

SHARP SERVICE MANUAL

S9530GSXP07FRT

SPLIT TYPE ROOM AIR CONDITIONER

MODELS	INDOOR UNIT	OUTDOOR UNIT
	GS-XP07FR	AE-X7FR
	GS-XP09FR	AE-X9FR
	GS-XP12FR	AE-X12FR
	GS-XP18FR	GU-XR18FR
	GS-XP24FR	GU-XR24FR
	GS-XP27FR	GU-XR27FR



CEILING TYPE



FLOOR TYPE

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REPLACEMENT PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

This document has been published to be used for after sales service only.

The contents are subject to change without notice.

CHAPTER 1. SPECIFICATION

[1] SPECIFICATION

1. GS-XP07FR / AE-X7FR

ITEMS		MODEL		INDOOR UNIT GS-XP07FR	OUTDOOR UNIT AE-X7FR					
Cooling capacity (Min. ~ Max.)		kW		2.1 (0.9 - 2.9)						
Heating capacity (Min. ~ Max.)		kW		2.4 (0.9 - 3.8)						
Moisture removal (at cooling)		Liters/h		0.2						
Electrical data										
Phase		Single								
Rated frequency		Hz		50						
Rated voltage		V		230						
Rated current ☆ (Min - Max.)	Cool	A	2.7 (1.2 - 3.6)							
	Heat	A	2.4 (1.3 - 4.1)							
Rated input ☆ (Min - Max.)	Cool	W	560 (230 - 760)							
	Heat	W	510 (250 - 860)							
Power factor ☆	Cool	%	90							
	Heat	%	92							
Compressor	Type	Hermetically sealed rotary type								
	Model	DA89X1F-23F								
	Oil charge	Ester oil VG74 370ml								
Refrigerant system	Evaporator	Louver Fin and Grooved tube type								
	Condenser	Corrugate Fin and Grooved tube type								
	Control	Expansion valve								
	Refrigerant (R410A)	830g								
	De-Ice system	Micro computer controled reversed systems								
Noise level (at cooling)	High	dB(A)	37	45						
	Low	dB(A)	34	-						
	Soft	dB(A)	28	-						
Fan system										
Drive		Direct drive								
Air flow quantity (at cooling)	High	m ³ /min.	10.3	23.3						
	Low	m ³ /min.	9.0	-						
	Soft	m ³ /min.	6.6	-						
Fan		Centrifugal fan		Propeller fan						
Connections										
Refrigerant coupling		Flare type								
Refrigerant tube size Gas, Liquid		3/8", 1/4"								
Drain piping mm		O.D φ 20								
Others										
Safety device		Compressor: Thermal protector								
		Fan motors: Thermal fuse								
		Fuse, Micro computer control								
Air filters		Polypropylene net (Washable)								
Net dimensions	Width	mm	1025	730						
	Height	mm	212	540						
	Depth	mm	680	250						
Net weight		kg	31	33						

NOTE: The condition of star "☆" marked item are 'ISO5151' : 1994(E), condition T1, Voltage 230V.

2. GS-XP09FR / AE-X9FR

ITEMS		MODEL	INDOOR UNIT GS-XP09FR	OUTDOOR UNIT AE-X9FR
Cooling capacity (Min. ~ Max.)		kW	2.64 (0.9 - 3.4)	
Heating capacity (Min. ~ Max.)		kW	3.1 (0.9 - 4.5)	
Moisture removal (at cooling)		Liters/h	0.2	
Electrical data				
Phase			Single	
Rated frequency	Hz		50	
Rated voltage	V		230	
Rated current ☆ (Min - Max.)	Cool	A	3.6 (1.2 - 4.4)	
	Heat	A	3.5 (1.3 - 5.4)	
Rated input ☆ (Min - Max.)	Cool	W	780 (230 - 960)	
	Heat	W	730 (250 - 1120)	
Power factor ☆	Cool	%	94	
	Heat	%	91	
Compressor	Type		Hermetically sealed rotary type	
	Model		DA89X1F-23F	
	Oil charge		Ester oil VG74 370ml	
Refrigerant system	Evaporator		Louver Fin and Grooved tube type	
	Condenser		Corrugate Fin and Grooved tube type	
	Control		Expansion valve	
	Refrigerant (R410A)		830g	
	De-Ice system		Micro computer controled reversed systems	
Noise level (at cooling)	High	dB(A)	39	45
	Low	dB(A)	34	-
	Soft	dB(A)	28	-
Fan system				
Drive			Direct drive	
Air flow quantity (at cooling)	High	m ³ /min.	11.1	23.3
	Low	m ³ /min.	9.0	-
	Soft	m ³ /min.	6.6	-
Fan			Centrifugal fan	Propeller fan
Connections				
Refrigerant coupling			Flare type	
Refrigerant tube size Gas, Liquid			3/8", 1/4"	
Drain piping mm			O.D φ 20	
Others				
Safety device			Compressor: Thermal protector	
			Fan motors: Thermal fuse	
			Fuse, Micro computer control	
Air filters			Polypropylene net (Washable)	
Net dimensions	Width	mm	1025	730
	Height	mm	212	540
	Depth	mm	680	250
Net weight		kg	31	33

NOTE: The condition of star "☆" marked item are 'ISO5151' : 1994(E), condition T1, Voltage 230V.

3. GS-XP12FR / AE-X12FR

ITEMS		MODEL	INDOOR UNIT GS-XP12FR	OUTDOOR UNIT AE-X12FR		
Cooling capacity (Min. ~ Max.)		kW	3.5 (0.9 - 4.0)			
Heating capacity (Min. ~ Max.)		kW	4.0 (0.9 - 5.8)			
Moisture removal (at cooling)		Liters/h	0.9			
Electrical data						
Phase		Single				
Rated frequency	Hz	50				
Rated voltage	V	230				
Rated current ☆ (Min - Max.)	Cool	A	5.0 (1.2 - 6.0)			
	Heat	A	4.7 (1.3 - 7.0)			
Rated input ☆ (Min - Max.)	Cool	W	1090 (230 - 1300)			
	Heat	W	1030 (250 - 1560)			
Power factor ☆	Cool	%	95			
	Heat	%	95			
Compressor	Type	Hermetically sealed rotary type				
	Model	5RS102XBE01				
	Oil charge	RB68A or FREOL ALPHA68M 320ml				
Refrigerant system	Evaporator	Louver Fin and Grooved tube type				
	Condenser	Corrugate Fin and Grooved tube type				
	Control	Expansion valve				
	Refrigerant (R410A)	1030g				
	De-Ice system	Micro computer controled reversed systems				
Noise level (at cooling)	High	dB(A)	41	48		
	Low	dB(A)	35	-		
	Soft	dB(A)	29	-		
Fan system						
Drive		Direct drive				
Air flow quantity (at cooling)	High	m ³ /min.	12.0	24.4		
	Low	m ³ /min.	9.5	-		
	Soft	m ³ /min.	7.0	-		
Fan		Centrifugal fan		Propeller fan		
Connections						
Refrigerant coupling		Flare type				
Refrigerant tube size Gas, Liquid		3/8", 1/4"				
Drain piping mm		O.D φ 20				
Others						
Safety device		Compressor: Thermal protector				
		Fan motors: Thermal fuse				
		Fuse, Micro computer control				
Air filters		Polypropylene net (Washable)				
Net dimensions	Width	mm	1025	730		
	Height	mm	212	540		
	Depth	mm	680	250		
Net weight		kg	31	37		

NOTE: The condition of star "☆" marked item are 'ISO5151' : 1994(E), condition T1, Voltage 230V.

4. GS-XP18FR / GU-XR18FR

ITEMS		MODEL	INDOOR UNIT GS-XP18FR	OUTDOOR UNIT GU-XR18FR		
Cooling capacity (Min. ~ Max.)		kW	5.0 (1.7 - 6.1)			
Heating capacity (Min. ~ Max.)		kW	6.2 (1.7 - 7.5)			
Moisture removal (at cooling)		Liters/h	1.0			
Electrical data						
Phase		Single				
Rated frequency	Hz	50				
Rated voltage	V	230				
Rated current ☆ (Min - Max.)	Cool	A	7.2 (1.7 - 12.3)			
	Heat	A	7.8 (1.7 - 10.0)			
Rated input ☆ (Min - Max.)	Cool	W	1560 (370 - 2650)			
	Heat	W	1700 (370 - 2200)			
Power factor ☆	Cool	%	94			
	Heat	%	95			
Compressor	Type	Hermetically sealed rotary type				
	Model	DA130A1F-23F				
	Oil charge	Ester oil VG74 450ml				
Refrigerant system	Evaporator	Louver Fin and Grooved tube type				
	Condenser	Corrugate Fin and Grooved tube type				
	Control	Expansion valve				
	Refrigerant (R410A)	1220g				
	De-Ice system	Micro computer controled reversed systems				
Noise level (at cooling)	High	dB(A)	43	54		
	Low	dB(A)	38	-		
	Soft	dB(A)	34	-		
Fan system						
Drive		Direct drive				
Air flow quantity (at cooling)	High	m ³ /min.	16.5	54		
	Low	m ³ /min.	13.3	-		
	Soft	m ³ /min.	11.0	-		
Fan		Centrifugal fan	Propeller fan			
Connections						
Refrigerant coupling		Flare type				
Refrigerant tube size Gas, Liquid		1/2", 1/4"				
Drain piping mm		O.D φ 20				
Others						
Safety device		Compressor: Thermal protector				
		Fan motors: Thermal fuse				
		Fuse, Micro computer control				
Air filters		Polypropylene net (Washable)				
Net dimensions	Width	mm	1300	890		
	Height	mm	212	800		
	Depth	mm	680	320		
Net weight		kg	34	57		

NOTE: The condition of star "☆" marked item are 'ISO5151' : 1994(E), condition T1, Voltage 230V.

5. GS-XP24FR / GU-XR24FR

ITEMS		MODEL	INDOOR UNIT GS-XP24FR	OUTDOOR UNIT GU-XR24FR		
Cooling capacity (Min. ~ Max.)		kW	7.0 (2.4 - 8.0)			
Heating capacity (Min. ~ Max.)		kW	8.0 (2.8 - 9.0)			
Moisture removal (at cooling)		Liters/h	2.2			
Electrical data						
Phase		Single				
Rated frequency	Hz	50				
Rated voltage	V	230				
Rated current ☆ (Min - Max.)	Cool	A	10.0 (2.9 - 14.3)			
	Heat	A	10.1 (3.4 - 12.9)			
Rated input ☆ (Min - Max.)	Cool	W	2180 (630 - 3120)			
	Heat	W	2210 (730 - 2800)			
Power factor ☆	Cool	%	95			
	Heat	%	95			
Compressor	Type	Hermetically sealed rotary type				
	Model	DA220A2F-20L				
	Oil charge	Ester oil VG74 700ml				
Refrigerant system	Evaporator	Louver Fin and Grooved tube type				
	Condenser	Corrugate Fin and Grooved tube type				
	Control	Expansion valve				
	Refrigerant (R410A)	1800g				
	De-Ice system	Micro computer controled reversed systems				
Noise level (at cooling)	High	dB(A)	46	55		
	Low	dB(A)	41	-		
	Soft	dB(A)	34	-		
Fan system						
Drive		Direct drive				
Air flow quantity (at cooling)	High	m ³ /min.	19.0	50		
	Low	m ³ /min.	15.5	-		
	Soft	m ³ /min.	11.5	-		
Fan		Centrifugal fan	Propeller fan			
Connections						
Refrigerant coupling		Flare type				
Refrigerant tube size Gas, Liquid		5/8", 3/8"				
Drain piping mm		O.D φ 20				
Others						
Safety device		Compressor: Thermal protector				
		Fan motors: Thermal fuse				
		Fuse, Micro computer control				
Air filters		Polypropylene net (Washable)				
Net dimensions	Width	mm	1300	890		
	Height	mm	212	800		
	Depth	mm	680	320		
Net weight		kg	36	65		

NOTE: The condition of star "☆" marked item are 'ISO5151' : 1994(E), condition T1, Voltage 230V.

6. GS-XP27FR / GU-XR27FR

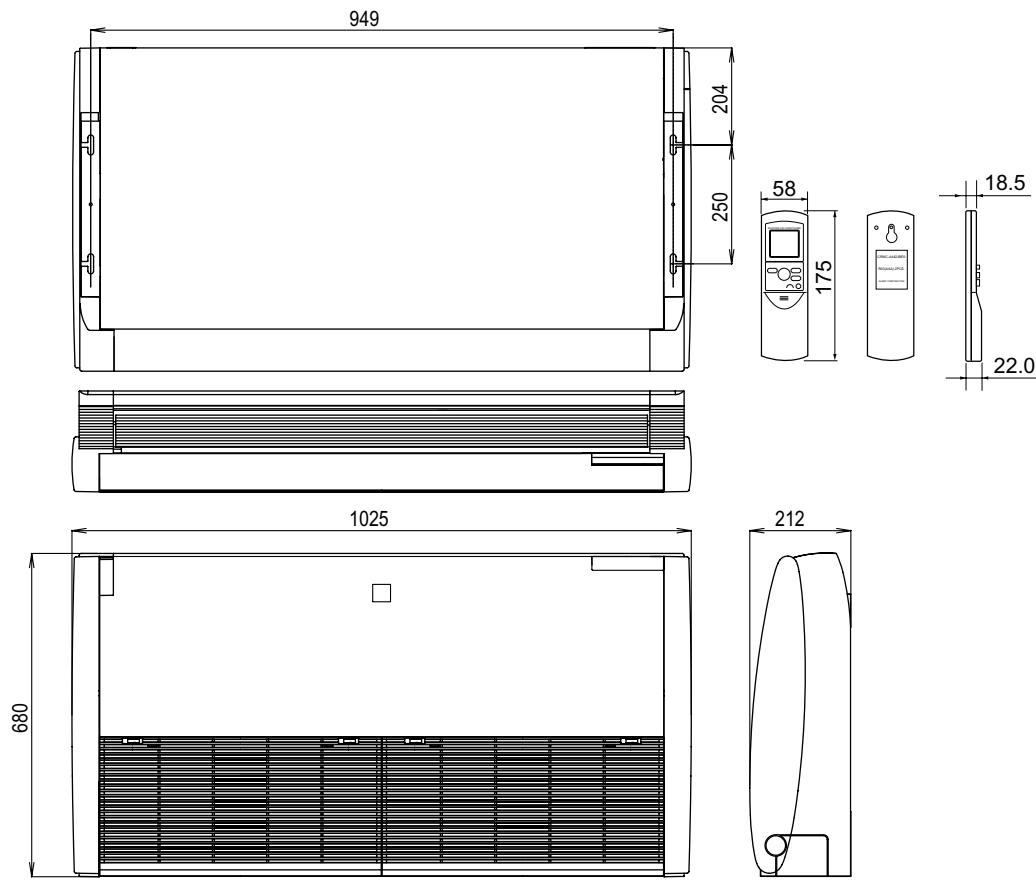
ITEMS		MODEL	INDOOR UNIT GS-XP27FR	OUTDOOR UNIT GU-XR27FR		
Cooling capacity (Min. > Max.)		kW	8.0 (2.4 - 8.5)			
Heating capacity (Min. > Max.)		kW	9.0 (2.8 - 10.0)			
Moisture removal (at cooling)		Liters/h	3.0			
Electrical data						
Phase		Single				
Rated frequency	Hz	50				
Rated voltage	V	230				
Rated current ☆ (Min - Max.)	Cool	A	14.0 (2.9 - 17.2)			
	Heat	A	12.1 (3.4 - 15.6)			
Rated input ☆ (Min - Max.)	Cool	W	3060 (630 - 3750)			
	Heat	W	2630 (730 - 3400)			
Power factor ☆	Cool	%	95			
	Heat	%	95			
Compressor	Type	Hermetically sealed rotary type				
	Model	DA220A2F-20L				
	Oil charge	Ester oil VG74 700ml				
Refrigerant system	Evaporator	Louver Fin and Grooved tube type				
	Condenser	Corrugate Fin and Grooved tube type				
	Control	Expansion valve				
	Refrigerant (R410A)	1800g				
	De-Ice system	Micro computer controled reversed systems				
Noise level (at cooling)	High	dB(A)	47	56		
	Low	dB(A)	41	-		
	Soft	dB(A)	34	-		
Fan system						
Drive		Direct drive				
Air flow quantity (at cooling)	High	m ³ /min.	19.7	50		
	Low	m ³ /min.	15.5	-		
	Soft	m ³ /min.	11.5	-		
Fan		Centrifugal fan		Propeller fan		
Connections						
Refrigerant coupling		Flare type				
Refrigerant tube size Gas, Liquid		5/8", 3/8"				
Drain piping mm		O.D φ 20				
Others						
Safety device		Compressor: Thermal protector				
		Fan motors: Thermal fuse				
		Fuse, Micro computer control				
Air filters		Polypropylene net (Washable)				
Net dimensions	Width	mm	1300	890		
	Height	mm	212	800		
	Depth	mm	680	320		
Net weight		kg	36	65		

NOTE: The condition of star "☆" marked item are 'ISO5151' : 1994(E), condition T1, Voltage 230V.

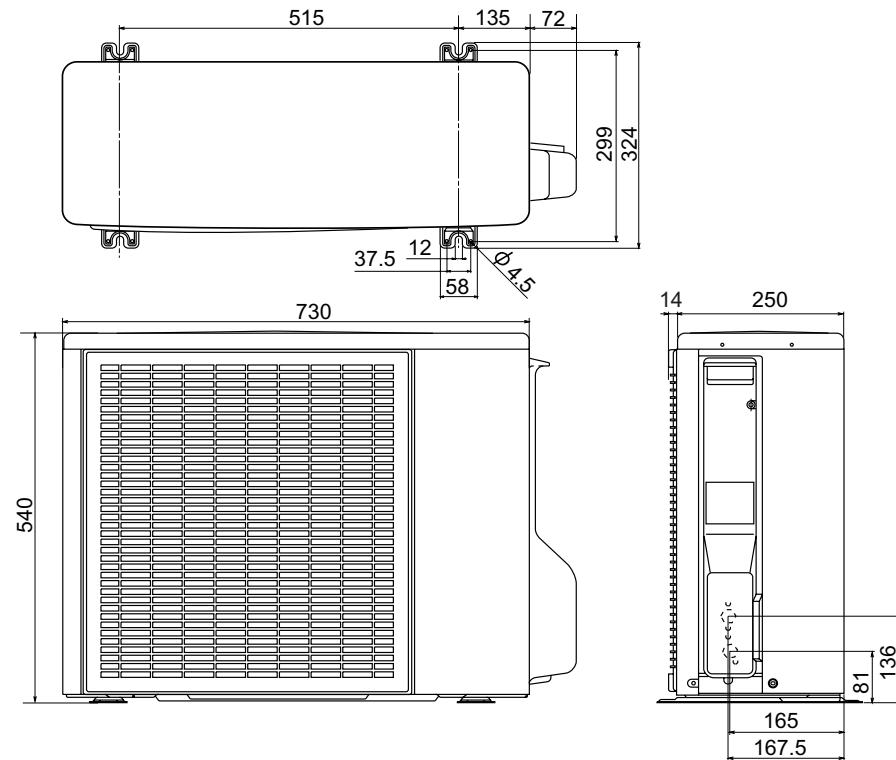
[2] EXTERNAL DIMENSION

1. GS-XP07FR, GS-XP09FR, GS-XP12FR / AE-X7FR, AE-X9FR, AE-X12FR

1.1. Indoor unit

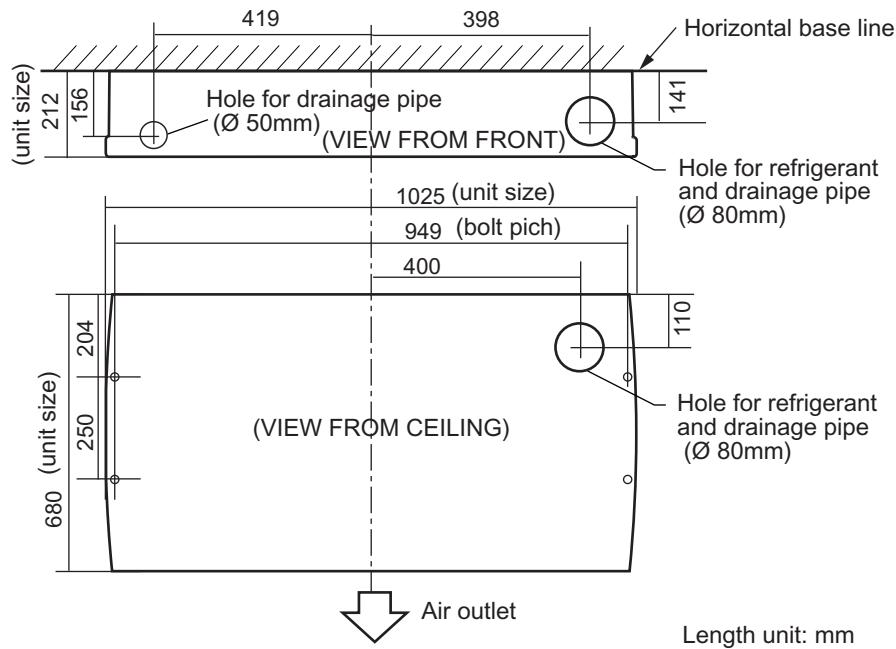


1.2. Outdoor unit

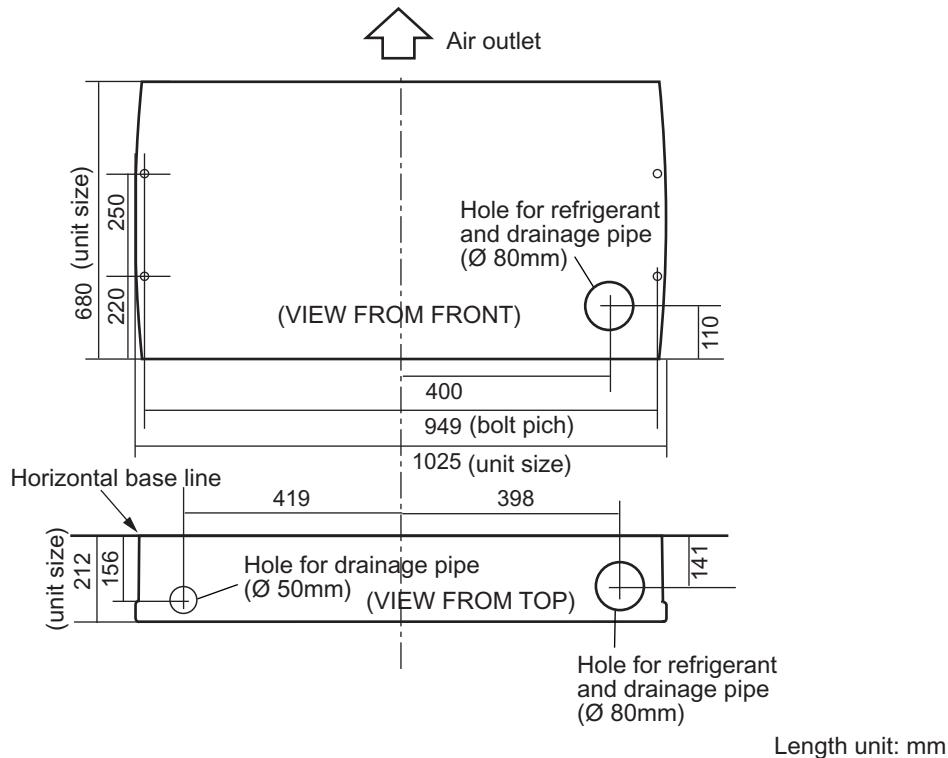


1.3. Installation demensions

1.3.1 Ceiling type



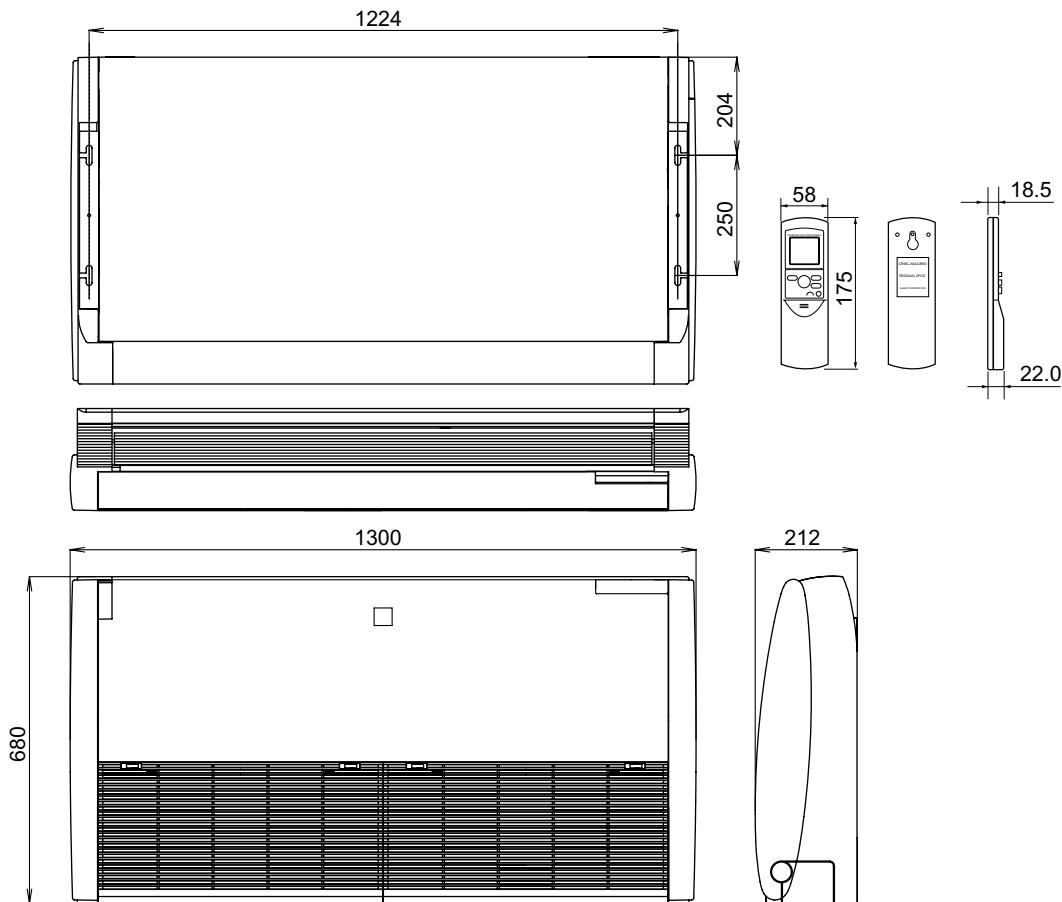
1.3.2 Floor type



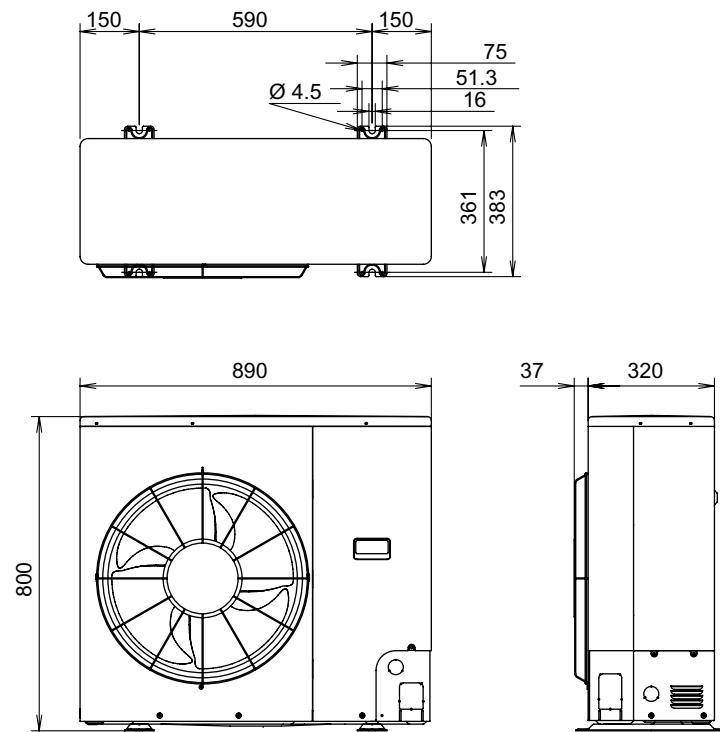
GSXP07FR

2. GS-XP18FR, GS-XP24FR, GS-XP27FR / GU-XR18FR, GU-XR24FR, GU-XR27FR

2.1. Indoor unit

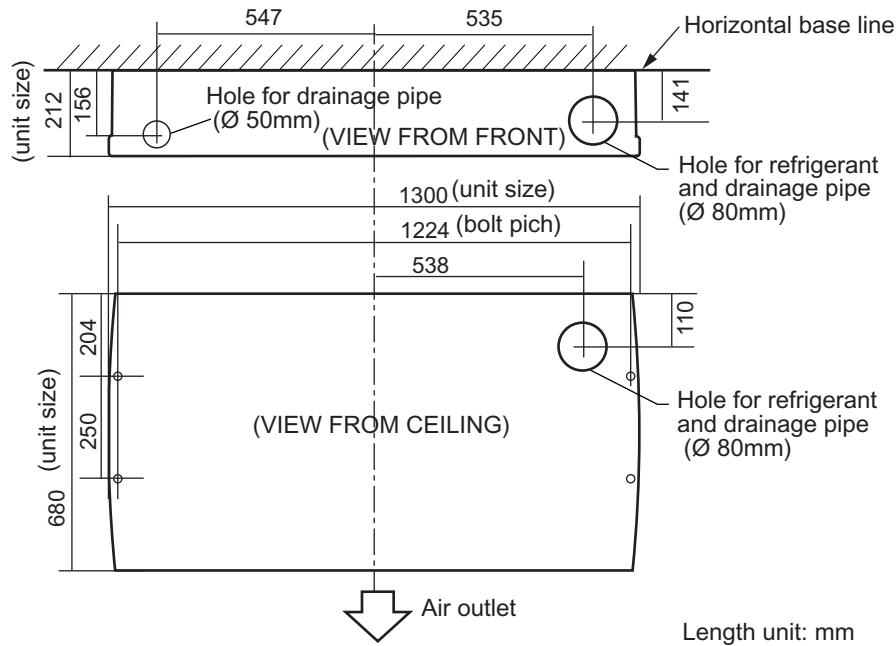


2.2. Outdoor unit

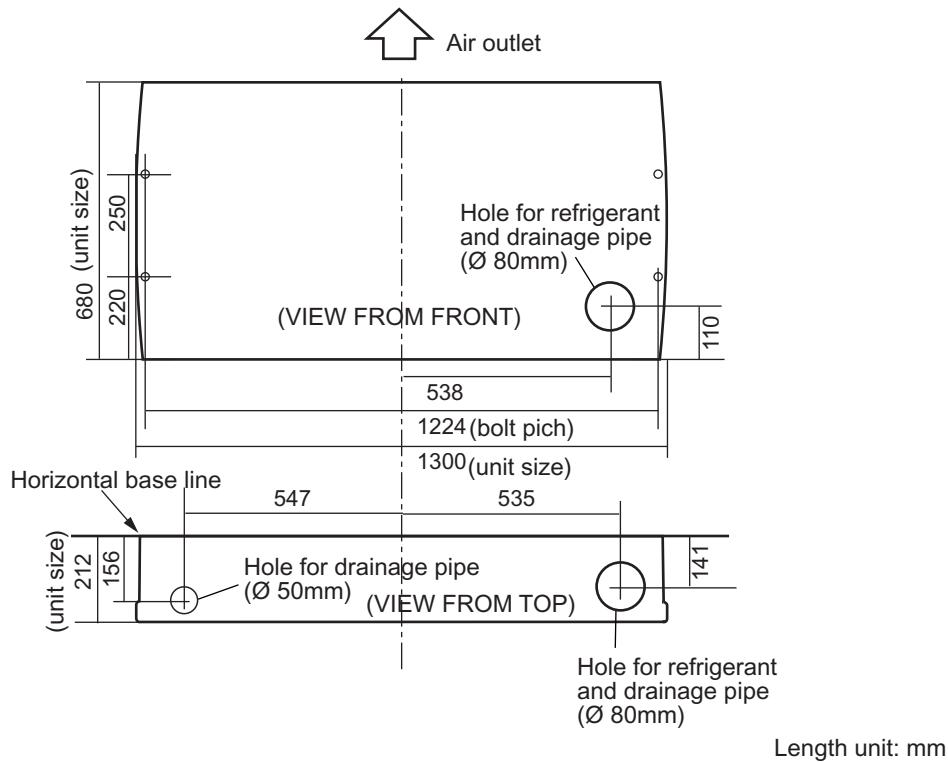


2.3. Installation dimensions

2.3.1 Ceiling type



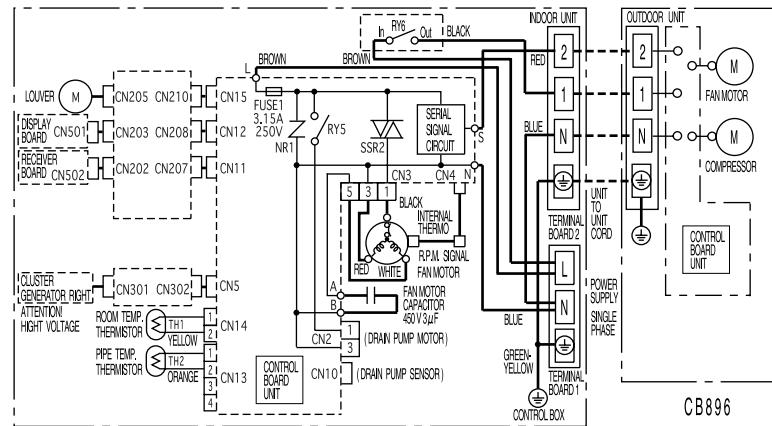
2.3.2 Floor type



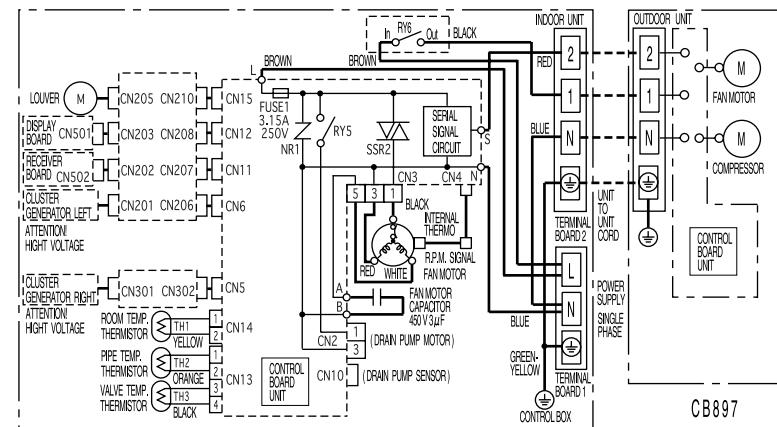
[3] WIRING DIAGRAM

1. Indoor unit

1.1. GS-XP07FR, GS-XP09FR, GS-XP12FR

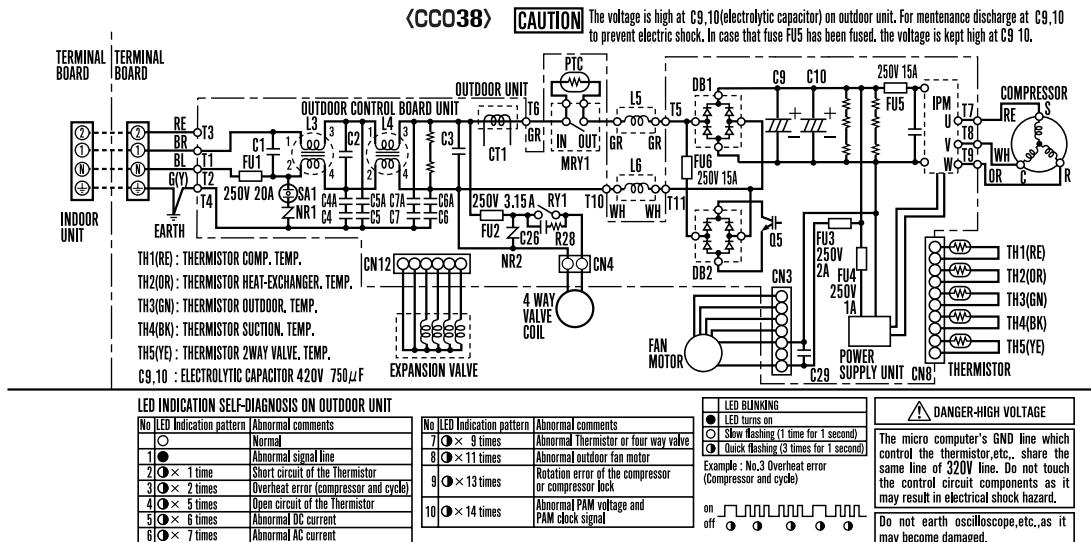


1.2. GS-XP18FR, GS-XP24FR, GS-XP27FR

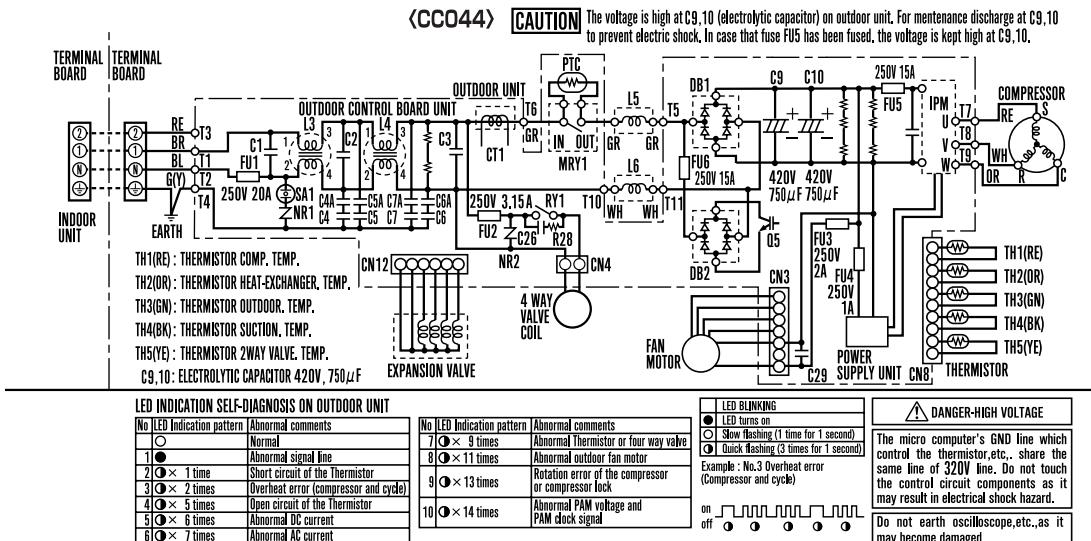


2. Outdoor unit

2.1. AE-X7FR, AE-X9FR



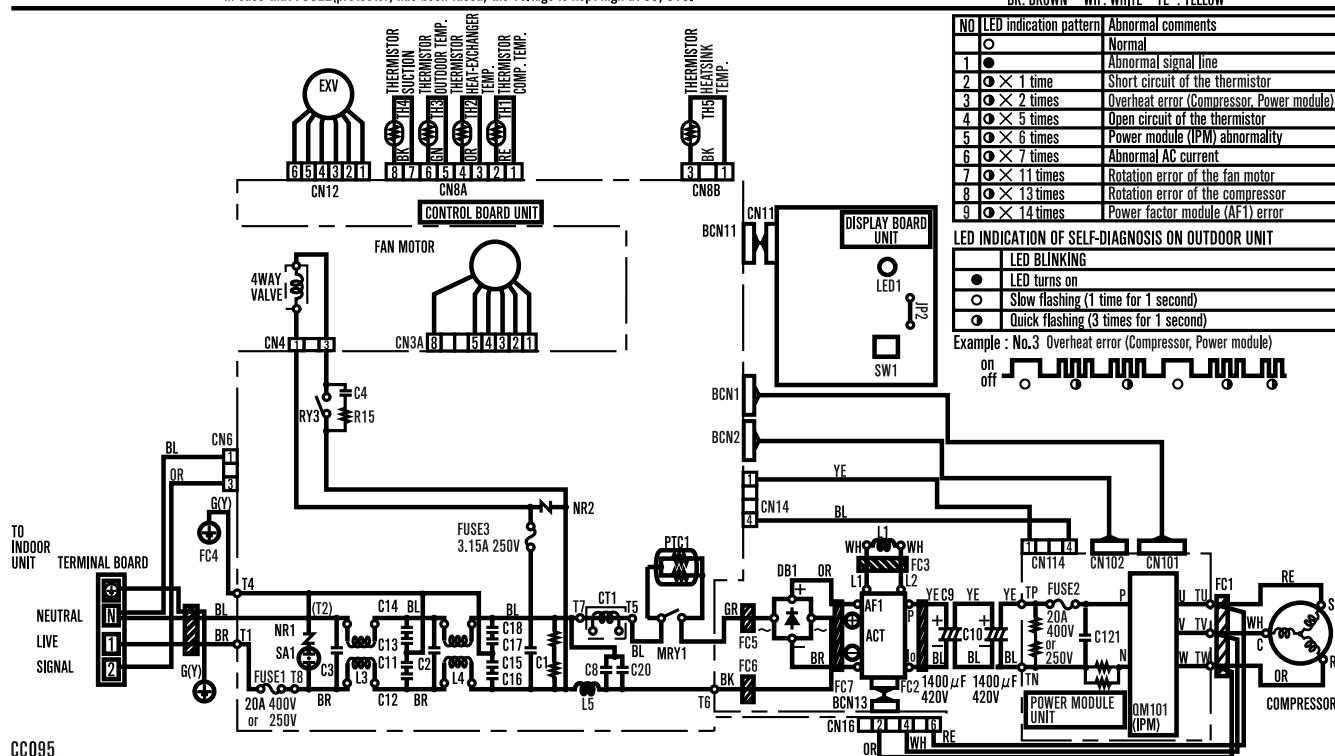
2.2. AE-X12FR



2.3. GU-XR18FR

WIRING DIAGRAM

CAUTION The voltage is high at C9, C10 (electronic capacitors) on outdoor unit. For maintenance discharge at C9, C10 to prevent electric shock. BK: BLACK GR : GRAY OR : ORANGE GN: GREEN
BL: BLUE RE : RED G(Y): GREEN/YELLOW BR: BROWN WH : WHITE YE : YELLOW

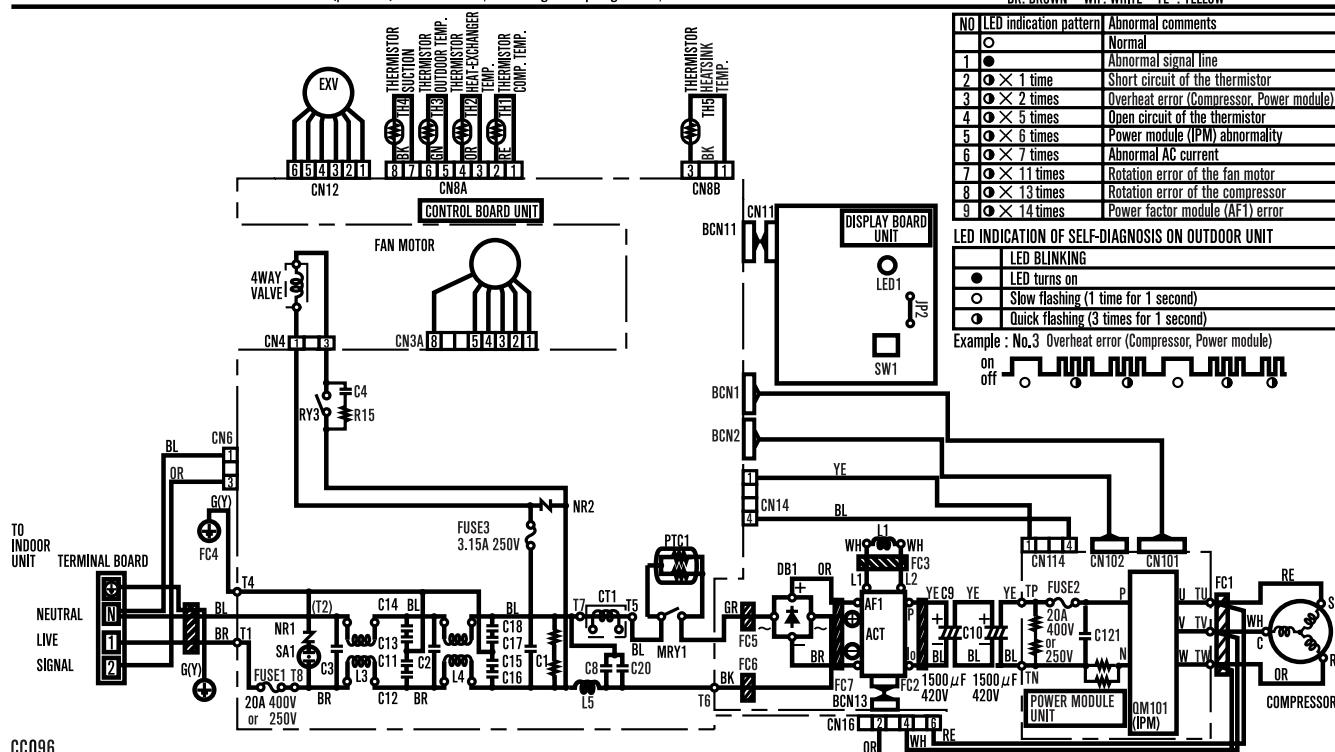


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2.4. GU-XR24FR, GU-XR27FR

WIRING DIAGRAM

CAUTION The voltage is high at C9, C10 (electronic capacitors) on outdoor unit. For maintenance discharge at C9, C10 to prevent electric shock. BK: BLACK GR : GRAY OR : ORANGE GN: GREEN
BL: BLUE RE : RED G(Y): GREEN/YELLOW BR: BROWN WH : WHITE YE : YELLOW



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[4] ELECTRICAL PARTS

1. Indoor unit

1.1. GS-XP07FR, GS-XP09FR, GS-XP12FR

DESCRIPTION	MODEL	REMARKS
Indoor fan motor	MLB052	220 - 240V, 50Hz
Indoor fan motor capacitor	-	450V, 3μF
Transformer	-	Primary; AC 220 - 240V, 50Hz Secondary; AC19V, 50Hz
FUSE1	-	QFS-GA062JBZZ (250V, 3.15A)
FUSE2	-	QFS-GA064JBZZ (250V, 1A)

1.2. GS-XP18FR, GS-XP24FR, GS-XP27FR

DESCRIPTION	MODEL	REMARKS
Indoor fan motor	MLB052	220 - 240V, 50Hz
Indoor fan motor capacitor	-	450V, 3μF
Transformer	-	Primary; AC 220 - 240V, 50Hz Secondary; AC19V, 50Hz
FUSE1	-	QFS-GA062JBE0 (250V, 3.15A)
FUSE2	-	QFS-GA064JBZZ (250V, 1A)

2. Outdoor Unit

2.1. AE-X7FR, AE-X9FR

DESCRIPTION	MODEL	REMARKS
Compressor	DA89X1F-23F	D.C. brush-less motor
Outdoor fan motor	MLB078	DC Motor
Fu4	-	QFS-GA064JBZZ (250V, 1A)
Fu3	-	QFS-GA063JBE0 (250V, 2A)
Fu2	-	QFS-GA062JBZZ (250V, 3.15A)
Fu1	-	QFS-CA001JBZZ (250V, 20A)
Fu5, 6	-	QFS-CA002JBZZ (250V, 15A)

2.2. AE-X12FR

DESCRIPTION	MODEL	REMARKS
Compressor	5RS102XBE01	D.C. brush-less motor
Outdoor fan motor	MLB078	DC Motor
Fu4	-	QFS-GA064JBZZ (250V, 1A)
Fu3	-	QFS-GA063JBE0 (250V, 2A)
Fu2	-	QFS-GA062JBZZ (250V, 3.15A)
Fu1	-	QFS-CA001JBZZ (250V, 20A)
Fu5, 6	-	QFS-CA002JBZZ (250V, 15A)

2.3. GU-XR18FR

DESCRIPTION	MODEL	REMARKS
Compressor	DA130A1F-23F	
Outdoor fan motor	MLB051	DC Motor
FUSE1	-	QFS-GA065JBZZ (250V, 20A)
FUSE2	-	QFS-GA065JBZZ (250V, 20A)
FUSE3	-	QFS-GA062JBZZ (250V, 3.15A)
FUSE5	-	QFS-GA063JBZZ (250V, 2A)
FUSE6	-	QFS-GA064JBZZ (250V, 1A)

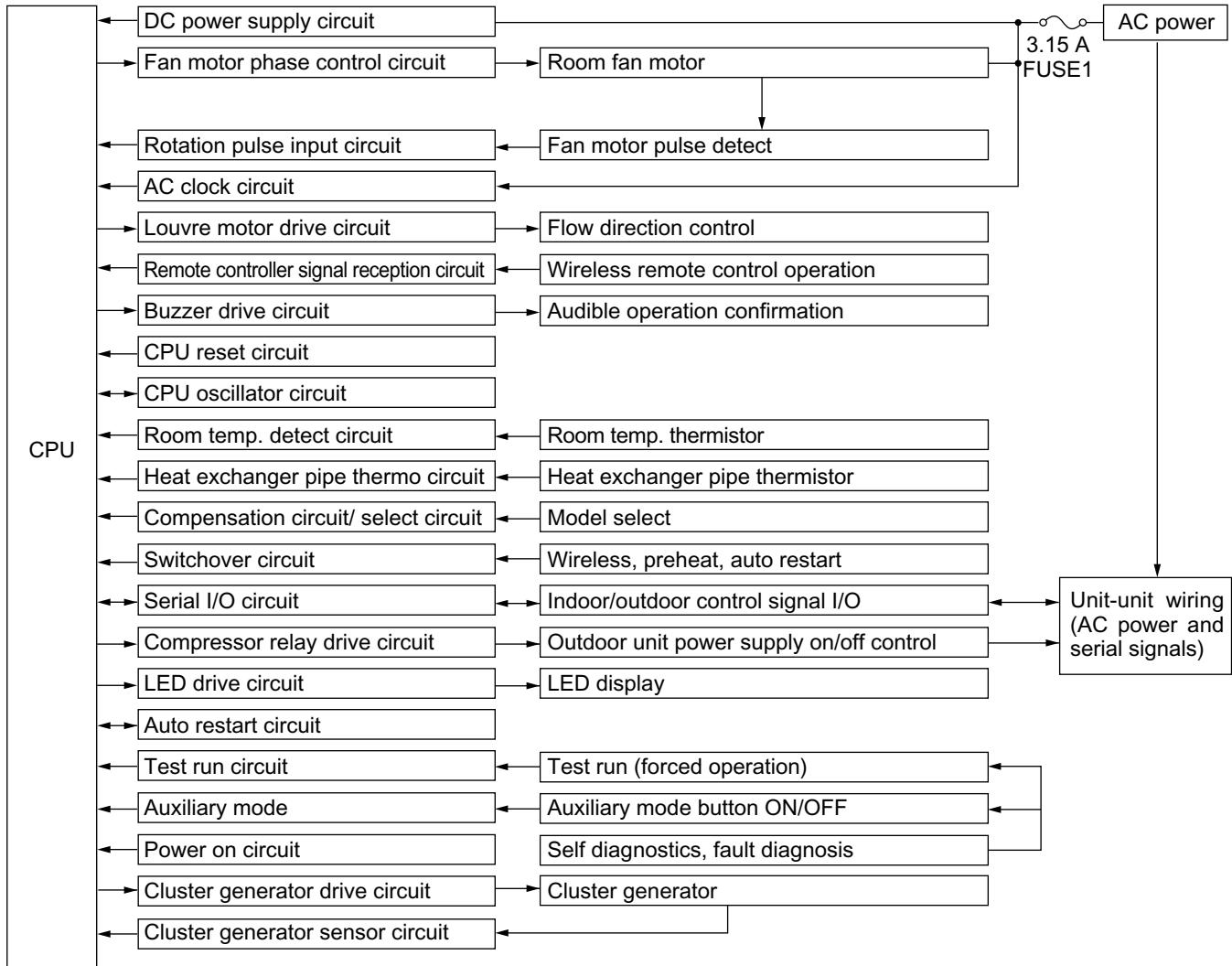
2.4. GU-XR24FR, GU-XR27FR

DESCRIPTION	MODEL	REMARKS
Compressor	DA220A2F-20L	
Outdoor fan motor	MLB051	DC Motor
FUSE1	-	QFS-GA065JBZZ (250V, 20A)
FUSE2	-	QFS-GA065JBZZ (250V, 20A)
FUSE3	-	QFS-GA062JBZZ (250V, 3.15A)
FUSE5	-	QFS-GA063JBZZ (250V, 2A)
FUSE6	-	QFS-GA064JBZZ (250V, 1A)

CHAPTER 2. EXPLANATION OF CIRCUIT AND OPERATION

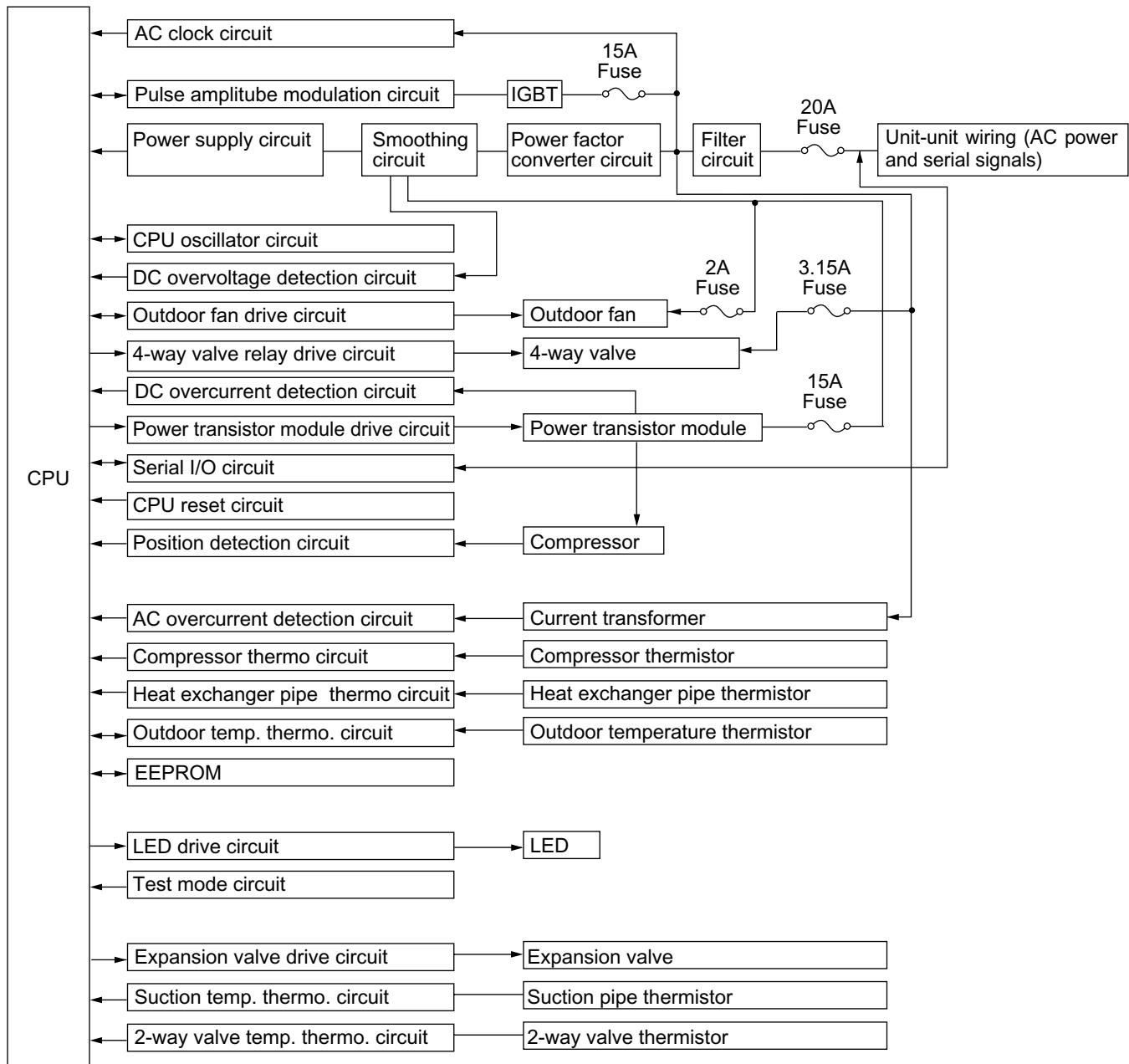
[1] BLOCK DIAGRAMS

1. INDOOR UNIT

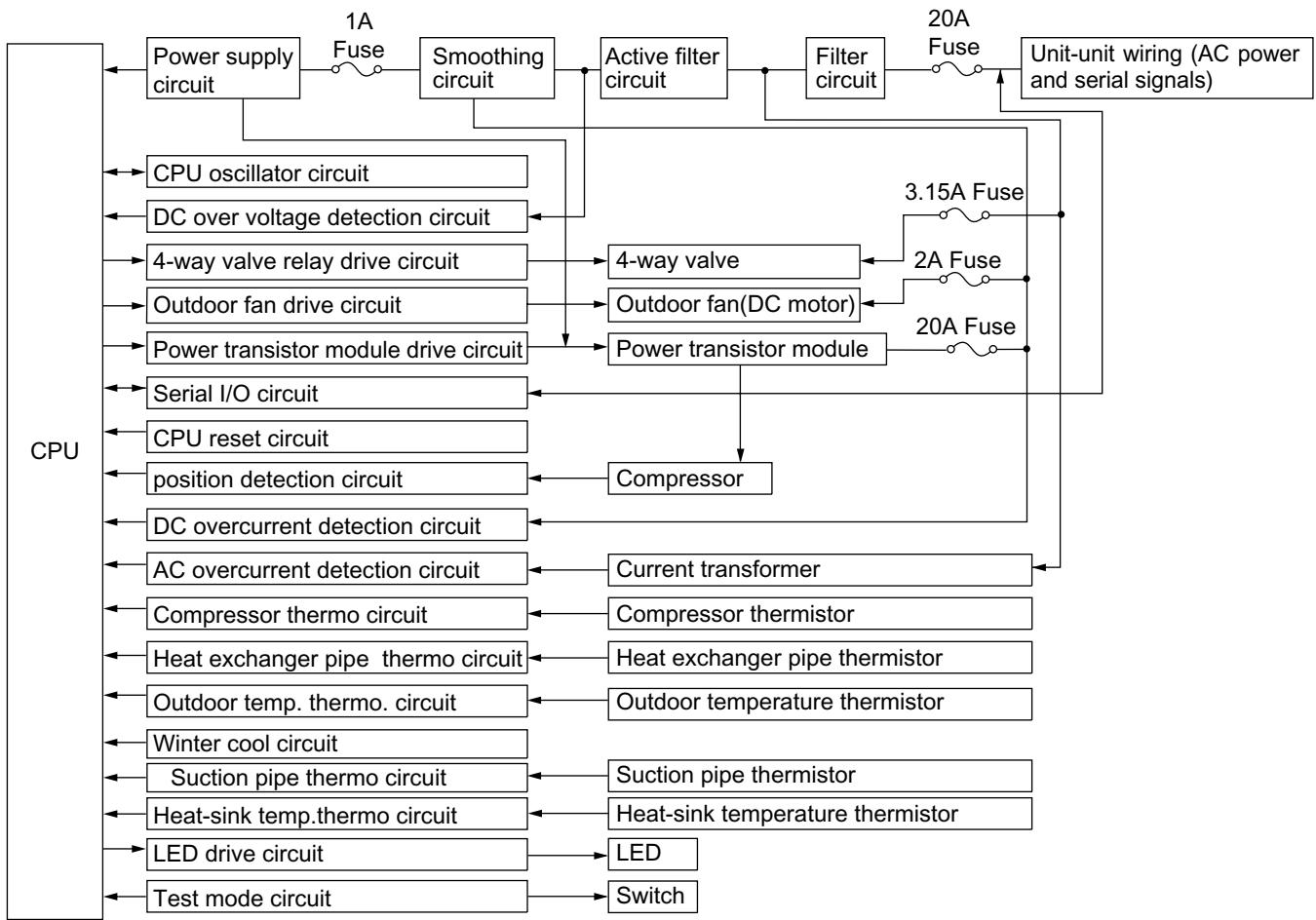


2. OUTDOOR UNIT

2.1. AE-X7FR, AE-X9FR, AE-X12FR



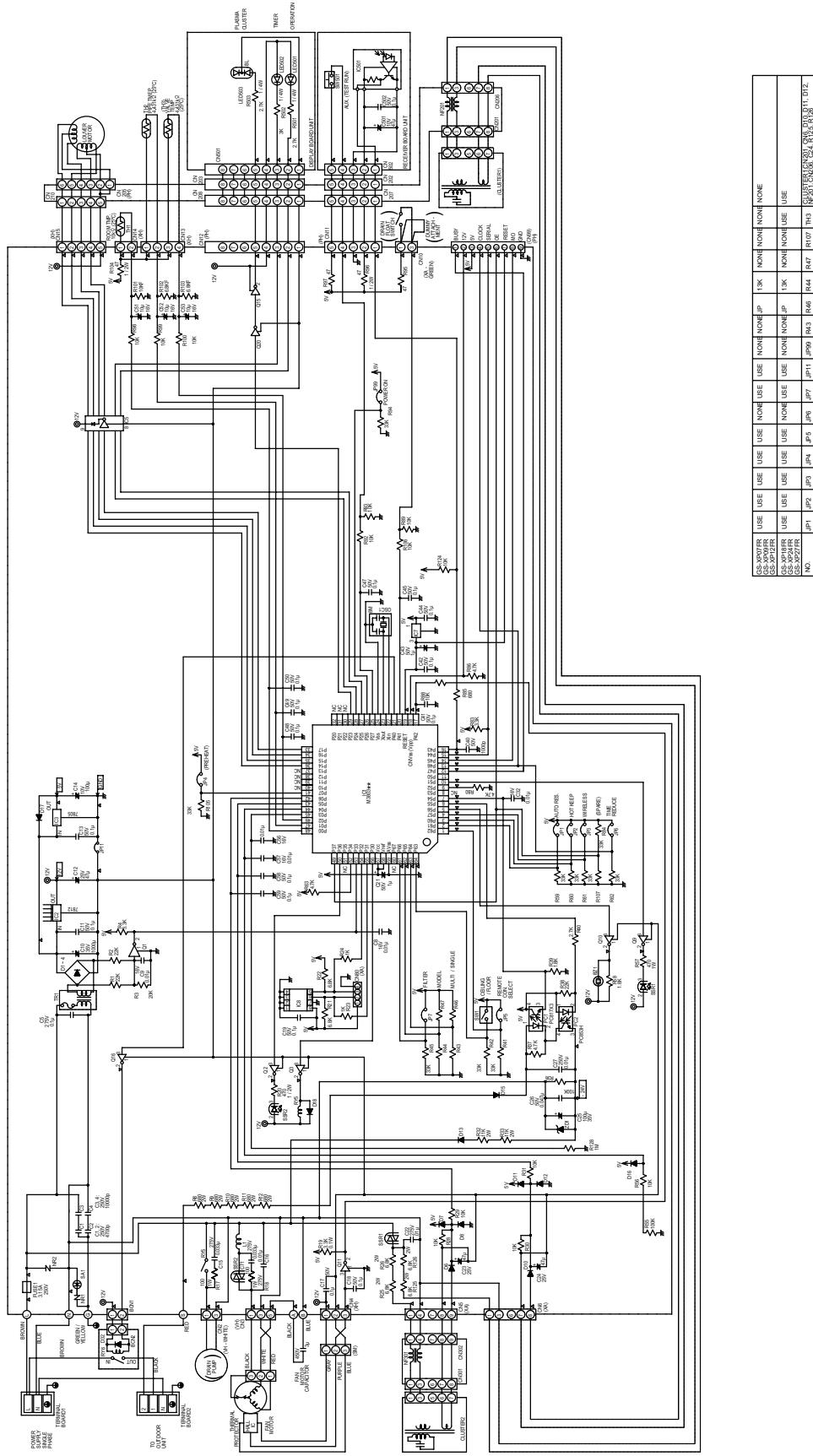
2.2. GU-XR18FR, GU-XR24FR, GU-XR27FR



[2] MICROCOMPUTER CONTROL SYSTEM

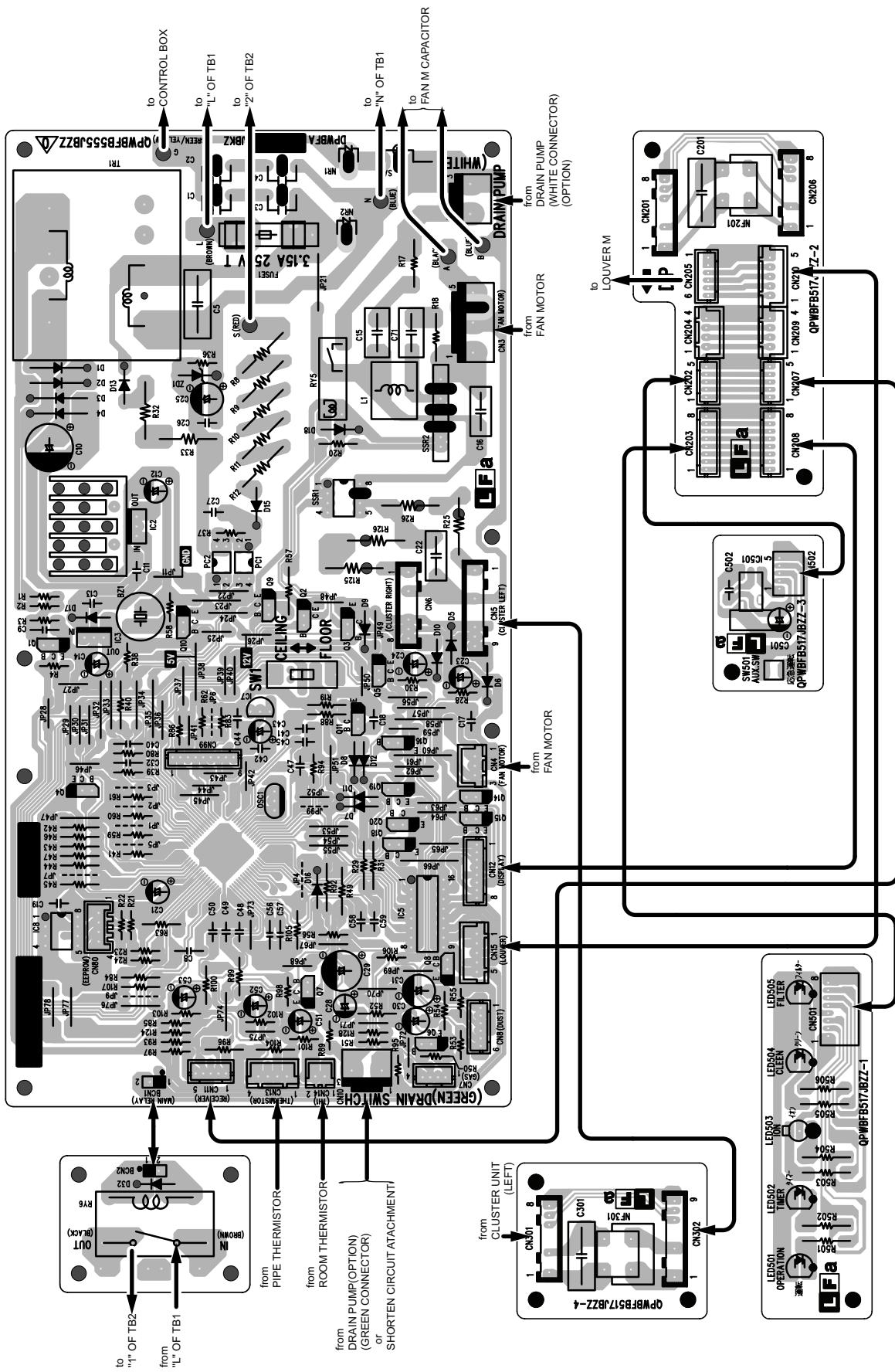
1. INDOOR UNIT

1.1. Electronic Control Circuit Diagram

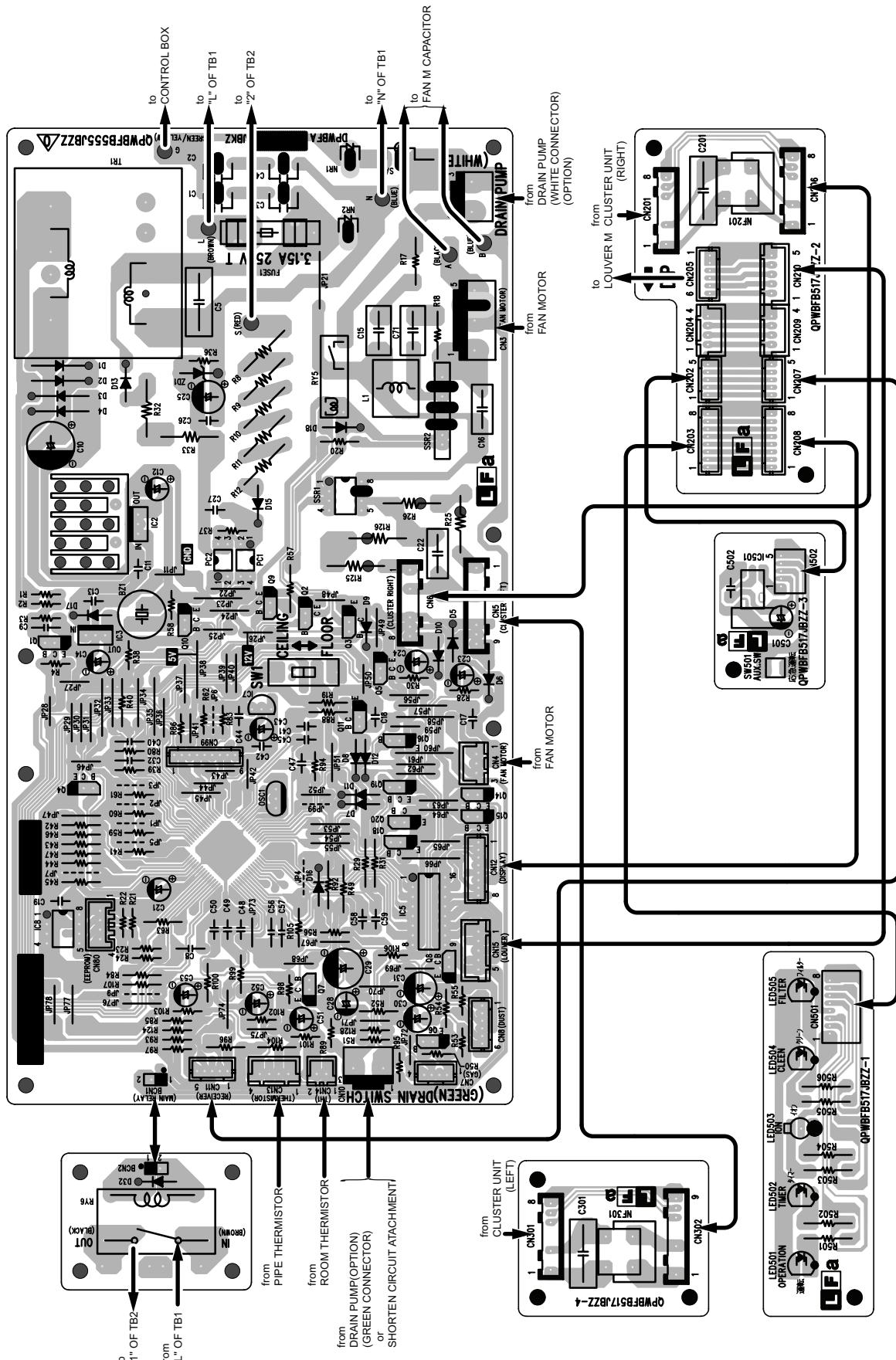


1.2. Printed Wiring Board

1.2.1 GS-XP07FR, GS-XP09FR, GS-XP12FR



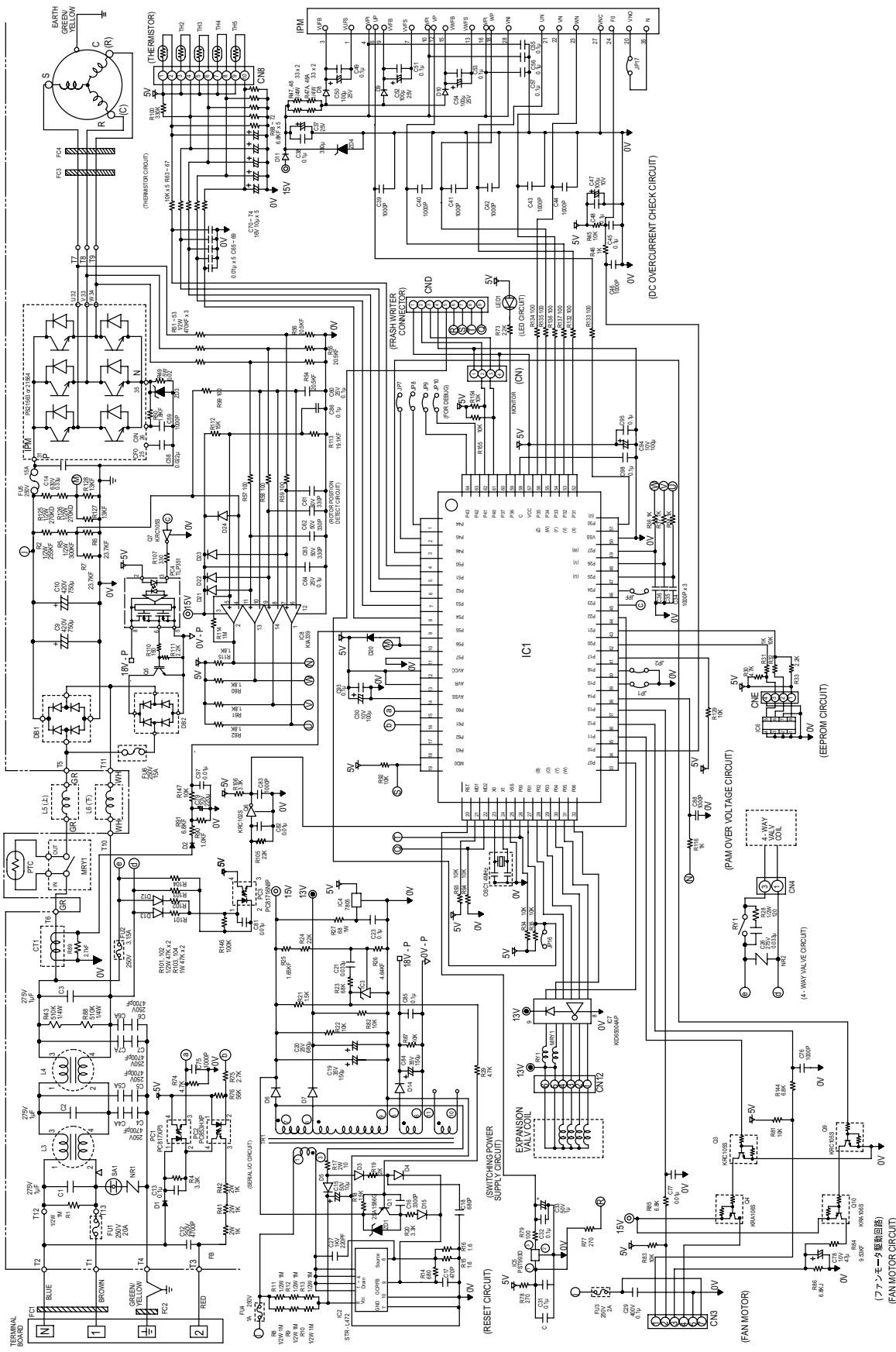
1.2.2 GS-XP18FR, GS-XP24FR, GS-XP27FR



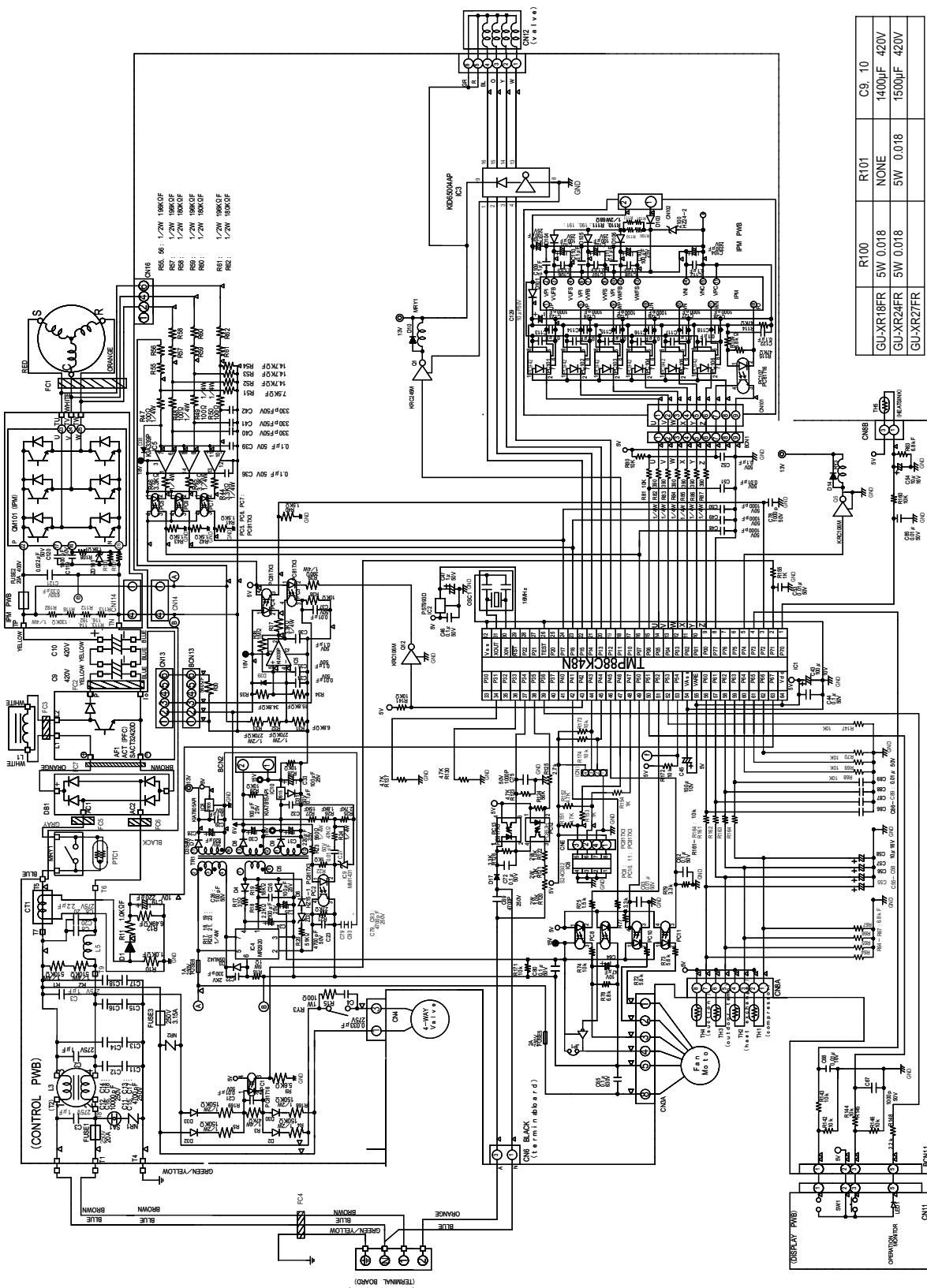
2. OUTDOOR UNIT

2.1. Electronic Control Circuit Diagram

2.1.1 AE-X7FR, AE-X9FR, AE-X12FR

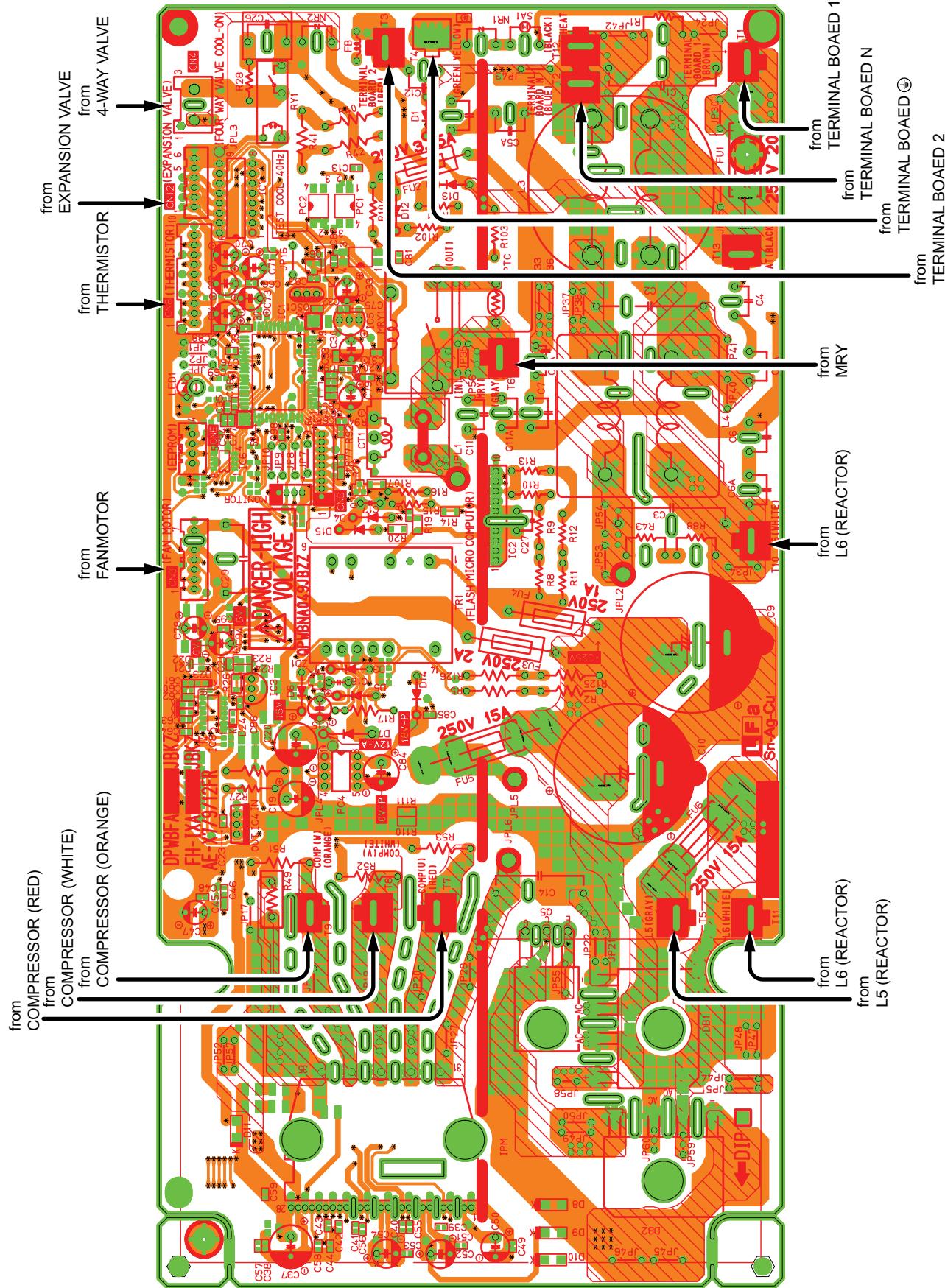


2.1.2 GU-XR18FR, GU-XR24FR, GU-XR27FR

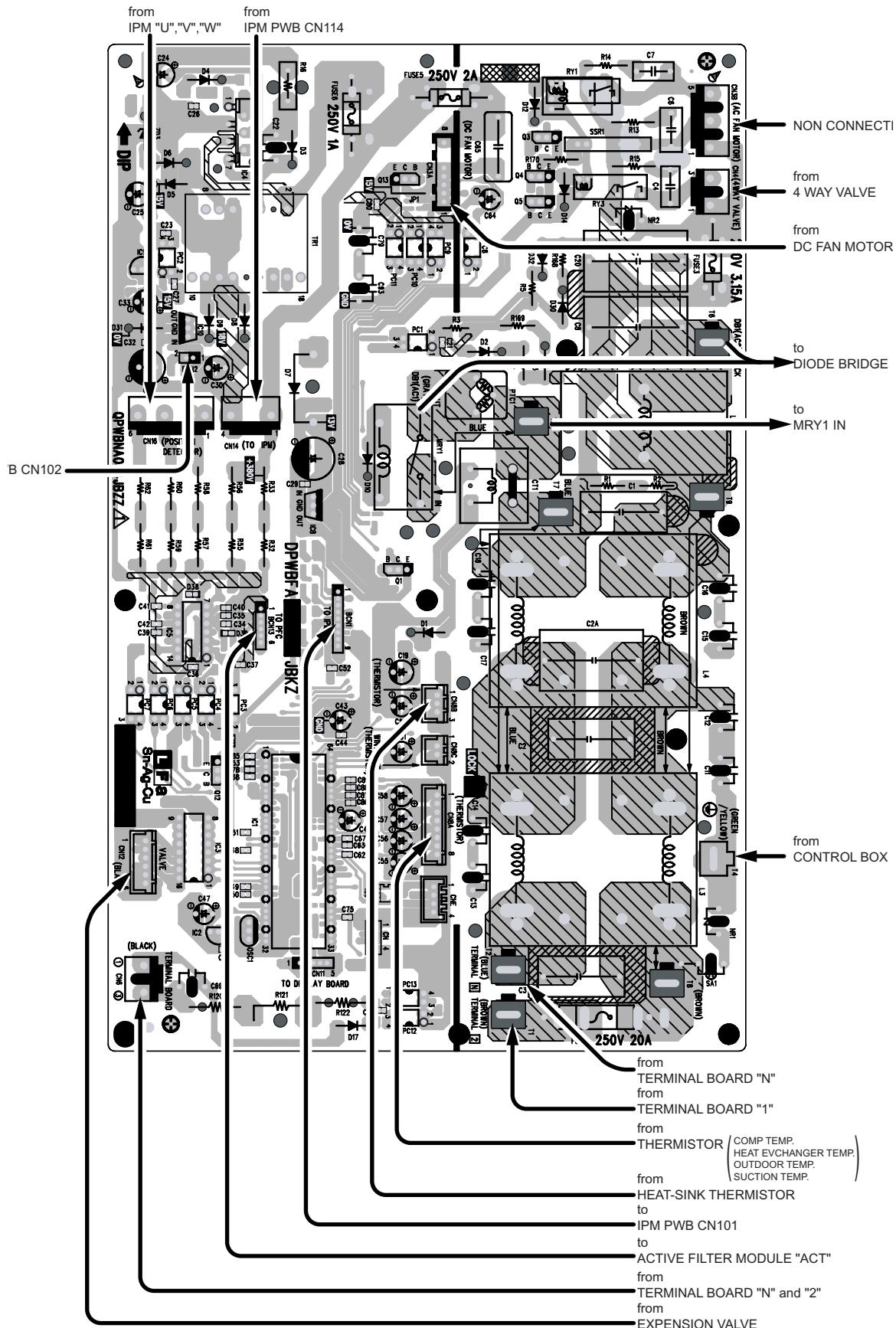


2.2. Printed Wiring Board

2.2.1 AE-X7FR, AE-X9FR, AE-X12FR



2.2.2 GU-XR18FR, GU-XR24FR, GU-XR27FR



[3] FUNCTION

1. INDOOR UNIT

1.1. Temperature Adjustment

1.1.1 Cooling

When the room temperature is higher than the preset temperature by 2°C or more, the unit runs at the maximum operation frequency until the temperature comes down to the preset temperature.

When reaching the preset temperature, the unit runs at the frequency calculated by the fuzzy operation and switches to the normal control.

1.1.2 Heating

When the room temperature is lower than the preset temperature by 3.5°C or more, the unit runs at the maximum operation frequency until the temperature comes down to the preset temperature.

When reaching the preset temperature, the unit runs at the frequency calculated by the fuzzy operation and switches to the normal control.

1.1.3 Dry

After operation begins, 2 minutes of the room temperature is stored in memory, and that becomes the set value.

1.2. Indoor fan control

1.2.1 Cooling

The fan speed can be selected from "Auto", "Soft", "Low", and "High". When "Soft", "Low" or "High" is selected, the fanspeed is constant regardless of the room temperature. When "Auto" is selected, the fan speed automatically changes between "Soft" and "High" depending on the difference between the room and preset temperature.

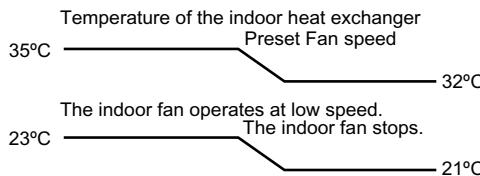
Control for indoor freezing prevention

If the temperature of the indoor heat exchanger stays below approximately 0°C for 4 minutes during cooling or dry, this control stops the compressor. Over 2°C the compressor will run again.

1.2.2 Heating

Control for cold air blowing prevention

When heating begins, this control stops the indoor fan until the temperature of the indoor heat exchanger reaches 23°C. It also stops the fan if the temperature goes below 21°C during operation.



1.3. Hot keep

If the room temperature is in the Hot keep(1) or Hot keep(2) zone during heating, the compressor is turned on and off to prevent overheating.

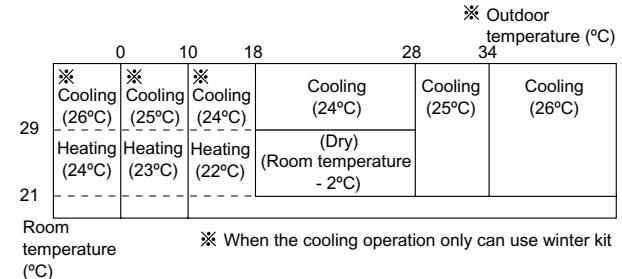
The fan goes off 30 seconds after the compressor goes off.

Zone	Compressor intermittent time		Fan
Hot keep 1 (When room temperature reaches setting temperature.)	Up to 3 times	3min. On 3min. Off	Same as Compressor
	After 4th	6min. On 3min. Off	
Hot keep 2 (Room temperature becomes higher 1°C or more than setting temperature.)	Up to 1st	6min. On 8min. Off	The fan continues to repeat "6min. on - 8min. off".
	After 2nd	off	

1.4. Automatic operation

The operating mode and temperature setting are determined by the room temperature and the external air temperature.

The operating mode will changeover automatically with the following condition.



- From cooling to heating

Cooling mode will change over to heating mode when condition of indoor temperature 1.7°C lower than the set temperature conditions for 5 minutes.

- From heating to cooling

Heating mode will change over to cooling mode when condition of indoor temperature 1.3°C higher than the set temperature conditions for 25 minutes under Hot keep condition.

- When the set temperature is adjusted within the range of ±2°C by the remote control's key.

(▼ ▲), the changeover judgement room temp. will also be shifted within the range of ±2°C.

1.5. ON-timer

The ON-timer is set by pressing the ON-timer button.

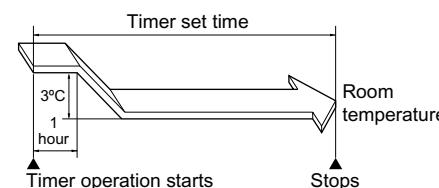
In order to attain the set temperature at the set time.

1.6. OFF-timer

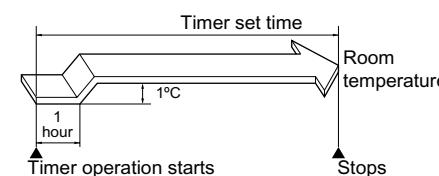
The OFF-timer is set by pressing the OFF-timer button. Operation is as follows:

	Set temperature
Cooling Heating	By fuzzy computing Set the shift up time Final Cooling setting + 1°C Heating setting - 3°C
Dry	Same as above (Final setting + 1°C)

* During Heating



* During Cooling / Dry



1.7. Swing louvre

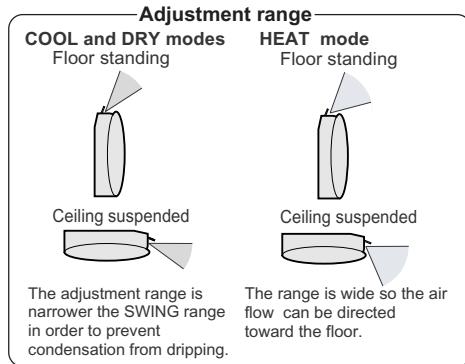
The louvre is moved by a stepping motor to perform swing and fixing in the set position.

If the "FLOW DIRECTION" button is pressed during swing, it will stop. If the "FLOW DIRECTION" button is pressed while it is stopped, it will swing.

The vertical adjustment louvre will change its angle continuously.

Press the SWING button again when the vertical adjustment louvre is at the desired position.

- The louvre will stop moving within the range shown in the diagram.
- The adjusted position will be memorized and will be automatically set to the same position when operated the next time.



1.8. One-hour operation

If this button is pressed when operation is stopped, operation will begin and then stop after 1 hour.

If pressed when it is operating, will stop after one hour.

1.9. Full power operation

Immediately begins cooling or heating at maximum power and air flow.

(During heating)

Operates at setting of 32 °C.

(During cooling)

Operates at setting of 18 °C.

1.10. Power ON start

If a jumper wire is inserted into the place indicated JP99 on the indoor control board, and the power plug is inserted, cooling or heating will be automatically determined by the room temperature sensor on the main unit, and operation will begin.

1.11. Auto Restart

When power failure occurs, after power is recovered, the unit will automatically restart in the same setting which were active before the power failure.

Operating mode (Cool, Heat, Dry)

- Temperature adjustment (within 2°C range) automatic operation
- Temperature setting
- Fan setting
- Air flow direction
- Power ON/OFF
- Automatic operation mode setting
- Swing louver
- Plasmacluster operation mode

Setting not memorized

- Timer setting
- Full power setting

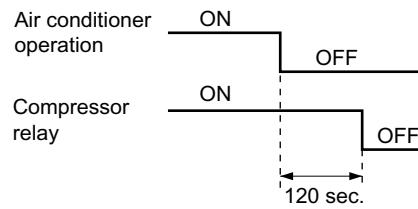
1.12. Error diagnostic display

Indoor unit

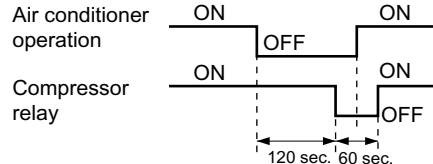
- 1) If the operation is stopped and the emergency operation button is pressed down for 5 seconds or more, the self-diagnosis memory can be recalled.
- 2) Details of self-diagnosis (error mode) are informed by the flashing number as well as the lighting pattern of the operation lamp which flashes with the timer lamp.(For details, refer to Error diagnostic method.)

1.13. Compressor relay

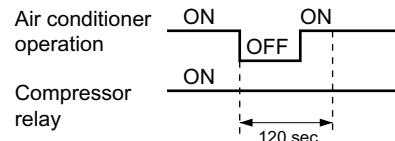
- 1) It is ON during operation, and when operation is stopped, goes OFF after a delay of 120 seconds (not immediately).



- 2) The minimum OFF time of the relay is 60 seconds. It will not go ON again before 60 seconds elapses.



- 3) If air conditioner operation is turned on again during the 120 second delay before the compressor relay goes off, the compressor relay will stay on.



1.14. Drain water control (option)

When the float switch turns OFF (full level), the drain pump is forcibly operated for 5 minutes.

After the pump operates for 5 minutes, the pump turns OFF if the float switch is ON (empty). If the float switch is not ON (empty) even when 6 minutes elapse from the time of pump ON, the equipment stops operating due to a drain pump error.

1.15. Plasmacluster operation

The Plasmacluster ion generator inside the air conditioner will release positive and negative Plasmacluster ions into the room.

Approximately the same numbers of positive and negative ions released into the air will reduce some airborne mold.



1 During operation, press the PLASMACLUSTER button.

- The remote control will display "  "
- The blue PLASMACLUSTER lamp on the unit will light up.

TO CANCEL

Press the PLASMACLUSTER button again.

- The PLASMACLUSTER lamp on the unit will turn off.

NOTES:

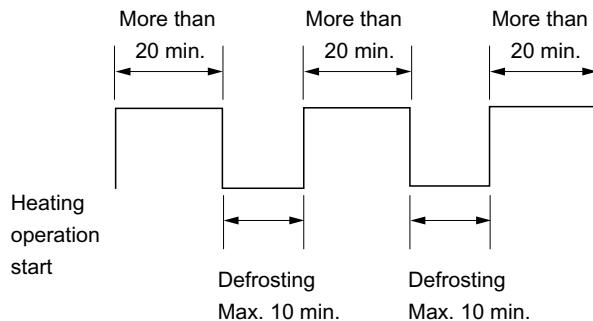
- Use of the PLASMACLUSTER operation will be memorized, and it will be activated the next time you turn on the air conditioner.
- When the PLASMACLUSTER button is pressed while the unit is not operating, the PLASMACLUSTER operation will be performed without accompanying air conditioning mode (eg. HEATING or COOLING). The mode symbol of the remote control will go off and the fan speed can not be set AUTO.

2. OUTDOOR (AE-X7FR, AE-X9FR, AE-X12FR)

2.1. Defrost operation

Defrosting begins during heating if the conditions for compressor operation time and outdoor heat exchanger temperature are met.

When defrosting begins, the indoor and outdoor fans stop. Defrosting stops when the temperature of the outdoor heat exchanger goes above approximately 13°C or defrosting time exceeds 10 minutes.



2.2. Outdoor unit 2-way valve freeze prevention control

If the temperature of the outdoor unit 2-way valve remains below 0°C for 10 consecutive minutes during cooling or dehumidifying operation, the compressor operation stops temporarily in order to prevent freezing.

When the temperature of the 2-way valve rises to 10°C or higher after about 180 seconds, the compressor restarts and resumes normal operation.

2.3. Indoor unit overheat prevention control

During heating operation, if the temperature of the indoor unit heat exchanger exceeds the indoor unit heat exchanger overheat prevention temperature (about 45 to 54°C) which is determined by the operating frequency and operating status, the operating frequency is decreased by about 4 to 15 Hz. Then, this operation is repeated every 60 seconds until the temperature of the indoor unit heat exchanger drops below the overheat protection temperature.

Once the temperature of the indoor unit heat exchanger drops below the overheat protection temperature, the operating frequency is increased by about 4 to 10 Hz every 60 seconds until the normal operation condition resumes.

If the temperature of the indoor unit heat exchanger exceeds the overheat protection temperature for 60 seconds at minimum operating frequency, the compressor stops operating and then restarts after about 180 seconds, and the above mentioned control is repeated.

2.4. Outdoor unit overheat prevention control

During cooling operation, if the temperature of the outdoor unit heat exchanger exceeds the outdoor unit heat exchanger overheat prevention temperature (about 55°C), the operating frequency is decreased by about 4 to 15 Hz. Then, this operation is repeated every 60 seconds until the temperature of the outdoor unit heat exchanger drops to about 54°C or lower.

Once the temperature of the outdoor unit heat exchanger drops to about 54°C or lower, the operating frequency is increased by about 4 to 10 Hz every 60 seconds until the normal operation condition resumes.

If the temperature of the outdoor unit heat exchanger exceeds the outdoor unit heat exchanger overheat protection temperature for (120 sec : outdoor temperature $\geq 40^{\circ}\text{C}$ • 60 sec : outdoor temperature $< 40^{\circ}\text{C}$) at minimum operating frequency, the compressor stops operating and then restarts after about 180 seconds, and the above mentioned control is repeated.

2.5. Compressor overheat prevention control

If the temperature of the compressor exceeds the compressor overheat prevention temperature (110°C), the operation frequency is decreased by about 4 to 10 Hz. Then, this operation is repeated every 60 seconds until the temperature of the compressor drops below the overheat protection temperature (100°C).

Once the temperature of the compressor drops below the overheat protection temperature, the operating frequency is increased by about 4 to 10 Hz every 60 seconds until the normal operation condition resumes.

If the temperature of the compressor exceeds the overheat protection temperature (for 120 seconds in cooling operation or 60 seconds in heating operation) at minimum operating frequency, the compressor stops operating and then restarts after about 180 seconds, and the above mentioned control is repeated.

2.6. Peak control

If the current flowing in the air conditioner exceeds the peak control current (see the table below), the operation frequency is decreased until the current value drops below the peak control current regardless of the frequency control demand issued from the indoor unit based on the room temperature.

Model	Peak control current	
	Cooling operation	Heating operation
AE-X7FR	Approx. 4.4 A	Approx. 4.5 A
AE-X9FR	Approx. 5.0 A	Approx. 6.2 A
AE-X12FR	Approx. 8.3 A	Approx. 8.1 A

2.7. Control for prevention of indoor heat exchanger freezing

If the temperature of the indoor heat exchanger goes below approximately 5°C during cooling (only Full power operation), the operating frequency is lowered by approximately 5 Hz. After that, the frequency is lowered by approximately 5 Hz once every 60 seconds. When the temperature of the indoor heat exchanger rises above approximately 5°C, the frequency is raised by approximately 5 Hz once every 60 seconds, and normal operation is restored.

If the temperature of the indoor heat exchanger goes down to approximately 0°C and this condition continues for 4 minutes, the compressor is stopped.

When the temperature rises above approximately 2°C, normal operation is restored.

2.8. Overcurrent protection

2.8.1 AC overcurrent detection

To protect against overcurrent due to sudden changes in load, the compressor is stopped if the set value AC : 11A is exceeded in the AC section. In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made. Three retries are allowed. On the fourth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

2.8.2 DC overcurrent detection

To protect against overcurrent due to sudden changes in load, the compressor is stopped if the set value DC : 24A is exceeded in the DC section. In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made. Seven retries are allowed. On the eighth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

2.9. Compressor protector control

If the temperature of the compressor chamber exceeds 114°C, the compressor is stopped. In this case, the outdoor fan does not stop, and when the compressor chamber temperature decreases to 100°C three minutes after operation is stopped, another try will be made. Three retries are allowed. On the fourth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minute delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

2.10. Serial signals

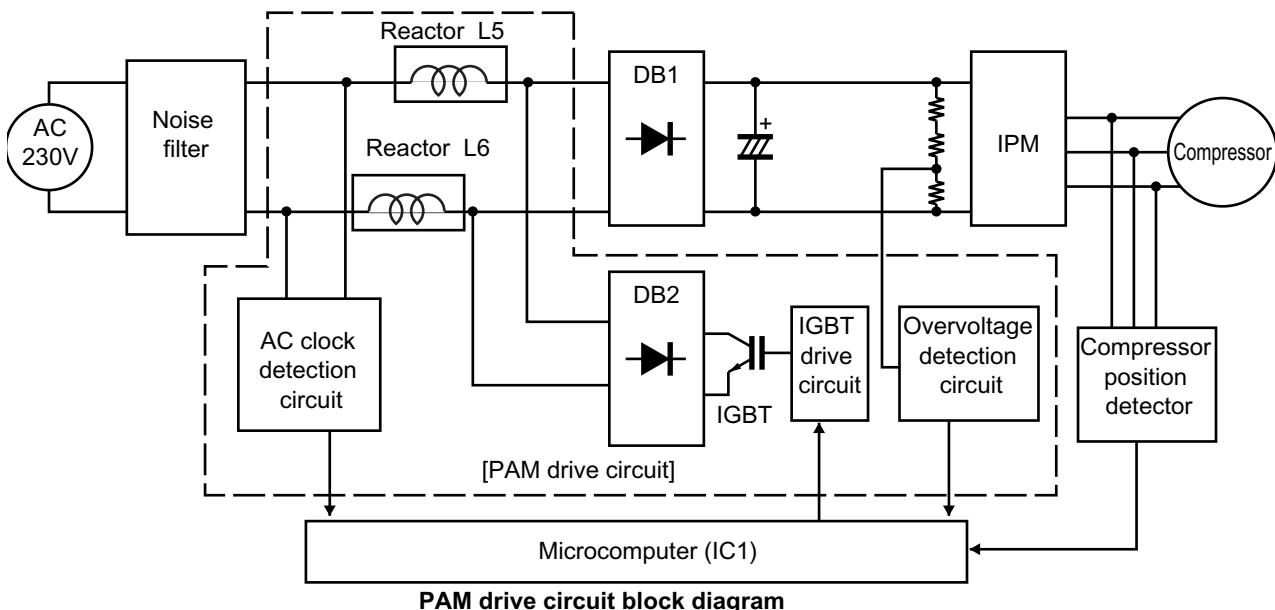
- 1) Serial signals consist of all 96-bit signals.
- 2) If the outdoor unit does not receive a serial signal, it will stop approximately 30 seconds later. Note that this is true only of normal operation; in test mode, it does not stop and operation takes place based on the test mode commands.

2.13. Outline of PAM circuit

2.13.1 PAM (Pulse Amplitude Modulation)

The PAM circuit varies the compressor drive voltage and controls the rotation speed of the compressor.

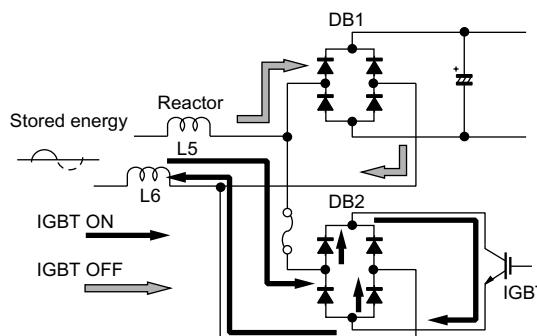
The IGBT shown in the block diagram charges the energy (electromotive force) generated by the reactor to the electrolytic capacitor for the inverter by turning ON and OFF.



When the IGBT is ON, an electric current flows to the IGBT via the reactor (L5), (L6) and diode bridge (DB2).

When the IGBT turns OFF, the energy stored while the IGBT was ON is charged to the voltage double capacitor via the diode bridge (DB1).

As such, by varying the ON/OFF duty of the IGBT, the output voltage is varied.



2.11. Rotation abnormal detection of compressor rotation

If the position detection cannot be performed during feedback operation of compressor operation, operation of the compressor stopped.

In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made.

Seventh retries are allowed. On the eighth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function ; therefore, do not cancel by removing the plug and cutting the power.

2.12. Winter cool

Cooling operation is available during the winter season by the built in winter cool function.

Lower limit of outdoor temperature range is -10°C DB.

When the outside air temperature is low, the outdoor unit fan operates at slower speed.

NOTE: Built-in protect device may work when outdoor temperature falls below 21°C DB., depending on conditions.

2.13.2 High power factor control circuit

This circuit brings the operating current waveform closer to the waveform of commercial power supply voltage to maintain a high power factor.

Because of the capacitor input, when the PAM circuit is OFF, the phase of the current waveform deviates from the voltage waveform as shown below.

To prevent this deviation, a current is supplied during the periods indicated by "O" in the diagram.

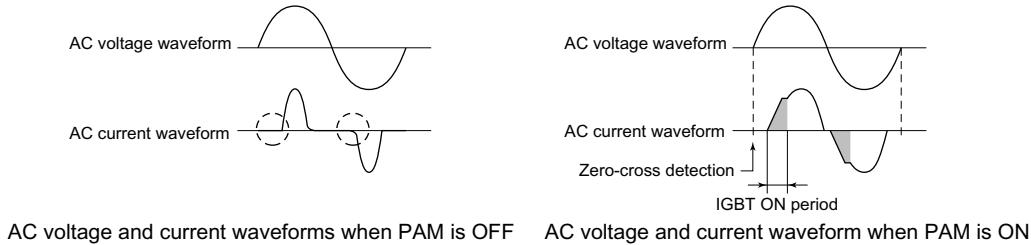
To determine the length of period to supply a current, the zero-cross timing of the AC input voltage is input to the microcomputer via the clock circuit.

The power source frequency is also determined at the same time.

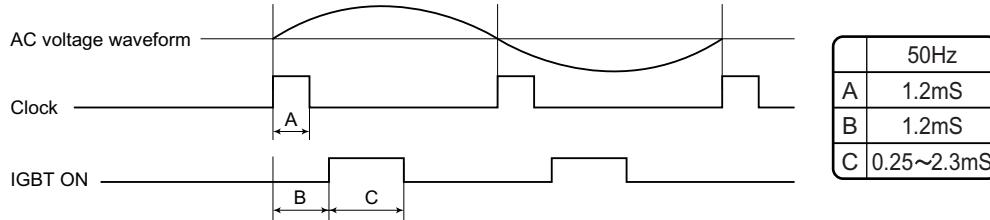
The IGBT turns ON after the time length determined by the zero-cross point to supply a current to the IGBT via the reactor.

This brings the current waveform closer to the voltage waveform in phase.

As described above, the ON/OFF operation of the IGBT controls the increase/decrease of the compressor power supply voltage (DC voltage) to improve the compressor efficiency and maintain a high power factor by keeping the current phase closer to that of the supply voltage.



1) Detailed explanation of PAM drive circuit sequence



2) AC clock (zero-cross) judgment

- The clock circuit determines the time from one rising point of the clock waveform to the next rising point.
- The detected clock waveform is used to judge the power source frequency (50/60 Hz).
- The zero-cross of the AC voltage is judged as the rising of the clock waveform, as shown in the diagram above.

3) IGBT ON start time (delay time B)

- Based on the zero-cross of the AC voltage, the IGBT turns ON after a delay time set according to the power source frequency.

4) IGBT ON time (C)

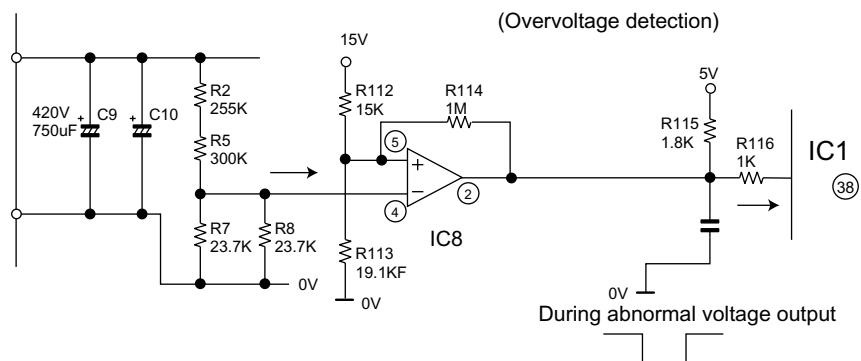
- After the above delay time, the IGBT turns ON to supply a current to the reactor.
 - The ON time of the IGBT determines the amount of energy (level of DC voltage rise) supplied to the reactor.
- DC voltage level in each operation mode (varies depending on external load conditions)
- Cooling operation --- 260 V
 - Heating operation --- 260 V

2.13.3 PAM protection circuit

To prevent excessive voltage of PAM output from damaging the IPM and electrolytic capacitor as well as the control printed circuit board (PCB), this circuit monitors the PAM output voltage and turns off the PAM control signal and PAM drive immediately when an abnormal voltage output is generated. At the same time, it shuts off the compressor operation.

The PAM output voltage is distributed to pin (4) of the comparator (IC8). If this voltage exceeds the reference voltage at pin (5) of the IC8, the output of the comparator (IC8) reverses (from H to L) and it is input to pin (38) of the microcomputer (IC1) to halt the PAM drive.

The protection voltage level is as follows.



1) Details of troubleshooting procedure for PAM

1. PAM shutdown due to error

- When the DC voltage detection circuit sends a signal exceeding the specified voltage to the microcomputer

DC voltage of 350 V or higher (detection circuit input voltage of about 9.2 V or higher) [IC8 pin (4)]

- When an error is detected
 - PAM IGBT turns OFF.
 - Compressor turns OFF.
 - All units shut down completely when the error occurs four times.

- When the outdoor unit clock waveform differs from the specified value immediately before the PAM IGBT turns ON

When there is no clock waveform input

When a clock signal of other than specified power source frequency (50/60 Hz) is input

- When an error is detected
 - PAM IGBT does not turn ON.
 - Compressor operates normally.
 - Complete shutdown does not occur.

2. PAM error indication

- In case of error "1"

- An error signal is sent to the indoor unit as soon as an error is generated.
 - Malfunction No. 14-0 is indicated when the error code is called out by the indoor unit's self-diagnosis function.
- The LED on the outdoor unit flashes 14 times when an error is generated.
 - The LED continues flashing in the 14-time cycle even after the compressor stops operating.
 - The LED turns off (data is deleted from the memory) when the outdoor unit power is turned off.

- In case of error "2"

- An error signal is sent to the indoor unit as soon as an error is judged.
 - Malfunction No. 14-1 is indicated when the error code is called out by the indoor unit's self-diagnosis function.
- The LED on the outdoor unit flashes 14 times when an error is judged.
 - The LED on the outdoor unit flashes in normal pattern when the compressor stops operating.
(Compressor OFF or Thermostat OFF from remote control)

* When a user complains that the air conditioner does not provide sufficient cool air or warm air

In addition to conventional error-generating reasons, there is a possibility that the PAM IGBT does not turn ON even if the compressor is operating.

In that case, the DC voltage does not rise even though the compressor is operating, and lowers to the 180-VDC level.

- Check items

- Clock circuit check
- PAM IGBT check
- Fuse (Fu6) open-circuit check

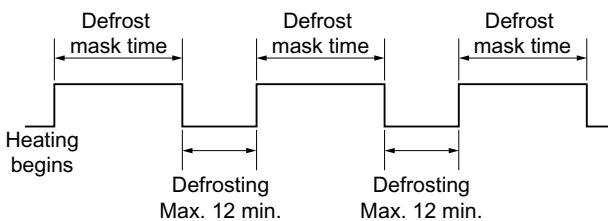
3. OUTDOOR (GU-XR18FR, GU-XR24FR, GU-XR27FR)

3.1. Defrost operation

3.1.1 Overview

Defrosting begins during heating if the conditions for compressor operation time and outdoor heat exchanger temperature are met.

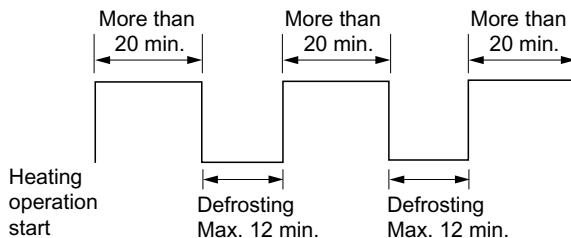
When defrosting begins, the indoor and outdoor fans stop. Defrosting stops when the temperature of the outdoor heat exchanger goes above approximately 5°C or defrosting time exceeds 12 minutes.



3.1.2 Defrosting

If the compressor operation time is more than 20 minutes in the heating mode and the outdoor air temperature and outdoor heat exchange temperature satisfy the defrosting conditions, the defrosting operation is started.

When the outdoor heat-exchanger temperature reaches approx. 5°C or above or when the defrosting time exceeds 12 minutes, the defrosting operation is quit.



3.1.3 During defrosting

When defrosting begins, the compressor stops. Approximately 1 minute later, the compressor reactivates in the refrigeration cycle, and the outdoor heat exchanger is defrosted.

Each mode is as follows:

The outdoor fan is stopped

The operating frequency is as shown in the table below. The indoor fan is stopped

3.1.4 Defrost stop

When defrosting time exceeds 12 minutes. When the temperature of the outdoor heat exchanger rises above approximately 5°C. Defrost stop is determined by either of the above conditions, and the compressor is stopped. At the same time, the outdoor fan goes ON. The compressor is reactivated in the heating cycle 1 minute after it was stopped, and normal control resumes.

3.2. Frequency control

3.2.1 AC current peak control

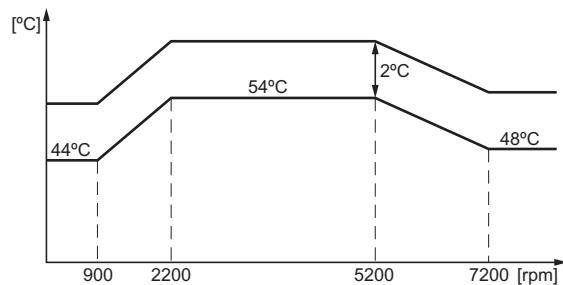
Model	Set value	
	Cool	Heat
GU-XR18FR	14.0A	14.0A
GU-XR24FR, GU-XR27FR	15.5A	15.5A

3.2.2 Control for prevention of indoor heat exchanger overheating

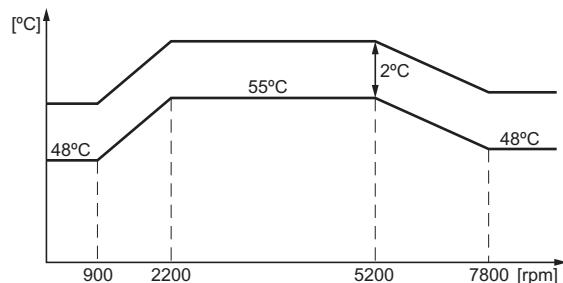
If the temperature of the indoor heat exchanger exceeds the overheating prevention line 1 or 2 during heating, the operating frequency is lowered by approximately 5 to 10 Hz. After that, the frequency is lowered by approximately 5Hz once every 60 seconds or 10 Hz once every 90 seconds. When the temperature of the indoor heat exchanger goes below the overheating prevention line 1, the frequency is raised by approximately 5 Hz once every 60 seconds, and normal operation is restored.

If the frequency is lowered to minimum frequency without the temperature of the outdoor heat exchanger decreasing and this condition lasts for 2 minutes, the compressor will be stopped.

1) GU-XR18FR



2) GU-XR24FR, GU-XR27FR



3.2.3 Control for prevention of outdoor heat exchanger overheating

If the temperature of the outdoor heat exchanger exceeds the overheating prevention line 1 or 2 during cooling, the operating frequency is lowered by approximately 5 to 15 Hz.

After that, the frequency is lowered by approximately 5 once every 60 seconds or approximately 15Hz once every 60 seconds. When the temperature of the outdoor heat exchanger goes below the overheating prevention clear line, the frequency is raised by approximately 5 Hz once every 60 seconds, and normal operation is restored. If the frequency is lowered to minimum frequency without the temperature of the outdoor heat exchanger decreasing and this condition lasts for 1 minute, the compressor will be stopped.

Overheating prevention line 1	55°C	Lower 5Hz once every 60 seconds
Overheating prevention line 2	57°C	Lower 15Hz once every 60 seconds
Overheating prevention clear line	54°C	

3.2.4 Control for prevention of discharge overheating

If the discharge temperature exceeds approximately 105°C during compressor operation, the operating frequency is lowered by approximately 5 Hz. After that, the frequency is lowered by approximately 5 Hz once every 60 seconds. When the discharge temperature goes below approximately 104°C, the frequency is raised by approximately 5 Hz once every 60 seconds, and normal operation is restored.

If the frequency is lowered to minimum frequency without the discharge temperature decreasing and this condition lasts for 1 minute, the compressor will be stopped.

3.2.5 Control for prevention of indoor heat exchanger freezing

If the temperature of the indoor heat exchanger goes below approximately 5°C during cooling (only Full power operation), the operating frequency is lowered by approximately 5 Hz. After that, the frequency is lowered by approximately 5 Hz once every 60 seconds. When the temperature of the indoor heat exchanger rises above approximately 5°C, the frequency is raised by approximately 5 Hz once every 60 seconds, and normal operation is restored.

If the temperature of the indoor heat exchanger goes down to approximately 0°C and this condition continues for 4 minutes, the compressor is stopped.

When the temperature rises above approximately 2°C, normal operation is restored.

3.3. Overcurrent protection

3.3.1 AC overcurrent detection

To protect against overcurrent due to sudden changes in load, the compressor is stopped if the set value AC : 19A is exceeded in the AC section. In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made. Three retries are allowed. On the fourth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

3.3.2 DC overcurrent detection

To protect against overcurrent due to sudden changes in load, the compressor is stopped if the set value DC : 50A (CFI181H : 25A) is exceeded in the DC section. In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made. Seven retries are allowed. On the eight retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

3.4. Compressor protector control

If the temperature of the compressor chamber exceeds 114°C, the compressor is stopped. In this case, the outdoor fan does not stop, and when the compressor chamber temperature decreases to 100°C three minutes after operation is stopped, another try will be made. Three retries are allowed. On the fourth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minute delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

3.5. Power transistor module protector

If the temperature of the heat-sink exceeds 90 °C, the compressor is stopped.

In this case, the outdoor fan does not stop, and when the temperature of the heat-sink decreases to 80 °C 180 seconds after operation is stopped, another try will be made.

Three retries are allowed. On the fourth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

Also if the temperature of the heat-sink exceeds 100°C, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function ; therefore, do not cancel by removing the plug and cutting the power.

3.6. Power factor module

If a voltage error (over 420V) is detected at power factor module output voltage, 180seconds the compressor is stopped.

In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made. Three retries are allowed. On the fourth retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minute delay for control of the outdoor unit will not function; therefore, do not cancel by removing the plug and cutting the power.

3.7. Serial signals

- 1) Serial signals consist of all 96-bit signals.
- 2) If the outdoor unit does not receive a serial signal, it will stop approximately 30 seconds later. Note that this is true only of normal operation; in test mode, it does not stop and operation takes place based on the test mode commands.

3.8. Rotation abnormal detection of compressor rotation

If the position detection cannot be performed during feedback operation of compressor operation, operation of the compressor stopped.

In this case, the outdoor fan does not stop, and 180 seconds after operation is stopped, another try will be made.

Seventh retries are allowed. On the eight retry, a complete stop request signal is sent to the indoor unit, and the outdoor unit will remain stopped until reset is performed. At this time, the 3-minutes delay for control of the outdoor unit will not function ; therefore, do not cancel by removing the plug and cutting the power.

3.9. Winter cool

Cooling operation is available during the winter season by the built in winter cool function.

Lower limit of outdoor temperature range is -10°C DB.

When the outside air temperature is low, the outdoor unit fan operates at slower speed.

NOTE: Built-in protect device may work when outdoor temperature falls below 21°C DB, depending on conditions.

CHAPTER 3. TROUBLESHOOTING

[1] TROUBLESHOOTING GUIDE

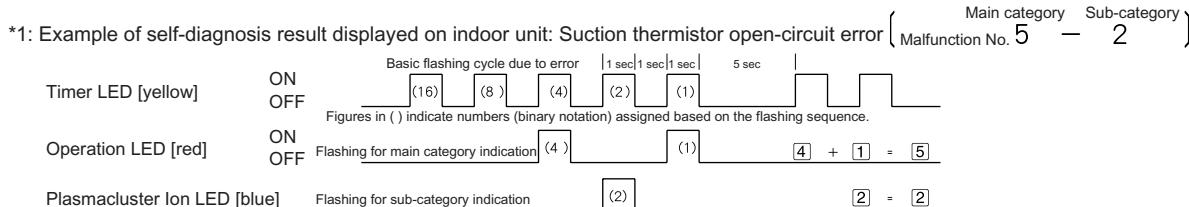
1. SELF-DIAGNOSIS FUNCTION AND DISPLAY MODE

- 1) To call out the content of the self-diagnosis memory, hold down the emergency operation button for more than five seconds when the indoor unit is not operating.
 - a) According to the content of the self-diagnosis memory, the Operation LED (main category) and the Plasmacluster Ion LEDs (sub-category) flash in sync with the Timer LED on the indoor unit.
 - b) In the event a complete shutdown occurs due to a malfunction, the Operation LED (red), Timer LED (yellow) and Plasmacluster Ion LED (blue) flash to indicate the general information of the generated malfunction.
 - c) If the power cord is unplugged from the AC outlet or the circuit breaker is turned off, the self-diagnosis memory loses the stored data.

- 2) Display of detailed self-diagnosis result with main category and sub-category indications

When malfunction information is called out, the main category and sub-category of the self-diagnosis result are indicated by the Operation, Timer, and Plasmacluster Ion LEDs on the indoor unit.

* 1:Example of self-diagnosis result displayed on indoor unit: Suction thermistor open-circuit error

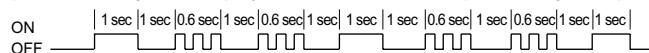


- * 2:The self-diagnosis display function of the outdoor unit indicates the error information by flashing LED1 on the outdoor unit according to the content of self-diagnosis.

The self-diagnosis display function of the outdoor unit is active only for about 3 to 10 minutes after self-diagnosis is performed during operation, and the display returns to normal condition after this display period.

The content of self-diagnosis cannot be called out by the self-diagnosis display function of the outdoor unit.

Example of self-diagnosis display on outdoor unit : Compressor high-temperature abnormality



- * 3:The content of diagnosis is transferred to the indoor unit via serial communication, but it does not trigger a complete shutdown operation.

⦿ : Flashes in 2-sec intervals (normal), ⬤ : On, ✘ : Off, ⬤ : Flashes 3 times in 0.2-sec intervals
 (When LED1 on the outdoor unit flashes in 2-sec intervals, the outdoor unit is in normal condition.)

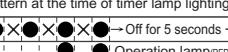
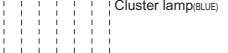
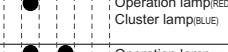
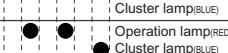
Status of indoor/outdoor units	Indication by LED1 on outdoor unit *2	Indication by operation lamp on indoor unit		Malfunction No.		Content of diagnosis		Inspection location/method	Remedy
		Lighting pattern at the time of timer lamp lighting		Main category	Sub-category	Main category	Sub-category		
Indoor/outdoor units in operation	Normal flashing	● X ● X ● X ● X Off for 5 seconds		0	0	Normal			
Indoor/outdoor units in complete shutdown	① 1 time		● Operation lamp(RED) Cluster lamp(BLUE)	1	-0	Outdoor unit thermistor short-circuit error Outside temperature thermistor short-circuit error Suction thermistor short-circuit error 2-way valve thermistor short-circuit error	(1) Measure resistance of the outdoor unit thermistors. (TH2 to TH5: Approx. 4.4 k at 25°C) (2) Check the lead wire of the outdoor unit thermistor for torn sheath and short-circuit. (3) No abnormality found in above inspections (1) and (2).	(1) Replace the outdoor unit thermistor assembly. (2) Replace the outdoor unit thermistor assembly. (3) Replace the outdoor unit control PCB assembly.	
Indoor/outdoor units in complete shutdown			● Operation lamp(RED) Cluster lamp(BLUE)		-1				
			● Operation lamp(RED) Cluster lamp(BLUE)		-2				
			● Operation lamp(RED) Cluster lamp(BLUE)		-3				
			● Operation lamp(RED) Cluster lamp(BLUE)	2	-0	Cycle temperature Compressor high-temperature error Temporary stop due to compressor discharge overheating *3 Temporary stop due to outdoor unit heat exchanger overheating *3 Temporary stop due to outdoor unit heat exchanger overheating *3 Temporary stop due to 2-way valve freeze *3	(1) Check the outdoor unit air outlet for blockage. (2) Check if the power supply voltage is 198V or higher at full power. (3) Check the pipe connections for refrigerant leaks. (4) Measure resistance of the outdoor unit compressor thermistor. (TH1: Approx. 53 k at 25°C) (5) Check the expansion valve for proper operation.	(1) Ensure unobstructed air flow from the outdoor unit air outlet. (2) Connect power supply of proper voltage. (3) Charge the specified amount of refrigerant. (4) Replace the outdoor unit compressor thermistor assembly. (5) Replace the expansion valve coil, expansion valve or outdoor unit control PCB assembly.	
			● Operation lamp(RED) Cluster lamp(BLUE)		-1				
Indoor unit in operation Outdoor unit in temporary stop			● Operation lamp(RED) Cluster lamp(BLUE)		-2				
			● Operation lamp(RED) Cluster lamp(BLUE)		-3				
			● Operation lamp(RED) Cluster lamp(BLUE)		-4				
			● Operation lamp(RED) Cluster lamp(BLUE)						
Indoor unit in operation Outdoor unit in temporary stop	③ 3 times		● Operation lamp(RED) Cluster lamp(BLUE)	3	-0	Dry operation	Temporary stop due to dehumidifying operation *3	(Temporary stop for cycle protection)	

GSXP07FR

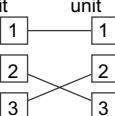
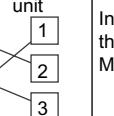
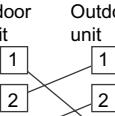
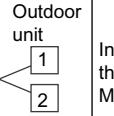
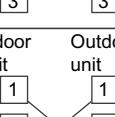
●: Flashes in 2-sec intervals (normal), ●: On, X: Off, ○: Flashes 3 times in 0.2-sec intervals
(When LED1 on the outdoor unit flashes in 2-sec intervals, the outdoor unit is in normal condition.)

Status of indoor/outdoor units	Indication by LED1 on outdoor unit *2	Indication by operation lamp on indoor unit		Malfunction No.	Content of diagnosis		Inspection location/method	Remedy
		Lighting pattern at the time of timer lamp lighting			Main category	Sub-category		
Indoor/outdoor units in complete shutdown	○ 5 times	●	●	5	Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit thermistor open-circuit error	(1) Check connector CN8 of the outdoor unit thermistor for secure installation. (2) Measure resistance of outdoor thermistors TH1 to TH5. (3) Check the lead wires of thermistors TH1 through TH5 on the outdoor unit control PCB for open-circuit error. (4) No abnormality found in above inspections (1) through (3).	(1) Correct the installation. (2) Replace the outdoor unit thermistor assembly. (3) Replace the outdoor unit thermistor assembly. (4) Replace the outdoor unit control PCB assembly.
		●	●		Outside temperature thermistor open-circuit error			
		●	●		Suction thermistor open-circuit error			
		●	●		2-way valve thermistor open-circuit error			
		●	●		Discharge thermistor open-circuit error			
Indoor/outdoor units in complete shutdown	○ 6 times	●	●	6	Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit DC overcurrent error	(1) IPM continuity check (2) Check the IPM and heat sink for secure installation. (3) Check the outdoor unit fan motor for proper rotation. (4) No abnormality found in above inspections (1) through (3). (5) No abnormality found in above inspections (1) through (4).	(1) Replace the outdoor unit control PCB assembly. (2) Correct the installation (tighten the screws). Apply silicon grease. (3) Replace the outdoor unit fan motor. (4) Replace the outdoor unit control PCB assembly. (5) Replace the compressor.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	IPM pin level error	Check the IPM is attached correctly to the outdoor unit control PWB	Replace the outdoor unit control PWB assembly
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit AC overcurrent error	(1) Check the outdoor unit air outlet for blockage. (2) Check the outdoor unit fan for proper rotation.	(1) Ensure unobstructed air flow from the outdoor unit air outlet. (2) Check the outdoor unit fan motor.
Indoor/outdoor units in complete shutdown	○ 7 times	●	●	7	Operation lamp(RED) Cluster lamp(BLUE)	AC overcurrent error in OFF status	(1) IPM continuity check	(1) Replace the outdoor unit control PCB assembly.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	AC maximum current error	(1) Check the outdoor unit air outlet for blockage. (2) Check the outdoor unit fan for proper rotation.	(1) Ensure unobstructed air flow from the outdoor unit air outlet. (2) Check the outdoor unit fan motor.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	AC current deficiency error	(1) Check if there is an open-circuit in the secondary winding of the current transformer of the outdoor unit control PCB. (2) Check if the refrigerant volume is abnormally low. (3) Check if the refrigerant flows properly.	(1) Replace the outdoor unit control PCB assembly. (2) Charge the specified amount of refrigerant. (3) Correct refrigerant clogs. (2-way valve, 3-way valve, pipe, expansion valve)
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit cooling/heating switchover	(1) Check to make sure outdoor unit thermistor TH2 (heat exchanger) TH5 (2-way valve) are installed in correct positions. (2) Measure resistance of thermistors TH1 and TH5. (3) Check the 4-way valve for proper operation. (4) No abnormality found in above inspections (1) through (3).	(1) Correct the installation. (2) Replace the thermistor assembly. (3) Replace the 4-way valve. (4) Replace the outdoor unit control PCB assembly.
Indoor/outdoor units in complete shutdown	○ 9 times	●	●		Operation lamp(RED) Cluster lamp(BLUE)	Torque control error	(1) Check if the refrigerant volume is abnormally low. (2) Check the 4-way valve for proper operation. (3) Check to see if the compressor type is correct.	(1) Charge the specified amount of refrigerant. (2) Replace the 4-way valve. (3) Replace the compressor with the correct part.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit DC fan rotation error	(1) Check connector CN3 of the outdoor unit DC fan motor for secure installation. (2) Check the outdoor unit fan motor for proper rotation. (3) Check fuse FU3. (4) Outdoor unit control PCB	(1) Correct the installation. (2) Replace the outdoor unit fan motor. (3) Replace the outdoor unit control PCB assembly. (4) Replace the outdoor unit control PCB assembly.
Indoor/outdoor units in complete shutdown	○ 11 times	●	●		Operation lamp(RED) Cluster lamp(BLUE)	DC compressor	(1) Check the colors (red, white, orange) of the compressor cords for proper connection. (PCB side, compressor side) (2) Check if the IPM terminal resistance values are uniform. (3) No abnormality found in above inspections (1) and (2). (4) No abnormality found in above inspections (1) through (3).	(1) Correct the installation. (U: Red, V: White, W: Orange) (2) Replace the outdoor unit control PCB assembly. (3) Replace the outdoor unit control PCB assembly. (4) Replace the compressor.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Compressor rotation error		
Indoor/outdoor units in complete shutdown	○ 13 times	●	●	13	Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit active filter	(1) Check the AC power supply voltage for fluctuation. (2) No abnormality found in above inspection (1).	(1) Connect stable power supply. (2) Replace the outdoor unit control PCB assembly.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	PAM overvoltage error		
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	PAM clock error	(1) Check the PAM clock for proper input.	(1) Replace the outdoor unit control PCB assembly.
Indoor unit in operation Outdoor unit in temporary stop	○ 14 times	●	●	14	Operation lamp(RED) Cluster lamp(BLUE)	Wires between units	(1) Check the wires between units. (2) Check voltage between Nos. 1 and 2 on the indoor/outdoor unit terminal boards.	(1) Connect stable power supply. (2) Replace the outdoor unit control PCB assembly.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Serial open-circuit		
		X	●		Operation lamp(RED) Cluster lamp(BLUE)	Outdoor unit does not turn on due to erroneous wiring	(1) Check the wires between units. (2) Check the outdoor unit fuse. (3) Check 15-V, 13-V and 5-V voltages on the PCB. Check resistance between IPM terminals. (4) Check pins No. 5 and 8 of connector CN3A of the outdoor unit fan motor for short-circuit. (5) Outdoor unit control PCB	(1) Correct the wiring. (2) Replace the fuse/outdoor unit control PCB assembly. (3) Replace the outdoor unit control PCB assembly. (4) Replace the outdoor unit fan motor. (5) Replace the outdoor unit control PCB board.
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Serial short-circuit		
		●	●		Operation lamp(RED) Cluster lamp(BLUE)	Serial erroneous wiring	(1) Check the wires between units.	(1) Correct the wiring.
Indoor unit in operation Outdoor unit in complete shutdown	○ 17 times	●	●	17	Operation lamp(RED) Cluster lamp(BLUE)	Wires between units	(1) Check the wires between units.	(1) Connect stable power supply. (2) Replace the outdoor unit control PCB assembly.
		X	●		Operation lamp(RED) Cluster lamp(BLUE)	Serial short-circuit		
		●	●	18	Operation lamp(RED) Cluster lamp(BLUE)	Serial erroneous wiring	(1) Check the wires between units.	(1) Correct the wiring.

Ⓐ: Flashes in 2-sec intervals (normal), Ⓑ: On, ✘: Off, Ⓛ: Flashes 3 times in 0.2-sec intervals
(When LED1 on the outdoor unit flashes in 2-sec intervals, the outdoor unit is in normal condition.)

Status of indoor/outdoor units	Indication by LED1 on outdoor unit *2	Indication by operation lamp on indoor unit	Malfunction No.		Content of diagnosis		Inspection location/method	Remedy
			Main category	Sub-category	Main category	Sub-category		
Indoor/outdoor units in complete shutdown	☒		19	-0	Indoor unit fan	Indoor unit fan error	(1) Check the indoor fan motor for proper rotating operation. (Check fan lock.) (2) Check the low-wire of the indoor fan motor for open-circuit. (3) Check CN1 of the indoor unit fan motor for secure installation. (4) No abnormality found in above inspections (1) through (3).	(1) Replace the indoor fan motor. (2) Replace the indoor fan motor. (3) Correct the installation of CN1 of the indoor fan motor. (4) Replace the indoor unit control PCB.
Indoor/outdoor units in operation	☒		20	-0	Indoor unit control PCB	EEPROM data error	(EEPROM read data error)	(1) Replace the indoor unit control PCB.
Indoor/outdoor units in operation	☒		22	-0	Cluster circuit	Cluster voltage error	(1) Check if the cluster feedback voltage is proper (0.1 V to 4.9 V). (2) Check CN5 of the cluster for secure installation.	(1) Replace the cluster unit. (2) Correctly install CN5 of the cluster.
				-1				
				-2				
Indoor/outdoor units in operation	☒		30	-0	Drain pump unit	Drain pump unit error	(1) Check connector CN2 and CN10.	(1) Replace the Drain pump unit unit. (2) Re-insertion of CN2 and CN10.

Malfunction indications due to erroneous wiring during air conditioner installation

Inter-unit wiring error mode		Symptom	Inter-unit wiring error mode		Symptom
I	Indoor unit 	Indoor unit relay Turns On momentarily, then turns Off. Malfunction diagnosis display "18-1"	IV	Indoor unit 	Indoor unit relay Turns On momentarily, then turns Off. Malfunction diagnosis display "18-1"
II	Indoor unit 	Indoor unit relay Relays turns Off after about 30 sec. Malfunction diagnosis display None (Displays "18-0" when malfunction code is called out.)	V	Indoor unit 	Indoor unit relay Turns On momentarily, then turns Off. Malfunction diagnosis display "18-1"
III	Indoor unit 	Indoor unit relay Relays turns Off after about 30 sec. Malfunction diagnosis display None (Displays "18-0" when malfunction code is called out.)			

- 3) In addition to those described above, the following error, which does not result in a complete shutdown, is notified by the flashing LED on the indoor unit.

Malfunction	Flashing LED (Ⓐ: flashing in 1-sec intervals)				Malfunction No. (main category)
	Operation	Timer	Cluster (blue)	Cluster (green)	
Serial open-circuit error	Ⓐ				17 Serial open-circuit error (The Operation and Cluster LED conditions vary based on the equipment operation.)

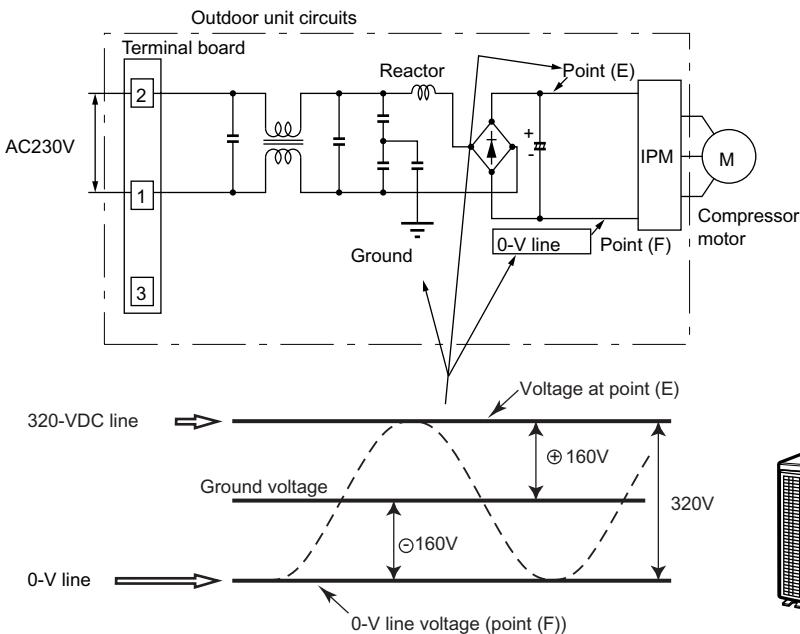
2. CAUTION IN CHECKING PRINTED CIRCUIT BOARDS (PWB) [GS-XP07FR, GS-XP09FR, GS-XP12FR]

2.1. Non-insulated control circuit

The GND terminals of the low-voltage circuits (control circuits for microcomputer and thermistors and drive circuits for expansion valve and relays) on the control printed circuit board (PWB) are connected to the compressor drive power supply (320-VDC negative terminal). Therefore, exercise utmost caution to prevent electric shock.

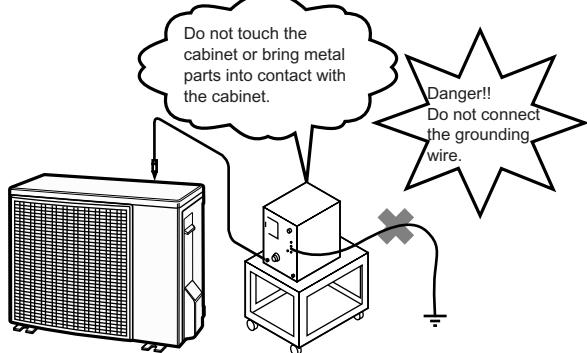
If a measuring instrument used for the test is grounded, its chassis (ground) has the same electric potential as the 0-V probe. Since non-insulated circuits have the following voltage potential difference from the ground, connection of the grounding wire results in a short-circuit between the 0-V line and the ground, thus allowing an excessive current to flow to the tester to cause damage.

If the sheaths of the thermistor lead wires or expansion valve lead wires inside the outdoor unit become damaged due to pinching by the front panel or other metal parts or contacting a pipe, a high voltage can flow and destroy the circuits. To prevent these problems, carefully conduct assembly work.



Reason

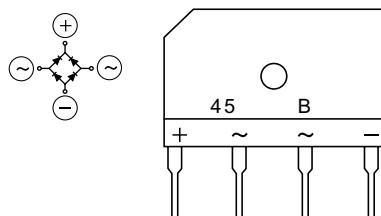
The oscilloscope (chassis ground) has the same electric potential as the 0-V probe. The entire electronic control section of the outdoor unit has a voltage potential difference from the ground as shown in the above diagram. When the oscilloscope is set up, the 0-V line and the ground voltage (ground) will be short-circuited, resulting in an excessive current flow to cause damage to the oscilloscope or indoor electric circuits.



3. DIODE BRIDGE CHECK METHOD

Turn off the power and let the inverter electrolytic capacitor (C9, C10) discharge completely. Then use a tester and check continuity.

When using a digital tester, the (+) and (-) tester lead wires in the table must be reversed.



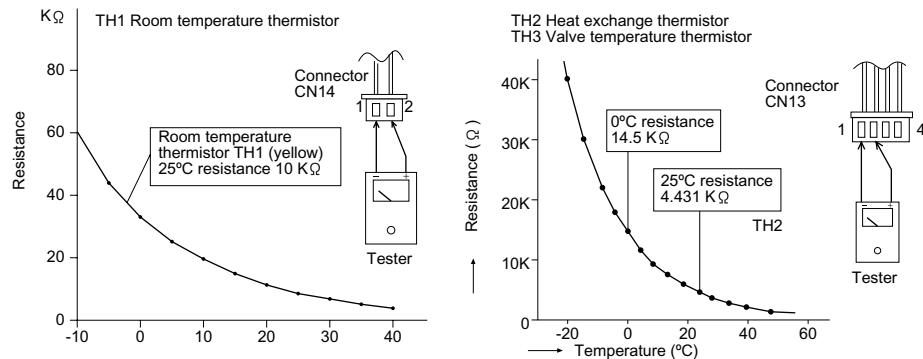
Needle-type tester		Normal resistance value
+	-	
\ominus	\oplus	∞ (several M Ω)
\ominus	\ominus	

Value in () is for digital tester.

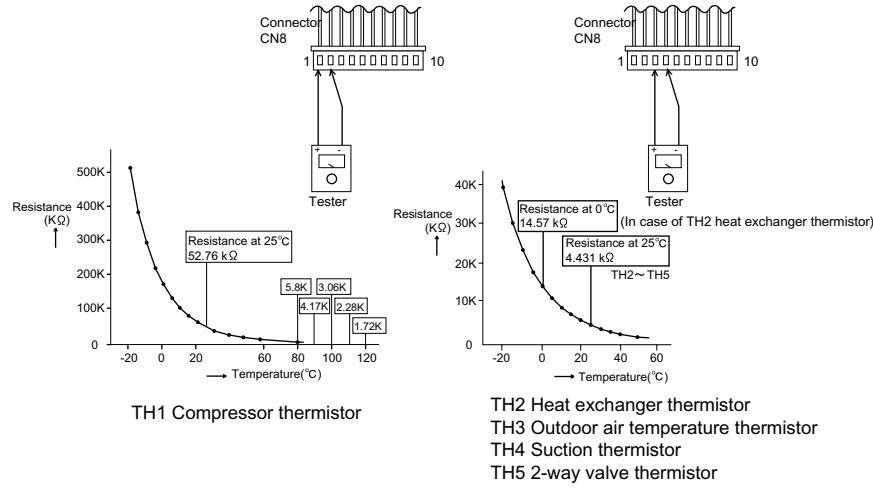
[2] THERMISTOR TEMPERATURE CHARACTERISTICS

1. GS-XP07FR, GS-XP09FR, GS-XP12FR

1.1. Temperature properties of indoor thermistors



1.2. Temperature properties of outdoor thermistors



Thermistor	No.	Connector	Color
Compressor thermistor	TH1	No. (1) - No. (2)	Red
Heat exchanger thermistor	TH2	No. (3) - No. (4)	Orange
Outdoor air temperature thermistor	TH3	No. (5) - No. (6)	Green
Suction thermistor	TH4	No. (7) - No. (8)	Black
2-way valve thermistor	TH5	No. (9) - No. (10)	Yellow

Before measuring resistance,
disconnect connectors from PWB.

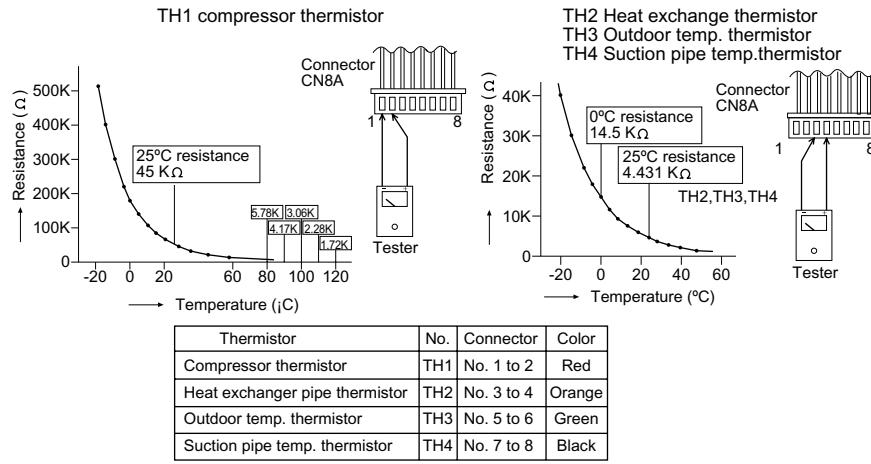
2. GS-XP18FR, GS-XP24FR, GS-XP27FR

2.1. Temperature properties of indoor thermistors

Thermistor	Signal	Color
Room temperature	TH1	Yellow
Pipe temperature	TH2	Orange
Valve temperature	TH3	Black

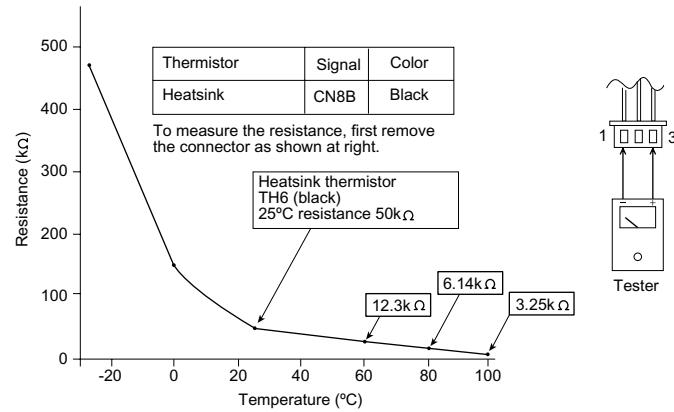
Room temperature thermistor TH1 (CN14 1 - 2)
 Pipe temperature thermistor TH2 (CN13 1 - 2)
 Valve temperature thermistor TH3 (CN13 3 - 4)

2.2. Temperature properties of outdoor thermistors



To measure the resistance, first remove the connector from the board.

2.3. Temperature properties of heatsink thermistors



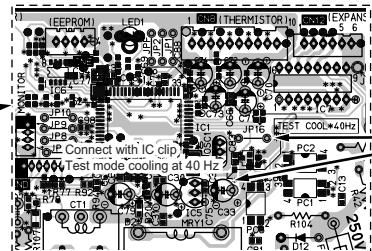
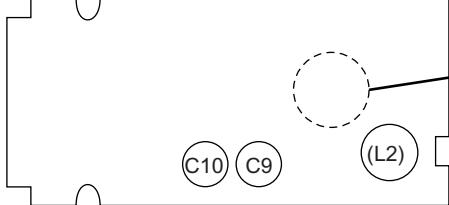
[3] HOW TO OPERATE THE OUTDOOR UNIT INDEPENDENTLY

1. Cooling in 40 Hz fixed mode

1.1. AE-X7FR, AE-X9FR, AE-X12FR

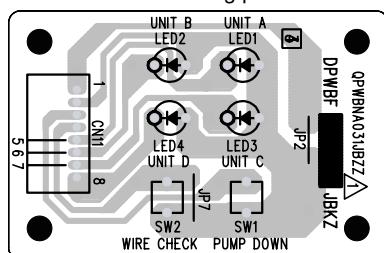
To operate the outdoor unit independently, short-circuit the sections indicated by arrows in the diagram below with an adapter, and apply 230 VAC between (1) and (N) on the terminal board of the outdoor unit. This allows the outdoor unit to be operated in cooling mode independently.

(Do not operate the outdoor unit in this condition for an extended period of time.)



1.2. GU-XR18FR, GU-XR24FR, GU-XR27FR

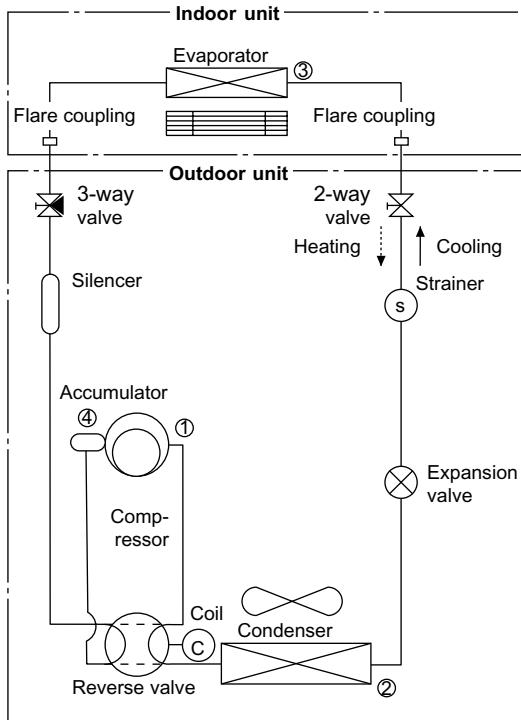
When operating only the outdoor unit (cooling 40Hz fixed mode) To make only the outdoor unit run in cooling mode, apply a voltage of 220 ~ 240 V AC to 1 and N on the terminal board, and push the switch(SW1), for 5 seconds or more.
(Avoid operating the outdoor unit alone for long periods of time.)



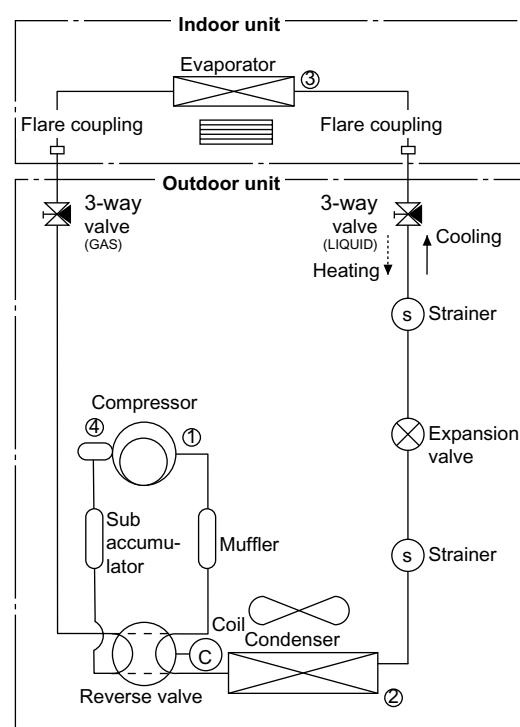
CHAPTER 4. REFRIGERATION CYCLE

[1] FLOW FOR REFRIGERANT

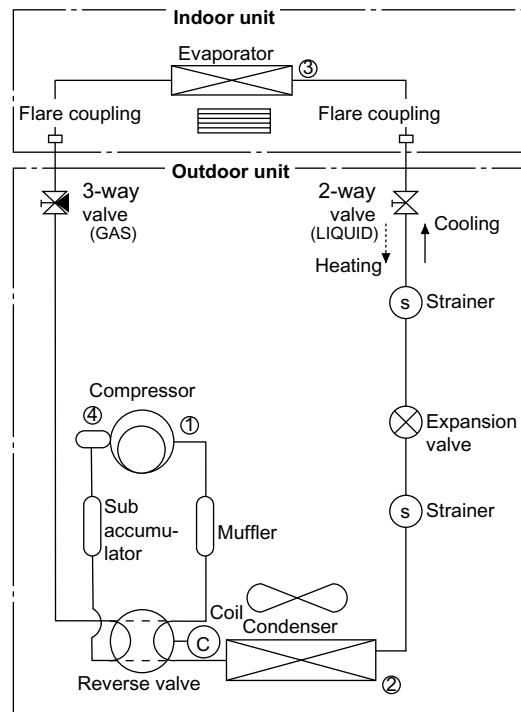
1. GS-XP07FR, GS-XP09FR, GS-XP12FR



3. GS-XP24FR, GS-XP27FR



2. GS-XP18FR



[2] STANDARD CONDITION

	Indoor side		Outdoor side	
	Dry-bulb Temp.	Relative Humidity	Dry-bulb Temp.	Relative Humidity
Cooling	27°C	47%	35°C	40%
Heating	20°C	—	7°C	87%

* REFRIGERANT PIPE LENGTH 7.5m

[3] TEMPERATURE AT EACH PART AND PRESSURE IN 3-WAY VALVE

1. GS-XP07FR, GS-XP09FR, GS-XP12FR

Model		GS-XP07FR				GS-XP09FR				GS-XP12FR			
Operation mode		MAX.		TEST RUN		MAX.		TEST RUN		MAX.		TEST RUN	
		Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
No.	R.P.M.	3200	4500	2500	2500	3800	6000	2500	2500	4800	6000	2500	2500
1		77°C	67°C	71°C	51°C	85°C	72°C	71°C	51°C	89°C	86°C	68°C	55°C
2		40°C	2°C	39°C	3°C	39°C	2°C	39°C	3°C	41°C	3°C	38°C	3°C
3		15°C	35°C	15°C	38°C	15°C	37°C	15°C	28°C	16°C	34°C	16°C	27°C
4		16°C	1°C	18°C	6°C	15°C	0°C	18°C	6°C	15°C	3°C	17°C	4°C
3-way valve pressure (MPaG)		1.00	2.27	1.07	1.85	0.94	2.46	1.07	1.85	0.81	2.72	1.03	1.93

2. GS-XP18FR, GS-XP24FR, GS-XP27FR

Model		GS-XP18FR				GS-XP24FR				GS-XP27FR			
Operation mode		MAX.		TEST RUN		MAX.		TEST RUN		MAX.		TEST RUN	
		Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat	Cool	Heat
No.	R.P.M.	6100	6100	3000	3000	4600	4700	2400	2400	5150	5300	2400	2400
1		88°C	79°C	70°C	65°C	83°C	78°C	68°C	57°C	88°C	84°C	68°C	57°C
2		46°C	1°C	42°C	2°C	44°C	2°C	42°C	2°C	45°C	1°C	42°C	2°C
3		20°C	39°C	17°C	33°C	13°C	40°C	12°C	32°C	14°C	41°C	12°C	32°C
4		7°C	0°C	18°C	5°C	10°C	1°C	14°C	5°C	8°C	-3°C	14°C	5°C
3-way valve pressure (MPaG)		0.84	2.60	1.10	2.20	0.80	2.66	0.96	2.01	0.75	2.75	0.96	2.01

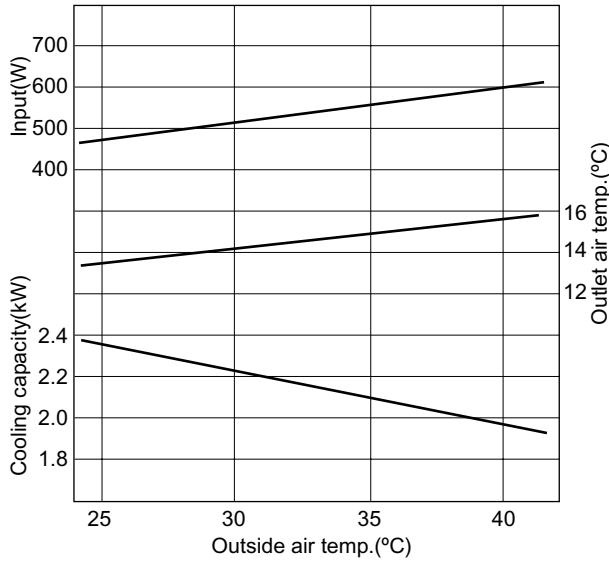
[4] PERFORMANCE CURVES

NOTE

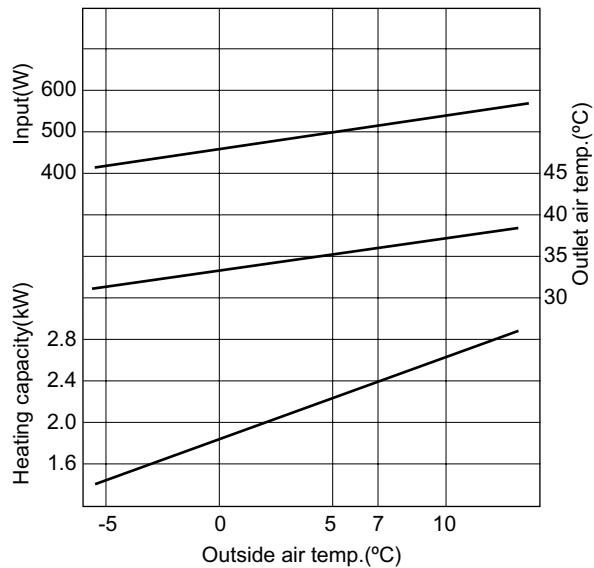
- 1) Indoor fan speed: Hi
- 2) Vertical adjustment louver "0°", Horizontal adjustment louver "front"
- 3) Indoor air temp. : Cooling 27°C, Heating 20°C
- 4) Power source : 230V, 50Hz

1. GS-XP07FR

1.1. At Cooling

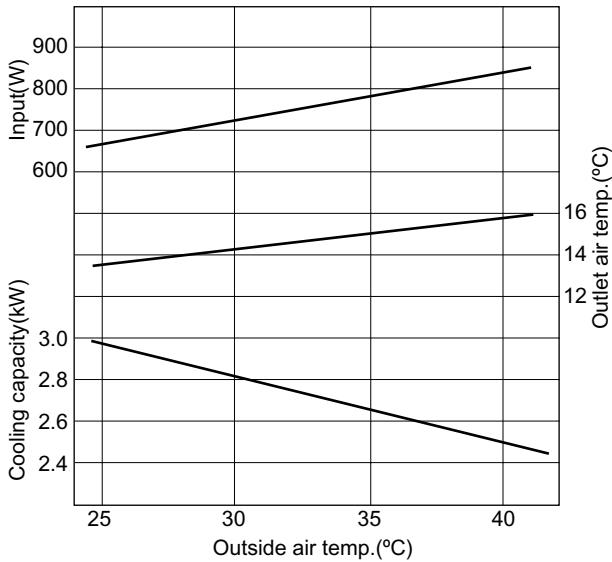


1.2. At Heating

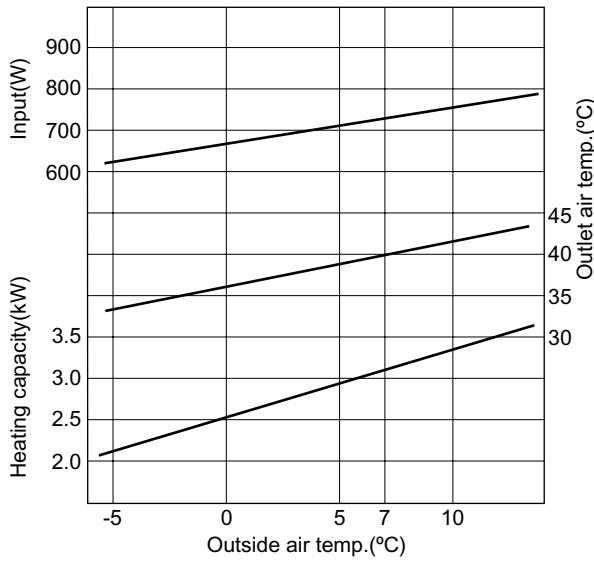


2. GS-XP09FR

2.1. At Cooling

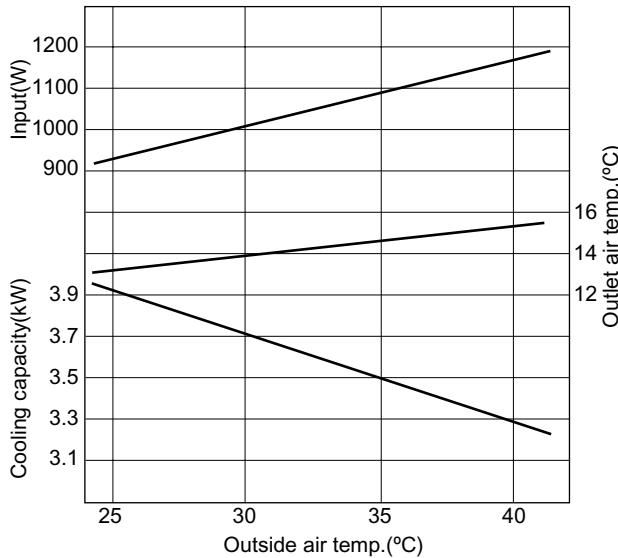


2.2. At Heating

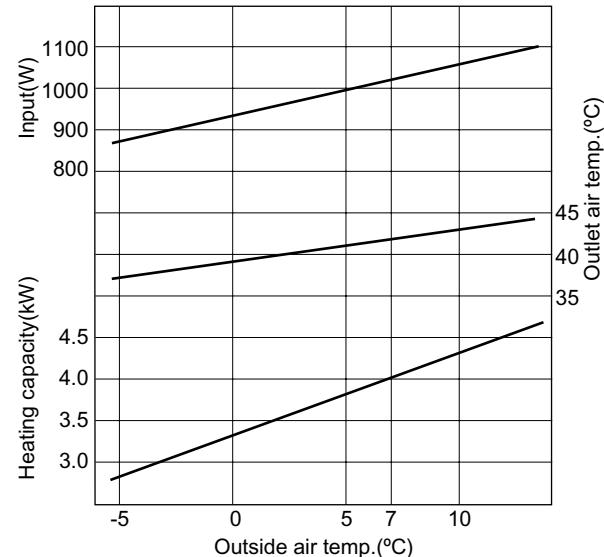


3. GS-XP12FR

3.1. At Cooling

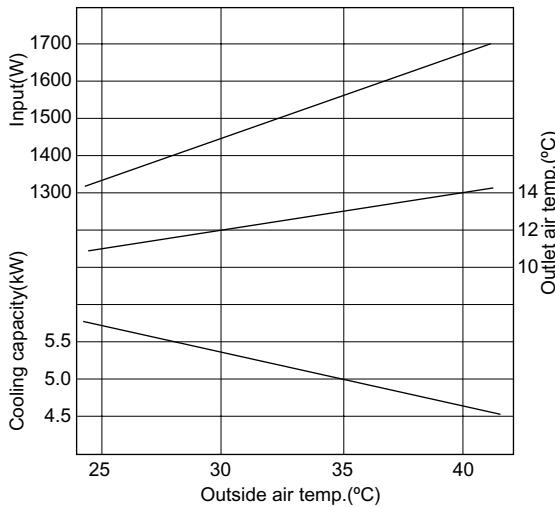


3.2. At Heating

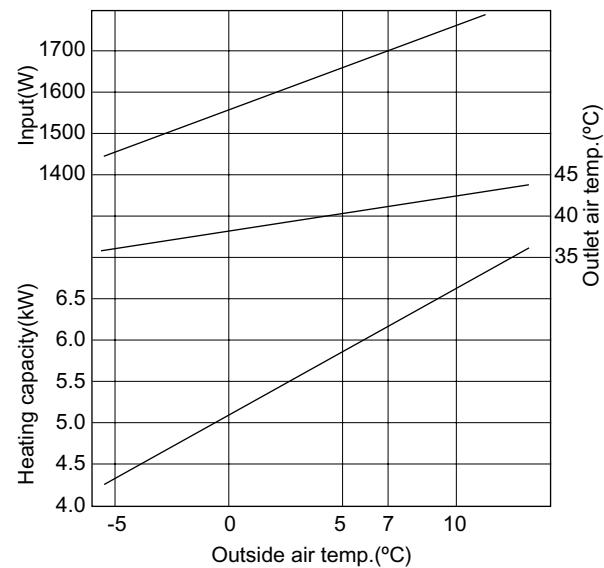


4. GS-XP18FR

4.1. At Cooling



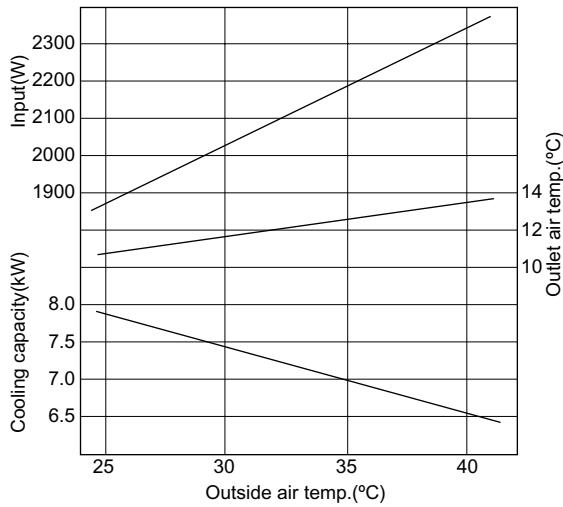
4.2. At Heating



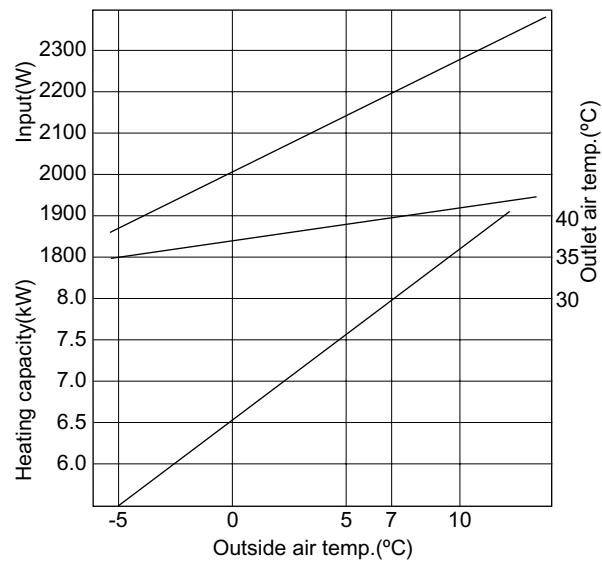
GSXP07FR

5. GS-XP24FR

5.1. At Cooling

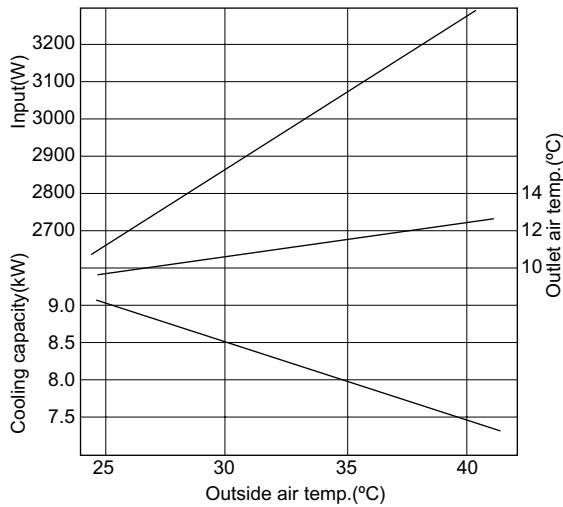


5.2. At Heating

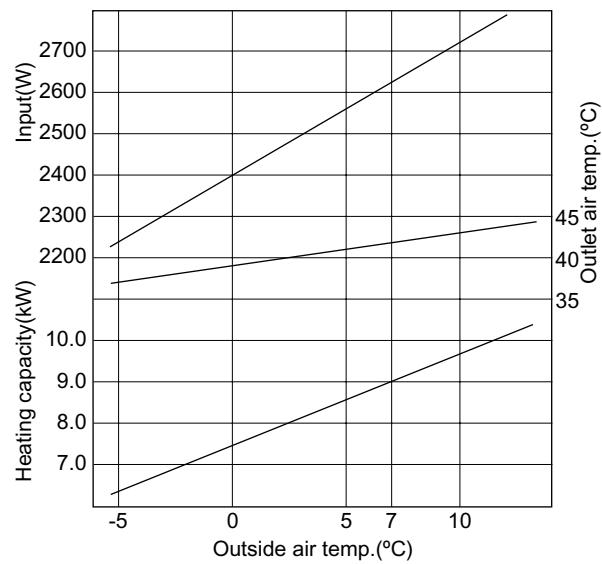


6. GS-XP27FR

6.1. At Cooling



6.2. At Heating



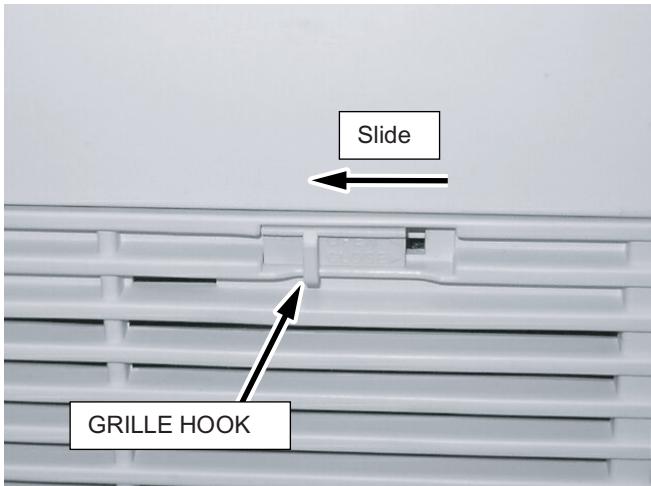
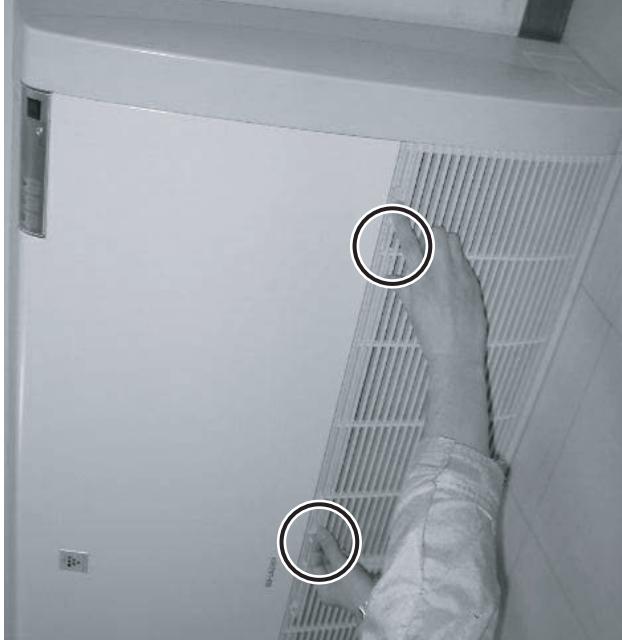
CHAPTER 5. DISASSEMBLING PROCEDURE

[1] DISASSEMBLY OF INDOOR UNIT

CAUTION: DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY SERVICING.

1. GS-XP07FR, GS-XP09FR, GS-XP12FR

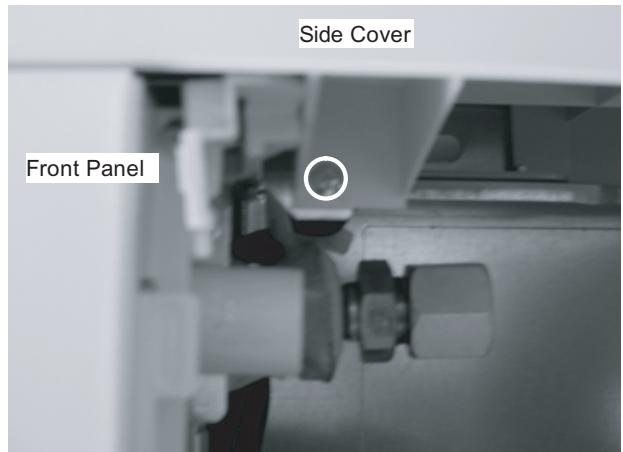
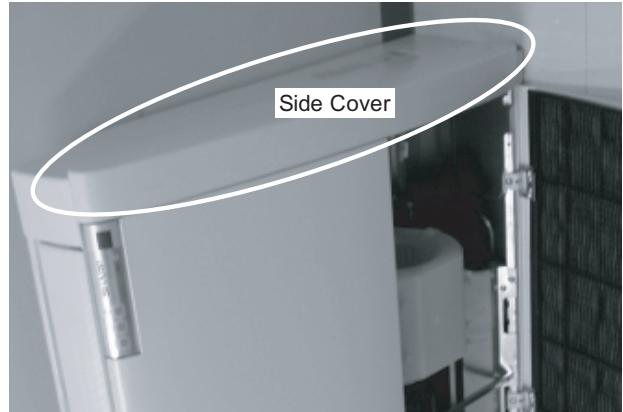
- 1) Slide 2 Grille hooks to the left, and open the Grille. (Right and left Grille.)



- 2) Remove 4 screws fixing the Grills.



- 3) Remove the screw fixing the Side cover. (Right and left Side cover.)



- 4) Remove 2 screws fixing the Grille. (Right and left Grille.)





5) Remove 1 screw fixing the Angle.

Remove the Angle to the direction of arrows.



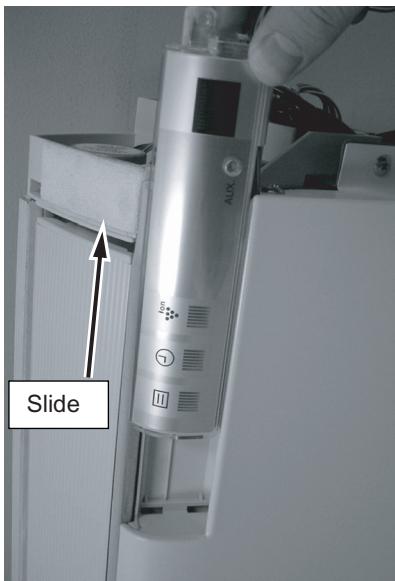
6) Cut the fixing band.

Disconnect 2 connectors (CN202, CN203).

Remove the screw fixing the Display unit.



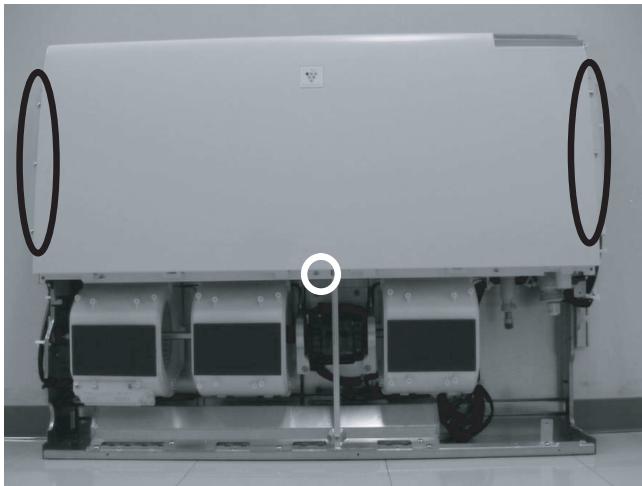
7) Slide the Display unit to the direction of arrow.



8) Remove 2 screws fixing the Angle to the Front panel.



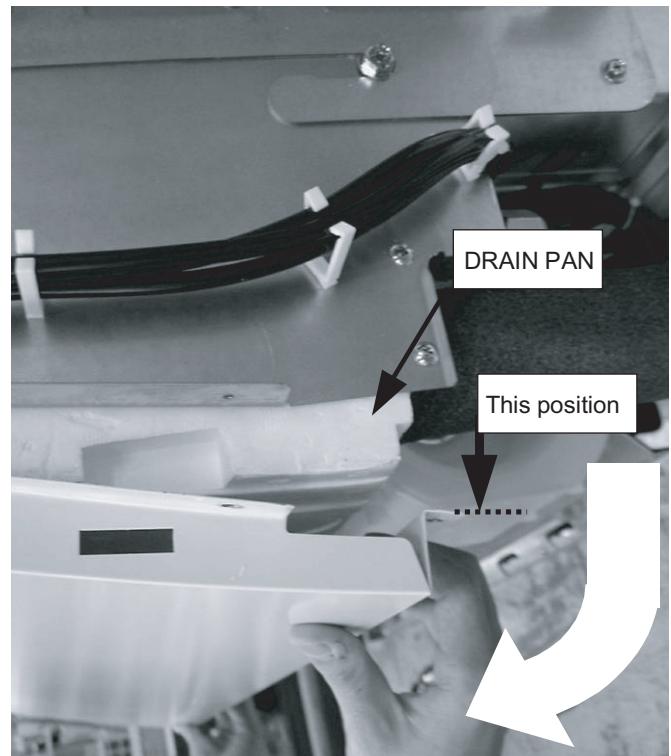
9) Remove 8 screws fixing the Front panel.



10) Support the Front panel with your hand, and remove the screw.



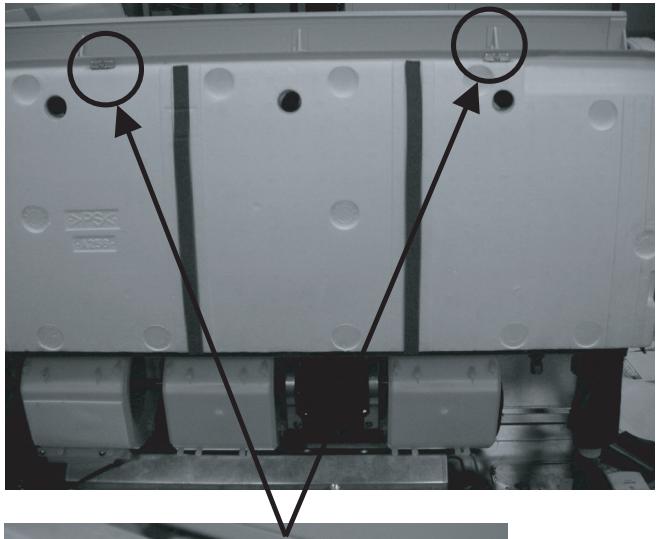
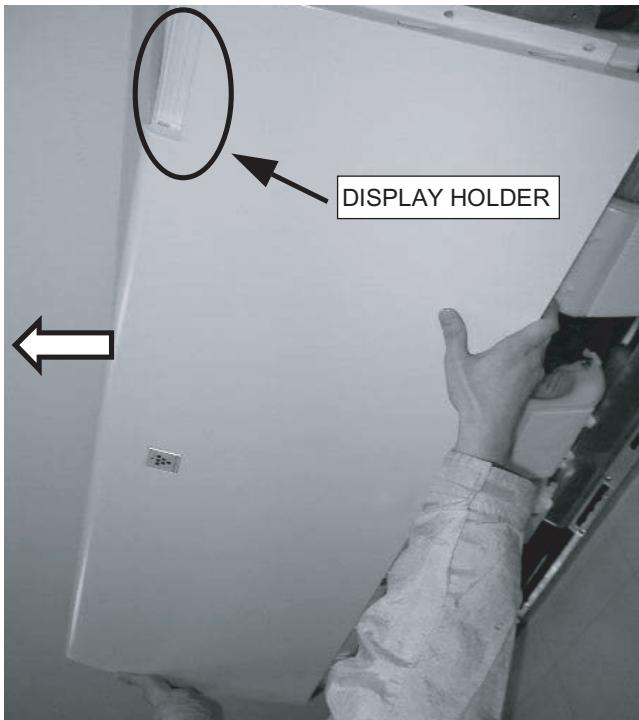
11) Remove the Front panel to the position where the Front panel is separated from the Drain pan.



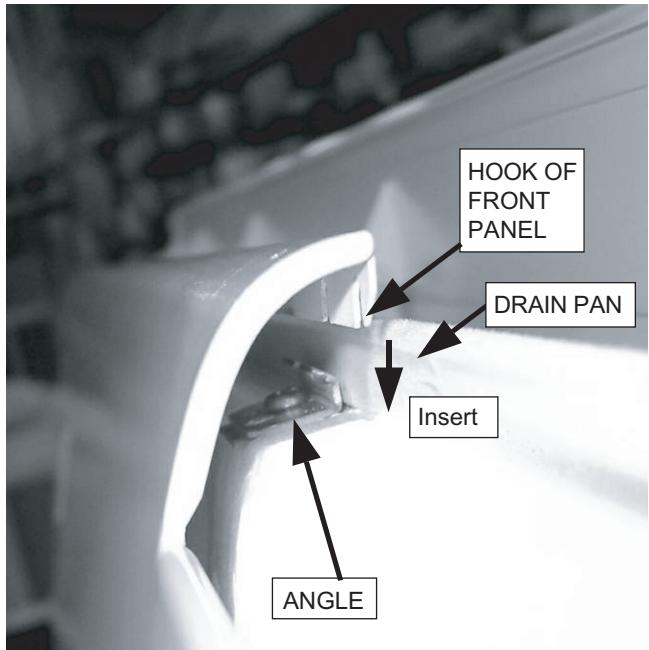
GSXP07FR

12) Remove the Front panel to the direction of arrow.

CAUTION: DO NOT DAMAGE THE DRAIN PAN WITH THE DISPLAY HOLDER.

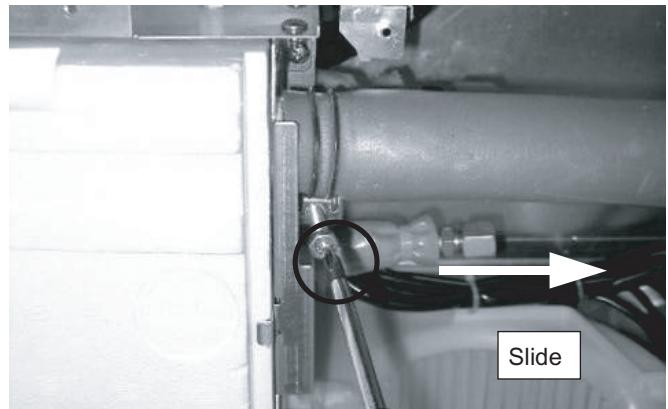


CAUTION: WHEN YOU ASSEMBLE THE FRONT PANEL TO DRAIN PAN, INSERT HOOK OF THE FRONT PANEL BETWEEN ANGLE AND DRAIN PAN (2 POSITIONS).
(ACTUALLY ASSEMBLE THE FRONT PANEL TO THE DRAIN PAN AFTER FIXING THE DISPLAY HOLDER TO THE FRONT PANEL.)

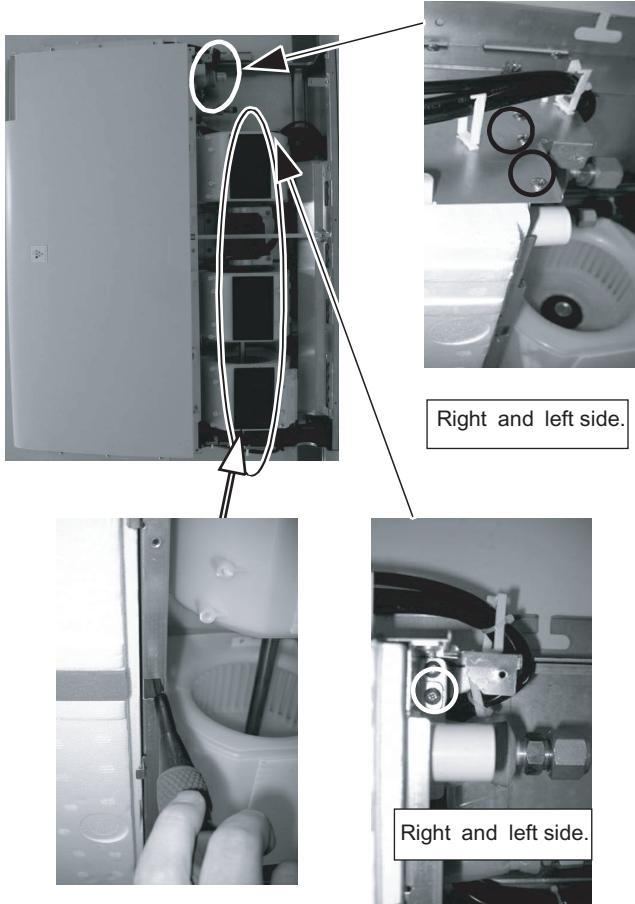


CAUTION: DISCHARGE THE WATER IN THE DRAIN PAN ASS'Y BEFORE REMOVING THE DRAIN PAN ASS'Y.

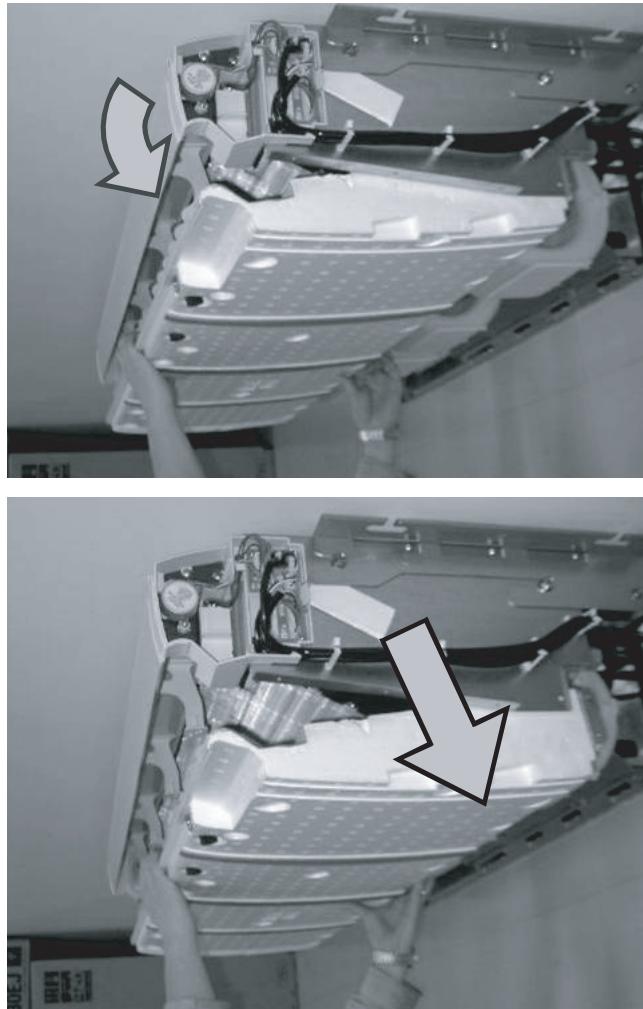
13) Loosen the screw of the Hose band. Remove the Drain hose.



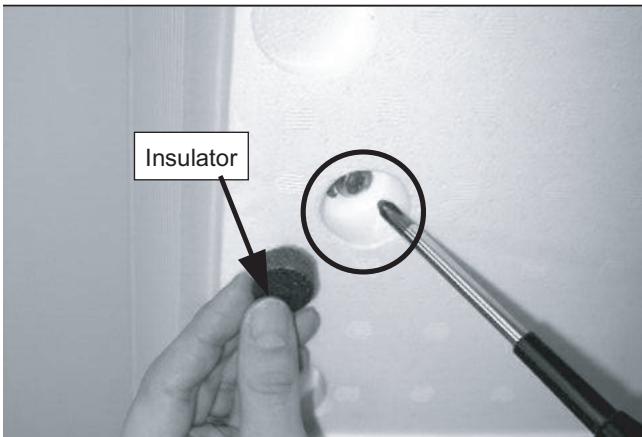
14) Remove 9 screws fixing the Drain pan ass'y.



16) Tilt the Drain pan ass'y, slide the Drain pan ass'y to the direction of arrow.

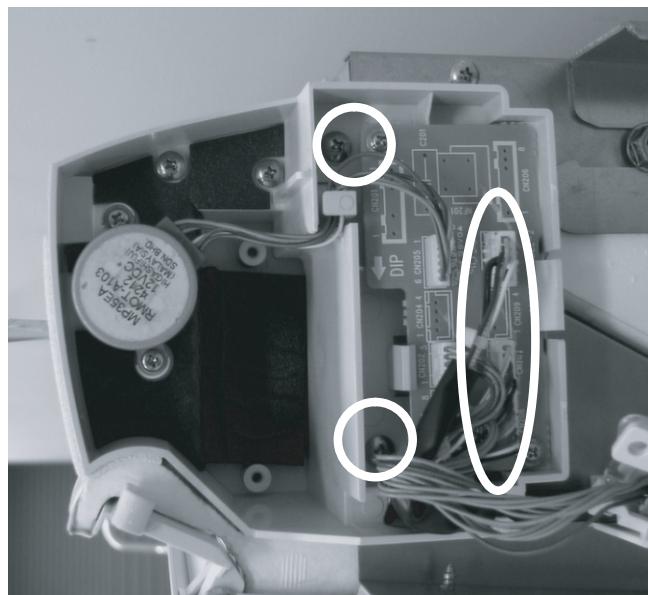


15) Remove 3 insulators and 4 screws fixing the Drain pan ass'y.



17) Disconnect 4 connectors (CN206, CN207, CN208 and CN210).

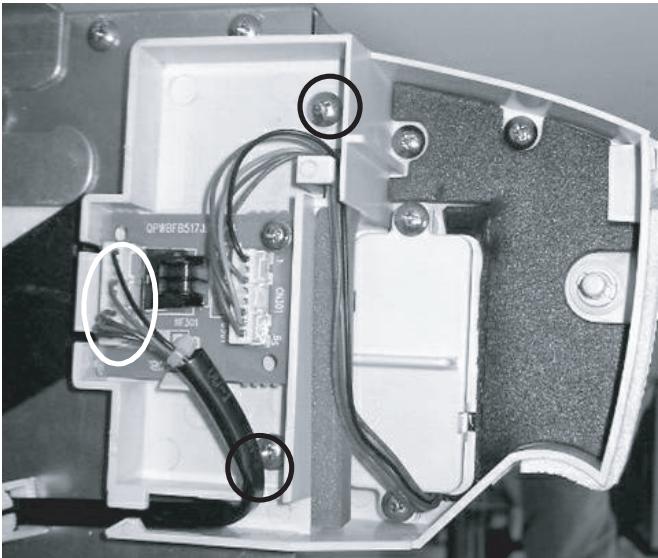
Remove 2 screws fixing the Top duct cover R.



GSXP07FR

18)Disconnect the connector (CN302).

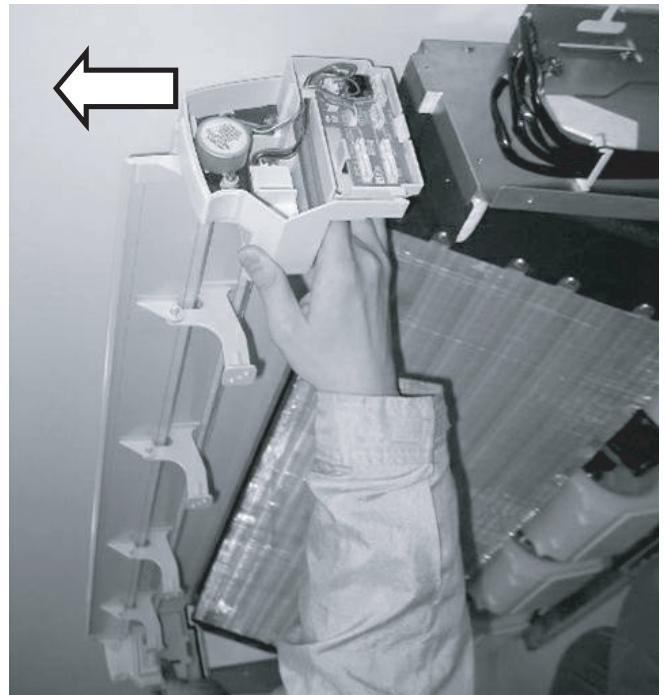
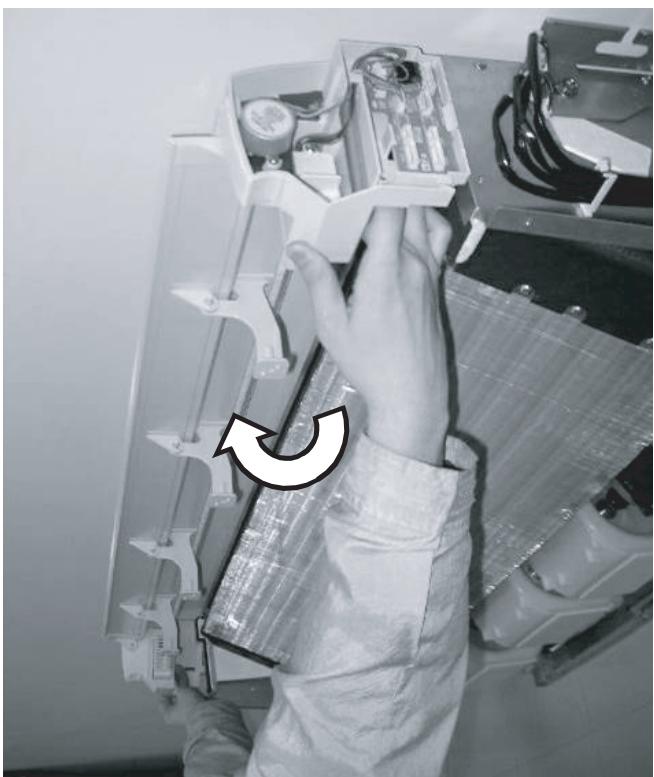
Remove 2 screws fixing the Top duct cover L.



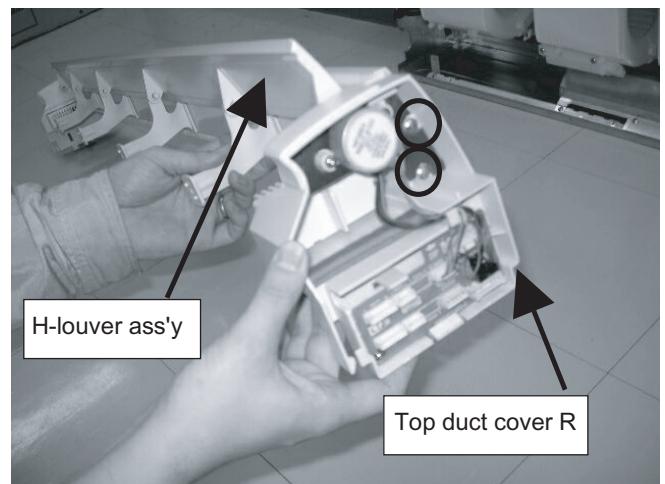
19)Remove 2 screws fixing the top duct.



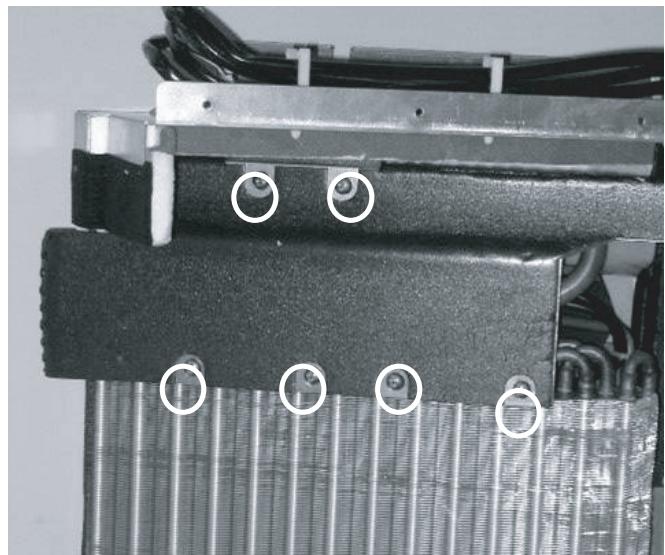
20)Tilt the Top duct for removing the rib of the Top duct , remove the unit to the direction of arrow.



21)Remove 2 screws fixing the Top duct cover R. Remove the Top duct cover R and H-louver ass'y.

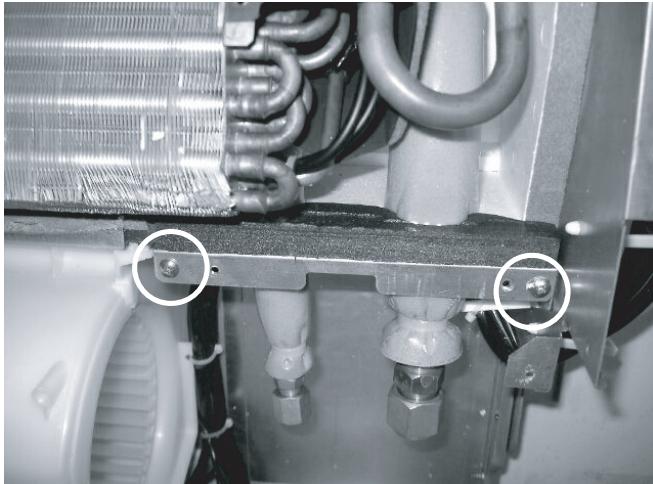


22)Remove 6 screws fixing the End plate sub.

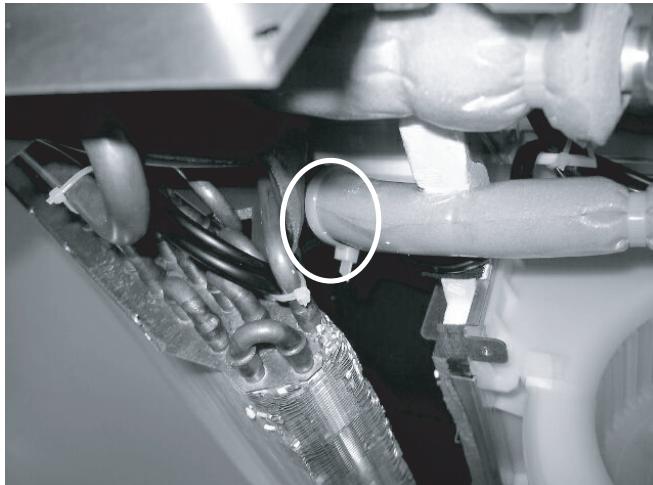
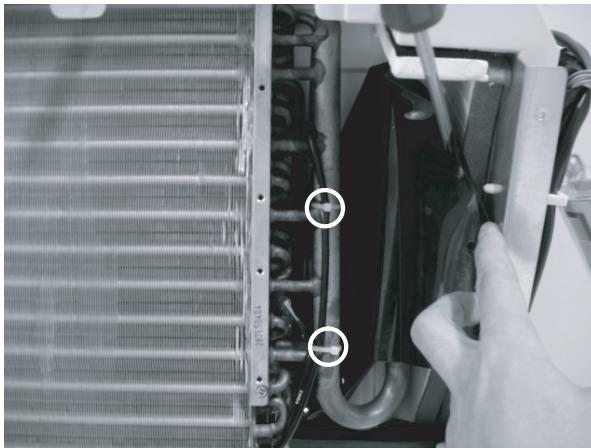


23) Remove 2 screws fixing the Tube holder.

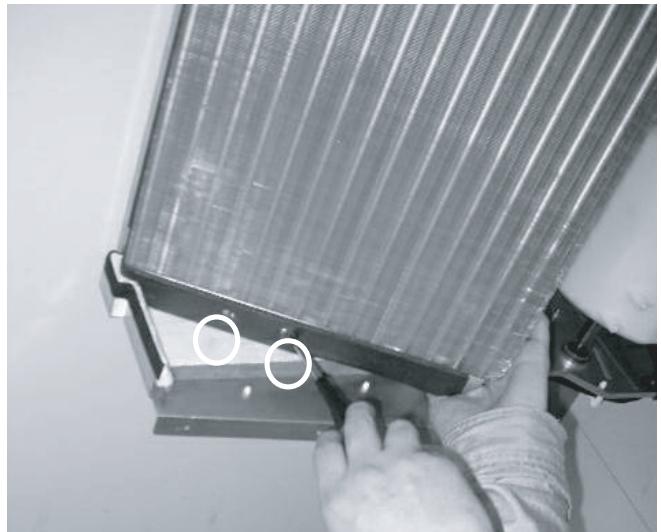
Remove the Tube holder.



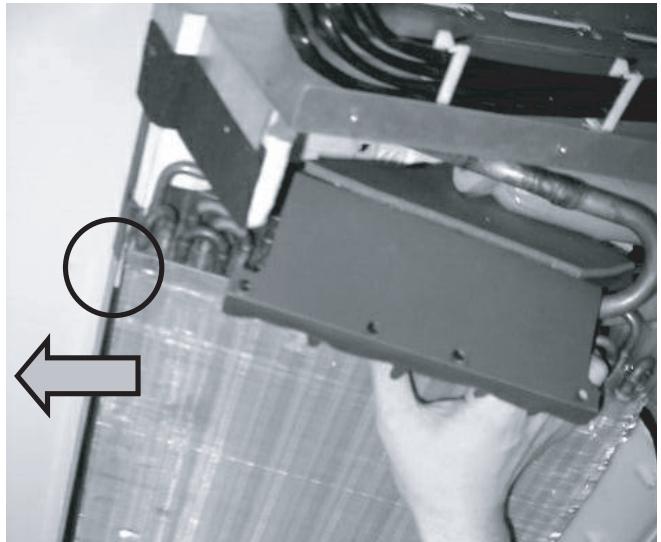
24) Cut 4 wire fixing bands fixing the Thermistors.



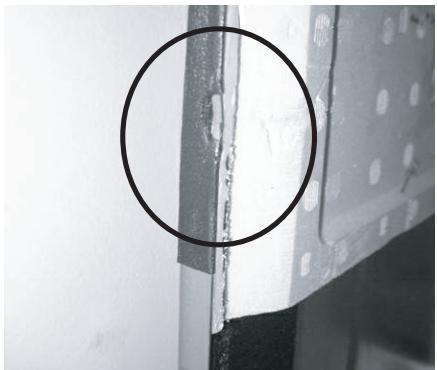
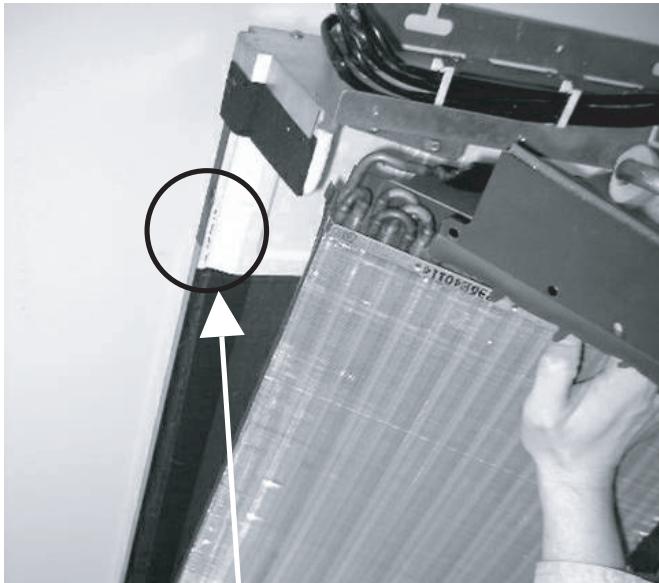
25) Remove 2 screws fixing the Evaporator.



26) Remove hook of Evaporator hung on the Rear cabinet to the direction of arrow.

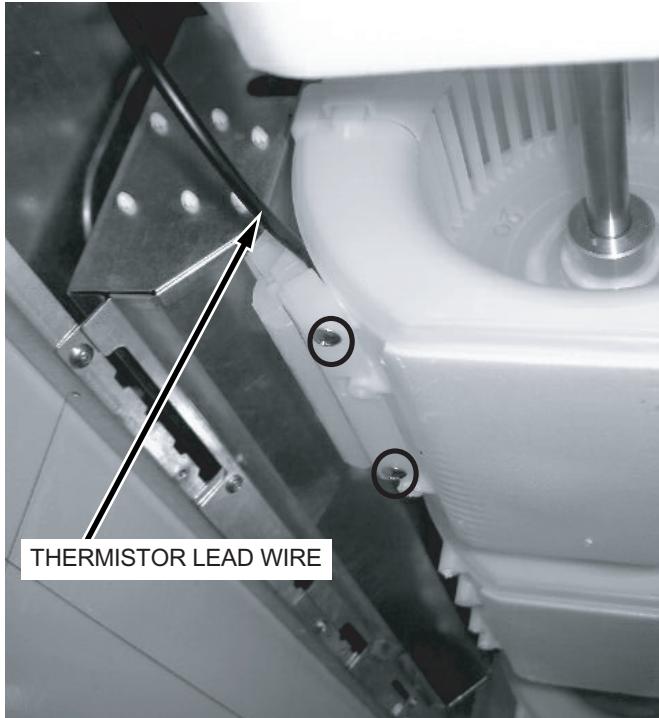


27) Remove the Evaporator.



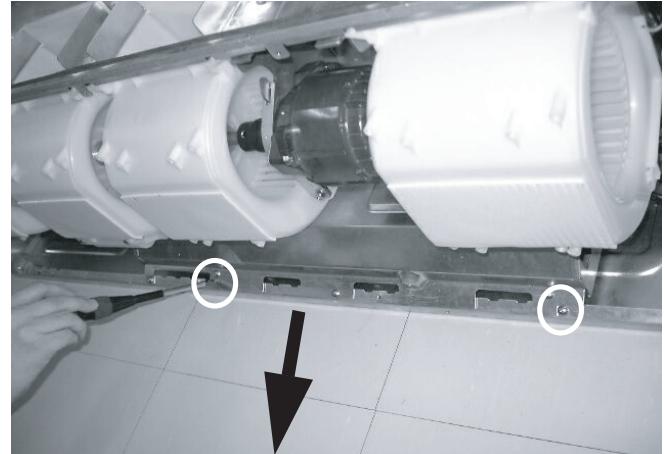
1.1. How to disassemble the Control box assembly.

1) Remove 2 screws fixing the Thermistor holder. Remove the Thermistor holder.



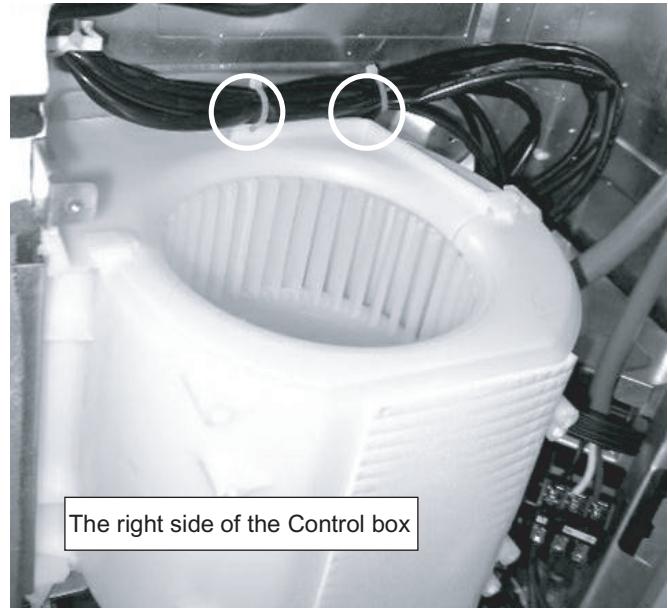
CAUTION: WHEN YOU ASSEMBLE THE THERMISTOR HOLDER TO FAN HOUSING, YOU LOCATE THE THERMISTOR LEAD WIRE IN BACK OF THERMISTOR HOLDER.

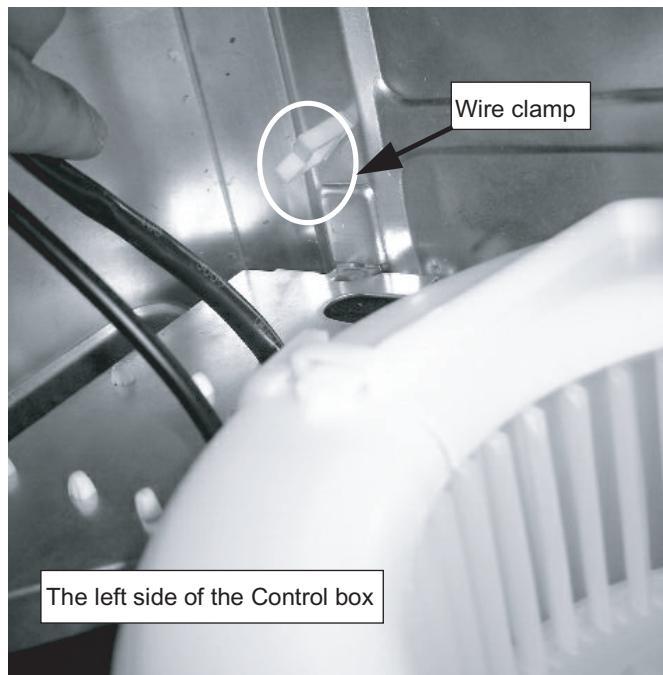
2) Remove 2 screws fixing the Control box cover. Slide the Control box cover to the direction of arrow.



3) Cut 2 wire fixing bands. (Right side of the Control box)

Remove Lead wires from Wire clamps. (Left side of the Control box)

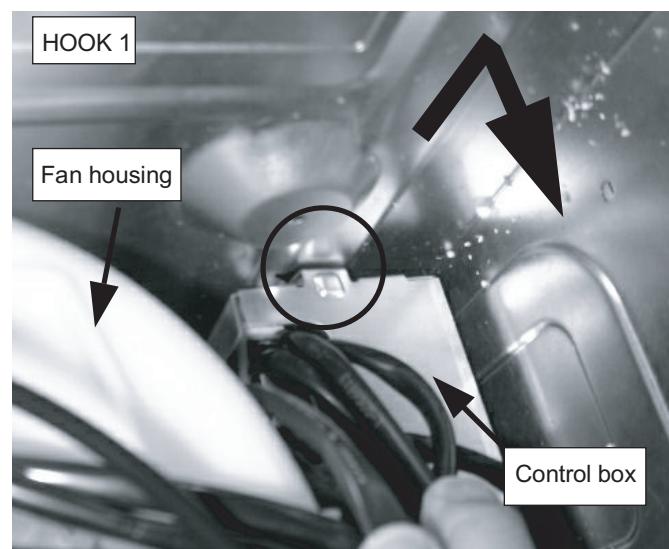
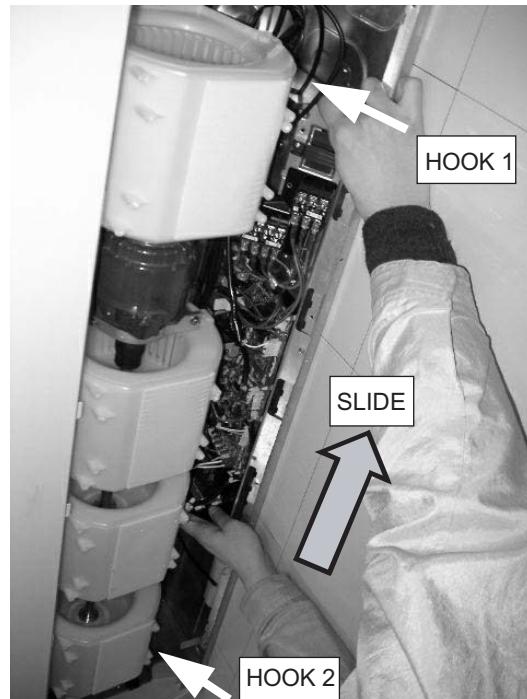


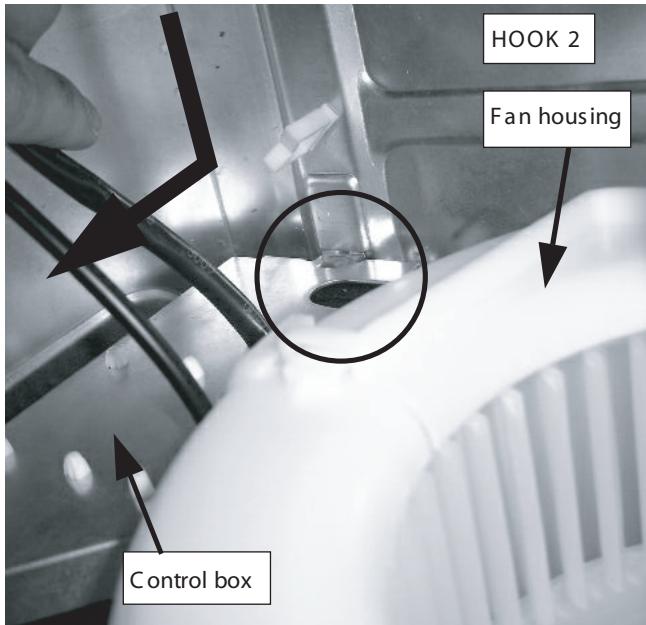


4) Remove 3 screws fixing the Control box.

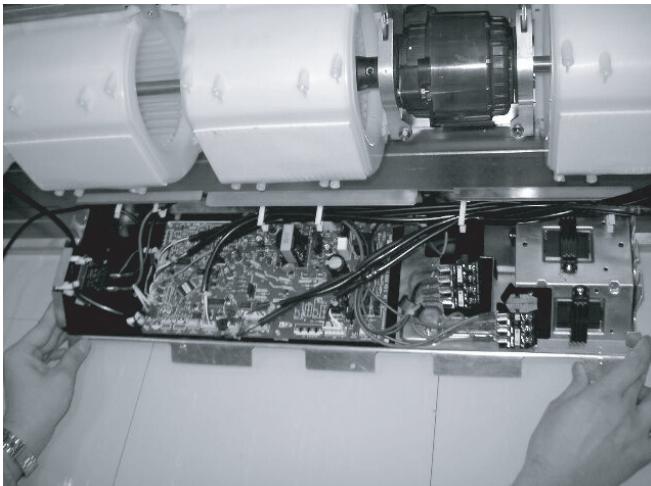


5) Slide the Control box to the direction of arrow and unlock 2 hooks.





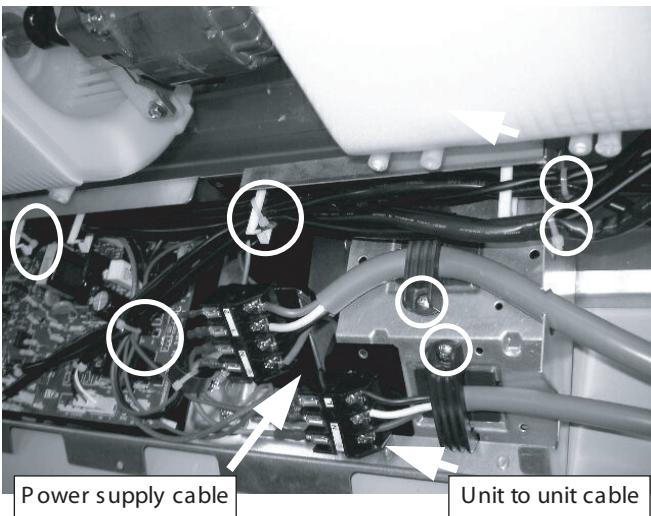
6) Take out the Control box from the Cabinet.



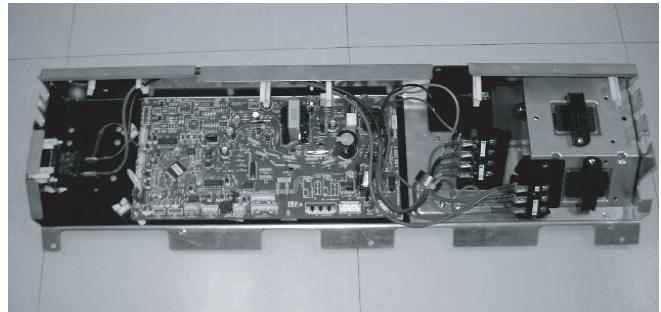
7) Cut 5 wire fixing bands.

Remove 2 screws fixing 2 Cord clamps and remove them.

Remove the Power supply cable and the Unit to unit cable.



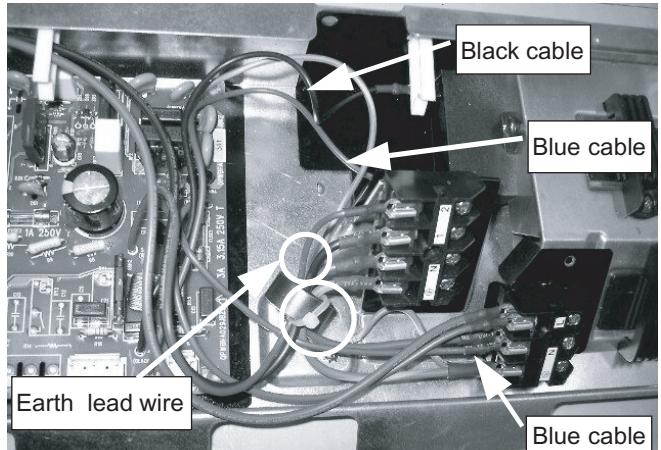
8) Disconnect 9 connectors (CN3, CN4, CN5, CN6, CN11, CN12, CN13, CN14, CN15).



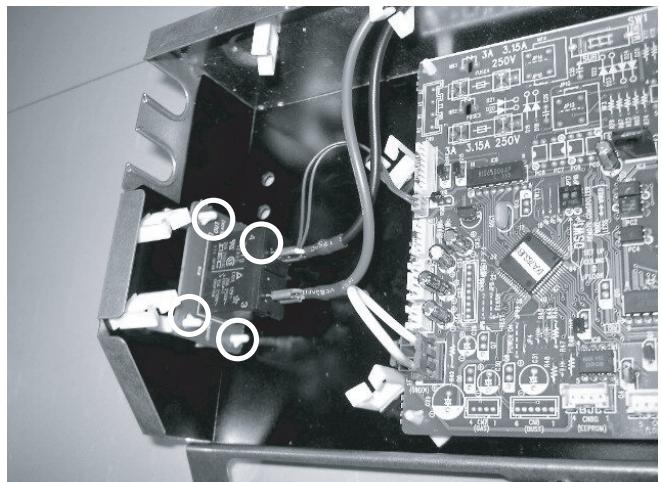
9) Cut the wire fixing band.

Disconnect 3 Lead wires.

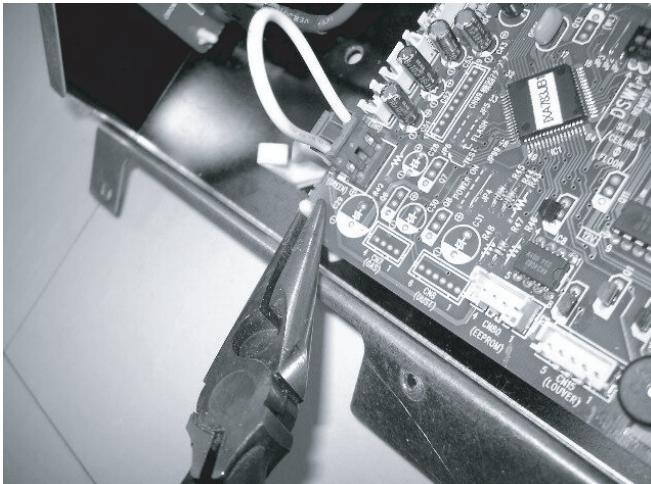
Remove the screw fixing the Earth lead wire.



10) Unlock 4 Spacer's locks of sub PWB.

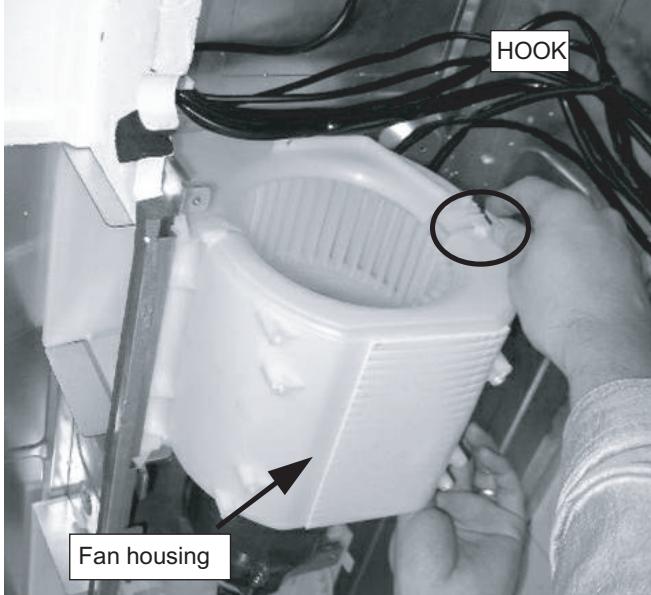


11) Unlock 5 Spacer's locks of PWB.

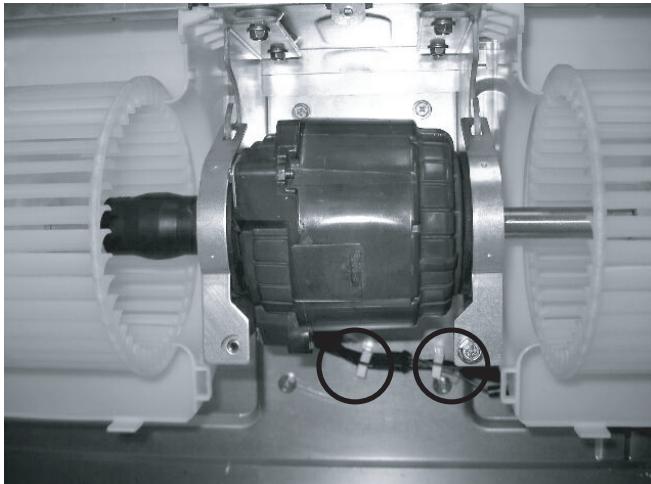


1.2. How to disassemble the Fan motor.

1) Remove 3 Fan housings (Unlock the hooks of both sides).

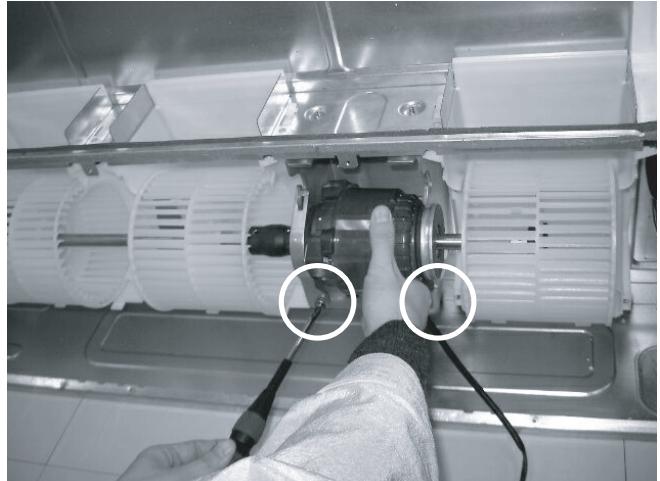


2) Remove the Fan motor lead wires from the Wire clamps.



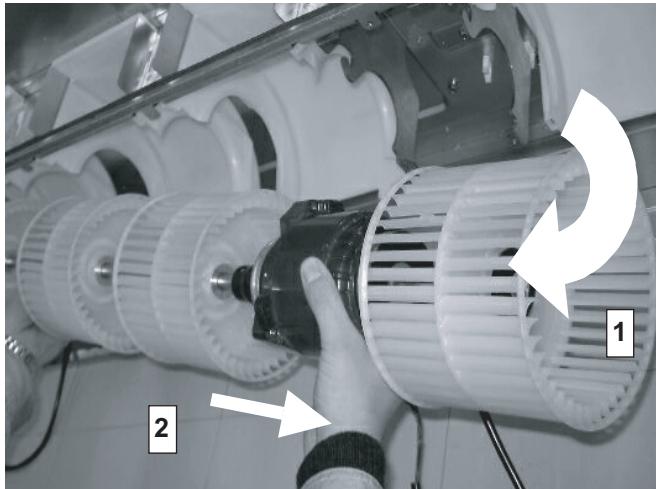
3) Support the Fan motor with your hand, and remove 2 screws fixing Fan motor clamps.

Remove 2 Fan motor clamps.



4) Tilt the Fan motor ass'y around the Bearing, remove it.

CAUTION: DO NOT HIT FANS AGAINST FAN HOUSING.



5) Remove 2 screws fixing the Fan and Joint with hexagon socket screw key (Diagonally 3mm).



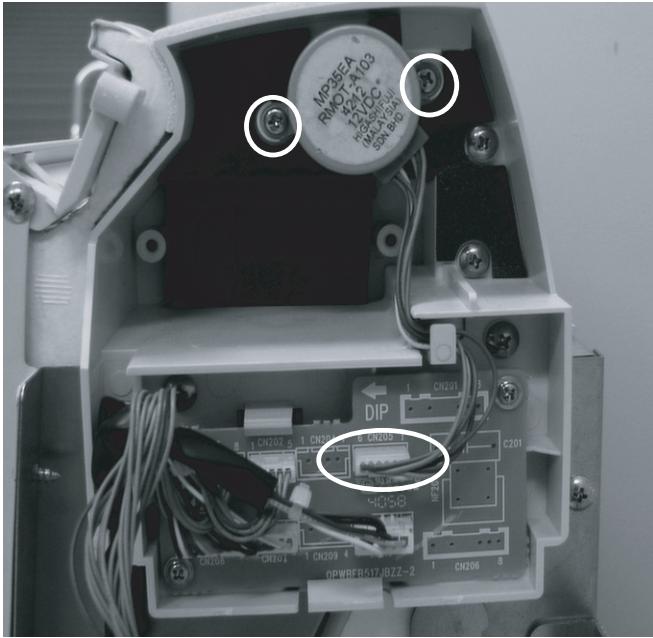
CAUTION: WHEN YOU ASSEMBLE THE FAN MOTOR ASSY TO UNIT, YOU DO NOT MAKE THE FANS TOUCH THE FAN HOUSINGS.

AFTER ASSEMBLY OF THE FAN MOTOR ASSY
MAKE SURE THAT THE FAN HAS NOT TOUCHED
THE FAN HOUSINGS.

1.3. How to disassemble the Louver motor.

Disconnect the connector (CN205).

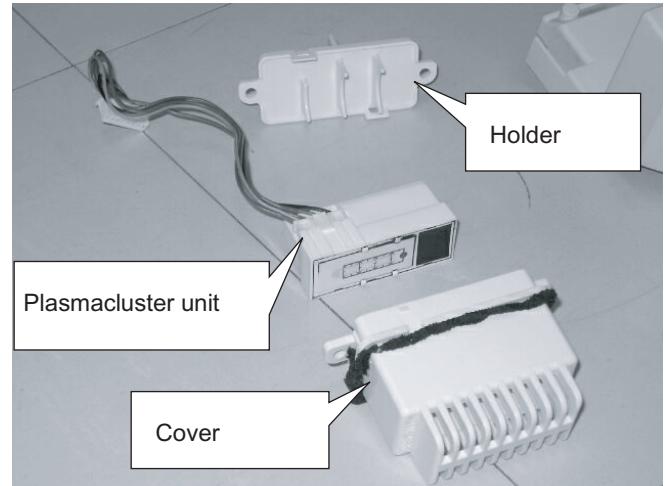
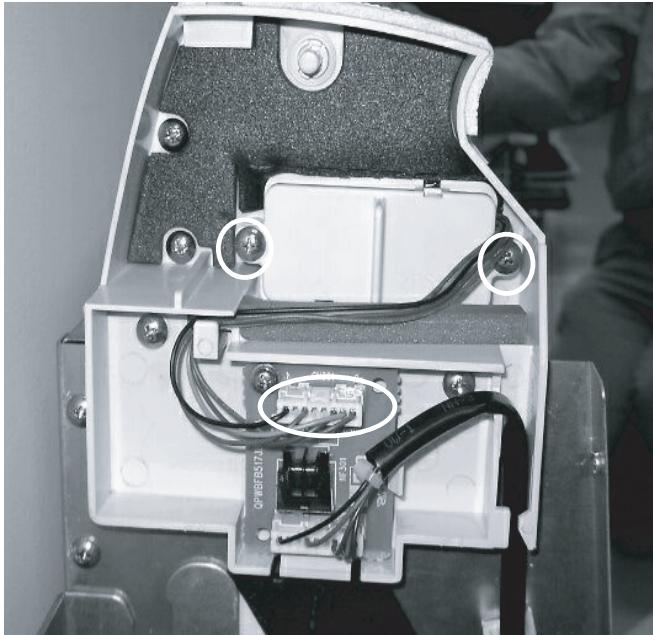
Remove 2 screws fixing the Louver motor.



1.4. How to disassemble the Plasmacluster unit.

Disconnect the connector (Top duct cover L: CN301).

Remove 2 screws fixing the Plasmacluster unit ass'y.

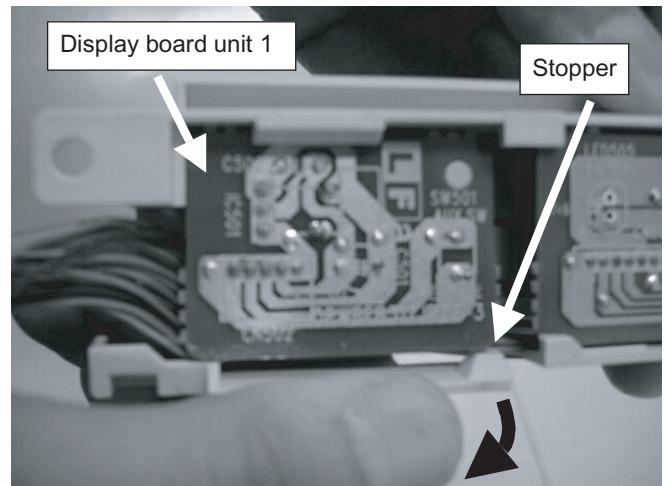


1.5. How to disassemble the Display unit.

- 1) Remove the Display cover.

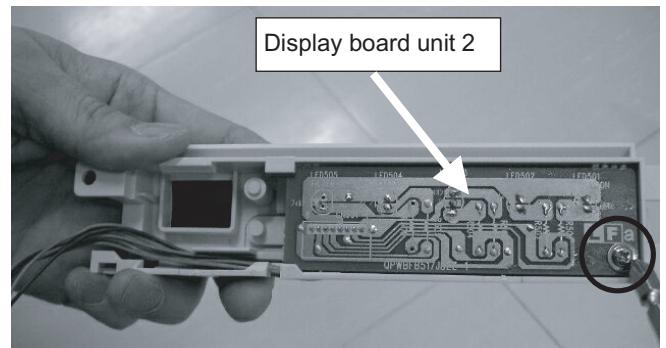


- 2) Open the stopper and remove DISPLAY BOARD UNIT 1.



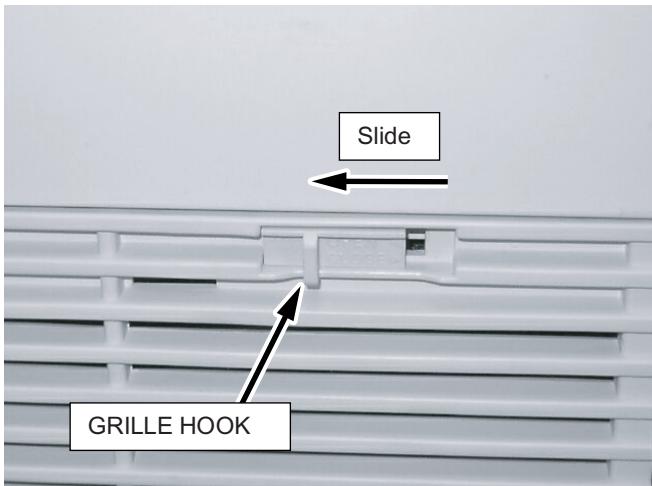
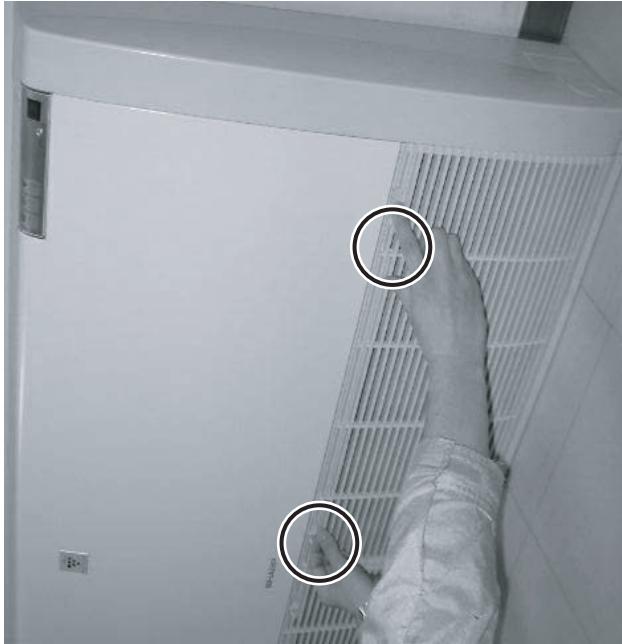
- 3) Remove the screw fixing DISPLAY BOARD UNIT 2

Remove DISPLAY BOARD UNIT 2.



2. GS-XP18FR, GS-XP24FR, GS-XP27FR

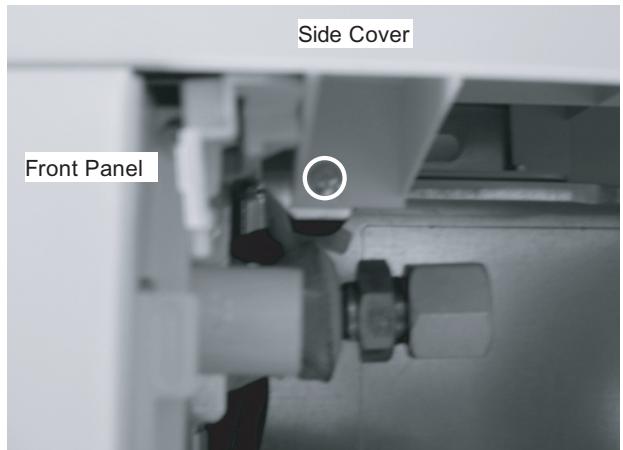
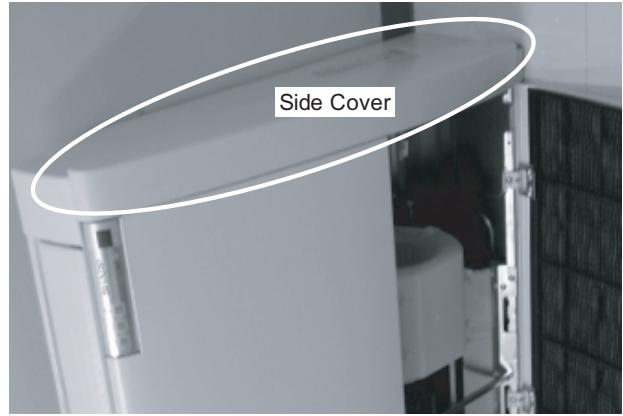
- 1) Slide 2 Grille hooks to the left, and open the Grille. (Right and left Grille.)



- 2) Remove 4 screws fixing the Grills.



- 3) Remove the screw fixing the Side cover. (Right and left Side cover.)



- 4) Remove 2 screws fixing the Grille. (Right and left Grille.)





5) Remove 1 screw fixing the Angle.

Remove the Angle to the direction of arrows.



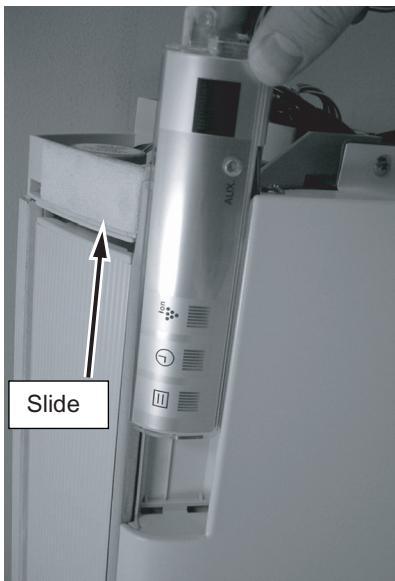
6) Cut the fixing band.

Disconnect 2 connectors (CN202, CN203).

Remove the screw fixing the Display unit.



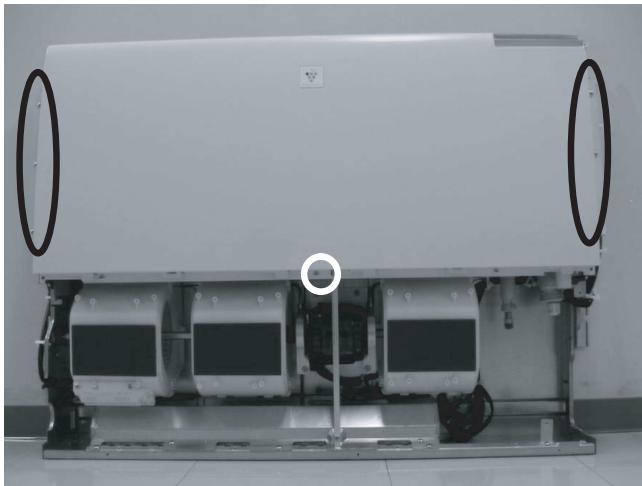
7) Slide the Display unit to the direction of arrow.



8) Remove 2 screws fixing the Angle to the Front panel.



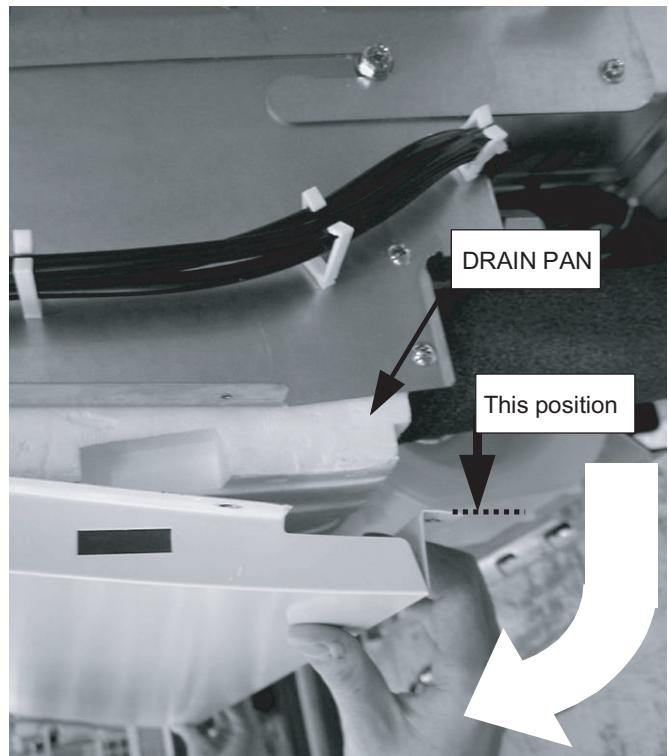
9) Remove 9 screws fixing the Front panel.



10) Support the Front panel with your hand, and remove the screw.



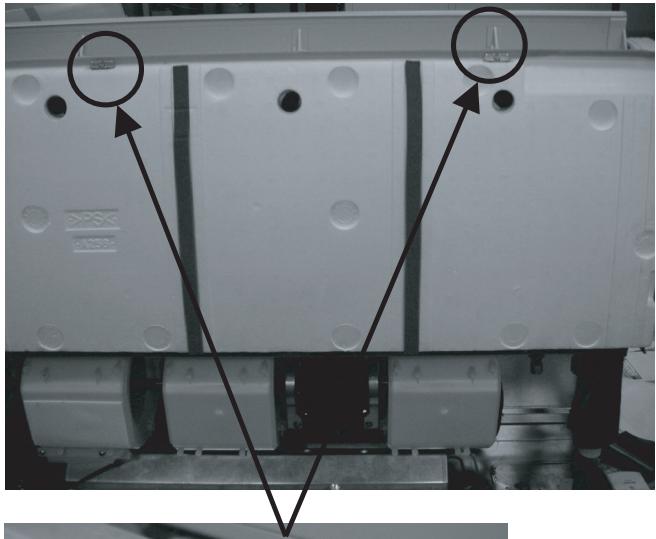
11) Remove the Front panel to the position where the Front panel is separated from the Drain pan.



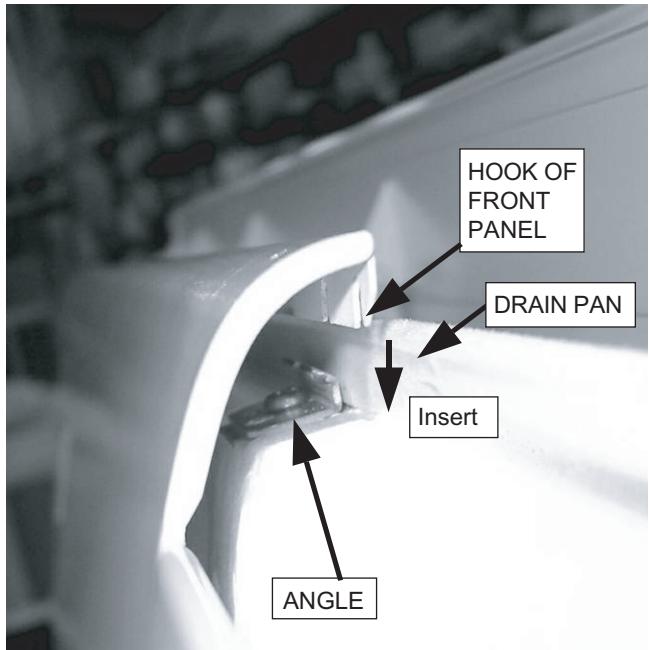
GSXP07FR

12) Remove the Front panel to the direction of arrow.

CAUTION: DO NOT DAMAGE THE DRAIN PAN WITH THE DISPLAY HOLDER.

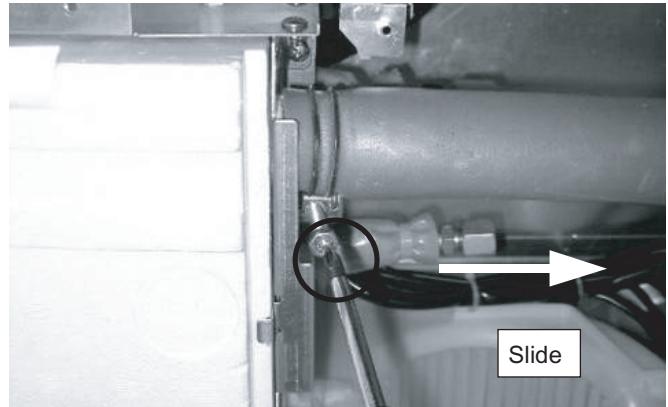


CAUTION: WHEN YOU ASSEMBLE THE FRONT PANEL TO DRAIN PAN, INSERT HOOK OF THE FRONT PANEL BETWEEN ANGLE AND DRAIN PAN (2 POSITIONS).
(ACTUALLY ASSEMBLE THE FRONT PANEL TO THE DRAIN PAN AFTER FIXING THE DISPLAY HOLDER TO THE FRONT PANEL.)

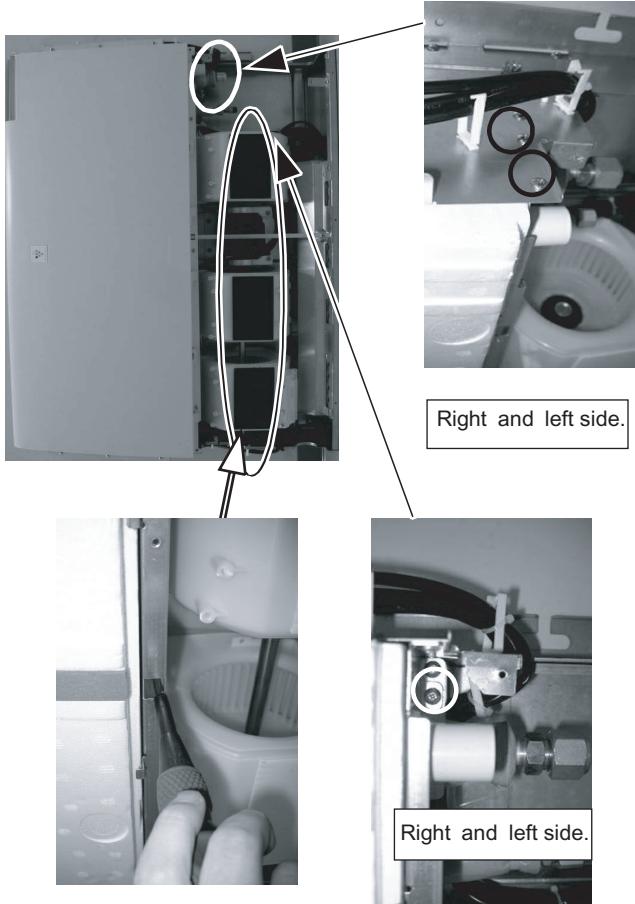


CAUTION: DISCHARGE THE WATER IN THE DRAIN PAN ASS'Y BEFORE REMOVING THE DRAIN PAN ASS'Y.

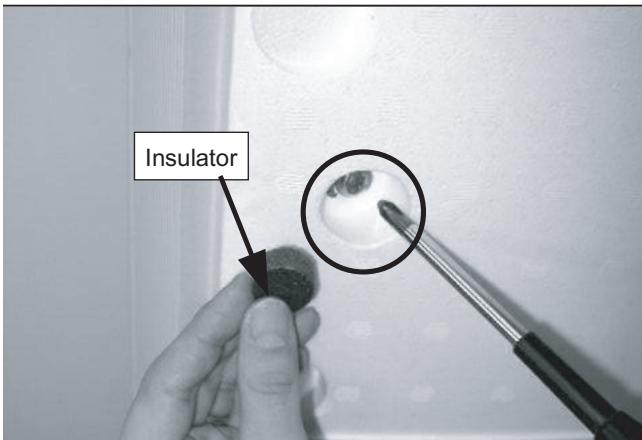
13) Loosen the screw of the Hose band. Remove the Drain hose.



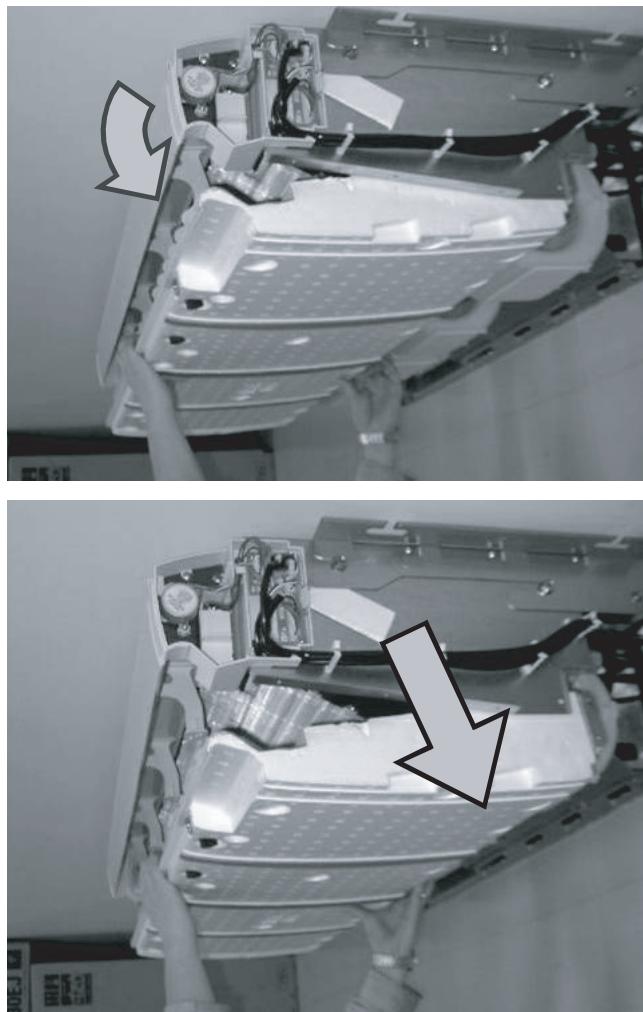
14) Remove 10 screws fixing the Drain pan ass'y.



15) Remove 4 insulators and 4 screws fixing the Drain pan ass'y.

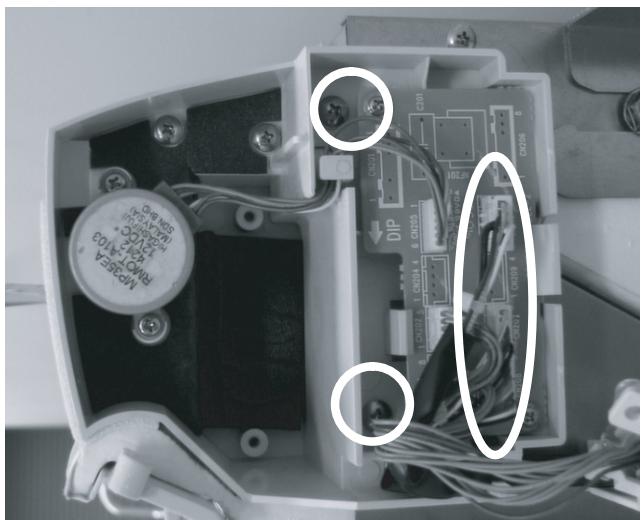


16) Tilt the Drain pan ass'y, slide the Drain pan ass'y to the direction of arrow.



17) Disconnect 4 connectors (CN206, CN207, CN208 and CN210).

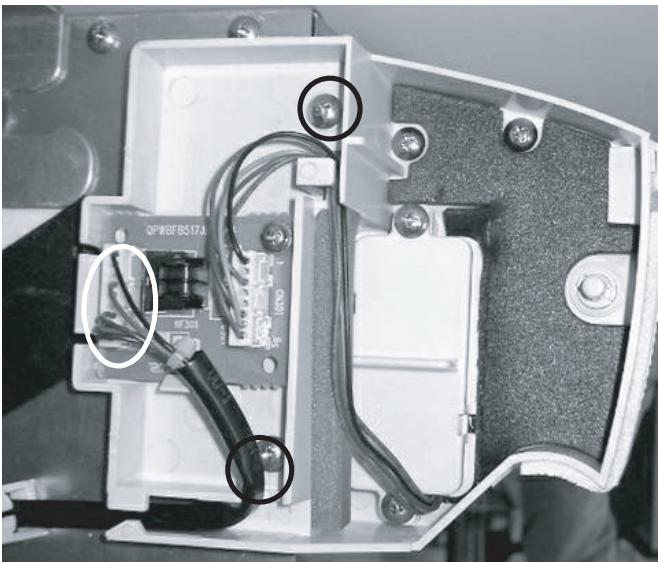
Remove 2 screws fixing the Top duct cover R.



GSXP07FR

18)Disconnect the connector (CN302).

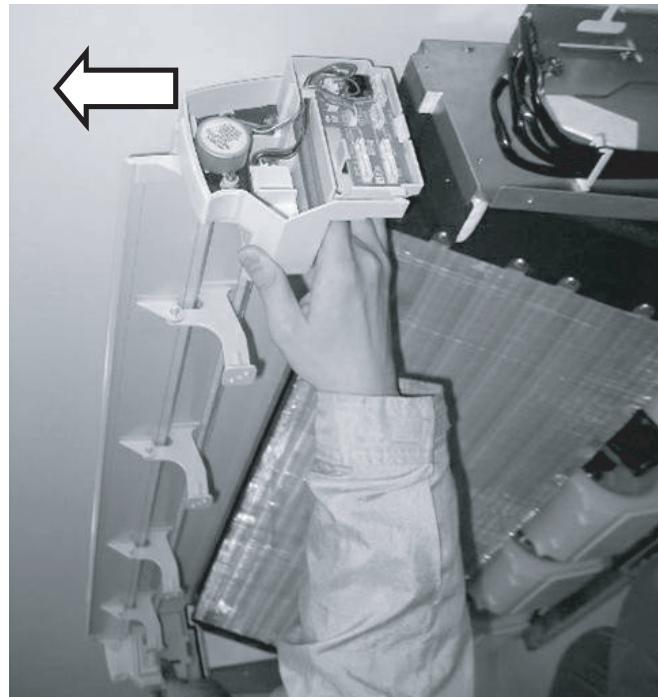
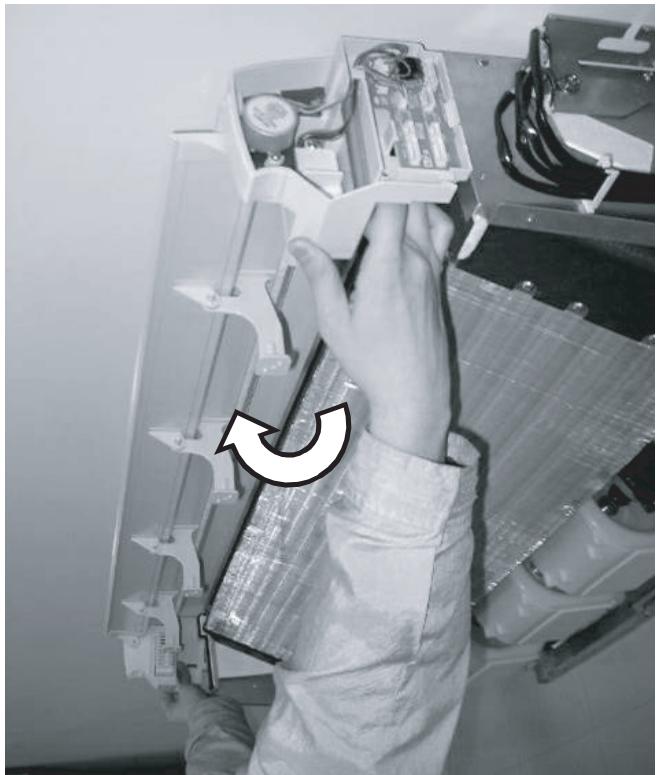
Remove 2 screws fixing the Top duct cover L.



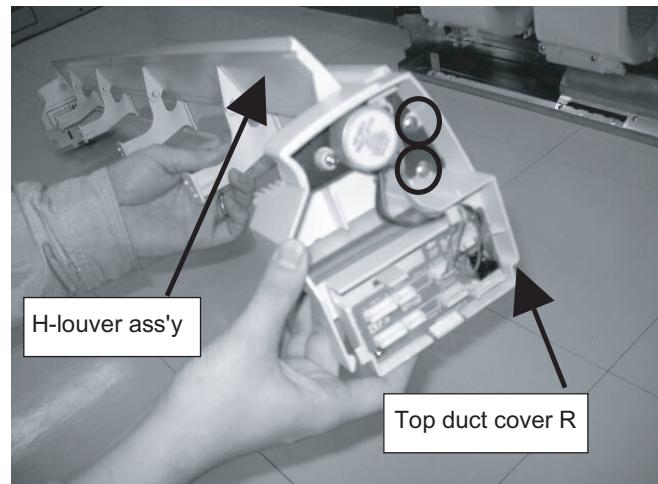
19)Remove 2 screws fixing the top duct.



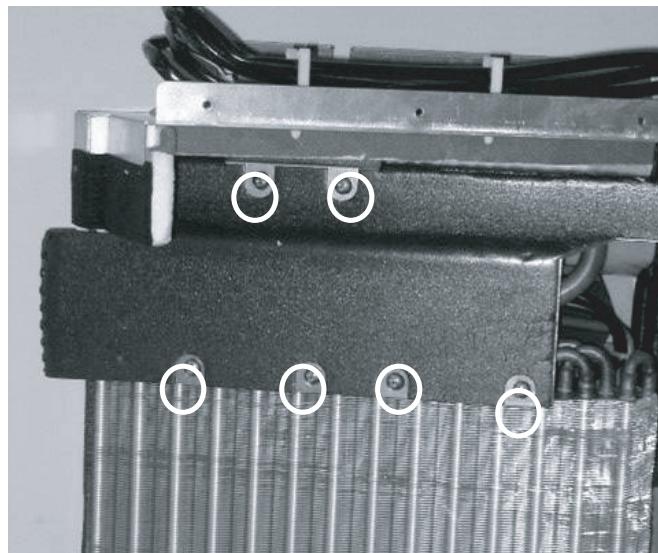
20)Tilt the Top duct for removing the rib of the Top duct , remove the unit to the direction of arrow.



21)Remove 2 screws fixing the Top duct cover R. Remove the Top duct cover R and H-louver ass'y.

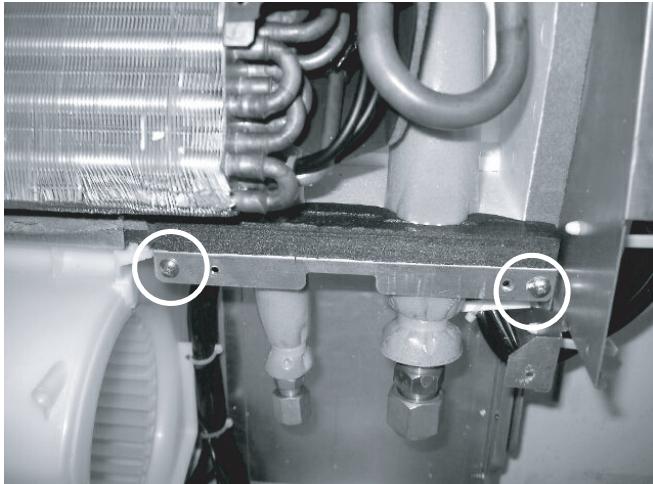


22)Remove 6 screws fixing the End plate sub.

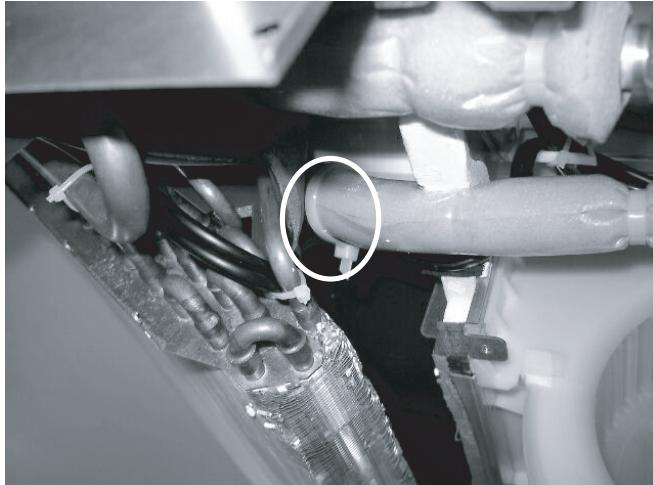
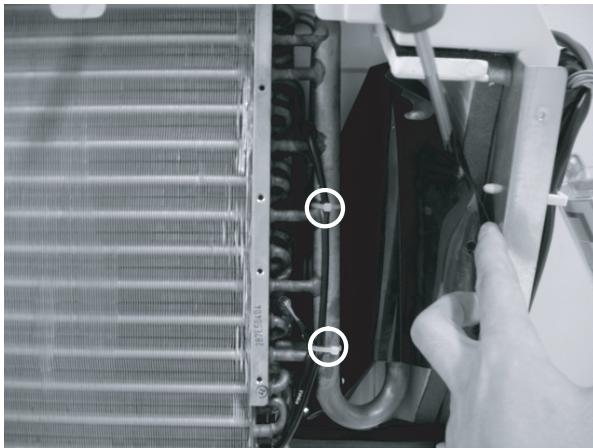


23) Remove 2 screws fixing the Tube holder.

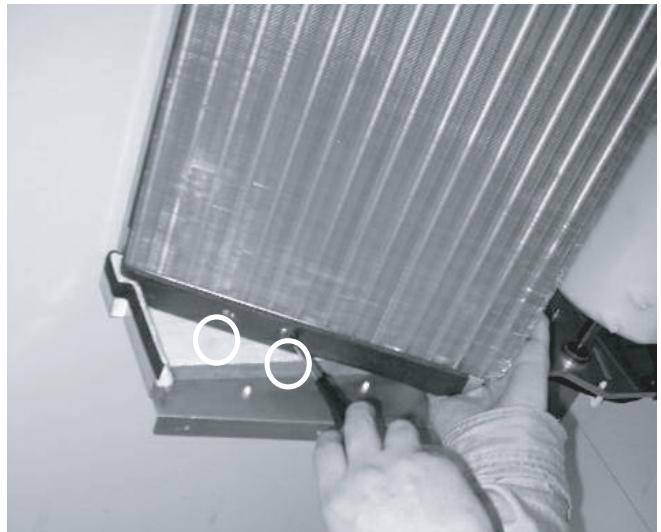
Remove the Tube holder.



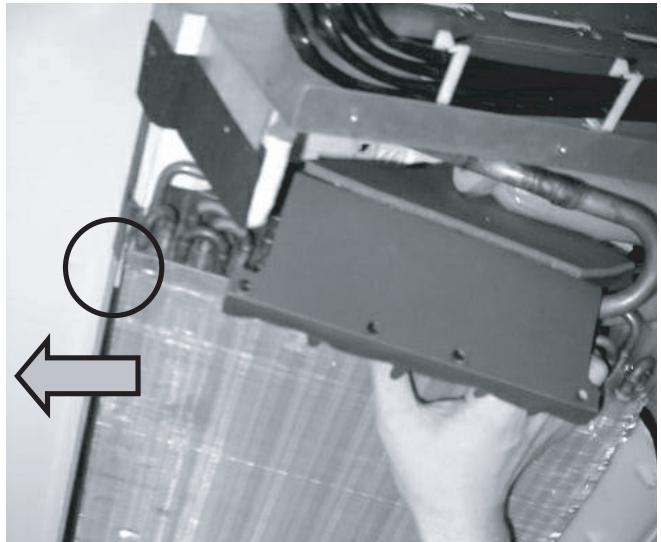
24) Cut 4 wire fixing bands fixing the Thermistors.



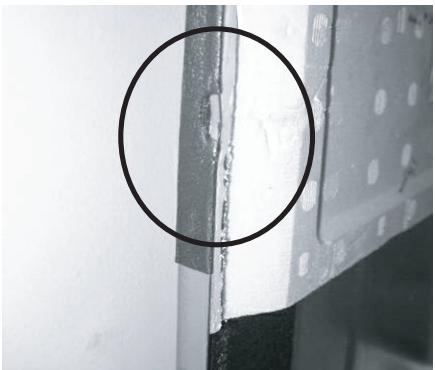
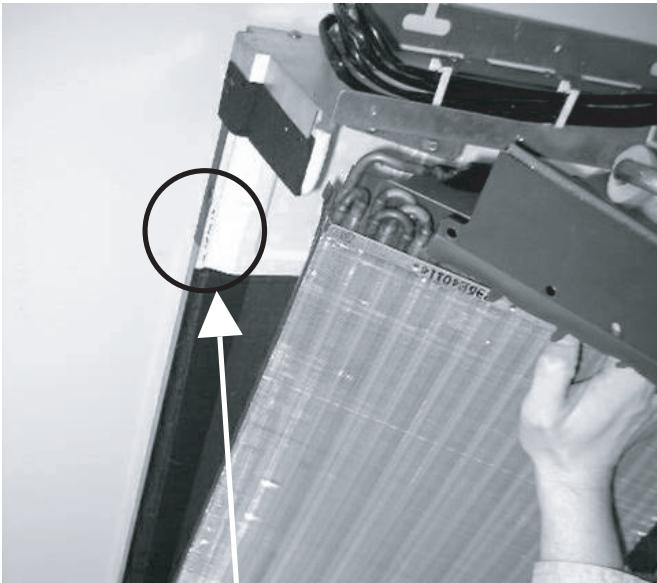
25) Remove 2 screws fixing the Evaporator.



26) Remove hook of Evaporator hung on the Rear cabinet to the direction of arrow.

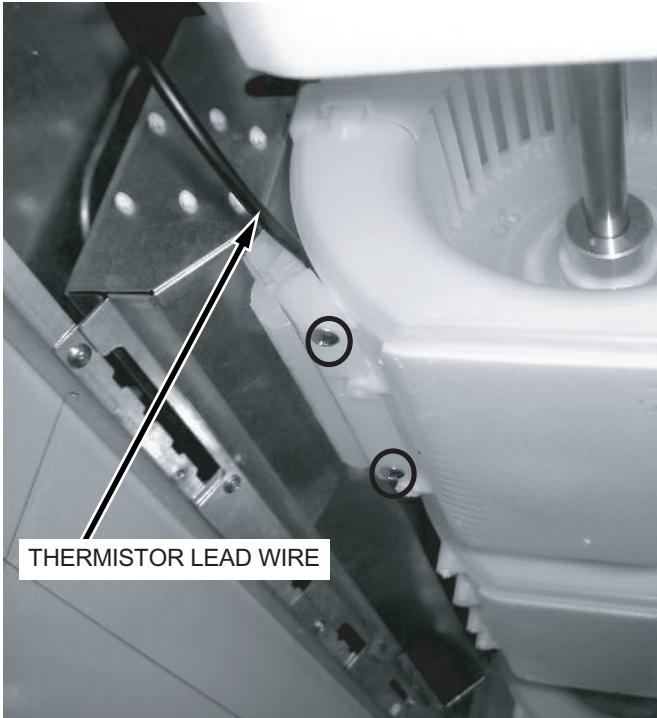


27) Remove the Evaporator.



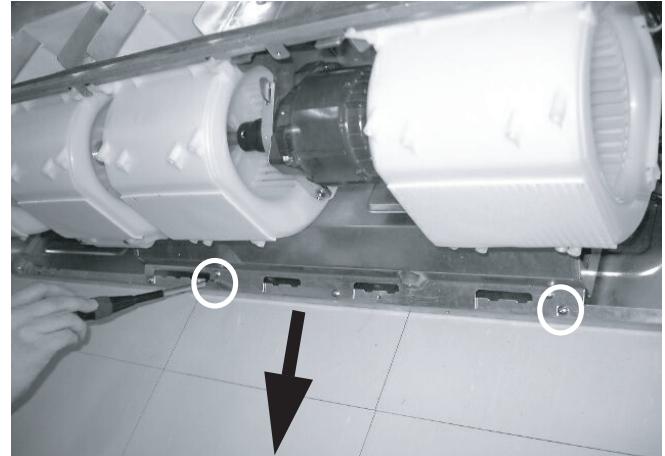
2.1. How to disassemble the Control box assembly.

1) Remove 2 screws fixing the Thermistor holder. Remove the Thermistor holder.



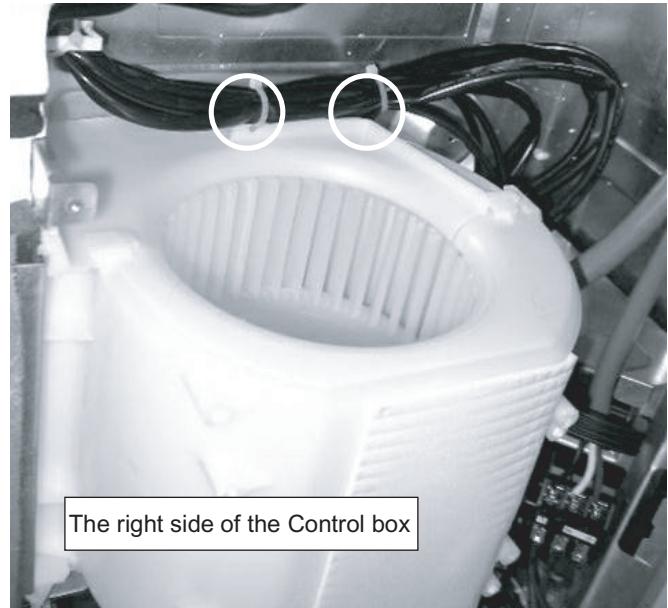
CAUTION: WHEN YOU ASSEMBLE THE THERMISTOR HOLDER TO FAN HOUSING, YOU LOCATE THE THERMISTOR LEAD WIRE IN BACK OF THERMISTOR HOLDER.

2) Remove 2 screws fixing the Control box cover. Slide the Control box cover to the direction of arrow.

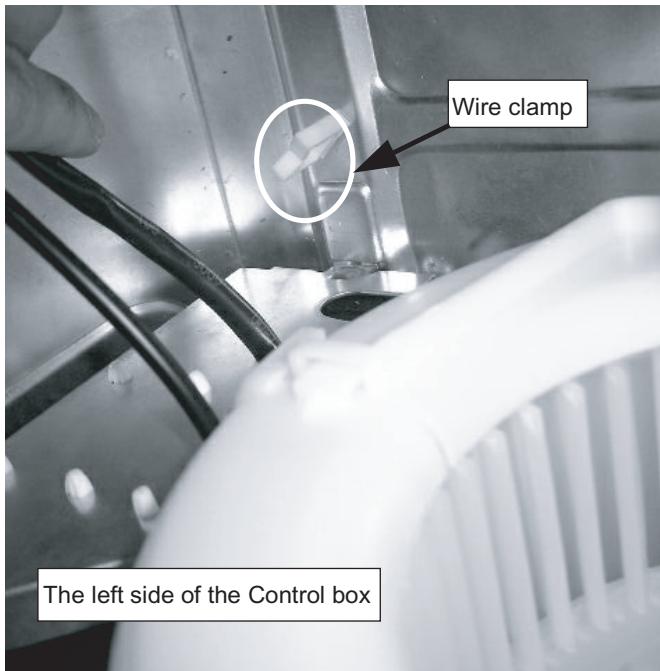


3) Cut 2 wire fixing bands. (Right side of the Control box)

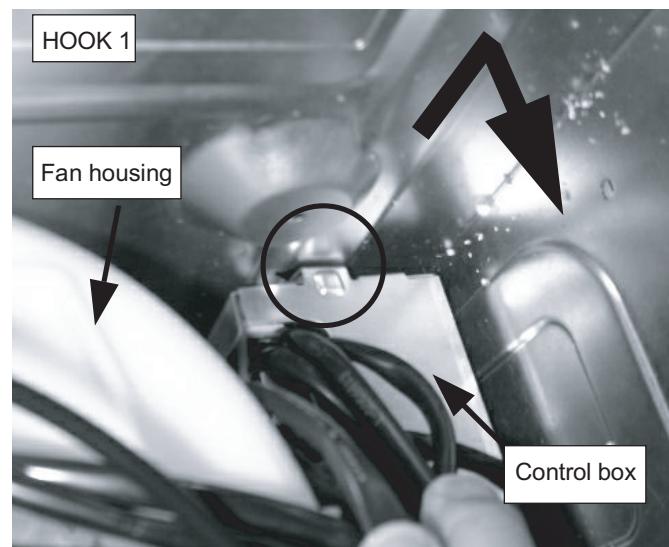
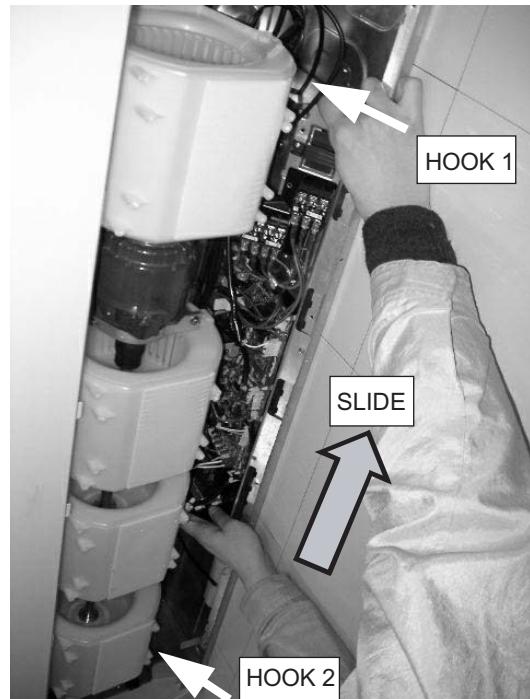
Remove Lead wires from Wire clamps. (Left side of the Control box)

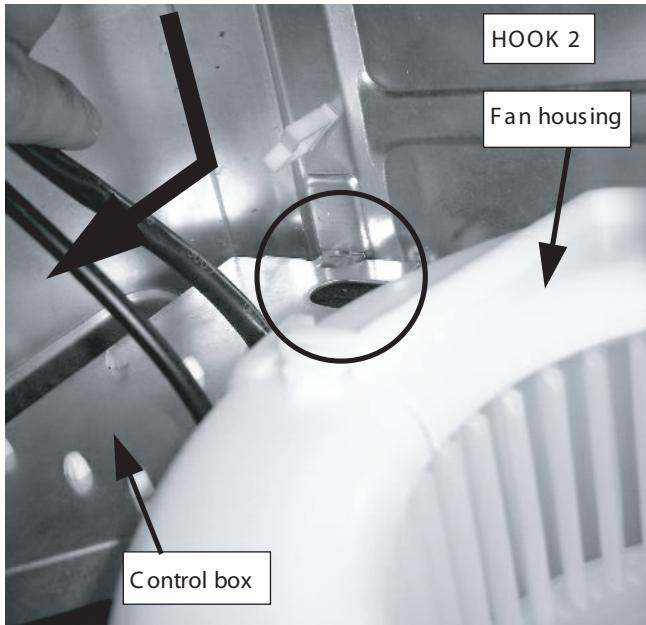


5) Slide the Control box to the direction of arrow and unlock 2 hooks.

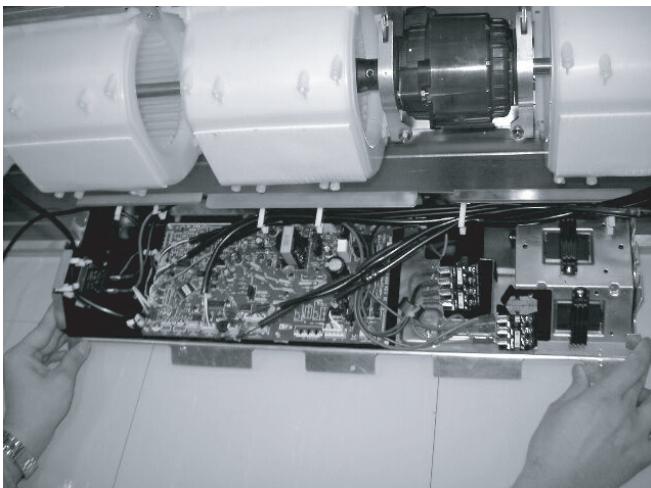


4) Remove 3 screws fixing the Control box.





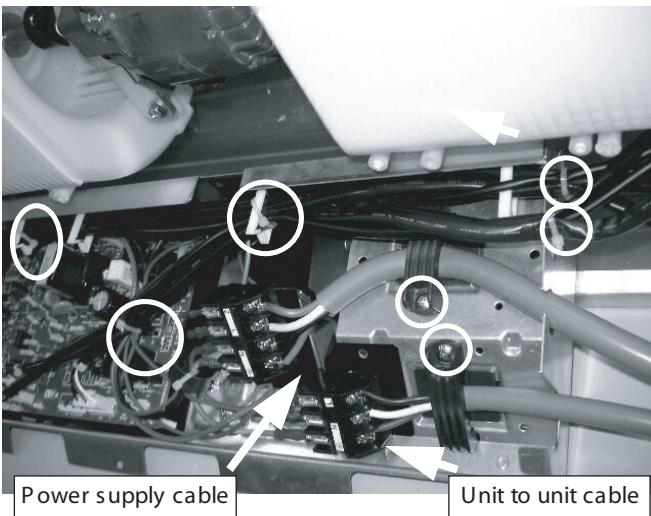
6) Take out the Control box from the Cabinet.



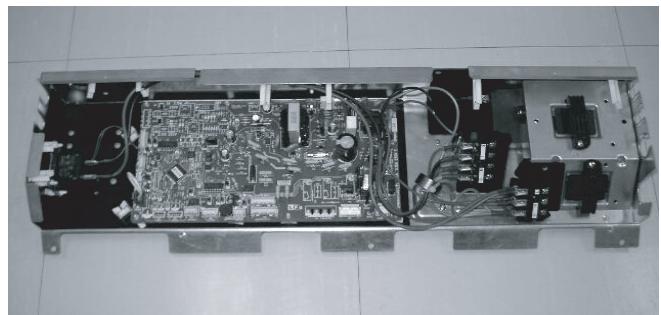
7) Cut 5 wire fixing bands.

Remove 2 screws fixing 2 Cord clamps and remove them.

Remove the Power supply cable and the Unit to unit cable.



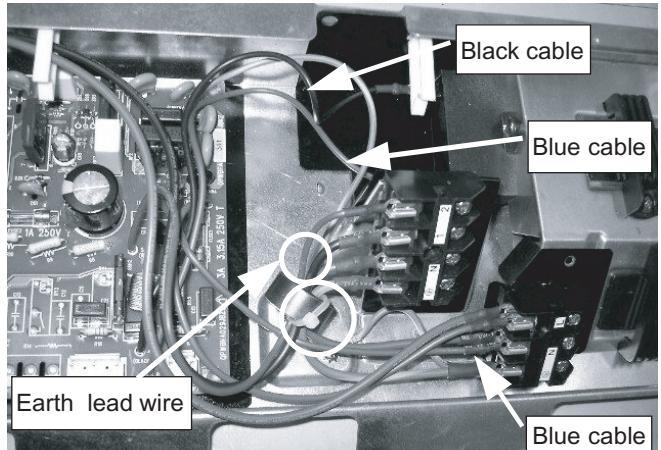
8) Disconnect 10 connectors (CN3, CN4, CN5, CN6, CN7, CN11, CN12, CN13, CN14, CN15).



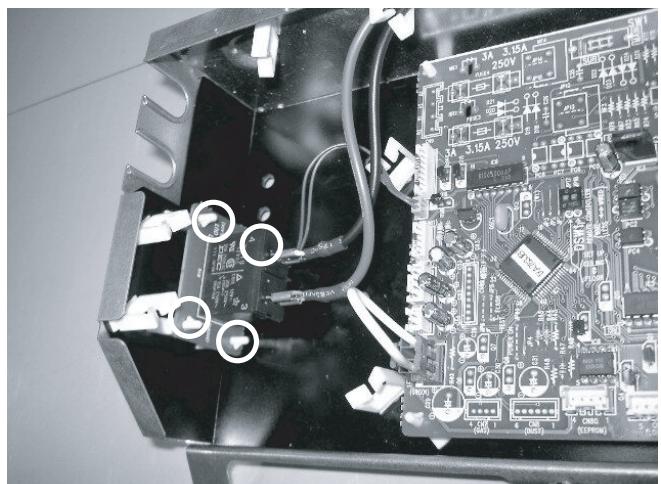
9) Cut the wire fixing band.

Disconnect 3 Lead wires.

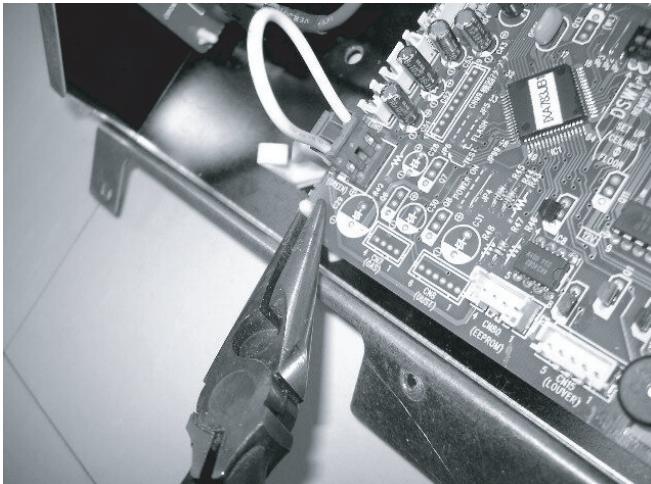
Remove the screw fixing the Earth lead wire.



10) Unlock 4 Spacer's locks of sub PWB.

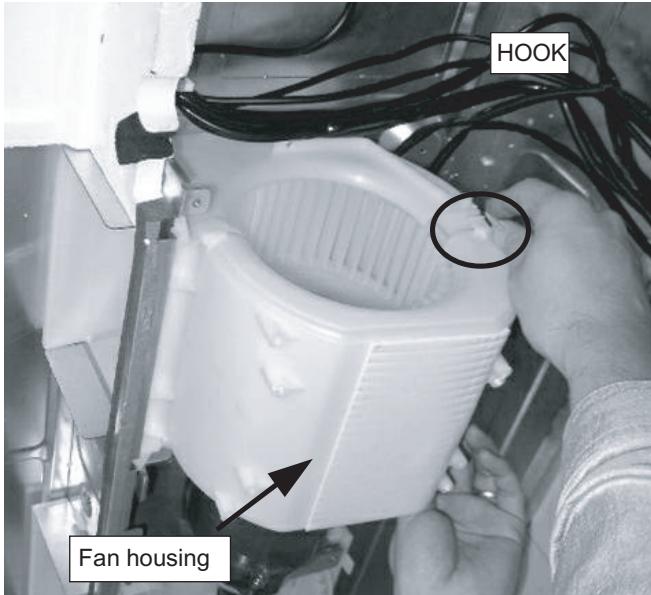


11) Unlock 5 Spacer's locks of PWB.

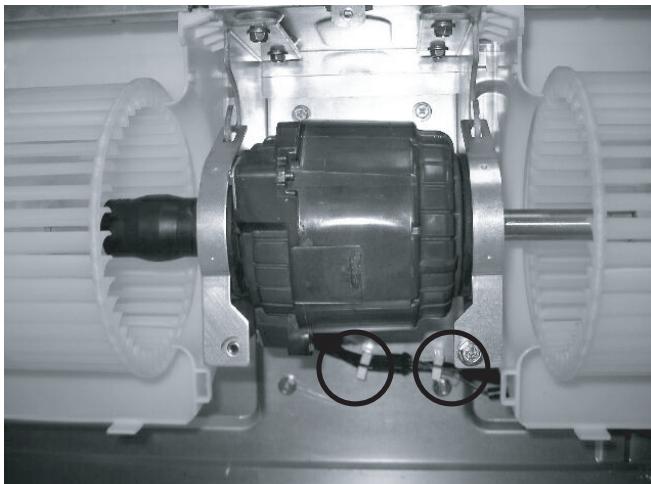


2.2. How to disassemble the Fan motor.

1) Remove 4 Fan housings (Unlock the hooks of both sides).

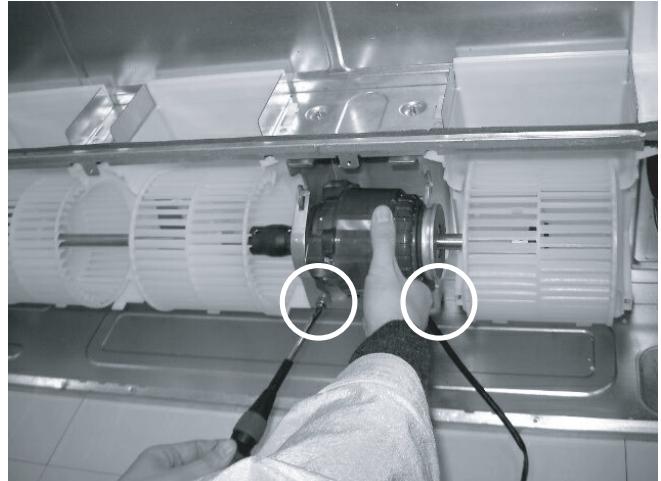


2) Remove the Fan motor lead wires from the Wire clamps.



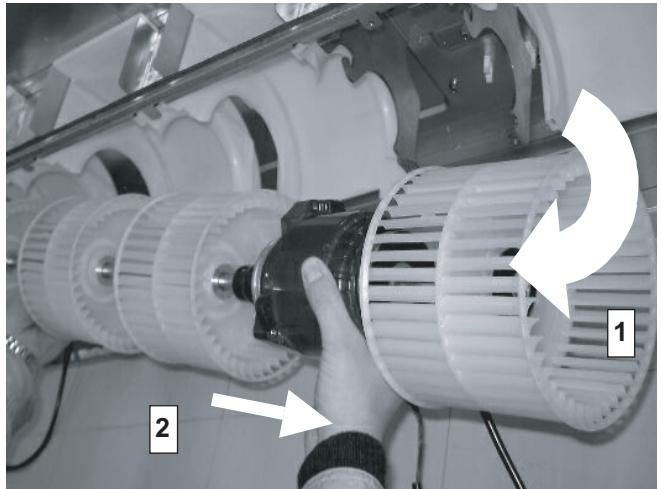
3) Support the Fan motor with your hand, and remove 2 screws fixing Fan motor clamps.

Remove 2 Fan motor clamps.



4) Tilt the Fan motor ass'y around the Bearing, remove it.

CAUTION: DO NOT HIT FANS AGAINST FAN HOUSING.



5) Remove 2 screws fixing the Fan and Joint with hexagon socket screw key (Diagonally 3mm).



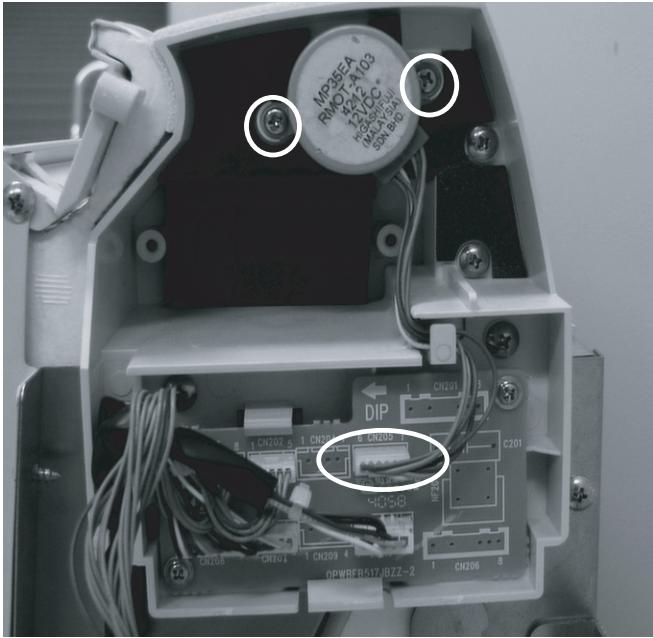
CAUTION: WHEN YOU ASSEMBLE THE FAN MOTOR ASSY TO UNIT, YOU DO NOT MAKE THE FANS TOUCH THE FAN HOUSINGS.

AFTER ASSEMBLY OF THE FAN MOTOR ASSY
MAKE SURE THAT THE FAN HAS NOT TOUCHED
THE FAN HOUSINGS.

2.3. How to disassemble the Louver motor.

Disconnect the connector (CN205).

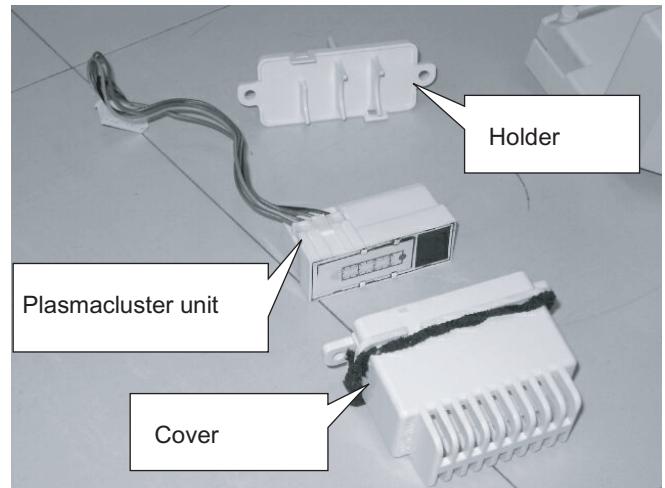
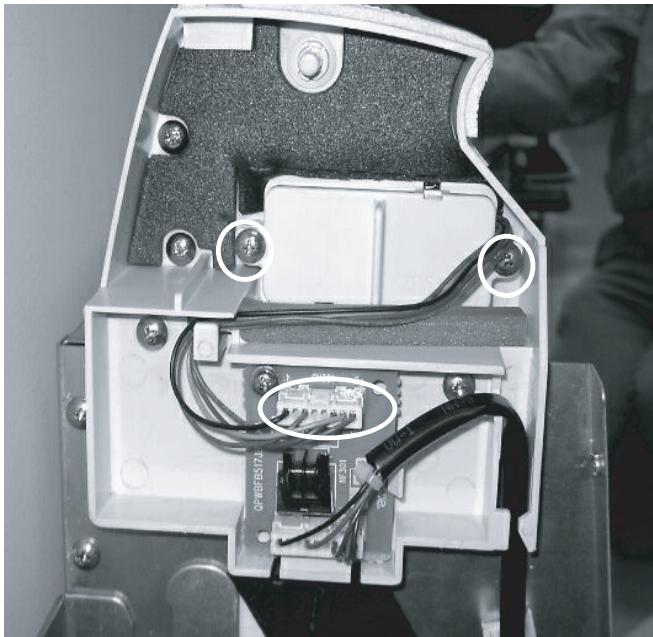
Remove 2 screws fixing the Louver motor.



2.4. How to disassemble the Plasmacluster unit.

Disconnect the connector (Top duct cover L: CN301).

Remove 2 screws fixing the Plasmacluster unit ass'y.

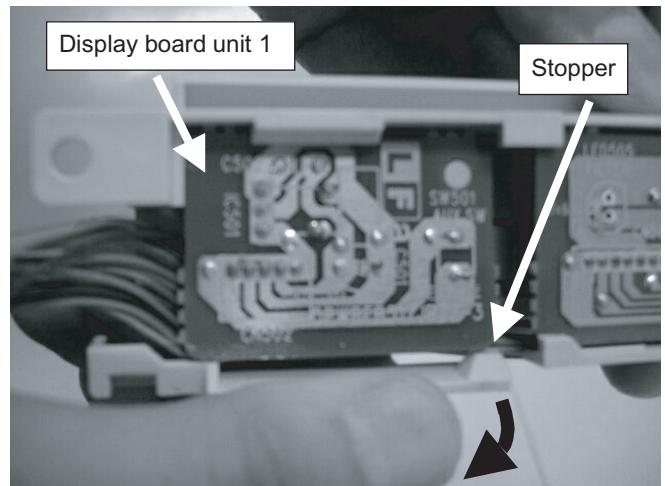


2.5. How to disassemble the Display unit.

- 1) Remove the Display cover.

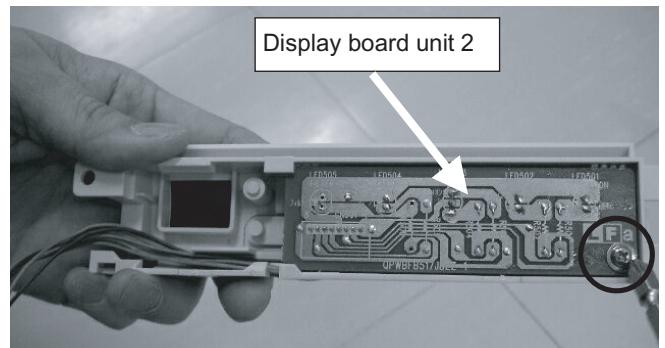


- 2) Open the stopper and remove DISPLAY BOARD UNIT 1.



- 3) Remove the screw fixing DISPLAY BOARD UNIT 2

Remove DISPLAY BOARD UNIT 2.



[2] DISASSEMBLY OF OUTDOOR UNIT

1. AE-X7FR, AE-X9FR, AE-X12FR

Be sure to disconnect the power cord from the AC power outlet before starting the disassembly procedure. When reassembling the unit after repairing, be sure to install screws to their original positions.

The screws used are not the same in specifications such as corrosion-resistant treatment, tip shape and length.

After the air conditioner is repaired or parts are replaced, measure insulation resistance of the equipment using an insulation resistance meter. If the measured resistance is lower than $1\text{ M}\Omega$, inspect parts and repair or replace defective parts.

- 1) Remove a screws fixing the cover.



- 3) Remove the 9 screws. [top plate(2),terminal base(2), side cover R(3), front panel(2)]



- 2) Remove the 2 screws fixing the terminal cover.



- 4) Remove the 2 colored screws.



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5) Remove the 4 screws. [top plate(2), side cover L(2)]



8) Remove a screw fixing the condenser.



6) Remove the 3 screws. [side cover R(2), side cover L(1)]



9) Remove a screw fixing the cover.



7) Remove the 3 screws. [motor angle(2), control box(1)]



10) Remove the cover. (Front View)



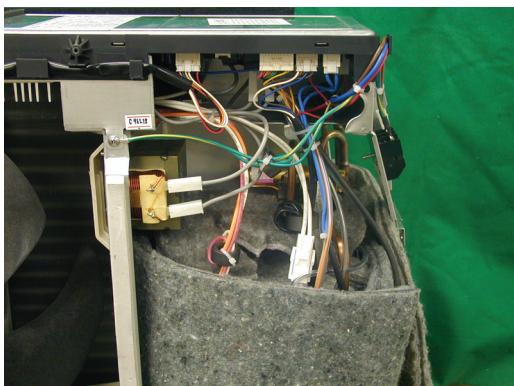
11)Remove the side-cover R, side cover L (Right side View).



12)Remove the side-cover R, side cover L (Left side View).



13)Disconnect the connector. (4-way valve, thermistor, fan motor, expansion valve, reactor(2), reactor connector)



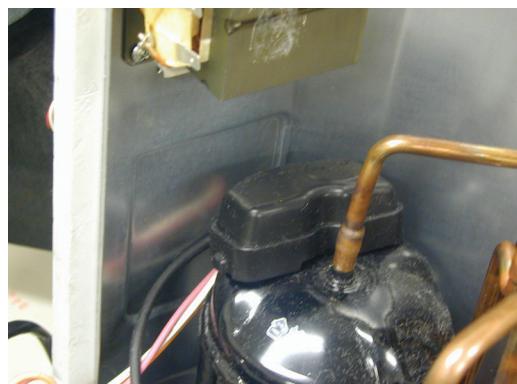
14)Remove the 2 screws fixing control box.



15)Remove the compressor cover(3).



16)Remove 3 terminals of compressor.



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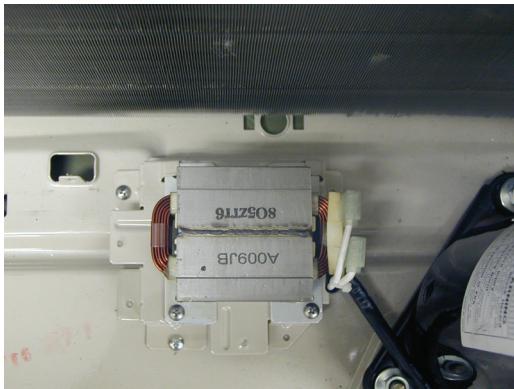
17) Remove the 2 screws fixing bulkhead.



18) Remove the 2 screws fixing reactor cover.



19) Remove the 2 screws.



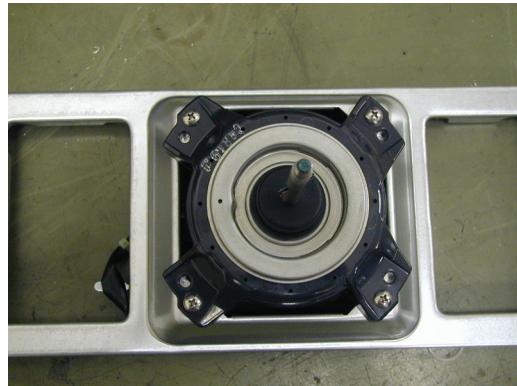
20) Remove the 2 screws fixing motor angle.



21) Loosen the fan nut and fan can be taken off.



22) Remove the 4 screws.



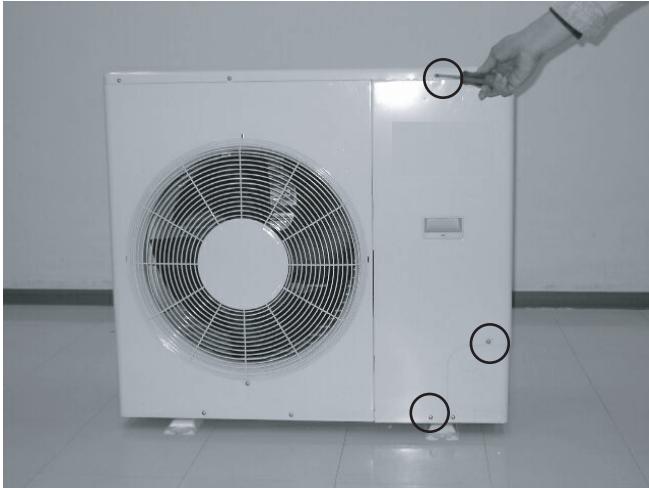
2. GU-XR18FR, GU-XR24FR, GU-XR27FR

CAUTION: DISCONNECT THE UNIT FROM THE POWER SUPPLY BEFORE ANY SERVICING

(The illustrations are for CFI241H. Construction of CFI181H may differ slightly from the illustration.)

- 1) Remove 3 screws fixing the Front panel R.

And slide the Front panel R down.



- 2) Remove 10 screws fixing the Top cover.



- 3) Remove 6 screws fixing the Front panel L.



- 4) Remove 1 screw fixing the Front panel bottom.



- 5) Remove 4 screws fixing the Side cabinet bottom.

- 6) Remove 6 screws fixing the Rear guard.



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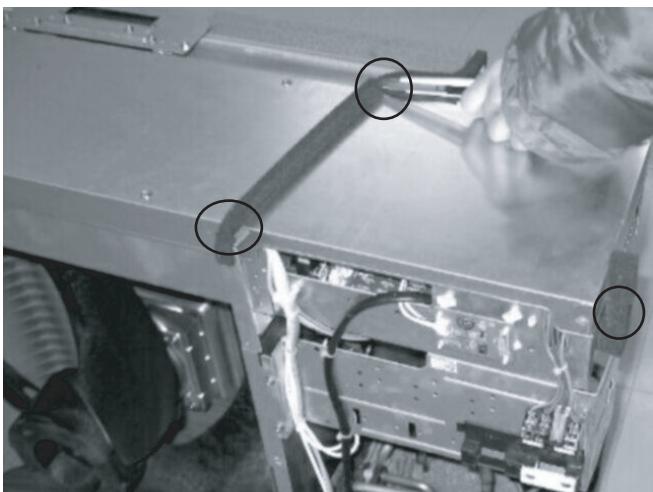
7) Remove 10 screws fixing the Side cabinet R.



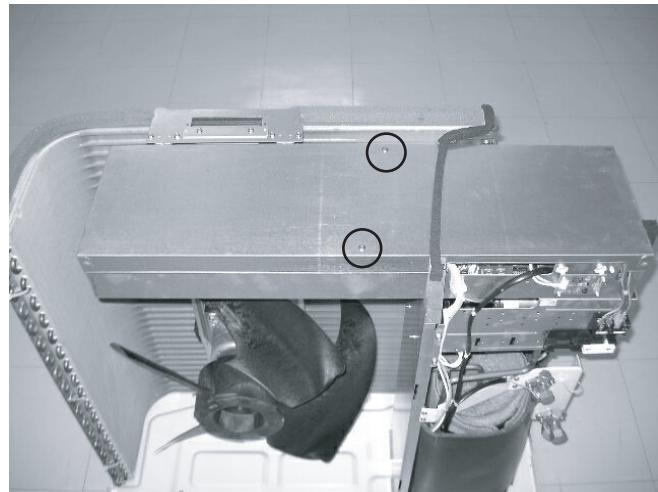
8) Remove 6 screws fixing the Side cabinet L.



9) Cut the Insulators.



10) Remove 2 screws fixing the Control box cover.

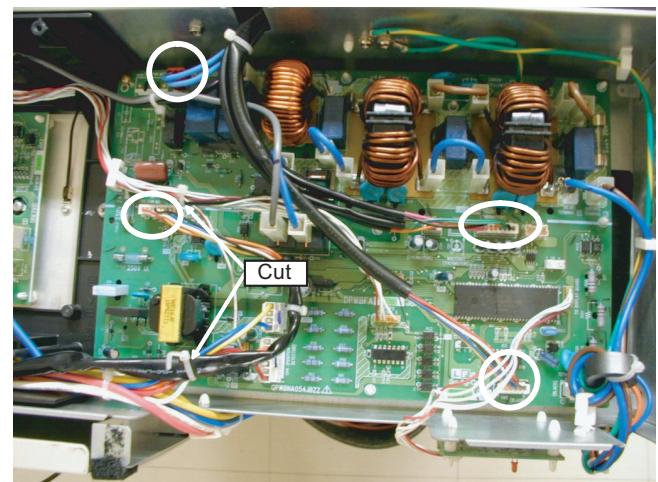


Caution: Discharge electrolytic capacitor before touching this capacitor or other components or wirings.

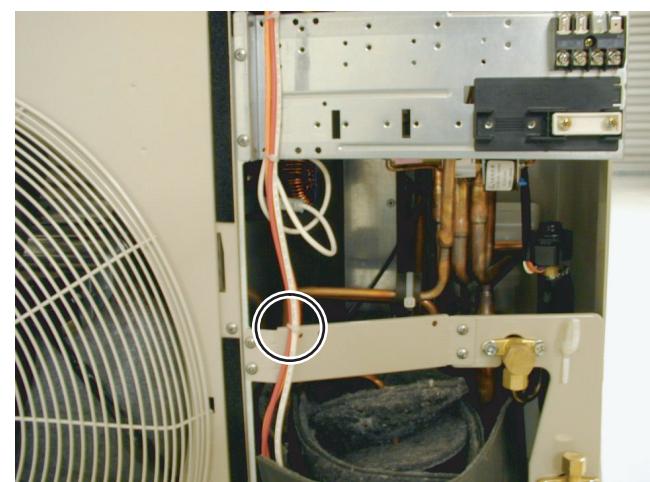
11) Cut the fixing band.

Disconnect 4 connectors.

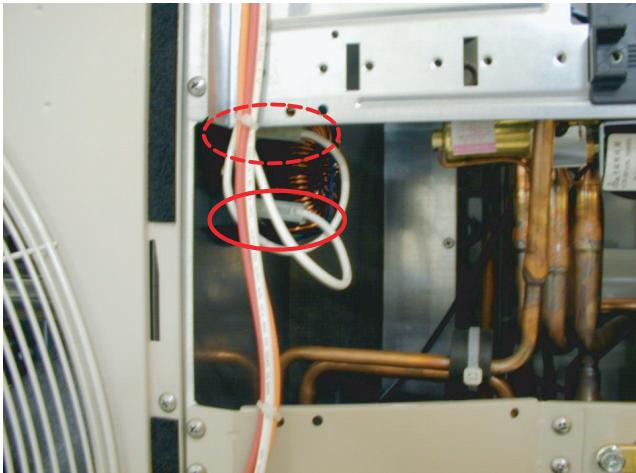
- Reverse valve
- Thermistor
- Expansion valve
- Fan motor



12) Cut the fixing bands.



13) Disconnect 2 terminals.



14) Remove 4 screws fixing the Flare coupling sub.



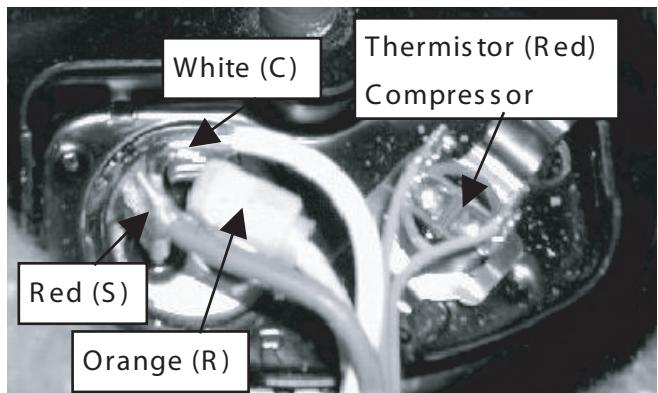
15) Remove the Compressor covers.



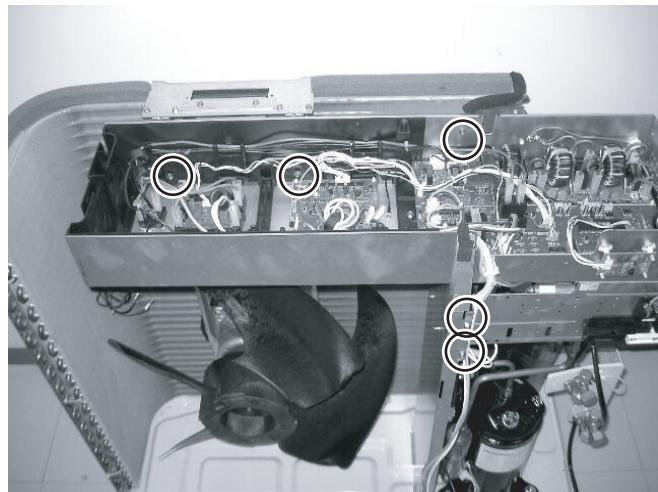
16) Remove the Terminal cover and disconnect 3 terminals.



Note: Caution to the connectors' position when re-installing.

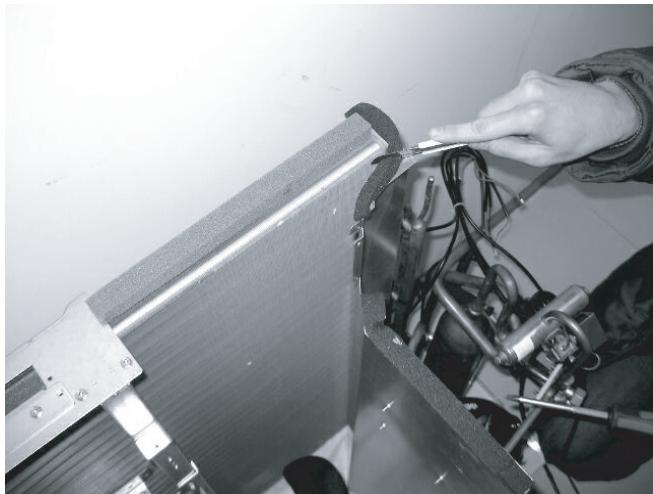


17) Remove 5 screws fixing the control box assembly.

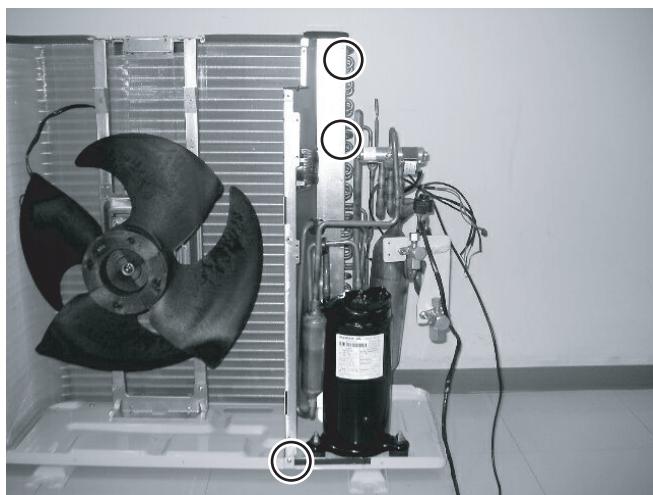


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18)Cut the insulator.



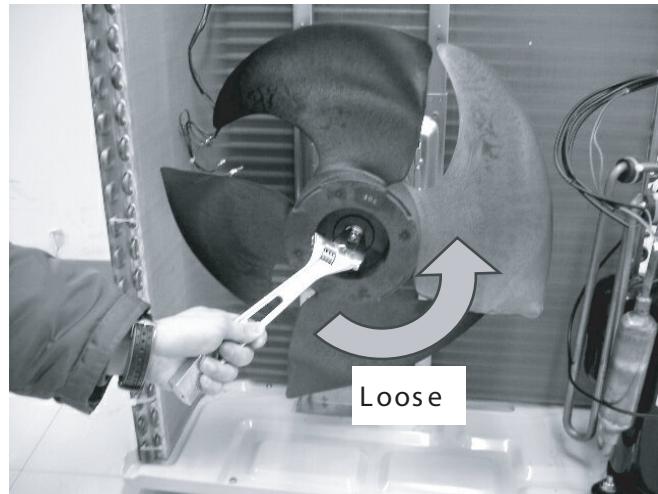
19)Remove 3 screws fixing the Bulkhead.



20)Remove 3 screws fixing the Active coil.



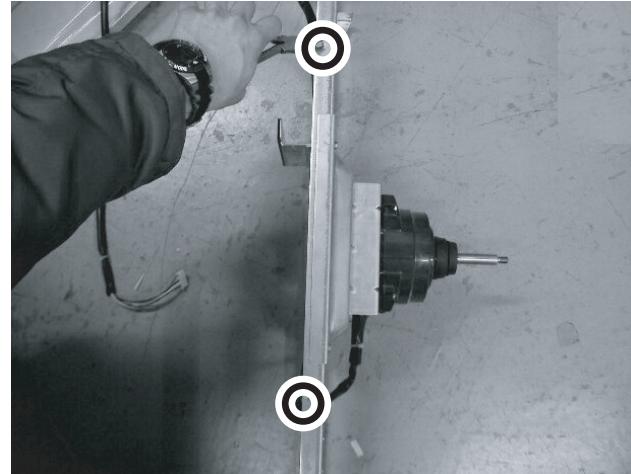
21)Remove the nut fixing the Propeller fan.



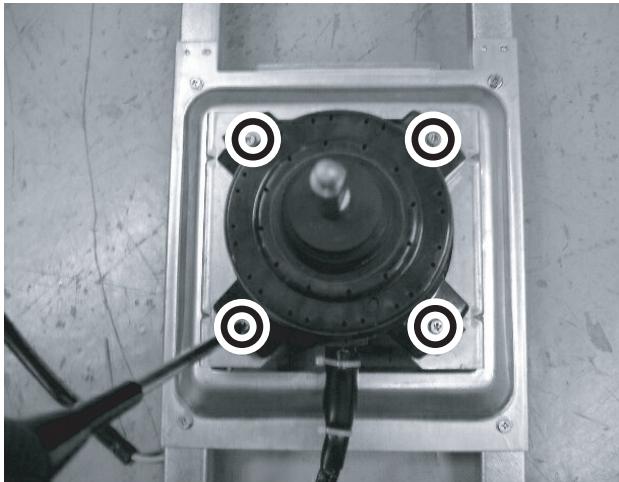
22)Remove 2 screws fixing the Motor angle.



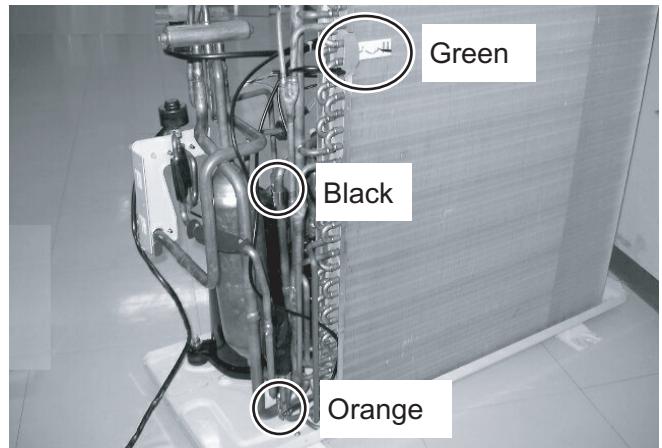
23)Cut the fixing bands.



24) Remove 4 screws fixing the Fan motor.



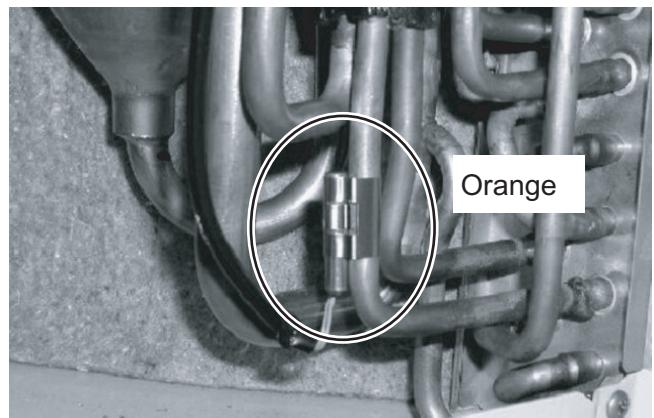
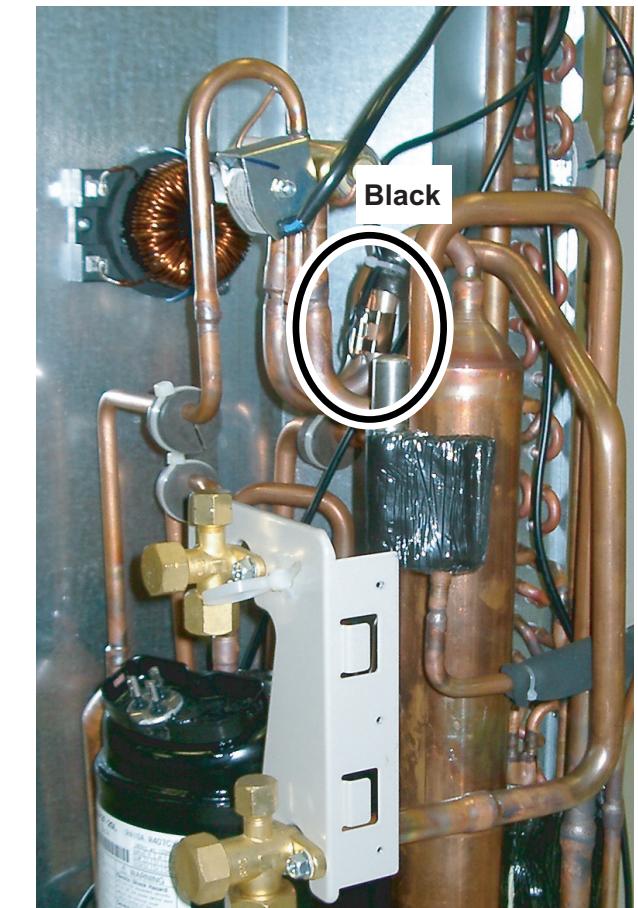
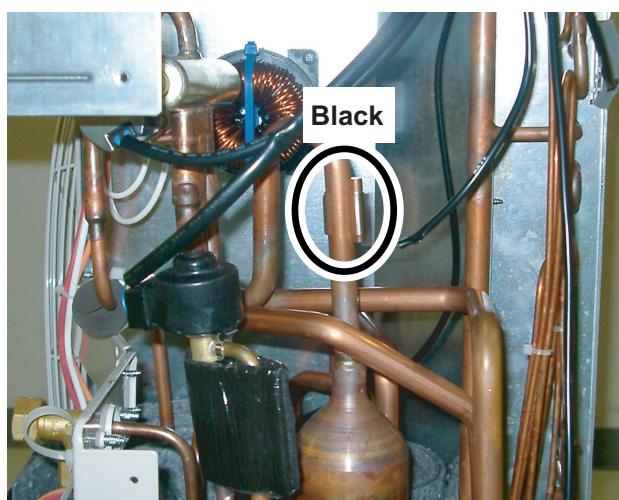
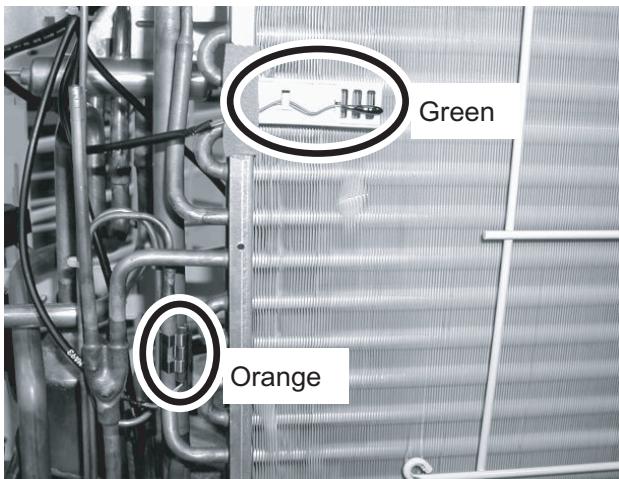
2.1.2 GU-XR24FR, GU-XR27FR



2.1. Position of the Thermistors

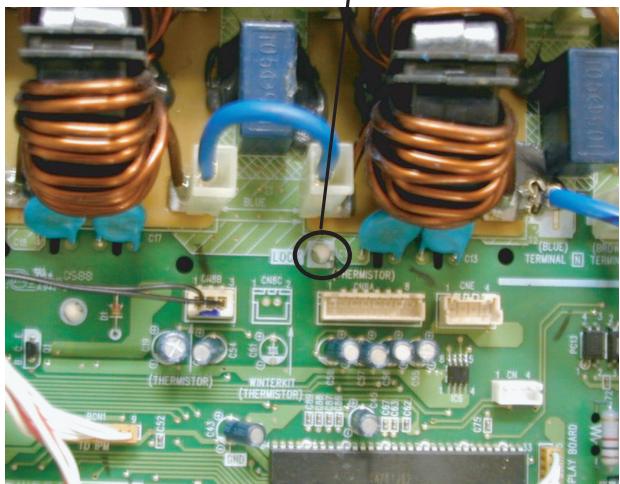
Note: Caution to the position when re-installing.

2.1.1 GU-XR18FR



2.2. How to disassemble the Control box assembly

- 1) Remove 2 screws fixing the PWB.
- 2) Unlock the Spacer's lock.



REPLACEMENT PARTS LIST

SPLIT TYPE ROOM AIR CONDITIONER



CEILING TYPE



FLOOR TYPE

MODELS INDOOR UNIT

GS-XP07FR	AE-X7FR
GS-XP09FR	AE-X9FR
GS-XP12FR	AE-X12FR
GS-XP18FR	GU-XR18FR
GS-XP24FR	GU-XR24FR
GS-XP27FR	GU-XR27FR

OUTDOOR UNIT

CONTENTS

- | | |
|--|---|
| [1] GS-XP07/09/12FR (INDOOR UNIT PARTS) | [6] AE-X7/9/12FR (OUTDOOR OTHER PARTS) |
| [2] GS-XP07/09/12FR (INDOOR OTHER PARTS) | [7] GU-XR18/24/27FR (OUTDOOR UNIT PARTS) |
| [3] GS-XP18/24/27FR (INDOOR UNIT PARTS) | [8] GU-XR18/24/27FR (OUTDOOR OTHER PARTS) |
| [4] GS-XP18/24/27FR (INDOOR OTHER PARTS) | ■ INDEX |
| [5] AE-X7/9/12FR (OUTDOOR UNIT PARTS) | |

"HOW TO ORDER REPLACEMENT PARTS"

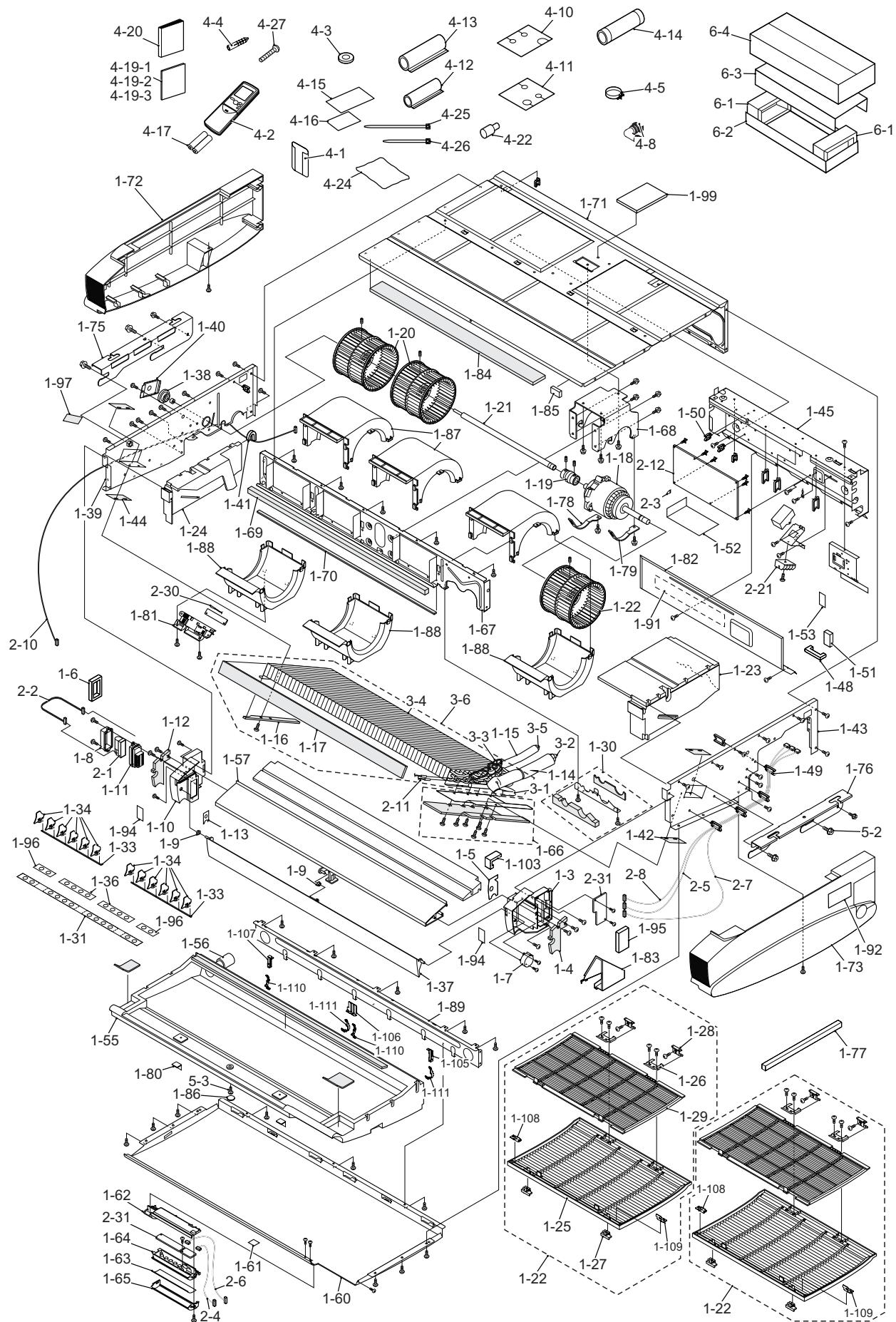
To have your order filled promptly and correctly, please furnish the following information.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. No. |
| 3. PART NO. | 4. DESCRIPTION |

★ MARK: SPARE PARTS-DELIVERY SECTION

Parts marked with "▲" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

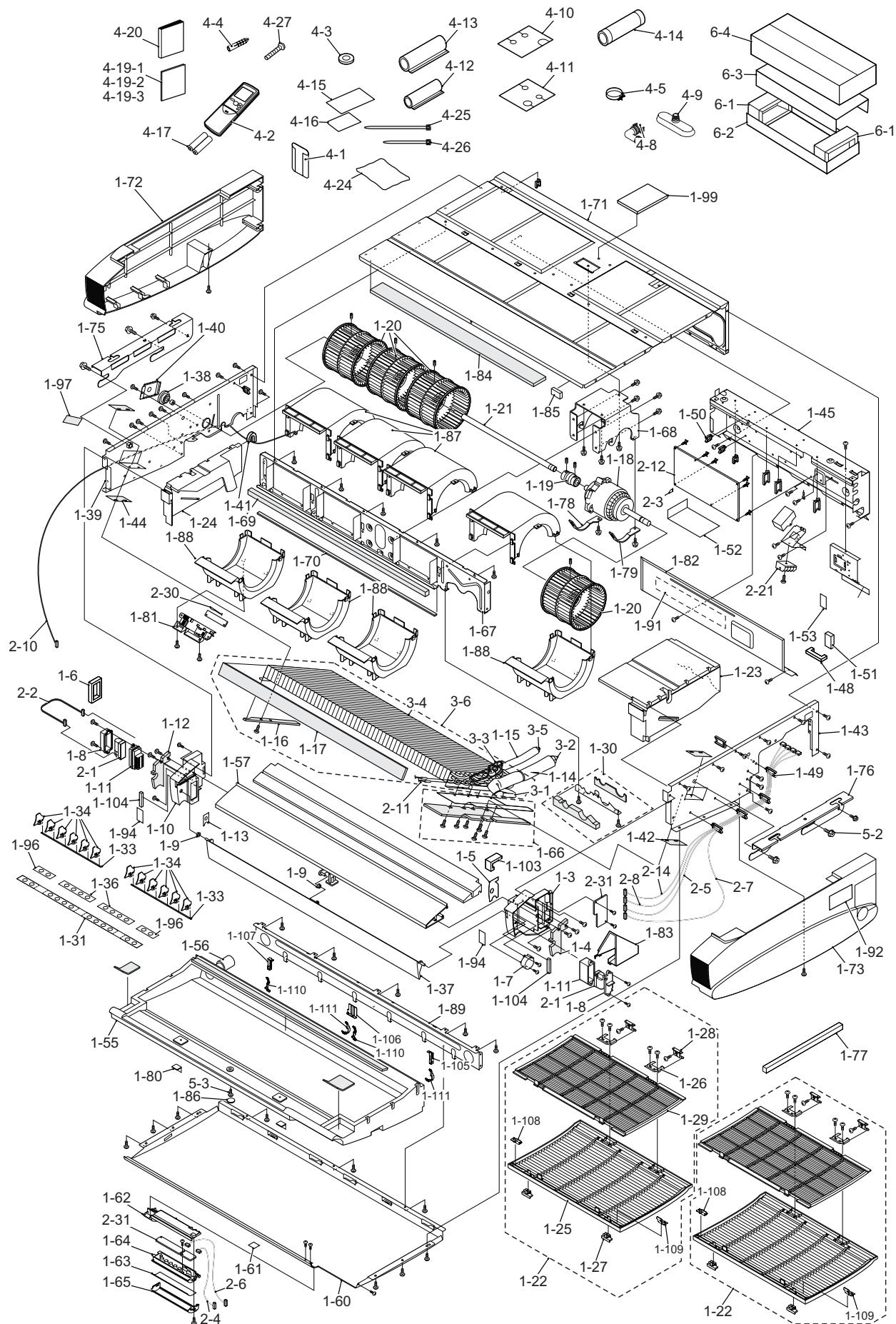
[1] GS-XP07/09/12FR (INDOOR UNIT PARTS)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[1] GS-XP07/09/12FR (INDOOR UNIT PARTS)					
1-3	PCOV-B017JBFA	AU			Top duct cover r
1-4	PFPPC449JBEZ	AF			Top duct cover ins.a
1-5	PFPPC450JBEZ	AE			Top duct cover ins.b
1-6	PFPPC569JBEZ	AE			Holder insulator
1-7	RMOT-A119JBZZ	AY			Louver motor
1-8	LHLD-A686JBFA	AM			Holder
1-9	NBRG-A026JBFA	AB			Louver bushing
1-10	PCOV-A933JBFA	AV			Top duct cover l
1-11	PCOV-B004JBFA	AU			Cover
1-12	PFPPC451JBEZ	AF			Top duct cover ins.a
1-13	PFPPC452JBEZ	AE			Top duct cover ins.b
1-14	PFPPC486JBEZ	AH			Tube insulator a
1-15	PFPPC487JBEZ	AE			Tube insulator b
1-16	PFPPC447JBEZ	AF			End plate ins. b
1-17	PFPPC610JBEZ	AC			Evaporator seal
1-18	CMOT-A427JBKZ	BU			Fan motor sub ass'y
1-19	MJNT-A026JBEZ	BA			Joint
1-20	NFANSA042JBZF	AX			Centrifugal fan
1-21	NSFT-A038JBEZ	AE			Motor shaft s
1-22	CGRL-A005JBKZ	BD			Grille ass'y
1-23	CFPPA010JBKZ	AP			Insulator ass'y
1-24	CFPPA011JBKZ	AK			Insulator ass'y
1-25	HGRL-A020JBFA	AY			Grille
1-26	LHLD-A655JBWZ	AM			Hinge holder
1-27	LSTP-A023JBFA	AM			Grille hook
1-28	MHNG-A034JBFA	AM			Hinge
1-29	PFILMA216JBEA	AW			Air filter
1-30	CHLD-A109JBKZ	AH			Tube holder ass'y
1-31	LDAI-A030JBWZ	AF			Vertical louver base
1-33	MJNTPA103JBFA	AE			Louver link a
1-34	MLOV-A360JBFA	AE			Vertical louver
1-36	PFPPC464JBEZ	AG			V louver ins.b
1-37	CLOV-A053JBKZ	AT			H-louver ass'y
1-38	CHLD-A067JBK0	AL			Bearing ass'y
1-39	DPLT-A061JBYZ	AS			Side cover l spot
1-40	LANGKA168JBpz	AE			Bearing holder
1-41	LBSHCA022JBFO	AE			Bushing
1-42	PFPPC444JBEZ	AE			Evaporator insulator
1-43	DPLT-A062JBYZ	AS			Side cover r spot
1-44	PFPPC444JBEZ	AE			Evaporator insulator
1-45	DBOX-A052JBKZ	AW			Control box ass'y
1-48	LHLD-A573JBFA	AC			Cord clamp
1-49	LHDWA041JBEZ	AE			Wire h0lder
1-50	LHDWA042JBEZ	AE			Wire h0lder
1-51	LPLTPA026JBFA	AC			Cord clamp plate
1-52	PSHE-A219JBEZ	AP			Protect sheet
1-53	PSHE-A220JBEZ	AE			Protect sheet
1-55	CSRA-A573JBKZ	BK			Drain pan ass'y
1-56	PGUMMA301JBEZ	AH			Drain plug
1-57	CWAK-C396JBKZ	AU			Top duct ass'y
1-60	GCAB-A273JBTB	BB			Front panel
1-61	HBDG-A003FBEA	AH			Cluster badge
1-62	LHLD-A650JBFA	AM			Led holder
1-63	HDEC-B197JBEA	AH			Display panel
1-64	PCOV-A934JBFA	AM			Led holder
1-65	PCOV-A937JBRA	AZ			Display cover
1-66	DPLTMA023JBKZ	AS			End plate sub ass'y
1-67	DSKR-A141JBYZ	AU			Bulkhead spot
1-68	LANG-A543JBWZ	BA			Fan motor angle
1-69	PSEL-C660JBEZ	AE			Seal b
1-70	PSEL-C661JBEZ	AE			Seal a
1-71	GCAB-A258JBWZ	BB			Rear cabinet
1-72	GCOV-A138JBFA	BB			Side cover l
1-73	GCOV-A139JBFA	BB			Side cover r
1-75	LANG-A541JBWZ	AZ			Mounting angle l
1-76	LANG-A542JBWZ	AZ			Mounting angle r
1-77	LANG-A552JBEZ	AM			Angle
1-78	LANGKA167JBpz	AE			Fan motor clamp l
1-79	LANGKA169JBpz	AE			Fan motor clamp r
1-80	LANGKA175JBWZ	AE			Angle
1-81	LHLD-A659JBZF	AM			Thermistor holder
1-82	PCOV-A936JBWZ	AR			Control box cover
1-83	DCOV-A230JBKZ	AT			Drain cover ass'y
1-84	PFPPC503JBEZ	AF			Rear cabinet ins.
1-85	PFPPC567JBEZ	AE			End plate ins. c
1-86	PFPPC568JBEZ	AE			Drain insulator
1-87	PKESSA080JBZF	AQ			Fan housing a
1-88	PKESSA081JBZF	AM			Fan housing b
1-89	PSKR-A274JBWZ	AR			Bulkhead s-b
1-91	TLABCB896JBZR	AG			Wiring diagram
1-92	TSPC-F084JBRA	AK			Name label [GSXP07FR]
1-92	TSPC-F085JBRA	AK			Name label [GSXP09FR]
1-92	TSPC-F086JBRA	AK			Name label [GSXP12FR]
1-94	PFPPC594JBEZ	AC			Top duct cover ins.c
1-95	PFPPC596JBEZ	AC			Top duct cover ins.d

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[1] GS-XP07/09/12FR (INDOOR UNIT PARTS)					
1-96	PFPFPC607JBEZ	AC			V louver ins.c
1-97	PFPFPC593JBEZ	AC			Plate insulator I
1-99	PPLT-A379JBWZ	AZ			Rear plate
1-103	PFPFPC618JBEZ	AB			Top duct insulator
1-105	LANGKA201JBWZ	AS			Guide angle r
1-106	LANGKA202JBWZ	AS			Guide angle a
1-107	LANGKA203JBWZ	AS			Guide angle s
1-108	LANGKA204JBWZ	AC			Side angle l
1-109	LANGKA205JBWZ	AC			Side angle r
1-110	MJNT-A027JBFA	BB			Joint l
1-111	MJNT-A028JBFA	BB			Joint b
2-1	CKITTA016AKKZ	AY			Plasmacluster unit
2-2	QW-VZE609JBZZ	AP			Lead wire
2-3	QW-VZE721JBZZ	AP			Lead wire
2-4	QW-VZE613JBZZ	AP			Lead wire
2-5	QW-VZF065JBZZ	AK			Lead wire
2-6	QW-VZE615JBZZ	AP			Lead wire
2-7	QW-VZF066JBZZ	AK			Lead wire
2-8	QW-VZF067JBZZ	AL			Lead wire
2-10	QW-VZF070JBZZ	AK			Lead wire
2-11	RH-HXA053JBZZ	AR			Thermistor
2-12	DPWBFA456JBKZ	BS			Control board unit [GSXP07FR]
2-12	DPWBFA457JBKZ	BS			Control board unit [GSXP09FR]
2-12	DPWBFA458JBKZ	BS			Control board unit [GSXP12FR]
2-21	QTANZA001JBZZ	AQ			Terminal board
2-21	QTANZA006JBZZ	AN			Terminal board
2-30	RH-HXA052JBZZ	AN			Thermistor
2-31	DPWBFA401JBKZ	AY			Display board unit
3-1	CPIPCA891JBKZ	AQ			Lead tube ass'y
3-2	PSEN-A045JBKZ	AK			Flare nut ass'y
3-3	CVLV-A726JBKZ	AZ			Joint tube ass'y
3-4	PEVA-A564JBEZ	BW			Evaporator
3-5	PSEN-A044JBKZ	AG			Flare nut ass'y
3-6	DEVA-A284JBKZ	BY			Evaporator ass'y
4-1	CHLD-A095JBKZ	AC			Cord holder ass'y
4-2	CRMC-A674JBEZ	BD			Remote control
4-3	DX-WZA001JBKZ	AT			Washer kit
4-4	LX-NZA207JBEZ	AE			Special nut
4-5	LBND-A095JBEZ	AH			Hose band
4-8	LPFT-A029JBFO	AD			Drain joint
4-10	PFPFPC504JBEZ	AE			Insulator
4-11	PFPFPC505JBEZ	AE			Insulator
4-12	PFPFPC507JBEZ	AG			Insulator
4-13	PFPFPC508JBEZ	AH			Insulator
4-14	PHOS-A038JBEZ	AU			Drain hose
4-15	PSEL-C613JBEZ	AK			Insulator
4-16	PSEL-C614JBEZ	AH			Insulator
4-17	UBATUA027JBE0	AE			Battery pack
4-19-1	TINS-A890JBRZ	AX			Installation manual (Italian · English)
4-19-2	TINS-A891JBRZ	AX			Installation manual2 (French · German)
4-19-3	TINS-A892JBRZ	AX			Installation manual3 (Spanish)
4-20	TINSEA417JBRZ	AX			Operation manual
4-22	LPFTNA001JBFA	AZ			Joint tube
4-24	PTUB-A218JBEZ	AB			Tube insulator
4-25	LBND-A098JBEZ	AE			Wire fixing band
4-26	LBND-A100JBEZ	AE			Wire fixing band
4-27	XITS840P20000	AC			Tapping screw
5-2	LX-BZA378JBEZ	AK			Bolt
5-3	LX-BZA379JBEZ	AF			Special screw
6-1	CPADBA074JBKZ	AW			Packing pad ass'y
6-2	CPADBA077JBKZ	AU			Bottom packing ass'y
6-3	SPADBA267JBEZ	AK			Packing pad
6-4	SPAKCB870JBEZ	AZ			Packing case [GSXP07FR]
6-4	SPAKCB871JBEZ	AZ			Packing case [GSXP09FR]
6-4	SPAKCB872JBEZ	AZ			Packing case [GSXP12FR]
[2] GS-XP07/09/12FR (INDOOR OTHER PARTS)					
1-104	PFPFPC619JBEZ	AC			Holder insulator
2-13	QFS-GA054JBZZ	AE			Fuse 3.15a250v
2-15	QSPGCA002JBZZ	AF			Surge absorb
2-16	QSW-SA038JBZZ	AK			Slide switch
2-17	RH-IXA842JBZZ	BM			Integrated circuit
2-18	RH-VXA002JBZZ	AF			Varistor
2-19	RRLYDA008JBZZ	AH			Relay
2-29	RC-HZA523JBZZ	AM			Fan motor capacitor
2-34	VHPGL5BG502-1	AR			Led
2-35	VHPGL6ZR27+-6	AF			Light emmiting diode
2-36	VHPGL6ZS27+-6	AF			Light emmiting diode
2-37	QW-VZF068JBZZ	AQ			Lead wire
2-38	QW-VZF069JBZZ	AK			Lead wire
2-39	DPWBFA404JBKZ	AM			C-b-u sub
2-40	DPWBFA405JBKZ	AM			C-b-u sub
5-1	LX-BZA365JBEZ	AF			Special screw
5-4	LX-BZA075JBE0	AA			Special screw
5-5	LX-BZA351JBEZ	AD			Special screw

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[2] GS-XP07/09/12FR (INDOOR OTHER PARTS)					
5-6	LX-BZA366JBEZ		AE		Special screw

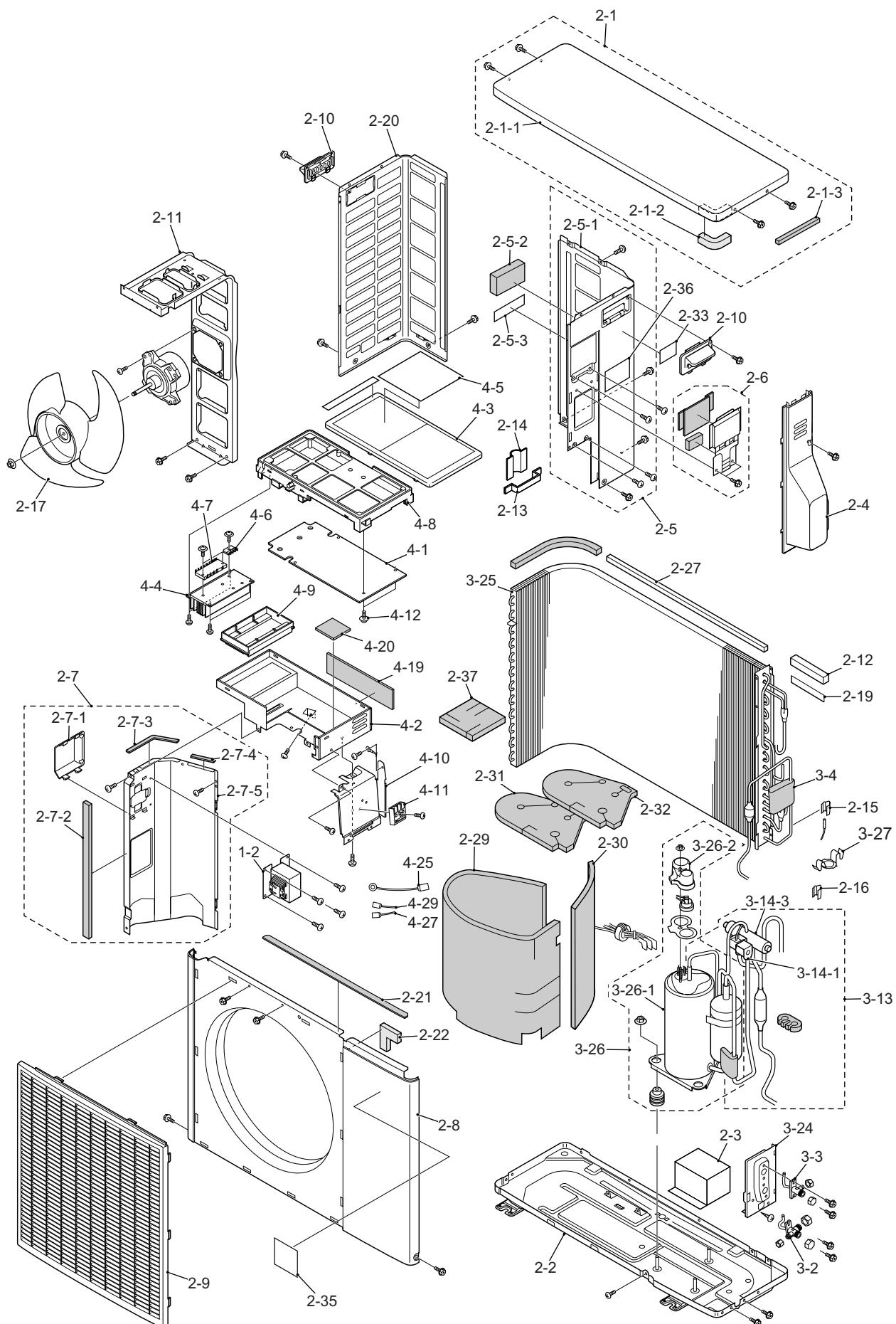
[3] GS-XP18/24/27FR (INDOOR UNIT PARTS)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] GS-XP18/24/27FR (INDOOR UNIT PARTS)					
1-3	PCOV-A932JBFA	AU			Top duct cover r
1-4	PFPPC449JBEZ	AF			Top duct cover ins.a
1-5	PFPPC450JBEZ	AE			Top duct cover ins.b
1-6	PFPPC569JBEZ	AE			Holder insulator
1-7	RMOT-A119JBZZ	AY			Louver motor
1-8	LHLD-A686JBFA	AM			Holder
1-9	NBRG-A026JBFA	AB			Louver bushing
1-10	PCOV-A933JBFA	AV			Top duct cover l
1-11	PCOV-B004JBFA	AU			Cover
1-12	PFPPC451JBEZ	AF			Top duct cover ins.a
1-13	PFPPC452JBEZ	AE			Top duct cover ins.b
1-14	PFPPC486JBEZ	AH			Tube insulator a [GSXP18FR]
1-14	PFPPC443JBKZ	AH			Tube insulator a [GSXP24FR][GSXP27FR]
1-15	PFPPC487JBEZ	AE			Tube insulator b [GSXP18FR]
1-15	PFPPC445JBEZ	AE			Tube insulator b [GSXP24FR][GSXP27FR]
1-16	PFPPC447JBEZ	AF			End plate ins. b
1-17	PFPPC448JBKZ	AE			Evaporator seal
1-18	CMOT-A427JBKZ	BU			Fan motor sub ass'y
1-19	MJNT-A026JBEZ	BA			Joint
1-20	NFANSA042JBKZ	AX			Centrifugal fan
1-21	NSFT-A036JBKZ	AE			Motor shaft
1-22	CGRL-A006JBKZ	BD			Grille ass'y
1-23	CFPPA010JBKZ	AP			Insulator ass'y
1-24	CFPPA011JBKZ	AK			Insulator ass'y
1-25	HGRL-A021JBFA	BC			Grille
1-26	LHLD-A655JBWZ	AM			Hinge holder
1-27	LSTP-A023JBFA	AM			Grille hook
1-28	MHNG-A034JBFA	AM			Hinge
1-29	PFILMA217JBEA	AQ			Air filter
1-30	CHLD-A109JBKZ	AH			Tube holder ass'y
1-31	LDAI-A029JBWZ	AF			Vertical louver base
1-33	MJNTPA103JBFA	AE			Louver link a
1-34	MLOV-A360JBFA	AE			Vertical louver
1-36	PFPPC464JBEZ	AG			V louver ins.b
1-37	CLOV-A051JBKZ	AT			H-louver ass'y
1-38	CHLD-A067JBK0	AL			Bearing ass'y
1-39	DPLT-A061JBYZ	AS			Side cover l spot
1-40	LANGKA168JBZ	AE			Bearing holder
1-41	LBSHCA022JBFO	AE			Bushing
1-42	PFPPC444JBEZ	AE			Evaporator insulator
1-43	DPLT-A062JBYZ	AS			Side cover r spot
1-44	PFPPC444JBEZ	AE			Evaporator insulator
1-45	DBOX-A052JBKZ	AW			Control box ass'y
1-48	LHLD-A573JBFA	AC			Cord clamp
1-49	LHLDWA041JBKZ	AE			Wire h0lder
1-50	LHLDWA042JBKZ	AE			Wire h0lder
1-51	LPLTPA026JBFA	AC			Cord clamp plate
1-52	PSHE-A219JBKZ	AP			Protect sheet
1-53	PSHE-A220JBKZ	AE			Protect sheet
1-55	CSRA-A570JBKZ	BK			Drain pan ass'y
1-56	PGUMMA301JBKZ	AH			Drain plug
1-57	CWAK-C384JBKZ	AU			Top duct ass'y
1-60	GCAB-A274JBTA	BB			Front panel
1-61	HBDG-A003FBEA	AH			Cluster badge
1-62	LHLD-A650JBFA	AM			Led holder
1-63	HDEC-B197JBEA	AH			Display panel
1-64	PCOV-A934JBFA	AM			Led holder
1-65	PCOV-A937JBRA	AZ			Display cover
1-66	DPLTMA023JBKZ	AS			End plate sub ass'y
1-67	DSKR-A139JBYZ	AX			Bulkhead spot
1-68	LANG-A543JBWZ	BA			Fan motor angle
1-69	PSEL-C658JBEZ	AE			Seal b
1-70	PSEL-C655JBKZ	AE			Seal a
1-71	GCAB-A253JBWZ	BB			Rear cabinet
1-72	GCOV-A138JBFA	BB			Side cover l
1-73	GCOV-A139JBFA	BB			Side cover r
1-75	LANG-A541JBWZ	AZ			Mounting angle l
1-76	LANG-A542JBWZ	AZ			Mounting angle r
1-77	LANG-A552JBKZ	AM			Angle
1-78	LANGKA167JBKZ	AE			Fan motor clamp l
1-79	LANGKA169JBKZ	AE			Fan motor clamp r
1-80	LANGKA175JBWZ	AE			Angle
1-81	LHLD-A659JBKZ	AM			Thermistor holder
1-82	PCOV-A936JBWZ	AR			Control box cover
1-83	DCOV-A229JBKZ	AS			Drain cover ass'y [GSXP18FR]
1-83	DCOV-A243JBKZ	AR			Drain cover ass'y [GSXP24FR][GSXP27FR]
1-84	PFPPC460JBEZ	AH			Rear cabinet ins.
1-85	PFPPC567JBEZ	AE			End plate ins. c
1-86	PFPPC568JBEZ	AE			Drain insulator
1-87	PKESSA080JBKZ	AQ			Fan housing a
1-88	PKESSA081JBKZ	AM			Fan housing b
1-89	PSKR-A271JBWZ	AR			Bulkhead l-b
1-91	TLABCB897JBKZ	AG			Wiring diagram
1-92	TSPC-F087JBRA	AK			Name label [GSXP18FR]
1-92	TSPC-F088JBRA	AK			Name label [GSXP24FR]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] GS-XP18/24/27FR (INDOOR UNIT PARTS)					
1-92	TSPC-F089JBRA	AK			Name label [GSXP27FR]
1-94	PFPFPC594JBZ	AC			Top duct cover ins.c
1-96	PFPFPC607JBZ	AC			V louver ins.c
1-97	PFPFPC593JBZ	AC			Plate insulator l
1-99	PPLT-A379JBWZ	AZ			Rear plate
1-103	PFPFPC618JBZ	AB			Top duct insulator
1-104	PFPFPC619JBZ	AC			Holder insulator
1-105	LANGKA201JBWZ	AS			Guide angle r
1-106	LANGKA202JBWZ	AS			Guide angle a
1-107	LANGKA206JBWZ	BC			Guide angle l
1-108	LANGKA204JBWZ	AC			Side angle l
1-109	LANGKA205JBWZ	AC			Side angle r
1-110	MJNT-A027JBFA	BB			Joint l
1-111	MJNT-A028JBFA	BB			Joint b
2-1	CKITTA016AKKZ	AY			Plasmacluster unit
2-2	QW-VZE609JBZZ	AP			Lead wire
2-3	QW-VZE721JBZZ	AP			Lead wire
2-4	QW-VZE613JBZZ	AP			Lead wire
2-5	QW-VZF065JBZZ	AK			Lead wire
2-6	QW-VZE615JBZZ	AP			Lead wire
2-7	QW-VZF066JBZZ	AK			Lead wire
2-8	QW-VZF067JBZZ	AL			Lead wire
2-10	QW-VZF063JBZZ	AL			Lead wire
2-11	RH-HXA051JBZZ	AW			Thermistor
2-12	DPWBFA459JBKZ	BS			Control board unit [GSXP18FR]
2-12	DPWBFA460JBKZ	BS			Control board unit [GSXP24FR]
2-12	DPWBFA461JBKZ	BS			Control board unit [GSXP27FR]
2-14	QW-VZF064JBZZ	AR			Lead wire
2-21	QTANZA001JBZZ	AQ			Terminal board
2-21	QTANZA006JBZZ	AN			Terminal board
2-30	RH-HXA052JBZZ	AN			Thermistor
2-31	DPWBFA401JBKZ	AY			Display board unit
3-1	CPIPCA862JBKZ	AQ			Lead tube ass'y [GSXP18FR]
3-1	CPIPCA847JBKZ	AQ			Lead tube ass'y [GSXP24FR][GSXP27FR]
3-2	PSEN-A053JBKZ	AN			Flare nut ass'y [GSXP18FR]
3-2	PSEN-A058JBKZ	AN			Flare nut ass'y [GSXP24FR][GSXP27FR]
3-3	CVLV-A707JBKZ	AZ			Joint tube ass'y [GSXP18FR]
3-3	CVLV-A773JBKZ	CA			Joint tube ass'y [GSXP24FR][GSXP27FR]
3-4	PEVA-A565JBZ	CA			Evaporator [GSXP18FR]
3-4	PEVA-A566JBZ	CA			Evaporator [GSXP24FR][GSXP27FR]
3-5	PSEN-A044JBKZ	AG			Flare nut ass'y [GSXP18FR]
3-5	PSEN-A045JBKZ	AK			Flare nut ass'y [GSXP24FR][GSXP27FR]
3-6	DEVA-A286JBKZ	CD			Evaporator ass'y [GSXP18FR]
3-6	DEVA-A287JBKZ	CG			Evaporator ass'y [GSXP24FR][GSXP27FR]
4-1	CHLD-A095JBKZ	AC			Cord holder ass'y
4-2	CRMC-A674JBZ	BD			Remote control
4-3	DX-WZA001JBKZ	AT			Washer kit
4-4	LX-NZA207JBZ	AE			Special nut
4-5	LBND-A095JBZ	AH			Hose band
4-8	LPFT-A134JBZ	AF			Drain joint
4-9	LPFT-A135JBZ	AH			Drain tray
4-10	PFPFPC504JBZ	AE			Insulator
4-11	PFPFPC505JBZ	AE			Insulator
4-12	PFPFPC507JBZ	AG			Insulator [GSXP18FR]
4-12	PFPFPC436JBZ	AH			Insulator [GSXP24FR][GSXP27FR]
4-13	PFPFPC508JBZ	AH			Insulator [GSXP18FR]
4-13	PFPFPC437JBZ	AH			Insulator [GSXP24FR][GSXP27FR]
4-14	PHOS-A038JBZ	AU			Drain hose
4-15	PSEL-C613JBZ	AK			Insulator
4-16	PSEL-C614JBZ	AH			Insulator
4-17	UBATUA027JB0	AE			Battery pack
4-19-1	TINS-A893JBRZ	AX			Installation manual (Italian . English)
4-19-2	TINS-A894JBRZ	AX			Installation manual2 (French . German)
4-19-3	TINS-A895JBRZ	AX			Installation manual3 (Spanish)
4-20	TINSEA417JBRZ	AX			Operation manual
4-24	PTUB-A218JBZ	AB			Tube insulator
4-25	LBND-A098JBZ	AE			Wire fixing band
4-26	LBND-A100JBZ	AE			Wire fixing band
4-27	XTS840P20000	AC			Tapping screw
5-2	LX-BZA378JBZ	AK			Bolt
5-3	LX-BZA379JBZ	AF			Special screw
6-1	CPADBA083JBKZ	AW			Packing pad ass'y l
6-1	CPADBA084JBKZ	AW			Packing pad ass'y r
6-2	CPADBA076JBKZ	AV			Bottom packing ass'y
6-3	SPADBA268JBZ	AK			Packing pad
6-4	SPAKCB873JBZ	BC			Packing case [GSXP18FR]
6-4	SPAKCB874JBZ	BC			Packing case [GSXP24FR]
6-4	SPAKCB875JBZ	BC			Packing case [GSXP27FR]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[4] GS-XP18/24/27FR (INDOOR OTHER PARTS)					
2-13	QFS-GA054JBZZ	AE			Fuse 3.15a250v
2-15	QSPGCA002JBZZ	AF			Surge absorb
2-16	QSW-SA038JBZZ	AK			Slide switch
2-17	RH-IXA842JBZZ	BM			Integrated circuit
2-18	RH-VXA002JBZZ	AF			Varistor
2-19	RRLYDA008JBZZ	AH			Relay
2-29	RC-HZA523JBZZ	AM			Fan motor capacitor
2-34	VHPGL5BG502-1	AR			Led
2-35	VHPGL6ZR27+-6	AF			Light emmiting diode
2-36	VHPGL6ZS27+-6	AF			Light emmiting diode
2-37	QW-VZF068JBZZ	AQ			Lead wire
2-38	QW-VZF069JBZZ	AK			Lead wire
2-39	DPWBFA403JBKZ	AQ			C-b-u sub
2-40	DPWBFA405JBKZ	AM			C-b-u sub
4-22	LPFTNA001JBFA	AZ			Joint tube
5-1	LX-BZA365JBEZ	AF			Special screw
5-4	LX-BZA075JBE0	AA			Special screw
5-5	LX-BZA351JBEZ	AD			Special screw
5-6	LX-BZA366JBEZ	AE			Special screw

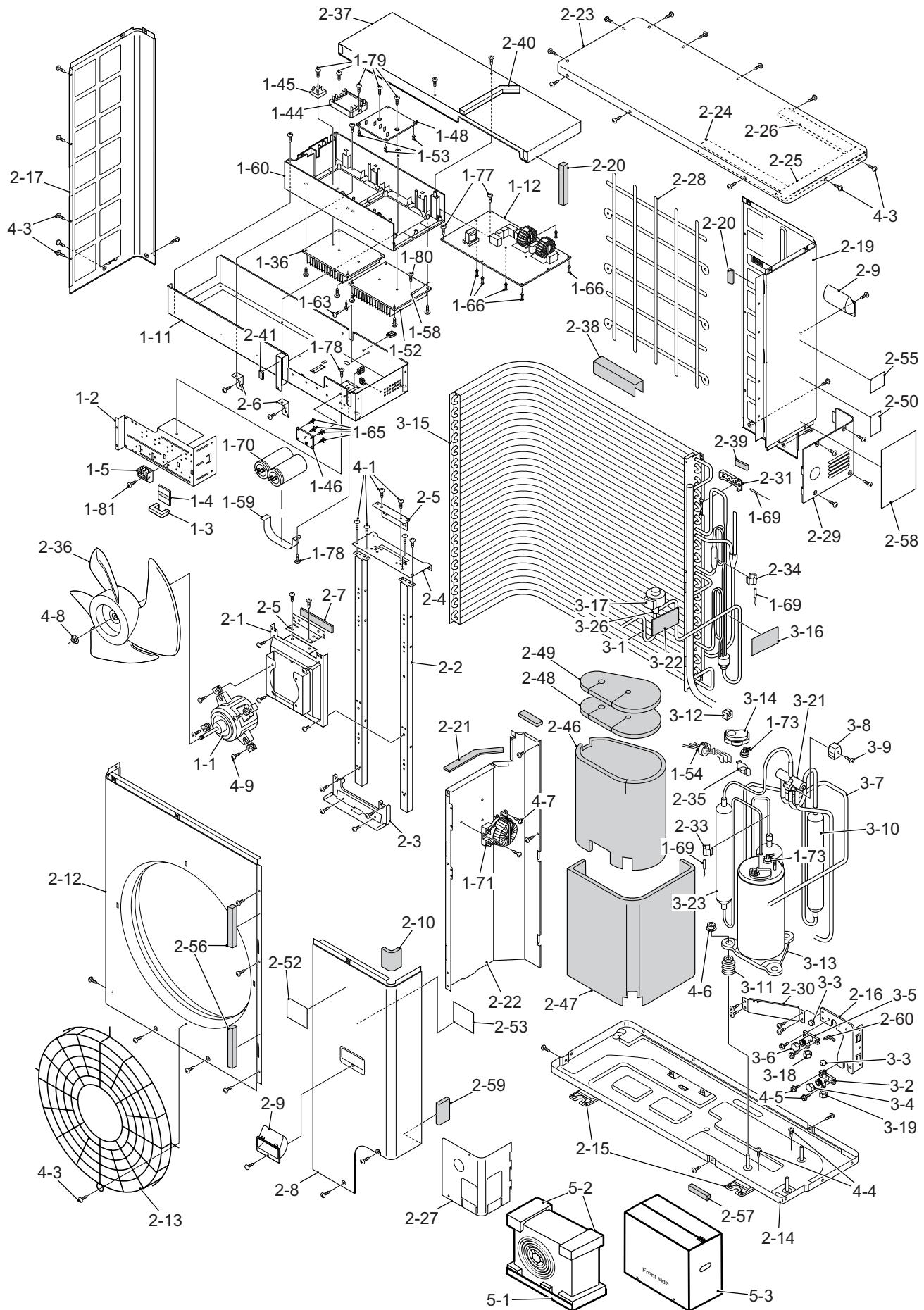
[5] AE-X7/9/12FR (OUTDOOR UNIT PARTS)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[5] AE-X7/9/12FR (OUTDOOR UNIT PARTS)					
1-2	RCILZA009JBZZ	BA			Reactor
2-1	CCAB-A384JBKZ	BH			Top plate ass'y
2-1-1	GCAB-A210JBT	AS			Top table
2-1-2	PSEL-C113JBZ	AC			Condenser seal
2-1-3	PSEL-C224JBZ	AB			Seal
2-2	CCHS-A913JBTA	BE			Base pan ass'y
2-3	PCOV-B007JBFA	AG			Reactor cover
2-4	CFTA-A337JBKZ	BC			Side cover ass'y
2-5	CPLT-A115JBKZ	AW			Side cover r ass'y
2-5-1	PPLT-A411JBTA	AV			Side cover r
2-5-2	PSEL-C870JBZ	AD			Seal
2-5-3	PSEL-C871JBZ	AD			Seal
2-6	CCOV-A130JBKZ	AM			Cover ass'y
2-7	CSKR-A266JBKZ	AZ			Bulkhead ass'y
2-7-1	PCOV-A595JBZ	AE			Cover
2-7-2	PSEL-C026JBZ	AD			Seal b
2-7-3	PSEL-C680JBZ	AA			Seal a
2-7-4	PSEL-C681JBZ	AA			Seal b2
2-7-5	PSKR-A258JBZ	AH			Bulkhead
2-8	GCAB-A298JBTA	BC			Front panel
2-9	GGADPA004JBFA	AR			Fan guard
2-10	JHNDPA015JBFA	AD			Handle
2-11	LANGKA189JBZ	AT			Motor angle
2-12	LHLD-A449JBFO	AH			Thermistor holder
2-13	LHLD-A573JBFA	AC			Cord clamp
2-14	LHLD-A699JBFA	AF			Holder base
2-15	MSPR-A026JBEO	AB			Spring
2-16	MSPR-A027JBEO	AB			Thermistor spring
2-17	NFANPA110JBZ	AQ			Propeller fan
2-19	PFPFPC627JBZ	AB			Thermo seal
2-20	PPLT-A385JBTA	AU			Side cover l
2-21	PSEL-C028JBZ	AC			F-panel seal
2-22	PSEL-C029JBZ	AC			Seal a
2-27	PSEL-C490JBZ	AB			G-cond-seal-3
2-29	PSPF-A962JBZ	AV			Compressor cover
2-30	PSPF-A951JBZ	AM			Compressor cover
2-31	PSPF-A952JBZ	AK			Comp cover top
2-32	PSPF-A960JBZ	AK			Comp cover top
2-33	TLAB-C511JBRA	AC			Label
2-35	TLABBA147JBRA	AK			AERMEC badge
2-36	TSPC-F224JBRZ	AD			Name label[AEX7FR]
2-36	TSPC-F225JBRZ	AK			Name label[AEX9FR]
2-36	TSPC-F226JBRZ	AK			Name label[AEX12FR]
2-37	PSPF-A967JBZ	AR			Comp cover top[AEX7FR][AEX9FR]
3-2	DVLV-A571JBKZ	AU			3way valve unit
3-3	DVLV-A572JBKZ	AQ			2way valve unit
3-4	DVLV-A679JBKZ	BE			Control valve ass'y
3-13	CVLV-A756JBKZ	BT			Reverse valve ass'y[AEX7FR][AEX9FR]
3-13	CVLV-A760JBKZ	BT			Reverse valve ass'y[AEX12FR]
3-14-1	CCIL-A129JBKZ	AU			Coil ass'y
3-14-3	PVLVXA052JBZ	BB			Reverse valve
3-24	PDAI-A123JBTA	AL			Flare coupling base
3-25	DCON-A279JBZ	BS			Condenser ass'y[AEX7FR][AEX9FR]
3-25	DCON-A277JBZ	BS			Condenser ass'y[AEX12FR]
3-26	FCMPRA131JBKZ	CA			Compressor ass'y[AEX7FR][AEX9FR]
3-26	FCMPRA182JBKZ	CH			Compressor ass'y[AEX12FR]
3-26-1	PCMPRA378JBZ	CC			Compressor[AEX7FR][AEX9FR]
3-26-1	PCMPRA487JBZ	CG			Compressor[AEX12FR]
3-26-2	PCOV-A833JBZ	AH			Terminal cover[AEX7FR][AEX9FR]
3-26-2	PCOV-A010JBEO	AF			Terminal cover[AEX12FR]
3-27	MSPR-A046JBEO	AC			Protector spring[AEX7FR][AEX9FR]
3-27	PGUMS0147JBEO	AE			Damper rubber
4-1	DSGY-B827JBKZ	CB			Control board unit[AEX7FR]
4-1	DSGY-B828JBKZ	CB			Control board unit[AEX9FR]
4-1	DSGY-B829JBKZ	CB			Control board unit[AEX12FR]
4-2	DBOX-A055JBYZ	AW			Control box ass'y
4-3	PCOV-B097JBWZ	AK			Cover
4-4	PRDAFA186JBZ	AU			Heat sink
4-5	TLABCC038JBRZ	AF			Wiring diagram[AEX7FR][AEX9FR]
4-5	TLABCC044JBRZ	AF			Wiring diagram[AEX12FR]
4-6	VHDRV2506+F	AL			Diode bridge
4-7	RH-IXA790JBZ	BC			Ipm
4-8	LHLD-A684JBFA	AN			Holder
4-9	LHLD-A685JBFA	AF			Holder
4-10	PDAI-A167JBWZ	AH			Terminal holder
4-11	QTANZA001JBZZ	AQ			Terminal board
4-12	XCPST30P10XS0	AD			Tapping screw
4-19	PSEL-C685JBZ	AC			Seal
4-20	PSEL-C686JBZ	AC			Seal
4-25	QW-VZE976JBZ	AE			Lead wire(earth)
4-27	QW-VZE978JBZ	AF			Lead wire
4-29	QW-VZE980JBZ	AH			Lead wire

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[6] AE-X7/9/12FR (OUTDOOR OTHER PARTS)					
1-1	QW-VZE981JBZZ	AM			Lead wire
1-3	RTHM-A022JBE0	AN			Thermistor
1-4	CMOTLB07JBZ	BL			Fan motor
1-5	RH-HXA029JBZZ	AX			Thermistor ass'y
2-18	PFPFPC404JBZ	AC			Insulator
2-23	PSEL-C222JBZ	AB			Seal b
2-24	PSEL-C341JBZ	AB			Seal side-r
2-25	PSEL-C413JBZ	AC			Condenser seal
2-26	PSEL-C489JBZ	AB			Seal
2-28	PSEL-C491JBZ	AB			F-panel seal
2-34	TLABKD976JBRZ	AK			Number card[AEX7FR]
2-34	TLABKD977JBRZ	AK			Number card[AEX9FR]
2-34	TLABKD978JBRZ	AK			Number card[AEX12FR]
3-5	PPIPCH172JBWZ	AF			Lead tube
3-9	PSRN-A091JBZ	AG			Strainer
3-11	RFIL-A103JBZZ	AF			Ferrite core
3-15	LBND-A088JBZ	AC			Wire fixing band
3-16	PGUM-A011JBZ	AF			Damper rubber
3-17	PGUMS0170JBZ	AE			Butyl rubber sheet
3-18	PMUF-A071JBZ	AL			Silencer
3-19	PPIPCG816JBWZ	AK			Lead tube muf-in
3-20	PPIPCG818JBWZ	AK			Lead tube con-in[AEX7FR][AEX9FR]
3-23	LX-BZA355JBZ	AE			Special screw
3-26-3	PGUM-A142JBZ	AE			Terminal bushing
3-26-4	GLEG-A099JBZ	AD			Compressor cushion
3-26-5	LX-BZA351JBZ	AD			Special screw
3-26-6	LX-NZA313JBZ	AE			Special nut
3-26-7	LX-NZA002JBZ	AA			Special nut
3-26-8	MSPR-A066JBZ	AD			Protector spring
3-26-9	PSEL-A403JBZ	AB			Cover gasket
3-26-10	MSPR-A046JBZ	AC			Protector spring
3-28	PGUMS0170JBZ	AE			Butyl rubber sheet
4-13	XCPS740P25000	AD			Tapping screw
4-14	XCTS740P10000	AC			Tapping screw
4-15	XQTS740P08000	AA			Tapping screw
4-16	XTTS740P14000	AC			Tapping screw
4-17	PSEL-C345JBZ	AL			Seal
4-18	PSEL-C684JBZ	AB			Seal
4-21	PSEL-C767JBZ	AB			Seal
4-22	PSEL-C769JBZ	AB			Seal
4-23	QTANZA001JBZ	AQ			Terminal board
4-24	QW-VZE975JBZZ	AE			Lead wire
4-26	QW-VZE977JBZZ	AF			Lead wire
4-28	QW-VZE979JBZZ	AE			Lead wire
4-30	RFIL-A064JBZ	AF			Ferrite core
4-31	TLAB-C814JBRZ	AF			Label
4-32	XBPS730P14JS0	AA			Tapping screw
4-33	FW-VZA046JBKZ	AQ			Lead wire
4-34	QW-VZE982JBZ	AK			Lead wire
4-35	QW-VZE983JBZ	AK			Lead wire
4-36	FW-VZA047JBKZ	AQ			Lead wire
4-37	LBND-A042JBZ	AC			Wire fixing band
4-38	QW-VZE984JBZ	AP			Lead wire
4-39	QFS-CA001JBZ	AK			Fuse 20a 250v
4-40	QFS-CA002JBZ	AH			Fuse 15a 250v
4-41	QFS-GA062JBZ	AF			Fuse 3.15a 250v
4-42	QFS-GA063JBZ	AE			Fuse 2a 250v
4-43	QFS-GA064JBZ	AF			Fuse 1a 250v
5-1	LX-BZA351JBZ	AD			Special screw
5-2	LX-BZA352JBZ	AL			Special screw
5-3	LX-BZA353JBZ	AD			Tapping screw
5-4	LX-BZA354JBZ	AC			Hex screw 10
5-5	LX-CZA024JBZ	AF			Special screw
5-6	LX-NZA169JBZ	AG			Flare nut1/4
5-7	LX-NZA172JBZ	AG			Flare nut3/8
5-8	LX-NZA312JBZ	AD			Special nut
5-9	XTTWW40P08000	AC			Tapping screw
5-10	XTTWW40P16000	AC			Tapping screw
90-1	CPADBA773YDKZ	AG			Top pad ass'y
90-2	CPADBA774YDKZ	AN			Bottom pad ass'y
90-3	SPAKCB984JBZ	AX			Packing case
90-4	SPADP0300YDE0	AB			Bag

[7] GU-XR18/24/27FR (OUTDOOR UNIT PARTS)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[7] GU-XR18/24/27FR (OUTDOOR UNIT PARTS)					
1-1	CMOTLB051JBEZ	BX			Fan motor
1-2	LANG-A540JBWZ	AU			Terminal board angle
1-3	LHLD-A539JBFA	AE			Cord holder
1-4	LHLD-A544JBFA	AG			Cord clamp holder
1-5	QTANZA021JBZZ	AN			Terminal board
1-11	DBOX-A044JBWZ	AT			Control box ass'y
1-12	DPWBFA426JBKZ	BT			Control board unit[GUXR18FR]
1-12	DPWBFA430JBKZ	BT			Control board unit[GUXR24FR]
1-12	DPWBFA432JBKZ	BT			Control board unit[GUXR27FR]
1-36	PRDAFA172JBEZ	BA			Heat sink
1-44	RH-TXA006JBZZ	BS			Active filter (SACT32420D)
1-45	VHDD25VBG0+-1	AN			Diode
1-46	DPWBFA455JBKZ	AV			Display board unit
1-48	DPWBFA433JBKZ	BY			Power transistor[GUXR18FR]
1-48	DPWBFA434JBKZ	BY			Power transistor[GUXR24FR][GUXR27FR]
1-52	PRDAFA173JBEZ	BA			Heat sink
1-53	PSPA-A150JBZZ	AF			Pwb spacer
1-54	QW-IZA072JBZZ	AP			Compressor cord[GUXR18FR]
1-54	QW-IZA078JBZZ	AW			Compressor cord[GUXR24FR][GUXR27FR]
1-58	RHOG-A169JBEO	AK			Thermistor (HEATSINK)
1-59	LBNDKA113JBWZ	AS			Capacitor clamp[GUXR24FR][GUXR27FR]
1-59	LBNDKA139JBWZ	AN			Capacitor clamp[GUXR18FR]
1-59	LBNDKA094JBWZ	AP			Capacitor clamp[GUXR18FR]
1-60	LHLD-A656JBZF	AQ			Heat sink holder
1-63	LX-BZA075JBEO	AA			Special screw
1-65	PSPA-A146JBEO	AC			Spacer
1-66	PSPA-A173JBEZ	AE			PWB spacer
1-69	RH-HXA032JBZZ	AX			Thermistor
1-70	RC-AZA046JBEO	BE			Electrolytic capacitor[GUXR24FR][GUXR27FR]
1-70	RC-AZA087JBZZ	BR			Electrolytic capacitor[GUXR18FR]
1-71	RTRN-A300JBZZ	BK			Active coil
1-73	RTHM-A022JBEO	AN			Thermistor
1-77	XTPS730P12XS0	AF			Screw
1-78	XCTS740P10000	AC			Screw
1-79	XBPS740P20J00	AF			Screw
1-80	XBPS730P10000	AF			Screw
1-81	XCPS740P20000	AK			Screw
2-1	LANGKA164JBZ	AQ			Motor base
2-2	LANGKA165JBZ	AN			Motor angle
2-3	LANGKA166JBZ	AQ			Motor angle B
2-4	LANGKA171JBZ	AW			Motor angle T[GUXR18FR]
2-4	LANGKA163JBZ	AX			Motor angle T[GUXR24FR][GUXR27FR]
2-5	LSUB-A029JBZ	AE			Motor angle sub A
2-6	LSUB-A030JBZ	AE			Motor angle sub B
2-7	PSEL-C642JBZ	AA			M.ang sub a seal
2-8	GCAB-A251JBTA	AZ			Front panel R
2-9	JHNDPA016JBFA	AE			Handle
2-9	JHNDPA016JBFA	AE			Handle
2-10	PSEL-C637JBZ	AD			Front panel seal A
2-12	GCAB-A247JBTA	BB			Front panel L
2-13	GGADFA028JBTA	AZ			Fan guard
2-14	CCHS-A863JBTA	BH			Base pan sub ass'y[GUXR18FR]
2-14	CCHS-A856JBKZ	BK			Base pan sub ass'y[GUXR24FR][GUXR27FR]
2-15	GLEGMA043JBTA	AX			Base stand
2-16	PDAI-A143JBTA	AZ			Flare coupling base
2-17	GPLTMA062JBTA	AX			Side cabinet L
2-19	GPLTMA063JBTA	BB			Side cabinet R
2-20	PSEL-C641JBZ	AD			Side cover R seal
2-20	PSEL-C641JBZ	AD			Side cover R seal
2-21	PSEL-C597JBZ	AC			Bulkhead insulator
2-22	PSKR-A269JBWZ	AV			Bulkhead
2-23	GCAB-A248JBTA	BB			Top cover
2-24	PSEL-C598JBZ	AK			Top cover seal A
2-25	PSEL-C640JBZ	AG			Top cover seal B
2-26	PSEL-C702JBZ	AE			Top cover seal C
2-27	GCAB-A252JBTA	AU			Front panel bottom
2-28	GGADRA001JBTA	AV			Rear guard
2-29	GPLTMA064JBTA	AW			Side cabinet bottom
2-30	LANG-A553JBTA	AU			Flare coupling sub
2-31	LHLD-A574JBFA	AE			Thermistor holder
2-33	MSPR-A026JBEO	AB			Spring
2-34	MSPR-A036JBEO	AB			Thermistor spring
2-35	MSPR-A046JBEO	AC			Protector spring
2-36	NFANPA108JBFA	BA			Propeller fan
2-37	PCOV-A940JBWZ	AP			Control box cover
2-38	PSEL-C281JBZ	AC			Cushion[GUXR18FR]
2-38	PSEL-C282JBZ	AD			Cushion[GUXR24FR][GUXR27FR]
2-39	PSEL-C373JBZ	AC			Seal
2-40	PSEL-C634JBZ	AE			Panel seal A
2-41	PSEL-C635JBZ	AD			Panel seal B
2-46	PSPF-A897JBZ	AT			Compressor cover A
2-47	PSPF-A898JBZ	AR			Compressor cover B
2-48	PSPF-A899JBZ	AF			Compressor cover C
2-49	PSPF-A900JBZ	AG			Compressor cover D
2-50	TLAB-C511JBRA	AC			Label

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[7] GU-XR18/24/27FR (OUTDOOR UNIT PARTS)					
2-52	TLABBA148JBRA	AH			SHARP badge
2-53	TLABCC095JBZRZ	AD			Wiring diagram[GUXR18FR]
2-53	TLABCC096JBZRZ	AD			Wiring diagram[GUXR24FR][GUXR27FR]
2-55	TSPC-F076JBZRZ	AK			Name label[GUXR18FR]
2-55	TSPC-F077JBZRZ	AK			Name label[GUXR24FR]
2-55	TSPC-F078JBZRZ	AK			Name label[GUXR27FR]
2-56	PSEL-C760JBEZ	AB			Fr. panel I seal A
2-57	PSEL-C761JBEZ	AB			Base pan seal A
2-58	TLAB-C556JBZRZ	AE			Caution label
2-59	PSEL-C638JBEZ	AD			Front panel seal B
2-60	LBND-A096JBEZ	AE			Wire fixing band
3-1	DVLV-A622JBKZ	BG			Expansion valve ass'y
3-2	DVLV-A632JBKZ	AZ			3way valve unit[GUXR18FR]
3-2	DVLV-A620JBKZ	BA			3way valve unit[GUXR24FR][GUXR27FR]
3-3	LX-NZA228JBEZ	AD			Service nut
3-4	LX-NZA279JBEZ	XX			Special nut[GUXR18FR]
3-4	LX-NZA303JBEZ	AC			Special nut[GUXR24FR][GUXR27FR]
3-5	DVLV-A633JBKZ	AU			2way valve unit[GUXR18FR]
3-5	DVLV-A621JBKZ	AX			2way valve unit[GUXR24FR][GUXR27FR]
3-6	LX-NZA227JBEZ	AF			Bonnet
3-7	DVLV-A696JBKZ	BK			Reverse valve ass'y[GUXR18FR]
3-7	DVLV-A697JBKZ	BK			Reverse valve ass'y[GUXR24FR][GUXR27FR]
3-8	CCIL-A112JBEZ	AX			Coil
3-9	LX-BZA268JBEZ	AB			Special screw
3-10	PACU-A044JBEZ	BL			Accumulator[GUXR18FR]
3-10	PACU-A042JBEZ	BK			Accumulator[GUXR24FR][GUXR27FR]
3-11	GLEG-A029JBE0	AE			Cpmpressor cushion[GUXR18FR]
3-11	GLEG-A116JBEZ	AK			Cpmpressor cushion[GUXR24FR][GUXR27FR]
3-12	LBSHCA005JBE0	AA			Terminal seal[GUXR18FR]
3-12	LBSHCA004JBE0	AD			Terminal seal[GUXR24FR][GUXR27FR]
3-13	PCMPRA326JBEZ	CL			Compressor[GUXR18FR]
3-13	PCMPRA407JBEZ	CT			Compressor[GUXR24FR][GUXR27FR]
3-14	PCOV-0562JBE0	AD			Terminal cover[GUXR18FR]
3-14	PCOV-A014JBE0	AG			Terminal cover[GUXR24FR][GUXR27FR]
3-15	PCON-A552JBZ	CC			Condenser[GUXR18FR]
3-15	PCON-A553JBZ	CC			Condenser[GUXR24FR][GUXR27FR]
3-16	PTUB-A196JBEZ	AK			Pipe insulator
3-17	RMOTSA017JBZZ	BB			Coil
3-18	PSEN-A044JBKZ	AG			Flare nut ass'y (1/4) inch[GUXR18FR]
3-18	PSEN-A045JBKZ	AK			Flare nut ass'y (3/8) inch[GUXR24FR][GUXR27FR]
3-19	PSEN-A053JBKZ	AN			Flare nut ass'y (1/2) inch[GUXR18FR]
3-19	PSEN-A058JBKZ	AN			Flare nut ass'y (5/8) inch[GUXR24FR][GUXR27FR]
3-21	PVLVXA061JBZ	BD			Reverse valve
3-22	PGUMSA319JBEZ	AF			Damper rubber
3-23	PMUF-A081JBEZ	AY			Muffler
3-26	PVLVRA033JBEZ	BB			Expansion valve
4-1	LX-BZA354JBEZ	AC			Special screw
4-3	LX-BZA364JBEZ	AC			Special screw
4-4	LX-BZA380JBEZ	AK			Special screw
4-5	LX-BZA355JBEZ	AE			Special screw
4-6	LX-NZA313JBZ	AE			Special nut
4-7	LX-BZA367JBZ	AC			Special screw
4-8	LX-NZA319JBZ	AE			Special nut
4-9	LX-BZA363JBZ	AE			Special screw
5-1	CPADBA072JBKZ	AR			Bottom pad ass'y
5-2	CPADBA073JBKZ	AH			Packing pad ass'y
5-3	SPAFCB867JBZ	BC			Packing case[GUXR18FR]
5-3	SPAFCB868JBZ	BC			Packing case[GUXR24FR]
5-3	SPAFCB869JBZ	BC			Packing case[GUXR27FR]
[8] GU-XR18/24/27FR (OUTDOOR OTHER PARTS)					
1-6	QW-VZE592JBZ	AP			Lead wire (TBN-T2)
1-7	QW-VZE593JBZ	AP			Lead wire (TBL-T1)
1-8	QW-VZE595JBZ	AP			Lead wire (TB-CN6)
1-9	QW-VZE729JBZ	AP			Lead wire (TBE-BOX)
1-10	RFIL-A064JBE0	AF			Ferrite core
1-10	RFIL-A064JBE0	AF			Ferrite core
1-10	RFIL-A064JBE0	AF			Ferrite core
1-13	RH-VXA002JBZ	AF			Varistor
1-14	QFS-GA065JBZ	BA			Fuse 20A AC250V (FUSE1)
1-14	QFS-GA065JBZ	BA			Fuse 20A AC250V (FUSE2)
1-15	QFS-GA062JBZ	AF			Fuse 3.15A 250V (FUSE3)
1-16	QFS-GA063JBZ	AE			Fuse 2A 250V (FUSE5)
1-17	QFS-GA064JBZ	AF			Fuse 1A 250V (FUSE6)
1-18	QSPGCA002JBZ	AF			Surge absorb (SA1) (FUSE CLIP)
1-19	QTAN-0129JBE0	AB			
1-20	QW-VZE580JBZ	AP			Lead wire (IPM 9P LEAD)
1-21	QW-VZE581JBZ	AP			Lead wire (IPM 2P LEAD)
1-22	QW-VZE582JBZ	AP			Lead wire (DISPLAY LEAD)
1-23	QW-VZE585JBZ	AP			Lead wire (AF LEAD)
1-24	QW-VZE605JBZ	AP			Lead wire (DC VOLTAGE)
1-25	QW-VZE624JBZ	AP			Lead wire (BLUE)
1-26	QW-VZE625JBZ	AP			Lead wire (BROWN)
1-27	RH-IXA781JBZ	BK			Micro computer (IC1)
1-28	RH-QXA005JBZ	AW			Ptc thermistor (PTC1)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[8] GU-XR18/24/27FR (OUTDOOR OTHER PARTS)					
1-29	RRLYDA008JBZZ	AH			Relay (RY3)
1-30	RRLYDA012JBZZ	AR			Relay (MRY1)
1-31	VHGPC817X3+1BS	AD			Photo coupler (PC2-11 · 13)
1-32	VHGPC81716NIBS	AQ			Photo coupler (PC1)
1-33	VHIKA7815AP-1	AE			15V regurater (IC10)
1-34	VHGPC853X++-1S	AN			Photo coupler (PC12)
1-37	QW-VZE596JBZZ	AP			Lead wire (AF1(L) - COIL)
1-38	QW-VZE597JBZZ	AP			Lead wire (AF1((o) - C9(-))
1-39	QW-VZE598JBZZ	AP			Lead wire (AF1(P) - C9(+))
1-40	QW-VZE599JBZZ	AP			Lead wire (DB1(-) - AF1(-))
1-41	QW-VZE600JBZZ	AP			Lead wire (DB1(+)) - AF1(+))
1-42	QW-VZE601JBZZ	AP			Lead wire (MRY1(OUT) - DB1(AC1))
1-43	QW-VZE602JBZZ	AP			Lead wire (T6 - DB1(AC2))
1-47	QSW-PA016DRE0	AB			Tact switch (SW1)
1-49	RH-IXA782JBZZ	BV			Power module (PS21869)
1-50	RH-JZA105JBE0	AQ			Photo coupler (PC101-106)
1-51	VHGPC81716NIBS	AQ			Photo coupler (PC107)
1-55	QW-VZE605JBZZ	AP			Lead wire (DC VOLTAGE)
1-56	QW-VZE606JBZZ	AP			Lead wire (C10(+)) - TP)
1-57	QW-VZE607JBZZ	AP			Lead wire (C10(-)) - TN)
1-61	LHLDWA039JBEZ	AC			Wire holder
1-62	LHLDWA040JBEZ	AC			Wire holder
1-64	PSHE-A218JBEZ	AP			Protect sheet
1-67	QW-VZD806JBZZ	AD			Lead wire
1-68	QW-VZE603JBZZ	AP			Lead wire (C9(+)) - C10(+))
1-72	QW-VZF172JBZZ	AK			Lead wire (T4 - BOX)
1-74	RTRN-A256JBE0	AG			Transformer (CT1)
1-75	VHIMR2920++-1S	AU			Integrated circuit (IC4)
1-76	PSPA-A082JBE0	AB			PWB spacer
3-24	PGUM-0034JBE0	AF			Dumper rubber (7/16) inch[GUXR18FR]
3-24	PGUM-0035JBE0	AG			Dumper rubber (3/8) inch[GUXR24FR][GUXR27FR]
3-25	PGUM-0036JBE0	AG			Dumper rubber (1/2) inch[GUXR24FR][GUXR27FR]
3-27	FCMPRA155JBKZ	CH			Compressor ass'y[GUXR18FR] (3-11 · 3-12 · 3-13 · 3-14)
3-27	FCMPRA150JBKZ	CU			Compressor ass'y[GUXR24FR][GUXR27FR] (3-11 · 3-12 · 3-13 · 3-14)

■INDEX

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK	PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK					
[C]														
CCAB-A384JBKZ	5-2-1	BH			DPWBFA430JBKZ	7-1-12	BT							
CCHS-A856JBKZ	7-2-14	BK			DPWBFA432JBKZ	7-1-12	BT							
CCHS-A863JBTA	7-2-14	BH			DPWBFA433JBKZ	7-1-48	BY							
CCHS-A913JBTA	5-2-2	BE			DPWBFA434JBKZ	7-1-48	BY							
CCIL-A112JBEZ	7-3-8	AX			DPWBFA455JBKZ	7-1-46	AV							
CCIL-A129JBKZ	5-3-14-1	AU			DPWBFA456JBKZ	1-2-12	BS							
CCOV-A130JBKZ	5-2-6	AM			DPWBFA457JBKZ	1-2-12	BS							
CFPFPA010JBKZ	1-1-23	AP			DPWBFA458JBKZ	1-2-12	BS							
"	3-1-23	AP			DPWBFA459JBKZ	3-2-12	BS							
CFPFPA011JBKZ	1-1-24	AK			DPWBFA460JBKZ	3-2-12	BS							
"	3-1-24	AK			DPWBFA461JBKZ	3-2-12	BS							
CFTA-A337JBKZ	5-2-4	BC			DSGY-B827JBKZ	5-4-1	CB							
CGRL-A005JBKZ	1-1-22	BD			DSGY-B828JBKZ	5-4-1	CB							
CGRL-A006JBKZ	3-1-22	BD			DGKY-B829JBKZ	5-4-1	CB							
CHLD-A067JBK0	1-1-38	AL			DSKR-A139JBYZ	3-1-67	AX							
"	3-1-38	AL			DSKR-A141JBYZ	1-1-67	AU							
CHLD-A095JBKZ	1-4-1	AC			DVLV-A571JBKZ	5-3-2	AU							
"	3-4-1	AC			DVLV-A572JBKZ	5-3-3	AQ							
CHLD-A109JBKZ	1-1-30	AH			DVLV-A620JBKZ	7-3-2	BA							
"	3-1-30	AH			DVLV-A621JBKZ	7-3-5	AX							
CKITTA016AKKZ	1-2-1	AY			DVLV-A622JBKZ	7-3-1	BG							
"	3-2-1	AY			DVLV-A632JBKZ	7-3-2	AZ							
CLOV-A051JBKZ	3-1-37	AT			DVLV-A633JBKZ	7-3-5	AU							
CLOV-A053JBKZ	1-1-37	AT			DVLV-A679JBKZ	5-3-4	BE							
CMOT-A427JBKZ	1-1-18	BU			DVLV-A696JBKZ	7-3-7	BK							
"	3-1-18	BU			DVLV-A697JBKZ	7-3-7	BK							
CMOTLB051JBEZ	7-1-1	BX			DX-WZA001JBKZ	1-4-3	AT							
CMOTLB078JBEZ	6-1-4	BL			"	3-4-3	AT							
CPADBA072JBKZ	7-5-1	AR			[F]									
CPADBA073JBKZ	7-5-2	AH			FCMPRA131JBKZ	5-3-26	CA							
CPADBA074JBKZ	1-6-1	AW			FCMPRA150JBKZ	8-3-27	CU							
CPADBA076JBKZ	3-6-2	AV			FCMPRA155JBKZ	8-3-27	CH							
CPADBA077JBKZ	1-6-2	AU			FCMPRA182JBKZ	5-3-26	CH							
CPADBA083JBKZ	3-6-1	AW			FW-VZA046JBKZ	6-4-33	AQ							
CPADBA084JBKZ	3-6-1	AW			FW-VZA047JBKZ	6-4-36	AQ							
CPADBA773YDKZ	6-90-1	AG			[G]									
CPADBA774YDKZ	6-90-2	AN			GCAB-A210JBTA	5-2-1-1	AS							
CPIPCA847JBKZ	3-3-1	AQ			GCAB-A247JBTA	7-2-12	BB							
CPIPCA862JBKZ	3-3-1	AQ			GCAB-A248JBTA	7-2-23	BB							
CPIPCA891JBKZ	1-3-1	AQ			GCAB-A251JBTA	7-2-8	AZ							
CPLT-A115JBKZ	5-2-5	AW			GCAB-A252JBTA	7-2-27	AU							
CRMC-A674JBEZ	1-4-2	BD			GCAB-A253JBWZ	3-1-71	BB							
"	3-4-2	BD			GCAB-A258JBWZ	1-1-71	BB							
CSKR-A266JBKZ	5-2-7	AZ			GCAB-A273JBTA	1-1-60	BB							
CSRA-A570JBKZ	3-1-55	BK			GCAB-A274JBTA	3-1-60	BB							
CSRA-A573JBKZ	1-1-55	BK			GCAB-A298JBTA	5-2-8	BC							
CVLV-A707JBKZ	3-3-3	AZ			GCOV-A138JBFA	1-1-72	BB							
CVLV-A726JBKZ	1-3-3	AZ			"	3-1-72	BB							
CVLV-A756JBKZ	5-3-13	BT			GCOV-A139JBFA	1-1-73	BB							
CVLV-A760JBKZ	5-3-13	BT			"	3-1-73	BB							
CVLV-A773JBKZ	3-3-3	CA			GGADFA028JBTA	7-2-13	AZ							
CWAK-C384JBKZ	3-1-57	AU			GGADPA004JBFA	5-2-9	AR							
CWAK-C396JBKZ	1-1-57	AU			GGADRA001JBTA	7-2-28	AV							
[D]														
DBOX-A044JBWZ	7-1-11	AT			GLEG-A029JB0	7-3-11	AE							
DBOX-A052JBKZ	1-1-45	AW			GLEG-A099JB0	6-3-26-4	AD							
"	3-1-45	AW			GLEG-A116JBEZ	7-3-11	AK							
DBOX-A055JBYZ	5-4-2	AW			GLEGMA043JBTA	7-2-15	AX							
DCON-A277JBZ	5-3-25	BS			GPLTMA062JBTA	7-2-17	AX							
DCON-A279JBZ	5-3-25	BS			GPLTMA063JBTA	7-2-19	BB							
DCOV-A229JBKZ	3-1-83	AS			GPLTMA064JBTA	7-2-29	AW							
DCOV-A230JBKZ	1-1-83	AT			[H]									
DCOV-A243JBKZ	3-1-83	AR			HBDG-A003FBEA	1-1-61	AH							
DEVA-A284JBKZ	1-3-6	BY			"	3-1-61	AH							
DEVA-A286JBKZ	3-3-6	CD			HDEC-B197JBEA	1-1-63	AH							
DEVA-A287JBKZ	3-3-6	CG			"	3-1-63	AH							
DPLT-A061JBYZ	1-1-39	AS			HGRL-A020JBFA	1-1-25	AY							
"	3-1-39	AS			HGRL-A021JBFA	3-1-25	BC							
DPLT-A062JBYZ	1-1-43	AS			[J]									
"	3-1-43	AS			JHNDDPA015JBFA	5-2-10	AD							
DPLTMA023JBKZ	1-1-66	AS			JHNDDPA016JBFA	7-2-9	AE							
"	3-1-66	AS			"	7-2-9	AE							
DPWBFA401JBKZ	1-2-31	AY			[L]									
"	3-2-31	AY			LANG-A540JBWZ	7-1-2	AU							
DPWBFA403JBKZ	4-2-39	AQ			LANG-A541JBWZ	1-1-75	AZ							
DPWBFA404JBKZ	2-2-39	AM			"	3-1-75	AZ							
DPWBFA405JBKZ	2-2-40	AM			LANG-A542JBWZ	1-1-76	AZ							
"	4-2-40	AM			"	3-1-76	AZ							
DPWBFA426JBKZ	7-1-12	BT			LANG-A543JBWZ	1-1-68	BA							
"	3-1-68	BA			"	3-1-68	BA							

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
LANG-A552JBEZ	1-1-77	AM		
"	3-1-77	AM		
LANG-A553JBTA	7-2-30	AU		
LANGKA163JBZ	7-2-4	AX		
LANGKA164JBZ	7-2-1	AQ		
LANGKA165JBZ	7-2-2	AN		
LANGKA166JBZ	7-2-3	AQ		
LANGKA167JBZ	1-1-78	AE		
"	3-1-78	AE		
LANGKA168JBZ	1-1-40	AE		
"	3-1-40	AE		
LANGKA169JBZ	1-1-79	AE		
"	3-1-79	AE		
LANGKA171JBZ	7-2-4	AW		
LANGKA175JBWZ	1-1-80	AE		
"	3-1-80	AE		
LANGKA189JBZ	5-2-11	AT		
LANGKA201JBWZ	1-1-105	AS		
"	3-1-105	AS		
LANGKA202JBWZ	1-1-106	AS		
"	3-1-106	AS		
LANGKA203JBWZ	1-1-107	AS		
LANGKA204JBWZ	1-1-108	AC		
"	3-1-108	AC		
LANGKA205JBWZ	1-1-109	AC		
"	3-1-109	AC		
LANGKA206JBWZ	3-1-107	BC		
LBND-A042JBE0	6-4-37	AC		
LBND-A088JBEZ	6-3-15	AC		
LBND-A095JBEZ	1-4-5	AH		
"	3-4-5	AH		
LBND-A096JBEZ	7-2-60	AE		
LBND-A098JBEZ	1-4-25	AE		
"	3-4-25	AE		
LBND-A100JBEZ	1-4-26	AE		
"	3-4-26	AE		
LBNDKA094JBWZ	7-1-59	AP		
LBNDKA113JBWZ	7-1-59	AS		
LBNDKA139JBWZ	7-1-59	AN		
LBSHCA004JBE0	7-3-12	AD		
LBSHCA005JBE0	7-3-12	AA		
LBSHCA022JBFO	1-1-41	AE		
"	3-1-41	AE		
LDAI-A029JBWZ	3-1-31	AF		
LDAI-A030JBWZ	1-1-31	AF		
LHLD-A449JBFO	5-2-12	AH		
LHLD-A539JBFA	7-1-3	AE		
LHLD-A544JBFA	7-1-4	AG		
LHLD-A573JBFA	1-1-48	AC		
"	3-1-48	AC		
"	5-2-13	AC		
LHLD-A574JBFA	7-2-31	AE		
LHLD-A650JBFA	1-1-62	AM		
"	3-1-62	AM		
LHLD-A655JBWZ	1-1-26	AM		
"	3-1-26	AM		
LHLD-A656JBZF	7-1-60	AQ		
LHLD-A659JBZF	1-1-81	AM		
"	3-1-81	AM		
LHLD-A684JBFA	5-4-8	AN		
LHLD-A685JBFA	5-4-9	AF		
LHLD-A686JBFA	1-1-8	AM		
"	3-1-8	AM		
LHLD-A699JBFA	5-2-14	AF		
LHLDWA039JBEZ	8-1-61	AC		
LHLDWA040JBEZ	8-1-62	AC		
LHLDWA041JBEZ	1-1-49	AE		
"	3-1-49	AE		
LHLDWA042JBEZ	1-1-50	AE		
"	3-1-50	AE		
LPFT-A029JBFO	1-4-8	AD		
LPFT-A134JBZF	3-4-8	AF		
LPFT-A135JBZF	3-4-9	AH		
LPFTNA001JBFA	14-22	AZ		
"	4-4-22	AZ		
LPLTPA026JBFA	1-1-51	AC		
"	3-1-51	AC		
LSTP-A023JBFA	1-1-27	AM		
"	3-1-27	AM		
LSUB-A029JBZ	7-2-5	AE		
LSUB-A030JBZ	7-2-6	AE		
LX-BZA075JBE0	2-5-4	AA		

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"	4-5-4	AA		
"	7-1-63	AA		
LX-BZA268JBEZ	7-3-9	AB		
LX-BZA351JBEZ	2-5-5	AD		
"	4-5-5	AD		
"	6-5-1	AD		
"	6-3-26-5	AD		
LX-BZA352JBEZ	6-5-2	AL		
LX-BZA353JBEZ	6-5-3	AD		
LX-BZA354JBEZ	6-5-4	AC		
LX-BZA355JBEZ	6-3-23	AE		
"	7-4-5	AE		
LX-BZA363JBEZ	7-4-9	AE		
LX-BZA364JBEZ	7-4-3	AC		
LX-BZA365JBEZ	2-5-1	AF		
LX-BZA366JBEZ	2-5-6	AE		
"	4-5-6	AE		
LX-BZA367JBEZ	7-4-7	AC		
LX-BZA378JBEZ	1-5-2	AK		
"	3-5-2	AK		
LX-BZA379JBEZ	1-5-3	AF		
"	3-5-3	AF		
LX-BZA380JBEZ	7-4-4	AK		
LX-CZA024JBEZ	6-5-5	AF		
LX-NZA002JBE0	6-3-26-7	AA		
LX-NZA169JBE0	6-5-6	AG		
LX-NZA172JBE0	6-5-7	AG		
LX-NZA207JBEZ	14-4	AE		
"	34-4	AE		
LX-NZA227JBEZ	7-3-6	AF		
LX-NZA228JBEZ	7-3-3	AD		
LX-NZA279JBEZ	7-3-4	XX		
LX-NZA303JBEZ	7-3-4	AC		
LX-NZA312JBEZ	6-5-8	AD		
LX-NZA313JBEZ	6-3-26-6	AE		
"	7-4-6	AE		
LX-NZA319JBEZ	7-4-8	AE		
[M]				
MHNG-A034JBFA	1-1-28	AM		
"	3-1-28	AM		
MJNT-A026JBEZ	1-1-19	BA		
"	3-1-19	BA		
MJNT-A027JBFA	1-1-110	BB		
"	3-1-110	BB		
MJNT-A028JBFA	1-1-111	BB		
"	3-1-111	BB		
MJNTPA103JBFA	1-1-33	AE		
"	3-1-33	AE		
MLOV-A360JBFA	1-1-34	AE		
"	3-1-34	AE		
MSPR-A026JBE0	5-2-15	AB		
"	7-2-33	AB		
MSPR-A027JBE0	5-2-16	AB		
MSPR-A036JBE0	7-2-34	AB		
MSPR-A046JBE0	5-3-27	AC		
"	6-3-26-10	AC		
"	7-2-35	AC		
MSPR-A066JBE0	6-3-26-8	AD		
[N]				
NBRG-A026JBFA	1-1-9	AB		
"	3-1-9	AB		
NFANPA108JBFA	7-2-36	BA		
NFANPA110JBEZ	5-2-17	AQ		
NFANSA042JBZF	1-1-20	AX		
"	3-1-20	AX		
NSFT-A036JBEZ	3-1-21	AE		
NSFT-A038JBEZ	1-1-21	AE		
[P]				
PACU-A042JBEZ	7-3-10	BK		
PACU-A044JBEZ	7-3-10	BL		
PCM PRA326JBEZ	7-3-13	CL		
PCM PRA378JBEZ	5-3-26-1	CC		
PCM PRA407JBEZ	7-3-13	CT		
PCM PRA487JBEZ	5-3-26-1	CG		
PCON-A552JBZ	7-3-15	CC		
PCON-A553JBZ	7-3-15	CC		
PCOV-0562JBFO	7-3-14	AD		
PCOV-A010JBE0	5-3-26-2	AF		
PCOV-A014JBE0	7-3-14	AG		
PCOV-A595JBZF	5-2-7-1	AE		

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
PCOV-A833JBEZ	5-3-26-2	AH		
PCOV-A932JBFA	3-1-3	AU		
PCOV-A933JBFA	1-1-10	AV		
"	3-1-10	AV		
PCOV-A934JBFA	1-1-64	AM		
"	3-1-64	AM		
PCOV-A936JBWZ	1-1-82	AR		
"	3-1-82	AR		
PCOV-A937JBRA	1-1-65	AZ		
"	3-1-65	AZ		
PCOV-A940JBWZ	7-2-37	AP		
PCOV-B004JBFA	1-1-11	AU		
"	3-1-11	AU		
PCOV-B007JBFA	5-2-3	AG		
PCOV-B017JBFA	1-1-3	AU		
PCOV-B097JBWZ	5-4-3	AK		
PDAI-A123JBTA	5-3-24	AL		
PDAI-A143JBTA	7-2-16	AZ		
PDAI-A167JBWZ	5-4-10	AH		
PEVA-A564JBEZ	1-3-4	BW		
PEVA-A565JBEZ	3-3-4	CA		
PEVA-A566JBEZ	3-3-4	CA		
PFILMA216JBEEA	1-1-29	AW		
PFILMA217JBEEA	3-1-29	AQ		
PFPFPC404JBEZ	6-2-18	AC		
PFPFPC436JBEZ	3-4-12	AH		
PFPFPC437JBEZ	3-4-13	AH		
PFPFPC443JBEZ	3-1-14	AH		
PFPFPC444JBEZ	1-1-42	AE		
"	1-1-44	AE		
"	3-1-42	AE		
"	3-1-44	AE		
PFPFPC445JBEZ	3-1-15	AE		
PFPFPC447JBEZ	1-1-16	AF		
"	3-1-16	AF		
PFPFPC448JBEZ	3-1-17	AE		
PFPFPC449JBEZ	1-1-4	AF		
"	3-1-4	AF		
PFPFPC450JBEZ	1-1-5	AE		
"	3-1-5	AE		
PFPFPC451JBEZ	1-1-12	AF		
"	3-1-12	AF		
PFPFPC452JBEZ	1-1-13	AE		
"	3-1-13	AE		
PFPFPC460JBEZ	3-1-84	AH		
PFPFPC464JBEZ	1-1-36	AG		
"	3-1-36	AG		
PFPFPC486JBEZ	1-1-14	AH		
"	3-1-14	AH		
PFPFPC487JBEZ	1-1-15	AE		
"	3-1-15	AE		
PFPFPC503JBEZ	1-1-84	AF		
PFPFPC504JBEZ	1-1-10	AE		
"	3-1-10	AE		
PFPFPC505JBEZ	1-1-11	AE		
"	3-1-11	AE		
PFPFPC507JBEZ	1-1-12	AG		
"	3-1-12	AG		
PFPFPC508JBEZ	1-1-13	AH		
"	3-1-13	AH		
PFPFPC567JBEZ	1-1-85	AE		
"	3-1-85	AE		
PFPFPC568JBEZ	1-1-86	AE		
"	3-1-86	AE		
PFPFPC569JBEZ	1-1-6	AE		
"	3-1-6	AE		
PFPFPC593JBEZ	1-1-97	AC		
"	3-1-97	AC		
PFPFPC594JBEZ	1-1-94	AC		
"	3-1-94	AC		
PFPFPC596JBEZ	1-1-95	AC		
PFPFPC607JBEZ	1-1-96	AC		
"	3-1-96	AC		
PFPFPC610JBEZ	1-1-17	AC		
PFPFPC618JBEZ	1-1-103	AB		
"	3-1-103	AB		
PFPFPC619JBEZ	2-1-104	AC		
"	3-1-104	AC		
PFPFPC627JBEZ	5-2-19	AB		
PGUM-0034JBEO	8-3-24	AF		
PGUM-0035JBEO	8-3-24	AG		
PGUM-0036JBEO	8-3-25	AG		

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
PGUM-A011JBEO	6-3-16	AF		
PGUM-A142JBEZ	6-3-26-3	AE		
PGUMMA301JBEZ	1-1-56	AH		
"	3-1-56	AH		
PGUMS0147JBEO	5-3-27	AE		
PGUMS0170JBEO	6-3-17	AE		
"	6-3-28	AE		
PGUMSA319JBEZ	7-3-22	AF		
PHOS-A038JBEZ	14-14	AU		
"	3-4-14	AU		
PKESSA080JBZF	1-1-87	AQ		
"	3-1-87	AQ		
PKESSA081JBZF	1-1-88	AM		
"	3-1-88	AM		
PMUF-A071JBEZ	6-3-18	AL		
PMUF-A081JBEZ	7-3-23	AY		
PPIPCG816JBWZ	6-3-19	AK		
PPIPCG818JBWZ	6-3-20	AK		
PPIPCH72JBWZ	6-3-5	AF		
PPLT-A379JBWZ	1-1-99	AZ		
"	3-1-99	AZ		
PPLT-A385JBTA	5-2-20	AU		
PPLT-A411JBTA	5-2-5-1	AV		
PRDAFA172JBEZ	7-1-36	BA		
PRDAFA173JBEZ	7-1-52	BA		
PRDAFA186JBEZ	5-4-4	AU		
PSEL-A403JBEO	6-3-26-9	AB		
PSEL-C026JBEZ	5-2-7-2	AD		
PSEL-C028JBEZ	5-2-21	AC		
PSEL-C029JBEZ	5-2-22	AC		
PSEL-C113JBEZ	5-2-1-2	AC		
PSEL-C222JBEZ	6-2-23	AB		
PSEL-C224JBEZ	5-2-1-3	AB		
PSEL-C281JBEZ	7-2-38	AC		
PSEL-C282JBEZ	7-2-38	AD		
PSEL-C341JBEZ	6-2-24	AB		
PSEL-C345JBEZ	6-4-17	AL		
PSEL-C373JBEZ	7-2-39	AC		
PSEL-C413JBEZ	6-2-25	AC		
PSEL-C489JBEZ	6-2-26	AB		
PSEL-C490JBEZ	5-2-27	AB		
PSEL-C491JBEZ	6-2-28	AB		
PSEL-C597JBEZ	7-2-21	AC		
PSEL-C598JBEZ	7-2-24	AK		
PSEL-C613JBEZ	14-15	AK		
"	3-4-15	AK		
PSEL-C614JBEZ	14-16	AH		
"	3-4-16	AH		
PSEL-C634JBEZ	7-2-40	AE		
PSEL-C635JBEZ	7-2-41	AD		
PSEL-C637JBEZ	7-2-10	AD		
PSEL-C638JBEZ	7-2-59	AD		
PSEL-C640JBEZ	7-2-25	AG		
PSEL-C641JBEZ	7-2-20	AD		
"	7-2-20	AD		
PSEL-C642JBEZ	7-2-7	AA		
PSEL-C655JBEZ	3-1-70	AE		
PSEL-C658JBEZ	3-1-69	AE		
PSEL-C660JBEZ	1-1-69	AE		
PSEL-C661JBEZ	1-1-70	AE		
PSEL-C680JBEZ	5-2-7-3	AA		
PSEL-C681JBEZ	5-2-7-4	AA		
PSEL-C684JBEZ	6-4-18	AB		
PSEL-C685JBEZ	5-4-19	AC		
PSEL-C686JBEZ	5-4-20	AC		
PSEL-C702JBEZ	7-2-26	AE		
PSEL-C760JBEZ	7-2-56	AB		
PSEL-C761JBEZ	7-2-57	AB		
PSEL-C767JBEZ	6-4-21	AB		
PSEL-C769JBEZ	6-4-22	AB		
PSEL-C870JBEZ	5-2-5-2	AD		
PSEL-C871JBEZ	5-2-5-3	AD		
PSEN-A044JBKZ	1-3-5	AG		
"	3-3-5	AG		
PSEN-A045JBKZ	1-3-2	AK		
"	3-3-5	AK		
"	7-3-18	AK		
PSEN-A053JBKZ	3-3-2	AN		
"	7-3-19	AN		
PSEN-A058JBKZ	3-3-2	AN		
"	7-3-19	AN		

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
PSHE-A218JBEZ	8-I-64	AP		
PSHE-A219JBEZ	1-I-52	AP		
"	3-I-52	AP		
PSHE-A220JBEZ	1-I-53	AE		
"	3-I-53	AE		
PSKR-A258JBPZ	5-2-7-5	AH		
PSKR-A269JBWZ	7-2-22	AV		
PSKR-A271JBWZ	3-I-89	AR		
PSKR-A274JBWZ	1-I-89	AR		
PSPA-A082JBE0	8-I-76	AB		
PSPA-A146JBE0	7-I-65	AC		
PSPA-A150JBZZ	7-I-53	AF		
PSPA-A173JBEZ	7-I-66	AE		
PSPF-A897JBEZ	7-2-46	AT		
PSPF-A898JBEZ	7-2-47	AR		
PSPF-A899JBEZ	7-2-48	AF		
PSPF-A900JBEZ	7-2-49	AG		
PSPF-A951JBEZ	5-2-30	AM		
PSPF-A952JBEZ	5-2-31	AK		
PSPF-A960JBEZ	5-2-32	AK		
PSPF-A962JBEZ	5-2-29	AV		
PSPF-A967JBEZ	5-2-37	AR		
PSRN-A091JBEZ	6-3-9	AG		
PTUB-A196JBEZ	7-3-16	AK		
PTUB-A218JBEZ	1-4-24	AB		
"	3-4-24	AB		
PVLVRA033JBEZ	7-3-26	BB		
PVLVXA052JBEZ	5-3-14-3	BB		
PVLVXA061JBEZ	7-3-21	BD		
[Q]				
QFS-CA001JBZZ	6-4-39	AK		
QFS-CA002JBZZ	6-4-40	AH		
QFS-GA054JBZZ	2-2-13	AE		
"	4-2-13	AE		
QFS-GA062JBZZ	6-4-41	AF		
"	8-1-15	AF		
QFS-GA063JBZZ	6-4-42	AE		
"	8-1-16	AE		
QFS-GA064JBZZ	6-4-43	AF		
"	8-1-17	AF		
QFS-GA065JBZZ	8-1-14	BA		
"	8-1-14	BA		
QSPGCA002JBZZ	2-2-15	AF		
"	4-2-15	AF		
"	8-1-18	AF		
QSW-PA016DRE0	8-1-47	AB		
QSW-SA038JBZZ	2-2-16	AK		
"	4-2-16	AK		
QTAN-0129JBE0	8-I-19	AB		
QTANZA001JBZZ	1-2-21	AQ		
"	3-2-21	AQ		
"	5-4-11	AQ		
"	6-4-23	AQ		
QTANZA006JBZZ	1-2-21	AN		
"	3-2-21	AN		
QTANZA021JBZZ	7-I-5	AN		
QW-IZA072JBZZ	7-I-54	AP		
QW-IZA078JBZZ	7-I-54	AW		
QW-VZD806JBZZ	8-I-67	AD		
QW-VZE580JBZZ	8-I-20	AP		
QW-VZE581JBZZ	8-I-21	AP		
QW-VZE582JBZZ	8-I-22	AP		
QW-VZE585JBZZ	8-I-23	AP		
QW-VZE592JBZZ	8-I-6	AP		
QW-VZE593JBZZ	8-I-7	AP		
QW-VZE595JBZZ	8-I-8	AP		
QW-VZE596JBZZ	8-I-37	AP		
QW-VZE597JBZZ	8-I-38	AP		
QW-VZE598JBZZ	8-I-39	AP		
QW-VZE599JBZZ	8-I-40	AP		
QW-VZE600JBZZ	8-I-41	AP		
QW-VZE601JBZZ	8-I-42	AP		
QW-VZE602JBZZ	8-I-43	AP		
QW-VZE603JBZZ	8-I-68	AP		
QW-VZE605JBZZ	8-I-24	AP		
"	8-I-55	AP		
QW-VZE606JBZZ	8-I-56	AP		
QW-VZE607JBZZ	8-I-57	AP		
QW-VZE609JBZZ	1-2-2	AP		
"	3-2-2	AP		
QW-VZE613JBZZ	1-2-4	AP		
"	3-2-4	AP		

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
QW-VZE615JBZZ	1-2-6	AP		
"	3-2-6	AP		
QW-VZE624JBZZ	8-I-25	AP		
QW-VZE625JBZZ	8-I-26	AP		
QW-VZE721JBZZ	1-2-3	AP		
"	3-2-3	AP		
QW-VZE729JBZZ	8-I-9	AP		
QW-VZE751JBZZ	6-4-24	AE		
QW-VZE976JBZZ	5-4-25	AE		
QW-VZE977JBZZ	6-4-26	AF		
QW-VZE978JBZZ	5-4-27	AF		
QW-VZE979JBZZ	6-4-28	AE		
QW-VZE980JBZZ	5-4-29	AH		
QW-VZE981JBZZ	6-1-1	AM		
QW-VZE982JBZZ	6-4-34	AK		
QW-VZE983JBZZ	6-4-35	AK		
QW-VZE984JBZZ	6-4-38	AP		
QW-VZF063JBZZ	3-2-10	AL		
QW-VZF064JBZZ	3-2-14	AR		
QW-VZF065JBZZ	1-2-5	AK		
"	3-2-5	AK		
QW-VZF066JBZZ	1-2-7	AK		
"	3-2-7	AK		
QW-VZF067JBZZ	1-2-8	AL		
"	3-2-8	AL		
QW-VZF068JBZZ	2-2-37	AQ		
"	4-2-37	AQ		
QW-VZF069JBZZ	2-2-38	AK		
QW-VZF070JBZZ	1-2-10	AK		
QW-VZF172JBZZ	8-1-72	AK		
[R]				
RC-AZA046JBE0	7-I-70	BE		
RC-AZA087JBZZ	7-I-70	BR		
RC-HZA523JBZZ	2-2-29	AM		
"	4-2-29	AM		
RCILZA009JBZZ	5-I-2	BA		
RFIL-A064JBE0	6-4-30	AF		
"	8-1-10	AF		
"	8-1-10	AF		
RFIL-A103JBZZ	6-3-11	AF		
RH-HXA029JBZZ	6-1-5	AX		
RH-HXA032JBZZ	7-I-69	AX		
RH-HXA051JBZZ	3-2-11	AW		
RH-HXA052JBZZ	1-2-30	AN		
"	3-2-30	AN		
RH-HXA053JBZZ	1-2-11	AR		
RH-IXA781JBZZ	8-1-27	BK		
RH-IXA782JBZZ	8-1-49	BV		
RH-IXA790JBZZ	5-4-7	BC		
RH-IXA842JBZZ	2-2-17	BM		
"	4-2-17	BM		
RH-IZA105JBE0	8-1-50	AQ		
RHOG-A169JBE0	7-I-58	AK		
RH-QXA005JBZZ	8-1-28	AW		
RH-TXA006JBZZ	7-I-44	BS		
RH-VXA002JBZZ	2-2-18	AF		
"	4-2-18	AF		
"	8-1-13	AF		
RMOT-A119JBZZ	1-1-7	AY		
"	3-1-7	AY		
RMOTSA017JBZZ	7-3-17	BB		
RRLYDA008JBZZ	2-2-19	AH		
"	4-2-19	AH		
"	8-1-29	AH		
RRLYDA012JBZZ	8-1-30	AR		
RTHM-A022JBE0	6-1-3	AN		
"	7-1-73	AN		
RTRN-A256JBE0	8-1-74	AG		
RTRN-A300JBZZ	7-1-71	BK		
[S]				
SPADBA267JBEZ	1-6-3	AK		
SPADBA268JBEZ	3-6-3	AK		
SPADP0300YDE0	6-90-4	AB		
SPAKCB867JBEZ	7-5-3	BC		
SPAKCB868JBEZ	7-5-3	BC		
SPAKCB869JBEZ	7-5-3	BC		
SPAKCB870JBEZ	1-6-4	AZ		
SPAKCB871JBEZ	1-6-4	AZ		
SPAKCB872JBEZ	1-6-4	AZ		
SPAKCB873JBEZ	3-6-4	BC		

PARTS CODE	No.	PRICE RANK	NEW MARK	PART RANK
SPAKCB874JBEZ	3-6-4	BC		
SPAKCB875JBEZ	3-6-4	BC		
SPAKCB984JBEZ	6-90-3	AX		
[T]				
TINS-A890JBRZ	14-19-1	AX		
TINS-A891JBRZ	14-19-2	AX		
TINS-A892JBRZ	14-19-3	AX		
TINS-A893JBRZ	3-4-19-1	AX		
TINS-A894JBRZ	3-4-19-2	AX		
TINS-A895JBRZ	3-4-19-3	AX		
TINSEA417JBRZ	14-20	AX		
"	3-4-20	AX		
TLABBA147JBRA	5-2-35	AK		
TLABBA148JBRA	7-2-52	AH		
TLAB-C511JBRA	5-2-33	AC		
"	7-2-50	AC		
TLAB-C556JBRZ	7-2-58	AE		
TLAB-C814JBRZ	6-4-31	AF		
TLABCB896JBRZ	1-1-91	AG		
TLABCB897JBRZ	3-1-91	AG		
TLABCC038JBRZ	5-4-5	AF		
TLABCC044JBRZ	5-4-5	AF		
TLABCC095JBRZ	7-2-53	AD		
TLABCC096JBRZ	7-2-53	AD		
TLABKD976JBRZ	6-2-34	AK		
TLABKD977JBRZ	6-2-34	AK		
TLABKD978JBRZ	6-2-34	AK		
TSPC-F076JBRZ	7-2-55	AK		
TSPC-F077JBRZ	7-2-55	AK		
TSPC-F078JBRZ	7-2-55	AK		
TSPC-F084JBRA	1-1-92	AK		
TSPC-F085JBRA	1-1-92	AK		
TSPC-F086JBRA	1-1-92	AK		
TSPC-F087JBRA	3-1-92	AK		
TSPC-F088JBRA	3-1-92	AK		
TSPC-F089JBRA	3-1-92	AK		
TSPC-F224JBRZ	5-2-36	AD		
TSPC-F225JBRZ	5-2-36	AK		
TSPC-F226JBRZ	5-2-36	AK		
[U]				
UBATUA027JBE0	14-17	AE		
"	3-4-17	AE		
[V]				
VHDD25VB60+-I	7-1-45	AN		
VHDRBV2506+-F	5-4-6	AL		
VHGPC81716NIBS	8-1-32	AQ		
"	8-1-51	AQ		
VHGPC817X3+IBS	8-1-31	AD		
VHGPC853X++-IS	8-1-34	AN		
VHIKA7815AP-I	8-1-33	AE		
VHIMR2920++-IS	8-1-75	AU		
VHPGL5BG502-1	2-2-34	AR		
"	4-2-34	AR		
VHPGL6ZR27+-6	2-2-35	AF		
"	4-2-35	AF		
VHPGL6ZS27+-6	2-2-36	AF		
"	4-2-36	AF		
[X]				
XBPS730P10000	7-1-80	AF		
XBPS730P14JS0	6-4-32	AA		
XBPS740P20J00	7-1-79	AF		
XCPS730P10XS0	5-4-12	AD		
XCPS740P20000	7-1-81	AK		
XCPS740P25000	6-4-13	AD		
XCTS740P10000	6-4-14	AC		
"	7-1-78	AC		
XQTS740P08000	6-4-15	AA		
XTPS730P12XS0	7-1-77	AF		
XTTS740P14000	6-4-16	AC		
XTTS840P20000	14-27	AC		
"	3-4-27	AC		
XTTWW40P08000	6-5-9	AC		
XTTWW40P16000	6-5-10	AC		

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