

# SERVICE MANUAL

**SPLIT TYPE  
AIR CONDITIONER (50Hz)**

**DUCT** type

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## Models

<b>Indoor unit</b>	<b>Outdoor unit</b>
ARG18RLC	AOG18RNDL
ARG18RLCH	AOG18RNDL
ARY18RLC	AOY18RNDL
ARY18RLCH	AOY18RNDL
ART18RLC	AOT18RNDL
ART18RLCH	AOT18RNDL

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# SPECIFICATIONS

INDOOR UNIT		ARG18RLC ARY18RLC	ART18RLC	ARG18RLCH ARY18RLCH	ART18RLCH
OUTDOOR UNIT		AOG18RNDL AOY18RNDL	AOT18RNDL	AOG18RNDL AOY18RNDL	AOT18RNDL
COOLING CAPACITY	(kW)	5.20 - 5.30	5.3	5.20 - 5.30	5.3
HEATING CAPACITY	(kW)	5.60 - 5.70	5.8	5.60 - 5.70	5.8

## ELECTRICAL DATA

POWER SOURCE	(V)	220 - 240	240 - (220)	220 - 240	240 - (220)
FREQUENCY	(Hz)	50	50	50	50
RUNNING CURRENT	(A)				
	COOLING	9.8 - 10.0	10.0	9.8 - 10.0	10.0
	HEATING	9.0 - 9.2	9.2	9.0 - 9.2	9.2
	INPUT WATTS	(kW)			
	COOLING	2.10 - 2.20	2.16	2.10 - 2.20	2.16
	HEATING	1.90 - 2.00	2.00	1.90 - 2.00	2.00
EER	(kW/kW)				
	COOLING	2.48 - 2.41	2.45	2.48 - 2.41	2.45
	HEATING	2.95 - 2.85	2.90	2.95 - 2.85	2.90
	MOISTURE REMOVAL	(ℓ /hr)	1.6	1.6	1.6
AIR CIRCULATION-Hi	(m³/hr)	750	750	750	750

## COMPRESSOR

TYPE	Hermetic type, Permanent split condenser, 2 pole, Single phase, Induction motor
DISCRIMINATION	2JS350D5BB02

## FAN MOTOR

INDOOR UNIT	DISCRIMINATION	MFA-18HTT	MFA-18HZZ
	POWER SOURCE (V)	220 - 240	220 - 240
	HI-SPEED (r.p.m.)	960	1,310
	MED-SPEED (r.p.m.)	900	1,220
	LO-SPEED (r.p.m.)	840	1,120
OUTDOOR UNIT	DISCRIMINATION	MFB-25JTT	
	POWER SOURCE (V)	220 - 240	
	HI-SPEED (r.p.m.)	740	
	LO-SPEED (r.p.m.)	280	

## DIMENSIONS

INDOOR UNIT	H x W x D (mm)	217 x 953 x 595
OUTDOOR UNIT	H x W x D (mm)	643 x 840 x 336

## WEIGHT

INDOOR UNIT	Gross / Net (kg)	29 / 25
OUTDOOR UNIT	Gross / Net (kg)	76 / 68

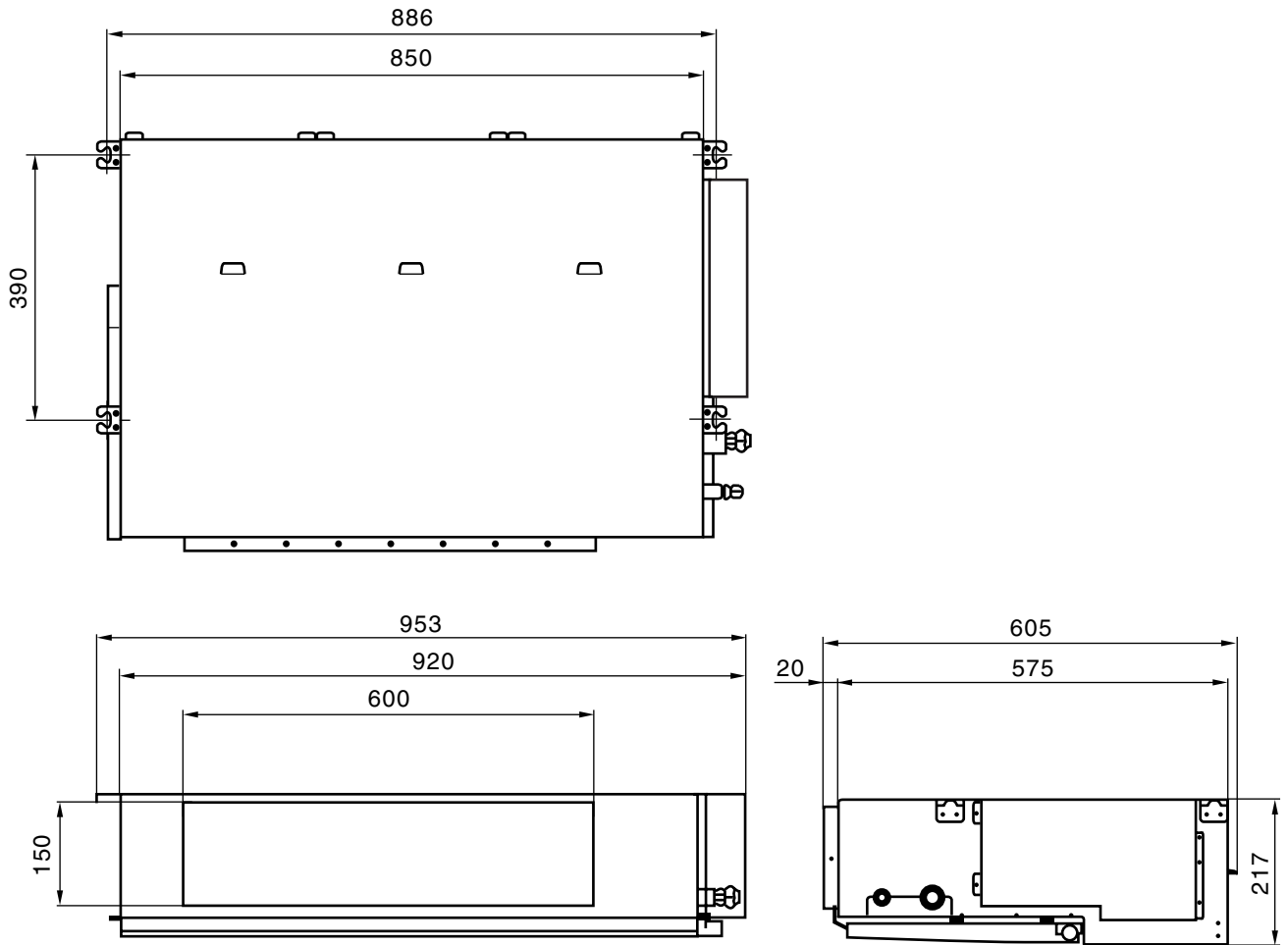
## REFRIGERANT CHARGE

FULL CHARGE AMOUNT	PIPE LENGTH	7.5 m (25 ft)	1,800g ( 63.5 oz.)
		10 m (33 ft)	1,925g ( 67.9 oz.)
		15 m (49 ft)	2,175g ( 76.7 oz.)
		20 m (66 ft)	2,425g ( 85.5 oz.)
ADDITIONAL CHARGE		50 g(1.8 oz.)/1 m(3.3 ft) for Reverse cycle model	

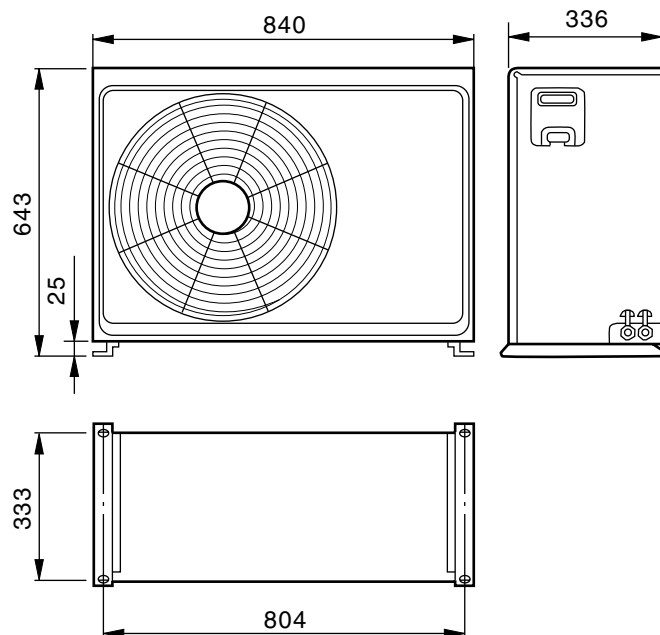
# OUTLINE AND DIMENSIONS

(unit : mm)

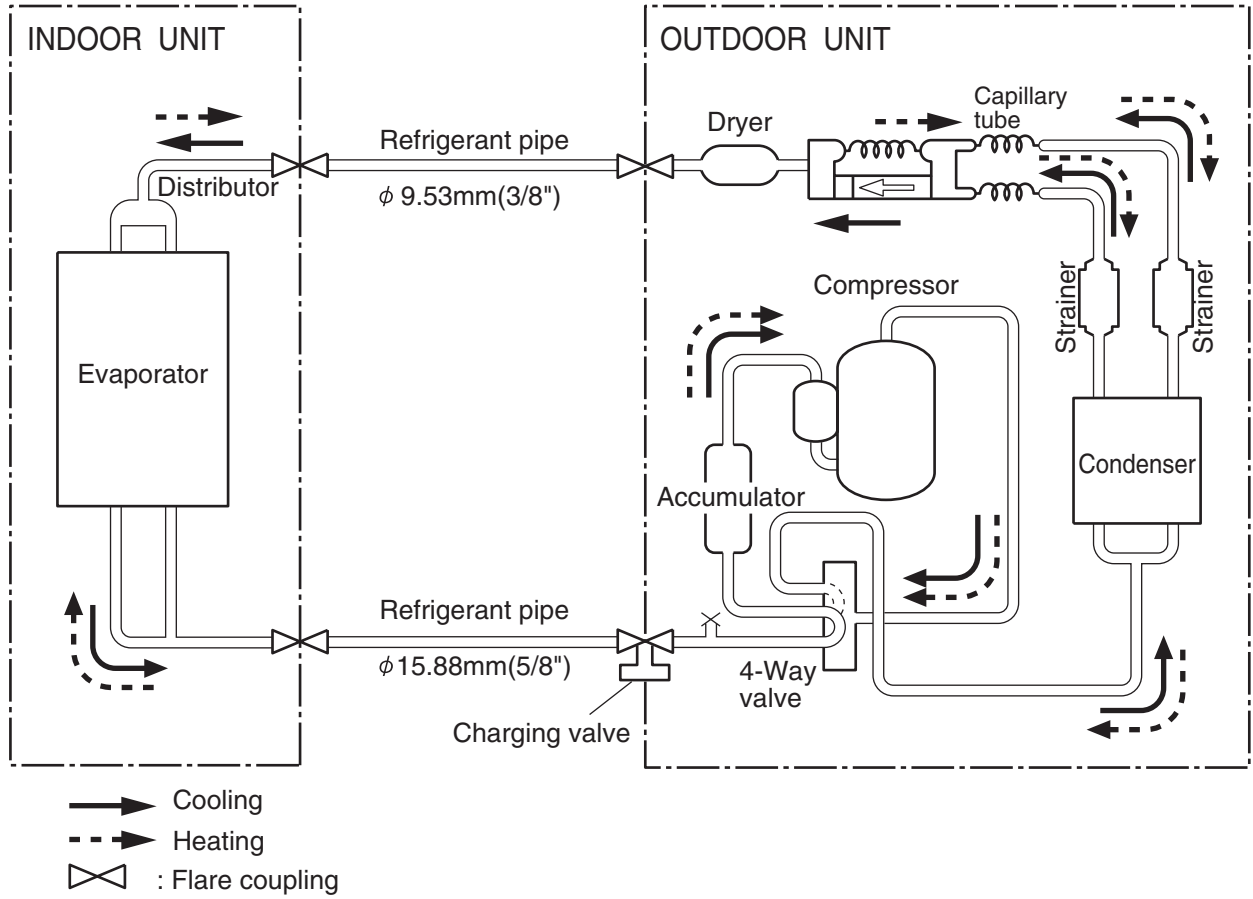
## INDOOR UNIT



## OUTDOOR UNIT

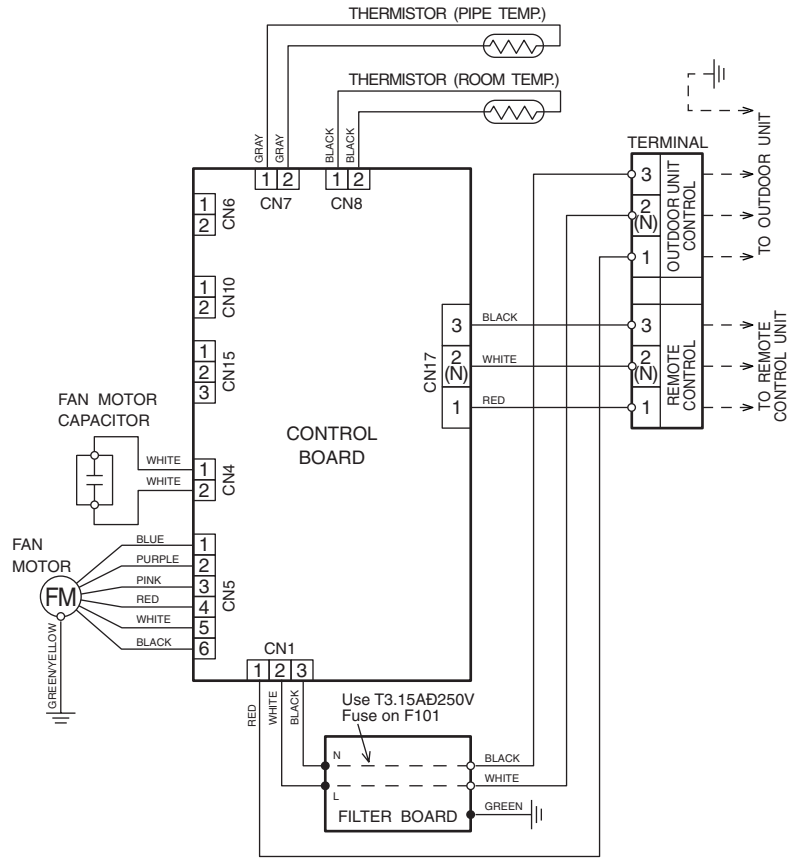


# REFRIGERANT SYSTEM DIAGRAM

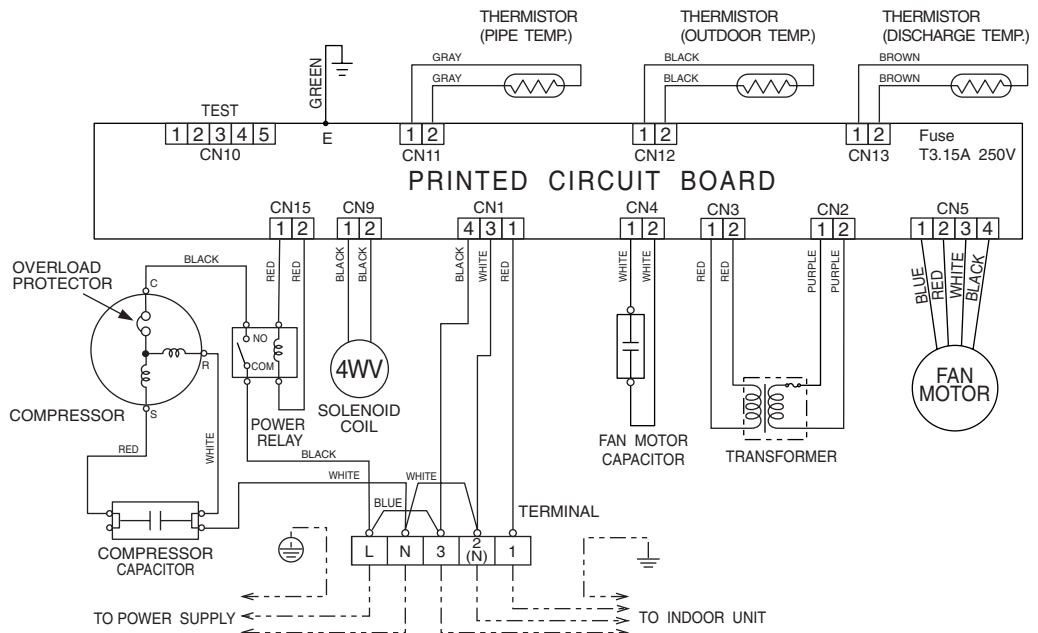


# CIRCUIT DIAGRAM

**Models : ARG18RLC, ARG18RLCH  
 ARY18RLC, ARG18RLCH  
 ART18RLC, ARG18RLCH**



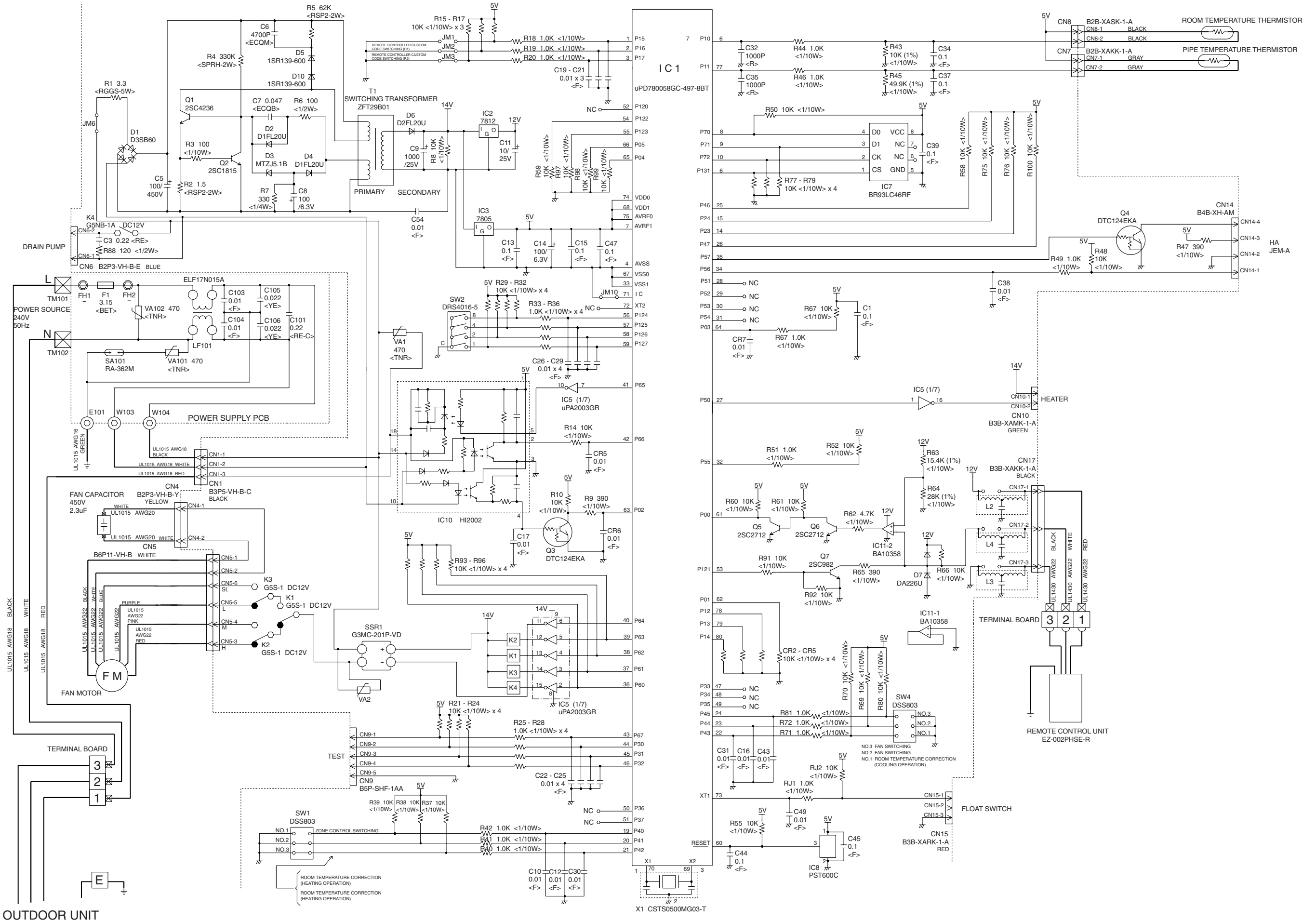
**Models : AOG18RNDL  
 AOY18RNDL  
 AOT18RNDL**



# INDOOR PCB CIRCUIT DIAGRAM

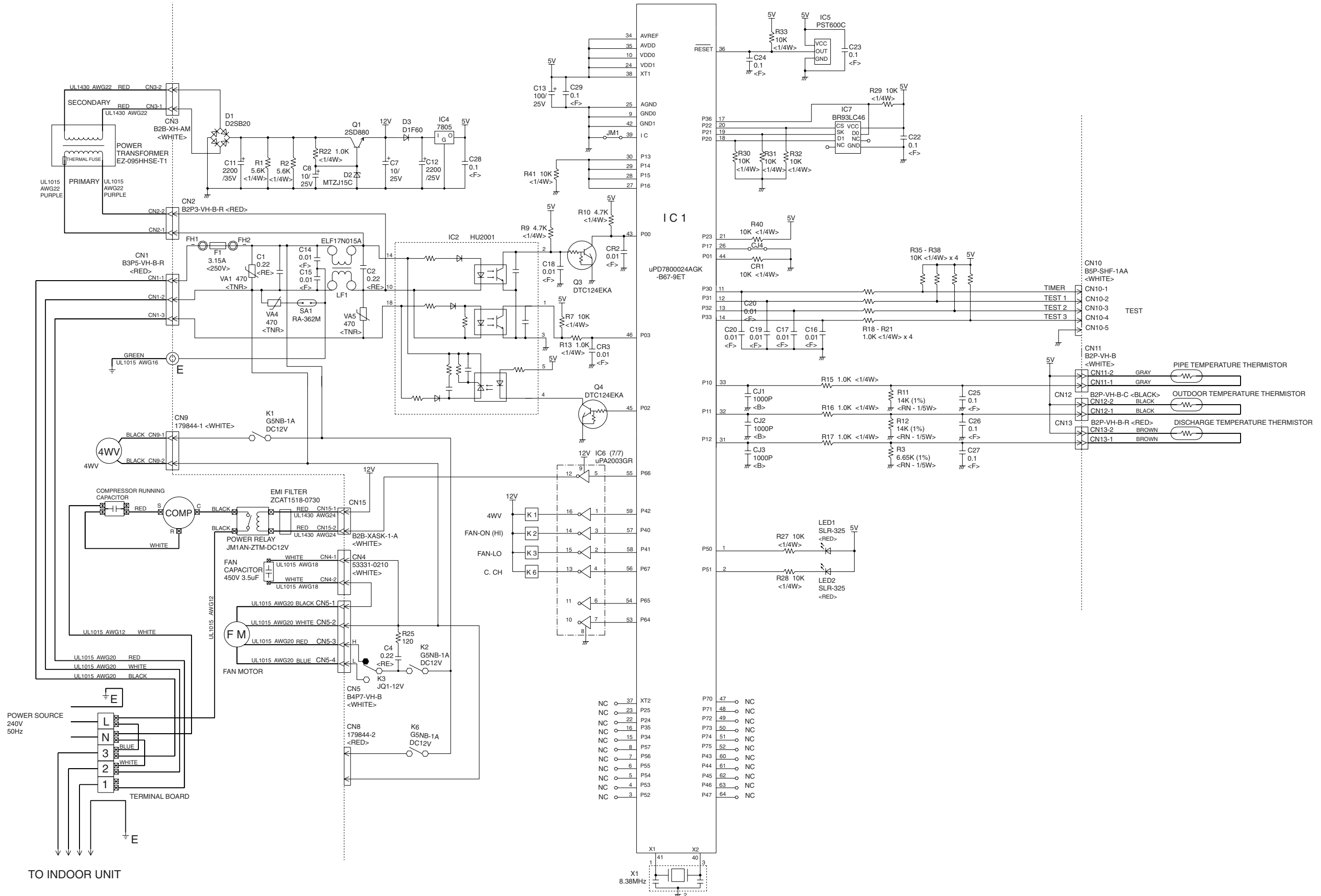
## CONTROLLER PCB ASSY

EZ-00225HSE-C



# OUTDOOR PCB CIRCUIT DIAGRAM

# CONTROLLER PCB ASSY EZ-002RHUE-C

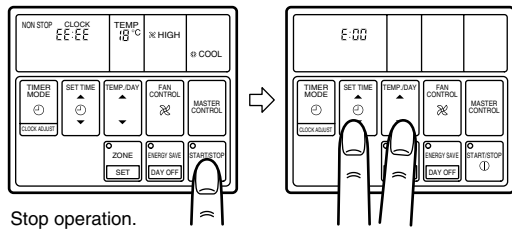


# ERROR CONTENTS

## 1. INDOOR UNIT

- When EE : EE blinks at the current time display, there is an error inside the air conditioner. If the SET TIME button (▼) and SET TEMP./DAY button (▼) are pressed simultaneously for more than three seconds, the self diagnosis check will start and the error contents will be displayed at the current time display. When the operation lamp lights, press the START/STOP button and after operation lamp goes off, perform the same operation.

Process the error contents by referring to (Table 1).



Stop operation.

Table 1

Error cord	Error contents
E:00	Communication error (indoor unit ↔ remote controller)
E:01	Communication error (indoor unit ↔ outdoor unit)
E:02	Room temperature sensor open
E:03	Room temperature sensor shortcircuited
E:04	Indoor heat exchanger temperature sensor open
E:05	Indoor heat exchanger temperature sensor shortcircuited
E:06	Outdoor heat exchanger temperature sensor open
E:07	Outdoor heat exchanger temperature sensor shortcircuited
E:08	Power source connection error
E:09	Float switch operated
E:0A	Outdoor temperature sensor open
E:0B	Outdoor temperature sensor shortcircuited
E:0C	Discharge pipe temperature sensor open
E:0d	Discharge pipe temperature sensor shortcircuited
E:0E	Outdoor high pressure abnormal
E:0F	Discharge pipe temperature abnormal
E:11	Model abnormal
E:12	Indoor fan abnormal
E:13	Outdoor signal abnormal
E:14	Outdoor EEPROM abnormal

- To stop test running, press the START/STOP button.
- For the operation method, refer to the operating manual and perform operation check.
- Check that there are no abnormal sounds or vibration sounds during test running.

## 2. OUTDOOR UNIT

When the outdoor temperature drops, the outdoor unit's fans may switch to low speed, or one of the fans may stop intermediately.

### ERROR : Heat & Cool model (Reverse cycle) only

The LED lamps operate as follows (Table 2) according to the error contents.

Table 2

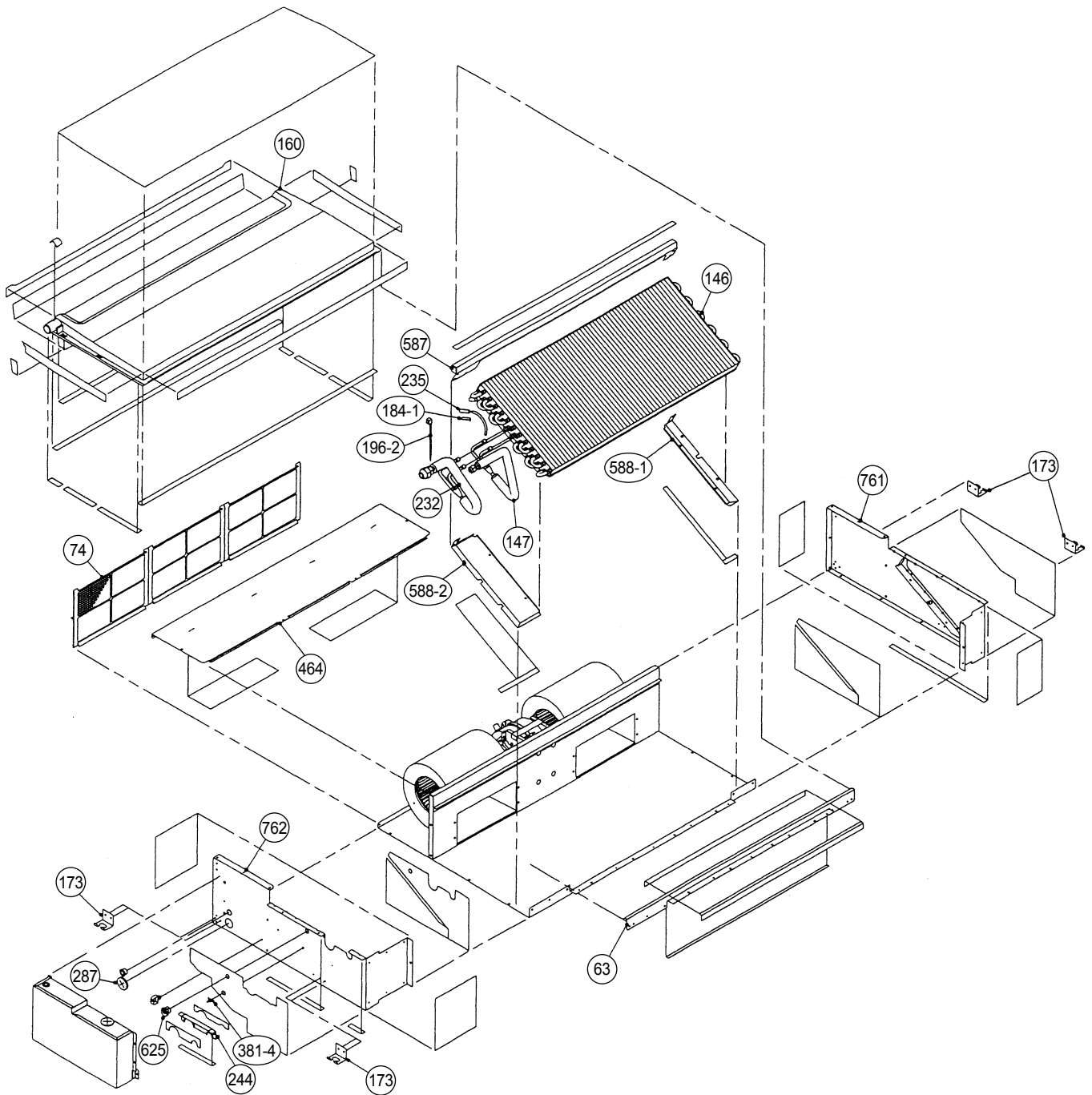
Error display		Error contents
LED 1	LED 2	
ON: Quick flash continued (0.1 sec. pulse) OFF: Quick flash continued	ON: Quick flash continued (0.1 sec. pulse) OFF: Quick flash continued	Model abnormal or EEPROM abnormal
ON: 1 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Power source connection error
ON: 2 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Discharge temperature sensor error
ON: 3 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Outdoor heat exchanger temperature sensor error
ON: 4 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Outdoor temperature sensor error
ON: 5 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Communication signal error
ON: 6 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Indoor unit error
ON: 7 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	Discharge temperature abnormal
ON: 8 quick flash repeated (0.5 sec. pulse) OFF: Lighting continued (2 sec. interval)	ON: Lighting continued OFF: Lighting continued	High pressure abnormal

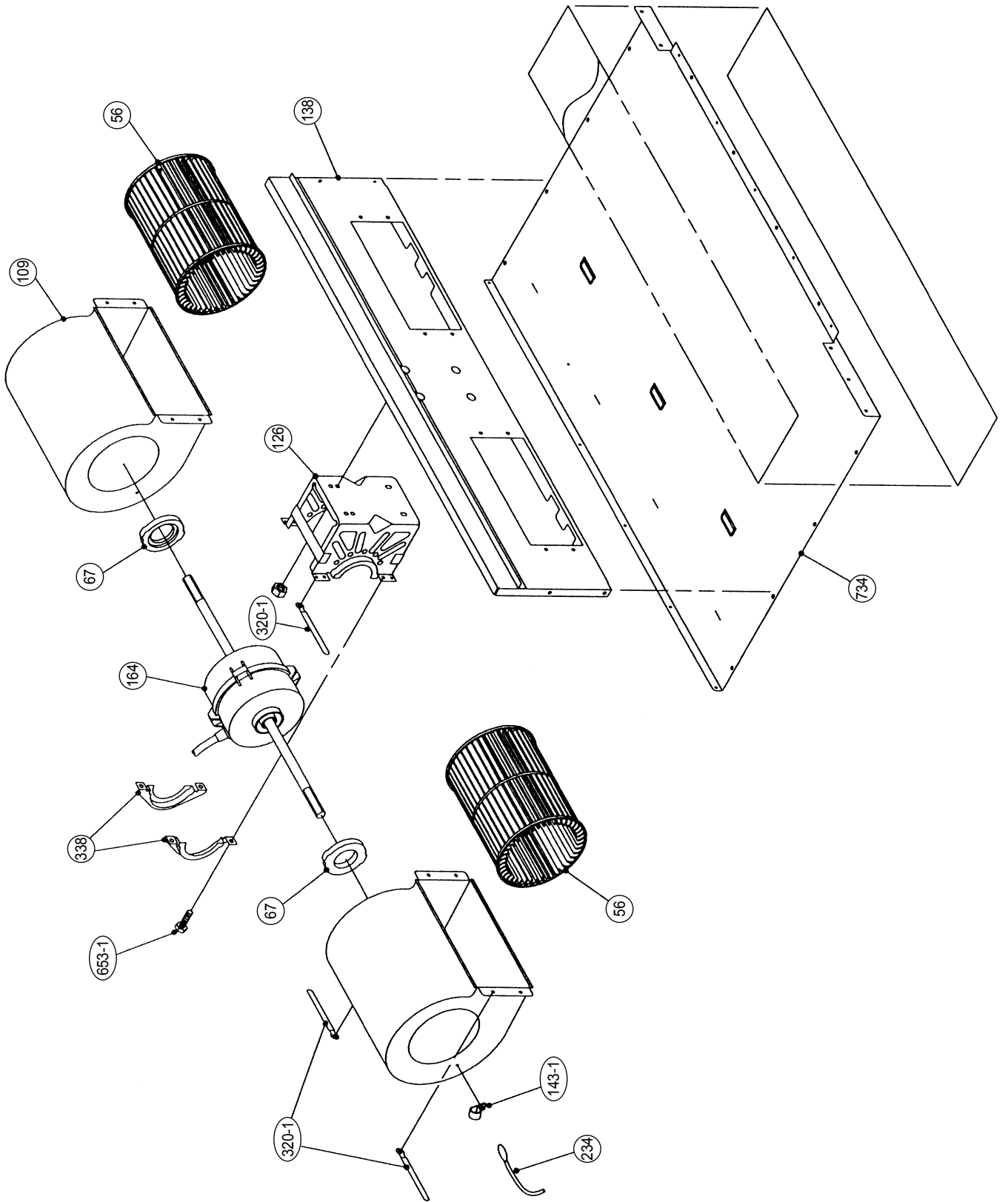
When the fault is cleared, the LED lamp goes off. However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

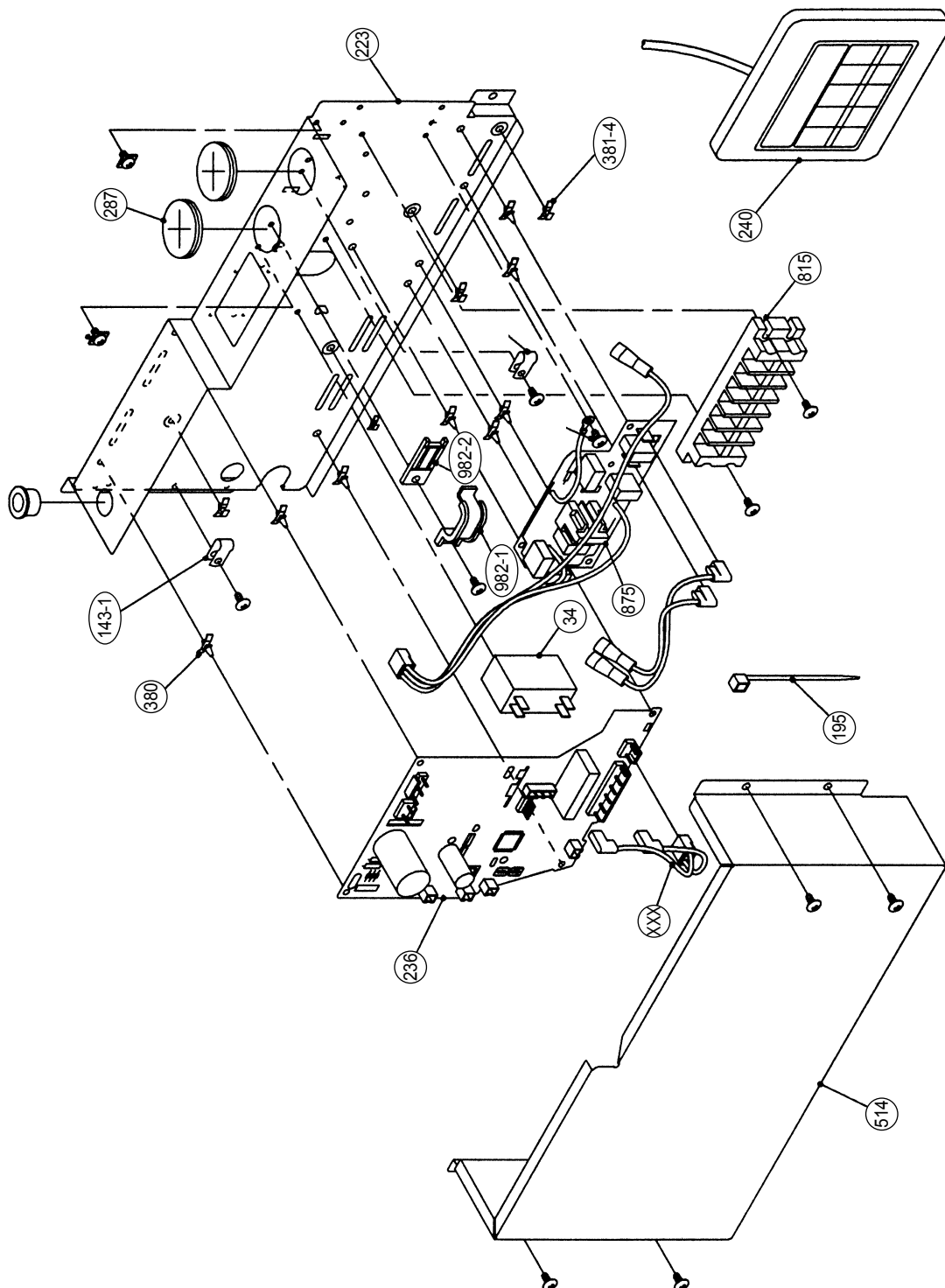


# DISASSEMBLY ILLUSTRATION

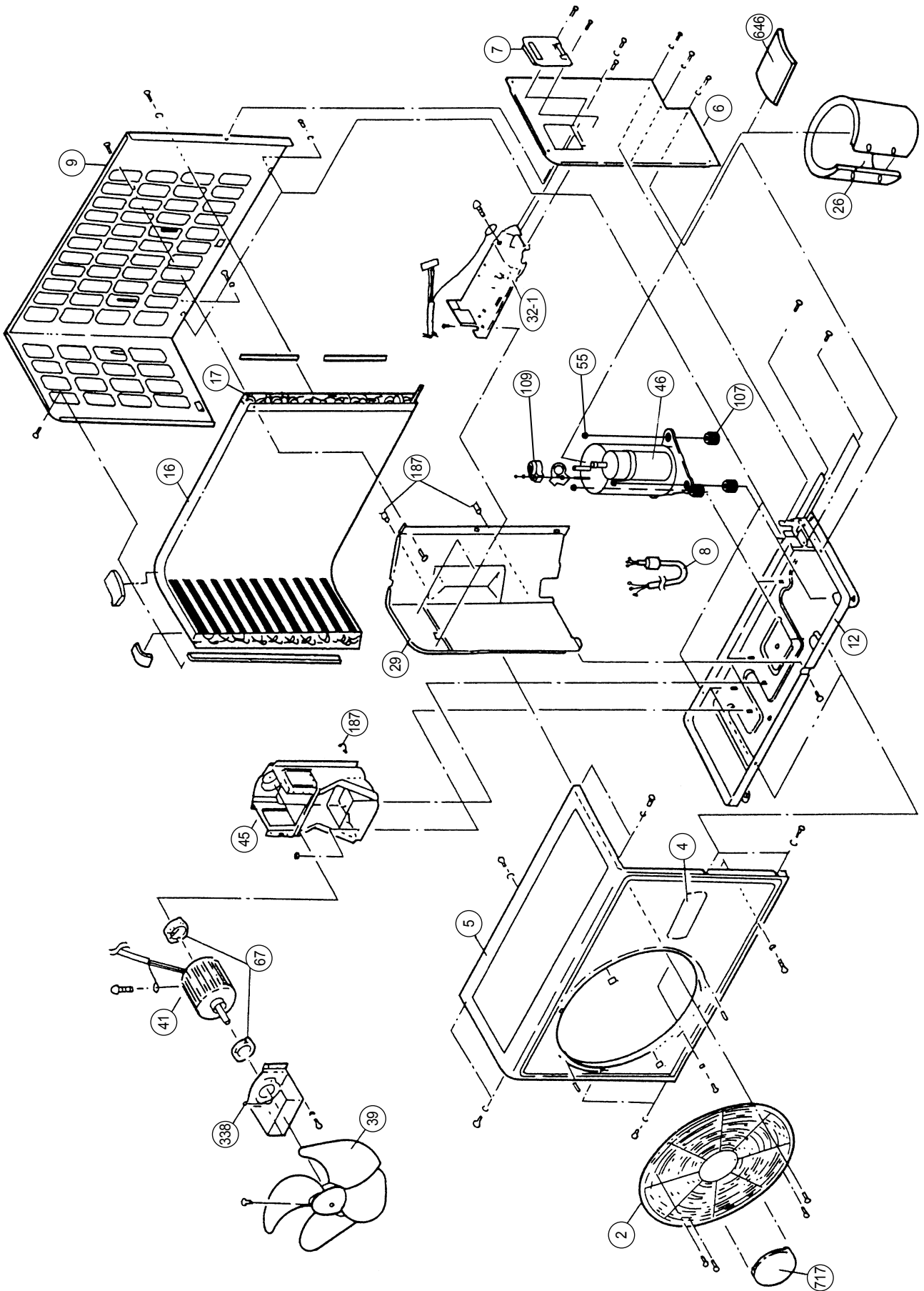
Models : ARG18RLC, ARG18RLCH  
ARY18RLC, ARY18RLCH  
ART18RLC, ART18RLCH

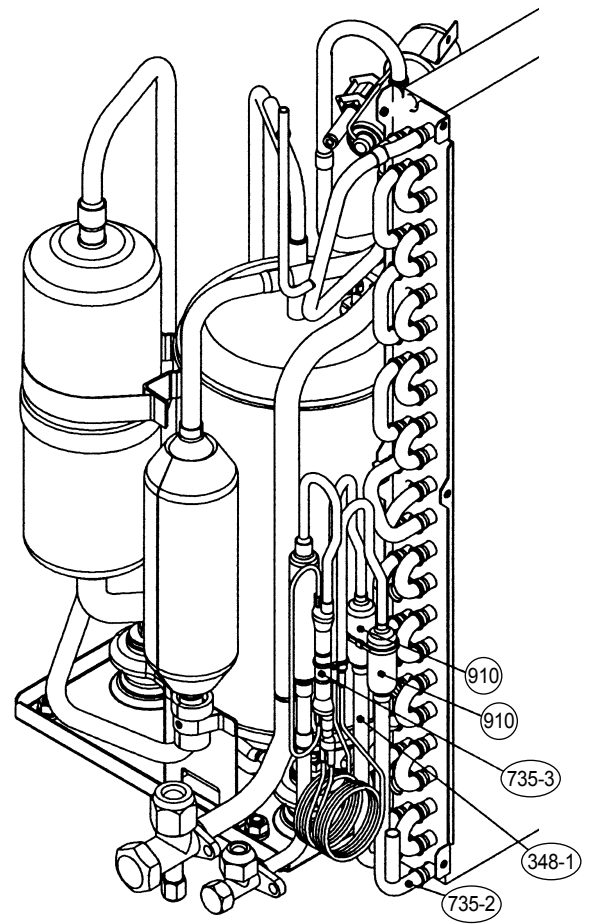
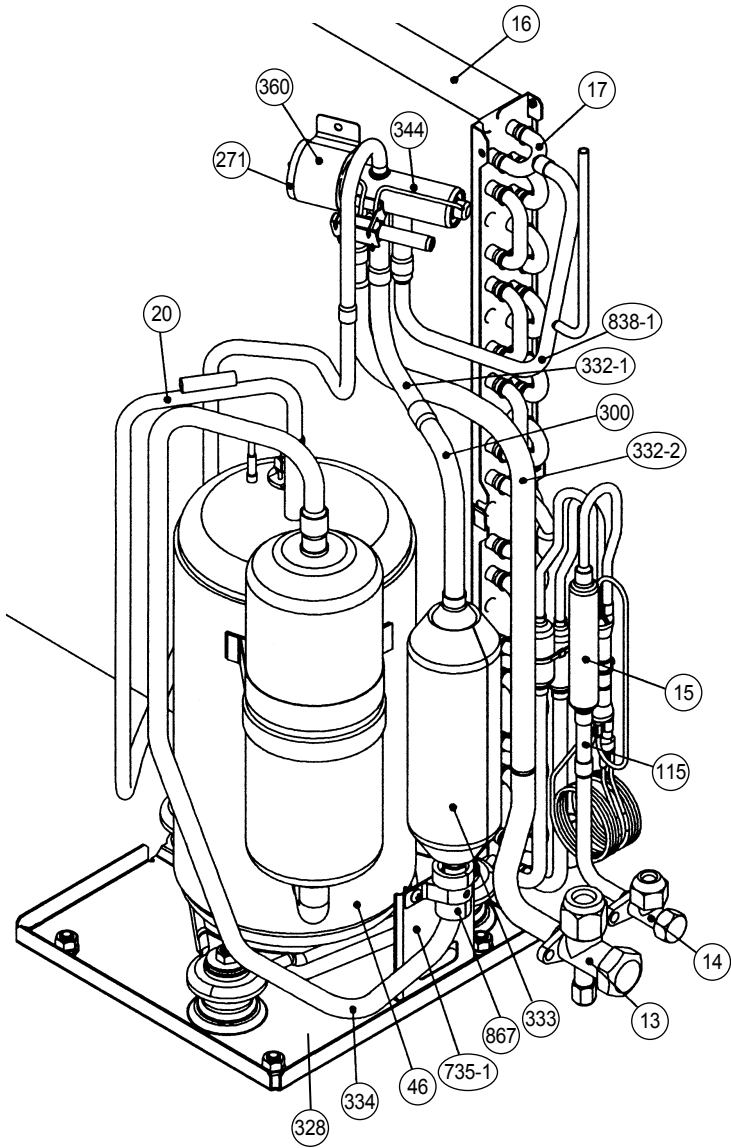


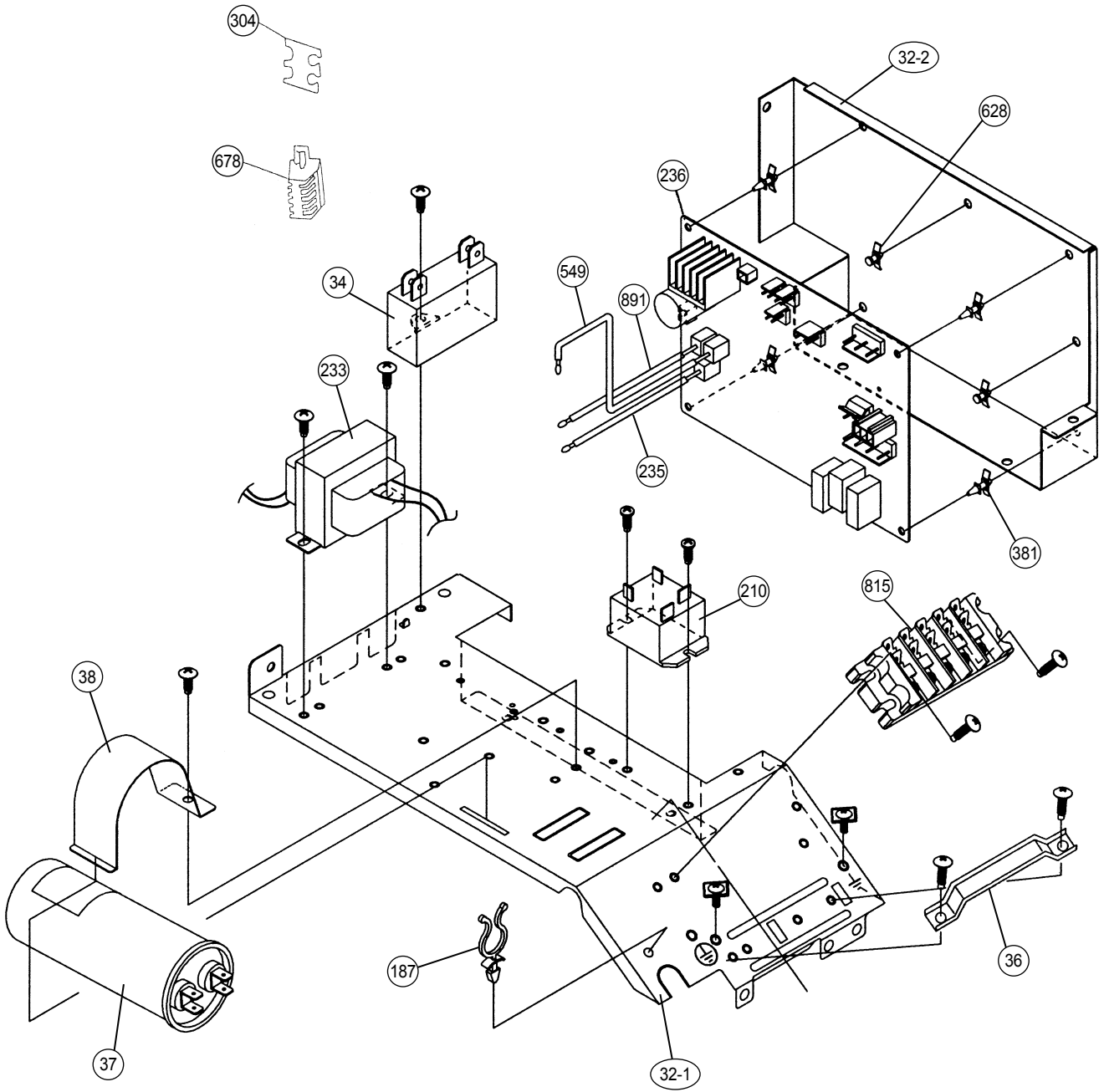




Models : AOG18RNDL  
AOY18RNDL  
AOT18RNDL







# PARTS LIST

## INDOOR UNIT

Ref. No.	Description	Part No.						Ord. Qty
		ARG18RLC	ARG18RLCH	ARY18RLC	ARY18RLCH	ART18RLC	ART18RLCH	
34	Capacitor (Fan Motor)	9357965017	9357965017	9357965017	9357965017	9357965017	9357965017	
56	Sirocco Fan Assy	9358621004	9358621004	9358621004	9358621004	9358621004	9358621004	
63	Front Panel Assy	9363723007	9363723007	9363723007	9363723007	9363723007	9363723007	
67	Rubber (Vibration-proof)	313659068604	313659068604	313659068604	313659068604	313659068604	313659068604	
74	Filter	9366833017	9366833017	9366833017	9366833017	9366833017	9366833017	
109	Casing Assy	9363322002	9363322002	9363322002	9363322002	9363322002	9363322002	
126	Motor Fixing Table Assy	9358591000	9358591000	9358591000	9358591000	9358591000	9358591000	
138	Panel Assy (Motor)	9363401004	9363401004	9363401004	9363401004	9363401004	9363401004	
143-1	Clamp NK-3N	313361274700	313361274700	313361274700	313361274700	313361274700	313361274700	
146	Evaporator Assy	9364456010	9364456010	9364456010	9364456010	9364456010	9364456010	
147	Inlet Pipe (Eva. ) Assy	9363382006	9363382006	9363382006	9363382006	9363382006	9363382006	
160	Drain Pan Assy	9364502021	9364502021	9364502021	9364502021	9364502021	9364502021	
164	Fan Motor Assy	9600778173	9600778180	9600778173	9600778180	9600778173	9600778180	
173	Hook Metal	9363195002	9363195002	9363195002	9363195002	9363195002	9363195002	
184-1	Thermo. Spring-A	313728262708	313728262708	313728262708	313728262708	313728262708	313728262708	
195	Clamp SKB-100	313361275805	313361275805	313361275805	313361275805	313361275805	313361275805	
196-2	Clamp SKB-150	313035356905	313035356905	313035356905	313035356905	313035356905	313035356905	
223	Control Box	9366299004	9366299004	9366299004	9366299004	9366299004	9366299004	
232	Outlet Pipe (Eva. ) Assy	9363392005	9363392005	9363392005	9363392005	9363392005	9363392005	
234	Thermistor Assy-Room	9703299018	9703299018	9703299018	9703299018	9703299018	9703299018	
235	Thermistor Assy-Pipe	9703297052	9703297052	9703297052	9703297052	9703297052	9703297052	
236	Controller PCB Assy	9704557155	9704557155	9704557155	9704557155	9704557155	9704557155	
240	Remote Control Unit	9703173059	9703173059	9703173059	9703173059	9703173059	9703173059	
244	Cover (Piping)	9363327007	9363327007	9363327007	9363327007	9363327007	9363327007	
287	Cap (Power)	9352173011	9352173011	9352173011	9352173011	9352173011	9352173011	
320-1	Wire Clamp Metal	313483219905	313483219905	313483219905	313483219905	313483219905	313483219905	
338	Motor Fixture	9358594001	9358594001	9358594001	9358594001	9358594001	9358594001	
380	Locking Spacer	313209391403	313209391403	313209391403	313209391403	313209391403	313209391403	
381-4	Locking Spacer	0600118075	0600118075	0600118075	0600118075	0600118075	0600118075	
464	Cover (Cabinet)	9363400007	9363400007	9363400007	9363400007	9363400007	9363400007	
514	Control Box Cover	9363201000	9363201000	9363201000	9363201000	9363201000	9363201000	
567	Support Plate (Eva. )	9363404005	9363404005	9363404005	9363404005	9363404005	9363404005	
588-1	Bracket Eva. -R	9363199000	9363199000	9363199000	9363199000	9363199000	9363199000	
588-2	Bracket Eva. -L	9363198003	9363198003	9363198003	9363198003	9363198003	9363198003	
625	Cord Bushing	9359240006	9359240006	9359240006	9359240006	9359240006	9359240006	
653-1	Bolt (Fan Motor Fixing)	0700156014	0700156014	0700156014	0700156014	0700156014	0700156014	
734	Panel Top	9363504002	9363504002	9363504002	9363504002	9363504002	9363504002	
761	Side Panel-R Assy	9363507003	9363507003	9363507003	9363507003	9363507003	9363507003	
762	Side Panel-L Assy	9363505009	9363505009	9363505009	9363505009	9363505009	9363505009	
815	Terminal-7P	9703403019	9703403019	9703403019	9703403019	9703403019	9703403019	
875	Filter PCB Assy	9703583018	9703583018	9703583018	9703583018	9703583018	9703583018	
982-1	Cord Clamp	9356857009	9356857009	9356857009	9356857009	9356857009	9356857009	
982-2	Cord Clamp-B	9356858006	9356858006	9356858006	9356858006	9356858006	9356858006	

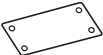










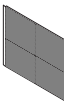
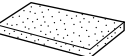

# OUTDOOR UNIT

Ref. No.	Description	Part No.			Ord. Q'ty
		AOG18RNDL	AOY18RNDL	AOT18RNDL	
2	Fan Cover	9350214020	9350214020	9350214020	
4	Emblem-Rear	313791088308	9351355005	9351355005	
5	Cabinet-A, Painted	9303876015	9303876015	9303876015	
6	Cabinet-C, Painted	9353549013	9353549013	9353549013	
7	Connector Cover	9358011010	9358011010	9358011010	
8	Wire Assy (Shield)-D	9370945041	9370945041	9370945041	
9	Cabinet-B, Painted	9303874011	9303874011	9303874011	
10	Noise Insulation-E	313791106305	313791106305	313791106305	
12	Base Assy, Painted	9353452054	9353452054	9353452054	
13	3-Way Valve Assy	9364523002	9364523002	9364523002	
14	2-Way Valve Assy	9365021002	9365021002	9365021002	
15	Dryer	9368111014	9368111014	9368111014	
16	Condenser Assy	9353455048	9353455048	9353455048	
17	U-Pipe (Y)	313728127102	313728127102	313728127102	
20	Discharge Pipe Assy	9371581019	9371581019	9371581019	
26	Compressor Cover	9363020007	9363020007	9363020007	
29	Separate Wall	9302475011	9302475011	9302475011	
32-1	Control Box Metal-A	9357137001	9357137001	9357137001	
32-2	Control Box Metal-B	9357138008	9357138008	9357138008	
34	Capacitor (Fan Motor)	9357965024	9357965024	9357965024	
36	Cord Holder Metal	9356934007	9356934007	9356934007	
37	Running Capacitor	9704436023	9704436023	9704436023	
38	Capacitor Clamp	9351770013	9351770013	9351770013	
39	Propeller Fan Assy	9300855013	9300855013	9300855013	
41	Fan Motor Assy-Out	9600738207	9600738207	9600738207	
45	Bracket (Motor) Assy	313029311100	313029311100	313029311100	
46	Compressor Assy	9367240005	9367240005	9367240005	
55	Special Nut M8 (For Comp. )	9355091008	9355091008	9355091008	
67	Rubber (Vibracion-proof)	313659068604	313659068604	313659068604	
107	Rubber Seat-A (For Comp. )	9351049010	9351049010	9351049010	
109	Terminal Cover (For Comp. )	9351048013	9351048013	9351048013	
115	Joint Pipe (Dryer)	9365406007	9365406007	9365406007	
187	Clamp No. 1219	313361271706	313361271706	313361271706	
210	Main Relay	9356781007	9356781007	9356781007	
233	Power Transformer	9900039011	9900039011	9900039011	
235	Thermistor (Heat)	9900043025	9900043025	9900043025	
236	Controller PCB Assy	9704299048	9704299048	9704299048	
271	4-Way Valve Rubber	313728251908	313728251908	313728251908	
300	Suction Pipe-C	9371276021	9371276021	9371276021	
304	Thermostat Fixture-B	313349051500	313349051500	313349051500	
328	Comp Plate Assy	9363049039	9363049039	9363049039	
332-1	Suction Pipe-D	9367135004	9367135004	9367135004	
332-2	Suction Pipe-E	9369004001	9369004001	9369004001	
333	Accumulator	9350363018	9350363018	9350363018	
334	Suction Pipe-B	9371275055	9371275055	9371275055	
338	Motor Fixture	313029297108	313029297108	313029297108	
343	Solenoid Coil	9359616108	9359616108	9359616108	
344	4-Way Valve	313943302804	313943302804	313943302804	
348-1	Outlet Pipe-B	9365391020	9365391020	9365391020	
360	4-Way Valve Band	313986251802	313986251802	313986251802	
381	Locking Spacer	313209391506	313209391506	313209391506	
549	Thermistor (Out Temp. )	9900037017	9900037017	9900037017	
628	Locking Spacer-B	313005446558	313005446558	313005446558	
646	Compressor Cover-B	9363021004	9363021004	9363021004	
678	Bracket (Thermistor)	313557406106	313557406106	313557406106	
717	Center Plate	9350216017	9350216017	9350216017	
735-1	Accumulator Supporter	9362274005	9362274005	9362274005	
735-2	Outlet Pipe Assy	9371580012	9371580012	9371580012	
735-3	Capillary Assy	9371287034	9371287034	9371287034	
815	Terminal-5P	9356497021	9356497021	9356497021	
838-1	Inlet Pipe-A Assy	9366859017	9366859017	9366859017	
867	Accumulator Holder Rubber	9354022027	9354022027	9354022027	
891	Thermistor Discharge	9900038014	9900038014	9900038014	
910	Strainer-B	9365099018	9365099018	9365099018	







# STANDARD ACCESSORIES

## INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Parts No.	
			ARG18RLC, ARG18RLCH ARY18RLC ARY18RLCH ART18RLC, ART18RLCH	ARY18RLBH
Installation template 	1	For positioning the indoor unit	9364225005	9364225005
Hook metal 	4	For suspending the indoor unit from ceiling	9363195002	9363195002
Tapping screw (ø 3 x 12) 	8	For installing the hanger	301171164104	301171164104
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling	313005446653	313005446653
Special nut B (small flange) 	4		313005446759	313005446759
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe)	9350716029	9350716029
Coupler heat insulation (small) 	1	For indoor side pipe joint (small pipe)	9352766015	9352766015
Binder 	(Small) 1	For remote controller and remote controller cord binding	313361275805	313361275805
	(Large) 4	For fixing the coupler heat insulation	312300787605	312300787605
Remote control unit 	1		9703173059	9703173097
Remote control unit cord clamp 	10	For installing the remote controller cord	313714181904	313714181904
Tapping screw (flush heads) 	10	For installing the remote controller cord clamp	301141153027	301141153027
Filter 	3		9366833017	9366833017
Drain hose insulation 	1	Insulates the drain hose and vinyl hose connection	313806217708	313806217708
Remote sensor kit 	1	For measuring the indoor temperature (refer to the remote sensor installation manual.)	—	9370640014

## OUTDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Parts No.
Hexagon wrench 	1	For vacuum	9351228019
Pipe (drain) 	1		313728031005
Flexible tube 	1	For outdoor unit drain piping work (May not be supplied, depending on the model)	313013042915
Cap (drain) 	2		313166024302

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