



LG

Free Joint Multi Type Air Conditioner

SERVICE MANUAL

MODEL

• Outdoor Unit:

Cooling Model

A2UC146FA0
A2UC186FA0
A3UC216FA0
A4UC306FA0

Heating Model

A2UH146FA0
A2UH186FA0
A3UH216FA0
A4UH306FA0

• Indoor Unit:

AMNC076LQL0
AMNC096LQL0
AMNC126LRL0
AMNC186LTL0
AMNC246LTL0

AMNH076LQL0
AMNH096LQL0/LQA0
AMNH126LRL0
AMNH186LTL0
AMNH246LTL0/LTA0

AMNC096AP*1
AMNC126AP*1

AMNH096AP*1
AMNH126AP*1

CAUTION

- BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.
- ONLY FOR AUTHORIZED SERVICE PERSONNEL.

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Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

- Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

⚠ WARNING This symbol indicates the possibility of death or serious injury.

⚠ CAUTION This symbol indicates the possibility of injury or damage.

- Meanings of symbol used in this manual are as shown below.

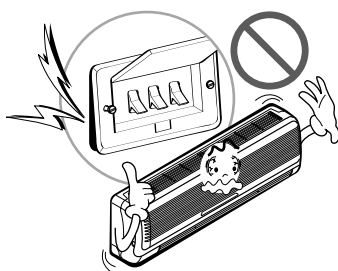
	Be sure not to do.
	Be sure to follow the instruction.

⚠ WARNING

■ Installation

Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit.

- There is risk of fire or electric shock.



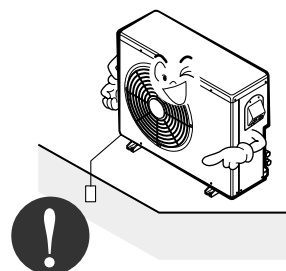
Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.

- Moisture may condense and wet or damage furniture.



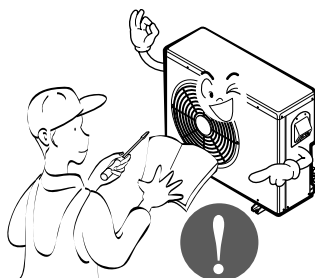
Always ground the product.

- There is risk of fire or electric shock.



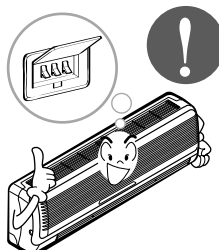
Install the panel and the cover of control box securely.

- There is risk of fire or electric shock.



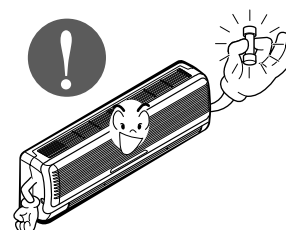
Always install a dedicated circuit and breaker.

- Improper wiring or installation may cause fire or electric shock



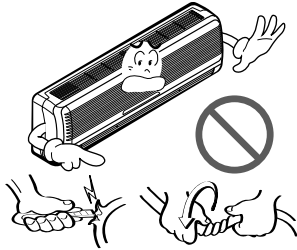
Use the correctly rated breaker or fuse.

- There is risk of fire or electric shock.



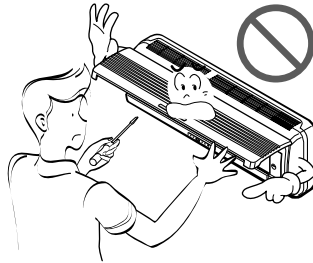
Do not modify or extend the power cable.

- There is risk of fire or electric shock.



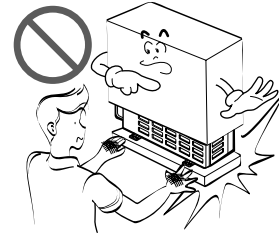
Do not install, remove, or re-install the unit by yourself (customer).

- There is risk of fire, electric shock, explosion, or injury.



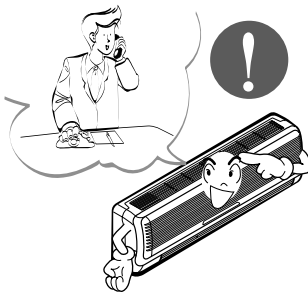
Be cautious when unpacking and installing the product.

- Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.



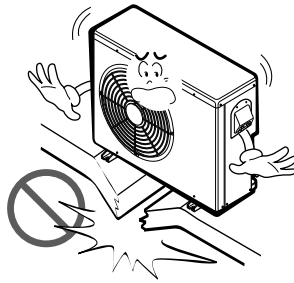
For installation, always contact the dealer or an Authorized Service Center.

- There is risk of fire, electric shock, explosion, or injury.



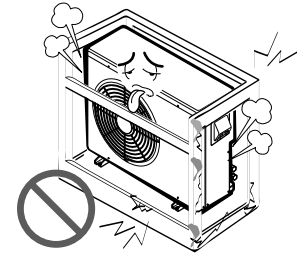
Do not install the product on a defective installation stand.

- It may cause injury, accident, or damage to the product.



Be sure the installation area does not deteriorate with age.

- If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.



Operational

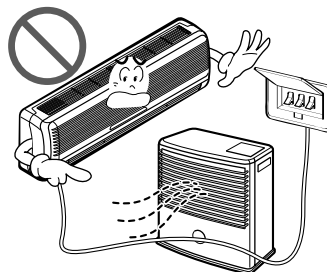
Do not touch(operate) the product with wet hands.

- There is risk of fire or electrical shock.



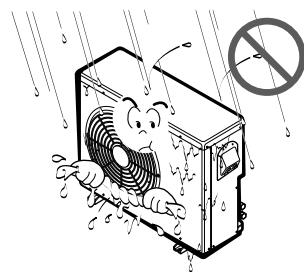
Do not place a heater or other appliances near the power cable.

- There is risk of fire and electric shock.



Do allow water to run into electric parts.

- It may cause There is risk of fire, failure of the product, or electric shock.



Do not store or use flammable gas or combustibles near the product.

- There is risk of fire or failure of product.



If strange sounds, or smell or smoke comes from product. Turn the breaker off or disconnect the power supply cable.

- There is risk of electric shock or fire.



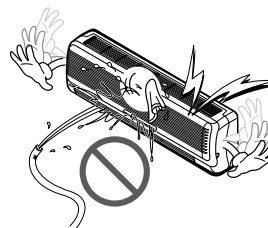
Do not open the inlet grille of the product during operation. (Do not touch the electrostatic filter, if the unit is so equipped.)

- There is risk of physical injury, electric shock, or product failure.



Be cautious that water could not enter the product.

- There is risk of fire, electric shock, or product damage.

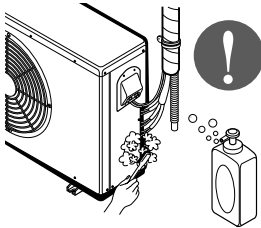


⚠ CAUTION

■ Installation

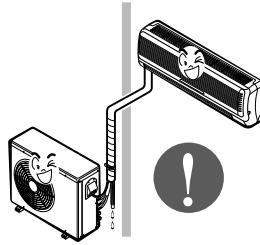
check for gas (refrigerant) leakage after installation or repair of product.

- Low refrigerant levels may cause failure of product.



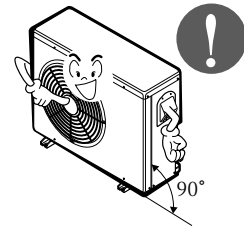
Install the drain hose to ensure that water is drained away properly.

- A bad connection may cause water leakage.



Keep level even when installing the product.

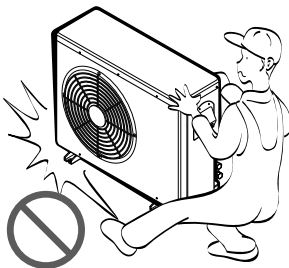
- To avoid vibration or water leakage.



■ Operational

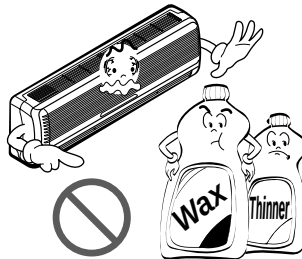
Use two or more people to lift and transport the product.

- Avoid personal injury.



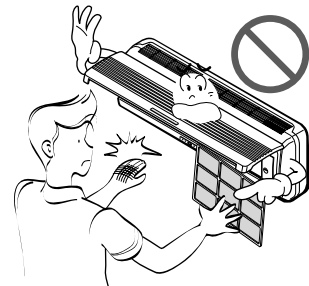
Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.

- There is risk of fire, electric shock, or damage to the plastic parts of the product.



Do not touch the metal parts of the product when removing the air filter. They are very sharp!

- There is risk of personal injury.



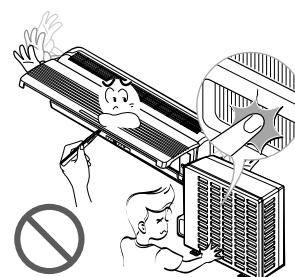
Do not step on or put anything on the product. (outdoor units)

- There is risk of personal injury and failure of product.



Do not insert hands or other objects through the air inlet or outlet while the product is operated.

- There are sharp and moving parts that could cause personal injury.



Details of LG Model Name

Outdoor Unit

A 3 U H 2 1 6 F A 0

	Development Sequence
	Function
	A: Basic
	Multi Type
	F: Free joint multi
	Electric Standard (Volts / Freq. / Phase)
	6: 220-240V~ / 50Hz / 1Ø
	Capacity
	14: 14,000 Btu/h 18: 18,000 Btu/h 21: 21,000 Btu/h 30: 30,000 Btu/h
	Model Type
	C: Cooling only H: Heat pump
	Outdoor / Indoor
	U: Outdoor N: Indoor
	Max. No. of indoor units
	3: One outdoor unit can connect with three indoor units(Reference to combination table)
	Making place / Refrigerant
	A: Changwon of korea / R410A

Indoor Unit

A M N H 0 7 6 L Q L 0

	Development Sequence
	Function & Color
	A: Basic L: Plasma + 2way M: Plasma + 4way B: Blue M: metal D: Wood
	Chassis Type
	Q: SQ chassis T: ST chassis R: SR chassis P: SP1 chassis
	Type
	L: SQ/SR/ST chassis L look A: SP1 chassis general / wide look
	Electric standard (Volts / Freq. /Phase)
	6: 220-240V~ / 50Hz / 1Ø
	Capacity
	07: 7,000 Btu/h 09: 9,000 Btu/h 12: 12,000 Btu/h 18: 18,000 Btu/h 24: 24,000 Btu/h
	Model Type
	C: Cooling only H: Heat pump
	Outdoor / Indoor
	U: Outdoor N: Indoor
	Multi Type
	M: Multi
	Making place / Refrigerant
	A: Changwon of korea / R410A

Product Specifications

1. Outdoor_Heat Pump

Model			A2UH146FA0	A2UH186FA0	A3UH216FA0	A4UH306FA0
Cooling Capacity ★		kcal/hr	2369~3629	1764~4536	2016~5292	2268~7560
		W	2755~4220	2051~5275	2345~6154	2638~8792
		Btu/hr	9400~14400	7000~18000	8000~21000	9000~30000
Heating Capacity ★		kcal/hr	2520~3679	2268~4990	2268~5292	2520~8316
		W	2931~4279	2638~5803	2638~6154	2931~9671
		Btu/hr	10000~14600	9000~19800	9000~21000	10000~33000
Input ★	Cooling	W	1300~1500	780~1900	880~2100	1100~3250
	Heating		1300~1500	1200~1900	1350~2200	1310~3600
Running Current ★	Cooling	A	6.1~6.6	3.5~8.5	4.0~9.4	4.8~15
	Heating		6.0 ~ 7.0	5.5~8.5	6.0~9.8	6.0~16.5
Power Supply		Ø,V,Hz	1,220-240,50	1,220-240,50	1,220-240,50	1,220-240,50
Compressor A	L.R.A	A	37	24	25.2	35.5
	Type		Rotary	Rotary	Rotary	Rotary
	Oil Type		FVS68D(PVE)	FV50S(PVE)	FV50S(PVE)	FV50S(PVE)
	O.L.P Type		Internal	MRA98781-9090	MRA99150-9090	Internal
Compressor B	L.R.A	A	-	17.2	20.3	25.2
	Type		-	Rotary	Rotary	Rotary
	Oil Type		-	FV50S(PVE)	FV50S(PVE)	FV50S(PVE)
	O.L.P Type		-	MRA99901-9090	MRA99282-9090	MRA99150-9090
Refrigerant	Charge	g	1100 (at 7.5m)	1350 (at 7.5m)	1500 (at 7.5m)	2500 (at 7.5m)
	Type		R410A	R410A	R410A	R410A
	Control		Capiilary Tube	L.E.V	L.E.V	L.E.V
Fan Motor	Output	W	27	67.2	67.2	41
	Capacitor	μF/Vac	1.5/400	6/370	6/370	2/370
Air Circulation		m³/min	40(1412)	53(1872)	53(1872)	63(2225)
Noise Level(Sound Press,1m)		dBA(Hi/Lo)	52	53	53	54/51
Piping Connection	Liquid	inch(mm)	1/4(6.35)*2EA	1/4(6.35)*2EA	1/4(6.35)*3EA	1/4(6.35)*4EA
	Gas	inch(mm)	3/8(9.52)*2EA	3/8(9.52)*2EA	3/8(9.52)*3EA	3/8(9.52)*4EA
Dimensions (W*H*D)		mm	801 x 555 x 262	870 x 655 x 320	870 x 655 x 320	870 x 1060 x 320
Net Weight		kg	45	64	64	80
Power Supply Cable		No.* mm²	3*2.5(Includes earth)	3*2.5(Includes earth)		3*3.5(Includes earth)
Interunit Cable		No.* mm²	4*0.75(Includes earth)			

★ : See Page "Combination Table"

2. Outdoor_Cooling Only

Model			A2UC146FA0	A2UC186FA0	A3UC216FA0	A4UC306FA0
Cooling Capacity ★		kcal/hr	2369~3629	1764~4536	2016~5292	2268~7560
		W	2755~4220	2051~5275	2345~6154	2638~8792
		Btu/hr	9400~14400	7000~18000	8000~21000	9000~30000
Input ★	Cooling	W	1300~1500	780~1900	880~2100	1100~3250
Running Current ★	Cooling	A	6.0~7.0	3.5~8.5	4.0~9.4	4.8~15
Power Supply		Ø,V,Hz	1,220-240,50	1,220-240,50	1,220-240,50	1,220-240,50
Compressor A	L.R.A	A	37	24	25.2	35.5
	Type		Rotary	Rotary	Rotary	Rotary
	Oil Type		FVS68D(PVE)	FV50S(PVE)	FV50S(PVE)	FV50S(PVE)
	O.L.P Type		Internal	MRA98781-9090	MRA99150-9090	Internal
Compressor B	L.R.A	A	-	17.2	20.3	25.2
	Type		-	Rotary	Rotary	Rotary
	Oil Type		-	FV50S(PVE)	FV50S(PVE)	FV50S(PVE)
	O.L.P Type		-	MRA99901-9090	MRA99282-9090	MRA99150-9090
Refrigerant	Charge	g	1050 (at 7.5m)	1350 (at 7.5m)	1500 (at 7.5m)	2500 (at 7.5m)
	Type		R410A	R410A	R410A	R410A
	Control		Capillary Tube	L.E.V	L.E.V	L.E.V
Fan Motor	Output	W	27	67.2	67.2	41
	Capacitor	µF/Vac	1.5/400	6/370	6/370	2/370
Air Circulation		m³/min	40(1412)	53(1872)	53(1872)	63(2225)
Noise Level(Sound Press,1m)		dB(A)(Hi/Lo)	52	53	53	54/51
Piping Connection	Liquid	inch(mm)	1/4(6.35)*2EA	1/4(6.35)*2EA	1/4(6.35)*3EA	1/4(6.35)*4EA
	Gas	inch(mm)	3/8(9.52)*2EA	3/8(9.52)*2EA	3/8(9.52)*3EA	3/8(9.52)*4EA
Dimensions (W*H*D)		mm	801 x 555 x 262	870 x 655 x 320	870 x 655 x 320	870 x 1060 x 320
Net Weight		kg	45	64	64	80
Power Supply Cable		No.* mm²	3*2.5(Includes earth)	3*2.5(Includes earth)	3*2.5(Includes earth)	3*3.5(Includes earth)
Interunit Cable		No.* mm²		4*0.75(Includes earth)		

★ : See Page "Combination Table"

3. Indoor_Heat Pump

Indoor Unit Type			Wall Mounted					Art Cool	
Model			AMNH076LQL0	AMNH096LQL0 AMNH096LQA0	AMNH126LRL0	AMNH186LTL0	AMNH246LTL0 AMNH246LTA0	AMNH096AP*1	AMNH126AP*1
Nominal Cooling Capacity ★	kcal/hr		1764	2267	2772	4536	5796	2267	2772
	W		2051	2638	3224	5275	6741	2638	3224
	Btu/hr		7000	9000	12000	18000	23000	9000	12000
Nominal Heating Capacity ★	kcal/hr		1940	2495	3049	4990	6426	2495	3049
	W		2257	2901	3546	5803	7473	2901	3546
	Btu/hr		7700	9900	13200	19800	25500	9900	13200
Air Circulation		m³/min	5.5	6.0	9	13	14	7.5	8.5
Setting temperature range	Cooling	°C	18~30						
	Heating		16~30						
Fan Motor	Output	W	8	8	14	22	29	24	24
	Capacitor	µF/Vac	0.9 / 400	0.9 / 400	0.9 / 400	2.0 / 370	2.0 / 370	-	-
Noise Level(Sound Press, 1m)	H/M/L	dBA	35 / 32 / 29	37 / 33 / 31	39 / 36 / 34	42 / 39 / 36	46 / 43 / 39	38 / 35 / 32	43 / 40 / 33
Temperature controller			Thermistor	Thermistor	Thermistor	Thermistor	Thermistor	Thermistor	Thermistor
Dehumidification Rate		l/h	1	1.2	1.7	1.9	2.2	1	1.2
Dimensions (W x H x D)		mm	820x260 x155	820x260x155	900x285x156	1080x314x182	1080x314x182	570x568x137	570x568x137
Net Weight		kg	7	7	8	12	12	9	9
Piping Connection	Liquid	inch(mm)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)
	Gas	inch(mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	1/2 (12.7)	1/2 (12.7)	3/8 (9.52)	3/8 (9.52)
	Drain hose(OD Ø)	mm	20	20	20	20	20	20	20
Front Panel Color	" * " Position		-	-	-	-	-	M: Metal, B: Blue, D: Wood	

★ : See Page "Combination Table"

4. Indoor_Cooling Only

Indoor Unit Type			Wall Mounted					Art Cool	
Model			AMNC076LQL0	AMNC096LQL0	AMNC126LRL0	AMNC186LTL0	AMNC246LTL0	AMNC096AP*1	AMNC126AP*1
Nominal Cooling Capacity ★	kcal/hr		1764	2267	2772	4536	5796	2267	2772
	W		2051	2638	3224	5275	6741	2638	3224
	Btu/hr		7000	9000	12000	18000	23000	9000	12000
Air Circulation		m³/min	5.5	6.0	9	13	14	7.5	8.5
Setting temperature range(cool)		°C	18~30						
Fan Motor	Output	W	8.4	8.4	14.4	22	29	24	24
	Capacitor	µF/Vac	0.9 / 400	0.9 / 400	0.9 / 400	2.0 / 370	2.0 / 370	-	-
Noise Level(Sound Press, 1m)	H/M/L	dBA	35 / 32 / 29	37 / 33 / 31	39 / 36 / 34	42 / 39 / 36	46 / 43 / 39	38 / 35 / 32	43 / 40 / 33
Temperature controller			Thermistor	Thermistor	Thermistor	Thermistor	Thermistor	Thermistor	Thermistor
Dehumidification Rate		l/h	1	1.2	1.7	1.9	2.2	1	1.2
Dimensions (W x H x D)		mm	820x260x155	820x260x155	900x285x156	1080x314x182	1080x314x182	570x568x137	570x568x137
Net Weight		kg	7	7	8	12	12	9	9
Piping Connection	Liquid	inch(mm)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)
	Gas	inch(mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	1/2 (12.7)	1/2 (12.7)	3/8 (9.52)	3/8 (9.52)
	Drain hose(OD Ø)	mm	20	20	20	20	20	20	20
Front Panel Color	" * " Position		-	-	-	-	-	M: Metal, B: Blue, D: Wood	

★ : See Page "Combination Table"

Combination Table

1. A2UH146FA0

Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	EER (Btu/h.w)
						Unit-A	Unit-B	Unit-C	Unit-D	Total			
	A	B	C	D	Total	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)			
1 UNIT	7				7	9400				9400	1350	6.1	7
2 UNIT	7	7			14	7200	7200			14400	1450	6.6	9.9

Heating

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP	
						Unit-A (Btu/hr)	Unit-B (Btu/hr)	Unit-C (Btu/hr)	Unit-D (Btu/hr)	Total (Btu/hr)			(Btu/h.w)	(w/w)
	A	B	C	D	Total									
1 UNIT	7				7	10000				10000	1500	7	6.7	2
2 UNIT	7	7			14	7300	7300			14600	1300	6	11.2	3.3

2. A2UH186FA0

Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	EER (Btu/h.w)
						Unit-A	Unit-B	Unit-C	Unit-D	Total			
	A	B	C	D	Total	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)			
1 UNIT	7				7	7000				7000	780	3.5	9
	9				9	9500				9500	1100	5	8.6
	12				12	11000				11000	1100	5	10
2 UNIT	7	7			14	7000	7000			14000	1900	8.5	7.4
	7	9			16	7000	9000			16000	1900	8.5	8.4
	9	9			18	9000	9000			18000	1900	8.5	9.5
	7	12			19	7000	11000			18000	1900	8.5	9.5

Heating

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP	
						Unit-A	Unit-B	Unit-C	Unit-D	Total			(Btu/h.w)	(w/w)
	A	B	C	D	Total	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)				
1 UNIT	7				7	9000				9000	1300	6	6.9	2
	9				9	10500				10500	1250	5.6	8.4	2.5
	12				12	12100				12100	1200	5.5	10.1	3
2 UNIT	7	7			14	7700	7700			15400	1900	8.5	8.1	2.4
	7	9			16	7700	9900			17600	1900	8.5	9.3	2.7
	9	9			18	9900	9900			19800	1900	8.5	10.4	3.1
	7	12			19	7700	12100			19800	1900	8.5	10.4	3.1

3. A3UH216FA0

Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	EER (Btu/h.w)
						Unit-A (Btu/hr)	Unit-B (Btu/hr)	Unit-C (Btu/hr)	Unit-D (Btu/hr)	Total (Btu/hr)			
1 UNIT	7				7	8000				8000	880	4	9.1
	9				9	9500				9500	900	4.1	10.6
	12(Art)				12	11000				11000	1150	5.1	9.6
	12				12	12000				12000	1150	5.1	10.4
2 UNIT	7	7			14	8400	8400			16800	2100	9.4	8
	7	9			16	8000	10000			18000	2100	9.4	8.6
	9	9			18	9500	9500			19000	2100	9.4	9
	7	12(Art)			19	8000	11000			19000	2100	9.4	9
	7	12			19	8000	12000			20000	2100	9.4	9.5
	9	12			21	9000	12000			21000	2100	9.4	10
3 UNIT	7	7	7		21	7000	7000	7000		21000	2100	9.4	10
	7	7	9		23	6400	6400	8200		21000	2100	9.4	10

Heating

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP	
						Unit-A (Btu/hr)	Unit-B (Btu/hr)	Unit-C (Btu/hr)	Unit-D (Btu/hr)	Total (Btu/hr)			(Btu/h.w)	(w/w)
1 UNIT	7				7	9000				9000	1350	6	6.7	2
	9				9	10450				10450	1350	6.2	7.7	2.3
	12(Art)				12	12100				12100	1400	6.2	8.6	2.5
	12				12	13200				13200	1400	6.2	9.4	2.8
2 UNIT	7	7			14	9200	9200			18400	2200	9.8	8.4	2.5
	7	9			16	8800	11000			19800	2200	9.8	9	2.6
	9	9			18	10000	10000			20000	2200	9.8	9.1	2.7
	7	12(Art)			19	8800	12100			20900	2200	9.8	9.5	2.8
	7	12			19	8400	12600			21000	2200	9.8	9.5	2.8
	9	12			21	9000	12000			21000	1900	8.5	11.1	3.2
3 UNIT	7	7	7		21	7000	7000	7000		21000	1900	8.5	11.1	3.2
	7	7	9		23	6400	6400	8200		21000	1900	8.5	11.1	3.2

4. A4UH306FA0

	Combination (Indoor Unit)					Cooling mode						
	A	B	C	D	Total (Btu/h)	Unit-A	Unit-B	Unit-C	Unit-D	Total (Btu/h)	Power Consumption(W)	Current(A)
1 Unit	7				7	9000				9000	1100	4.8
	9				9	10000				10000	1130	5
	12				12	12000				12000	1180	5.2
	18				18	18000				18000	1900	9
	24				24	23000				23000	3000	13.5
2 Unit	7	7			14	8000	8000			16000	1850	8.8
	7	9			16	7500	9500			17000	1900	9
	7	12			19	7000	12000			19000	1920	9.1
	7	18			25	9000	19000			28000	3150	14.5
	7	24			31	7000	22000			29000	3250	15
	9	9			18	9000	9000			18000	1900	9
	9	12			21	11000	14000			25000	3000	13.5
	9	18			27	10000	18000			28000	3150	14.5
	9	24			33	8000	21500			29500	3250	15
	12	12			24	13000	13000			26000	3100	14
3 Unit	12	18			30	12000	18000			30000	3250	15
	7	7	7		21	9000	9000	9000		27000	3150	14.5
	7	7	9		23	9000	9000	11000		29000	3150	14.5
	7	7	12		26	8000	8000	12000		28000	3250	15
	7	7	18		32	6500	6500	17000		30000	3250	15
	7	9	9		25	9000	10000	10000		29000	3250	14.5
	7	9	12		28	7500	9500	12000		29000	3150	15
	7	12	12		31	7000	11500	11500		30000	3250	15
	9	9	9		27	10000	10000	10000		30000	3250	15
	9	9	12		30	9000	9000	12000		30000	3250	15
4 Unit	9	12	12		33	8000	11000	11000		30000	3250	15
	7	7	7	7	28	7500	7500	7500	7500	30000	3200	14.5
	7	7	7	9	30	7000	7000	7000	9000	30000	3250	15
	7	7	7	12	33	6500	6500	6500	10500	30000	3250	15
	7	7	9	9	32	6500	6500	8500	8500	30000	3250	14.7

	Combination (Indoor Unit)					Heating mode						
	A	B	C	D	Total (Btu/h)	Unit-A	Unit-B	Unit-C	Unit-D	Total (Btu/h)	Power Consumption(W)	Current(A)
1 Unit	7				7	10000				10000	1350	6.2
	9				9	11000				11000	1470	6.5
	12				12	12000				12000	1310	6
	18				18	18000				18000	2050	9.7
	24				24	26400				26400	3600	16.5
2 Unit	7	7			14	8800	8800			17600	1950	9.3
	7	9			16	8200	10300			18500	1950	9.3
	7	12			19	7000	12000			19000	2050	9.7
	7	18			25	9900	20900			30800	3360	15.5
	7	24			31	7700	23000			30700	3300	15
	9	9			18	9900	9900			19800	2050	9.5
	9	12			21	12100	15400			27500	3360	15.5
	9	18			27	11000	19800			30800	3360	15.5
	9	24			33	8800	22500			31300	3360	15.5
	12	12			24	14300	14300			28600	3360	15.5
	12	18			30	13200	19800			33000	3360	15.5
3 Unit	7	7	7		21	9900	9900	9900		29700	3360	15.5
	7	7	9		23	9900	9900	11000		30800	3400	15.5
	7	7	12		26	8800	8800	13200		30800	3360	15.5
	7	7	18		32	7100	7100	18700		32900	3360	15.5
	7	9	9		25	9900	11000	11000		31900	3360	15.5
	7	9	12		28	8200	10400	13200		31800	3360	15.5
	7	12	12		31	7700	12600	12600		32900	3360	15.5
	9	9	9		27	11000	11000	11000		33000	3360	15.5
	9	9	12		30	9900	9900	13200		33000	3360	15.5
	9	12	12		33	8800	12100	12100		33000	3360	15.5
4 Unit	7	7	7	7	28	8200	8200	8200	8200	32800	2950	13.5
	7	7	7	9	30	7700	7700	7700	9900	33000	2950	13.5
	7	7	7	12	33	7100	7100	7100	11700	33000	3000	14
	7	7	9	9	32	7100	7100	9300	9300	32800	2950	13.5

5. A2UC146FA0

Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP (Btu/h.w)
						Unit-A	Unit-B	Unit-C	Unit-D	Total			
	A	B	C	D	Total	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)			
1 UNIT	7				7	10000				10000	1500	7	6.7
2 UNIT	7	7			14	7300	7300			14600	1300	6	11.2

6. A2UC186FA0

Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP (Btu/h.w)
						Unit-A	Unit-B	Unit-C	Unit-D	Total			
	A	B	C	D	Total	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)			
1 UNIT	7				7	7000				7000	780	3.5	9
	9				9	9500				9500	1100	5	8.6
	12				12	11000				11000	1100	5	10
2 UNIT	7	7			14	7000	7000			14000	1900	8.5	7.4
	7	9			16	7000	9000			16000	1900	8.5	8.4
	9	9			18	9000	9000			18000	1900	8.5	9.5
	7	12			19	7000	11000			18000	1900	8.5	9.5

7. A3UC216FA0

Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP (Btu/h.w)
						Unit-A	Unit-B	Unit-C	Unit-D	Total			
	A	B	C	D	Total	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)	(Btu/hr)			
1 UNIT	7				7	8000				8000	880	4	9.1
	9				9	9500				9500	900	4.1	10.6
	12(Art)				12	11000				11000	1150	5.1	9.6
	12				12	12000				12000	1150	5.1	10.4
2 UNIT	7	7			14	8400	8400			16800	2100	9.4	8
	7	9			16	8000	10000			18000	2100	9.4	8.6
	9	9			18	9500	9500			19000	2100	9.4	9
	7	12(Art)			19	8000	11000			19000	2100	9.4	9
	7	12			19	8000	12000			20000	2100	9.4	9.5
	9	12			21	9000	12000			21000	2100	9.4	10
3 UNIT	7	7	7		21	7000	7000	7000		21000	2100	9.4	10
	7	7	9		23	6400	6400	8200		21000	2100	9.4	10

8. A4UC306FA0

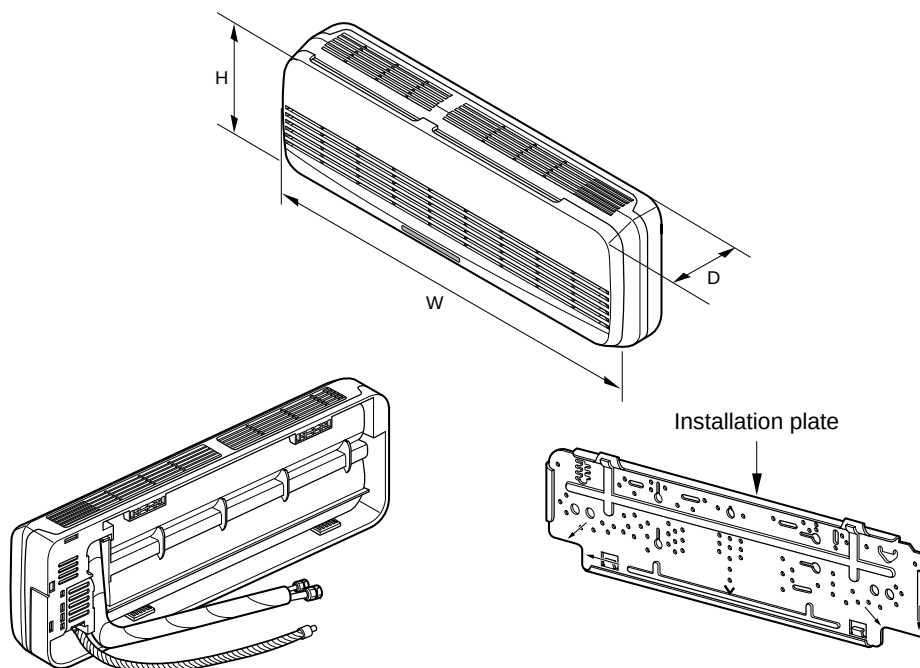
Cooling

Operation	Indoor Unit Combination Index(k Btu/h)					Capacity					Input (W)	Current (A)	COP (Btu/h.w)
						Unit-A (Btu/hr)	Unit-B (Btu/hr)	Unit-C (Btu/hr)	Unit-D (Btu/hr)	Total (Btu/hr)			
1 UNIT	7				7	9000				9000	1100	4.8	8.2
	9				9	10000				10000	1130	5	8.8
	12				12	12000				12000	1180	5.2	10.2
	18				18	18000				18000	1900	9	9.5
	24				24	23000				23000	3000	13.5	7.7
2 UNIT	7	7			14	8000	8000			16000	1850	8.8	8.6
	7	9			16	7500	9500			17000	1900	9	8.9
	7	12			19	7000	12000			19000	1920	9.1	9.9
	7	18			25	9000	19000			28000	3150	14.5	8.9
	7	24			31	7000	22000			29000	3250	15	8.9
	9	9			18	9000	9000			18000	1900	9	9.5
	9	12			21	11000	14000			25000	3000	13.5	8.3
	9	18			27	10000	18000			28000	3150	14.5	8.9
	9	24			33	8000	21500			29500	3250	15	9.1
	12	12			24	13000	13000			26000	3100	14	8.4
3 UNIT	12	18			30	12000	18000			30000	3250	15	9.2
	7	7	7		21	9000	9000	9000		27000	3150	14.5	8.6
	7	7	9		23	9000	9000	11000		29000	3150	14.5	9.2
	7	7	12		26	8000	8000	12000		28000	3250	15	8.6
	7	7	18		32	6500	6500	17000		30000	3250	15	9.2
	7	9	9		25	9000	10000	10000		29000	3250	14.5	8.9
	7	9	12		28	7500	9500	12000		29000	3150	15	9.2
	7	12	12		31	7000	11500	11500		30000	3250	15	9.2
	9	9	9		27	10000	10000	10000		30000	3250	15	9.2
	9	9	12		30	9000	9000	12000		30000	3250	15	9.2
4 UNIT	9	12	12		33	8000	11000	11000		30000	3250	15	9.2
	7	7	7	7	28	7500	7500	7500	7500	30000	3200	14.5	9.4
	7	7	7	9	30	7000	7000	7000	9000	30000	3250	15	9.2
	7	7	7	12	33	6500	6500	6500	10500	30000	3250	15	9.2
	7	7	9	9	32	6500	6500	8500	8500	30000	3250	14.7	9.2

Dimensions

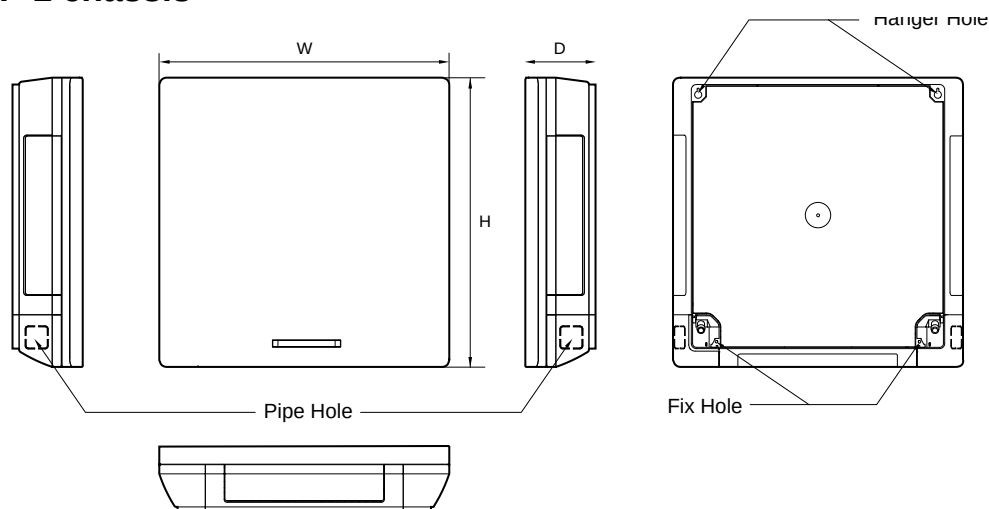
1. Indoor Unit

• Model: SQ/SR/ST chassis



Capacity		W	H	D
SQ Ch.	7K/9K	824	260	156
SR Ch.	12K	900	285	156
ST Ch.	18K/24K	1080	314	182

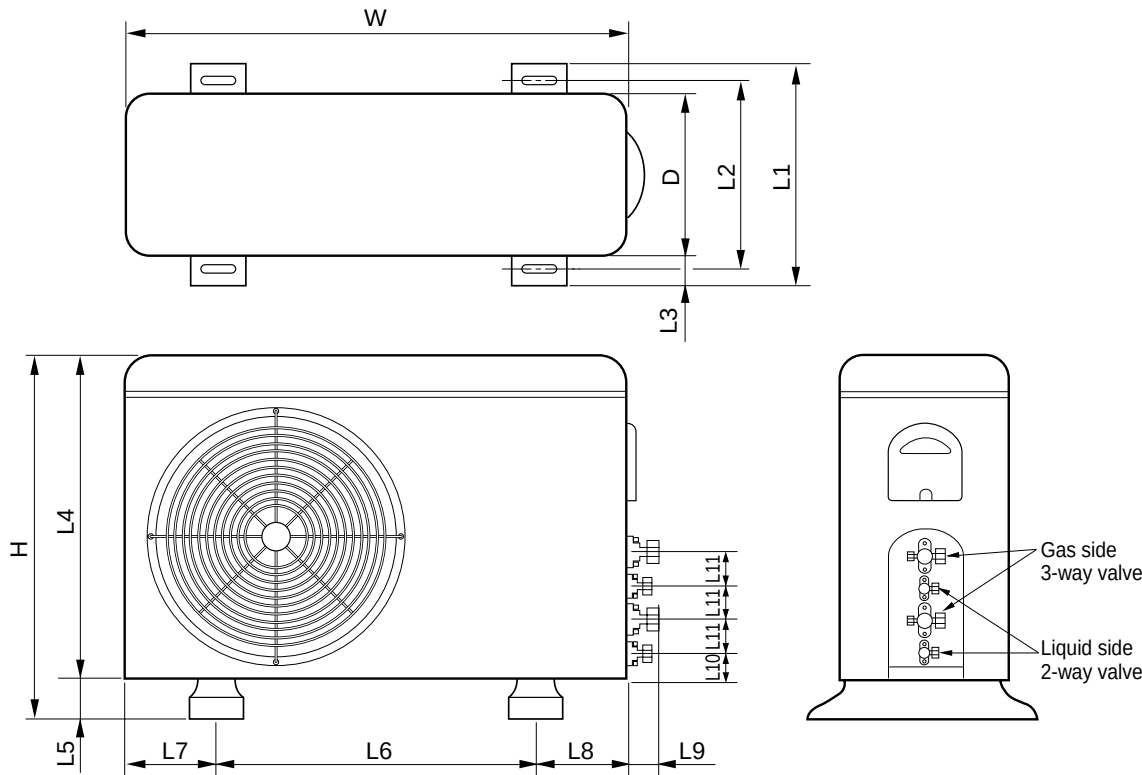
• Model: SP 1 chassis



Capacity		W	H	D
SP1 Ch.	9K/12K	570	568	137

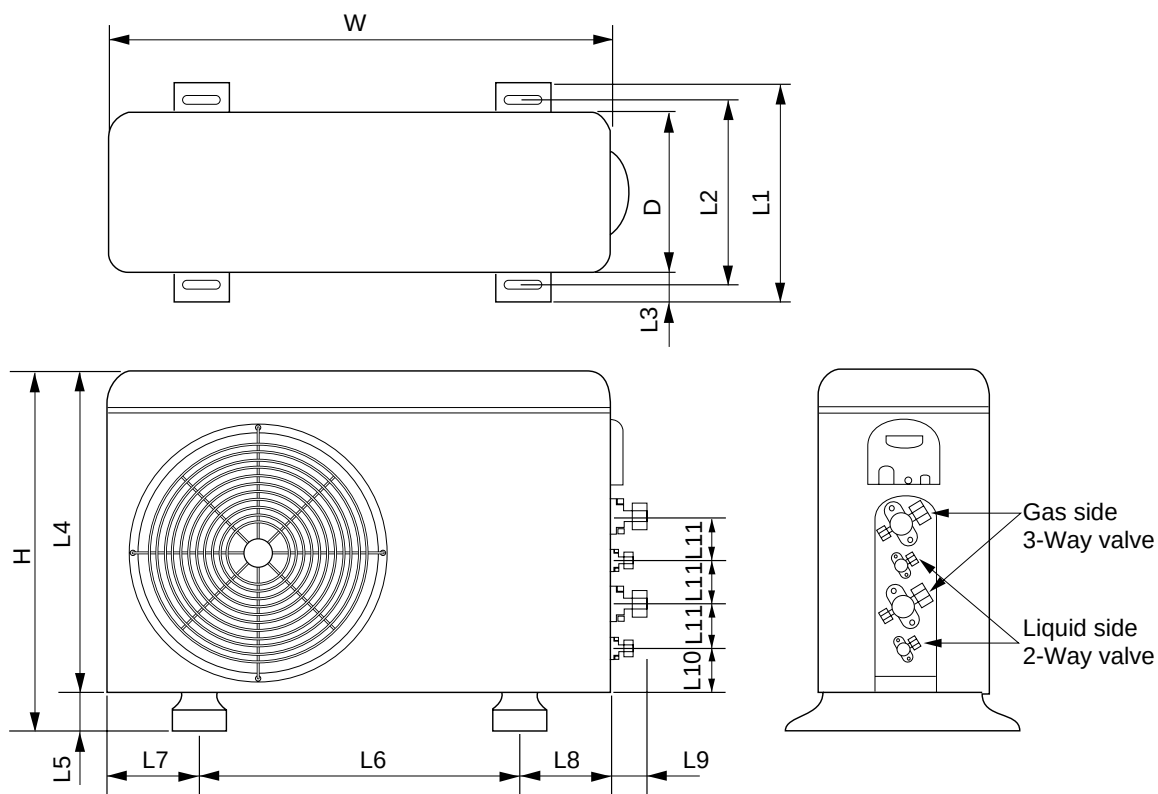
2. Outdoor Unit

2-1 A2UC146FA0, A2UH146FA0



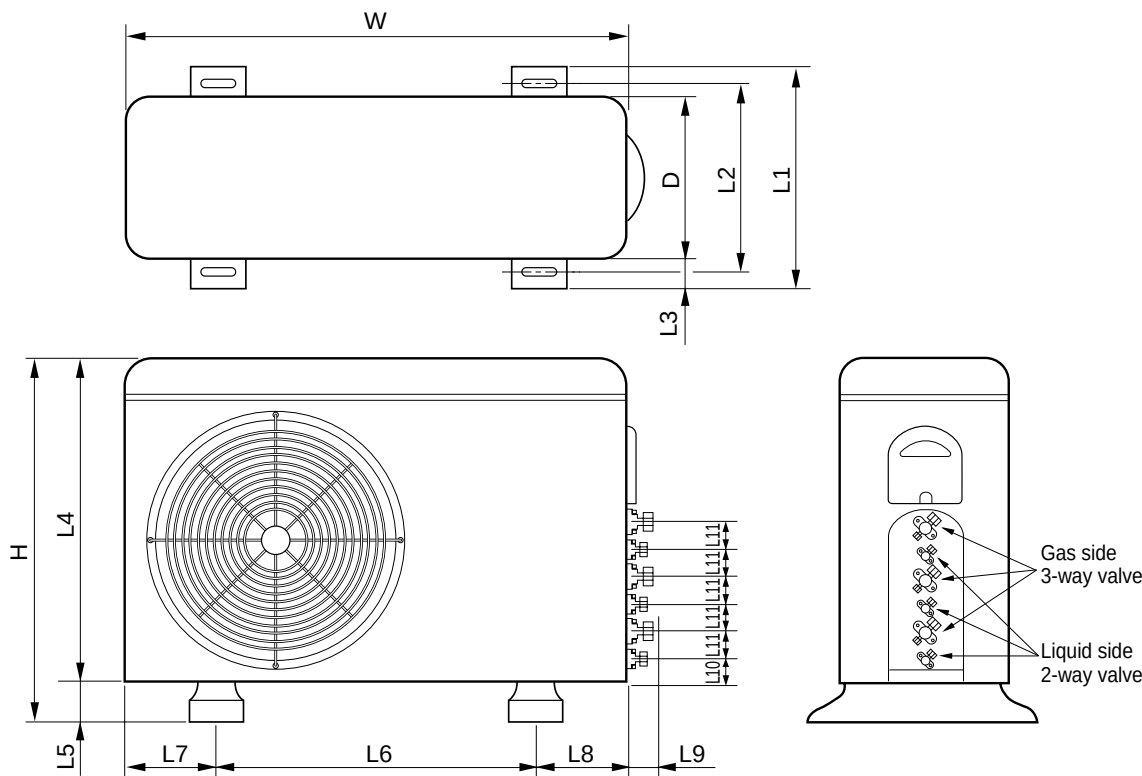
MODEL		A2UC146FA0, A2UH146FA0
DIM		
W	mm	801
H	mm	555
D	mm	262
L1	mm	339
L2	mm	300
L3	mm	37
L4	mm	543.6
L5	mm	11.4
L6	mm	591
L7	mm	105
L8	mm	105
L9	mm	72.5
L10	mm	74.5
L11	mm	79

2-2. A2UC186FA0, A2UH186FA0



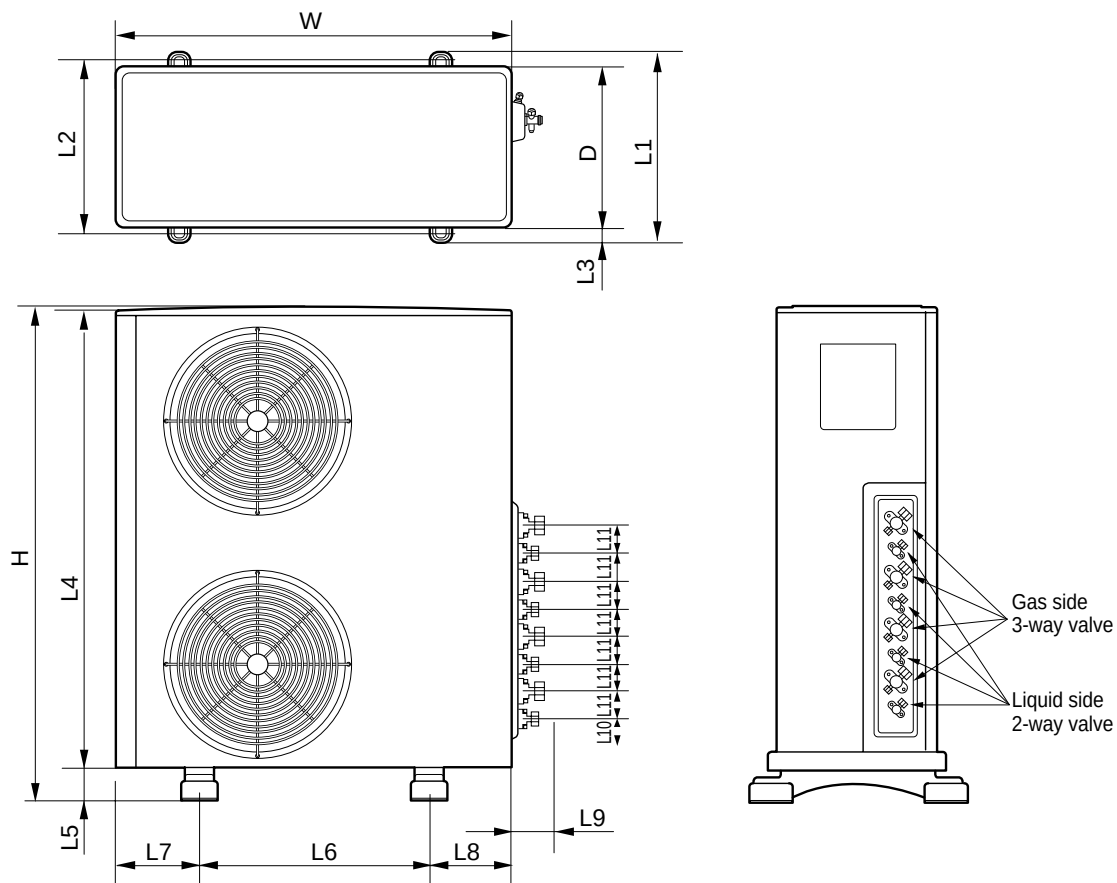
MODEL		A2UC186FA0, A2UH186FA0
DIM		
W	mm	870
H	mm	655
D	mm	320
L1	mm	360
L2	mm	340
L3	mm	25
L4	mm	630
L5	mm	25
L6	mm	546
L7	mm	160
L8	mm	160
L9	mm	44
L10	mm	64.5
L11	mm	50

2-3 A3UC216FA0, A3UH216FA0



MODEL		A3UC216FA0, A3UH216FA0
DIM		
W	mm	870
H	mm	655
D	mm	320
L1	mm	360
L2	mm	340
L3	mm	25
L4	mm	630
L5	mm	25
L6	mm	546
L7	mm	160
L8	mm	160
L9	mm	44
L10	mm	64.5
L11	mm	50

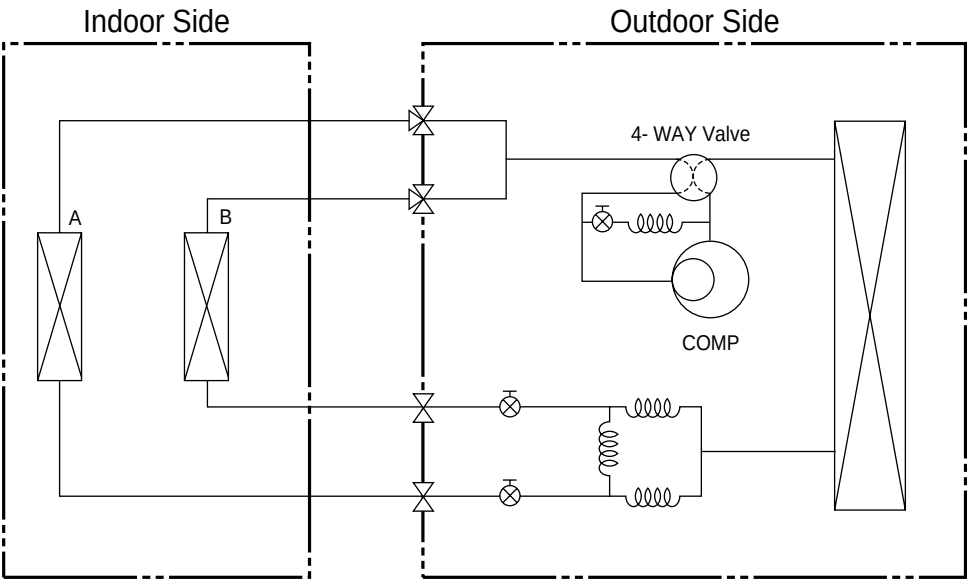
2-4 A4UC306FA0, A4UH306FA0



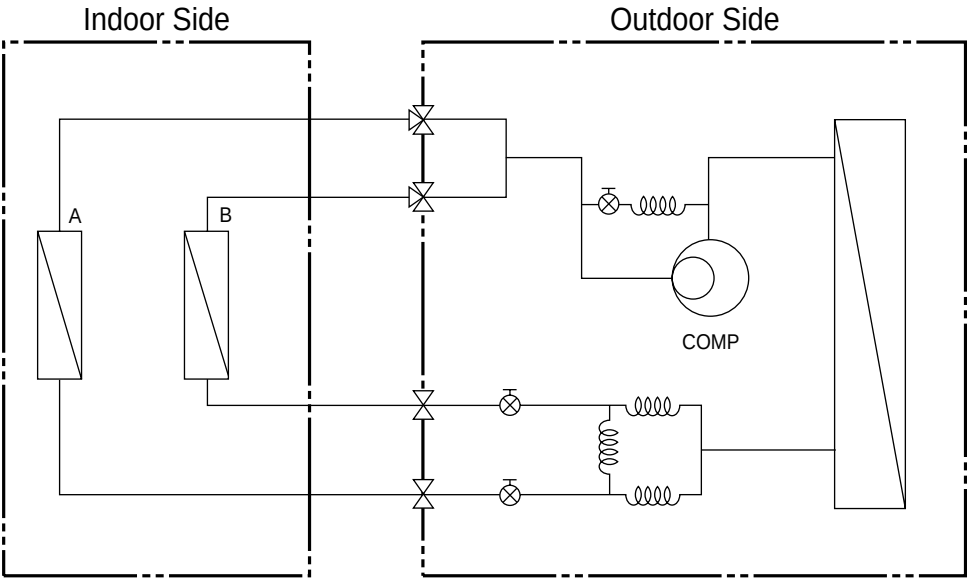
MODEL		A4UC306FA0, A4UH306FA0
DIM		
W	mm	870
H	mm	1038
D	mm	320
L1	mm	360
L2	mm	340
L3	mm	25
L4	mm	1035
L5	mm	25
L6	mm	546
L7	mm	160
L8	mm	160
L9	mm	44
L10	mm	64.5
L11	mm	50

Refrigeration Cycle Diagram

1. A2UH146FA0



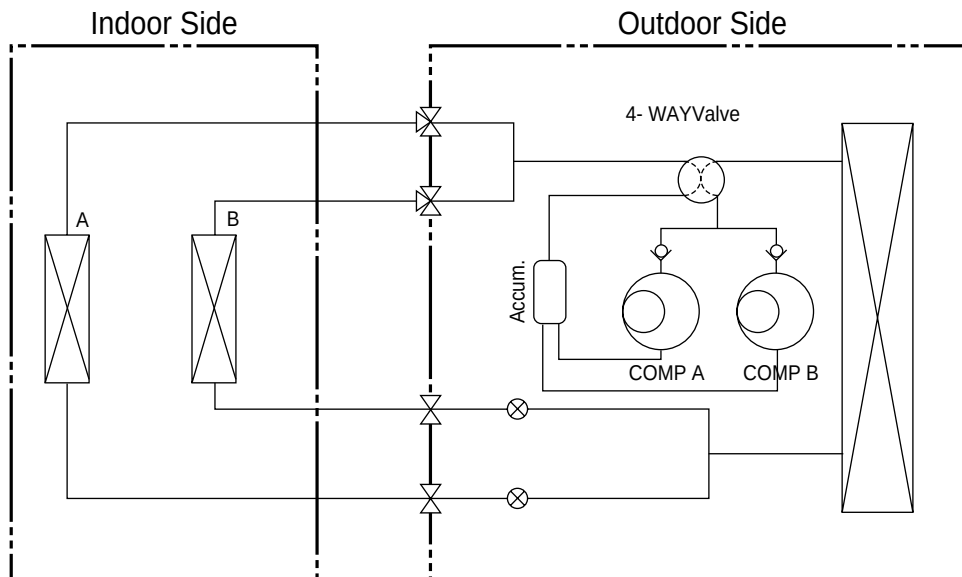
2. A2UC146FA0



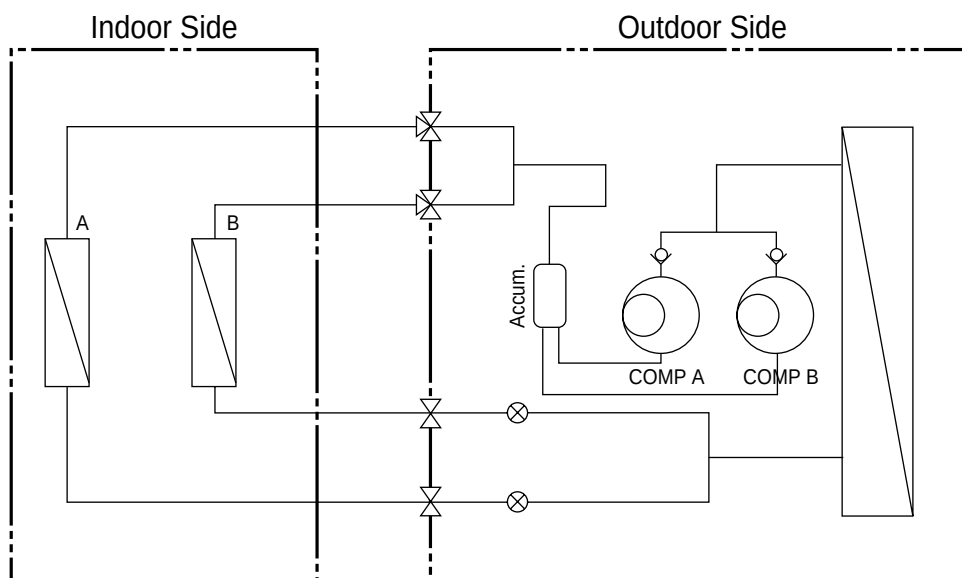
ex)

	Capillary
	Solenoid Valve
	L.E.V
	3-Way Valve
	2-Way Valve

3. A2UH186FA0



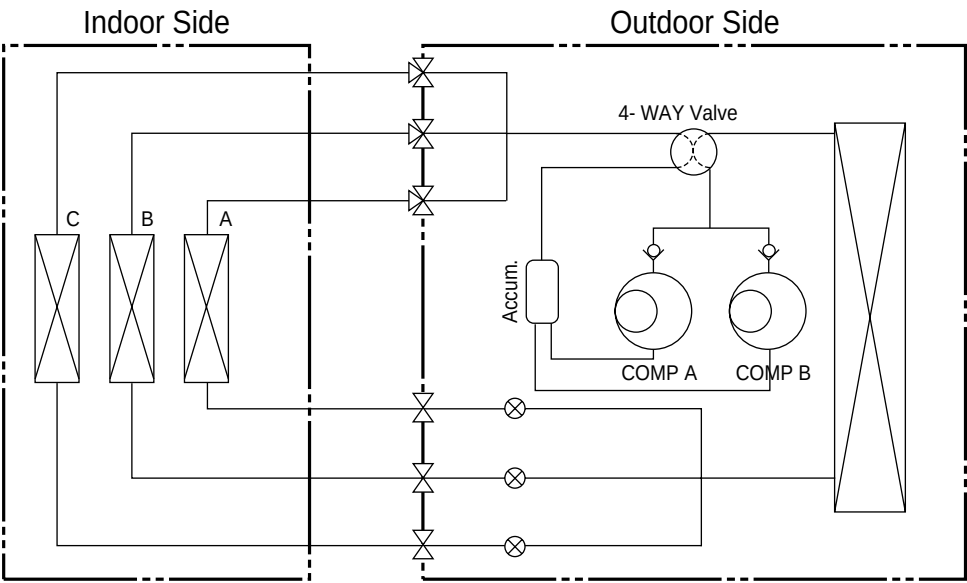
4. A2UC186FA0



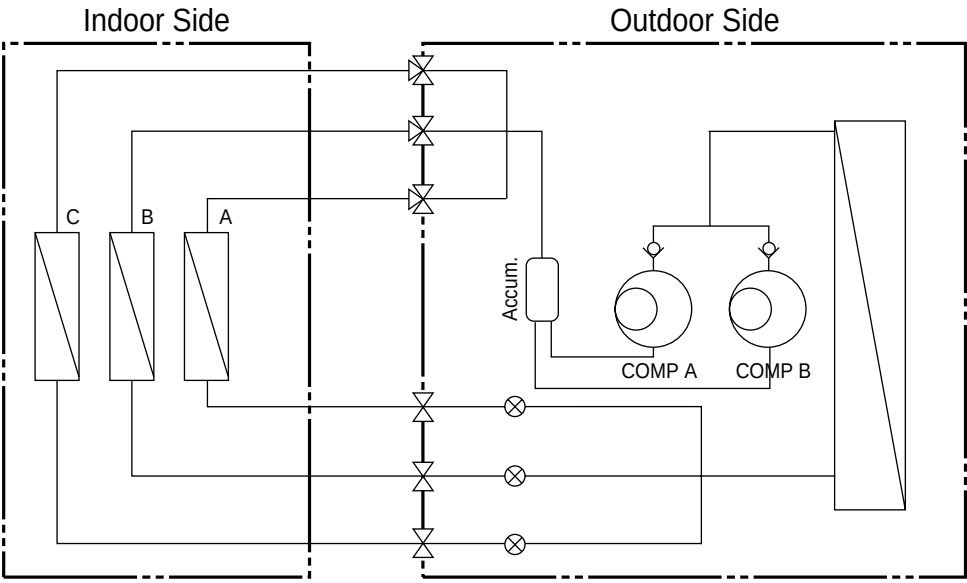
ex)

	Capillary
	Solenoid Valve
	L.E.V
	3-Way Valve
	2-Way Valve

5. A3UH216FA0



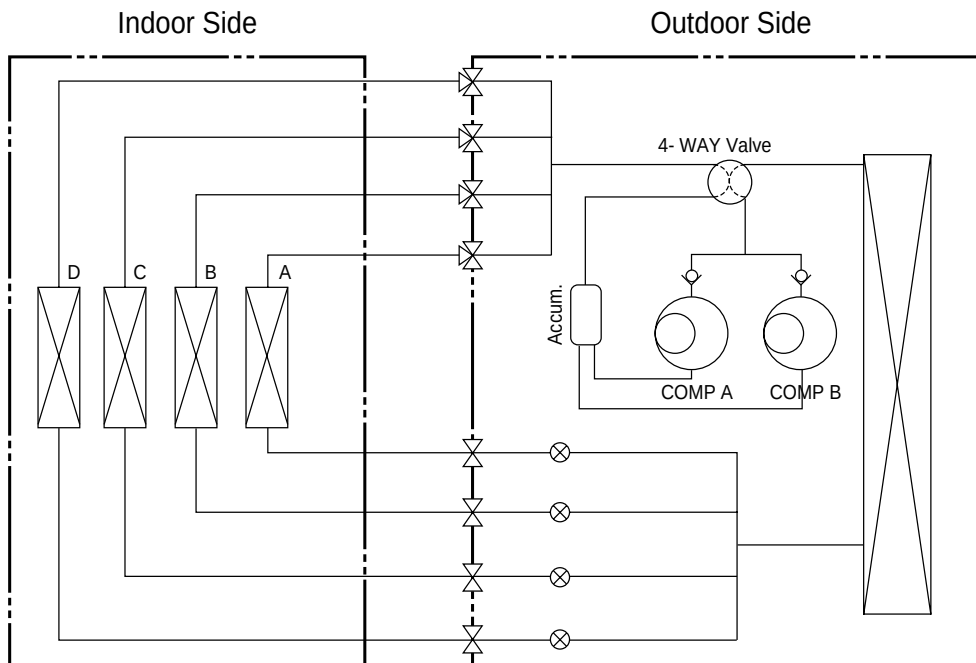
6. A3UC216FA0



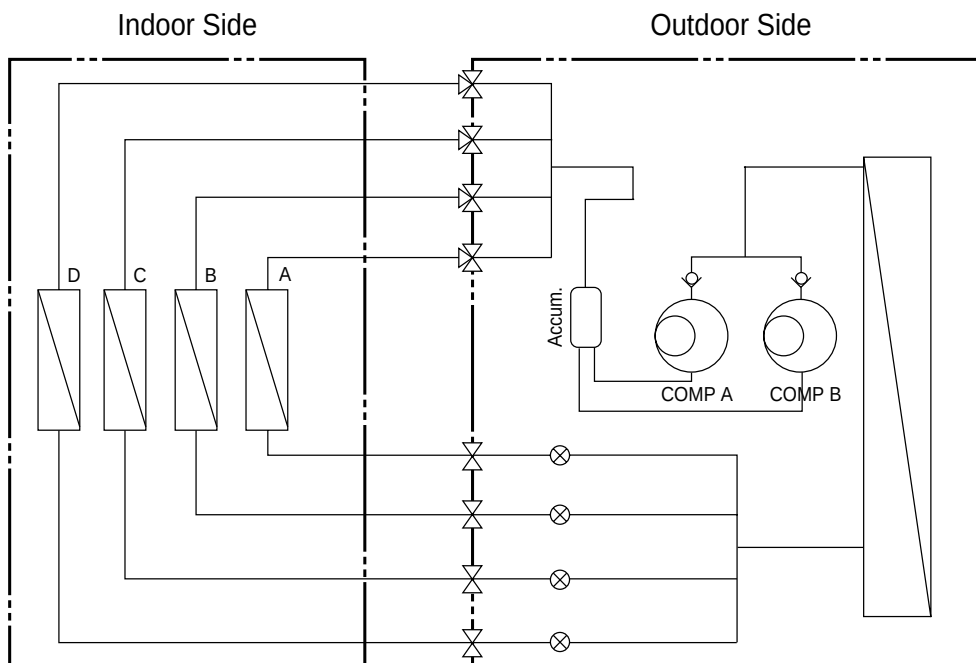
ex)

	Capillary
	Solenoid Valve
	L.E.V
	3-Way Valve
	2-Way Valve

7. A4UH306FA0



8. A4UC306FA0



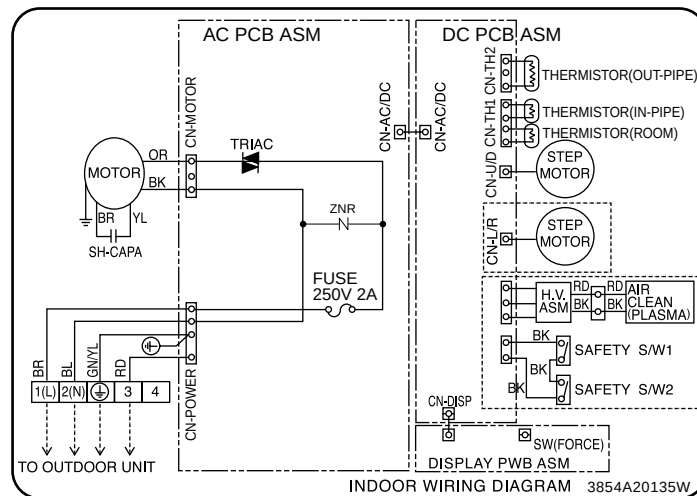
ex)

	Capillary
	Solenoid Valve
	L.E.V
	3-Way Valve
	2-Way Valve

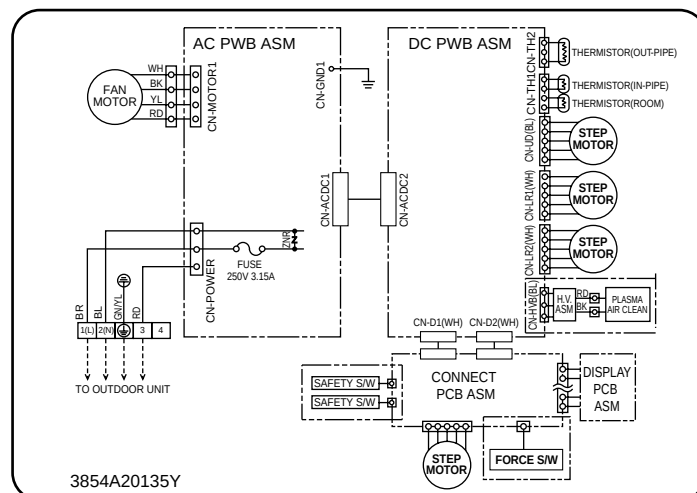
Wiring Diagram

Indoor Unit

1. AMNH076LQL0, AMNH096LQL0, AMNH126LRL0, AMNH186LTL0, AMNH246LTL0, AMNC076LQL0, AMNC096LQL0, AMNC126LRL0, AMNC186LTL0, AMNC246LTL0, AMNH096LQA0, AMNH246LTA0

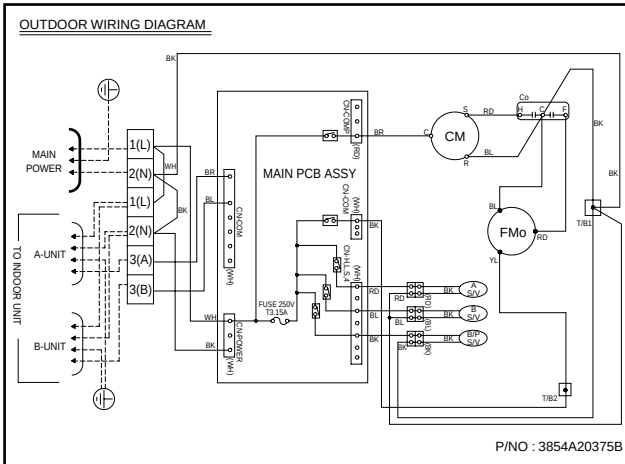


2. AMNH096APB1, AMNH096APM1, AMNH096APD1, AMNH126APB1, AMNH126APM1, AMNH126APD1, AMNC096APB1, AMNC096APM1, AMNC096APD1, AMNC126APB1, AMNC126APM1, AMNC126APD1

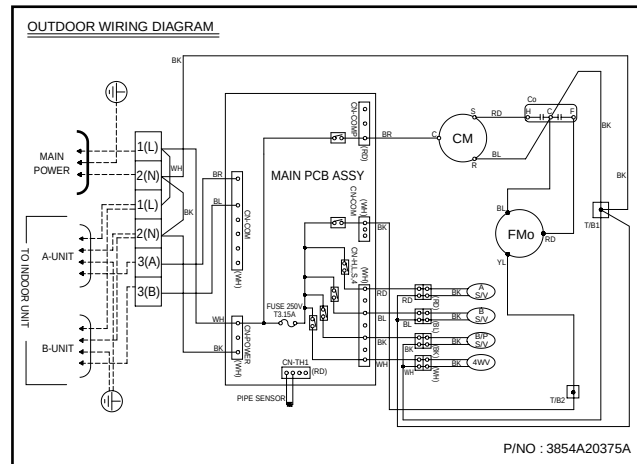


Outdoor Unit

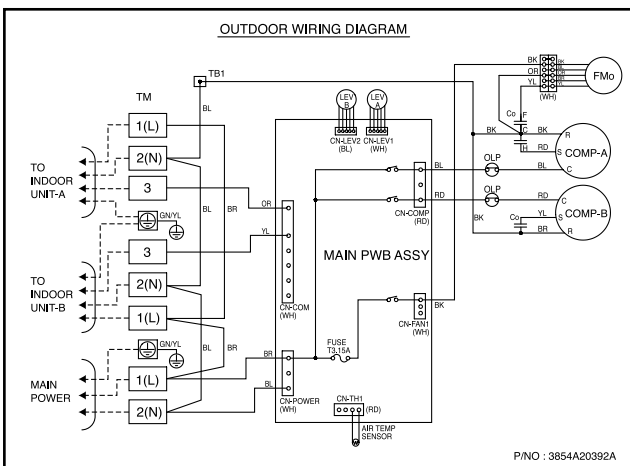
1. A2UC146FA0



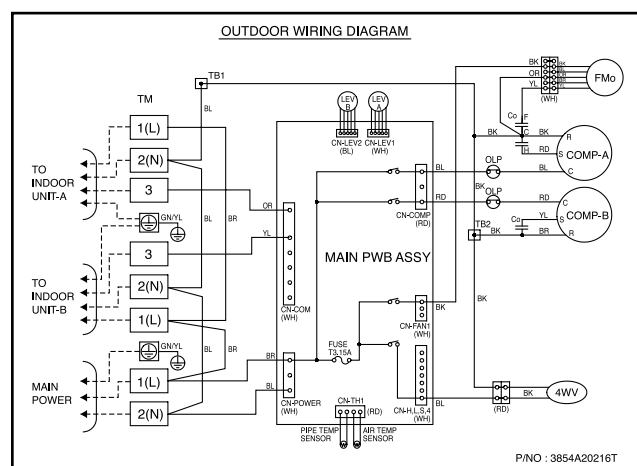
2. A2UH146FA0



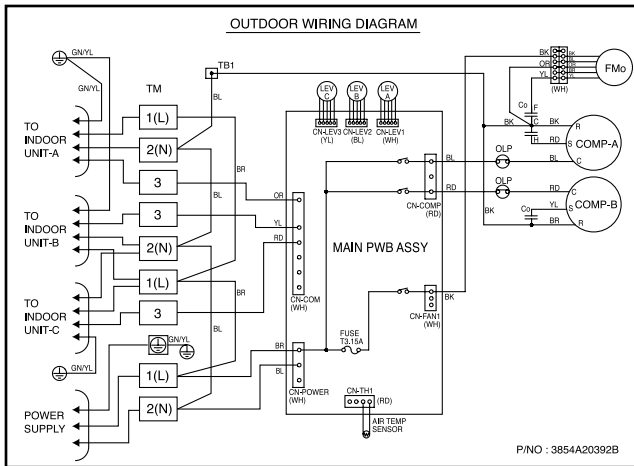
3. A2UC186FA0



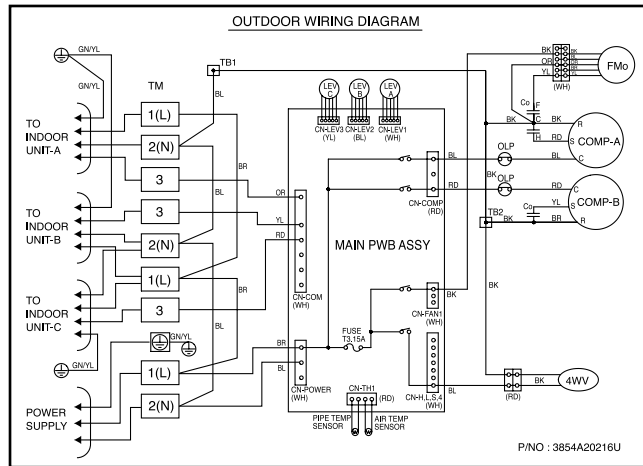
4. A2UH186FA0



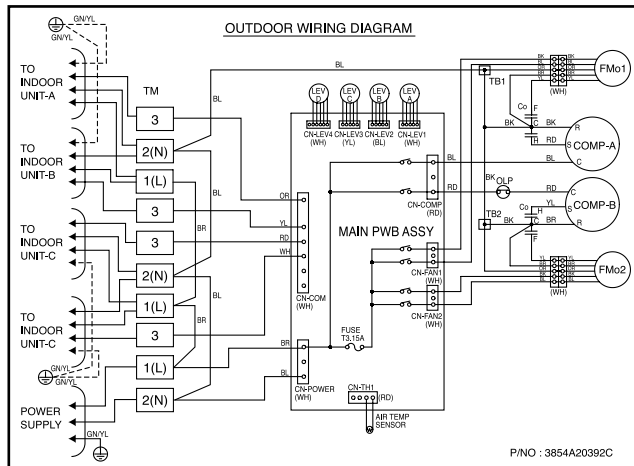
5. A3UC216FA0



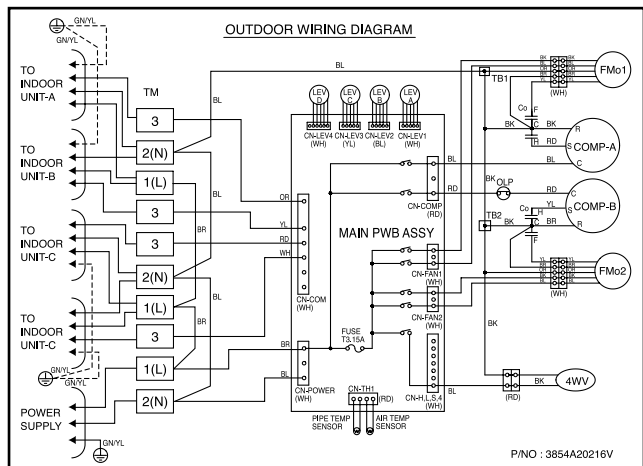
6. A3UH216FA0



7. A4UC306FA0

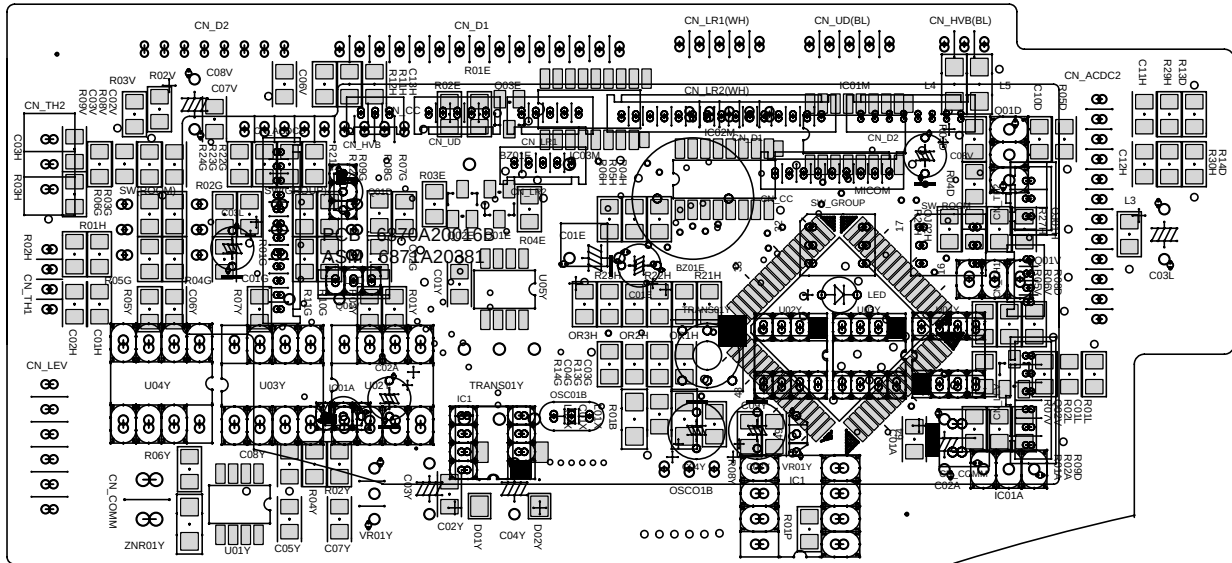


8. A4UH306FA0

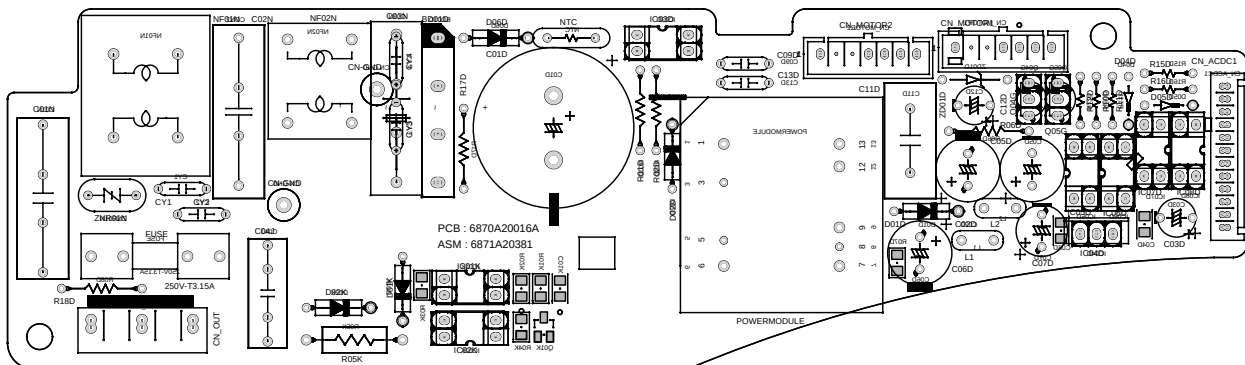


AMNC076LQL0, AMNC096LQL0, AMNC126LRL0, AMNC186LTL0, AMNC246LTL0,
AMNH076LQL0, AMNH096LQL0, AMNH126LRL0, AMNH186LTL0, AMNH246LTL0,
AMNH096LQA0, AMNH246LQA0

- **MAIN P.C.B DC ASM**



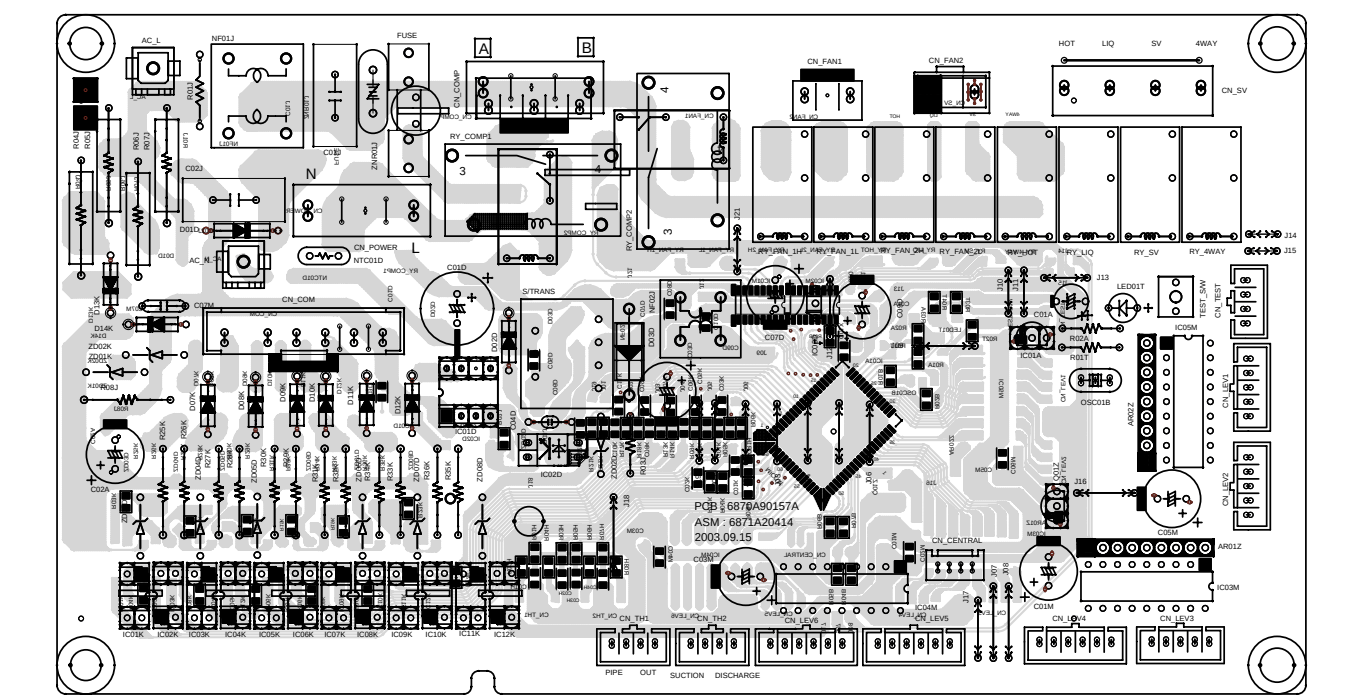
30 Free Joint Multi Air Conditioner



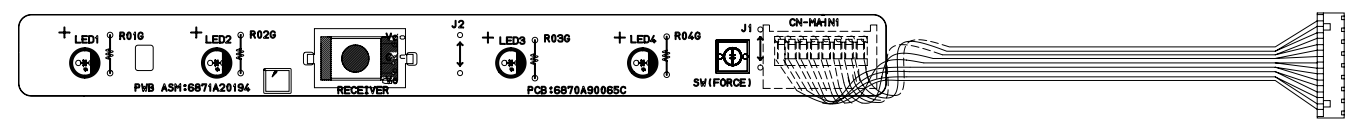
Outdoor Unit

A2UC146FA0, A2UH146FA0, A2UC186FA0, A2UH186FA0, A3UC216FA0, A3UH216FA0, A4UC306FA0, A4UH306FA0

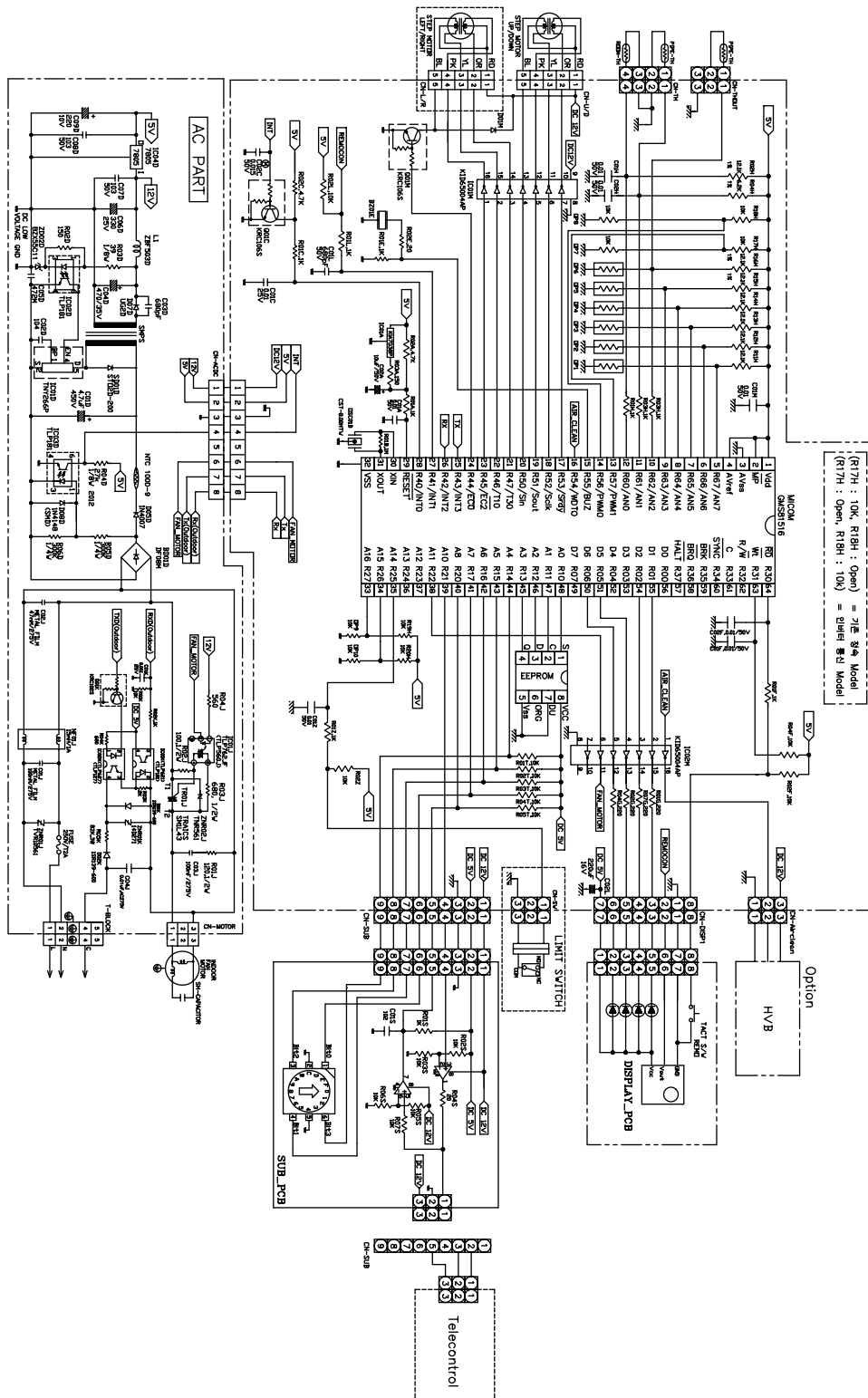
- **MAIN P.C.B ASM**



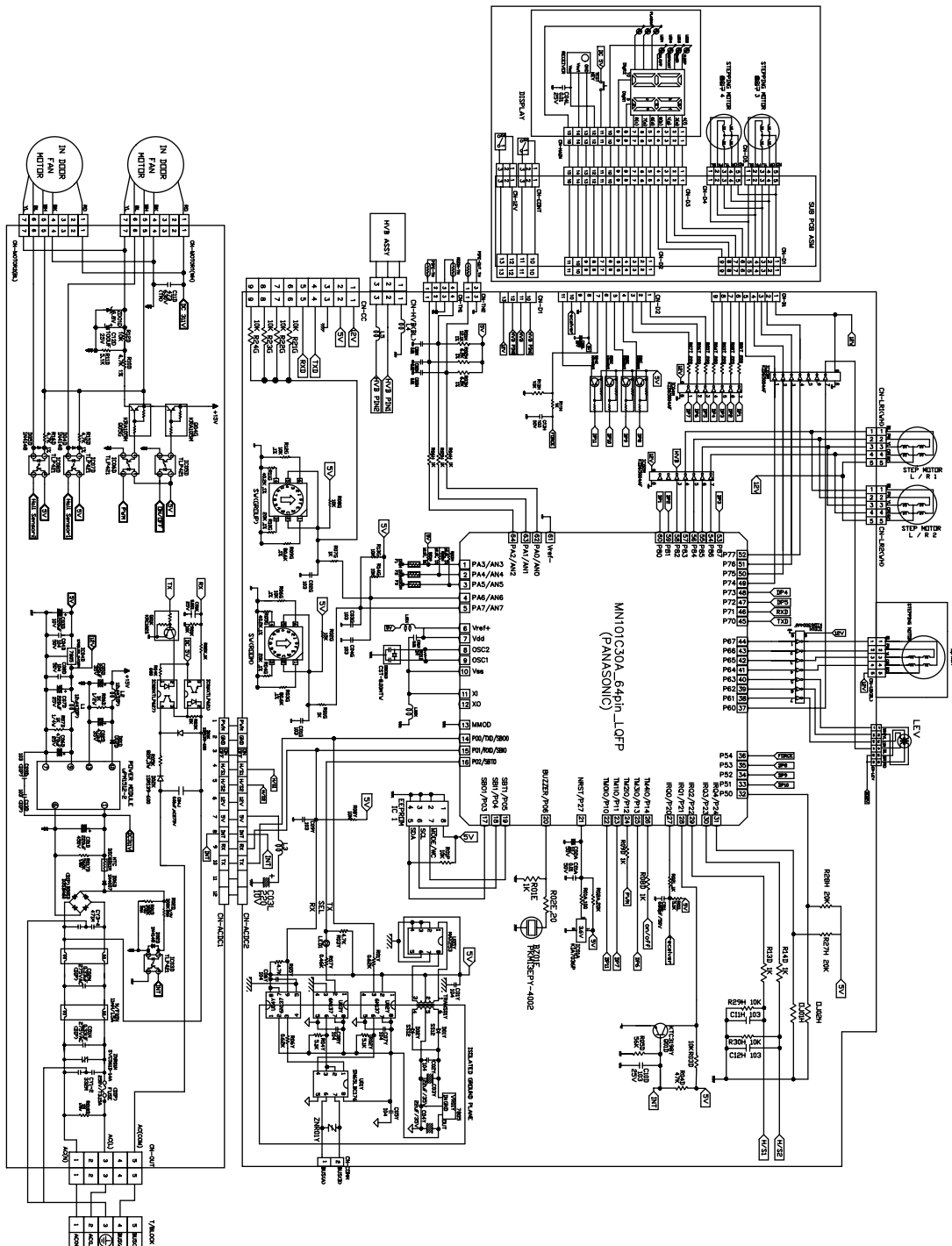
Display P.C.B ASM



1-1. SQ/SR/ST Chassis

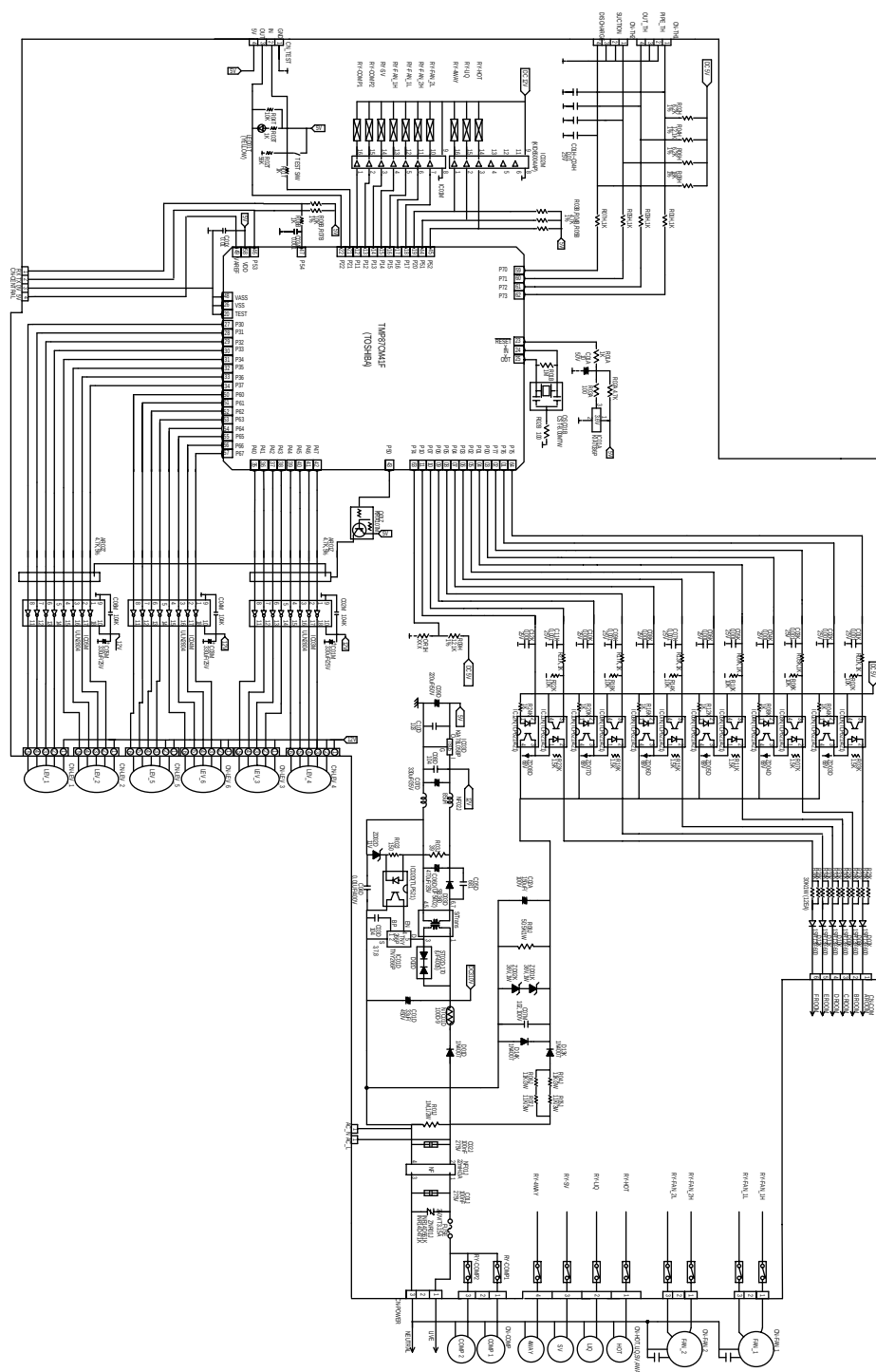


1-2. SP 1 Chassis



Outdoor Unit

- A2UC146FA0, A2UC186FA0, A3UC216FA0, A4UC306FA0, A2UH146FA0, A2UH186FA0, A3UH216FA0, A4UH306FA0



Functions

Indoor Unit

Operation ON/OFF by Remote controller

Sensing the Room Temperature

- Room temperature sensor. (THERMISTOR)

Room temperature control

- Maintains the room temperature in accordance with the Setting Temp.

Starting Current Control

- Indoor fan is delayed for 5 sec at the starting.

Time Delay Safety Control

- Restarting is inhibited for approx. 3 minutes.

Indoor Fan Speed Control

- High, Med, Low, CHAOS, JET COOL

Operation indication Lamps (LED)

- Refer to 37 page signal receptor.

Soft Dry Operation Mode

- Intermittent operation of fan at low speed.

Sleep Mode Auto Control

- The fan is switched to low(Cooling), med(Heating) speed.
- The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

Natural Air Control by CHAOS Logic

- The fan is switched to intermittent or irregular operation
- The fan speed is automatically switched from high to low speed.

Airflow Direction Control

- The louver can be set at the desired position or swing up and down automatically.

PLASMA

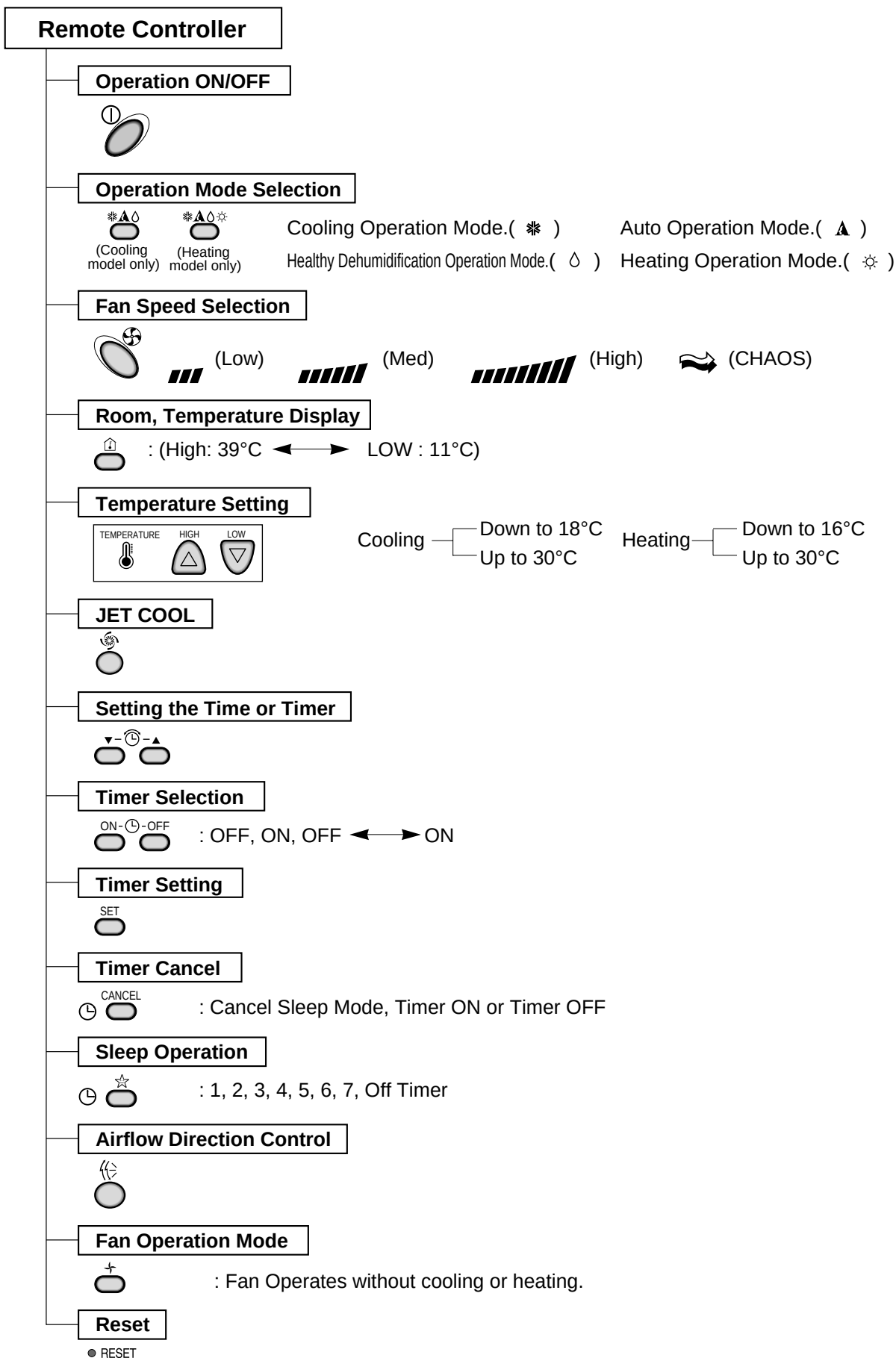
- The function will be operated while in any operation mode with selecting the function.
- The function is to be stopped while it is operating with selecting the function.

Defrost(Deice) control (Heating)

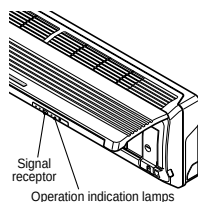
- Both the indoor and outdoor fan stops during defrosting.

Hot-start Control (Heating)

- The indoor fan stops until the evaporator pipe temperature will be reached at 28°C.



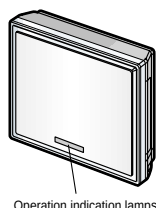
Signal Receptor



Receives the signals from the remote controller. (Signal receiving sound: two short beeps or one long beep.)

Operation Indication Lamps

- ① On/Off : Lights up during the system operation.
- ☆ Sleep Mode : Lights up during Sleep Mode Auto operation.
- ⌚ Timer : Lights up during Timer operation.
- * Defrost Mode : Lights up during Defrost Mode or Hot Start operation (Heat pump model only)
- OUT DOOR UNIT OPERATION : Lights up during outdoor unit operation. (Cooling model only)



Receives the signals from the remote controller. (Signal receiving sound: two short beeps or one long beep.)

Operation Indication Lamps

- ① On/Off : Lights up during the system operation.
- ☆ Sleep Mode : Lights up during Sleep Mode Auto operation.
- ⌚ Timer : Lights up during Timer operation.
- * Defrost Mode : Lights up during Defrost Mode or Hot Start operation. (Heat pump model only)
- ⊗ Outdoor unit operation : Lights up during outdoor unit operation. (Cooling model only)
- » PLASMA : Indicate PLASMA purifier operation.

Self-diagnosis Function

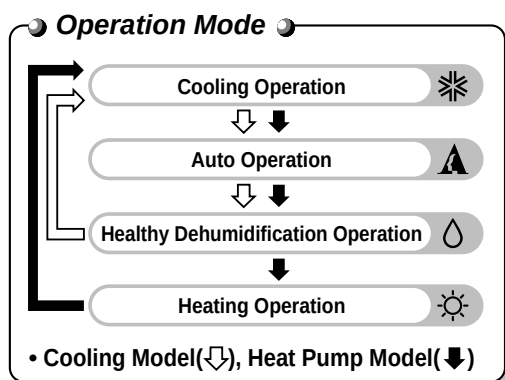
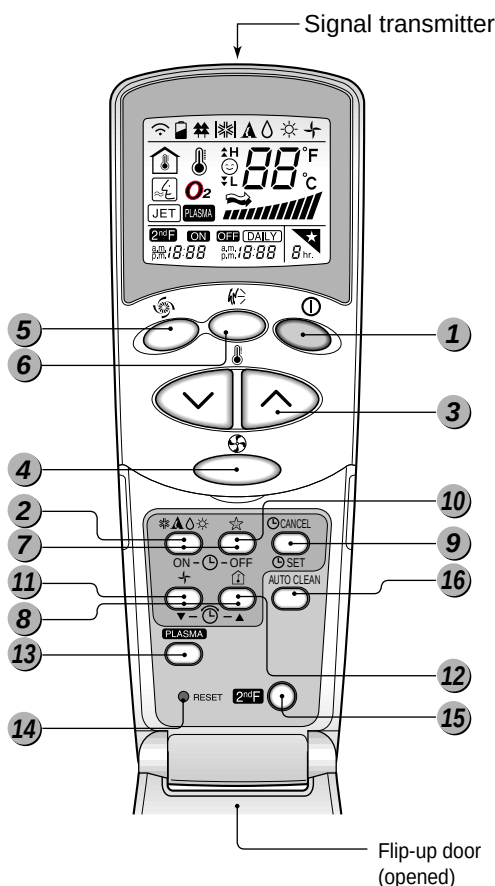
■ Error Indicator

- The function is to self-diagnosis air conditioner and express the troubles identically if there is any trouble.
- Error mark is ON/OFF for the operation LED of evaporator body in the same manner as the following table.
- If more than two troubles occur simultaneously, primarily the highest trouble for error code is expressed.
- After error occurrence, if error is released, error LED is also released simultaneously.
- To operate again on the occurrence of error code, be sure to turn off the power and then turn on.
- Having or not of error code is different from Model.

Error Code	Error LED (Indoor body operation LED)	Error contents	SVC check point
1		• Indoor air temperature thermistor open/short.	• Indoor air TH ass'y check
2		• Indoor inlet pipe temperature thermistor open/short.	• Indoor inlet pipe TH ass'y check
5		• Poor communication	• Communication line/circuit
6		• Indoor outlet pipe temperature thermistor open/short	• Indoor outlet pipe TH ass'y check
7		• Defferent Operation (Simultaneous operation of cooling and heating.	• Operate indoor units only heating or cooling mode.
9		• Indoor EEPROM data (Art type only)	• Replace main PCB DC ASM
44		• Outdoor air temperature thermistor open/short	• Outdoor air TH ass'y check
45		• Outdoor pipe temperature thermistor open/short	• Outdoor pipe TH ass'y check
51		• Overload combination	• Indoor unit combination check (Refer to Max. capacity)
 ① ☆ ⌚ * ⊗ » ☆ : ten digits ① : one digits			

Remote Control Operation

The Remote Controller transmits the signals to the system.



- 1 START/STOP BUTTON**
 Operation starts when this button is pressed and stops when the button is pressed again.
- 2 OPERATION MODE SELECTION BUTTON**
 Used to select the operation mode.
- 3 ROOM TEMPERATURE SETTING BUTTONS**
 Used to select the room temperature.
- 4 INDOOR FAN SPEED SELECTOR**
 Used to select fan speed in four steps low, medium, high and CHAOS.
- 5 JET COOL**
 Used to start or stop the speed cooling/heating. (Speed cooling/heating operates super high fan speed.)
- 6 CHAOS SWING BUTTON**
 Used to stop or start louver movement and set the desired up/down airflow direction.
- 7 ON/OFF TIMER BUTTONS**
 Used to set the time of starting and stopping operation.
- 8 TIME SETTING BUTTONS**
 Used to adjust the time.
- 9 TIMER SET/CANCEL BUTTON**
 Used to set the timer when the desired time is obtained and to cancel the Timer operation.
- 10 SLEEP MODE AUTO BUTTON**
 Used to set Sleep Mode Auto operation.
- 11 AIR CIRCULATION BUTTON**
 Used to circulate the room air without cooling or heating.
- 12 ROOM TEMPERATURE CHECKING BUTTON**
 Used to check the room temperature.
- 13 PLASMA(OPTIONAL)**
 Used to start or stop the plasma-purification function.
- 14 RESET BUTTON**
 Initialize remote controller.
- 15 2nd F Button**
 Used prior to using modes printed in blue at the bottom of buttons.
- 16 AUTO CLEAN (Art type only)**
 Used to set Auto Clean mode.

Operation Details

Main Unit Function

1) C/O Model

Operation Indicator

- On while in appliance operation, off while in appliance pause
- Flashing while in disconnection or short in Thermistor (3 sec off / 0.5 sec on)

Sleep Timer Indicator

- On while in sleep timer mode, off when sleep timer cancel or appliance operation pause

Timer Indicator

- On while in timer mode (on/off), off when timer mode is completed or canceled.

Comp. Running Incidator

- While in appliance operation, on while in outdoor unit compressor running, off while in compressor off

2) H/P Model

Operation Indicator

- On while in appliance operation, off while in appliance pause
- Flashing while in disconnection or short in Thermistor (3 sec off / 0.5 sec on)

Sleep Timer Indicator

- On while in sleep timer mode, off when sleep timer cancel or appliance operation pause

Timer Indicator

- On while in timer mode (on/off), off when timer mode is completed or canceled

Defrost Indicator

- Off except when hot start during heating mode operation or while in defrost control

■ Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temp, the compressor and the outdoor fan stop.
- When it reaches 0.5°C above the setting temp, they start to operate again.

Compressor ON Temp	➤ Setting Temp+0.5°C
Compressor OFF Temp	➤ Setting Temp-0.5°C
- While in compressor running, operating with the airflow speed set by the remote control. While in compressor not running, operating with the low airflow speed regardless of the setting.

■ Healthy Dehumidification Mode

- When the dehumidification operation input by the remote control is received, the intake air temperature is detected and the setting temp is automatically set according to the intake air temperature.

26°C ≤ Intake Air Temp	➤ 25°C
24°C ≤ Intake Intake Air Temp < 26°C	➤ Intake Air Temp-1°C
18°C ≤ Intake Intake Air Temp < 24°C	➤ Intake Air Temp-0.5°C
Intake Air Temp < 18°C	➤ 18°C

- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temp is between compressor on temp. and compressor off temp., 10-min dehumidification operation and 4-min compressor off repeat.
Compressor ON Temp. ➤ Setting Temp+0.5°C
Compressor OFF Temp. ➤ Setting Temp-0.5°C
- In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

■ Heating Mode Operation(H/P model)

- When the intake air temp reaches +3°...above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.
Compressor ON Temp. ➤ Setting Temp.
Compressor OFF Temp. ➤ Setting Temp.+3°C
- While in compressor on, the indoor fan is off when the indoor pipe temp. is below 20°C, when above 28°C , it operates with the low or setting airflow speed. When the indoor pipe temp is between 20°C and 28°C, it operates with Super-Low(while in sleep mode, with the medium airflow speed).
- While in compressor off, the indoor fan is off when the indoor pipe temp is below 33°C, when above 35°C , it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temp.
- While in defrost control, both of the indoor and outdoor fans are turned off.

■ Defrost Control(H/P model)

- Defrost operation is controlled by timer and sensing temperature of outdoor pipe.
- The first defrost starts only when the outdoor pipe temperature falls below -6°C after 60 minutes passed from starting of heating operation and more than 10 minutes operation of compressor.
- Defrost ends after 12 minutes passed from starting of defrost operation or after the outdoor fan operates within max. 2 minutes 30 seconds when the outdoor pipe temperature rises over 12°C even it before 12 minutes.
- The second defrost starts only when the outdoor pipe temperature falls below -6°C after 60 minutes passed from ending of the first defrost and more than 10 minutes operation of compressor.

■ Fuzzy Operation (C/O Model)

- According to the temperature set by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.
 Compressor ON Temp ➤ Setting Temp + 0.5°C
 Compressor OFF Temp ➤ Setting Temp + 0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.
 26°C ≤ Intake Air Temp ➤ 25°C
 24°C ≤ Intake Air Temp < 26°C ➤ Intake Air Temp + 1°C
 22°C ≤ Intake Air Temp < 24°C ➤ Intake Air Temp + 0.5°C
 18°C ≤ Intake Air Temp < 22°C ➤ Intake Air Temp
 Intake Air Temp < 18°C ➤ 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

■ Fuzzy Operation (H/P Model)

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temp at that moment as follows.
 24°C ≤ Intake Air Temp ➤ Fuzzy Operation for Cooling
 21°C ≤ Intake Air Temp < 24°C ➤ Fuzzy Operation for Dehumidification
 Intake Air Temp < 21°C ➤ Fuzzy Operation for Heating
- If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

1) Fuzzy Operation for Cooling

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.
 Compressor ON Temp ➤ Setting Temp + 0.5°C
 Compressor OFF Temp ➤ Setting Temp + 0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.
 26°C ≤ Intake Air Temp ➤ 25°C
 24°C ≤ Intake Air Temp < 26°C ➤ Intake Air Temp + 1°C
 22°C ≤ Intake Air Temp < 24°C ➤ Intake Air Temp + 0.5°C
 18°C ≤ Intake Air Temp < 22°C ➤ Intake Air Temp
 Intake Air Temp < 18°C ➤ 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

2) Fuzzy Operation for Dehumidification

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

Compressor ON Temp	➤ Setting Temp + 0.5°C
Compressor OFF Temp	➤ Setting Temp+0.5°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

26°C ≤ Intake Air Temp	➤ 25°C
24°C ≤ Intake Air Temp < 26°C	➤ Intake Air Temp+1°C
22°C ≤ Intake Air Temp < 24°C	➤ Intake Air Temp+0.5°C
18°C ≤ Intake Air Temp < 22°C	➤ Intake Air Temp
Intake Air Temp < 18°C	➤ 18°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

3) Fuzzy Operation for Heating

- According to the setting temperature selected by Fuzzy rule, when the intake air temp is 3°C or more above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

Compressor ON Temp	➤ Setting Temp
Compressor OFF Temp	➤ Setting Temp + 3°C
- At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

20°C ≤ Intake Air Temp	➤ Intake Air Temp + 0.5°C
Intake Air Temp < 20°C	➤ 20°C
- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

■ Airflow Speed Selection

- The airflow speed of the indoor fan is set to high, medium, low, or chaos (auto) by the input of the airflow speed selection key on the remote control.

■ On-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

■ Off-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

■ Off-Timer ↔ On-Timer Operation

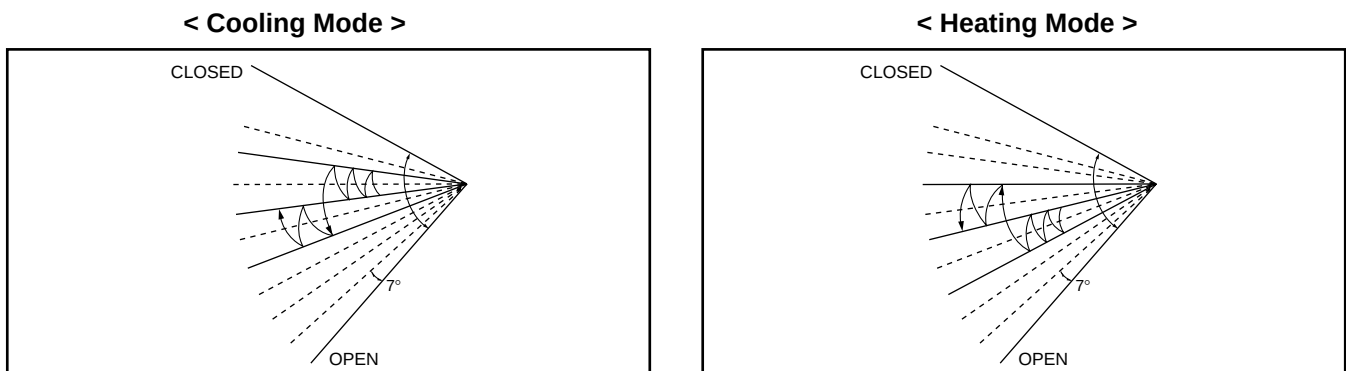
- When the set time is reached after the on/off time is input by the remote control, the on/off-timer operation is carried out according to the set time.

■ Sleep Timer Operation

- When the sleep time is reached after <1,2,3,4,5,6,7,0(cancel) hr> is input by the remote control while in appliance operation, the operation of the appliance stops.
- While the appliance is on pause, the sleep timer mode cannot be input.
- While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C. After another 30 min elapse, it increases by 1°C again.
- When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low.
- When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

■ Chaos Swing Mode

- By the Chaos Swing key input, the upper/lower vane automatically operates with the Chaos Swing or they are fixed to the desired direction.
- While in Chaos Swing mode, the angles of cooling and heating cycle operations are different.



■ Chaos Natural Wind Mode

- When the Chaos Natural Wind mode is selected and then operated, the high, medium, or low speed of the air-flow mode is operated for 2~15 sec. randomly by the Chaos Simulation.

■ Jet Cool Mode Operation (C/O Model)

- If the Jet Cool key is input at any operation mode while in appliance operation, the Jet Cool mode operates.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- When the Jet Cool key is input, the upper/lower vanes are reset to those of the initial cooling mode and then operated in order that the air outflow could reach further.

■ Jet Cool Mode Operation (H/P Model)

- While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C.
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- When the Jet Cool key is input, the upper/lower vanes are reset to those of the initial cooling mode and then operated in order that the air outflow could reach further.

■ Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

	Cooling Model	Heat pump Model		
		Room Temp. $\geq 24^{\circ}\text{C}$	$21^{\circ}\text{C} \leq \text{Room Temp.} < 24^{\circ}\text{C}$	Room Temp. $< 21^{\circ}\text{C}$
Operating mode	Cooling	Cooling	Healthy Dehumidification	Heating
Indoor FAN Speed	High	High	High	High
Setting Temperature	22°C	22°C	23°C	24°C

- While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

■ Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets. If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

■ Auto restart

- In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.

■ Air Cleaner Operation

- When an air cleaner function is selected during Air Conditioner operation
 - Plasma air cleaner function will be operated while in any operation mode with selecting the function.
 - The function is to be stopped while it is operating with selecting the function.
- When an air cleaner function is selected during operation off
 - The function will be only operated.
- When inlet grille of air conditioner is opened during plasma operation, High Voltage Generator(H.V.B) is to be stopped. When inlet grille of air conditioner is closed during plasma operation, High Voltage Generator(H.V.B) will be operated again.

■ Remote Control Operation Mode

- When the remote control is selected by the slide switch on the main unit, the appliance operates according to the input by the remote control.

■ Protection of the evaporator pipe from frosting

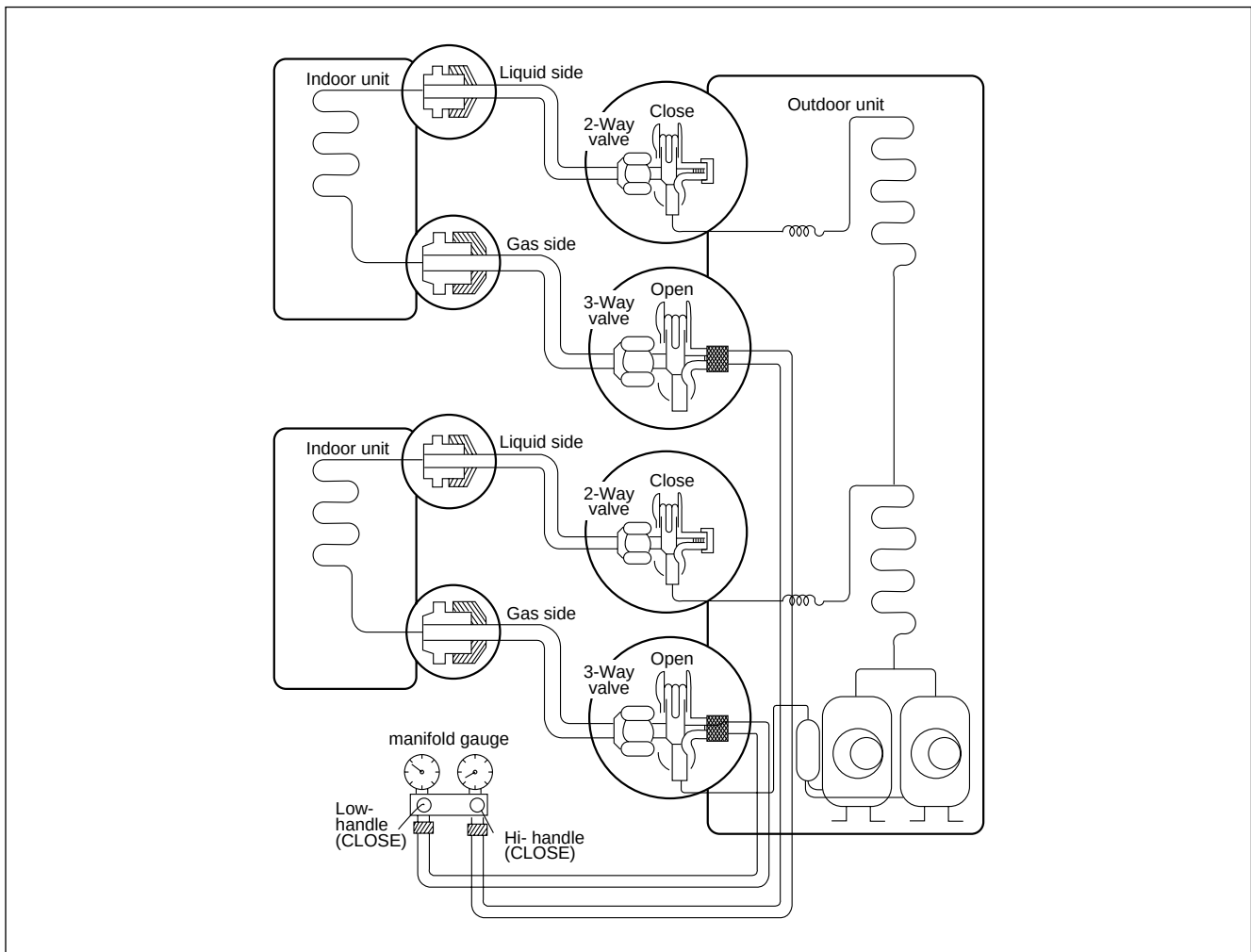
- If the indoor pipe temp is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temp is 7°C or higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

■ Buzzer Sounding Operation

- When the appliance-operation key is input by the remote control, the short "beep-beep-" sounds.
- When the appliance-pause key is input by the remote control, the long "beep—" sounds.
- When a key is input by the remote control while the slide switch on the main unit of the appliance is on the forced operation position, the error sound "beep-beep-beep-beep-beep-" is made 10 times to indicate that the remote control signal cannot be received.

2-way, 3-way Valve

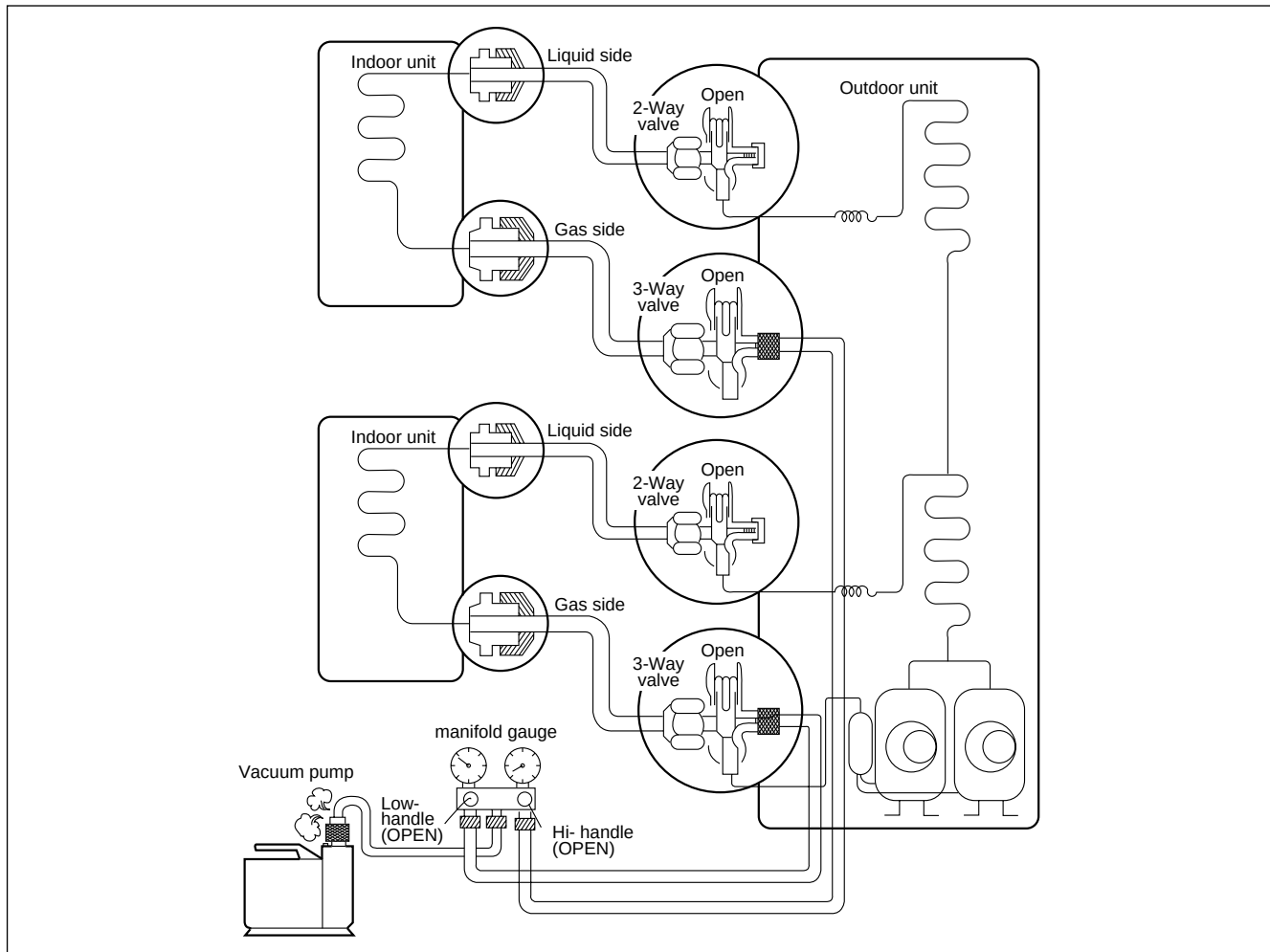
		2-way Valve (Liquid Side)	3-way Valve (Gas Side)	
Works		Shaft position	Shaft position	Service port
Shipping		Closed (with valve cap)	Closed (with valve cap)	Closed (with valve cap)
1.	Pumping down (Transferring)	Closed (clockwise)	Open (counter-clockwise)	Open (connected manifold gauge)
2.	Evacuation (Servicing)	Open	Open	Open (with charging cylinder)
3.	Gas charging (Servicing)	Open	Open	Open (with charging cylinder)
4.	Pressure check (Servicing)	Open	Open	Open (with charging cylinder)
5.	Gas releasing (Servicing)	Open	Open	Open (with charging cylinder)

(1) Pumping down**• Procedure**

- 1. Confirm that both the gas side and liquid side valves are set to the open position.**
 - Remove the valve stem caps and confirm that the valve stems are in the raised position.
 - Be sure to use a hexagonal wrench to operate the valve stems.
- 2. Operate the unit for 10 to 15 minutes.**
- 3. Stop operation and wait for 3 minutes, then connect the manifold gauge to the service port of the gas side valve.**
 - Connect the hose of the gauge with the push pin to the service port.
- 4. Air purging of the charge hose.**
 - Open the Low-handle valve on the gauge slightly to air purge from the hose.
- 5. Set the liquid side valve to the closed position.**
- 6. Operate the air conditioner at the cooling cycle and stop it when the gauge indicates 1kg/cm²g.**
- 7. Immediately set the gas side valve to the closed position.**
 - Do this quickly so that the gauge ends up indicating 1kg/cm²g.
- 8. Disconnect the charge set, and mount the liquid side and gas side valve caps and the service port nut.**
 - Use torque wrench to tighten the service port nut to a torque of 1.8kg.m.(4.2kg*m/5.5kg*m)
 - Be sure to check for gas leakage.

(2) Evacuation

(All amount of refrigerant leaked)

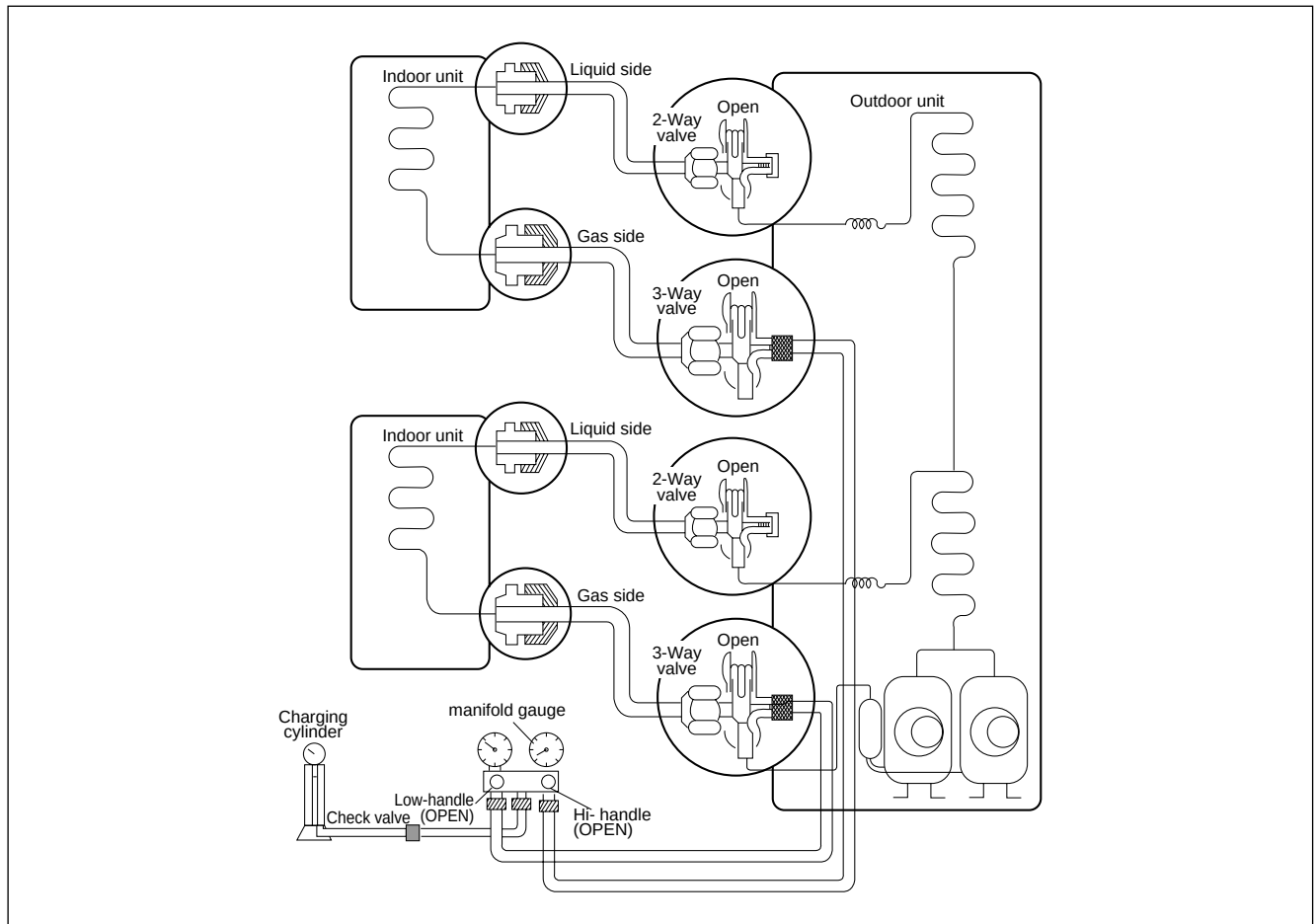


• Procedure

1. Confirm that both the liquid side valve and gas side valve are set to the opened position.
2. Connect the vacuum pump to the center hose of the manifold gauge.
3. Connect the service port of the gas side valve to the low side of the gauge.
4. Connect power supply to outdoor unit.
5. Evacuation for approximately one hour.
 - Confirm that the gauge needle has moved toward -76 cmHg (vacuum of 4 mmHg or less).
6. Close the Low handle of the gauge turn off the vacuum pump, and confirm that the gauge needle does not move (approximately 5 minutes after turning off the vacuum pump).
7. Disconnect the charge hose from the vacuum pump.
 - Vacuum pump oil.
If the vacuum pump oil becomes dirty or depleted, replenish as needed.
8. Mount the valve caps and the service port caps.

(3) Gas Charging

(After Evacuation)



• Procedure

1. Connect the gauge to the charging cylinder.

- Connect the charge hose which you disconnected from the vacuum pump to the valve at the bottom of the cylinder.
- If you are using a gas cylinder, also use a scale and reverse the cylinder so that the system can be charged with liquid.

2. Purge the air from the charge hose.

- Open the valve at the bottom of the cylinder and press the check valve on the charge set to purge the air. (Be careful of the liquid refrigerant). The procedure is the same if using a gas cylinder.

3. Open the low handle on the gauge and charge the system with liquid refrigerant.

- If the system can not be charged with the specified amount of refrigerant, it can be charged with a little at a time (approximately 150g each time) while operating the air conditioner in the cooling cycle; however, one time is not sufficient, wait approximately 1 minute and then repeat the procedure(pumping down-pin).

4. Immediately disconnect the charge hose from the gas side valve's service port.

This is different from previous procedures. Because you are charging with liquid refrigerant from the gas side, absolutely do not attempt to charge with larger amounts of liquid refrigerant while operating the air conditioner.

- Stopping partway will allow the gas to be discharged.
- If the system has been charged with liquid refrigerant while operating the air conditioner turn off the air conditioner before disconnecting the hose.

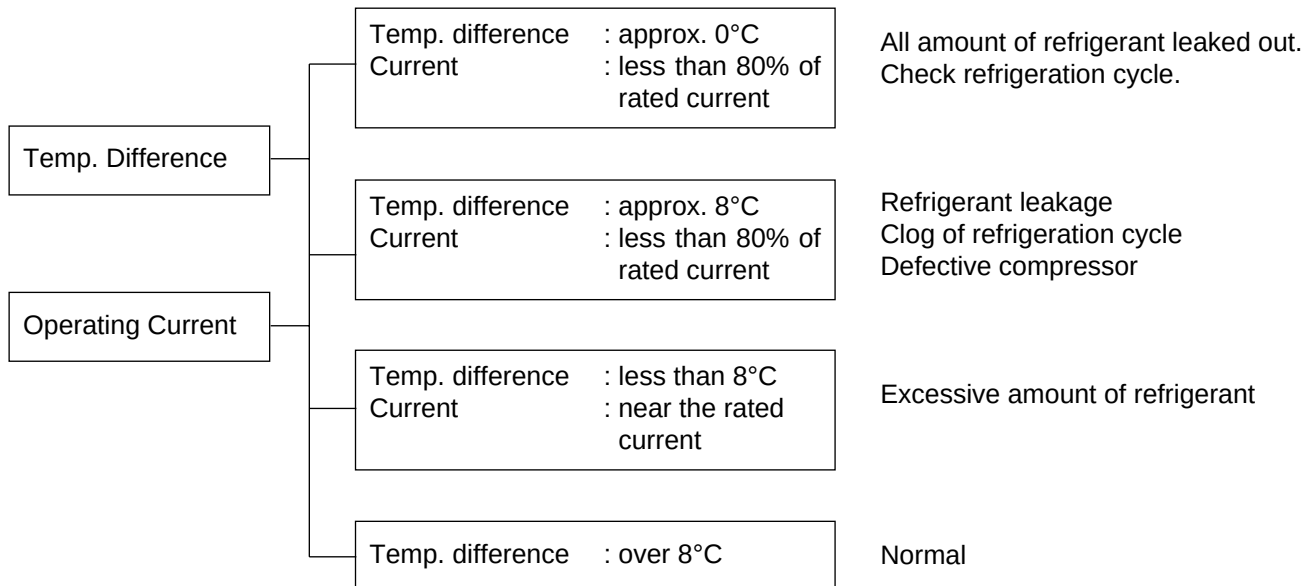
5. Mount the valve stem nuts and the service port nut.

- Use torque wrench to tighten the service port nut to a torque of 1.8 kg.m.(4.2kg.m/5.5kg.m.)
- Be sure to check for gas leakage.

Cycle Troubleshooting Guide

Trouble analysis

1. Check temperature difference between intake and discharge air, and operating current.



Notice:

Temperature difference between intake and discharge air depends on room air humidity. When the room air humidity is relatively higher, temperature difference is smaller. When the room air humidity is relatively lower temperature difference is larger.

2. Check temperature and pressure of refrigeration cycle.

Suction pressure (Compared with the normal value)	Temperature (Compared with the normal value)	Cause of Trouble	Description
Higher	High	Defective compressor	Current is low.
	Normal	Excessive amount of refrigerant	High pressure does not quickly rise at the beginning of operation.
Lower	Higher	Insufficient amount of refrigerant(Leakage) Clogging	Current is low.

Notice:

1. The suction pressure is usually 8~12 kg/cm²G at normal condition.
2. The temperature can be measured by attaching the thermometer to the low pressure tubing and wrap it with putty.

Comp basic step.

Free joint outdoor unit has two compressor (TPS: Twin power system)

Step		Step 1	Step 2	Step 3
Outdoor	Operation Mode	COMP 40%(B)only	COMP 60%(A)only	COMP 100%(A+B) together
18k(Max. 19k)	Cooling	$Q_s \leq 7k$	$Q_s \leq 12k$	$12k < Q_s$
	Heating	-	$Q_s \leq 9k$	$12k < Q_s$
21k(Max. 23k)	Cooling	$Q_s \leq 9k$	$Q_s \leq 12k$	$12k < Q_s$
	Heating	-	$Q_s \leq 9k$	$12k < Q_s$
30k(Max. 33k)	Cooling	$Q_s \leq 12k$	$Q_s \leq 19k$	$19k < Q_s$
	Heating	$Q_s \leq 12k$	$Q_s \leq 19k$	$19k < Q_s$

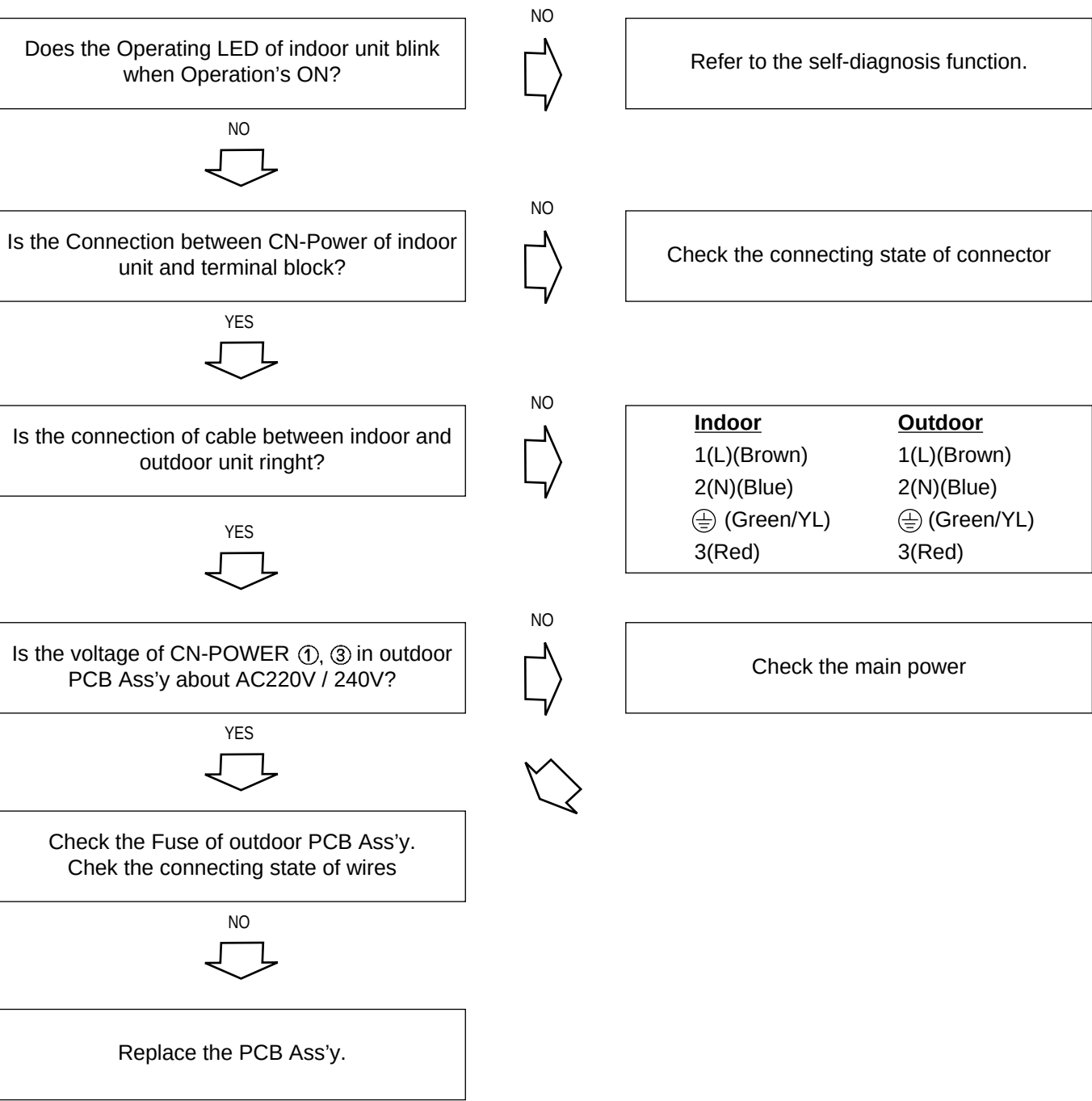
If overload Max. capacity, display error code in indoor unit.

Max. capacity

Outdoor	Max capacity
14k	14k combination
18k	19k combination
21k	23k combination
30k	33k combination

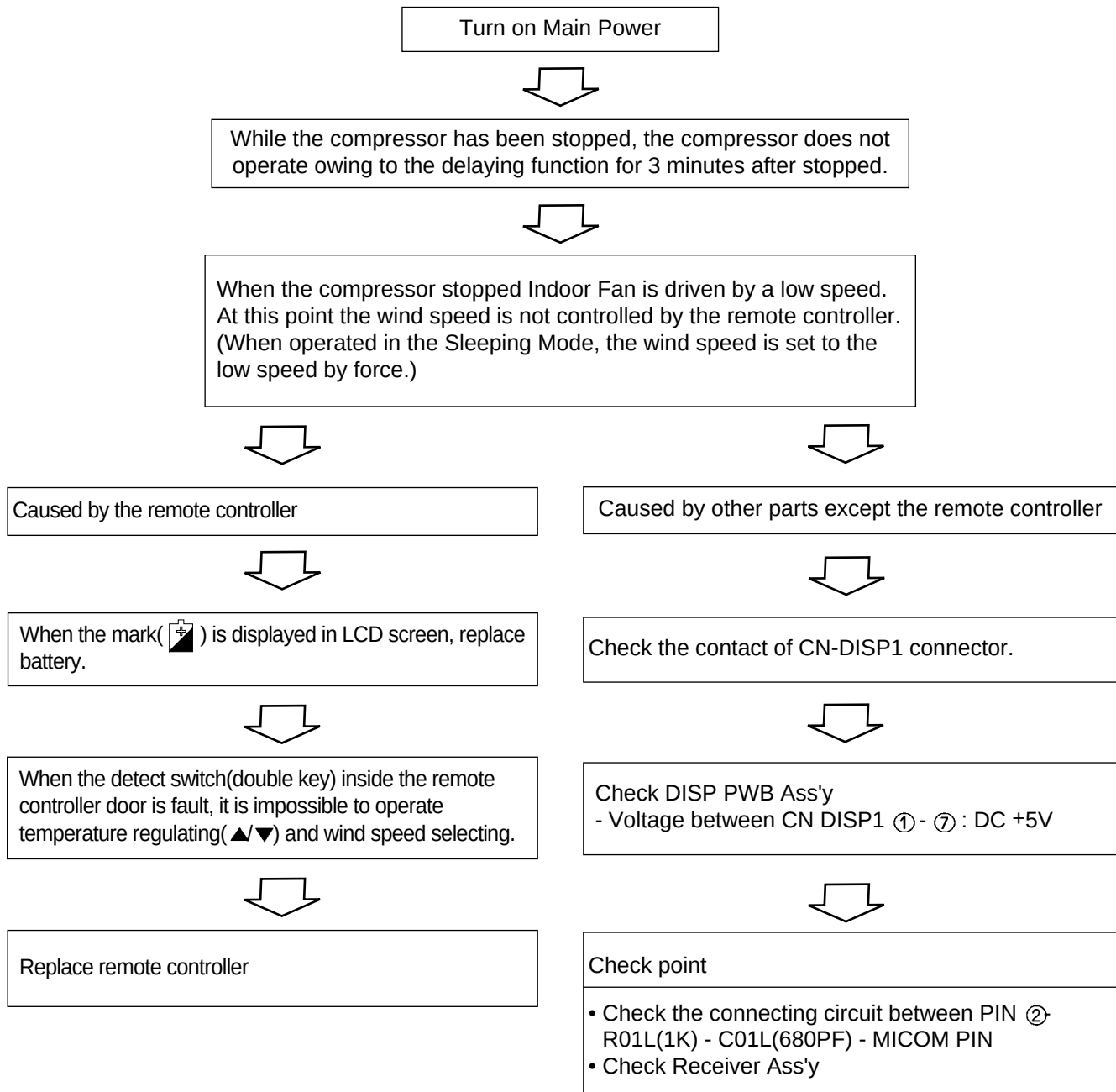
Electronic Parts Troubleshooting Guide

1. The Outdoor Unit does not operate at all

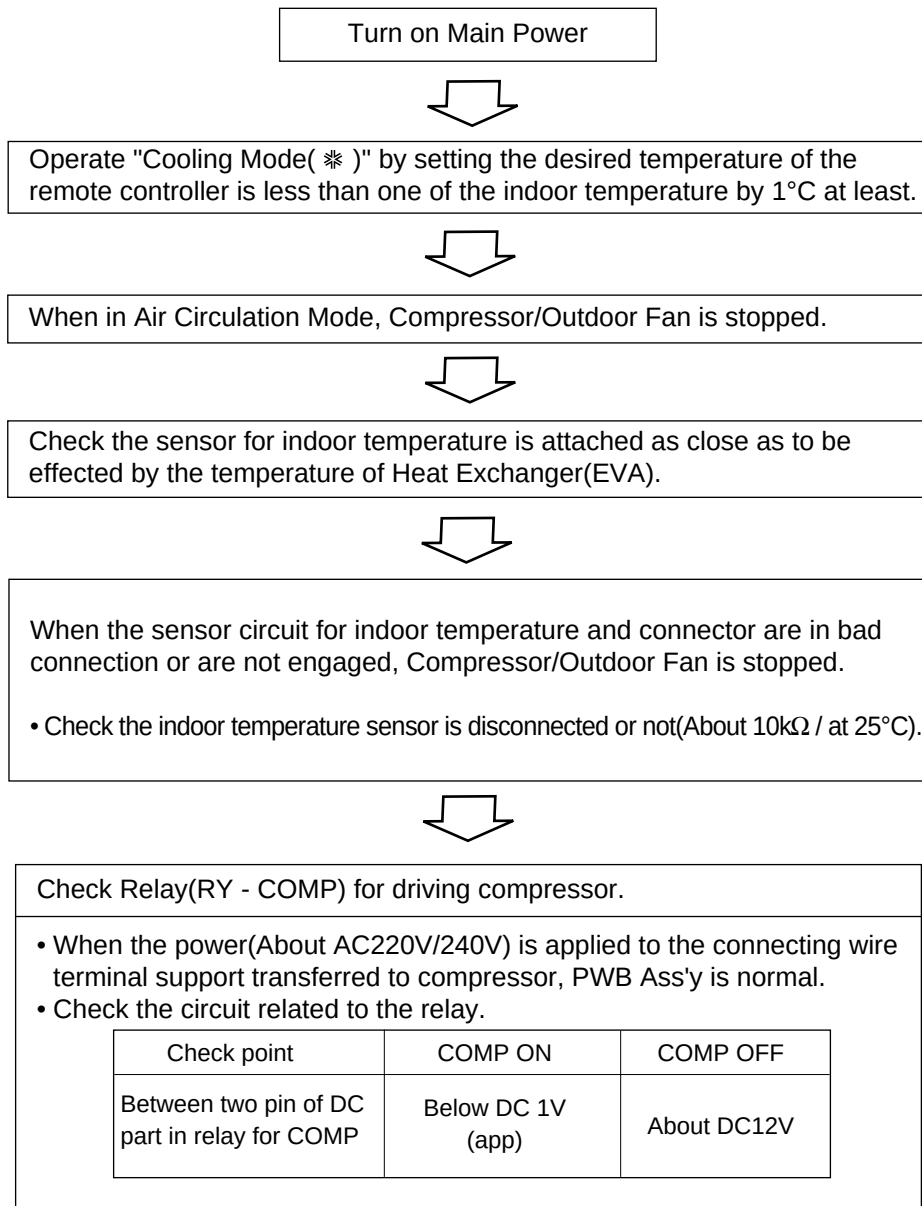


* TPS units start at three minutes after main power turning on.

2. The product is not operate with the remote controller.



3. When cooling does not operate



4. When Heating does not operate

Turn ON Main Power



Operate "Heating Mode(☼)" by setting the desired temperature of the remote control is higher than one of the indoor temperature by 2°C at least.



In heating Mode, the indoor fan operates in case the pipe temperature is higher than 28°C.



Check the connector of intake and pipe sensor(thermistors)

- Check the indoor room temperature is disconnected or not (about 10K Ω /at 25°C).
- Check the indoor pipe temperature is disconnected or not (about 5K Ω /at 25°C).



Check the DC voltage on the PWB ASS'Y

- The details of check are as followings

- Comp Relay.

Check point	Comp ON	Comp OFF
Between two pin of DC part in relay for COMP.	Below DC 1V	About DC 12V

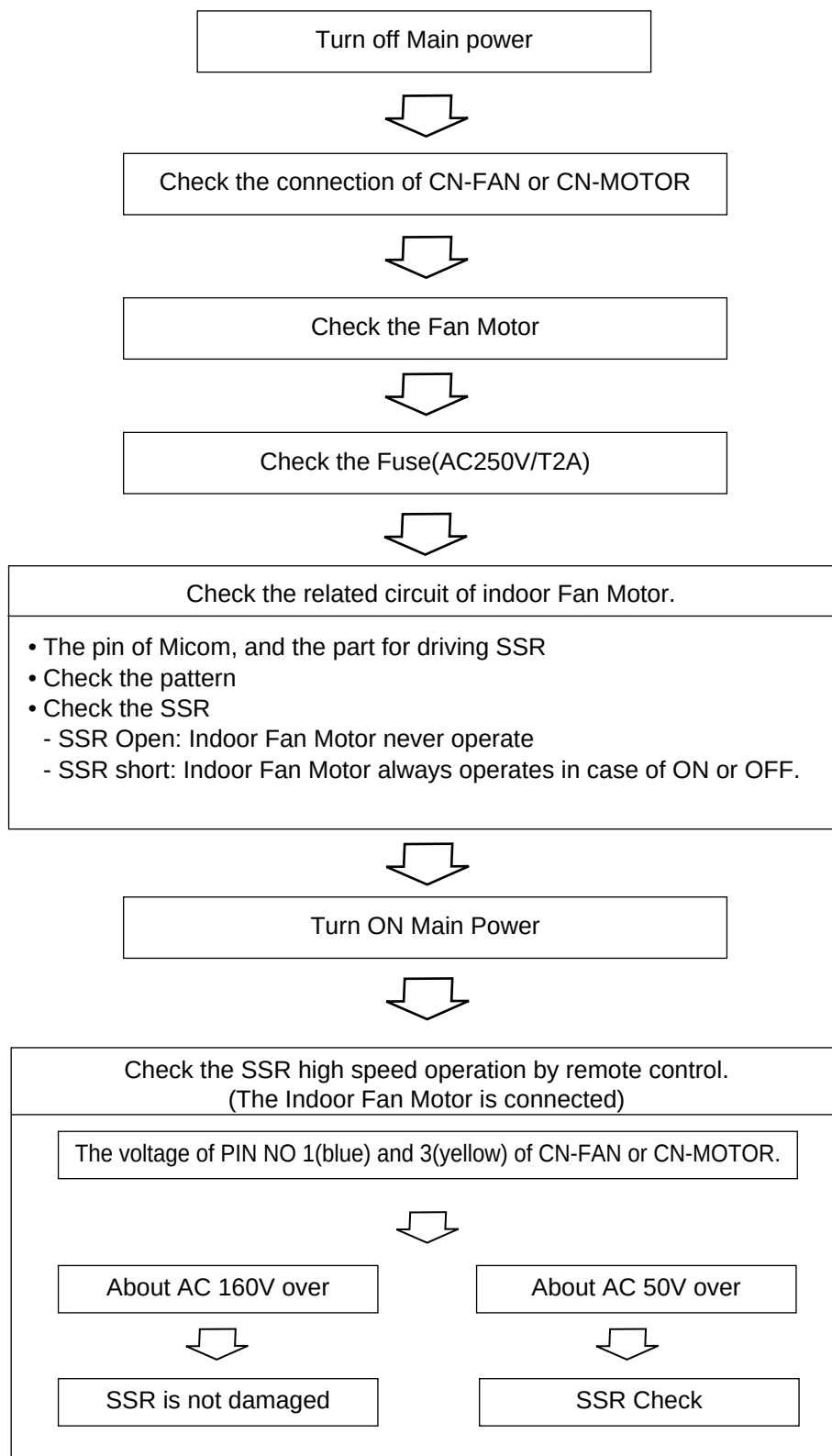
- 4-Way Relay

Check point	4-Way ON	4-Way OFF
Between two pin of DC part in relay for 4-way.	Below DC 1V	About DC 12V



Check Outdoor Unit

5. When indoor Fan does not operate



6. When Vertical Louver does not operate

- Confirm that the Vertical Louver is normally geared with the shaft of Stepping Motor.
- If the regular torque is detected when rotating the Vertical Louver with hands ⇒ Normal



- Check the connecting condition of CN-U/D Connector
- Check the soldering condition(on PWB) of CN-U/D Connector



Check the operating circuit of the Vertical Louver

- Confirm that there is DC +12V between pin ①(RED) of CN-U/D and GND.



If there are no problems after above checks

- Confirm the assembly conditions that are catching and interfering parts in the rotation radial of the Vertical Louver

Disassembly of the parts (Indoor unit)

1. SQ/SR/ST Chassis

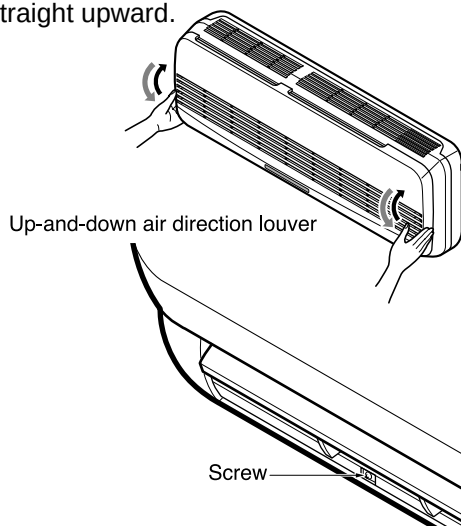
Warning :

Disconnect the unit from power supply before making any checks.

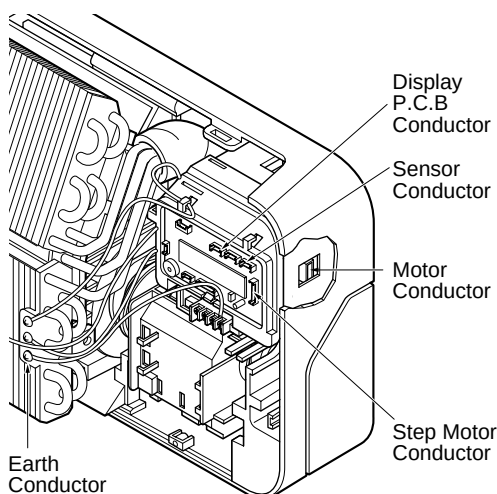
Be sure the power switch is set to "OFF".

To remove the Grille from the Chassis.

- Set the up-and-down air discharge louver to open position (horizontally) by finger pressure.
- Remove the securing screws.
- To remove the Grille, pull the lower left and right side of the grille toward you (slightly tilted) and lift it straight upward.

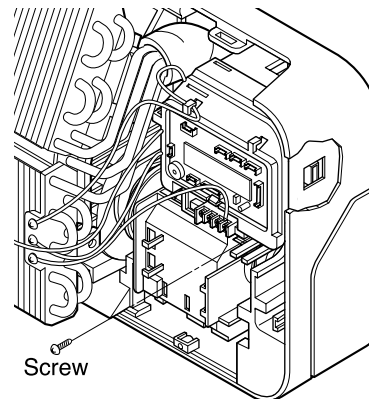


1. Before removing the control box, be sure to take out the wire screwed at the other end.



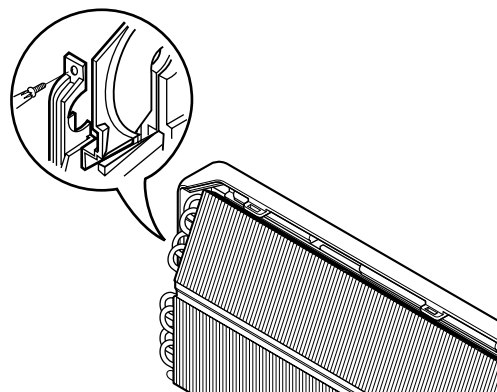
2. To remove the Control Box.

- Remove securing screws.
- Pull the control box out from the chassis carefully.



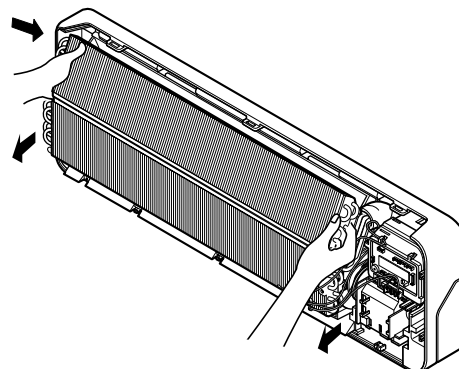
3. To remove the Discharge Grille.

- Unhook the discharge grille and pull the discharge grille out from the chassis carefully.

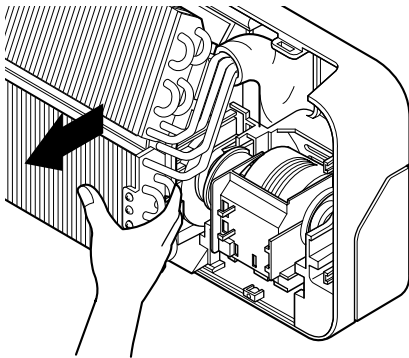


4. To remove the Evaporator.

- Remove 3 screws securing the evaporator(at the left 2EA in the Eva Holder, at the right 1EA).

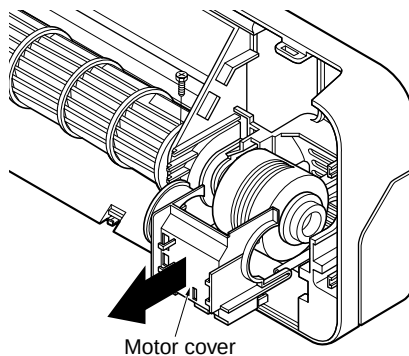


- Unhook the tab on the right inside of the chassis at the same time, slightly pull the evaporator toward you until the tab is clear of the slot.



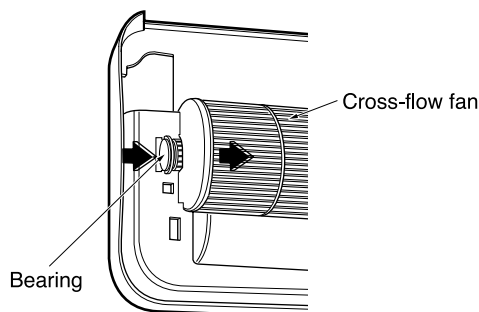
5. To remove the Motor Cover

- Remove 2 securing screw.
- Pull the motor cover out from the chassis carefully.



6. To remove the Cross-Flow Fan

- Loosen the screw securing the cross-flow fan to the fan motor (do not remove).
- Lift up the right side of the cross-flow fan and the fan motor, separate the fan motor from the cross-flow fan.



- Remove the left end of the cross-flow fan from the self-aligning bearing.

2. SP1 Chassis

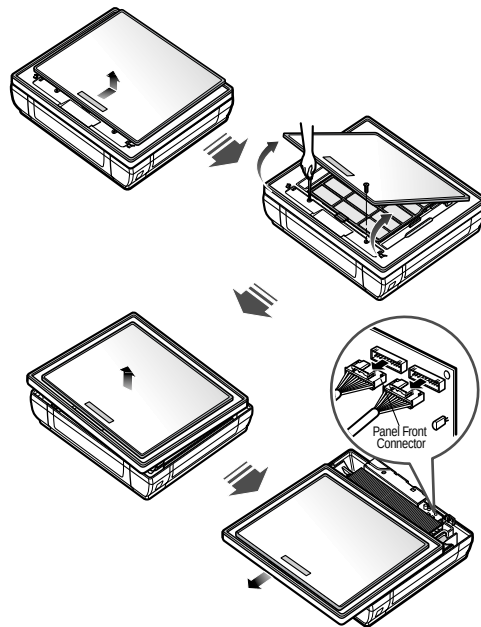
Warning :

Disconnect the unit from power supply before making any checks.

Be sure the power switch is set to "OFF".

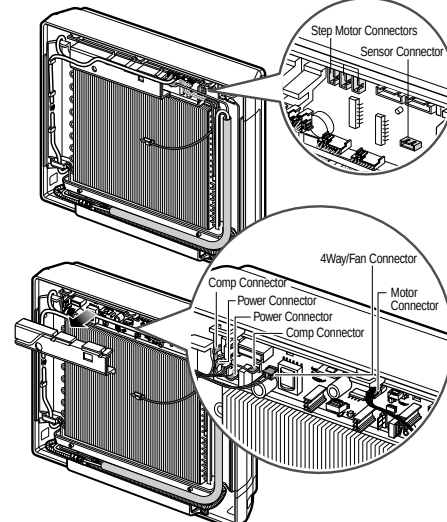
1. To remove the Grille from the Chassis.

- Pull the grille bottom, then remove 2 securing screws.
- Lift the both lower parts of panel front.
- After pull down this panel a bit, separate connecting wire with product.



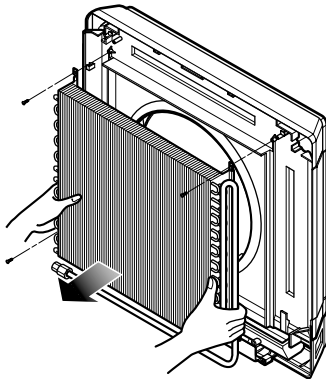
2. To remove the Control Box.

- Before removing the control box, be sure to disconnect the wires from PWB.
- Pull the cover control out from the control box and disconnect other wires.
- Remove securing screws.
- Pull the control box out from the chassis carefully.



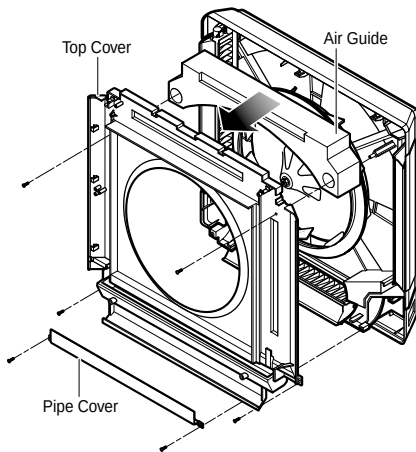
3. To remove the Evaporator.

- Remove 4 screws securing the evaporator.
- Pull the evaporator out from the chassis carefully.



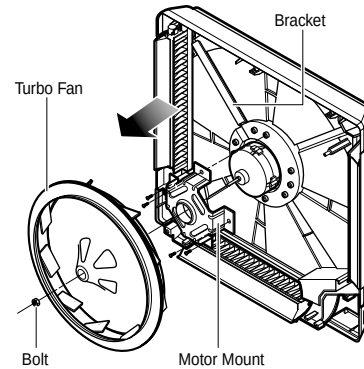
4. Before removing the Turbo Fan.

- Remove the securing screws from the chassis.
- Pull the pipe cover, top cover and the air guide.



5. To remove the Motor.

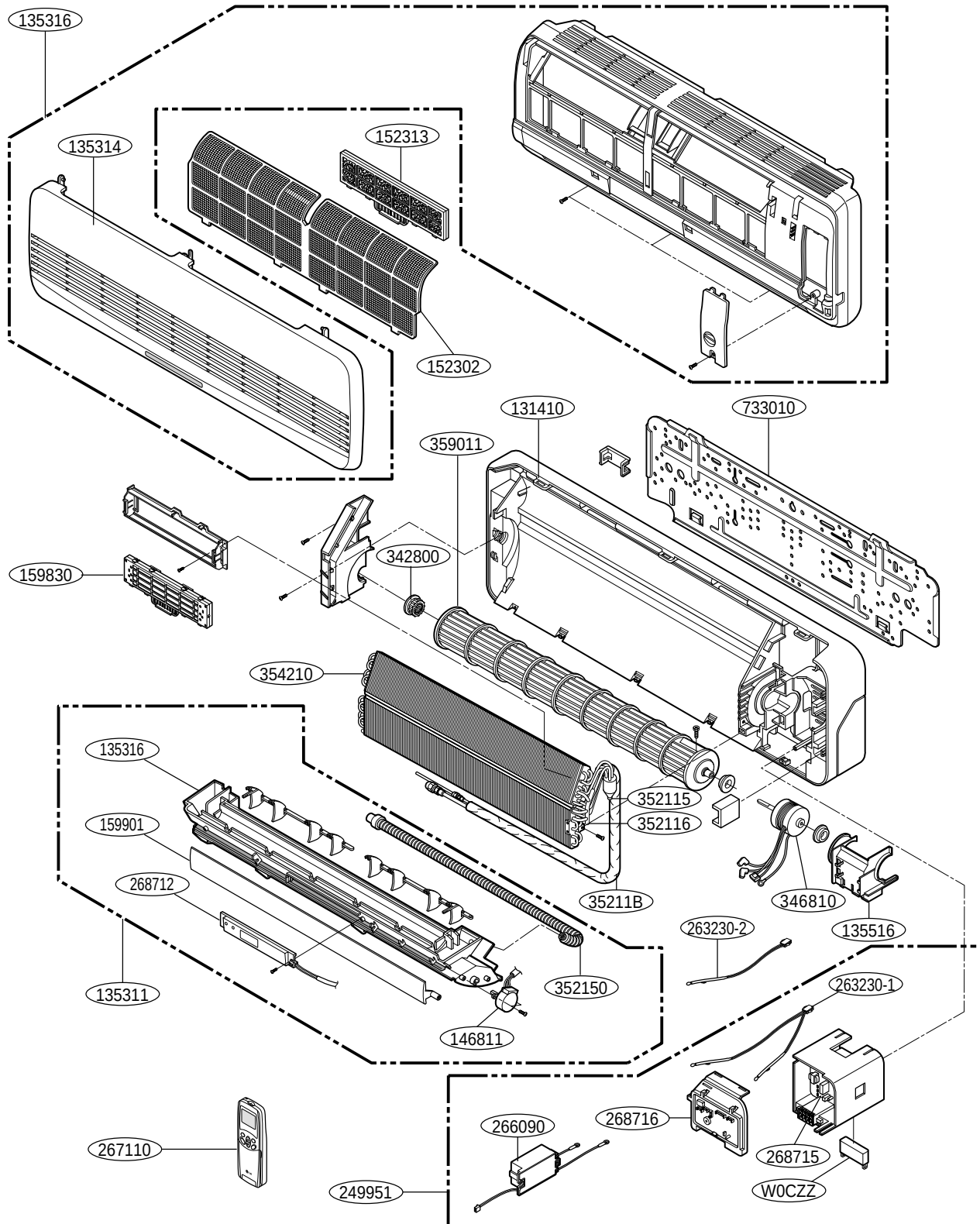
- Remove the securing bolt from the motor shaft.
- Pull the fan out from the motor shaft.
- Remove 4 screws securing motor mount from the chassis and lift up the motor mount and the bracket.



Exploded View & Replacement Parts List

1. Indoor Unit

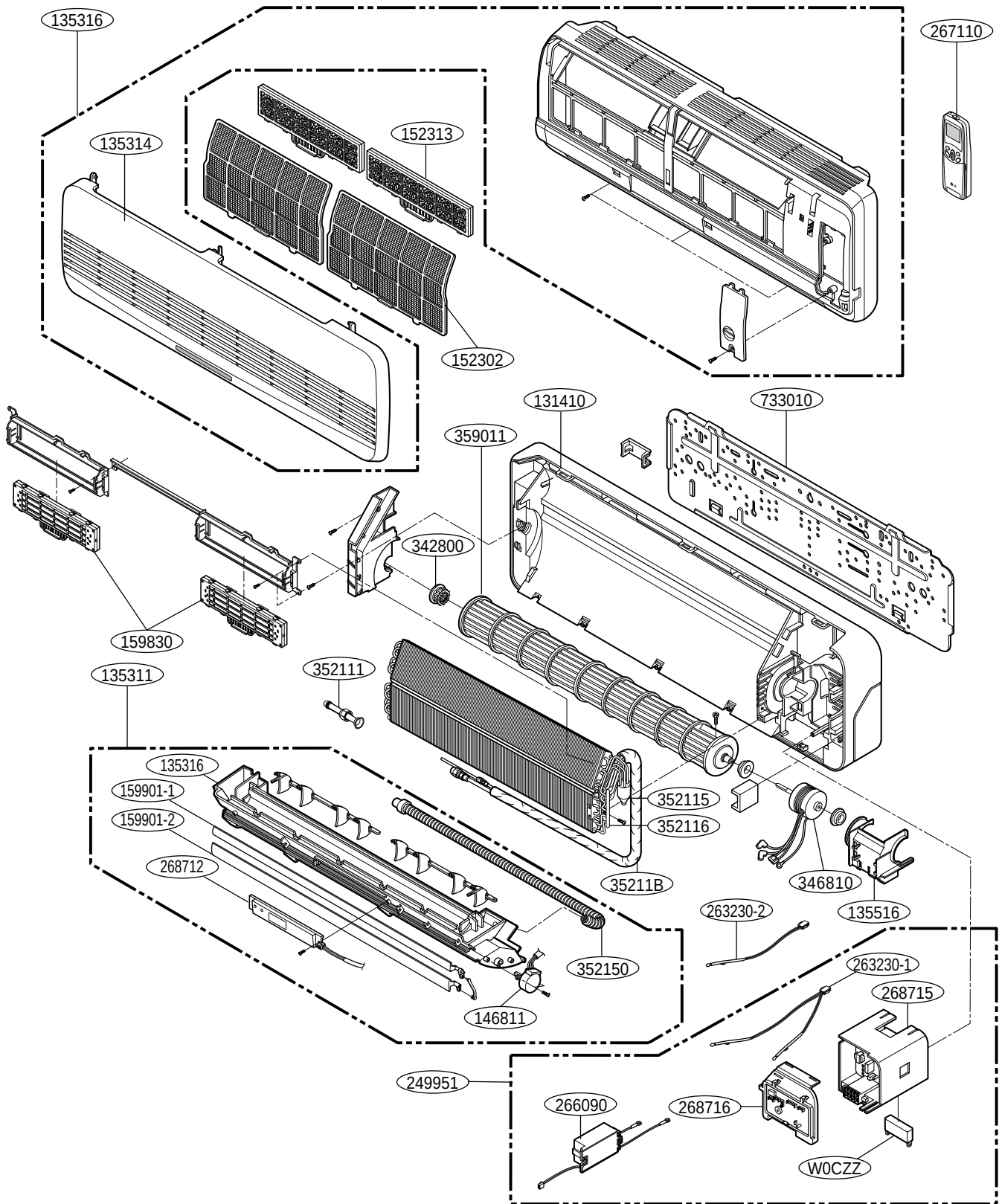
SQ/SR Chassis



Exploded View & Replacement Parts List

LOCATION No.	DESCRIPTION	PART No.							SVC CODE
		AMNH076LQL0	AMNC076LQL0	AMNH096LQL0	AMNH096LQA0	AMNC096LQL0	AMNH126LRL0	AMNC126LRL0	
131410	CHASSIS ASSEMBLY	3141A20006A	3141A20006A	3141A20006A	3141A20006A	3141A20006A	3141A20005A	3141A20005A	R
135311	GRILLE ASSEMBLY,DISCHARGE(INDOOR)	3531A10127A	3531A10127A	3531A10127A	3531A10127A	3531A10127A	3531A10230A	3531A10230A	R
135314	GRILLE ASSEMBLY,INLET SUB	3531A20100B	3531A20100A	3531A20100B	3531A20100B	3531A20100A	3531A10117B	3531A10117C	R
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A20187M	3531A20187Q	3531A20187M	3531A20187E	3531A20187Q	3531A10208N	3531A10208Q	R
135516	COVER ASSEMBLY,MOTOR	3551A20050P	3551A20050P	3551A20050P	3551A20050P	3551A20050P	3551A20099A	3551A20099A	R
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	R
152302	FILTER(MECH),A/C	5230A10005A	5230A10005A	5230A10005A	5230A10005A	5230A10005A	5230A20014A	5230A20014A	R
152313	FILTER ASSEMBLY,DEODORIZER	5231A20032C	5231A20032C	5231A20032C	-	5231A20032C	5231A20032C	5231A20032C	R
159830	AIR CLEANER ASSEMBLY	5983A10009V	5983A10009V	5983A10009V	-	5983A10009V	5983A10006T	5983A10006T	R
159901	VANE,HORIZONTAL	5990A10005A	5990A10005A	5990A10005A	5990A10005A	5990A10005A	5990A20007A	5990A20007A	R
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20361A	4995A20361G	4995A20361B	4995A20361N	4995A20361H	4995A20361D	4995A20361J	R
263230-1	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T	R
263230-2	THERMISTOR ASSEMBLY	6323A20004A	6323A20004A	6323A20004A	6323A20004A	6323A20004A	6323A20004A	6323A20004A	R
266090	H.V ASSEMBLY	6609A10003J	6609A10003J	6609A10003J	-	6609A10003J	6609A10003H	6609A10003H	R
267110	REMOTE CONTROLLER ASSEMBLY	6711A20067J	6711A20067H	6711A20067J	6711A20083F	6711A20067H	6711A20067J	6711A20067H	R
268712	PWB(PCB) ASSEMBLY,DISPLAY	6871A20194A	6871A20194A	6871A20194A	6871A20194A	6871A20194A	6871A20390A	6871A20390A	R
268715	PWB(PCB) ASSEMBLY,MAIN(AC)	6871A20267B	6871A20267B	6871A20267B	6871A20267B	6871A20267B	6871A20267B	6871A20267B	R
268716	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20440A	6871A20440G	6871A20440B	6871A20440B	6871A20440H	6871A20440D	6871A20440K	R
342800	BEARING	4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	R
346810	MOTOR ASSEMBLY,INDOOR	4681A20062A	4681A20062A	4681A20062A	4681A20062A	4681A20062A	4681A20048A	4681A20048A	R
35211B	TUBE ASSEMBLY,TUBING	5211AR7066P	5211AR7066P	5211AR7066P	5211AR7066P	5211AR7066P	5211AR7066L	5211AR7066L	R
352115	TUBE ASSEMBLY,EVAPORATOR IN	5211A20470J	5211A20470J	5211A20470J	5211A20470J	5211A20470J	5211A20388H	5211A20388H	R
352116	TUBE ASSEMBLY,EVAPORATOR OUT	5211A20471D	5211A20471D	5211A20471D	5211A20471D	5211A20471D	5211A20389F	5211A20389F	R
352150	HOSE ASSEMBLY,DRAIN	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	R
354210	EVAPORATOR ASSEMBLY,FIRST	5421A10024A	5421A10024A	5421A10024A	5421A10024A	5421A10024A	5421A20086A	5421A20086A	R
359011	FAN ASSEMBLY,CROSS FLOW	5901A20007B	5901A20007B	5901A20007B	5901A20007B	5901A20007B	5901A20007A	5901A20007A	R
733010	PLATE ASSEMBLY,INSTALL	3301A10003A	3301A10003A	3301A10003A	3301A10003A	3301A10003A	1H00843A	1H00843A	R
W0CZZ	CAPACITOR,DRAWING	3H01487A	3H01487A	3H01487A	3H01487A	3H01487A	3H1487A	3H1487A	R

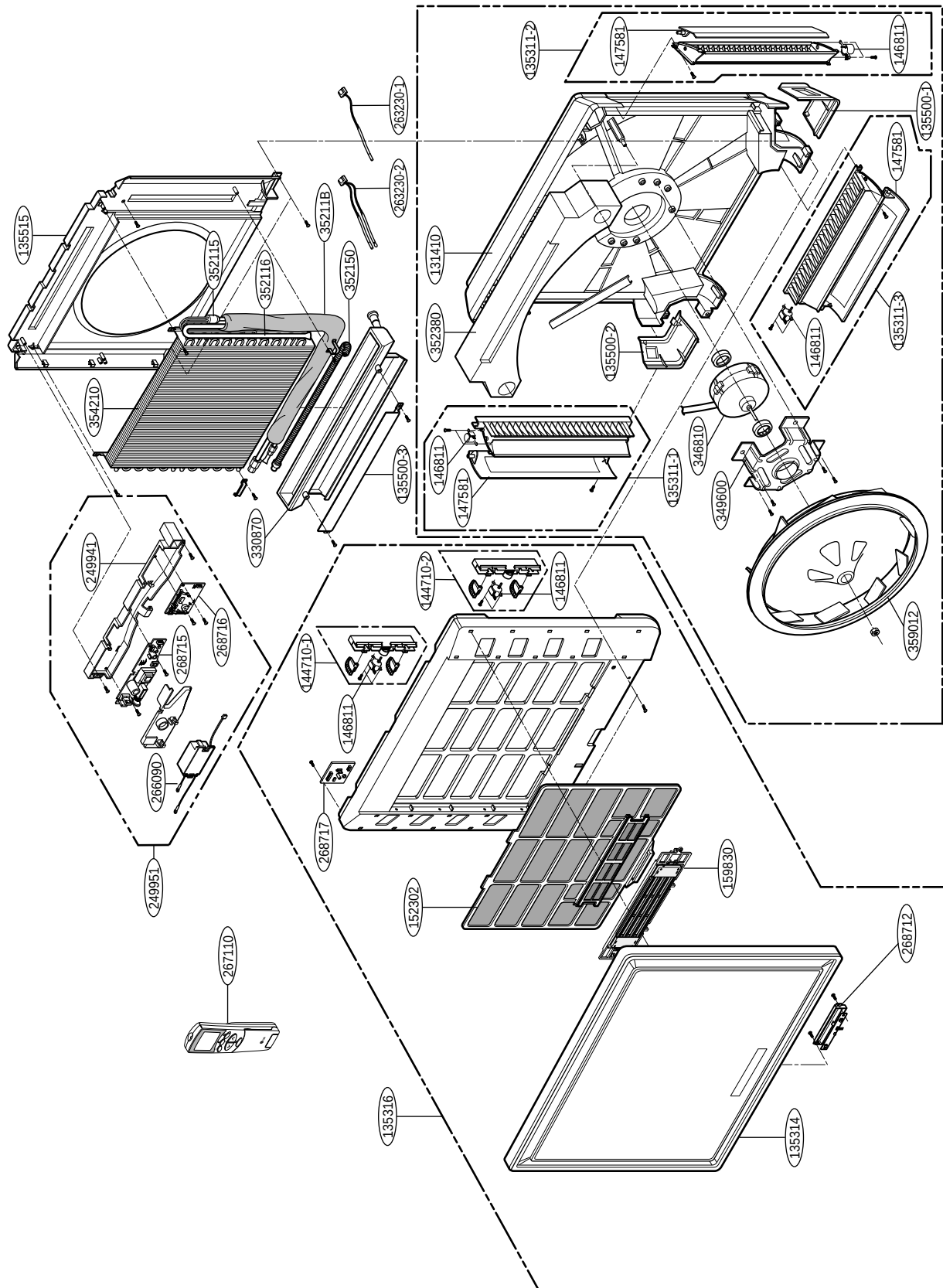
ST Chassis



Exploded View & Replacement Parts List

LOCATION No.	DESCRIPTION	PART No.					SVC CODE
		AMNH186LTLO	AMNC186LTLO	AMNH246LTLO	AMNH246LTA0	AMNC246LTLO	
131410	CHASSIS ASSEMBLY	3141A10002A	3141A10002A	3141A10002A	3141A10002A	3141A10002A	R
135311	GRILLE ASSEMBLY,DISCHARGE(INDOOR)	3531A10116A	3531A10116A	3531A10116A	3531A10116A	3531A10116A	R
135314	GRILLE ASSEMBLY,INLET SUB	3531A20107W	3531A20107V	3531A20107W	-	3531A20107V	R
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A20207E	3531A20207F	3531A20207E	3531A24010F	3531A20207F	R
135516	COVER ASSEMBLY,MOTOR	3551A20099C	3551A20099C	3551A20099C	3551A20099C	3551A20099C	R
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	R
152302	FILTER(MECH),A/C	5230A20001A	5230A20001A	5230A20001A	5230A20001A	5230A20001A	R
159830	AIR CLEANER ASSEMBLY	5983A10006T	5983A10006T	5983A10006T	-	5983A10006T	R
159901-1	VANE,HORIZONTAL	5990A20008A	5990A20008A	5990A20008A	4995A11004D	5990A20008A	R
159901-2	VANE,HORIZONTAL	5990A20009A	5990A20009A	5990A20009A	5990A20009A	5990A20009A	R
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20361E	4995A20361K	4995A20361F	4995A20361F	4995A20361L	R
263230-1	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T	R
263230-2	THERMISTOR ASSEMBLY	6323A20004A	6323A20004A	6323A20004A	6323A20004A	6323A20004A	R
266090	H.V ASSEMBLY	6609A10003L	6609A10003L	6609A10003L	-	6609A10003L	R
267110	REMOTE CONTROLLER ASSEMBLY	6711A20067J	6711A20067H	6711A20067J	6711A20083F	6711A20067H	R
268712	PWB(PCB) ASSEMBLY,DISPLAY	6871A20194B	6871A20194B	6871A20194B	6871A20194B	6871A20194B	R
268715	PWB(PCB) ASSEMBLY,MAIN(AC)	6871A20267B	6871A20267B	6871A20267B	6871A20267B	6871A20267B	R
268716	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20440E	6871A20440L	6871A20440F	6871A20440F	6871A20440M	R
342800	BEARING	4280A20004A	4280A20004A	4280A20004A	4280A20004A	4280A20004A	R
346810	MOTOR ASSEMBLY,INDOOR	4681A20003D	4681A20003D	4681A20067A	4681A20067A	4681A20067A	R
352111	TUBE ASSEMBLY,CONNECTOR	5211A20514B	5211A20514B	5211A20514B	5211A20514B	5211A20514B	R
352115	TUBE ASSEMBLY,EVAPORATOR IN	5211A30058H	5211A30058H	5211A30097J	5211A30097J	5211A30097J	R
352116	TUBE ASSEMBLY,EVAPORATOR OUT	5211A30057D	5211A30057D	5211A30098G	5211A30098G	5211A30098G	R
352150	HOSE ASSEMBLY,DRAIN	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	R
359011	FAN ASSEMBLY,CROSS FLOW	5901A20008A	5901A20008B	5901A20008A	5901A20008A	5901A20008B	R
733010	PLATE ASSEMBLY,INSTALL	3301A10002A	3301A10002A	3301A10002A	3301A10002A	3301A10002A	R
35211B	TUBE ASSEMBLY,TUBING	5211A30439E	5211A30439E	5211A30439J	5211A30439J	5211A30439J	R
W0CZZ	CAPACITOR,DRAWING	3H01487G	3H01487G	3H01487G	3H01487G	3H01487G	R

SP1 Chassis

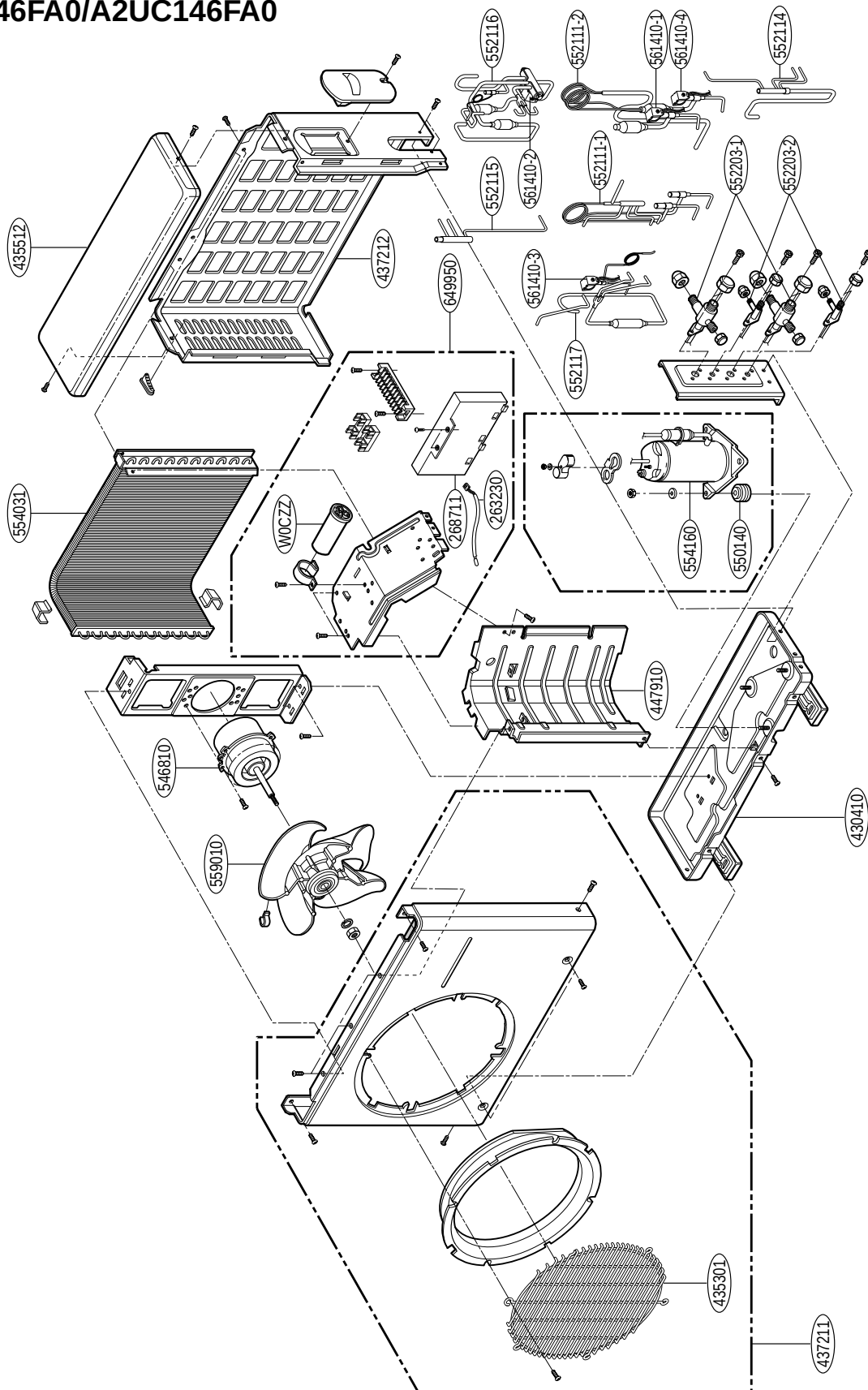


Exploded View & Replacement Parts List

LOCATION No.	DESCRIPTION	PART No.				SVC CODE
		AMNH096AP*1	AMNC096AP*1	AMNH126AP*1	AMNC126AP*1	
131410	CHASSIS ASSEMBLY	3141A20004N	3141A20004N	3141A20004N	3141A20004N	R
135500-1	COVER	3550A20123A	3550A20123A	3550A20123A	3550A20123A	R
135500-2	COVER	3550A20124A	3550A20124A	3550A20124A	3550A20124A	R
135500-3	COVER	3550A20060A	3550A20060A	3550A20060A	3550A20060A	R
135311-1	GRILLE ASSEMBLY,DISCHARGE(INDOOR)	3531A20069G	3531A20069G	3531A20069G	3531A20069G	R
135311-2	GRILLE ASSEMBLY,DISCHARGE(INDOOR)	3531A20069H	3531A20069H	3531A20069H	3531A20069H	R
135311-3	GRILLE ASSEMBLY,DISCHARGE(INDOOR)	3531A20069J	3531A20069J	3531A20069J	3531A20069J	R
135314	GRILLE ASSEMBLY,INLET	3531A20212K/L/M	3531A20212K/L/M	3531A20212K/L/M	3531A20212K/L/M	R
135515	COVER ASSEMBLY, TOP(INDOOR)	3551A20031B	3551A20031B	3551A20031B	3551A20031B	R
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A20213N/P/Q	3531A20213N/P/Q	3531A20213R/S/T	3531A20213R/S/T	R
147581	LOUVER,HORIZONTAL	4758A20014B	4758A20014B	4758A20014B	4758A20014B	R
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A	R
152302	FILTER(MECH),A/C	5230A20032A	5230A20032A	5230A20032A	5230A20032A	R
159830	AIR CLEANER ASSEMBLY	5983A20007F	5983A20007F	5983A20007F	5983A20007F	R
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20372H	4995A20372N	4995A20372J	4995A20372P	R
249941	CONTROL BOX,INDOOR	4994A10046A	4994A10046A	4994A10046A	4994A10046A	R
268715	PWB(PCB) ASSEMBLY,MAIN(AC)	6871A20380D	6871A20380D	6871A20380D	6871A20380D	R
268716	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20381D	6871A20381G	6871A20381F	6871A20381H	R
266090	H.V ASSEMBLY	6609A10003S	6609A10003S	6609A10003S	6609A10003S	R
263230-1	THERMISTOR ASSEMBLY	6323AQ6226T	6323AQ6226T	6323AQ6226T	6323AQ6226T	R
263230-2	THERMISTOR ASSEMBLY	6323A20004N	6323A20004N	6323A20004N	6323A20004N	R
268712	PWB(PCB) ASSEMBLY,DISPLAY	6871A20388A	6871A20388B	6871A20388A	6871A20388B	R
267110	REMOTE CONTROLLER ASSEMBLY	6711A20073D	6711A20073E	6711A20073E	6711A20073E	R
330870	DRAIN PAN ASSEMBLY	3087A30004A	3087A30004A	3087A30004A	3087A30004A	R
346810	MOTOR ASSEMBLY,INDOOR	4681A20091A	4681A20091A	4681A20091A	4681A20091A	R
349600	MOUNT,MOTOR	4960A20016A	4960A20016A	4960A20016A	4960A20016A	R
352116	TUBE ASSEMBLY,EVAPORATOR OUT	5211A20301J	5211A20301J	5211A20301J	5211A20301J	R
352115	TUBE ASSEMBLY,EVAPORATOR IN	5211A20302J	5211A20302J	5211A20302J	5211A20302J	R
35211B	TUBE ASSY,TUBING	5211AR7066F	5211AR7066F	5211AR7066F	5211AR7066F	R
352150	HOSE ASSEMBLY,DRAIN	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	R
352380	AIR GUIDE	5238A20020A	5238A20020A	5238A20020A	5238A20020A	R
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20072A	5421A20072A	5421A20072A	5421A20072A	R
359012	FAN,TURBO	5900A00003A	5900A00003A	5900A00003A	5900A00003A	R

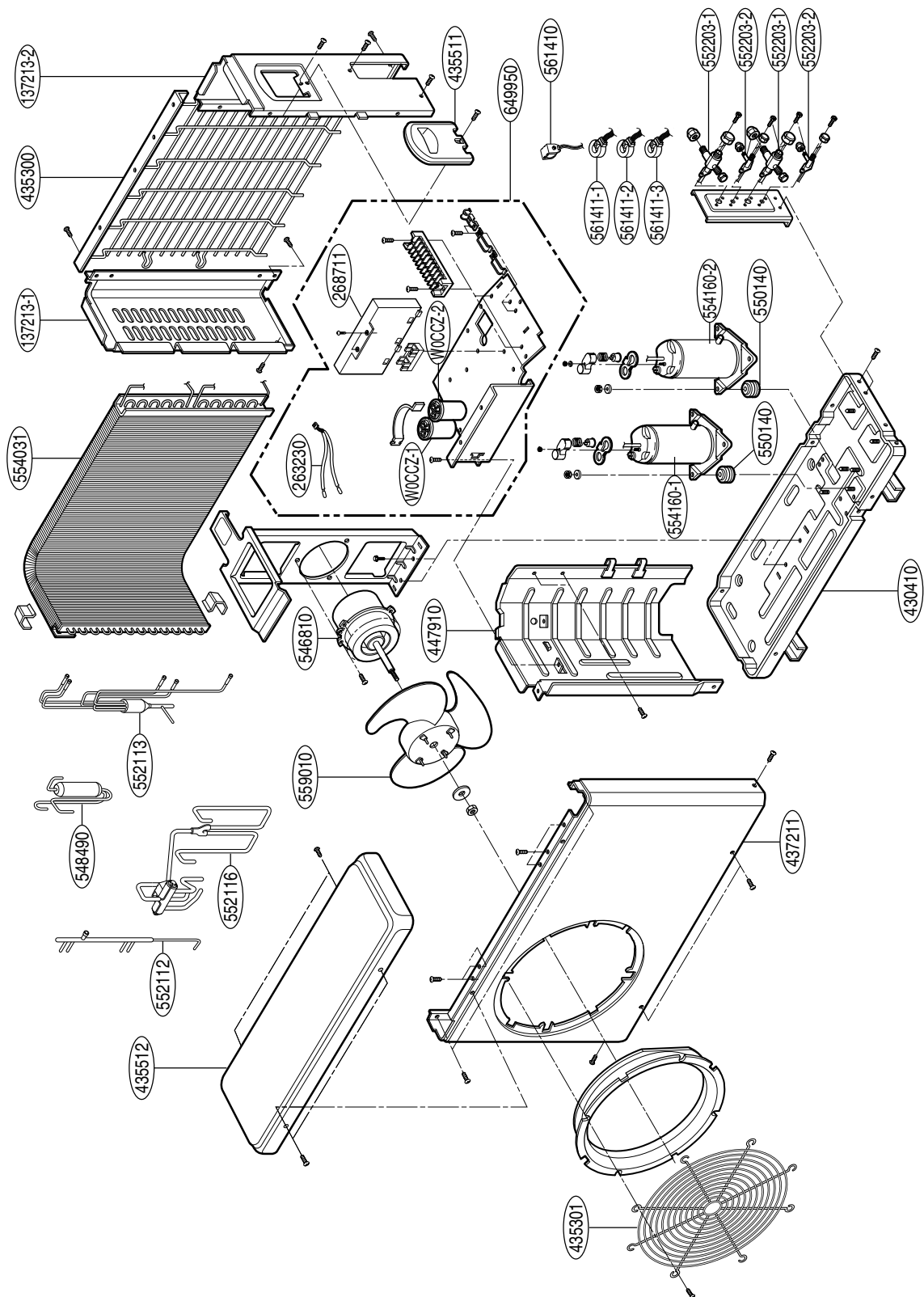
2. Outdoor Unit

A2UH146FA0/A2UC146FA0



LOCATION No.	DESCRIPTION	PART No.		SVC CODE
		A2UH146FA0	A2UC146FA0	
263230	THERMISTOR ASSEMBLY	6323A20023G		R
430410	BASE ASSY,OUTDOOR	2H02079T	2H02079T	R
435301	GRILLE,DISCHARGE	1H00840C	1H00840C	R
437211	PANEL ASSEMBLY,FRONT(OUTDOOR)	2H02674S	2H02674S	R
435512	COVER ASSY, TOP(OUTDOOR)	3H03465D	3H03465D	R
437212	PANEL ASSY,REAR	1H00697N	1H00697N	R
447910	BARRIER ASSY,OUTDOOR	3H03466F	3H03466F	R
546810	MOTOR ASSEMBLY,OUTDOOR	4681AR1392Q	1H00853D	R
550140	ISOLATOR,COMP	4H00982E	4H00982E	R
552111-1	TUBE ASSEMBLY,CAPILLARY	5211A10381C		R
552111-2	TUBE ASSEMBLY,CAPILLARY		5211A10381A	R
552115	TUBE ASSEMBLY,MENIFOLD(OUTDOOR)	5211A20952C		R
552116	TUBE ASSEMBLY,REVERSING	5211A10053C		R
552117	TUBE ASSEMBLY,SUCTION(OUTDOOR)		5211A20935A	R
552203-1	VALVE,SERVICE	2H02479H	2H02479H	R
552203-2	VALVE,SERVICE	5220A20001J	5220A20001J	R
559010	FAN ASSEMBLY,PROPELLER	5900AR1119B	5900AR1119B	R
554031	CONDENSER ASSEMBLY,BENT	5403A20134C	5403A20134D	R
554160	COMPRESSOR SET	2520UTGP2AA	2520UTGP2AA	R
561410-1	COIL ASSEMBLY,SOLENOID	6141A20013F	6141A20013F	R
561410-2	COIL ASSEMBLY,REVERSING VALVE	6141A20010B		R
561410-3	COIL ASSEMBLY,SOLENOID	6141A20013D	6141A20013D	R
561410-4	COIL ASSEMBLY,REVERSING VALVE	6141A20013G	6141A20013G	R
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A20112H	4995A20112J	R
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A20414H	6871A20414J	R
W0CZZ	CAPACITOR,DRAWING	2H01451S	2H01451T	R
552114	TUBE ASSEMBLY, DISCHARGE		5211A20951A	R

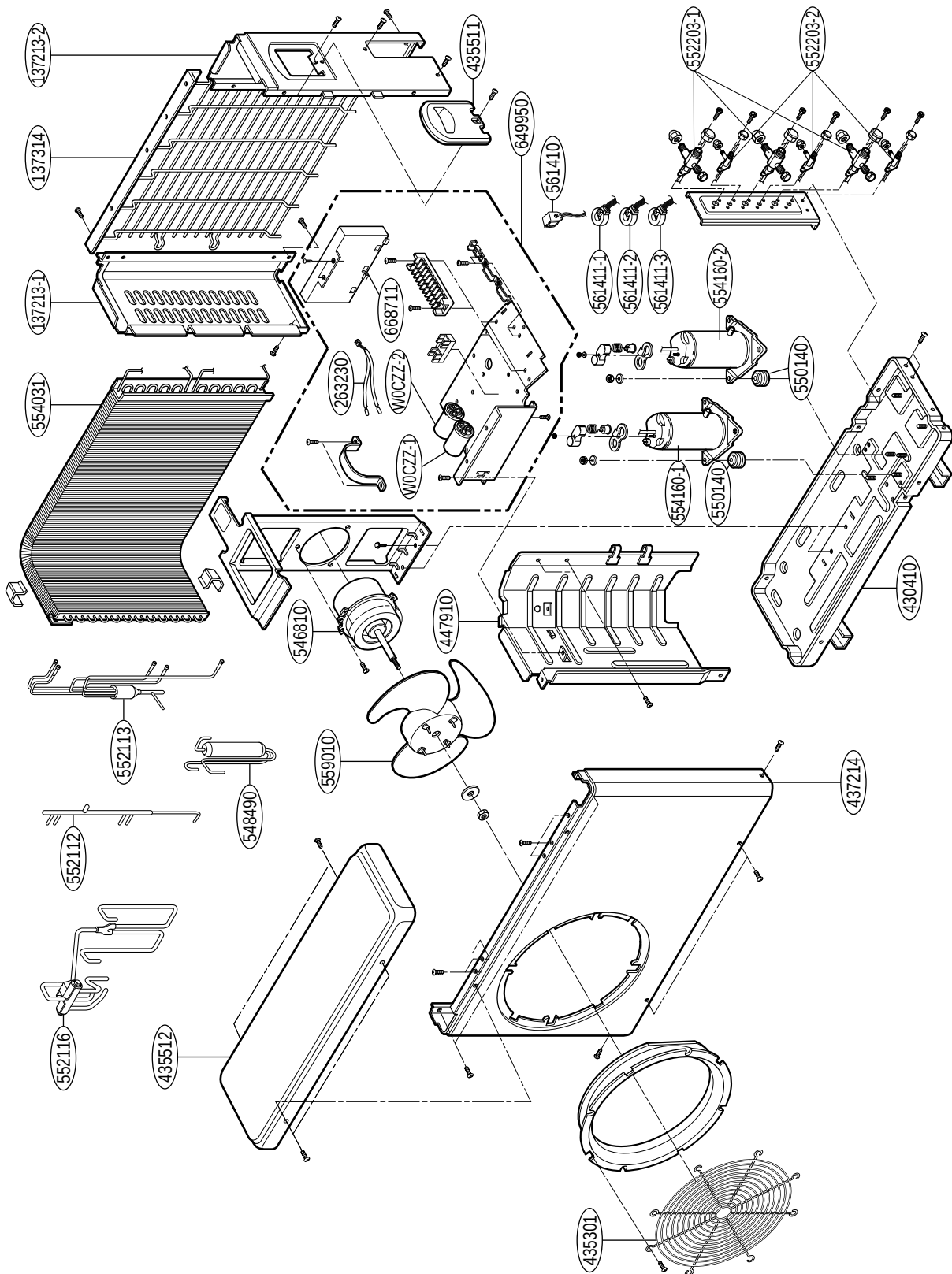
A2UH186FA0



This exploded view diagram illustrates the assembly of a Free Joint Multi Air Conditioner. The components are labeled with part numbers in circles, indicating their assembly sequence. The diagram shows the main indoor unit (437212) and outdoor unit (437211) connected by a refrigerant pipe (437210). Other components include the condenser coil (554031), evaporator coil (554160), and various electrical and mechanical parts like the compressor (554160-1), fan (554160-2), and control board (554160-3). The diagram also shows the installation of the indoor unit into a wall and the outdoor unit onto a base (430410). The assembly order is indicated by the numbers in the circles, starting from 437212 and ending with 437211.

LOCATION No.	DESCRIPTION	PART No.		SVC CODE
		A2UH186FA0	A2UC186FA0	
435300	GRILLE,REAR	1A00207B		R
137213-1	PANEL ASSEMBLY,SIDE	1A00201D		R
137213-2	PANEL ASSY,SIDE	3A02284M		R
263230	THERMISTOR ASSEMBLY	6323A20023A	6323A20023B	R
430410	BASE ASSEMBLY,OUTDOOR	3041AP2741H	3041AP2741H	R
435511	COVER ASSEMBLY,CONTROL(OUTDOOR)	3551A20076H	3551A20076K	R
437212	PANEL ASSY,REAR		3720AP0003F	R
435301	GRILL, DISCHARGE	3530A20007B	3530A20007B	R
435512	COVER ASSEMBLY,TOP(OUTDOOR)	3551A30113B	3H03266K	R
437211	PANEL ASSEMBLY, FRONT(OUTDOOR)	3721A23001A	3721A20005P	R
447910	BARRIER ASSEMBLY,OUTDOOR	4791A30004K	4791A30004K	R
546810	MOTOR ASSEMBLY,OUTDOOR	4681A20028J	4681A20028J	R
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A20039B	4849A20042A	R
550140	ISOLATOR,COMP	4H00982E	4H00982E	R
552203-1	VALVE,SERVICE	5220A20001K	5220A20001K	R
552203-2	VALVE,SERVICE	2H02479R	2H02479R	R
554160-1	COMPRESSOR	5416A90022C	5416A90022C	R
554160-2	COMPRESSOR	5416A90022A	5416A90022A	R
561411-1	COIL ASSEMBLY,EXPANSION	6141A20018A	6141A20018A	R
561411-2	COIL ASSEMBLY,EXPANSION	6141A20018B	6141A20018B	R
552112	TUBE ASSEMBLY,CONDENSER IN	5211A01001B	5211A10458A	R
552113	TUBE ASSEMBLY,CONDENSER OUT	5211A00001A	5211A00001B	R
552114	TUBE ASSEMBLY,DISCHARGE		5211A10456A	R
552116	TUBE ASSEMBLY,REVERSING	5211A10445C		R
554031	CONDENSER ASSEMBLY,BENT	5403A20072N	5403A20072R	R
559010	FAN ASSEMBLY,PROPELLER	5901A10032A	5901A10032A	R
561410	COIL ASSEMBLY,REVERSING VALVE	6141A20010J		R
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10112A	4995A10112B	R
268711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A20414B	6871A20414C	R
W0CZZ-1	CAPACITOR,DRAWING	6120AR2194D	6120AR2194D	R
W0CZZ-2	CAPACITOR,DRAWING	2A00986G	2A00986G	R

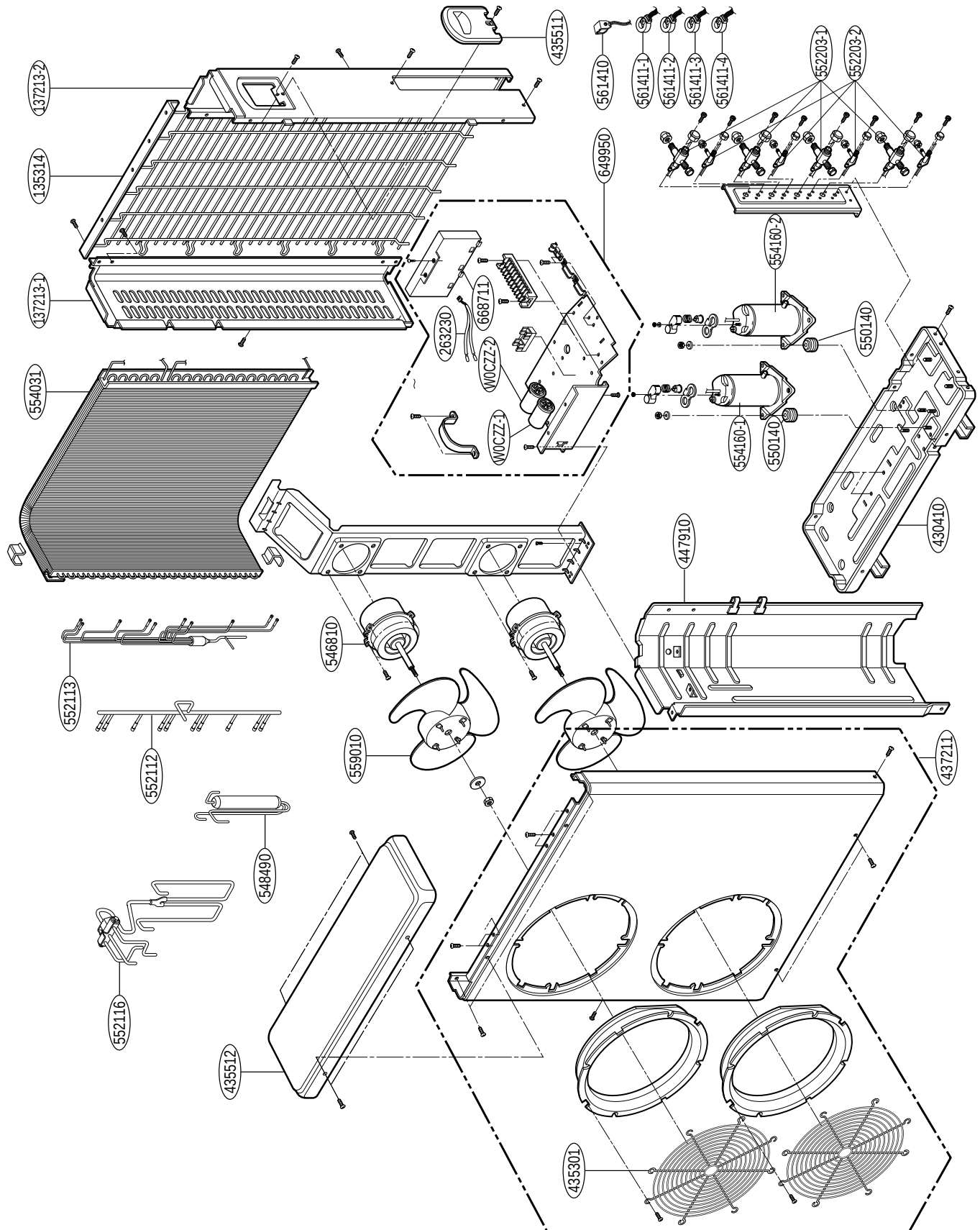
A3UH216FA0



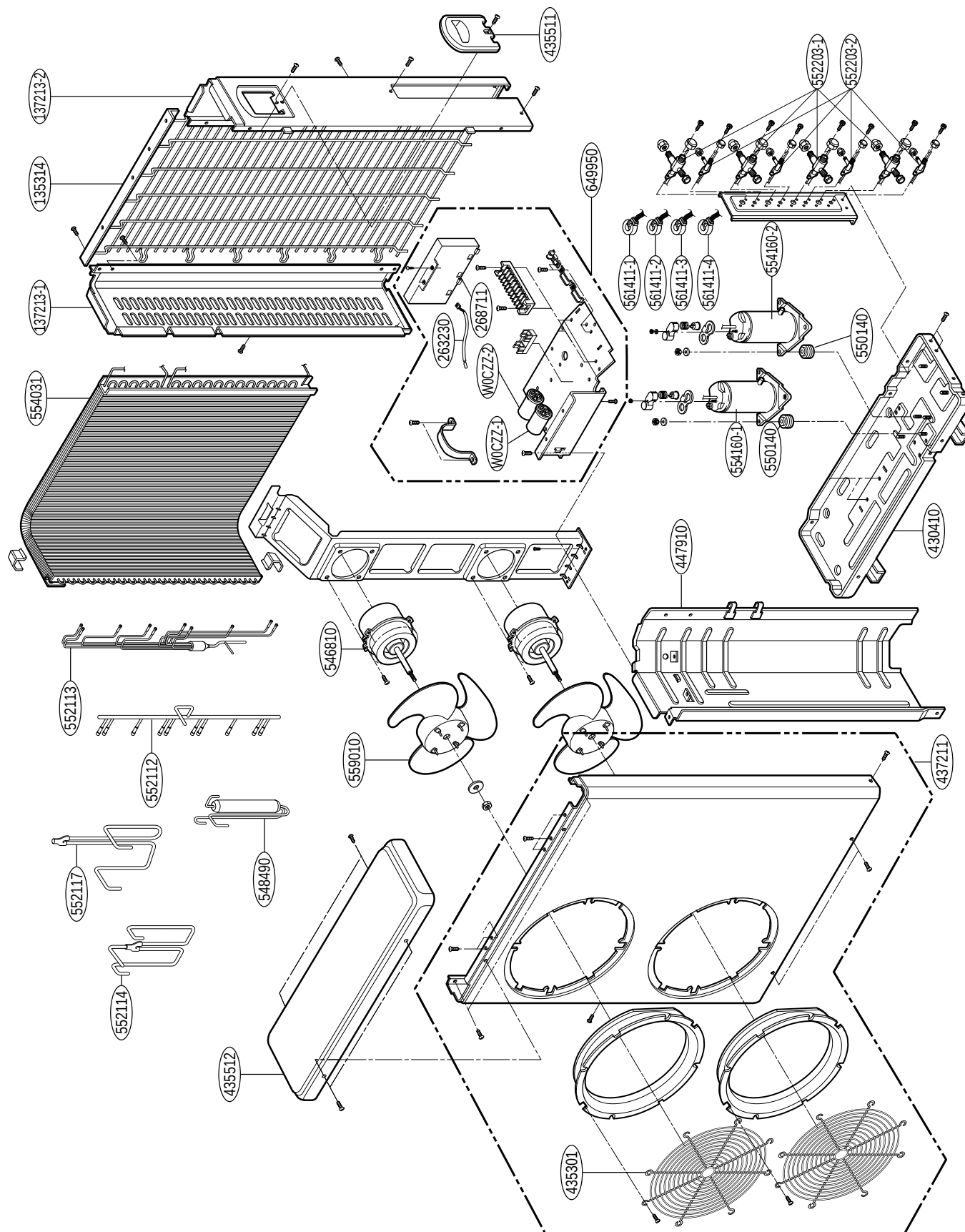
Exploded View & Replacement Parts List

LOCATION No.	DESCRIPTION	PART No.		SVC CODE
		A3UH216FA0	A3UC216FA0	
135314	GRILLE,REAR	1A00207B		R
137213-1	PANEL ASSEMBLY,SIDE	1A00201D		R
137213-2	PANEL ASSY,SIDE	3A02284M		R
263230	THERMISTOR ASSEMBLY	6323A20023A	6323A20023B	R
430410	BASE ASSEMBLY,OUTDOOR	3041AP2741H	3041AP2741H	R
435301	GRILL, DISCHARGE	3530A20007B		R
435511	COVER ASSEMBLY,CONTROL(OUTDOOR)	3551A30088D	3551A30061G	R
435512	COVER ASSEMBLY,TOP(OUTDOOR)	3551A30113B	3H03266K	R
437211	PANEL ASSEMBLY, FRONT(OUTDOOR)	3721A23001A	3721A20005P	R
437212	PANEL ASSY,REAR		3720AP0003F	R
447910	BARRIER ASSEMBLY,OUTDOOR	4791A30004K	4791A30004K	R
546810	MOTOR ASSEMBLY,OUTDOOR	4681A20028J	4681A20028J	R
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A20039A	4849A20042A	R
550140	ISOLATOR,COMP	4H00982E	4H00982E	R
552112	TUBE ASSEMBLY,CONDENSER IN	5211A01001B	5211A10458A	R
552113	TUBE ASSEMBLY,CONDENSER OUT	5211A00001A	5211A00001B	R
552114	TUBE ASSEMBLY,DISCHARGE (OUTDOOR)		5211A10456B	R
552116	TUBE ASSEMBLY,REVERSING	5211A10445B		R
552203-1	VALVE,SERVICE	5220A20001K	5220A20001K	R
552203-2	VALVE,SERVICE	2H02479R	2H02479R	R
554160-1	COMPRESSOR	5416A90022D	5416A90022D	R
554160-2	COMPRESSOR	5416A90022B	5416A90022B	R
561411-1	COIL ASSEMBLY,EXPANSION	6141A20018A	6141A20018A	R
561411-2	COIL ASSEMBLY,EXPANSION	6141A20018B	6141A20018B	R
561411-3	COIL ASSEMBLY,EXPANSION	6141A20018C	6141A20018C	R
554031	CONDENSER ASSEMBLY,BENT	5403A20072N	5403A20072R	R
559010	FAN ASSEMBLY,PROPELLER	5901A10032A	5901A10032A	R
561410	COIL ASSEMBLY,REVERSING VALVE	6141A20010J		R
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10112C	4995A10112D	R
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A20414D	6871A20414E	R
738281	MANUAL,SERVICE	3828A20097X	3828A20097X	R
738282	MANUAL,INSTALLATION	3828A20403H	3828A20403B	R
738290	MANUAL,OWNERS	3828A20394A	3828A20394A	R
W0CZZ-1	CAPACITOR,DRAWING	6120AR2194D	6120AR2194D	R
W0CZZ-2	CAPACITOR,DRAWING	2H00841Z	2H00841Z	R

A4UH306FA0



A4UC306FA0



LOCATION No.	DESCRIPTION	PART No.		SVC CODE
		A4UH306FA0	A4UC306FA0	
135301	GRILLE,DISCHARGE	3530A20006G	3530A20006G	R
135314	GRILLE,REAR	3530A10176B	3530A10176B	R
263230	THERMISTOR ASSEMBLY	6323A20023E	6323A20023F	R
430410	BASE ASSY, OUTDOOR	3041AP7177D	3041AP7177D	R
435511	COVER ASSEMBLY,CONTROL(OUTDOOR)	3551A30088F	3551A30088G	R
435512	COVER ASSEMBLY,TOP(OUTDOOR)	3H03266H	3H03266H	R
437211	PANEL ASSEMBLY,FRONT(OUTDOOR)	3721A10109A	3721A10109A	R
447910	BARRIER ASSEMBLY,OUTDOOR	4791A10019B	4791A10019B	R
546810	MOTOR ASSEMBLY,OUTDOOR	4681AR1392Y	4681AR1392Y	R
552114	TUBE ASSEMBLY,DISCHARGE (OUTDOOR)		5211A11013A	R
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10039A	4849A10039B	R
550140	ISOLATOR,COMP	4H00982E	4H00982E	R
552112	TUBE ASSEMBLY,CONDENSER IN	5211A11010A	5211A11010A	R
552113	TUBE ASSEMBLY,CONDENSER OUT	5211A12001A	5211A12001B	R
552116	TUBE ASSEMBLY,REVERSING	5211A10453A		R
552117	TUBE ASSEMBLY,SUCTION(OUTDOOR)	5211A11012A	5211A11012A	R
554031	CONDENSER ASSEMBLY,BENT	5403A20168B	5403A20168B	R
559010	FAN ASSEMBLY,PROPELLER	5901A10033A	5901A10033A	R
561410	COIL ASSEMBLY,REVERSING VALVE	6141A20010K		R
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10117A	4995A10117B	R
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A20414F	6871A20414G	R
137213-1	PANEL ASSEMBLY,SIDE	3721A10110A	3721A10110A	R
137213-2	PANEL ASSEMBLY,SIDE	3721A10111A	3721A10111A	R
552203-1	VALVE,SERVICE	5220A20001K	5220A20001K	R
552203-2	VALVE,SERVICE	2H02479R	2H02479R	R
554160-1	COMPRESSOR	5416A90022E	5416A90022E	R
554160-2	COMPRESSOR	5416A90022D	5416A90022D	R
561411-1	COIL ASSEMBLY,EXPANSION	6141A20018D	6141A20018D	R
561411-2	COIL ASSEMBLY,EXPANSION	6141A20018E	6141A20018E	R
561411-3	COIL ASSEMBLY,EXPANSION	6141A20018F	6141A20018F	R
561411-4	COIL ASSEMBLY,EXPANSION	6141A20018G	6141A20018G	R
W0CZZ-1	CAPACITOR,DRAWING	0CZZA20007R	0CZZA20007R	R
W0CZZ-2	CAPACITOR,DRAWING	2H01451V	2H01451V	R

