



Internal Use Only

<http://biz.lgservice.com>

# Multi Air Conditioner

## SVC MANUAL(Exploded View)

**MODEL : AMNH09GAF\*1(MA09AH\* NF1)**

**AMNH12GAF\*1(MA12AH\* NF1)**

**\*(COLOR) : E(RED), V(SILVER), G(GOLD)  
H(WHITE SILVER), 1(KISS)**

### **CAUTION**

Before Servicing the unit, read the safety precautions in General SVC manual.  
Only for authorized service personnel.

# 1. Specification

## Indoor

| Indoor Unit Type                       |                               |                      | Free Joint Multi                      |                                       |                 |
|--|-------------------------------|----------------------|---------------------------------------|---------------------------------------|-----------------|
| Model                                  |                               |                      | AMNH09GAF*1[MA09AH* NF1]              | AMNH12GAF*1[MA12AH* NF1]              |                 |
| Power Supply                           | Ø / V / Hz                    |                      | 1/220~240/50                          | 1/220~240/50                          |                 |
| Cooling Capacity                       | kW                            |                      | 2.64                                  | 3.52                                  |                 |
|  | Btu/h                         |                      | 9,000                                 | 12,000                                |                 |
| Heating Capacity                       | kW                            |                      | 2.93                                  | 3.87                                  |                 |
|  | Btu/h                         |                      | 10,000                                | 13,200                                |                 |
| Current                                | Nominal Running Current       | A                    | 0.08                                  | 0.08                                  |                 |
| Fan                                    | Motor Type                    |                      | BLDC                                  | BLDC                                  |                 |
|  | Fan Type                      |                      | Turbo fan                             | Turbo fan                             |                 |
|  | Motor Output(W) x No. of Unit |                      | 24*1                                  | 24*1                                  |                 |
|  | Air Flow Rate<br>(H / M / L)  | CMM                  |                                       | 7.7 / 5.9 / 4.4                       | 8.9 / 7.3 / 5.6 |
|  |                               | cfm                  |                                       | 272 / 208 / 155                       | 314 / 258 / 198 |
|  | External Static Pressure      | mmAq                 | -                                     | -                                     |                 |
|  | Capacitor                     | µF / Vac             | -                                     | -                                     |                 |
| Drive                                  |                               | Direct Drive         | Direct Drive                          |                                       |                 |
| Coil                                   | Row x Column x FPI            |                      | 2 x 20 x 21                           | 2 x 20 x 21                           |                 |
| Dimensions<br>(W x H x D)              | Body                          | mm(inch)             | 600 x 600 x 146(23.6 x 23.6 x 5.7)    | 600 x 600 x 146(23.6 x 23.6 x 5.7)    |                 |
|  | Decorative Panel              | mm(inch)             | -                                     | -                                     |                 |
| Net Weight                             | Body                          | kg (lbs)             | 15(33.1)                              | 15(33.1)                              |                 |
|  | Decorative Panel              | kg (lbs)             | -                                     | -                                     |                 |
| Air Filter                             |                               |                      | Plasma Filter                         | Plasma Filter                         |                 |
| Sound Level (H / M / L)                |                               | dB(A)+3              | 38 / 32 / 27                          | 44 / 38 / 32                          |                 |
| Piping                                 | Liquid                        | mm (inch)            | 6.35(1/4)                             | 6.35(1/4)                             |                 |
| Connections                            | Gas                           | mm (inch)            | 9.52(3/8)                             | 9.52(3/8)                             |                 |
|  | Drain(OD/ID)                  | mm                   | 21.5/16                               | 21.5/16                               |                 |
| Dehumidification Rate                  |                               | l/h                  | 1.2                                   | 1.4                                   |                 |
| Safety Devices                         |                               |                      | Fuse, thermal protector for fan motor | Fuse, thermal protector for fan motor |                 |
| Temperature Sensor                     |                               |                      | Thermistor                            | Thermistor                            |                 |
| Refrigerant                            |                               |                      | R410A                                 | R410A                                 |                 |
| Refrigerant Control                    |                               |                      | EEV(in Outdoor Unit or BD Unit)       | EEV(in Outdoor Unit or BD Unit)       |                 |
| Connectable Outdoor Unit               |                               |                      | Multi F/F DX series                   | Multi F/F DX series                   |                 |
| Power and Transmission Interunit Cable |                               | No.x mm <sup>2</sup> | 4 x 0.75                              | 4 x 0.75                              |                 |

### Note:

- Capacities are based on the following conditions:  
 Cooling: - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB  
 - Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB  
 Heating: - Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB  
 - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) WB  
 Piping Length - Interconnecting Piping Length 7.5m  
 - Level Difference of Zero

- Wiring cable size must comply with the applicable local and national code.
- The specification may be subject to change without prior notice for purpose of improvement.

| Conversion Formula     |
|------------------------|
| kW = Btu/h x 0.0002931 |
| cfm = CMM x 35.3       |

## 2. Function Table

| Category             | Function                                  | AMNH09GAF*1[MA09AH* NF1] | AMNH12GAF*1[MA12AH* NF1] |
|----------------------|---|--------------------------|--------------------------|
| Air flow             | Air supply outlet                         | 3                        | 3                        |
|                      | Airflow direction control(left & right)   | -                        | -                        |
|                      | Airflow direction control(up & down)      | Auto                     | Auto                     |
|                      | Auto swing(left & right)                  | -                        | -                        |
|                      | Auto swing(up & down)                     | O                        | O                        |
|                      | Airflow steps(fan/cool/heat)              | 3/4/3                    | 3/4/3                    |
|                      | Chaos swing                               | x                        | x                        |
|                      | Chaos wind(auto wind)                     | O                        | O                        |
|                      | Jet cool(Power wind)                      | O                        | O                        |
| Air Purifier         | Swirl wind                                | x                        | x                        |
|                      | Deodorizing filter                        | O                        | O                        |
|                      | Plasma air purifier                       | O                        | O                        |
| Installation         | Prefilter(washable / anti-fungus)         | O                        | O                        |
|                      | Drain pump                                | -                        | -                        |
|                      | E.S.P. control                            | -                        | -                        |
|                      | Electric heater(operation)                | -                        | -                        |
| Reliability          | High ceiling operation                    | -                        | -                        |
|                      | Hot start                                 | O                        | O                        |
|                      | Self diagnosis                            | O                        | O                        |
| Convenience          | Soft dry operation                        | O                        | O                        |
|                      | Auto changeover                           | x                        | x                        |
|                      | Auto cleaning                             | O                        | O                        |
|                      | Auto operation(artificial intelligence)   | O                        | O                        |
|                      | Auto restart operation                    | O                        | O                        |
|                      | Child lock                                | -                        | -                        |
|                      | Forced operation                          | O                        | O                        |
|                      | Group control                             | x                        | x                        |
|                      | Sleep mode                                | O                        | O                        |
| Individual Control   | Timer(on/off)                             | O                        | O                        |
|                      | Timer(weekly)                             | -                        | -                        |
|                      | Two thermistor control                    | -                        | -                        |
|                      | Standard wired remote controller          | -                        | -                        |
|                      | Deluxe wired remote controller            | -                        | -                        |
| CAC Network Function | Simple wired remote controller            | -                        | -                        |
|                      | Wireless remote controller(for hotel use) | -                        | -                        |
|                      | Wireless remote controller(simple)        | -                        | -                        |
|                      | Wireless LCD remote control               | O                        | O                        |
|                      | General central controller (Non LGAP)     | x                        | x                        |
|                      | Dry contact                               | PQDSB                    | PQDSB                    |
| Special Function Kit | Network Solution(LGAP)                    | O                        | O                        |
|                      | PDI(power distribution indicator)         | PQNUD1S00                | PQNUD1S00                |
|                      | PI 485                                    | PMNFP14A0                | PMNFP14A0                |
|                      | Zone control                              | x                        | x                        |
| Others               | CTIE                                      | x                        | x                        |
|                      | Electro thermostat                        | -                        | -                        |
|                      | Thermistor                                | -                        | -                        |

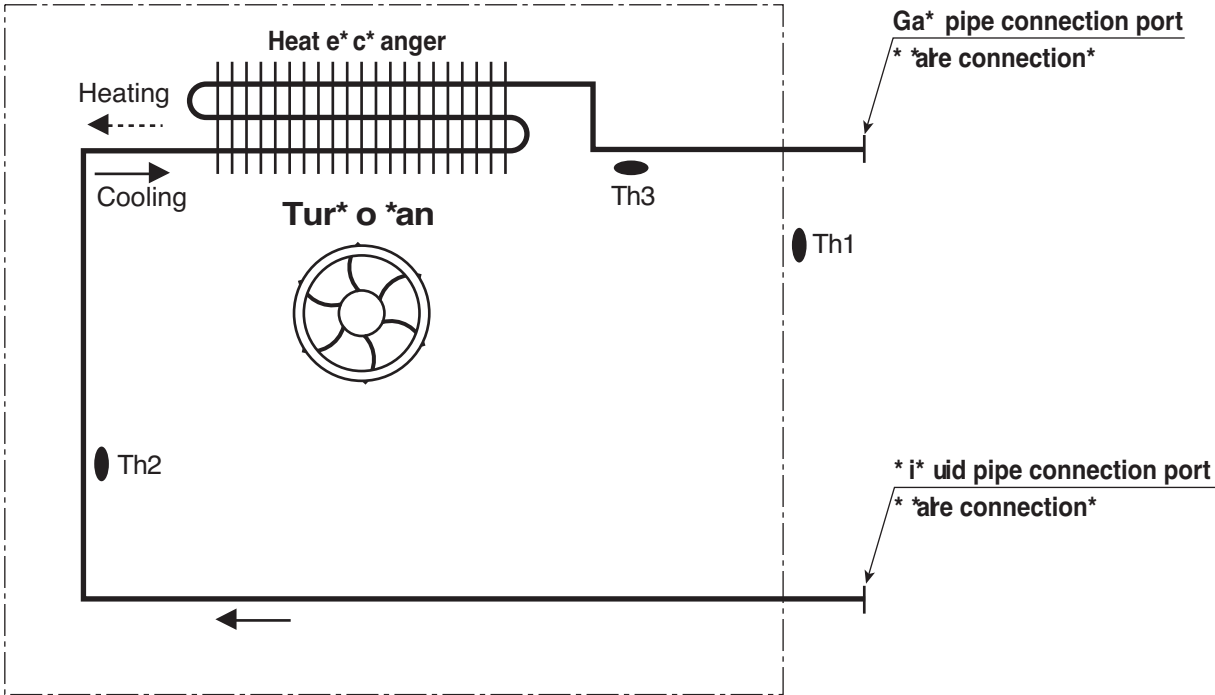
### Note :

O : Applied, X : Not applied, - : No relation

\* Option : Model name & price are different according to options, and assembled in factory with main unit.

\* Accessory : Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

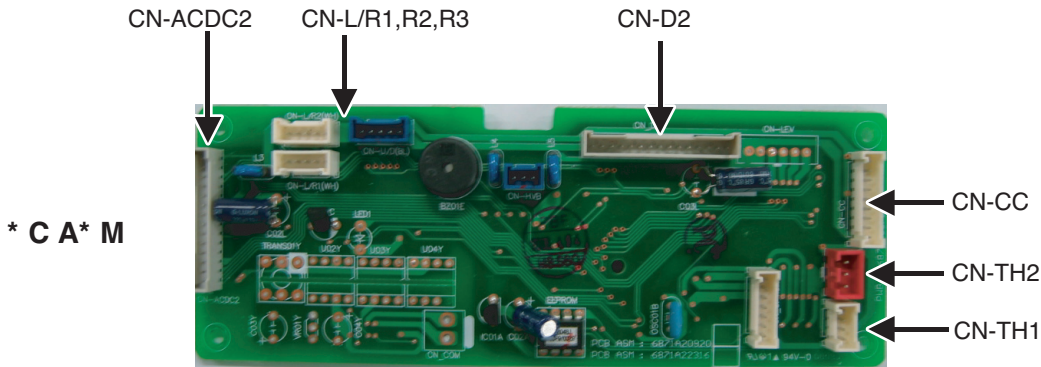
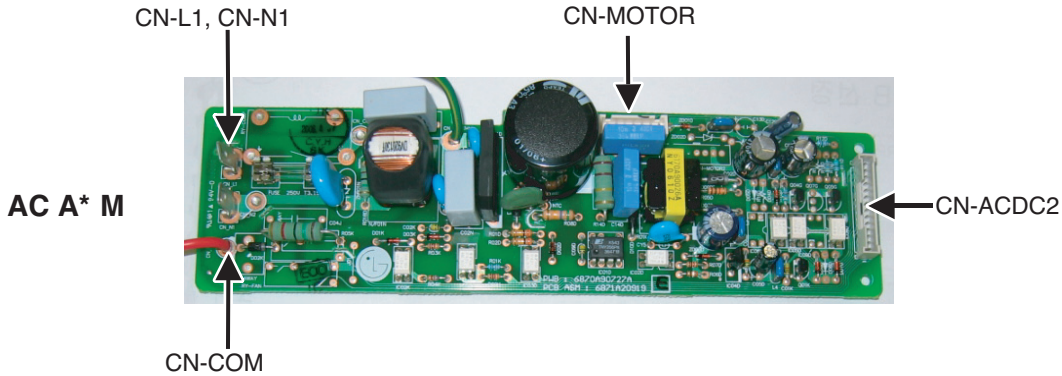
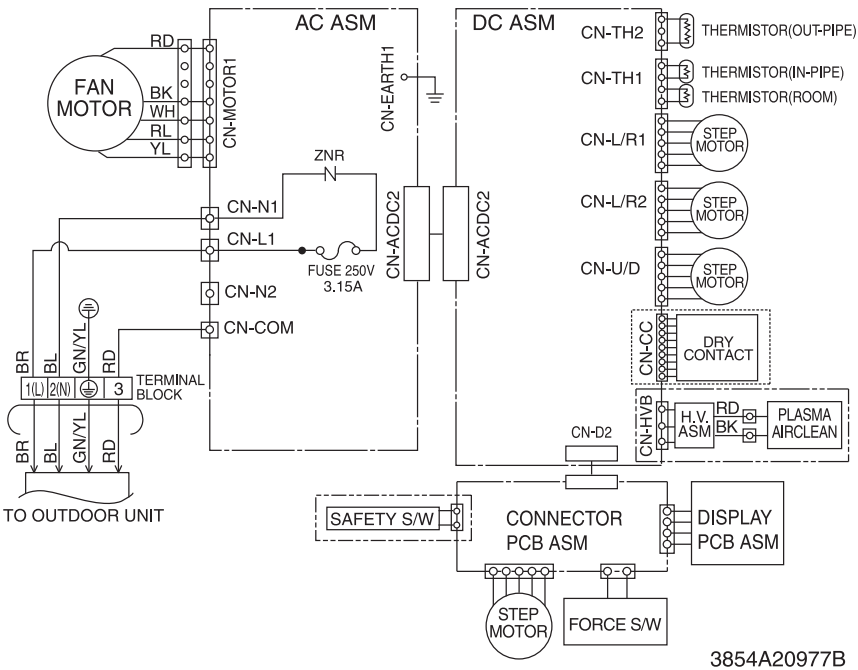
### 3. Piping Diagrams



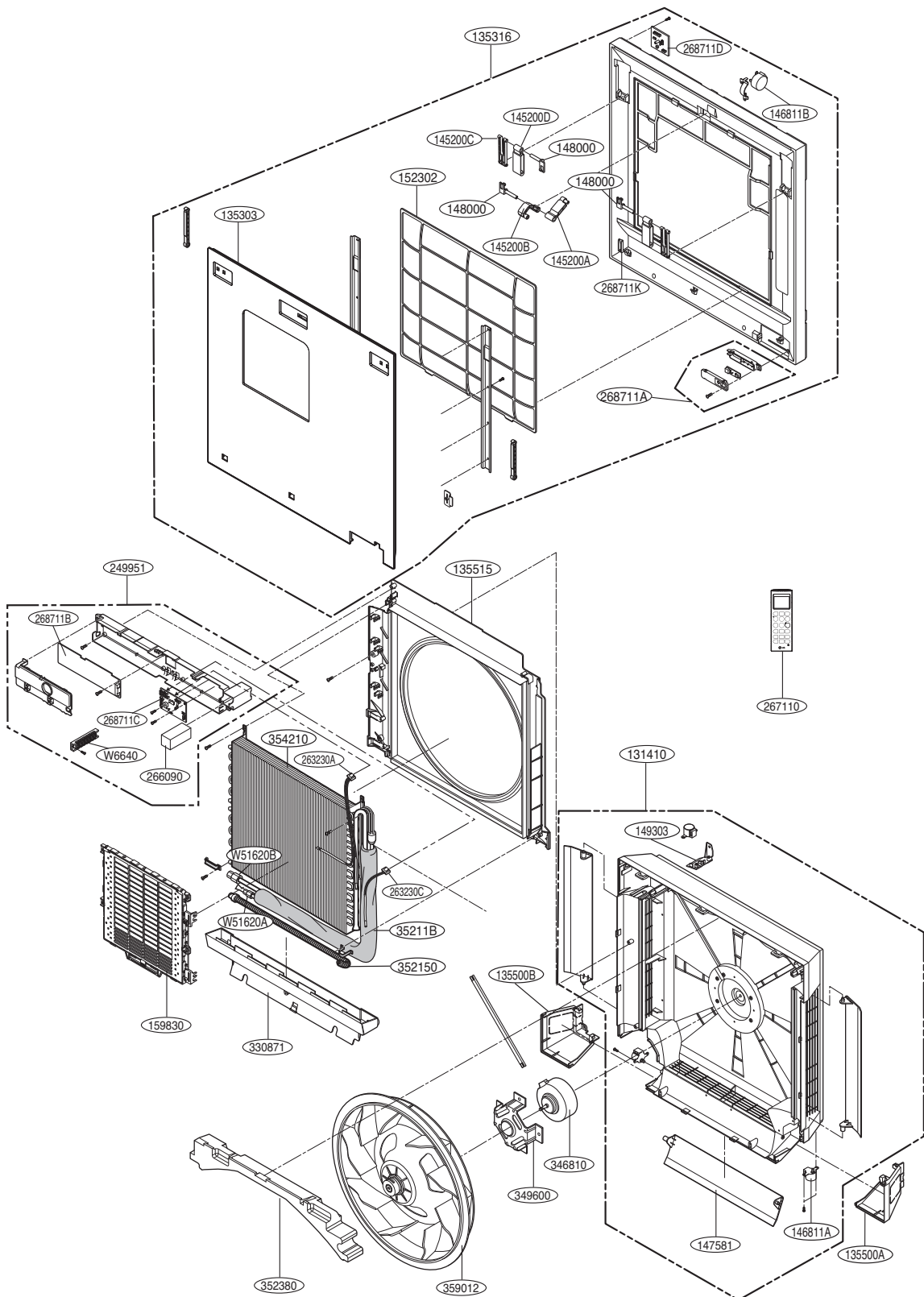
| LOC. | Description                                  | PCB Connector  |
|------|--|----------------|
| Th1  | Thermistor for suction air temperature       | CN-TH1(Indoor) |
| Th2  | Thermistor for evaporator inlet temperature  |                |
| Th3  | Thermistor for evaporator outlet temperature | CN-TH2(Indoor) |

# 4. Wiring Diagrams

## Indoor Unit



## 5. Exploded View



Note) \* Please ensure GCSC since the replacement parts may be changed depending upon the buyer's request. Please check the correct parts in View RPL(Replacement Part List) on GCSC. (GCSC Website <http://biz.lgservice.com>,)



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