SAMSUNG

SPLIT-TYPE AIR CONDITIONER

	INDOOR UNIT	OUTDOOR UNIT
MODEL CODE	AR09RXFPEWQNEU	AR09RXFPEWQXEU
	AR12RXFPEWQNEU	AR12RXFPEWQXEU
	AR18RXFPEWQNEU	AR18RXFPEWQXEU
	AR24RXFPEWQNEU	AR24RXFPEWQXEU

SERVICE Manual

AIR CONDITIONER

AR09RXFPEWQNEU
AR12RXFPEWQNEU
AR18RXFPEWQNEU
AR24RXFPEWQNEU

AR09RXFPEWQXEU
AR12RXFPEWQXEU

AR18RXFPEWQXEU
AR24RXFPEWQXEU

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1. Precautions

1-1 Installing the air conditioner

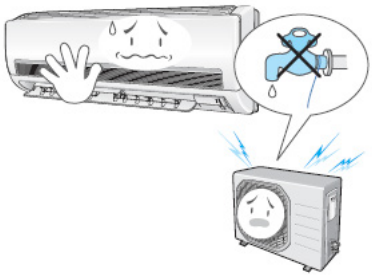
- Uses should not install the air conditioner by themselves. Ask the dealer or authorized company to install the air conditioner except window-type air conditioner in U.S.A and Canada.
- If you don't install the air conditioner properly, it may cause a fire, a water leakage or an electric shock.
- You must install the air conditioner according to the national wiring regulations and safety regulations.
- Install the indoor unit higher than 2.5m from the floor to avoid the injury caused by the operation of the fan. (except the window-type air conditioner)
- The manufacturer is not responsible for any accidents or injury caused by an incorrect installation.
- When installing the built-in type air conditioner, keep all electric cables such as the power cable and the connection cord in pipes, ducts, or cable channels to protect them from the danger of impact or any other incidents.

1-2 Power supply and circuit breaker

- If the power cord of the air conditioner is damaged, it must be replaced by the manufacturer or a qualified person in order to avoid a hazard.
- The air conditioner must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker. An all pole disconnection form the power supply must be incorporated in the fixed wiring with a contact opening of›3mm.
- Do not extend an electric cord to the air conditioner.
- The air conditioner must be plugged in after you complete the installation.

1-3 During operation

- Do not repair the air conditioner at your discretion. It is recommended to contact a service center directly.
- Never spill any kind of liquid on the air conditioner. If this happens, turn off the air conditioner and contact an authorized service center.
- Do not insert anything between the airflow blades to prevent damage of the inner fan and consequent injury. Keep children away from the air conditioner.
- Do not place any obstacles in front of the air conditioner.
- Do not spray any kind of liquid into the indoor unit. If this happens, turn off the air conditioner and contact a service center.
- Make sure that the air conditioner is well ventilated at all times. Do not place a cloth or other materials over it.
- Remove the batteries if you don't use the remote control for a long time. (If applicable)
- Use the remote control within 7 meters from the indoor unit. (If applicable)

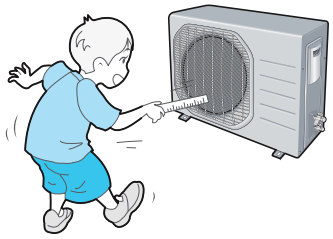


1-4 Disposing of the unit

- Before the throwing out the air conditioner, remove the batteries from the remote control.
- When you dispose of the air conditioner, consult your dealer. If pipes are removed incorrectly, refrigerant may blow out and cause air pollution. When it contacts with your skin, it can cause skin injury.
- The package of the air conditioner should be recycled or disposed of properly for environmental reasons.

1-5 Others

- Never store or load the air conditioner upside down or sideways to prevent the damage to the compressor.
- Young children or infirm persons should be always supervised when they use the air conditioner.
- Max current is measured according to IEC standard for safety.
- Current is measured according to ISO standard for energy efficiency.



2. Product Specications

2-1 The Feature of Product

- **2-step cooling**

  2-step cooling function will quickly cool the room to reach the desired temperature and then it will adjust the fan speed and ai ow direction automatically to help you stay comfortable and refreshed.

- **Fast cooling**

  If you want the strong and cool air, just select Fast function! It will get you the strongest air!

- **Comfort cooling**

  If you want the comfortable and refreshing air, Comfort function will spread the cool air indirectly to you, so that you can stay comfortable.

- **Single User**

  Use the Single User function when you're along at home. Aside from energy savings from the inverter technology, the Single User Mode will further minimize your energy consumption and reduce your electricity bill by adjusting the maximum operating capacity of the compressor.

- **Easy Filter**

  There is no grille to remove before separating the filter from the air conditioner! Therefore, filter can be cleaned easily and more frequently. Constant filter cleaning will prevent dust from entering the product or accumulating on the filter.

- **good'sleep function**

  good'sleep function will allow you to have deep, good night'sleep by adjusting the temperature, fan speed and air flow direction.

- **Smart Install**

  When the installation is done, your product will examine itself through trial operation to check if it was installed properly.

- **Easy Installation**

  It's so easy to install! You can easily hang the product on the wall and connect the pipes and wires by opening the cover on the bottom of the product. Now you won't have to tilt the product to connect the pipe and the wires!

2-2 Product specification

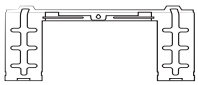
Model			AR09RXFPEWQ/EU	AR12RXFPEWQ/EU	AR18RXFPEWQ/EU	AR24RXFPEWQ/EU
Rating	Mode	Unit	Wall-mounted	Wall-mounted	Wall-mounted	Wall-mounted
Capacity	T1 Cool	W	2750	3500	5000	6500
	T3 Cool	W	-	-	-	-
	Heat	W	3200	3500	6000	7400
Power Input	T1 Cool	W	820	1220	1390	1950
	T3 Cool	W	-	-	-	-
	Heat	W	850	940	1745	2350
Current	T1 Cool	A	4.0	5.6	6.4	8.8
	T3 Cool	A	-	-	-	-
	Heat	-	4.0	4.3	7.9	10.5
Efficiency	EER	W/W	3.35	2.87	3.6	3.33
	-		-	-	-	-
	COP	W/W	3.76	3.72	3.44	3.15
Dehumidifying		l/hr.	0.8	0.8	0.8	0.8
Platform	IDU	-	MALDIVES 1	MALDIVES 1	MALDIVES 3	MALDIVES 3
	ODU	-	N-V2MD	N-V2MD	Q-480	Q-480
Evap	Main	-	Φ7, 2R*10S*605mm, H1.3, N.G.S, 1by2	Φ7, 2R*8S*635mm, H1.3, N.G.S, 1by2	Φ7, 2R*10S*850mm, H1.3, N.G.S, 5by5	Φ7, 2R*10S*850mm, H1.2, N.G.S, 5by5
	Sub	-	Φ7, 2R*4S*575mm, H1.3, N.G.S : (4-1-5)	Φ7, 2R*6S*635mm, H1.3, N.G.S : (F03-2-1-1)	Φ7, 2R*5(6)S*830mm, H1.3, N.G.S : (4-3-3)	Φ7, 2R*5(6)S*830mm, H1.3, N.G.S : (4-3-4)
Cond	Main	-	Φ7W, 2R*20(21) S*639/611mm, Corrugate1.5, N.G.S, 4by4by2	Φ7W, 2R*20(21) S*639/611mm, Corrugate1.5, N.G.S, 4by4by2	Φ7W, 2R*28S*906.8mm, Corrugate1.5, N.G.S, 4by4by1	Φ7W, 2R*28S*906.8mm, Corrugate1.5, N.G.S, 4by4by1
	Sub	-	-	-	-	-
Comp	Model	-	UB9AK1090FJR	UB9AK1090FJR	UB9TK3150FE4	UB9TK2150FE4
	OLP	-	-	-	-	-
Motor In	Code	-	DB31-00636C	DB31-00636C	DB31-00609A	DB31-00609A
	Name	-	-	-	-	-
Motor Out	Code	-	DB31-00642C	DB31-00642C	DB31-00642D	DB31-00658D
	Name	-	-	-	-	-
Expansion	Φ * L	-	EEV Φ1.4	EEV Φ1.4	EEV Φ1.4	EEV Φ1.4
Refrigerant	type	-	R-32	R-32	R-32	R-32
	charge	g	700 g	700 g	1150 g	750 g
SVC Valve	Liquid / Gas	-	6.35/9.52	6.35/9.52	6.35/12.7	6.35/15.88
Tube	Dis. / Suc.	-	9.52/9.52	9.52/9.52	7.94/12.7	9.52/12.7
Drain hose	D * L	mm	20*550	20*550	20*550	20*550
4-WAY V/V		-	1 HP	1 HP	2HP	2 HP
Power Supply		V/Hz/Φ	220-240/50/1	220-240/50/1	220-240/50/1	220-240/50/1
Climate Class		-	T1	T1	T1	T1
Noise	IDU UT,T	dB	56	59	58	63
	ODU	dB	63	65	65	69
Net Size (W*D*H)	IDU	mm	820*280*215	820*280*215	1065*298*230	1065*298*230
	ODU		660*475*242	660*475*242	880*638*310	880*638*310
Weight	IDU	kg	8	8	11.6	11.6
	ODU		22.8	22.8	40.2	44.2
Operation range	Cooling	IDU	16 ˚C~32 ˚C	16 ˚C~32 ˚C	16 ˚C~32 ˚C	16 ˚C~32 ˚C
		ODU	-10 °C to 46 °C	-10 °C to 46 °C	-10 °C to 46 °C	-10 °C to 46 °C
	Heating	IDU	27 °C or less	27 °C or less	27 °C or less	27 °C or less
		ODU	-15 °C to 24 °C	-15 °C to 24 °C	-15 °C to 24 °C	-15 °C to 24 °C

2-3 The comparative specification of product

Model		DEVELOPMENT MODEL	
		AR09RXPXBWK/EU	AR12RXPXBWK/EU
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	8	8
	Outdoor Unit	22.8	22.8
Net Dimension	Indoor Unit	820*280*215	820*280*215
	Outdoor Unit	660*475*242	660*475*242
Noise	Indoor Unit	56	59
	Outdoor Unit	63	65
Air Purifying System		EASY CLEAN FILTER	EASY CLEAN FILTER
Indoor Display		3 LED	3 LED

Model		DEVELOPMENT MODEL	
		AR18RXFPEWQ/EU	AR24RXFPEWQ/EU
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	11.6	11.6
	Outdoor Unit	40.2	44.2
Net Dimension	Indoor Unit	1065*298*230	1065*298*230
	Outdoor Unit	880*638*310	880*638*310
Noise	Indoor Unit	58	63
	Outdoor Unit	65	69
Air Purifying System		EASY CLEAN FILTER	EASY CLEAN FILTER
Indoor Display		3 LED	3 LED

2-4 Accessoray and option specifications

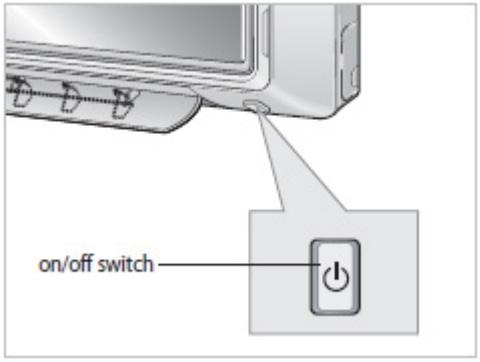
Item	Descriptions	Code No.	Q'ty	Remark
	ASSY-PLATE HANGER	DB90-04558A (M1)	1	Indoor unit case
		DB90-06524A (M3)	1	
	ASSY WIRELESS REMOCON	DB93-15882Q	1	
	BATTERY	4301-000121	2	
	MANUAL USERS	DB68-08176A	1	
	MANUAL INSTALL	DB68-08177A	1	
	Rubber Leg	DB67-01533A	4	Outdoor unit case
	Drain plug	DB67-20011A	1	

3. Alignment and Adjustments

3-1 Test Mode

◆ How to Approach Test Mode

You can approach the test mode by pressing the on/off switch of indoor unit for 5 seconds.



◆ Test mode operation option

After installing the air conditioner, check whether each subordinate is normally operated or not by operating the test mode.

- When an Error occurs, display the Error Mode.
- Operation Mode : Cool mode. operate the cool mode by operating the compressor by force without the compressor ON/OFF according to the set temperature/indoor temperature. (Do not follow the antifreeze control)
- Up-down louver : Up-down swing mode
- Indoor Fan : Turbo

Note

- Because the heat mode operate the cool mode by force not related to the set temperature / indoor temperature, check whether each subordinate is operated normally or not after completing installation and must turn off the power of the air conditioner.

3-2 Display Error and Check Method

3-2-1 Indoor Display Error and Check Mathod

ERROR MODE				DESCRIPTION
7-SEG	LED1	LED2	LED3	
	Operation	Timer	Option	
E101 , E102	○	◑	◑	Communication error (Indoor <-> Outdoor)
E121	○	◑	○	ROOM TH sensor error
E122, E123	◑	◑	○	INDOOR MID, INDOOR IN PIPE-TH sensor error
E154	○	○	◑	Fan error (Indoor)
E162	◑	◑	◑	EEPROM error
E163	◑	◑	◑	Option error
FROM E200	◑	○	◑	Outdoor error display
E203	◑	●	●	Time out comm. (Inv Micom <-> Main Micom)
E422 / E554	●	○	◑	EEV or valve close error-Self diagnosis/ Gas Leak error
E458	●	●	◑	Outdoor and Fan error
E461	◑	●	◑	Comp.starting error
E463	●	○	○	No display about the outdoor condition
E464	○	●	◑	IPM over current (O.C) error
E465	◑	●	○	Com V_limit/I_limit error
E500				Heatsink overheat or IPM overheat

● :LAMP ON ○ : LAMP OFF ◑ : LAMP BLINK

Note
If the set doesn't work (No power), check the thermal fuse of terminal block OPEN or SHORT with Multimeter.
* Measure the thermal fuse housing PIN#1~2 : OPEN(disconnection)-> defective product

3-2 Display Error and Check Method

3-2-2 Outdoor Display Error and Check Mathod

ERROR MODE				DESCRIPTION
7-SEG	YEL	GRN	RED	
-	○	○	○	Power off /VDD NG
-	●	●	●	Power on reset (1sec)
-	○	◑	●	Normal operation
-	○	○	●	Abnormal communication (Indoor <-> Outdoor)
-	○	●	●	
E464	○	○	◑	IPM over current (O.C) error
E461	○	◑	○	Comp. strating error
E470	○	●	○	EEPROM data error (no data)
E466	○	●	◑	DC-Link voltage under / Over error
E484				PFC over load error
E483				Over voltage protection error
E221	◑	○	◑	OUT-TH (Outdoor temperature) sensor error
E416	◑	○	●	DIS-TH (Discharge temperature) Over error
E251	◑	◑	○	DIS-TH (Discharge temperature) sensor error
E468	◑	◑	●	Current sensor error
E474				Heatsink sensor error
E485				Input current sensor error
E465	◑	●	○	Comp. V_limit/ I_limit error
E500				Heatsinkover temperature error
E231	◑	●	◑	CON-TH (Cond temperature) sensor error
E203	◑	●	●	Time out Comp. (Inv Micom <->Main Micom)
E458	●	○	○	Fan error
E471	●	○	◑	EEPROM data error (Main Micom <-> INV Micom)
E467	●	○	●	Comp. wire missing error
E440	●	◑	○	Prohibit operation condition error (Heating)
E441				Prohibit operation condition error (Cooling)
E469	●	◑	◑	DC-Link voltage sensor
E488				AC Input voltage sensor
E462	●	◑	●	AC Input I_limit trip error
E554	●	●	○	Gas leak error
E422				EEV or valve close error-self diagnosis
E462	◑	○	●	Outdoor OLP over temperature error
-	○	◑	◑	Test operation at Cooling mode
-	◑	◑	◑	Test operation at Heating mode

● :LAMP ON ○ : LAMP OFF ◑ : LAMP BLINK

3-3 Setting Option Setup Method

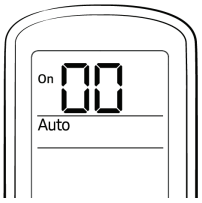
Ex) Option No. :

11-F4-50-bA-6A-01-E0-07-F7-C4

Step 1

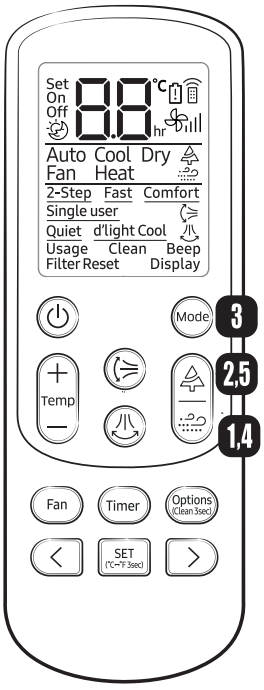
Enter the Option Setup mode.

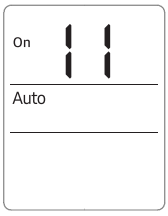
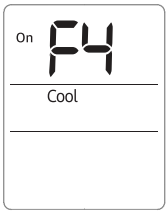
1. Tack out the batteries of remote control.
2. Press the temperature (Temp) button simultaneously and insert the battery again.
3. Make sure the remote control display shown as 



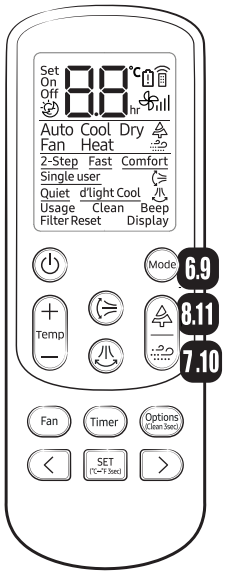
Step 2

Enter the Options Setup mode and select your options asscording to the following procedure.

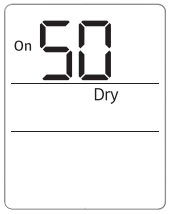


	Method	Display
1	Setting option SEG1 Press the button the display panel to 1. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
2	Setting option SEG2 Press the button the display panel to 1. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
3	Press the (Mode) button to set Cool mode.	
4	Setting option SEG3 Press the button the display panel to F. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
5	Setting option SEG4 Press the button the display panel to 4. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	

Method	Display



6 Press the Mode button to set Dry mode.



7 Setting option SEG5

Press the ▲ button the display panel to 5.

Press the ▲ button repeatedly to select . 0 ➡ 1 ➡ 2 ➡ 3 ➡ ⋯

9 ➡ A ➡ b ➡ C ➡ d ➡ E ➡ F

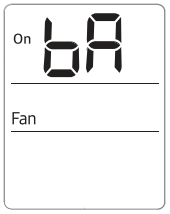
8 Setting option SEG6

Press the ▲ button the display panel to 0.

Press the ▲ button repeatedly to select . 0 ➡ 1 ➡ 2 ➡ 3 ➡ ⋯

9 ➡ A ➡ b ➡ C ➡ d ➡ E ➡ F

9 Press the Mode button to set Fan mode.



10 Setting option SEG7

Press the ▲ button the display panel to b.

Press the ▲ button repeatedly to select . 0 ➡ 1 ➡ 2 ➡ 3 ➡ ⋯

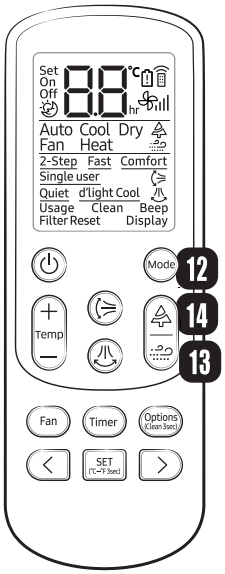
9 ➡ A ➡ b ➡ C ➡ d ➡ E ➡ F

11 Setting option SEG8

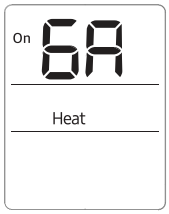
Press the ▲ button the display panel to A.

Press the ▲ button repeatedly to select . 0 ➡ 1 ➡ 2 ➡ 3 ➡ ⋯

9 ➡ A ➡ b ➡ C ➡ d ➡ E ➡ F



12 Press the Mode button to set Heat mode.



13 Setting option SEG9

Press the ▲ button the display panel to 6.

Press the ▲ button repeatedly to select . 0 ➡ 1 ➡ 2 ➡ 3 ➡ ⋯

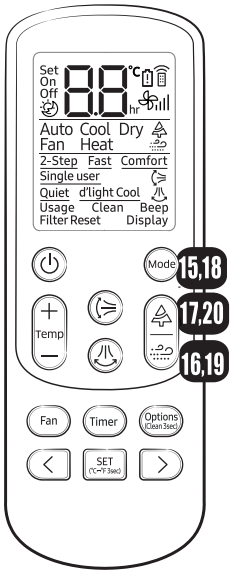
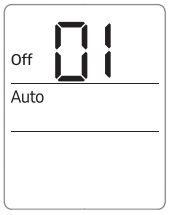
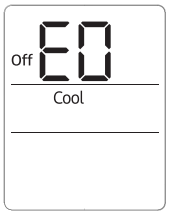
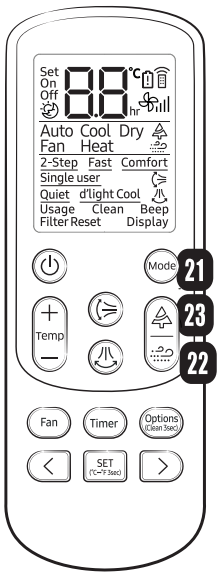
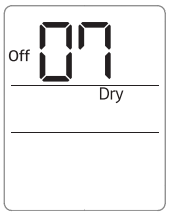
9 ➡ A ➡ b ➡ C ➡ d ➡ E ➡ F

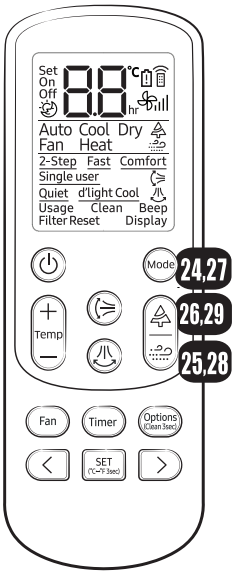
14 Setting option SEG10

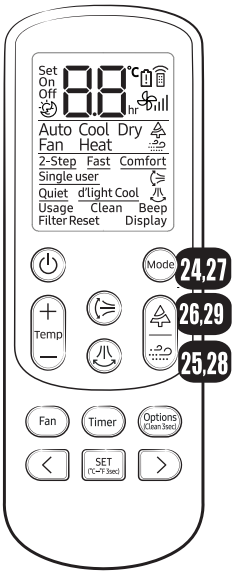
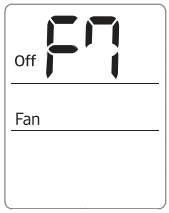
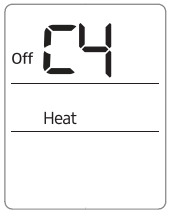
Press the ▲ button the display panel to A.

Press the ▲ button repeatedly to select . 0 ➡ 1 ➡ 2 ➡ 3 ➡ ⋯

9 ➡ A ➡ b ➡ C ➡ d ➡ E ➡ F

Method	Display
	
15 Press the Mode button to set Auto mode.	
16 Setting option SEG11 Press the button the display panel to 0. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
17 Setting option SEG12 Press the button the display panel to 1. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
18 Press the Mode button to set Cool mode.	
19 Setting option SEG13 Press the button the display panel to E. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
20 Setting option SEG14 Press the button the display panel to 0. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
	
21 Press the Mode button to set Dry mode.	
22 Setting option SEG15 Press the button the display panel to 0. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	
23 Setting option SEG16 Press the button the display panel to 1. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	

설정방 법		표시부
	24 Press the Mode button to set Fan mode. 25 Setting option SEG17 Press the button the display panel to F. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F 26 Setting option SEG18 Press the button the display panel to 1. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F 27 Press the Mode button to set Heat mode. 28 Setting option SEG19 Press the button the display panel to C. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F 29 Setting option SEG20 Press the button the display panel to 4. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	Off F1 Fan Off C4 Heat

설정방 법	표시부
	24 Press the Mode button to set Fan mode. 25 Setting option SEG17 Press the button the display panel to F. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F 26 Setting option SEG18 Press the button the display panel to n. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F 27 Press the Mode button to set Heat mode. 28 Setting option SEG19 Press the button the display panel to C. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F 29 Setting option SEG20 Press the button the display panel to H. Press the button repeatedly to select . 0 → 1 → 2 → 3 → ··· 9 → A → b → C → d → E → F	 

Option code :

Model	Option code
AR09RXFPEWQ/EU	014005-176228-271B20-372584
AR12RXFPEWQ/EU	014005-15628A-272323-371784
AR18RXFPEWQ/EU	014005-15625C-27323C-372784
AR24RXFPEWQ/EU	014005-16629D-27414A-371584

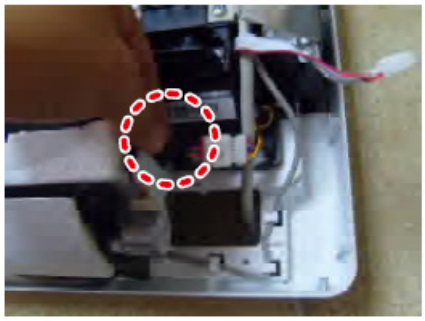
4. Disassembly and Reassembly

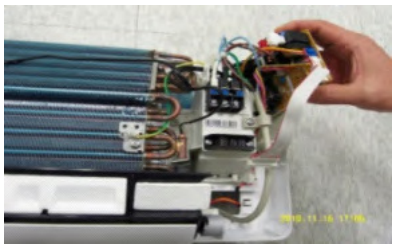
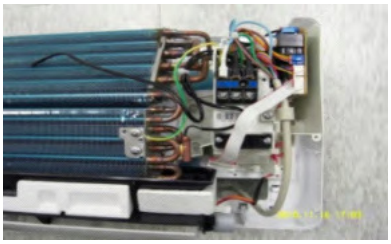
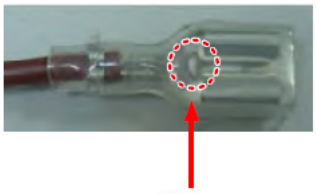
◆ Necessary Tools

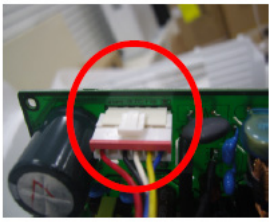
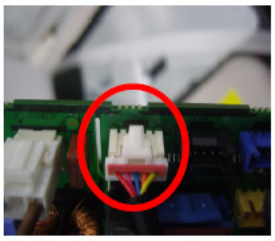
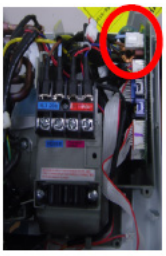
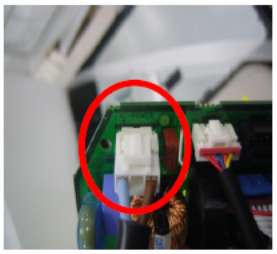
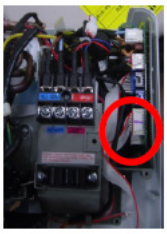
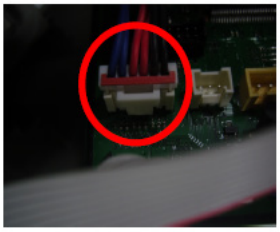
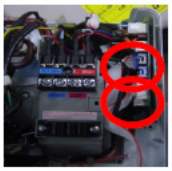
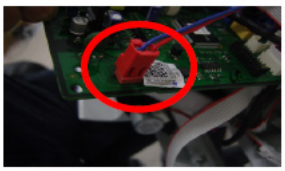
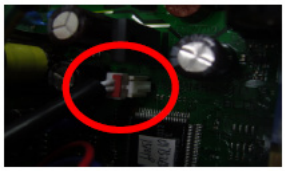
Item	Remark
+SCREW DRIVER Q'ty 1 ea. To assembly and disassembly the screw	
MONKEY SPANNER Q'ty 1 ea. To assembly and disassembly the Fan motor and Compressor	
- SCREW DRIVER Q'ty 1 ea. To assembly and disassembly the screw	

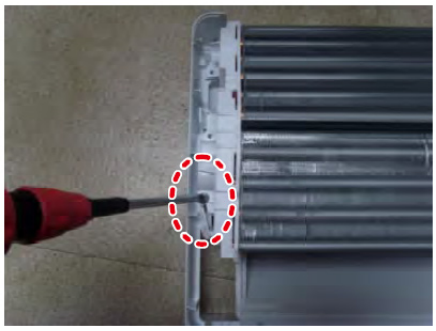
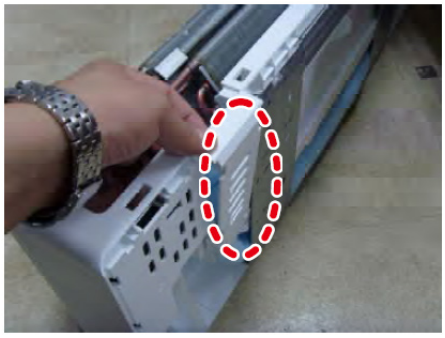
4-1. Indoor Unit

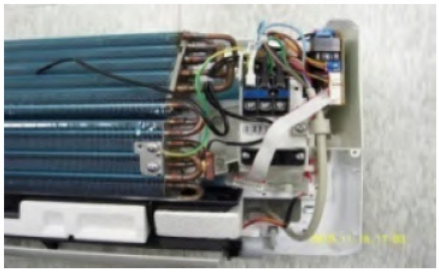
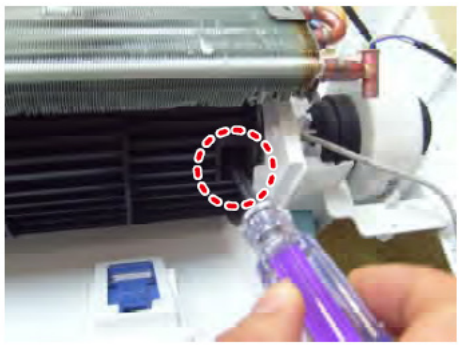
NO.	Parts	Procedure	Remark
1	PANEL-FRONT	1) Stop the driving of air conditioner and shut off main power supply. 2) Open the FRONT-GRILLE and pull out from the PANEL-FRONT.	
		3) Detach COVER-TERMINAL from the PANELFRONT.(use + Screw Driver)	
		4) Loosen connector wire(white) and detach the temperature sensor wire.	
		5) To detach the FRONT-PANEL the main frame, unfasten 2 screw at the bottom.(use + Screw Driver)	
		6) Take off the FRONT-PANEL,lifting up the bottom.	

NO.	Parts	Procedure	Remark
2	TRAY DRAIN	1) Loosen stepping motor wire and detach the hook of main frame.	
		2) To detach TRAY-DRAIN from the main frame, pull the bottom of the TRAY-DRAIN towards you.	
3	CONTROL IN	1) Unfasten the earth screw.(use + Screw Driver)	
		2) Detach COVER-CONTROL from the CASECONTROL.	
		3) Detach the temperature sen-sor.	
		4) Loosen MOTOR Wire.	

NO.	Parts	Procedure	Remark
3	CONTROL IN	5) Take o the CASE-CONTROL from the main frame.	
4	PBA	1) Unfasten the screw.	
		2) Cut the cable tie.	
		3) Loosen the terminal block wires. ❇ Caution: The terminal is locking type. So, when you separate terminals, pull pressing the button.  Button	

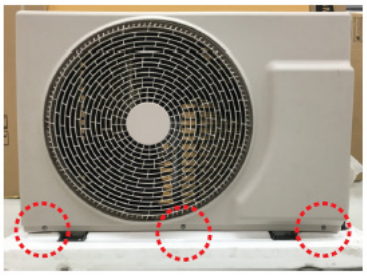
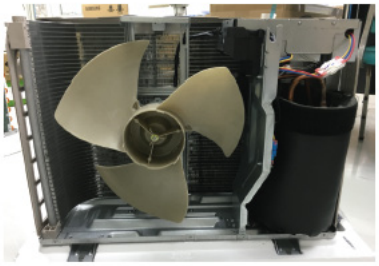
NO.	Parts	Procedure	Remark
4	PBA	4) Loosen the Motor connector ❇ Caution: When you separate the connector, pull pressing the locking button.	 
		5) Loosen Stepping MOTOR connector. ❇ Caution: When you separate the connector, pull pressing the locking button.	 
		6) Loosen Main Power connector. ❇ Caution: When you separate the connector, pull pressing the locking button.	 
		7) Loosen the Thermistor wire connector. ❇ Caution: When you separate the connector, pull pressing the locking button.	 
		8) Loosen the Communication Wire connector and Terminal-Block Fuse connector ❇ Caution: When you separate the connector, pull pressing the locking button.	  

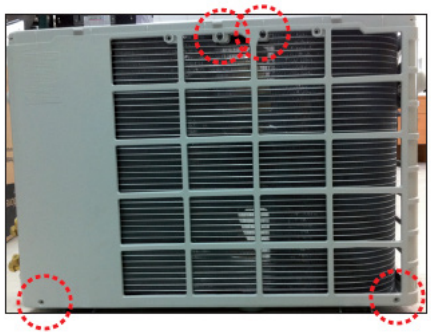
NO.	Parts	Procedure	Remark
5	EVAPORATOR	1) Unfasten the screw at the right side. (use + Screw Driver)	
		2) Unfasten the screw at the left side. (use + Screw Driver)	
		3) Detach the HOLDER PIPE.	
		4) Take o the EVAPORATOR from the main frame.	

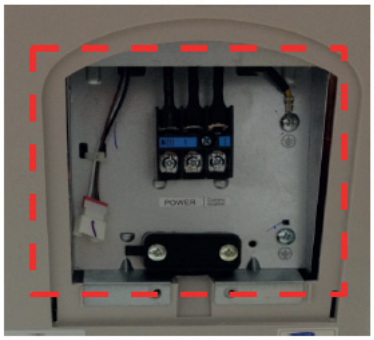
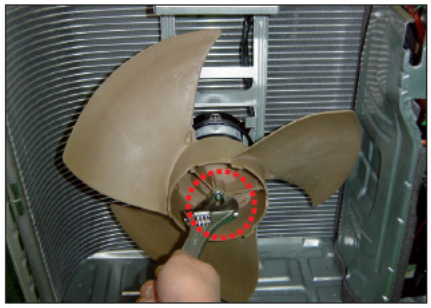
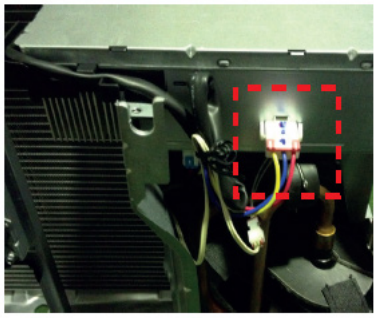
NO.	Parts	Procedure	Remark
6	FAN MOTOR & CROSS FAN	1) Unfasten the screw in the HOLDER-EVAP on the left side of evaporator.(use + Screw Driver)	
		2) unfasten the 3 points screws in the CASECONTROL, and then detach the CASE. (use + Screw Driver)	
		3) unfasten the screw a little.(use + Screw Driver)	
		4) Lift up the evaporator slightly and pull the CROSS-FAN to the left side.	

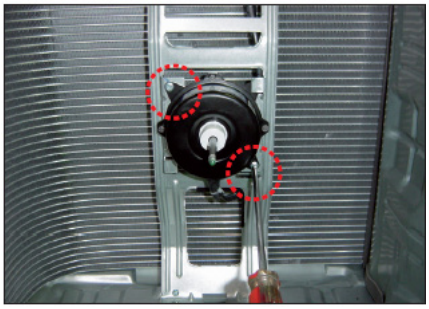
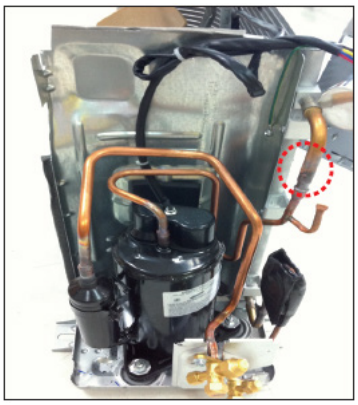
4-2. Outdoor Unit (N-V2MD)

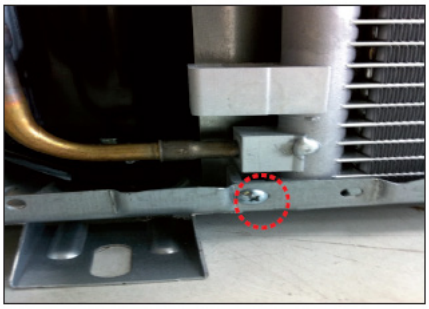
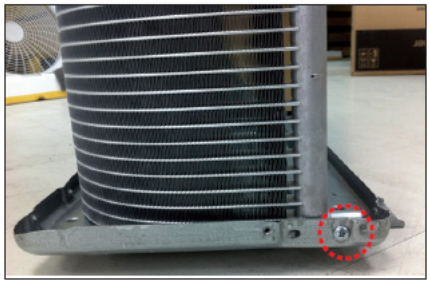
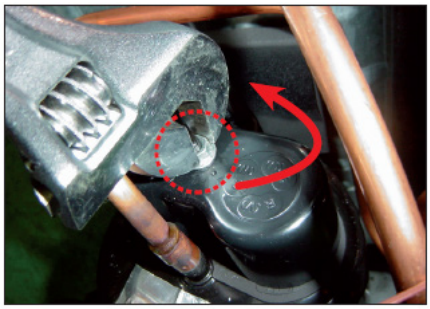
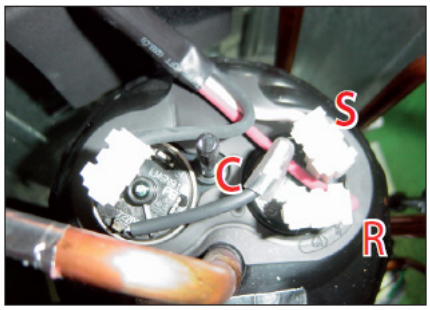
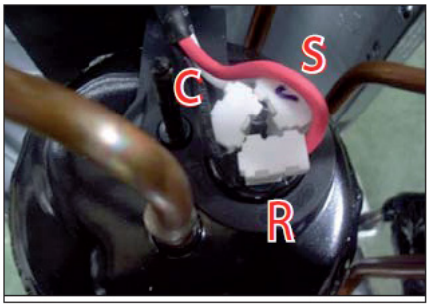
AR09RXFPEWQXEU
AR12RXFPEWQXEU

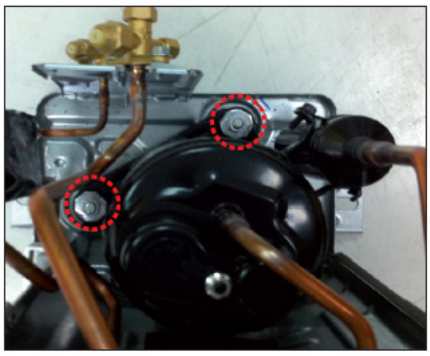
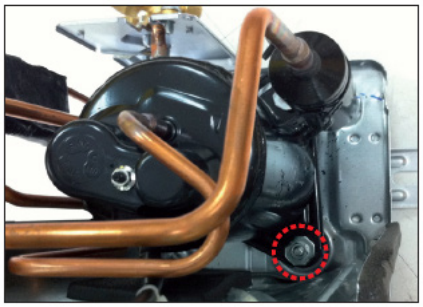
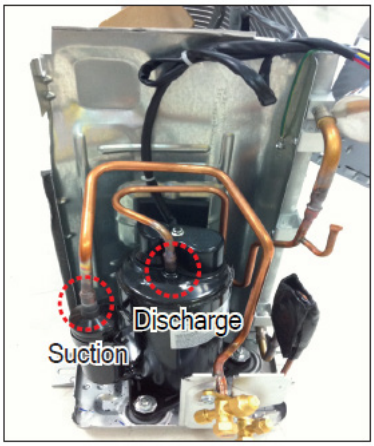
NO.	Parts	Procedure	Remark
1	Common Work	1) First, stop the operation of the air conditioner, please cut off the supply of power. 2) Please separate outdoor after loosen the bottom screw 3EA of the front three places. (+ screw driver Use)	
		3) Please separate the positions of the sides screw 1EA (+ screw driver Use)	
		4) Please remove the portions of the side screw 1. (+ screw driver Use)	
		5) Please separate lifting up and grab the ends of the lower end of the CABINET FRONT.	  <▲Separated CABINET FRONT >

NO.	Parts	Procedure	Remark
		6) Please remove the screw 4ea located on the rear panel. (use + screwdriver)	
		7) Please separate the screw 2ea located on the side panel. (+ screw driver Use)	
		8) Please separate the screw 4ea located on the side panel. (+ screw driver Use)	
		9) Please remove the COVER CONTROL OUT downward.	 

NO.	Parts	Procedure	Remark
		10) Please allign the wire such as picture if you re-assemble after separate connector w ir e . ⚠ If the connector is excessively folded, there is a risk of fire.	
		11) Please remove the CABINET SIDE upward direction.	
2	FAN & MOTOR	1) Please Loosen the NUT 1ea clockwise. (Using MONKEY SPANNER)	
		2) Please remove the HOUSING's MOTOR WIRE.	

NO.	Parts	Procedure	Remark
		3) Remove the fixing points of the motor SCREW 2ea, please disconnect the MOTOR turning counterclockwise.	
3	Capillary	1) Please remove the weld point in one place. (COND-OUT) ⚠ If you remove the compressor and heat exchanger, eliminate the refrigerant inside the compressor and heat exchanger completely with welding fire to remove the PIPE. 2) Please separate NUT SERVICE-VALVE 2EA. (MONKEY SPANNER or + SCREW DRIVER Use)	 
4	Condenser (heat exchanger)	1) Please remove the welds in one place.(COND-IN)	

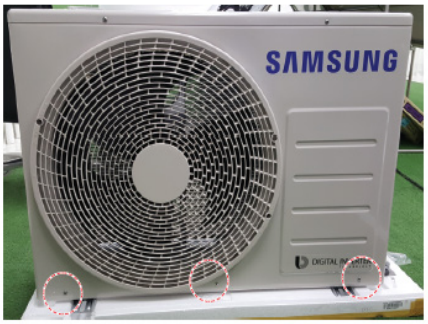
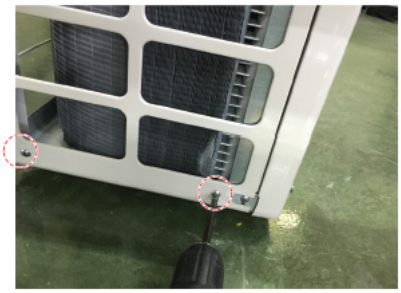
NO.	Parts	Procedure	Remark
		2) Please separate the two sides fixing screws loose. (+ SCREW DRIVER Use)	 
5	Compressor	1) Please disassemble one NUT counterclockwise (using MONKEY SPANNER)	
		[OLP external compressor] 2) Disassemble COVER-TERMINAL after remove the OLP. ⚠ BE CAUTION Engraved position : C (black), S (white), R (red)	
		[OLP internal compressor] 2) Please disassemble COVER-TERMINAL.	

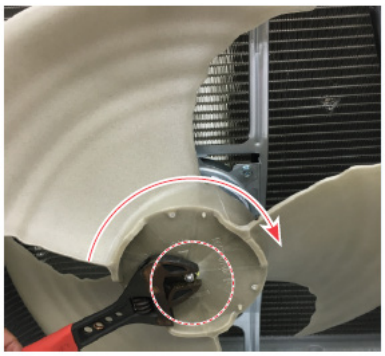
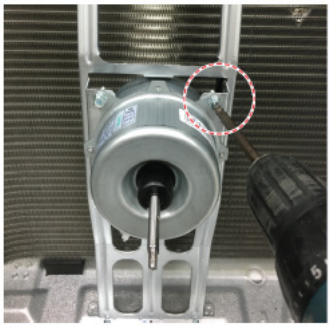
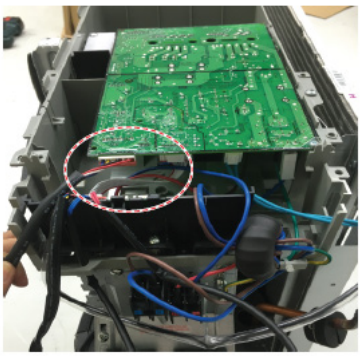
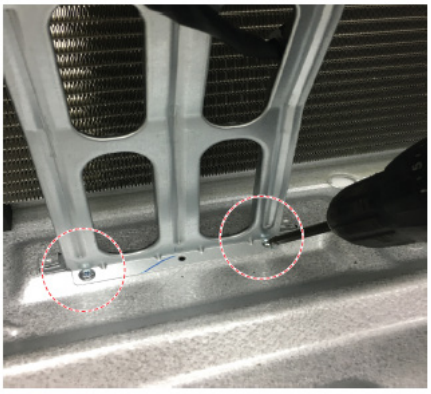
NO.	Parts	Procedure	Remark
		※ how to distinguish from OLP internal, external compressor : Check the compressor label	
		3) Please remove the compressor after loosen the compressor fixed NUT 3ea. (Using MONKEY SPANNER)	 
		4) Please detach the two welds. (SUCTION, DISCHARGE)	

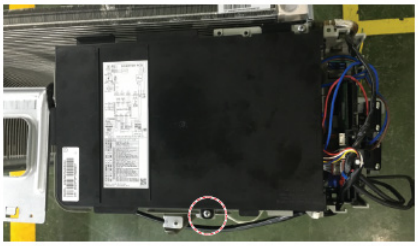
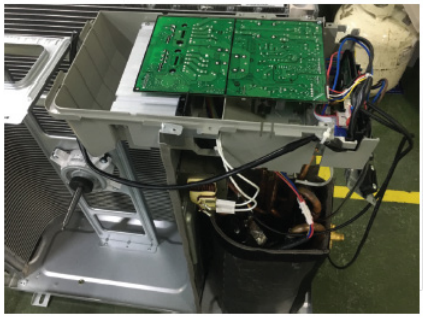
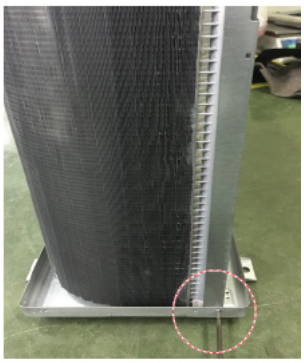
4-3. Outdoor Unit (Q-480)

AR18RXFPEWQXEU
AR24RXFPEWQXEU

NO.	Parts	Procedure	Remark
1	COMMON WORK	1) Loosen fixing screws from the cabi side Rh and detach it.	
		2) L oosen each sc rews and detach the Cabi Top Cover.	
		3) Loosen fixing screws from the cabi side.	
		4) Loosen fixing screws from the cabi side Rh and detach it.	

NO.	Parts	Procedure	Remark
1	COMMON WORK	5) Loosen fixing screws from the cabi front and detach it.	
			
			
		6) L oosen fixing screws from the Cabi left and detach it and Remove the 4 Cond Bar from the holderof outdoor unit cabinet.	
			

NO.	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange like the picture on the right side. (Turn clockwise because the screw is left-handed.) (Use Monkey Spanner.)	
		2) Detach the Fan Propeller. 3) Loosen 4 fixing screws to detach the Motor. (Use Monkey Spanner.)	
		4) Disconnect the wire between Assy Control Out and Motor.	
		5) Loosen fixing bolts and detach the Bracket Motor	

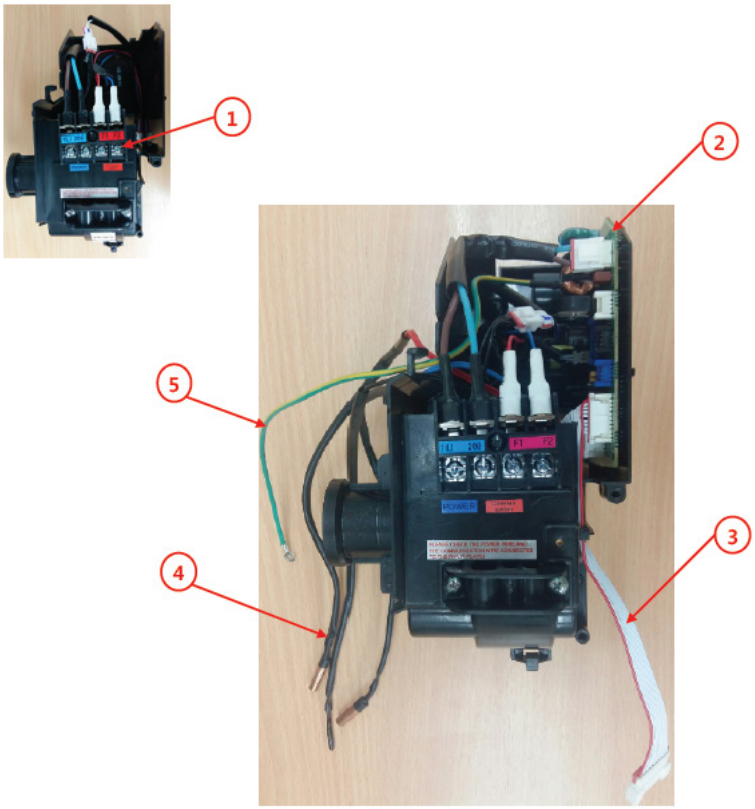
NO.	Parts	Procedure	Remark
3	Assy Control Out	1) To remove the Cover control box : Pull the motor wire is allow sufficient space as shown on the right side and then remove the screw. 2) Detach several connectors from the Assy Control Out. 3) Detach several connectors from the PCB of Assy Control Out.	  
4	Heat Exchanger	1) Release the refrigerant at first. 2) Loosen ng screw on both sides. 3) Disassemble the pipes in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger.	 

NO.	Parts	Procedure	Remark
5	Compressor	1) Loosen the ng nut and detach the Compressor Lead Wire. (Use Monkey Spanner.)	
		2) Loosen the bolts at the bottom of Compressor like the picture on the right side. (Use Monkey Spanner.)	

5. ASSY CONTROL

5-1 ASSY KIT CODE DB92-04454D

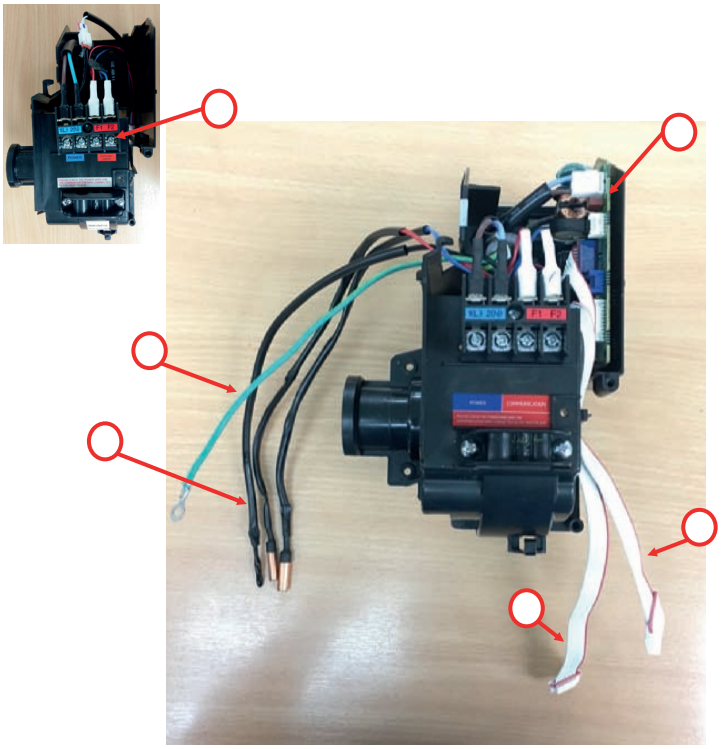
AR09RXFPEWQNEU
AR12RXFPEWQNEU



No	Name	Code	Q'ty	Unit
1	ASSY CASE ELECTRIC	DB90-09432C	1	EA
2	PBA NEW STD#5	DB92-03467G	1	EA
3	ASSY CONNECTOR WIRE DISPLAY	DB93-11217C	1	EA
4	ASSY THERMISTER	DB95-05163A	1	EA
5	ASSY CONNECTOR EARTH	DB93-06676A	1	EA

5-2 ASSY KIT CODE DB92-04454H

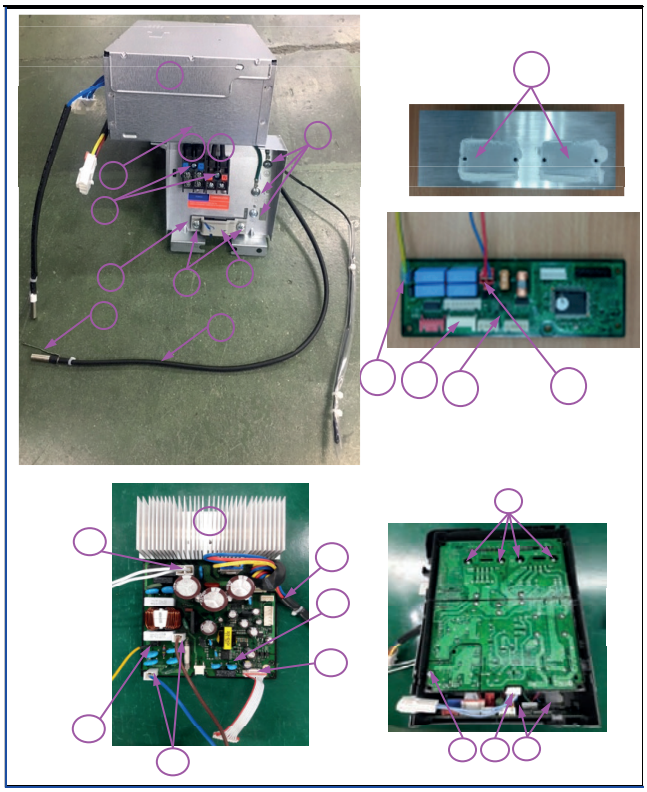
AR18RXFPEWQNEU
AR24RXFPEWQNEU



No	Name	Code	Q'ty	Unit
1	ASSY CASE ELECTRIC	DB90-09431A	1	EA
2	PBA NEW STD#5	DB92-03467G	1	EA
3	ASSY CONNECTOR WIRE DISPLAY	DB93-11217C	1	EA
4	ASSY THERMISTER	DB95-05163A	1	EA
5	ASSY CONNECTOR WIRE	DB93-06676A	1	EA
6	ASSY CONNECTOR WIRE	DB93-10943H	1	EA

5-3 ASSY KIT CODE DB92-04376B

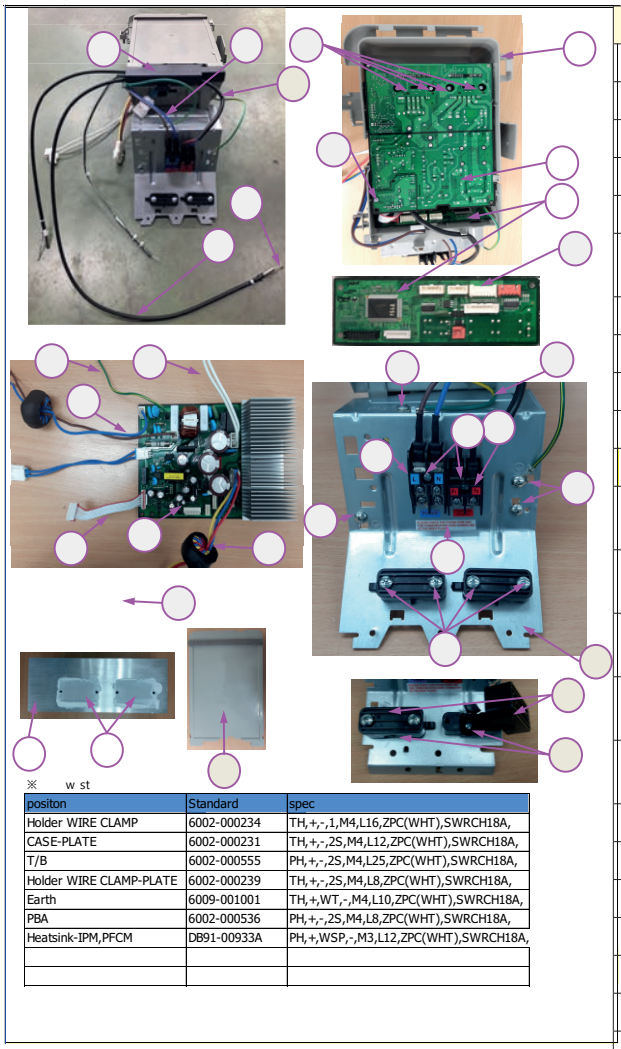
AR09RXFPEWQXEU
AR12RXFPEWQXEU



No	Name	Code	Q'ty	Unit
1	SCREW-TAPPING	6002-000536	1	EA
2	SCREW-TAPPING	6002-000231	2	EA
3	SCREW-TAPPING	6002-000239	2	EA
4	SCREW-TAPPING	6002-000555	2	EA
5	SCREW-SPECIAL	6009-001001	3	EA
6	HOLDER-WIRE CLAMP	DB61-02200A	1	EA
7	RUBBER	DB67-01534A	1	EA
8	CASE CONTROL-UPPER S	DB61-06600A	1	EA
9	COVER-CONTROL-UPPER INSIDE	DB63-03378A	1	EA
10	PLATE-CONTROL OUT	DB61-06715B	1	EA
11	PLATE-CONTROL LOW	DB61-06713A	1	EA
12	CASE CONTROL-OUT	DB61-06714A	1	EA
13	HEAT SINK	DB62-12196B	1	EA
14	TERMINAL BLOCK	DB65-00274A	1	EA
15	TERMINAL BLOCK	DB65-00298B	1	EA
16	ASSY-SCREW MACHINE	DB91-00933A	4	EA
17	ASSY CONNECTOR WIRE-POWER	DB93-09495S	1	EA
18	ASSY CONNECTOR WIRE-COMP	DB93-10842D	1	EA
19	ASSY CONNECTOR WIRE-REACTOR	DB93-15320B	1	EA
20	ASSY PCB MAIN-OUT	DB92-04029D	1	EA
21	ASSY PCB INVERTER	DB92-04025C	1	EA
22	ASSY CONNECTOR WIRE 4-WAY	DB93-10846A	1	EA
23	ASSY CONNECTOR WIRE-EARTH	DB93-12121B	1	EA
24	ASSY CONNECTOR WIRE-EARTH	DB93-12121C	1	EA
25	ASSY CONNECTOR WIRE	DB93-07452B	1	EA
26	ASSY-THERMAL GREASE	0205-000178	0.002	KG
27	ASSY THERMISTOR OUT	DB95-05164A	1	EA
28	SPRING ETC-SENSOR	DB81-00635A	2	EA
29	ASSY-LABEL	DB98-34030A	1	EA
30	ASSY CONNECTOR WIRE-COMM	DB93-16402A	1	EA

5-4 ASSY KIT CODE DB92-04378B

AR18RXFPEWQXEU



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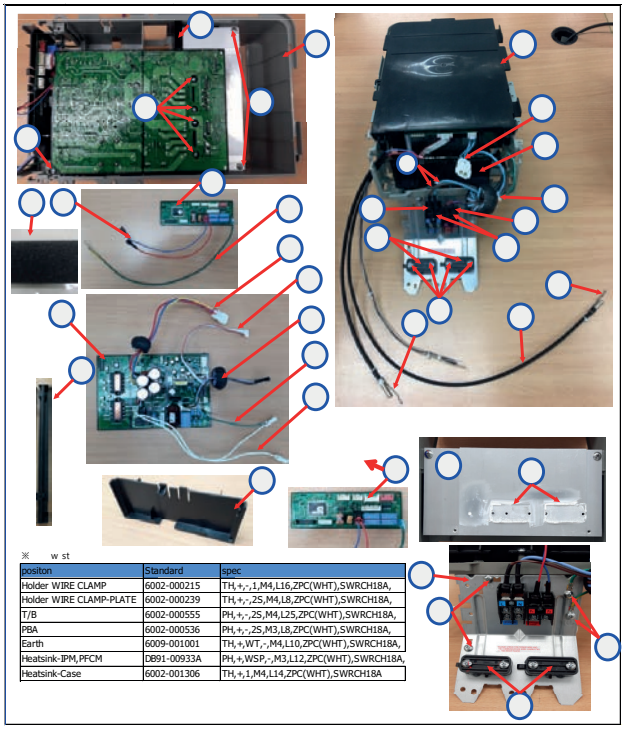
positon	Standard	spec
Holder WIRE CLAMP	6002-000234	TH,+,-,1,M4,L16,ZPC(WHT),SWRCH18A,
CASE-PLATE	6002-000231	TH,+,-,2S,M4,L12,ZPC(WHT),SWRCH18A,
T/B	6002-000555	PH,+,-,2S,M4,L25,ZPC(WHT),SWRCH18A,
Holder WIRE CLAMP-PLATE	6002-000239	TH,+,-,2S,M4,L8,ZPC(WHT),SWRCH18A,
Earth	6009-001001	TH,+,WT,-,M4,L10,ZPC(WHT),SWRCH18A,
PBA	6002-000536	PH,+,-,2S,M4,L8,ZPC(WHT),SWRCH18A,
Heatsink-IPM,PFCM	DB91-00933A	PH,+,WSP,-,M3,L12,ZPC(WHT),SWRCH18A,

No	Name	Code	Q'ty	Unit
1	GREASE-SILICON	0205-000178	0.002	KG
2	ASSY CONNECTOR WIRE	DB93-07452B	1	EA
3	SCREW-TAPPING	6002-000536	1	EA
4	HEAT SINK	DB62-12196B	1	EA
5	COVER PCB	DB63-03885A	1	EA
6	ASSY CONNECTOR WIRE-COMM	DB93-16402A	1	EA
7	PLATE CONTROL	DB61-04690A	1	EA
8	CASE CONTROL	DB61-06722A	1	EA
9	ASSY-SCREW MACHINE	DB91-00933A	4	EA
10	ASSY PCB MAIN	DB92-04029D	1	EA
11	ASSY PCB MAIN	DB92-04025C	1	EA
12	ASSY CONNECTOR WIRE-REACTOR	DB93-15320A	1	EA
13	ASSY CONNECTOR WIRE-COMP	DB93-09497E	1	EA
14	ASSY CONNECTOR WIRE-POWER	DB93-16371A	1	EA
15	ASSY CONNECTOR WIRE-EARTH	DB93-12121B	1	EA
16	ASSY CONNECTOR WIRE-EARTH	DB93-12121C	1	EA
17	TERMINAL BLOCK	DB65-00298B	1	EA
18	TERMINAL BLOCK	DB65-00274A	1	EA
19	HOLDER-WIRE CLAMP	DB61-00250A	2	EA
20	SENSOR TEMP	DB32-00257A	1	EA
21	SPRING ETC-SENSOR	DB81-00635A	2	EA
22	ASSY-LABEL	DB98-34030A	1	EA
23	SCREW SPACIAL	6009-001001	4	EA
24	SCREW	6002-000555	2	EA
25	SCREW	6002-000239	3	EA
26	SCREW	6002-000234	4	EA
27	ASSY COVER CONTROL	DB90-09878A	1	EA
28	ASSY CONNECTOR WIRE-COMM	DB93-16402A	1	PC

5-5 ASSY KIT CODE DB92-04379B

AR24RXFPEWQXEU



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positon	Standard	spec
Holder WIRE CLAMP	6002-000215	TH,+,-,1,M4,L16,ZPC(WHT),SWRCH18A,
Holder WIRE CLAMP-PLATE	6002-000239	TH,+,-,2S,M4,L8,ZPC(WHT),SWRCH18A,
T/B	6002-000555	PH,+,-,2S,M4,L25,ZPC(WHT),SWRCH18A,
PBA	6002-000536	PH,+,-,2S,M3,L8,ZPC(WHT),SWRCH18A,
Earth	6009-001001	TH,+,WT,-,M4,L10,ZPC(WHT),SWRCH18A,
Heatsink-IPM,PFCM	DB91-00933A	PH,+,WSP,-,M3,L12,ZPC(WHT),SWRCH18A,
Heatsink-Case	6002-001306	TH,+,1,M4,L14,ZPC(WHT),SWRCH18A

No	Name	Code	Q'ty	Unit
1	SCREW-TAPPING	6002-000239	4	PC
2	CASE CONTROL-UPPER	DB61-04677A	1	PC
3	CABLE TIE	DB65-10088D	1	PC
4	SCREW-TAPPINGM4,L16	6002-000234	4	PC
5	SCREW-TAPPING M4,L25	6002-000555	2	PC
6	SCREW-SPECIAL,M4,L10	6009-001001	4	PC
7	HOLDER-WIRE CLAMP	DB61-00250A	2	PC
8	PLATE-CONTROL OU	DB61-04698A	1	PC
9	TERMINAL BLOCK	DB65-00274A	1	PC
10	TERMINAL BLOCK	DB65-00298B	1	PC
11	ASSY CONNECTOR WIRE	DB93-09495N	1	PC
12	ASSY CONNECTOR WIRE-EARTH	DB93-12121B	1	PC
13	ASSY CONNECTOR WIRE-EARTH	DB93-12121C	1	PC
14	ASSY CONNECTOR WIRE	DB93-07452B	1	PC
15	ASSY PCB MAIN	DB92-04027B	1	PC
16	ASSY CONNECTOR WIRE-COMP	DB93-10988E	1	PC
17	ASSY CONNECTOR WIRE-REACTOR	DB93-15320A	1	PC
18	ASSY CONNECTOR WIRE-COMM	DB93-16402A	1	PC
19	ASSY MAIN OUT	DB92-04029D	1	PC
20	ASSY-LABEL CAUTION	DB98-34030A	1	PC
21	GREASE-SILICON	0205-000178	0.002	KG
22	HEAT SINK	DB62-12477A	1	PC
23	SUPPORT-HEAT SINK	DB61-05790A	1	PC
24	CASE CONTROL	DB61-05917A	1	PC
25	SCREW-TAPPING	6002-001306	2	PC
26	SCREW-TAPPING	6002-000536	1	PC
27	ASSY-SCREW MACHINE	DB91-00933A	6	PC
28	CASE CONTROL SUB	DB61-06724A	1	PC
29	ASSY CONNECTOR WIRE-4WAY CONNECT	DB93-10846A	1	PC
30	SUPPORT-PCB	DB61-06823A	1	PC
31	SEAL CUTT	DB62-11641A	0.035	M
32	ASSY-LABEL CAUTION	DB98-34030A	1	PC
33	SENSOR TEMP	DB32-00257A	1	EA
34	SPRING ETC-SENSOR	DB81-00635A	2	EA

6. Electrical Parts List

6-1 INDOOR MAIN PCB CODE DB92-03467G

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
0201-001528	ADHESIVE-SIL	ADHESIVE-SIL	LDC2577D,Y/GRN,175CPS	2	G
0202-001463	SOLDER-WIRE	SOLDER-WIRE	LFC2-W3.0,D3,99.79Sn/0.2Cu/0.01P,No Flux	4	G
0202-001608	SOLDER-WIRE FLUX	SOLDER-WIRE FLUX	LFC7-107,D0.8,99.3Sn/0.7Cu/0.01P,Flux 3.5%	0.1	G
0204-004665	FLUX	FLUX	KSP-70M-S,MIXTURE,NO,FLUX,13%	0.3	G
0204-005794	SOLVENT	SOLVENT	S-1000,(CH3)2CHOH,100%,0.79	0.5	G
0402-000324	BD71	DIODE-BRIDGE	D3SB60,600V,4A,SIP-4,ST	1	PC
1203-006089	PW101	IC-PWM CONTROLLER	TOP253PN,DIP,7P,6.35x9.57mm,PLASTIC,-0.3V/700V,15W,-40Cto+150C,1.37A,ST	1	PC
1203-007320	IC102	IC-POSI.FIXED REG.	KIA78D12PI,TO-220IS,3P,10.3X15.3mm,PLASTIC,11.7/12.3V,2W,-40to+85C,1A,ST	1	PC
1404-001413	NTC1	THERMISTOR-NTC	18ohm,3A,3200K,19MWC,15mm,TP,17x6mm,RADIAL(DISC)	1	PC
1405-000160	VA71	VARISTOR	680V,560VDC,4500A,17.5x8mm,TP,1120V,500pF,D14	1	PC
2007-000148	R530	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R905	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R906	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R907	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R908	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R909	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R910	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2201-000987	C107	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5x6mm,10mm	1	PC
2201-000987	C108	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5x6mm,10mm	1	PC
2201-000987	C703	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5x6mm,10mm	1	PC
2201-000987	C704	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5x6mm,10mm	1	PC
2301-002032	XC71	C-FILM,LEAD-PPF	100nF,10%,275Vac,TP,12.5x6x12mm	1	PC
2401-004393	CE101	C-AL	100uF,20%,500V,BK,25.4x30mm,10mm	1	PC
3002-001129	BZ61	BUZZER-PIEZO	85dB,2KHz,BK	1	PC
3711-000015	CNS22	HEADER-BOARD TO CABLE	BOX,2P,1R,2.5mm,STRAIGHT,SN,WHT,5.8X7.4X7.0mm	1	PC
3711-000203	CNP71	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN,WHT,11.82x8.6x9.4mm	1	PC
3711-000296	CNP72	HEADER-BOARD TO CABLE	1WALL,6P,1R,3.96MM,STRAIGHT,SN,WHT	1	PC
3711-000941	CNS81	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,STRAIGHT,SN,YEL	1	PC
3711-002001	CNS31	HEADER-BOARD TO CABLE	BOX,20P,2R,2.0mm,STRAIGHT,SN,BLK,5.0X22.0X6.6mm	1	PC
3711-003942	CNS11	HEADER-BOARD TO CABLE	BOX,2P,1R,2mm,STRAIGHT,SN,WHT,5.98x5.1x7.7mm	1	PC
3711-004182	CNS91	HEADER-BOARD TO CABLE	BOX,10P,1R,2mm,STRAIGHT,SN,WHT,5.1x21.98x11.2mm	1	PC
3711-004236	CNS43	HEADER-BOARD TO CABLE	BOX,6P,1R,2mm,STRAIGHT,SN,WHT	1	PC
3711-004484	CNS61	HEADER-BOARD TO CABLE	BOX,5P,1R,2mm,STRAIGHT,SN,WHT	1	PC
3711-005097	CNS62	HEADER-BOARD TO CABLE	BOX,5P,1R,2MM,STRAIGHT,SN,BLU	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
3711-006678	CNS32	HEADER-BOARD TO CABLE	BOX,10P,1R,2mm,STRAIGHT,SN,BLU	1	PC
3712-001047	CNP73	CONNECTOR-TERMINAL	TAB,MALE,N,0.5/4.75mm	1	PC
DB27-00096A	FT71	COIL CHOKE	CV1615280,COIL CHOKE,28.0mH,+50~-30%,268.0m ohm,1.5A,66,21*22*15.5*4,13x10,Mn-Zn,4,DIP	1	PC
DB67-00942A	VA71-1	CAP	VIVALDI-P/J,SHP2,1,5.2,11.5,18.5,GREEN,SSEC	1	PC
DB94-06021A	-	ASSY PCB AUTO	MAIN,NEW BORACAY,120*120,Y,220-240V,19V,12V,5V,15W,485-INV,BLDC FAN,NO Y-CAP,DB92-03467J	1	PC
0501-000362	Q801	TR-SMALL SIGNAL	KSC2328A-Y,NPN,1000mW,TO-92L,TP,160~320	1	PC
1203-003318	IC101	IC-POSI.ADJUST REG.	KIA431A,TO-92,3P,4.7x4.8mm,PLASTIC,700mW,-40to+85,1mA,2.47/2.52V,TP,Marking:3B, Shunt	1	PC
2003-002406	R105	R-METAL OXIDE(S)	300Kohm,5%,2W,AA,TP,3.8x12mm	1	PC
2201-000285	C102	C-CERAMIC,DISC	1nF,10%,1000V,Y5P,TP,8x5mm,5mm	1	PC
2401-000480	C706	C-AL	10uF,20%,50V,GP,TP,5x11mm,5mm	1	PC
2401-000480	CE104	C-AL	10uF,20%,50V,GP,TP,5x11mm,5mm	1	PC
2401-000480	CE107	C-AL	10uF,20%,50V,GP,TP,5x11mm,5mm	1	PC
2401-001415	CE111	C-AL	470uF,20%,35V,GP,TP,10x20mm,5mm	1	PC
2401-001838	CE108	C-AL	470uF,20%,25V,WT,TP,10x16mm,5mm	1	PC
2401-001838	CE113	C-AL	470uF,20%,25V,WT,TP,10x16mm,5mm	1	PC
3601-001209	F702	FUSE-RADIAL LEAD	250V,1A,TIME-LAG,-,8.5x8mm	1	PC
3601-001765	F701	FUSE-RADIAL LEAD	250V,3.15A,TIME-LAG,Thermoplastic,8.5x8mm	1	PC
DB94-06022A	-	ASSY PCB SMD	MAIN,NEW BORACAY,120*120,Y,220-240V,19V,12V,5V,15W,485-INV,BLDC FAN,NO Y-CAP,DB92-03467J	1	PC
0202-001477	SOLDER-CREAM	SOLDER-CREAM	LST309-M,D20~45um,96.5Sn/3Ag/0.5Cu,Flux 11.5%	1	G
0402-001192	D103	DIODE-RECTIFIER	ES2D,200V,2A,SMB,TP	1	PC
0402-001192	D104	DIODE-RECTIFIER	ES2D,200V,2A,SMB,TP	1	PC
0402-001741	D701	DIODE-RECTIFIER	S1M,1000V,1A,SMA,TP	1	PC
0402-001795	D101	DIODE-RECTIFIER	US1M,1000V,1A,SMA,TP	1	PC
0402-001795	D102	DIODE-RECTIFIER	US1M,1000V,1A,SMA,TP	1	PC
0406-001204	CD81	DIODE-TVS	SMBJ5.0CA,6.4/-/7.25V,600W,SMB	1	PC
0406-001204	CD82	DIODE-TVS	SMBJ5.0CA,6.4/-/7.25V,600W,SMB	1	PC
0406-001204	CD83	DIODE-TVS	SMBJ5.0CA,6.4/-/7.25V,600W,SMB	1	PC
0501-000465	Q601	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000465	Q702	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000465	Q802	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-002296	Q701	TR-SMALL SIGNAL	MMST2907A,PNP,200MW,SMT3,TP,100-300	1	PC
0506-000175	IC05	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,TP,1000	1	PC
0506-000175	IC10	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,TP,1000	1	PC
0604-001002	PC03	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	1	PC
0604-001002	PC04	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	1	PC
0604-001002	PC05	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	1	PC
0604-001002	PC101	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	1	PC
0801-000393	IC08	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14P,150MIL,QUAD,TP,2.0/6.0V,0.26V,-40to+85,180mW,4.2V,1uA,0.1uA,5.2mA	1	PC
1006-001325	IC07	IC-BUS TRANSCEIVER	SO,8P,4.9x3.8 mm,SINGLE,ST,PLASTIC,5V,-40to+85C,1,1,1.5/5.0V	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
1202-000104	IC12	IC-VOLTAGE COMP.	393,SOP,8P,150MIL,DUAL,36V,CMOS,PLASTIC,18V,780mW,0to+70C,18V,5mV,250nA,50NA,30	1	PC
1203-002722	REG701	IC-POSI.FIXED REG.	KA78R15,TO-220,4P,10x15mm,PLASTIC,14.6/15.4V,1.5W,-20to+80C,ST	1	PC
1203-006245	IC03	IC-VOL. DETECTOR	KIA7033AT,TSM,3P,2.9x1.6x0.7mm,PLASTIC,3.3V,350mW,-30to+85C,TP	1	PC
2007-000033	R826	R-CHIP	0ohm,5%,1/4W,TP,3216	1	PC
2007-000040	R113	R-CHIP	150ohm,1%,1/10W,TP,1608	1	PC
2007-000070	R717	R-CHIP	0ohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000076	R601	R-CHIP	330ohm,5%,1/10W,TP,1608	1	PC
2007-000076	R602	R-CHIP	330ohm,5%,1/10W,TP,1608	1	PC
2007-000076	R716	R-CHIP	330ohm,5%,1/10W,TP,1608	1	PC
2007-000078	R703	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	PC
2007-000078	R706	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	PC
2007-000078	R805	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	PC
2007-000080	R107	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	PC
2007-000084	R707	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	PC
2007-000087	R708	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	1	PC
2007-000090	R604	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R701	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R704	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R705	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R723	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R801	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R802	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R803	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R804	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000090	R806	R-CHIP	10Kohm,5%,1/10W,TP,1608,T0.45	1	PC
2007-000116	R825	R-CHIP	120ohm,5%,1/10W,TP,1608	1	PC
2007-000124	R603	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	PC
2007-000130	R715	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	PC
2007-000138	R515	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R516	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R518	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R519	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R520	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R539	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R542	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000138	R809	R-CHIP	100ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000140	R538	R-CHIP	1Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000140	R545	R-CHIP	1Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000140	R815	R-CHIP	1Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000140	R901	R-CHIP	1Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000141	R814	R-CHIP	2.2Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R511	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R512	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R513	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000148	R111	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R501	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R502	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R507	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R514	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R521	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R522	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R523	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R524	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R525	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R526	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R527	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R528	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R529	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R534	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R543	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R544	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R807	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R808	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R810	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R813	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R816	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R903	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R904	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000157	R902	R-CHIP	47Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000303	R702	R-CHIP	10Kohm,5%,1/4W,TP,3216	1	PC
2007-000385	R724	R-CHIP	14.3Kohm,1%,1/4W,TP,3216	1	PC
2007-000455	R712	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC
2007-000475	R709	R-CHIP	1Mohm,1%,1/10W,TP,1608	1	PC
2007-000476	R101	R-CHIP	1Mohm,1%,1/4W,TP,3216	1	PC
2007-000476	R102	R-CHIP	1Mohm,1%,1/4W,TP,3216	1	PC
2007-000476	R103	R-CHIP	1Mohm,1%,1/4W,TP,3216	1	PC
2007-000476	R104	R-CHIP	1Mohm,1%,1/4W,TP,3216	1	PC
2007-000583	R714	R-CHIP	22Kohm,1%,1/10W,TP,1608	1	PC
2007-000614	R112	R-CHIP	24Kohm,1%,1/10W,TP,1608	1	PC
2007-000924	R720	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R721	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R722	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000939	R711	R-CHIP	47Kohm,1%,1/10W,TP,1608	1	PC
2007-000979	R713	R-CHIP	5.6Kohm,1%,1/10W,TP,1608	1	PC
2007-001313	R404	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001313	R405	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001313	R406	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001313	R505	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001313	R811	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001433	R618	R-CHIP	12Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-007313	R401	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-007313	R402	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007313	R403	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007455	R110	R-CHIP	24.9Kohm,1%,1/10W,TP,1608	1	PC
2007-009922	R301	R-CHIP	300Kohm,1%,1/4W,TP,3216,T0.55	1	PC
2007-009922	R302	R-CHIP	300Kohm,1%,1/4W,TP,3216,T0.55	1	PC
2007-009922	R303	R-CHIP	300Kohm,1%,1/4W,TP,3216,T0.55	1	PC
2007-010635	R106	R-CHIP	6.8ohm,1%,1/10W,TP,1608,T0.3	1	PC
2203-000257	C705	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000257	C801	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000438	C516	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C520	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C901	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000440	C715	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-001071	C519	C-CER,CHIP	0.056nF,5%,50V,C0G,TP,1608	1	PC
2203-001083	C711	C-CER,CHIP	0.005nF,0.1pF,50V,C0G,TP,1608	1	PC
2203-005249	C101	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C103	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C104	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C106	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C510	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C514	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C702	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C710	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C712	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C802	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C803	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C805	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C806	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C807	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C902	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-006158	C401	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C402	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C403	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C517	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C522	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C529	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C530	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C531	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C533	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C809	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006460	C512	C-CER,CHIP	2200nF,10%,16V,X5R,TP,1608	1	PC
2203-006496	C707	C-CER,CHIP	2.2nF,10%,50V,X7R,TP,1608,T0.9	1	PC
2203-006960	C708	C-CER,CHIP	1000nF,10%,50V,X7R,TP,2012	1	PC
2203-007456	C509	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C515	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C518	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C521	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2203-007456	C523	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C526	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C528	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C551	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C552	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007486	C804	C-CER,CHIP	1000nF,10%,50V,X5R,TP,1608	1	PC
2402-001145	C701	C-AL,SMD	47uF,20%,50V,GP,TP,6.3X7.7mm	1	PC
2402-001145	CE102	C-AL,SMD	47uF,20%,50V,GP,TP,6.3X7.7mm	1	PC
2802-001211	X501	RESONATOR-CERAMIC	8MHz,0.5%,TP,3.2x1.3x0.9 mm	1	PC
DB41-01296A	PCB MAIN	PCB MAIN	FR-4,2Layer,T1.6,120X120,2,STD#5,1Oz,240X142	1	PC
DB91-01752A	MIC04	ASSY MICOM	16T RAC AR4500/5500 Inverter (Single/ FJM),STM-1546-OA,HART-m310,100MQFP,ROM 256KB	1	PC
0903-001864	-	IC-MICROCONTROLLER	HART-M310,QFP,100P,20x14mm,8MHz,5V,600 mW,-40to+85C,24KB,256KB,MAIN PBA SOC	1	PC
DC26-00043A	TRAN1	TRANS SWITCHING	ECO2020SEO-K01V017,85V-240V,W41xL18,50Hz/60Hz,770uH,5V-25V	1	PC

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Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
0201-001528	ADHESIVE-SIL	ADHESIVE-SIL	LDC2577D,Y/GRN,175CPS	1	G
0202-001463	SOLDER-WIRE	SOLDER-WIRE	LFC2-W3.0,D3,99.79Sn/0.2Cu/0.01P,No Flux	6	G
0202-001608	SOLDER-WIRE FLUX	SOLDER-WIRE FLUX	LFC7-107,D0.8,99.3Sn/0.7Cu/0.01P,Flux 3.5%	0.2	G
0204-004665	FLUX	FLUX	KSP-70M-S,MIXTURE,NO,FLUX,13%	3	G
0204-005754	COATING	COATING	SL1301 ECO,55±5s,colorless	0.004	PC
3711-000012	CN291	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,STRAIGHT,SN,WHT	1	PC
3711-000177	CN301	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96MM,STRAIGHT,SN,RED	1	PC
3711-000999	CN281	HEADER-BOARD TO CABLE	BOX,5P,1R,2.5mm,STRAIGHT,SN,WHT,5.8x14.9x7.0 mm	1	PC
3711-001084	CN261	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5mm,STRAIGHT,SN,WHT,5.8x22.4x7	1	PC
3711-002001	CN230	HEADER-BOARD TO CABLE	BOX,20P,2R,2.0mm,STRAIGHT,SN,BLK,5.0X22.0X6 .6mm	1	PC
3711-003846	CN251	HEADER-BOARD TO CABLE	BOX,8P,1R,2mm,ANGLE,SN,WHT	1	PC
3711-006337	CN701	CONNECTOR-HEADER	BOX,5P,1R,2.5mm,ANGLE,SN,RED	1	PC
3711-007817	CN271	HEADER-BOARD TO BOARD	3WALL,7P,1R,2mm,STRAIGHT,SN,WHT	1	PC
DB94-07169A	-	ASSY PCB AUTO	MAIN,RAC_OUT_ MAIN,142X48.5mm,N,485COMM,NON EMI,WIND FREE,DB92-04029C	1	PC
1404-001194	PTC301	THERMISTOR-PTC	39ohm,20%,220/240V,270Vac,1.2A,TP	1	PC
DB94-07170A	-	ASSY PCB SMD	MAIN,RAC_OUT_ MAIN,142X48.5mm,N,485COMM,NON EMI,WIND FREE,DB92-04029C	1	PC
0202-001933	SOLDER-CREAM	SOLDER-CREAM	LFM-48W TM-HP,D20~38um,96.5Sn/3Ag/0.5Cu,Flux 12%	1	G
0406-001204	TD301	DIODE-TVS	SMBJ5.0CA,6.4/-/7.25V,600W,SMB	1	PC
0406-001204	TD302	DIODE-TVS	SMBJ5.0CA,6.4/-/7.25V,600W,SMB	1	PC
0406-001204	TD303	DIODE-TVS	SMBJ5.0CA,6.4/-/7.25V,600W,SMB	1	PC
0506-000175	IC701	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,TP,1000	1	PC
0601-002345	LED801	LED	SMD(Top View),RED,WATER CLEAR,1.3x0 .8mm,1.6x0.8x0.55mm,1,130deg,18mcd,-25to+80C,660nm,63mW,-,-,TP,INDICATOR	1	PC
0601-002419	LED803	LED	SMD(Top View),YEL,WATER CLEAR,1.6x0.8mm,1.6x0.8x0.6mm,1,130deg,30/60mcd,-55to+85C,591nm,75,-,-,TP,INDICATOR	1	PC
0601-002679	LED802	LED	SMD(Top View),Y-GRN,WATER CLEAR,1.2x 0.8mm,1.6x0.8x0.6mm,1,120deg,8/11mcd,-25to+80C,573nm,44mW,-,-,TP,INDICATOR	1	PC
0801-000393	IC302	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14P,150MIL,QUAD,TP,2.0/6.0V, 0.26V,-40to+85,180mW,4.2V,1uA,0.1uA,5.2mA	1	PC
1006-001325	IC301	IC-BUS TRANSCEIVER	SO,8P,4.9x3.8 mm,SINGLE,ST,PLASTIC,5V,-40to+85C,1,1,1.5/5.0V	1	PC
1203-006245	IC230	IC-VOL. DETECTOR	KIA7033AT,TSM,3P,2.9x1.6x0.7mm,PLASTIC,3.3V,350 mW,-30to+85C,TP	1	PC
2007-000029	R301	R-CHIP	0ohm,5%,1/8W,TP,2012	1	PC
2007-000029	R302	R-CHIP	0ohm,5%,1/8W,TP,2012	1	PC
2007-000116	R304	R-CHIP	120ohm,5%,1/10W,TP,1608	1	PC
2007-000148	R201	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R202	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R203	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000148	R204	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R205	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R206	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R207	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R208	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R209	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R210	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R212	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R213	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R214	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R215	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R216	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R217	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R218	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R219	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R220	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R221	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R222	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R223	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R237	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R238	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R239	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R240	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R241	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R242	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R250	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R271	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R272	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R284	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R285	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R286	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R306	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R307	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R308	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R309	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R310	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000171	R312	R-CHIP	0ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000455	R251	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC
2007-000455	R253	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC
2007-000614	R252	R-CHIP	24Kohm,1%,1/10W,TP,1608	1	PC
2007-000614	R254	R-CHIP	24Kohm,1%,1/10W,TP,1608	1	PC
2007-000763	R255	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R256	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R257	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R258	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000869	R801	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000869	R802	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000869	R803	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-001433	R225	R-CHIP	12Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-007306	R224	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R231	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R232	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R233	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R234	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R235	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R243	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R244	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R245	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R246	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R247	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R248	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R249	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R261	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R262	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R263	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R264	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R273	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R274	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R275	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R276	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R281	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R282	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R283	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R291	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R292	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R303	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R305	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R311	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007942	R211	R-CHIP	1Mohm,1%,1/16W,TP,1005,T0.35	1	PC
2203-000438	C211	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C219	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C220	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C281	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C282	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C283	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-001071	C210	C-CER,CHIP	0.056nF,5%,50V,C0G,TP,1608	1	PC
2203-002285	C302	C-CER,CHIP	10nF,10%,50V,X7R,TP,1005	1	PC
2203-002285	C303	C-CER,CHIP	10nF,10%,50V,X7R,TP,1005	1	PC
2203-005249	C251	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C252	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C253	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C254	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C701	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C702	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2203-006158	C202	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C203	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C206	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C209	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C212	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C215	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C216	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C218	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C248	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C304	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C305	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C306	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C307	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-007306	C261	C-CER,CHIP	10000nF,10%,25V,X5R,TP,2012,T1.25	1	PC
2203-007306	C262	C-CER,CHIP	10000nF,10%,25V,X5R,TP,2012,T1.25	1	PC
2203-007456	C201	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C204	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C205	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C207	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C208	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C213	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C214	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2203-007456	C217	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005,T0.5	1	PC
2802-001211	X201	RESONATOR-CERAMIC	8MHz,0.5%,TP,3.2x1.3x0.9 mm	1	PC
DB41-01352A	PCB	PCB MAIN	FR-4,2L,T1.6,142x48.5,8,RAC_OUT_ MAIN,1Oz,284x194mm	1	PC
DB91-01931A	IC231	ASSY MICOM	18K_RAC_PF23_SG_OUT,STM-1749-OA,HART-m310,100MQFP,ROM 256KB	1	PC
0903-001864	-	IC-MICROCONTROLLER	HART-M310,QFP,100P,20x14mm,8MHz,5V,600mW,-40to+85C,24KB,256KB,MAIN PBA SOC	1	PC

6-3 OUTDOOR PCB INVERTER CODE DB92-04025C

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
0204-005754	-	COATING	SL 1301 ECO,55±5s,colorless	0.004	PC
DB94-06517A	-	ASSY PCB MANUAL	17 S-INV,OUTDOOR PF2,BLDC,17 S-INV,142*194,220,12,PF2,DB92-04025A	1	PC
0201-001528	ADHESIVE-SIL	ADHESIVE-SIL	LDC2577D,Y/GRN,175CPS	1	G
0202-001463	SOLDER-WIRE	SOLDER-WIRE	LFC2-W3.0,D3,99.79Sn/0.2Cu/0.01P,No Flux	10	G
0202-001608	SOLDER-WIRE FLUX	SOLDER-WIRE FLUX	LFC7-107,D0.8,99.3Sn/0.7Cu/0.01P,Flux 3.5%	0.2	G
0204-004665	FLUX	FLUX	KSP-70M-S,MIXTURE,NO,FLUX,13%	2	G
0402-000324	BD151	DIODE-BRIDGE	D3SB60,600V,4A,SIP-4,ST	1	PC
1203-002722	IC181	IC-POSI.FIXED REG.	KA78R15,TO-220,4P,10x15mm,PLASTIC,14.6/15.4V,1.5W,-20to+80C,ST	1	PC
1404-001413	NTC151	THERMISTOR-NTC	18ohm,3A,3200K,19MWC,610uF,15mm,TP,17x6mm	1	PC
1404-001856	PT020	THERMISTOR-PTC	47ohm,25%,220,270VAC,4A,0.32A,TP	1	PC
1405-000154	VA002	VARISTOR	560V,460VDC,4500A,17.5x7.5mm,BK,920V,600pF,D14	1	PC
1405-000154	VA003	VARISTOR	560V,460VDC,4500A,17.5x7.5mm,BK,920V,600pF,D14	1	PC
1405-001239	VA001	VARISTOR	680V,560VDC,6000A,17x10mm,TP,1120V,350pF,D14	1	PC
1405-001239	VA151	VARISTOR	680V,560VDC,6000A,17x10mm,TP,1120V,350pF,D14	1	PC
2201-000540	C055	C-CERAMIC,DISC	4.7nF,20%,2000V,Y5P,BK,16x5mm,10mm	1	PC
2201-002002	C002	C-CERAMIC,DISC	4.7nF,20%,400V,Y5U,16x6mm,10mm	1	PC
2201-002002	C003	C-CERAMIC,DISC	4.7nF,20%,400V,Y5U,16x6mm,10mm	1	PC
2201-002002	C004	C-CERAMIC,DISC	4.7nF,20%,400V,Y5U,16x6mm,10mm	1	PC
2201-002002	C005	C-CERAMIC,DISC	4.7nF,20%,400V,Y5U,16x6mm,10mm	1	PC
2201-002688	C155	C-CERAMIC,DISC	2.2nF,20%,400Vac,Y5U,TP,12.5x7mm,10mm	1	PC
2201-002688	C156	C-CERAMIC,DISC	2.2nF,20%,400Vac,Y5U,TP,12.5x7mm,10mm	1	PC
2301-001285	C001	C-FILM,LEAD-PPF	680nF,10%,275Vac,BK,31x11x21mm	1	PC
2301-001285	C006	C-FILM,LEAD-PPF	680nF,10%,275Vac,BK,31x11x21mm	1	PC
2306-000123	C413	C-FILM,LEAD-PPF	100nF,5%,630V,BK,18x17x10mm	1	PC
2401-004267	CE151	C-AL	22uF,20%,500V,TP,16x25mm,7.5mm	1	PC
2401-004874	CE101	C-AL	330uF,20%,400V,BK,25.4x50mm,10mm	1	PC
2401-004874	CE102	C-AL	330uF,20%,400V,BK,25.4x50mm,10mm	1	PC
2401-004874	CE103	C-AL	330uF,20%,400V,BK,25.4x50mm,10mm	1	PC
3501-001154	RY022	RELAY-MINIATURE	12V,200mW,3000mA,1FormA,10ms,10ms	1	PC
3501-001154	RY031	RELAY-MINIATURE	12V,200mW,3000mA,1FormA,10ms,10ms	1	PC
3501-001279	RY021	RELAY-POWER	12V,400mW,16000mA,1FormA,15ms,5ms	1	PC
3601-001537	F001	FUSE-AXIAL LEAD	250V,20A,TIME-LAG,CERAMIC,6.35x31.8mm	1	PC
3711-000012	CNP552	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,STRAIGHT,SN,WHT	1	PC
3711-000296	CNP901	HEADER-BOARD TO CABLE	1WALL,6P,1R,3.96MM,STRAIGHT,SN,WHT	1	PC
3711-001084	CN351	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5mm,STRAIGHT,SN,WHT,5.8x22.4x7	1	PC
3711-002001	CN230	HEADER-BOARD TO CABLE	BOX,20P,2R,2.0mm,STRAIGHT,SN,BLK,5.0X22.0X6.6mm	1	PC
3711-003380	CNP031	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92MM,ANGLE,SN,WHT	1	PC
3711-003873	CNP361	HEADER-BOARD TO CABLE	BOX,7P,1R,2mm,STRAIGHT,SN,WHT,5.1x15.98x11.2mm	1	PC
3711-007656	CNP401	HEADER-BOARD TO CABLE	BOX,3,1R,6mm,STRAIGHT,WHT	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
3712-001047	CNP003	CONNECTOR-TERMINAL	TAB,MALE,N,0.5/4.75mm	1	PC
3712-001139	CNP001	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CNP002	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CNP051	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CNP052	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
4715-001093	DSA001	SURGE ABSORBER	3600V,20%,2000A,-,AXIAL	1	PC
4719-002484	IPM400	POWER MODULE	600V,15A,DIP,FNA41560B5,26,IPM	1	PC
4719-003043	PFCM050	POWER MODULE	600V,20A,DIP,FBA42060B5,26PIN,PFCM	1	PC
DB26-00143A	T151	TRANS SWITCHING	85~265V,5V, 12V, 17V,850uH,15W	1	PC
DB27-00097A	FT001	COIL CHOKE	3.5mH,15A,37.5*40*26,26x21,Mn-Zn,4,DIP	1	PC
DB94-06506A	-	ASSY PCB AUTO	17 S-INV,OUTDOOR PF2,BLDC,17 S-INV,142*194,220,12,PF2,DB92-04025A	1	PC
2201-000285	C152	C-CERAMIC,DISC	1nF,10%,1000V,Y5P,TP,8x5mm,5mm	1	PC
2201-002335	C154	C-CERAMIC,DISC	0.068nF,10%,2000V,SL,TP,8x5mm,5mm	1	PC
2201-002427	C904	C-CERAMIC,DISC	2.2nF,10%,2000V,Y5P,TP,12.5x5mm,7.5mm	1	PC
2401-000481	CE152	C-AL	10uF,20%,50V,WT,TP,5x11mm,5mm	1	PC
2401-001838	CE161	C-AL	470uF,20%,25V,WT,TP,10x16mm,5mm	1	PC
2401-001838	CE162	C-AL	470uF,20%,25V,WT,TP,10x16mm,5mm	1	PC
2401-003069	CE170	C-AL	470uF,20%,50V,WT,TP,10x20mm,5	1	PC
2401-003139	CE175	C-AL	1000uF,20%,25V,WT,TP,10x20mm,5mm	1	PC
2401-003224	CE163	C-AL	470uF,20%,16V,WT,TP,8x11.5mm,5mm	1	PC
2401-003395	CE901	C-AL	47uF,20%,50V,LZ,TP,6.3x11mm,5mm	1	PC
2401-003585	CE902	C-AL	220uF,20%,35V,WT,TP,8x11.5mm,5mm	1	PC
2401-006176	CE174	C-AL	470uF,20%,25V,LZ,TP,10x12.5mm,5mm	1	PC
3601-001674	FH151	FUSE-RADIAL LEAD	250V,2.5A,TIME-LAG,4.3x8.4x7.6mm	1	PC
DB94-06508A	-	ASSY PCB SMD	17 S-INV,OUTDOOR PF2,BLDC,17 S-INV,142*194,220,12,PF2,DB92-04025A	1	PC
0202-001933	SOLDER-CREAM	SOLDER-CREAM	LFM-48W TM-HP,D20~38um,96.5Sn/3Ag/0.5Cu,Flux12%	1	G
0401-000132	AD901	DIODE-SWITCHING	BAV99,75V,50mA,SOT-23,TP	1	PC
0401-001099	D021	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D022	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D031	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D161	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D162	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D454	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D501	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0402-001192	D170	DIODE-RECTIFIER	ES2D,200V,2A,SMB,TP	1	PC
0402-001427	D152	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	PC
0402-001669	D173	DIODE-RECTIFIER	ES3D,200V,3A,DO-214AB(SMC),TP	1	PC
0402-001741	D151	DIODE-RECTIFIER	S1M,1000V,1A,SMA,TP	1	PC
0402-001795	D052	DIODE-RECTIFIER	US1M,1000V,1A,SMA,TP	1	PC
0402-001795	D903	DIODE-RECTIFIER	US1M,1000V,1A,SMA,TP	1	PC
0403-001003	ZD051	DIODE-ZENER	PTZ20B,20-22.4V,1000MW,PSM,TP	1	PC
0403-001003	ZD401	DIODE-ZENER	PTZ20B,20-22.4V,1000MW,PSM,TP	1	PC
0501-000465	Q032	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000465	Q902	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q181	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
0501-000467	Q351	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q352	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q901	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q903	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0505-003681	IC153	FET-SILICON	A0N7264E,N,60V,28A,27.5W,DFN 3x3 EP	1	PC
0506-000175	IC801	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,TP,1000	1	PC
0601-002956	LED802	LED	SMD(Top View),GRN,WATER CLEAR,1.6x1.5mm,3.2x1.6x1.1mm,1,130deg,18/35mcd,-55to+85C,574nm,75mW,-,-,TR,INDICATOR	1	PC
0604-001172	PC181	PHOTO-COUPLER	TR,150-300,200mW,SOP,TP	1	PC
0604-001172	PC351	PHOTO-COUPLER	TR,150-300,200mW,SOP,TP	1	PC
0604-001172	PC352	PHOTO-COUPLER	TR,150-300,200mW,SOP,TP	1	PC
1201-004191	IC451	IC-OP AMP	9064,TSSOP,TP,14P,5x4.4x1.2mm,4,100dB,6V,-40to+125C,103dB,6.5,0.05pA,0.5pA,1.6mV	1	PC
1203-002835	IC162	IC-POSI.FIXED REG.	7805,D-PAK/TO252,3P,6.6x6.1mm,PLASTIC,4.8V/5.2V,1.3W,TP	1	PC
1203-004967	IC502	IC-VOL. DETECTOR	KIA7042AT,TSM,3P,2.9x1.6mm,PLASTIC,4.2V,350 mW,-40to+85C,20mA	1	PC
1203-008881	IC152	IC-PWM CONTROLLER	INN2603K,eSOP-R16B,16P,PLASTIC,-40to+105C,1.2A,TP	1	PC
2007-000043	R354	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	PC
2007-000043	R356	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R032	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R191	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R194	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R352	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R358	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R901	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R905	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R906	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R908	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R909	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000067	R181	R-CHIP	15Kohm,1%,1/10W,TP,1608	1	PC
2007-000137	R536	R-CHIP	2Kohm,5%,1/16W,TP,1005	1	PC
2007-000143	R503	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R505	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R508	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R516	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R518	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R520	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R521	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R522	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R523	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R524	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R529	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R530	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R533	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R534	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R540	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000143	R541	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R261	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R262	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R263	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R264	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R265	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R269	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R527	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000239	R068	R-CHIP	1.5Kohm,1%,1/10W,TP,1608	1	PC
2007-000239	R407	R-CHIP	1.5Kohm,1%,1/10W,TP,1608	1	PC
2007-000239	R461	R-CHIP	1.5Kohm,1%,1/10W,TP,1608	1	PC
2007-000239	R462	R-CHIP	1.5Kohm,1%,1/10W,TP,1608	1	PC
2007-000239	R491	R-CHIP	1.5Kohm,1%,1/10W,TP,1608	1	PC
2007-000287	R053	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R055	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R401	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R402	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R403	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R404	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R405	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R406	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000385	R101	R-CHIP	14.3Kohm,1%,1/4W,TP,3216	1	PC
2007-000385	R105	R-CHIP	14.3Kohm,1%,1/4W,TP,3216	1	PC
2007-000455	R465	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC
2007-000476	R157	R-CHIP	1Mohm,1%,1/4W,TP,3216	1	PC
2007-000491	R031	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R190	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R351	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R357	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R910	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000536	R492	R-CHIP	200ohm,1%,1/10W,TP,1608	1	PC
2007-000537	R172	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R173	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R174	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R175	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R176	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000570	R069	R-CHIP	220ohm,1%,1/10W,TP,1608	1	PC
2007-000592	R160	R-CHIP	22ohm,1%,1/4W,TP,3216	1	PC
2007-000614	R366	R-CHIP	24Kohm,1%,1/10W,TP,1608	1	PC
2007-000669	R451	R-CHIP	2Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-000669	R452	R-CHIP	2Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-000669	R466	R-CHIP	2Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-000736	R453	R-CHIP	30Kohm,1%,1/10W,TP,1608	1	PC
2007-000736	R454	R-CHIP	30Kohm,1%,1/10W,TP,1608	1	PC
2007-000736	R463	R-CHIP	30Kohm,1%,1/10W,TP,1608	1	PC
2007-000736	R464	R-CHIP	30Kohm,1%,1/10W,TP,1608	1	PC
2007-000763	R192	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000763	R353	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R355	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R904	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000772	R185	R-CHIP	33Kohm,1%,1/10W,TP,1608	1	PC
2007-000869	R455	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000869	R456	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000869	R903	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000869	R907	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000924	R102	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R103	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R104	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R106	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R107	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R108	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R158	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000946	R184	R-CHIP	47ohm,1%,1/10W,TP,1608	1	PC
2007-000962	R054	R-CHIP	5.1Kohm,1%,1/10W,TP,1608	1	PC
2007-000962	R408	R-CHIP	5.1Kohm,1%,1/10W,TP,1608	1	PC
2007-001068	R902	R-CHIP	6.8Kohm,1%,1/10W,TP,1608	1	PC
2007-001175	R050	R-CHIP	8.2Kohm,1%,1/10W,TP,1608	1	PC
2007-001175	R409	R-CHIP	8.2Kohm,1%,1/10W,TP,1608	1	PC
2007-001206	R183	R-CHIP	82Kohm,1%,1/10W,TP,1608	1	PC
2007-001297	R170	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R171	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R178	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R179	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R186	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R187	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001313	R367	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001433	R163	R-CHIP	12Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-002557	R021	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002557	R022	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002557	R024	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002768	R801	R-CHIP	6.2Kohm,1%,1/10W,TP,1608	1	PC
2007-007306	R245	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R246	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R247	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R248	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R249	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R250	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R266	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R267	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R268	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R270	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R361	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R362	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R363	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-007306	R364	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R365	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R501	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R513	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R517	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R531	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R532	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R535	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R550	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R558	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R559	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R560	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007313	R502	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007313	R504	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R251	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R506	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R507	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R510	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R511	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R512	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R525	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R526	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007385	R151	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R152	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R153	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R154	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R155	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R156	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007942	R528	R-CHIP	1Mohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-010245	R071	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R072	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R410	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R411	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2203-000257	C050	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000257	C351	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000257	C352	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000438	C502	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C503	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C504	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C507	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C512	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C523	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C531	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000440	C051	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C052	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C054	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C181	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2203-000440	C353	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C354	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C404	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C405	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C406	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C408	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C409	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C410	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C411	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C412	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C903	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000783	C178	C-CER,CHIP	0.33nF,5%,50V,C0G,TP,1608	1	PC
2203-000812	C518	C-CER,CHIP	0.033nF,5%,50V,C0G,TP,1005	1	PC
2203-002398	C532	C-CER,CHIP	22nF,10%,50V,X7R,TP,1608	1	PC
2203-005135	C168	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C169	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C173	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C174	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C175	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C176	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C184	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C185	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C414	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C415	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005249	C053	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C153	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C161	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C162	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C163	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C170	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C177	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C182	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C183	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C401	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C402	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C403	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C407	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C451	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C460	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C461	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C801	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C902	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-006158	C361	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C501	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C505	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C506	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C511	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2203-006158	C513	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C519	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C520	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C521	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C522	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006460	C180	C-CER,CHIP	2200nF,10%,16V,X5R,TP,1608	1	PC
2203-006460	C533	C-CER,CHIP	2200nF,10%,16V,X5R,TP,1608	1	PC
2203-006698	C524	C-CER,CHIP	1000nF,10%,25V,X7R,TP,1608,T0.8	1	PC
2203-006698	C901	C-CER,CHIP	1000nF,10%,25V,X7R,TP,1608,T0.8	1	PC
2402-001183	CE451	C-AL,SMD	22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	PC
2402-001268	CE050	C-AL,SMD	100uF,20%,25V,WT,TP,8x6.3mm	1	PC
2402-001268	CE404	C-AL,SMD	100uF,20%,25V,WT,TP,8x6.3mm	1	PC
2402-001368	CE401	C-AL,SMD	47uF,20%,25V,TP,6.3x4.9mm	1	PC
2402-001368	CE402	C-AL,SMD	47uF,20%,25V,TP,6.3x4.9mm	1	PC
2402-001368	CE403	C-AL,SMD	47uF,20%,25V,TP,6.3x4.9mm	1	PC
2802-001211	X501	RESONATOR-CERAMIC	8MHz,0.5%,TP,3.2x1.3x0.9 mm	1	PC
DB41-01350A	PCB	PCB INVERTER	FR-4,2Layer,T1.6,142*194,2,PF#2_17S,2Oz,285*194	1	PC
DB91-01796A	IC501	ASSY MICOM	17S_PF2,STM-1606-OA,HART-i910,64LQFP,ROM 64KB	1	PC
0903-001843	-	IC-MICROCONTROLLER	HART-I910,LQFP,64P,12x12mm,8MHz,5V,600mW,-40to+85C,12KB,64KB,Inverter SOC	1	PC

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Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
0201-001528	ADHESIVE-SIL	ADHESIVE-SIL	LDC2577D,Y/GRN,175CPS	1	G
0202-001463	SOLDER-WIRE	SOLDER-WIRE	LFC2-W3.0,D3,99.79Sn/0.2Cu/0.01P,No Flux	10	G
0202-001608	SOLDER-WIRE FLUX	SOLDER-WIRE FLUX	LFC7-107,D0.8,99.3Sn/0.7Cu/0.01P,Flux 3.5%	0.2	G
0204-004665	FLUX	FLUX	KSP-70M-S,MIXTURE,NO,FLUX,13%	5	G
0204-005754	COATING	COATING	SL1301 ECO,55±5s,colorless	0.004	PC
0205-001027	-	OIL-SILICON	G746	1	G
0402-000324	BD151	DIODE-BRIDGE	D3SB60,600V,4A,SIP-4,ST	1	PC
1404-001413	NTC151	THERMISTOR-NTC	18ohm,3A,3200K,19MWC,610uF,15mm,TP,17x6mm	1	PC
1404-001498	PTC001	THERMISTOR-PTC	40ohm,25%,290Vac,7A,TR	1	PC
1405-000154	VA002	VARISTOR	560V,460VDC,4500A,17.5x7.5mm,BK,920V,600pF ,D14	1	PC
1405-000154	VA003	VARISTOR	560V,460VDC,4500A,17.5x7.5mm,BK,920V,600pF ,D14	1	PC
1405-001239	VA001	VARISTOR	680V,560VDC,6000A,17x10mm,TP,1120V,350pF,D14	1	PC
1405-001239	VA151	VARISTOR	680V,560VDC,6000A,17x10mm,TP,1120V,350pF,D14	1	PC
2201-000446	C001	C-CERAMIC,DISC	3.3nF,20%,400V,Y5U,BK,15x6mm,10mm	1	PC
2201-000446	C002	C-CERAMIC,DISC	3.3nF,20%,400V,Y5U,BK,15x6mm,10mm	1	PC
2201-000446	C005	C-CERAMIC,DISC	3.3nF,20%,400V,Y5U,BK,15x6mm,10mm	1	PC
2201-000446	C006	C-CERAMIC,DISC	3.3nF,20%,400V,Y5U,BK,15x6mm,10mm	1	PC
2201-000540	C056	C-CERAMIC,DISC	4.7nF,20%,2000V,Y5P,BK,16x5mm,10mm	1	PC
2201-002688	C155	C-CERAMIC,DISC	2.2nF,20%,400Vac,Y5U,TP,12.5x7mm,10mm	1	PC
2201-002688	C156	C-CERAMIC,DISC	2.2nF,20%,400Vac,Y5U,TP,12.5x7mm,10mm	1	PC
2301-001285	C004	C-FILM,LEAD-PPF	680nF,10%,275Vac,BK,31x11x21mm	1	PC
2301-001949	C003	C-FILM,LEAD	3300nF,10%,275Vac,BK,31x21x31mm	1	PC
2306-000123	C055	C-FILM,LEAD-PPF	100nF,5%,630V,BK,18x17x10mm	1	PC
2306-000123	C413	C-FILM,LEAD-PPF	100nF,5%,630V,BK,18x17x10mm	1	PC
2401-004267	CE151	C-AL	22uF,20%,500V,TP,16x25mm,7.5mm	1	PC
2401-004929	CE053	C-AL	390uF,20%,400V,BK,25.4x60mm,10mm	1	PC
2401-004929	CE054	C-AL	390uF,20%,400V,BK,25.4x60mm,10mm	1	PC
2401-004929	CE055	C-AL	390uF,20%,400V,BK,25.4x60mm,10mm	1	PC
2401-004929	CE056	C-AL	390uF,20%,400V,BK,25.4x60mm,10mm	1	PC
3501-001154	RY001	RELAY-MINIATURE	12V,200mW,3000mA,1FormA,10ms,10ms	1	PC
3501-001154	RY030	RELAY-MINIATURE	12V,200mW,3000mA,1FormA,10ms,10ms	1	PC
3501-001154	RY031	RELAY-MINIATURE	12V,200mW,3000mA,1FormA,10ms,10ms	1	PC
3501-001268	RY002	RELAY-POWER	12V,0.9W,25000mA,1FormA,20ms,10ms	1	PC
3601-001652	F001	FUSE-AXIAL LEAD	250V,30A,TIME-LAG,CERAMIC,6.35x31.8mm	1	PC
3711-000012	CN571	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,STRAIGHT,SN,WHT	1	PC
3711-000203	CN030	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN,WHT,11.82x8.6 x9.4mm	1	PC
3711-000760	CN551	HEADER-BOARD TO CABLE	BOX,20P,2R,2MM,ANGLE,SN,BLK	1	PC
3711-001084	CNP351	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5mm,STRAIGHT,SN,WHT,5.8x22.4x7	1	PC
3711-003406	CN241	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN,YEL,8.5x11.8 2x9.4	1	PC
3711-003873	CN581	HEADER-BOARD TO CABLE	BOX,7P,1R,2mm,STRAIGHT,SN,WHT,5.1x15.98x11.2 mm	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
3711-004019	CNP901	CONNECTOR-HEADER	1WALL,6P,1R,3.96mm,ANGLE,SN,WHT	1	PC
3712-001047	CN003	CONNECTOR-TERMINAL	TAB,MALE,N,0.5/4.75mm	1	PC
3712-001139	CN001	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CN002	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CN051	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CN052	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CN401	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CN402	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
3712-001139	CN403	CONNECTOR-TERMINAL	TAB,MALE,6.35x0.8mm,BRASS,SN	1	PC
4715-001093	DSA001	SURGE ABSORBER	3600V,20%,2000A,-,AXIAL	1	PC
4719-002486	IC051	POWER MODULE	600V,30A,DIP,FPAB30BH60BS,27,PFCM	1	PC
4719-003219	IC401	POWER MODULE	600V,30A,DIP,FNB33060T,NTC,IPM	1	PC
DB26-00143A	T151	TRANS SWITCHING	85~265V,5V, 12V, 17V,850uH,15W	1	PC
DB27-00078A	FT001	COIL CHOKE	12mH,20A,28.5x21,Mn-Zn,4,DIP	1	PC
DB94-06513A	IC181	ASSY HEAT SINK1	17 S-INV,OUTDOOR PF3,BLDC,17 S-INV,160*242,220,12,PF3,DB92-04027A	1	PC
1203-002722	-	IC-POSI.FIXED REG.	KA78R15,TO-220,4P,10x15mm,PLASTIC,14.6/15.4V,1.5W,-20to+80C,ST	1	PC
6002-000630	Screw	SCREW-TAPPING	PH,+,NO,2S,M3,L8,ZPC(WHT),SWRCH18A	1	PC
DC62-00243C	Heatsink	HEAT SINK	HUDSON,Al,T2.5,W11,L15,WHITE,H26	1	PC
DB94-07250A	-	ASSY PCB AUTO	INVERTER,PF3_17S,160mmX242mm,Y,220V-240V,5V,12V,15V,485COMM,OUTDOOR,SAFETY,DB92-04027B	1	PC
2201-000285	C152	C-CERAMIC,DISC	1nF,10%,1000V,Y5P,TP,8x5mm,5mm	1	PC
2201-002335	C154	C-CERAMIC,DISC	0.068nF,10%,2000V,SL,TP,8x5mm,5mm	1	PC
2201-002427	C904	C-CERAMIC,DISC	2.2nF,10%,2000V,Y5P,TP,12.5x5mm,7.5mm	1	PC
2401-000481	CE152	C-AL	10uF,20%,50V,WT,TP,5x11mm,5mm	1	PC
2401-000481	CE431	C-AL	10uF,20%,50V,WT,TP,5x11mm,5mm	1	PC
2401-001838	CE161	C-AL	470uF,20%,25V,WT,TP,10x16mm,5mm	1	PC
2401-001838	CE162	C-AL	470uF,20%,25V,WT,TP,10x16mm,5mm	1	PC
2401-003069	CE170	C-AL	470uF,20%,50V,WT,TP,10x20mm,5	1	PC
2401-003139	CE175	C-AL	1000uF,20%,25V,WT,TP,10x20mm,5mm	1	PC
2401-003224	CE163	C-AL	470uF,20%,16V,WT,TP,8x11.5mm,5mm	1	PC
2401-003395	CE901	C-AL	47uF,20%,50V,LZ,TP,6.3x11mm,5mm	1	PC
2401-003585	CE902	C-AL	220uF,20%,35V,WT,TP,8x11.5mm,5mm	1	PC
2401-006176	CE174	C-AL	470uF,20%,25V,LZ,TP,10x12.5mm,5mm	1	PC
3601-001674	F151	FUSE-RADIAL LEAD	250V,2.5A,TIME-LAG,4.3x8.4x7.6mm	1	PC
DB94-07251A	-	ASSY PCB SMD	INVERTER,PF3_17S,160mmX242mm,Y,220V-240V,5V,12V,15V,485COMM,OUTDOOR,SAFETY,DB92-04027B	1	PC
0202-001933	SOLDER-CREAM	SOLDER-CREAM	LFM-48W TM-HP,D20~38um,96.5Sn/3Ag/0.5Cu,Flux12%	1	G
0401-000132	AD901	DIODE-SWITCHING	BAV99,75V,50mA,SOT-23,TP	1	PC
0401-001099	D001	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D002	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D030	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D071	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D161	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D162	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
0401-001099	D241	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D431	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0401-001099	D501	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-323,TP	1	PC
0402-001192	D170	DIODE-RECTIFIER	ES2D,200V,2A,SMB,TP	1	PC
0402-001427	D152	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	PC
0402-001669	D173	DIODE-RECTIFIER	ES3D,200V,3A,DO-214AB(SMC),TP	1	PC
0402-001741	D151	DIODE-RECTIFIER	S1M,1000V,1A,SMA,TP	1	PC
0402-001795	D051	DIODE-RECTIFIER	US1M,1000V,1A,SMA,TP	1	PC
0402-001795	D903	DIODE-RECTIFIER	US1M,1000V,1A,SMA,TP	1	PC
0403-000282	ZD071	DIODE-ZENER	MMBZ5232B,5%,300mW,SOT-23,TP	1	PC
0403-000282	ZD431	DIODE-ZENER	MMBZ5232B,5%,300mW,SOT-23,TP	1	PC
0403-001003	ZD051	DIODE-ZENER	PTZ20B,20-22.4V,1000MW,PSM,TP	1	PC
0403-001003	ZD401	DIODE-ZENER	PTZ20B,20-22.4V,1000MW,PSM,TP	1	PC
0501-000465	Q030	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000465	Q241	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000465	Q902	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q181	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q351	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q352	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q901	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0501-000467	Q903	TR-SMALL SIGNAL	MMBT3906,PNP,350mW,SOT-23,TP,30~300	1	PC
0505-003681	IC153	FET-SILICON	A0N7264E,N,60V,28A,27.5W,DFN 3x3 EP	1	PC
0506-000175	IC061	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,TP,1000	1	PC
0601-002956	LED551	LED	SMD(Top View),GRN,WATER CLEAR,1.6x1.5mm,3.2x1.6x1.1mm,1,130deg,18/35mcd,-55to+85C,574nm,75mW,-,-,TR,INDICATOR	1	PC
0604-001172	PC181	PHOTO-COUPLER	TR,150-300,200mW,SOP,TP	1	PC
0604-001172	PC351	PHOTO-COUPLER	TR,150-300,200mW,SOP,TP	1	PC
0604-001172	PC352	PHOTO-COUPLER	TR,150-300,200mW,SOP,TP	1	PC
1201-004191	IC071	IC-OP AMP	9064,TSSOP,TP,14P,5x4.4x1.2mm,4,100dB,6V,-40to+125C,103dB,6.5,0.05pA,0.5pA,1.6mV	1	PC
1201-004191	IC431	IC-OP AMP	9064,TSSOP,TP,14P,5x4.4x1.2mm,4,100dB,6V,-40to+125C,103dB,6.5,0.05pA,0.5pA,1.6mV	1	PC
1203-002835	IC162	IC-POSI.FIXED REG.	7805,D-PAK/TO252,3P,6.6x6.1mm,PLASTIC,4.8V/5.2V,1.3W,TP	1	PC
1203-004967	IC502	IC-VOL. DETECTOR	KIA7042AT,TSM,3P,2.9x1.6mm,PLASTIC,4.2V,350 mW,-40to+85C,20mA	1	PC
1203-008881	IC152	IC-PWM CONTROLLER	INN2603K,eSOP-R16B,16P,PLASTIC,-40to+105C,1.2A,TP	1	PC
2007-000039	R412	R-CHIP	0ohm,1%,1/10W,TP,1608	1	PC
2007-000043	R354	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	PC
2007-000043	R356	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R032	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R191	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R194	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R242	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R352	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R358	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R445	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000052	R446	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R901	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R905	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R906	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R908	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000052	R909	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	PC
2007-000067	R181	R-CHIP	15Kohm,1%,1/10W,TP,1608	1	PC
2007-000137	R522	R-CHIP	2Kohm,5%,1/16W,TP,1005	1	PC
2007-000143	R501	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R505	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R506	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R511	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R517	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R520	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R523	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R524	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R525	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R526	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R527	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R534	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R535	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R536	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R551	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R552	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R553	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R554	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R555	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000143	R559	R-CHIP	4.7Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R528	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R532	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000148	R533	R-CHIP	10Kohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-000219	R072	R-CHIP	1.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000219	R076	R-CHIP	1.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000219	R440	R-CHIP	1.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000219	R441	R-CHIP	1.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000239	R447	R-CHIP	1.5Kohm,1%,1/10W,TP,1608	1	PC
2007-000287	R052	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R066	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R401	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R402	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R403	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R405	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R406	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000287	R407	R-CHIP	100ohm,1%,1/10W,TP,1608	1	PC
2007-000385	R062	R-CHIP	14.3Kohm,1%,1/4W,TP,3216	1	PC
2007-000385	R105	R-CHIP	14.3Kohm,1%,1/4W,TP,3216	1	PC
2007-000455	R073	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-000455	R439	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC
2007-000455	R442	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	PC
2007-000475	R450	R-CHIP	1Mohm,1%,1/10W,TP,1608	1	PC
2007-000476	R157	R-CHIP	1Mohm,1%,1/4W,TP,3216	1	PC
2007-000491	R031	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R190	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R241	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R351	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R357	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000491	R910	R-CHIP	2.2Kohm,1%,1/10W,TP,1608	1	PC
2007-000509	R443	R-CHIP	2.4Kohm,1%,1/10W,TP,1608	1	PC
2007-000537	R172	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R173	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R174	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R175	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000537	R176	R-CHIP	200ohm,1%,1/4W,TP,3216	1	PC
2007-000592	R160	R-CHIP	22ohm,1%,1/4W,TP,3216	1	PC
2007-000614	R592	R-CHIP	24Kohm,1%,1/10W,TP,1608	1	PC
2007-000651	R071	R-CHIP	27Kohm,1%,1/10W,TP,1608	1	PC
2007-000651	R075	R-CHIP	27Kohm,1%,1/10W,TP,1608	1	PC
2007-000669	R074	R-CHIP	2Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-000683	R053	R-CHIP	3.3Kohm,1%,1/10W,TP,1608	1	PC
2007-000726	R444	R-CHIP	300ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R192	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R353	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R355	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000763	R904	R-CHIP	330ohm,1%,1/10W,TP,1608	1	PC
2007-000772	R185	R-CHIP	33Kohm,1%,1/10W,TP,1608	1	PC
2007-000821	R054	R-CHIP	390ohm,1%,1/10W,TP,1608	1	PC
2007-000869	R903	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000869	R907	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	PC
2007-000924	R059	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R060	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R061	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R106	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R107	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R108	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000924	R158	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	PC
2007-000946	R184	R-CHIP	47ohm,1%,1/10W,TP,1608	1	PC
2007-000962	R051	R-CHIP	5.1Kohm,1%,1/10W,TP,1608	1	PC
2007-000962	R404	R-CHIP	5.1Kohm,1%,1/10W,TP,1608	1	PC
2007-001068	R902	R-CHIP	6.8Kohm,1%,1/10W,TP,1608	1	PC
2007-001175	R055	R-CHIP	8.2Kohm,1%,1/10W,TP,1608	1	PC
2007-001206	R183	R-CHIP	82Kohm,1%,1/10W,TP,1608	1	PC
2007-001297	R170	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R171	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R178	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-001297	R179	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R186	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001297	R187	R-CHIP	47ohm,1%,1/4W,TP,3216	1	PC
2007-001313	R593	R-CHIP	330ohm,5%,1/16W,TP,1005,T0.35	1	PC
2007-001433	R163	R-CHIP	12Kohm,1%,1/10W,TP,1608,T0.45	1	PC
2007-002557	R001	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002557	R002	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002557	R003	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002557	R004	R-CHIP	120ohm,1%,1/4W,TP,3216	1	PC
2007-002768	R561	R-CHIP	6.2Kohm,1%,1/10W,TP,1608	1	PC
2007-007306	R503	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R516	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R519	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R537	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R539	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R540	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R556	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R557	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R558	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R560	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R562	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R570	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R571	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R572	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R573	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R574	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R575	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R576	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R577	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R578	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R581	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R582	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R583	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R584	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007306	R585	R-CHIP	100ohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007313	R512	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007313	R513	R-CHIP	6.8Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R508	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R509	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R514	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R515	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R529	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R530	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R542	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007318	R563	R-CHIP	1Kohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-007385	R151	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R152	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC

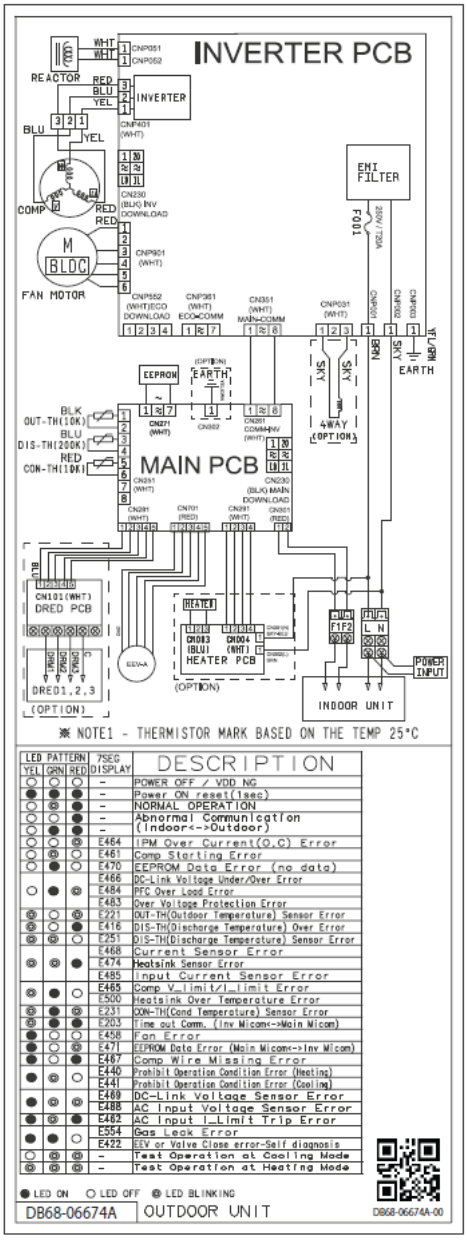
Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2007-007385	R153	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R154	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R155	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007385	R156	R-CHIP	1.2Mohm,1%,1/4W,TP,3216	1	PC
2007-007942	R531	R-CHIP	1Mohm,1%,1/16W,TP,1005,T0.35	1	PC
2007-008261	R056	R-CHIP	150Kohm,1%,1/2W,TP,5025	1	PC
2007-008261	R057	R-CHIP	150Kohm,1%,1/2W,TP,5025	1	PC
2007-008261	R058	R-CHIP	150Kohm,1%,1/2W,TP,5025	1	PC
2007-010245	R063	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R064	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R065	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R408	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R409	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2007-010245	R410	R-CHIP	0.01ohm,1%,2W,TP,6432	1	PC
2203-000257	C351	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000257	C352	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	1	PC
2203-000438	C501	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C504	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C507	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C508	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C510	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C512	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000438	C523	C-CER,CHIP	1nF,10%,50V,X7R,TP,1005	1	PC
2203-000440	C052	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C053	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C181	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C353	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C354	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C403	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C404	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C405	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C410	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C411	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C412	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C435	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000440	C903	C-CER,CHIP	1nF,10%,50V,X7R,TP,1608	1	PC
2203-000783	C178	C-CER,CHIP	0.33nF,5%,50V,C0G,TP,1608	1	PC
2203-000812	C242	C-CER,CHIP	0.033nF,5%,50V,C0G,TP,1005	1	PC
2203-002398	C524	C-CER,CHIP	22nF,10%,50V,X7R,TP,1608	1	PC
2203-005135	C168	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C169	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C173	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C174	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C175	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C176	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C184	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC
2203-005135	C185	C-CER,CHIP	1nF,10%,630V,X7R,TP,3216,T1.15	1	PC

Parts Code	Design Loc	Parts Description	Spec.	Quantity	Unit
2203-005249	C054	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C057	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C061	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C071	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C153	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C161	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C162	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C163	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C170	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C177	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C182	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C183	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C401	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C407	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C408	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C409	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C431	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-005249	C902	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	1	PC
2203-006158	C503	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C509	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C511	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C514	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C520	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C525	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C526	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C527	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C541	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006158	C581	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,T0.5	1	PC
2203-006460	C180	C-CER,CHIP	2200nF,10%,16V,X5R,TP,1608	1	PC
2203-006460	C522	C-CER,CHIP	2200nF,10%,16V,X5R,TP,1608	1	PC
2203-006698	C528	C-CER,CHIP	1000nF,10%,25V,X7R,TP,1608,T0.8	1	PC
2203-006698	C901	C-CER,CHIP	1000nF,10%,25V,X7R,TP,1608,T0.8	1	PC
2203-007486	C051	C-CER,CHIP	1000nF,10%,50V,X5R,TP,1608	1	PC
2203-007486	C402	C-CER,CHIP	1000nF,10%,50V,X5R,TP,1608	1	PC
2402-001144	CE403	C-AL,SMD	68uF,20%,25V,LZ,TP,6.3*5.8mm	1	PC
2402-001144	CE404	C-AL,SMD	68uF,20%,25V,LZ,TP,6.3*5.8mm	1	PC
2402-001144	CE405	C-AL,SMD	68uF,20%,25V,LZ,TP,6.3*5.8mm	1	PC
2402-001183	CE071	C-AL,SMD	22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	PC
2402-001268	CE052	C-AL,SMD	100uF,20%,25V,WT,TP,8x6.3mm	1	PC
2402-001268	CE402	C-AL,SMD	100uF,20%,25V,WT,TP,8x6.3mm	1	PC
2802-001211	X501	RESONATOR-CERAMIC	8MHz,0.5%,TP,3.2x1.3x0.9 mm	1	PC
DB41-01351A	PCB	PCB INVERTER	FR-4,2L,T1.6,160*242,2,PF#3_17S,2Oz,320*242	1	PC
DB91-01930A	IC501	ASSY MICOM	PF2/3_13S , PF2/3_17S Inverter Micom,STM-1746_OA,HART-i910z,64LQFP,ROM 128KB	1	PC
0903-002197	-	IC-MICROCONTROLLER	HART-I910Z,LQFP,64P,12x12mm,8MHz,TR,5V,600 mW,-40to+85C,12KB,128KB,Inverter SOC	1	PC

7. Wiring Diagram

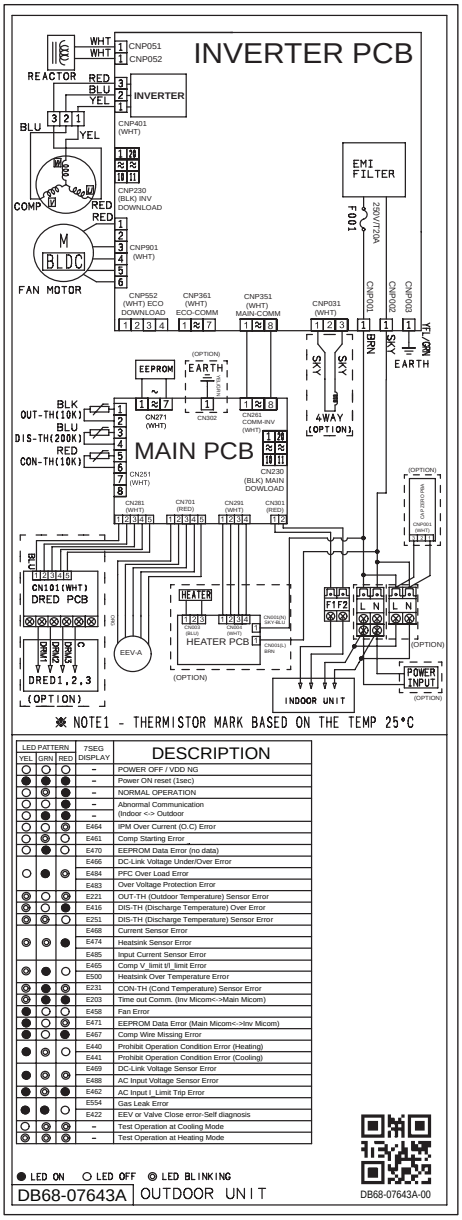
7-1 Indoor Unit

AR09RXFPEWQNEU
AR12RXFPEWQNEU
AR18RXFPEWQNEU
AR24RXFPEWQNEU



7-2 Outdoor Unit

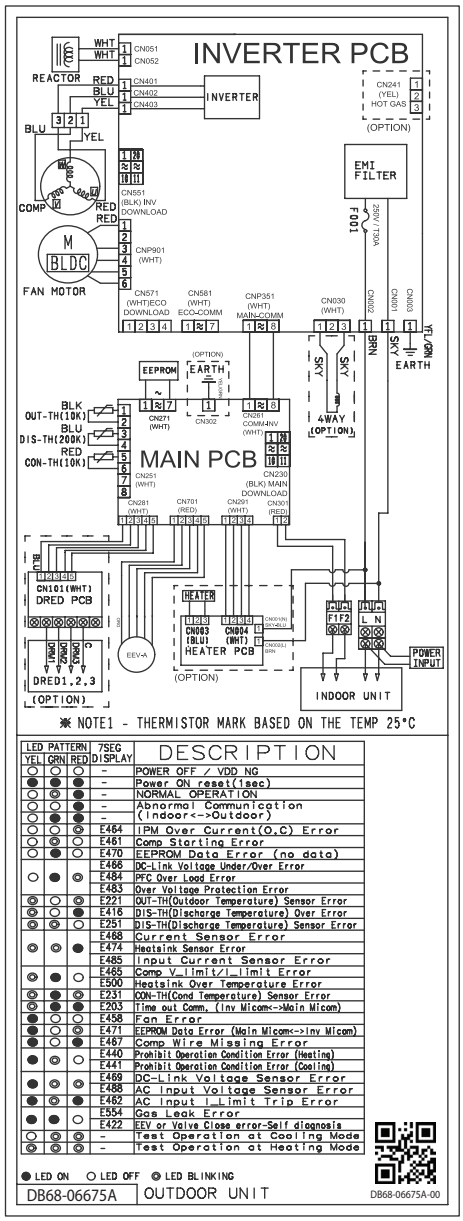
AR09RXFPEWQXEU
AR12RXFPEWQXEU
AR18RXFPEWQXEU



LED PATTERN YEL	LED PATTERN GRN	LED PATTERN RED	7SEG DISPLAY	DESCRIPTION
○	○	○	–	POWER OFF / VDD NG
●	●	●	–	Power ON reset (1sec)
○	◎	●	–	NORMAL OPERATION
○	○	●	–	Abnormal Communication (Indoor <-> Outdoor
○	●	●	–	
○	○	◎	E464	IPM Over Current (O.C) Error
○	◎	○	E461	Comp Starting Error
○	●	○	E470	EEPROM Data Error (no data)
			E466	DC-Link Voltage Under/Over Error
○	●	◎	E484	PFC Over Load Error
			E483	Over Voltage Protection Error
◎	○	◎	E221	OUT-TH (Outdoor Temperature) Sensor Error
◎	○	●	E416	DIS-TH (Discharge Temperature) Over Error
◎	◎	○	E251	DIS-TH (Discharge Temperature) Sensor Error
			E468	Current Sensor Error
◎	◎	●	E474	Heatsink Sensor Error
			E485	Input Current Sensor Error
◎	●	○	E465	Comp V_limit t/I_limit Error
			E500	Heatsink Over Temperature Error
◎	●	◎	E231	CON-TH (Cond Temperature) Sensor Error
◎	●	●	E203	Time out Comm. (Inv Micom<->Main Micom)
●	○	○	E458	Fan Error
●	○	◎	E471	EEPROM Data Error (Main Micom<->Inv Micom)
●	○	●	E467	Comp Wire Missing Error
●	◎	○	E440	Prohibit Operation Condition Error (Heating)
			E441	Prohibit Operation Condition Error (Cooling)
●	◎	◎	E469	DC-Link Voltage Sensor Error
			E488	AC Input Voltage Sensor Error
●	◎	●	E462	AC Input I_Limit Trip Error
			E554	Gas Leak Error
●	●	○	E422	EEV or Valve Close error-Self diagnosis
○	◎	◎	–	Test Operation at Cooling Mode
◎	◎	◎	–	Test Operation at Heating Mode

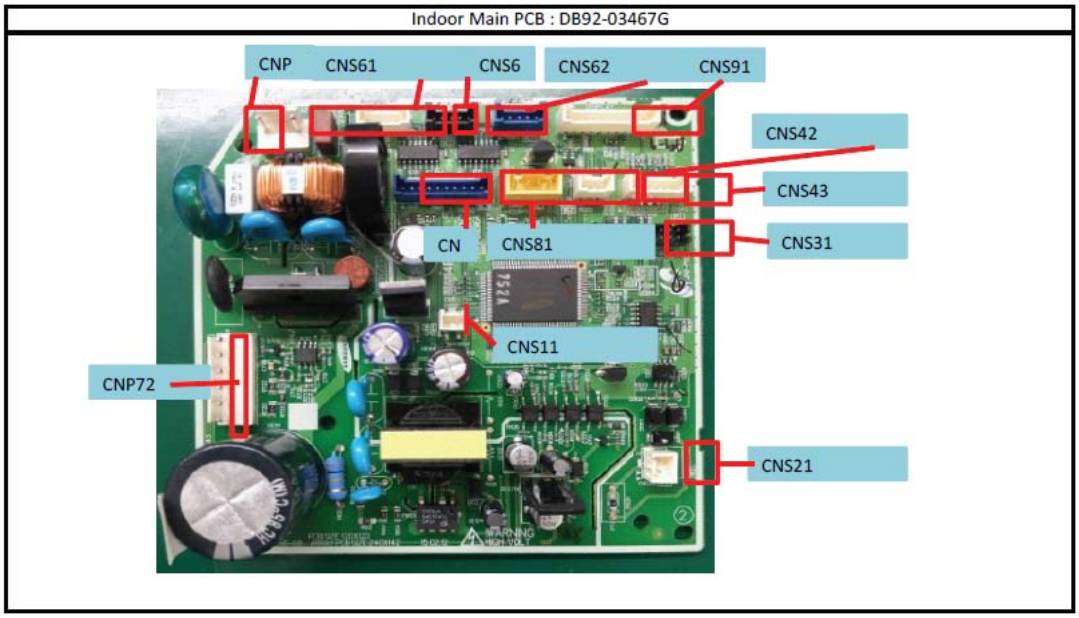
7-2 Outdoor Unit

AR24RXFPEWQXEU



8. PCB Diagram

8-1 Indoor Main PCB CODE DB92-03467G



CNP71	
#1	N
#2	NULL
#3	L

CNS61	
#1	+12V
#2	O2
#3	O3
#4	O4
#5	O5

CNS62	
#1	+12V
#2	O4
#3	O5
#4	O6
#5	O7

CNS63	
#1	+12V
#2	O6
#3	O7
#4	O2
#5	O3

CNS81	
#1	C (Q801)
#2	NULL
#3	+12V
#4	NULL

CNS42	
#1	HUM_OUT1
#2	HUM_SENSOR
#3	HUM_OUT2

CNS43	
#1	ROOM TEMP
#2	GND
#3	EVA_TEMP
#4	GND
#5	EVA2_TEMP
#6	GND

CNS11	
#1	+5V
#2	5V'

CNS21	
#1	PIN7 (IC07)
#2	PIN6 (IC07)

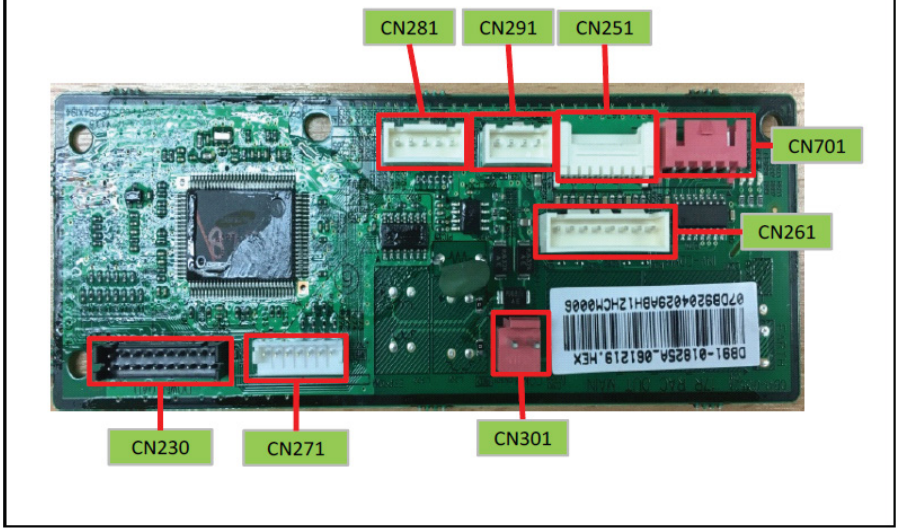
CNS91	
#1	DIO
#2	CLK
#3	STB
#4	IRQ
#5	R902
#6	+5V
#7	Vout
#8	PLM_LED
#9	NULL
#10	REMOCON_SIGN_OU

CNS32	
#1	COM2_RXD
#2	COM2_TXD
#3	COM2_ENABLE
#4	COM2_LED
#5	ECT_CTRL
#6	COMP_CHK
#7	ERROR_CHK
#8	+5V
#9	GND
#10	+12V

CNP72	
#1	TRAN_IN
#2	NULL
#3	PIN6 PC04
#4	+15V
#5	PIN4 PC04
#6	PIN3 PC05

8-2 Outdoor Main PCB CODE DB92-04029D

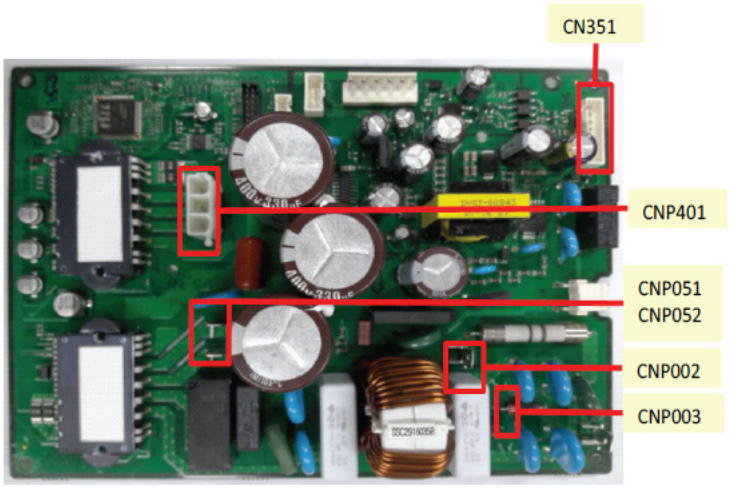
Outdoor PCB : DB92-04029D



CN301 : 485 COMM	CN271 : EEPROM	CN261 : COMM (MAIN)
#1 : PTC301	#1 : SGND	#1 : TDX_MAIN
#2 : L301	#2 : NULL	#2 : RXD_MAIN
	#3 : +5V	#3 : +5V
CN230 : DOWNLOAD	#4 : EEP_CS	#4 : SGND
#1 : RXD	#5 : EEP_SO_MICO	#5 : +12V
#2 : TXD	#6 : EEP_SO_MICO	#6 : POWER_SAVE
#3 : BOOT	#7 : EEP_CLK	#7 : 4WAY
#4 : TDO		#8 : NULL
#5 : TCK	**CN251 : SENSOR**	
#6 : TDI	#1 : OUT_TH	**CN701**
#7 : TMS	#2 : SGND	#1 : O4
#8 : TRACKCLK	#3 : DIS_TH	#2 : O3
#9 : SGND	#4 : SGND	#3 : O2
#10 : +5v	#5 : COND_TH	#4 : O1
#11 : NULL	#6 : SGND	#5 : COM
#12 : NULL	#7 : OLP_TH	
#13 : NULL	#8 : SGND	**CN291 : SENSOR**
#14 : Trace3		#1 : +12V
#15 : NULL	**CN281 : DRED**	#2 : SGND
#16 : NULL	#1 : DRED1	#3 : HEATER_L
#17 : SGND	#2 : DRED2	#4 : HEATER_R
#18 : Trace2	#3 : DRED3	
#19 : Trace1	#4 : SGND	
#20 : Trace0		

8-3 Outdoor PCB Inverter CODE DB92-04025C

Outdoor PCB Inverter : DB92-04025*

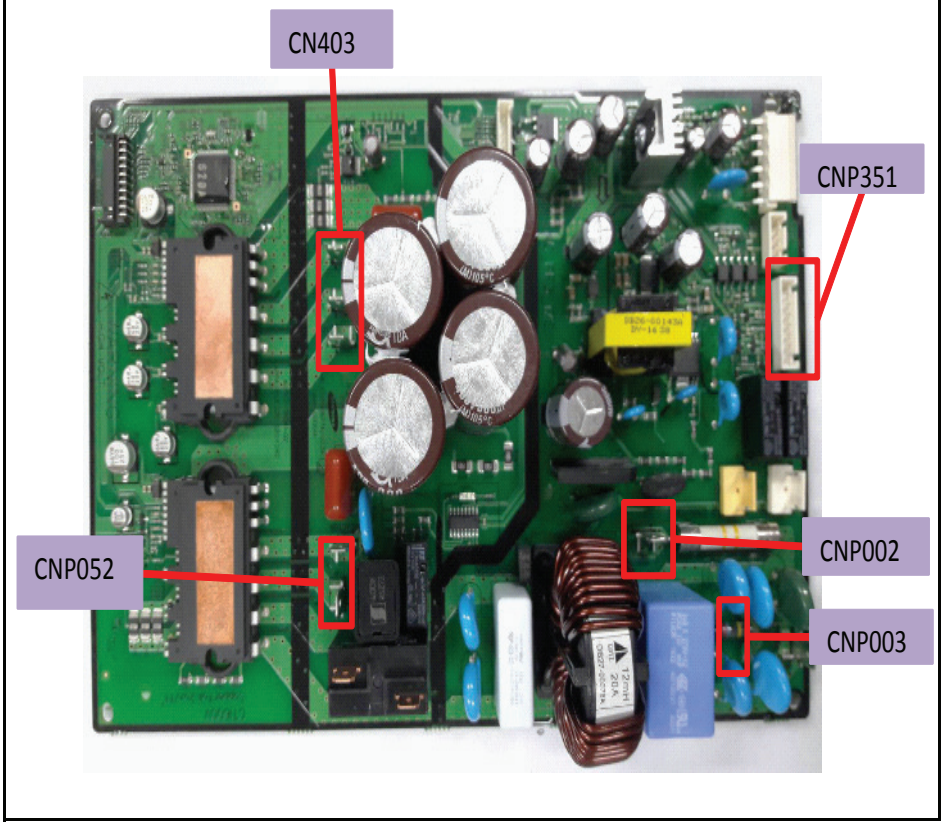


CN051 : WIRE REACTOR	CN052 : WIRE REACTOR	CN002 : WIRE POWER INPUT
#1 : PR	#1 : L	#1 : POWER INPUT
		#2 : GND

CNP003 : WIRE EARTH	CNP351: COMM	CNP401 : WIRE COMP
#1 : GND	#1 : R351	#1 : W
	#2 : R354	#2 : V
	#3 : +5V_1	#3 : U
	#4 : SGND	
	#5 : +12V_1	
	#6 : POWER_SAVE	
	#7 : 4WAY	
	#8 : HOT_GAS	

8-4 Outdoor PCB Inverter CODE DB92-04027B

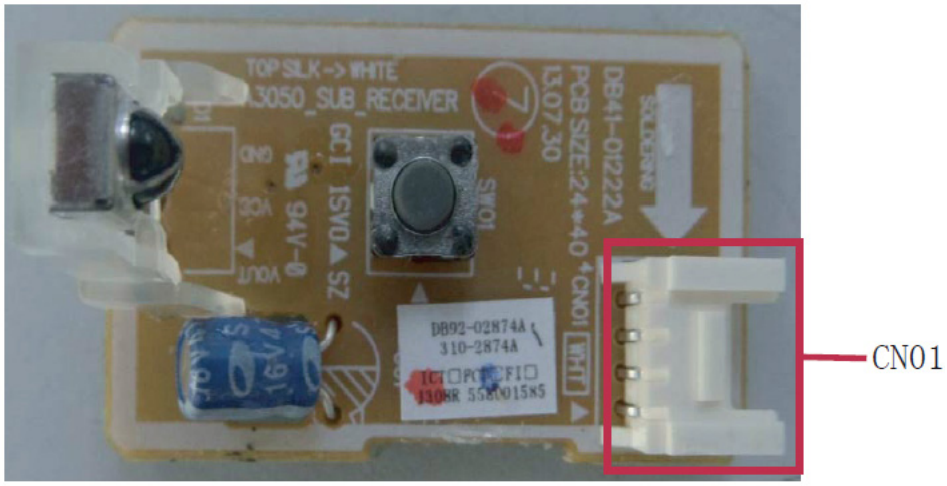
Outdoor Main PCB : DB92-04027B



CN403 : COMP	CN052 : WIRE REACTOR	CN002 : WIRE POWER INPUT
#1 : W	#1 : PR	#1 : POWER INPUT
#2 : V	#2 : PR	#2 : GND
#3 : U		

CNP003 : WIRE EARTH	CNP351: COMM
#1 : GND	#1 : R351
	#2 : R354
	#3 : +5V_1
	#4 : SGND
	#5 : +12V_1
	#6 : POWER_SAVE
	#7 : 4WAY
	#8 : HOT_GAS

8-5 SUB PCB-RECEIVE-DB92-02874A



CN01 - RECEIVE

#1 : GND
#2 : Vout
#3 : Vcc
#4 : S/W

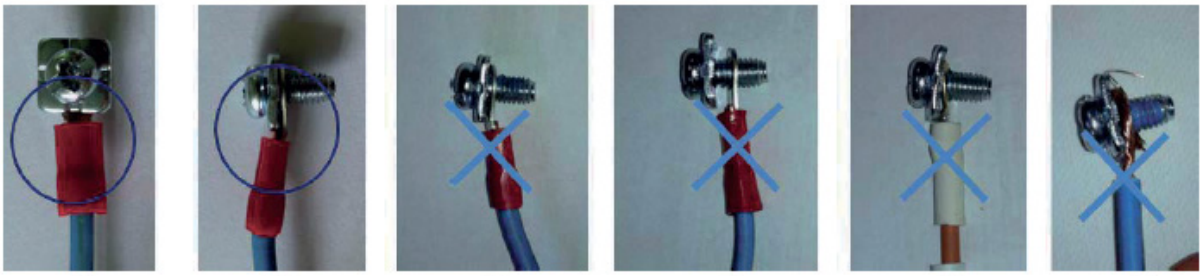
8-6 Wire connecting the indoor unit terminal blocks

1. Terminal press of Ring terminal shall be set facing up before connecting wire.

Is inverted

Terminalhasbeencut.

2. There shall be no empty space between Ring terminal and Screw after Clamp.
If not, there exists a possibility of fire which can be caused by electric heat in the connecting part.



①, ② : Good
③ Bad : Ring terminal is connected reversely
④ Bad : Not clamped Screw
⑤ Bad : In the gap between Ring terminal & Screw
⑥ Bad : Unused Ring Terminal

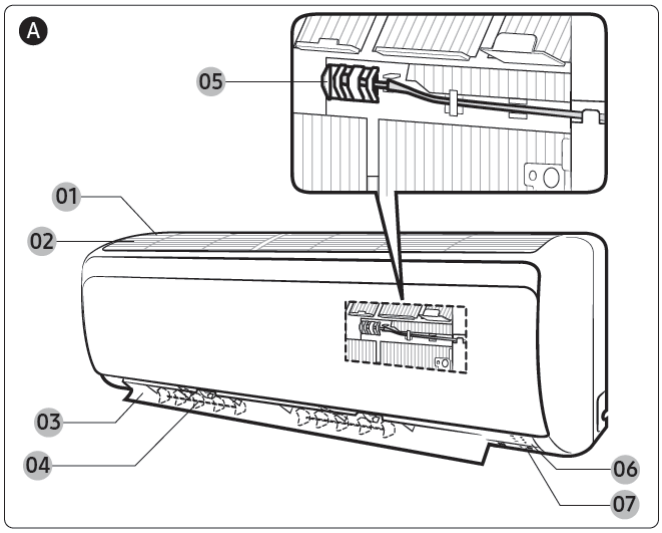
9. Operating Instructions

9-1 Name of Each Part

9-1-1 Indoor Unit

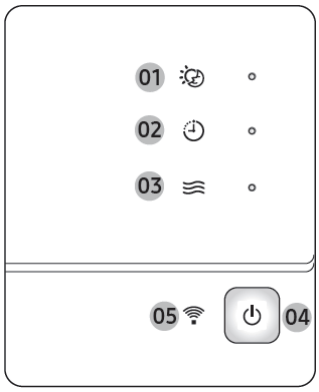
The design and shape are subject to change according to the model.

◆ Main Parts



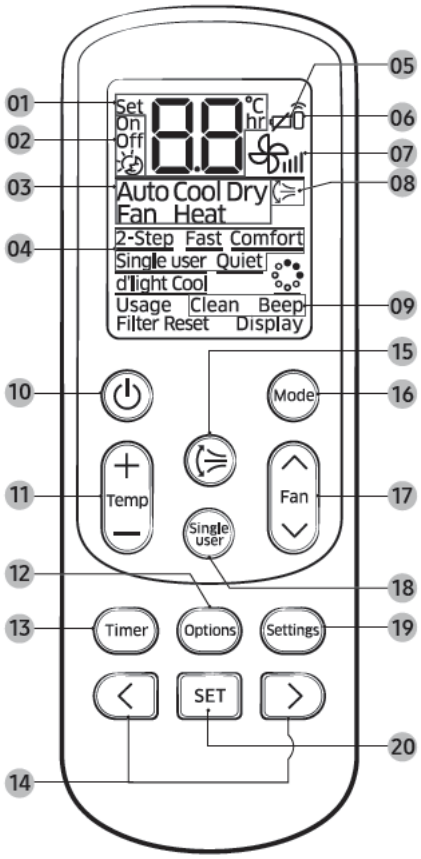
01 Air intake
02 Air filter
03 Air flow blade (up and down)
04 Air flow blade (left and right)
05 Room temperature sensor
06 Display
07 Power button /Remote control receiver

◆ Display



01 good'sleep indicator
02 Timer indicator/Auto clean indicator
03 Operation indicator
04 Power button
05 Remote controller receiver

9-2 Wireless Remote control-Buttons and Display



01 Set temperature indicator
02 Timer option indicator
03 Operation mode indicator
04 Options indicator
05 Low battery indicator
06 Transmit indicator
07 Fan speed indicator
08 Vertical air swing indicator
09 Settings indicator
10 Power button
11 Temperature button
12 Options button
13 Timer button
14 Direction button / Selection button
15 Vertical air swing button
16 Mode button
17 Fan speed button
18 Single user button
19 Settings button
20 SET button

10. Troubleshooting

10-1 Items to be checked first

1 The input voltage should be rating voltage ±10% range.The air conditioner may not operate properly if the voltage is out of this range.

2 Is the line cable linking the indoor unit and the outdoor unit linked properly? The indoor unit and the outdoor unit shall be linked by 5 cables. Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables. Otherwise the air conditioner may not operate properly.

3 When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the air conditioner.

NO.	Operation of air conditioner	Explanation
1	The OPERATION indication LED(BLUE) blinks when a power plug of the indoor unit is plugged in for first time.	It indicates power is on. The LED stops blinking if the operation ON/OFF button on the remote control unit is pushed.
2	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the INDOOR FAN should operate. **[In case of heat pump model]** In a HEAT operation mode, the compressor does not operate at a room temperature lower than the setting temperature that indoor fan should operate.	In happens after a delay of 3 minutes when the compressor is reoperated. The same phenomenon occurs when a power is on. As a phenomenon that the compressor is reoperated after a delay of 3 minutes, the indoor fan is adjusted automatically with reference to a temperature of the air blew.
3	Fan speed setting is not allowed in DRY mode.	The speed of the indoor fan is set to LL in DRY mode. Fan speed is selected automatically in AUTO mode.
4	Compressor stops operation intermittently in Dry mode.	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
5	Timer LED(ORANGE) of the indoor unit lights up and the air conditioner does not operate.	Timer is being activated and the unit is in ready mode. The unit operates normally if the timer operation is cancelled.
6	The compressor stops intermittently in a COOL mode or DRY mode, and fan speed of the indoor unit decreases.	The compressor stops intermittently or the fan speed of the indoor unit decreases to prevent inside/outside air frozen depending on the inside/outside air temperature.
7	[In case of heat pump model] Compressor of the outdoor unit is operating al-though it is turned off in a HEAT mode.	When the unit is turned off while de-ice is activated, the compressor continus operation for up to 9 minutes(maximum) until the deice is completed.
8	[In case of heat pump model] The compressor and indoor fan stop intermittenly in HEAT mode.	The compressor and indoor fan stop intermittently if room temperature exceeds a setting temperature in order to protect the compressor from overheated air in a HEAT mode.
9	[In case of heat pump model] Indoor fan and outdoor fan stop operation intermittently in a HEAT mode.	The compressor operates in a reverse cycle to remove exterior ice in a HEAT mode, and indoor fan and outdoor fan do not operate intermittently for within 20% of the total heater operation.

10-2 Communication Error

10-2-1 Communication Error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
○	◎	◎	E101/E102	Communication error(Indoor<->outdoor)

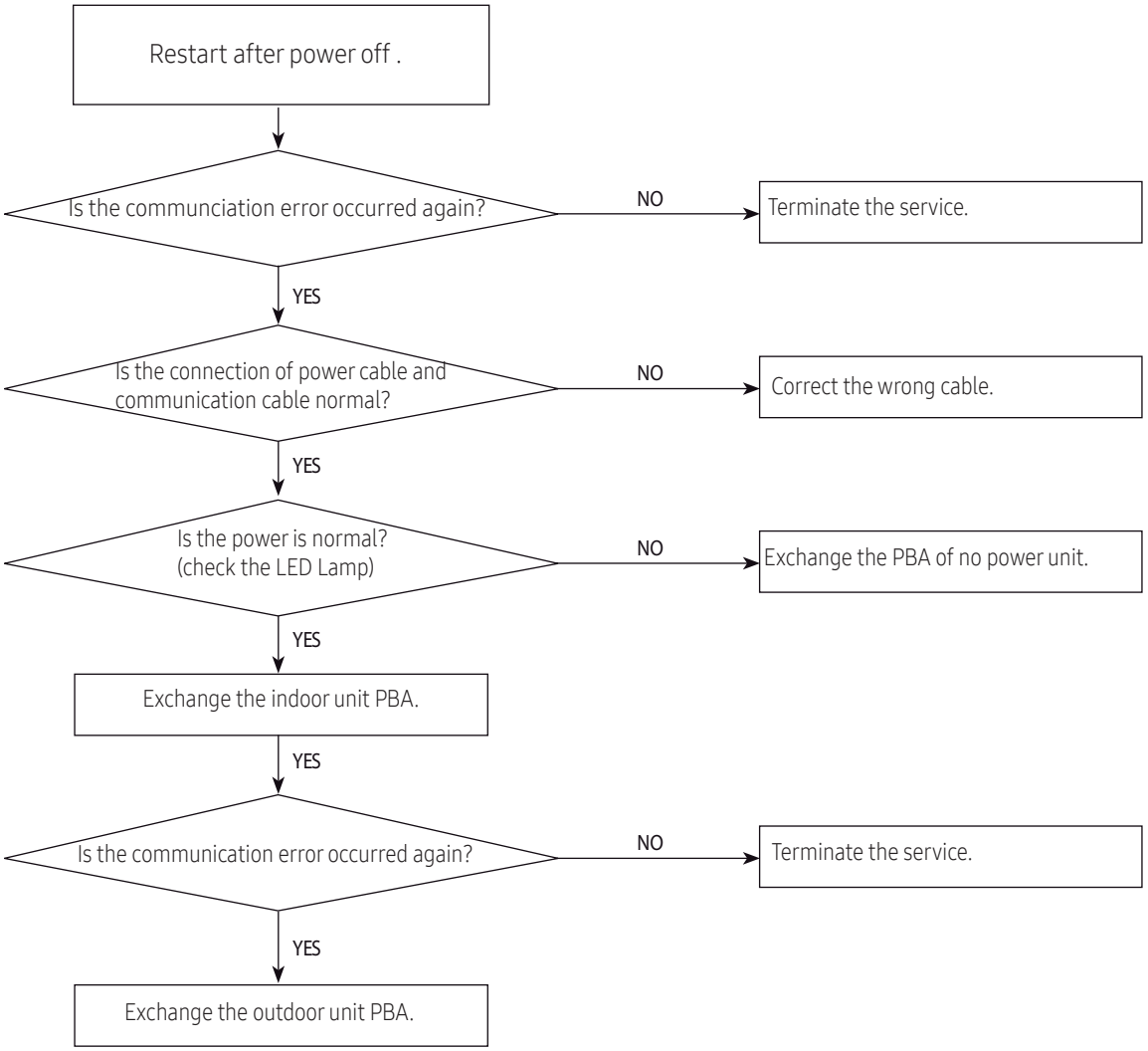
Outdoor display

◎	●	●	1min. Time out Comm.
○	○	●	Abnormal Communication
○	●	●	

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the cable between the indoor unit and outdoor unit connected correctly?
   2) Isn't the power cable and communication cable cross?

2. Troubleshooting procedure



10-2-2 Indoor temperature sensor Error

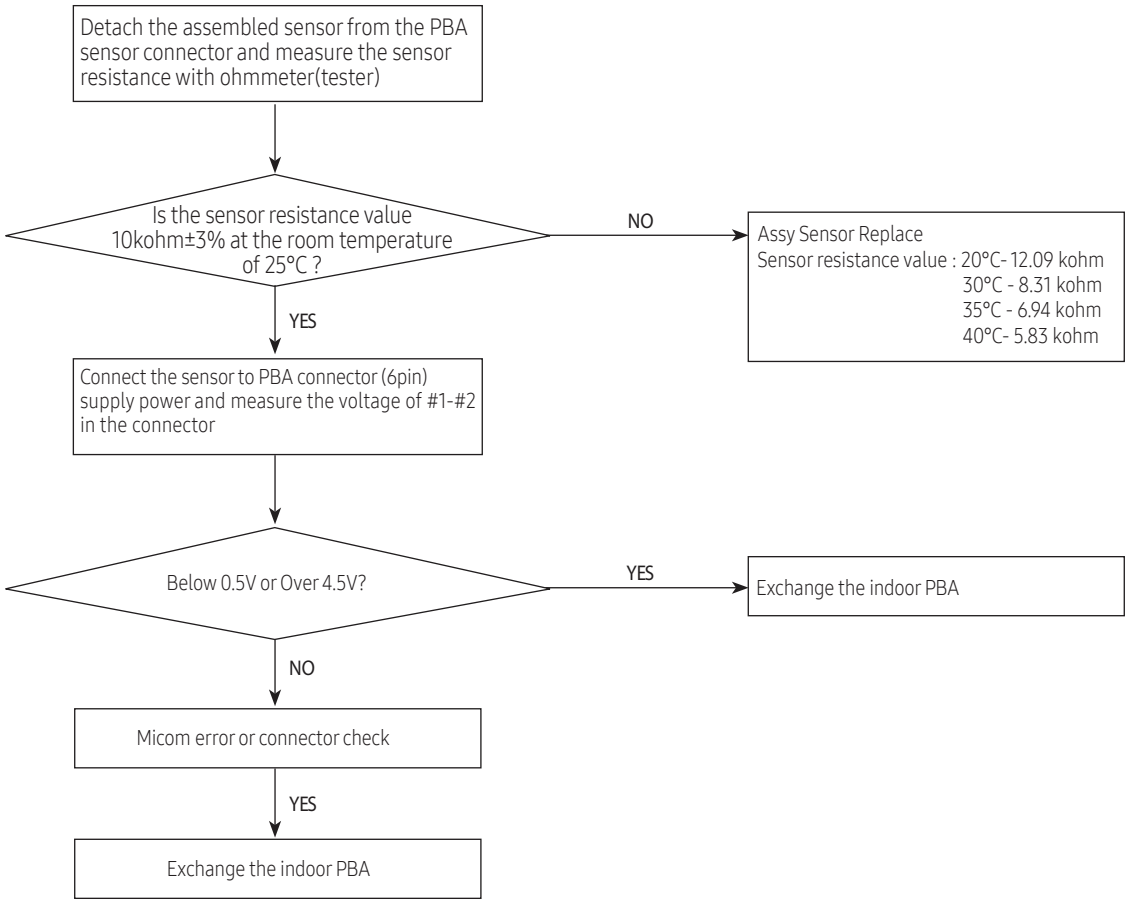
Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
○	◎	○	E121	Indoor room temp sensor error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the indoor units temperature sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?

2. Troubleshooting procedure



10-2-3 Indoor fan motor speed detecting error (BLDC fan)

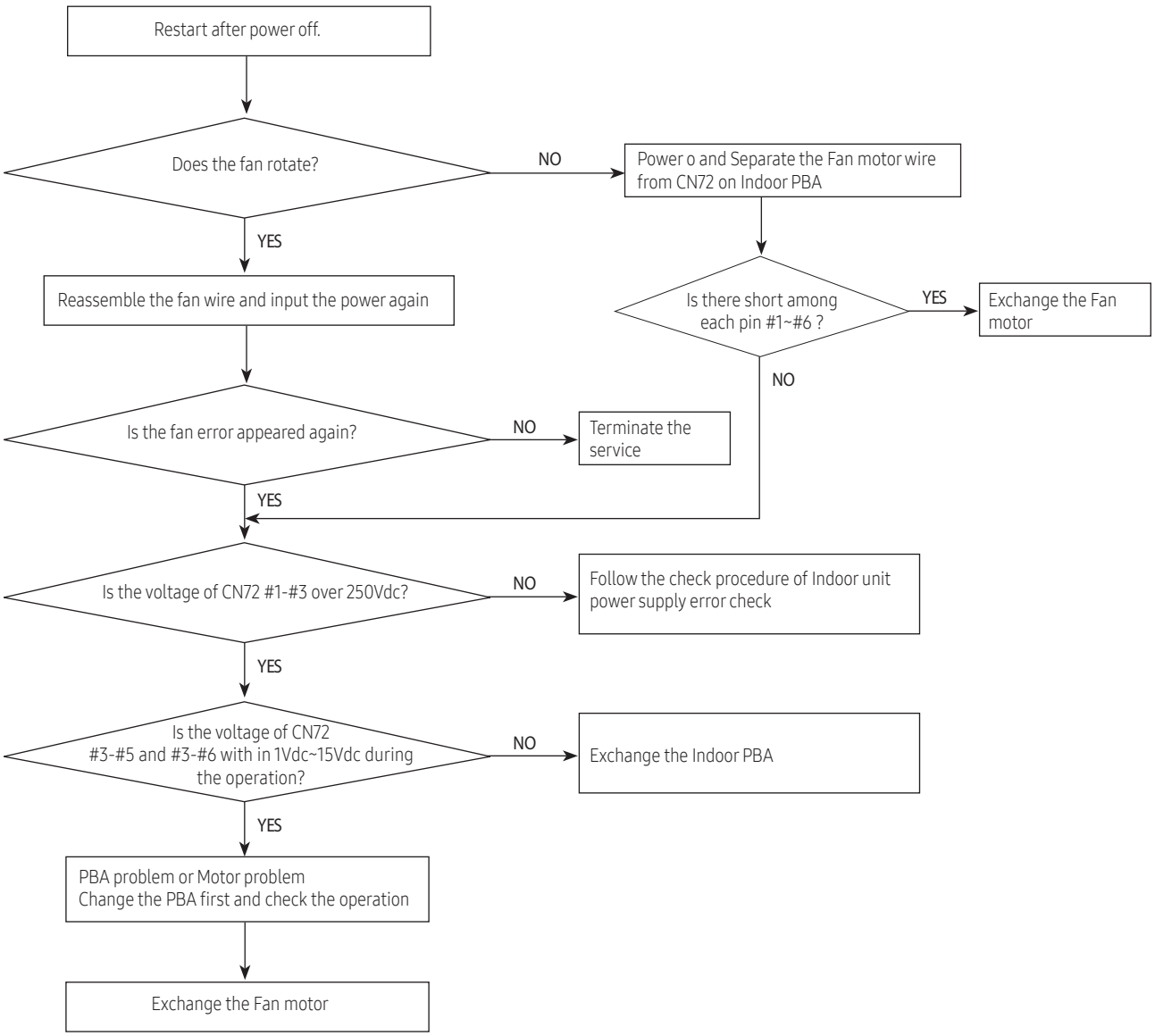
Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
○	○	◎	E154	Indoor fan error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the indoor units fan motor properly connected with the connector(CN72)?
   2) Is the AC voltage correct?

2. Troubleshooting procedure



10-2-4 Outdoor temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E221	Outdoor temperature sensor error

Outdoor display

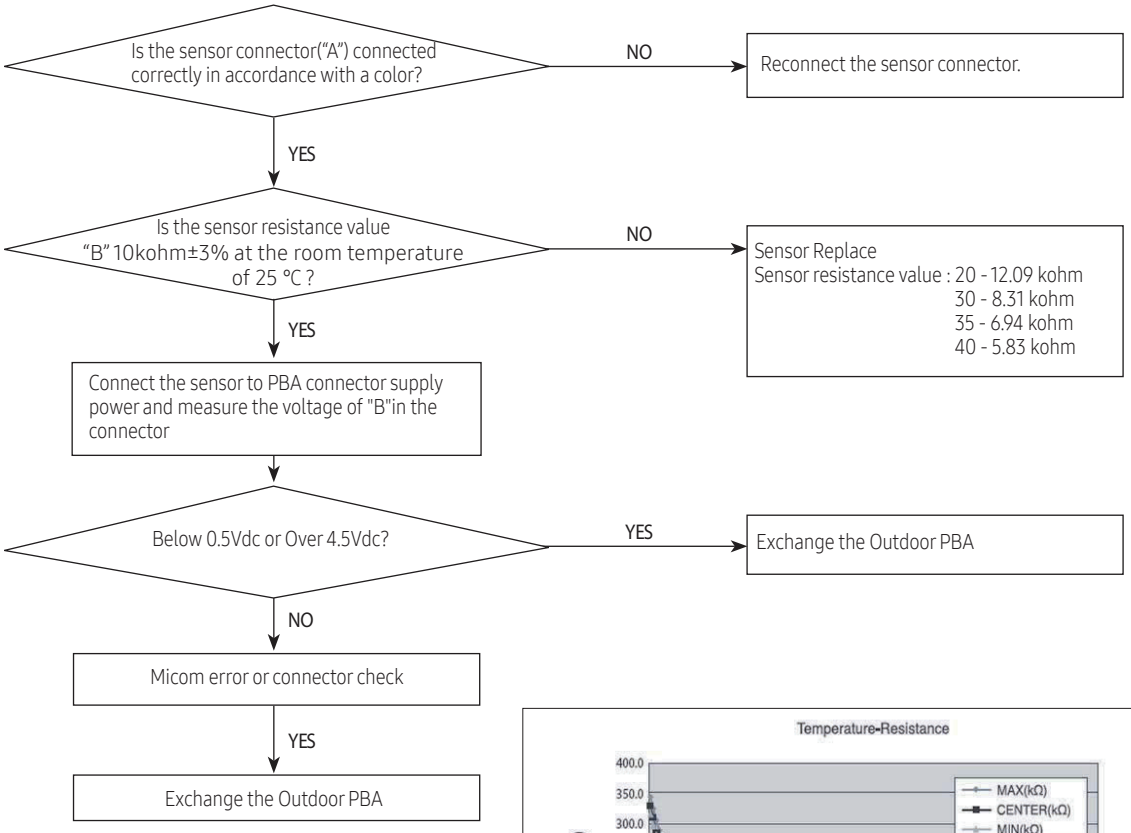
◎	○	◎	Outdoor temperature sensor error

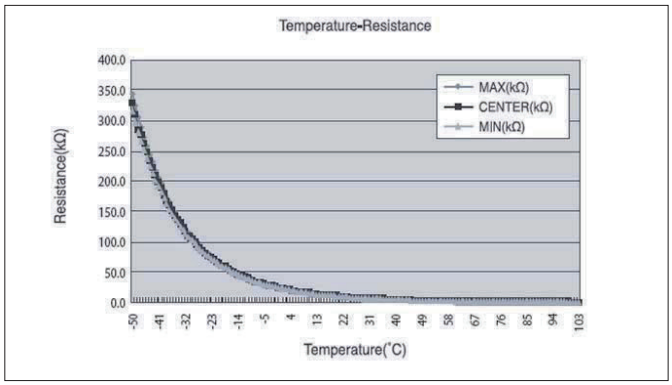
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull-up correct?

2. Troubleshooting procedure

Model	"A"	"B"
ALL	CN251	CN251 #1-#2





10-2-5 Outdoor Cond temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E231	Outdoor Cond temperature sensor error

Outdoor display

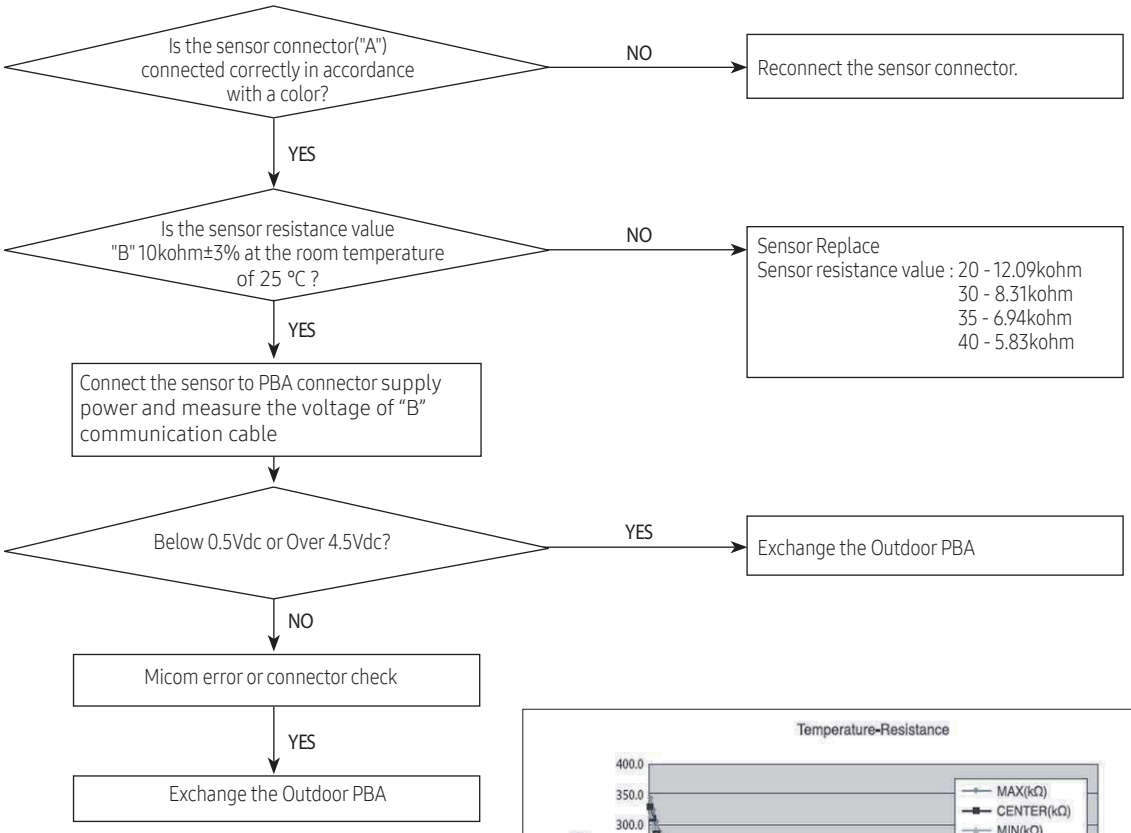
◎	●	◎	Outdoor Cond temperature sensor error

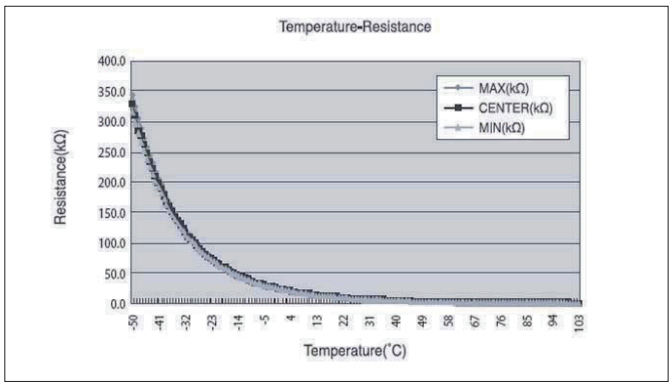
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull-up correct?

2. Troubleshooting procedure

Model	"A"	"B"
ALL	CN251	CN251 #5-#6





10-2-6 Outdoor Discharge temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E251	Outdoor Discharge temperature sensor error

Outdoor display

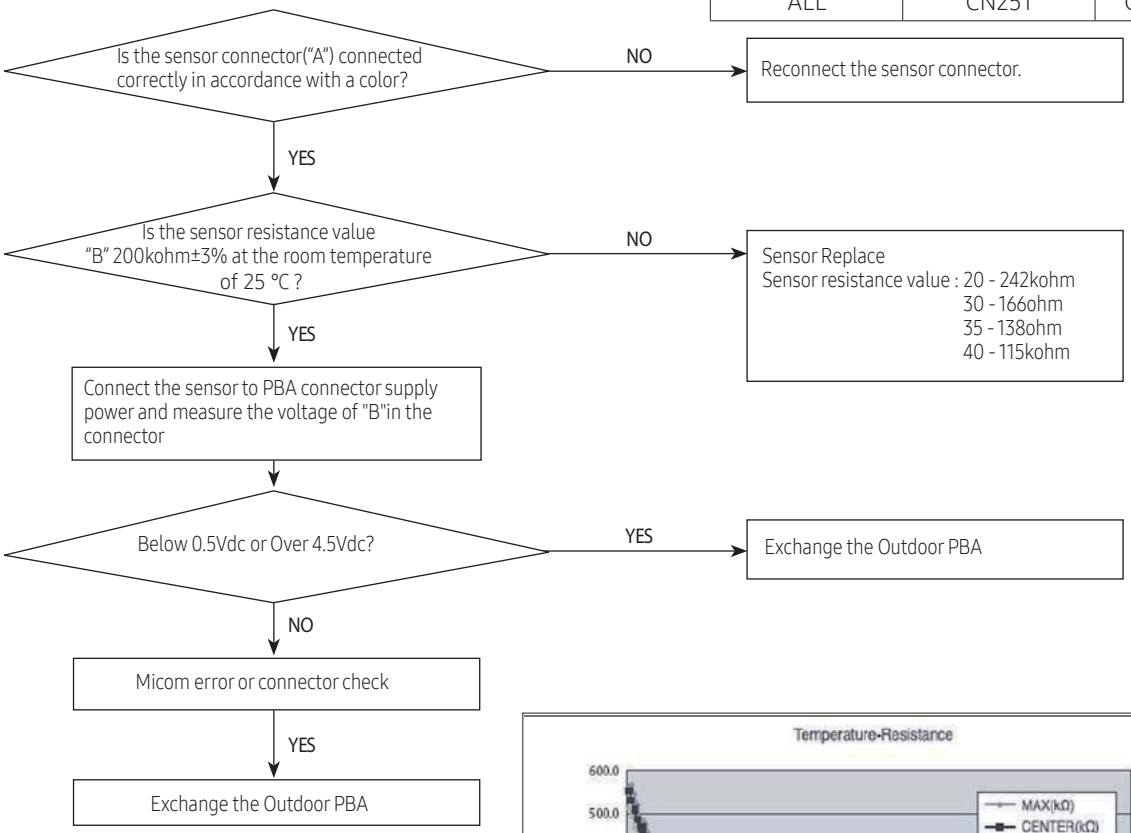
◎	◎	○	Outdoor Discharge temperature sensor error

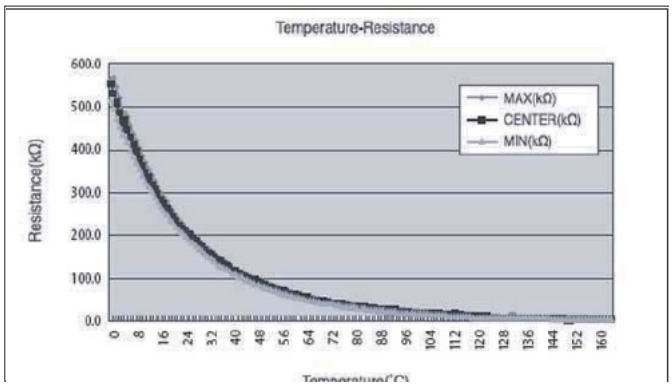
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull-up correct?

2. Troubleshooting procedure

Model	"A"	"B"
ALL	CN251	CN251 #1-#2





10-2-7 Operation condition secession error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E440	Prohibit Operation Condition Error (Heating)
			E441	Prohibit Operation Condition Error (Cooling)

Outdoor display

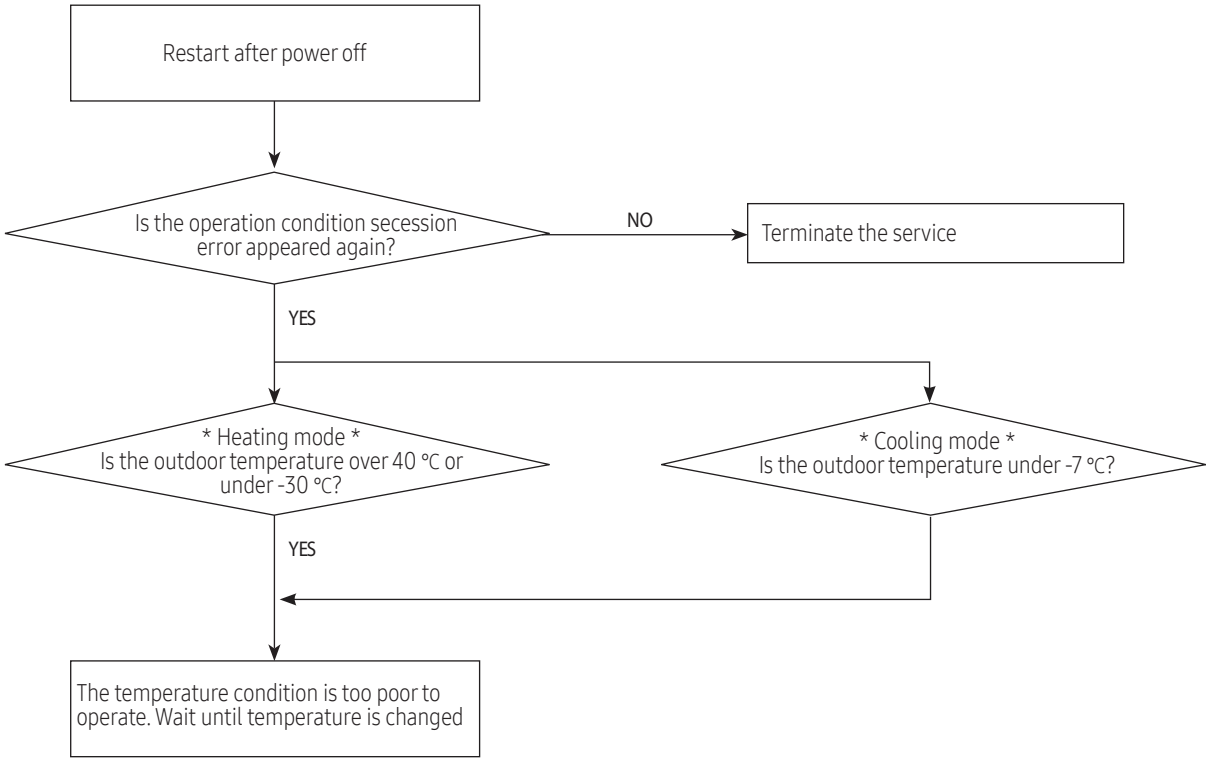
●	◎	○	Operation condition secession

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

1) Check the temperature around the outdoor unit.

2. Troubleshooting procedure



10-2-8 EEPROM error / OTP error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E470	EEPROM Data Error (no data)
			E471	OTP errorEEPROM Data Error (Main Micom Inv Micom)

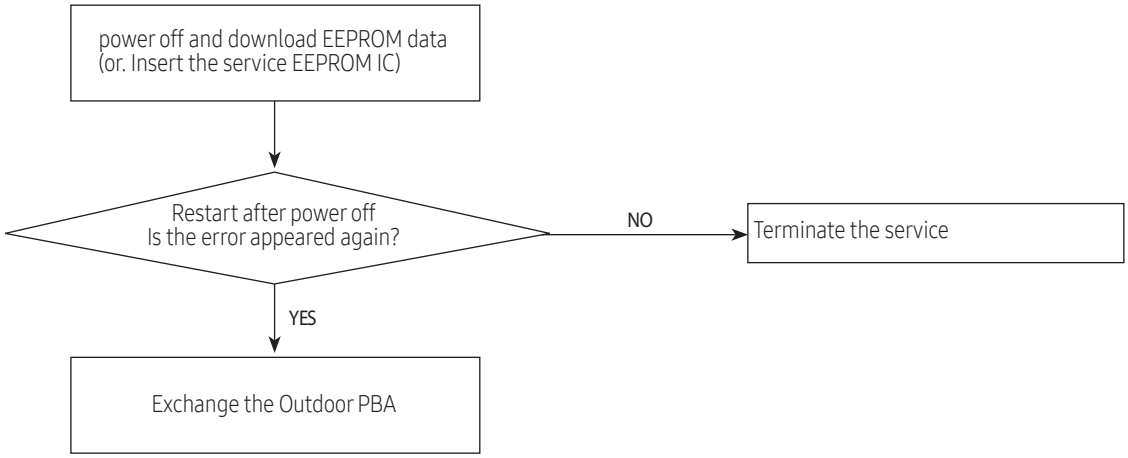
Outdoor display

○	●	○	EEPROM Data Error (no data)
●	○	◎	OTP errorEEPROM Data Error (Main MicomInv Micom)

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is there a short around micom?
   2) Is there a short around "A"?
   3) Did you download or insert EEPROM IC, after changing outdoor PBA?

2. Troubleshooting procedure



10-2-9 Outdoor Fan motor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E458	Outdoor fan error

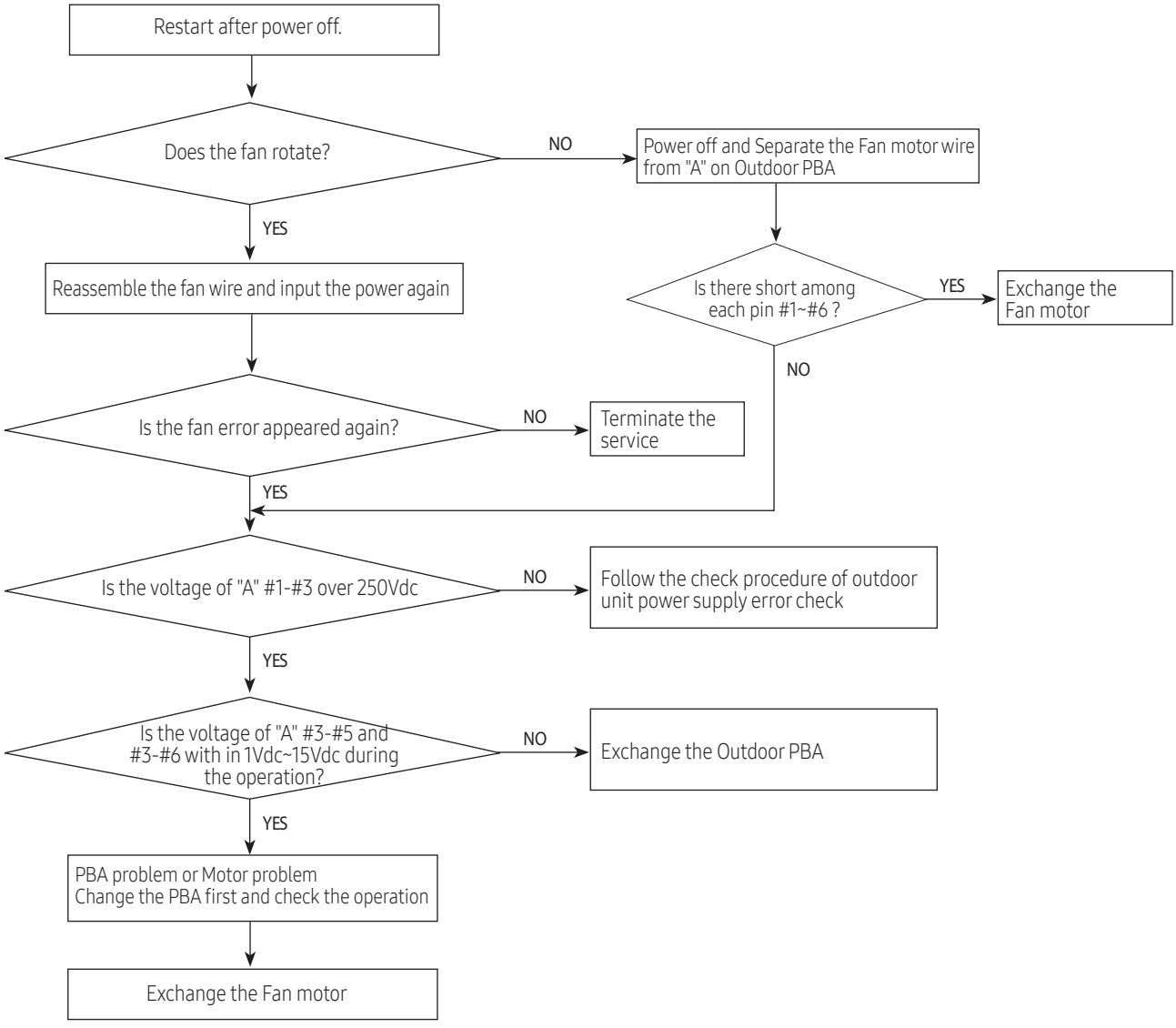
Outdoor display

●	○	○	Outdoor fan error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Are the input power voltage and the power connection correct?
   2) Is the motor wire connected to the outdoor PBA correctly?
   3) Is there no assembly error or non-assembly in the terminal of motor wire connector?
   4) Is there no obstacle at the surrounding of motor and propeller?

2. Troubleshooting procedure



10-2-10 Compressor starting error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E461	Comp starting error

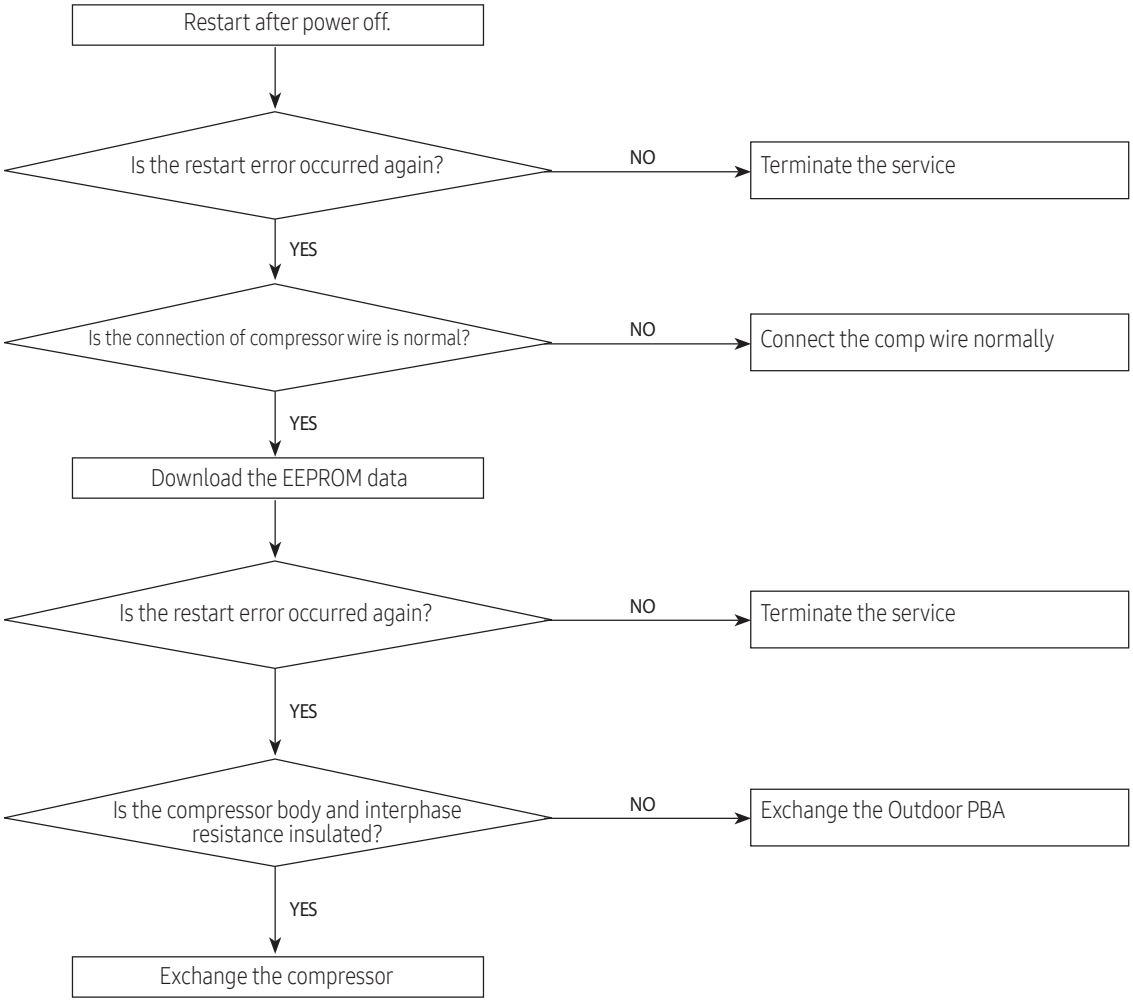
Outdoor display

○	◎	○	Comp starting error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the connection of cable for the compressor?
   2) Is the compressor wire is connected clockwise? U(RED)-V(BLU)-W(YEL)
   3) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



10-2-11 Compressor wire missing error/rotation error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E467	Compressor wire missing errorr/rotation error

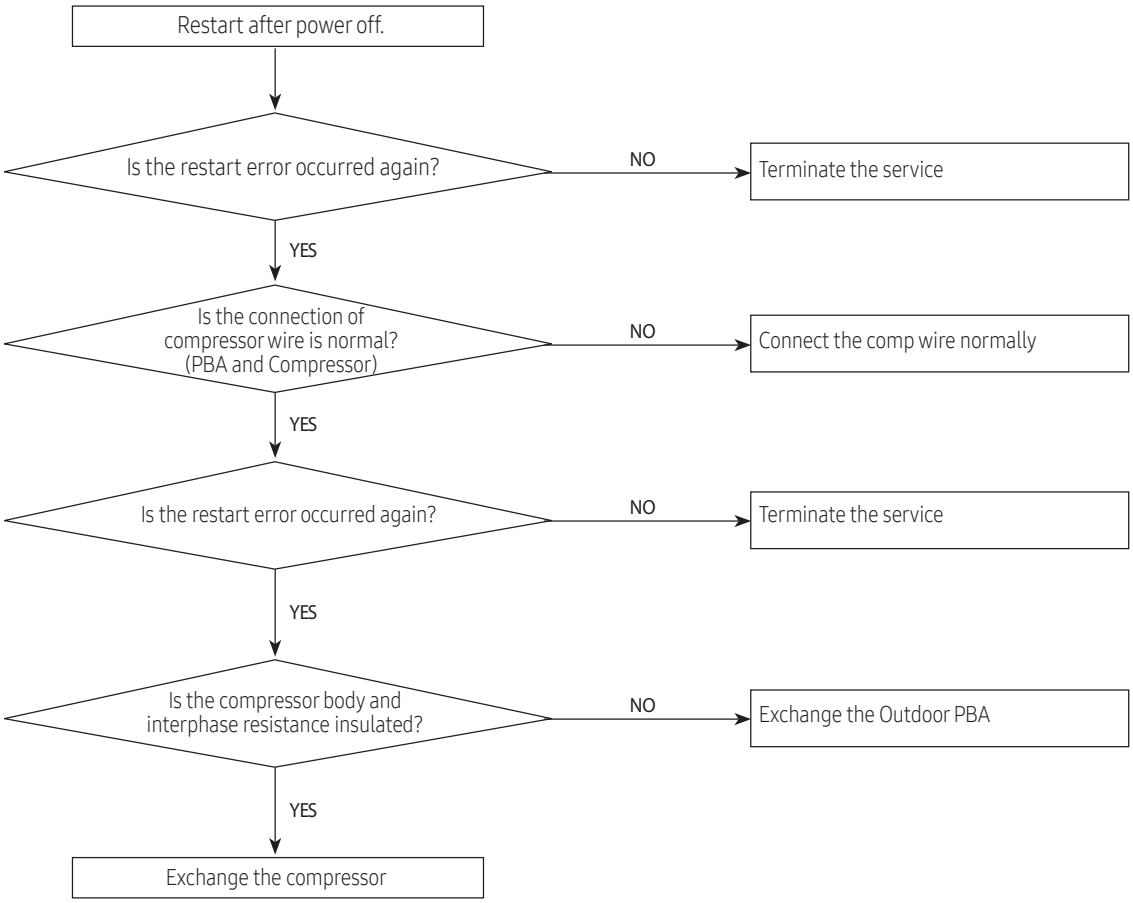
Outdoor display

●	○	●	Compressor wire missing error/rotation error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the connection of cable for the compressor?
   2) Is the compressor wire is connected clockwise? U(RED)-V(BLU)-W(YEL)
   3) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



10-2-12 Current sensor error/Input current sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E462	AC Input I_Limit Trip Error

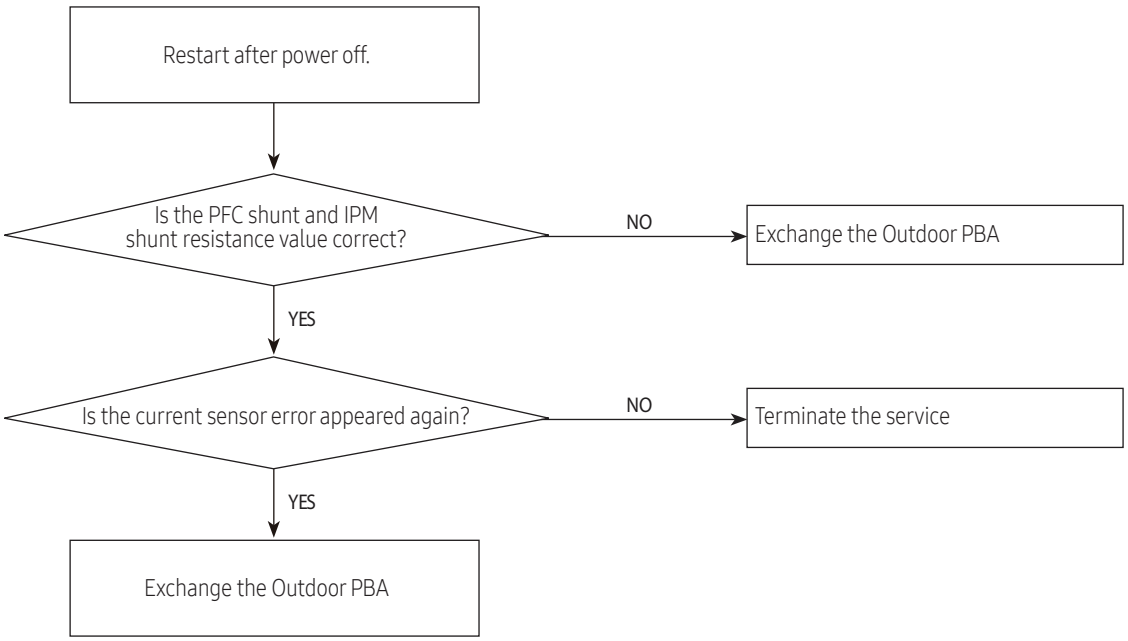
Outdoor display

●	◎	●	Current sensor error
			Input current sensor error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the PFC Shunt("A") resistance value correct? Check the resistor is opened
   2) Is the IPM Shunt("B") resistance value correct? Check the resistor is opened
   3) Is there no short or open around "C"?

2. Troubleshooting procedure



10-2-13 O.C(Over Current) error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E464	IPM Over Current(O.C) Error

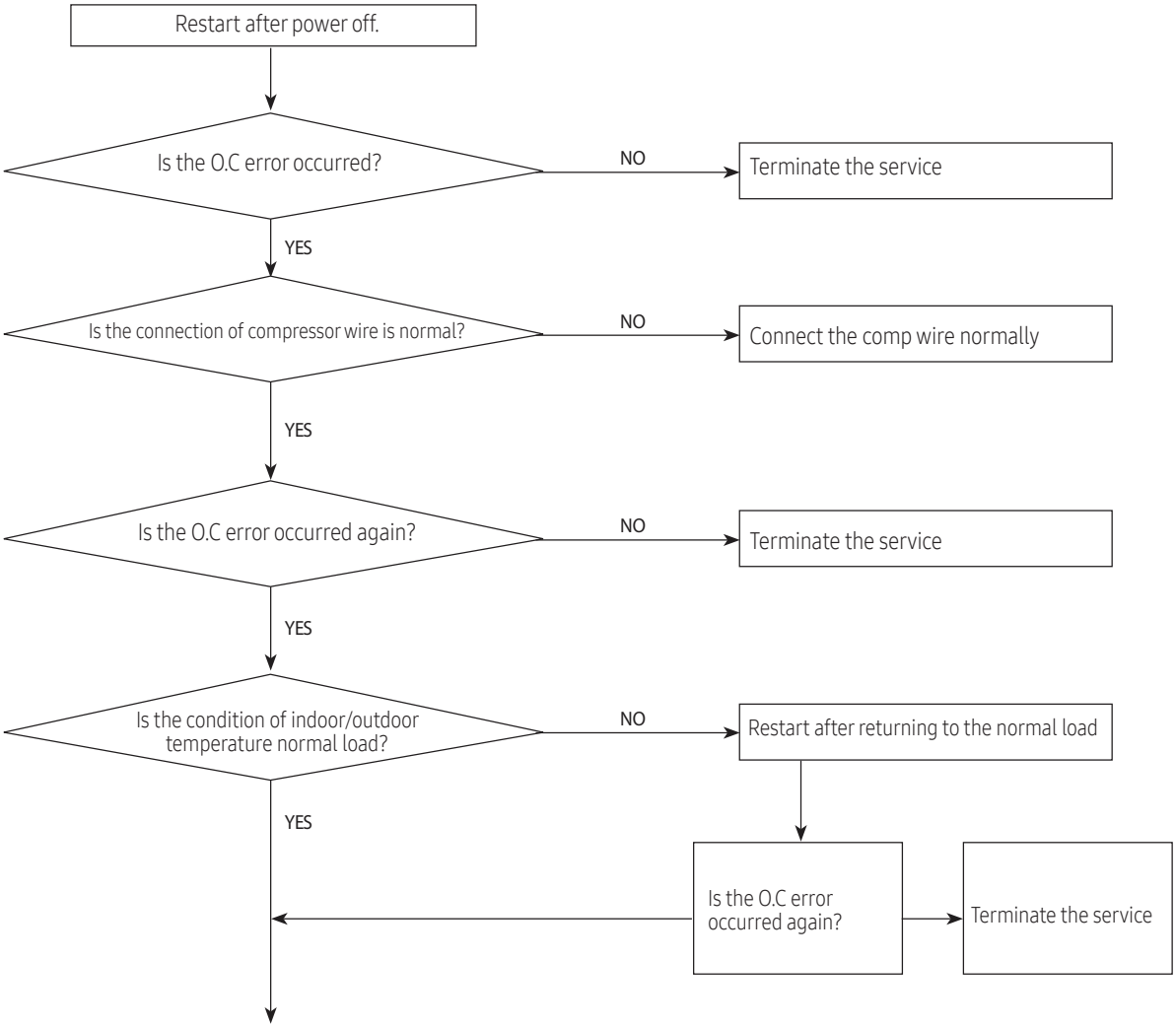
Outdoor display

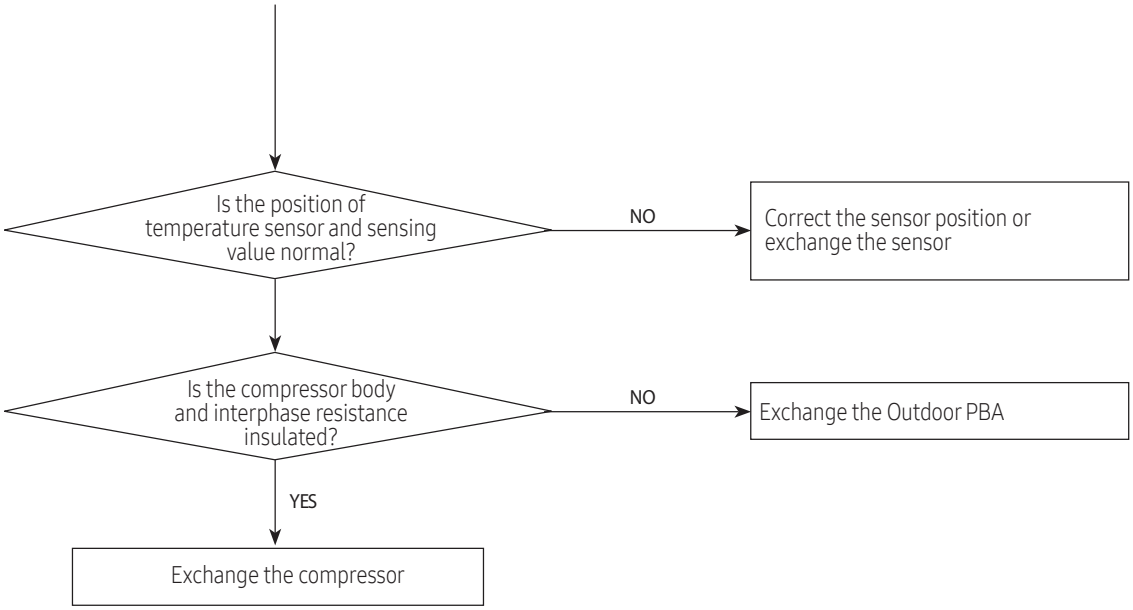
○	○	◎	IPM Over Current(O.C) Error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the IPM Shunt resistance value correct? Check the resistor is opened
   2) Is the condition of surrounding temperature abnormal overload?
   3) Is there any problem as like the temperature sensor separation or measurement value error?
   4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure

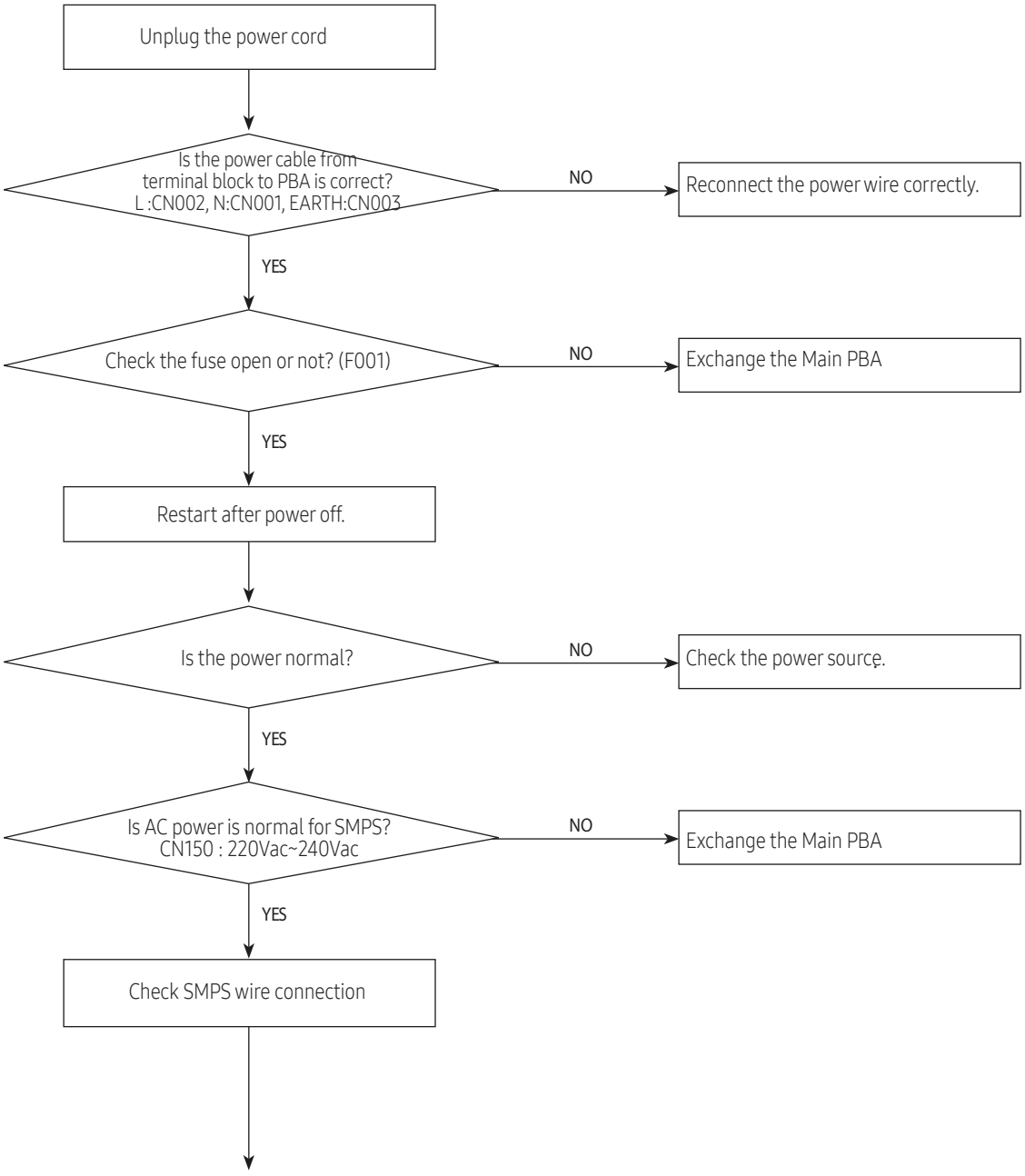



Is the position of temperature sensor and sensing value normal?
NO
Correct the sensor position or exchange the sensor
Is the compressor body and interphase resistance insulated?
NO
Exchange the Outdoor PBA
YES
Exchange the compressor

10-2-14 No power outdoor (Initial Diagnosis) (Not displayed)

1. Checklist :
    1) Is input power normal?
    2) Is AC power linked correctly? (L,N,E)
    3) Is mis-wiring between communication wire and Power wire?
    4) Is mis-wiring between Main PBA and SMPS PBA wire?
    5) Is input voltage of SMPS AC in Main PBA (CN150) normal?
    6) Is the voltage of SMPS DC in Main PBA (CN151,CN152) normal?

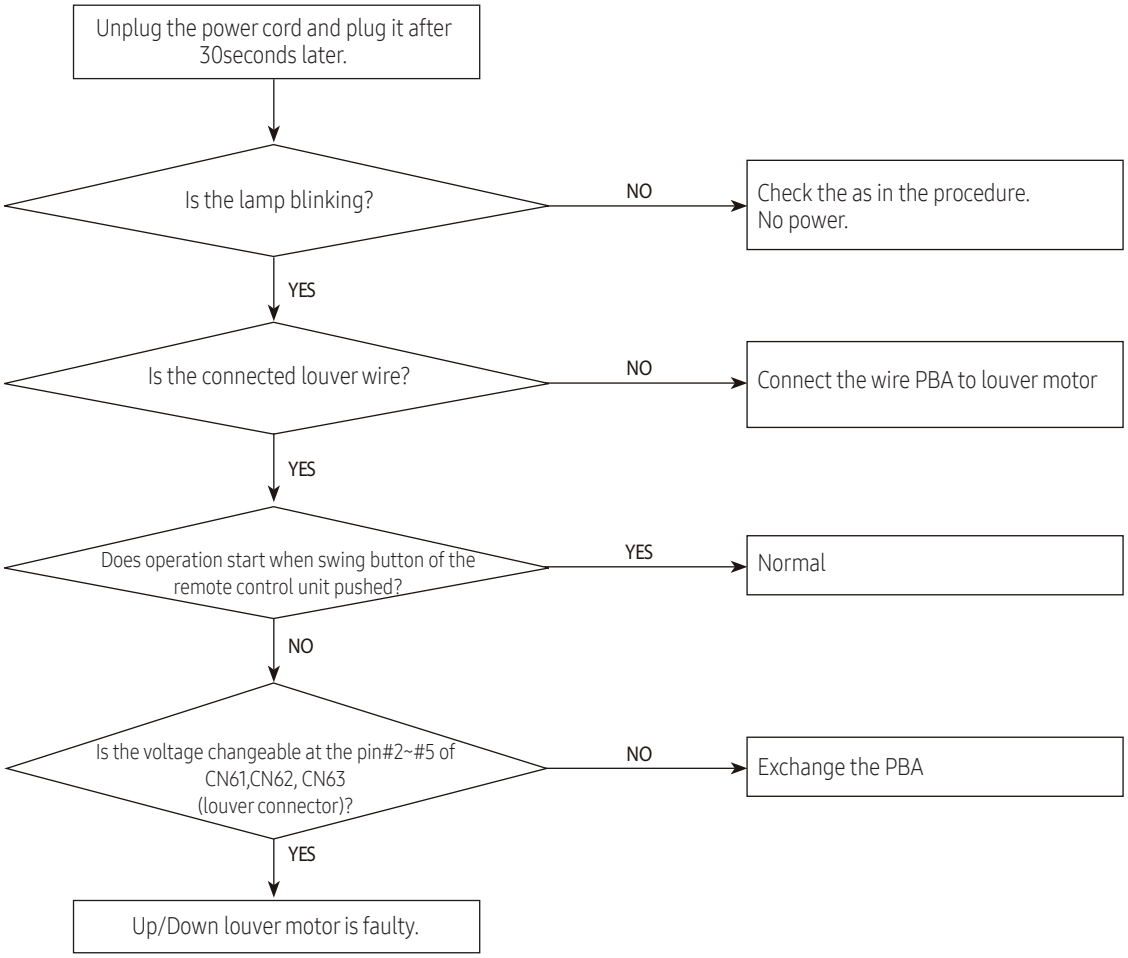
2. Troubleshooting procedure



10-2-15 When the Up/Down, Left/Right, Grill louver motor does not operate (Initial Diagnosis) (Not displayed)

1. Checklist :
    1) Is the input power voltage normal?
    2) Is the Up/Down louver motor properly connected with the connector? (CN61, CN62, CN63)

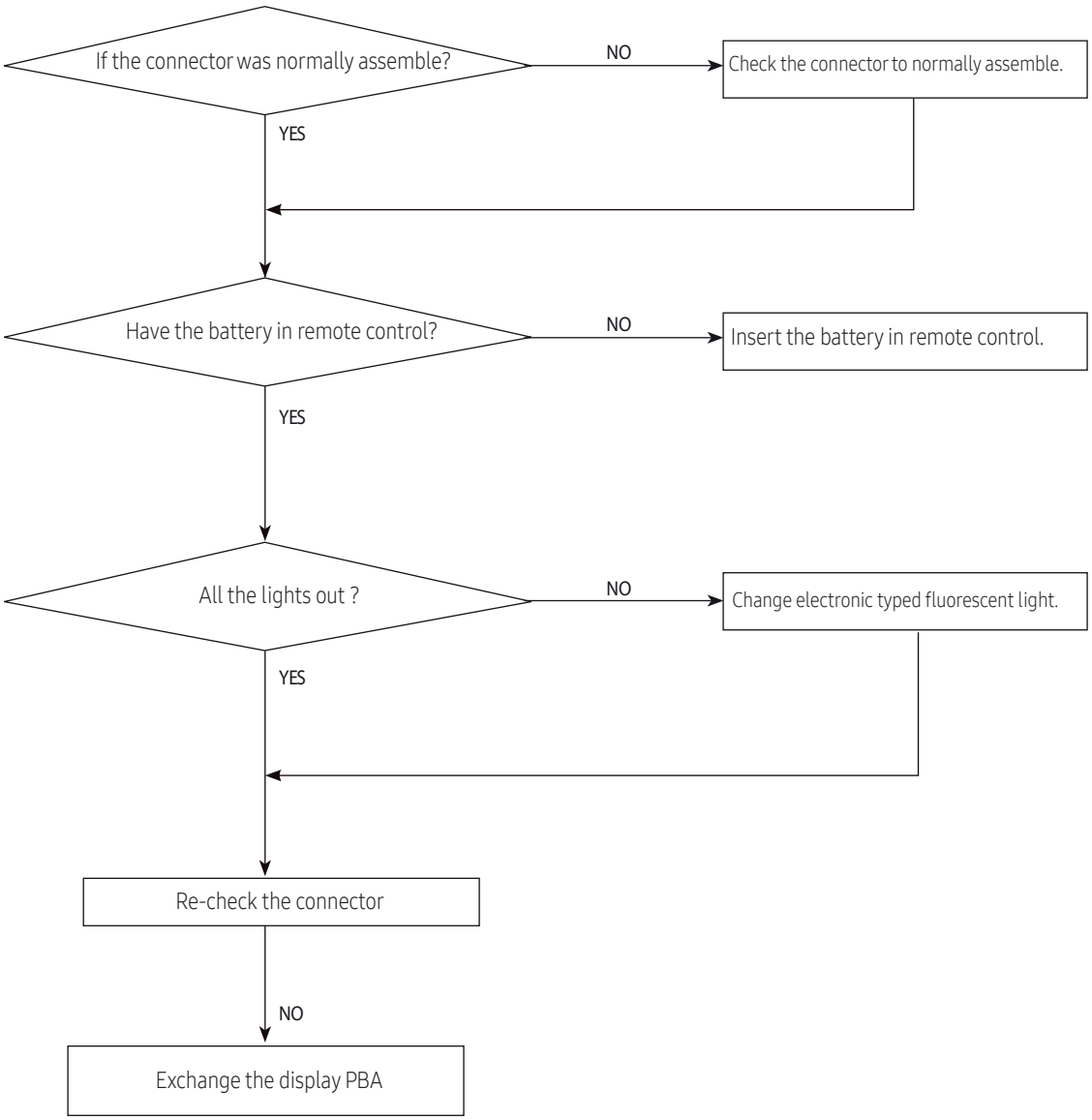
2. Troubleshooting procedure



10-2-16 When the remote control is not receiving

1. Checklist :
    1) Check if the connector was normally assembled.
    2) Check the battery in remote control
    3) All the lights out and check again : Change electronic typed to a rescent light
    4) Put the set in operation and check the voltage of display PBA
    5) Replace the display PBA

2. Troubleshooting procedure

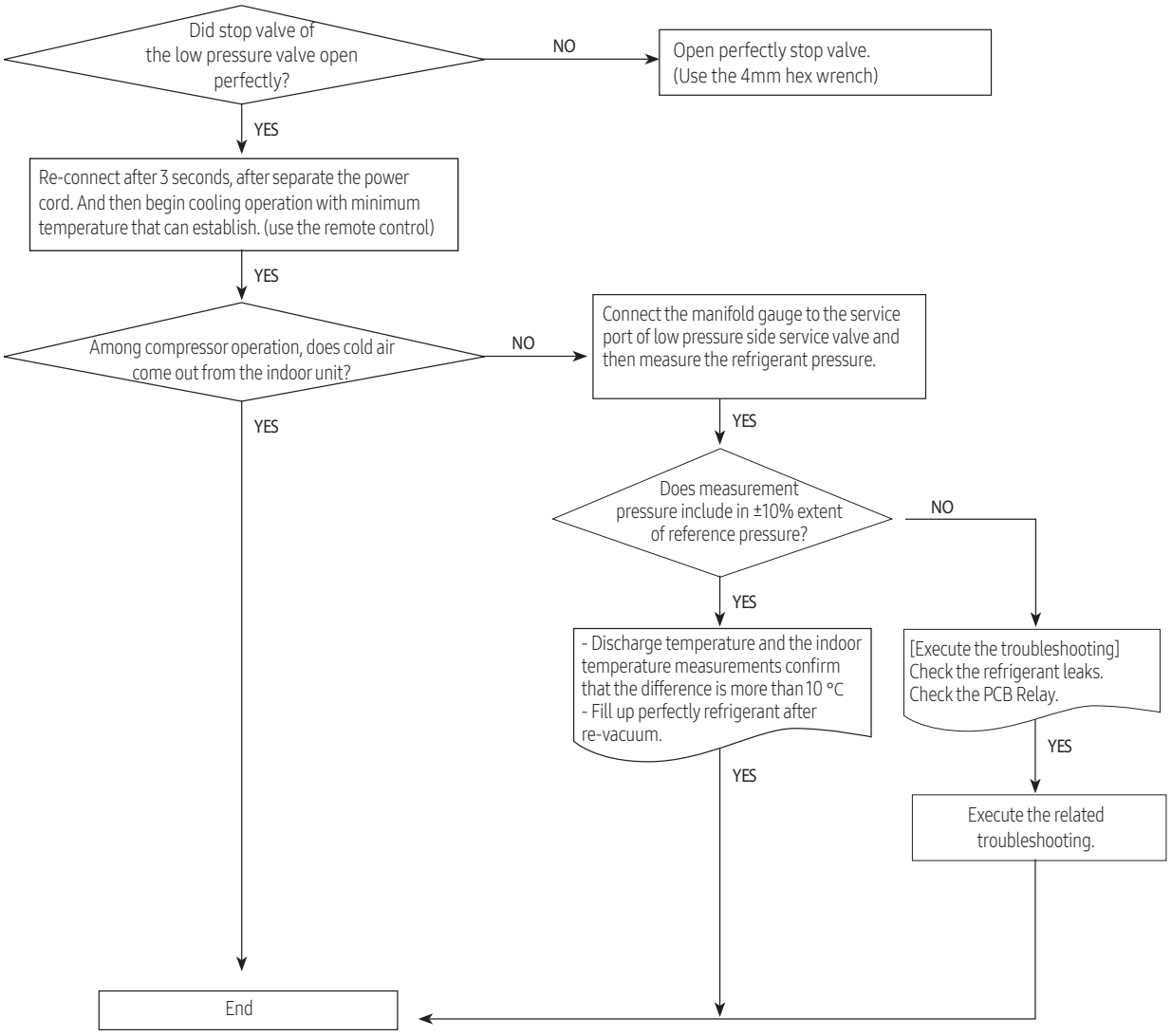


10-2-17 Smart Install error

1. Checklist :
   1) Check the leakage region.(Use leakage detection liquid or soapy water)
   2) When leakage region is found from service valve and piping connection re nut part : After the related measures to check the refrigerant supplements and operation.
   3) If the leakage region is pipe welding part : Weld leakage region after refrigerant gas release.(Brass parts should only apply)
   4) If the leakage region is surface area (Heat exchanger or pipe welding region is not) : Replace parts.
   5) Check the PBA Relay
   - Display of indoor unit : Ensure that the operating pilot lamp has been lighted.
   - Ensure that the Relay input voltage of indoor unit PBA is normally.(If the PBA is defective, replace)

2. When the air conditioner is in standby status, use the remote controller to start the Smart Install mode.
   1) Press the [SET], [Mode], [Power] button simultaneously for 4 seconds.
   -Smart Install mode can be operated only with the supplied remote controller.
   -During the Smart install mode procedure, remote controller cannot be operated.

3. Troubleshooting procedure



10-2-18 Outdoor OLP over temperature error (One way Inverter Only)

Indoor display

3-LED DISPLAY			DESCRIPTION
LED1	LED2	LED3	
●	○	○	No display about the outdoor condition

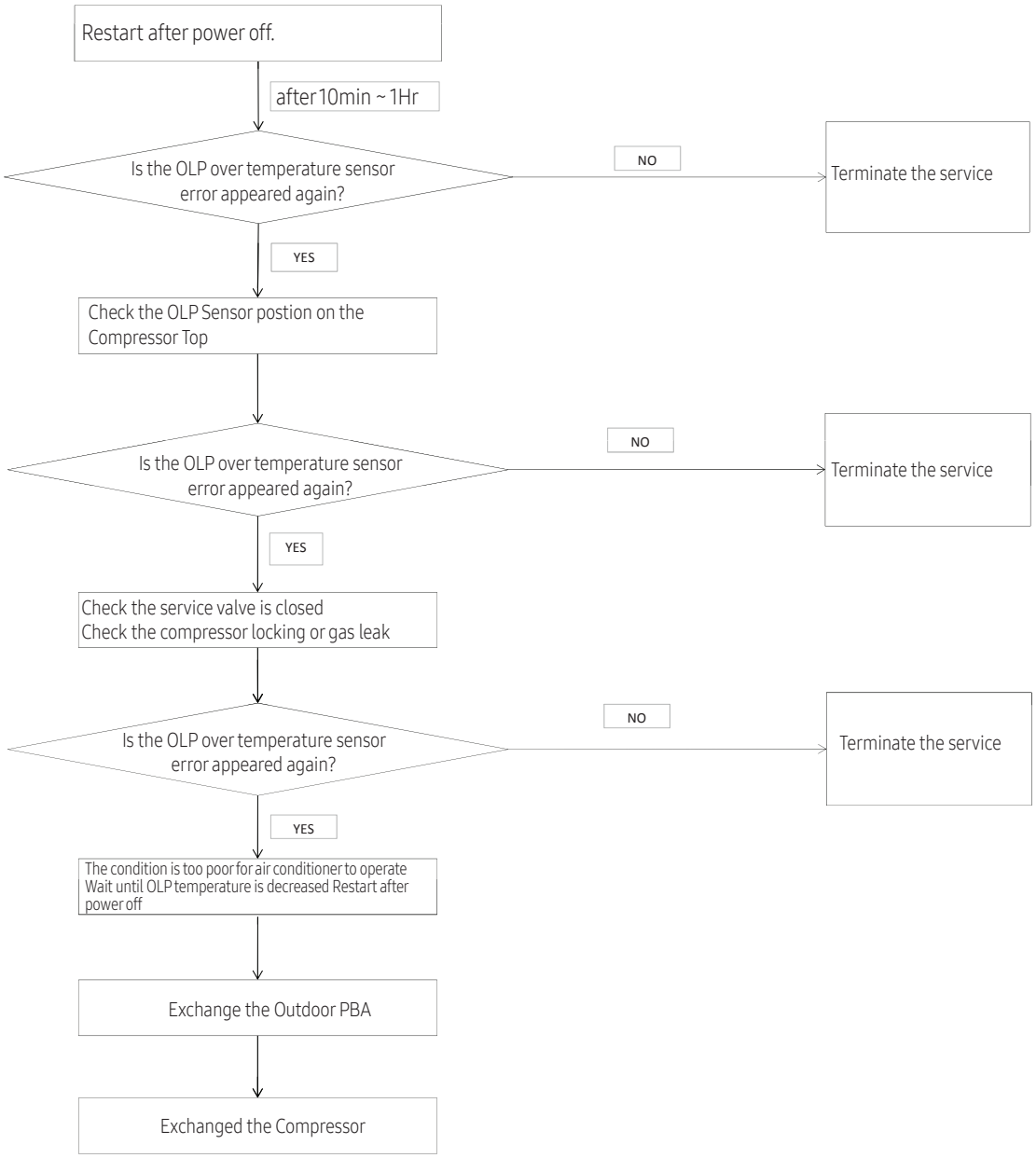
Outdoor display

◎	○	●	E463	IPM Over Current(O.C) Error

● LED ON ◎ LED BLINKING ○ LED OFF

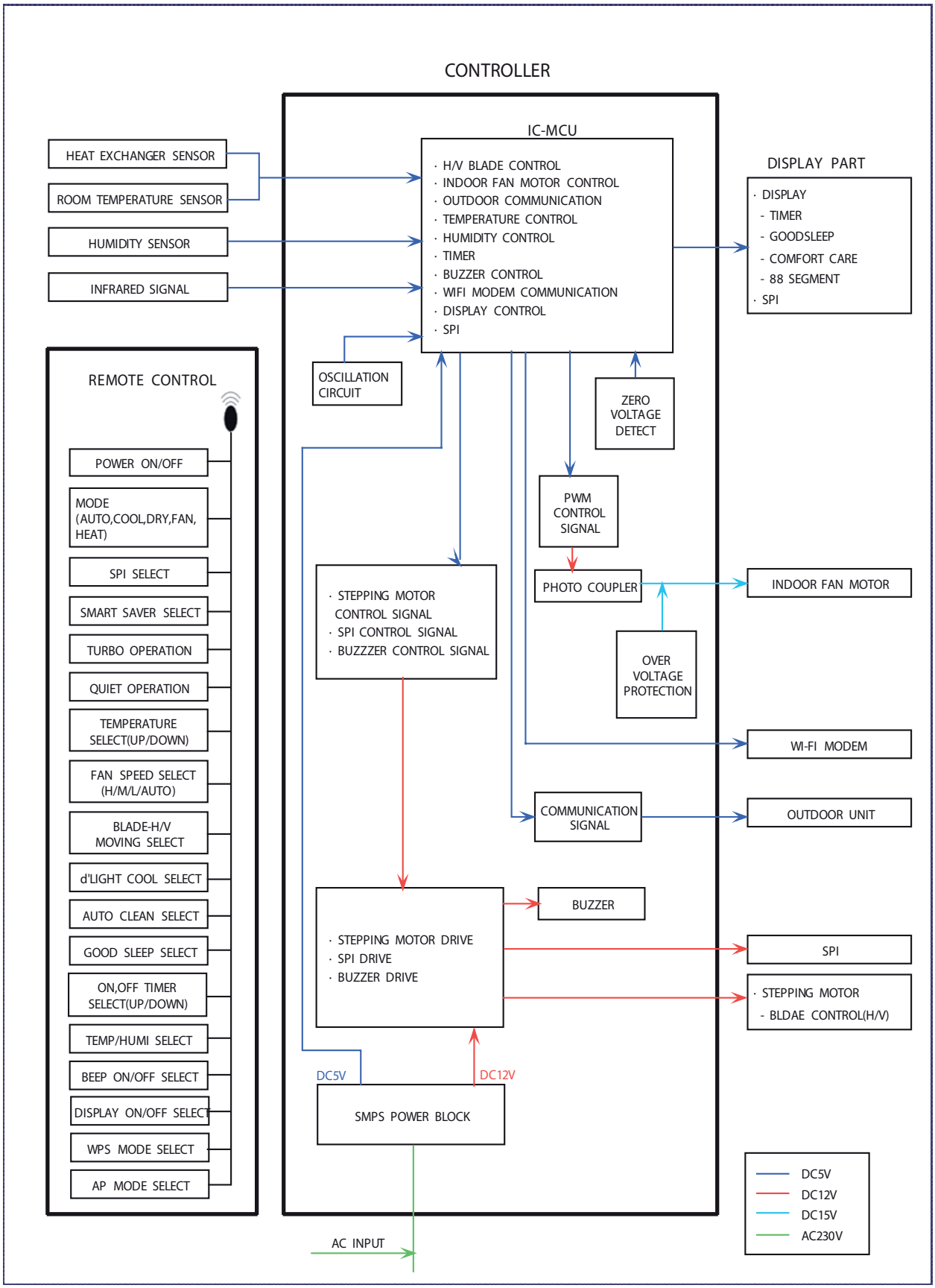
1. Checklist :
   1) Is the sensor placed correctly?
   2) Check the service valve is closed
   3) Check the compressor locking or gas leak

2. Troubleshooting procedure

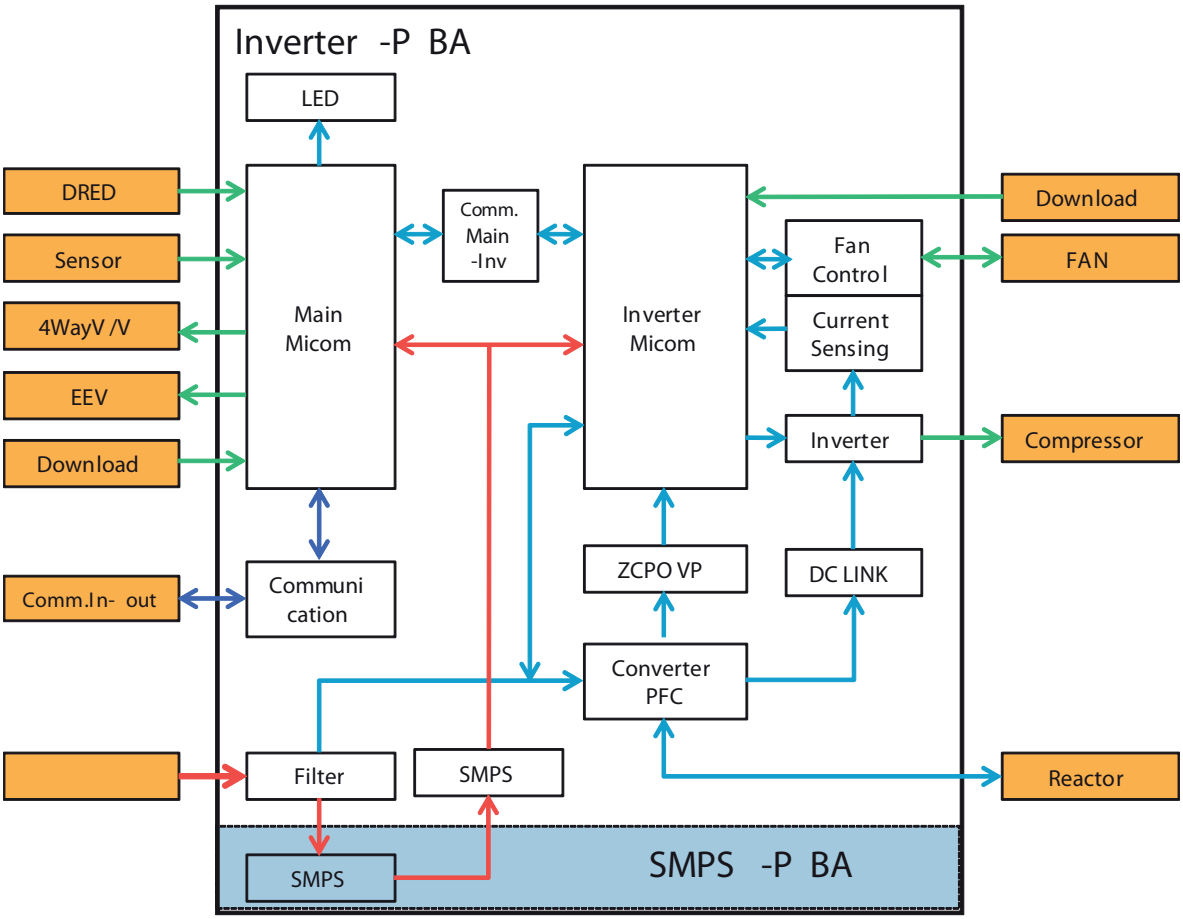


11. Block Diagram

11-1 Indoor unit



11-2 Outdoor unit



11-2-1 Pre-inspection Notices

1 Check if you pulled out the AC power plug when you eliminate the PCB or front panel.

2 Don't hold the PCB side not impose excessive force on it to eliminate the PCB.

3 Don't pull the lead wire but hold the whole housing to connect or disconnect a connector to the PCB.

4 In case of outdoor PCB disassembly, check first the complete discharge of condenser after 1 minute power off.

11-2-2 Inspection procedure

1 Check connector connection and peeling of PCB or bronze coating pattern when you think the PCB is broken.

2 The PCB is composed of 3 parts.
- Indoor Main part : MICOM and surrounding circuit, relay, fan motor sensing and driving circuit, temperature sensing circuit power circuit of SMPS, buzzer circuit. Communication circuit.
- Display part : LED lamp, Switch, Remote-control module.
- Outdoor Main part : MICOM and surround circuit, fan motor sensing and driving circuit, compressor driving circuit power circuit of SMPS, PFC control circuit, 4way circuit, communication circuit, OPTION (EEV control circuit, temperature sensing circuit).

11-2-3 Indoor detailed inspection procedure

No.	Procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the control box Check the PCB fuse	1) Is 1st fuse disconnected? 2) Is 2nd fuse disconnected?	• Over current • Indoor Fan motor short • AC part and pattern short of Indoor PBA
2	Supply power If the operating lamp twinkles at this time , the above 1)~3) have no relation	Check the power voltage	
		1) Is the BD71 input voltage 200Vac~240Vac?	• Power cord is fault, Fuse open, Wrong Power cable Wiring, AC part is faulty
		2) Is the voltage between both terminal of IC02 pin #1-#2 12Vdc?	• Switching Trans of Power circuit is faulty
		3) Is the voltage between both terminal of IC02 pin #2-#3 5Vdc?	• Power circuit is faulty, Load short
3	Press the ON/OFF button 1. Fan speed(high) 2. Continuous Operation	1) Is the voltage over AC 180V being imposed on terminal #3-#5 of fan motor connector (CN72)?	• Fan motor of the indoor is faulty
		2) The fan motor of the indoor unit doesn't run	• Fan motor connector(CN72) is faulty
		3) The power voltage between terminal #3-#5 of the connector(CN72) is 0V	• PBA is faulty

11-2-4 Outdoor detailed inspection procedure

No.	Procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the control box. Check the PCB fuse (Wait 3 minutes after power off)	1) Is 1st fuse disconnected?	• Over current • AC part and pattern short of Outdoor PBA
2	Check the Wiring	1) Is the Compressor wire connected clockwise? 2) Is the Reactor wire connected normal? 3) Is the Fan wire connected normal? 4) Is the 4way wire connected normal? 5) Is the sensor wire connected normal? 6) Is the EEV wire connected normal?	• Wrong assembly • Installation(service) condition is bad
3	"Supply power and operate the set (Use Remote-control, button in indoor set)"	Check the power voltage	
		1) Is the voltage between Terminal block L-N 200Vac~240Vac?	• Power cord is faulty, Wrong Power cable Wiring
		2) Is the C006 voltage 200Vac~240Vac?	• Fuse open • .L,N,F1,F2 wire wrong wiring (Terminal Block-PBA)
		3) Is the CN150 voltage 200Vac~240Vac?	• Power circuit is faulty • Load short
		4) Is the PFC050(#26-#27) voltage 200Vac~240Vac after 3 minutes later?	• Fuse open • L,N,F1,F2 wire wrong wiring (Terminal Block-PBA) • .PTC020 open • .RY021, RY022 is faulty • Outdoor Micom(IC201) error
		5) Is the CE101 voltage 280Vdc~320dc after 3 minutes later?	• PFC050 is faulty • Reactor wire is wrong connection • Power circuit is faulty, Load short • BLDC Fan motor error
		6) Is the voltage CN151 #1-#2 voltage 15Vdc?	• Switching Trans of Power circuit is faulty • Load short
		7) Is the voltage CN152 #1-#2 voltage 12Vdc?	• Switching Trans of Power circuit is faulty • Load short
		8) Is the voltage CN151 #3-#2 voltage 5Vdc?	• Switching Trans of Power circuit is faulty • Load short
4	Check the LED lamp display	1) Normal : RED on, GRN blink, YEL off 2) Abnormal - All o check no power - abnormal display : check error mode	• F1,F2 wire wrong wiring • Outdoor PBA is faulty

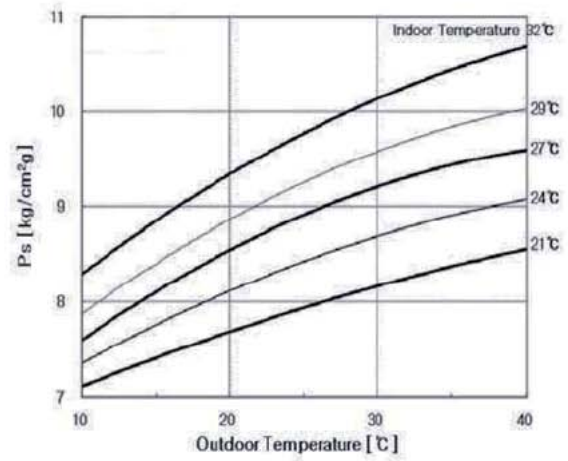
12. Reference Sheet

12-1 Low Refrigerant Pressure Distribution

Note : Please measure the refrigerant pressure after the air conditioner operates on testing cooling mode during more than 10 minutes.

■ **Indoor Temp. Variation :** 20°C ~ 32°C

■ **Outdoor Temp. Variation :** -5°C ~ 45°C



12-2 Pressure & Capacity mark

■ Power/Heat

W	cal/s	kcal/h	Btu/h	HP	kg.m/s	lb.m/s
1	0.23885	0.85985	3.4121	0.001341	0.10197	0.73756
4.1868	1	3.6	14.286	0.0056146	0.42693	3.088
1.163	0.27778	1	3.9683	0.0015596	0.11859	0.85778
0.29307	0.06999	0.252	1	3.9302×10^{-4}	0.029885	0.21616
745.7	178.11	641.19	2,544.4	1	76.04	550
9.8067	2.3423	8.4322	33.462	0.013151	1	7.233
1.3558	0.32383	1.0658	4.6262	0.0018182	0.13826	1

12-3 Q & A for Non-trouble

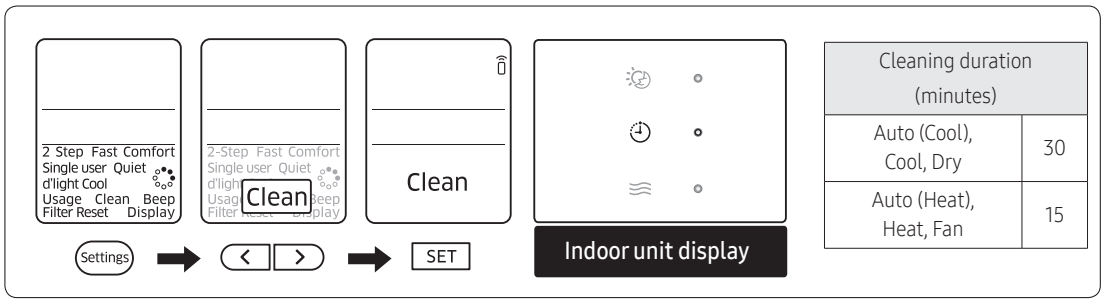
Classication	Class	Description
Cooling	Q	**The cooling is weak.**
	A	When it is hot outside, its cooling capacity decreases due to the increase of the ambient temperature. When the dust filter gets blocked or warm outside air gets in, the cooling capacity will decrease. So, make sure to clean the dust filter frequently, prevent heat loss by closing the doors and insulate the cooling area by using curtains, blinds, shades or window tinting.
	Q	**The cooling is good generally. But, it gets weak when it is considerably hot.**
	A	It occurs when the outdoor unit is exposed to direct sun light and heat-up air is not ventilated well. So,set up a sunblind over the outdoor unit and keep stu away from the unit to increase the ventilation. When the cooling capacity decreases during a heat wave, clean the heat exchanger of the outdoor unit or spray some cold water to the heat exchanger to increase the cooling capability.
	Q	**The cooling is weak. Does it need refrigerant charging?**
	A	It is not correct charging refrigerant regularly. Except that you have moved in several times or the connection pipes are broken, the refrigerant does not run low. So, when refrigerant is additionally charged, it could be costly and cause a product's failure. When the refrigerant leaks, all of it will escape in a short time resulting in cooling failure and no water coming out of the drain hose. So, if water comes out from the drain hose, it indicates the normal operation of the product and it does not need refrigerant charging.
	Q	**It fails to do cooling.**
	A	When the air conditioner is set to ventilation or the desired temperature is set higher than the current temperature, it fails to do cooling. In this case, select cooling or set the desired temperature lower.
Leakage	Q	**It oods the oor.**
	A	Place the drain hose properly. When it is not placed properly, the drain water would ow back ooding the oor. So, straighten out the drain hose for the water to be drained well.
	Q	**Water drips at the drain connection (service valve) of the outdoor unit.**
	A	When a glass bottle is taken out of the refrigerator, moisture gets condensed on its surface due to the temperature dierences. The same principle applies to the air conditioner. When cold refrigerant goes through the copper tube, moisture gets condensed on the surface of the tube and the connection areas. To prevent the water condensation, the pipes are insulated. But, the connection areas of the outdoor unit are not insulated for the purpose of maintenance or repair, and water gets condensed due to the temperature dierences and drips down. Generally, it evaporates right away. But, when it drips much during muggy days, put a water pan on the oor.
	Q	**It leaks even though a drain pump is used.**
	A	It occurs when the drain pump is plugged out or it is out of order. Check the power of the drain pump and the position of the drain hose, and when the pump is faulty, contact the drain pump manufacturer. Samsung Electronics do not manufacture drain pumps. So, we are not able to correct the drain pump problems.
Smells	Q	**Whenever the air conditioner is turned on, it irritates my eyes and gives me a headache.**
	A	There are no components in the air conditioner irritating the eyes and sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So find and root out the smell sources. Generally, it occurs at a interior renovated place, a pharmacy, a gasoline handling place, a tire shop, a second-hand book shop or an electronic component handling place, when its chemical or musty smells are sucked in and sent out, it can be misled that the air conditioner generates them.

Classication	Class	Description
Smells	Q	**Whenever the air conditioner is turned on, it stinks.**
	A	When are no components in the air conditioner sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So, find and root out the smell sources. Generally, when the drain hose is taken out to the washing room or there are sources of smells such as a diaper bin, a shoe shelf or a socks bin, bad smells generate. Also, it occurs where glass cleaners or air fresheners are used; when they are sucked in interacting with dusts and moistures inside, bad smells generate. these kinds of organic materials noxious to human bodies. So, we recommend against the use of them.
	Q	**Whenever the air conditioner is turned on, it smells sour.**
	A	When the room is papered recently, its paste smells would be sucked inside. Also, when the air conditioner is installed in the study room of young boys loving sweat-generating activities such as the basketball, excessive sweats evaporate and get sucked into the air conditioner resulting in bad smells. So, find and root out problem or refresh the room frequently.
	Q	**Whenever the air conditioner is turned on, it smells musty.**
	A	It is due to the improper keeping of the product after its use. When keeping the product, dry up the inside with the operation of ventilation to prevent must. When the product is kept without drying up the inside with ventilation, mold would grow inside resulting in must. So, open the windows and switch on the ventilation function to get rid of the saturated smell inside.
	Q	**Whenever the air conditioner is turned on, it sends out bad smells such as stale smells.**
	A	It occurs generally when there are pet animals in the house. Their smells stay at the same place. But, when the air conditioner is turned on, the air gets circulated resulting in the circulation of the smells. So, find and root out the problem or refresh the room frequently.
	Q	**It sends out bad smells.**
	A	When the air filter is filthy, it could send out bad smells. So, clean the filter and ventilate the room with the windows open while operating the ventilation function.
Operation	Q	**It won't start.**
	A	There is a power failure or it is plugged out. Also, check if the power distribution panel is switched o.
	Q	**It goes off during operation.**
	A	When the hot air does not escape properly, it goes o during operation. it occurs when it does not ventilate properly because the outdoor unit is covered, the back of the outdoor unit is blocked by a cardboard or a plywood panel, and the front of the outdoor unit is blocked by the closed window or other obstacles. Clear the above obstacles from the outdoor unit.
	Q	**It generally works properly. But, when it’s considerably hot, it goes off during operation.**
	A	It occurs when the outdoor unit is exposed to direct sunlight and the hot air does not escape properly. Set up a sun blind over the outdoor unit and clear the neighboring obstacles from the outdoor unit to provide good ventilation. When it goes o frequently during a heat wave, it would prevent the turno and increase the cooling capacity cleaning the outdoor unit or spraying some water to the heat exchanger.
	Q	**The remote controller won’t operate.**
	A	When the batteries run out or the transmitter or receiver of the remote controller is blocked by obstacles, change the batteries or keep the obstacles away from the controlling area. Also, the remote controller may mot work under intensive light from a 3-wave length lamp or a neon sign due to the EMI. In this case, take the remote controller closer to the receiver.

Classication	Class	Description
	Q	**Who installs the air conditioner? (Relocation/Re-installation)**
	A	When relocating or re-installing the air conditioner, make sure to contact Samsung Electronics Service Center or Authorized Service Agent and have them to do the job. (If not, it could cause personal injuryor product damage.) The cost for the relocation/re-installation of the air conditioner is subject to the customer's expense. There is a cost table. But, our service engineer needs to visit to total up the cost correctly. When you move in, make sure to contact Samsung Electronics Service Center or Authorized Service Agent in advance to streamline the process.
	Q	**Is it possible to install the outdoor unit outside?**
	A	It is possible to install it at a designated place in the apartment or on the rooftop nearby. But, it's illegal hanging an angle iron case with the outdoor unit in it outside the apartment. Also, it is illegal obstructing passers-by with the outdoor unit installed outside.
	Q	**What can be done to install the outdoor unit facing the road because it is a commercial building?**
	A	The following is an excerpt from building code going into eect from JUNE 1 st 2005. "The exhaust pipe of a cooling or ventilation facility installed in a building adjacent to the streets of commercial or residential areas shall bel installed higher than 2 m to prevent the exhaust air from blowi=005." So, please install it higher than 2 m or not to blow the hot exhausting air directly to passers-by.
	Q	**What about installing a windscreen during installation not to blow hot air directly to passers-by?**
	A	When the hot air from the front of the outdoor unit is blocked, the product's performance will be aected and it will fail to operate properly. So, keep it at least 300mm away from its surrounding walls and give it good ventilation.

12-4 Cleaning /Filter Change

Running Auto clean

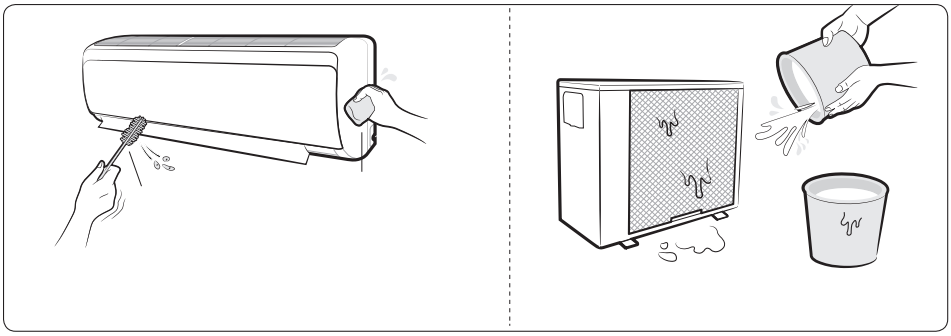


Cleaning duration (minutes)	
Auto (Cool), Cool, Dry	30
Auto (Heat), Heat, Fan	15

NOTE

- When you set the Auto clean timer, Clean blinks and then disappears on the remote control display. The Timer ( ) indicator also appears on the indoor unit display.
- When the air conditioner is off, Auto clean starts immediately when it is selected. When the air conditioner is on, Auto clean starts as soon as the air conditioner stops running.
- During Auto clean, the indoor fan continues to run, and air flow blades remain open to expel ambient air.

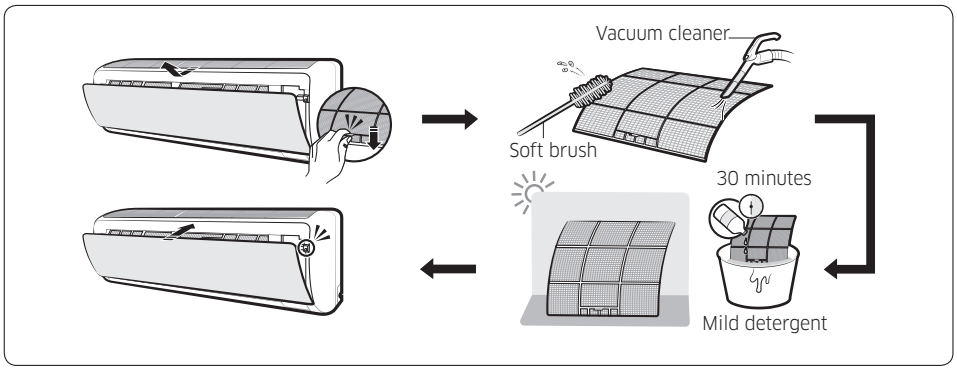
Cleaning the indoor unit exterior and outdoor unit heat exterior



CAUTION

- Do not clean the display by using alkaline detergent.
- Do not use sulphuric acid, hydrochloric acid, or organic solvents (such as thinner, kerosene, and acetone) to clean the surfaces. Do not put any stickers on it as this can damage the surface of the air conditioner.
- When you clean and inspect the heat exchanger on the outdoor unit, contact the local service centre for help.

Cleaning the filter



CAUTION

- Do not scrub the air filter with a brush or other cleaning utensil. This may damage the filter.
- Do not expose the air filter to direct sunlight when drying it.

NOTE

- Clean the air filter every 2 weeks. Cleaning term may vary depending on the usage and environmental conditions.
- If the air filter dries in a humid area, it may produce offensive odours. Clean it again and dry it in a well-ventilated area.

12-5 Installation

12-5-1 Before Installation

Keep the air conditioner outlet and inlet free from its surroundings.In case of installation, keep the symmetry and fix it to prevent vibration. The pipe length shall meet the standard as far as possible.

12-5-2 Installation Procedure

■ Location

Install the product in an area to guarantee the best cooling eect, convenience of piping and electric work, and inexistence of vibration or wind.

■ Wall Drilling

Drill the wall downward in a diameter of 60 to 65mm.

■ Fixing Indoor Unit & Outdoor Unit

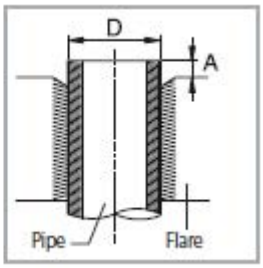
Fix the air conditioner indoor unit securely to the wall. Secure the outdoor unit in a suitable position.

■ Pipe Spooling & Connectingt

You shall cut the pipe with a pipe cutter and grind all the burrs of the cut surface. pipe expansion may continue until the pipe surface becomes uneven or torn apart. Be sure to use a torque wrench to tighten pipes or are nuts.

<Torque & Depth>

Outer Diameter (D)	Torque(kgf-cm)	Depth(A)
ø6.35 mm(1/4")	140~170	1.3 mm
ø9.52 mm(3/8")	250~280	1.8 mm
ø12.70 mm(1/2")	380~420	2.0 mm
ø15.88 mm(5/8")	440~480	2.2 mm
ø19.05 mm(4/4")	9900~1,210	2.2 mm



■ Leak Test

Put an inset gas like nitrogen in the outdoor unit pipe and put soap bubbles or other test liquids on the pipe surface for the leak test.

■ Drain Hose Connecting

Install the drain hose downward to drain water naturally. Be sure to pour water into the hose to check if it drains well.

■ Electric & Earth Work

Electric and earth work shall meet the “Electric Facility Technology Standard” and the “Internal Wire Regulation” of the Electric Business Laws.

■ Inspection & Trial Run

Upon completion of the tests, you shall make a trial run while you explain the main functions of the air conditioner to finish the installation.

12-6 Installation Diagram of Indoor Unit and Outdoor Unit

12-6-1 Air-Purge Procedure

1) Connect each assembly pipe to the appropriate valve on the outdoor unit and tighten the flare nut.

2) Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port (3/8" Packed valve) as shown at the figure.

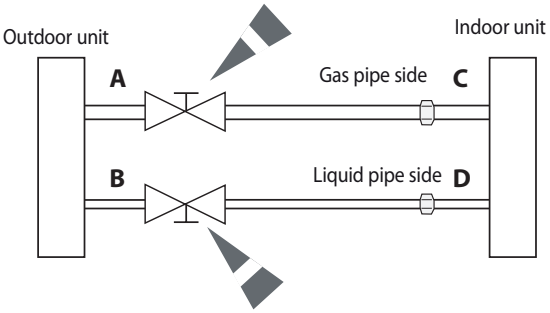
3) Open the valve of the low pressure side of manifold gauge counter-clockwise.

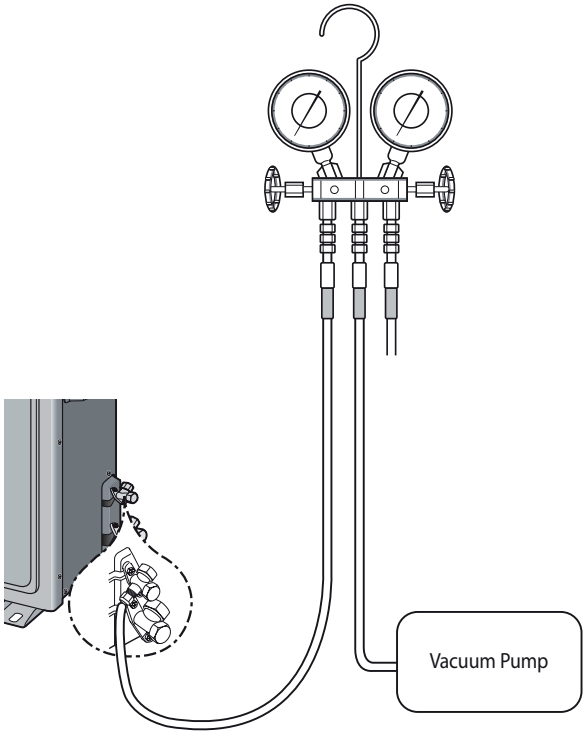
4) Purge the air from the system using vacuum pump for about 30 minutes.
   - After that, please recheck that pressure is stabilized.
   - Close the valve of the low pressure side of manifold gauge clockwise.
   - Remove the hose of the low pressure side of manifold gauge.

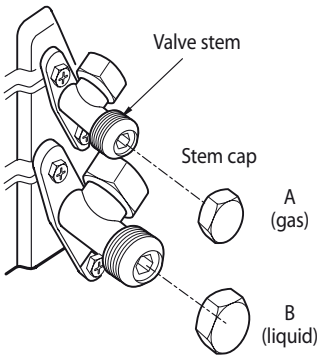
5) Set valve cork of both liquid side and gas side of packed valve to the open position.

6) Mount the valve stem nuts to the 2 way and 3 way valve. And mount the service port cap to 3 way valve.

7) Check for gas leakage.
   - At this time, especially check for gas leakage from the 3 way valve's stem nuts, and from the service port cap.







12-6-2 "Pump down" Procedure

Pump down will be carried out when an evaporator is replaced or when the unit is relocated in another area.

1) Remove the caps from the 3 way valve and the 3 way valve.

2) Turn the 3 way valve clockwise to close and connect a pressure gauge (low pressure side) to the service valve, and open the 3 way valve again.

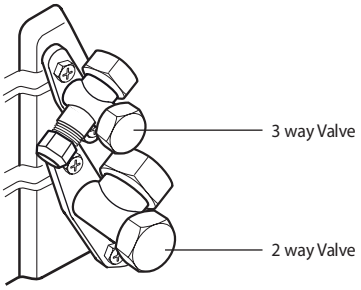
3) Set the unit to cool operation mode. (Check if the compressor is operating.)

4) Turn the 3 way valve clockwise to close.

5) When the pressure gauge indicates "0" turn the 3 way valve clockwise to close.

6) Stop operation of the air conditioner.

7) Close the cap of each valve.



Remarks

Relocation of the air conditioner

- Refer to this procedure when the unit is relocated.
- Carry out the pump down procedure (refer to the details of 'pump down').
- Remove the power cord.
- Disconnect the assembly cable from the indoor and outdoor units.
- Remove the flare nut connecting the indoor unit and the pipe.
- At this time, cover the pipe of the indoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Disconnect the pipe connected to the outdoor unit.
  At this time, cover the valve of the outdoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Make sure you do not bend the connection pipes in the middle and store together with the cables.
- Move the indoor and outdoor units to a new location.
- Remove the mounting plate for the indoor unit and move it to a new location.

Maintenance Procedures

Performing the gas leak tests for repair

In case of repair of the refrigerant circuit, the following procedure must be kept to consider flammability.

1 Remove the refrigerant.
2 Purge the refrigerant circuit with inert gas.
3 Perform evacuation.
4 Purge the circuit again with inert gas.
5 Open the circuit.
6 Perform repair work.
7 Charge the system with refrigerant.
8 Flush the system with nitrogen blowing for safety.
9 Repeat the previous steps several times until no refrigerant is within the system.

⚠ CAUTION

- Compressed air or oxygen shall not be used.
- Flush the system with nitrogen blowing, fill the refrigerant until the working pressure is reached, ventilate to atmosphere, and then pull down to a vacuum state.
- For the final nitrogen blowing charge, the system shall be ventilated down to atmospheric pressure.
- The procedure is absolutely vital in case of brazing on the pipings.
- Make sure that the outlet of the vacuum pump is not closed to any ignition sources and there is ventilation available.
- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the air condiitoner.

Decommissioning

The following requirements must be fulfilled before and while taking the decommissioning procedure:

- Before decommissioning, the worker shall be familiar with the product details.
- The entire refrigerant shall be recovered safely.
- Before starting the process, oil and refrigerant samples shall be taken just in case analysis is required for reuse.
- Before starting the process, power supply must be available.

1 Be familiar with the equipment details.
2 Isolate the system electrically.
3 Before starting the process, make sure that:
- Any mechanical equipment is available for handling refrigerant cylinders.
- All PPE (personal protective equipment) is available for servicing.
- The recovery process shall be supervised by a competent person.
- The recovery equipment and cylinders comply with the standards.

4 Lower the refrigeration system, if possible.
5 If vacuuming is not possible, make a manifold so that refrigerant can be easily removed from the parts of the system.
6 Make sure that the cylinders are placed on the scales before recovery.
7 Run the recovery system in accordance with the manufacturer's instructions.
8 Do not overcharge the cylinders. (No more than 80 %)
9 Be sure to keep the cylinder within the maximum working pressure, even temporarily.
10 After charging, make sure that the cylinders and the equipment are promptly removed from the site and all isolation valves are closed.
11 Recovered refrigerant shall not be charged into other refrigeration system unless it is cleaned and checked.

This appliance is filled with R-32.

12-7. Reference Sheet

Index for Model Name

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th
Project		Capacity		Sell	Feature		Series		Color		Unit	Export	
A	R	0	9	R	X	F	P	E	W	Q	N/X	E	U

Item	1st	2nd
RAC	A	R

Item	Reference	3rd	4th
1	Export	0	9
2	Export	1	2
3	Export	1	8
4	Export	2	4

Item	5th
15 Year	J
16 Year	K
17 Year	M
18 Year	N

Item	6th
INVERTER HP R410A	S
INVERTER CO R410A	V
INVERTER HP R32	X
INVERTER CO R32	Y

Item	7th
SPI	S
NO SPI	F
Wifi+SPI	P
Wifi	W
Wifi+SPI+PM2.5	C
SPI+PM2.5	D
SPI+Dongle	E
Dongle	G
Good1 ,swing	J

Item	8th
FMC STD (A3050 good1)	S
FMC ENT (A3050 Goo2)	N
FMC STD (A3050 Good1)	D
BORACAY	T
NEW Boracay	H
Wind-Free	X
MALDIVES	P

Item	9th
1st MODEL	A
2nd MODEL	B
3rd MODEL	C
4th MODEL	D
5th MODEL	E
6th MODEL	F
7th MODEL	G
8th MODEL	H
9th MODEL	J
10th MODEL	K
11th MODEL	L

Division	Series	Project	Color Name	Division component	Sinkeolreo code (10th,11th)
Global	P	Maldives	DA White	Deco	WQ

Item	12th
SET	/
IN	N
OUT	X

The existing code	The sales area	CIS Desription	The integrated code (13th,14th)
EU	UNITED KINGDOM	XEU	EU

SAMSUNG

ELECTRONICS

GSPN (GLOBAL SERVICE PARTNER NETWORK)

Area	Web Site
North America	http://gspn3.samsungcsportal.com
Latin America	http://gspn3.samsungcsportal.com
CIS	http://gspn1.samsungcsportal.com
Europe	http://gspn1.samsungcsportal.com
China	http://china.samsungportal.com
Asia	http://gspn2.samsungcsportal.com
Middleeast & Africa	http://gspn1.samsungcsportal.com