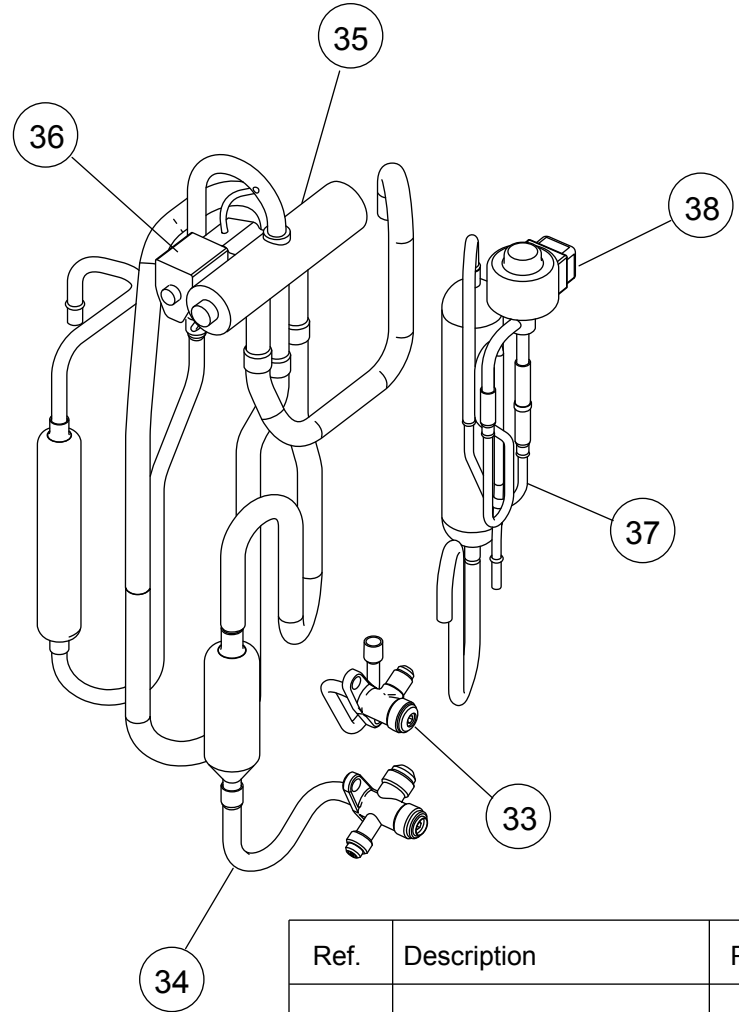
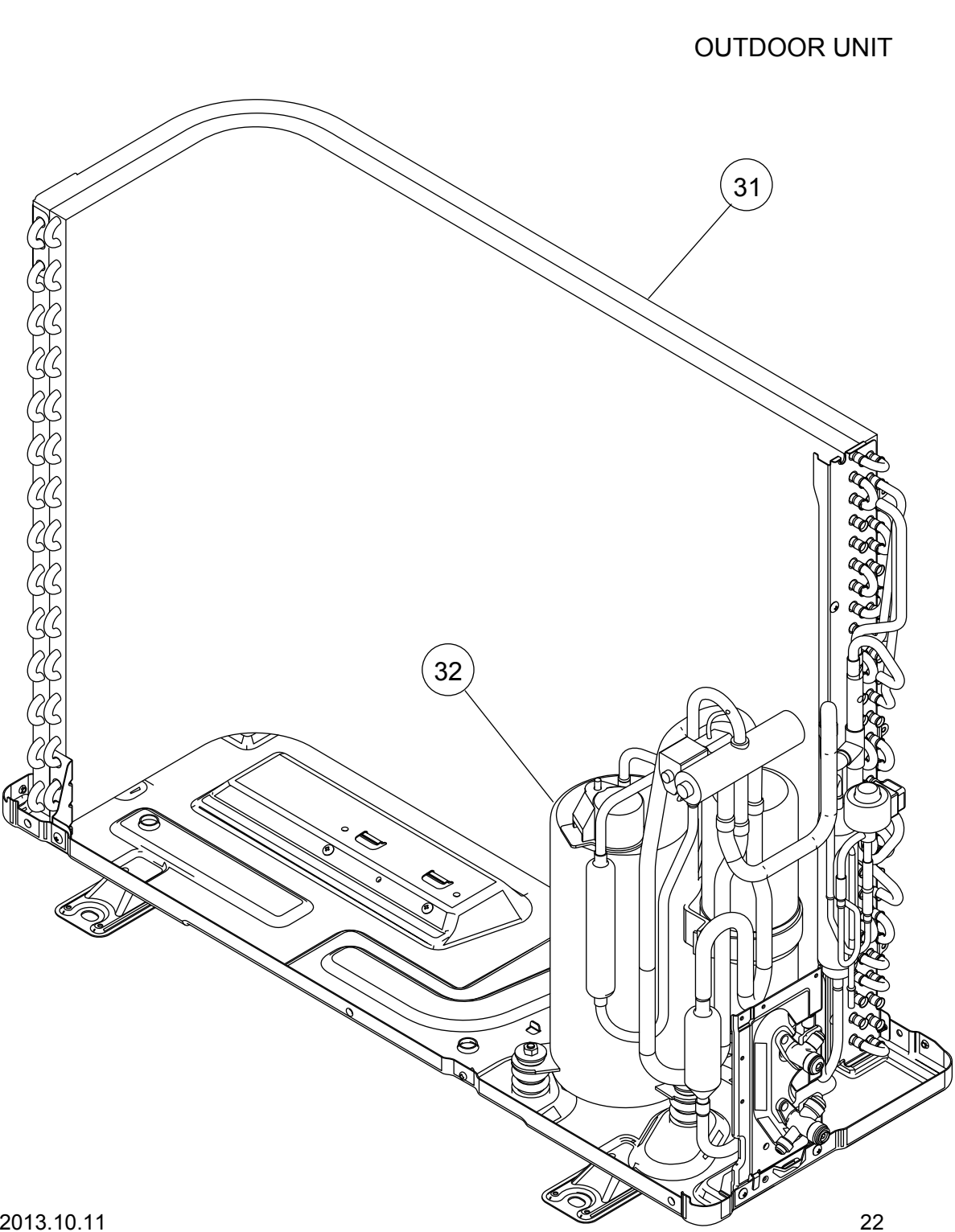


| Ref. | Description        | Part number  |  |
|------|--------------------|--------------|--|
| 1    | Protective Net     | 9331640008   |  |
| 2    | Top Panel Assy     | 9318464023   |  |
| 3    | Front Panel Assy   | 9318463033   |  |
| 4    | Emblem             | 9317903011   |  |
| 5    | Cabinet Left Assy  | 9318461015   |  |
| 6    | Cabinet Right Assy | 9316044050   |  |
| 7    | Switch Cover       | 9317692021   |  |
| 8    | Fan Motor          | 9602724000   |  |
| 9    | Propeller Fan      | 9313808013   |  |
| 10   | Drain Assy         | 9303029022   |  |
| 11   | Drain Cap          | 313166024302 |  |



| Ref. | Description                   | Part number |  |
|------|-------------------------------|-------------|--|
| 21   | Main PCB                      | 9708511306  |  |
| 22   | Transistor PCB (Service unit) | 9709680148  |  |
| 23   | Filter PCB                    | 9709217023  |  |
| 24   | Capacitor PCB                 | 9708514017  |  |
| 25   | ACTPM                         | 9707592016  |  |
| 26   | Heatsink                      | 9318614015  |  |
| 27   | Choke Coil                    | 9900223014  |  |
| 28   | Terminal 6P                   | 9900016081  |  |
| --   | Outdoor Thermistor            | 9900544041  |  |
| --   | Thermistor Assy               | 9900648008  |  |

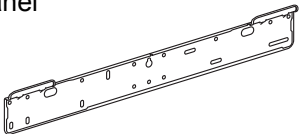
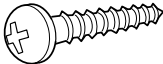
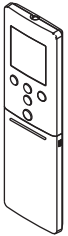
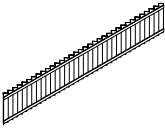
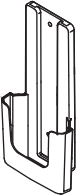
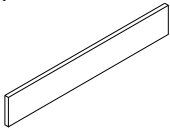
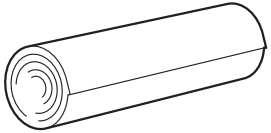
OUTDOOR UNIT



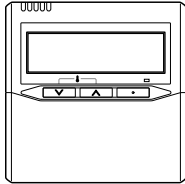
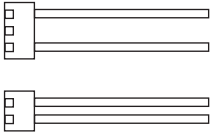
| Ref. | Description            | Part number |  |
|------|------------------------|-------------|--|
| 31   | Condenser Total Assy   | 9317089128  |  |
| 32   | Compressor Assy        | 9318334005  |  |
| 33   | 2-way Valve Assy       | 9317171014  |  |
| 34   | 3-way Valve Sub Assy   | 9317109062  |  |
| 35   | 4-way Valve Assy       | 9318457018  |  |
| 36   | Solenoid               | 9970110023  |  |
| 37   | Pulse Motor Valve Assy | 9315587022  |  |
| 38   | Expansion Valve Coil   | 9970095030  |  |

# ACCESSORIES

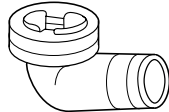
## INDOOR UNIT

| Name and part number                                                                                                       | Q'ty | Name and part number                                                                                                                    | Q'ty |
|----------------------------------------------------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------|------|
| Bracket panel<br><br>9316272019           | 1    | Tapping screw (big)<br>(φ 4 x 25)<br><br>0700076046  | 9    |
| Remote control<br><br>9320476007          | 1    | Tpping screw (small)<br>(φ 3 x 12)<br><br>0700019036 | 2    |
| Battery (penlight)<br><br>0600185541      | 2    | Electric filter<br><br>9312153015                    | 1    |
| Remote control holder<br><br>9318912005 | 1    | Ion deodrant filter<br><br>9311925033               | 1    |
| Cloth tape<br><br>9310519004            | 1    | Cable tie<br><br>312300787605                       | 1    |

## OPTIONAL PARTS

| Name and part model name                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------|
| Wired remote control<br>UTY-RNNUM<br>  |
| Simple remote control<br>UTY-RSNUM<br> |
| External connect kit<br>UTY-XWZXZ5<br> |

## OUTDOOR UNIT

| Name and part number                                                                                               | Q'ty |
|--------------------------------------------------------------------------------------------------------------------|------|
| Drain assy<br><br>9303029022  | 1    |
| Drain cap<br><br>313166024302 | 3    |

1310G4264