

Multi Air Conditioning System for Buildings

VRF (FREELY SELECTABLE MULTI TYPE SYSTEM)

SERVICE MANUAL



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1. OUTLINE OF SYSTEM

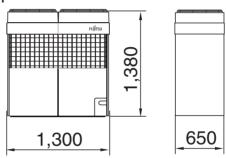
1-1 MODEL CONSTRUCTION

■ OUTDOOR UNITS

TYPE	POWER SOURCE 3 PHASE 4 LINE	CAPACITY RANGE
COOLING ONLY	380∼415V 50Hz	28.0 kW
HEAT PUMP	380∼415V 50Hz	28.0 kW
HEAT RECOVERY	380∼415V 50Hz	28.0 kW



Compact size



• Serial installation possible



■ INDOOR UNITS

10 types, 39 models ranging from 2.15kW to 17.0kW.

O:2002~

	Туре	Ceiling/ Floor	Ceiling	Duct	Duct	Duct	Duct (High Static Pressure)	Cassette (compact)	Cassette	Wall mounted	Wall mounted
	Capacity	A 40 27	======			1000			The state of	10 10 10 10 10 10 10 10 10 10 10 10 10 1	
kw	Model code				ļ.						
14.1 (17.0)	54 (60)		•		-		•		•		
12.7	45		•				•				
10.5	36		•			•	•		•		
8.8	30		•			•			•	•	
6.8 (7.05)	24 (25)	•				•			•	•	
5.3 (5.7)	18 (20)	•			•			•	•	•	
4.05	14	•			•			•		•	0
3.6	12	•			•			•			0
2.8	9			•				•			0
2.15	7			•				•			0

■ RB (REFRIGERANT BRANCH) UNIT

Model	Max. connectable indoor units
UTF-Y90A4A	4
UTF-Y54A1A	1

★ Above units are required during heat recovery operation.

■ SEPARATION TUBE

Туре	Model	Total model code of connectable indoor unit
Cooling only	UTR-BP54A	Less than 60
Heat pump	UTR-BP90A	More than 61 or more
Hoot recovery	UTR-BP54R	Less than 60
Heat recovery	UTR-BP90R	More than 61 or more

■ HEADER

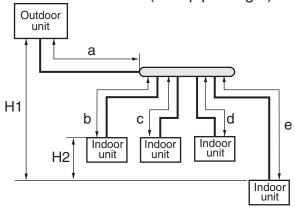
Туре	Model	Connectable indoor units
Cooling only	UTR-HD906A	3 ~ 6
Heat pump	UTR-HD908A	7 ~ 8
Hoot roccyony	UTR-HD906R	3 ~ 6
Heat recovery	UTR-HD908R	7 ~ 8

1-2 SYSTEM CONSTRUCTION CONDITIONS

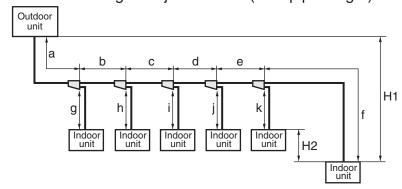
1-2-1 REFRIGERANT PIPING

■ COOLING ONLY / HEAT PUMP MODEL

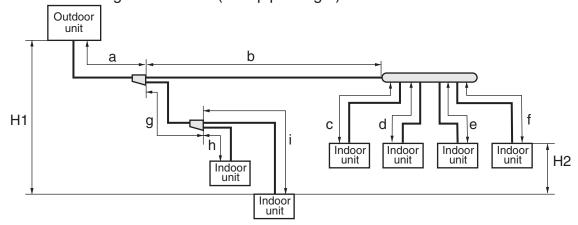
- a+e ≤ 100m (actual pipe length)
- Difference in height between outdoor unit and indoor units (H1) maximum 50m. (For the outdoor unit stated below:maximum 40m)
- Difference in height between adjacent indoor units (H2) maximum 15m.
- e ≤ 40m (actual pipe length)
- a ≤ 70m (actual pipe length)
- $a+b+c+d+e \le 200m$ (total pipe length)



- a+b+c+d+e+f ≤ 100m (actual pipe length)
- Difference in height between outdoor unit and indoor units (H1) maximum 50m.
- Difference in height between adjacent indoor units (H2) maximum 15m.
- From outdoor unit to first separation tube a ≤ 70m (actual pipe length)
- b+c+d+e+f ≤ 40m (actual pipe length)
- a+b+c+d+e+f+g+h+i+j+k ≤ 200m (total pipe length)



- a+g+i \leq 100m a+b+f \leq 100m (actual pipe length)
- Difference in height between outdoor unit and indoor units (H1) maximum 50m.
- Difference in height between adjacent indoor units (H2) maximum 15m.
- a ≤ 70m (actual pipe length)
- g+i \leq 40m b+f \leq 40m (actual pipe length)
- a+b+c+d+e+f+g+h+i ≤ 200m (total pipe length)



PIPE SIZE

COOLING ONLY / HEAT PUMP MODEL

• Pipe size connected to outdoor unit.

(unit: mm)

Model	Gas Pipe	Liquid Pipe
AO 90	φ 28.58	φ 12.7

• Between two adjacent refrigerant branch kits.

(unit: mm)

Total model code of indoor unit	Gas Pipe	Liquid Pipe	Separation Kit	
Less than 30	φ 15.88	φ 9.53	UTR-BP54A	
31 or more to 60	φ 19.05	φ 9.53		
61 or more	φ 28.58	φ 12.7	UTR-BP90A	

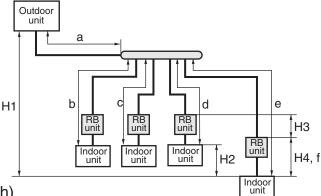
• Connection pipe size of indoor unit.

(unit: mm)

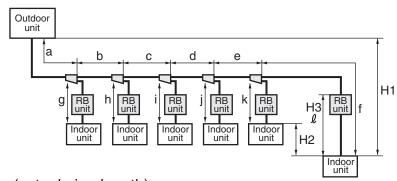
Model code of indoor unit	Gas Pipe	Liquid Pipe
7, 9	φ 9.53	φ 6.35
12, 14 **(18)	φ 12.7	φ 6.35
18, 20, 24, 25	φ 15.88	φ 6.35
30	φ 15.88	φ 9.53
36, 45, 54, 60	φ 19.05	φ 9.53

■ HEAT RECOVERY MODEL

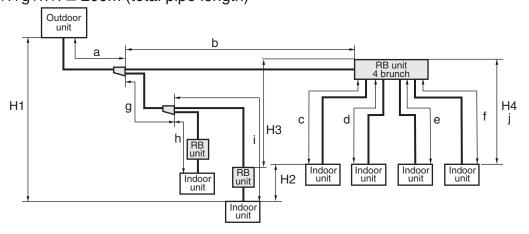
- a+e ≤ 100m (actual pipe length)
- Difference in height between outdoor unit and indoor units (H1) maximum 50m. (For the outdoor unit stated below: maximum 40m)
- Difference in height between adjacent indoor units (H2) maximum 15m.
- Difference in height between RB unit and RB unit (H3) 15m or less.
- Difference in height between RB unit and indoor unit (H4) 5m or less.
- e ≤ 40m (actual pipe length)
- f ≤ 10m (actual pipe length)
- $a+b+c+d+e \le 200m$ (total pipe length)



- a+b+c+d+e+f ≤ 100m (actual pipe length)
- Difference in height between outdoor unit and indoor units (H1) maximum 50m.
- Difference in height between adjacent indoor units (H2) maximum 15m.
- Difference in height between RB unit and indoor unit (H3) 5m or less.
- From outdoor unit to first separation tube a≤70m (actual pipe length)
- b+c+d+e+f \leq 40m (actual pipe length)
- $\ell \leq 10$ m (actual pipe length)
- a+b+c+d+e+f+g+h+i+j+k ≤ 200m (total pipe length)



- $a+g+i \le 100m$ $a+b+f \le 100m$ (actual pipe length)
- Difference in height between outdoor unit and indoor units (H1) maximum 50m.
- Difference in height between adjacent indoor units (H2) maximum 15m.
- Difference in height between RB unit and RB unit (H3) 15m or less.
- Difference in height between RB unit and indoor unit (H4) 5m or less.
- $q+i \le 40m$ $b+f \le 40m$ (actual pipe length)
- j ≤ 10m (actual pipe length)
- a+b+c+d+e+f+g+h+i ≤ 200m (total pipe length)



HEAT RECOVERY MODEL

• Pipe size connected to outdoor unit.

(unit:mm)

Model	Suction Gas Pipe	Discharge Gas Pipe	Liquid Pipe
AO 90	φ 28.58	<i>φ</i> 19.05	φ 12.7

• Between two adjacent refrigerant branch kits.

(unit: mm)

Total model code of indoor unit	Suction Gas Pipe	Discharge Gas Pipe	Liquid Pipe	Separation Kit	
Less than 30	φ 15.88	φ 12.7	φ 9.53	UTR-BP54R	
31 or more to 60	φ 19.05	φ 15.88	φ 9.53	UIN-DF54N	
61 or more	φ 28.58	φ 19.05	φ 12.7	UTR-BP90R	

• Connection pipe size of indoor unit.

(unit:mm)

Model code of indoor unit	Gas Pipe	Liquid Pipe
7, 9	φ 9.53	φ 6.35
12, 14	φ 12.7	φ 6.35
18, 20, 24, 25	φ 15.88	φ 6.35
30	φ 15.88	φ 9.53
36, 45, 54, 60	φ 19.05	φ 9.53

ADDITIONAL CHARGE

- Up to a pipe length of 7.5 m, charging with additional refrigerant is not necessary.
- If the pipe length exceeds 7.5 m, charging with refrigerant is necessary.
- Charge with additional refrigerant in the amounts shown in the table below.

(1) Pipe length

Liquid pipe (mm)	φ 12.7	φ 9.53	φ 6.35
Additional refrigerant (R407C) (kg/m)	0.1	0.05	0.03

(2) System type

It is necessary to add refrigerant to all connected Indoor unit.

Add refrigerant to the corresponding type as shown in the Table for every connected Indoor unit to the refrigerant system.

Example: When AR30 x2 and AU18 x2 are connected to the refrigerant system.

" Additional charge of system type" is 1.0(kg)x2 +0.65(kg)x2=3.3(kg)

Model / Model code	7	9	12	14	18	20	24/25	30	36	45	54	60
AS	_			0.9		0.9	0.9	0.9		_	_	
AU	0.65	0.65	0.65	0.65	0.65	0.8	8.0	8.0	1.5	1.5	1.5	
AB			0.65	0.65	0.65	_	1.0	1.0	1.0	1.0	1.0	_
AR	0.4	0.4	0.45	0.45	0.7	_	1.0	1.0	2.0	2.0	_	2.0

amount of refrigerant (kg)

ADDITIONAL CHARGE = (1) + (2)

1-2-2 SYSTEM WIRING

Use		Size		Wire type	Remarks		
	Outdoor	Maximum	8.0	H07RN-F or	3∮4 wire 50Hz	 <u> </u>	
Power supply	unit	Minimum	inimum 6.0 equivalent		380-415V	**	
cable (mm²)	Indoor	Maximum	2.5	H07RN-F or	10/2 wire 50Hz	<u></u>	
	unit	Minimum	1.5	equivalent	220-240V	*	
Transmission		Maximum	1.25	Shield cord	Non-polar	 	
cable (mm²)		Minimum	0.75	(LONWORKS compatible part)	2-core	× 3	
Wired remote control		Maximum	1.25	Sheathed vinyl	Dolon C. como		
cable (mm²)		Minimum	0.75	cord cable	Polar 3-core	×4	

- % 1,2 The grounding wire is not included in this cable.
 Always ground the unit.
- ※3 Do not bundle the transmission cable with other wires.
 Transmission cable between each unit: 200m max
 - *Each unit means indoor unit,outdoor unit,central remote controller, and signal amplifier.

Total wiring length:maximum 2000m.

However, when wiring exceeds 500m in length,

a signal amplifier (option) is required.

Use the shielded wire specified and always ground(however, one side only).

If not,transmit-receive with a transmission line is not only impossible normally,but malfunction may occur.

×4 10m cable attached.

Use the shielded cable in accordance with standards in the country.

Wiring length of a remote controller group shall be within 500m.

	Model	Field fuse	Leakage breaker
Fuse capacity	Outdoor unit	40A ※ 5	40A 100mA 0.1sec or less
oupdony	Indoor unit	20A ※6	20A 40mA 0.1sec or less

- ☆ 6 per one refrigerant system.

1-3 ADDRESS SETTING

This system is needed to set the address for the indoor unit, outdoor unit and remote controller and central remote controller.

(1) KINDS OF ADDRESS AND SETTING RANGE

UNIT	SETTING	SETTING RANGE	TYPE OF SWITCH	REMARKS
Outdoor unit	Refrigerant circuit address	0~99	Setting example 0 SW 9 SW 8	Show next page
	Refrigerant circuit address	0~99	Setting example 63 SW 8 SW 7	Chew Hoxt page
Indoor unit	Indoor unit address	0~15	Setting example 2 SW 5	
	Remote controller address	0~15	Setting example 0 SW 9	
	Remote controller switch 1	ON/OFF	DIP SW1-1	Terminator
Remote controller	Number of indoor unit connection	ON/OFF	DIP SW1-2	Number of indoor unit OFF : 1 unit ON : multiple unit
	Remote controller switch 2	ON/OFF combi- nation	DIP SW1-4	Shown below
Central remote controller	Central remote controller address	0~15	Initial setting	

INDOOR UNIT CONTROL METHOD

DSW1-4	METHOD	REMARKS					
OFF	Master	Allocate remote control addresses					
ON	Slave	by order from the master unit					

Refrigerant circuit address conversion table

Outdoor unit
Rotary switch (SW 8)- - - Factory setting "0"
Rotary switch (SW 9)- - - Factory setting "0"
Indoor Unit

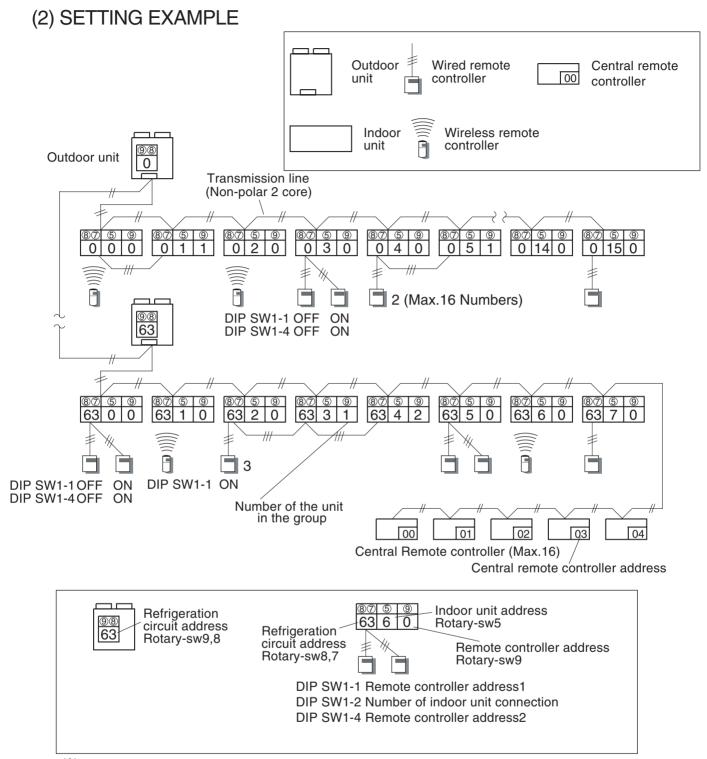
Rotary switch (SW 7)- - - Factory setting "0"
Rotary switch (SW 8)- - - Factory setting "0"
In case of multiple refrigerant system,set SW 8 and SW 9 Indoor unit SW7 and SW8 as shown

in the table for each refrigerant system.

Do not use a nonexistent switch setting combination.

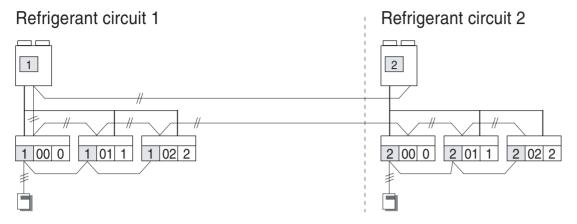
Example: When SW 9 is set to "1" and SW 8 is set to "14" the refrigerant circuit address will be "30".

Refrigerant	Rot	arv	Refrigerant	Rot	arv	Refrigerant	Rot	arv	Refrigerant	Rot	ary	Refrigerant	Rot	arv
	1	setting	circuit	l	setting	•	Switch	•			setting	circuit	l .	setting
address	OUTDO		address		OR UNIT	address	OUTDO		address		OR UNIT	address		OR UNIT
address	SW9	SW8	audiess	SW9	SW8	addiess	SW9	SW8	audiess	SW9		addiess	SW9	SW8
		R UNIT			R UNIT	•	INDOO				R UNIT			R UNIT
	SW8	SW7		SW8	SW7		SW8	SW7		SW8	SW7		SW8	SW7
0	0	0	20	1	4	40	2	8	60	3	12	80	5	0
1	0	1	21	1	5	41	2	9	61	3	13	81	5	1
2	0	2	22	1	6	42	2	10	62	3	14	82	5	2
3	0	3	23	1	7	43	2	11	63	3	15	83	5	3
4	0	4	24	1	8	44	2	12	64	4	0	84	5	4
5	0	5	25	1	9	45	2	13	65	4	1	85	5	5
6	0	6	26	1	10	46	2	14	66	4	2	86	5	6
7	0	7	27	1	11	47	2	15	67	4	3	87	5	7
8	0	8	28	1	12	48	3	0	68	4	4	88	5	8
9	0	9	29	1	13	49	3	1	69	4	5	89	5	9
10	0	10	30	1	14	50	3	2	70	4	6	90	5	10
11	0	11	31	1	15	51	3	3	71	4	7	91	5	11
12	0	12	32	2	0	52	3	4	72	4	8	92	5	12
13	0	13	33	2	1	53	3	5	73	4	9	93	5	13
14	0	14	34	2	2	54	3	6	74	4	10	94	5	14
15	0	15	35	2	3	55	3	7	75	4	11	95	5	15
16	1	0	36	2	4	56	3	8	76	4	12	96	6	0
17	1	1	37	2	5	57	3	9	77	4	13	97	6	1
18	1	2	38	2	6	58	3	10	78	4	14	98	6	2
19	1 1	3	39	2	7	59	3	11	79	4	15	99	6	3



- Instructions for setting up the address
 - 1 The refrigerant system address of the indoor and outdoor units can be set to optional numbers in the range of 0 and 99.
 - 2 Address of the indoor unit can be set to optional numbers in the range of 0 to 15.
 - 3 Set address of the remote controller in the order of 0,1,2,...15.(Blank is impossible)
 - 4 Address of the central remote controller can be set to optional numbers in the range of 0 to 15.

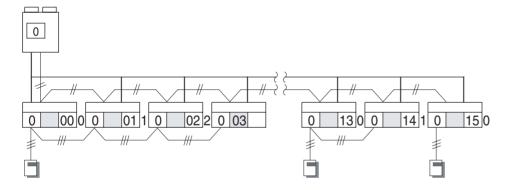
- ① Refrigerant circuit address (Outdoor unit)
- 2 Refrigerant circuit address (Indoor unit)



Outdoor unit PCB (Address setting No.0~99) Setting by rotary SW8,9

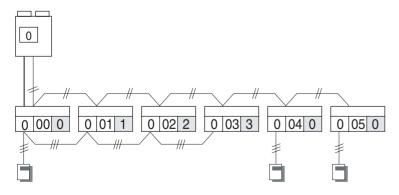
Indoor unit PCB (Address setting No.0~99) Setting by rotary SW7,8

3 Indoor unit address



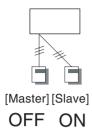
Indoor unit PCB (Address setting No. 0 \sim 15) Setting by rotary SW5

④ Remote controller address (Indoor unit)



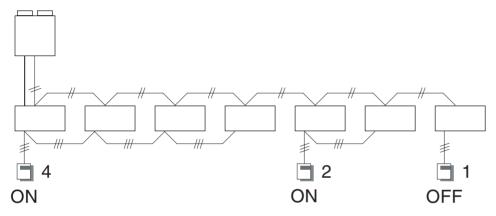
Indoor unit PCB (Address setting No.0~15)
Setting by rotary SW9

(5) Remote controller switch 1



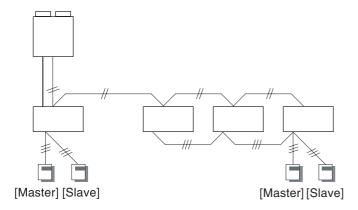
Remote controller unit PCB Setting by DIP SW 1-1

6 No. indoor unit connection



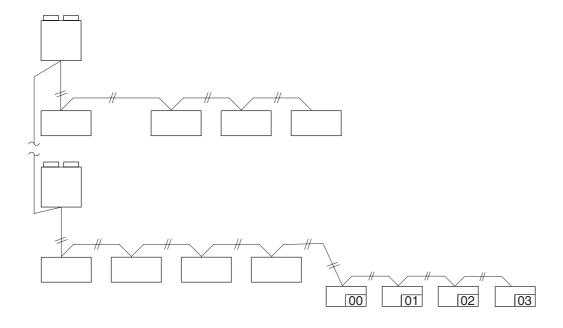
Remote controller PCB Setting by DIP SW 1-2

? Remote controller switch 2 (Remote controller)



Remote controller unit PCB Setting by DIP SW 1-4

(8) Central remote controller address



Central remote controller (Max.16)

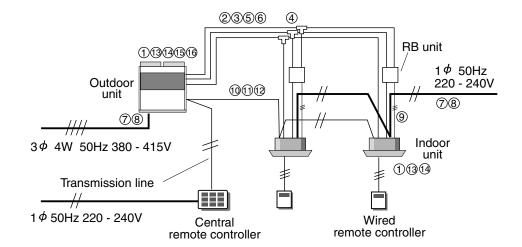
• Set central remote controller address first,to conduct the initial setting of it.

2. TEST RUN

2-1 CHECK ITEMS BEFORE TEST RUNNING

Before test running, check the following items.

Note: RB unit (9) is for the heat recovery type.



- ① Is the selection of the outdoor unit and the indoor unit correct? (Maximum operating indoor unit, total capacity of the indoor unit)
- ② Is the piping length correct?
 (Ex. Maximum piping length: 100m)
- 3 Is the diameter of the pipe selected correct?
- 4 Is the separate selected correct?
- ⑤ Doesn't gas leak?
- 6 Is the refrigerant flow correct?
- Are the power supplies connected?
 (Power supply for the indoor unit and outdoor unit is separated.)
- 8 Is the spec. for the power supply cable correct?
- 9 Is the RB unit cable connected?
- 1 Is the length of the transmission line under the limit?
- (non-polar 2-core, 0.75-1.25mm²)
- 12 Is the transmission cable connected to all units?
- 3 Are the addresses set? (Ex. Refrigerant circuit address, indoor unit address, remote controller address, etc.)
- Have the all settings done on the PCB?
- 15 Is the refrigerant valve opened?
- 6 Is the power supplied to crank case heater for 12 hours before winter operation?

2-2 TEST RUNNING METHOD

Supply power to the crankcase heater for 12 hours prior to the start of operation in the winter. The following is the procedure for the test operation.

2-2-1 OUTDOOR PC BOARD

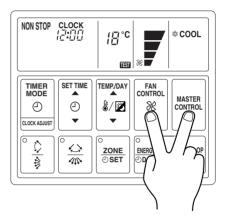
If the test operation is to be done for cooling operation, set DIP switch (SW-1-1) to on. If the test operation is to be done for heating, set DIP switch (SW1-2) to on.

2-2-2 TEST OPERATION USING REMOTE CONTROLLER

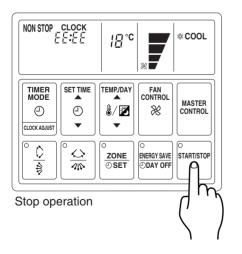
(1) Standard wired remote controller

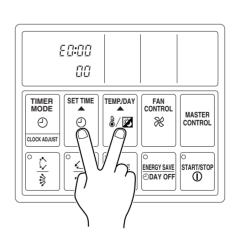
For test running, when the remote controller FAN CONTROL button and MASTER CONTROL button are pressed simultaneously for more than three seconds when the air conditioner is not running, the air conditioner starts and TEST is displayed on the remote controller display.

However, the SET TEMP./DAY setting button does not function, but all other buttons, displays, and protection functions operate.



•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. In addition, the remote controller address will be displayed below. When the operation lamp lights, press the START/STOP button and after operation lamp goes off, perform the same operation.





Error Code	Error contents
E:00	No error
E:02	Model information abnormal
E:04	Power supply frequency abnormal
E:05	EEPROM access error
E:07	EEPROM elimination error
E:09	Room temperature thermistor error
E:OA	Indoor unit heat exchange thermistor (middle) error
E:Ob	Indoor unit heat exchange thermistor (inlet) error
E:OE	Indoor unit heat exchange thermistor (exit) error

Error Code	Error contents
E:0d	Blower temperature thermistor error
E: { {	Drain abnormal
E: 12	Room temperature abnormal
E: {3	Indoor unit fan error
E: #F	Communication error
E:20	Node setting error
E:21	Parallel communication error
E:32	Outdoor unit error

- 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) Standard wireless remote controller

- Press the remote control unit test run button while the air conditioner is running.
- At the end of test running, press the remote control unit startstop button.

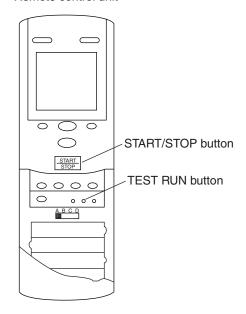
Operation can be checked by lighting and flashing of the display section OPERATION and TIMER lamps.

Perform judgment in accordance with the following.

Test running

When the air conditioner is run by pressing the remote control unit test run button, the OPERATION and TIMER lamps flash slowly at the same time.

Remote control unit



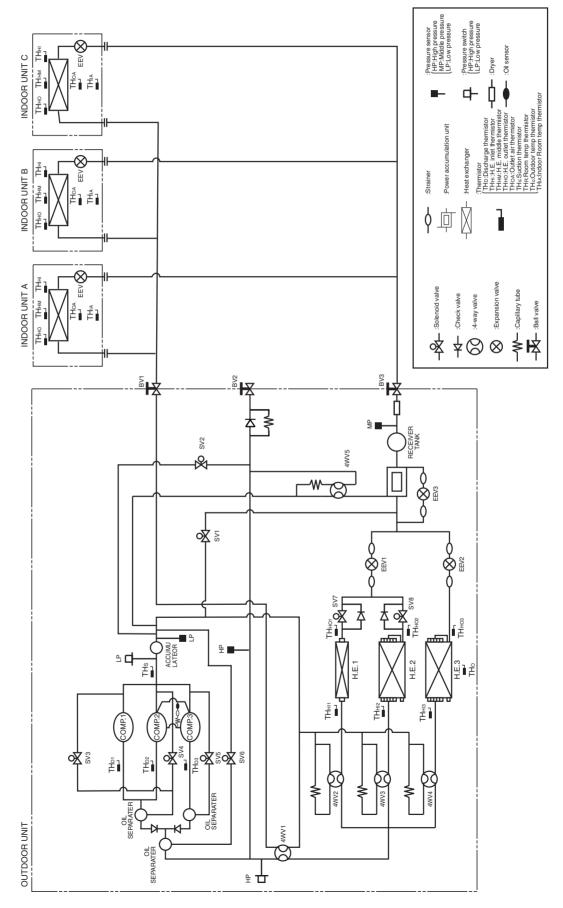
2-3 TEST RUN CONTROL

- 1) When the test run signal is transmitted from the standard wired remote controller, the wireless remote controller and the central remote controller.
 - (1) In the test running status, operated in accordance with the setting of each switch besides the room temperature switch. The room temperature adjustment does not funtion, and then the electric expansion valve is controlled with maximum flow.
 - (2) De-frosting and de-icing prevention has priority over item(1).
 - (3) After 60 minutes passes, the test run stops.
- 2) When the test run signal is transmitted from the outdoor unit.
 - (1) Whether state of the indoor unit operates or stops, test run will be made in accordance with the operation mode of the indoor unit , which belongs to the same refrigerant system.
 - (2) Test running initialization is shown below.

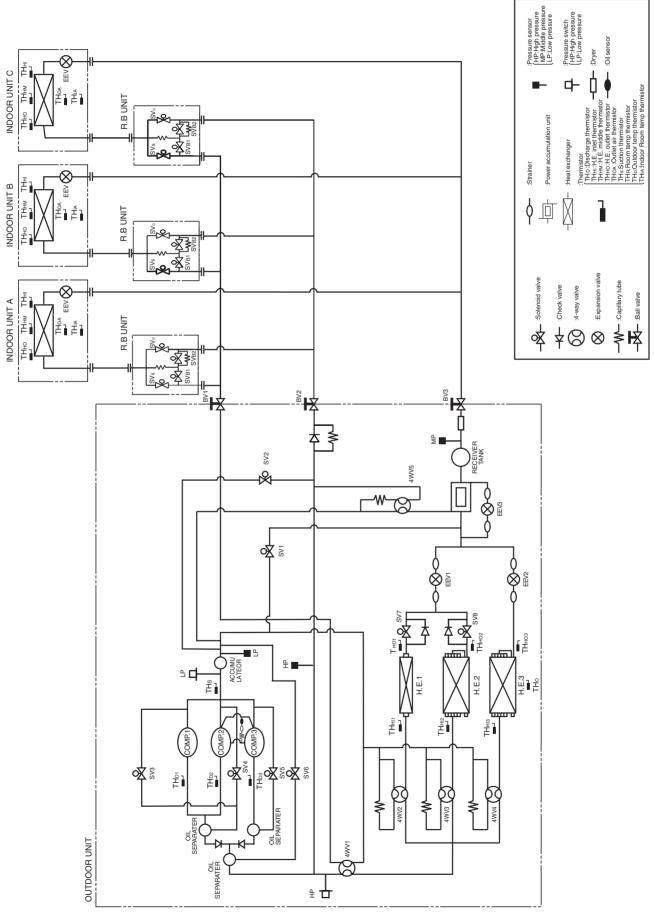
Operating Mode	Cooling	Heating		
Air Flow	Hi	Hi		
RoomTemperature Indication	18	30		
Vertical Air Direction Panel	Initialized position	Initialized position		
Horizontal Air Direction Panel	Front	Front		
Swing	OFF	OFF		

3.REFRIGERANT PIPE SYSTEM DIAGRAM

3-1 COOLING ONLY / HEAT PUMP TYPE



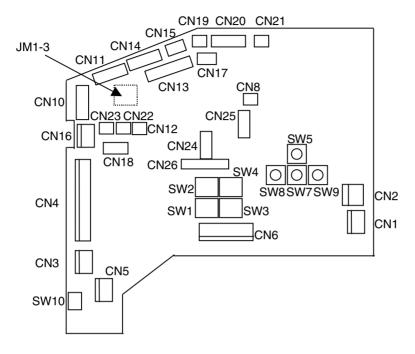
3-2 HEAT RECOVERY TYPE



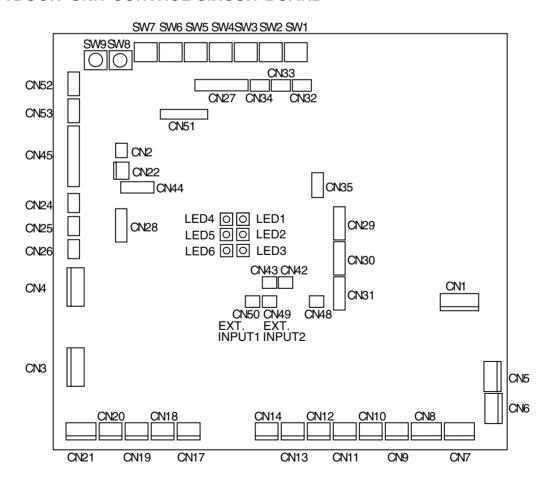
4. FUNCTION OF PRINTED CIRCUIT BOARD

4-1 PCB LAYOUTS

■ INDOOR UNIT CONTROL CIRCUIT BOARD

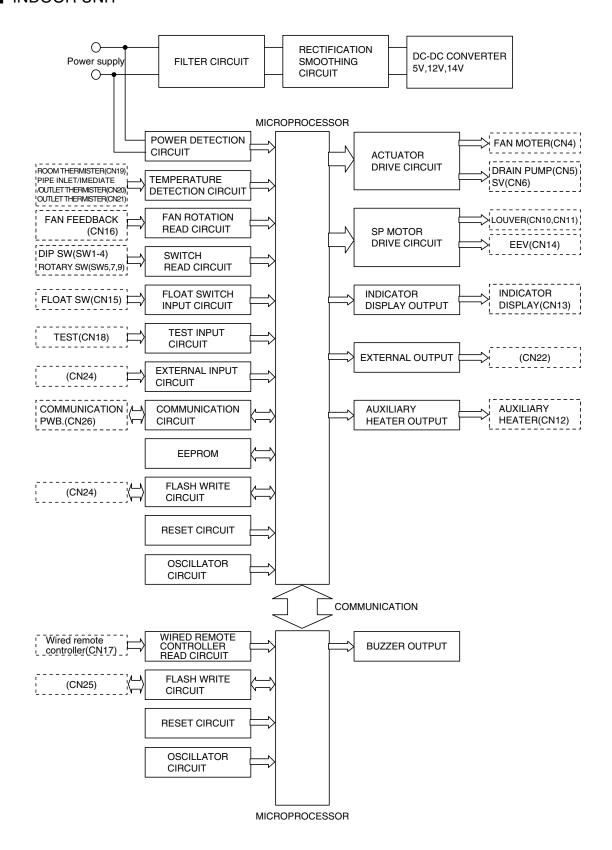


■ OUTDOOR UNIT CONTROL CIRCUIT BOARD

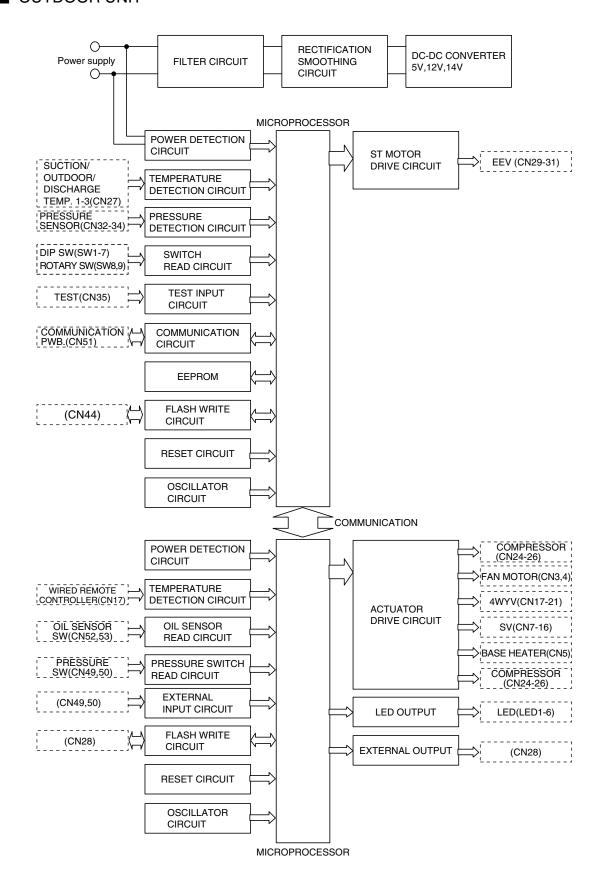


4-2 MICROPROCESSOR BLOCK DIAGRAM

■ INDOOR UNIT



OUTDOOR UNIT



4-3 MICROPROCESSOR FUNCTION LIST

■ INDOOR UNIT

INDOC	R UNIT TYPE	Large Ceiling	Universal	Compact Cassette	Large Cassette	Compact Duct		High Static Pressure Duct	Wall Mounted
	60,000							0	
	54,000	0		0					
	45,000	0		0			0		
	36,000	0		0			0		
	30,000	Ō		Ō			Ō		0
CAPACITY	24,000(25,000)	_	0		0		O25		O25
(BTU/h)	20,000		_				_		0
	18,000		0	0		0			
	14,000		Ö	0		Ō			
	12,000		Ö	0		Ö			
	9,000					0			
	7,000					0			
CN1	ACIN	0	0	0	0	0	0	0	0
CN1	TH FUSE)	0		\vdash		0
CN2	FAN CAPA	0	0		0	0	0	-	0
CN3	FAN CAPA FAN MOTOR	0	0	0	0	0	0		0
CN4 CN5	DRAIN PUMP			0	0	0	0		
								0	
CN6 CN8	S. VALVE	0	0	0	0	0	0	0	0
	NETWORK	0	0	0	0	0	0	0	0
CN10	SP-M(U.D)	0	0	0	0				0
CN11	SP-M(R,L)	0	0						0
CN12	HEATER	0	0	0	0	0	0	0	0
CN13	DISPLAY	0	0	0	0				0
CN14	E.E.VALVE	0	0	0	0	0	0	0	0
CN15	FLOAT SW			0	0	0	0	0	
CN16	FAN FEEDBACK	0							
CN17	WIRED REMOTE	0	0	0	0	0	0	0	0
	CONTROLLER)					
CN18	TEST								
CN19	R.TH	0	0	0	0	0	0	0	0
CN20	P.TH	0	0	0	0	0	0	0	0
CN21	S.TH	0	0	0	0	0	0	0	0
CN22	EXT.OUTPUT								
CN23	EXT.INPUT								
CN24	FLASH(MAIN)								
CN25	FLASH(SUB)							<u> </u>	
CN26	COMMUNICATE	0	0	0	0	0	0	0	0
SW1	FUNCTION 1	0	0	0	0	0	0	0	0
SW2	FUNCTION 2	0	0	0	0	0	0	0	0
SW3	FUNCTION 3	0	0	0	0	0	0	0	0
SW4	FUNCTION 4	0	0	0	0	0	0	0	0
SW5	INDOOR UNIT ADDRESS 1	0	0	0	0	0	0	0	0
SW6	INDOOR UNIT ADDRESS 2	0	0	0	0	0	0	0	0
SW7	REFRIGERANT ADDRESS 1	0	0	0	0	0	0	0	0
SW8	REFRIGERANT ADDRESS 2	0	0	0	0	0	0	0	0
SW9	REMOTE CONT- ROLLER ADDRESS	0	0	0	0	0	0	0	0
SW10	MANUAL AUTO	0	0	0			 	 	0

■ OUTDOOR UNIT

OUTD	OOR UNIT TYPE	AOY90TPAMF
CN1	AC IN	0
CN2	NET	0
CN3	FAN.1	0
CN4	FAN.2	0
CN5	BASE HEATER	
CN6	CRANK CASE HEATER	0
CN7	S.V.1	Ö
CN8	S.V.2	Ö
CN9	S.V.3	Ö
CN10	S.V.4	0
CN11	S.V.5	0
CN12	S.V.6	0
CN12	S.V.7	0
CN13	S.V.8	0
		0
CN17	4WV.1	0
CN18	4WV.2	_
CN19	4WV.3	0
CN20	4WV.4	0
CN21	4WV.5	0
CN22	TERMINATOR	0
CN24	COMP.1	0
CN25	COMP.2	0
CN26	COMP.3	0
CN27	TH.1	0
CN28	FLASH W/R S	
CN29	E.E.V.1	0
CN30	E.E.V.2	0
CN31	E.E.V.3	0
CN32	P.SEN-L	0
CN33	P.SEN-M	0
CN34	P.SEN-H	0
CN35	TEST	
CN42	P.SW-H	0
CN43	P.SW-L	0
CN44	FLASH W/R M	
CN45	TH.2	0
CN48	EXT.OUTPUT	
CN49	EXT.INPUT2	
CN50	EXT.INPUT1	
CN51	COMMUNICATION PWB.	0
CN52	OIL LV-HI	0
CN53	OIL LV-LO	0
SW1	FUNCTION 1	0
SW2	FUNCTION 1	0
SW3	FUNCTION 1	0
SW4	FUNCTION 1	0
 	FUNCTION 1 FUNCTION 1	0
SW5	FUNCTION 1 FUNCTION 1	0
SW6	FUNCTION 1 FUNCTION 1	0
SW7	REFRIGERANT	<u> </u>
SW8	ADDRESS 1	0
CITO	REFRIGERANT	
SW9	ADDRESS 2	0

4-4 FUNCTION AND SETTING OF EACH SWITCH

■ INDOOR UNIT

1. DIP SWITCH 1

① Ceiling height setting.

Changeover the fan speed of the indoor fan phase control according to ceiling height (cassette type). Details of rotation is according to DIP SW3 setting.

CEILING HEIGHT SETTING 1,2

			· · · · · · · · · · · · · · · · · · ·			
		Standard	Standard High ceiling 1 High ceil		Low ceiling	
SW1-	1	OFF	OFF ON OFF		ON	
SW1-	2	OFF	OFF	OFF ON ON		
	(1)	HIGH	HIGH	HIGH		
	(2)		MED	MED		
NOTCH	(3)	MED		LOW	HIGH	
NOTCH	(4)		LOW		MED	
	(5)	LOW			LOW	
	(6)	S-LOW	S-LOW	S-LOW	S-LOW	
Ceiling he	eight	2.5∼3.0m	3.0 ∼ 3.5m	more than 3.5m	less than 2.5m	

② Room temp correct coefficient of heating. Decide room temp correct coefficient value of heating.

ROOM TEMP. CORRECT COEFFICIENT OF HEATING

SW1-3	SW1-4	Coefficient value				
OFF	OFF	+ 2 deg				
ON	OFF	- 2 deg				
OFF	ON	0 deg				
ON	ON	+ 4 deg				

2. DIP SWITCH 2

Room temp. correct coefficient of cooling.
 Decide room temp correct coefficient value of cooling.

ROOM TEMP CORRECT COEFFICIENT OF COOLING

SW2-1	Coefficient value
OFF	0 deg
ON	+ 2 deg

2 Zone control switch.

Decide the indoor unit for zone control use and not for zone control.

ZONE CONTROL SWITCH

SW2-2	Switch control
OFF	Validity
ON	Invalidity

③ Filter check validity/invalidity. Filter check is set with Dip SW 2-3.

FILTER CLEANING FUNCTION

SW2-3	Filter check						
OFF	Invalidity						
ON	Validity						

4 Auto restart validity/invalidity.

Auto restart is set with Dip SW2-4. But, when a LCD wired remote controller is connected, auto restart is set to "validity" regardless of the indoor unit setting.

AUTO RESTART SETTING

SW2-4	Auto restart
OFF	Invalidity
ON	Validity

3. DIP SWITCH 3

1 Indoor unit for speed switch.

This switch has eight kinds of rotation table, and can select fan speed corresponding to each model.

INDOOR UNIT FAN SPEED TABLE

Table No.	0	1	2	3	4	5	6	7
SW3-1	OFF	ON	OFF	ON	OFF	ON	OFF	ON
SW3-2	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW3-3	OFF	OFF	OFF	OFF	ON	ON	ON	ON

INDOOR FAN MOTOR SPEED (LARGE CEILING)

Table No.	0	1	2	3	4	5	6	7	
Models	AB30	Not used	AB36 Not used		AB45	Not used	AB54	Not used	
Hi	850		1000		1100		1250		
Me	750		900		1000		1150		
Lo	600		750		850		1000		
S-Lo	500		500		500		500		

[※] Rotating speed of the indoor fan motor is the same for Cooling / Fan / Heating.

INDOOR FAN MOTOR SPEED (CASSETTE)

Table No.	0	1	2	3	3
Models	AU54	AU45	AU36	Not u	sed
(1)	680	620	580		
(2)	630	580	550		_
(3)	580	550	500		_
(4)	550	500	470		_
(5)	500	470	420		
(6)	300	300	300	_	

Table No.	4	5	6	7
Models	AU30	Not used	AU25	AU20
(1)	500		460	420
(2)	470		430	390
(3)	430		390	350
(4)	390		350	310
(5)	360		320	280
(6)	300		300	250

^{*} Rotating speed of the indoor fan motor is the same for Cooling/Fan/Heating.

② Not used (SW3-4).

4. DIP SWITCH 4

1 Indoor unit model switch. Indoor unit model (capacity data) is set with SW4-1 \sim 4.

INDOOR UNIT MODEL SWITCH

Capacity	90	60	54	45	36	30	25	20	18	14	12	9	7
SW4-1	OFF	ON	OFF										
SW4-2	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW4-3	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW4-4	ON	ON	ON	ON	ON	OFF							

5. JUMPER

① Custom code selection of the remote controller.

Custom code of the infrared signal is set with jumper lead combinations which are shown below. Once set, other infrared signal is not accepted.

REMOTE CONTROLLER CUSTOM CODE SELECTION

JP1	JP2	Custom code
Connect	Connect	Type A (Primary setting)
Disconnect	Connect	Туре В
Connect	Disconnect	Type C
Disconnect	Disconnect	Type D

② Not used (JP3)

■ OUTDOOR UNIT

1. DIP SWITCH 1

1 Test run.

Test run(forced operation) and normal operation are set with SW1-1.2 on the PCB. The cooling/heating operation mode on the test run is set.

TEST RUN SW

(♦ Initial setting)

	SW1-2	SW1-1	Test Run	Remarks
•	OFF	OFF	Normal operation	
	OFF	ON	Cooling test run	(OFF-ON)and (operated continuously more than 1 min. with ON state)
	ON	OFF	Heating test run	(OFF-ON)and (operated continuously more than 1 min. with ON state)
	ON	ON	Normal operation	

2 Pump down operation.

Pump down operation is set with SW1-3 on the PCB.

PUMP DOWN SW

(Initial setting)

	SW1-3	Pump down operation	Remarks
•	OFF	Release	
	ON	Operate	(OFF-ON)and (operated continuously more than 1 min. with ON state)

3 Forced defrost operation.

Defrosting is started forcedly with SW1-4 on the PCB.

FORCED DEFROST SW

(♦ Initial setting)

	SW1-4	Forced defrost	Remarks
•	OFF	Release	
	ON	Operate	(OFF-ON)and (operated continuously more than 1 min. with ON state)

2. DIP SWITCH 2

1 Night operation fan mode.

The night operation fan mode ON/OFF is set with SW2-1 thermistor detects the temperature less than 30°C and the outdoor unit operation mode is cooling.

NIGHT OPERATION FAN MODE SW (◆ • • • Initial setting)

	SW2-1	Night operation fan mode
•	OFF	Release
	ON	Operate

② Snow falling protection fan mode SW.

When the compressor is stopped, snow falling protection fan mode is set with SW2-2.

SNOW FALLING PROTECTION FAN MODE SW(◆ - - Initial setting)

	SW2-2	Snow falling protection fan mode
•	OFF	Release
	ON	Operate

 $\ensuremath{\mathfrak{G}}$ Expansion valve initialize.

The pulse of the expansion valve is initialized with SW2-3.

	EXPANSION VALVE INITIALIZATION SW			···Initial setting)
	SW2-3	Expansion Valve Initialization Operation		Remarks
•	OFF	Release		
	ON	Operate		

4 Forced oil recovery operation.

Forced oil recovery operation started with SW2-4.

	FORCED OIL RECOVERY SW		(♦ •••Initial setting)	
	SW2-4 Forced Oil Recovery		Remarks	
•	OFF	Release		
	ON	Operate	(OFF-ON)+(ON continues for 1 minute)	

3. DIP SWITCH3 SETTING IS FORBIDDEN

4. DIP SETTING IS FORBIDDEN

- 5. DIP SWITCH5
- (1) SW5-1 and SW5-2 setting are forbidden.
- ② Base heater validity/invalidity.

The base heater setting is performed with SW5-3.

	BASE HE	BASE HEATER SETTING SW (
	SW5-3	Base Heater Setting SW		Remarks
•	OFF	Validity		
	ON	Invalidity		

6. DIP SWITCH6 SETTING IS FORBIDDEN

7. DIP SWITCH7

(1) System type switch 1,2.

Model change in Heat recovery / Heat pump type / Cooling only type are made with SW7-1,2.

	SYSTEM TYPE SWITCH 1/2		2 (♦···Initial s	(♦ ···Initial setting)	
	SW7-2	SW7-1	Model selection	Remarks	
	OFF	OFF	Heat Pump		
•	OFF	ON	Cooling Only		
	ON	OFF	Heat Recovery		
	ON	ON	Cannot Set		

8. External input terminal 1/2

When the cooling or heating mode is selected, the priority circuit is set. With CN49 and CN50.

EXTERNAL INPUT TERMINAL 1/2

Terminal	Conditions	Setting	Remarks
External input	R.C.	OPEN	
terminal 1CN50	External input	SHORT	
External input	Cool	OPEN	
terminal 2CN49	Heat	SHORT	

■ WIRED REMOTE CONTROLLER

1. DIP SWITCH 1

1 Remote controller address 1

FINAL REMOTE CONTROLLER SWITCH

SW1-1	Terminator
OFF	NO
ON	YES

2 Indoor unit connection.

This is switched according to No. of connected indoor unit.

No. INDOOR UNIT CONNECTION SWITCH

SW1-2	Number of indoor unit
OFF	One unit connection
ON	Multiple unit connection

3 Remote controller address1,2.

Used for setting of the remote controller address. Set the addresses by ordering MASTER \rightarrow SLAVE without any space.

REMOTE CONTROLLER ADDRESS 1,2 SWITCH

SW1-3	SW1-4	Method
OFF	OFF	Master
OFF	ON	Slave

4 SW1-5 and SW1-6 setting are forbidden.

2. DIP SWITCH 2

① Cooling only / heat pump.

Switching cooling only / heat pump is set with SW2-1.

COOLING ONLY / HEAT PUMP SWITCH

SW2-1	Operation system
OFF	Heat pump
ON	Cooling only

2 Auto change over validity / invalidity.

Auto change over validity / invalidity is set with SW2-2.

AUTO CHANGEOVER SWITCHING

SW2-2	Auto restart
OFF	Invalidity
ON	Validity

- ③ SW2-3 setting is forbidden.
- 4 Maintenance.

Used for indication of the refrigerant system, indoor unit address and error history.

MAINTENANCE SWITCH

SW2-4	Mode
OFF	Normal mode
ON	Maintenance mode

- ⑤ SW2-5 setting is forbidden.
- ⑥ Battery backup switch. When installing, turn the SW2-6 ON.

■ CENTRAL REMOTE CONTROLLER

1. DIP-SW2

① DIP SW2-1 2-2 setting forbidden.

DIP SW 2-1	OFF
DIP SW 2-2	OFF

② DIP SW2-3 setting.

Filter check sign indication or not when filter check comes from indoor unit.

(♦ Factory setting)

-	SW2-3	Filter check sign indication					
•	OFF	Non-Display					
	ON	Display					

③ DIP SW2-4 setting.

°C /°F switch

Temperature display is centigratde(°C) / Fahrenheit(°F)

(♦ Factory setting)

	SW2-4	°C /°F
•	OFF	°C
	ON	°F

DIP SW2-5 setting For validity / invalidity the wired and wireless remote controller operation prohibit function.

	SW2-5	RC operation prohibit function					
•	OFF	Validity					
	ON	Invalidity					

⑤ DIP SW2-6 2-7 setting forbidden.

DIP SW 2-6	OFF
DIP SW 2-7	OFF

6 DIP SW2-8 setting.

(♦ Factory setting)

	SW2-8	SRAM Battery
•	OFF	OFF
	ON	ON

At the time of shipment, the battery is turned off to avoid electricity consumption. Be sure to set this switch to ON.

SW42 Initial setting button

This switch is used when initializing the central remote controller.

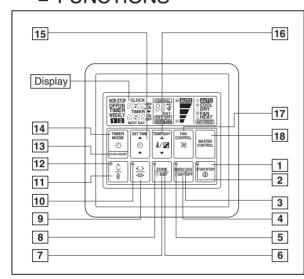
WIRED REMOTE CONTROLLER

■ FEATURE OF CONTROLLER

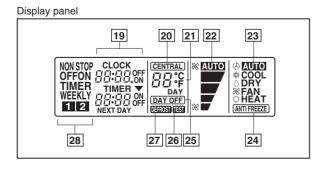


- Four kinds of timer setup (OFF/ ON1/ ON2/ WEEKLY) are possible.
- Equipped with weekly timer as standard function. (2 times Start/Stop per day for a week)
- By failure, the error code is displayed. The error history can be displayed, which is convenient for maintenance.
- 2 remote controllers can be connected.
- Up to 16 indoor units can be simultaneously controlled.
- Anti freeze, saving operation and zone control are possible.
- Favorite timer (ON 2)

■ FUNCTIONS



- 1 START/STOP button Pressed to start and stop operation
- 2 Operation lamp
- Lights during operation and when the timer is on.
- 3 Energy save button
- - Turns the energy efficient mode on and off.
- 4 Day off button
 - Temporary cancellation of one day timer.
- 5 Energy save lamp
 - Lights up when the unit is in the energy save mode.
- 6 Zone button
 - Use to turn the zone control on and off.
- 7 Set button
 - Sets the date, hour, minute and on-off time.
- 8 Zone lamp
 - Lights up when the unit is in the zone control mode.
- 9 Horizontal air flow direction and swing button Push for two seconds and change swing mode.
- 10 Horizontal swing lamp
 - Push for two seconds and change swing mode.
- 11 Vertical air flow direction and swing button Push for two seconds and change swing mode.
- 12 Vertical swing lamp
- 13 Clock adjust button
- 14 Timer mode button Changes the timer mode (NON STOP, OFF TIMER, ON TIMER. WEEKLY TIMER).
- 15 Set time button
 - Sets the current time and on-off time.
- 16 Temp./Day button
- Sets the indoor temperature / days.
- 17 Fan control button
- - Selects the fan speed (AUTO, LOW, MED, HIGH).
- 18 Master control button
 - Selects the operating mode(AUTO, HEAT, FAN, COOL, DRY).
- Clock display
- 20 Central control display
- Set temperature / Day display
- 22 Fan speed display
- 23 Master control display
- 24 Anti freeze display
- 25 Day off display
- 26 Test display
- 27 Defrost display
- 28 Timer mode display



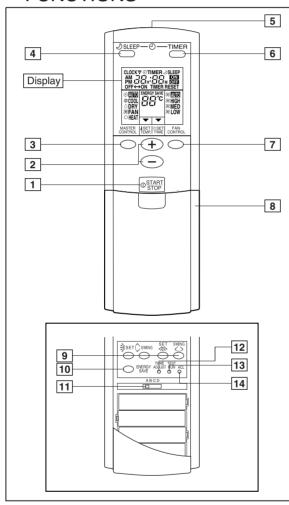
WIRELESS REMOTE CONTROLLER

■ FEATURE OF CONTROLLER

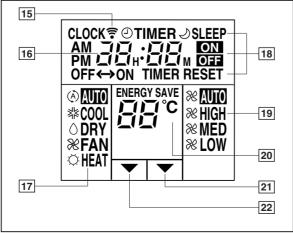


- Four kinds of timer setup (ON/OFF/PROGRAM/SLEEP) are possible.
- Up to 16 indoor units can be simultaneously controlled.
- Both wired and wireless remote controller can be used jointly.

FUNCTIONS

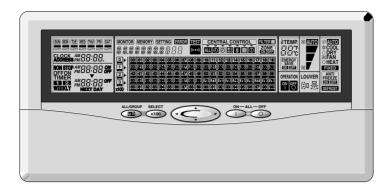


Display panel



- 1 START/STOP button
 - Pressed to start and stop operation
- 2 Set temp./Set time buttons
 - Sets the indoor temp./Sets the current time and on-off time
- 3 Master control button
 - Selects the operating mode(AUTO, HEAT, FAN, COOL, DRY).
- 4 Sleep timer button
 - Press to select sleep timer.
- 5 Signal transmitter
- 6 Timer button
 - Press to select the timer mode.(OFF TIMER,ON TIMER, PROGRAM TIMER,TIMER RESET)
- 7 Fan control button
 - Selects the fan speed (AUTO, LOW, MED, HIGH).
- 8 Battery compartment lid
- 9 Air flow direction button
 - Use to set the desired air flow direction & SWING function.
- 10 Energy save button
 - Turns the energy efficient mode on and off.
- 11 Code change (Slide Switch)
 - Switching the remote control unit code.(Max.4 units)
- 12 Time adjust button
 - Set the current time.
- 13 Test run button
 - This button is used when testing the air conditioner after installation.
- 14 ACL button
 - This button is used when replacing batteries.
- 15 Transmit indicator
- 16 Clock display
- 17 Master control display
- 18 Timer mode display
- 19 Fan speed display
- 20 Set temperature display
- 21 Timer set indicator
- 22 Temperature set indicator

CENTRAL REMOTE CONTROLLER



■ FEATURE OF CONTROLLER

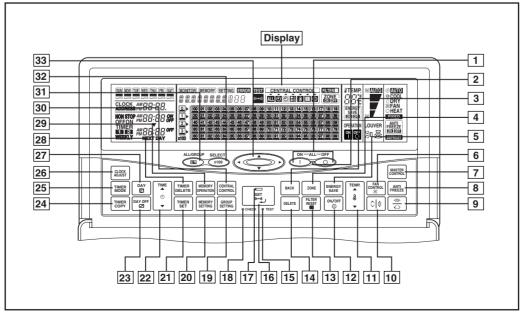
- Up to 400 indoor units/64 groups can be controlled with one central remote controller.
- Up to 16 central remote controllers can be connected in one system.
- Central remote controller can control by all/group/individual.
- By setting the central remote controller, it is possible to lock the function of the standard controllers. Items of selections are all functions, timer mode, disabling all functions for certain hour, operating mode, temperature setting, reset filter, and On/Off.
- Weekly timer is equipped as standard function. (2 times On/Off per day for one week).
- Setting contents of central remote controller are all memorized, so that each indoor unit can be operated in the memorized condition even if the operating conditions are changed later on.
- Error code is displayed when it occurs.
 The history of failure can also be displayed, which is convenient for maintenance.

Examples of error:

- 1. Communication/micro computer error
- 2. Abnormal heat exchanger thermistor
- 3. Float switch operating
- 4. Abnormal outdoor unit thermistor
- 5. Abnormal discharge temperature
- 6. Abnormal oil sensor
- 7. Excessive indoor units connected
- 8. Abnormal indoor fan

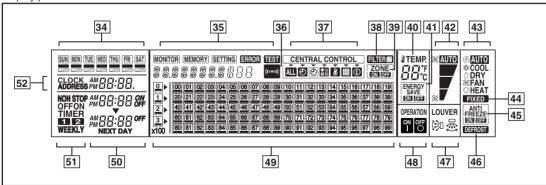
- 9. Abnormal room temperature thermistor
- 10. Abnormal air blow temperature thermistor
- 11. 3 phase reverse polarity connection
- 12. Abnormal pressure
- 13. Abnormal refrigerant pressure sensor
- 14. Duplicated indoor unit address
- 15. Duplicated outdoor unit address

FUNCTION



- 1 All ON/OFF button
- 2 All ON/OFF LED
- 3 Back button
- 4 Zone button Change over the zone.
- 5 Energy save button Starting energy save operation.
- 6 Fan control button
- 7 Master control button
- 8 Anti freeze button
- 9 Horizontal Air flow direction and swing button
- 10 Vertical Air flow direction and swing button
- 11 Temp button Setting of indoor temperature.
- 12 ON/OFF button ON/OFF setting by groups.
- 13 Filter reset button
- 14 Delete button Delete of setting.
- 15 Test button
- 16 Set button Transmission of all changed setting details. 17 Set LED Blinks when transmission is necessary.
- 18 Check button Confirmation of address setting and error code.
- 19 Group setting button Setting of group of some remote controller group connected to the central remote controller.
- 20 Memory setting button Memory the setting contents of all.
- 21 Timer set button Setting of dates, hours, minutes and on-off time.
- 22 Time button Setting of on-off time.
- 23 Day off button Temporary cancellation of one day timer. 24 Timer copy button Copying the timer condition (the day before).
- 25 Timer mode button Changeover the timer mode (NON STOP, OFF, ON1, ON2, WEEKLY).
- 26 Clock adjust button
- 27 Day button
- 28 Timer delete button
- 29 Memory operation button Operating the memorized condition.
- 30 Central button Forbid some operation of the individual remote controller. 31 All/Group button Changeover of control unit (ALL→GROUP → R.C.GROUP).
- 32 Select × 100 button Remote controller group indication by hundreds. 33 Select button Change to remote controller and group number.

Display panel



- 34 Day of the week display
- 40 Temperature display
- 45 Anti freeze display
- Timer mode display

- 35 Status display
- Energy save display
- Defrost display 47 Air flow direction display
- Clock and address display

- 36 Transmit indicator display 42 Fan control display
 - 43 Master control display
- 48 ON/OFF display

- 37 Central control display 38 Filter reset display
- Fixed cooling or heating
- 49 Group control display

- operation display
- 50 ON/OFF time display

39 Zone display

5. OUTDOOR UNIT OPERATION CONTROL

5-1 COMPRESSOR OPERATION CONTROL

5-1-1 OPERATION STOP CONDITION

① Compressor operation condition

When cooling requirement capacity or heating requirement capacity from either of the indoor units in the same refrigerant system is input, the compressor operates.

But in the following case, the compressor operates in accordance with operation of each mode.

- · During 3 minute restart prevention operation
- · During compressor recovery operation
- During deicing operation
- · Failure (except for a part)
- Defrosting
- · 4-way valve 1 restart switching
- · Oil recovery
- · Under expansion valve initialization
- · At protective operation
 - * Central discharge temperature protection
 - * High pressure protection

2 Compressor stop condition

When all the indoor units in no "cooling requirement capacity" or "heating requirement capacity ", all the compressors are stopped.

But, in the following case, the compressor operates in accordance with operation of each mode.

- · Defrosting
- · Oil recovery

5-1-2 COMPRESSOR OUTPUT PATTERN

The output pattern of a compressor is defined as shown below.

Compressor output pattern

		- II - I - I	
OUTPUT PATTERN	COMPRESSOR 1	COMPRESSOR 2	COMPRESSOR 3
OOTI OTI ///TETIIV	(2HP)	(4HP)	(6HP)
Step 0	OFF	OFF	OFF
Step 1	ON	OFF	OFF
Step 2	OFF	ON	OFF
Step 3	ON	ON	OFF
Step 4	OFF	OFF	ON
Step 5	ON	OFF	ON
Step 6	OFF	ON	ON
Step 7	ON	ON	ON

5-1-3 3 MINUTES RESTART PREVENTION (3 MIN ST)

When the compressor is stopped, the compressor does not start on any condition for 3 minutes afterwards. But, this function is excluded when defrosting, oil recovery is performed and the power is turned on.

5-1-4 COMPRESSOR RECOVERY OPERATION

If compressor 1, 2, or 3 fails, or if two or more compressors fail at the same time, the remaining compressor(s) perform temporary operation to prevent interruption of air conditioning system operation by a failure. When compressor 1, 2, or 3 is judged to be faulty, the system is operated by switching the compressor output pattern (compressors 0 to 7) as shown in the following table.

Compressor failure is displayed by LEDs on the PCB of the outdoor unit and by output ERROR to the communication bus line (standard wired remote controller, central remote controller, PC controller).

- (a) When compressor 1 (2 HP) fails (compressor 2 is substituted for compressor 1).
- (b) When compressor 2 (4 HP) fails (compressor 3 is substituted for compressor 2)
- (c) When compressor 3 (6 HP) fails (compressor 1 and 2 are substituted for compressor 3)

COMPRESSOR RECOVERY OPERATION

RECOVERY OPERATION							
(a)X-4-6	(b)2-X-6	(c)2-4·X	(d)X-X-6	(e)X-4-X			
Step 0	Step 0	Step 0	Step 0	Step 0			
Step 2	Step 1	Step 1	Step 4	Step 2			
Step 2	Step 4	Step 2	Step 4	Step 2			
Step 4	Step 4	Step 3	Step 4	Step 2			
Step 6	Step 5	Step 3	Step 4	Step 2			
Step 6	Step 5	Step 3	Step 4	Step 2			
Step 6	Step 5	Step 3	Step 4	Step 2			
	(a)X-4-6 Step 0 Step 2 Step 2 Step 4 Step 6 Step 6	(a)X-4-6 (b)2-X-6 Step 0 Step 0 Step 2 Step 1 Step 2 Step 4 Step 4 Step 4 Step 6 Step 5 Step 6 Step 5	(a)X-4-6 (b)2-X-6 (c)2-4·X Step 0 Step 0 Step 0 Step 2 Step 1 Step 1 Step 2 Step 4 Step 2 Step 4 Step 3 Step 3 Step 6 Step 5 Step 3 Step 6 Step 5 Step 3	(a)X-4-6 (b)2-X-6 (c)2-4·X (d)X-X-6 Step 0 Step 0 Step 0 Step 0 Step 2 Step 1 Step 1 Step 4 Step 2 Step 4 Step 2 Step 4 Step 4 Step 3 Step 4 Step 6 Step 5 Step 3 Step 4 Step 6 Step 5 Step 3 Step 4			

x : The compressor is stopped by a protection function or abnormal operation. (The figures show the compressor capacity (HP) that permits system operation.)

5-2 HEAT EXCHANGE CAPACITY CONTROL

The heat exchanger capacity and four-way valve, solenoid valve, and electronic expansion valve operation states are shown below.

1. Cooling, mainly cooling

Pattern	4-way valve (4WV)		Solenoid valve (SV)			Electronic expansion valve (EEV)		ed he ange		Remarks	
	4WV2	4WV3	4WV4	SV7	SV8	EEV1	EEV2	2	4	6	
1	OFF	ON	ON	ON	OFF	Control pulse	0 pulse	0	X	X	Cooling 2HP
2	ON	OFF	ON	OFF	ON	Control pulse	0 pulse	X	0	X	Cooling 4HP
3	ON	ON	OFF	OFF	OFF	0 pulse	Control pulse	X	X	0	Cooling 6HP
4	OFF	ON	OFF	ON	OFF	Control pulse	Control pulse	0	X	0	Cooling 8HP
5	ON	OFF	OFF	OFF	ON	Control pulse	Control pulse	X	0	0	Cooling 10HP
6	OFF	OFF	OFF	ON	ON	Control pulse	Control pulse	0	0	0	Cooling 12HP

2. Heating, mainly heating

Pattern	4-way valve (4WV)		e (4WV) Solenoid valve (SV)			Electronic expansion valve (EEV)		ed he ange	at (HP)	Remarks	
	4WV2	4WV3	4WV4	SV7	SV8	EEV1	EEV2	2	4	6	
1	ON	ON	ON	ON	OFF	Control pulse	0 pulse	0	X	X	Cooling 2HP
2	ON	ON	ON	OFF	ON	Control pulse	0 pulse	X	0	X	Cooling 4HP
3	ON	ON	ON	OFF	OFF	0 pulse	Control pulse	X	X	0	Cooling 6HP
4	ON	ON	ON	ON	OFF	Control pulse	Control pulse	0	X	0	Cooling 8HP
5	ON	ON	ON	OFF	ON	Control pulse	Control pulse	X	0	0	Cooling 10HP
6	ON	ON	ON	ON	ON	Control pulse	Control pulse	0	0	0	Cooling 12HP

3. Stop and same capacity operation

Pattern	4-way valve (4WV)		Solenoid valve (SV)		Electronic expansion valve (EEV)		Used heat exchange (HP)			Remarks	
	4WV2	4WV3	4WV4	SV7	SV8	EEV1	EEV2	2	4	6	
1	OFF	OFF	OFF	OFF	OFF	Control pulse	Control pulse	X	X	X	Stop
2	ON	ON	ON	OFF	OFF	0 pulse	0 pulse	X	X	X	Same capacity

5-3 OUTDOOR FAN MOTOR CONTROL

ON/OFF

The outdoor fan motor is turned on with the compressor start and turned off with the compressor stop except for the following cases.

Also, the operating mode of the outdoor unit is changed, fan speed at each operating mode after changing is controlled.

When the defrosting operation is performed

When the deicing operation is performed

When the same capacity cooling or heating mixed operation is performed

When the overload protection operation during heating operation is performed

Fan Speed

The outdoor fan motor has the following five steps of speed in addition to Stop.

FAN SPEED	FAN 1	FAN 2	
1	Hi	Hi	
2	Hi	Stop	
3	Lo	Lo	
4	Lo	Stop	
5	Intermittent		
6	Stop	Stop	

^{*}Intermittent output

- 1. Stop (FAN 1)-Stop (FAN 2) for 50 sec.
- 2. Lo-Stop is repeated for 20 sec.
- 3. The intermittent output is always started from Stop-Stop of 50 sec.
- 4. The Stop-Stop of 50 sec at the intermittent output is not a Stop of the outdoor fan.
- 5. But the outdoor fan shall operate at a cycle of Stop-Stop for 50 sec and Lo-Stop for 20 sec.

Fan Speed Switching

(a) Fan Control of cooling mode and cooling principal mode.

The fan motor is operated at fan speed shown in Table 1 from the outside temperature.

Table 1 Fan speed switching from the outside temperature

OUTSIDE TEMPERATURE (THo)	USUAL	NIGHT OPERATING MODE
TH₀>29°C	1	3
29°C ≧ TH₀>18°C	2	3
18°C ≧ TH₀>6°C	4	4
6°C ≧THo	5	5

(b) Fan control Heating mode and Heating principal mode.

The fan motor is operated at fan speed shown in Table 2 from the outside temperature.

Table 2 Fan speed switching from the outside temperature

OUTSIDE TEMPERATURE (THo)	USUAL
TH₀>18°C	1
18°C ≧ TH₀>15°C	1
15°C ≧ TH₀> 10°C	1
10°C ≧THo	1

(c) Same capacity fan control

When the operating mode of the outdoor unit is the same capacity mode, the fan 1/2 are turned off. When the operating mode of the outdoor unit is changed from the same capacity operating mode to another operating mode, the fan operates in accordance with fan speed at the start of that mode.

(d) Oil recovery fan control

The fan control in the cooling mode is performed at the time of oil recovery.

5-4 EXPANSION VALVE 1/2 CONTROL

The expansion valves have the following four states:

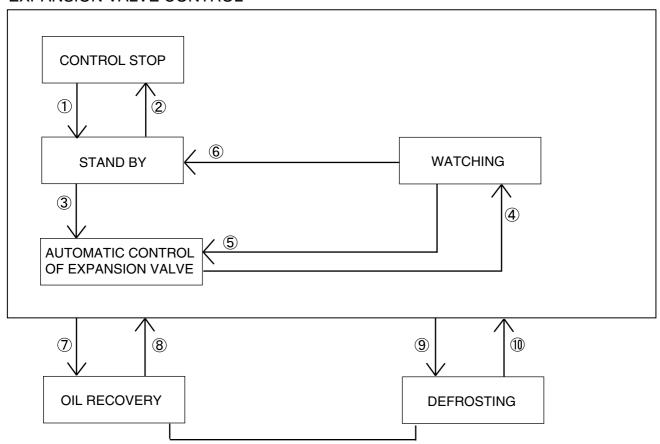
CONTROL STOP: Power is not yet supplied to the outdoor unit so the expansion valve does not operate.

STAND BY: Power is supplied to the outdoor unit and the expansion valve is initialized, but automatic control of the expansion valve has not been performed.

WATCHING: The compressor is turned off while the expansion valve is controlled automatically and the turn-on and initialization of the next compressor's expansion valve have not been performed.

CONTROLLING: The expansion valve is controlled automatically.

EXPANSION VALVE CONTROL



- * Only one side of them is controlled.
- 1 Power ON
- 2 Power OFF
- 3 Compressor ON condition EEV initialization condition interval under 4hours
- 4 Compressor OFF
- 5 Compressor ON condition
- 6 Expansion valve initialization condition interval more than 4 hours
- Oil recovery condition
- 8 Oil recovery finish
- 9 Defrosting condition
- ① Defrosting finish

5-5 FOUR-WAY VALVE 1 CONTROL

Four-way valve 1 (4WV1) operates for "Cooling/heating selection" type only.

1. 4-way valve delayed switching

When the outdoor operation mode is Stop, 4-way valve 1 maintains its state and turns off 2 minutes 35 seconds later. However, when the outdoor unit operation mode is switched from " Heating " to " Cooling ", this function does not operate and the 4-way valve turns off at that point.

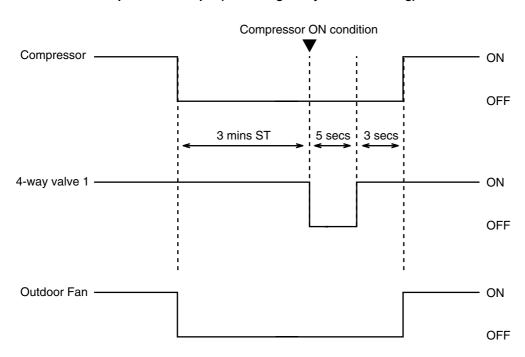
2. Restarting 4-way valve switching

When the compressor satisfies the OFF \rightarrow ON condition when the operation mode is "Heating" (including immediately after the power is turned on), 4-way valve 1 turns off for 5 seconds. Thereafter, 4-way valve 1 turns on and 3 seconds later, the compressor starts.

However, except in the following cases:

- · Defrosting, defrosting end
- · Oil recovery in progress, oil recovery end

Operation example (Restarting 4-way valve switching)



3. 4-way valve 1 setting by operation mode

Four-wave valve 1 is set according to the operation modes as shown below.

4-way valve 1 control by operation mode

System type	Operation mode	4WV1
Cooling / Heating selection type	Cooling	OFF
	Heating	ON
	Stop	OFF*

^{*1) 4-}way valve 1 delayed switching control compatible

5-6 CIRCULATING SAVE AMOUNT CONTROL

* Expansion Valve Control

As there is the difference between compressor's actual capacity and compressor's requirement capacity practically, capacity by the difference is bypassed as a circulating save amount.

(Compressor's actual capacity – Compressor's requirement capacity)

① Start condition

- In case of other than that the compressor 1 (2 HP compressor) is operated by only one compressor.
- In case of the operating mode of " Cooling " or " Heating "

2 End condition

- In case of only one compressor (2 HP compressor) operation.
- In case of the operating mode other than " Cooling " or " Heating "

5-7 SOLENOID VALVE 2 CONTROL

• The outdoor unit operates at the time of the same capacity operation.

When the difference between compressor's actual capacity fixed by a compressor and compressor's requirement capacity obtained by cooling (or heating) requirement capacity from the indoor unit is saved (bypassed) as a circulating save amount, the electromagnetic valve 2 is controlled.

5-8 FOUR-WAY VALVE 5 CONTROL

1) System type switching

The 4-way valve 5 is used properly depending on the model as shown below.

	HEAT RECOVERY	HEAT PUMP	COOLING ONLY
	TYPE	TYPE	TYPE
4-WAY VALVE 5	0	0	х

O: Used (ON/OFF operation under condition)

X : Not used (always OFF)

2) 4-Way valve 5 setting by the operating mode

(a) 4-Way valve 5 setting by the operating mode

4-Way valve 5 control

OPERATING MODE	4-WAY VALVE 5 CONDITIONS
Stop	OFF
Cooling	OFF
Heating	ON
Same performance	OFF

(b) Delay switching

When the operating mode is changed to Stop, the 4-way valve 5 maintains a start of the operating mode before changing, and when the operating mode is other than Stop before three minutes pass it follows the above 1) immediately.

5-9 DEFROSTING CONTROL

1. Defrosting start conditions

1) Defrosting start conditions

When the forced defrosting SW was operated, or all of the following conditions are satisfied, defrosting starts.

- Operation mode is "Heating" and the integrated operating time in the state in which any of the compressors is operating has reached 40 minutes or longer
- When the operating time of any compressor is the specified time (A minutes) or longer. Where, A is defined as follows: When the "all compressors stopped" state has continued for 20 minutes or longer before any compressor operates A=10 Other than the above A= 6
- When the outlet temperature of each heat exchanger is -5 °C or less

2) Integrated time

The time the operation mode is "Heating" and the time any compressor has operated are integrated. However, the integrated value is cleared in the following cases:

- · Operation mode is switched to other than "Heating"
- · Defrosting has ended
- Oil recovery operation is in progress and the heat exchange outlet temperature satisfies the defrosting end condition

2. Defrosting start restrictions

In the following cases, defrosting is not performed even if the previously mentioned defrosting start conditions are satisfied.

- Oil recovery operation is in progress
- Error that prohibits defrosting operating was generated

 Error other than compressor 1, 2, or 3 error, suction thermistor error, oil sensor error, oil recovery error, or EEPROM

 access error
- Following protection function has operated (Compressor OFF)

 Compressor OFF by discharge temperature protector 1, 2, and 3 and high pressure protector, low voltage protector, defrosting operation

3. Defrosting end condition

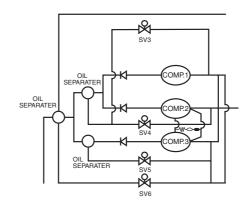
When any of the following conditions is satisfied, defrosting ends.

- Outdoor unit operation mode was switched to other than "Heating"
- 20 minutes or longer have elapsed since defrosting stopped
- Integration of compressor operation time after start of defrosting has exceeded 15 minutes
- The following error was generated
- Errors except compressor 1, 2, and 3 error suction thermistor error, oil sensor error, oil recovery error, or EEPROM access error
- Each heat exchanger outlet temperature has reached defrosting end heat exchanger temperature 10 °C or higher.

5-10 OIL RETURN CONTROL

There are two oil return controls, one is the individual oil return and the other one is centralized oil return.

- When each solenoid valve is turned ON, the oil return is performed
- (2) Oil level status is defined in accordance with performance of the oil level sensor.



1. Oil return solenoid valves

	Solenoid valve	Application
Individual oil return	Solenoid valve SV3 Compresso	
	SV4	Compressor 2
	SV5	Compressor 3
Central oil return	SV6	Compressor 1/2/3

2. Oil sensors

The oil sensors determine the oil level.

Definition of state		ensor	Contents of state	Sketch	
	U	L	State		
State 0	OFF	ON	The oil is filled up to oil sensor U (upper limit).		
State 1	ON	ON	The oil level is between oil sensor U (upper limit) and oil sensor L (lower limit).	State 0 — Oil sensor U State 1 — Oil sensor U	
State 2	ON	OFF	Oil sensor L (lower limit) cuts the oil level.	State 2 Oil sensor L	
State 3	OFF	OFF	Abnormal state ("Oil level error")	_	

Oil sensor U Compressor upper limit oil level sensor Oil sensor L Compressor lower limit oil level sensor

Definition of oil sensor operation (oil sensor U/L)

	Operation	Oil sensor circuit output judgment standard
Oil sensor U/L	OFF	Oil sensor LED (Voltage detected before output) - (voltage detected after output) < 0.3V max.
Oil Scrisor O/L	ON	Oil sensor LED (Voltage detected before output) - (voltage detected after output) ≧ 0.3V max.

3. Individual oil return control

When a compressor operates continuously for 1 minute or longer and the oil sensor satisfies any of the following conditions in "State 1" or "State 2", the solenoid valve corresponding to the compressor turns on and controls oil return.

- (1) The integrated operating time of each compressor has reached 15 minutes or greater
- (2) Each compressor is stopped.
- * When oil return starts, the integrated operating time for each compressor is reset.

4. Central oil return control

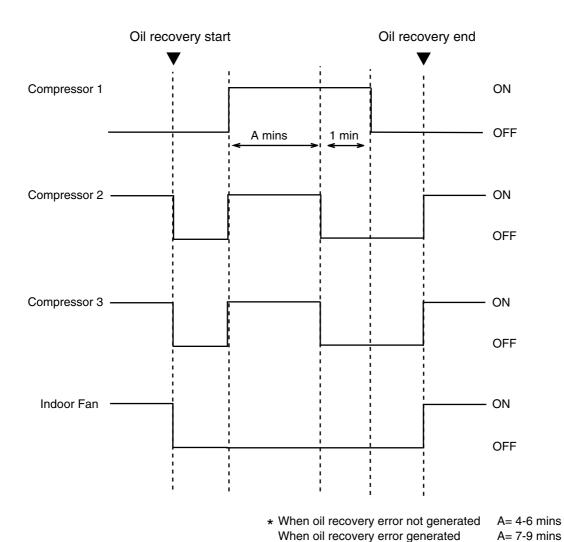
When any of the following conditions is satisfied, the central oil return solenoid valve SV6 turns on and central oil return control begins.

- (1) One or more compressors are operating and the integrated time in the "1 or more compressors operating" state exceeds 15 minutes
- (2) All the compressors were stopped from the "1 or more compressors operating" state.

5-11 OIL RECOVERY CONTROL

When any the following conditions is satisfied, the indoor fan stops and "Oil recovery operation " starts.

- (1) One or more compressor are operating.
- (2) The integrated operating time in the "1 or more compressors operating state" has exceeded 4-6 hours.
- (3) Defrosting is not performed.
- *However the first oil recovery operation after the power is turned on is performed when the integrated operating time in the "1 or more compressors operating " state has exceeded 1 hour.



5-12 PROTECTION FUNCTIONS

1. Central discharge temperature protection

- 1) When the discharge temperature of any compressor reaches 110 °C or higher, solenoid valve 1 (SV1) is turned on and bypass is performed. SV1 is turned off and central discharge temperature protection operation is ended by any of the following conditions:
- (1) Discharge temperature of all compressors reaches 95 °C or lower
- (2) Oil recovery operation starts
- 2) When solenoid valve 1 (SV1) is on and the outdoor fan speed is "5", solenoid valve 2 (SV2) is simultaneously turned on and bypass is performed. SV2 is turned off by any of the following conditions:
- (1) Outdoor fan speed is set to other than "5"
- (2) Oil recovery operation starts
- (3) Discharge temperature of all compressors reaches 95 °C or lower.

2. Discharge temperature protection

When the discharge temperature of any compressor reaches $130\,^{\circ}$ C or higher, the corresponding compressor stops. Compressor stop is reset and discharge temperature protection operation is ended by any of the following conditions:

- (1) Discharge temperature of all compressors reaches 95 °C or lower.
- (2) Oil recovery operation starts

However, during oil recovery operation, discharge temperature protection is not performed.

3. High-pressure protection

- 1) When the high-pressure SW (HP) is turned off except during oil recovery operation or defrosting, solenoid 1 (SV1) and solenoid 2 (SV2) are turned on and bypass is performed. SV1 and SV2 are turned off by any of the following conditions:
- (1) High-pressure pressure SW turned on
- (2) Oil recovery control starts
- (3) Defrosting control starts
- 2) When 1 minute has elapsed after SV1 and SV2 were turned on and the discharge pressure sensor (PH) detected value is 3.34MPa or greater, compressors 1, 2, and 3 are stopped. SV1 and SV2 ON and compressors 1, 2, and 3 stop are reset and high-pressure protection operation is ended by any of the following conditions:
- (1) High-pressure SW (HP) turned on
- (2) Oil recovery control starts
- (3) Defrosting control starts

4. Heating overload protection

When the operating mode is "Heating and the high-pressure SW (HP) was turned off except during oil recovery or defrosting in the "Heat mode", the outdoor fan is stopped. Outdoor fan stop is reset and heat overload protection operation is ended by any of the following conditions:

- (1) High-pressure SW (HP) turned on
- (2) Oil recovery control starts
- (3) Defrosting control starts
- (4) Mode is switched to other than "Heat"

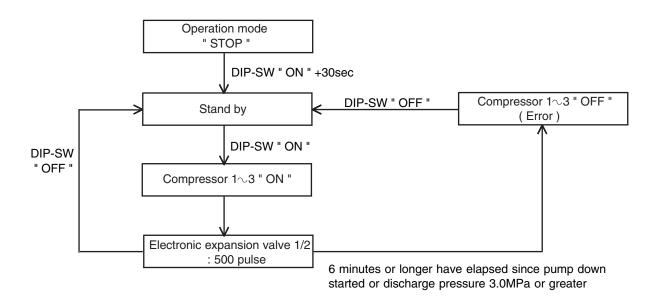
5-13 PUMP DOWN CONTROL

(1) If the following condition was satisfied, the pump down control starts.

When the operation mode is stopped and pump down DIP-SW turns OFF \rightarrow ON.

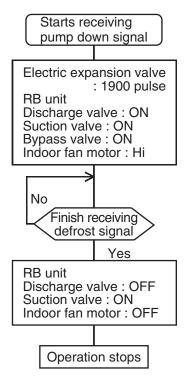
(2) Pump down flow-chart.

■ OUTDOOR UNIT



■ INDOOR UNIT

When the indoor unit receives the "Pump down signal" from the outdoor unit, the indoor unit is performed following operation.



- (3) Pump down is completed in following cases.
 - When pump down DIP-SW is turned ON \rightarrow OFF
 - When the discharge pressure sensor detects more than 3Mpa.

6. INDOOR UNIT OPERATION CONTROL

6-1 TIMER CONTROL

There are three timer modes: "OFF TIMER", "ON TIMER" and "WEEKLY TIMER".

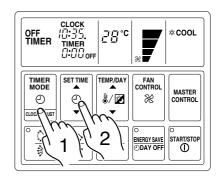
- (1) Set the clock time when the unit is in the stop mode (only the current time will be shown on the remote control unit display).
- (2) While adjusting the current clock time, do not use other remote control functions.
- (3) Each time the TIMER button is pressed, the remote control unit display will change in the order shown below:



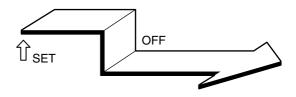
1) OFF timer

Use when going to bed or otherwise to stop operation. When the clock reaches the set time, the air conditioner will be turned off.

Remote control button selected



OFF timer setting



2) ON timer 1

When the timer mode is set to "ON TIMER", operation automatically starts when the set time has elapsed.

3) ON timer 2

- The timer function is designed to bring your room to a comfortable temperature by the set time; as a result, the unit automatically begins operation before the set time so that the room reaches the desired temperature by the time set on the timer ("Favorite temperature timer")
- The hotter it is in summer, or the colder it is in winter, the earlier that operation will begin.

During Heating Operation..... from 45 to 10 minutes before set time.

During Cooling/Dry Operation...... from 20 to 10 minutes before set time.

During Fan Operation...... at the set time.

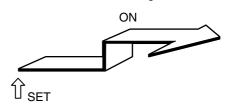
4) WEEKLY timer

Use the weekly timer to set operating times for each day of the week.

Weekly Timer Features

- Set different operating times for each day of the week.
- Set one or two operating spans (one or two ON times and one or two OFF times) per day.
- Set time to a resolution of 5 minutes.
- OFF time can be carried over to the subsequent day.
- Use the "DAY OFF" setting to cancel operation for any day of the coming week (one-time cancellation).

ON timer setting



Setting Up the Weekly Timer Operation

Press the START/STOP button to stop the air conditioner, and then proceed as follows.

Press the TIMER MODE button so that "WEEKLY" appears on the display.

The display now shows the current day (by DAY CODE), the first ON and OFF times for the day (the "WEEKLY 1" times), the fan speed, and the operating mode.

The top time value gives the ON time, and the bottom value gives the OFF time.

If either time is not set, the corresponding time display is blank "--:--".

2. Press the SET TEMP./DAY button to select the day that you want to set up.

- ▲: Use to advance the day forward.
- ▼: Use to turn the day back.

DAY CODE	1	2	3	4	5	6	7
DAY OF THE WEEK	MON	TUE	WED	THU	FRI	SAT	SUN

3. Hold the SET button down for 3 seconds.

The "WEEKLY 1" ON time starts flashing, and the fan speed and operating mode displays go off.

4. Press the SET TIME button to set the day's first ON time.

- ▲ : Use to advance the day forward.
- ▼: Use to turn the day back.

(Press once to move the time 5 minutes; hold down and the time will move 10 minutes at a time.)

5. Press the SET button.

This registers the first ON time setting for the selected day. The ON time display stops flashing, and the "WEEKLY 1" OFF time starts flashing.

6. Press the SET TIME button to set the day's first OFF time.

The earliest OFF time you can set is 5 minutes after the ON time. The latest OFF time is 23:55 on the subsequent day.

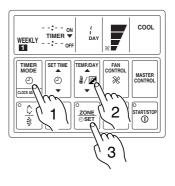
7. Press the SET button.

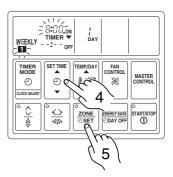
This registers the first OFF time for the day, completing the "WEEKLY 1" settings for that day.

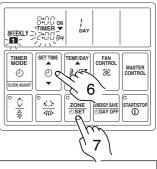
The display switches to "WEEKLY 2", and the day's second ON time begins flashing.

Repeat the operations described in Steps 4 to 7 to set the second ON and OFF times for the day (the "WEEKLY 2" times).

When you press the SET button after setting the "WEEKLY 2" OFF time, the system registers the "WEEKLY 2" settings for the day and returns you to the "WEEKLY 1" ON time setup process. (The first ON setting reappears and begins flashing.) You can review your settings by pressing the SET button. Each press moves you to the next setting, as follows.







If the timer is not set, press the SET button with the time display blank "--:--", and perform next operation.

- Press the SET TEMP./DAY button to select another day for setup. The repeat steps 4 to 8 above to set the ON and OFF times for that day.
- CLOCK ID: 35.
- 10. When you have finished setting all of the times, hold down the SET button for 3 seconds.

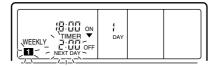
The WEEKLY display flashes for 3 seconds while the new WEEKLY TIMER settings are registered, and then the clock display reappears.

NOTES:

- (1) If no time values are flashing, the clock display will automatically reappear after 15 seconds if no buttons are pressed.
- (2) A flashing time value indicates that the system is in time-setting mode. To return to the clock display you must hold down the SET button for 3 seconds.
- (3) You do not need to set values for both WEEKLY 1 and WEEKLY 2. If you wish, you can set values only for WEEKLY 1 or only for WEEKLY 2.
- (4) The allowable range for the day as time settings is shown below.



(5) If you set the OFF time to occur on the day following the ON time, the NEXT DAY caption appears on the display.



Starting Weekly Timer Operation

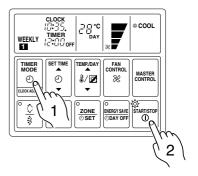
- Press the TIMER MODE button so that "WEEKLY" appears on the display.
- 2. Press the START/STOP button to start operation.

(This step is not necessary if the air conditioner is already running.)

Weekly timer operation starts, and the operation lamp comes on. (If the current time is between the first or second ON and OFF time settings for the current day, the air conditioner will start. Otherwise the air conditioner will remain off.)

The day display is replaced by the temperature display.

The upper time display now shows the current time, and the lower time display shows the next scheduled ON or OFF time.



To Stop Weekly Timer Operation

 To stop weekly timer while leaving the air conditioner running:

Press the TIMER MODE button to select NONSTOP, OFF TIMER, or ON TIMER.

To stop weekly timer operation and the air conditioner

Press the START/STOP button.

Reviewing the Time Settings

Press the START/STOP button to stop the air conditioner, and then proceed as follows.

- 1 Press the TIMER MODE button so that "WEEKLY" appears on the display.
- 2 Press the SET TEMP./DAY button to select the day that you want check.
- 3 Press the SET TIME button (▲ or ▼) to switch between the "WEEKLY 1" or "WEEKLY 2" time displays.

About the DAY OFF

- Use the DAY OFF setting to switch off timed operation for a selected day in the coming week.
- This is a temporary, one-time setting. The DAY OFF setting is automatically cleared as soon as the specified day passes.

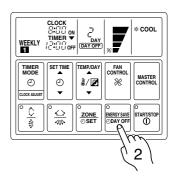
Using the DAY OFF Setting

Press the START/STOP button to stop the air conditioner, and then proceed as follows.

- Carry out steps 1 to 2 of the "Setting Up the Weekly Timer Operation" procedure to select the day that you want to set as the DAY OFF.
- 2. Press the DAY OFF button.

The DAY OFF setting is registered, and the DAY OFF caption appears on the display.

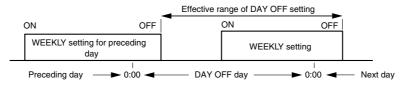
 To cancel the DAY OFF setting: You can cancel the setting by pressing the DAY OFF button again.



Example: To switch off timed operation for day 2 (Tuesday).

NOTES:

- (1) The DAY OFF setting is only available for days for which weekly time settings already exist.
- (2) You can make this setting for any of the next seven days (counting from the current day).
- (3) The DAY OFF setting is effective over the range illustrated below. The Weekly setting for which an ON time has been set is eligible for the day in which the DAY OFF has been set.



(4) The display on the clock's lower line will usually be "

- " for the DAY OFF set day during Weekly operations.



Precautions during setup

Setup is not possible in the following cases, so amend the time.

- If you set an ON time while leaving the OFF time setting blank:
 - Nothing will happen when you press the SET button.

To proceed, press the SET TIME button and enter an appropriate setting.

- When an attempt is made to set only the OFF time.
 - Nothing will happen when you press the SET TIME button.

Press the SET button and amend the entry for the ON time.

- ON and OFF times cannot be set to the same value.
- The OFF time cannot be set earlier than the ON time.
- The WEEKLY 2 settings cannot be set earlier than the WEEKLY 1 settings.
- The WEEKLY 1 and WEEKLY 2 time spans cannot overlap.

Cancelling Selected Time Settings

Press the START/STOP button to stop the air conditioner, and then proceed as follows.

- 1. Carry out steps 1 to 3 of the "Setting Up the Weekly Timer Operation" procedure to select the day you want to edit.
- 2. Press the SET button to select the ON time that you want to cancel.

Be sure to select an ON time (the upper time display).

- 3. Hold down the ▼ side of the SET TIME button until the time display becomes blank " --:-- ".
- 4. Press the SET button.

The first OFF time setting ("WEEKLY 1" OFF time) is deleted and replaced by a flashing blank pattern " - -: - - ".

5. Press the SET button again.

This completes deletion of the "WEEKLY 1" ON/OFF settings. The second ON time setting ("WEEKLY 2" ON time) appears and flashes.

If you wish to delete other time settings, repeat steps 2 through $5. \,$

6. Once the setting has been canceled, hold down the SET button for 3 seconds.

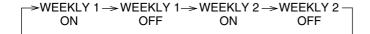
The WEEKLY display flashes briefly, and then the clock display appears.

To Change Selected Time Settings

Press the START/STOP button to stop the air conditioner, and then proceed as follows.

- 1. Carry out steps 1 to 3 of the "Setting Up the Weekly Timer Operation" procedure to select the day you want to edit.
- 2. Press the SET button to select the time that you want to change.

 The selected setting flashes on the display. Each press moves you to the next setting for the selected day, as follows.

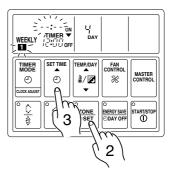


- 3. Press the SET TIME button to change the time setting.
- 4. Press the SET button.

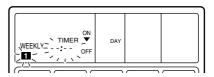
The new setting overwrites the previous setting.

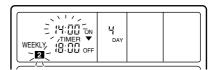
5. Once the setting has been canceled, hold down the SET button for 3 seconds.

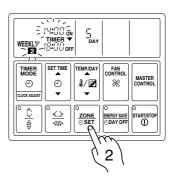
The WEEKLY display flashes briefly, and then the clock display appears.



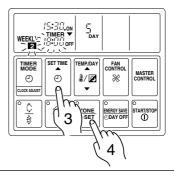
Example: Clearing the "WEEKLY 1" ON/OFF times for day 4 (Thursday).







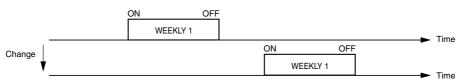
Example: Changing the "WEEKLY 2" ON setting for day 5 (Friday) from 14:00 to 15:30.



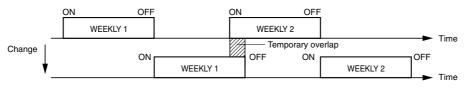
NOTES:

In the following cases, cancel the set time prior to making the required amendments.

(1) If you want to change the ON time to a time that is later than the currently set OFF time.



(2) If the change would cause a temporary overlap between the first and second ON/OFF time spans.



6.2 FAN CONTROL

6-2-1 "AUTO" POSITION

1) COOLING OPERATION

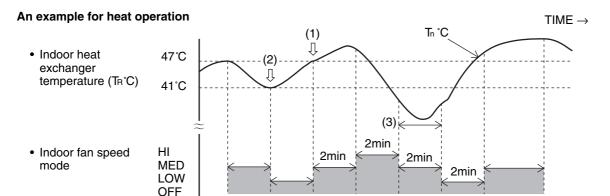
Air flow mode is set automatically in accordance with the condition "(Room temp. - Set temp.)" as shown at the right.

Fan speed zone

	Hi zone _	↑ 3°C or more
2°C or more	111 20110	Less than 3°C
Less than 2°C	Med zone	2°C or more
1°C or more		Less than 2°C
Less than 1°C	Low zone	
When the room temperature lowers		When the room temperature rises

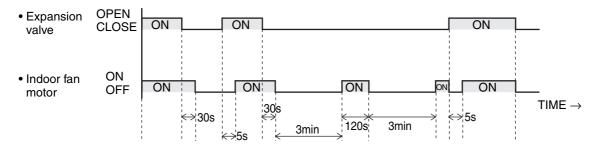
2) HEATING OPERATION

- (1) When the indoor heat exchanger temperature reaches 47 °C or more, the fan mode switches to the next higher position ("LOW" → "MED", "MED" → "HIGH").
- (2) When the indoor heat exchanger temperature drops below 41°C while the compressor operates, the fan mode switches to the next lower position ("HIGH" → "MED", "MED" → "LOW").
- (3) After switching the fan mode, it does not switch again within 2 minutes.
- (4) When "FAN CONTROL" is switched to "AUTO" while the unit is operated at the "FAN CONTROL" position of "HIGH", "MED" or "LOW", the unit operation is performed in the "MED" fan mode.



3) DRY OPERATION

"Indoor fan motor" operates with "Lo" fan speed despite of "FAN CONTROL" mode.



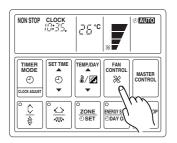
- (1) The indoor fan motor starts operation after 5 seconds when the air condition starts operation or the refrigerant circulation is activating when the operation mode is changed from other OPERATION MODE to "DRY".
- (2) The indoor fan motor stops after 30 seconds from the refrigerant circulation stops.
- (3) During the indoor unit operation, the indoor fan motor will be operated for 120 seconds when the refrigerant circulation continuously stops over 3 minutes.

4) FAN OPERATION

The fan operates continuously with Lo mode.

6-2-2 "LOW", "MED" AND "HIGH" POSITION

The indoor fan operates at the air flow set in the FAN CONTROL mode.



6-3 MASTER CONTROL

6-3-1 OPERATION MODE CONTROL

Each operation mode is controlled as below.

(1) Stop motion

Indoor fan motor : OFF
RB unit discharge valve : OFF
RB unit suction valve : OFF
RB unit by-pass valve : OFF
Electric expansion valve : Stop pulse

Drain pump : Turns ON-OFF by the drain pump control function

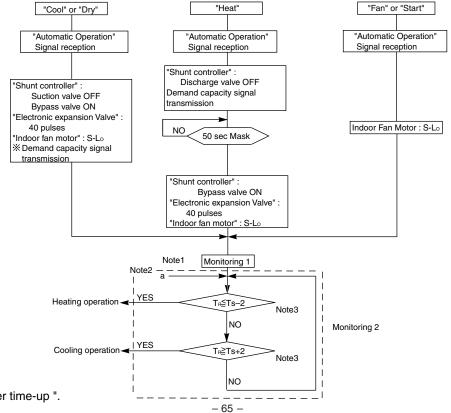
(2) Cool, Fan, Heat and Dry Mode

	Cool	Fan	Heat	Dry	Remarks
Indoor fan motor	Operates according to the AIR FLOW- MODE setting. (Except Monitoring)	Operates according to the AIR FLOW-MODE setting.	Operates according to the AIR FLOW-MODE setting besides followings. • Cold air prevention • Defrost operation • Monitoring	See the fan control page.	
RB unit discharge valve	OFF	OFF	ON	OFF	
RB unit suction valve	ON	OFF	OFF	ON	Heat recovery type Only
RB unit by-pass valve	OFF	OFF	ON	OFF	-
Drain pump	Turns ON-OI	F by the drain pum	p control function		
Electrical expansion valve	Pulse controlled by the temperature compensation and the de-icing function	Stop pulse	Pulse controlled by the temperature compensation and the defrosting function	Pulse controlled by the temperature compensation and the de-icing function	

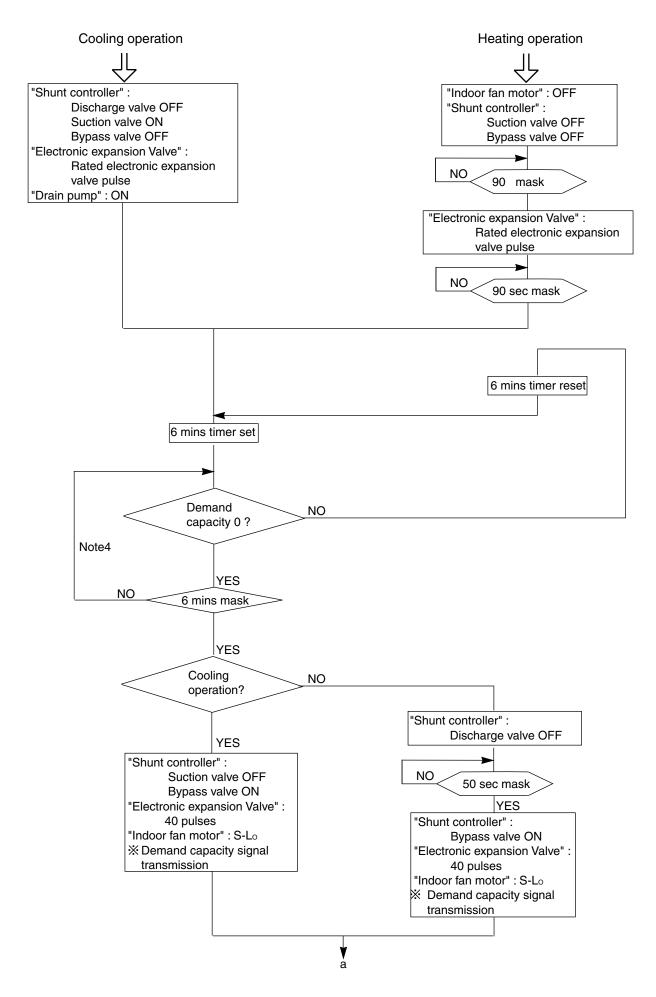
6-3-2 "AUTO"(AUTO CHANOVER) POSITION

If the autochangeover is selected, the following control is performed.

■ AUTO CHANGEOVER operation (HEAT RECOVERY TYPE)



※ "Mask" means "Timer time-up ".



- Note 1. Monitoring 1 performs the following for 60 seconds and detects the "Room temperature" from the point that
 - " Operation started ".
 - " Indoor unit fan motor ": S-Lo
 - "Shunt controller discharge valve ": OFF
 - " Shunt controller suction valve ": OFF
 - " Shunt controller bypass valve ": ON

Note 2. Room temperature monitoring state.

If "Room temperature" (T_R) is 2°C lower than the "Set temperature" (T_S), "Heating" is decided and if it is higher than 2°C, "Cooling" is decided.

The system operates at S-Lo until the operation mode is decided as " Heating " or " Cool " .

This state is made monitoring 2.

Note 3. 2: [deg].

Note 4. When the system is in the "Refrigerant circulation stop" state continuously for 6 minutes after "Heating" or "cooling" was decided, returns to a.

However ,this 6 minutes do not include " Refrigerant circulation stopped " by a protection function.

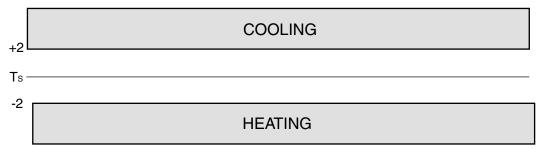
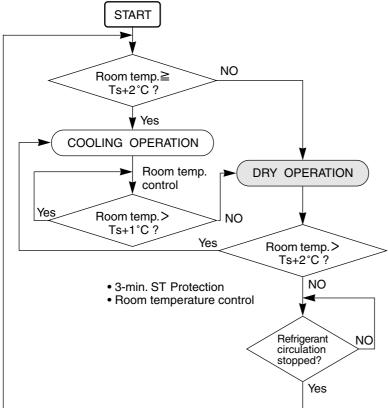


Fig.7-10 Operation mode at " Automatic operation "

- ① Previous Note 2. " Monitoring 1 " measures the room temperature (TR) and if it is " Set temperature TS +2C° or less, " Heating " is decided and " Refrigerant circulation " is started.
- ② When Ts -2 < T_R < Ts+2 at①, " Monitoring 2 " " Room fan motor " continues and monitoring of the room temperature continues until " Cooling " or " Heating " operation is decided.
- ③ When " Heating " or " Cooling " is decided, the respective operation is performed in accordance with " Room temperature control " to be described later.
- ④ When "Refrigerant circulation stopped "by "Cooling "or "Heating "Room temperature adjustment "continues for 6 minutes or more, the room temperature monitoring of ② above is performed.
- ⑤In the state of room temperature watching stated in the above ④, the indoor unit fan motor shall be S-Lo.
- 6 When " Set temperature " was changed.
- A) When changed during " Monitoring 1 ", judgment if performed by means of the " Set temperature " newly input after the end of " Monitoring 1 ".
- B) When changed with in the previously mentioned Note 3 monitoring range, the newly input " Set temperature " is made Ts.
- C) When changed during " Cooling operation in progress " (including " Refrigerant circulation stopped " for under 6 minutes by " Room temperature adjustment ") after " Cooling operation " decision, " Cooling operation " is continued with the newly input " Set temperature " as Ts.
- D) When changed during " Heating operation in progress " (including "Refrigerant circulation stopped "for under 6 minutes by "Room temperature adjustment") after "Heating operation decision, Heating operation is continued with the newly input Set temperature as Ts.
- ⑦After entering the room temperature monitoring state after the "Refrigerant circulation state" by "Room temperature adjustment "has continued for 6 minutes, "Cooling ↔ Heating switching is performed even when in a temperature state which switches "Cooling ↔ Heating "by "Set temperature" change.

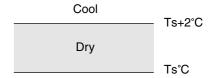
■ AUTO CHANGEOVER operation (COOLING ONLY TYPE)

Operation flow chart



- (1) When starting the operation at "AUTO" or when switched to "AUTO" from other modes, if the room temperature is higher than the set temperature +2°C (Room temp. ≧ Set temp. (Ts) +2°C), "COOL" mode is set automatically and an air conditioner operates until the room temperature reaches the condition "Room temp. ≦ Set temp. (Ts) +1°C".
- (2) When the room temperature is less than the set temperature (Ts) +2°C at the start of operation or changing into "AUTO", or after the room temperature reaches the condition "Room temp. < Set temp. (Ts) +2°C", the unit is changed into the "DRY" mode.

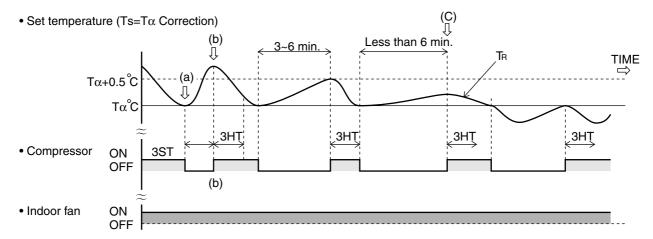
"Room Temp. ≦ Set Temp. (Ts) +2°C"



6-3-3 "COOL" POSITION

- (1) When using the cooling mode, set the temperature to a value lower than the current room temperature.
- (2) If it is set higher than the current room temperature the unit will not enter the cooling mode and only the fan will operate

An example for COOLING TEMPERATURE CONTROL time chart (Manual setting)



(a) Compressor turned OFF: T_R< T α

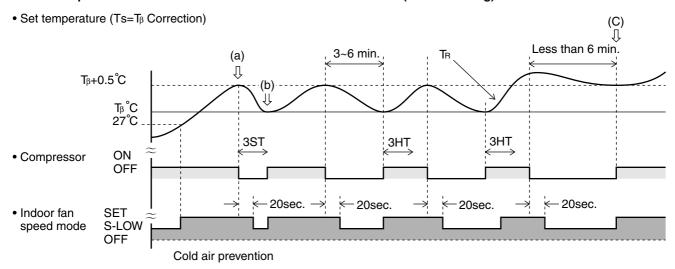
(b) Compressor turned ON: T_R≥ Tα+0.5 °C (In case of 3 to 6 minutes)

(c) Compressor turned ON: $T_R \le T_\alpha$ (In case that the compressor stops more than 6 minutes)

6-3-4 "HEAT" POSITION

- (1) Set the temperature higher than the current room temperature. If it is set to a lower temperature, heating will not start.
- (2) For about 3 ~ 5 minutes after the start of heating, the fan will operate very slowly, and then switch to the selected fan setting. This period allows the indoor unit's heat exchanger to warm-up before emitting warm air.
- (3) During defrosting, the OPERATION indicator lamp flashes 3 sec. ON and 1 sec. OFF, and the heating mode will be temporarily interrupted.

An example for HEATING TEMPERATURE CONTROL time chart (Manual setting)



(a) Compressor OFF: T_R ≥ T_β+0.5°C

(b) Compressor ON: $T_R < T_B$

(c) Compressor ON: T_R < T_β+0.5°C (When the compressor stops after less than 6min.)

6-3-5 "FAN" POSITION

- (1) In this position, the fan operates alone to circulate air. The room temperature will not be changed.
- (2) Operates at the air flow set in the FAN CONTROL mode.
- (3) When only the "FAN" mode is being used, setting to "AUTO" is equivalent to set it at "MED".

(1) ADJUSTING THE DIRECTION OF AIR CIRCULATION

Instructions relating to heating (*) are applicable only to "HEAT & COOL MODEL" (Reverse Cycle).

Begin air conditioner operation before performing this procedure.

Vertical Air Direction Adjustment

This instructions are applicable to "CEILING SUSPENSION TYPE", "FLOOR CONSOLE/UNDER CEILING DUAL TYPE" "CASSETTE TYPE", and "WALL MOUNTED TYPE".

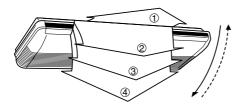
Press the VERTICAL AIR FLOW DIRECTION SET button.

Each time the button is pressed, the air direction range will change as follows:

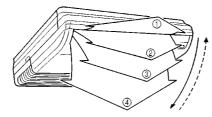


The remote controller's display does not change.

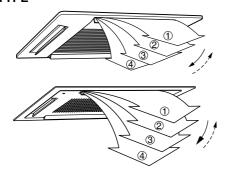
■ CEILING SUSPENSION TYPE



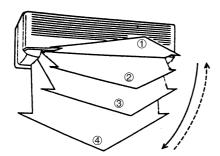
■ FLOOR CONSOLE/UNDER CEILING DUAL TYPE

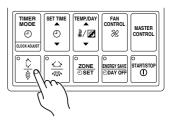


■ CASSETTE TYPE



■ WALL MOUNTED TYPE





Example: When set to vertical air direction.

⚠ DANGER!

Never place fingers or foreign objects inside the outlet port could cause personal injury.

- Always use the remote controller's AIR FLOW DIRECTION button to adjust the UP/DOWN air direction flap or RIGHT/ LEFT air direction louvers. Attempting to move them manually could result in improper operation; in this case, stop operation and restart. The flaps should begin to operate properly again.
- During use of the Cooling mode, do not set the UP/DOWN air direction flap in the ④ position for long periods of time, since water vapor may condense near the outlet port and drops of water may drip from the air conditioner.
- When used in a room with infants, children, elderly or sick persons, the air direction and room temperature should be considered carefully when making settings.

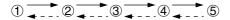
- Use the air direction adjustments within the ranges shown above
- The vertical airflow direction is set automatically as shown, in accordance with the type of operation selected.
 - During Cooling mode: Horizontal flow 1
 - * During Heating mode : Downward flow 4
- During AUTO mode operation, for the first minute after beginning operation, airflow will be horizontal ①; the air direction cannot be adjusted during this period.

Horizontal Air Direction Adjustment

This instructions are applicable to "CEILING SUSPENSION TYPE", "FLOOR CONSOLE/UNDER CEILING DUAL TYPE" and "WALL MOUNTED TYPE".

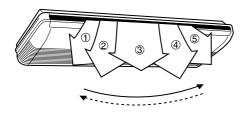
Press the HORIZONTAL AIR FLOW DIRECTION SET button.

Each time the button is pressed, the air direction range will change as follows:

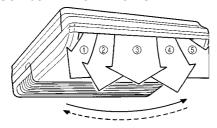


The remote controller's display does not change.

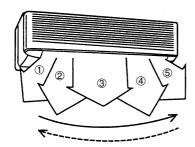
■ CEILING SUSPENSION TYPE



■ FLOOR CONSOLE/UNDER CEILING DUAL TYPE



■ WALL MOUNTED TYPE



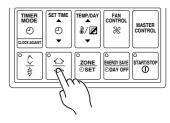
(2) SWING OPERATION

Instructions relating to "the indoor unit's indicator lamp" (**) are applicable to "CEILING SUSPENSION TYPE", "FLOOR CONSOLE /UNDER CEILING DUAL TYPE", "CASSETTE TYPE", "WALL MOUNTED TYPE".

Begin air conditioner operation before performing this procedure.

To select Vertical airflow SWING Operation

This instructions are applicable to "CEILING SUSPENSION TYPE", "FLOOR CONSOLE/UNDER CEILING DUAL TYPE", "CASSETTE TYPE" and "WALL MOUNTED TYPE".



Example: When set to horizontal air direction.

Press the VERTICAL SWING button for more than two seconds.

The remote controller's VERTICAL SWING lamp (orange) **and indoor unit's SWING indicator lamp (VERTICAL SWING) (orange) will light up.

In this mode, the UP/DOWN air direction flaps will swing automatically to direct the air flow both up and down.

To Stop Vertical airflow SWING Operation

Press the VERTICAL SWING button for more than two seconds once again.

The remote controller's VERTICAL SWING lamp **and indoor unit's SWING indicator lamp (VERTICAL SWING) will go out. Airflow direction will return to the setting before swing was begun.

Instructions relating to "the indoor unit's indicator lamp" (**) are applicable to "CEILING SUSPENSION TYPE", "FLOOR CONSOLE /UNDER CEILING DUAL TYPE", "CASSETTE TYPE" and "WALL MOUNTED TYPE".

About Vertical Airflow Swing Operation

- The range of swing is relative to the currently set airflow direction.
- If the swing range is not as desired, use the remote controller's VERTICAL AIR FLOW DIRECTION SET button to change the range of swing.
- The SWING operation may stop temporarily when the air conditioner's fan is not operating, or when operating at very low speeds.
- During use of the Cooling mode, do not set the air UP/ DOWN direction flap, in the ④ position for long periods of time, since water vapor may condense near the outlet port and drops of water may drip from the air conditioner.

To select Horizontal Airflow SWING Operation

This instructions are applicable to "CEILING SUSPENSION TYPE", "FLOOR CONSOLE/UNDER CEILING DUAL TYPE" and "WALL MOUNTED TYPE".

Press the HORIZONTAL SWING button for more than two seconds.

The remote controller's HORIZONTAL SWING lamp (orange) **and indoor unit's SWING indicator lamp (HORIZONTAL SWING) (orange) will light up.

In this mode, the RIGHT/LEFT air direction louvers will swing automatically to direct the airflow both right and left.

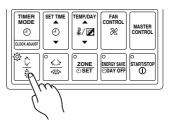
To Stop Horizontal airflow SWING Operation

Press the HORIZONTAL SWING button for more than two seconds once again.

The remote controller's HORIZONTAL SWING lamp **and indoor unit's SWING indicator lamp (HORIZONTAL SWING) will go out. Airflow direction will return to the setting before swing was begun.

About Horizontal Airflow Swing Operation

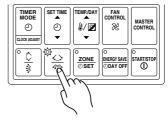
- The range of swing is relative to the currently set airflow direction.
- If the swing range is not as desired, use the remote controller's HORIZONTAL AIR FLOW DIRECTION SET button to change the range of swing.
- The SWING operation may stop temporarily when the air conditioner's fan is not operating, or when operating at very low speeds.



Example: When set to vertical swing.

Air flow direction set	Range of swing	
1	① to ③	
2	② to ④	
3	② to ④	
4	① to ④ (All range)	

Air direction range (See page 22)



Example: When set to horizontal swing.

Air flow direction set	Range of swing
① ①	① to ⑤ (All range)
2 1	① to ③
3 1	② to ④
4 1	③ to
⑤ ①	① to ⑤ (All range)

Air direction range (See page 23)

6-5 ELECTRONIC EXPANSION VALVE CONTROL

After the power is turned on, the following operation is controlled automatically to control the most suitable refrigerant charge according to the operation mode and operation conditions of each unit.

Electronic expansion valve control process.

The electronic expansion valve adjusts the opening by selecting the number of pulses from the rated capacity, operation mode (cool / heat) and set temperature of each indoor unit.

6-6 AUTO RESTART

- (1) The air conditioner restarts with the previous setting operation.
- (2) When the air conditioner restarts, the "THREE MINUTE DELAY FUNCTION" operates.
- (3) When the air conditioner restarts for heating operation, the " COLD AIR DISCHARGE PREVENTION FUNCTION " operates.
- (4) When the timer power is interrupted during operation and is reset later, the timer display flashes (on 3 sec. / off 1 sec.).

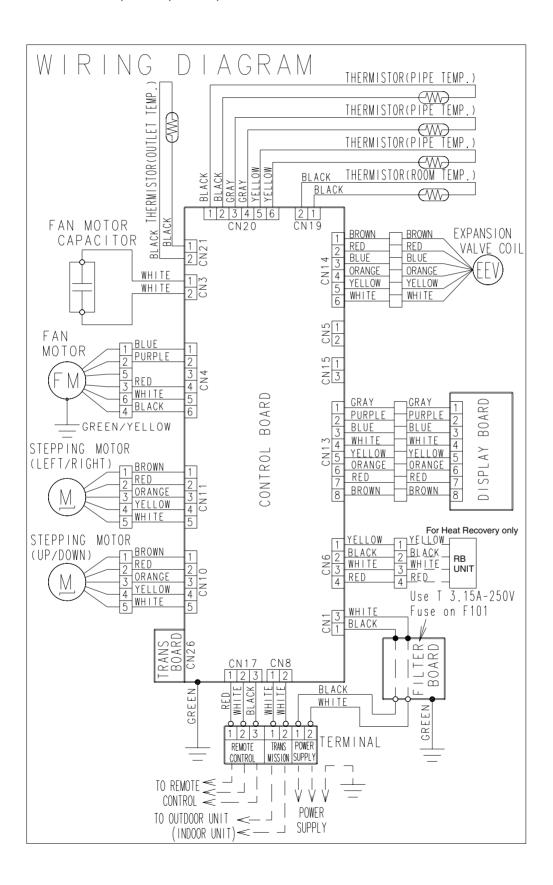
6-7 DRAIN PUMP OPERATION

- (1) When refrigerant circulation starts, the drain pump starts simultaneously.
- (2) The drain pump operates continuously for 3 minutes after the refrigerant circulation stopped.
- (3) When the refrigerant circulation stops by the 'Indoor heat exchanger de-icing function', the drain pump is turned off in 1 hour after the compressor stops.
- (4) When the water level in the drain pan rises up and then the float switch functions:
 - ① Microcomputer stops the refrigerant circulation and indoor and outdoor fan motor operation.
 - ② Drain pump operates continuously for 3 minutes after the float switch is turned off. (Almost condensing water may be drained)
- (5) When the float switch turns ON continuously for 3 min., 'FAILURE INDICATION' operates.
- (6) When the float switch turns OFF within 3 min., the unit starts cooling operation.

7. WIRING DIAGRAMS

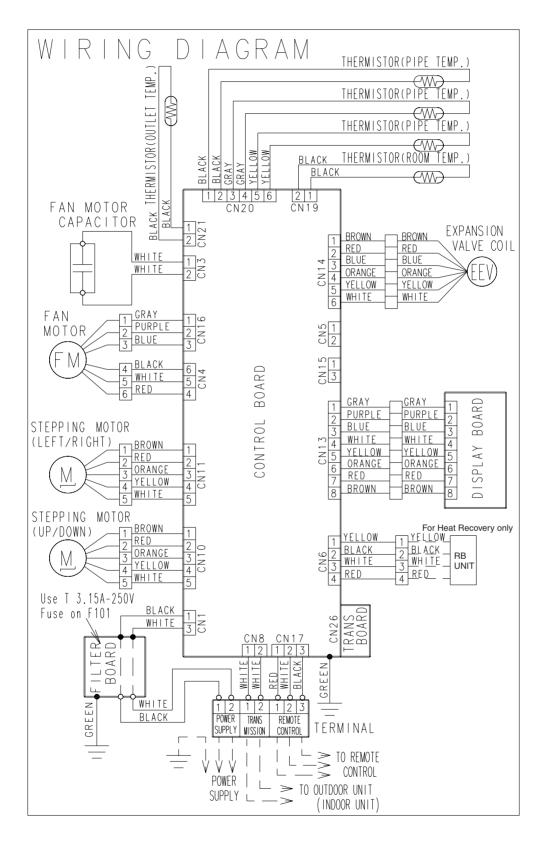
7-1 UNIVERSAL FLOOR / CEILING TYPE

■ MODELS: AB12, AB14, AB18, AB24



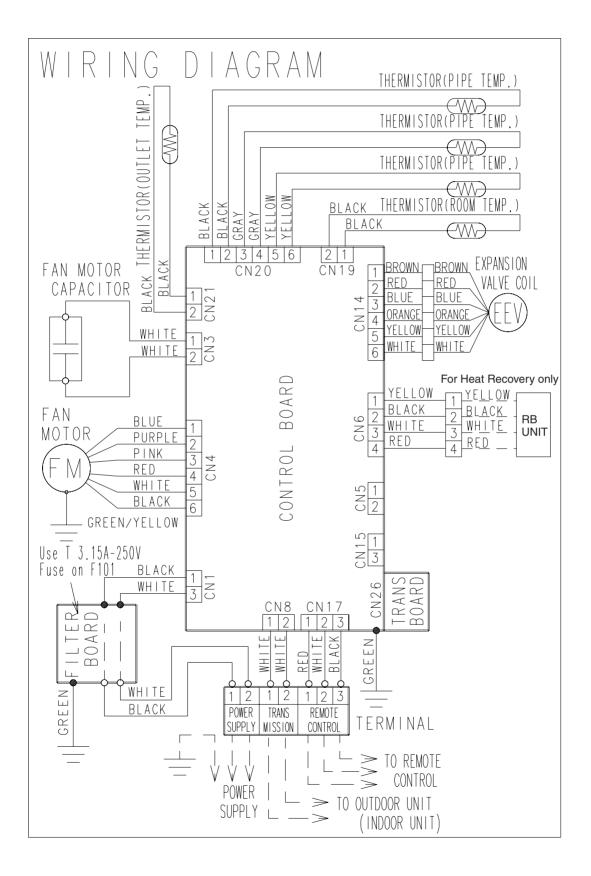
7-2 LARGE CEILING TYPE

■MODELS: AB30, AB36, AB45, AB54



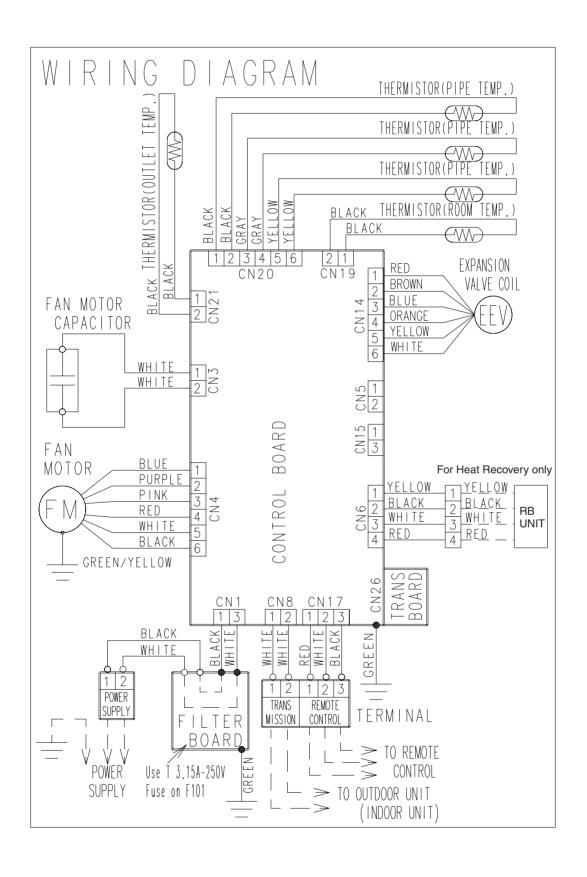
7-3 COMPACT DUCT TYPE

■ MODELS: AR7, AR9, AR12, AR14, AR18



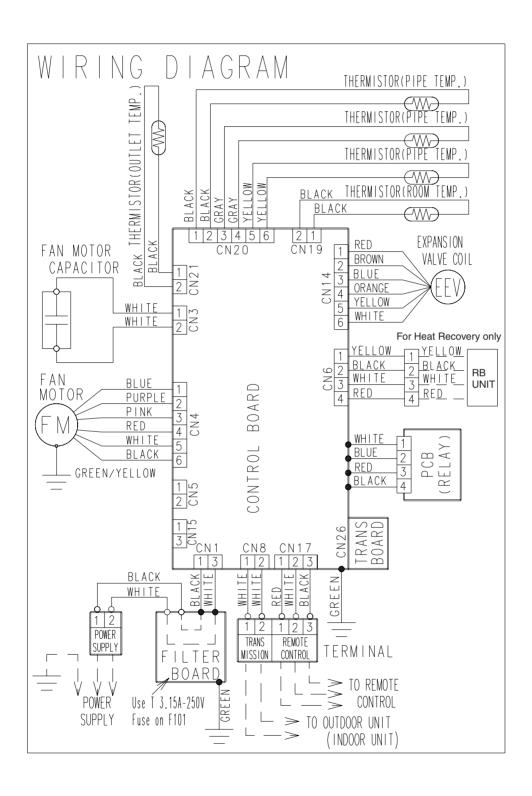
7-4 LOW STATIC PRESSURE DUCT TYPE

■ MODELS: AR25, AR30, AR36, AR45



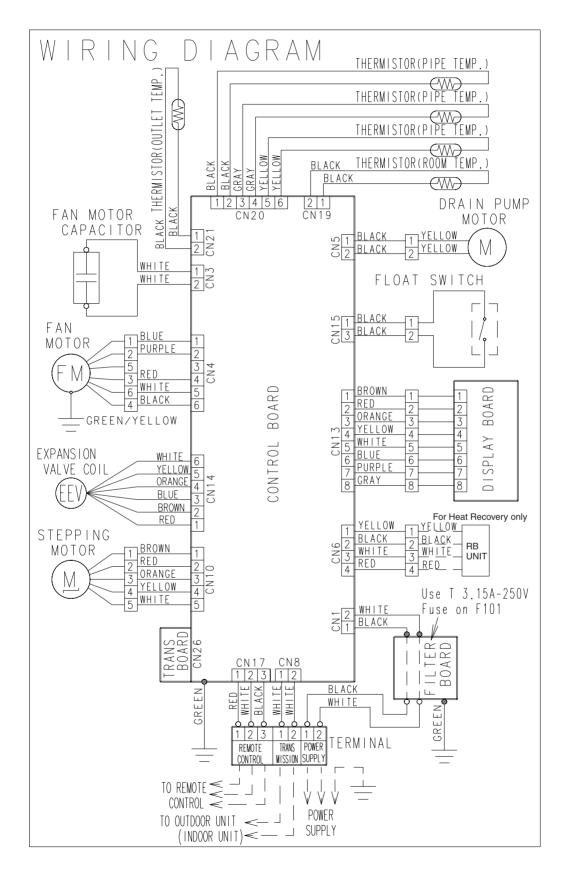
7-5 HIGH STATIC PRESSURE DUCT TYPE

■ MODELS: AR36H, AR45H, AR60H



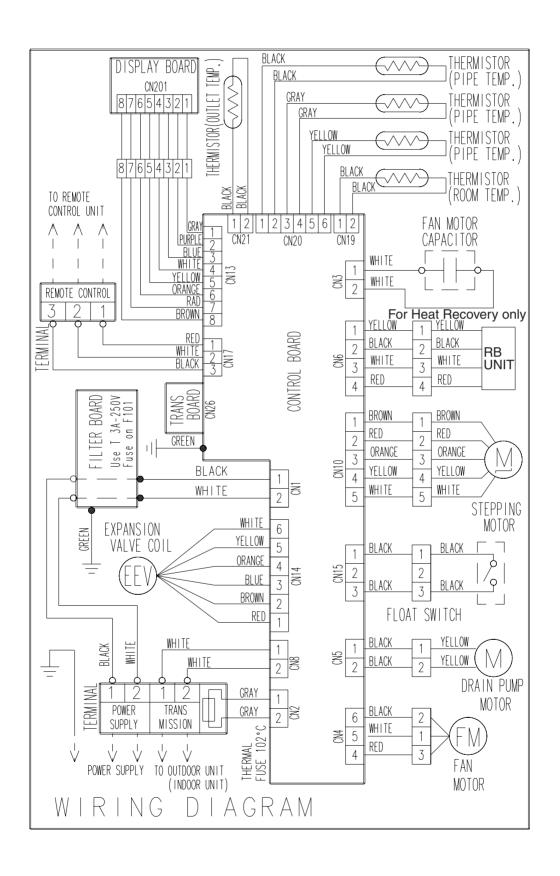
7-6 COMPACT CASSETTE TYPE

■ MODELS: AU7, AU9, AU12, AU14, AU18



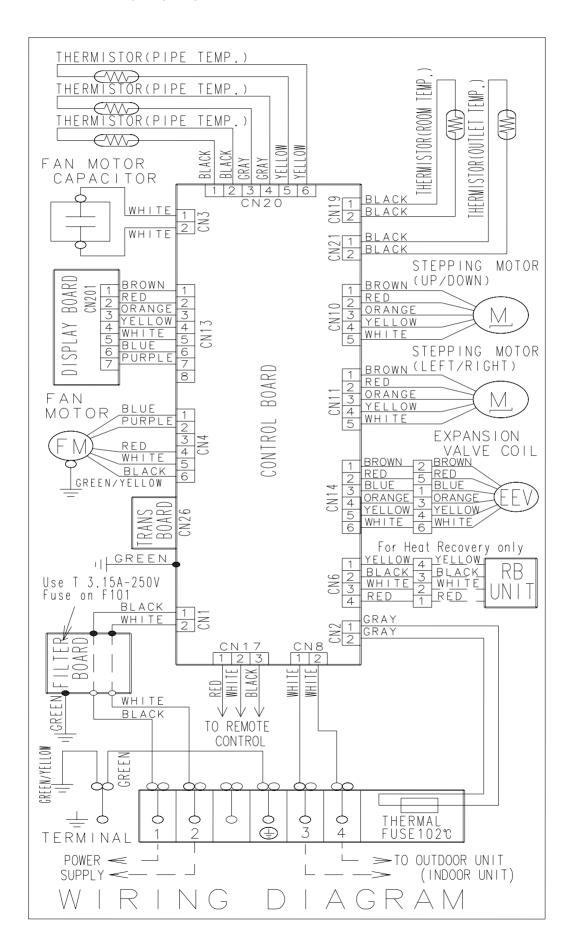
7-7 NEW CASSETTE TYPE

■ MODELS: AU20, AU25, AU30, AU36, AU45, AU54



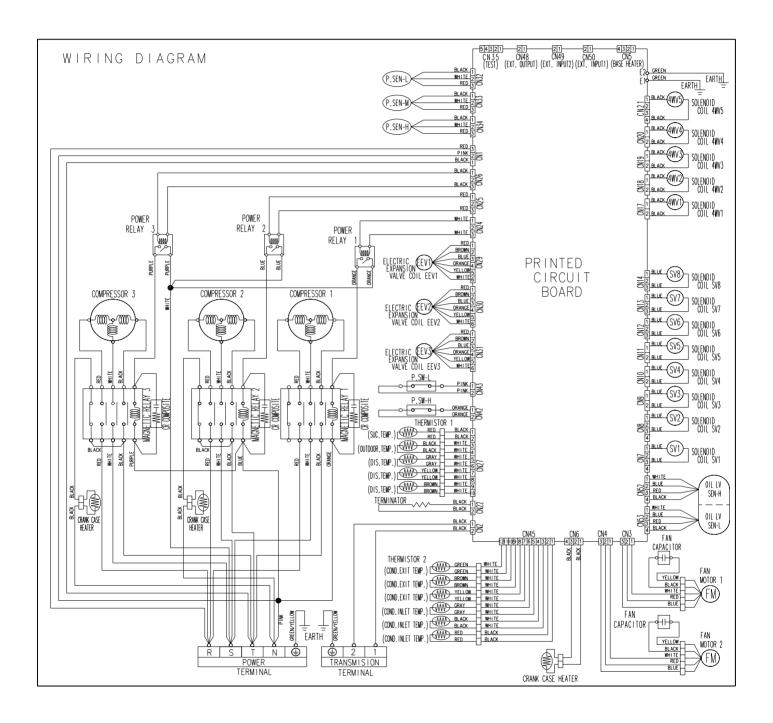
7-8 WALL MOUNTED TYPE

■ MODELS: AS14, 20, 24, 30



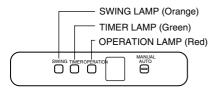
7-9 OUTDOOR UNIT

■ MODEL: AOY90



8. TROUBLESHOOTING

8-1 INDOOR UNIT



Operation can be checked by lighting and flashing of the grille display section OPERATION and TIMER lamps. perform judgment in accordance with the following.

· Test running

When the air conditioner is run by pressing the remote controller test run button, the OPERATION and TIMER lamps flash slowly at the same time.

Error

The OPERATION and TIMER lamps operate as follows (Table 11) according to the error contents.

8-1-1 NORMAL OPERATION DISPLAY

OPERATION FACTOR	INDICATOR LAMP	FLASH / TIME (SEC)
① Test operation	Operation lamp (red)	
Test operation	Timer lamp (green)	
② Power failure *1 Auto-restart enable (DIP SW 2-4 : OFF)	Timer lamp (green)	ON
*2 Auto-restart disable	Operation lamp (red)	
(DIP SW 2-4 : ON)	Timer lamp (green)	
③ Defrost operation *3 (Heating operation)	Operation lamp (red)	ON

Note: Display lamps light on the front panel of the indoor unit.

- *1: The power is failed during timer operation, then the timer lamp flashes on and off when the power returns.
- *2: The power is failed during operation, then both lamps flash on and off when the power returns.
- *3: While the indoor fan motor stops, the operation lamp flashes on and off.

8-1-2 ABNORMAL OPERATION DISPLAY

	Operation Lamp	Timer Lamp	Swing Lamp	Error contents
1	0.1 sec. ON / OFF flashing	0.1 sec. ON / OFF flashing		Model data error
2	0.5 sec. / 0.5 sec. flashing 2 times	0.1 sec. ON / OFF flashing		Room temperature thermistor error
3	0.5 sec. / 0.5 sec. flashing 3 times	0.1 sec. ON / OFF flashing	0.5 sec. / 0.5 sec. flashing once	Heat exchanger inlet tempera- ture thermistor error
4	0.5 sec. / 0.5 sec. flashing 3 times	0.1 sec. ON / OFF flashing	0.5 sec. / 0.5 sec. flashing 2 times	Heat exchanger intermediate temperature thermistor error
5	0.5 sec. / 0.5 sec. flashing 3 times	0.1 sec. ON / OFF flashing	0.5 sec. / 0.5 sec. flashing 3 times	Heat exchanger outlet temperature thermistor error
6	0.5 sec. / 0.5 sec. flashing 4 times	0.1 sec. ON / OFF flashing		Drain error(Float switch operation)
7	0.5 sec. / 0.5 sec. flashing 5 times	0.1 sec. ON / OFF flashing		Serial communication error
8	0.5 sec. / 0.5 sec. flashing 6 times	0.1 sec. ON / OFF flashing		Indoor fan error
9	0.1 sec. ON / OFF flashing 7 times	0.1 sec. ON / OFF flashing		Discharge temperature thermistor error
10	0.1 sec.ON/ OFF	0.5 sec. ON / OFF flashing 2 times	0.5 sec. ON / OFF flashing 2 times	Dduplicate indoor unit numbers,Number of indoor units exeeds limit
11)	0.1 sec. ON / OFF flashing	0.5 sec. ON / OFF flashing 3 times	0.5 sec. ON / OFF flashing 3 times	Outdoor unit error

① Model data error

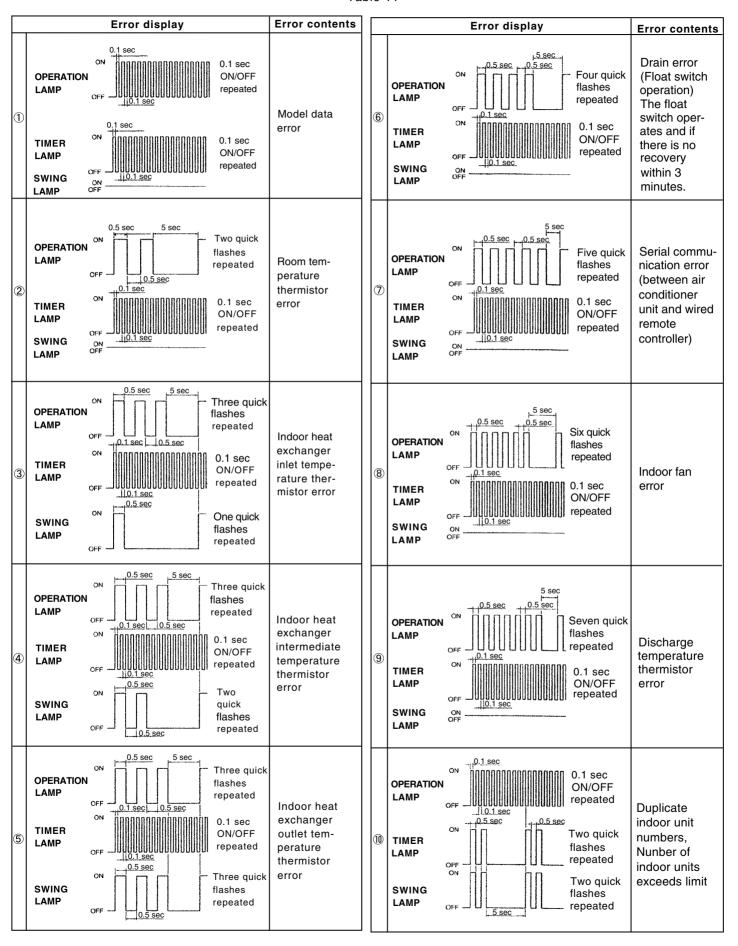
PCB fault.

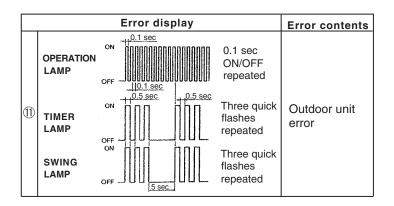
2 Room temperature thermister error.

Thermister(CN19) open or short-circuited.

- 3 Indoor heat exchanger inlet temperature thermistor error.
 - Heat exchanger inlet thermister(CN20 1,2PIN) open or short-circuited.
- 4 Indoor heat exchanger intermediate temperature thermistor error.
 - Heat exchanger inlet thermister(CN20 3,4PIN) open or short-circuited.
- ⑤ Indoor heat exchanger outlet temperature thermistor error.
 - Heat exchanger outlet thermister(CN20 5,6PIN) open or short-circuited
- 6 Drain error (Float switch operation) The float switch operates and if there is no recovery within 3 minutes. Inside of the hose stuffed, drain pump/float switch and PCB fault.
 - (When float switch is turned to ON, the compressor and the indoor fan stopped)
- Serial communication error (between air conditioner unit and wired remote controller) PCB fault.
- 8 Indoor fan error.
 - AB30-54: Indoor fan motor line(CN 4) or feedback line (CN 16) is disconnected/bad connected, PCB and indoor fan motor fault.
 - * When the indoor fan motor rotation is differ from the required rotation on the indoor fan phase control model(AB30-54), the indoor fan becomes faulty due to the rotation does not feedback.
- 9 Discharge temperature thermistor error.
 - Discharge thermistor (CN 21) open or short-circuited.
- Doubled indoor address and excessive connecting units.
 - Indoor unit address is doubled or units to be connected are excessive.
- $\ensuremath{\textcircled{1}}$ Outdoor unit error.
 - Outdoor unit faulty.

Table 11





8-2 OUTDOOR UNIT

8-2-1 NORMAL OPERATING DISPLAY

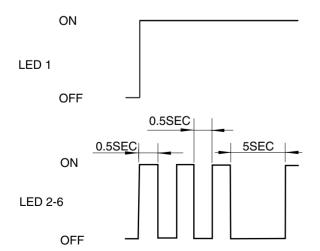
Display Type	LED 1	LED 2	LED 3	LED 4	LED 5	LED 6
Cooling operation Heating operation Cooling main operation Heating main operation Same performance operation	0000	(1) (2) (3) (4) (5)				
Compressor output STEP1 Compressor output STEP2 Compressor output STEP3 Compressor output STEP4 Compressor output STEP5 Compressor output STEP5	00000		(1) (2) (3) (4) (5) (6)			
Heat exchanger usage capacity STEP1 Heat exchanger usage capacity STEP2 Heat exchanger usage capacity STEP3 Heat exchanger usage capacity STEP4 Heat exchanger usage capacity STEP5 Heat exchanger usage capacity STEP6	00000			(1) (2) (3) (4) (5) (6)		
Oil recovery Defrosting Test operation	000				(1) (2) (3)	
High pressure → Medium pressure by-pass High pressure → Low pressure by-pass	© ©					(1) (2)
Under initialization of expansion valve	0					0

Display Method

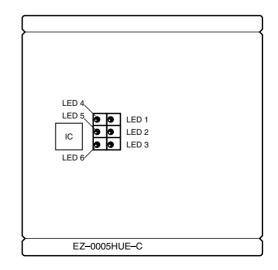
©: Lighted continuously
O: 0.5sec ON/0.5sec OFF flashing

(): Flashing times

Error display



OUTDOOR P.C.B. BOARD LAYOUTS



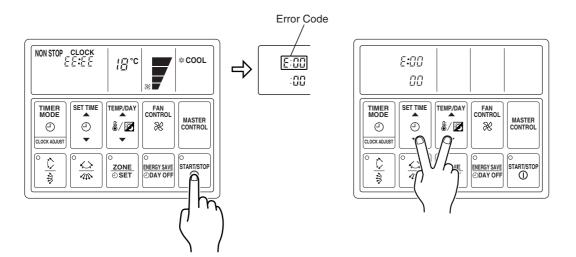
8-2-2 ABNORMAL OPERATION DISPLAY

Compressor1 error	Display type	LED 1	LED 2	LED 3	LED 4	LED 5	LED 6
Compressor3 error	Compressor1 error		` '				
Discharge temprature1 error							
Discharge temprature2 error	·						
Discharge temprature3 error	· ·		` '				
High-pressure error							
Low-pressure error			` ′				
Pump down error							
Discharge temperature thermistor1 error Discharge temperature thermistor2 error Discharge temperature thermistor3 error Heat exchange inlet thermistor1 error Heat exchange inlet thermistor3 error Heat exchange inlet thermistor3 error Heat exchange outlet thermistor3 error Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Suction pressure sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2							
Discharge temperature thermistor2 error ♦ (2) Discharge temperature thermistor3 error ♦ (3) Heat exchange inlet thermistor1 error ♦ (4) Heat exchange inlet thermistor2 error ♦ (5) Heat exchange inlet thermistor3 error ♦ (6) Heat exchange outlet thermistor1 error ♦ (6) Heat exchange outlet thermistor2 error ♦ (8) Heat exchange outlet thermistor3 error ♦ (9) Suction thermistor error ♦ (10) Outdoor thermistor error ♦ (10) Discharge pressure sensor error ♦ (11) Liquid line pressure sensor error ♦ (2) Suction pressure sensor error ♦ (2) Oil sensor error ♦ (3) Oil recovery error ♦ (4) Reverse phase blocker error ♦ (7) Reverse phase blocker error ♦ (2) Power frequency faulty ♦ (2) Model data error ♦ (3) EEPROM deletion error ♦ (4) Outdoor unit circuit bord error 1 ♦ (4) Outdoor unit circuit bord error 2 ♦ (7) Outdoor unit circuit bord error 2	•		• (5)	• (1)			
Discharge temperature thermistor3 error Heat exchange inlet thermistor1 error Heat exchange inlet thermistor2 error Heat exchange inlet thermistor3 error Heat exchange inlet thermistor3 error Heat exchange outlet thermistor1 error Heat exchange outlet thermistor1 error Heat exchange outlet thermistor2 error Heat exchange outlet thermistor3 error Heat exchange outlet thermistor3 error Heat exchange outlet thermistor3 error Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM deletion error Outdoor unit circuit bord error 2	Discharge temperature thermistor2 error						
Heat exchange inlet thermistor1 error Heat exchange inlet thermistor2 error Heat exchange inlet thermistor3 error Heat exchange outlet thermistor3 error Heat exchange outlet thermistor1 error Heat exchange outlet thermistor2 error Heat exchange outlet thermistor2 error Heat exchange outlet thermistor2 error Heat exchange outlet thermistor3 error Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 1 Outdoor unit circuit bord error 2	- · ·						
Heat exchange inlet thermistor2 error Heat exchange inlet thermistor3 error Heat exchange outlet thermistor1 error Heat exchange outlet thermistor2 error Heat exchange outlet thermistor3 error Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2	- ·						
Heat exchange inlet thermistor3 error Heat exchange outlet thermistor1 error Heat exchange outlet thermistor2 error Heat exchange outlet thermistor3 error Heat exchange outlet thermistor4 error Heat exchange outlet thermistor5 error Heat exchange outlet thermistor4 error Heat exchange outlet ferror Heat exchange outlet thermistor4 error Heat exchange outlet ferror Heat excha							
Heat exchange outlet thermistor2 error Heat exchange outlet thermistor3 error Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2	Heat exchange inlet thermistor3 error						
Heat exchange outlet thermistor2 error Heat exchange outlet thermistor3 error Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2	Heat exchange outlet thermistor1 error	\Diamond		● (7)			
Suction thermistor error Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2		\Diamond		● (8)			
Outdoor thermistor error Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2	Heat exchange outlet thermistor3 error			● (9)			
Discharge pressure sensor error Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2	Suction thermistor error			● (10)			
Liquid line pressure sensor error Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2	Outdoor thermistor error			● (11)			
Suction pressure sensor error Oil sensor error Oil recovery error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2					• (1)		
Oil sensor error Oil recovery error Reverse phase blocker error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2							
Oil recovery error Reverse phase blocker error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2	•						
Reverse phase blocker error Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 1 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2					• (4)		
Reverse phase blocker error Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 1 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2					• (7)		
Power frequency faulty Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 1 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2					_	• (1)	
Model data error EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○				•	\Diamond	a (0)	
EEPROM access error EEPROM deletion error Outdoor unit circuit bord error 1 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2	1						
EEPROM deletion error Outdoor unit circuit bord error 1 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2			\	\	🗸	1 *	🗸
Outdoor unit circuit bord error 1							
Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2 Outdoor unit circuit bord error 2							
Outdoor unit circuit bord error 2						` '	
Communication error Node setting error						(/)	
Node setting error		I ŏ	-		~	(8)	
1 11000 000010 01101 1 V 1 I I I V I I I V I I V I I V I V	Node setting error	$ \stackrel{\sim}{\diamond} $				• \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	
Indoor unit error						(-,	• (1)

Display method $\begin{cases} \diamondsuit : 0.1 \sec ON / 0.1 \sec OFF \text{ flashing} \\ \bullet : 0.3 \sec ON / 0.3 \sec OFF \text{ flashing} \\ \text{()} : \text{Flashing times} \end{cases}$

Error display ON LED 1 OFF ON OSSEC ON LED 2-6 OFF

8-3 REMOTE CONTROL 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. In addition, the remote controller address will be displayed at the current time display. In addition, the remote controller address will be displayed below. When the operation lamp lights, press the START/STOP button and after operation lamp goes off, perform the same operation.

Error Code	Error contents
E:00	No error
E:02	Model data abnormal
E:D4	Power supply frequency error
E:05	EEPROM access error
E:07	EEPROM deletion error
E:09	Room temperature themistor error
EOA	Indoor unit heat exchanger themistor (middle) error
E:Ob	Indoor unit heat exchanger themistor (inlet) error
EIE	Indoor unit heat exchanger themistor (outlet) error
E:Od	Blower tempearture themistor error
E: { {	Drain abnormal
E: 12	Room tempearture abnormal
E: 13	Indoor unit fan error
E:	Transmission error
E:20	Node setting error
E:2 (Parallel communication error
E:32	Outdoor unit error

8-4 ERROR CODE & TROUBLESHOOTING

■INDOOR UNIT TROUBLESHOOTING

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
	No errors			
02		1. Generation condition Error in model information memorized in EEPROM when power turned on. 2. Corresponding operation. 1) Relevant indoor unit stopped (not started). 2) Error display to indoor unit LED and error output to communication bus line. 3, Reset condition. Model information memorized in EEPROM restored to normal.		Replace indoor unit control PC board.
03	Microcomputer error	Generation condition. Communication between two microcomputers on indoor unit control PC board not performed normally. Corresponding operation. Relevant indoor unit stopped (not started). Error display to indoor unit LED and error output to communication bus line. Reset condition Normal microcomputers communication restored.	Effect of extraneous noise. Indoor unit control PC board faulty.	1. When power turned off, and then turned on again: 1) If error not generated again, PC board is normal. Therefore, remove noise sources near indoor unit. 2) If error generated again, perform the following, in addition to removing noise sources. 2. Replace indoor unit control PC board.
04	Power line frequency abnormal	1. Generation condition Indoor unit control PC board detected frequency outside operating. 2. Corresponding operation. 1) Relevant indoor unit stopped (not started). 2) Error display to indoor unit LED and error output to communication bus line 3. Reset operation. Indoor unit control PC board detects rated frequency.		Check power line frequency and supply rated frequency.
06	EEPROM access error	1. Generation condition After indoor unit started, EEPROM cannot be accessed because of disturbance or element error. 2. Corresponding operation Error display to indoor unit LED. 3. Reset operation Normal access to EEPROM restored.		Remove noise sources near indoor unit. Replace indoor unit control PC board.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
07	EEPROM deletion error	Generation condition. Error in model information memorized at EEPROM after indoor unit started. Corresponding operation. Relevant indoor unit stopped 2) Error display to indoor unit LED. Reset condition Model information memorized at EEPROM restored to normal.		Replace indoor unit control PC board.
09	Room temperature thermistor error	 Generation condition. Thermistor short or open detected. Corresponding operation. Indoor unit stopped, error display to indoor unit LED, and error output to communication bus line. Reset condition. Thermistor detection value other than short or open. 	Connector connection faulty. Connector connection faulty. Connector connection faulty. Connector connection faulty.	Check for loose or dislodged thermistor connector. Check temperature thermistor resistance. If abnormal, replace thermistor.
0A	exchanger ther- mistor error (middle)error	 Generation condition. Thermistor short or open detected. Corresponding operation. Indoor unit stopped, error display to indoor unit LED, and error output to communication bus line. Reset condition. Thermistor detection value other than short or open. 	Connector connection faulty. Heat exchanger thermistor (middle) faulty.	Check for loose or dislodged heat exchanger thermistor(middle) connector. Check resistance of heat exchanger thermistor(middle). If abnormal, replace thermistor.
ОВ	exchanger ther- mistor(inlet)error	detected.	Connector connection faulty. Connector connection faulty. Connector connection faulty. Connector connection faulty. Connector connection faulty.	Check for loose or dislodged heat exchanger thermistor(inlet) connector. Check resistance of heat exchanger thermistor(inlet). If abnormal, replace thermistor.
	exchanger ther- mistor(outlet) error	1. Generation condition. Thermistor short or open detected. 2. Corresponding operation. Error display to indoor unit LED. 3. Reset condition. Thermistor detection value other than short or open.	Connector connection faulty. Connector connection faulty. Connector connection faulty. Connector connection faulty. Connector connection faulty.	Check for loose or dislodged heat exchanger thermistor(outlet) connector. Check resistance of heat exchanger thermistor(outlet). If abnormal, replace thermistor.

ERROR	ERROR	CONTENTS	ERROR CAUSE	REMEDY
OD	Blower tempe- rature thermistor error	1. Generation condition Thermistor short or open detected. 2. Corresponding operation Indoor unit stopped, error display to indoor unit LED, and error output to communication bus line. 3. Reset condition Thermistor detection value other than short or open.	Connector connection faulty. Blower temperature thermistor faulty.	Check for loose or dislodged blower temperature thermistor connector. Check resistance of blower temperature thermistor. If abnormal, replace thermistor.
11	Drain abnormal	 Generation condition Float SW ON continuously for 3 minutes. Corresponding operation Indoor unit stopped, error display to indoor unit LED, and error output to communication bus line. Reset condition Float SW turned OFF. 	1. Drain hose clogged. 2. Drain outlet clogged. 3. Drain pump faulty. 4. Float SW operation faulty (short)	Clean drain hose. Clean drain outlet. Check drain pump operation. If faulty, replace pump. When float SW shorted, replace SW.
12	Room temperature thermistor error	1. Generation condition Room temperature thermistor detected temperature exceeds 60 C continuously for 30 minutes or longer during indoor unit operation. 2. Corresponding operation Indoor unit stopped, error display to indoor unit LED, and error output to communication bus line. 3. Reset condition Reset by turning power off and on again.	Connector connection faulty. Connector connection faulty. Room temperature thermistor faulty.	Check for loose or dislodged room temperature connector. Check resistance of room temperature thermistor. If abnormal, replace thermistor.
13	Indoor unit fan error	Generation condition Fan speed feedback by large type ceiling model (AB30 or above) +/-400rpm or greater relative to target speed. Corresponding operation Indoor fan stopped, error display to indoor unit LED, error output to communication bus line. Reset condition Reset by turning power off.		Check indoor fan motor lead wire wiring. Check if rated power line voltage supplied.
18	Communication error (indoor unit- remote controller)	Generation condition Communication impossible between standard wired remote	1. Communication line not connected, connector faulty, or line open. 2. Indoor unit control PC board faulty. 3. Standard wired remote controller PC board faulty.	Check if communication line connected to each indoor unit. Check for communication line open and loose connection. Replace indoor unit control PC board. Replace standard wired remote controller PC board.

ERROR	ERROR	CONTENTS	ERROR CAUSE	REMEDY
1F	Transmission error	Generation condition. Communication between indoor unit and outdoor unit exceeds certain time. Corresponding operation. Current operation continued, error display to standard wired remote controller, and display to indoor unit LED. Reset condition. Communication between indoor unit and outdoor unit restored.	1. Effect of extraneous noise.	1. When power turned OFF, then turned back ON: (1) If error not generated again, PC board is normal. Therefore, remove noise sources near outdoor unit. (2) If error generated again, check following, in addition to removing noise sources. 2. Check if communication line connected to each indoor unit. Check for open communication line and loose wiring.
20		 Generation condition. Indoor unit communication PC board not initialized normally. Corresponding operation. Error display to standard wired remote controller and display to indoor unit LED. Reset condition. Indoor unit communication PC board initialized normally. 	Effect of extraneous noise. 2. PC board faulty.	1. When power turned off, then turned back on: (1) If error not generated again, PC board is normal. Therefore, remove noise sources near indoor unit. (2) If error generated again, check following, in addition to removing noise sources. 1. Replace PC boards in following order, and check operation. (1) Indoor unit communication PC board. (2) Indoor unit control PC board.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
	Parallel commu- nication error	Generation condition. Communication between indoor unit control PC board and indoor unit communication PC board not performed normally. Corresponding operation. Current operation continued,	Effect of extraneous noise.	When power turned off, then turned back on: If error not generated again, PC board is normal. Therefore, remove noise sources near indoor unit. If error generated again, check following, in addition to removing noise sources.
		error display to standard wired remote controller, and display to indoor unit LED.	Indoor unit communication board insertion faulty.	Check indoor communication PC board insertion.
		 2) If error continues for 90 seconds after generation, a new transmission error (1F) is output. 3. Reset condition. Normal communication restored between indoor unit control PC and indoor unit communication PC board. 	3. PC board faulty.	3. Replace PC boards in following order, and check operation.(1) Indoor unit communication PC board.(2) Indoor unit control PC board.
32		Error generated at outdoor unit in same refrigerant system.	Outdoor unit faulty.	See "Outdoor unit troubleshooting".

■OUTDOOR UNIT TROUBLESHOOTING

ERROF	RERROR	CONTENTS	ERROR CAUSE	REMEDY
00	No errors			
02		When power turned on, there was an error in model information memorized in EEPROM. 2. Corresponding operation. 1) All compressors stopped (not started). 2) Error display to outdoor unit LED and error output to communication bus line. 3. Reset condition. Model information memorized in EEPROM restored to normal.	Model information not memorized, or erased for some reason.	Replace outdoor unit control PC board.
03	error	 Generation condition. Communication between two microcomputers on outdoor unit control PC board not performed normally. All compressors stopped (not started). Error display to outdoor unit LED and error output to communication bus line. Reset condition. Normal microcomputers communication restored. 		 When power turned off, then turned back on: If error not generated again, PC board is normal. Therefore, remove noise sources near outdoor unit. If error generated again, perform following, in addition to removing noise sources. Replace outdoor unit control PC board.
04	faulty	 Generation condition. Outdoor unit control PC board detected frequency outside of rating. Corresponding operation. All compressors stopped (not started). Error display to outdoor unit LED and error output to communication bus line. Reset condition. Outdoor unit control PC board detects rated frequency. 	Power line frequency below 45Hz or above 65Hz.	Check power line frequency and supply correct frequency.
05	Reverse phase blocker error	1. Generation condition. Reverse phase prevention circuit detected reverse phase input or when the normal input was not detected. 2. Corresponding operation. 1) All compressors stopped. 2) Error display to outdoor unit LED and error output to communication bus line. 3. Reset condition. Reverse phase prevention circuit no longer detects reverse phase input.	Reverse phase wiring. Reverse phase prevention circuit faulty.	Check power supply wiring. Check power supply wiring. If there are no mistakes, replace outdoor unit control PC board.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
06	EEPROM access error	1. Generation condition. After outdoor unit started, EEPROM cannot be accessed because of disturbance or element error. 2. Corresponding operation. Error display to outdoor unit LED.*Restriction on outdoor unit not performed. 3. Reset condition. EEPROM accessed normally.	EEPROM cannot be accessed because of disturbance, element error, etc.	Remove noise sources near outdoor unit. Replace outdoor unit control PC board.
07	EEPROM deletion error	 Generation condition. After outdoor unit started, there was an error in model information memorized in EEPROM. Corresponding operation. All compressors stopped. Error display to outdoor unit LED. Reset condition. Model information memorized in EEPROM restored to normal. 	Model information not memorized, or erased for some reason.	Replace outdoor unit control PC board.
09	Compressor 1 error	compressor recovery operation performed. However, for defrosting control and oil recovery operation, compressor recovery operation is not performed. 2) Error display to outdoor unit LED and error output to communication bus line. 3. Reset condition. When 2 hours have elapsed after error generation. *Counting of 2-hour counter begins from state in which error occurred at one or more of three compressors. Error reset by turning power	TH _{D1} faulty. 2. Compressor power relay 1 faulty. 3. Outdoor unit control PC board faulty. 4. Magnetic contactor 1 faulty. 5. Refrigerant level low.	 Check for loose or dislodged discharge temperature sensor TH_{D1} sensor wiring and check sensor resistance. If abnormal, replace sensor. Check compressor power relay 1. If abnormal, replace power relay. Check CN32 (compressor 1) 12V voltage output on outdoor unit control PC board. If abnormal, replace PC board. Check magnetic contactor 1. If abnormal, replace contactor. Check additional refrigerant amount and recharge suitable refrigerant. Temporary data transmission trouble due to affect of noise, etc. Operation is not affected. Compressor overload operation. Check "High-pressure error". Motor protector reset at 61 °C +/-9 °C. Check compressor. If faulty, replace compressor.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY	
0A	Compressor 2 error	error Thirty minutes after compressor 2 started, discharge temperature 2	1. Discharge temperature sensor TH _{D2} faulty.	Check for loose or dislodged discharge temperature sensor TH _{D2} sensor wiring and check sensor resistance. If abnormal, replace sensor.	
		2. Corresponding operation.	Compressor power relay 2 faulty.	Check compressor power relay 2. If abnormal, replace power relay.	
		After compressor error, compressor recovery operation performed. However, for defrosting control and oil recovery	Outdoor unit control PC board faulty.	Check CN33 (compressor 2) 12V voltage output on outdoor unit control PC board. If abnormal, replace PC board.	
		operation, compressor recovery operation is not	4. Magnetic contactor 2 faulty.	4. Check magnetic contactor 2. If abnormal, replace contactor. ———————————————————————————————————	
		performed. 2) Error display to outdoor unit LED and error output to	5. Refrigerant level low.	5. Check additional refrigerant amount and recharge suitable refrigerant.	
		communication bus line. 3. Reset condition. When 2 hours have elapsed after error generation. *Counting of 2-hour counter	 After 2 hours 30 minutes have elapsed since error was displayed, error detection is performed again and error is not displayed. 	Temporary data transmission trouble due to affect of noise, etc. Operation is not affected.	
		begins from state in which error occurred at one or more of three compressors. Error reset by turning power	7. Compressor motor protector operated.	7. Compressor overload operation. Check "High-pressure error". Motor protector reset at 61 °C +/-9 °C.	
			8. Compressor faulty.	Check compressor. If faulty, replace compressor.	
0B	Compressor 3 error	1. Generation condition. Thirty minutes after compressor 3 started, discharge temperature 3	Discharge temperature sensor THp₃ faulty.	1. Check for loose or dislodged discharge temperature sensor TH _{D3} sensor wiring and check sensor resistance. If abnormal, replace sensor.	
		does not reach outdoor temperature plus 10°C. 2. Corresponding operation.	Compressor power relay 3 faulty.	Check compressor power relay 3. If abnormal, replace power relay.	
		After compressor error, compressor recovery operation performed. However, for defrosting control and oil recovery	compressor recovery operation performed. However, for defrosting	Outdoor unit control PC board faulty.	Check CN34 (compressor 3) 12V voltage output on outdoor unit control PC board. If abnormal, replace PC board.
			4. Magnetic contactor 3 faulty.	Check magnetic contactor 3. If abnormal, replace contactor.	
			5. Refrigerant level low.	5. Check additional refrigerant amount and recharge suitable refrigerant.	
	3. Reset condition. When 2 hours have elapsed after error generation. *Counting of 2-hour counter	 After 2 hours 30 minutes have elapsed since error was displayed, error detection is performed again and error is not displayed. 	Temporary data transmission trouble due to affect of noise, etc. Operation is not affected.		
		Error occurred at one or more of three compressors.	7. Compressor motor protector operated.	7. Compressor overload operation. Check "High-pressure error". Motor protector reset at 61°C +/-9°C.	
		Error reset by turning power off.	8. Compressor faulty.	Check compressor. If faulty, replace compressor.	

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
	Discharge temperature thermistor 1 error	 Generation condition. Thermistor short or open detected. Corresponding operation. Compressor 1 stop. Error display to outdoor unit LED and error output to communication bus line. Reset condition. Thermistor detection value other than short or open. * Compressor continues to operate for 5 minutes or longer and detection is performed during operation. 	Connector contact faulty. Connector contact faulty. Connector contact faulty. 2. Discharge temperature thermistor TH _{D1} faulty.	Check for loose or dislodged discharge temperature thermistor THp1 connector. Check discharge temperature thermistor THp1 resistance. If abnormal, replace thermistor.
	Discharge temperature thermistor 2 error	 Generation condition. Thermistor short or open detected. Corresponding operation. Compressor 2 stop. Error display to outdoor unit LED and error output to communication bus line. Reset condition. Thermistor detection value other than short or open. Compressor continues to operate for 5 minutes or longer and detection is performed during operation. 	1. Connector contact faulty. 2. Discharge temperature thermistor THD2 faulty.	 Check for loose or dislodged discharge temperature thermistor TH_{D2} connector. Check discharge temperature thermistor TH_{D2} resistance. If abnormal, replace thermistor.
OF	Discharge temperature thermistor 3 error	1. Generation condition. Thermistor short or open detected. 2. Corresponding operation. 1) Compressor 3 stop. 2) Error display to outdoor unit LED and error output to communication bus line. 3. Reset condition. Thermistor detection value other than short or open. * Compressor continues to operate for 5 minutes or longer and detection is performed during operation.	1. Connector contact faulty. 2. Discharge temperature thermistor THD3 faulty.	 Check for loose or dislodged discharge temperature thermistor TH_{D3} connector. Check discharge temperature thermistor TH_{D3} resistance. If abnormal, replace thermistor.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
10		Generation condition. Thermistor short or open detected. Corresponding operation. All Compressors stopped. * For suction temperature		Check for loose or dislodged outdoor thermistor THHo connector. Check outdoor thermistor THHo resistance. If abnormal, replace thermistor.
	Heat exchange outlet thermistor 1	thermistor error, compressors not stopped. 2) Error display to outdoor unit	1. Connector contact faulty.	1. Check for loose or dislodged heat exchange thermistor THH01 connector.
	error	LED and error output to communication bus line. * For suction temperature	2. Heat exchange outlet thermistor THно1 faulty.	 Check heat exchange outlet thermistor TH_{H01} resistance.If abnormal, replace thermistor.
12	Heat exchange outlet thermistor 2	thermistor error, error display to outdoor unit LED only. 3. Reset condition.	 	Check for loose or dislodged heat exchange thermistor TH _{H02} connector.
	error	Thermistor detection value other than short or open.	2. Heat exchange outlet thermistor THH02 faulty.	 Check heat exchange outlet thermistor TH_{H02} resistance. If abnormal, replace thermistor.
13	Heat exchange outlet thermistor 3		1. Connector contact faulty.	1. Check for loose or dislodged heat exchange thermistor TH _{H03} connector.
	error		2. Heat exchange outlet thermistor THн₀₃ faulty.	2. Check heat exchange outlet thermistor THн₀₃ resistance.lf abnormal, replace thermistor.
14	Heat exchange inlet thermistor 1 error		Connector contact faulty.	1. Check for loose or dislodged heat exchange inlet thermistor THн1 connector.
			2. Heat exchange inlet thermistor ТНн11 faulty.	2. Check heat exchange thermistor THH11 resistance. If abnormal, replace thermistor.
15	Heat exchange inlet thermistor 2 error		Connector contact faulty.	Check for loose or dislodged heat exchange inlet thermistor TH _{H12} connector.
			2. Heat exchange inlet thermistor THн12 faulty.	2. Check heat exchange thermistor TH _{H12} resistance. If abnormal, replace thermistor.
	Heat exchange inlet thermistor 3 error		Connector contact faulty.	1. Check for loose or dislodged heat exchange inlet thermistor THH13 connector.
			2. Heat exchange inlet thermistor THн13 faulty.	2. Check heat exchange thermistor THH13 resistance. If abnormal, replace thermistor.
17	Suction thermistor error		1. Connector contact faulty.	Check for loose or dislodged suction thermistor THs connector.
			2. Suction thermistor THs faulty.	Check suction thermistor THs resistance. If abnormal, replace thermistor.

ERROR	ERROR	CONTENTS	ERROR CAUSE	REMEDY
19	Discharge pressure sensor error	Voltage output from output remains under 0.8V for 3	Discharge pressure sensor P _H faulty.	Replace discharge pressure sensor Рн.
1A	Liquid line pressure sensor error	minutes or longer. However, not detected for 3 minutes after power to outdoor unit turned on.	Liquid line pressure sensor Рм faulty.	Replace liquid line pressure sensor Рм.
1B	Suction pressure sensor error	turned on. 2) Output sensor detection value is 3.46MPa or greater. 2. Corresponding operation. 1) All compressors stop. * Discharge pressure and liquid line pressure sensor error only. 2) Error display to outdoor unit LED and error output to communication bus line. * For suction pressure sensor error, only error display to outdoor unit LED. 3. Reset condition. Output voltage from pressure sensor returns to 1-5V.	Suction pressure sensor PM faulty.	Replace suction pressure sensor Pm.
1C	Oil sensor error	1. Generation condition. At the same time "Oil below oil sensor L level" and "Oil over oil sensor H level" states output by oil sensor. 2. Corresponding operation. Error display to outdoor unit LED. 3. Reset condition. "Oil below oil sensor L level" and "Oil over oil sensor H level" states no longer output by oil sensor.	supply voltage output abnormal.	1. Check contact of outdoor unit control board connectors CN52 and CN53. 2. Check outdoor unit control PC board voltage output. 1) Oscilloscope. (1) Check if 5+/-0.05V voltage output is present between pins 1 and 2 of CN52 and CN53. (2) Check if 12V +/-10% voltage output is present between pins 3 and 4 of CN52 and CN53. 2) Tester. Check if output voltage is present between pins 3 and 4 of CN52 and CN53. (1 time in 10 secs.Needle deflects.) * Voltage output 1 time in 10 seconds 250msec
			3. Oil sensor LED faulty.	3. Check output voltage 1.0 +/-0.1V between connectors 3 and 4 of OIL LV SEN-H (connected to CN52) and OIL LV SEN-L (connected to CN53) in tester diode mode. If output voltage is abnormal, replace oil sensor. * Connect tester plus terminal to 3 and minus terminal to 4.

ERROR ERROR	CONTENTS	ERROR CAUSE	REMEDY
1F Communication error	1. Generation condition. Communication from indoor units cuts off certain time. 2. Corresponding operation. 1) When communication error generated 90 seconds after outdoor unit circuit board error 1 generated, all	Affect of extraneous noise.	1. When power turned off, then turned on again: 1) If error not generated again, PC board is normal. Therefore, remove noise sources near outdoor unit. 2) If error generated again, perform following, in addition to removing noise sources.
	compressors stopped. 2) When communication from all indoor units cuts off certain time, all compressors	connected, contact faulty, or	Check if communication line connected to all indoor units.
	stopped and error display to outdoor unit LED.	3. Indoor unit power OFF.	Check indoor units power supply.
	For other than the above, only indoor units that completed communications are operation target. Error display to outdoor unit LED.	Indoor unit communication PC board or outdoor unit communication PC board insertion faulty.	Check insertion of indoor unit communication PC board and outdoor unit communication PC board.
	3. Reset condition. Communication with indoor units restored.	5. PC board faulty.	 5. 1) If communication error generated after outdoor unit circuit board error generated, replace PC boards in following order and check operation. (1) Outdoor unit communication PC board. (2) Outdoor unit control PC board. (2) If some indoor units in same refrigerant operated, replace PC boards in following order and check operation: (1) Communication PC board of indoor unit that generated communication error. (2) Control PC board of indoor unit that generated communication error. (3) When all indoor units in same refrigerant system generate an error and compressor does not operate, replace PC boards in following order and check operation. (1) Outdoor unit communication PC board. (2) Outdoor unit control PC board. (3) Indoor unit communication PC board. (4) Indoor unit control PC board.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY		
21	Discharge temperature 1 error	emperature 1 Discharge temperature 1	Gas leak or refrigerant level low.	Check for leak and check additional refrigerant amount and recharge suitable refrigerant.		
			2. Outdoor fan motor faulty.	Check outdoor fan motor operation. Remove wind path obstruction. If fan motor faulty, replace motor.		
		communication bus line. 3. Reset condition. When all the following conditions are satisfied:	3. Discharge temperature sensor TH _{D1} faulty.	3. Check for loose or dislodged discharge temperature sensor THp1 wiring and check THp1 resistance. If abnormal, replace sensor.		
		1) Discharge temperature protector 1 reset. 2) Discharge temperature protector not operated for 40 minutes or longer.	protector 1 reset. 2) Discharge temperature protector not operated for 40	2) Discharge temperature operation far protector not operated for 40	Electronic expansion valve operation faulty.	 Check operation and coil resistance of following electronic expansion valve. If abnormal, replace electronic expansion valve. Coil resistance measurement points. Red-white, red-orange, brown-yellow, brown-blue. Outdoor unit electronic expansion valve EEV1 and EEV2 Coil resistance: 192 +/-19 ohms. Indoor units electronic expansion valve EEV Coil resistance: 150 +/-50 ohms.
			5. Solenoid valve operation faulty.	5. Check operation of following solenoid valves. If operation faulty, replace solenoid valve. Cooling operation. (1) Outdoor unit solenoid valve SV1. (2) RB unit solenoid valves SVs Heating operation. (3) Outdoor units solenoid valves SV1, SV7, and SV8. (4) RB unit solenoid valve SVD. Heat recovery operation (1), (2), (3), (4).		

gerant level 1. Check for leak and check additional refrigerant amount and recharge suitable refrigerant.
or faulty. 2. Check outdoor fan motor operation. Remove wind path obstruction. If fan motor faulty, replace motor.
erature 3. Check for loose or dislodged discharge ty. temperature sensor TH _{D2} wiring and check TH _{D2} resistance. If abnormal, replace sensor.
sion valve 4. Check operation and coil resistance of following electronic expansion valve. If abnormal, replace electronic expansion valve. Coil resistance measurement points. Red-white, red-orange, brown-yellow, brown-blue. (1) Outdoor unit electronic expansion valve EEV1 and EEV2 Coil resistance: 192 +/-19 ohms.
(2) Indoor units electronic expansion valve EEV Coil resistance: 150 +/-50 ohms.
5. Check operation of following solenoid valves. If operation faulty, replace solenoid valve. Cooling operation. (1) Outdoor unit solenoid valve SV1. (2) RB unit solenoid valves SVs Heating operation. (3) Outdoor units solenoid valves SV1, SV7, and SV8. (4) RB unit solenoid valve SVb. Heat recovery operation (1), (2), (3), (4).
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ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
23	Discharge temperature 3 error	Generation condition. Discharge temperature 3 remains 130°C or greater for 40 minutes and compressor	Gas leak or refrigerant level low.	Check for leak and check additional refrigerant amount and recharge suitable refrigerant.
			2. Outdoor fan motor faulty.	Check outdoor fan motor operation. Remove wind path obstruction. If fan motor faulty, replace motor.
		communication bus line. 3. Reset condition. When all the following conditions are satisfied: 1) Discharge temperature	3. Discharge temperature sensor THb3 faulty.	3. Check for loose or dislodged discharge temperature sensor TH _{D3} wiring and check TH _{D3} resistance. If abnormal, replace sensor.
		protector 3 reset. 2) Discharge temperature protector not operated for 40 minutes or longer.	4. Electronic expansion valve operation faulty.	 Check operation and coil resistance of following electronic expansion valve. If abnormal, replace electronic expansion valve. Coil resistance measurement points. Red-white, red-orange, brown-yellow, brown-blue. Outdoor unit electronic expansion valve EEV1 and EEV2 Coil resistance: 192 +/-19 ohms. Indoor units electronic expansion valve
			5. Solenoid valve operation faulty.	EEV Coil resistance: 150 +/-50 ohms. 5. Check operation of following solenoid valves. If operation faulty, replace solenoid valve. Cooling operation. (1) Outdoor unit solenoid valve SV1. (2) RB unit solenoid valves SVs Heating operation. (3) Outdoor units solenoid valves SV1, SV7, and SV8. (4) RB unit solenoid valve SVb. Heat recovery operation (1), (2), (3), (4).

ERROR	ERROR	CONTENTS	ERROR CAUSE	REMEDY
24	High-pressure error	Generation condition. When any of following conditions satisfied:	Ball valve not open completely.	1. Open ball valve fully.
				2. Check required installation dimensions.
		I		3. Clean heat exchanger or remove foreign matter.
		after compressor stopped by high-pressure protection. 2. Corresponding operation. Error display to outdoor unit	4. Outdoor fan motor faulty.	Check outdoor fan motor operation. Remove wind path obstruction. If fan motor faulty, replace motor.
			5. Pressure SW faulty.	5. Check pressure using pressure gauge. If pressure SW faulty, replace SW.
		When all of following	6. Indoor unit short cycle.	6. Remove obstruction.
		conditions satisfied: 1) High pressure SW reset after	7. Filter clogged.	7. Clean filter.
		restarting 3 minutes after compressor stopped by high-pressure protection.		8. Check indoor fan motor operation. If fan motor faulty, replace motor.
		High pressure protection not operated for 40 minutes or longer. High pressure SW set value 3MPa OFF, 2.4MPa ON	Electronic expansion valve operation faulty.	Check operation and coil resistance of following electronic expansion valve. If faulty, replace electronic expansion valve.
		SIVILA OLI , Z.HIVILA OLIV		Coil resistance measurement points Red-white, red-orange, brown-yellow, brown-blue (1) Outdoor unit electronic expansion valve EEV1 and EEV2 Coil resistance: 192 +/-19 ohms. (2) Indoor units electronic expansion valve EEV Coil resistance: 150 +/-15 ohms.
			10. Solenoid valve operation faulty.	10. Check operation of following solenoid valves. If operation faulty, replace solenoid valve. Cooling operation (1) Outdoor unit solenoid valve SVs (2) RB unit solenoid valve SVs Heating operation (3) Outdoor units solenoid valves SV2, SV7, and SV8 (4) RB unit solenoid valve SVD Heat recovery operation (1), (2), (3), (4)
			11. Overload	11. Remove indoor and outdoor installation conditions and other overload causes.

ERROF	ERROR	CONTENTS	ERROR CAUSE	REMEDY	
25	Low pressure error	Generation condition. When any of following conditions satisfied:	Ball valve not open completely.	1. Open ball valve fully.	
		Low-pressure protection stops compressor 2 or more times within 40 minutes.	2. Pressure SW faulty.	Check pressure using pressure gauge. If pressure SW faulty, replace SW.	
		2) Low pressure SW operates after restarting 3 minutes		Repair gas leak, and charge suitable refrigerant.	
		after compressor stopped by low-pressure protector.		4. Remove obstruction.	
		Corresponding operation. Error display to outdoor unit LED and error output to	5. Indoor unit filter clogged.	5. Clean filter.	
		communication bus line. 3. Reset condition.	6. Indoor unit fan motor faulty.	6. Check indoor fan motor operation. If fan motor faulty, replace motor.	
		When all of following conditions satisfied: 1) Low pressure SW reset after restarting 3 minutes after compressor stopped by low-pressure protection. 2) Low pressure protection not operated for 40 minutes or longer. * Low pressure SW set value 0.2MPa OFF , 0.3MPa ON	conditions satisfied: 1) Low pressure SW reset after restarting 3 minutes after compressor stopped by low-pressure protection. 2) Low pressure protection not operated for 40 minutes or longer. * Low pressure SW set value 0.2MPa OFF , 0.3MPa ON	7. Electronic expansion valve operation faulty. 8. Solenoid valve operation	 7. Check operation and coil resistance of following electronic expansion valve. If faulty, replace electronic expansion valve. Coil resistance measurement points. Red-white, red-orange, brown-yellow, brown-blue. (1) Outdoor unit electronic expansion valve EEV1 and EEV2. Coil resistance: 192 +/-19 ohms. (2) Indoor units electronic expansion valve EEV.Coil resistance: 150 +/-15 ohms. 8. Check operation of following solenoid
			faulty.	valves. If operation faulty, replace solenoid valve. Cooling operation. (1) Outdoor unit solenoid SV2. (2) RB unit solenoid valve SVs. Heating operation. (3) Outdoor unit solenoid valves SV2, SV7, and SV8 (4) RB unit solenoid valve SVD. Heat recovery operation (1), (2), (3), (4).	
27		Oil judged to be below oil sensor L level. Oil recovery operation performed consecutively 3 times or more. 2. Corresponding operation.	1. Oil recovery solenoid valve faulty. 2. Connector connection faulty.	Check operation of following solenoid valves. If operation faulty, replace solenoid valve. Compressor 1 solenoid valve SV3. Compressor 2 solenoid valve SV4. Compressor 3 solenoid valve SV5. Central oil return solenoid valve SV6. Check for loose or dislodged solenoid valves wiring connector.	

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
28	Pump down error	 Generation condition. Six minutes have elapsed since pump down performed, or discharge pressure sensor PH is 3MPa or higher. Corresponding operation. All compressors and outdoor fans stop. Error display to outdoor unit LED and error output to communication bus line. Reset condition. Pump down DIP SW1-3 switched from ON to OFF. 	'	Switch outdoor unit control PC board pump down DIP SW1-3 from ON to OFF.
_	Node setting error	Generation condition. Outdoor unit communication PC board initialization not performed normally. Corresponding operation. Error display to outdoor unit LED. Reset condition. Outdoor unit communication PC board initialization performed normally.		1. When power turned off, then turned back on: 1) If error not generated again, PC board is normal. Therefore, remove noise sources near outdoor unit. 2) If error generated again, check following, in addition to removing noise sources. 2. Replace PC boards in following order, and check operation. (1) Outdoor unit communication PC board (2) Outdoor unit control PC board
	Outdoor unit circuit board error 1	1. Generation condition. Communication between outdoor unit control PC board and outdoor unit communication PC board not performed normally. 2. Corresponding operation. 1) Current operation continued Error display to outdoor unit LED. 2) When error continues for 90 seconds after error generation, new communication error (1F) output. 3. Reset condition. Normal communication restored between outdoor unit control PC board and outdoor unit communication PC board.	2. Outdoor unit communication	 When power turned off, then turned back on: If error not generated again, PC board is normal. Therefore, remove noise sources near outdoor unit. If error generated again, check following, in addition to removing noise sources. Check outdoor unit communication PC board insertion. Replace PC boards in following order, and check operation. Outdoor unit communication PC board Outdoor unit control PC board
_	Indoor unit error	Error generated at indoor unit in same refrigerant system.	Indoor unit faulty.	See indoor unit troubleshooting.

■ CENTRAL REMOTE CONTROLLER TROUBLESHOOTING

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
00	No errors			
02	PC board error (Control panel)	1, Generation condition Error generated at control panel PC board and central remote controller cannot be operated. 2, Corresponding operation Error display.Only error code display operation is possible. Other operations are ineffective. 3, Reset condition		After ACL key pressed, or power turned on again: If error not generated again, PC board is normal. Therefore, remove noise sources near operation panel. If error generated again, perform following, in addition to removing noise sources. Replace operation panel PC board.
		Error removed and central remote controller becomes operable again.		
03	PC board error (Transmission adapter)	Generation condition Error generated at transmission adapter control PC board and central remote controller cannot be operated. Corresponding operation Error display. Only error code display operation is possible. Other operations are	1, Effect of extraneous noise	After reset key on transmission adapter control PC board pressed, or power turned on again: If error not generated again, PC board is normal. Therefore, remove noise sources near communication adapter. If error generated again, perform following, in addition to removing noise sources.
		ineffective. 3, Reset condition Error removed and central controller becomes operable again.	Transmission adapter control PC board faulty.	Replace transmission adapter control PC board.
04	Memory error	1, Generation condition. Control panel memory failed, or error in model information and remote controller group registration stored in memory. 2, Corresponding operation. 1) Error generated in normal state. Error and error code display. Only pressing of key SW42 on control panel PC board is effective.	1, Effect of noise 2, Control panel PC board faulty.	 Initial setting again. After initial setting: If error not generated again, PC board is normal. Therefore, remove noise sources near operation panel. If error generated again, perform following, in addition to removing noise sources. Replace control panel PC board.
		Other operations are ineffective. 2) When error generated in initialize menu mode. Error and error code display. Only pressing of SET key is effective. Other operations are ineffective.		

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
04	Memory error	3, Reset conditions. 1) When error generated in normal state Key SW42 on control panel PC board pressed and memory cleared. 2) When error generated in initial setting menu mode. Set key pressed and memory cleared.		
05	Node setting error	 Generation condition. Control panel PC board be initialized normally. Corresponding operation. Error display. Only error display operation is possible. Other operations are ineffective. Reset condition. 	1, Effect of noise	After ACL key pressed or power turned on again: If error not generated again, PC board is normal. Therefore, remove noise sources near operation panel. If error generated again, check following, in addition to removing noise sources.
		0 " 1001 1	2, PC board faulty.	 Replace PC boards in following order, and check operation. Transmission adapter control PC board. Transmission adapter communication PC board. Operation panel PC board.
06	Parallel communication error	Generation condition. Communication between transmission adapter control PC board and transmission adapter communication PC board not performed normally. Corresponding operation. Error display. Only error code	1, Effect of extraneous noise.	After RESET key on transmission adapter control PC board pressed, or power turned on again: If error not generated again, PC board is normal. Therefore, remove noise sources near communication adapter. If error generated again, check following, in addition to removing noise sources.
		display operation is possible. Other operations are ineffective. 2) If error continues for a certain	Transmission adapter communication PC board insertion faulty.	2, Check insertion of communication adapter communication PC board.
		time ofter generation a new	3, PC board faulty.	3, Replace PC boards in following order and check operation. 1) Transmission adapter communication board. 2) Transmission adapter control board.

ERROR CODE	ERROR	CONTENTS	ERROR CAUSE	REMEDY
	Connection error	1, Generation condition. Communication between transmission adapter and control panel not performed normally. 2, Corresponding operation. Error display. Only error code display operation is possible. Other operations are ineffective. 3, Reset condition. Normal communication restored between transmission adapter and control panel.		 1-1, Check error continuity. 1) If error reset automatically, PC board is normal. Therefore, remove noise sources near central remote controller. 2) If error not reset automatically, check following. 1-2, After ACL key pressed, RESET key on transmission adapter control board pressed, or power turned on again: 1) If error not generated again, PC board is normal. Therefore,remove noise sources near central remote controller. 2) If error generated again, check following, in addition to removing noise sources.
			Communication line between transmission adapter and control panel connection faulty or line open.	Check if communication line between transmission adapter and control panel is open or connection is faulty.
			3, Communication parameter setting error.	3, Check setting of DIP-SW1-1∿7 on control panel and DIP-SW2-1∿4 and DIP-SW3-1∿3 on transmission adapter PC board.
			4, PC board faulty.	4, Replace PC boards in following order and check operation. ① Transmission adapter control board. ② Control panel PC board.

ERROR	ERROR	CONTENTS	ERROR CAUSE	REMEDY
1D	Initial setting error	Generation condition. Initialization not performed normally. Corresponding operation Error display. Central remotecontroller operation is possible. Reset condition Initialization repeated from key operation.	1, Effect of extraneous noise.	1, Repeat initialization.After initialization: 1) If error not generated again, PC-board is normal. Therefore, remove noise sources near control panel. 2) If error generated again, check following, in addition to removing noise sources.
			Other remote controller (Standard wired remote controller, wireless remote controller, Central remote controller) Operated.	2, Stop operation of other remote controller, and initialize again. 3, Replace PC boards in following
			3, PC board faulty	order, and check operation. ①Transmission adapter communication PC board. ②Transmission adapter control PC board ③Control panel PC board
1E	Manual storing 2 error	1, Generation condition Manual store 2 not performed normally. 2, Corresponding operation Error display. Central remote controller operation is possible. 3, Reset condition Storing (automatic allo-	1, Effect of extraneous noise.	1, Perform allocation again. After manual storing 2 setting: 1) If error not generated again, PC board is normal. Therefore, remove noise sources near control panel. 2) If error generated again, check following, in addition to removing noise sources.
		cation, manual storing1, manual storing2)repeated from key operation, or initial setting menu mode reset.	2, PC board faulty.	2,Replace PC boards in following order, and check operation. ① Transmission adapter communication board. ② Transmission adapter control board ③ Control panel PC board
1F	Transmission error	1, Generation condition Communication between indoor unit and central remote controller cut off certain time. 2, Corresponding operation 1) Indoor unit(remote contro- ller grouping)that cut off communicating error display. Central remote controller operation is possible. 2) If parallel-parallel communication error generated and communication error generated after a certain time, error is displayed. Central remote control operation is possible.	2, Communication line not connected, connection faulty, or line open. 3, Indoor unit power off.	 1-1, After indoor unit power turned on again: 1) If error not generated again, PC board is normal.
				o, shook mass. and pomor suppry.

ERROR	ERROR	CONTENTS	ERROR CAUSE	REMEDY
CODE			I	
1F	Transmission error	3, Reset condition For 2-1), communication with indoor unit restored. For 2-2), normal communication restored between transmission adapter control PC board and transmission adapter communication PC board.	4, Transmission adapter communication PC board or indoor unit communication PC board insertion faulty. 5, Initialization not performed after indoor unit address changed. 6, PC board faulty	6, 1) If communication error generated after parallel-parallel communication error generated, replace PC boards in following order, and check operation. ① Transmission adapter communication PC board. ② Transmission adapter control PC board. 2) For other cases, replace PC boards in following order, and check operation. ① Indoor unit communication PC board
21	Software error (OUTPUT)	1, Generation condition PC initialized by momentary power interruption,etc. When operation setting, modification, etc. performed from central remote controller and setting contents reset. 2, Corresponding operation Error display. Only error code display operation is possible. Other operations are ineffective.		 Indoor unit control PC board 1-1 Check error continuity. If error reset automatically, PC board is normal. therefore, remove noise sources near central remote controller. If error not reset automatically, check following. After ACL key pressed, or power turned on again: If error not generated again, PC board is normal. Therefore, remove noise sources near control panel. If error generated again, check following, in addition to removing noise sources. Check power supply voltage and check operation after turning on power. Replace PC boards in following order, and check operation. Transmission adapter control PC board. Operation panel PC board.
22	Software error (INPUT)	1, Generation condition Operation state of indoor units memorized in transmission adapter memory abnormal. 2, Corresponding operation Error display. Central remote controller operation is possible. 3, Reset condition When contents of memory memorized in transmission adapter memory restored to normal.	1, Affect of extraneous noise 2, Transmission adapter control PC board faulty.	 1-1 Check error continuity. 1) If error reset automatically, PC board is normal. Therefore, remove noise sources near central remote controller. 2) If error not reset automatically, check following. 1-2 After RESET key on transmission adapter control PC board pressed, or power turned on again: 1) If error not generated again, PC board is normal. Therefore, remove noise sources near operation panel. 2) If error generated again, check following, in addition to removing noise sources. 2, Replace transmission adapter control PC board.

8-4-1 Troubleshooting (No error code)

How to read the tables

- 1. Select the relevant item errors 1 to 5 below, and decide the table to be used.
- 2.Deduce "Cause" from "LED display" and "Symptom that can occur other than title". 3.Check if the deduced "Cause" is correct by means of "Check" and "Remarks".

When there is no error code display at the indoor unit ,outdoor unit or centralized remote controller, but there is one of the following operation errors, check the cause in the following order:

1.Indoor fan does not operate normally

3.Indoor unit makes an abnormal sound

2.System does not cool or heat

4. Water leaking from indoor unit 5.Others

1. Indoor unit fan does not operate normally

Indoor unit Body	Outdoor unit PCB LED	Remote controller	Symptom that can occur other than title	Cause	Check method (Error state check method)	Remarks
No display	1 to 6 Error display (Transmission line error) ※	No display	_	Power not supplied to indoor unit Circuit breaker OFF Power line faulty	Check the voltage across indoor unit power supply terminal board (Power Supply) terminals 1-2.	Voltage across 1-2: 220~240V
※Normal	after the power	reset.		Indoor unit leakage (short circuit). (Circuit to which voltage is applied when energized is leaking electricity.)	Drop the indoor unit power supply terminal board (Power Supply1,2) and indoor unit metal part resistance value to near zero by opening the circuit breaker immediately after setting the indoor unit circuit breaker to ON.	When shorted, the resistance across indoor unit power supply terminal board(Power Supply) terminals 1-2 approaches zero.
				(Circuit to which voltage is applied only during operation is	When the indoor unit circuit breaker trips during operation, locate the faulty indoor unit by disconnecting the PCBs one by one (disconnect CN1). Then check the individual electric parts for leakage.	If short-circuited,the resistance across the electric parts will indicate a value near zero.
Error display (Remote controller communi- cation system error) <u>*</u>	Error display (Indoor-unit error) ※	Normal display or no display	_	(wired).	When 1-2, 2-3, and 3-1 at the indoor unit terminal board (Remote Control) are shorted, the resistance across red-white, white-black, and black-red does not indicate a value near zero.	
※ Norma	I after the power	er reset.		Remote control group control interior communication line faulty. Open circuit	Check the wiring color and wiring connection of indoor unit terminal board(Remote Control) terminals 1,2, and 3.	Wiring color and indoor unit terminal board(Remote Control) combinations are red-1,white-2, and black-3.
Normal display	Normal display	Normal display or no display	-	controller(wired) Erroneous connection	When terminals 1-2, 2-3, and 3-1 at the indoor unit terminal board (Remote Control) are shorted, the resistance across red-white, white-black, and black-red at the remote control terminals does not indicate a value near zero.	
					Check the wiring color and wiring connection of indoor unit terminal board(Remote Control) terminals 1,2, and 3.	Wiring color and indoor unit terminal board(Remote Control) combinations are red-1, white-2, and black-3.
Normal display	Normal display	Normal display	_		When indoor unit operated for each remote control group, operation is abnormal.	Does not operate when there is no master unit (SW 1-4 set to OFF) in one remote control group.
				Capacity of indoor fan capacitor faulty.	Check the indoor unit Model No. and capacity of the capacitor.	
				Thermo-control	Set temperature is set to near room temperature and louver operation signal is not received.	Indoor fan operates a little every five minutes during thermocontrol.
				Cold air blow prevention control in progress(heating operation)	Area (heat exchanger) near indoor unit outlet is not warm and up-down louvers are set to horizontal position.	Wait several minutes, then restart the heating operation.
					At least 3 minutes did not elapse after switching from cooling to heating or from heating to cooling.	When the operating state was switched from cool to heat, heat to cool ,or stop to heat, it takes 3 minutes to balance the refrigerant pressure in the RB unit.
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	LED display		T		T	
Indoor	Outdoor	Remote	Symptom that			
unit	unit	controller	can occur other	Cause	Check method	Remarks
Body	PCB LED		than title	Caabo	(Error state check method)	
LED	1 to 6	LCD				
Normal display	Normal display	Filter display ※	_	Filter clogged	Check if the filter is dirty.	When the indoor unit fan motor starting time exceeds 150 hours, the filter cleaning display appears at the wired remote controller. The starting time is reset by pressing the ZONE/SET button of the wired remote controller for 3 seconds or more and is performed side-by-side with ZONE setting. X At filter change display, the set temperature display flashes at a 1 second ON, 1 second OFF cycle.
Controlling display (Operation display LED flashes) ※	Controlling display (Oil recovery operation)	Normal display	Indoor unit makes an abnormal sound.	Oil recovery operation being controlled.	All indoor unit fans stop and signal not received during operation.	After the initial hour after the outdoor unit power was turned on, the oil recovery operation is performed every 6 hours without regard to the operating state of the indoor unit. XOperation display LED flashes at a 3 seconds ON, 1 second OFF cycle.
Error	Normal	Error		Indoor fan capacitor faulty.	Check the resistance value of	AB30-54(large ceiling suspended
display	display	display	_		the capacitor.	type) are error display.
(Indoor unit		(Indoor unit			(If normal, the resistance will show a value of several hundred	(Others are normal display.)
fan error) 🔆		fan error) 🔆			kilohms.)	
				Indoor fan motor faulty.	Check the fan motor resistance values (4-5, 5-6).	MOTOR COIL 6 5 2 4 SUB COM MID HIG
Error	Error	Error	System does	Indoor unit thermistor faulty.	Measure the thermistor	Refer to the service manual
display (Thermistor error) ※	display (Indoor unit error)	display (Thermistor error) ※	not cool/heat.	,	resistance and compare it to the ambient temperature.	(section 8-5-1) for the temperature and thermistor resistance relationship. ** When thermistor shorted or open.
Normal	Normal	Normal	System does	Indoor unit short circuit.	Air discharged from an indoor	
display	display or error display (Discharge temperature error)	display	not cool/heat.		unit is sucked directly into the same indoor unit or into another indoor unit.	
No display	Cannot be	No display	System does	Indoor control PCB faulty.	Symptom has many branches,	When a PCB or connection wire
or	specified	or ' '	not cool/heat.		depending on the error contents, and there is no effective check method.	is faulty, the trouble is often
error display	1	error display	Indoor unit			corrected by changing the PCB.
(Cannot be		(Cannot be	makes an		mediou.	
specified.)	1	specified.)	abnormal			
' ' '	1	' ' '	sound.			
Cannot ha	No di	Connette	System doos	Outdoor control DOD facility	Symptom has many branches	When a PCB or connection wire
Cannot be specified.	No display or	Cannot be specified.	System does not cool/heat.	Outdoor control PCB faulty.	Symptom has many branches, depending on the error contents,	is faulty, the trouble is often
error	opcomou.	Abnomal noise		and there is no effective check	corrected by changing the PCB.	
1	display		coming from		method.	
1	(Cannot be specified.)		indoor unit.			
	Spoomed.)					
	ļ					

2. System does not cool or heat

		ot cool or	Tiout			
Indoor unit Body LED	Outdoor unit PCB LED 1 to 6	Remote controller	Symptom that can occur other than title	Cause	Check method (Error state check method)	Remarks
Error display (Communi- cation error)	No display	Error display (Communi- cation error)	_	Power not supplied to outdoor unit. Circuit breaker OFF. Power line faulty.	Check each outdoor unit power supply terminal board(Power) voltage.	Voltage across R-S, S-T, and T-R: 380~415V Voltage across R-N,S-N, and T-N: 220~ 240V.
※Normal	after the powe	r reset.		Outdoor unit is leaking(shorted). (Circuit to which a voltage is applied when energized is leaking electricity.)	Trip the outdoor unit circuit breaker immediately after setting the circuit breaker to ON. The resistance across each outdoor unit power supply terminal board(Power) terminal and outdoor unit metal part approaches zero.	When shorted, there is a combination that shows an outdoor unit power supply wires(R-S,S-T,T-R,R-N,S-N,T-N) correlative resistance of nearly zero.
				Outdoor unit is leaking(shorted). (Circuit to which a voltage is applied only when operating is leaking electricity.)	Trip the outdoor unit circuit breaker during operation. The resistance value of the outdoor unit electric parts and outdoor unit metal part approaches zero.	When shorted, there is a combination, which indicates an electric parts correlative resistance near zero.
Normal display	Normal display	Normal display	_	Outdoor unit system type selector switch (DIP SW7-1,7-2) setting error. Set to heat recovery type/ cooling only type with cooling/ heating pomp type piping.	Cold air is blown from the indoor unit during the cooling operation, but warm air is not blown from the indoor unit during the heating operation.	
				Indoor unit refrigerant system address setting (SW 7,8) error.	When the indoor units are operated one by one,there is an indoor unit whose outdoor unit does not operate.	Set the address to the same refrigerant system address of the outdoor unit to which the refrigerant piping is connected.
				Indoor unit indoor unit address (SW 5) setting error. (address duplicated)	Operate each indoor unit for 5 minutes or more. The relevant outdoor unit stops and starts midway. (Compressor capacity and heat exchange capacity at outdoor unit LED is not correct.)	Multiple indoor units in one refrigerant system must not be set to the same indoor unit address.
				Installed piping is unsuitable. piping is too long. (Real length 100m or more)	Check the outdoor unit and indoor unit installation site and estimate the piping length.	When the piping is too long, the cooling capacity may be insufficient. Heating capacity may also be insufficient,but cooling capacity is made insufficient.
				Installed piping is unsuitable. Gas piping diameter is incorrect.	Check the indoor unit capacity and piping diameter.	When the gas piping diameter is large, cooling capacity will be insufficient. Heating capacity may also be insufficient at heating, but cooling capacity is made insufficient.
				Refrigerant leakage.	Check for leaks using a gas detector.(Refrigerant charged state)	Regarding air tightness test after installation or repair,pressurize the system with nitrogen(3.5MPa) and test for leaks with soapy water and allow the system to stand for 24 hours, and then check that there is no drop in pressure. (Note: When the outdoor temperature changes 5°C, the pressure changes 0.06MPa.)
				Insufficient gas (light)	During the cooling operation, the discharge temperature does not become low when all the indoor units are operated. During the heating operation, the discharge temperature does not become high when only one indoor unit is operated.	For light gas insufficiency, capacity drops only in a specific operation state. (Note that this symptom resembles faulty indoor unit electronic expansion valve opening.)

	LED display					
Indoor	Outdoor	Remote	Symptom that		Check method	
unit	unit PCB LED	controller	can occur other	Cause	(Error state check method)	Remarks
Body LED	1 to 6	LCD	than title		,	
Normal display	Normal display	Normal display	_	Indoor unit electronic expansion valve faulty. Full closed state (Not open)	When the relevant indoor unit performs the cooling operation, the compressor operates, but the indoor unit discharge temperature is not cool. When the relevant indoor unit performs the heating operation, the compressor operates, but the indoor unit discharge temperature is not warm. (cooling/heating pump type system only) when the heating operation is stopped, the liquid pipe of the relevant indoor unit is not warm. (At fully closed open ing, the liquid pipe is cold.)	(Cooling/heating pump type only. When heating stops, and the electronic expansion valve is fully closed, the liquid refrigerant collects at the stopped indoor uni
				RB unit solenoid valve faulty. SVd solenoid valve faulty.	During heating operation, a voltage (AC 220V) is applied to indoor control PCB CN6(across terminals 1-4), but the indoor unit discharge temperature does not become warm.	During the cooling operation with a faulty SVd, the gas pipe is cold. Coil resistance: 1,200 ~ 1,500 \(\text{Q} \)
				RB unit solenoid valve faulty. SVs solenoid valve faulty.	During cooling operation, a voltage(AC 220V) is applied to indoor unit control PCB CN6 (across terminals 2-4), but the indoor unit discharge temperature does not become cool.	
				Outdoor unit electronic expansion valve(EEV1, EEV2) opening faulty. 1.Fully closed state (Not opened) Heating operation.	When a voltage(AC220V) is applied to the coil of the heat exchange 4-way valve(4WV2, 4WV3, 4WV4) and to the heat exchange solenoid valve(SV7, SV8) corresponding to the electronic expansion valve, the electronic expansion valve outlet pipe does not become cold.	During the heating operation, when EEV1 and 2 are fully closed, the low pressure and high pressure both drop. Coil resistance(red-white, redorenge, brown-blue, brown-yellow): 170~210 Ω
				Outdoor unit electronic expansion valve(EEV1, EEV2) opening faulty. 2. Open excessively (fully open)	There is no effective check method.	At low outdoor temperatures, cooling may become poor when EEV1 or EEV2 is open excessively. If the outdoor power supply is reset 3~5 times, the electronic expansion valve may return to normal opening. Coil resistance (red-white, redorange, brown-blue, brown-yellow): 170~210 Ω

	LED display		1			T
Indoor unit Body	Outdoor unit PCB LED	Remote controller	Symptom that can occur other than title	Cause	Check method (Error state check method)	Remarks
Normal display	1 to 6 Normal display	Normal display	Indoor unit makes an abnormal sound.	Installed piping not suitable. Liquid piping diameter incorrect.	Check the indoor unit capacity and piping diameter.	When the diameter is large, a refrigerant rushing sound is generated and when the diameter is small, capacity will be insufficient.
				Outdoor unit refrigerant switching 4-way valve (4WV1) faulty. (Cooling/heating pump type only)	28 dia. pipe temperature corresponding to 4WV1 energized state (cooling : de-energized, heating : energized (AC220V)) is abnormal (cooling : cold, heating : hot).	Four-way valve coil resistance : 1200~1500 Ω
				Outdoor heat exchange switching 4-way valve (4WV2, 4WV3, 4WV4) or solenoid valve (SV7, SV8) faulty.	Check the heat exchange operation capacity at the LED on the outdoor control PCB. Corresponding heat exchange 4-way valve and solenoid valve energized state (AC220V) is abnormal. (Refer to section 5-2 of the service manual for the energized states.)	When a 4-way valve or solenoid valve is faulty, the high pressure will rise during the cooling operation and the low pressure will fall during the heating operation. Coil resistance : $1200\sim1500\Omega$
			Overall refrigerant pressure rises (in particular, high pressure rises abnormally) or falls.	Refrigerant additional charge is unsuitable.	Check the Model No., liquid piping diameter, length of the connected indoor unit, and the additional charge amount.	When gas is insufficient, the capacity drops and when gas is excessive, the high pressure rises abnormally.
Error display (Outdoor unit error) %	Error display (Communi- cation error) ** mal after power	Error display (Outdoor unit error) %	_	Indoor~outdoor unit communication line faulty.	When communication terminal board (Trans Mission) terminals 1-2 of one indoor unit was shorted, the resistance across communication terminal board (Trans Mission) terminals 1-2 of all the indoor units does not indicate a value near zero.	Short Resistance circuit measurement measurement lindoor lindoor unit lindoor unit 3
Normal display	Error display (High pressure error)	Normal display	_	Indoor unit system type selector switch (DIP SW7-1, 7-2) setting error. Set to cooling/heating pump type/cooling only type with heat recovery type piping.	Cool air or warm air not discharged from indoor unit during both the cooling and heating operations.	Refer to the service manual (section 4-4 "Outdoor Unit") for the switches.
Normal display	Normal display or error display (Compressor error)	Normal display	_	Insufficient gas (serious)	When the number of operating indoor units was changed, the indoor unit discharge temperature does not become low (does not become high).	For serious gas insufficiency, the high pressure always drops and the low pressure always rises during all operations.
Error display (Thermistor error) ※	Error display (Indoor unit error)	Error display (Thermistor error) ※	Indoor fan unit not operating.	Indoor thermistor faulty.	Measure the thermistor resistance and compare it to the ambient temperature.	Refer to the service manual (section 8-5-1) for the temperature and thermistor resistance relationship. When a thermistor is shorted or open.
Normal display	Error display (High pressure error)	Normal display	_	RB unit solenoid valve wiring faulty.	When a relevant indoor unit performs the heating operation, the high pressure becomes high and warm air is not discharged from the indoor unit.	Solenoid valve wiring corresponding to the connection piping must not be connected to the same indoor unit. (Trouble occurs especially easily with the UTF-Y90A1A.)

	LED display					
Indoor unit	Outdoor unit	Remote controller	Symptom that can occur other	Cause	Check method (Error state check method)	Remarks
Body LED	PCB LED 1 to 6	LCD	than title		(Effor state check method)	
Error display (Outdoor unit error)	Error display (Thermistor error) ※	Error display (Outdoor unit error)	_	Outdoor thermistor faulty.	Check by measuring the thermistor resistance and comparing it to the ambient temperature.	Refer to the service manual (section 8-5-1) for the temperature and thermistor resistance relationship. %When thermistor is shorted or open.
Normal display	Normal display or error display (High pressure error)	Normal display	_	Outdoor fan capacitor faulty.	Check the capacity (11uF) and resistance of the capacitor. (When normal, the resistance is several hundred kilohms or more.)	Resistance value across fan motor wires: Blue-white: 60 ohms, white-red: 40 ohms, red-blue: 20 ohms
				Outdoor fan motor faulty.	Voltage (AC 30V) is applied to motor, but motor does not rotate.	
				Outdoor unit electronic expansion valve (EEV1, EEV2) opening faulty. Fully closed state (not open) Cooling operation	When the heat exchange 4-way valve (4WV2, 4WV3, 4WV4) corresponding to the electronic expansion valve is not energized, the temperature (warm) of the piping before and after the electronic expansion valve is clearly different.	When EEV1 and 2 are fully closed during the cooling operation, the high pressure may rise abnormally and the gas may become insufficient and both the high pressure and low pressure may drop. Coil resistance (red-white, red-orange, brown-blue, brown-yellow): 170~210 Ω
			Indoor unit makes an abnormal sound.	Ball valve opening faulty.	Turn the knob of the liquid pipe, discharge pipe, and suction pipe clockwise.	When the ball valve is fully open, the knob of the liquid pipe and discharge pipe is vertical and the knob of the suction pipe is horizontal.
Normal display	Normal display or error display (Discharge temperature error)	Normal display	_	Outdoor unit short circuit	Air discharged from an outdoor unit is sucked directly into the same outdoor unit or into another outdoor unit.	
				Outdoor unit heat exchanger block	Not enough space around outdoor unit. Dirt or other foreign matter stuck to outdoor unit heat exchanger.	Refer to the design technical manual for the service space.

	LED display					
Indoor unit	Outdoor	Remote controller	Symptom that	Cause	Check method	
Body LED	PCB LED 1 to 6	LCD	can occur other than title	Cause	(Error state check method)	Remarks
Controlling display (Operation display LED flashing) % 1	Controlling display (Defrosting operation)	Normal display <u>%</u> 2	_	Defrosting operation in progress	Outdoor unit heat exchanger extremely cold (-5°C or less)	X1 Operation display LED repeats 3 seconds ON, 1 second OFF cycle. X2 DEFROST is displayed at bottom of set temperature display position.
	Error display (Compressor error)	Error display (Outdoor unit error)	-	Compressor faulty	Voltage (AC380-415V) is applied to secondary side of power line, but compressor does not operate. → Compressor lock → Compressor motor burned	While checking for a compressor error, the other compressors perform the backup operation. Resistance across compressor wires: 5 Ω each.
				Compressor faulty Compressor lock	When the compressor does not operate, measure the resistance across the compressor wires and the ground resistance. (When the compressor is locked, the resistance across the wires and the ground resistance will be the normal value, the same as when the compressor is stopped.)	color). Therefore, long-term operation is impossible. (Another compressor locks.)
				Compressor faulty Compressor motor burned	When the compressor does not operate, measure the resistance across the compressor wires and the ground resistance. (When the motor is burned, the resistance across wires increases / open and the ground resistance drops.)	When this trouble occurs, the oil does not deteriorate. Therefore, operation can be continued, but since the possibility of electric leakage is high, the compressor power line must always be disconnected.
Error display (Outdoor unit error)	Error display (Reverse phase error)	Error display (Outdoor unit error)	_	Compressor faulty Reverse phase	The compressor operates normally, but the high pressure does not rise.	The compressor wiring is red-R, white-S, and black-T.
Error display (Communication error) **	Error display (Communication error) **	Error display (Communi- cation error) ※ reset.	_	Outdoor unit communication PCB faulty.	When outdoor unit power reset is repeated, a communication error is generated.	When the display returns to normal (not communicating) after reset, the communication PCB or communication line is abnormal.
No display or error display (Cannot be specified)	Cannot be specified.	No display or error display (Cannot be specified)	Indoor unit fan not operating. Indoor unit makes an abnormal sound.	Indoor unit control PCB faulty.	The symptom has many branches, depending on the error contents, and there is no effective check method.	When the PCB or the connection wiring is faulty, operation can often be restored by replacing the PCB.
Cannot be specified.	No display or error display (Cannot be specified)	Cannot be specified.	Indoor unit fan not operating. Indoor unit makes an abnormal sound.	Outdoor unit control PCB faulty.	The symptom has many branches, depending on the error contents, and there is no effective check method.	When the PCB or the connection wiring is faulty, operation can often be restored by replacing the PCB.

3. Abnormal sound is heard from the indoor unit.

Indoor unit	LED display Outdoor unit	Remote controller	Symptom that can occur other	Cause	Check method	Remarks
Body LED	PCB LED 1 to 6	LCD	than title		(Error state check method)	
Normal display	Normal display	Normal display	_	RB unit solenoid valve faulty. SVb1, 2 solenoid valve faulty.	When heating operation starts, a voltage (AC220V) is applied to indoor unit control PCB CN6 (across terminals 3-4), but 3 minutes later a loud refrigerant rushing sound is generated from the RB unit.	Coil resistance : 1200~1500 Ω
				Indoor electronic expansion valve opening faulty.	_	Coil resistance (red-white, red-orange, brown-blue, brown-yellow) : 100~200 ♀
			Indoor unit other than the relevant indoor unit does not perform cooling.	Indoor electronic expansion valve opening faulty. Fully open (open excessively) Cooling operations performed.	The area (heat exchanger) near the air diffuser is not cooled even after several minutes have elapsed since the relevant indoor unit was stopped. (Gas pipe is cold.)	When the electronic expansion valve is open excessively, other indoor units may not operate at full capacity or a loud refrigerant rushing sound may be generated
			Indoor unit other than the relevant indoor unit does not perform cooling. Indoor unit heat exchanger icing.	Indoor unit electronic expansion valve opening faulty. Fully open (open excessively) Cooling stopped	The area (heat exchanger) near the air diffuser of the stopped relevant indoor unit is cold. (Gas pipe is cold.)	When the electronic expansion valve opens, the indoor heat exchanger may ice while stopped and water leakage or other trouble may occur.
			Indoor unit other than relevant indoor unit does not perform heating.	Indoor unit electronic expansion valve opening faulty. Full open (open excessively) Heating operation	When the relevant indoor unit performs the heating operation or another indoor unit performs the heating operation, the indoor unit discharge temperature does not become high and the high pressure becomes low.	
				Indoor unit electronic expansion valve opening faulty. Full open (open excessively) Heating stopped.	When the relevant indoor unit or another indoor unit performs the heating operation, the indoor unit discharge temperature does not become high and the high pressure become low.	
			System does not cool/heat	Outdoor cool/heat switching 4-way valve (4WV1) faulty. (Cooling/heating pump type only)	28 dia. gas piping temperature corresponding to 4WV1 energized state(cooling, de-energized, heating, energized(AC220V) is abnormal (cooling: cold, heating: hot).	4-way valve coil resistance : 1200~1500 Ω
					Check the heat exchange operation capacity at the outdoor control PCB LED. The energized state (AC220V) of the heat exchange 4-way valve and solenoid valve corresponding to it is abnormal. (Separate sheet 1)	rises during the cooling operation and the low pressure drops during the heating operation.
				Installed piping is unsuitable. Liquid piping diameter is incorrect.	Check the indoor unit capacity and pipe diameter.	When the diameter is large, a refrigerant rushing sound will be generated and when the diameter is small, capacity will be insufficient.

	LED display					
Indoor unit	Outdoor unit	Remote controller	Symptom that can occur other	Cause	Check method (Error state check method)	Remarks
Body LED	PCB LED 1 to 6	LCD	than title			
Normal display	Normal display or error display (High pressure error)	Normal display	System does not cool/heat.	Ball valve opening faulty.	Turn the knob of the liquid pipe, discharge pipe, and suction pipe ball valve counter-clockwise.	When the ball valve is fully open, the knob of the liquid pipe and discharge pipe is vertical and the knob of the suction pipe is horizontal.
Controlling display (Operation display LED flash) ※	Controlling display (Oil recovery operation)	Normal display	Indoor unit not operating.	Oil recovery operation control in progress.	All the operating indoor unit fans are stopped and signals are not received.	Oil recovery operation is performed even though the indoor unit operation state is entered every 6 hours after the initial hour after the outdoor unit power is turned on. XOperation display LED repeats 3 seconds ON, 1 second OFF cycle.
No display or error display (Cannot be specified.)	Cannot be specified.	No display or error display (Cannot be specified.)	Indoor unit fan is not operating. System does not cool/heat.	Indoor control PCB faulty.	The symptom has many branches, depending on the error contents, and there is no effective check method.	When the PCB or connection wiring is faulty, operation can often be restored by replacing the PCB.
Cannot be specified.	No display or error display (Cannot be specified.)	Cannot be specified.	Indoor unit fan is not operating. System does not cool/heat.	Outdoor control PCB faulty.	The symptom has many branches, depending on the error contents, and there is no effective check method.	When the PCB or connection wiring is faulty, operation can often be restored by replacing the PCB.

4. Water leaks from the indoor unit.

	LED display					
Indoor unit	Outdoor unit	Remote controller	Symptom that can occur other	Cause	Check method (Error state check method)	Remarks
Body LED	PCB LED 1 to 6	LCD	than title			
Normal display	Normal display	Normal display	_	Drain hose faulty.	Tilt the drain hose from the indoor unit to the drain outlet.	The same symptom will also appear when the drain hose is clogged.
Error display (Drain error) **	Error display (Indoor unit error)	Error display (Drain error) ※	_	(Cassette type only)	During cooling operation, drain pump is not effective even though a voltage (DC5V) is applied across CN5 terminals 1-2.	Generated when the float switch does not return even though 3 minutes have elapsed after the operation signal was sent from the float switch.
				Float switch faulty.	Remove the float switch and move the float up and down and check the resistance.	When the float is lowered, the circuit is open (high resistance) and when the float is raised, the circuit is closed (low resistance). **Generated when the float switch does not return even though 3 minutes have elapsed after the operation signal was sent from the float switch.

5. Others

	LED display							
Indoor unit	Outdoor unit	Remote controller	Symptom that can occur other	Cause	Check method (Error state check method)	Remarks		
Body LED	PCB LED 1 to 6	LCD	than title					
Normal display	Normal display	Normal display		Indoor unit electronic expansion valve opening faulty.		When the indoor unit power is reset 5~10 times at a 2~3 minutes interval, the expansion valve may close. Coil resistance (red-white, red-orange, brown-blue, brown-yellow): $100~200\Omega$		
			Indoor unit other than relevant indoor unit does not perform cooling. Indoor unit makes an abnormal sound.	Indoor unit electronic expansion valve opening faulty. Fully open (open excessively) Cooling operation.	Area (heat exchanger) near the air diffuser is not cooled even after several minutes have elapsed after the relevant indoor unit was stopped. (Gas pipe is cold.)	When the electronic expansion valve is open excessively, other indoor units may not operate at full capacity or a loud refrigerant rushing sound may be generated		
			Indoor unit other than relevant indoor unit does not perform cooling. Indoor unit makes an abnormal sound Icing at indoor unit heat exchanger.	Indoor unit electronic expansion valve opening faulty. Fully open (open excessively) Cooling stopped.	The area (heat exchanger) near the air diffuser of the stopped relevant indoor unit is cold. (Gas pipe is cold.)	When the electronic expansion valve opens, the stopped indoor heat exchanger may ice and water leakage or other trouble may occur.		
			Indoor unit other than relevant indoor unit does not perform heating. Relevant indoor unit is making an abnormal sound.	Indoor unit electronic expansion valve opening faulty. Fully open (open excessively) Heating operation. Indoor unit electronic expansion valve opening faulty. Fully open (open excessively) Heating stopped.	When a relevant indoor unit or another indoor unit performs the heating operation, the indoor unit discharge temperature does not become high and the high pressure becomes low.	When the electronic expansion valve is open excessively, a loud refrigerant rushing sound may be generated.		
			Discharge temperature is high.	Up - down (left - right) swing switching motor faulty.	Louver does not move even when a voltage (DC12V) is applied to the CN10 terminals (across 1-2) at swing input.	For the left - right swing switching motor, check the voltage across the CN11 terminals (1-2).		
			Discharge temperature is high. ※ Remakes	Liquid injection solenoid valve (SV1) faulty.	When a voltage (AC220V) is applied to CN7, the liquid injection solenoid valve outlet pipe is not cold.	When SV1 is faulty, the discharge gas temperature may rise and a discharge temperature error may be generated. Coil resistance: 1200~1500Ω		
				High pressure gas bypass solenoid valve (SV2) faulty.	When a voltage (AC220V) is applied to CN8, the high pressure gas bypass solenoid outlet pipe is not warm.	When SV2 is faulty, the high pressure may rise and a high pressure error may be generated Coil resistance : 1200~1500Q		
			Compressor error ※ Remakes	Oil return solenoid valve (SV3, SV4, SV5, SV6) faulty.	When a voltage (AC220V) is applied to CN9, CN10, CN11, and CN12, the outlet pipe of the respective solenoid valve (SV3, SV4, SV5, SV6) does not become hot.	When SV3, SV4, SV5, and SV6 do not operate normally, the oil may not return to the compressor and compressor trouble may occur. Coil resistance: 1200~1500 Ω		
			High pressure is high. ** Remakes	High pressure switch faulty.	There is a voltage difference across terminals 1-2 of CN42 even though the high pressure exceeds 3.0MPa.	When the pressure switch is faulty, protection control will not be entered even if the high pressure rises and a high pressure error may be generated		
Error display (Outdoor unit error)	Error display (Discharge, liquid pipe pressure sensor error)	Error display (Outdoor unit error)	High pressure is high. ※ Remakes	Pressure sensor (HP, MP) faulty.	Measure the pressure sensor output voltage (across terminals 2-3 of CN33 and CN34) and compare the result to the pressure gauge indication.	When the pressure sensor is faulty, protection control is not entered even if the high pressure rises and a high pressure error may be generated. Refer to the service manual (section 8-5-2) for the pressure and pressure sensor output voltage relationship.		

8-5 OTHERS

8-5-1 CHARACTERISTICS OF THERMISTOR

Thermistor resistance values <Indoor unit side>

1) Room temperature thermistor

7.2

 $(k\Omega)$

Room tempera- ture (°C)	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30
Resistance value $(k\Omega)$	33.6	29.5	25.9	22.8	20.2	17.9	15.8	14.1	12.5	11.2	10.0	9.0	8.0
•		•	•		•		•	•					
Room tempera- ture (°C)	32.5	35	37.5	40	42.5	45	47.5	50					
Resistance value	7.2	6.5	5.0	5.2	10	12	2.0	2.6					

4.3

3.9

3.6

2) Indoor heat exchanger temperature thermistor

6.5

5.9

5.3

2) 1114001 1100	07.0												
Room tempera- ture (°C)	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30
Resistance value $(k\Omega)$	176.0	153.5	134.2	117.6	103.3	91.0	80.3	71.0	62.9	55.9	49.7	44.3	39.6
		•			•					•	•		
Room tempera- ture (°C)	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5	60	
Resistance value $(k\Omega)$	35.4	31.7	28.5	25.6	23.1	20.8	18.8	17.1	15.5	14.1	12.8	11.6	

3) Indoor heat exchanger outlet temperature thermistor

Room tempera- ture (°C)	-50	-40	-30	-20	-10	-5	0	2.5	5	7.5	10	12.5	15
Resistance value $(k\Omega)$	384.8	182.8	92.3	49.2	27.5	20.9	16.1	14.1	12.4	11.0	9.7	8.6	7.7
Room tempera- ture (°C)	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	50
Resistance value $(k\Omega)$	6.8	6.1	5.5	4.9	4.4	3.9	3.6	3.2	2.9	2.6	2.4	2.2	1.8

Room temperature (°C)	60	70	80	90	100
Resistance value $(k\Omega)$	1.2	0.9	0.6	0.5	0.4

Thermistor resistance values <Outdoor unit side>

1) Outdoor heat exchanger temperature thermistor

Pipe tempera- ture (°C)	-50	-40	-30	-20	-10	-7.5	-5.0	-2.5	0	2.5	5.0	7.5	10
Resistance value $(k\Omega)$	384.8	182.8	92.3	49.2	27.5	24.0	20.9	18.3	16.1	14.1	12.4	11.0	9.7
											•		
Pipe tempera- ture (°C)	12.5	15.0	17.5	20	22.5	25.0	27.5	30	32.5	35	37.5	40	50
Resistance value $(k\Omega)$	8.6	7.7	6.8	6.1	5.5	4.9	4.4	3.9	3.6	3.2	2.9	2.6	1.8
							'				'	'	
Pipe tempera- ture (°C)	60	70	80	90	100								
Resistance value $(k\Omega)$	1.2	0.9	0.6	0.5	0.4								

2) Discharge pipe temperature thermistor

Pipe tempera- ture (°C)	-40	-30	-20	-10	0	5.0	10	12.5	15	17.5	20	22.5	25
Resistance value $(k\Omega)$	2183	1076	561	307	176	135	105	92.4	81.8	72.6	64.5	57.5	51.3
Pipe tempera- ture (°C)	27.5	30	32.5	35	37.5	40	50	60	70	80	90	100	120
Resistance value $(k\Omega)$	45.8	41.1	36.9	33.1	29.8	26.9	18.1	12.5	8.8	6.3	4.6	3.4	2.0

Pipe tempera- ture (°C)	140	161	180
Resistance value $(k\Omega)$	1.2	0.8	0.5

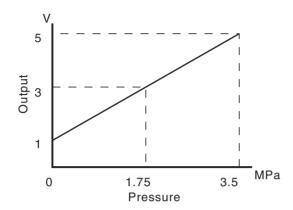
3) Outdoor temperature thermistor

Pipe tempera- ture (°C)	-50	-40	-30	-20	-10	-7.5	-5.0	-2.5	0	2.5	5.0	8.0	10
Resistance value $(k\Omega)$	859	402	200	105	58.2	50.6	44.0	38.4	33.6	29.5	25.9	22.3	20.2
Pipe tempera- ture (°C)	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	50
Resistance value $(k\Omega)$	17.9	15.8	14.1	12.5	11.2	10.0	9.0	8.0	7.2	6.5	5.9	5.3	3.6

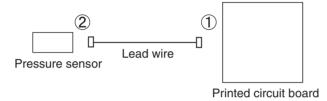
Pipe tempera- ture (°C)	60	70	80
Resistance value $(k\Omega)$	2.5	1.8	1.3

8-5-2 PRESSURE SENSOR

1) Characteristics of pressure sensor



2) Check point of replacing pressure sensor



When installing the pressure sensor, connect a lead wire to the PCB (①), thereafter connect the other end of a lead wire to the pressure sensor (②). When disconnecting, do the opposite procedure. Be careful not to install other than above procedure, otherwise the pressure sensor can be failed.

8-5-3 ELECTRIC EXPANSION VALVE

When the electric expansion valve is locked cause by failure, it emits click noise. Confirming the noise emission is done by touching any implement like a screw driver.

8-5-4 RB UNIT (HEAT RECOVERY TYPE ONLY)

When the RB unit is failed, it can be concerned one of the valve such as discharge valve, suction valve and bypass is locked. The discharge valve will be ON during heating operation, the suction valve will be ON during cooling operation and the bypass valve will be ON during stopping.

8-5-5 OTHERS

- 1) Solving the problem is nesessary since following can be occured.
- ① Gas leakage, capacity declining cause by gas shortage.
- ② Dirt from the filter and the EEV.
- 3 Capacity declining by mis-setting of the indoor unit capacity.
- 4 Unfit of the refrigerant pipe.
- 5 Increasing the indoor unit by mis-piping.
- ⑥ Increasing the indoor unit by mis-setting the refrigerant system address.
- 7 Disconnection of the transmission line.
- 2) The air conditioner operates intermittently or an error message appears.
- ① Wiring method of the transmission line.
- 2 Loose contact of the transmission line
- 3 Mis-selecting the transmission line.
- ④ Over the limit of the transmission line length.
- 5 Noise influences the transmission line.
- ⑥ In case of the specified indoor unit, the indoor unit PCB is defected.
- ⑦ In case of all units or the specified unit, the outdoor unit PCB is defected.

8-5-6 OUTDOOR HEAT EXCHANGER CAPACITY AND THE STATE OF 4-WAY VALVE, ELECTROMAGNETIC VALVE, AND ELECTORONIC EXPANSION VALVE

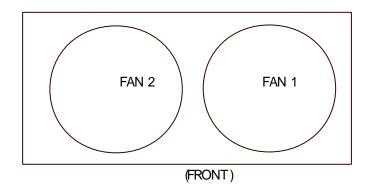
1.Cooling operation

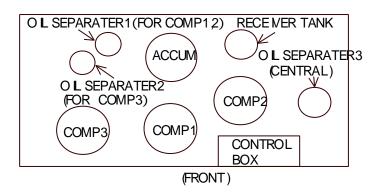
•		in the energized mode		Electromagnetic valve in the energized mode		Electronic expansion valve opening	
capacity(HP)	4WV2	4WV3	4WV4	SV7	SV8	EEV1	EEV2
	CN18	CN19	CN20	CN13	CN14	CN29	CN30
2	OFF	ON	ON	ON	OFF	open	enclosed
4	ON	OFF	ON	OFF	ON	open	enclosed
6	ON	ON	OFF	OFF	OFF	enclosed	open
8	OFF	ON	OFF	ON	OFF	open	open
10	ON	OFF	OFF	OFF	ON	open	open
12	OFF	OFF	OFF	ON	ON	open	open

2.Heating operation

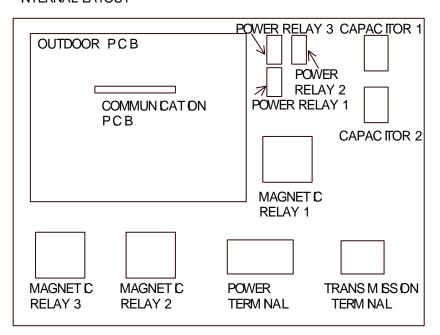
Heat exchange 4-way valve in the energized mode		Electromagnetic valve in the energized mode		Electronic expansion valve opening			
capacity(HP)	4WV2	4WV3	4WV4	SV7	SV8	EEV1	EEV2
	CN18	CN19	CN20	CN13	CN14	CN29	CN30
2	ON	ON	ON	ON	OFF	open	enclosed
4	ON	ON	ON	OFF	ON	open	enclosed
6	ON	ON	ON	OFF	OFF	enclosed	open
8	ON	ON	ON	ON	OFF	open	open
10	ON	ON	ON	OFF	ON	open	open
12	ON	ON	ON	ON	ON	open	open

OUTDOOR UNIT NTERNAL LAYOUT



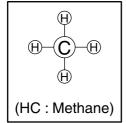


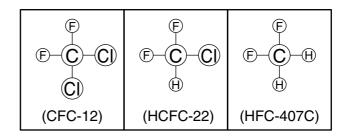
OUTDOOR UNIT CONTROL BOX NTERNAL LAYOUT



9. IN USE OF THE NEW REFRIGERANT R407C

9-1 What is CFC/HCFC/HFC?





CFC: Chloro-Fluoro-Carbon

= high ODP(ozone depletion potential) chemical compound containing chlorine (ODP: 0.6 - 1.0)

HCFC: Hydro-Chloro-Fluoro-Carbon (R22)

= low ODP chemical compound containing chlorine and hydrogen (ODP:1/10 - 1150 of CFC)

HFC: Hydro-Fluoro-Carbon (R407C)

= zero ODP new chemical compound in which is not containing chlorine (ODP: 0)

9-2 Characteristics of R22 and R407C

HANDLING

As in the case of R22, the specific gravity of its vapor is larger than that of air and should it leak in an airtight room it may stay at a low level and cause oxygen starvation accident.

cause a poisonous gas to occur, so be sure to handle it only in a well ventilated area.

SELECTION OF REFRIGERANT

As there is no appropriate mono-constituent refrigerant to replace R22 which has been used for conventional air conditioners, the mixed refrigerant of HFC series was developed.

	R22	R407C
Composition (wt%)	R22 (100)	R32/R125/R134a (23/25/52)
Boiling point	-40.8	-43.6
Ozone depletion potential ODP	0.055	0
Global warming potential GWP	1,700	1,530
Inflammability	Nonflammable (A1)	Nonflammable (A1/A1)
Toxicity	less	less
Azeotropic or Zeotropic		Zeotropic
Features		Necessary to handle carefully because of zeotropic. Working pressure is nearly equal to that of R22 (about I .1 times).

R407C

Merits

As working pressure is nearly equal to R22 (about 1.1 times), pressure resistance design is easy.

Discharge compressor

Max. 30.0 bar for reciprocating compressor Max. 28.5 bar for rotary compressor

Demerits

Composition control is necessary for charging refrigerant as it is zeotropic refrigerant.

When leaked, it will become composition of more
R134a constituent with high boiling point.

Also, charging refrigerant must be done from the lice.

Also, charging refrigerant must be done from the liquid phase side.

Review of control system is required as there is temperature glide.

→ R407C is used for large air conditioners.
Pressure resistance design is easy and safe.

9-3 Difference from conventional model (R22) and precautions

OIL

- Use new synthetic oils such as ester because HFC series refrigerant has less solubility with mineral oils conventionally used for R22.
- As these new synthetic oils are easily influenced by moisture and dusts, they must be treated morecarefully than the conventional lubricating oils.

CAUTION

For installation/servicing, take more precautions than before to avoid moisture and dusts. Also, for storing parts, same precautions must be taken.

COMPRESSOR

- Use better grade of material for sliding parts for securing good lubrication of sliding part as HFC refrigerant does not contain chloride.
- · Review insulating materials
- Increase pressure resistance strength

CAUTION

Check if the compressor is suitable for the refrigerant (model) when replacing. Complete welding within 15 minutes after opening the cap when replacing.

HEAT EXCHANGER

- Review the water, contaminants controlling level
- Use thinner tube to increase pressure Increase capacity for resistance strength (only outdoor unit) improving performance

CAUTION

During storage, due care must be taken so that foreign matters such as dust and water do not enter.

4-WAY VALVE

· Review materials

CAUTION

Check if the valve is suitable for the refrigerant (model) when replacing.

CHECK VALVE

- Review materials
- Change shape of pipe ends to increase pressure resistance strength

CAUTION

Check if the valve is suitable for the refrigerant (model) when replacing.

2, 3-WAY VALVE

• Review material O-ring, valve core seal for securing suitability with oil.

CAUTION

Check if the valve is suitable for the refrigerant (model) when replacing.

BALL VALVE

• Review material O-ring, valve core seal for securing suitability with oil.

CAUTION

Check if the valve is suitable for the refrigerant (model) when replacing.

DRYER

 \bullet Change desiccant (XH-6 \rightarrow XH-10) Volume of desiccant is increased.

CAUTION

Complete welding within one hour after the package of dryer is opened.

PRESSURE SWITCH

• Adopt for some models for better reliability.

CAUTION

Check if the valve is suitable for the refrigerant (model) when replacing.

OTHER PIPING

- Review the water, contaminants controlling level.
- Review thickness of pipes.

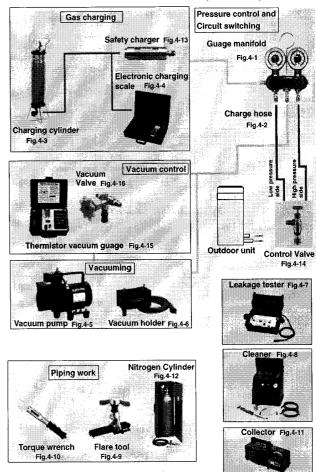
CAUTION

During storage, due care must be taken so that foreign matters such as dust and water do not enter.

9-4 Tools

Gauge manifold (Fig.4-1) Pressure gauge changed.
Charge hose (Fig.4-2) Changed to HFC resistant material.
Charging cylinder (Fig.4-3) Gauge changed
Electronic balance for refrigerant charging (Fig.4-4) Electronic balance is recommended as in the case of R410A.
Vacuum pump with adapter to prevent reverse flow(Fig.4-5) Conventional pump can be used.
Vacuum holder
Gas leakage tester (Fig.4-7) Exclusive for HFC
Refrigerant cleaner (Fig.4-8) Brown paint as designated by the ARI, USA
Flare tool (Fig.4-9) Conventional tool can be used.
Torque wrench
D. follows and the considering
Refrigerant recovering equipment (Collector) (Fig.4-11) The type which can be used for any refrigerant is available
equipment (Collector) (Fig.4-11)
equipment (Collector)
equipment (Collector)
equipment (Collector)

TOOLS AND EQUIPMENT (R407C)



9-5 Precautions for installation

COPPER PIPES

(1) It is necessary to choose adequate materials.

If new synthetic oil is mixed with residual oil(ex: mineral type), they may deteriorate, and block the capillary tubes, or cause the compressor to fail.

So it is desirable that the amount of residual oil in connection pipes is less than 40 mg/10 m.

Thickness of copper pipes is shown below.

Nominal diameter (inch)	Outer diameter (mm)	Thickness (mm)
1/4	ø 6.35	0.8
3/8	ø 9.52	0.8
1/2	ø 12.70	0.8
5/8	ø 15.88	1.0
3/4	ø 19.05	1.0
1 1/8	ø 28.58	1.2

(2) Control contaminants

Since new synthetic oil is easily influenced by contaminants (water, residual oil, etc.), it must be handled with care more than the conventional lubricating oil.

(3) Refrigerant charge

When charging refrigerant, take into account the slight change in the composition of the gas and liquid phases, and always charge from the liquid phase side whose composition is stable.

(4) Correct refrigerant charge

As there are air conditioner models using different refrigerant such as R22, R407C, make sure to check and not to use wrong refrigerant when installing and servicing.

(5) Air purge

Always use a vacuum pump to purge the air.

In the case of Fujitsu General's new refrigerant model, refrigerant for purging the air is not charged in the outdoor unit at the factory.

9-6 Precautions for Servicing

1. Countermeasure when the refrigerant leaks

As R407C is geotropic refrigerant, the composition of the remaining refrigerant changes when the refrigerant leaks.

Therefore, recharging refrigerant cannot be done.

Recover the remaining refrigerant and charge the specified amount of new refrigerant.

2. Never use the existing refrigerant piping

The existing piping used for R22 cannot be used for the cycle of HFC series refrigerant as the conventional mineral oils are adhering to the piping.

Due to the deteriorated mineral oils, compressor may be damaged.

Therefore, basically use a brand new piping. However,in case of the existing piping buried in the wall and replacement with new piping is difficult, wash the piping fully with detergent.

3. Replacement of refrigeration cycle parts

As refrigeration cycle parts are basically different from conventional parts, be sure to use the parts suitable for the refrigerant when replacing.

For R407C, the materials are being reviewed.

4. Charging wrong refrigerant

As there are air conditioner models using different refrigerant such as R22, R407C, make sure to check and not to use wrong refrigerant when installing and servicing.

5. Storage of parts

When storing parts, make such treatment as packing the parts in bags so as to avoid dusts, water, etc.

6. Replacing parts

When replacing parts, be sure to check if the parts are suitable for the refrigerant(model).

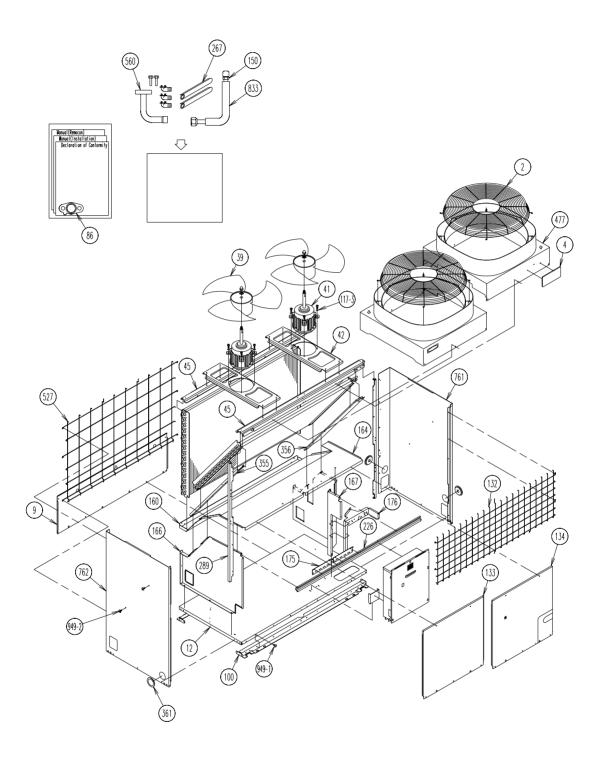
For most refrigeration cycle parts which have same appearance, the inside material is changed.

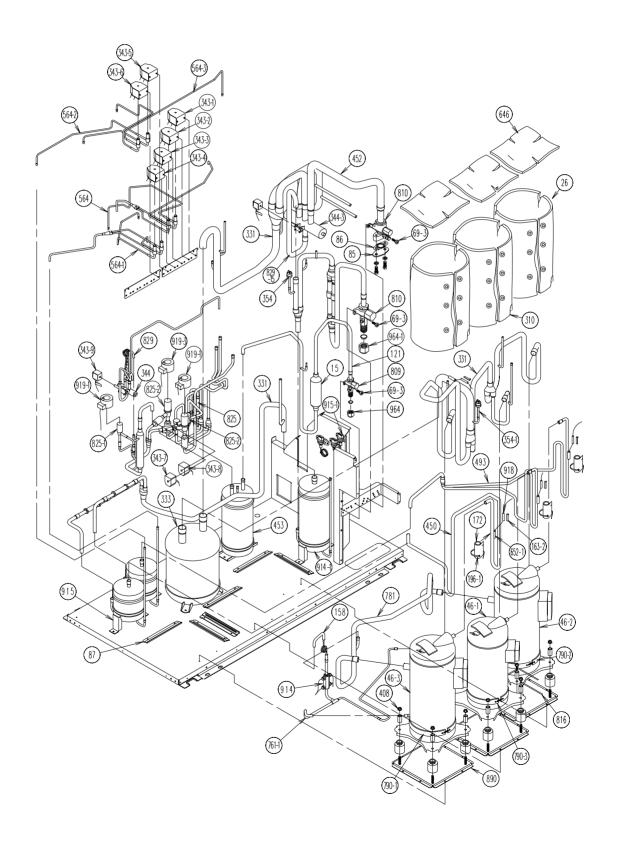
When changing compressor, complete brazing within 15 minutes after opening the cap. After opening the cap, the moist air enters the compressor, and oil absorbs the moisture causing sludge. When changing dryer, complete brazing within one hour after the package of dryer is opened.

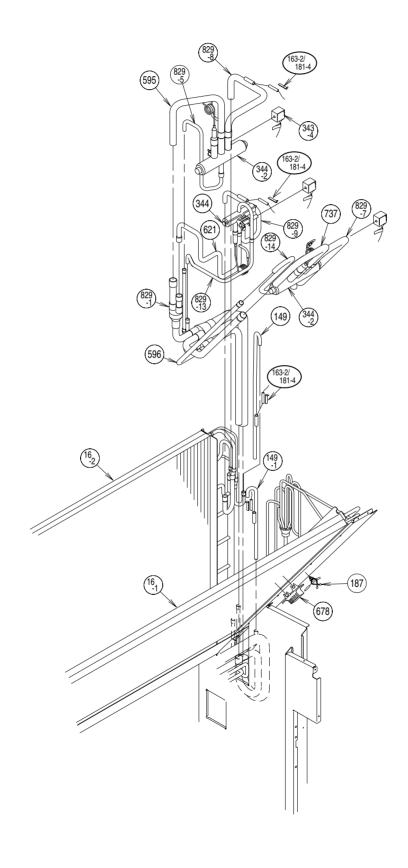
The desiccant starts to absorb the water content as soon as the package of dryer is opened.

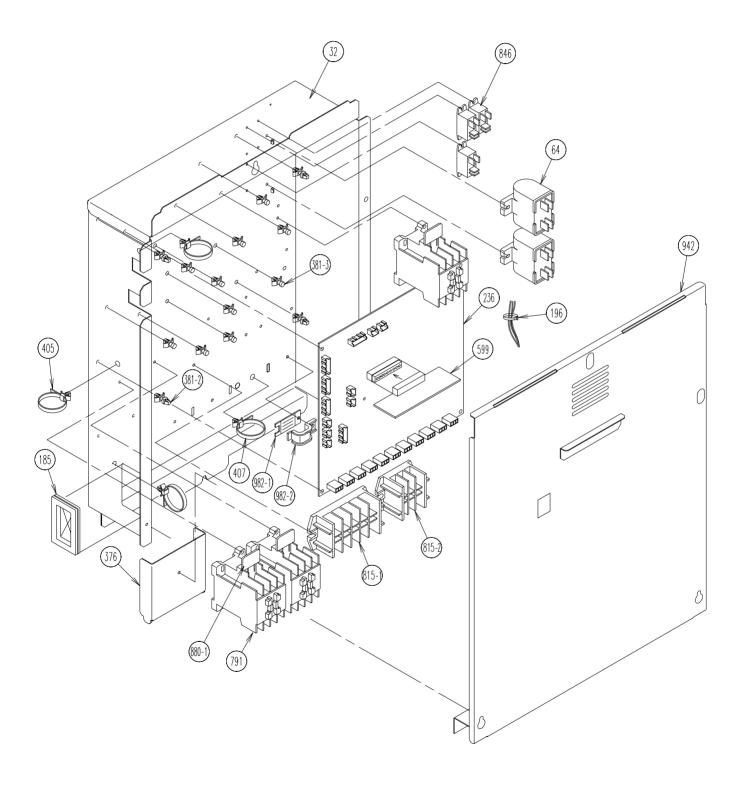
If it absorbs too much water content when replacing, it cannot absorb fully the water content in the refrigerating cycle.

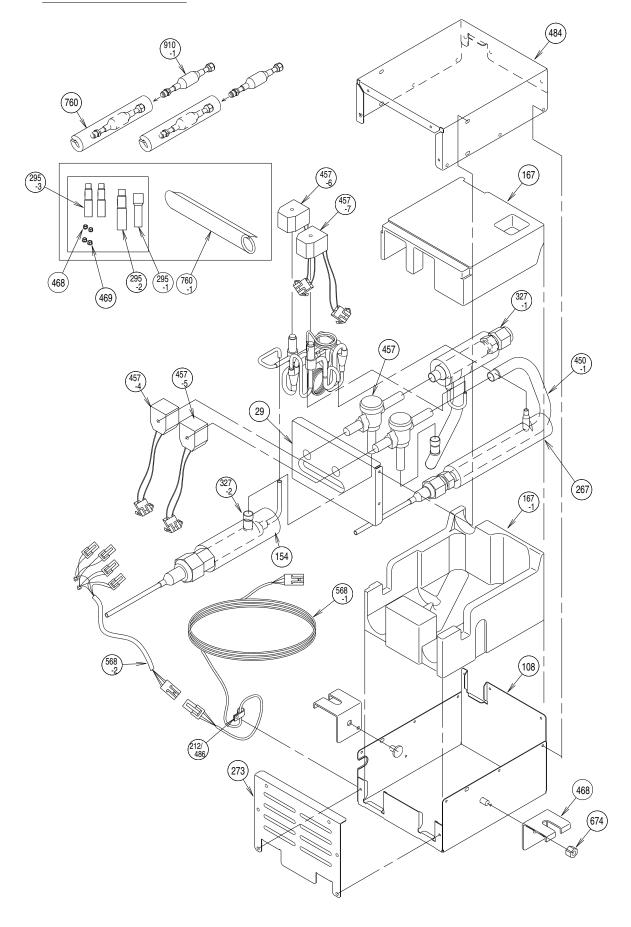
10. DISASSEMBLY ILLUSTRATION

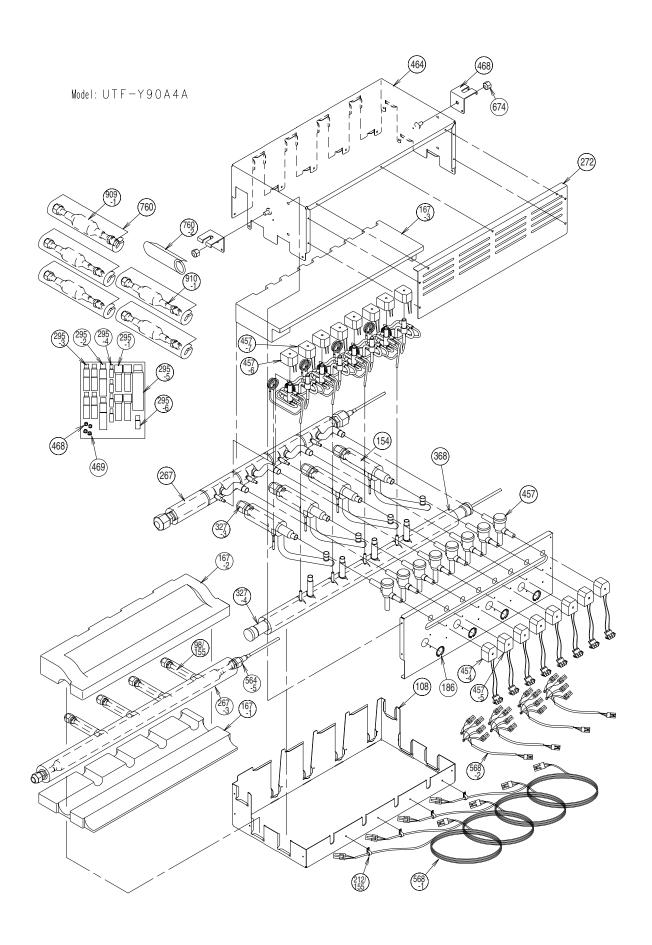






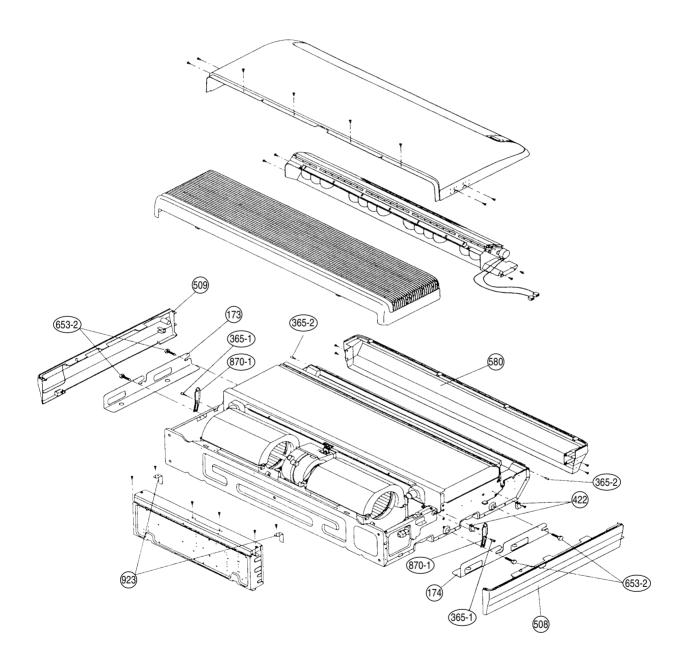






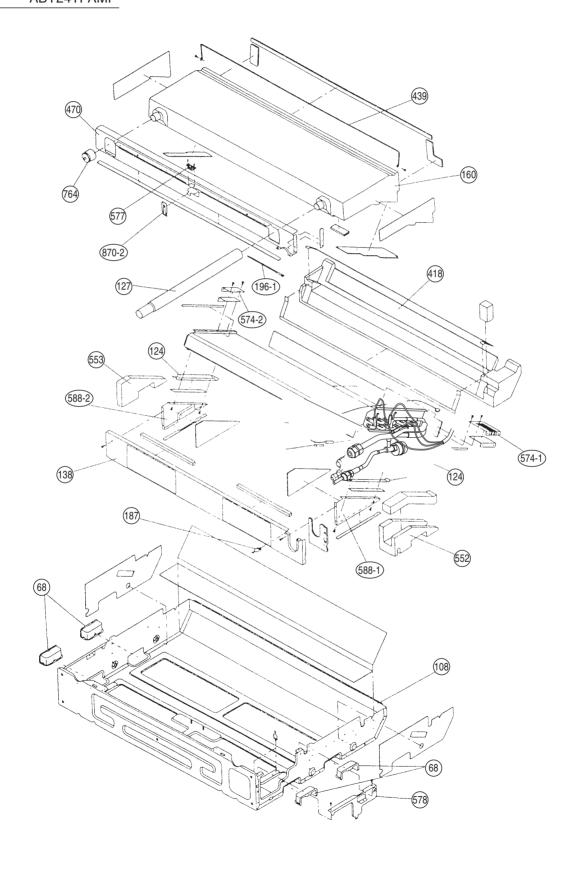
Models : ABY12TFAMF ABY14TFAMF

ABY18TFAMF ABY24TFAMF



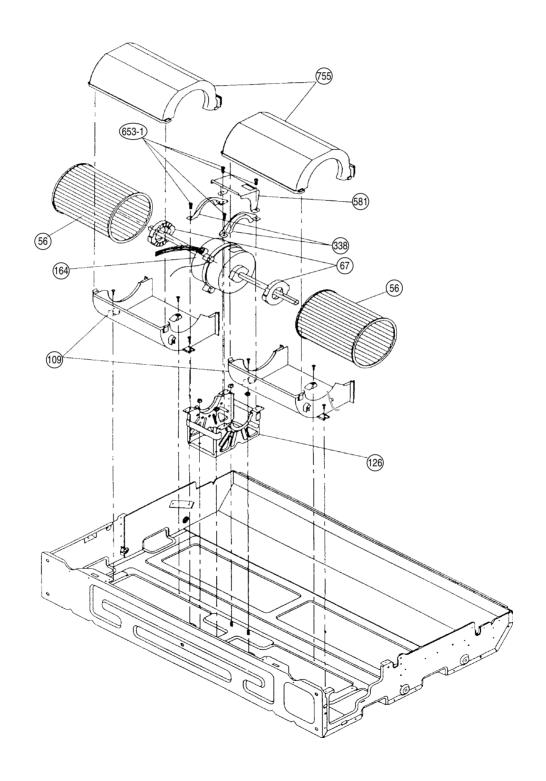
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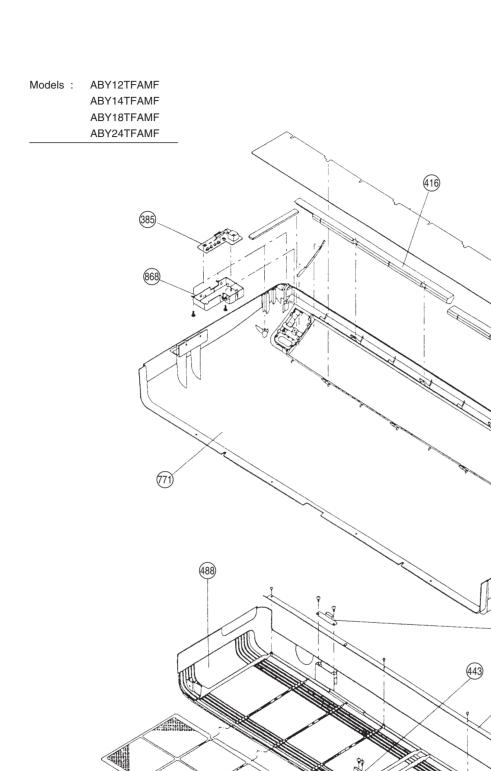
ABY14TFAMF ABY18TFAMF ABY24TFAMF



Models: ABY12TFAMF

ABY14TFAMF ABY18TFAMF ABY24TFAMF

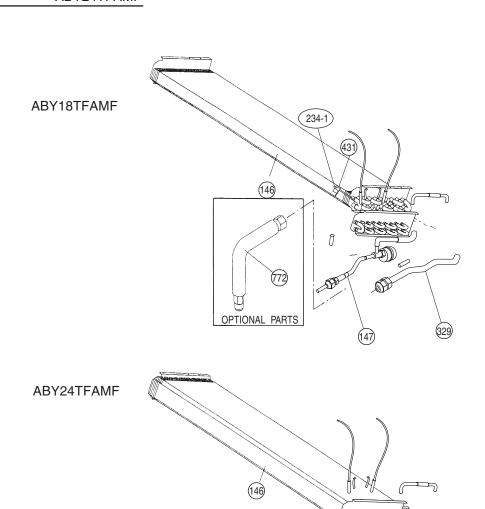




8-1

473

Models : ABY12TFAMF ABY14TFAMF ABY18TFAMF ABY24TFAMF

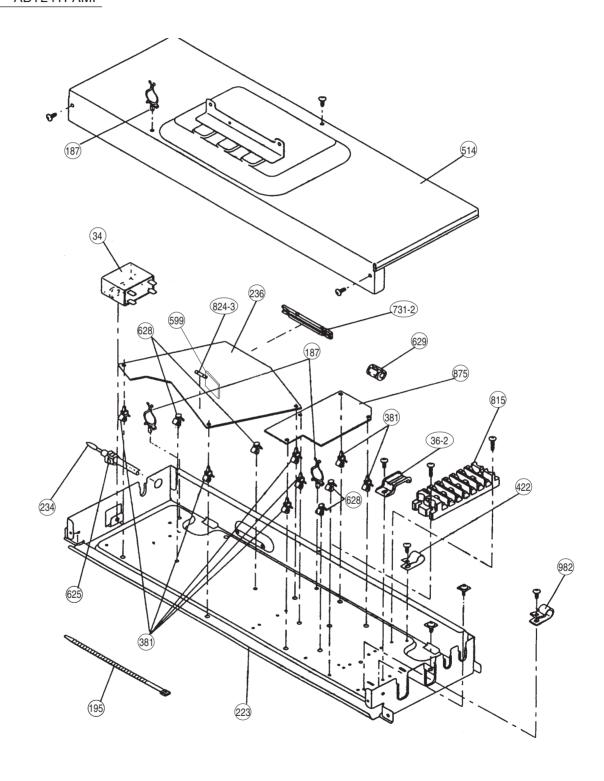


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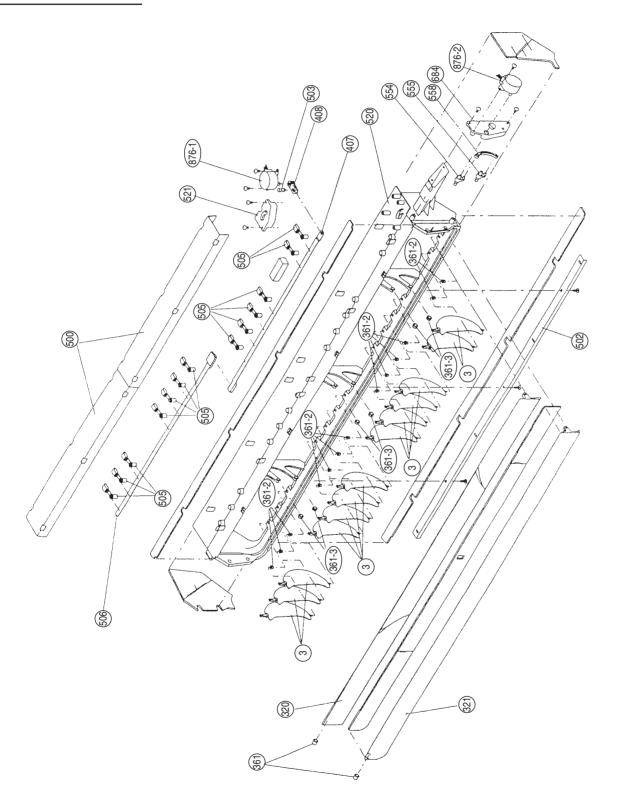
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OPTIONAL PARTS

Models: ABY12TFAMF

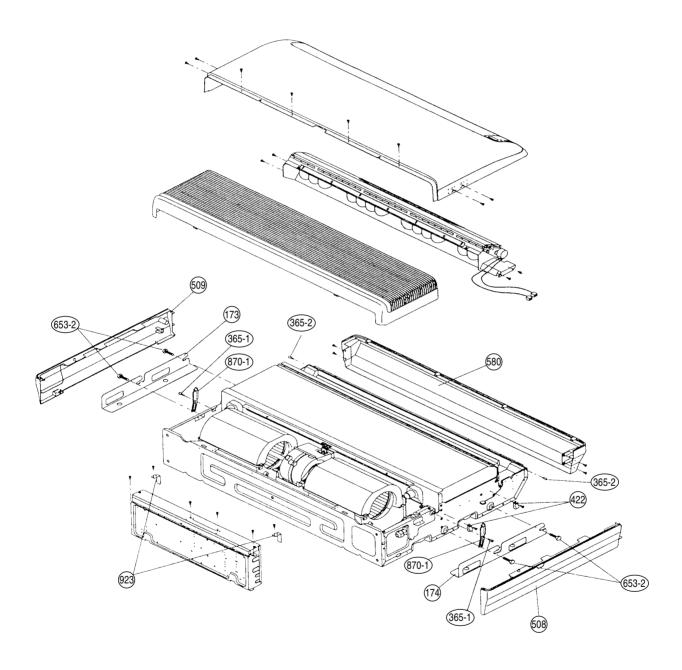


Models : ABY12TFAMF

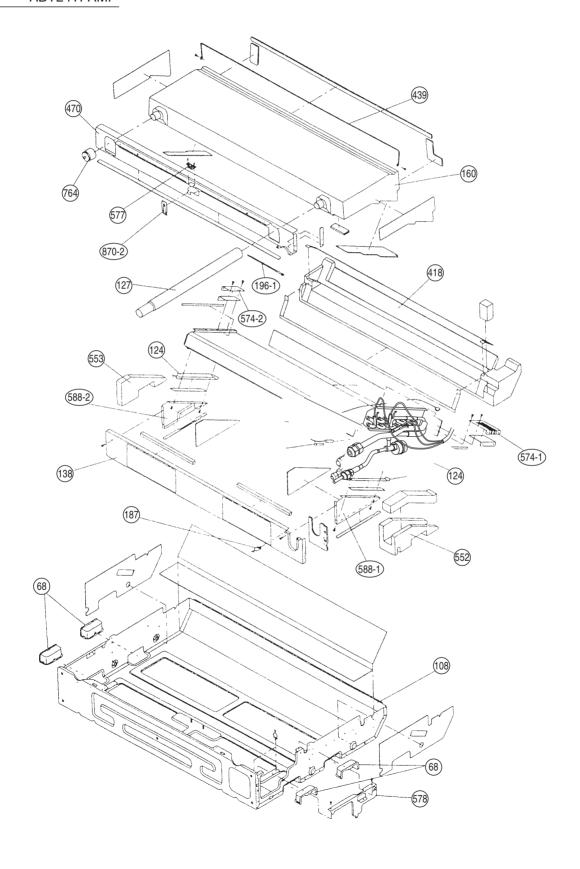


Models : ABY12TFAMF ABY14TFAMF

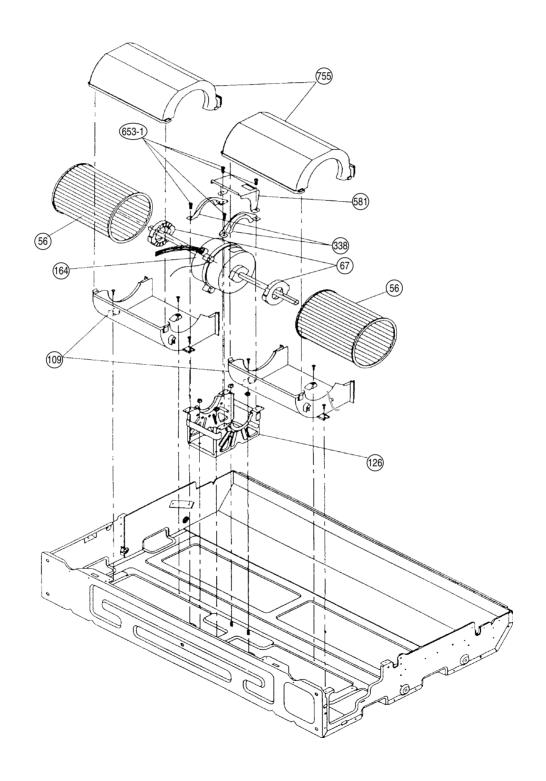
ABY18TFAMF ABY24TFAMF

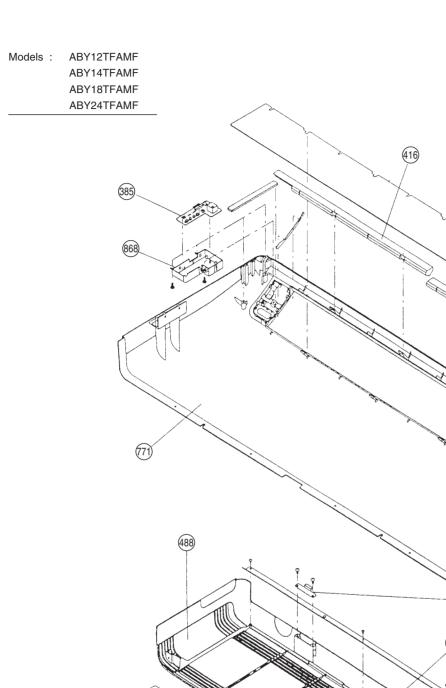


Models: ABY12TFAMF

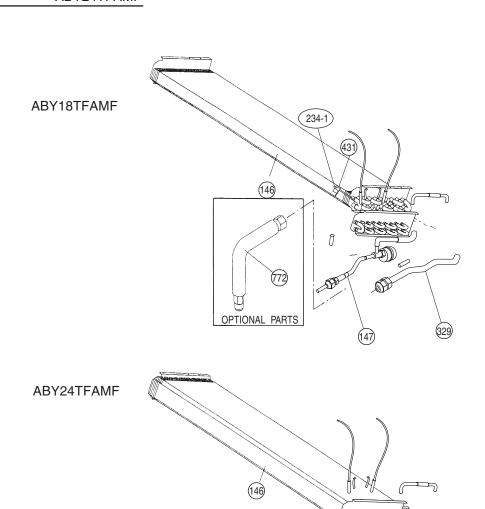


Models: ABY12TFAMF





Models : ABY12TFAMF ABY14TFAMF ABY18TFAMF ABY24TFAMF

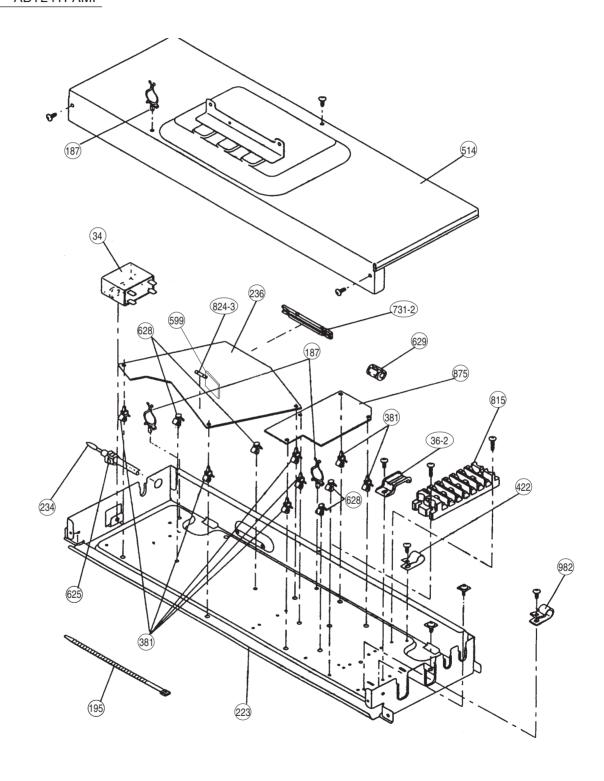


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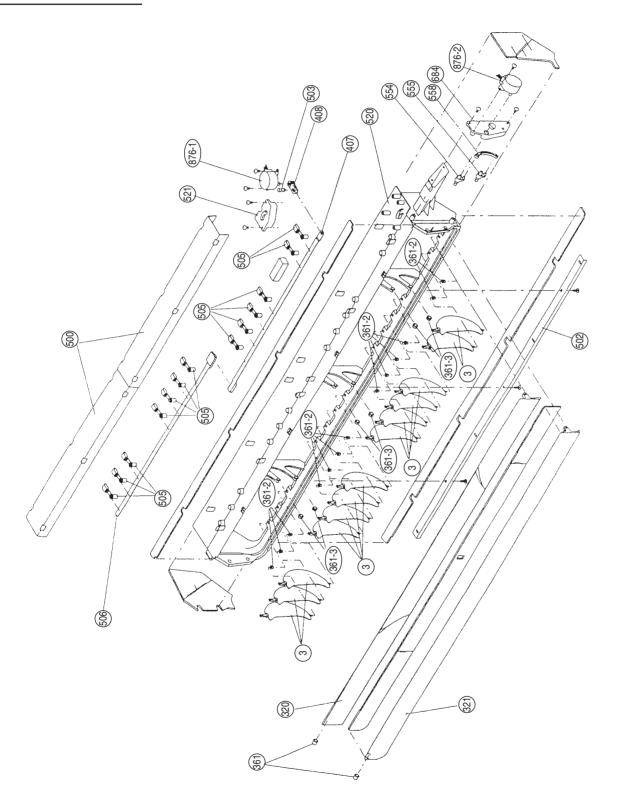
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OPTIONAL PARTS

Models: ABY12TFAMF



Models : ABY12TFAMF

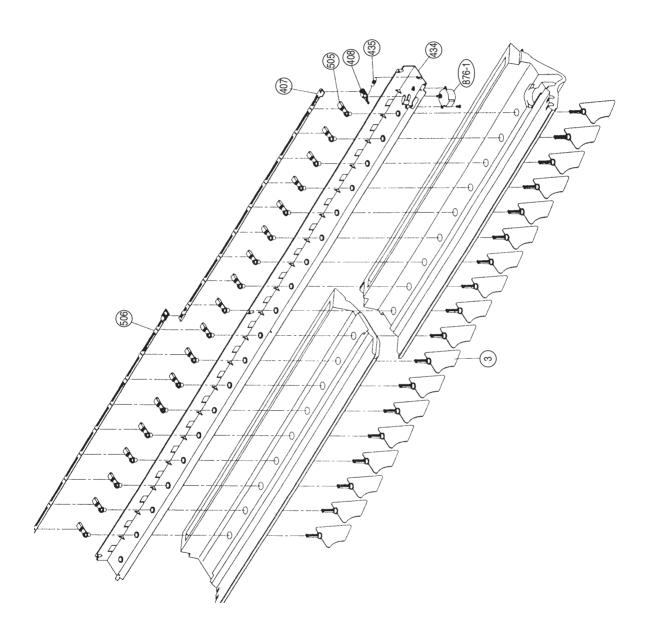


Models: ABY30TFAMF ABY36TFAMF ABY45TFAMF ABY54TFAMF 0-(g) **(23)** (88) 345-1 (2) (%) (%) (3)

- 147 –

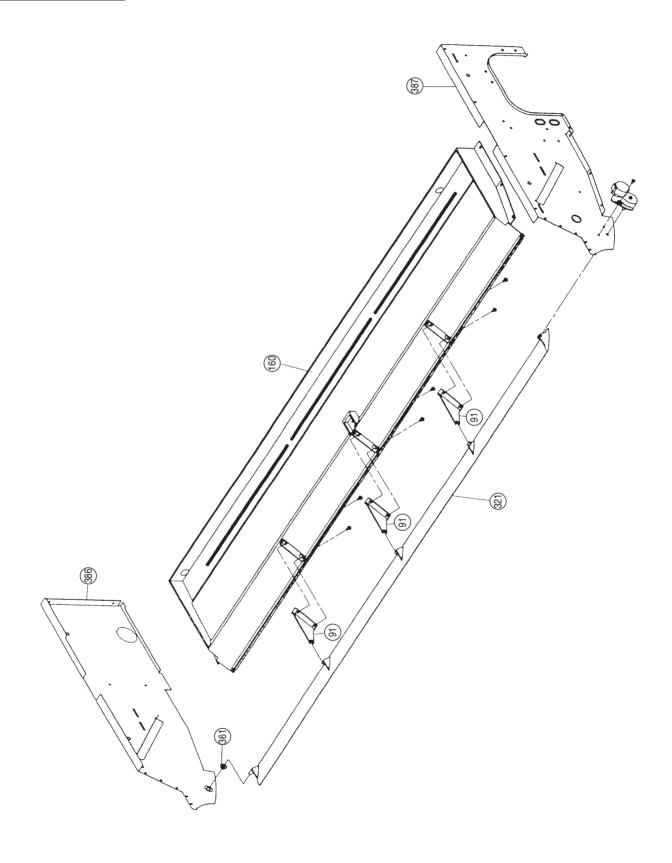
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> ABY45TFAMF ABY54TFAMF



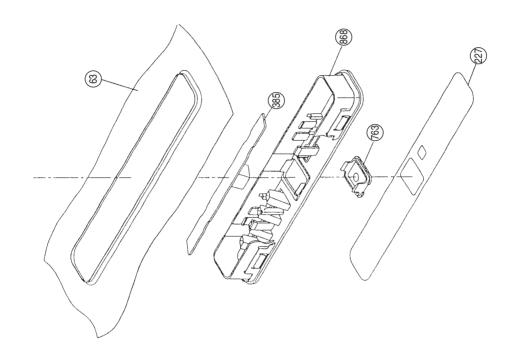
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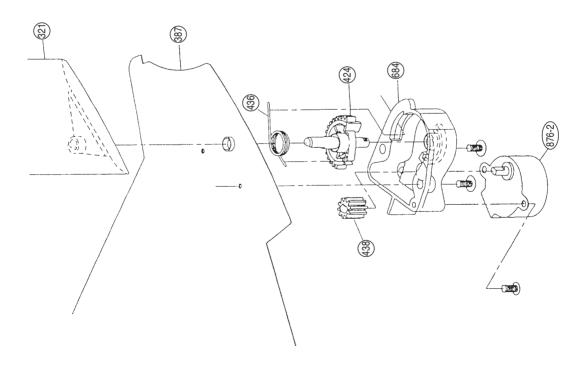
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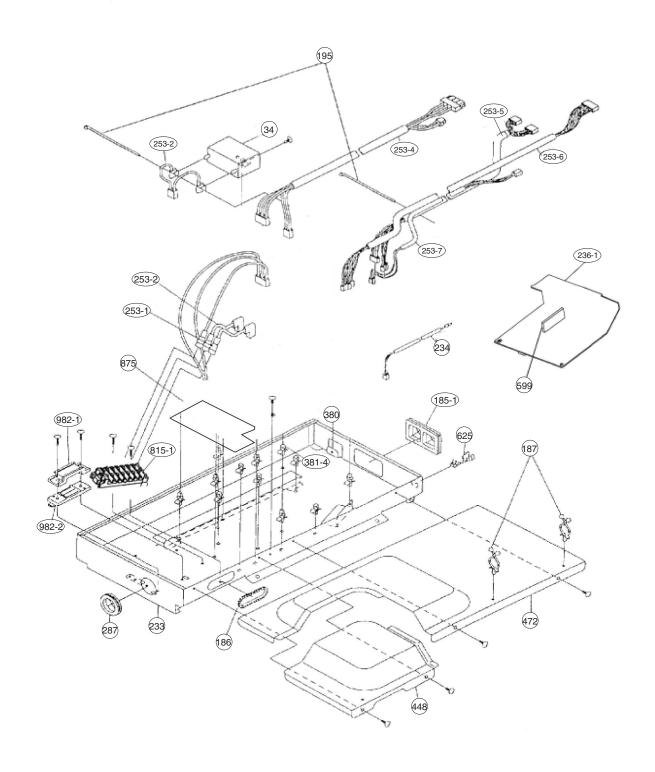
Models : ABY30TFAMF

ABY36TFAMF ABY45TFAMF ABY54TFAMF

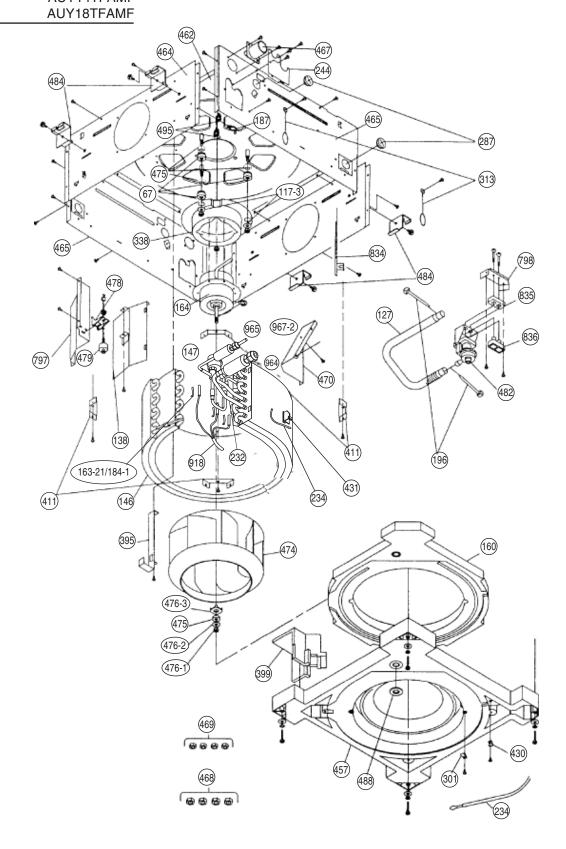




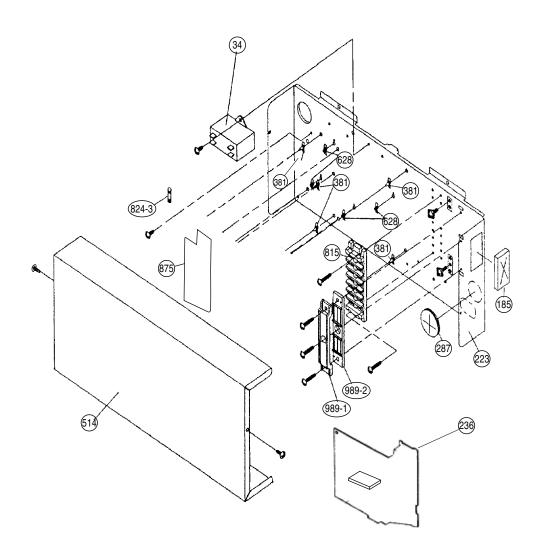
Models : ABY30TFAMF ABY36TFAMF ABY45TFAMF ABY54TFAMF



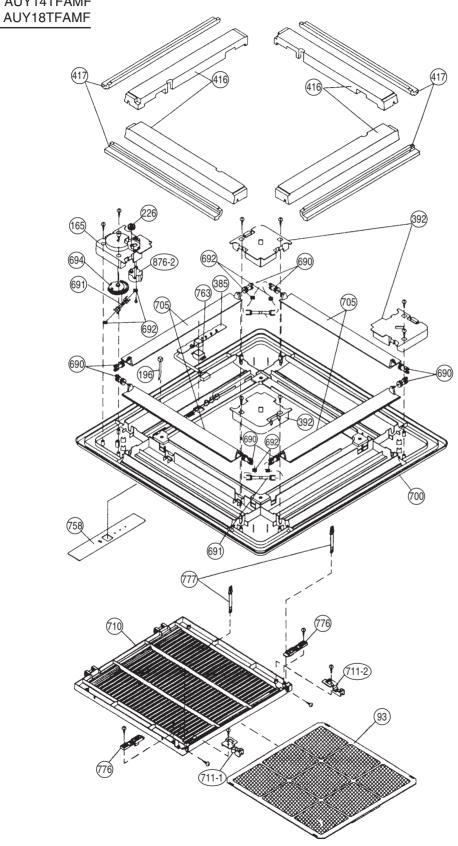
Models : AUY 7TFAMF AUY 9TFAMF AUY12TFAMF AUY14TFAMF



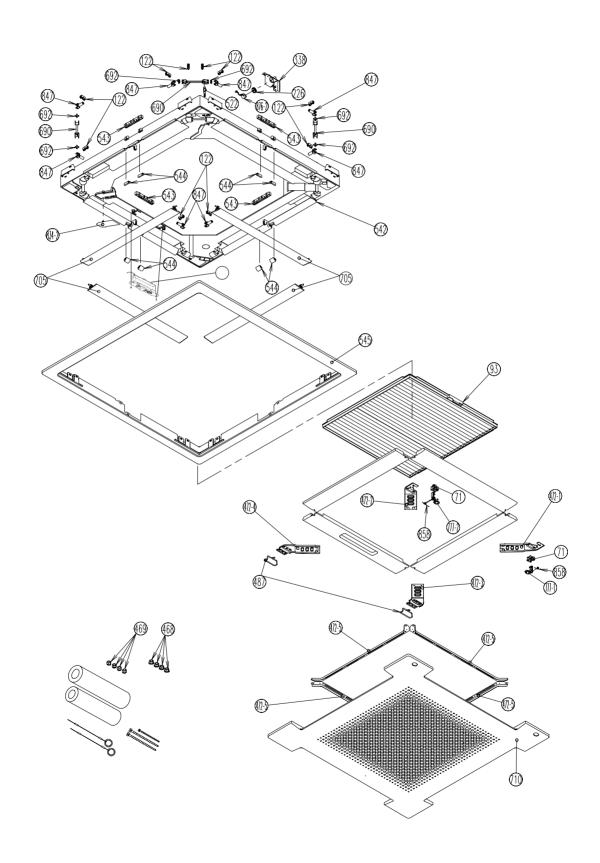
Model: AUY 7 TFAMF AUY 9 TFAMF AUY 12 TFAMF AUY 14 TFAMF AUY 18 TFAMF



Models : AUY 7TFAMF AUY 9TFAMF AUY12TFAMF AUY14TFAMF

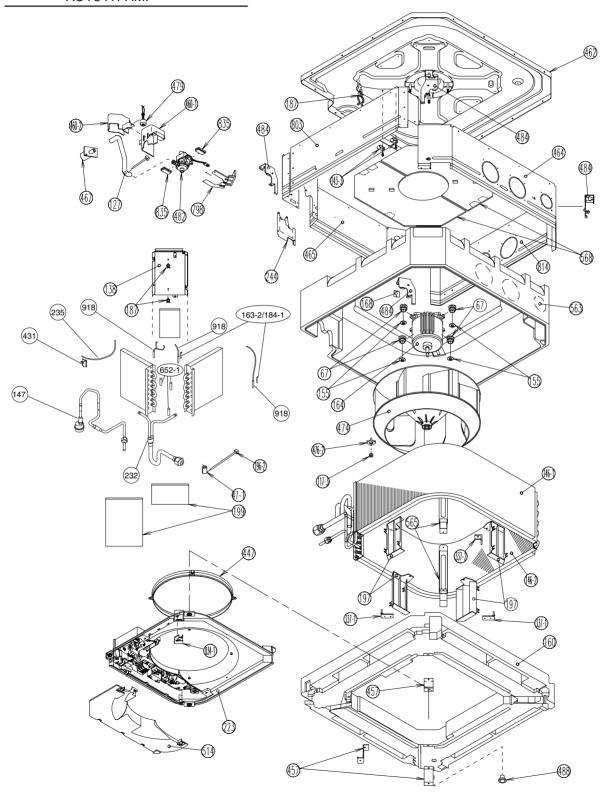


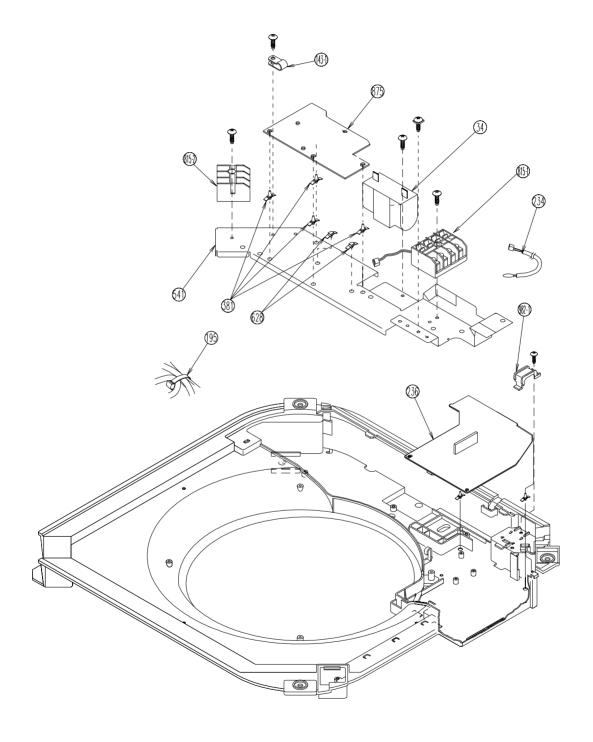
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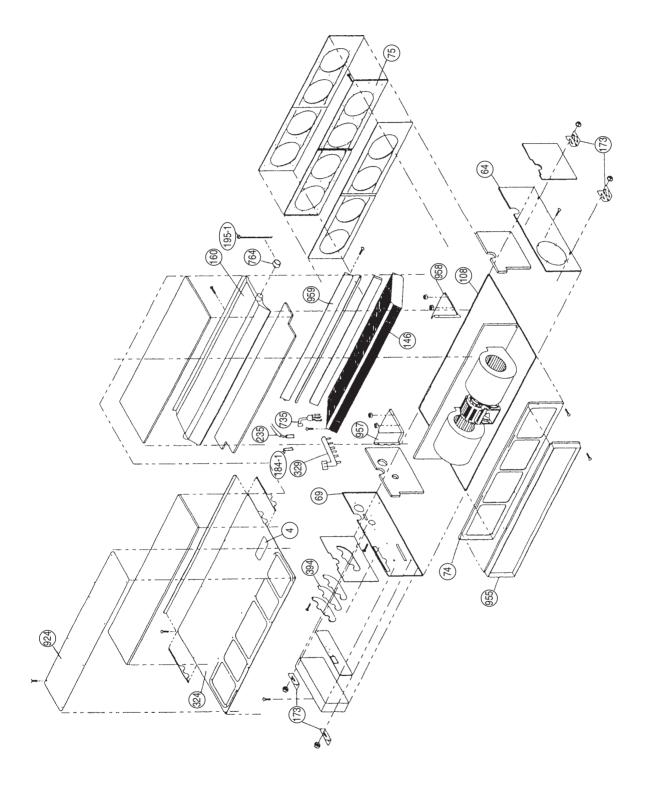


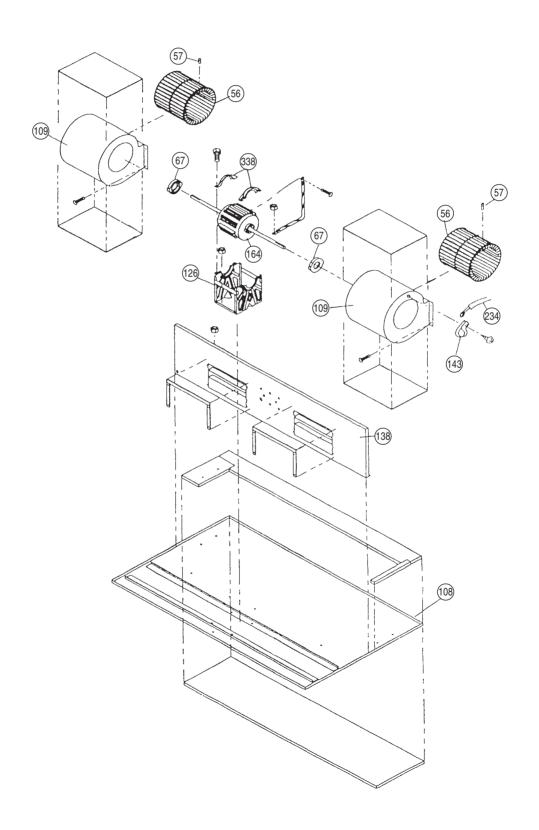
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> AUY30TFAMF AUY36TFAMF AUY45TFAMF AUY54TFAMF

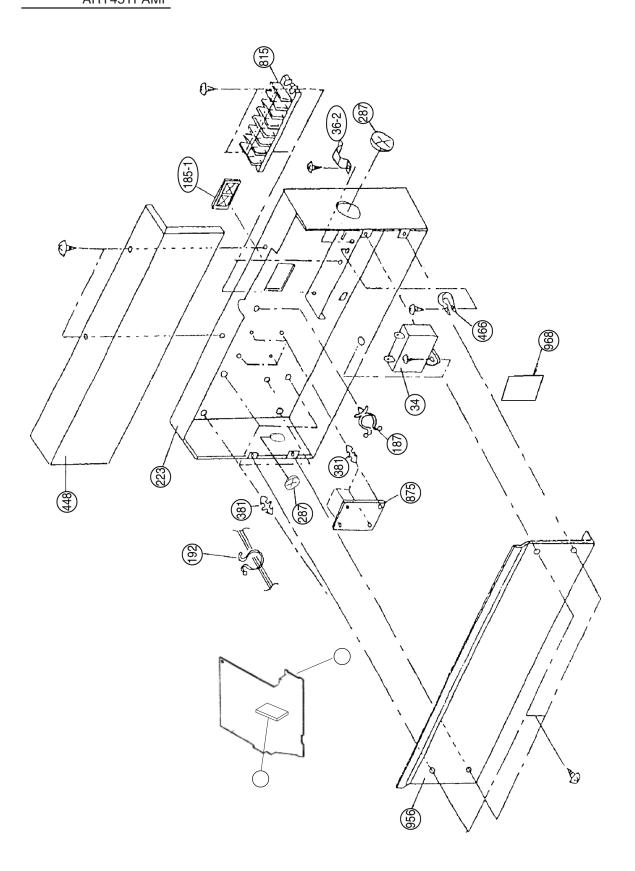


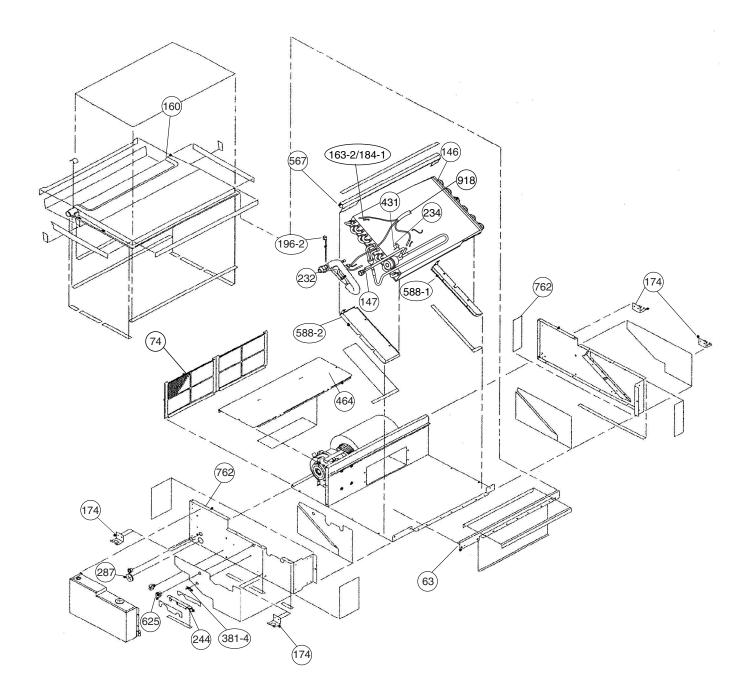


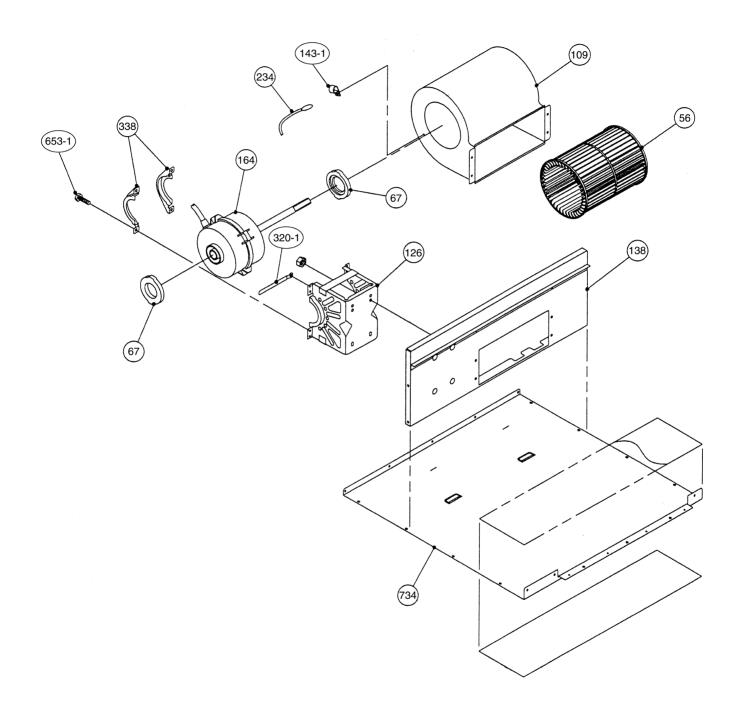




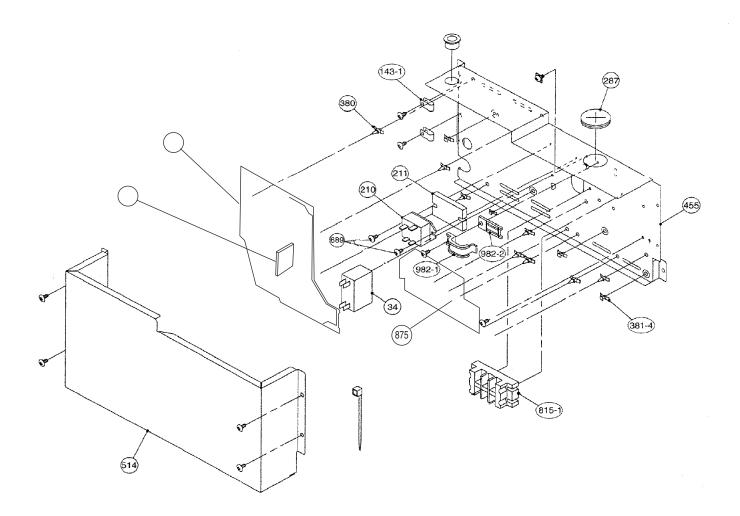
Models : ARY25TFAMF ARY30TFAMF ARY36TFAMF ARY45TFAMF





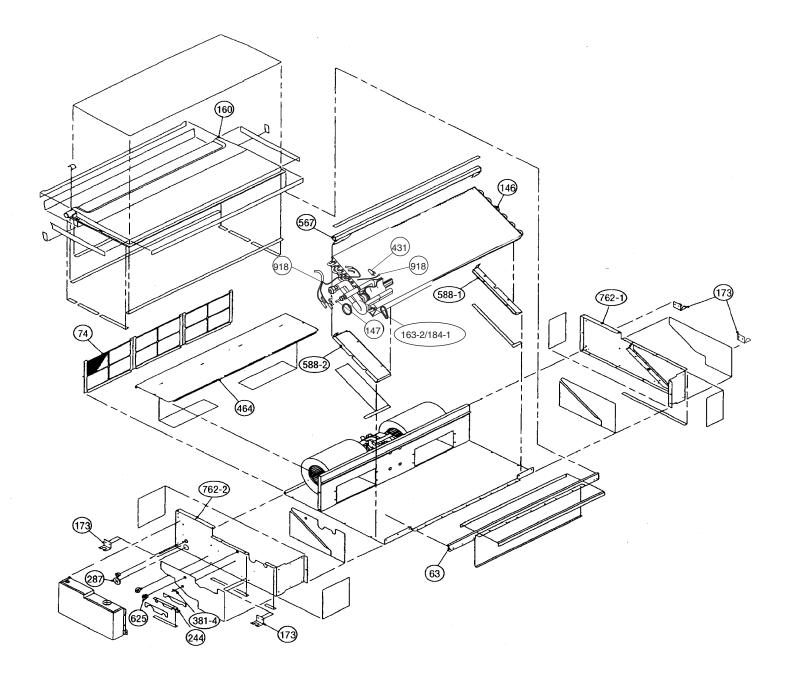


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Model : ARY12TFAMF

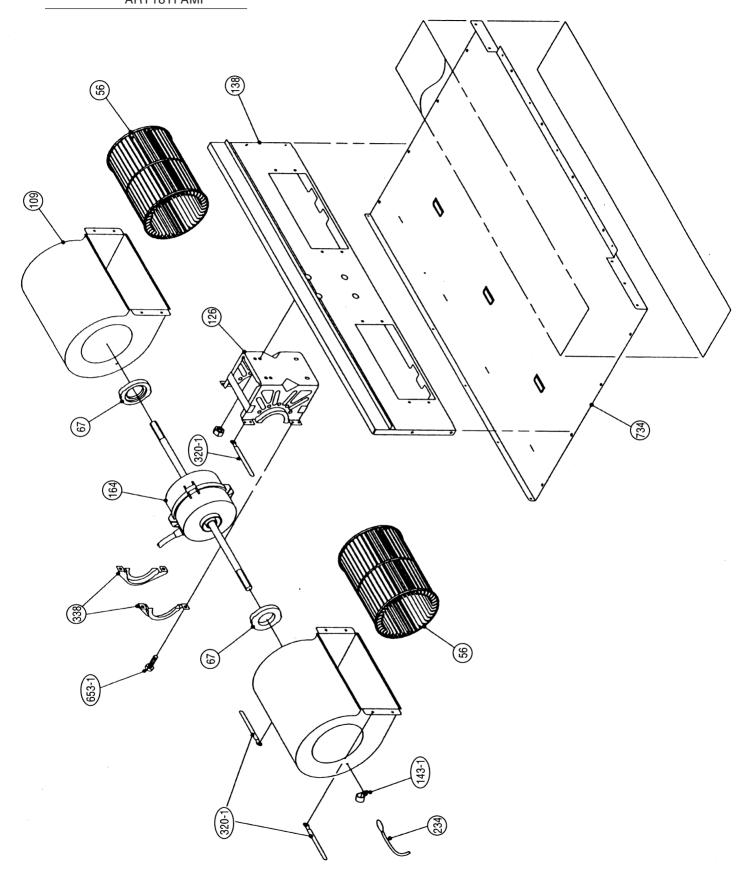
ARY14TFAMF ARY18TFAMF



Model

ARY12TFAMF

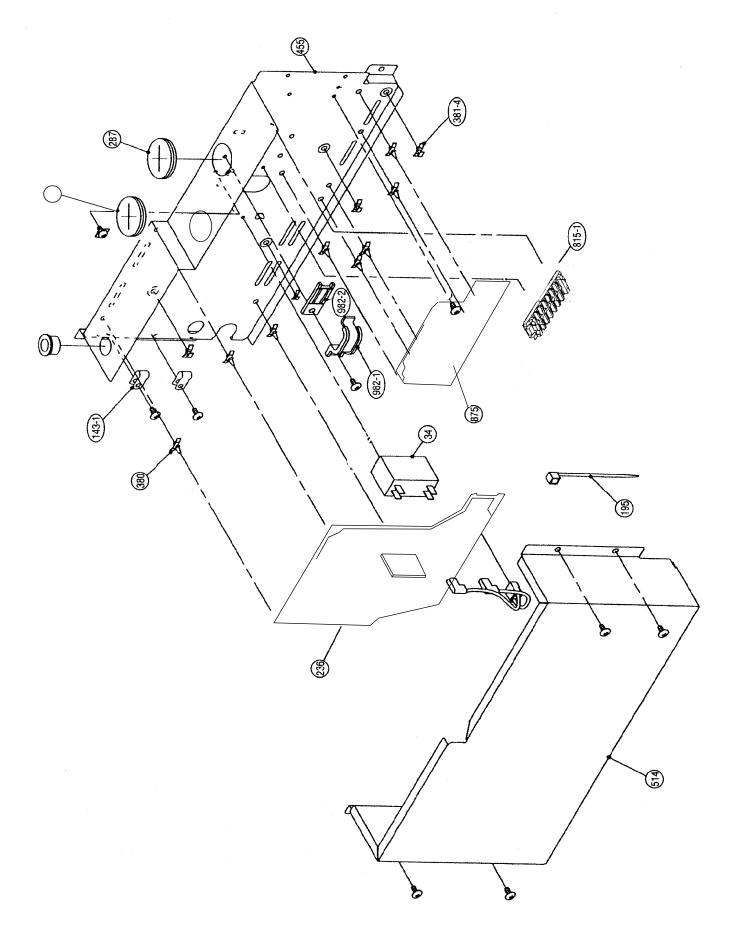
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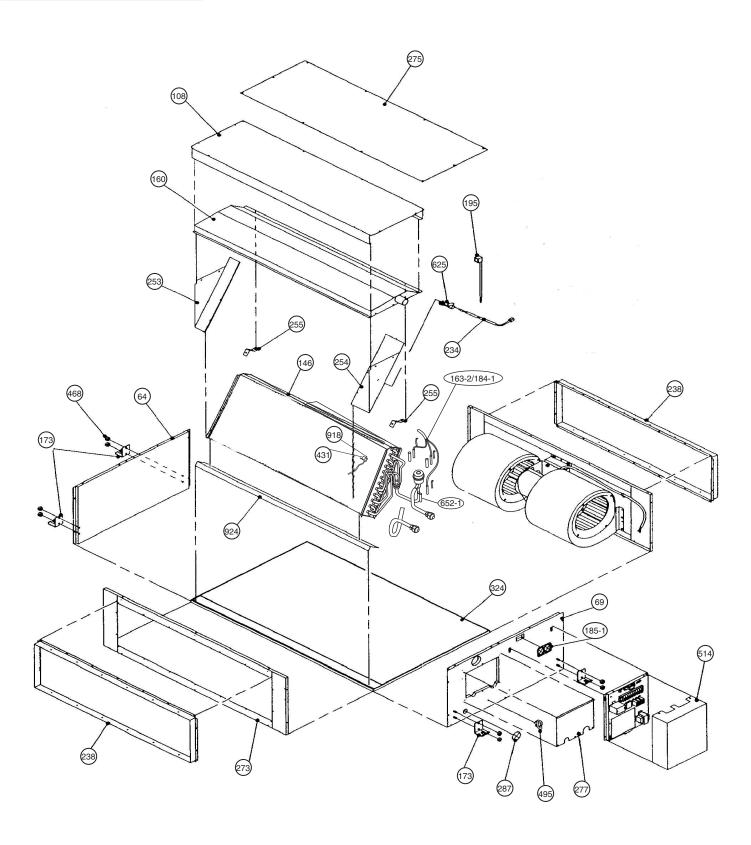


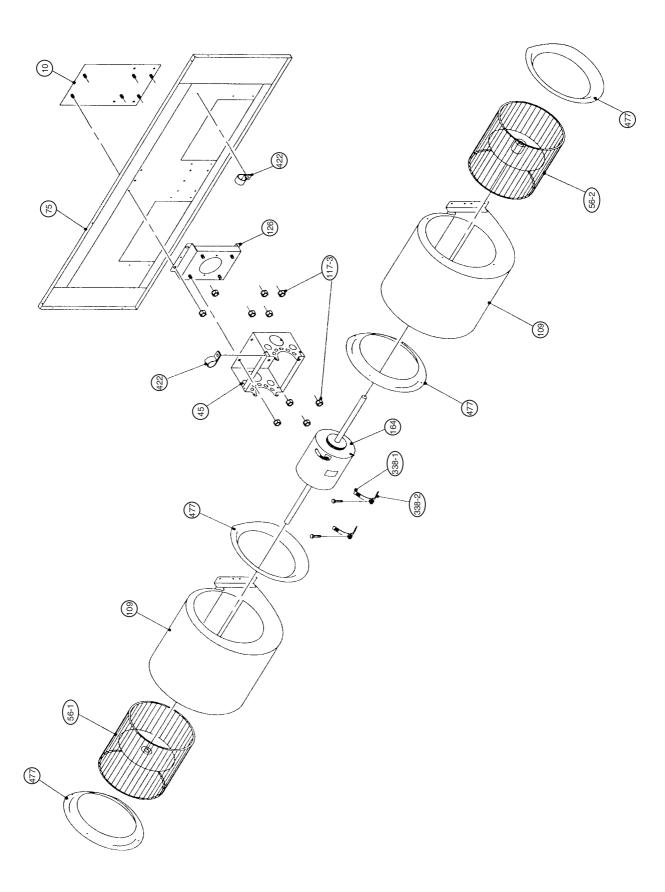
Model

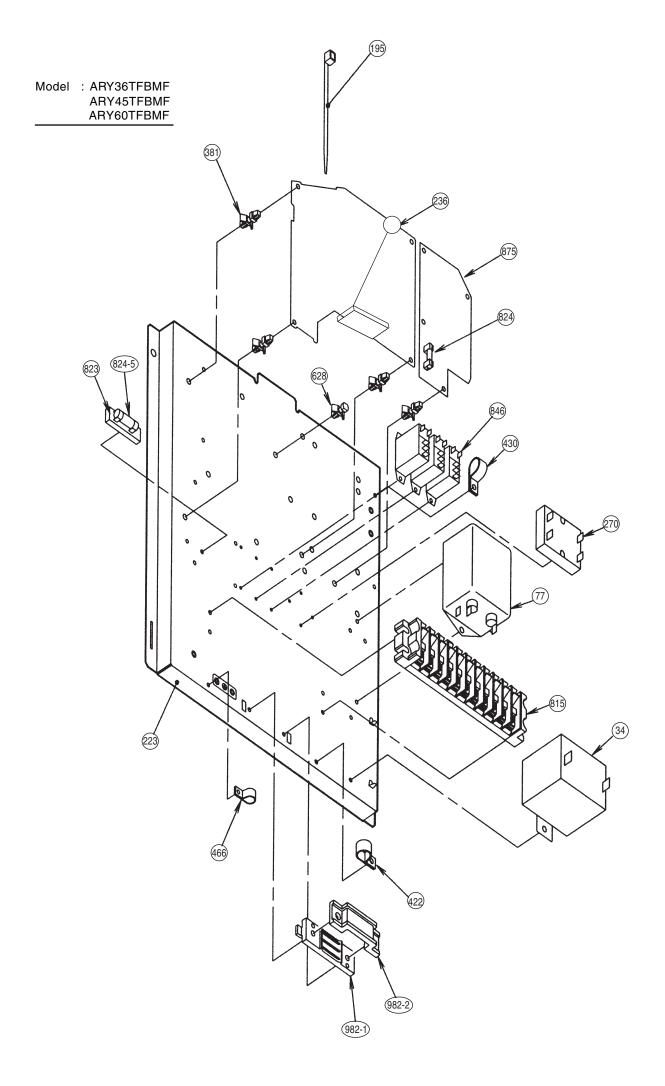
ARY12TFAMF ARY14TFAMF

ARY18TFAMF

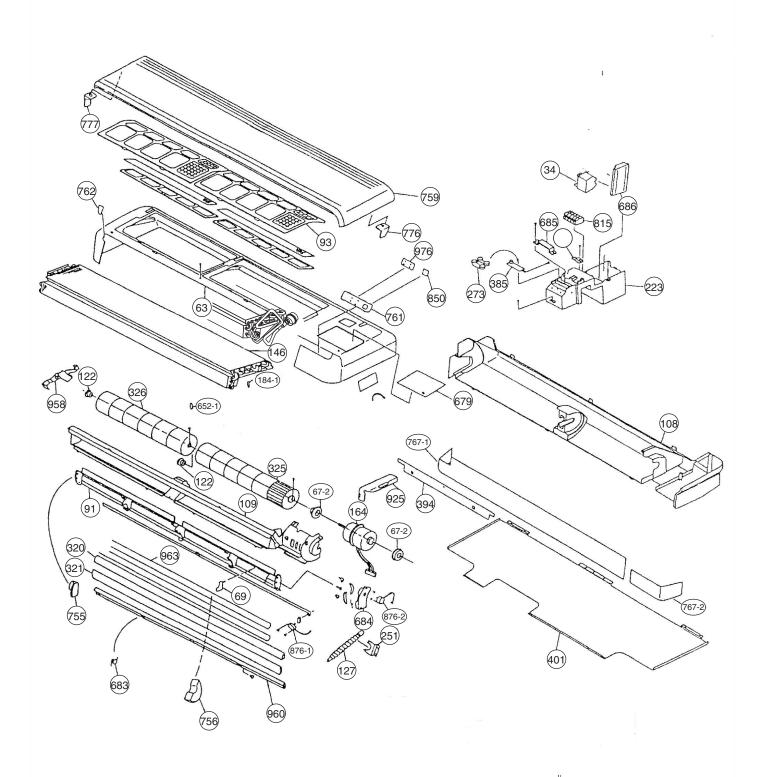




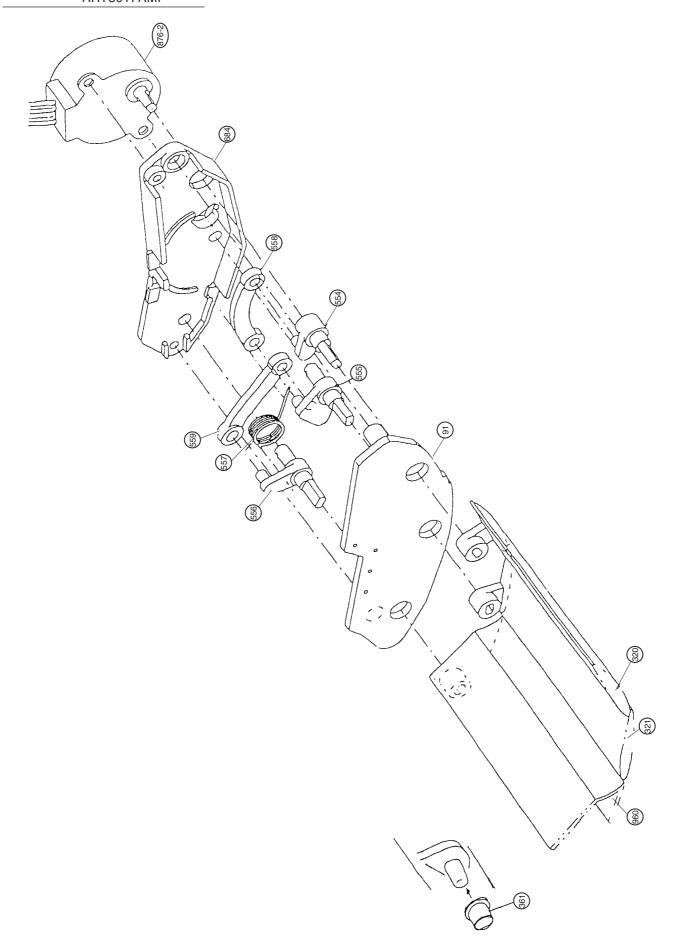




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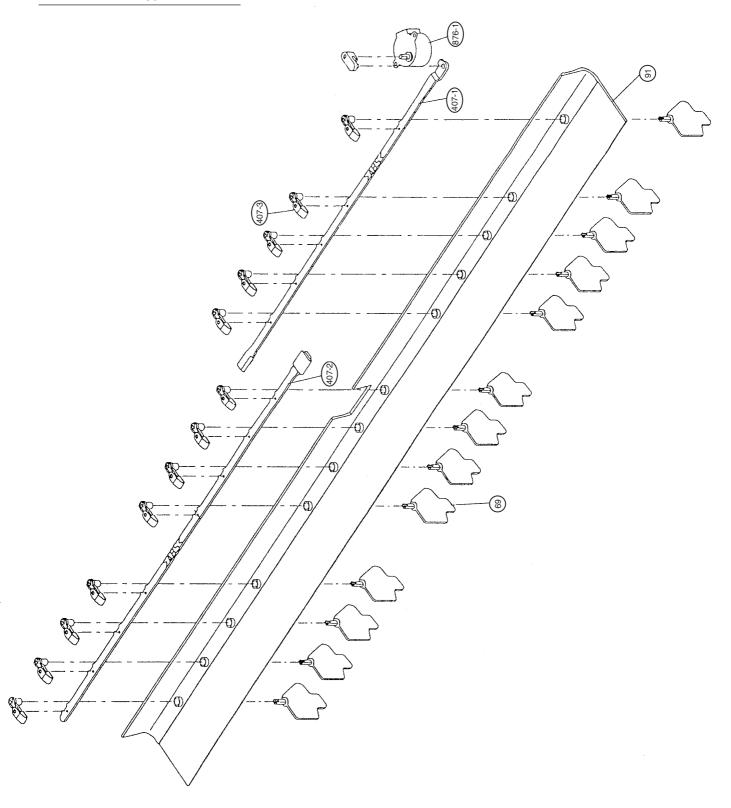
ARY30TFAMF



Model

ASY20TFAMF ASY24TFAMF

ARY30TFAMF



11. PARTS LIST

Models: AOY90TPAMF

OUTDOOR UNIT

Ref	OUTDOOR UNIT Ref Parts No. Ord Ref Parts No. Ord							
No.	Description	AOY90TPAMF	Q'ty	Ref No.	Description	AOY90TPAMF	Q'ty	
333	ACCUMLATOR ASSY	9366351009	,	765	DRAIN PIPE.(I-TYPE)	9301102000	,	
867	ACCUMULTR HLD.RUBBER	9354022027		15	DRYER	9361926004		
833	AUXILIARY PIPE ASSY	9363891003		829-16	DRYER JNT PP ASSY	9363893007		
196-1	BAINDER XL BAL VLV JNT PIPE C	9366156000		4 629	EMBLEM-REAR	9359836018 0400056133		
452 121	BALL VALVE JOINT B	9363900002 9365533000		629 629	EMI FILTER EMI FILTER	0400056133		
809	BALL VALVE-A	9361937000		029	EMI FILTER	0400036140		
810	BALL VALVE-B	9361938007		825-1	EXPANSION VALVE	9361929005		
810-1	BALL VALVE-B	9362579001		825-2	EXPANSION VALVE	9363294002		
12	BASE ASSY	9361684003		825	EXPANSION VALVE ASSY	9366067009		
100	BASE FOOT	9361688025		2	FAN COVER	9366142010		
477	BELL-MOUTH	9361721005		41 560	FAN MOTOR ASSY-OUTER	9601271017		
790-3 790-1	BELT HEATER BELT HEATER-A	9361140073 9361140042		964	FLANGE ASSY FLARE NYT	9363035001 9363273007		
790-2	BELT HEATER-B	9361140059		133	FRONT PANEL-L	9361709027		
674	BOLT	0700145100		63-1	FRONT PANEL-L	9361709010		
653	BOLT, FOR FAN MOTOR	0700145087		134	FRONT PANEL-R	9361710047		
69-3	BOLT, HEX. SOCKET	301210060360		63-2	FRONT PANEL-R	9361710030		
966	BONNET	9363274004		132	FRONT PROTECTION NET	9366144014		
199 220-1	BR SHEET BR SHEET-B	9363708028 9351990022		824-3	FUSE FUSE HOLDER	0600222574 0500158072		
42	BRACKET PANEL (MOTOR)	9361703001		761	GAS FQUALIZATION ASY	9365721001		
87	BRACKET (COMPRESSOR)	9361694002		86	GASKET	9363272000		
355	BRACKET (COMPRESSOR)-L	9361698000		150	HALF UNION-B	9357351018		
356	BRACKET (COMPRESSOR)-R				HEAT SINK	9703347016		
376	BRACKET (CONTROL BOX)	9361727007			HYBRID IC	0100335019		
45 679	BRACKET (MOTOR)	9361701007			IC IC	0101461120		
678 176	BRACKET (THERMISTOR) BRACKET (VALVE)-A	313557406106 9361719002			IC LIN	0101547039 0100462098		
890	BRKT PNL (COMP) ASSY	9364208008			IC (TRANSISTOR ASSY)	0100462098		
175	BRKT PNL (S VLV)	9364230009		285	INSU (ACCUMLATOR)	9366131007		
361	BUSHING `	9361725003		267	INSULATION (PIPE)-Ć	313005074759		
564	BYPASS A ASSY	9366164005		829-1	JOINT PIPE A ASSY	9363994001		
564-1	BYPASS B ASSY	9366165002		829-7	JOINT PIPE F ASSY	9363912005		
564-2 654-3	BYPASS C ASSY BYPASS D ASSY	9366166009 9366928003		829-8 829-9	JOINT PIPE G ASSY JOINT PIPE H ASSY	9364022000 9364017006		
64/34	CAPACITOR (FAN MOTOR)	9703306037		829-15	JOINT PIPE K	9364959009		
0 1/0 1	CAPACITOR . ELEC	0301192558		829-14		9365016008		
	CAPACITOR . ELEC	0300256060		829-13		9365017005		
	CAPACITOR . ELEC	0301192589		829-2	JOINT PIPE (SUB COOL)	9365858004		
	CAPACITOR . ELEC	0301196822			LABEL."R407C"	9362389006		
	CAPACITOR.PLASTIC	0300304099		004.0	LED	0000813259		
178-2	CAPACITOR.PLASTIC CAPILLARY HLD.RUBBER	0301052098 313394274808		381-2 381-3	LOCKING SPACER LOCKING SPACER	0600035020 0600118051		
170-2	CERAMIC RESONETOR	9701261031		791	MAGNETIC RELAY	9363277005		
519-2	CHECK VALVE	9353020000			MANUAL (INSULATION)	9367724017		
187	CLAMP	313361271706		880-1	NETWORK (C-R)	9700987017		
182	CLAMP	313361271505			NETWORK (CR)	9701125012		
195	CLAMP	313361275805		347	NOISE INSULATION-D	313712304109		
196-2	CLAMP CLAMP	313035356905 312300787605		761-1 914	OIL EQUALZATION OIL SENSOR ASSY	9366275008 9365712009		
196-1 407	CLAMP	313739340109		331	OIL SENSON ASST	9363944006		
919-3	COIL (EXPANSION VALVE)	9361930001		914-1	OIL SEPARATOR A ASSY	9366359005		
919-1	COIL (EXPANSION VALVE)	9366344001		915	OIL SEPARATOR B ASSY	9366368007		
919-2	COIL (EXPANSION VALVE)	9366345008			PACK ING BOTTOM PAPER	9363888003		
46-1	COMPRESSOR ASSY	9367379002			PACKING CASE-CARTON	9301094015		
46-2 46-3	COMPRESSOR ASSY COMPRESSOR ASSY	9367380008			PACKING WOOD-BOTTOM	9362978019 9362979016		
46-3 310	COMPRESSOR COVER	9367381005 9366132004			PACKING WOOD-FRONT PACKING WOOD-PROTECT	9362979016		
26	COMPRESSOR COVER-A	9361935006			PACKING WOOD-SIDE	9362980012		
646	COMPRESSOR COVER-B	9361936003			PACKING WOOD-TOP	9362981019		
149-1	CONDENCING PIPE F AS	9365439005			PHOTO COUPLER	0000117074		
149	CONDENCING PIPE P AS	9364952000		172	PIPE COVER	9363470000		
16-1 16-2	CONDENSER A ASSY CONDENSOR B ASSY	9365462003		172-1	PIPE COVER B	9366129004		
527	CONDENSOR B ASSY	9365463000 9366143017			PLUG.PWB PLUG.PWB	0500005338 0500006069		
158	CONNECTING PIPE ASSY	9366491002			PLUG.PWB	05000011131		
32	CONTROL BOX	9361713000			PLUG.PWB	0500011155		
942	CONTROL BOX COVER	9361716001			PLUG.PWB	0500011520		
236	CONTROLLER PCB ASSY	9703739019			PLUG.PWB	0500011766		
982-1	CORD CLAMP B	9356857009			PLUG.PWB	0500011773		
982-2 193	CORD CLAMP-B CUSHION RUBBER	9356858006 313376149201			PLUG.PWB PLUG.PWB	0500011803 0500011810		
450	DICHARG PIPE A ASSY	9363996005			PLUG.PWB	0500011810		
493	DICHARG PIPE C ASSY	9363909005			PLUG.PWB	0501045012		
	DIODE	0000353120			PLUG.PWB	0501045029		
	DIODE	0000625036			PLUG.PWB	0501045050		
	DIODE	0000746519			PLUG.PWB	0501045098		
	DIODE DIODE.MINIMOLD	0000906500 0000684019			PLUG.PWB PLUG.PWB	0501045210 0501045227		
	DIODE.POWER	0000084019			PLUG.PWB	0501045227		
	DIODE.POWER	0000689045			PLUG.PWB	0501045357		
160	DRAIN PAN	9361700000			PLUG.PWB	0501045418		

Ref No.	Description	Parts No. AOY90TPAMF	Ord Q'ty	Ref No.	Description	Parts No. AOY90TPAMF	Ord Q'ty
354	PRESSURE SWITCH (HIGH)	9355094009	•	050	WIRE ASSY (HEATER)	9363255003	
354-1	PRESSURE SWITCH (LOW)	9703269004		253-1	WIRE ASSY	9702313036	
39 9	PROPELLER FAN REAR PANEL.PAINTED	9361726000 9361712027		816 253	WIRE CLAMP METAL WIRE WITH CONNECTOR	313584219902 9703878015	
453	RECEIVER TANK ASSY	9366371007		253	WIRE WITH CONNECTOR	9703879012	
226	REINFORCEMENT	9361697003			XTAL.RESONATOR	9703542015	
289	REINFORCEMENT	9361704008		326	3-WAY JOINT	9354901001	
846	RELAY	9304375005		344	4-WAY VALVE	313943302804	
	RELAY RESISTOR.CHIP	9701566013		344-1 344-2	4-WAY VALVE 4-WAY VALVE	313947302811 9353532008	
	RESISTOR.CHIP	0200306667 0201010662		344-3	4-WAY VALVE	9703884009	
	RESISTOR.CHIP	0200230269		0		0.0000.000	
	RESISTOR.CHIP	0200230740					
	RESISTOR.CHIP	0200231013					
	RESISTOR.CHIP	0201010013					
	RESISTOR.CHIP RESISTOR.CHIP	0201010747 0201010907					
	RESISTOR.CHIP	0201011010					
	RESISTOR.METAL OXIDE	0201107997					
	RESISTOR.WIRING	0200244372					
185	RUBBER BUSHING	313005066051					
107 128-1	RUBBER SEAT-A RUBBER (DISCHA.PIPE)	9364084008 313155086308					
47-2	RUBBER (DISCHA.PIPE)	313185159802					
47-1	RUBBER (DISCHA.PIPE)	313194159807					
	SCREW	0700008023					
949-2	SCREW.PAINTED	9302348001					
949-1	SCREW.PAINTED	9305648009					
915-1	SEMICON ACCESSORY SENSER(PRESSURE)	0000393010 9703890000					
166	SEPARATE WALL-L	9361695009					
167	SEPARATE WALL-R	9361696006					
164	SEPARATE WALL-UPPER	9361693005					
762	SIDE PANEL-L.PAINTED	9361705029					
761 599	SIDE PANEL-R.PAINTED SIGNAL PCB ASSY	9361706026 9703728013					
108	SLEEVE-A	9364085005					
	SOCKET.PWB	0500296033					
343-1	SOLENOID	9703888014					
343-2	SOLENOID	9703888021					
343-3 343-4	SOLENOID SOLENOID	9703888038 9703888045					
343-5	SOLENOID	9703888052					
457	SOLENOID	9703889011					
457-1	SOLENOID	9703889028					
343-2	SOLENOID	9703342059					
343-3 343-4	SOLENOID SOLENOID	9703342066 9703342073					
343-5	SOLENOID	9703342080					
343-9	SOLENOID	9703342097					
343-6	SOLENOIDE	9703888069					
343-7	SOLENOIDE	9703888076					
343-8 408/55	SOLENOIDE SPECIAL NUT M8	9703888083 313252257701					
117-3	SPECIAL WASHER M6	313306391007					
737	SUC PIPE K ASSY	9363934007					
595	SUC PIPE N ASSY	9363929003					
621	SUC PIPE S ASSY	9365071007					
621-1 596	SUC PIPE T ASSY SUC PIPE Y ASSY	9365514009 9365436004					
331	SUC PIPE 1 ASS1	9363903003					
331-2	SUC PIPE D ASSY	9365513002					
	SWITCH.PUSH	9700450016					
	SWITCH.ROTARY	9701694013					
100	SWITCH.SLIDE	9701393015					
109 109-1	TERMINAL COVER TERMINAL COVER	9364087009 9366265009					
111	TERMINAL COVER TERMINAL PACKING	9364086002					
11-1	TERMINAL PACKING	9366264002					
815-2	TERMINAL 3P	9363276046					
815-1	TERMINAL 5P	9363275018					
652-1 454	THERM.HOLDER PIPE THERMISTOR ASSY	313714262805 9703880018					
454-1	THERMISTOR ASSY	9703881015					
163-21/184-1	THERMO.SPRING-A	313728262708					
343-2	TRANS SW	9703586019					
	TRANSISTOR	0000164016					
	TRANSISTOR	0000780094					
	TRANSISTOR TRANSISTOR	0000781053 0000936033					
85	VALVE PLATE	9363063004					
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	VARISTOR	0000038010					

Models: UTF-Y54A1A UTF-Y90A4A

No.	Ref		Parts	s No.	Ord
198	No.	Description			Q'ty
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910 CAPILLARY TUBE B 313714328805 313714328805 313714328805 313714328805 313714328805 313361275805 31361275805 31361275805 31361275805 31361275805 31361275805 3136222006 31361275805 3136222006 3136222006 3136222006 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3136222007 3					
2121/2466					
195					
4641 COVER 4501 DISCHARGE GAS PIPE 186 EDGE COVER ASSY 186 EDGE COVER 450-1 DSCG GAS PP ASSY 362222006 187 186 EDGE COVER 3962179003 3962222006 3962222006 3962222006 396220200 396220202 396220002 39622					
450-1 DISCHARGE GAS PIPE DSCG GAS PP ASSY 9362222006	464-1				
A50-1 DSCG GAS PP ASSY 3362222006 3361049024 34904 FLARE NUT-A 313996239904 3159623904 3159623904 31	464	COVER ASSY		9362190008	
186					
964 FLARE NUT-A 150 HALF UNION-B 468 HOOK METAL 167-4 INS (SEPARATE WALL) A 167-5 INS (SEPARATE WALL) B 167-6 INS (SEPARATE WALL) B 167-6 INS (SEPARATE WALL) D 167-1 INSULATION A 167-1 INSULATION A 167-1 INSULATION B 167-2 INSULATION B 167-2 INSULATION C 167-7 INSULATION C 167-1 INSULATION C 167-1 INSULATION C 167-7 INSULATION C 167-1 INSULATION C 167-1 INSULATION (PIPE) A 198/155 INSULATION (PIPE) B 267-3 INSULATION (PIPE) B 368-1 INSULATION (PIPE) B 367-3 INSULATION (PIPE) B 368-1 INSULATION (PIPE) B 366735009 366740003 36700-2 INSULATION (PIPE) B 366735009 366741000 366740003 366743000 366743000 366843000 366843000 366843000 366843000 366843000 366843000 366843000 366843000 366843000 3668433004 36686055 3669500 36686055 36705 36705 36705 36705 36707 36707 36707 3707 3707 3707 3707 3					
964					
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468					
187-5					
167-6 INS (SEPARATE WALL) D INS (SE	167-4	INS (SEPARATE WALL) A		9362868068	
167-7	167-5			9365901007	
167					
167-1		,			
167-1 INSULATION B 9364189000					
167-2 INSULATION B	-				
167-3					
167					
98/155 INSULATION (PIPE) B C267-3 INSULATION (PIPE) D C367-3 INSULATION (PIPE) B C367-3 INSULATION (PIPE) B C367-3 INSULATION (PIPE) D C367-3 C			9362868075		
267	154	INSULATION (PIPE) A		9364738000	
267-3					
368					
154					
155					
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T60					
T60-2		` ,		9365850008	
568-1 JNT WIRE (SLN VLV) A 9365848005 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365849019 9365848005 9365848005 9365848005 9365848001 9362182003 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 9366247012 936698009 936698009 936698009 936698009 936698009 936698009 936698009 936698009 936698009 936698009 936698009 93669601023 9361094015 9301094015 9301094015 9301094015 9362791005 9362791005 9362791005 9362791005 9362791005 9362791005 9362791005 9362791005 9364433000 9364433000 9364433000 9364433000 9364433000 9364433000 9364433008 9364433000 9364433008 9362792001 9362792001 9703889035 9703889035 9703889035 9703889035 9703889035	760-1	INSULATION (PIPE) G	9365851005		
568-2 JNT WIRE (SLN VLV) A 9365849019 9365849019 564-5 LIQUID PIPE ASSY 9365849019 93652182003 MANUAL (INSTALLATION) 936998009 936698009 NUT-A M8 936998009 9356998009 PACKING CASE-CARTON 9301094015 9301094015 674 PROJECTION BOLT 9356901023 9356991023 273 REAR PANEL 9362721004 9362721004 295-1 REDUCER A 9364430003 9364439003 295-4 REDUCER F 9364438009 9364435008 295-5 REDUCER F 9364438009 9364435008 295-2 REDUCER J 9364439006 9364439006 29 SEPARATE WALL 9362722001 9362192002 29 SEPARATE WALL 9362722001 9703889035 457-2 SOLENOID VALVE 9703889042 9703889042 457-1 SOLENOID VALVE 9703889059 9703888113 157-6 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE					
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MANUAL (INSTALLATION)					
NUT-A M8	564-5				
PACKING CASE-CARTON PROJECTION BOLT PROJECTION PROJ	468	,			
674 PROJECTION BOLT 9356901023 9356901023 273 REAR PANEL 9362721004 295-1 REDUCER A 9364430003 9364430003 295-4 REDUCER D 9364430003 9364433004 295-5 REDUCER F 9364438009 9364435008 295-6 REDUCER I 9364438009 9364438009 295-3 REDUCER J 9364439006 9364439006 29 SEPARATE WALL 9362722001 9362192002 29 SEPARATE WALL 9703889035 9703889035 457-2 SOLENOID VALVE 9703889042 9703889042 457-1 SOLENOID VALVE 9703889042 9703889059 157-4 SOLENOIDE 9703888113 9703888113 157-5 SOLENOIDE 9703888120 9703888137 157-6 SOLENOIDE 9703888137 9703888137 169 SPECIAL NUT-A (LARGE) 313005446653 313005446759 909 STRAINER 9365954003 93653119008 909-1 S	400				
273 REAR PANEL 9362721004	674				
295-1 REDUCER A 9364430003 9364430003 9364430004 935-5 REDUCER F 9364438009 9364435008 935-6 REDUCER F 9364438009 9364438009 9364438009 9364438009 9364438009 9364438009 9364439006 936439006 936439006 9362192002 936595000 9703889035 9703889035 9703889042 9703889042 9703889042 9703889042 9703889042 970388813 970388813 970388813 970388813 970388813 970388813 970388813 970388813 9703888120 970388813 970388813 9703888144 9703888144 9703888144 9703888144 9703888144 9703888144 9703888144 9703888144 9703888144 9703888144 970388144 9703888144 9703888144 9703888144 9703888144 9363119008 9363119008 9363119008 9363119008 9363119008 9363119008 9365955000 9365955000 9365955000 9365955000 9365955000 9365955000 9365955000 9365955000 9365226004 9362226004 9362226004 9362286004 9362188005 9362185004	273	REAR PANEL		9362191005	
295-4 REDUCER D 9364433004 295-5 REDUCER F 9364434001 295-6 REDUCER F 9364438009 295-2 REDUCER J 9364439006 295-3 REDUCER J 9364439006 29 SEPARATE WALL 9362722001 457-2 SOLENOID VALVE 9703889035 457-3 SOLENOID VALVE 9703889042 9703889042 9703889059 157-4 SOLENOIDE 9703888113 157-5 SOLENOIDE 9703888120 157-6 SOLENOIDE 9703888137 9703888137 9703888137 9703888144 9703888144 9703888144 9703888144 9703888144 9703888144 990 STRAINER 9365954003 909-1 STRAINER A 9365954003 909-1 STRAINER B 9365955000 910-1 STRAINER B 9363121001 910-1 STRAINER B 9365955000 910-1 STRAINER B 9365955000 <tr< td=""><td>273</td><td>REAR PANEL</td><td></td><td></td><td></td></tr<>	273	REAR PANEL			
295-5 REDUCER F 9364434001 295-6 REDUCER F 9364435008 295-2 REDUCER I 9364438009 295-3 REDUCER J 9364439006 29 SEPARATE WALL 9362722001 457-2 SOLENOID VALVE 9703889035 9703889035 457-3 SOLENOID VALVE 9703889059 9703889042 457-4 SOLENOID VALVE 9703889059 9703889059 157-4 SOLENOIDE 9703888113 9703888113 157-5 SOLENOIDE 9703888120 9703888120 157-6 SOLENOIDE 9703888137 9703888137 169 SPECIAL NUT-A (LARGE) 313005446653 313005446653 169 SPECIAL NUT-B (SMALL) 313005446759 9363119008 272 STRAINER 9365954003 93653119008 909 STRAINER A 9365955000 9365955000 910-1 STRAINER B 9365955000 9365955000 910-1 STRAINER B 9363121001 936218005 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
295-6 REDUCER F					
295-2 REDUCER I 9364438009 9364438009 9364439006 9364439006 9364439006 9364439006 9364439006 9362192002 9362192002 9362192002 9362192002 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362192002 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 9362722001 936272001 936272001 9362722001 9362722001 936272001 936223002 936389035 9303889035 9303889035 9303889035 9303889035 9303889035 9303888133 9703888120					
295-3 REDUCER J 9364439006 9364439006 29 SEPARATE WALL 9362722001 9362192002 457-2 SOLENOID VALVE 9703889035 9703889042 457-1 SOLENOID VALVE 9703889042 9703889059 457-4 SOLENOIDE 9703888113 9703888113 157-5 SOLENOIDE 9703888120 9703888120 157-6 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE 9703888144 9703888120 157-6 SOLENOIDE 9703888137 9703888120 9703888144 9703888144 9703888144 98 SPECIAL NUT-A (LARGE) 313005446653 313005446653 169 SPECIAL NUT-B (SMALL) 313005446759 9363119008 909 STRAINER 9365954003 936591008 909- STRAINER A 9365954003 9365955000 910-1 STRAINER B 9365955000 9365955000 910-1 STRAINER B 9365955000 9365955000 937-2					
29 SEPARATE WALL					
29 SEPARATE WALL 9362722001					
457-3 SOLENOID VALVE 9703889042 9703889042 457-1 SOLENOID VALVE 9703889059 9703889059 157-4 SOLENOIDE 9703888113 9703888113 157-5 SOLENOIDE 9703888120 9703888120 157-7 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE 9703888144 9703888144 468 SPECIAL NUT-A (LARGE) 313005446653 313005446759 272 STRAINER 9363119008 9363119008 909 STRAINER A 9365954003 9365954003 909-1 STRAINER B 9365955000 9365955000 910-1 STRAINER B 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 936218005 327-3 SUC GAS PP C ASSY 9362185004			9362722001		
457-1 SOLENOID VALVE 9703889059 9703889059 157-4 SOLENOIDE 9703888113 9703888113 157-5 SOLENOIDE 9703888120 9703888120 157-6 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE 9703888144 9703888137 468 SPECIAL NUT-A (LARGE) 313005446653 313005446759 272 STRAINER 9363119008 9363119008 909 STRAINER A 9365954003 9363118001 910 STRAINER B 9365955000 9365955000 910-1 STRAINER B ASSY 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 936218005 327-2 SUC GAS PP C ASSY 9362188005 9362185004			9703889035	9703889035	
157-4 SOLENOIDE 9703888113 9703888113 157-5 SOLENOIDE 9703888120 9703888120 157-6 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE 9703888144 9703888137 468 SPECIAL NUT-A (LARGE) 313005446653 313005446653 169 SPECIAL NUT-B (SMALL) 313005446759 9363119008 909 STRAINER 9365954003 9365954003 909-1 STRAINER A 9365955000 9365955000 910-1 STRAINER B 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000					
157-5 SOLENOIDE 9703888120 9703888120 157-6 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE 9703888144 9703888144 468 SPECIAL NUT-A (LARGE) 313005446653 313005446653 169 SPECIAL NUT-B (SMALL) 313005446759 9363119008 909 STRAINER A 9365954003 9365954003 909-1 STRAINER A 9365955000 9365955000 910-1 STRAINER B 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 9362224000 327-2 SUC GAS PP C ASSY 9362188005 327-3 SUCTION GAS PIPE A 9362185004					
157-6 SOLENOIDE 9703888137 9703888137 157-7 SOLENOIDE 9703888144 9703888144 468 SPECIAL NUT-A (LARGE) 313005446653 313005446759 169 SPECIAL NUT-B (SMALL) 313005446759 313005446759 909 STRAINER 9363119008 9363119008 909-1 STRAINER A 9365954003 93659554003 910 STRAINER B 9365955000 9365955000 910-1 STRAINER B ASSY 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 9362226004 327-3 SUC GAS PP C ASSY 9362226004					
157-7 SOLENOIDE 9703888144 9703888144 468 SPECIAL NUT-A (LARGE) 313005446653 313005446759 169 SPECIAL NUT-B (SMALL) 313005446759 313005446759 272 STRAINER 9363119008 9363119008 909 STRAINER A 9365954003 9365954003 909-1 STRAINER B 9365955000 9365955000 910 STRAINER B 9365955000 9365955000 910-1 STRAINER B ASSY 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 9363121001 327-2 SUC GAS PP B ASSY 9362226004 9362188005 327-3 SUCTION GAS PIPE A 9362185004					
468 SPECIAL NUT-A (LARGE) 313005446653 313005446653 169 SPECIAL NUT-B (SMALL) 313005446759 313005446759 272 STRAINER 9363119008 936319008 909 STRAINER A 9365954003 9363118001 910 STRAINER B 9365955000 9365955000 910-1 STRAINER B ASSY 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 9363121001 327-2 SUC GAS PP B ASSY 9362226004 9362188005 327-4 SUCTION GAS PIPE A 9362185004					
169 SPECIAL NUT-B (SMALL) 313005446759 313005446759 272 STRAINER 9363119008 9363119008 909 STRAINER A 9365954003 9365954003 909-1 STRAINER B 9365955000 9363118001 910-1 STRAINER B ASSY 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000					
272 STRAINER 9363119008 9363119008 909 STRAINER A 9365954003 9365954003 909-1 STRAINER A 9365955000 9363118001 910 STRAINER B 9363121001 9365955000 910-1 STRAINER B ASSY 9363121001 9363121001 327-1 SUC GAS PP A ASSY 9362224000 9363121001 327-2 SUC GAS PP B ASSY 9362226004 9362188005 327-4 SUCTION GAS PIPE A 9362185004					
909-1 STRAINER A		,			
910 STRAINER B 9365955000 9365955000 910-1 STRAINER B ASSY 9363121001 9363121	909		9365954003	9365954003	
910-1 STRAINER B ASSY 9363121001 9363121001 93632224000 9362224000 9362226004 9362226004 9362226004 9362226004 9362188005 9362185004					
327-1 SUC GAS PP A ASSY 9362224000					
327-2 SUC GAS PP B ASSY 9362226004					
327-3 SUC GAS PP C ASSY 9362188005 9362185004					
327-4 SUCTION GAS PIPE A 9362185004					
0_0 0 1711 00111 000-001001 000-001001	326	3-WAY JOINT	9354901001	9354901001	

Ref No. Description ABY12TFAMF ABY14TFAMF ABY24TFAMF ABY30TFAMF ABY30	9703837012 9703837012 9359739005 9360463005 9359735014 9359680000 9363708011 9363708035 9363708035 9359733003 9701298013	9359735014
236	9703837012 	9359739005 9360463005 9359735014 9359680000 9363708011 9363708035 9359733003
236	9703837012 	9359739005 9360463005 9359735014 9359680000 9363708011 9363708035 9359733003
236	9703837012 	9359739005 9360463005 9359735014 9359680000 9363708011 9363708035 9359733003
236	9359739005 9360463005 9360463005 9359735014 9359680000 9363708011 9363708035 9359733003 9359733003 9359733003	9359739005 9360463005 9359735014 9359680000 9363708011 9363708035 9359733003
8-1	9363708011 9363708011 9359733003 9363708011 9363708035 9363708035 9363708035	9363708035
169	9363708011 9363708011 9359733003 9363708011 9363708035 9363708035 9363708035	9363708035
870-1	9369735014 9359735014 9359680000 9363708011 9363708035 9363708035 9363708035 9363708035 9363708035 9363708035	9359735014
ARM BRACKET 9359281009 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359735014 9359868000 935973000 9359	9359735014 9359680000 9359680000 9363708011 9363708035 9351990022 9359733003 9701298013	9359735014
833 AUXILIARY PIPE ASSY AUXILIARY PIPE ASSY AUXILIARY PIPE ASSY BADGE ————————————————————————————————————	9359735014 9359680000 9359680000 9363708011 9363708035 9351990022 9359733003 9701298013	9359735014
833 AUXILIARY PIPE ASSY BADGE — — — 9361154001 9369155008 — — — — 9361155008 — — — — — 93691155008 — — — — — — — 9359735014 — — — — — — — — — — — — — — 9359735014 —<	9359735014 9359680000 9359680000 9363708011 9363708035 9351990022 9359733003 9701298013	9359735014
227 BADGE	9359735014 	9359735014
108	9359680000 9359680000 9363708011 9363708035 9351990022 9359733003 9701298013	9359680000
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578 BASE BRACKET 9358586006 9358586006 9358586006 9358586006 9358586006	9363708011 9363708035 9363708035 9351990022 9359733003 	9363708011
653-2 BOLT	9363708035 9351990022 9359733003 	9363708011 9363708035 9351990022 9359733003
BOLT (F.MOTOR FIXG) 0700156014 0700156	9363708035 9351990022 9359733003 	9363708011
199- BR SHEET	9363708035 9351990022 9359733003 	9363708011
199- BR SHEET	9363708035 9351990022 9359733003 	9363708035 9351990022 9359733003
199- BR SHEET	9351990022 9359733003 	9363708035 9351990022 9359733003
200 BR SHEET-B ————————————————————————————————————	9351990022 9359733003 	9351990022 9359733003
200-1 BR SHEET-B	9351990022 9359733003 	9351990022 9359733003
361 BUSHING 9357942001 9357942001 9357942001 9357942001 9357942001 9357942001 9357942001 935973300 9359730	9359733003	9359733003
631-2 361-3 BUSHING-B BUSHING-C BUZER 9358554005 9358553008 9358554005 9358553008 9358554005 9358553008 9358554005 9358553008 9358553008 9358553008 9358553008 9358553008 9358553008 9701298013 9701298013 9701298013 9	9701298013	
361-3 BUSHING-C BUZZER 9358553008 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9701298013 9358563007	9701298013 	
BUZZER 9701298013 9701		9701298013
68 CAP 9358563007 935850007 9358500000000000000000000000000000000000		
64/34 CAPACITOR (FAN MOTOR)		1
64/34 CAPACITOR (FAN MOTOR)		
64/34 CAPACITOR (FAN MOTOR)		
CAPACITOR,ELEC 0301192558 0301192558 0301192558 0301192558 0301192558 0301192558		0702206069
		9703306068 0301192558
		0300256060
CAPACITOR,PLASTIC 0300304099 0300304099 0300304099 0300304099 0300304099 0300304099 0300304099		0300304099
CAPACITOR,PLASTIC 0301052098 0301052098 0301052098 0301052098 0301052098 0301052098	0301052098	0301052098
109 CASING 9358543009 9358543009 9358543009		
109 CASING	9359704003	9359704003
755 CASING COVER 9358544006 9358544006 9358544006 9358544006 9359705000 9359705000 9359705000	9359705000	9359705000
577 CATCH 9359096009 9359096009 9359096009 9359096009		
870-2 CENTER ARM 9359280002 9359280002 9359280002		
CERAMIC RESONATOR 9701261031 9701261031 9701261031 9701261031 9701261031 970126103	9701261031	9701261031
422 CLAMP 9359183006 9359183006 9359183006 9359183006 313985355201 313985355	01 212005255201	212005255001
422 CLAMP		
195 CLAMP 313361275805 313361275805 313361275805 313361275805 313361275805 313361275805 313361275805		
196-2 CLAMP 313035356905 313035356905 313035356905 313035356905 313035356905 313035356905 313035356905	05 313035356905	
196-1 CLAMP 312300787605 312300787605 312300787605 312300787605 312300787605 312300787		
461 CLAMP 313152375801 313152375801		
223 CONTROL BOX 933600016 933600016 9359708001 9359708001	9359708001	9359708001
923 CONTROL BOX BRACKET 9358717004 9358717004 9358717004 9358717004		
514 CONTROL BOX COVER 9359097006 9359097006 9359097006 9359097006		
472 CONTROL BOX 9359712008 935971200		9359712008
CONTROL BOX	9359713005	9359713005
236 CONTROLLER PCB ASSY 9/01042029 9/0104202		
236 CONTROLLER PCB ASSY 970104204		
236 CONTROLLER PCB ASSY	9701042050	
236 CONTROLLER PCB ASSY		9701042067
625 CORD BUSHING 9359240006 93592400000 93592400000 93592400000 93592400000 93592400000 93592400000 935924000000000000000000000000000000000000	9359240006	9359240006
982-1 CORD CLAMP-A 935/880006 935/880006 935/880006 935/880006 935/880007 935/8820017 9359820017 9359820017		9359820017
982-2 CORD CLAMP-B		9359821014
36-2 CORD HOLDER 9356362008 9356362008 9356362008 9356362008		
509 COSMETIC PANEL-L 9358536018 9358536018 9358536018 9358536018		
508 COSMETIC PANEL-R 9358535011 9358535011 9358535011 9358535011		
329 COUPLING PIPE ASSY		
329 COUPLING PIPE ASSY 936644500		9366445005
329 COUPLING PIPE ASSY		
329 COUPLING PIPE ASSY 9366524007 93672745000 00507745000		0050745000
383 DECORATION COVER-L		9359745006 9359744009
382 DECORATION COVER-R	9359744009	9359744009
DIODE 0000353120 0000353120 0000353120 0000353120 0000353120 0000353120 0000353120		0000353120
DIODE 0000625036 0000625036 0000625036 0000625036 0000625036 0000625036		0000625036
DIODE 0000746519 0000746519 0000746519 0000746519 0000746519 0000746519 0000746519 0000746519		0000746519
DIODE		0000906500 0000684019
DIODE,MINIMOLD		0000684019
DIODE, POWER 0000689045 0000689045 0000689045 0000689045 0000689045 0000689045 0000689045		0000208024
DIODE,ZENER 0000852166 0000852166 0000852166 0000852166 0000852166 0000852166 0000852166		0000852166
735 DISTRIBUTOR ASSY 9365061008 9365061008		
735 DISTRIBUTOR ASSY		9366444008
764 DRAIN CAP 9358746004 93587460	9358746004	9358746004
160 DRAIN PAN 9359242000 9359242000 9359242000 9359698005 9359698005		9359698005
160 DRAIN PAN ASSY 9358568002 9358568002 9358568002 9358568002		

Models: ABY12TFAMF,ABY14TFAMF,ABY18TFAMF,ABY24TFAMF ABY30TFAMF,ABY36TFAMF,ABY45TFAMF,ABY54TFAMF

Ref		1			Part	s No.				Ord
No.	Description	ABY12TFAMF	ABY14TFAMF	ABY18TFAMF			ABY36TFAMF	ABY45TFAMF	ABY54TFAMF	Q'ty
439	DRAIN PAN WIRE	9358598009	9358598009	9358598009	9358598009					广
186	EDGE COVER					9361049017	9361049017	9361049017	9361049017	İ
186	EDGE COVER					9361049024	9361049024	9361049024	9361049024	1
629	EMI FILTER	0400056133	0400056133	0400056133	0400056133	0400056133	0400056133	0400056133	0400056133	İ
629-1	EMI FILTER	0400197119	0400197119	0400197119	0400197119	0400197119	0400197119	0400197119	0400197119	İ
629-2	EMI FILTER	0400406396	0400406396	0400406396	0400406396	0400406396	0400406396	0400406396	0400406396	İ
146	EVAPORATOR ASSY				9358870013					İ
146	EVAPORATOR ASSY	9359379003	9359379003							İ
146	EVAPORATOR ASSY					9359696001	9359696001	9359696001	9359696001	İ
146	EVAPORATOR ASSY			9367755004						İ
588-2	EVAPORATOR BRACKET-L	9358588000	9358588000	9358588000	9358588000					İ
588-1	EVAPORATOR BRACKET-R	9358587003	9358587003	9358587003	9358587003					İ
574-2	EVAPORATOR FIXTURE-L	9358590003	9358590003	9358590003	9358590003					İ
574-1	EVAPORATOR FIXTURE-R	9358589007	9358589007	9358589007	9358589007					1
825	EXPANSION VALVE	9366302018	9366302018	9366302018	9366302018	9366302018	9366302018	9366302018	9366302018	İ
164	FAN MOTOR ASSY					9360457004	9360457004	9360457004	9360457004	İ
164	FAN MOTOR ASSY	9600778012	9600778012							İ
164	FAN MOTOR ASSY			9600778029						İ
164	FAN MOTOR ASSY				9600778043					İ
473	FILTER BRACKET	9358607008	9358607008	9358607008	9358607008					İ
345-2	FILTER GUIDE-L					9359693000	9359693000	9359693000	9359693000	İ
345-1	FILTER GUIDE-R					9359692003	9359692003	9359692003	9359692003	İ
875	FILTER PCB ASSY	9703944017	9703944017	9703944017	9703944017					İ
875	FILTER PCB ASSY					9703947018	9703947018	9703947018	9703947018	ĺ
431	FIXTURE-A	313546156408	313546156408	313546156408	313546156408					i
321	FLAP ASSY					9359731009	9359731009	9359731009	9359731009	1
520	FLAP BASE	9358537015	9358537015	9358537015	9358537015					1
555	FLAP LINK-LOWER	9358552001	9358552001	9358552001	9358552001					ĺ
554	FLAP LINK-UPPER	9358551004	9358551004	9358551004	9358551004					ĺ
436	FLAP SPRING					9359730002	9359730002	9359730002	9359730002	ĺ
321	FLAP (LOWER)	9358541012	9358541012	9358541012	9358541012					ĺ
320	FLAP (UPPER)	9358538012	9358538012	9358538012	9358538012					ĺ
964	FLARE NUT-A	313996239804	313996239804							ĺ
964	FLARE NUT-A					9357352022	9357352022	9357352022	9357352022	ĺ
965	FLARE NUT-B	9351062019	9351062019	9351062019	9351062019					İ
63	FRONT PANEL					9359734000	9359734000	9359734000	9359734000	ĺ
824-3	FUSE	0600222512	0600222512	0600222512	0600222512	0600222512	0600222512	0600222512	0600222512	İ
	FUSE HOLDER	0500158072	0500158072	0500158072	0500158072	0500158072	0500158072	0500158072	0500158072	1
379	GRILLE HINGE PLATE					9359694007	9359694007	9359694007	9359694007	İ
472	GRILLE SUPPORT	9358602003	9358602003	9358602003	9358602003					İ
488	GRILLE-F	9358532010	9358532010	9358532010	9358532010					İ
150-1	HALF UNION-B						9352768002	9352768002	9352768002	İ
150	HALF UNION-B						9357351018	9357351018	9357351018	İ
174	HANGER BRACKET					9359742005	9359742005	9359742005	9359742005	İ
173	HANGER BRACKET-L	9358596005	9358596005	9358596005	9358596005					İ
174	HANGER BRACKET-R	9358595008	9358595008	9358595008	9358595008					l
91	HINGE					9359699002	9359699002	9359699002	9359699002	İ
731-2	HPLDER (GUIDE RAIL)	0600241018	0600241018	0600241018	0600241018					İ
181	HOLE COVER					9359691006	9359691006	9359691006	9359691006	İ
	HYBRID IC	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	İ
	IC	0100462104	0100462104	0100462104	0100462104	0100462104	0100462104	0100462104	0100462104	İ
	IC	0101461120	0101461120	0101461120	0101461120	0101461120	0101461120	0101461120	0101461120	1
	IC	0101846071	0101846071	0101846071	0101846071	0101846071	0101846071	0101846071	0101846071	İ
	IC	0101525129	0101525129	0101525129	0101525129	0101525129	0101525129	0101525129	0101525129	İ
	IC (TRANSISTOR ARRY)	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	İ
385	INDICATOR PCB ASSY	9701873012	9701873012	9701873012	9701873012					İ
385	INDICATOR PCB ASSY					9702260019	9702260019	9702260019	9702260019	İ
147	INLET PIPE (EVA) ASSY			9364760001						1
147	INLET PIPE (EVA) ASSY	9366525004	9366525004							ĺ
907-1	INS (PIPE THRM)					9360227003	9360227003	9360227003	9360227003	ĺ
296	INS (PIPE)			9359311041						ĺ
	INSTALLATION MANUAL	9367701018	9367701018	9367701018	9367701018					i
]	INSTALLATION MANUAL					9367702015	9367702015	9367702015	9367702015	ĺ
]	INSULATION (DRAIN H)					9360464002	9360464002	9360464002	9360464002	1
553	INSULATION (EVA)-L	9358857007	9358857007	9358857007	9358857007					1
552	INSULATION (EVA)-R	9358575000	9358575000	9358575000	9358575000					i
418	INSULATION (FLAP BASE)	9358572009	9358572009	9358572009	9358572009					1
]	INSULATION (LOUV.BASE)					9360219008	9360219008	9360219008	9360219008	1
]	INSULATION (LOUV.BASE)					9361044005	9361044005	9361044005	9361044005	1
222	INSULATION (LOUV.BASE)					9361045002	9361045002	9361045002	9361045002	1
229	INSULATION (LOUVER) -L					9359722007	9359722007	9359722007	9359722007	i
228	INSULATION (LOUVER) -R	0050574000	0050574000	0050574000	0050574000	9359721000	9359721000	9359721000	9359721000	i
416	INSULATION (PANEL) -A	9358574003	9358574003	9358574003	9358574003					1
417	INSULATION (PANEL) -B	9358914007	9358914007	9358914007	9358914007	0007041000	0007041000	0007041000	0007041000	1
907	INSULATION (PIPE)					9367241002	9367241002	9367241002	9367241002	1
97	INSULATION (PIPE)-A			010000000104	010000000104	9360213006	9360213006	9360213006	9360213006	i
172	INSULATION (PIPE)-B			313209328104	313209328104	0000014000	0000014000	0000014000	0000014000	i
98 172-1	INSULATION (PIPE)-B	0350716010	0350716010	0250716012	0250716012	9360214003	9360214003	9360214003	9360214003	1
172-1 267-2	INSULATION (PIPE) -C	9350716012	9350716012	9350716012	9350716012					1
267-2 267-3	INSULATION (PIPE) -C					9350716029	9350716029	9350716029	9350716029	1
	INSULATION (PIPE) -D					9352766015	9352766015	9352766015	9352766015	1
74	INTAKE GRILLE					9359738008	9359738008	9359738008	9359738008	ĺ
388	JOINT ASSY				0265067000	9359706007	9359706007	9359706007	9359706007	1
206	JOINT PIPE B	0350410006	0350410006		9365067000					ĺ
326	JOINT.3-WAY	9359419006	9359419006							ĺ
770	LABEL (DEELECTION C)	9363050004	9363050004	9363050004	9363050004	9363050004	9363050004	9363050004	9363050004	ĺ
	LABEL "R407C"	9362409001	9362409001	9362409001	9362409001	9362409001	9362409001	9362409001	9362409001	ĺ
	LED	0000813235	0000813235	0000813235	0000813235	0000813235	0000813235	0000813235	0000813235	l
į l	LED	0000813242	0000813242	0000813242	0000813242	0000813242	0000813242	0000813242	0000813242	1
	LED	0000813259	0000813259	0000813259	0000813259	0000813259	0000813259	0000813259	0000813259	1
526	LOCKING CAP SPACER	9359100003	9359100003	9359100003	9359100003	0600119075	0600119075	0600119075	0600119075	1
381-4 380	LOCKING APACER					0600118075	0600118075	0600118075	0600118075	1
300	LOCKING APACER					313209391403	313209391403	313209391403	313209391403	

	ABY301FAMF,ABY361FA	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. , ,							<u> </u>
Ref No.	Description	ABY12TFAMF	ABY14TFAMF	ABY18TFAMF	Part ABY24TFAMF	s No. ABY30TFAMF	ABY36TFAMF	ABY45TFAMF	ABY54TFAMF	Ord Q'ty
381	LOCKING APACER	313209391506	313209391506		313209391506					~ .,
628	LOCKING APACER-B	313005446558	313005446558		313005446558					
3	LOUVER	9358561010	9358561010	9358561010	9358561010					
3	LOUVER					9359719007	9359719007	9359719007	9359719007	
434	LOUVER BASE					9359718000	9359718000	9359718000	9359718000	
408	LOUVER LINK	9358556009	9358556009	9358556009	9358556009					
408	LOUVER LINK					9359726005	9359726005	9359726005	9359726005	
521	LOUVER LINK COVER	9358558003	9358558003	9358558003	9358558003					
509	LOUVER ROD	9358559000	9358559000	9358559000	9358559000					
506	LOUVER ROD					9359725008	9359725008	9359725008	9359725008	
503	LOUVER SHAFT	9358557006	9358557006	9358557006	9358557006					
435	LOUVER SPRING					9359720003	9359720003	9359720003	9359720003	
505	LOUVER STOPPER	9358555002	9358555002	9358555002	9358555002					
505	LOUVER STOPPER					9359724001	9359724001	9359724001	9359724001	
684	MOTOR BASE	9358562000	9358562000	9358562000	9358562000					
684	MOTOR BASE					9359727002	9359727002	9359727002	9359727002	
126	MOTOR FIXG TABLE					9359681007	9359681007	9359681007	9359681007	
126	MOTOR FIXG TABLE ASY	9358591000	9358591000	9358591000	9358591000					
338	MOTOR FIXTURE	9358594001	9358594001	9358594001	9358594001					
388-1	MOTOR FIXTURE					9359702009	9359702009	9359702009	9359702009	
338-2	MOTOR FIXTURE-B		005050000	005050000		9359703006	9359703006	9359703006	9359703006	
407	MOTOR ROD	9358560006	9358560006	9358560006	9358560006	0050700004	005070004	0050700004	0050700004	
407	MOTOR ROD	0359550007	0259550007	0258550007	0359550007	9359723004	9359723004	9359723004	9359723004	
558	MOTOR ROD-A	9358550007 0301241072	9358550007 0301241072	9358550007 0301241072	9358550007	0301241072		0301241072		
147	NETWORK (CR ABSORBER) OUTLET (EVA) ASSY	9366843009	9366843009	0301241072	0301241072	0301241072	0301241072	0301241072	0301241072	
147	PACKING CASE-BOTTOM	9359524007	9359524007	9359524007	9359524007					
	PACKING CASE-BOTTOM PACKING CASE-BOTTOM				9339324007	9360020000	9360020000	9360020000	9360020000	
	PACKING CASE-BOTTOM PACKING CASE-CARTON	9301094015	9301094015	9301094015	9301094015	9301094015	9301094015	9301094015	9301094015	
	PACKING CASE-CARTON					9366466017				
	PACKING CASE-CARTON						9366466024			
1	PACKING CASE-CARTON							9366466031		
	PACKING CASE-CARTON								9366466048	
1	PACKING CASE-CARTON	9366508014								
	PACKING CASE-CARTON		9366508021							
	PACKING CASE-CARTON			9366508038						
	PACKING CASE-CARTON				9366508045					
	PACKING INNER-A					9360021038	9360021038	9360021038	9360021038	
	PACKING INNER-A					9360542007	9360542007	9360542007	9360542007	
	PACKING INNER-A	9359520009	9359520009	9359520009	9359520009					
	PACKING INNER-B					9360021045	9360021045	9360021045	9360021045	
	PACKING INNER-B					9360026002	9360026002	9360026002	9360026002	
	PACKING INNER-B	9359521006	9359521006	9359521006	9359521006					
	PACKING INNER-C					9360783028	9360783028	9360783028	9360783028	
	PACKING INNER-C	9359522010	9359522010	9359522010	9359522010					
	PACKING PAD-BTM (CTR)					9359860006	9359860006	9359860006	9359860006	
	PACKING PAD-BTM (L)					9359858003	9359858003	9359858003	9359858003	
	PACKING PAD-BTM (R) PACKING PAD-L	9359518006	9359518006	9359518006	9359518006	9359856009	9359856009	9359856009	9359856009	
	PACKING PAD-M					9360784001	9360784001	9360784001	9360784001	
	PACKING PAD-R	9359519003	9359519003	9359519003	9359519003					
	PACKING PAD-TOP (CTR)					9359859000	9359859000	9359859000	9359859000	
	PACKING PAD-TOP (L)					9359857006	9359857006	9359857006	9359857006	
	PACKING PAD-TOP (R)					9359855002	9359855002	9359855002	9359855002	
771	PANEL ASSY	9359076018	9359076018	9359076018	9359076018					
386	PANEL-L					9359685005	9359685005	9359685005	9359685005	
387	PANEL-R					9359683001	9359683001	9359683001	9359683001	
868	PCB HOLDER	9358547007	9358547007	9358547007	9358547007					
868	PCB HOLDER					9359736004	9359736004	9359736004	9359736004	
1	PHOTO COUPLER	0000117074	0000117074	0000117074	0000117074	0000117074	0000117074	0000117074	0000117074	1
438	PINION GEAR					9359728009	9359728009	9359728009	9359728009	1
240-1	PIPE COVER-L					9359690009	9359690009	9359690009	9359690009	
240-2	PIPE COVER-R					9359689003	9359689003	9359689003	9359689003	
752	PIPE FIXTURE	0500500040	0500500040	0500500040	0500500040	9359688006	9359688006	9359688006	9359688006	
	PLUG CONTACT	0500536016	0500536016	0500536016	0500536016	0500536016	0500536016	0500536016	0500536016	
	PLUG.PWB PLUG.PWB	0500005321 0500005345	0500005321 0500005345	0500005321 0500005345	0500005321 0500005345	0500005321 0500005345	0500005321 0500005345	0500005321 0500005345	0500005321 0500005345	
	PLUG.PWB	0500003343	0500003343	0500003343	0500006069	0500003343	0500003343	0500003343	0500006069	
	PLUG.PWB PLUG.PWB					0500006069	0500006069	05000011520	05000011520	
	PLUG.PWB	0500011742	0500011742	0500011742	0500011742	0500011320	0500011320	0500011320	0500011320	
1	PLUG.PWB	0500011742	0500011742	0500011742	0500011742	0500011742	0500011742	0500011742	0500011742	
	PLUG.PWB	0500011739	0500011739	0500011739	0500011739	0500011739	0500011739	0500011739	0500011739	
1	PLUG.PWB	0500011773	0500011773	0500011773	0500011773	0500011773	0500011773	0500011773	0500011773	
	PLUG.PWB	0500957026	0500957026	0500957026	0500957026	0500957026	0500957026	0500957026	0500957026	
1	PLUG.PWB	0501045012	0501045012	0501045012	0501045012	0501045012	0501045012	0501045012	0501045012	
1	PLUG.PWB	0501045043	0501045043	0501045043	0501045043	0501045043	0501045043	0501045043	0501045043	
	PLUG.PWB	0501045050	0501045050	0501045050	0501045050	0501045050	0501045050	0501045050	0501045050	
	PLUG.PWB	0501045074	0501045074	0501045074	0501045074	0501045074	0501045074	0501045074	0501045074	
1	PLUG.PWB	0501045210	0501045210	0501045210	0501045210	0501045210	0501045210	0501045210	0501045210	
1	PLUG.PWB	0501045227	0501045227	0501045227	0501045227	0501045227	0501045227	0501045227	0501045227	Ī
	PLUG.PWB	0501045319	0501045319	0501045319	0501045319	0501045319	0501045319	0501045319	0501045319	
	PLUG.PWB	0501045357	0501045357	0501045357	0501045357	0501045357	0501045357	0501045357	0501045357	
1 !	PLUG.PWB	0501045517	0501045517	0501045517	0501045517	0501045517	0501045517	0501045517	0501045517	1
726	PRCS PIPE		0050504004	9359979005	9359979005					I
500	PROTECT COVER	9358564004	9358564004	9358564004	9358564004					Ī
581	PROTECTOR BECEIVER COVER	9359282006	9359282006	9359282006	9359282006	0250714002	0250714002	0250714002	0250714002	1
763 396	RECEIVER COVER REINFORCEMENT METAL					9359714002 9359697008	9359714002 9359697008	9359714002 9359697008	9359714002 9359697008	I
390	RELAY	9701316014	9701316014	9701316014	9701316014	9359697008	9359697008	9359697008	9359697008	l
	RELAY	9701316014	9701316014	9701316014	9701316014	9701566013	9701566013	9701566013		l
	RELAY SOLID	9701566013			3701300013	9701566013	9701566013	9701566013	9701566013 9701653010	I
1	RELAY SOLID	9701829019	9701829019	9701829019	9701829019					I
1	RESISTOR.CHIP	0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	
	1									

Ref	Description					s No.				Ord
No.	· ·						ABY36TFAMF			Q'ty
	RESISTOR.CHIP	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	
	RESISTOR.CHIP	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	
	RESISTOR.CHIP	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	
	RESISTOR.CHIP	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	
	RESISTOR.CHIP	0201010648	0201010648	0201010648	0201010648	0201010648	0201010648	0201010648	0201010648	
	RESISTOR.CHIP	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	
	RESISTOR.CHIP	0201010907	0201010907	0201010907	0201010907	0201010907	0201010907	0201010907	0201010907	
	RESISTOR.CHIP	0201011010	0201011010	0201011010	0201011010	0201011010	0201011010	0201011010	0201011010	
	RESISTOR.WIRING	0200244372	0200244372	0200244372	0200244372	0200244372	0200244372	0200244372	0200244372	
67										
67	RUBBER	313659068604	313659068604	313659068604	313659068604	313659068604	313659068604	313659068604	313659068604	
185-1	RUBBER BUSHING					9357376004	9357376004	9357376004	9357376004	
427-1	RUBBER SHEET-A					9364097008	9364097008	9364097008	9364097008	
427-2	RUBBER SHEET-B					9364098005	9364098005	9364098005	9364098005	
424	SECTOR GEAR					9359729006	9359729006	9359729006	9359729006	
138	SEPARATE WALL					9359700005	9359700005	9359700005	9359700005	
138	SEPARATE WALL-A	9358584002	9358584002	9358584002	9358584002					
138	SEPARATE WALL-B	9358585009	9358585009	9358585009	9358585009					
286	SHAFT HOLDER BRACKET					9359686002	9359686002	9359686002	9359686002	
403	SHAFT HOLDER FIXTURE					9359687009	9359687009	9359687009	9359687009	
122	SHAFT HOLDER-B					9357921006	9357921006	9357921006	9357921006	
384						9359707004				
	SHAFT.(SIROCCO FAN)						9359707004	9359707004	9359707004	
762	SIDE COVER-L					9359741008	9359741008	9359741008	9359741008	
761	SIDE COVER-R					9359740001	9359740001	9359740001	9359740001	
761	SIDE COVER-R ASSY	9359069010	9359069010	9359069010	9359069010					
599	SIGNAL PCB ASSY	9703728013	9703728013	9703728013	9703728013	9703728013	9703728013	9703728013	9703728013	
56	SIROCCO FAN ASSY	9358621004	9358621004	9358621004	9358621004					
56	SIROCCO FAN ASSY					9359701002	9359701002	9359701002	9359701002	
	SOCKET.PWB	0500296033	0500296033	0500296033	0500296033	0500296033	0500296033	0500296033	0500296033	
468	SPECIAL NUT-A (LARGE)					313005446653			313005446653	
469	SPECIAL NUT-B (SMALL)					313005446759	313005446759	313005446759	313005446759	
			0250001004			313005446759	313005446759	313005446759	313005446759	
365-2	SPECIAL SCREW	9359091004	9359091004	9359091004	9359091004					
365-1	SPECIAL SCREW	9359092001	9359092001	9359092001	9359092001	0000450000	0000450000	0000450000	0000450000	
	SPECIAL SCREW					9360452009	9360452009	9360452009	9360452009	
	SPECIAL SCREW					9360453006	9360453006	9360453006	9360453006	
876-1	STEP MOTOR-H	9359106012	9359106012	9359106012	9359106012					
876-1	STEP MOTOR-H					9360479013	9360479013	9360479013	9360479013	
876-2	STEP MOTOR-V	9359105015	9359105015	9359105015	9359105015					
876-2	STEP MOTOR-V					9360307026	9360307026	9360307026	9360307026	
909	STRAINER A					9365457009	9365457009	9365457009	9365457009	
909	STRAINER C			9365443002	9365443002					
996	STRAINER G	9365455005	9365455005	9365455005	9365455005	9365455005	9365455005	9365455005	9365455005	
502	SUPPORT STAY	9358599006	9358599006	9358599006	9358599006					
302										
	SWITCH.PUSH	9700450016	9700450016	9700450016	9700450016	9700450016	9700450016	9700450016	9700450016	
	SWITCH.ROTARY	9701694013	9701694013	9701694013	9701694013	9701694013	9701694013	9701694013	9701694013	
	SWITCH.SLIDE	9701393015	9701393015	9701393015	9701393015	9701393015	9701393015	9701393015	9701393015	
	TEMPLATE	9359107002	9359107002	9359107002	9359107002					
	TEMPLATE					9360022004	9360022004	9360022004	9360022004	
815	TERMINAL 7P	9703403040	9703403040	9703403040	9703403040	9703403040	9703403040	9703403040	9703403040	
253	TERMISTOR (PIPE)	9704054012	9704054012	9704054012	9704054012					
652-1	THERM.HOLDER PIPE	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	
234	THERMISTOR ASSY-ROOM	9703299025	9703299025	9703299025	9703299025	9703299025	9703299025	9703299025	9703299025	
234-1	THERMISTOR ASSY-ROOM	9704053015	9704053015	9704053015	9704053015	9704053015	9704053015	9704053015	9704053015	
		313728262708		313728262708			313728262708		313728262708	
100 2/10+1	TOP COVER	9358534014	9358534014	9358534014	9358534014	010720202700	010720202700	010720202700	010120202100	
	TOP COVER	9336334014	9336334014	9336334014	9336334014	0050707001	0050707001	0050707001	0050707001	
		0700707047	0700707047	0700707047	0700707047	9359737001	9359737001	9359737001	9359737001	
	TRANSEORMER (SWITCHG)	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	
1	TRANSISTOR	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	
1	TRANSISTOR	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	
1	TRANSISTOR	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053	
1	TRANSISTOR	0000936033	0000936033	0000936033	0000936033	0000936033	0000936033	0000936033	0000936033	
1	TRANSISTOR	0000936033	0000936033	0000936033	0000936033	0000936033	0000936033	0000936033	0000936033	
	VARISTOR	0000038010	0000038010	0000038010	0000038010	0000038010	0000038010	0000038010	0000038010	
	VARISTOR (ARRESTER)	0600168032	0600168032	0600168032	0600168032	0600168032	0600168032	0600168032	0600168032	
357	WALL HOOK BRACKET	9358597002	9358597002	9358597002	9358597002					
1	WIRE ASSY	9703757044	9703757044	9703757044	9703757044					
253-	WIRE ASSY (COMUMUNICAT)					9703757020	9703757020	9703757020	9703757020	
253-	WIRE ASSY (CONNECTER)	9702068011	9702068011	9702068011	9702068011				3,00,0,020	
	WIRE ASSY (CONNECTER)	370200011	0102000011				0360534040	0360534040	0360534040	
050			0701075010	0701075016	0701075010	9360534019	9360534019	9360534019	9360534019	
253-		0701075010		9701875016	9701875016					
253-	WIRE ASSY (CONNECTER)	9701875016	9701875016							
253- 253-	WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER)	9702068042	9702068042	9702068042	9702068042					
253- 253- 253-	WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER)	9702068042				9702264017	9702264017	9702264017	9702264017	
253- 253- 253- 253-	WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER)	9702068042	9702068042			9702264017 9702311018	9702264017 9702311018	9702264017 9702311018	9702264017 9702311018	
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253- 253- 253- 253- 253- 253- 253- 253-	WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (FAN MOTOR) WIRE ASSY (FAN CAPA.) WIRE ASSY (FIRMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (WIRE ASSY WIRE ASSY	9702068042 	9702068042 	9702318024 	9702318024 	9702264017 9702311018 9702317010 9702318024 9702319014 9702323011 9702419011 9703301018 9703763014 9703875014 	9702264017 9702311018 9702317010 9702318024 9702318024 9702319014 9702323011 9702419011 9703763014 9703875014 9703875014 9703440014	9702264017 9702311018 9702317010 9702318024 9702319014 9702319011 9702323011 9702319011 9703763014 9703875014 9703875014 97034440014	9702311018 9702317010 9702318024 9702318014 9702323011 97023419011 9703301018 9703763014 9703875014 	
253- 253- 253- 253- 253- 253- 253- 253-	WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (FAN MOTOR) WIRE ASSY (FAN MOTOR) WIRE ASSY (FAN CAPA.) WIRE ASSY (FIRMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (WIRE ASSY WIRE WITH CONNECTOR	9702068042 	9702068042 	9702318024 	9702318024 	9702264017 9702311018 9702317010 9702318024 9702318024 9702319014 9702323011 9702419011 97033763014 9703875014 9703440014 9703441011 9702313036	9702264017 9702311018 9702317010 9702318024 9702318024 9702319014 9702323011 9702419011 9703301018 9703763014 9703875014 9703440014 9703441011 9702313036	9702264017 9702311018 9702317010 9702318024 9702319014 9702323011 9702419011 9703301018 9703763014 9703875014 9703875014 9703440014 9703441011 9702313036	9702311018 9702317010 9702318024 9702319014 9702323011 97023419011 9703301018 9703763014 9703875014 	
253- 253- 253- 253- 253- 253- 253- 253-	WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (CONNECTER) WIRE ASSY (FAN MOTOR) WIRE ASSY (FAN CAPA.) WIRE ASSY (FIRMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (TERMINAL) WIRE ASSY (WIRE ASSY WIRE ASSY	9702068042 	9702068042 	9702318024 	9702318024 	9702264017 9702311018 9702317010 9702318024 9702319014 9702323011 9702419011 9703301018 9703763014 9703875014 	9702264017 9702311018 9702317010 9702318024 9702319014 9702323011 9703301018 9703763014 9703875014 	9702264017 9702311018 9702317010 9702318024 9702319014 9702323011 9703301018 9703763014 9703875014 	9702311018 9702317010 9702318024 9702318014 9702323011 97023419011 9703301018 9703763014 9703875014 	

Ref	Denovir ⁴¹				Part	s No.				Ord
No.	Description CONTROLLED DOR ASSY	AUY7TFAMF	ABY9TFAMF		ABY14TFAMF	ABY18TFAMF		ABY30TFAMF	ABY36TFAMF	Q'ty
236 236	CONTROLLER PCB ASSY CONTROLLER PCB ASSY	9703839016	9703839016	9703839016	9703839016	9703839016	9703840012			
236	CONTROLLER PCB ASSY							9703841019		
236 399	CONTROLLER PCB ASSY AIR DUCT	9359660002	9359660002	9359660002	9359660002	9359660002			9703842016	
399 477	BELL-MOUTH (B)	9359660002	9359660002		9359660002		9362774000	9362774000	9362774000	
464	BODY-A	9359643005	9359643005	9359643005	9359643005	9359643005				
465 69-3	BODY-B BOLT.HEX.SOCKET	9359645009 301210060360	9359645009 301210060360	9359645009 301210060360	9359645009 301210060360	9359645009 301210060360				
967	BONNET-B					313045417959		313045417959		
967-2	BONNET-B	9301858006	9301858006	9301858006	9301858006	9301858006				
199 199-2	BR-SHEET BR-SHEET						9363708028 9363708035	9363708028 9363708035		
199-	BR-SHEET								9363708042	
199-1 200-1	BR-SHEET BR-SHEET								9363708059 9363708073	
200-1	BR-SHEET-B	9351990022	9351990022	9351990022	9351990022	9351990022	9351990022	9351990022		
564	BUZZER	9701298013	9701298013	9701298013	9701298013	9701298013	9701298013	9701298013	9701298013	
540 464	BYPATH PIPE-A ASSY BYPATH PIPE-B								9363151008 9363152005	
465	CABINET-A						9362800013	9362800013	9362800013	
814 803	CABINET-B CABINET-C						9362801010 9362733007	9362801010 9362733007	9362801010 9362733007	
168	CABINET-D						9362734004	9362734004	9362734004	
287	CABINET-E						9362735001	9362735001	9362735001	
64/34 64/34	CAP (POWER) CAPACITOR (FAN MOTOR)	9352173011 9700468165	9352173011 9700468165	9352173011 9700468165	9352173011 9700468165	9352173011 9700468165				
	CAPACITOR (FAN MOTOR)						9703306068	9703306068	9703306068	
	CAPACITOR.ELEC CAPACITOR.ELEC	0301192558 0300256060	0301192558 0300256060	0301192558 0300256060	0301192558 0300256060	0301192558 0300256060	0301192558 0300256060	0301192558 0300256060	0301192558 0300256060	
	CAPACITOR.ELEC						0300256060	0300256060	0300256060	
	CAPACITOR PLASTIC	0300304099	0300304099	0300304099	0300304099	0300304099	0300304099	0300304099	0300304099	
	CAPACITOR.PLASTIC CERAMIC RESONATOR	0301052098 9701261031	0301052098 9701261031	0301052098 9701261031	0301052098 9701261031	0301052098 9701261031	0301052098 9701261031	0301052098 9701261031	0301052098 9701261031	
301	CLAMP	313985355201	313985355201	313985355201	313985355201	313985355201				
143-1 143-3	CLAMP CLAMP						313361274700 9305657001		313361274700	
143-3 430	CLAMP	313095365602	313095365602	313095365602	313095365602	313095365602		9305657001	9305657001	
187	CLAMP	313361271706	313361271706	313361271706	313361271706	313361271706	313361271706	313361271706	313361271706	
495 195	CLAMP CLAMP	9352715006 313361275805	9352715006 313361275805	9352715006 313361275805	9352715006 313361275805	9352715006 313361275805	313361275805	313361275805	313361275805	
196-2	CLAMP	313035356905		313035356905		313035356905	313035356905	313035356905	313035356905	
196-1 223	CLAMP CONTROL BOX	9359661016	9359661016	9359661016	9359661016	9359661016	312300787605	312300787605	312300787605	
223	CONTROL BOX						9362762007	9362762007	9362762007	
514	CONTROL BOX COVER	9359662006	9359662006	9359662006	9359662006	9359662006				
514 236	CONTROL BOX COVER CONTROLLER PCB ASSY	9701042074	9701042074	9701042074	9701042074	9701042074	9362763004	9362763004	9362763004	
236	CONTROLLER PCB ASSY						9701042081			
236 236	CONTROLLER PCB ASSY CONTROLLER PCB ASSY							9701042098	9701042104	
982-1	CONTROLLER PCB ASSY						9356857009	9356857009	9701042104 9356857009	
989-1	CORD CLAMP-A	9359822011	9359822011	9359822011	9359822011	9359822011				
989-2 897	CORD CLAMP-B COUPLING PIPE-A ASSY	9359823018	9359823018	9359823018	9359823018	9359823018			9366207009	
898	COUPLING PIPE-B ASSY								9363155006	
835	CUSHION RUBBER (PUMP)	0252211002	0252211002	0252011000	0252011000	0252211002	9362777001	9362777001	9362777001	
835 836	CUSHION-A.FOR PUMP CUSHION-B.FOR PUMP	9352211003 9356084016	9352211003 9356084016	9352211003 9356084016	9352211003 9356084016	9352211003 9356084016				
	DECORATION PLATE						9365652008	9365652008	9365652008	
	DIODE DIODE	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036	
	DIODE	0000746519	0000746519	0000746519	0000746519	0000746519	0000746519	0000746519	0000746519	
	DIODE MINIMOLD	0000906500	0000906500	0000906500	0000906500	0000906500	0000906500	0000906500	0000906500	
	DIODE.MINIMOLD DIODE.POWER	0000684019 0000208024	0000684019 0000208024	0000684019 0000208024	0000684019 0000208024	0000684019 0000208024	0000684019 0000208024	0000684019 0000208024	0000684019 0000208024	
	DIODE.POWER	0000689045	0000689045	0000689045	0000689045	0000689045	0000689045	0000689045	0000689045	
735	DIODE.ZENER DISTORIBUTER	0000852166	0000852166	0000852166	0000852166	0000852166	0000852166	0000852166	0000852166 9366335016	
735	DISTORIBUTER ASSY								9366204008	
127 127	DRAIN HOSE DRAIN HOSE	9359659013	9359659013	9359659013	9359659013	9359659013	9362784009	9362784009	9362784009	
160	DRAIN PAN	9359651000	9359651000	9359651000	9359651000	9359651000	9362784009			
160	DRAIN PAN ASSY						9362804004	9362804004	9362804004	
488 488	DRAIN PAN PLUG DRAIN PAN PLUG	9359653004	9359653004	9359653004	9359653004	9359653004	313005174654	313005174654	313005174654	
157	DRAIN PAN SUPPORT	9359652007	9359652007	9359652007	9359652007	9359652007				
467 467	DRAIN PORT DRAIN PORT	313005415658	313005415658	313005415658	313005415658	313005415658	9362786002	9362786002	9362786002	
467 629	EMI FILTER	0400056133	0400056133	0400056133	0400056133	0400056133	9362786003 0400056133	9362786003 0400056133	9362786003 0400056133	
629-1	EMI FILTER	0400197119	0400197119	0400197119	0400197119	0400197119	0400197119	0400197119	0400197119	
629-2 565	EMI FILTER EVA.HOLDER ASSY	0400406396	0400406396	0400406396	0400406396	0400406396	0400406396 9362802017	0400406396 9362802017	0400406396 9362802017	
146	EVAPORATOR ASSY	9360009012	9360009012	9360009012	9360009012					
146	EVAPORATOR ASSY					9360640017			0262140005	
146-1 146-1	EVAPORATOR-A ASSY EVAPORATOR-A ASSY						9364172002	9364172002	9363149005	
146-2	EVAPORATOR-B ASSY								9363150001	
825	EXPANSION VALVE FAN MOTOR ASSY-IN	9366301011	9366301011	9366301011	9366301011	9366301011 9600868010	9366301011	9366301011	9366301011	
164	I AN INO LOU AGG I-IN					9600868010	9600878019	9600878019	9600878019	
164 164	FAN MOTOR ASSY-IN			9601040019	9601040019					
164 164	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN						9362766005	9362766005	9362766005	l
164 164 93	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER		9703857010	9703857010	9703857010	9703857010				
164 164 93 875 875	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY		9703857010 	9703857010	9703857010	9703857010	9703872013	9703872013	9703872013	
164 164 93 875 875 431	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY FIXTURE-A	9703857010 313546156408	9703857010 313546156408	313546156408	313546156408	313546156408			9703872013 313546156408	
164 164 93 875 875	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY	9703857010 313546156408	9703857010 313546156408		313546156408		9703872013			
164 164 93 875 875 431 964 964	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY FIXTURE-A FLARE NUT-A FLARE NUT-B	9703857010 313546156408 313996239804 9351062019	9703857010 313546156408 313996239804 9351062019	313546156408 313996239804 9351062019	313546156408 313996239804 9351062019	313546156408 313996239804 9351062019	9703872013 313546156408 9351062019	313546156408 	313546156408	
164 164 93 875 875 431 964 964 965 479	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY FIXTURE-A FLARE NUT-A FLARE NUT-B FLOAT SWITCH	9703857010 	9703857010 	313546156408 313996239804 9351062019 313005416154	313546156408 313996239804 9351062019 313005416154	313546156408 313996239804 9351062019 313005416154	9703872013 313546156408 9351062019	313546156408 	313546156408 9357352022 	
164 164 93 875 875 431 964 964	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY FIXTURE-A FLARE NUT-A FLARE NUT-B	9703857010 313546156408 313996239804 9351062019	9703857010 313546156408 313996239804 9351062019	313546156408 313996239804 9351062019	313546156408 313996239804 9351062019	313546156408 313996239804 9351062019	9703872013 313546156408 9351062019	313546156408 	313546156408 9357352022	
164 164 93 875 875 431 964 965 479	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FILTER FILTER PCB ASSY FILTER PCB ASSY FIXTURE-A FLARE NUT-A FLARE NUT-A FLARE NUT-B FLOAT SWITCH FLOAT SWITCH	9703857010 	9703857010 313546156408 313996239804 9351062019 313005416154	313546156408 313996239804 9351062019 313005416154	313546156408 313996239804 9351062019 313005416154	313546156408 313996239804 9351062019 313005416154	9703872013 313546156408 	313546156408 	313546156408 	

Ref	Description					s No.				Ord
No.	•	AUY7TFAMF	ABY9TFAMF	ABY12TFAMF	ABY14TFAMF	ABY18TFAMF	ABY25TFAMF			Q'ty
777-1 777-2	GRILLE HOOK-A GRILLE HOOK-B						9362779012 9362778015	9362779012 9362778015	9362779012 9362778015	
472-1	GRILLE REINFORCE T-A						9362738002	9362738002	9362738002	
472-2	GRILLE REINFORCE T-B						9362739009	9362739009	9362739009	
472-3 472-5	GRILLE REINFORCE T-C GRILLE REINFORCE T-F						9362740005 9362742009	9362740005 9362742009	9362740005 9362742009	
858	GRILLE SPRING						9362755009	9362755009	9362742009	
151	HALF UNION-A	9301012002	9301012002							
150-1	HALF UNION-B	0250644000	0250644000	0250644000	0250644000	0250644000			9352768002	
484 117-3	HANGER METAL HEX.NUT W-SP.WASHER	9359644002	9359644002	9359644002	9359644002	9359644002	301721180114	301721180114	301721180114	
	HOLDER (PCB)						9364855004	9364855004	9364855004	
484	HOOK						9362736008	9362736008	9362736008	
313	HOOK WIRE HOOKING WIRE	9359983002	9359983002	9359983002	9359983002	9359983002	9363168006	9363168006	9363168006	
0.0	HYBRID IC	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	
	IC	0100462104	0100462104	0100462104	0100462104	0100462104	0100462104	0100462104	0100462104	
	IC IC	0101461120 0101846071	0101461120 0101846071	0101461120 0101846071	0101461120 0101846071	0101461120 0101846071	0101461120 0101846071	0101461120 0101846071	0101461120 0101846071	
	IC						0101525129	0101525129	0101525129	
	IC (TRANSISTOR ARRAY)	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	
325 147	INDICATOR PCB ASSY INLET PIPE (EVA) ASSY	9364751009	9364751009	9364751009	0264751000	9364751009	9704017017	9704017017	9704017017	
147	INLET PIPE (EVA) ASSY	9364751009			9364751009		9366211006	9366211006		
	INS (PIPE) A						9360295019	9360295019		
	INSULATION (LOUVER)						9363716009	9363716009	9363716009	
	INSULATION (ATR SEAL) INSULATION (DRAIN H.)	9361322004	9361322004	9361322004	9361322004	9361322004	9363265002	9363265002	9363265002	
563	INSULATION (DRAIN H.)						9362768009	9362768009	9362768009	
267-2	INSULATION (PIPE)-C			9350716029	9350716029		9350716029	9350716029	9350716029	
267-2	INSULATION (PIPE)-C	9350716036	9350716036	0352766015	0352766015	9350716036		0352766015	0352766015	
267-3 267-3	INSULATION (PIPE)-D INSULATION (PIPE)-D	9352766015	9352766015	9352766015	9352766015	9352766015	9352766022	9352766015	9352766015	
710	INTAKE GRILLE						9362767019	9362767019	9362767019	
522	JOINT GEAR					0000470040	9362772006	9362772006	9362772006	
	JOINT PIPE A JOINT PIPE A	9367367009	9367367009			9366178019				
158-1	JOINT PIPE A ASSY					9366311003				
692	JOINT SHAFT						9362771009	9362771009	9362771009	
690 326	JOINT-A JOINT.3-WAY						9362773003 9359419006	9362773003 9359419006	9362773003	
320	LABEL."R407C"						9362409001	9362409001	9362409001	
	LED						0000813235	0000813235	0000813235	
	LED						0000813242	0000813242	0000813242	
381	LED LOCKING SPACER	0000813259 313209391506	0000813259 313209391506	0000813259	0000813259 313209391506	0000813259 313209391506	0000813259 313209391506	0000813259 313209391506	0000813259 313209391506	
628	LOCKING SPACER-B	313005446558	313005446558	313005446558	313005446558	313005446558	313005446558	313005446558	313005446558	
705	LOUVER						9362769013	9362769013	9362769013	
122 847	LOUVER SUPPO.HOLDER LOUVER SUPPORTER						9362799003 9362770019	9362799003 9362770019	9362799003 9362770019	
047	MANUAL (CONSTRUCTION)	93676990018	93676990018	93676990018	93676990018	93676990018				
	MANUAL (CONSTRUCTION)						9367700011	9367700011	9367700011	
338	MOTOR FIXTURE			9359656005	9359656005	9359656005	0260764004	0260764004	0260764004	
226 338	MOTOR GEAR MOTOR HOLDER						9362764001 9362765008	9362764001 9362765008	9362764001 9362765008	
000	NETWORK.(CR ABSORBER)	0301241072	0301241072	0301241072	0301241072	0301241072	0301241072	0301241072	0301241072	
568	NOISE INSULATION						9363143003	9363143003	9363143003	
232 232	OUTLET PIPE (EVA) ASSY OUTLET PIPE (EVA) ASSY	9366171003	9366171003	9366171003	9366171003	9366171003	9366217008	9366217008		
202	PACKING CASE-BOTTOM	9359984009	9359984009	9359984009	9359984009	9359984009				
	PACKING CASE-BOTTOM						9363169003	9363169003	9363169003	
	PACKING CASE-CARTON PACKING CASE-CARTON				9366175025	9366175018				
	PACKING CASE-CARTON			9366175032						
	PACKING CASE-CARTON		9366175049							
	PACKING CASE-CARTON	9366175056							0000004000	
	PACKING CASE-CARTON PACKING CASE-CARTON							9366221043	9366221036	
	PACKING CASE-CARTON						9366221050			
	PACKING INNER-TOP						9360318015	9360318015	9360318015	
	PACKING PAD-A PACKING PAD-A	9359985006	9359985006	9359985006	9359985006	9359985006	9365611005	9365611005	9365611005	
	PACKING PAD-ANGLE						9363267006	9363267006	9363267006	
	PACKING PAD-B						9365612002	9365612002	9365612002	
	PACKING PAD-B PACKING PAD-CORNER	9360656001 9352170089	9360656001 9352170089	9360656001 9352170089	9360656001 9352170089	9360656001 9352170089				
	I AURING PAD-CURNER	2002 I / UU89	9352170089	9352170089	9352170089		9365613023	9365613023	9365613023	
	PACKING PAD-D									
	PACKING PAD-F						9365058039	9365058039	9365058039	
540	PACKING PAD-F PACKING AKID (PALLET)	9361080027	9361080027	9361080027	9361080027	9361080027	9365058039			
542 544	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE				9361080027		9365058039 9362759014	9362759014	9362759014	
542 544 545	PACKING PAD-F PACKING AKID (PALLET)	9361080027 	9361080027	9361080027		9361080027	9365058039			
544	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME	9361080027	9361080027	9361080027		9361080027	9365058039 9362759014 9362760010 9362758017 9362761017	9362759014 9362760010 9362758017 9362761017	9362759014 9362760010 9362758017 9362761017	
544 545 543	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER	9361080027 0000117074	9361080027 	9361080027 	0000117074	9361080027 0000117074	9365058039 9362759014 9362760010 9362758017	9362759014 9362760010 9362758017	9362759014 9362760010 9362758017	
544 545	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME	9361080027	9361080027	9361080027		9361080027	9365058039 9362759014 9362760010 9362758017 9362761017	9362759014 9362760010 9362758017 9362761017	9362759014 9362760010 9362758017 9362761017	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT	9361080027 	9361080027 	9361080027 	0000117074 9359646006 	9361080027 	9365058039 9362759014 9362759010 9362758017 9362761017 000117074 9362748001 0500536016	9362759014 9362760010 9362760017 9362761017 0000117074 	9362759014 9362760010 9362760017 9362761017 0000117074 	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 0500536016 050005321	9361080027 	9365058039 9362759014 9362760010 9362758017 9362761017 0000117074 	9362759014 9362760010 9362758017 9362758017 0000117074 	9362759014 9362760010 9362758017 9362758017 0000117074 	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 0500536016 050005321 0500005345	9361080027 	9365058039 	9362759014 9362760010 9362758017 9362751017 0000117074 	9362759014 9362760010 9362758017 9362751017 0000117074 	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 0500536016 050005321	9361080027 	9365058039 9362759014 9362760010 9362758017 9362761017 0000117074 	9362759014 9362760010 9362758017 9362758017 0000117074 	9362759014 9362760010 9362758017 9362758017 0000117074 	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 0500536016 050005321 0500005345 0500017742 0500011759	9361080027 	9365058039 9362759014 9362758017 9362761017 9000117074 9362748001 5000536016 5000005321 0500005345 0500006069 0500011742 05000117759	9362759014 9362760010 9362758017 9362761017 9362761017 9362748001 9362748001 950000536016 9500005321 9500005345 9500001742 9500011742	9362759014 9362760010 9362758017 9362761017 9362761017 9362748001 9362748001 950000536016 9500005321 9500005345 95000017742	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 	9361080027 	9365058039	3962759014 9362760010 9362758017 9362758017 9362761017 0000117074 	3962759014 9362760010 9362758017 9362758017 9362748001 05000536016 0500005321 0500005345 05000117742 0500011779 0500011779	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 0500536016 050005321 0500005345 0500017742 0500011759	9361080027 	9365058039 9362759014 9362758017 9362761017 9000117074 9362748001 5000536016 5000005321 0500005345 0500006069 0500011742 05000117759	9362759014 9362760010 9362758017 9362761017 9362761017 9362748001 9362748001 950000536016 9500005321 9500005345 9500001742 9500011742	9362759014 9362760010 9362758017 9362761017 9362761017 9362748001 9362748001 950000536016 9500005321 9500005345 95000017742	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 05000536016 0500005321 0500005345 05000011742 0500011779 0500011773 0500011827 0500957026	9361080027 	9365058039 9362759014 9362760010 9362758017 9362761017 0000117074 	9362759014 9362759010 9362758017 9362758017 9362748011 05000536016 0500005321 0500005325 0500011772 0500011773 0500011773 0500011827 0500951048	9362759014 9362760010 9362758017 9362761017 9362748001 05000536016 0500005321 0500005345 0500011774 0500011773 0500011775 0500011827 0500051048	
544 545 543 244	PACKING PAD-F PACKING AKIN() PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 05000536016 0500005321 05000005345 0500001742 0500011773 0500011773 0500011827 	9361080027 	9365058039 9362759014 9362760010 9362758017 9362761017 0000117074 9362748001 0500536016 0500005345 0500006069 0500011742 0500011779 0500011779 0500011827 0500951048	9362759014 9362760010 9362758017 9362761017 9362748001 9362748001 950036016 050003631 0500005345 05000011772 0500011773 0500011827 0500051045012	9362759014 9362760010 9362758017 9362761017 9362761017 9362748001 950036016 0500005321 0500005321 0500001772 0500011773 0500011827 0500011827 0500011827	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 0500536016 0500053615 0500005345 050000669 0500011742 0500011779 0500011827 0500057026 0501045012 0501045012	9361080027 	9365058039	9362759014 9362750010 9362758017 9362751017 0000117074 	9362759014 9362750010 9362758017 9362761017 0000117074 	
544 545 543 244	PACKING PAD-F PACKING AKIN() PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB PLUG.PWB	9361080027 	9361080027 	9361080027 	0000117074 9359646006 05000536016 0500005321 05000005345 0500001742 0500011773 0500011773 0500011827 	9361080027 	9365058039 9362759014 9362760010 9362758017 9362761017 0000117074 9362748001 0500536016 0500005345 0500006069 0500011742 0500011779 0500011779 0500011827 0500951048	9362759014 9362760010 9362758017 9362761017 9362748001 9362748001 950036016 050003631 0500005345 05000011772 0500011773 0500011827 0500051045012	9362759014 9362760010 9362758017 9362761017 9362761017 9362748001 950036016 0500005321 0500005321 0500001772 0500011773 0500011827 0500011827 0500011827	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB	9361080027	9361080027	9361080027 	0000117074 9359646006 	9361080027	9365058039	3962759014 9362750010 9362758017 9362758017 9362761017 9000117074 	9362759014 9362750010 9362758017 9362758017 9362761017 9000117074 	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB	9361080027	9361080027 	9361080027 9361080027 9361080027 9359646006 05000536016 0500005345 0500005345 05000011773 0500011773 0500011773 0500011827 0500957026 0501045013 0501045043 0501045043 0501045210 0501045210	0000117074 9359646006 05000536016 0500005321 0500005321 0500006069 0500011772 0500011773 0500011773 0500011827 05000145013 050104500 050104500 0501045010	9361080027 	9365058039	39362759014 9362758017 9362758017 9362758017 9362748001 05000336016 0500005321 0500005321 05000011773 0500011773 0500011773 0500011827 0501045012 0501045012 0501045012 0501045012 0501045012 0501045210	9362759014 9362759014 9362760010 9362758017 9362748017 9362748001 0500536016 0500005321 0500005345 05000011772 0500011773 0500011773 0500011827 0501045012 0501045012 050104502 0501045012 0501045012 0501045210 0501045217	
544 545 543 244	PACKING PAD-F PACKING AKID (PALLET) PANEL BASE PANEL BASE HOLDER PANEL FRAME PANEL FRAME HOLDER PHOTO COUPLER PIPE COVER PIPE COVER PLUG CONTACT PLUG.PWB	9361080027	9361080027	9361080027 	0000117074 9359646006 	9361080027	9365058039	3962759014 9362750010 9362758017 9362758017 9362761017 9000117074 	9362759014 9362750010 9362758017 9362758017 9362761017 9000117074 	

Ref No.	Description	ALIVATEARA	ARVOTEARS	ARVIOTEARE		S No.	ARVOSTEANS	ARVOOTEARE	ABV26TFAME	Ord
No. 460-1	PUMP COVER-A	AUY7TFAMF	ABY9TFAMF	ABY IZIFAMF	ABY 141FAMF	ABY18TFAMF	9362775007	9362775007	9362775007	Q'ty
460-2	PUMP COVER-B						9362776004	9362776004	9362776004	
798	PUMP HOOK BRACKET	9359650003	9359650003	9359650003	9359650003	9359650003				
798	PUMP HOOK BRACKET						9362753005	9362753005	9362753005	
482	PUMP UNIT	9359974000	9359974000	9359974000	9359974000	9359974000	0700405040	0700405040	0700405040	
482 457	PUMP UNIT REINFORCEMENT						9703125010 9362757003	9703125010 9362757003	9703125010 9362757003	
337-1	REINFORCEMENT (EVA)-A						9362749008	9362749008	9362749008	
337-2	REINFORCEMENT (EVA)-B						9362750004	9362750004	9362750004	
	RELAY	9701316014	9701316014	9701316014	9701316014	9701316014				
	RELAY	9701566013	9701566013	9701566013	9701566013	9701566013	9701566013	9701566013	9701566013	
	RELAY.SOLID RELAY.SOLID	0701000010	0701000010	0701000010	9701829019	9701829019	9701653010	9701653010	9701653010	
	RESISTOR.CHIP	9701829019 0200306667	9701829019 0200306667	9701829019 0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	
	RESISTOR.CHIP	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	
	RESISTOR.CHIP	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	
	RESISTOR.CHIP	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	
	RESISTOR.CHIP	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	
	RESISTOR.CHIP RESISTOR.CHIP	0201010648 0201010747	0201010648 0201010747	0201010648 0201010747	0201010648 0201010747	0201010648 0201010747	0201010648 0201010747	0201010648 0201010747	0201010648 0201010747	
	RESISTOR.CHIP	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	
	RESISTOR.CHIP	0201011010	0201011010	0201011010	0201011010	0201011010	0201011010	0201011010	0201011010	
	RESISTOR.WIRING	0200244372	0200244372	0200244372	0200244372	0200244372	0200244372	0200244372	0200244372	
472-4	RFM (GRILLE) D						9362741002	9362741002	9362741002	
67	RUBBER			9361279001	9361279001	9361279001				
185 17-1	RUBBER BUSHING RUBBER (DISCHA.PIPE)	9364122014 313194159807	9364122014 313194159807	9364122014 313194159807	9364122014 313194159807	9364122014 313194159807	212104150907	313194159807	313194159807	
67	RUBBER (VIB.PROOF)	313194159607	313194159607	313194159607	313194159607	313194159607	313194159807 9362783002	9362783002	9362783002	
478	SENSOR M.BRACKET	9359654001	9359654001	9359654001	9359654001	9359654001				
138	SEPARATE WALL						9362737005	9362737005	9362737005	
138	SEPARATE WALL-A	9359647003	9359647003	9359647003	9359647003	9359647003				
470	SEPARATE WALL-B	9359648000	9359648000	9359648000	9359648000	9359648000				
797	SEPARATE WALL-C	9359649007	9359649007	9359649007	9359649007	9359649007	0702700010	0702700010	0709709040	
599	SIGNAL PCB ASSY SOCKET.PWB	9703728013 0500296033	9703728013 0500296033	9703728013 0500296033	9703728013 0500296033	9703728013 0500296033	9703728013 0500296033	9703728013 0500296033	9703728013 0500296033	
476-1	SPECIAL NUT M8	313005360755	313005360755	313005360755		313005360755				
155	SPECIAL NUT M6						9307615016	9307615016	9307615016	
468	SPECIAL NUT-A (LARGE)	313005446653	313005446653			313005446653	313005446653	313005446653	313005446653	1
469	SPECIAL NUT-B (SMALL)	313005446759	313005446759	313005446759	313005446759	313005446759	313005446759	313005446759	313005446759	
476-2	SPECIAL WASHER	301801185049	301801185049		301801185049					
476-3	SPECIAL WASHER	9359954002	9359954002	9359954002	9359954002	9359954002	0000750000	0000750000	0000750000	
476-2	SPECIAL WASHER SPECIAL WASHER	212206201007	212206201007	212206201007	313306391007	313306391007	9362756006	9362756006	9362756006	
117-3 876-2	STEP MOTOR	313306391007	313306391007	313306391007	313306391007	313306391007	9360307019	9360307019	9360307019	
909	STRAINER A								9365457009	
909	STRAINER B						9365456002	9365456002		
	STRAINER D						9365450000	9365450000	9365450000	
997	STRAINER G	9365455005	9365455005	9365455005	9365455005	9365455005				
395	SUPPORTER (EVA)	9359669005	9359669005	9359669005	9359669005	9359669005				
411	SUPPORTER-A SWITCH.PUSH	9359655008 9700450016	9359655008 9700450016	9359655008 9700450016	9359655008 9700450016	9359655008 9700450016	9700450016	9700450016	9700450016	
	SWITCH.ROTARY	9701694013	9701694013	9701694013	9700430010	9701694013	9701694013	9700430018	9700430018	
	SWITCH.SLIDE	9701393015	9701393015	9701393015	9701393015	9701393015	9701393015	9701393015	9701393015	
	TEMPLATE	9360256003	9360256003	9360256003	9360256003	9360256003				
	TEMPLATE						9363173000	9363173000	9363173000	
541	TERMINAL PLATE						9363642001	9363642001	9363642001	
815-2	TERMINAL 3P						9703345012	9703345012	9703345012	
815 815	TERMINAL 4P TERMINAL 7P	9703403057	9703403057	9703403057	9703403057	9703403057	9306488055	9306488055	9306488055	
652-1	THERM.HOLDER PIPE	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	
918	THERMISTOR ASSY	9703756016	9703756016	9703756016	9703756016	9703756016	9703756016	9703756016	9703756016	
234	THERMISTOR ASSY-ROOM						9703299025	9703299025	9703299025	
234	THERMISTOR ASSY-ROOM	9703299032	9703299032	9703299032	9703299032	9703299032				
234	THERMISTOR ASSY-ROOM						9703299094	9703299094	9703299094	
234 163-2/184-1	THERMISTOR ASSY-ROOM THERMO.SPRING-A	9703299100	9703299100	9703299100	9703299100	9703299100	212700060700	212700060700	212700060700	
462	TOP COVER PLATE	313728262708 9359642015	313728262708 9359642015	9359642015	313728262708 9359642015	313728262708 9359642015	313728262708	313728262708	313728262708	
462	TOP COVER PLATE						9362806015	9362806015	9362806015	
	TRANSFORMER (SWITCHG)	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	
	TRANSISTOR	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	
	TRANSISTOR	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	
	TRANSISTOR	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053	
	TRANSISTOR TURBO FAN	0000936033 9359658009	0000936033 9359658009	0000936033 9359658009	0000936033 9359658009	0000936033 9359658009	0000936033	0000936033	0000936033	
474	TURBO FAN ASSY						9362803014	9362803014	9362803014	
475	TURBO FAN RUBBER	9366013006	9366013006	9366013006	9366013006	9366013006				
	VARISTOR	0000038010	0000038010	0000038010	0000038010	0000038010	0000038010	0000038010	0000038010	
l l	VARISTOR (ARRESTER)	0600168032	0600168032	0600168032	0600168032	0600168032	0600168032	0600168032	0600168032	
197	WIND GUIDE BOARD						9363117004	9363117004	9363117004	
253-	WIRE ASSY						9703251016	9703251016	9703251016	
253-	WIRE ASSY WIRE ASSY 2P	9702080013	9702080013	9702080013	9702080013	9702080013	9703757044	9703757044	9703757044	
253- 253-	WIRE ASSY (CAPACITOR)		9702060013	9702060013		9702080013	9703254017	9703254017	9703254017	
253-	WIRE ASSY (COMMUNICAT)	9703757013	9703757013	9703757013	9703757013	9703757013				
	WIRE ASSY (CONNECTOR)	9702262013	9702262013	9702262013	9702262013	9702262013				
l	WIRE ASSY (CONNECTOR)	9702263010	9702263010	9702263010	9702263010	9702263010				
253-	WIRE ASSY (CONNECTOR)	0700005611	0700005011	0700005011	0700065014	0700005011	9702264017	9702264017	9702264017	
	WIRE ASSY (CONNECTOR)	9702265014	9702265014	9702265014	9702265014	9702265014				
	WIRE ASSY (CONNECTOR) WIRE ASSY (CONNECTOR)	9702290016 9702291013	9702290016 9702291013	9702290016 9702291013	9702290016 9702291013	9702290016 9702291013				
253-	WIRE ASSY (CONNECTOR)						9703258015	9703258015	9703258015	
253-	WIRE ASSY (CONNECTOR)						9703260018	9703260018	9703260018	
253-	WIRE ASSY (CONNECTOR)	9703301018	9703301018	9703301018	9703301018	9703301018				
253-	WIRE ASSY (CONNECTOR)	9703875014	9703875014	9703875014	9703875014	9703875014	9703875014	9703875014	9703875014	
253-	WIRE ASSY (FAN.CAPA.)	9701951017	9701951017	9701951017	9701951017	9701951017				
253-	WIRE ASSY (FLOAT SW)						9703256011	9703256011	9703256011	
253-	WIRE ASSY (REMOTE)						9703267017	9703267017	9703267017	
253-	WIRE ASSY (STEP MO.) WIRE ASSY	9702313036	9702313026	9702313036	9702313036	9702313036	9703255014	9703255014	9703255014	
		9702313036	9702313036	9702313036	9702313036	9702313036	9702313043	9702313043	9702313043	
253-1 253-1	WIRE ASSY									I
253-1	WIRE ASSY WIRE COVER	9359878001	9359878001	9359878001	9359878001	9359878001				
	WIRE ASSY WIRE COVER WIRE COVER-A	9359878001	9359878001	9359878001	9359878001	9359878001	9362789004	9362789004	9362789004	
253-1 834	WIRE COVER	9359878001	9359878001	9359878001	9359878001	9359878001				
253-1 834 834-1	WIRE COVER WIRE COVER-A	9359878001 9703542015	9359878001 9703542015	9359878001 9703542015	9359878001 9703542015	9359878001	9362789004	9362789004	9362789004	

Ref			Parts No.		Ord	Ref			Parts No.	I	Ord
No.	Description	AUY45TFAMF	ARY54TFAMF	AUY20TFAMF	Q'ty		Description	AUY45TFAMF			Q'ty
236	CONTROLLER PCB ASSY	9703843013					HOLDER	9364855004	9364855004	9364855004	\neg
236	CONTROLLER PCB ASSY		9703844010			484	HOOK	9362736008	9362736008	9362736008	
236	CONTROLLER PCB ASSY			9703849015			HOOK WIRE	9363168006	9363168006	9363168006	
177	BELL-MOUTH (B)	9362774000	9362774000	9362774000			HYBRID IC	0100335019	0100335019	0100335019	
199	BR SHEET			9363708028			IC	0100462104	0100462104	0100462104	
199-2	BR SHEET			9363708035			IC	0101461120	0101461120	0101461120	
199-	BR SHEET	9363708042	9363708042				IC	0101846071	0101846071	0101846071	
199-	BR SHEET	9363708059	9363708059				IC	0101525129	0101525129	0101525129	
199-1	BR SHEET	9363708073	9363708073	005100000		005	IC (TRANSISTOR ARRAY)	0100028041	0100028041	0100028041	
200-1	BR SHEET-B		9701298013	9351990022		385 147	INDICATOR PCB ASSY	9704017017	9704017017	9704017017	
564	BUZZER BYPATH PIPE-A ASSY	9701298013 9363151008	9363151008	9701298013		147	INLET PIPE (EVA) ASSY INS (PIPE) A			9366211006 9360295019	
540	BYPATH PIPE-B	9363151006	9363151006				INSULATION (LOUVER)	9363716009	9363716009	9363716009	
464	CABINET-A	9362800013	9362800013	9362800013			INSULATION (AIR SEAL)	9363265002	9363265002	9363265002	
465	CABINET-B	9362801010	9362801010	9362801010			INSULATION (INNER BOX)	9362768009	9362768009	9362768009	
814	CABINET-C	9362733007	9362733007	9362733007			INSULATION (PIPE)-C	9350716029	9350716029	9350716029	
803	CABINET-D	9362734004	9362734004	9362734004			INSULATION (PIPE)-D	9352766015	9352766015		
168	CABINET-E	9362735001	9362735001	9362735001			INSULATION (PIPE)-D			9352766022	
64/34	CAPACITOR (FAN MOTOR)	9703306068	9703306068	9703306068		710	INTAKE RILLE	9362767019	9362767019	9362767019	
	CAPACITOR.ELEC	0301192558	0301192558	0301192558		522	JOINT GEAR	9362772006	9362772006	9362772006	
	CAPACITOR.ELEC	0300256060	0300256060	0300256060		692	JOINT SHAFT	9362771009	9362771009	9362771009	
	CAPACITOR.ELEC	0300478288	0300478288	0300478288		690	JOINT-A	9362773003	9362773003	9362773003	
	CAPACITOR.PLASTIC	0300304099	0300304099	0300304099	l	326	JOINT.3-WAY			9359419006	
	CAPACITOR.PLASTIC	0301052098	0301052098	0301052098	l	1	LABEL."R407C"	9362409001	9362409001	9362409001	
	CERAMIC RESONATOR	9701261031	9701261031	9701261031			LED	0000813235	0000813235	0000813235	
143-1	CLAMP		313361274700				LED	0000813242	0000813242	0000813242	
143-3	CLAMP	9305657001	9305657001	9305657001	l		LED	0000813259	0000813259	0000813259	
187	CLAMP		313361271706			381	LOCKING SPACER	313209391506		313209391506	
195	CLAMP	313361275805			l	628	LOCKING SPACER-B	313005446558		313005446558	
196-2	CLAMP	313035356905				705	LOUVER	9362769013	9362769013	9362769013	
196-1	CLAMP	312300787605				122	LOUVER SUPPO.HOLDER	9362799003	9362799003	9362799003	
223	CONTROL BOX	9362762007	9362762007	9362762007		847	LOUVER SUPPORTER	9362770019	9362770019	9362770019	
514	CONTROL BOX COVER	9362763004	9362763004	9362763004			MANUAL (CONSTRUCTION)	9367700011	9367700011	9367700011	
236	CONTROLLER PCB ASSY	9701042111				226	MOTOR GEAR	9362764001	9362764001	9362764001	
236	CONTROLLER PCB ASSY		9701042128			338	MOTOR HOLDER	9362765008	9362765008	9362765008	
236	CONTROLLER PCB ASSY			9701042173			NET WORE. (CR ABSOF	0301241072	0301241072	0301241072	
982-1	CORD CLAMP	9356857009	9356857009	9356857009		568	NOISE INSULATION	9363143003	9363143003	9363143003	
897	COUPLING PIPE-A ASSY	9366207009	9366207009			232	OUTLET PIPE (EVA) ASSY			9366217008	
898	COUPLING PIPE-B ASSY	9363155006	9363155006				PACKING CASE-BOTTOM	9363169003	9363169003	9363169003	
835	CUSHION RUBBER (PUMP)	9362777001	9362777001	9362777001			PACKING CASE-CARTON		9366221012		
61	DECORATION PLATE	9365652008	9365652008	9365652008			PACKING CASE-CARTON	9366221029		0000001007	
	DIODE	0000353120	0000353120 0000625036	0000353120			PACKING CASE-CARTON	0260210015	0260210015	9366221067	
	DIODE DIODE	0000625036 0000746519	0000625036	0000625036 0000746519			PACKING INNER-TOP PACKING PAD-A	9360318015 9365611005	9360318015 9365611005	9360318015 9365611005	
	DIODE	0000746519	0000746519	0000746519			PACKING PAD-ANGLE	9363267006	9363267006	9363267006	
	DIODE.MINIMOLD	0000906300	0000906300	0000906300			PACKING PAD-ANGLE	9365612002	9365612002	9365612002	
	DIODE.POWER	0000084019	0000084019	0000084019			PACKING PAD-D	9365613023	9365613023	9365613023	
	DIODE.POWER	0000689045	0000689045	0000689045			PACKING PAD-F	9365058039	9365058039	9365058039	
	DIODE ZENER	0000582166	0000582166	0000582166		542	PANEL BASE	9362759014	9362759014	9362759014	
735	DISTRORIBUTER	9366335016	9366335016			544	PANEL BASE HOLDER	9362760010	9362760010	9362760010	
735	DISTRORIBUTER ASSY	9366204008	9366204008			545	PANEL FRAME	9362758017	9362758017	9362758017	
127	DRAIN HOSE	9362784009	9362784009	9362784009		543	PANELFRAME HOLDER	9362761017	9362761017	9362761017	
160	DRAIN PAN ASSY	9362804004	9362804004	9362804004			PHOTO COUPLER	0000117074	0000117074	0000117074	
488	DRAIN PAN PLUG	313005174654	313005174654	313005174654		244	PIPE COVER	9362748001	9362748001	9362748001	
467	DRAIN PORT	9362786003	9362786003	9362786003	l	1	PLUG CONTACT	0500536016	0500536016	0500536016	
629	EMI FILTER	0400056133	0400056133	0400056133	l		PLUG.PWB	0500005321	0500005321	0500005321	
629-1	EMI FILTER	0400197119	0400197119	0400197119	l		PLUG.PWB	0500005345	0500005345	0500005345	
629-2	EMI FILTER	0400406396	0400406396	0400406396	l		PLUG.PWB	0500006069	0500006069	0500006069	
565	EVA.HOLDER ASSY	9362802017	9362802017	9362802017			PLUG.PWB	0500011742	0500011742	0500011742	
146-1	EVAPORATOR-A ASSY	9363149005	9363149005				PLUG.PWB	0500011759	0500011759	0500011759	
146-1	EVAPORATOR-A ASSY			9364172002	l		PLUG.PWB	0500011773	0500011773	0500011773	
146-2	EVAPORATOR-B ASSY	9363150001	9363150001		l		PLUG.PWB	0500011827	0500011827	0500011827	
825	EXPANSION VALVE	9366301011	9366301011	9366301011			PLUG.PWB	0500951048	0500951048	0500951048	
164	FAN MOTOR ASSY-IN	9600878019	9600878019	9600878019	l		PLUG.PWB	0501045012	0501045012	0501045012	
93	FILTER	9362766005	9362766005	9362766005	l		PLUG.PWB	0501045043	0501045043	0501045043	
875	FILTER PCB ASSY	9703872013	9703872013	9703872013	l		PLUG.PWB	0501045050	0501045050	0501045050	
431	FIXTURE-A	313546156408		313546156408			PLUG.PWB	0501045074	0501045074	0501045074	
964	FLARE NUT-A	9357352022	9357352022				PLUG.PWB	0501045210	0501045210	0501045210	
965	FLARE NUT-B	0700005004	0700005004	9351062019	l	1	PLUG.PWB	0501045227	0501045227	0501045227	
479	FLOAT SWITCH	9703285004	9703285004	9703285004	l	1	PLUG.PWB	0501045319	0501045319	0501045319	
824-3	FUSE	0600222512	0600222512	0600222512	l	400 4	PLUG.PWB	0501045357	0501045357	0501045357	
487	FUSE HOLDER	0500158072	0500158072	0500158072		460-1	PUMP COVER-A	9362775007	9362775007	9362775007	
	GRILLE HINGE WIRE GRILLE HOOK HOLDER	9362754002 9362782005	9362754002	9362754002	l	460-2 798	PUMP COVER-B	9362776004	9362776004	9362776004	
71 777-1	GRILLE HOOK HOLDER GRILLE HOOK-A	9362782005 9362779012	9362782005 9362779012	9362782005	l		PUMP HOOK BRACKET PUMP UNIT	9362753005	9362753005	9362753005 9703125010	
777-1 777-2	GRILLE HOOK-A GRILLE HOOK-B	9362779012	9362779012	9362779012	l	482 457	REINFORCEMENT	9703125010 9362757003	9703125010		
472-2	GRILLE REINFORCE T-A	9362778015	9362778015	9362778015 9362738002		337-1	REINFORCEMENT (EVA)-A	9362757003	9362757003 9362749008	9362757003 9362749008	
472-2 472-3	GRILLE REINFORCE T-A	9362738002	9362738002	9362738002	l	337-1	REINFORCEMENT (EVA)-A	9362749008	9362749008	9362750004	
472-3 472-5	GRILLE REINFORCE T-B	9362740005	9362739009	9362740005	l	337-2	RELAY	9701566013	9701566013	9701566013	
858	GRILLE REINFORCE T-E	9362740005	9362740005	9362742009	l		RELAY.SOLID	9701653010	9701653010	9701653010	
150-1	GRILLE SPRING	9362742009	9362742009	9362742009			RESISTOR.CHIP	0200306667	0200306667	0200306667	
130-1	HALF UNION-B	9352768002	9352768002	9362755009			RESISTOR.CHIP	0200306667	0200306667	020030667	
117-3	HEX.NUT W/SP.WASHER	301721180114			l	1	RESISTOR.CHIP	0201010013	0201010013	0200230027	
∪			-3	-3			0.0.0			0.0.0010	

Models: AUY45TFAMF,ARY54TFAMF AUY20TFAMF

Ref			Parts No.		Ord	Ref		ī	Parts No.		Ord
No.	Description	AUY45TFAMF		AUY20TFAMF	Q'ty	No.	Description	AUY45TFAMF		AUY20TFAMF	
	RESISTOR.CHIP	0201010426	0201010426	0201010426	,						
	RESISTOR.CHIP	0201010501	0201010501	0201010501							
	RESISTOR.CHIP	0201010648	0201010648	0201010648							
	RESISTOR.CHIP	0201010747	0201010747	0201010747							
	RESISTOR.CHIP	0201010907	0201010907	0201010907							
	RESISTOR.CHIP	0201011010	0201011010	0201011010							
	RESISTOR.WIRING	0200244372	0200244372	0200244372							
472-4	REM (GRILLE) D	9362741002	9362741002	9362741002							
Jan-47	RUBBER (DISCHA.PIPE)	313194159807	313194159807	313194159807							
67	RUBBER (VIB.PROOF)	9362783002	9362783002	9362783002							
138	SEPARATE WALL	9362737005	9362737005	9362737005							
599	SIGNAL PCB ASSY	9703728013	9703728013	9703728013							
	SOCKET.PWB	0500296033	0500296033	0500296033							
155	SPECIAL NUT M6	9307615016	9307615016	9307615016							
468	SPECIAL NUT-A (LARGE)	313005446653	313005446653	313005446653							
469	SPECIAL NUT-B (SMALL)	313005446759	313005446759	313005446759							
476-2	SPECIAL WASHER	9362756006	9362756006	9362756006							
876-2	STEP MOTOR	9360307019	9360307019	9360307019							
909	STRAINER A	9365457009	9365457009								
909	STRAINER B	0005450000	0005450000	9365456002							
997	STRAINER D	9365450000	9365450000	9365450000							
	SWITCH PATARY	9700450016	9700450016	9700450016							
	SWITCH.RATARY SWITCH.SLIDE	9701694013	9701694013	9701694013							
	TEMPLATE	9701393015 9363173000	9701393015 9363173000	9701393015 9363173000							
541	TERMINAL PLATE	9363642001	9363642001	9363642001							
815-2	TERMINAL FLATE	9703345012	9703345012	9703345012							
815	TERMINAL 4P	9306488055	9306488055	9306488055							
652-1	THERM.HOLDER PIPE	313806262805	313806262805	313806262805							
918	THERMISTOR ASSY	9703756016	9703756016	9703756016							
234	THERMISTOR ASSY-ROOM	9703299025	9703299025	9703299025							
235	THERMISTOR ASSY-ROOM	9703299094	9703299094	9703299094							
163-2/184-1	THERMO.SPRING-A	313728262708	313728262708	313728262708							
462	TOP COVER PLATE	9362806015	9362806015	9362806015							
	TRANSFORMER (SWITCHG)	9702727017	9702727017	9702727017							
	TRANSISTOR	0000164047	0000164047	0000164047							
400	TRANSISTOR	0000699235	0000699235	0000699235							
	TRANSISTOR	0000781053	0000781053	0000781053							
	TRANSISTOR	0000936033	0000936033	0000936033							
474	TURBO FAN ASSY	9362803014	9362803014	9362803014							
	VARISTOR	0000038010	0000038010	0000038010							
	VARISTOR	0600168032	0600168032	0600168032							
197	WIND GUIDE BOARD	9363117004	9363117004	9363117004							
253-	WIRE ASSY	9703251016	9703251016	9703251016							
253-	WIRE ASSY	9703757044	9703757044	9703757044							
253-	WIRE ASSY (CAPACITOR)	9703254017	9703254017	9703254017							
253-	WIRE ASSY (CONNECTOR)	9702264017	9702264017	9702264017							
253-	WIRE ASSY (CONNECTOR)	9703258015	9703258015	9703258015							
253-	WIRE ASSY (CONNECTOR)	9703260018	9703260018	9703260018							
252	WIRE ASSY (CONNECTOR)	9703875014	9703875014	9703875014							
253- 253-	WIRE ASSY (FLOAT SW)	9703256011 9703267017	9703256011 9703267017	9703256011 9703267017							
253- 253-	WIRE ASSY (REMOTE) WIRE ASSY (STEP MO.)	9703257017	9703257017	9703257017							
253- 253-1	WIRE ASSY (STEP MO.)	9703255014	9703255014	9703255014							
253-1 834-1	WIRE COVER-A	9362789004	9362789004	9362789004							
384-2	WIRE COVER-A	9362788007	9362788007	9362788007							
253	WIRE WITH CONNECTOR	9704004017	9704004017	9704004017							
-00	XTAL.RESONATOR	9703542015	9703542015	9703542015							

Models: ARY7TFAMF,ARY9TFAMF.ARY12TFAMF,ARY18TFAMF ARY25TFAMF,ARY30TFAMF,ARY36TFAMF,ARY45TFAMF

Ref	Description	AD)/77F	ADVATE	ADVIOTE		S No.	ADVOOTE	ADVOCTE	ADV/CTC
No.	·	ARY7TFAMF	ARY9TFAMF	9703845017		ARY25TFAMF	ARY30TFAMF	ARY36TFAMF	ARY45TFAMF
236 236	CONTROLLER PCB ASSY CONTROLLER PCB ASSY	9703845017	9703845017	9703845017	9703845017	9703846014			
236	CONTROLLER PCB ASSY						9703847011	9703847011	9703847011
833	AUXILIARY PIPE ASSY							9357038001	9357038001
108	BASE ASSY					9356518009	9356518009	9356518009	9356518009
653-1	BOLT.(F.MOTOR FIXG)	0700156014	0700156014	0700156014	0700156014	0700156014	0700156014	0700156014	0700156014
967	BONNET-B				313045417959		313045417959		
199-2	BR SEAT					313917108204	313917108204	313917108204	313917108204
199-2	BR SHEET							313414108209	313414108209
199-1	BR SHEET					313612108209			
199	BR SHEET					9363708028			
199-2	BR SHEET	9363708035	9363708035	9363708035	9363708035				
199-1	BR SHEET	9363708073	9363708073	9363708073	9363708073				
200-1	BR SHEET-B	9351990022	9351990022	9351990022	9351990022	9351990022			
200-1	BR SHEET-B						9351990077	9351990077	9351990077
200-1	BR SHEET-B	9363708103	9363708103	9363708103	9363708103				
394	BRACKET PANEL (PIPE)					9366295006	9366295006	9366295006	9366295006
986	BUSHING	9358230015	9358230015	9358230015	9358230015				
986	BUSHING	9364788005	9364788005	9364788005	9364788005				
	BUZZER	9701298013	9701298013	9701298013	9701298013	9701298013	9701298013	9701298013	9701298013
64	CABINET-LEFT					9356551006	9356551006	9356551006	9356551006
69	CABINET-RIGHT					9356547009	9356547009	9356547009	9356547009
287	CAP (POWER)	9352173011	9352173011	9352173011	9352173011	9352173011	9352173011	9352173011	9352173011
64/34	CAPACITOR (FAN MOTOR)	9357965017	9357965017	9357965017	9357965017				
64/34	CAPACITOR (FAN MOTOR)						9700468035	9700468035	
64/34	CAPACITOR (FAN MOTOR)								9700468042
64/34	CAPACITOR (FAN MOTOR)					9703306020			
	CAPACITOR.ELEC	0301192558	0301192558	0301192558	0301192558	0301192558	0301192558	0301192558	0301192558
	CAPACITOR.ELEC	0300256060	0300256060	0300256060	0300256060	0300256060	0300256060	0300256060	0300256060
	CAPACITOR.PLASTIC	0300304099	0300304099	0300304099	0300304099	0300304099	0300304099	0300304099	0300304099
	CAPACITOR.PLASTIC	0301052098	0301052098	0301052098	0301052098	0301052098	0301052098	0301052098	0301052098
105	CARTON ACSRY			9364220000	9364220000				
109	CASING ASSY					9356527001	9356527001	9356527001	9356527001
109	CASING ASSY	9363322002	9363322002	9363322002	9363322002				
	CERAMIC RESONATOR	9701261031	9701261031	9701261031	9701261031	9701261031	9701261031	9701261031	9701261031
143-1	CLAMP	313361274700	313361274700	313361274700	313361274700		313361274700		313361274700
143-3	CLAMP					9305657001	9305657001	9305657001	9305657001
187	CLAMP					313361271706	313361271706	313361271706	313361271706
195	CLAMP	313361275805	313361275805	313361275805	313361275805	313361275805	313361275805	313361275805	313361275805
196-2	CLAMP	313035356905	313035356905	313035356905	313035356905	313035356905	313035356905	313035356905	313035356905
223	CONTROL BOX	9366299004	9366299004	9366299004	9366299004				
455	CONTROL BOX A					9366298007	9366298007	9366298007	9366298007
514	CONTROL BOX COVER	9363201000	9363201000	9363201000	9363201000				
455	CONTROL BOX D					9356562002	9356562002	9356562002	9356562002
448	CONTROL BOX METAL-B					9356560008	9356560008	9356560008	9356560008
956	CONTROL BOX METAL-F					9356900002	9356900002	9356900002	9356900002
236	CONTROLLER PCB ASSY	9701042135	9701042135	9701042135	9701042135				
236	CONTROLLER PCB ASSY					9701042142			
236	CONTROLLER PCB ASSY						9701042159	9701042159	9701042159
625	CORD BUSHING	9359240006	9359240006	9359240006	9359240006				
982-1	CORD CLAMP	9356857009	9356857009	9356857009	9356857009				
982-2	CORD CLAMP-B	9356858006	9356858006	9356858006	9356858006				
Feb-36	CORD HOLDER METAL					9356362008	9356362008	9356362008	9356362008
329	COUPLING PIPE ASSY							9366676003	9366676003
329	COUPLING PIPE ASSY						9366677000		
329	COUPLING PIPE ASSY					9366678007			
464	COVER (CABINET)	9363325003	9363325003						
464	COVER (CABINET)			9363400007	9363400007				
	DIODE	0000353120	0000353120	0000353120	0000353120	0000353120	0000353120	0000353120	0000353120
	DIODE	0000625036	0000625036	0000625036	0000625036	0000625036	0000625036	0000625036	0000625036
	DIODE	0000746519	0000746519	0000746519	0000746519	0000746519	0000746519	0000746519	0000746519
	DIODE	0000906500	0000906500	0000906500	0000906500	0000906500	0000906500	0000906500	0000906500
	DIODE.MINIMOLD	0000684019	0000684019	0000684019	0000684019	0000684019	0000684019	0000684019	0000684019
	DIODEPOWER		0000004013	0000004010	0000004013	0000004010	0000004010	0000004010	0000004013
	DIODEPOWER	0000200024	0000200024	0000200024	0000200024	0000200024	0000200024	0000200024	0000200024
	DIODE.ZENER	0000852166	00000852166	0000852166	00000852166	0000852166	0000852166	0000852166	00000852166
735-1	DISTRIBUTOR						9304394006		
735	DISTRIBUTOR ASSY					9364766003			
735	DISTRIBUTOR ASSY						9364772004		
735	DISTRIBUTOR ASSY							9364776002	9364776002
764	DRAIN CAP					9356541007	9356541007	9356541007	9356541007
160	DRAIN CAP	9363324006	9363324006						
160	DRAIN PAN			9363405002	9363405002				
160	DRAIN PAN ASSY					9356542011	9356542011	9356542011	9356542011
160	DRAIN PAN ASSY					9356542028	9356542028	9356542028	9356542028
4	EMBLEM-REAR					9351355005	9351355005	9351355005	9351355005
629	EMI FILTER	0400056133	0400056133	0400056133	0400056133	0400056133	0400056133	0400056133	0400056133
629-1	EMI FILTER	0400030133	0400030133	0400030133	0400030133	0400030133			
	EMI FILTER						0400247128	0400247128	0400247128
629-2	EMI FILTER	0400406396	0400406396	0400406396	0400406396	0400406396	0400247128	0400247128	0400247128
958	EVA-FIXING PLATE-L					9356522006	9356522006	9356522006	9356522006
957	EVA-FIXING PLATE-R					9356521009	9356521009	9356521009	9356521009
959	EVA-PIXING FLATE-R EVA.SEAL PLATE					9356540000	9356540000	9356540000	9356540000
146	EVALUE FLATE					9356540000	9356540000		
	EVAPORATOR ASSY	l				9357889016		9356524017	9356524017
146									
146	EVAPORATOR ASSY				0264456010		9361548015		
146	EVAPORATOR ASSY	0064450007	0064456007		9364456010				
146	EVAPORATOR ASSY	9364456027	9364456027	0064456004					
146	EVAPORATOR ASSY			9364456034		0000004044	0000004044	0000004044	0000001011
825	EXPANSION VALVE					9366301011	9366301011	9366301011	9366301011
	EXPANSION VALVE	9363302018	9363302018	9363302018	9363302018				
825	FAN MOTOR ASSY-IN				9600778050				
825			9600778074						
825 164	FAN MOTOR ASSY-IN	1							
825 164 164 164	FAN MOTOR ASSY-IN	9600778104							
825 164 164 164		9600778104		9600778111					
825 164 164 164 164	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN			9600778111			9600830017	9600830017	9600830017
825 164 164 164 164 164	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN								9600830017
825 164 164 164 164 164 164	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN						9600830017	9600830017	
825 164 164 164 164 164	FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN FAN MOTOR ASSY-IN					9600830024	9600830017	9600830017	

Models: ARY7TFAMF,ARY9TFAMF.ARY12TFAMF,ARY18TFAMF ARY25TFAMF,ARY30TFAMF,ARY36TFAMF,ARY45TFAMF

Ref	Description					s No.			
No.	•	ARY7TFAMF	ARY9TFAMF	ARY12TFAMF	ARY18TFAMF	ARY25TFAMF			
875 431	FILTER PCB ASSY FIXTURE-A	313546156408	313546156408	313546156400	313546156408	313546156408	9703965012 313546156408	9703965012	9703965012 313546156408
964	FLARE NUT-A	313546156408	313546156408	313546156408		313546156408	313546156408	313546156408	313546156408
964	FLARE NUT-A			313990239604			9357352022	9357352022	9357352022
965	FLARE NUT-B	9351062019	9351062019	9351062019	9351062019	9351062019			
	FRONT PANEL			9363398007	9363398007				
63	FRONT PANEL ASSY	9363722000	9363722000						
63	FRONT PANEL ASSY			9363723007	9363723007				
824-3	FUSE	0600222512	0600222512	0600222512	0600222512	0600222512			
824	FUSE					0500450070	0600222543	0600222543	0600222543
731	FUSE HOLDER GUIDE RAIL	0500158072	0500158072	0500158072	0500158072	0500158072 9300629010	0500158072 9300629010	0500158072 9300629010	0500158072 9300629010
731	H-INS (PIPE) A	9367071012	9367071012	9367071012					
	H-INS (PIPE) B	9367072019	9367072019	9367072019					
151	HALF UNION-A	9301012002	9301012002						
150-1	HALF UNION-B							9352768002	9352768002
150	HALF UNION-B							9357351018	9357351018
173	HANGER BRACKET					9356563009	9356563009	9356563009	9356563009
	HEAT INSU (PIPE) A				9367070015			0704754044	
E-7	HEAT SINK					212616012000	9701754014	9701754014	9701754014
57	HEX.SOCKET SCREW	0262105000	0262105002	0000105000	0262105000	313616213202	313616213202	313616213202	313616213202
173	HOOK METAL HYBRID IC	9363195002 0100335019	9363195002 0100335019	9363195002 0100335019	9363195002 0100335019	0100335019	0100335019	0100335019	0100335019
	IC	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	0100335019	
	IC IC	0100462104	0100462104	0101461120	0100462104	0100462104	0100462104	0100462104	0100462104 0101461120
	IC IC	0101461120	0101461120	0101461120	0101461120	0101461120	0101461120	0101461120	0101461120
	IC (TRANSISTOR ARRAY)	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041	0100028041
147	INLET PIPE (EVA) ASSY				9364747002				
147	INLET PIPE (EVA) ASSY	9366551003	9366551003	9366551003					
341-3	INS (PANEL TOP)-C					9357096001	9357096001	9357096001	9357096001
341-4	INS (PANEL TOP)-D					9357097008	9357097008	9357097008	9357097008
341-5	INS (PANEL TOP)-F					9357098005	9357098005	9357098005	9357098005
907-1	INS (PIPE THRM)	9360227003	9360227003	9360227003	9360227003	9360227003	9360227003	9360227003	9360227003
341-2	INS (PNL-TOP)-B					9357026008	9357026008	9357026008	9357026008
	INSTALLATION MANUAL			9367704019	9367704019				
346-1	INSULATION (CAB-L)-A					9356573008	9356573008	9356573008	9356573008
346-2	INSULATION (CAB-L)-B					9357022000	9357022000	9357022000	9357022000
247	INSULATION (DRN HOSE)	313806217708	313806217708	313806217708	313806217708	313806217708	313806217708	313806217708	313806217708
342-1	INSULATION (OUT PNL) A					9356575002	9356575002	9356575002	9356575002
342-2	INSULATION (OUT PNL) B					9356576009	9356576009	9356576009	9356576009
342-3	INSULATION (OUT PNL) C					9356577006	9356577006	9356577006	9356577006
342-4	INSULATION (OUT PNL) D					9357023007	9357023007	9357023007	9357023007
342-5	INSULATION (OUT PNL) F					9357024004	9357024004	9357024004	9357024004
267-2	INSULATION (PIPE)-C	9350716029	9350716029	9350716029	9350716029	9350716029	9350716029	9350716029	9350716029
267-3	INSULATION (PIPE)-D	9352766015	9352766015	9352766015	9352766015	9352766015	9352766015	9352766015	9352766015
74	INTAKE PANEL					9356537000	9356537000	9356537000	9356537000
924	INTAKE SEAL PLATE					9356553000	9356553000	9356553000	9356553000
	JOINT PIPE C	9366949008	9366949008	9366949008	9366949008				
772	JOINT PIPE-A					9302812014	9302812014		
326	JOINT.3-WAY	9359419006	9359419006	9359419006					
	LABEL."R407C"	9362409001	9362409001	9362409001	9362409001	9362409001	9362409001	9362409001	9362409001
004.4	LED	0000813259	0000813259	0000813259	0000813259	0000813259	0000813259	0000813259	0000813259
381-4	LOCKING SPACER	0600118075	0600118075	0600118075	0600118075				
380	LOCKING SPACER	313209391403	313209391403	313209391403	313209391403	212200201506	2122002201506	2122002201506	212200201506
381	LOCKING SPACER					313209391506	313209391506 313005446558	313209391506	313209391506
628	LOCKING SPACER-B	0267702012	9367703012			313005446558	313005446556	313005446556	313005446558
	MANUAL (INSTALLATION) MANUAL (INSTALLATION)	9367703012	936//03012			9367705016	9367705016	9367705016	9367705016
126	MOTOR FIXG TABLE ASY					9356533002	9356533002	9356533002	9356533002
126	MOTOR FIXG TABLE ASY	9358591000	9358591000	9358591000	9358591000	3330333002	3330333002	3330333002	3330333002
338	MOTOR FIXTURE	3330331000		3330331000	3330331000	9356536003	9356536003	9356536003	9356536003
338	MOTOR FIXTURE	9358594001	9358594001	9358594001	9358594001				
000	NETWORK.(CR)						9701125012	9701125012	9701125012
	NETWORK (CR ABSORBER)		0301241072	0301241072	0301241072	0301241072	0301241072		0301241072
347	NOISE INSULATION-D		313712304109						
468	NUT-A					9356998009	9356998009	9356998009	9356998009
75	OUTLET PANEL ASSY					9356538007	9356538007	9356538007	9356538007
232	OUTLET PIPE (EVA) ASSY	9366553007	9366553007						
147	OUTLET (EVA) ASSY				9366548003				
147	OUTLET (EVA) ASSY			9366552000					
	PACKING CASE-BOTTOM					9357034003	9357034003	9357034003	9357034003
	PACKING CASE-CARTON	9301094015	9301094015	9301094015	9301094015				
	PACKING CASE-CARTON	9366512011							
	PACKING CASE-CARTON		9366512028						
	PACKING CASE-CARTON			9366514015	00005115				
	PACKING CASE-CARTON				9366514039	0000540040			
	PACKING CASE-CARTON					9366516019	0266516026		
	PACKING CASE-CARTON PACKING CASE-CARTON						9366516026	9366516033	
								9366516033	
	PACKING CASE-CARTON PACKING INNER-A (BTM)	9364218007	9364218007	9364218007	9364218007				9366516040
	PACKING INNER-A (BTM) PACKING INNER-B (BTM)		9364218007						
	PACKING INNER-B (BTM) PACKING PAD-A	9364221007	9364221007	9364221007	9364221007	9357033006	9357033006	9357033006	9357033006
	PACKING PAD-A PACKING PAD-B					9357035006	9357033006	9357033006	9357033006
	PACKING PAD-B					9357761008	9357761008	9357761008	9357761008
66	PANEL ASSY (MOTOR)	9363193008	9363193008						
38	PANEL ASSY (MOTOR)	9303193006	9303193006	9363401004	9363401004				
34	PANEL TOP	9363408003	9363408003	9363401004	9363401004				
166	PANEL (MOTOR)			9363402001	9363402001				
. 50	PHOTO COUPLER	0000117074	0000117074	0000117074	0000117074	0000117074	0000117074	0000117074	0000117074
244	PIPE COVER	9366294009	9366294009	9366294009	9366294009				
. ~	PIPE FIXING PLATE AS			9300294009		9356992021	9356992021	9356992021	9356992021
	PLATE-A			9363403008	9363403008				
	PLUG CONTACT	0500536016	0500536016	0500536016	0500536016	0500536016	0500536016	0500536016	0500536016
	PLUG.PWB	0500005321	0500036016	0500005321	0500005321	050000536016	0500005321	0500536016	05000053016
	PLUG.PWB PLUG.PWB	0500005321	0500005321	0500005321	0500005321	0500005321	0500005321	0500005321	0500005321
	PLUG.PWB PLUG.PWB								
		0500006069	0500006069	0500006069	0500006069 0500011742	0500006069 0500011742	0500006069 0500011742	0500006069 0500011742	0500006069 0500011742
		0500011749	0500011749						
	PLUG.PWB PLUG.PWB	0500011742 0500011759	0500011742 0500011759	0500011742 0500011759	0500011742	0500011759	0500011759	0500011759	0500011759

Models: ARY7TFAMF,ARY9TFAMF.ARY12TFAMF,ARY18TFAMF ARY25TFAMF,ARY30TFAMF,ARY36TFAMF,ARY45TFAMF

Ref					Part	s No.				Ord
No.	Description	ARY7TFAMF	ARY9TFAMF	ARY12TFAMF			ARY30TFAMF	ARY36TFAMF	ARY45TFAMF	Q'ty
	PLUG.PWB	0500011827	0500011827	0500011827	0500011827	0500011827	0500011827	0500011827	0500011827	
	PLUG.PWB	0500957026	0500957026	0500957026	0500957026	0500957026	0500957026	0500957026	0500957026	
	PLUG.PWB	0501045012	0501045012	0501045012	0501045012	0501045012	0501045012	0501045012	0501045012	
	PLUG.PWB	0501045050	0501045050	0501045050	0501045050	0501045050	0501045050	0501045050	0501045050	
	PLUG.PWB	0501045074	0501045074	0501045074	0501045074	0501045074	0501045074	0501045074	0501045074	
	PLUG.PWB	0501045210	0501045210	0501045210	0501045210	0501045210	0501045210	0501045210	0501045210	
	PLUG.PWB	0501045227	0501045227	0501045227	0501045227	0501045227	0501045227	0501045227	0501045227	
	PLUG.PWB	0501045319	0501045319	0501045319	0501045319	0501045319	0501045319	0501045319	0501045319	
	PLUG.PWB	0501045357	0501045357	0501045357	0501045357	0501045357	0501045357	0501045357	0501045357	
726	PRCS PIPE				9359979005	9359979005				
	RELAY	9701316014	9701316014	9701316014	9701316014	9701316014	9701316014	9701316014	9701316014	
	RELAY	9701566013	9701566013	9701566013	9701566013	9701566013	9701566013	9701566013	9701566013	
968	RELAY PCB ASSY						9701594030	9701594030	9701594030	
	RELAY.SOLID						9701719013	9701719013	9701719013	
	RELAY.SOLID	9701829019	9701829019	9701829019	9701829019	9701829019				
	RESISTOR.CHIP	0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	0200306667	
	RESISTOR.CARBON						0200012681	0200012681	0200012681	
	RESISTOR.CHIP	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	0200230627	
	RESISTOR.CHIP		0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	0201010013	
	RESISTOR.CHIP	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	0201010426	
	RESISTOR.CHIP		0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	0201010501	
	RESISTOR.CHIP	0201010648	0201010648	0201010648	0201010648	0201010648	0201010648	0201010648	0201010648	
]	RESISTOR.CHIP	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	0201010747	I
	RESISTOR.CHIP	0201010907	0201010907	0201010907	0201010907	0201010907	0201010907	0201010907	0201010907	I
]	RESISTOR.CHIP		0201011010	0201011010	0201011010	0201011010	0201011010 0200244372	0201011010	0201011010	I
07	RESISTOR.WIRING	0200244372	0200244372	0200244372	0200244372 313659068604	0200244372		0200244372	0200244372	I
37	RUBBER BUBBER BUSHING	313659068604 9357376004		313659068604		313659068604	313659068604 9357376004	313659068604	313659068604	I
185-1	RUBBER BUSHING SCREW	935/3/6004	9357376004	9357376004	9357376004	9357376004	9357376004 0700008023	9357376004 0700008023	9357376004 0700008023	I
100									9356523003	
138 762	SEPARATE WALL SIDE PANEL-L ASSY	9363409000	9363409000			9356523003	9356523003	9356523003	JJJUJZJUUJ	I
762 762	SIDE PANEL-L ASSY	9363409000	9363409000	9363505009	9363505009					I
761	SIDE PANEL-R ASSY	9363411003	9363411003							
761	SIDE PANEL-R ASSY			9363507003	9363507003					
599	SIGNAL PCB ASSY	9703728013	9703728013	9703728013	9703728013	9703728013	9703728013	9703728013	9703728013	
56	SIROCCO FAN ASSY					9356531022	9356531022	9356531022	9356531022	
56	SIROCCO FAN ASSY	9358621004	9358621004	9358621004	9358621004					
	SOCKET.PWB	0500296033	0500296033	0500296033	0500296033	0500296033	0500296033	0500296033	0500296033	
468	SPECIAL NUT-A (LARGE)	313005446653	313005446653	313005446653	313005446653	313005446653	313005446653	313005446653	313005446653	
469	SPECIAL NUT-B (SMALL)	313005446759	313005446759	313005446759	313005446759	313005446759	313005446759	313005446759	313005446759	
955	SQUARE FLANGE ASSY					9356555004	9356555004	9356555004	9356555004	
909	STRAINER A						9365457009	9365457009	9365457009	
909	STRAINER C						9365443002			
997	STRAINER D							9365450000	9365450000	
996	STRAINER G	9365455005	9365455005	9365455005	9365455005	9365455005				
996	STRAINER H	9365452004	9365452004	9365452004	9365452004					
567	SUPPORT PLATE (EVA)	9363323009	9363323009							
455	SUPPORT PLT (EVA) SWITCH.PUSH	9700450016	9700450016	9363404005 9700450016	9363404005 9700450016	9700450016	9700450016	9700450016	9700450016	
	SWITCH.FOSH SWITCH.ROTARY	9700430016	9700430016	9701694012	9700450016	9701694012	9701694012	9700430016	9700430016	
	SWITCH.SLIDE	9701393015	9701393015	9701894012	9701393015	9701393015	9701894012	9701393015	9701393015	
	TEMPLATE	9701393013		9701393013	9701393013	9357036007	9357036007	9357036007	9357036007	
815	TERMINAL 2P					9703873027	9703873027	9703873027	9703873027	
815	TERMINAL 7P	9703403040	9703403040	9703403040	9703403040					
652-1	THERM.HOLDER PIPE		313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	313806262805	
918	THERMISTOR ASSY					9703756016	9703756016	9703756016	9703756016	
918	THERMISTOR ASSY	9703756023	9703756023	9703756023	9703756023					
234	THERMISTOR ASSY-ROOM			9703299018	9703299018					
234	THERMISTOR ASSY-ROOM					9703299056	9703299056	9703299056	9703299056	
	THERMISTOR ASSY-ROOM	9703299063	9703299063							
918	THERMISTOR (ROOM)	9703299117	9703299117	9703299117	9703299117					
918	THERMISTOR (ROOM)					9703299131	9703299131	9703299131	9703299131	
163-2/184-1	THERMO.SPRONG-A		313728262708			313728262708	313728262708	313728262708	313728262708	
734	TOP PANEL			9363504002	9363504002					
329	TOP PLATE	07007075:-	07007075:-	07007075:-	0700707047	9356546002	9356546002	9356546002	9356546002	
]	TRANSFORMER (SWITCHG)	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	9702727017	I
]	TRANSISTOR	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	0000164047	I
	TRANSISTOR	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	0000699235	
	TRANSISTOR	0000781053	0000781053	0000781053	0000781053	0000781053	0000781053 0000936033	0000781053	0000781053	I
]	TRANSISTOR	0000936033 0000038010	0000936033 0000038010	0000936033	0000936033	0000936033		0000936033	0000936033	I
	VARISTOR		0600168032	0000038010 0600168032	0000038010 0600168032	0000038010 0600168032	0000038010 0600168032	0000038010 0600168032	0000038010	I
253-	VARISTOR (ARRESTER) WIRE ASSY	0600168032 9703397011	9703397011	9703397011	9703397011	9703397011	9703397011	9703397011	0600168032 9703397011	
253- 253-	WIRE ASSY	9703397011	9703397011	9703397011	9703397011	9703397011	9703397011	9703397011		
253-	WIRE ASSY (COMMUNICAT)					9703757037	9703757037	9703757037	9703757037	I
253-	WIRE ASSY (CONNECTOR)					9703401015	9703401015	9703401015	9703401015	I
253-	WIRE ASSY (CONNECTOR)	9703875014	9703875014	9703875014	9703875014	9703875014	9703875014	9703875014	9703875014	
253-	WIRE ASSY (FAN CAPA.)					9703400018	9703400018	9703400018	9703400018	
253-	WIRE ASSY (P/S-IN)					9703399015	9703399015	9703399015	9703399015	
253-	WIRE ASSY (T-F (PWB))					9703415012	9703415012	9703415012	9703415012	I
253-	WIRE ASSY (TERMINAL)	9703574016	9703574016	9703574016	9703574016					
253-	WIRE ASSY (TERMINAL)	9703575013	9703575013	9703575013	9703575013					
253-1	WIRE ASSY					9702313036	9702313036	9702313036	9702313036	Ī
253-	WIRE ASSY	9702419035	9702419035	9702419035	9702419035	9702419035	9702419035	9702419035	9702419035	1
253-	WIRE ASSY	9703576010	9703576010	9703576010	9703576010					Ī
253	WIRE ASSY (FARTH)	9702313029	9702313029	9702313029	9702313029	9702313029	9702313029	9702313029	9702313029	
253-	WIRE ASSY (MAIN-RELAY)	010400010005	010400010005	010400010005	010400010005		9701459025	9701459025	9701459025	
320-1	WIRE CLAMP METAL		313483219905	313483219905	313483219905					
	WIRE WITH CONNECTOR XTAL.RESONATOR	9703876059 9703542015	9703876059 9703542015	9703876059 9703542015	9703876059 9703542015	9703542015	9703542015	9703542015	9703542015	
326	3-WAY JOINT	9703542015	9703542015	9703542015	9703542015	9703542015	9703542015	9703542015	9703542015	I
JEU	5 .7711 UONNI	500 TO 100 I	000 TO 0 1 0 0 1	000 TOU TOU T	200 100 100 1					

ARY60TFBMF

Ref			Parts No.		Ord	Ref			Parts No.		Ord
No.	Description	ARY36TFBMF	ARY45TFBMF	ARY60TFBMF	Q'ty	No.	Description	ARY36TFBMF		ARY60TFBMF	Q'ty
276	CONTROLLER PCB ASSY	9703848018	9703848018	9703848018			PACKING CASE-BOTTOM	9361638006	9361638006	9361638006	
833	AUXILIARY PIPE ASSY	9357038001	9357038001	9357038001			PACKING CASE-CARTON	9301094015	9301094015	9301094015	1
108	BASE	9361340008	9361340008	9361340008			PACKING CASE-CARTON	9366519010			1
477	BELL-MOUTH		9361378001	9361378001			PACKING CASE-CARTON		9366519027		1 1
200-1	BR SHEET-B	9351990022	9351990022	9351990022			PACKING CASE-CARTON			9366519034	1 1
	BUZZER	9701298013	9701298013	9701298013			PACKING PAD-A	9361639003	9361639003	9361639003	1
287	CAP (POWER)	9352173011	9352173011	9352173011			PACKING PAD-B	9363391008	9363391008	9363391008	1
64/34	CAPACITOR (FAN NOTOR)		9700468035				PACKING PAD-C	9361641006	9361641006	9361641006	i l
64/34	CAPACITOR (FAN NOTOR)	070000000		9700468042			PHOTO COUPLER	0000117074	0000117074	0000117074	i I
64/34	CAPACITOR (FAN NOTOR)	9703306068 0301192558	0004400550	0004400550			PLUG CONTACT	0500536016	0500536016	0500536016	1
	CAPACITOR.ELEC CAPACITOR.ELEC		0301192558 0300256060	0301192558 0300256060			PLUG.PWB	0500005321 0500005345	0500005321 0500005345	0500005321	1
	CAPACITOR.ELEC	0300256060 0300304099	0300256060	0300256060			PLUG.PWB PLUG.PWB	0500005345	0500006345	0500005345 0500006069	1
	CAPACITOR.PLASTIC	0301052098	0300304099	0300304099			PLUG.PWB	05000011742	05000011742	05000011742	1
109	CASING ASSY	9361373006	9361373006	9361373006			PLUG.PWB	0500011742	0500011742	0500011742	1
100	CERAMIC RESONATOR	9701261031	9701261031	9701261031			PLUG.PWB	0500011703	0500011733	0500011763	1
422	CLAMP		313209399700				PLUG.PWB	0501045012	0501045012	0501045012	i l
212/466			313714328805				PLUG.PWB	0501045050	0501045050	0501045050	1
430	CLAMP		313095365602				PLUG.PWB	0501045074	0501045074	0501045074	i l
495	CLAMP	9352715006	9352715006	9352715006			PLUG.PWB	0501045210	0501045210	0501045210	i l
195	CLAMP	313361275805	313361275805	313361275805			PLUG.PWB	0501045227	0501045227	0501045227	1
196-2	CLAMP	313035356905	313035356905	313035356905			PLUG.PWB	0501045319	0501045319	0501045319	i l
196-1	CLAMP		312300787605				PLUG.PWB	0501045357	0501045357	0501045357	ı I
514	CONTROL BOX COVER	9361366008	9361366008	9361366008		723	REAR PANEL ASSY	9361350007	9361350007	9361350007	i I
223	CONTROL BOX METAL	9361365001	9361365001	9361365001		238	RECTANGULAR FLANGE	9361351004	9361351004	9361351004	i I
236	CONTROLLER PCB ASSY	9701042166	9701042166	9701042166		10	REINFORCEMENT (F.PNL)	9361424005	9361424005	9361424005	ı I
625	CORD BUSHING	9359240006	9359240006	9359240006			RELAY	9701566013	9701566013	9701566013	ı I
982-1	CORD CLAMP-A	9359820017	9359820017	9359820017		070	RELAY	9702100018	9702100018	9702100018	ı I
982-2	COURLING RIPE ASSY	9359821014	9359821014	9359821014		270	RELAY SOLID	9702099015	9702099015	9702099015	i I
329	COUPLING PIPE ASSY	9366675006	9366675006	9366675006			RESISTOR.CHIP	0200306667	0200306667	0200306667	i l
	DIODE DIODE	0000353120 0000625036	0000353120 0000625036	0000353120 0000625036			RESISTOR.CHIP RESISTOR.CHIP	0200230627 0201010013	0200230627 0201010013	0200230627 0201010013	i l
	DIODE	0000625036	0000625036	0000625036			RESISTOR.CHIP	0201010013	0201010013	0201010013	i l
	DIODE	0000746519	0000746519	0000746519			RESISTOR.CHIP	0201010426	0201010428	0201010426	i l
	DIODE.MINIMOLD	0000684019	0000300300	0000500500			RESISTOR.CHIP	0201010301	0201010301	0201010501	i l
	DIODE.POWER	0000208024	0000208024	0000208024			RESISTOR.CHIP	0201010747	0201010747	0201010747	i l
	DIODE.POWER	0000689045	0000689045	0000689045			RESISTOR.CHIP	0201010907	0201010907	0201010907	i l
	DIODE.ZENER	0000852166	0000852166	0000852166			RESISTOR.CHIP	0201011010	0201011010	0201011010	i l
735	DISTRIBUTOR ASSY	9364743004	9364743004	9364743004			RESISTOR.WIRING	0200244372	0200244372	0200244372	i l
160	DRAIN PAN ASSY	9361341029	9361341029	9361341029		69	RIGHT PANEL ASSY	9361356009	9361356009	9361356009	i l
629	EMI FILTER	0400056140	0400056140	0400056140		185-1	RUBBER BUSHING	9357376004	9357376004	9357376004	i l
629-1	EMI FILTER	0400197119	0400197119	0400197119		924	SEAL PLATE	9361347007	9361347007	9361347007	i l
629-2	EMI FILTER	0400406396	0400406396	0400406396		599	SIGNAL PCB ASSY	9703728013	9703728013	9703728013	i l
77	EMI FILTER	9702126018	9702126018	9702126018		56-2	SIROCCO FAN-L	9361636002	9361636002	9361636002	i I
146	EVAPORATOR ASSY	9361436008	9361436008	9361436008		56-1	SIROCCO FAN-R	9361635005	9361635005	9361635005	i l
825	EXPANSION VALVE	9366302018	9366302018	9366302018		468	SOCKET.PWB	0500296033	0500296033	0500296033	i l
164	FAN MOTOR ASSY-IN			9361439009		469	SPECIAL NUT-A (LARGE)	313005446653	313005446653	313005446653	i l
164	FAN MOTOR ASSY-IN	9362646000	9362646000	0700047010			SPECIAL NUT-B (SMALL)	313005446759	313005446759	313005446759	i l
875 431	FILTER PCB ASSY FIXTURE-A	9703947018	9703947018 313546156408	9703947018			SWITCH.PUSH SWITCH.ROTARY	9700450016 9701694013	9700450016 9701694013	9700450016 9701694013	i l
964	FLARE NUT-A	9357352022	9357352022	9357352022			SWITCH.SLIDE	9701393015	9701393015	9701393015	i l
75	FRONT PANEL	9361353008	9361353008	9361353008			TEMPLATE	9361644007	9361644007	9361644007	i l
824-3	FUSE	0600222512	0600222512	0600222512		815	TERMINAL 11P	9703403071	9703403071	9703403071	1
824-5	FUSE	0600315023	0600315023	0600315023		652-1	THERM.HOLDER PIPE	313806262805		313806262805	i l
	FUSE HOLDER	0500158072	0500158072	0500158072		918	THERMISTOR ASSY	9703756023	9703756023	9703756023	i l
	FUSE HOLDER	0500487011	0500487011	0500487011		235	THERMISTOR ASSY-ROOM	9703299070	9703299070	9703299070	ı l
150-1	HALF UNION-B		9352768002	9352768002		918	THERAMISTOR (ROOM)	9703299117	9703299117	9703299117	i I
150	HALF UNION-B			9357351018						313728262708	i I
254	HE SUPPORT-LEFT		9361345003	9361345003		324	TOP PLATE	9361349001	9361349001	9361349001	ı l
253	HE SUPPORT-RIGHT		9361344006	9361344006			TRANSFORMER (SWITCHG)		9702727017	9702727017	ı l
255	HE SUPPORT-SUB	9361346000	9361346000	9361346000			TRANSISTOR	0000164047	0000164047	0000164047	i I
117-3	HEX-NUT W/SP.WASHER		301721180114			400	TRANSISTOR	0000699235	0000699235	0000699235	i I
173	HOOK	9361367005	9361367005	9361367005			TRANSISTOR	0000781053	0000781053	0000781053	i I
	HYBRID IC	0100335019	0100335019 0100462104	0100335019 0100462104		275	TRANSISTOR	0000936033	0000936033 9361362000	0000936033	i I
	IC IC	0100462104		0100462104		2/5	UNDER PANEL	9361362000		9361362000 0000038010	i l
	IC IC	0101461120 0101846071	0101461120 0101846071	0101461120			VARISTOR VARISTOR (ARRESTER)	0000038010 0600168032	0000038010 0600168032	0600168032	ı l
	IC (TRANSISTOR ARRY)	0100028041	0100028041	0100028041		253-	WIRE ASSY	9703397011	9703397011	9703397011	i I
267-2	INSULATION (PIPE)-C	9350716029	9350716029	9350716029		253-	WIRE ASSY (COMMUNICAT)	9703397011	9703397011	9703397011	i I
267-3	INSULATION (PIPE)-D		9352766015	9352766015		253-	WIRE ASSY (CONNECTOR)	9702419011	9702419011	9702419011	i l
1	LABEL "R407C"	9362409001	9362409001	9362409001		253-	WIRE ASSY (CONNECTOR)	9703875014	9703875014	9703875014	i I
	LED	0000813259	0000813259	0000813259			WIRE ASSY (RELAY) A	9358849033	9358849033	9358849033	ı I
64	LEFT PANEL ASSY	9361358003	9361358003	9361358003			WIRE ASSY (RELAY) B	9358849040	9358849040	9358849040	į l
381	LOCKING SPACER	313209391506	313209391506	313209391506			WIRE ASSY (RELAY) C	9358849057	9358849057	9358849057	į l
628	LOCKING SPACER-B		313005446558				WIRE ASSY `	9702313036	9702313036	9702313036	
277	MAINTENANCE PANEL	9361364004	9361364004	9361364004		253-1	WIRE ASY (RELAY COT)	9358849163	9358849163	9358849163	i I
1	MANUAL (INSTALLATION)	9367728015	9367728015	9367728015			WIRE WITH CONNECTOR	9703876042	9703876042	9703876042	i I
126	MOTOR BASE ASSY	9361354005	9361354005	9361354005			WIRE (RELAY) -A	9358849095	9358849095	9358849095	i I
338-1	MOTOR FIXTURE		9359702009	9359702009			WIRE (RELAY)-B	9358849101	9358849101	9358849101	ı l
338-2	MOTOR FIXTURE-B	9359703006	9359703006	9359703006			XTAL.RESONATOR	9703542015	9703542015	9703542015	i I
45	MOTOR MOUNT ASSY	9361369009	9361369009	9361369009							ı I
400	NETWORK (CR ABSORBER)		0301241072	0301241072							ı I
468	NUT-A	9356998009	9356998009	9356998009							

_	ASY24TFAMF,ASY30TFAMF									
	Ref No.	Description	ASY14TFAMF	Part ASY20TFAMF	s No. ASY24TFAMF	ASY30TFAMF	Ord Q'ty			
F	93	AIR FILTER	9364577012	9364577012	9364577012	9364577012				
	683	BLANCE SPRING	9358151006	9358151006	9358151006	9358151006				
	108	BASE	9357948010	9357948010	9357948010	9357948010				
	967	BONNET-B		313045417959	313045417959	313045417959				
	767-1	BOTTOM COVER-A	9357949017	9357949017	9357949017	9357949017				
	767-2	BOTTOM COVER-B	9357950013	9357950013	9357950013	9357950013				
	199	BR SHEET	9363708028	9363708028	9363708028	9363708028				
	401	BRACKET PANEL	9357952000	9357952000	9357952000	9357952000				
	958	BRACKET PANEL (EVA)	9358626009	9358626009	9358626009	9358626009				
	394	BRACKET (AUGGE)	9357951003	9357951003	9357951003	9357951003				
	251 361	BRACKET (HOSE)-B	9357942001	9362208017	9362208017	9362208017				
	301	BUSHING BUZZER	9701298013	9357942001 9701298013	9357942001 9701298013	9357942001 9701298013				
	64/34	CAPACITOR (FAN MOTOR)	9700468073	9700468073	9700468073	9701298013				
	04/04	CAPACITOR.ELEC	0301192558	0301192558	0301192558	0301192558				
		CAPACITOR.ELEC	0300256060	0300256060	0300256060	0300256060				
		CAPACITOR.PLASTIC	0300304099	0300304099	0300304099	0300304099				
		CAPACITOR.PLASTIC	0301052098	0301052098	0301052098	0301052098				
	109	CASING	9361280014	9361280014	9361280014	9361280014				
	110	CASING ASSY		9358182116	9358182116	9358182116				
ı	291-1	CASING SPACER A	9364151007	9364151007	9364151007	9364151007				
ı	291-2	CASING SPACER B	9364152004	9364152004	9364152004	9364152004				
ı	291-3	CASING SPACER C	9364177007	9364177007	9364177007	9364177007				
ı		CERAMIC RESONATOR	9701261031	9701261031	9701261031	9701261031				
	195	CLAMP	313361275805	313361275805	313361275805	313361275805				
ı	196-2	CLAMP	313035356905	313035356905	313035356905	313035356905				
ı	196-1	CLAMP	312300787605		312300787605	312300787605				
ı	223	CONTROLLED DOD 400V	9357953007	9357953007	9357953007	9357953007				
ı	236	CONTROLLER PCB ASSY	9701042012	9701042012	9701042012	9701042012				
	000	CONTROLLER PCB ASSY	9703766015	9703766015	9703766015	9703766015				
	982	CORD CLAMP	9357886008	9357886008	9357886008	9357886008				
	329 329	COUPLING PIPE ASSY E COUPLING PIPE ASSY E				9366767008				
	756	COVER (CASING)-B	9363787016	9366829003 9363787016	9366829003 9363787016	9363787016				
	755 755	COVER (CASING)-B COVER (CASING)-L	9363786019	9363786019	9363786019	9363786019				
	679	COVER (POWER)	9357916019	9357916019	9357916019	9357916019				
	762	COVER (SIDE)-L	9357902012	9357902012	9357902012	9357902012				
	761	COVER (SIDE)-R	9357901015	9357901015	9357901015	9357901015				
	938	COVER (SWITCH)	9357956015	9357956015	9357956015	9357956015				
	685	COVER (TERMINAL)	9357955001	9357955001	9357955001	9357955001				
	326	CROSS FLOW FAN-L ASY		9357919003	9357919003	9357919003				
	325	CROSS FLOW FAN-R ASY		9357918006	9357918006	9357918006				
	141-1	CUSHION (BASE) L	9366864011	9366864011	9366864011	9366864011				
	141-2	CUSHION (BASE) R	9366864028	9366864028	9366864028	9366864028				
		CUSHION (BRKT.PANEL) A	9361152014	9361152014	9361152014	9361152014				
	268-1	CUSHION (CASING) A	9364410005	9364410005	9364410005	9364410005				
	268-2	CUSHION (CASING) B	9364411002	9364411002	9364411002	9364411002				
	268-3	CUSHION (CASING) K	9364416007	9364416007	9364416007	9364416007				
	268-4	CUSHION (CASING) L	9364417004	9364417004	9364417004	9364417004				
	268-5	CUSHION (CASING) M	9364418001	9364418001	9364418001	9364418001				
ı	268-6 268-7	CUSHION (CASING) N CUSHION (CASING) O	9364419008 9364420004	9364419008 9364420004	9364419008 9364420004	9364419008 9364420004				
ı	268-7 268-8	CUSHION (CASING) O	9364421001	9364421001	9364421001	9364421001				
ı	268-9	CUSHION (CASING) P	9364422008	9364422008	9364422008	9364422008				
ı	268-10	CUSHION (CASING) R	9364408002	9364408002	9364408002	9364408002				
Ì	268-11	CUSHION (CASING) S	9364519012	9364519012	9364519012	9364519012				
Ī	35	CUSHION (CONTROL BOX)	9358720004	9358720004	9358720004	9358720004				
Ì	269-1	CUSHION (HIGH PLATE) A	9364478012	9364478012	9364478012	9364478012				
Ì	269-2	CUSHION (ROD) A	9364472010	9364472010	9364472010	9364472010				
ı	960	DIFFUSER	9357941011	9357941011	9357941011	9357941011				
ı	556	DIFFUSER LINK	9357926001	9357926001	9357926001	9357926001				
ı	557	DIFFUSER SPRING	9357947006	9357947006	9357947006	9357947006				
ı		DIODE	0000353120	0000353120	0000353120	0000353120				
ı		DIODE	0000625036	0000625036	0000625036	0000625036				
ı		DIODE	0000746519	0000746519	0000746519	0000746519				
Ì		DIODE	0000906500	0000906500	0000906500	0000906500				
1		DIODE NOMED	0000684019	0000684019	0000684019	0000684019				
		DIODE.POWER	0000208024	0000208024	0000208024	0000208024				
				0000689045	0000689045	0000689045				
		DIODE.POWER	0000689045	0000852166						
	976	DIODE.POWER DIODE.ZENER	0000852166	0000852166	0000852166 9357903019	0000852166 9357903019				
	976 735-1	DIODE.POWER DIODE.ZENER DISPLAY WINDOW	0000852166 9357903019	9357903019	9357903019	9357903019				
	735-1	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR	0000852166 9357903019 	9357903019	9357903019	9357903019 9304394006				
	735-1 425	DIODE.POWER DIODE.ZENER DISPLAY WINDOW	0000852166 9357903019 9357957005	9357903019	9357903019	9357903019				
	735-1	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR FARTH PLATE	0000852166 9357903019 	9357903019 9357957005	9357903019 9357957005	9357903019 9304394006 9357957005				
	735-1 425 629	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR FARTH PLATE EMI FILTER	0000852166 9357903019 9357957005 0400056133	9357903019 9357957005 0400056133	9357903019 9357957005 0400056133	9357903019 9304394006 9357957005 0400056133				
	735-1 425 629 629-1	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR FARTH PLATE EMI FILTER EMI FILTER	0000852166 9357903019 9357957005 0400056133 0400197119	9357903019 9357957005 0400056133 0400197119	9357903019 9357957005 0400056133 0400197119	9357903019 9304394006 9357957005 0400056133 0400197119				
	735-1 425 629 629-1 629-2	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR FARTH PLATE EMI FILTER EMI FILTER EMI FILTER	0000852166 9357903019 9357957005 0400056133 0400197119 0400406396	9357903019 9357957005 0400056133 0400197119 0400406396	9357903019 9357957005 0400056133 0400197119 0400406396	9357903019 9304394006 9357957005 0400056133 0400197119 0400406396				
	735-1 425 629 629-1 629-2 146	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR FARTH PLATE EMI FILTER EMI FILTER EMI FILTER EWI FILTER EVAPORATOR ASSY	0000852166 9357903019 9357957005 0400056133 0400197119 0400406396	9357903019 9357957005 0400056133 0400197119 0400406396	9357903019 9357957005 0400056133 0400197119 0400406396	9357903019 9304394006 9357957005 0400056133 0400197119 0400406396 9358308004				
	735-1 425 629 629-1 629-2 146 146	DIODE.POWER DIODE.ZENER DISPLAY WINDOW DISTRIBUTOR FARTH PLATE EMI FILTER EMI FILTER EMI FILTER EWI FILTER EVAPORATOR ASSY EVAPORATOR ASSY	0000852166 9357903019 	9357903019 9357957005 0400056133 0400197119 0400406396 9361995000	9357903019 	9357903019 9304394006 9357957005 0400056133 0400197119 0400406396 9358308004				

	Y241FAMF,ASY301FAMF				-	
Ref No.	Description	ASY14TFAMF	Part ASY20TFAMF	s No. ASY24TFAMF	ASY30TFAMF	Ord Q'ty
164	FAN MOTOR ASSY-IN			9601016014		ب .y
164	FAN MOTOR ASSY-IN		9601016021			
875	FILTER PCB ASSY	9703772016	9703772016	9703772016	9703772016	
431 555	FIXTURE-A FLAP LINK-LOWER	313546156408	313546156408	313546156408	313546156408 9357925004	
555 554	FLAP LINK-LOWER FLAP LINK-UPPER	9357925004 9357924007	9357925004 9357924007	9357925004 9357924007	9357925004	
321	FLAP (LOWER)	9357940014	9357940014	9357940014	9357940014	
320	FLAP (UPPER)-F	9357938011	9357938011	9357938011	9357938011	
964	FLARE NUT-A				9357352022	
965	FLARE NUT-B	9351062019	9351062019	9351062019		
63 824-3	FRONT PANEL ASSY	9358181010	9358181010	9358181010	9358181010 0600222512	
824-3	FUSE FUSE HOLDER	0600222512 0500158072	0600222512 0500158072	0600222512 0500158072	0500158072	
91	HINGE PLATE	9361281011	9361281011	9361281011	9361281011	
273	HOLDER (LAMP)	9357958002	9357958002	9357958002	9357958002	
686	HOLDER (RELAY)	9357960005	9357960005	9357960005	9357960005	
777	HOOK (GRILLE)-L	9357985015	9357985015	9357985015	9357985015	
776 127	HOOK (GRILLE)-R HOSE (DRAIN) ASSY	9357986012	9357986012 9367348015	9357986012 9367348015	9357986012 9367348015	
127	HYBRID IC	0100335019	0100335019	0100335019	0100335019	
	IC	0100462104	0100462104	0100462104	0100462104	
	IC	0101461120	0101461120	0101461120	0101461120	
	IC	0101846071	0101846071	0101846071	0101846071	
	IC (PHOTO AMP)	0101525129	0101525129	0101525129	0101525129	
005	IC (TRANSISTOR ARRAY)	0100028041	0100028041	0100028041	0100028041	
385	INDICATOR PCB ASSY INSTALLATION MANUAL	9701869015 9366521006	9701869015 9366521006	9701869015 9366521006	9701869015 9366521006	
268-6	INSU (CASING COVER) A	9364409009	9364409009	9364409009	9364409009	
230-1	INSU (DIFFUZER) C	9366842019	9366842019	9366842019	9366842019	
478-1	INSU (HING PLATE B) H	9358383001	9358383001	9358383001	9358383001	
478-2	INSU (HING PLATE E)	9358386002	9358386002	9358386002	9358386002	
331	INSU (HING PLATE G) H	9358964002	9358964002	9358964002	9358964002	
331	INSULATION (BASE)-A	9357959009	9357959009	9357959009	9357959009	
268-1	INSULATION (BASE)-B	9364426006	9364426006	9364426006	9364426006	
268-2 268-4	INSULATION (CASING)-A INSULATION (CASING)-B	9364412009 9364413006	9364412009 9364413006	9364412009 9364413006	9364412009 9364413006	
268-6	INSULATION (CASING)-D	9364414003	9364414003	9364414003	9364414003	
268-8	INSULATION (CASING)-F	9365778005	9365778005	9365778005	9365778005	
268-	INSULATION (CASING)-H	9358703007	9358703007	9358703007	9358703007	
478-4	INSULATION (DRAIN H)		9358793008	9358793008	9358793008	
478-5	INSULATION (HINGE)-F	9364423005	9364423005	9364423005	9364423005	
478-6 759	INSULATION (HINGE)-J INSULATION (HINGE)-X	9364425009 9364424002	9364425009 9364424002	9364425009 9364424002	9364425009 9364424002	
158	INTAKE GRILLE-F	9357896014	9357896014	9357896014	9357896014	
158	JOINT PIPE ASSY-E				9366764007	
	JOINT PIPE ASSY-E		9366826002	9366826002		
	LABEL."R407C"	9362409001	9362409001	9362409001	9362409001	
	LED	0000813235	0000813235	0000813235	0000813235	
	LED	0000813242	0000813242	0000813242	0000813242	
	LED LOUVER	0000813259 9357933016	0000813259 9357933016	0000813259 9357933016	0000813259 9357933016	
408	LOUVER LINK	9357935013	9357935003	9357935013	9357935010	
470-2	LOUVER ROD	9357932002	9357932002	9357932002	9357932002	
470-3	LOUVER STOPPER	9357934006	9357934006	9357934006	9357934006	
	MANUAL (INSULATION)	9361758001	9361758001	9361758001	9361758001	
684	MOTOR BASE	9357929002	9357929002	9357929002	9357929002	
470-1	MOTOR ROD	9357931005	9357931005	9357931005	9357931005	
	NETWORK.(CR ABSORBER) PACKING CASE-CARTON	0301241072 9301094015	0301241072 9301094015	0301241072 9301094015	0301241072 9301094015	
	PACKING CASE-CARTON PACKING CASE-CARTON		9366522010			
	PACKING CASE-CARTON			9366522027		
	PACKING CASE-CARTON				9366522034	
	PACKING CASE-CARTON	9366522041	005050555	005050555	005050555	
	PACKING INNER	9358527009	9358527009	9358527009	9358527009	
	PACKING INNER-CORNER PACKING PAD	9352170041 9358166000	9352170041 9358166000	9352170041 9358166000	9352170041 9358166000	
	PACKING PAD PACKING PAD-LOWER	9358166000	9358166000	9358166000	9358166000	
	PACKING PAD-UPPER	9358276006	9358276006	9358276006	9358276006	
925	PSNEL (EVAPORATR-R)-B	9357909004	9357909004	9357909004	9357909004	
	PHOTO COUPLER	0000117074	0000117074	0000117074	0000117074	
	PLUG CONTACT	0500536016	0500536016	0500536016	0500536016	
	PLUG.PWB	0500005321	0500005321	0500005321	0500005321	
	PLUG.PWB PLUG.PWB	0500005345 0500006069	0500005345 0500006069	0500005345 0500006069	0500005345 0500006069	
	PLUG.PWB	05000011742	05000011742	05000011742	05000000009	
	PLUG.PWB	0500011742	0500011742	0500011742	0500011742	
	PLUG.PWB	0500011827	0500011827	0500011827	0500011827	
	PLUG.PWB	0500951048	0500951048	0500951048	0500951048	
	PLUG.PWB	0500957026	0500957026	0500957026	0500957026	
	PLUG.PWB	0501045012	0501045012	0501045012	0501045012	
	PLUG.PWB	0501045043	0501045043	0501045043	0501045043	

Ref	Description		Parts			Ord
No.	•	ASY14TFAMF	ASY20TFAMF	ASY24TFAMF	ASY30TFAMF	Q'ty
67-2	RUBBER B		9366485018	9366485018	0261007001	
67-2 122	RUBBER-B SHAFT HOLDER-B		9357921006	9357921006	9361237001 9357921006	
158	SUCTION PIPE ASSY E		9358523001	9358523001	9358523001	
163-2/184-1	THERMO.SPRING-A	313728262708	313728262708	313728262708		
253-	WIRE ASSY 2P	9702080013	9702080013	9702080013	9702080013	
253-	WIRE ASSY (COMMUNICAT)	9702080013	9702080013	9702060013	9702060013	
253-	WIRE ASSY (CONNECTOR)	9701856015	9701856015	9701856015	9701856015	
253-	WIRE ASSY (CONNECTOR)	9703875014	9703875014	9703875014	9703875014	
253-	WIRE ASSY (FAN.CAPA.)	9701951017	9701951017	9701951017	9701951017	
253-	WIRE ASSY (POWER)	9358955000	9358955000	9358955000	9358955000	
253- 253-1	WIRE ASSY (TERMINAL) WIRE ASSY	9701880010 9702313036	9701880010 9702313036	9701880010 9702313036	9701880010 9702313036	
234	THERMISTOR ASSY-ROOM	9703299018	9702313030	9702313036	9702313036	
_	SUCTION PIPE ASSY E	0700200010	0700200010	0700200010		
336 336	SUCTION PIPE ASSY E		9366827009	9366827009	9366765004	
558	ROD-A	9357927008	9357927008	9357927008	9357927008	
559	ROD-B	9357928005	9357928005	9357928005	9357928005	
599	SIGNAL PCB ASSY	9703728013	9703728013	9703728013	9703728013	
652-1	THERM.HOLDER PIPE	313806262805	313806262805	313806262805	313806262805	
850	RECEIVER WINDOW	9357917016	9357917016	9357917016	9357917016	
876-1 876-2	STEP MOTOR-H STEP MOTOR-V	9359763000 9359762003	9359763000 9359762003	9359763000 9359762003	9359763000 9359762003	
909	STRAINER A	9359762003	9359762003	9359762003	9365457009	
909	STRAINER C	9365443002	9365443002	9365443002	9365443002	
918	THERMISTOR ASSY	9703756016	9703756016	9703756016	9703756016	
918	THERMISTOR (ROOM)	9703299124	9703299124	9703299124	9703299124	
928-1	U-PIPE (B)	9359081005	9359081005	9359081005		
996	STRAINER G	9365455005	9365455005	9365455005		
	SOCKET.PWB	0500296033	0500296033	0500296033	0500296033	
	VARISTOR (VARISTOR)	0600168032	0600168032	0600168032	0600168032	
	PLUG.PWB	0501045050	0501045050	0501045050	0501045050	
	PLUG.PWB PLUG.PWB	0501045067 0501045210	0501045067 0501045210	0501045067 0501045210	0501045067 0501045210	
	PLUG.PWB	0501045210	0501045210	0501045210	0501045210	
	PLUG.PWB	0501045357	0501045227	0501045227	0501045227	
	PLUG.PWB	0501045517	0501045517	0501045517	0501045517	
	PRCS PIPE	9359979005	9359979005	9359979005		
	RELAY RELAY	9701316014 9701566013	9701316014	9701316014	9701316014	
	RELAY.SOLID	9701829019	9701566013 9701829019	9701566013 9701829019	9701566013 9701829019	
	RESISTOR.CHIP	0200306667	0200306667	0200306667	0200306667	
	RESISTOR.CHIP	0200230627	0200230627	0200230627	0200230627	
	RESISTOR.CHIP	0201010013	0201010013	0201010013	0201010013	
	RESISTOR.CHIP	0201010426	0201010426	0201010426	0201010426	
	RESISTOR.CHIP RESISTOR.CHIP	0201010501 0201010648	0201010501 0201010648	0201010501 0201010648	0201010501 0201010648	
	RESISTOR.CHIP	0201010046	0201010646	0201010648	0201010646	
	RESISTOR.CHIP	0201010747	0201010747	0201010747	0201010747	
	RESISTOR.CHIP	0201011010	0201011010	0201011010	0201011010	
	RESISTOR.WIRING	0200244372	0200244372	0200244372	0200244372	
	SEAL (BASE) A SEAL (BASE) B	9364429014 9364429021	9364429014 9364429021	9364429014 9364429021	9364429014 9364429021	
	SEAL (BASE) C	9364429038	9364429038	9364429038	9364429038	
	SEAL (CASING) A	9364429045	9364429045	9364429045	9364429045	
	WIRE WITH TERMINAL	9704251015	9704251015	9704251015	9704251015	
	SWITCH PUSH	9700450016	9700450016	9700450016	9700450016	
	SWITCH SUIDE	9701694013	9701694013	9701694013	9701694013	
	SWITCH.SLIDE TERMINAL	9701393015 9704243010	9701393015 9704243010	9701393015 9704243010	9701393015 9704243010	
	TRANSFORMER (SWITCHG		9704243010	9704243010	9704243010	
	TRANSISTOR	0000164047	0000164047	0000164047	0000164047	
	TRANSISTOR	0000699235	0000699235	0000699235	0000699235	
	TRANSISTOR	0000781053	0000781053	0000781053	0000781053	
	TRANSISTOR VARISTOR	0000936033 0000038010	0000936033 0000038010	0000936033 0000038010	0000936033 0000038010	
	XTAL.RESONETOR	9703542015	9703542015	9703542015	9703542015	
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