



Internal Use Only

<http://biz.lgservice.com>

Multi V Air Conditioner

SVC MANUAL(Exploded View)

MODEL : ARNU07GCEA4 ARNU07GCEU4
ARNU09GCEA4 ARNU09GCEU4
ARNU12GCEA4 ARNU12GCEU4
ARNU15GCEA4 ARNU15GCEU4
ARNU18GCFA4 ARNU18GCFU4
ARNU24GCFA4 ARNU24GCFU4

CAUTION

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

1. Specification

Type			Floor Standing		
Model		Unit	ARNU07GCEA4	ARNU09GCEA4	ARNU12GCEA4
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
		kcal/h	2,200	2,800	3,400
		Btu/h	8,500	10,900	13,600
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (WxHxD)	Body	mm	1,067 x 635 x 203	1,067 x 635 x 203	1,067 x 635 x 203
		inch	42 x 25 x 8	42 x 25 x 8	42 x 25 x 8
Coil	Rows x Columns x FPI		2 x 12 x 19	2 x 12 x 19	2 x 12 x 19
	Face Area	m ³	0.16	0.16	0.16
Fan	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
Motor Output x Number		W	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 1, 5 x 1
Running Current		A	0.76	0.76	0.76
Air Flow Rate(H / M / L)	CMM		8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	10.5 / 9.5 / 8.5
	cfm		300 / 265 / 229	335 / 300 / 265	371 / 335 / 300
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 polystrene	Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse	Fuse
Pipe	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
Drain Pipe(Internal Dia.)			mm(inch)	12(15/32)	12(15/32)
Net Weight			kg(lbs)	27(59.5)	27(59.5)
Noise Level(Sound Press, 1m, H / M / L)			dB(A)+1	35 / 33 / 31	36 / 34 / 32
Power Supply			Ø, V, Hz	1, 220-240, 50 1, 220, 60	1, 220-240, 50 1, 220, 60
Refrigerant Control			EEV	EEV	EEV
Power cable			mm ²	CV1.5 x 3C	CV1.5 x 3C
Transmission Cable(AWG#-C)			mm ²	CVV-SB 1.0~1.5 x 2C	CVV-SB 1.0~1.5 x 2C

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(24.6ft)
 - 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(24.6ft)
 - 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 = m³/min x 35.3
 l/s = CMM x 1000/60

Type			Floor Standing		
Model		Unit	ARNU15GCEA4	ARNU18GCFA4	ARNU24GCFA4
Cooling Capacity		kW	4.5	5.6	7.1
		kcal/h	3,900	4,800	6,100
		Btu/h	15,400	19,100	24,200
Heating Capacity		kW	5	6.3	8
		kcal/h	4,300	5,400	6,900
		Btu/h	17,100	21,500	27,300
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (WxHxD)	Body	mm	1,067 x 635 x 203	1,345 x 635 x 203	1,345 x 635 x 203
		inch	42 x 25 x 8	52-15/16 x 25 x 8	52-15/16 x 25 x 8
Coil	Rows x Columns x FPI		2 x 12 x 19	3 x 11 x 19	3 x 11 x 19
	Face Area	m ³	0.16	0.23	0.23
Fan	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
Motor Output x Number		W	19 x 1, 5 x 1	19 x 2	19 x 2
Running Current		A	0.76	0.97	0.97
Air Flow Rate(H / M / L)		CMM	11.5 / 10.0 / 9.5	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0
		cfm	406 / 353 / 335	565 / 494 / 424	635 / 565 / 494
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	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø9.52(3/8)
Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)
Drain Pipe(Internal Dia.)			mm(inch)	12(15/32)	12(15/32)
Net Weight			kg(lbs)	27(59.5)	34(75.0)
Noise Level(Sound Press, 1m, H / M / L)			dB(A)+1	38 / 37 / 35	40 / 37 / 34
Power Supply		Ø, V, Hz	1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
			1, 220, 60	1, 220, 60	1, 220, 60
Refrigerant Control			EEV	EEV	EEV
Power cable		mm ²	CV1.5 x 3C	CV1.5 x 3C	CV1.5 x 3C
Transmission Cable(AWG#-C)		mm ²	CVV-SB 1.0~1.5 x 2C	CVV-SB 1.0~1.5 x 2C	CVV-SB 1.0~1.5 x 2C

Notes:-

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 Btu/h = kW x 3412
 cfm = m³/min x 35.3
 l/s = CMM x 1000/60

Type		Floor Standing		
Model	Unit	ARNU07GCEU4	ARNU09GCEU4	ARNU12GCEU4
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
	kcal/h	2,200	2,800	3,400
	Btu/h	8,500	10,900	13,600
Casing		Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (WxHxD)	Body	mm	978 x 639 x 190	978 x 639 x 190
		inch	38-1/2 x 25-5/32 x 7-15/32	38-1/2 x 25-5/32 x 7-15/32
Coil	Rows x Columns x FPI		2 x 12 x 19	2 x 12 x 19
	Face Area	m ³	0.16	0.16
Fan	Type	Sirocco Fan	Sirocco Fan	Sirocco Fan
Motor Output x Number	W	19 x 1, 5 x 1	19 x 1, 5 x 1	19 x 1, 5 x 1
Running Current	A	0.76	0.76	0.76
Air Flow Rate(H / M / L)	CMM	8.5 / 7.5 / 6.5	9.5 / 8.5 / 7.5	10.5 / 9.5 / 8.5
	cfm	300 / 265 / 229	335 / 300 / 265	371 / 335 / 300
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	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
Drain Pipe(Internal Dia.)		mm(inch)	12(15/32)	12(15/32)
Net Weight		kg(lbs)	21(46.3)	21(46.3)
Noise Level(Sound Press, 1m, H / M / L)		dB(A)+1	35 / 33 / 31	36 / 34 / 32
Power Supply	Ø, V, Hz		1, 220-240, 50	1, 220-240, 50
			1, 220, 60	1, 220, 60
Refrigerant Control		EEV	EEV	EEV
Power cable		mm ²	CV1.5 x 3C	CV1.5 x 3C
Transmission Cable(AWG#-C)		mm ²	CVV-SB 1.0~1.5 x 2C	CVV-SB 1.0~1.5 x 2C

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Btu/h = kW x 3412
cfm = m ³ /min x 35.3
l/s = CMM x 1000/60

Type			Floor Standing		
Model		Unit	ARNU15GCEU4	ARNU18GCFU4	ARNU24GCFU4
Cooling Capacity		kW	4.5	5.6	7.1
		kcal/h	3,900	4,800	6,100
		Btu/h	15,400	19,100	24,200
Heating Capacity		kW	5	6.3	8
		kcal/h	4,300	5,400	6,900
		Btu/h	17,100	21,500	27,300
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (WxHxD)	Body	mm	978 x 639 x 190	1,256 x 639 x 190	1,256 x 639 x 190
		inch	38-1/2 x 25-5/32 x 7-15/32	49-7/16 x 25-5/32 x 7-15/32	49-7/16 x 25-5/32 x 7-15/32
Coil	Rows x Columns x FPI		2 x 12 x 19	3 x 11 x 19	3 x 11 x 19
	Face Area	m ³	0.16	0.23	0.23
Fan	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
Motor Output x Number		W	19 x 1, 5 x 1	19 x 2	19 x 2
Running Current		A	0.76	0.97	0.97
Air Flow Rate(H / M / L)	CMM		11.5 / 10.0 / 9.5	16.0 / 14.0 / 12.0	18.0 / 16.0 / 14.0
	cfm		406 / 353 / 335	565 / 494 / 424	635 / 565 / 494
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	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø9.52(3/8)
Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)
Drain Pipe(Internal Dia.)			mm(inch)	12(15/32)	12(15/32)
Net Weight			kg(lbs)	21(46.3)	26.5(58.4)
Noise Level(Sound Press, 1m, H / M / L)			dB(A)+1	38 / 37 / 35	40 / 37 / 34
Power Supply	Ø, V, Hz		1, 220-240, 50	1, 220-240, 50	1, 220-240, 50
			1, 220, 60	1, 220, 60	1, 220, 60
Refrigerant Control			EEV	EEV	EEV
Power cable		mm ²	CV1.5 x 3C	CV1.5 x 3C	CV1.5 x 3C
Transmission Cable(AWG#-C)		mm ²	CVV-SB 1.0~1.5 x 2C	CVV-SB 1.0~1.5 x 2C	CVV-SB 1.0~1.5 x 2C

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Conversion Formula

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 cfm = m³/min x 35.3
 l/s = CMM x 1000/60

2. List of Functions

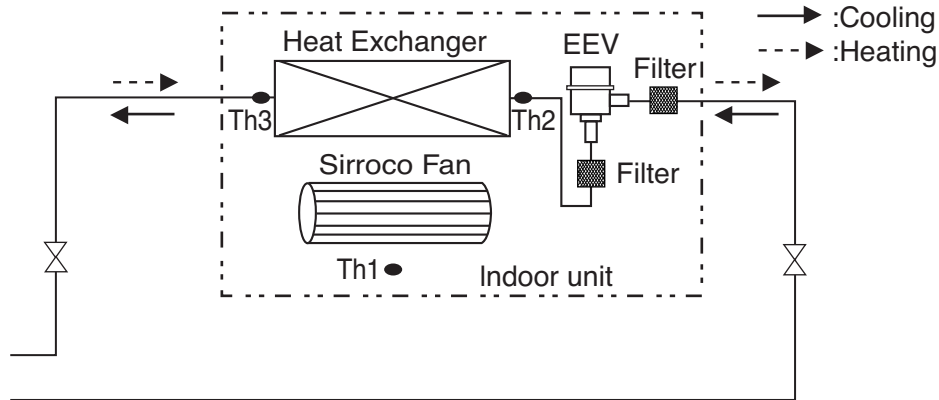
Category	Function	ARNU07GCEA4, ARNU07GCEU4 ARNU09GCEA4, ARNU09GCEU4 ARNU12GCEA4, ARNU12GCEU4 ARNU15GCEA4, ARNU15GCEU4 ARNU18GCFA4, ARNU18GCFU4 ARNU24GCFA4, ARNU24GCFU4
Air flow	Air supply outlet	1
	Airflow direction control(left & right)	-
	Airflow direction control(up & down)	-
	Auto swing(left & right)	-
	Auto swing(up & down)	-
	Airflow steps(fan/cool/heat)	3/3/3
	Chaos swing	-
	Chaos wind(auto wind)	-
	Jet cool(Power wind)	-
	Swirl wind	-
Air purifying	Deodorizing filter	X
	Plasma air purifier	X
	Prefilter(washable / anti-fungus)	O
Installation	Drain pump	X
	E.S.P. control	O
	Electric heater(operation)	X
	High ceiling operation	-
Reliability	Hot start	O
	Self diagnosis	O
	Soft dry operation	O
Convenience	Auto changeover	O(only heat recovery)
	Auto cleaning	X
	Auto operation(artificial intelligence)	O(only heat pump or cooling only)
	Auto restart operation	O
	Child lock	O
	Forced operation	-
	Group control	O
	Sleep mode	X
	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)	X
	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

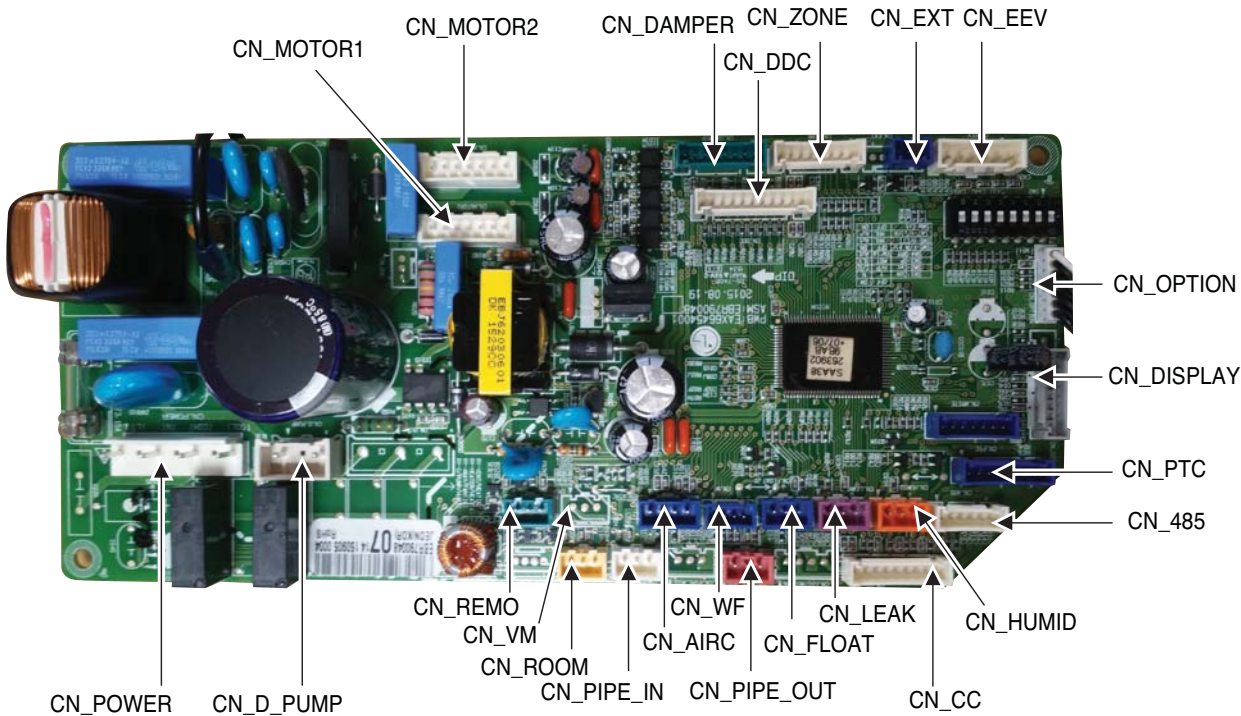
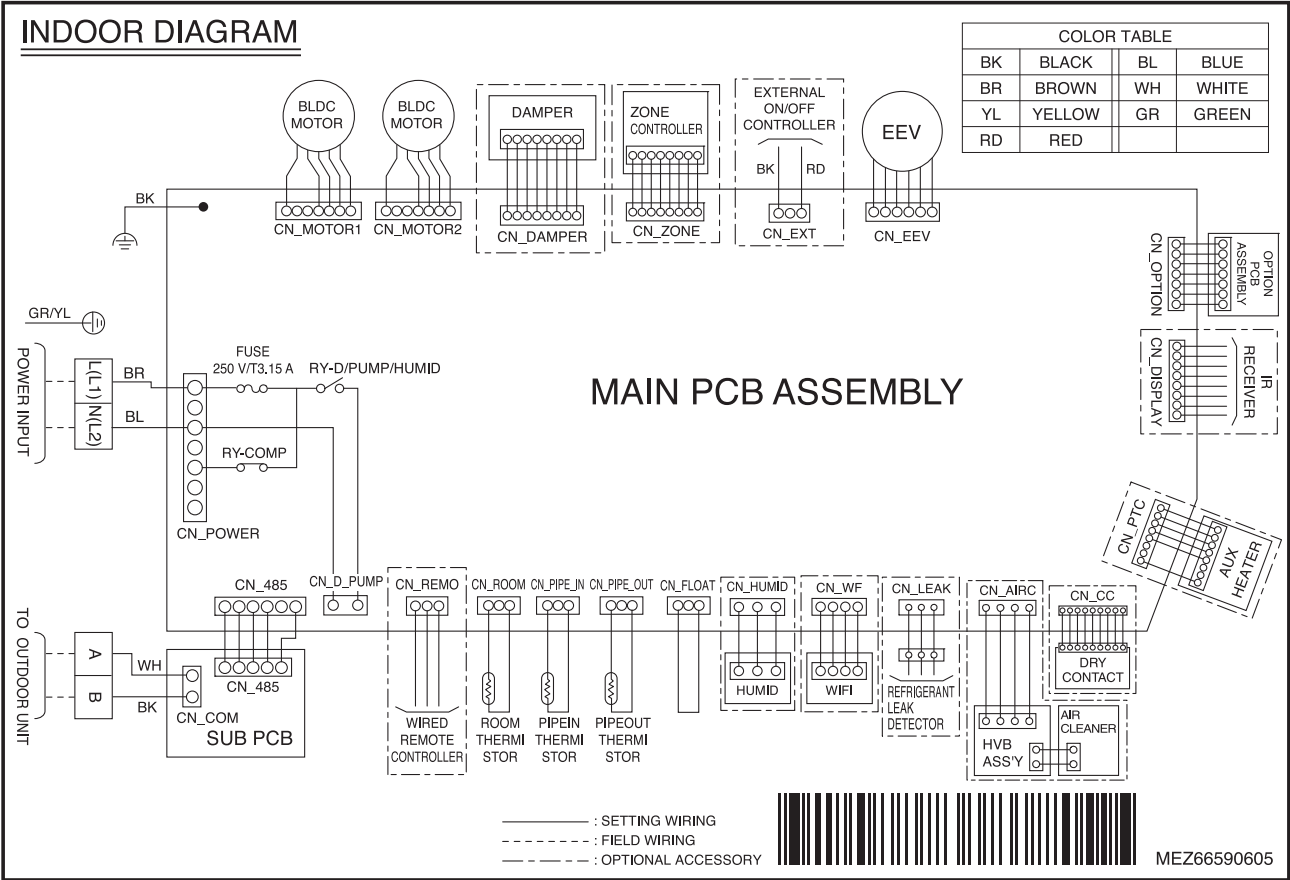
[Unit : mm(inch)]

CHASSIS	MODEL		GAS	LIQUID
CE	ARNU07GCEA4	ARNU07GCEU4	Ø12.7(1/2)	Ø6.35(1/4)
	ARNU09GCEA4	ARNU09GCEU4	Ø12.7(1/2)	Ø6.35(1/4)
	ARNU12GCEA4	ARNU12GCEU4	Ø12.7(1/2)	Ø6.35(1/4)
	ARNU15GCEA4	ARNU15GCEU4	Ø12.7(1/2)	Ø6.35(1/4)
CF	ARNU18GCFA4	ARNU18GCFU4	Ø12.7(1/2)	Ø6.35(1/4)
	ARNU24GCFA4	ARNU24GCFU4	Ø15.88(5/8)	Ø9.52(3/8)

LOC.	Description	PCB Connector (Color)
Th1	Thermistor for room air temperature	CN-ROOM (Yellow)
Th2	Thermistor for pipe in temperature	CN-PIPE_IN (White)
Th3	Thermistor for pipe out temperature	CN-PIPE_OUT (Red)

4. Wiring Diagrams

CE/CF Chassis



5. DIP Switch Setting

1. Indoor Unit

	Function	Description	Setting Off	Setting On	Default
SW1	Communication	N/A (Default)	-	-	Off
SW2	Cycle	N/A (Default)	-	-	Off
SW3	Group Control	Selection of Master or Slave	Master	Slave	Off
SW4	Dry Contact Mode	Selection of Dry Contact Mode	Wired/Wireless remote controller Selection of Manual or Auto operation Mode	Auto	Off
SW5	Installation	Fan continuous operation	Continuous operation Removal	-	Off
SW6	Heater linkage	N/A	-	-	Off
SW7	Ventilator linkage	Selection of Ventilator linkage	Linkage Removal	Working	Off
	Vane selection (Console)	Selection of up/down side Vane	Up side + Down side Vane	Up side Vane Only	
	Region selection	Selection tropical region	General model	Tropical model	
SW8	Etc.	Spare	-	-	Off

⚠ CAUTION

For Multi V Models, DIP switch 1, 2, 6, 8 must be set OFF.

2. Outdoor Unit

In case that the products meet specific conditions, "Auto addressing" function can start automatically with the improved speed by turning the DIP switch #3 of the outdoor unit and resetting the power.

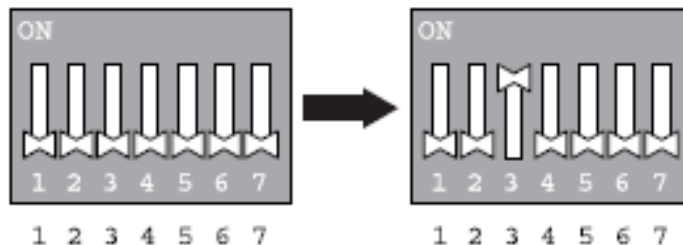
* Specific conditions:

- All names of the indoor units are ARNU****4.
- The serial number of Multi V super IV (outdoor units) is after October 2013.

DIP switch 7 segment



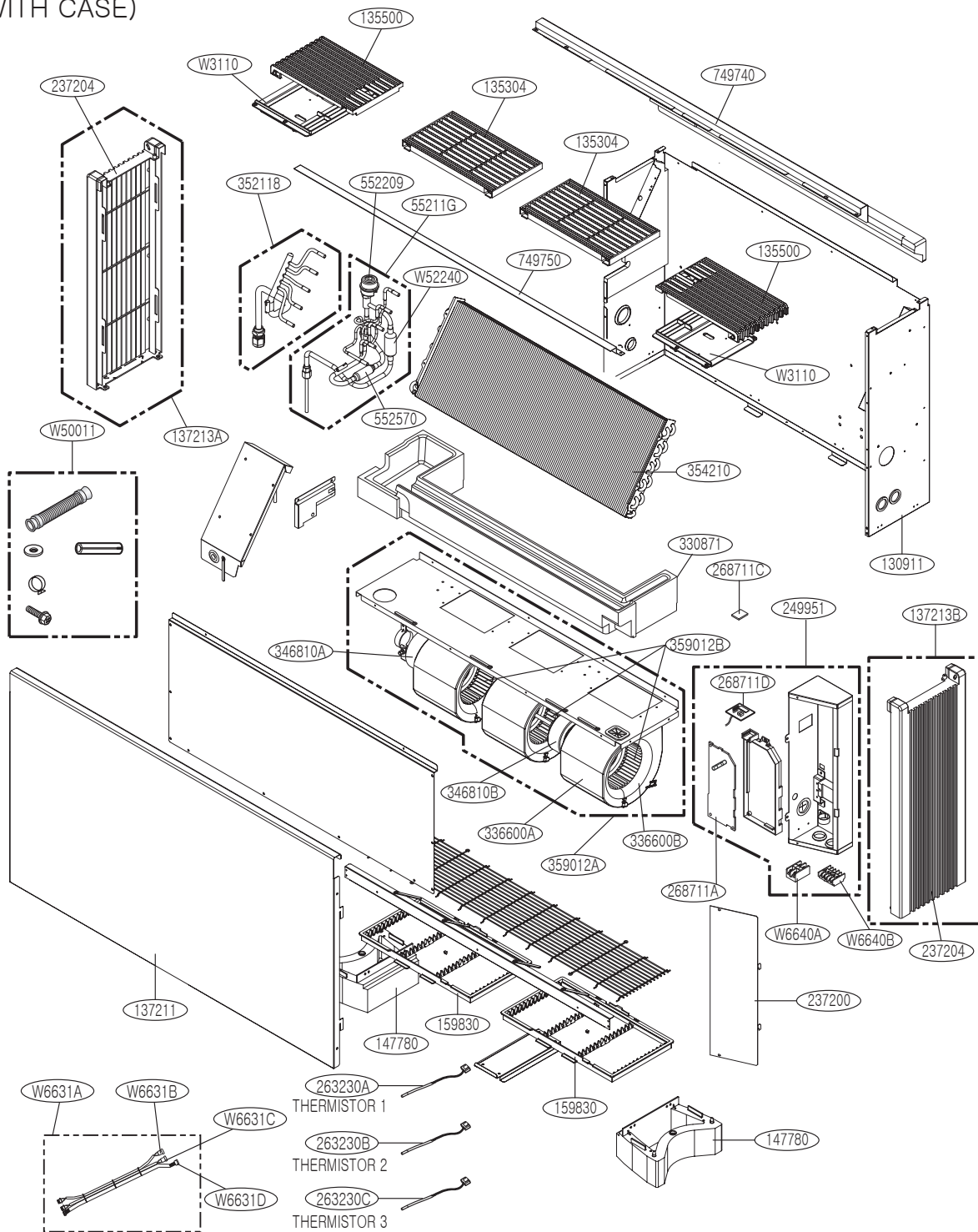
Outdoor Unit PCB



Outdoor Unit DIP Switch

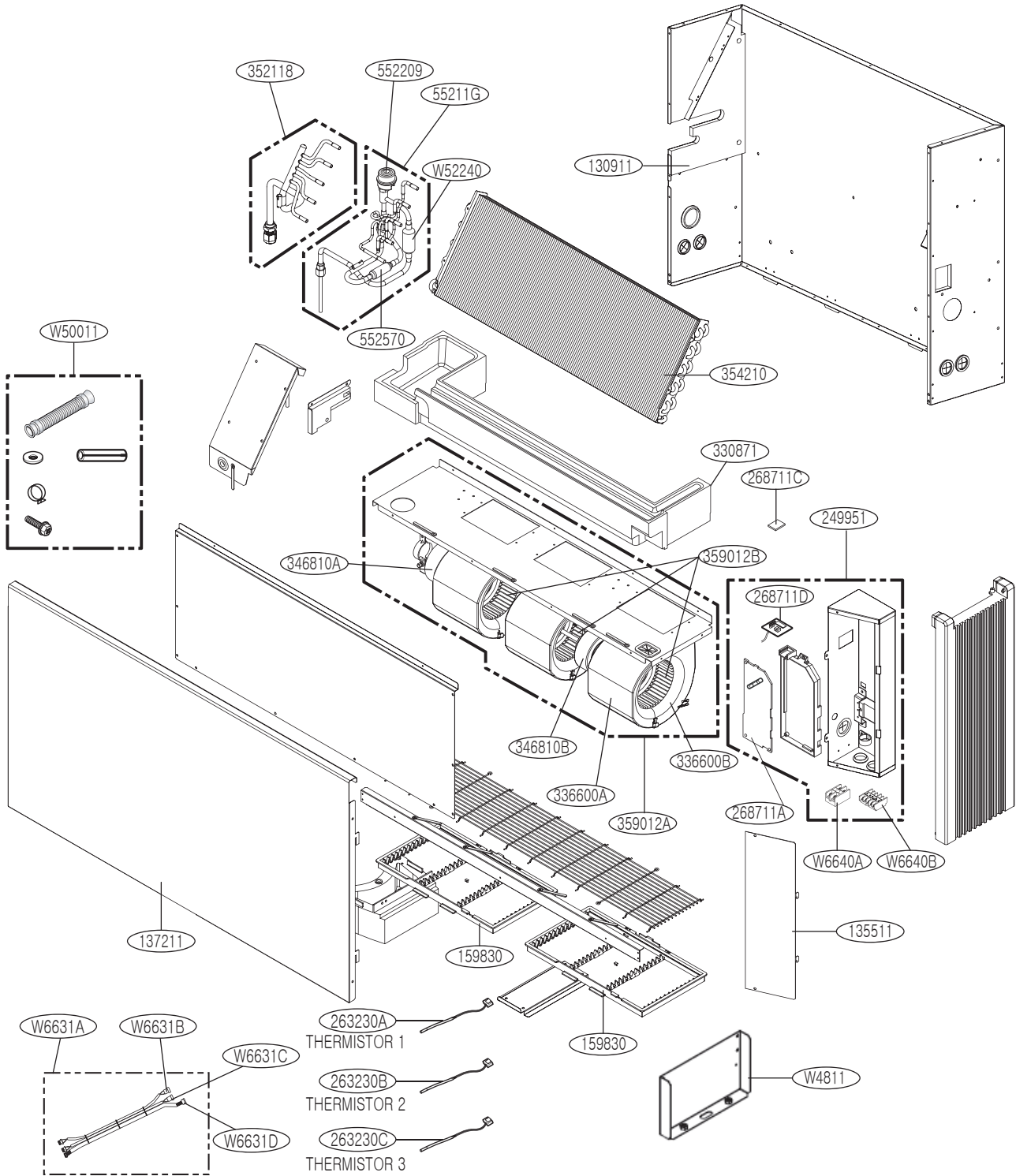
6. Exploded View

CE (WITH CASE)



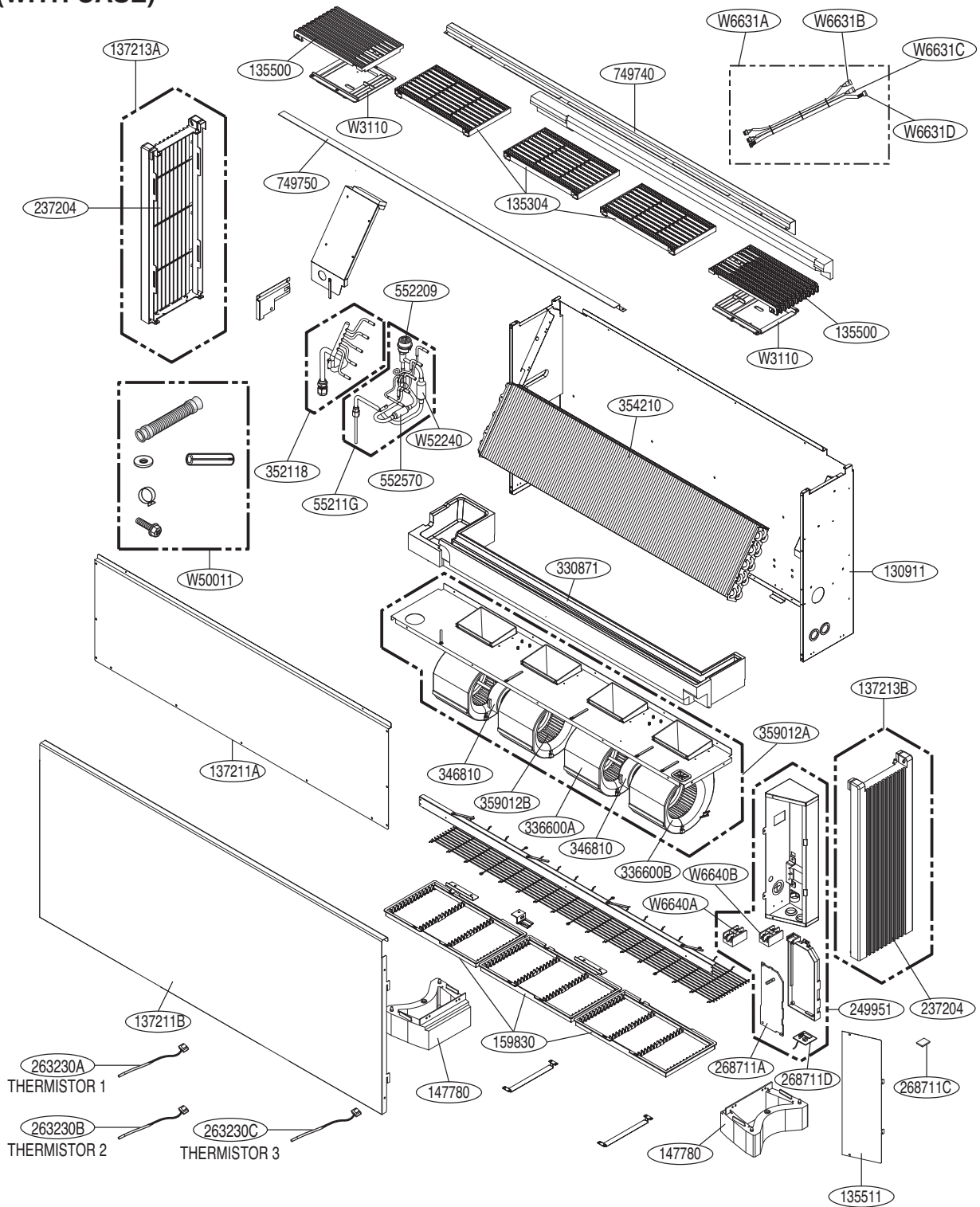
SVC No.	Description	Remark (Color)
263230A	Thermistor for room air temperature	CN-ROOM (Yellow)
263230B	Thermistor for pipe in temperature	CN-PIPE_IN (White)
263230C	Thermistor for pipe in temperature	CN-PIPE_OUT (Red)
268711A	PCB for main	210 mm X 95 mm
268711C	PCB for option	25 mm X 25 m
268711D	PCB for communication	65 mm X 45 mm

CE (WITHOUT CASE)



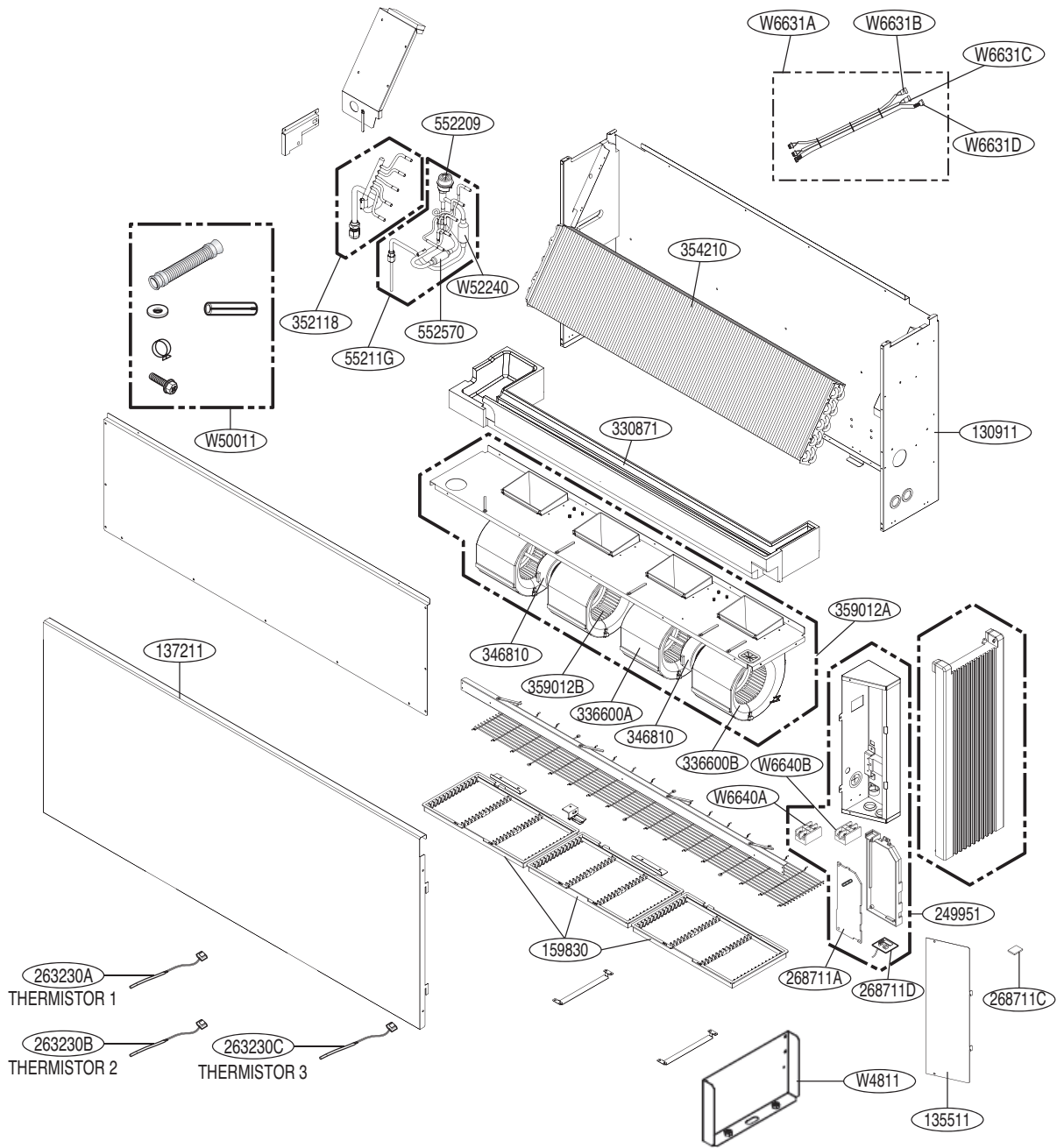
SVC No.	Description	Remark (Color)
263230A	Thermistor for room air temperature	CN-ROOM (Yellow)
263230B	Thermistor for pipe in temperature	CN-PIPE_IN (White)
263230C	Thermistor for pipe in temperature	CN-PIPE_OUT (Red)
268711A	PCB for main	210 mm X 95 mm
268711C	PCB for option	25 mm X 25 m
268711D	PCB for communication	65 mm X 45 mm

CF (WITH CASE)



SVC No.	Description	Remark (Color)
263230A	Thermistor for room air temperature	CN-ROOM (Yellow)
263230B	Thermistor for pipe in temperature	CN-PIPE_IN (White)
263230C	Thermistor for pipe in temperature	CN-PIPE_OUT (Red)
268711A	PCB for main	210 mm X 95 mm
268711C	PCB for option	25 mm X 25 m
268711D	PCB for communication	65 mm X 45 mm

CF (WITHOUT CASE)



SVC No.	Description	Remark (Color)
263230A	Thermistor for room air temperature	CN-ROOM (Yellow)
263230B	Thermistor for pipe in temperature	CN-PIPE_IN (White)
263230C	Thermistor for pipe in temperature	CN-PIPE_OUT (Red)
268711A	PCB for main	210 mm X 95 mm
268711C	PCB for option	25 mm X 25 mm
268711D	PCB for communication	65 mm X 45 mm

7. Self-diagnosis function

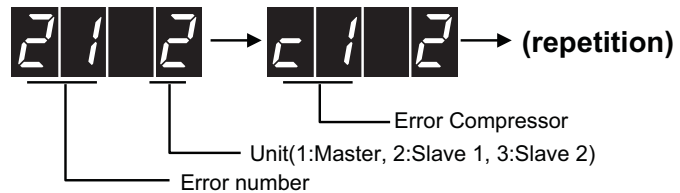
Error Indicator

- This function indicates types of failure in self-diagnosis and occurrence of failure for air condition.
- Error mark is displayed on display window of indoor units and wired remote controller, and 7-segment LED of outdoor unit control board as shown in the table.
- If more than two troubles occur simultaneously, lower number of error code is first displayed.
- After error occurrence, if error is released, error LED is also released simultaneously.

Error Display

- 1st,2nd,3rd LED of 7-segment indicates error number, 4th LED indicates unit number. Indicates unit number.
(* = 1:Master, 2 : Slave 1, 3 : Slave 2)

Ex) 211 : No.21 error of master unit
 213 : No.21 error of slave2
 1051 : No.105 error of master unit



※ Refer to the DX-Ventilation manual for DX-Ventilation error code

Display			Title	Cause of Error	
Indoor unit related error	0	1	-	Air temperature sensor of indoor unit	Air temperature sensor of indoor unit is open or short
	0	2	-	Inlet pipe temperature sensor of indoor unit	Inlet pipe temperature sensor of indoor unit is open or short
	0	3	-	Communication error : wired remote controller ↔ indoor unit	Failing to receive wired remote controller signal in indoor unit PCB
	0	4	-	Drain pump	Malfunction of drain pump
	0	5	-	Communication error : Indoor communication PCB ↔ indoor unit	Indoor Unit PCB did not receive signal from Indoor communication PCB for over 3 minutes continuously
	0	6	-	Outlet pipe temperature sensor of indoor unit	Outlet pipe temperature sensor of indoor unit is open or short
	0	9	-	Indoor EEPROM Error	In case when the serial number marked on EEPROM of Indoor unit is 0 or FFFFFF
	1	0	-	Poor fan motor operation	Disconnecting the fan motor connector / Failure of indoor fan motor lock
	2	3	0	Refrigerant leakage sensing error	Refrigerant leakage sensing error and sensor defect error
	2	3	7	Communication defect in indoor communication PCB ↔ outdoor communication PCB	Indoor communication PCB did not receive signal from outdoor communication PCB for over 3 minutes continuously
	2	3	8	Communication error in outdoor communication PCB ↔ outdoor unit	Outdoor communication PCB did not receive communication signal from outdoor unit for over 3 minutes continuously



P/NO : MFL42947637

DECEMBER, 2014