



Internal Use Only

<http://biz.lgservice.com>

# Multi V Air Conditioner

## SVC MANUAL(Exploded View)

**MODEL : ARNU07GSF\*2  
ARNU09GSF\*2  
ARNU12GSF\*2**

### **CAUTION**

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

# 1. Specification

| Type  |                           |                 | ARTCOOL Gallery                                    |  |  |             |
|---|---------------------------|-----------------|--|--|--|-------------|
| Model                                       |                           | Unit            | ARNU07GSF*2  | ARNU09GSF*2  | ARNU12GSF*2  |             |
| Cooling Capacity                            |                           | kW              | 2.2  | 2.8  | 3.6  |             |
|   |                           | kcal/h          | 1,900  | 2,400  | 3,100  |             |
|   |                           | Btu/h           | 7,500  | 9,600  | 12,300   |             |
| Heating Capacity                            |                           | kW              | 2.5  | 3.2  | 4.0  |             |
|   |                           | kcal/h          | 2,200  | 2,800  | 3,400  |             |
|   |                           | Btu/h           | 8,500  | 10,900   | 13,600   |             |
| Dimensions(WxDxH)                           | Body                      | mm              | 600x146x600  | 600x146x600  | 600x146x600  |             |
|   |                           | inch            | 23.6x5.7x23.6                                      | 23.6x5.7x23.6                                      | 23.6x5.7x23.6                                      |             |
| Coil  | Rows x Columns x FPI      |                 | 2x20x21  | 2x20x21  | 2x20x21  |             |
|   | Face Area                 | m <sup>2</sup>  | 0.18   | 0.18   | 0.18   |             |
| Fan   | Type                      |                 | Turbo Fan  | Turbo Fan  | Turbo Fan  |             |
|   | Motor Output x Number     | W               | 30   | 30   | 30   |             |
|   | Running Current           | A               | 0.14   | 0.14   | 0.14   |             |
|   | Air Flow Rate(H/M/L)      | CMM             |  | 8.1/6.3/4.2  | 8.1/6.3/4.2  | 9.3/7.7/6.0 |
|   |                           | cfm             |  | 286/222/148  | 286/222/148  | 328/275/212 |
|   | Drive                     |                 | Direct   | Direct   | Direct   |             |
| Motor type                                  |                           | BLDC            | BLDC   | BLDC   |  |             |
| Temperature Control                         |                           |                 | Microprocessor, Thermostat for cooling and heating | Microprocessor, Thermostat for cooling and heating | Microprocessor, Thermostat for cooling and heating |             |
| Sound Absorbing Thermal Insulation Material |                           |                 | Foamed polystyrene                                 | Foamed polystyrene                                 | Foamed polystyrene                                 |             |
| Air Filter                                  |                           |                 | Resin Net(washable)                                | Resin Net(washable)                                | Resin Net(washable)                                |             |
| Safety Device                               |                           |                 | Fuse   | Fuse   | Fuse   |             |
| Pipe Connections                            | Liquid Side               | mm(inch)        | Ø6.35(1/4)   | Ø6.35(1/4)   | Ø6.35(1/4)   |             |
|   | Gas Side                  | mm(inch)        | Ø12.7(1/2)   | Ø12.7(1/2)   | Ø12.7(1/2)   |             |
|   | Drain Pipe(Internal Dia.) | mm              | 12.2   | 12.2   | 12.2   |             |
| Net Weight                                  |                           | kg(lbs)         | 15(33.1)   | 15(33.1)   | 15(33.1)   |             |
| Noise Level(Sound Press, 1m, H/M/L)         |                           | dB(A)           | 38/32/27   | 38/32/27   | 44/38/32   |             |
| Power Supply                                |                           | Ø, V, Hz        | 1, 220 ~ 240, 50<br>1, 220, 60                     | 1, 220 ~ 240, 50<br>1, 220, 60                     | 1, 220 ~ 240, 50<br>1, 220, 60                     |             |
| Refrigerant Control                         |                           |                 | EEV  | EEV  | EEV  |             |
| Power cable                                 |                           | mm <sup>2</sup> | CV1.5 x 3C   | CV1.5 x 3C   | CV1.5 x 3C   |             |
| Transmission cable                          |                           | mm <sup>2</sup> | CVV-SB 1.25 x 2C                                   | CVV-SB 1.25 x 2C                                   | CVV-SB 1.25 x 2C                                   |             |
| Front Panel(** Position)                    |                           |                 | E:Red, V:Silver, G:Gold, 1:Kiss                    |  |  |             |

## Notes:-

1. Capacities are based on the following conditions:

- Cooling
  - Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- Heating
  - Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without prior notification

4. To be added for more available Models

5. EEV : Electronic Expansion Valve

## Conversion Formula

kcal/h= kW x 860  
 Btu/h = kW x 3412  
 cfm = m<sup>3</sup>/min x 35.3  
 l/s = CMM x 1000/60

## 2. List of Functions

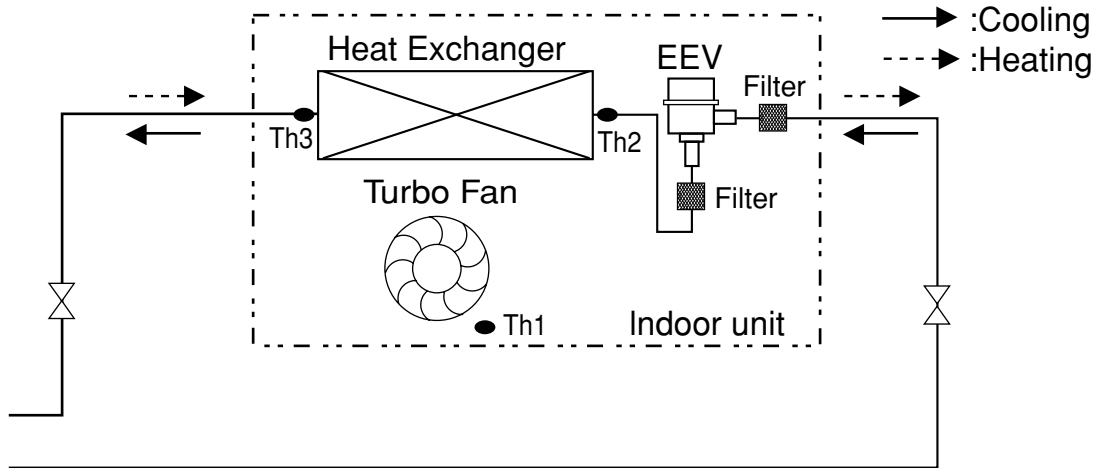
| Category               | Function                                | ARNU07GSF*2, ARNU09GSF*2, ARNU12GSF*2 |
|------------------------|---|---------------------------------------|
| Air flow               | Air supply outlet                       | 3                                     |
|                        | Airflow direction control(left & right) | X                                     |
|                        | Airflow direction control(up & down)    | auto                                  |
|                        | Auto swing(left & right)                | X                                     |
|                        | Auto swing(up & down)                   | O                                     |
|                        | Airflow steps(fan/cool/heat)            | 3/4/3                                 |
|                        | Chaos swing                             | X                                     |
|                        | Chaos wind(auto wind)                   | O                                     |
|                        | Jet cool(Power wind)                    | O                                     |
|                        | Swirl wind                              | -                                     |
| Air purifying          | Deodorizing filter                      | X                                     |
|                        | Plasma air purifier                     | Option                                |
|                        | Prefilter(washable / anti-fungus)       | O                                     |
| Installation           | Drain pump                              | -                                     |
|                        | E.S.P. control                          | -                                     |
|                        | Electric heater(operation)              | -                                     |
|                        | High ceiling operation                  | -                                     |
| Reliability            | Hot start                               | O                                     |
|                        | Self diagnosis                          | O                                     |
|                        | Soft dry operation                      | O                                     |
| Convenience            | Auto changeover                         | O(only heat recovery)                 |
|                        | Auto cleaning                           | O                                     |
|                        | Auto operation(artificial intelligence) | O(only heat pump or cooling only)     |
|                        | Auto restart operation                  | O                                     |
|                        | Child lock                              | O                                     |
|                        | Forced operation                        | O                                     |
|                        | Group control                           | O                                     |
|                        | Sleep mode                              | O                                     |
|                        | Timer(on/off)                           | O                                     |
|                        | Timer(weekly)                           | O                                     |
| Two thermistor control | O                                       |                                       |
| Individual control     | Standard wired remote controller        | Accessory                             |
|                        | Wide Character wired remote controller  | Accessory                             |
|                        | Picto wired remote controller           | Accessory                             |
|                        | Deluxe wired remote controller          | Accessory                             |
|                        | Simple wired remote controller          | Accessory                             |
|                        | Wired remote controller(for hotel use)  | Accessory                             |
|                        | Wireless remote controller(simple)      | Accessory                             |
|                        | Wireless LCD remote control             | Accessory                             |
| Special function kit   | Zone control                            | -                                     |
|                        | CTIE                                    | -                                     |
|                        | Electro thermostat                      | -                                     |

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



Refrigerant pipe connection port diameter

[unit: mm(inch)]

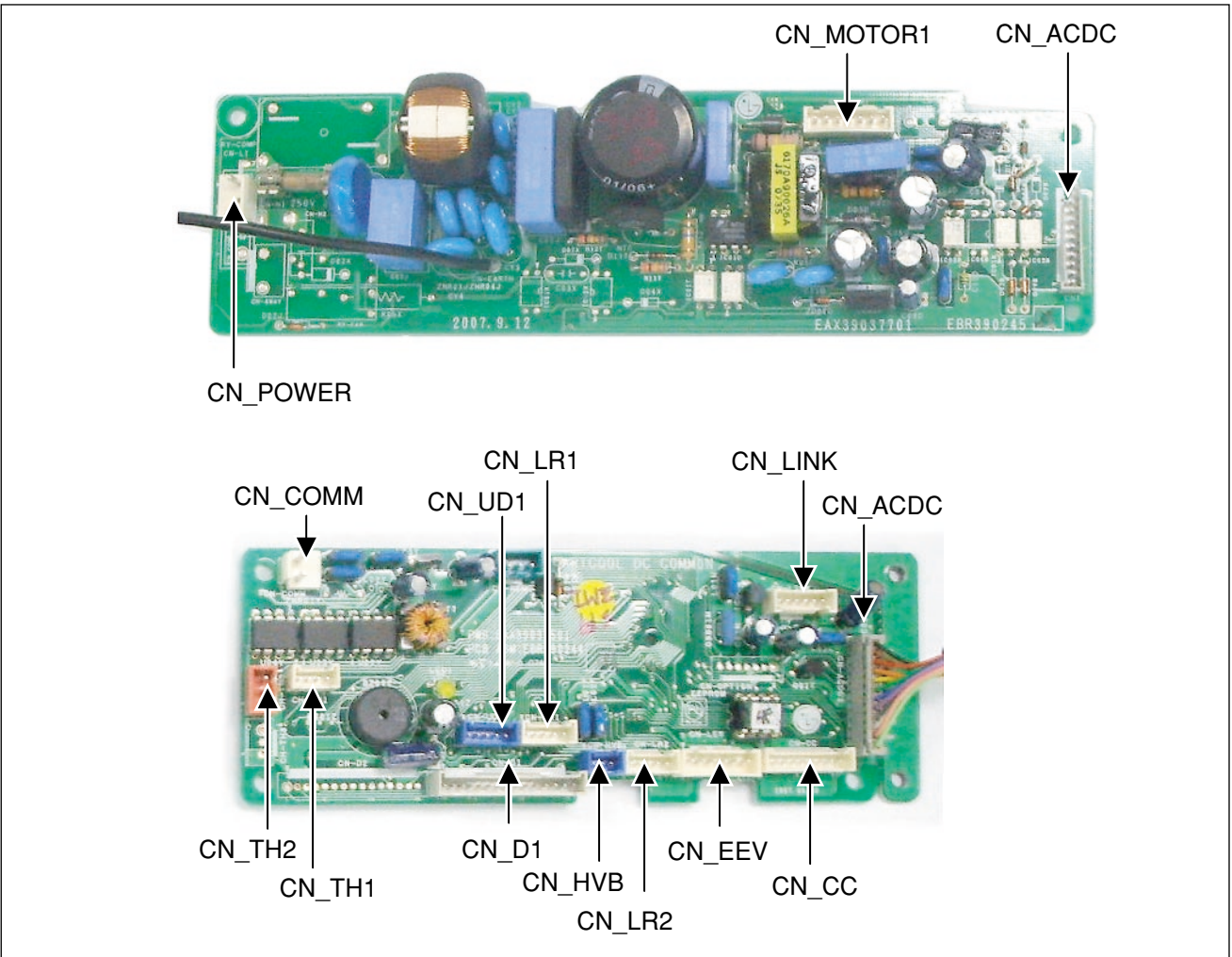
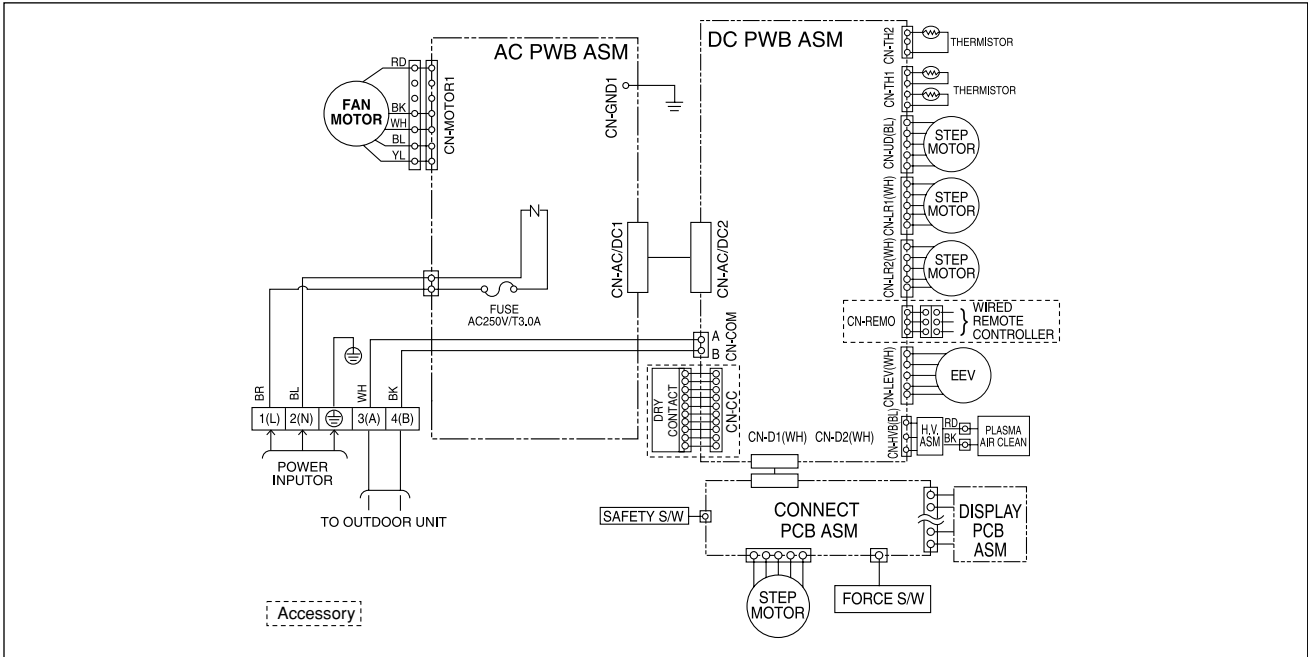
| Model       | Gas        | Liquid     |
|-------------|------------|------------|
| ARNU07GSF*2 | Ø12.7(1/2) | Ø6.35(1/4) |
| ARNU09GSF*2 | Ø12.7(1/2) | Ø6.35(1/4) |
| ARNU12GSF*2 | Ø12.7(1/2) | Ø6.35(1/4) |

\*(Color):E(Red), V(Silver), G(Gold), 1(Kiss)

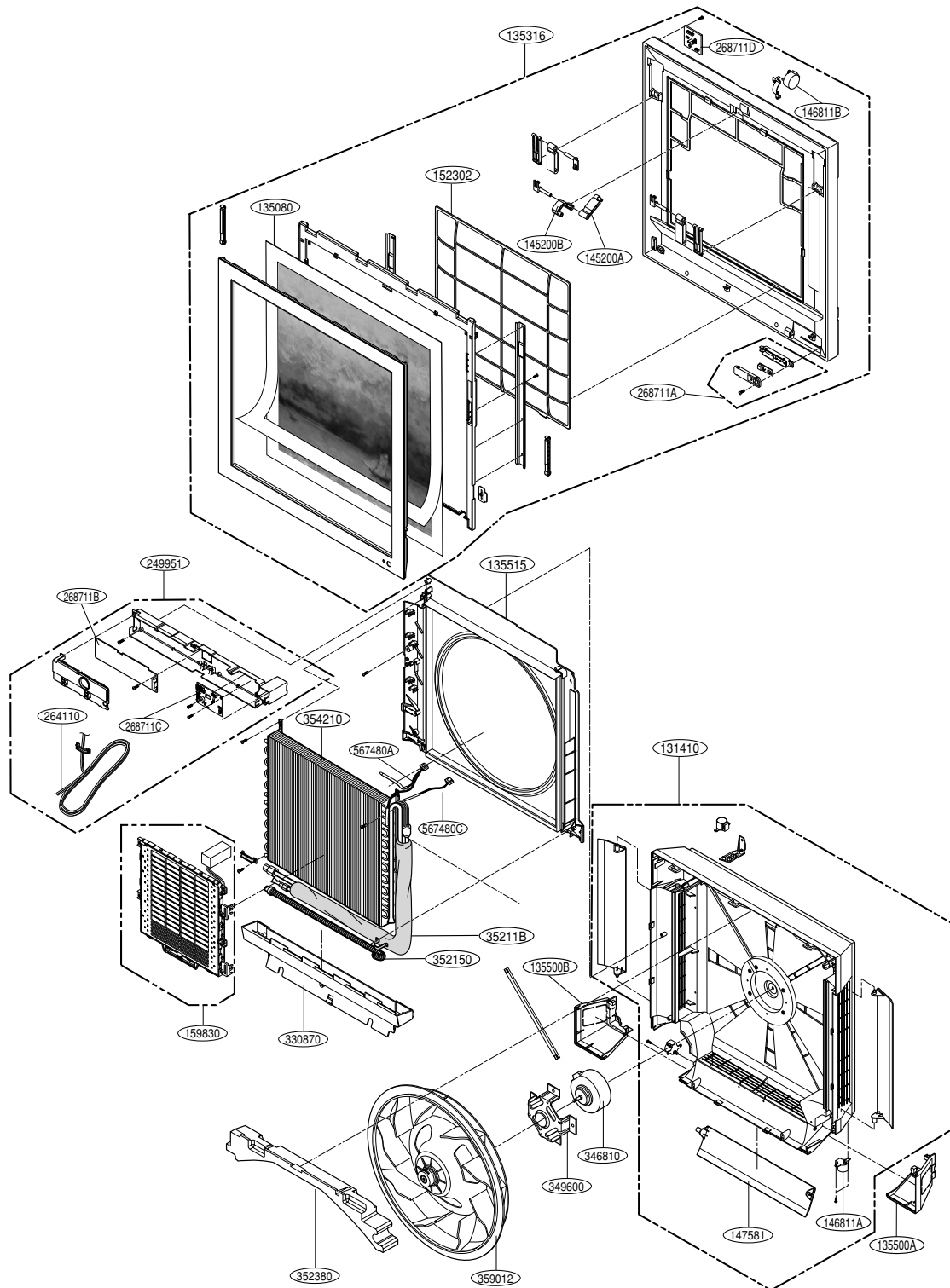
| LOC. | Description         |
|------|---------------------|
| Th1  | Room thermistor     |
| Th2  | Pipe in thermistor  |
| Th3  | Pipe out thermistor |

## 4. Wiring Diagrams

### SF Chassis



## 5. Exploded View



|              |         |               |                       |
|--------------|---------|---------------|-----------------------|
| Thermistor 1 | 567480A | Air + Eva. in | Housing color : white |
| Thermistor 2 | 567480B | Eva. out      | Housing color : red   |

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 GCGS.  
(GCGS Website <http://biz.lgservice.com>)



P/NO : MFL42947611

January, 2008