




REMOVAL PROCEDURE



SERVICE
MANUAL

S E R V I C E M A N U A L

2.8/4.2/5.0 kW Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Heat Pump

RXR28EV1B8

RXR42EV1B8

RXR50EV1B8

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Note:

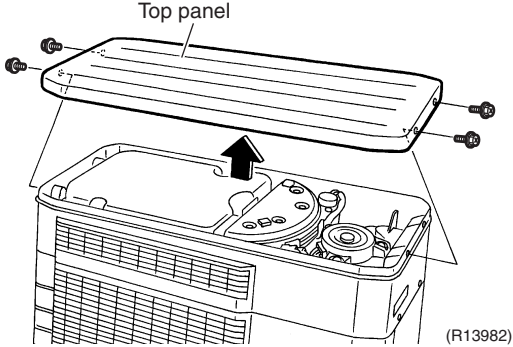
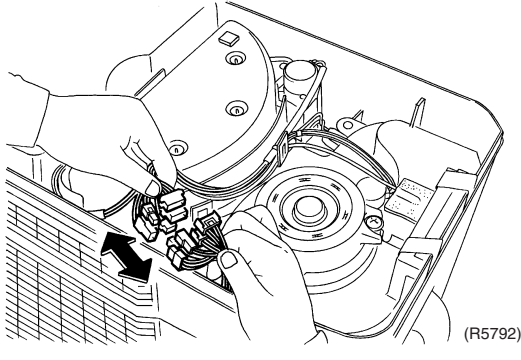
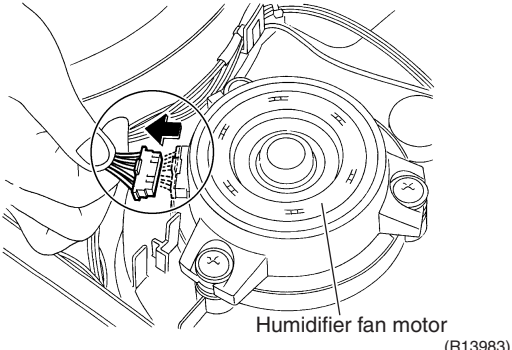
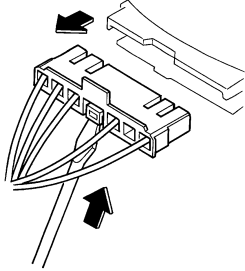
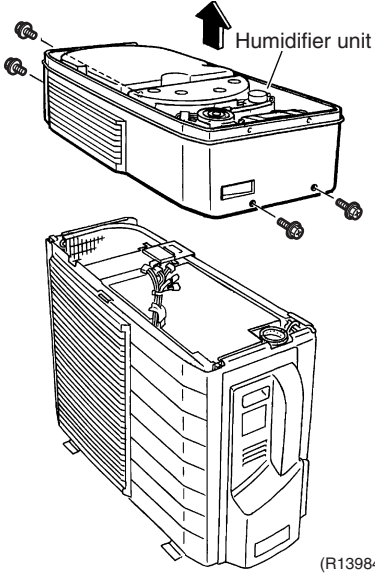
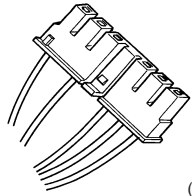
♦ The illustrations may be slightly different depending on the model.

1. Humidifier Unit



Warning

◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

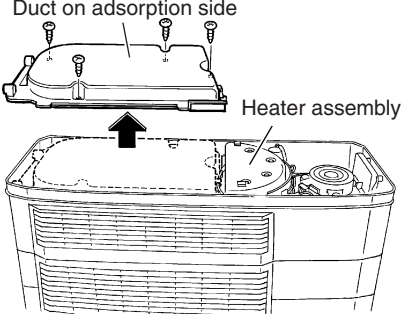
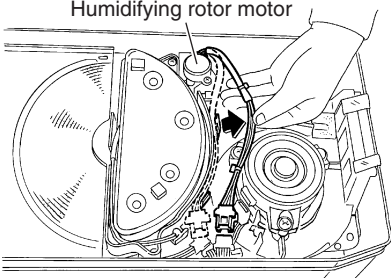
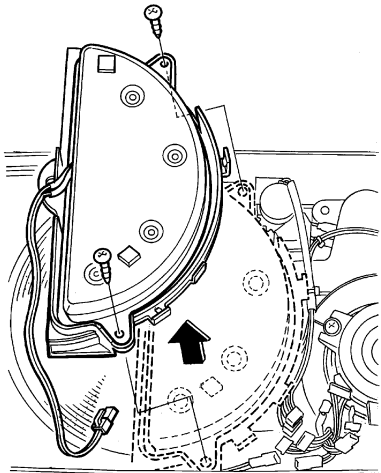
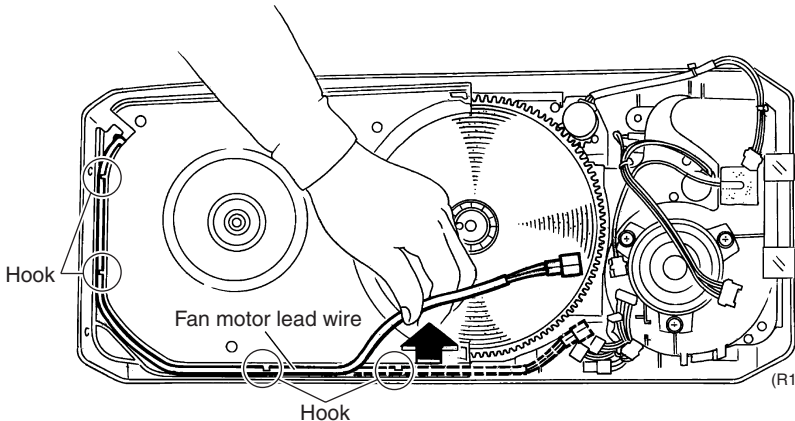
Step	Procedure	Points
1	<p>Remove the 4 screws and remove the top panel.</p> 	
2	<p>Disconnect the 5 relay connectors.</p> 	
3	<p>Disconnect the connector for the humidifier fan motor.</p> 	<p>■ Pull out the connector while pushing up the hook on the bottom side.</p> 
4	<p>Remove the 4 screws and remove the humidifier unit.</p> 	<p><From the back side></p>  <p>■ When installing the humidifier unit, do not forget to connect the relay connectors.</p>

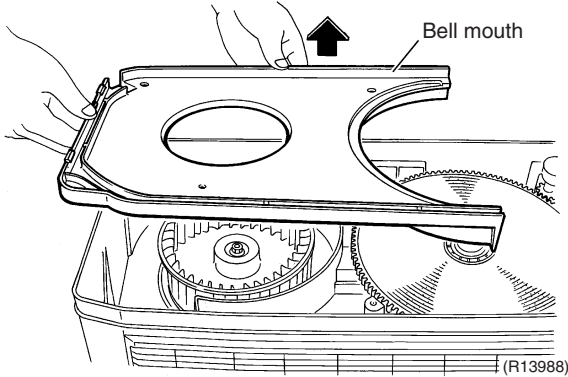
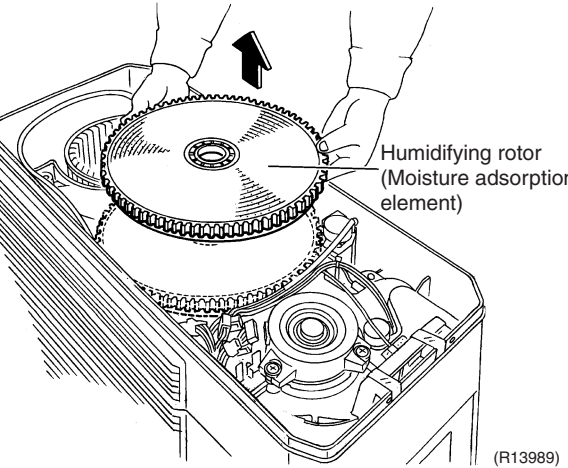
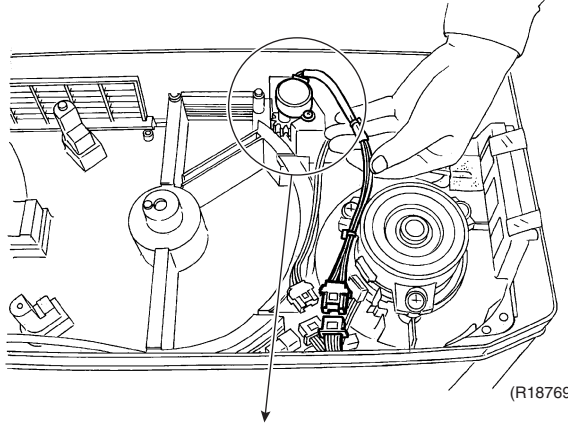
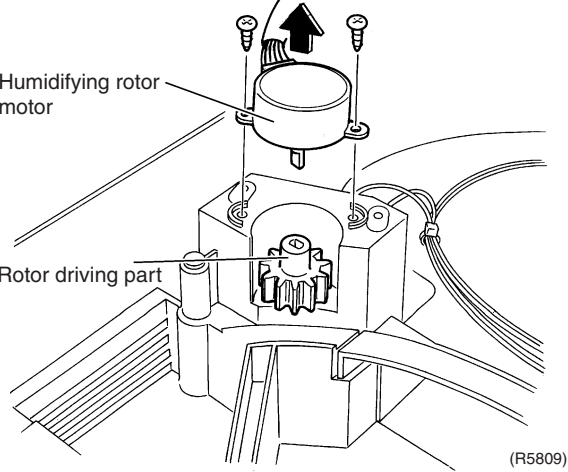
2. Heater Assembly / Humidifying Rotor / Humidifying Rotor Motor



Warning

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Step	Procedure	Points
<p>1. Remove the heater assembly.</p> <p>1 Remove the 4 screws and remove the duct on adsorption side.</p> <p>2 Release the lead wire for the humidifying rotor motor from the hooks.</p> <p>3 Remove the 2 screws and remove the heater assembly.</p>	<p>Duct on adsorption side</p>  <p>Heater assembly</p> <p>(R18766)</p> <p>Humidifying rotor motor</p>  <p>(R18767)</p>  <p>(R5800)</p>	<ul style="list-style-type: none"> ■ The heater assembly should be replaced as an assembly set. (Disassembling of the assembly may cause malfunction.)
<p>2. Remove the humidifying rotor.</p> <p>1 Release the fan motor lead wire from the hooks.</p>	 <p>Hook</p> <p>Fan motor lead wire</p> <p>Hook</p> <p>(R18768)</p>	

Step	Procedure	Points
2	<p>Remove the bell mouth on adsorption side.</p> 	
3	<p>Remove the humidifying rotor.</p> 	<p>■ A heat catalyst (black) is applied on the upper side.</p>
3.	<p>Remove the humidifying rotor motor.</p> 	
1	<p>Remove the 2 screws and remove the humidifying rotor motor.</p> 	

3. Humidifying Fan Assembly / Damper Assembly

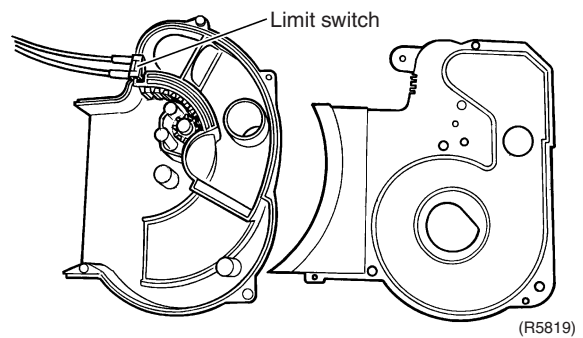
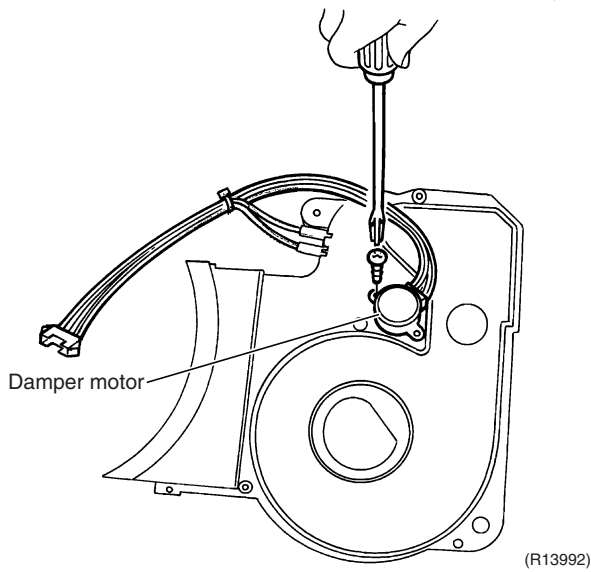
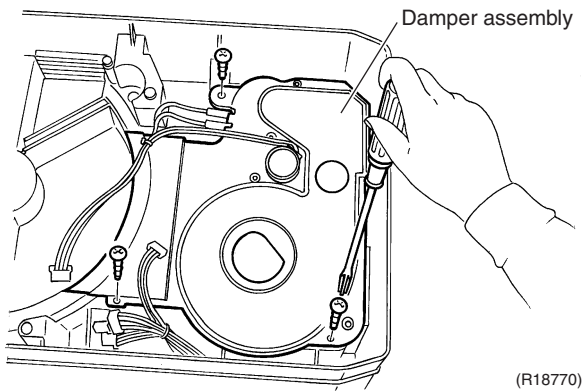


Warning

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Step	Procedure	Points
1. Remove the humidifying fan assembly.	<p style="text-align: right;">(R13990)</p>	<p>■ The humidifying fan assembly should be replaced as an assembly set. (Disassembling of the assembly can cause a noise.)</p> <p>■ Inside of the upper part of the humidifying fan assembly</p> <p style="text-align: right;">(R5815)</p>
1 Peel off the 2 tapes.	<p style="text-align: right;">(R18365)</p>	
2 Remove the 5 screws of the humidifying fan assembly.	<p style="text-align: right;">(R5813)</p>	
3 Unfasten the 2 hooks while bending the right side panel.	<p style="text-align: right;">(R5814)</p>	
4 Remove the humidifying fan assembly.	<p style="text-align: right;">(R5814)</p>	
5 Peel the seal material and pull out the humidifying thermistor.	<p style="text-align: right;">(R5815)</p>	

Step	Procedure	Points
2.	Remove the damper assembly.	
1	Remove the 3 screws.	
2	Remove the damper assembly.	
3	Remove the screw and remove the damper motor.	
4	Disconnect the limit switch.	

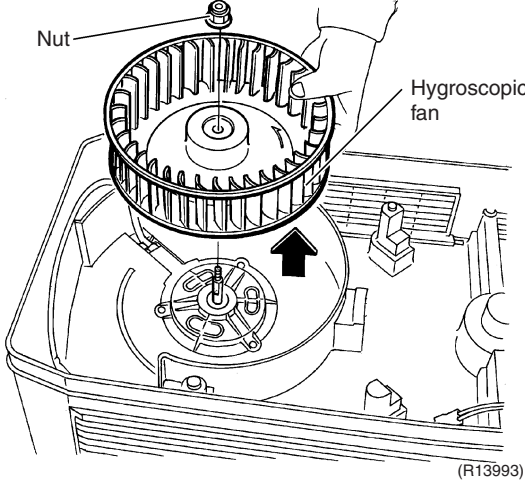
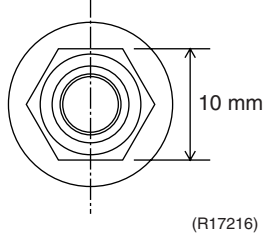
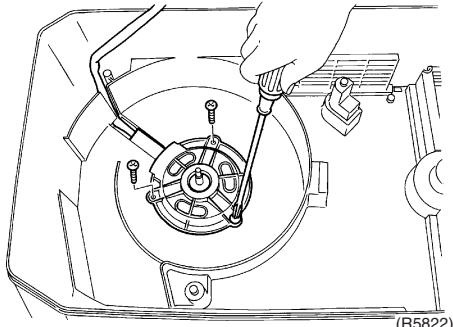
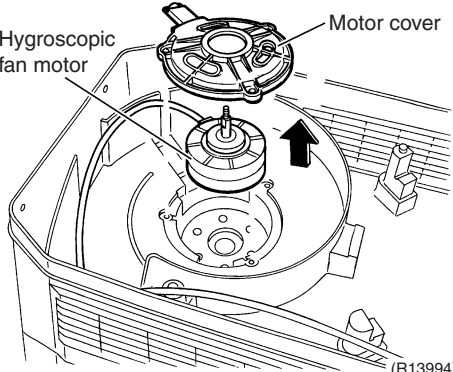


4. Hygroscopic Fan Motor



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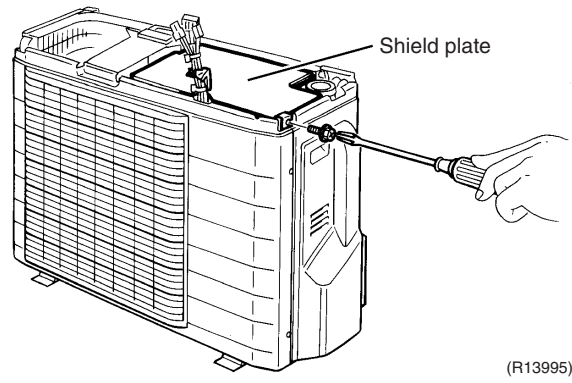
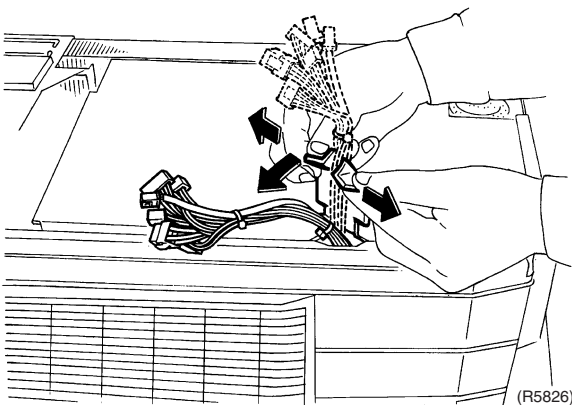
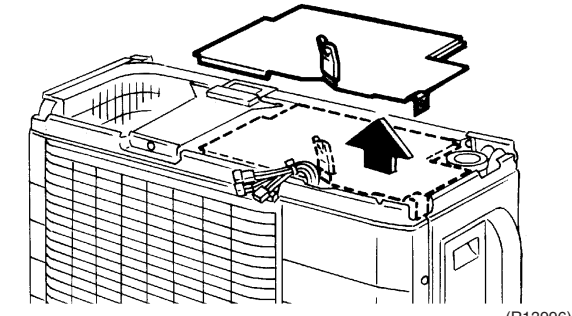
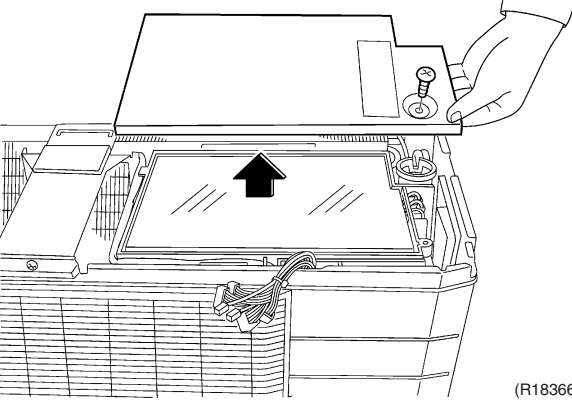
Step	Procedure	Points
1	<p>Remove the nut and remove the hygroscopic fan.</p> 	<ul style="list-style-type: none"> ■ Nut size: M6  <ul style="list-style-type: none"> ■ When reassembling, align the ▼ mark of the fan with the D-cut section of the motor shaft.
2	<p>Remove the 3 screws of the motor cover.</p> 	
3	<p>Remove the motor cover and the hygroscopic fan motor.</p> 	

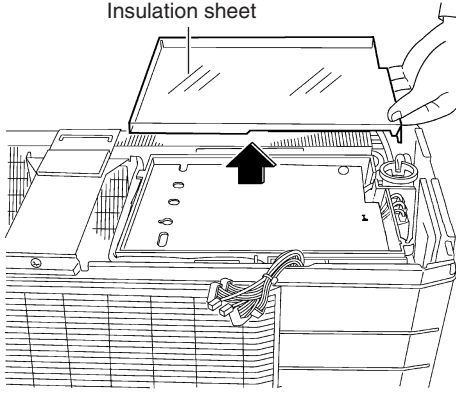
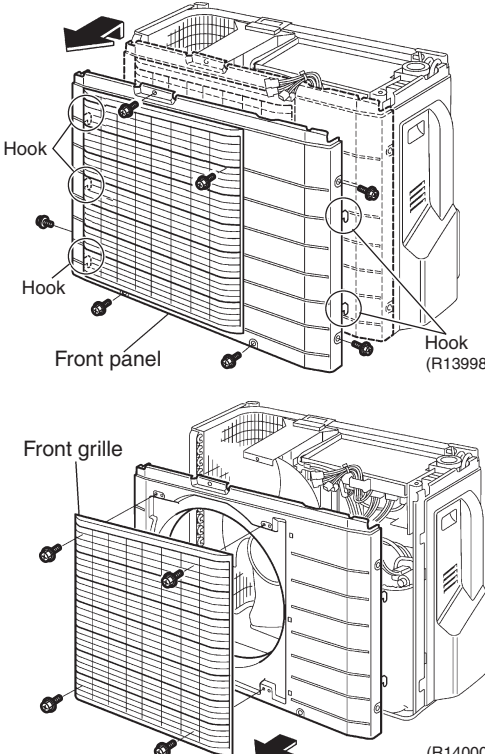
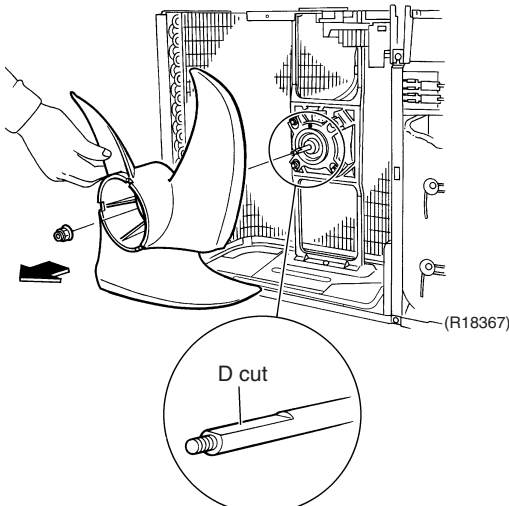
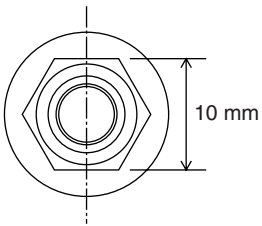
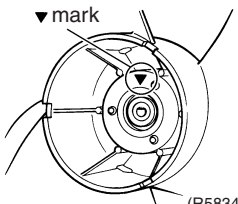
5. Outdoor Fan / Fan Motor

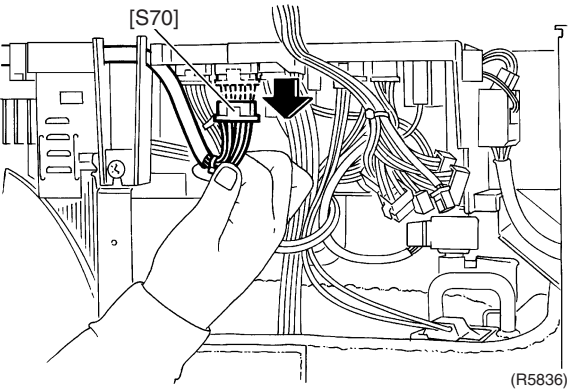
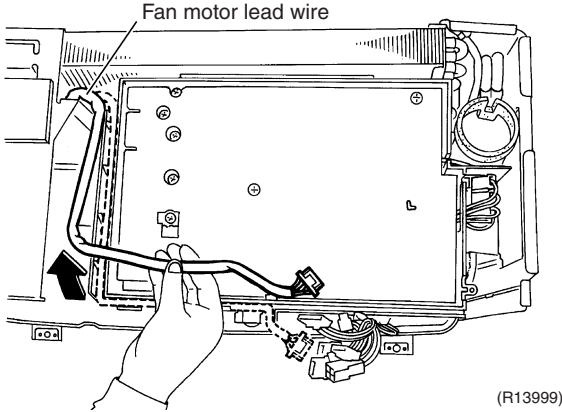
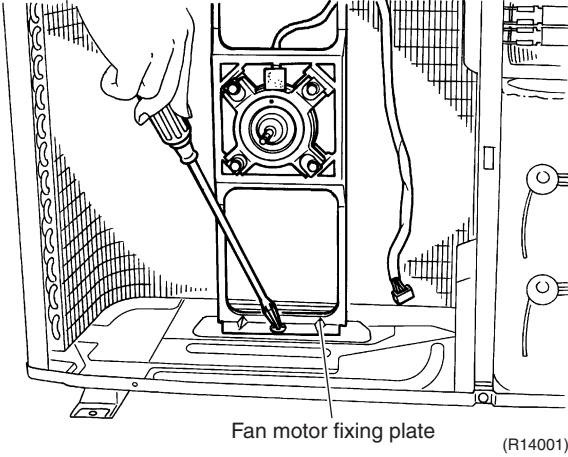


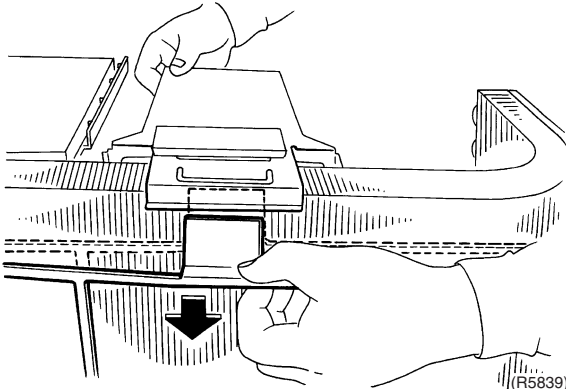
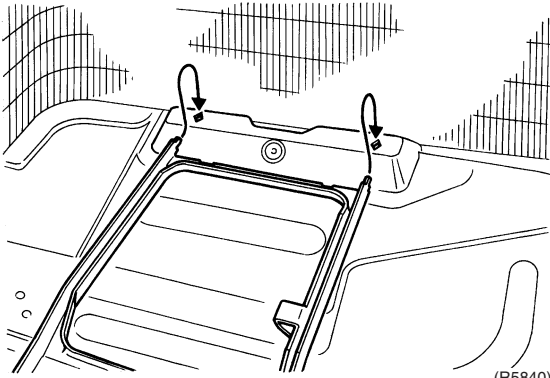
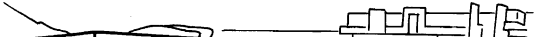
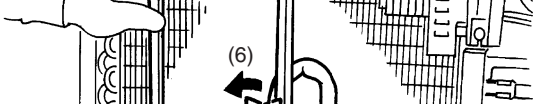
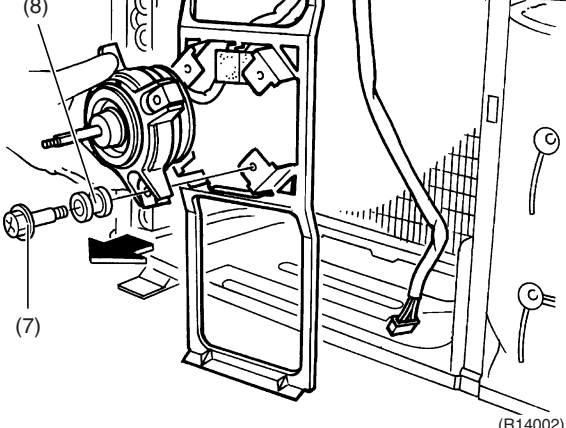
Warning

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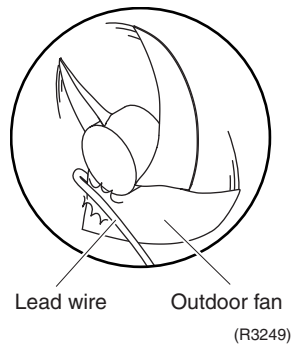
Step	Procedure	Points
<p>1. Remove the shield plate.</p> <p>1 Remove the screw.</p> <p>2 Release the harnesses.</p> <p>3 Remove the shield plate.</p>	 <p style="text-align: right;">(R13995)</p>  <p style="text-align: right;">(R5826)</p>  <p style="text-align: right;">(R13996)</p>	<p>■ Be careful not to forget to install, not to lose, and not to break the shield plate and the electrical box cover.</p>
<p>2. Remove the electrical box cover.</p> <p>1 Remove the screw.</p> <p>2 Remove the electrical box cover.</p>	 <p style="text-align: right;">(R18366)</p>	

Step	Procedure	Points
3	<p>Remove the insulation sheet.</p>  <p style="text-align: right;">(R13997)</p>	
3. Remove the front panel.	<p>1 Remove the 7 screws.</p> <p>2 Unfasten the 5 hooks and remove the front panel.</p> <p>3 Remove the 4 screws and remove the front grille.</p>  <p style="text-align: right;">(R13998) (R14000)</p>	
4. Remove the outdoor fan.	<p>1 Remove the nut and remove the outdoor fan.</p>  <p style="text-align: right;">(R18367)</p>	<p>■ Nut size: M6</p>  <p style="text-align: right;">(R17216)</p> <p>■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.</p>  <p style="text-align: right;">(R5834)</p>

Step	Procedure	Points
<p>5. Remove the fan motor.</p>	<p>1 Disconnect the connector for the fan motor [S70].</p>  <p>2 Release the fan motor lead wire from the hooks.</p>  <p>3 Remove the screw of the fan motor fixing plate.</p> 	

Step	Procedure	Points
4	Detach the upper part of the fan motor fixing plate.	 <p>(R5839)</p>
5	Fan motor fixing plate has 2 hooks on lower part.	 <p>(R5840)</p>
6	Unfasten the hook and release the fan motor lead wire.	
7	Remove the 4 screws of the fan motor.	
8	Pull out the rubber vibration isolators sideward.	 <p>(R14002)</p>

■ When reassembling, put the fan motor lead wire through the back of the fan motor (so as not to be entangled with the outdoor fan).

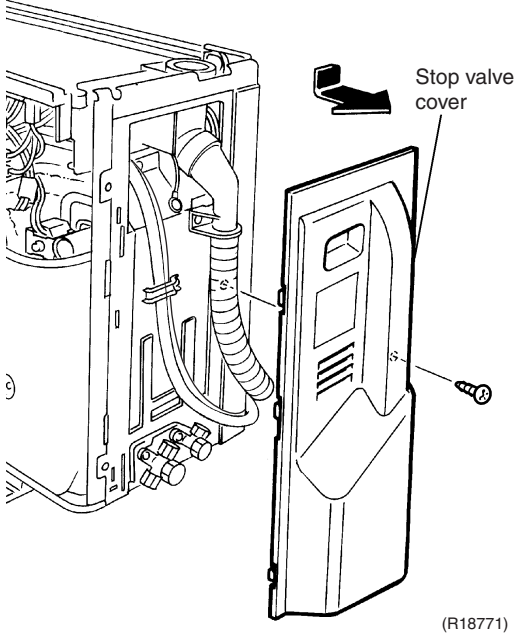
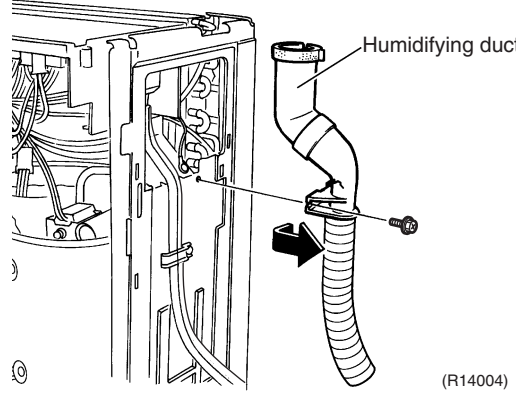


6. Humidifying Duct



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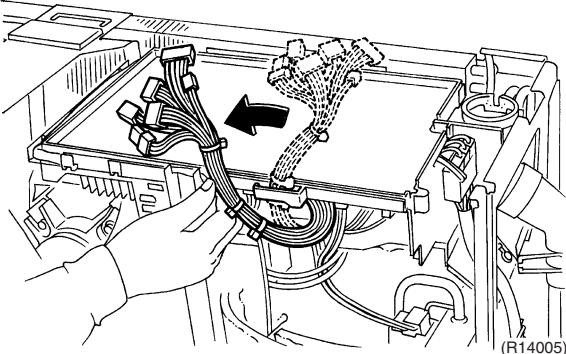
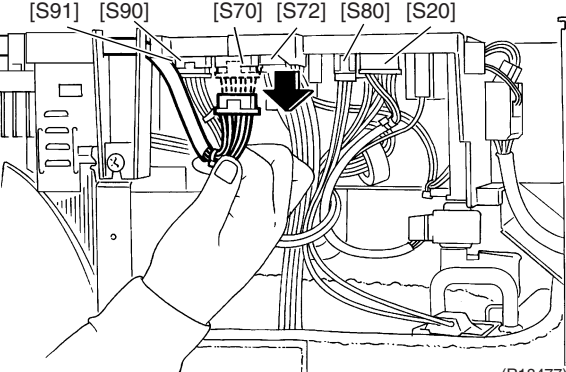
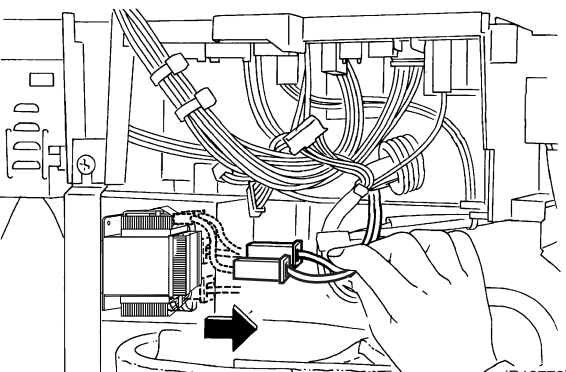
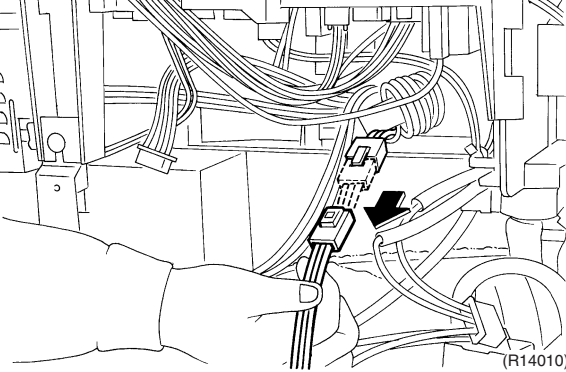
Step	Procedure	Points
<p>1 Remove the screw and remove the stop valve cover.</p>		
<p>2 Remove the screw and remove the humidifying duct.</p>		<p>■ When reassembling, make sure to catch the hook.</p>

7. Electrical Box

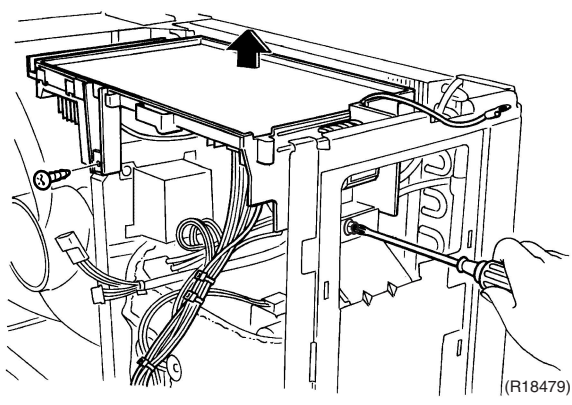
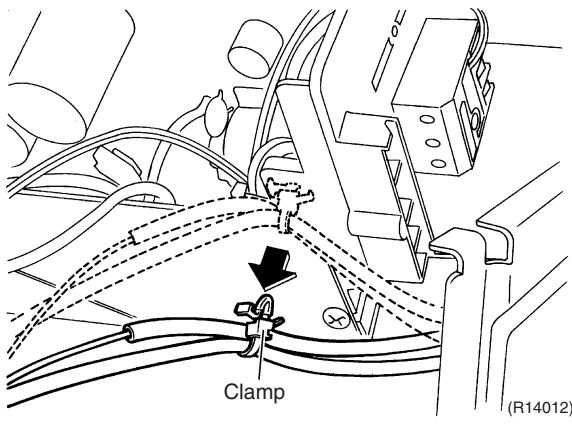
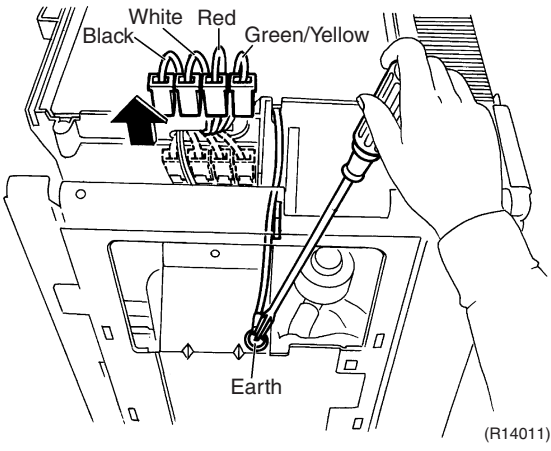
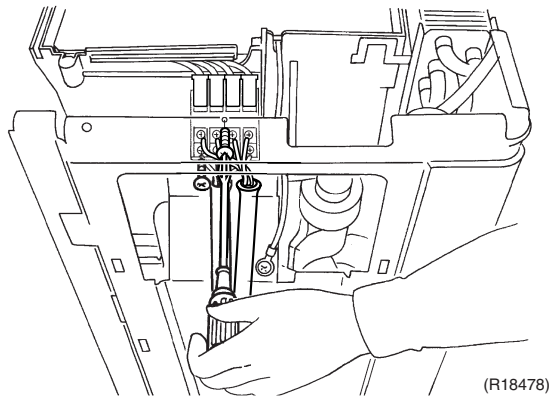


Warning

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Step	Procedure	Points
1	<p>Release the harnesses for the humidifier unit from the hook.</p>  <p style="text-align: right;">(R14005)</p>	
2	<p>Disconnect the connectors [S20][S70][S72][S80][S90][S91].</p>  <p style="text-align: right;">(R18477)</p>	<p>[S20]: electronic expansion valve coil [S70]: fan motor [S72]: humidifier fan motor [S80]: four way valve coil [S90]: thermistor assembly [S91]: humidifying thermistor</p>
3	<p>Disconnect the 2 terminals from the reactor.</p>  <p style="text-align: right;">(R18772)</p>	<ul style="list-style-type: none"> ■ When reassembling, you can connect the 2 harnesses in either way regardless of the color.
4	<p>Disconnect the relay harness for the compressor.</p>  <p style="text-align: right;">(R14010)</p>	

Step	Procedure	Points
5	Remove the screw of the terminal board.	<ul style="list-style-type: none"> ■ Thermal fuse should be replaced with the terminal board. ■ You can work without removing the terminal board.
6	Remove the screws and disconnect the connecting wires and the power supply cables.	
7	Disconnect the 4 connectors.	
8	Remove the screw and detach the earth wire.	
9	Detach the clamp for the thermistor assembly from the electrical box.	
10	Remove the 2 screws of the electrical box.	
11	Lift the electrical box and remove it.	

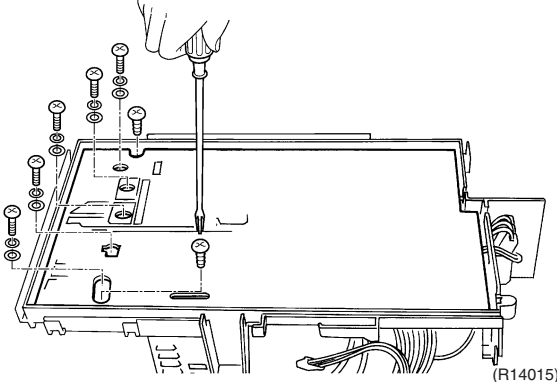
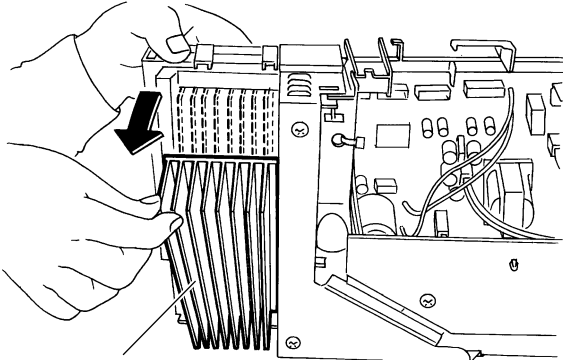
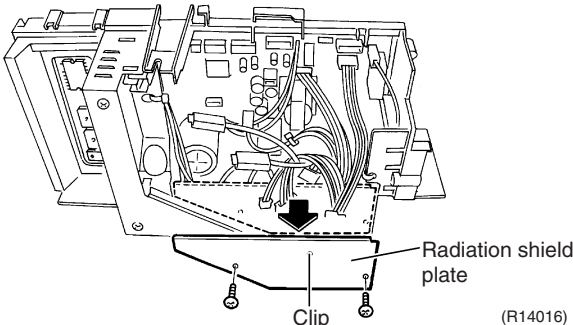
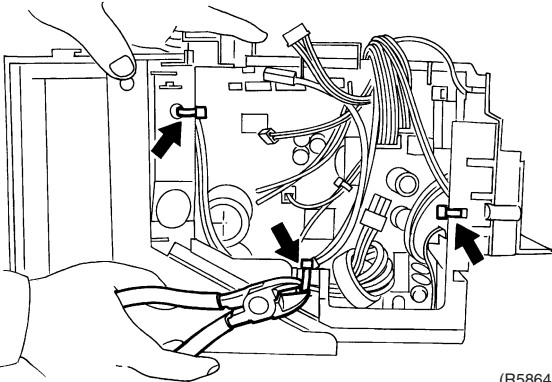


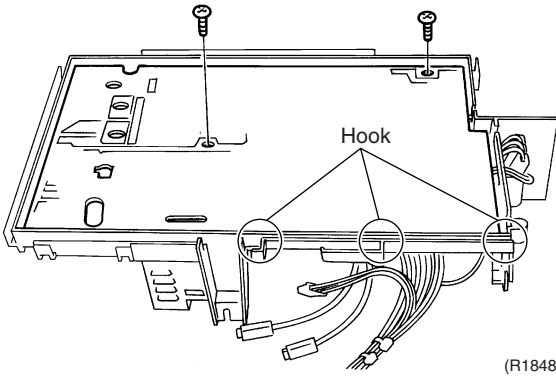
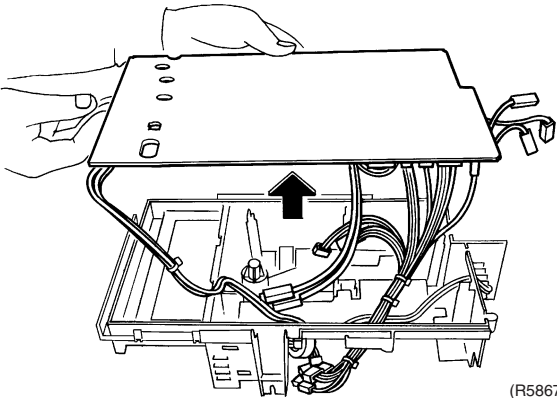
8. PCB



Warning

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Step	Procedure	Points
1	Remove the 7 screws.  <p style="text-align: right;">(R14015)</p>	
2	Detach the radiation fin.  <p style="text-align: center;">Radiation fin</p> <p style="text-align: right;">(R18480)</p>	<ul style="list-style-type: none"> ■ In working, be careful not to break the PCB with the excessive force because the PCB and the radiation fin are adhered to one another. ■ When reassembling, make sure to apply the silicon grease evenly.
3	Remove the 2 screws and detach the clip to remove the radiation shield plate.  <p style="text-align: center;">Radiation shield plate</p> <p style="text-align: center;">Clip</p> <p style="text-align: right;">(R14016)</p>	
4	Cut the 3 clamps.  <p style="text-align: right;">(R5864)</p>	

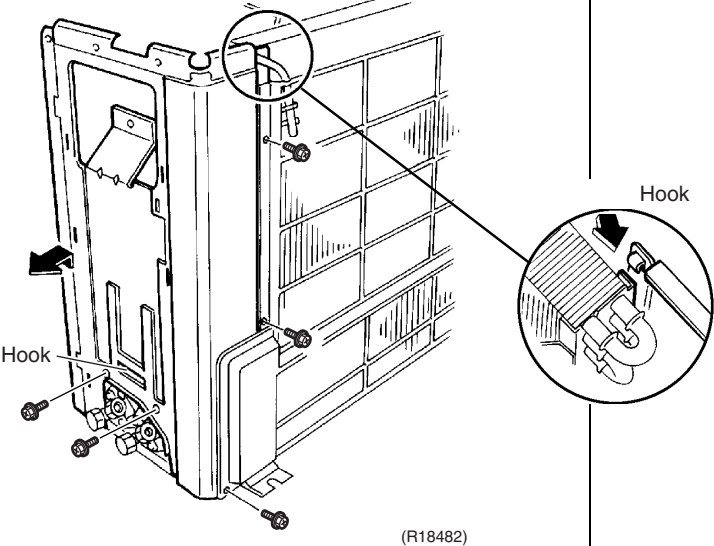
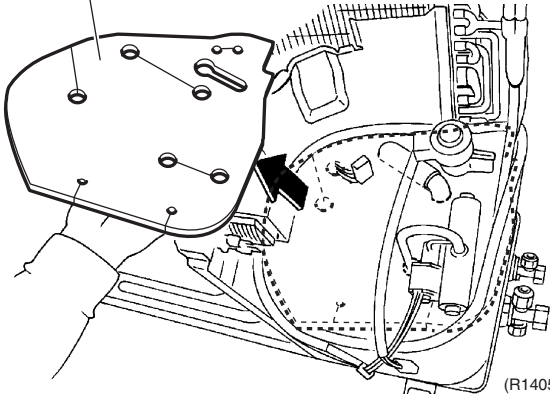
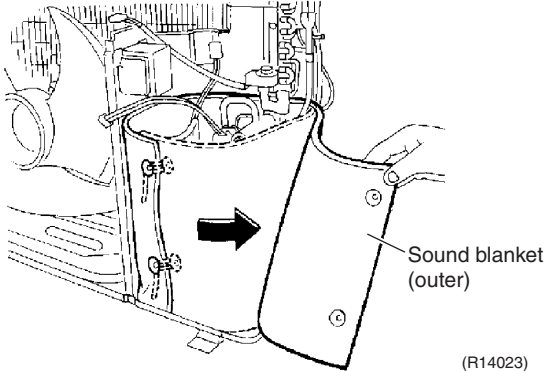
Step	Procedure	Points
5	Remove the 2 screws.	
6	Unfasten the 3 hooks of the electrical box.  <p style="text-align: right;">(R18481)</p>	
7	Remove the PCB from the electrical box.	
8	Disconnect the connectors.  <p style="text-align: right;">(R5867)</p>	

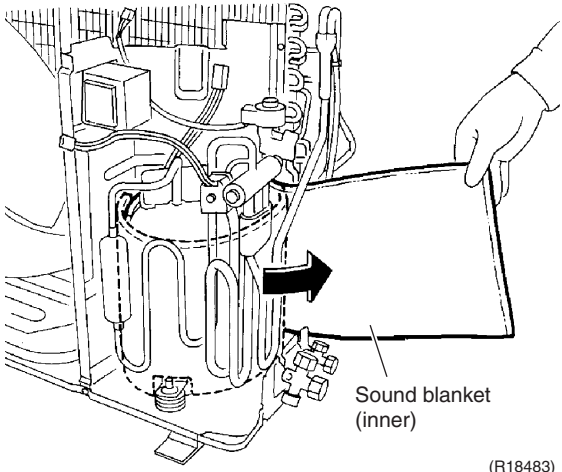
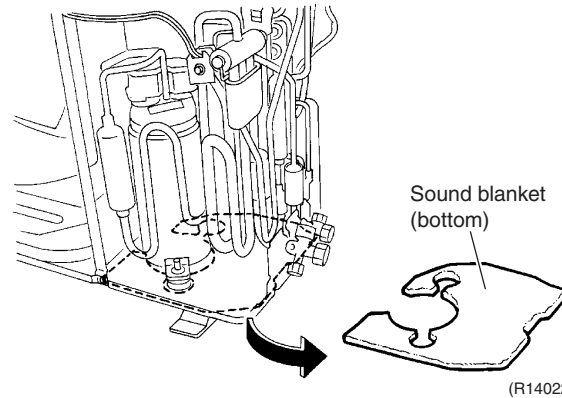
9. Sound Blankets



Warning

- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Remove the right side panel.		
2. Remove the sound blankets.	 	<ul style="list-style-type: none"> ■ Since the piping ports on the sound blanket are torn easily, remove the blanket carefully.

Step	Procedure	Points
4	<p>Open the sound blanket (inner) and pull it out.</p> 	
5	<p>Pull the sound blanket (bottom) out.</p> 	

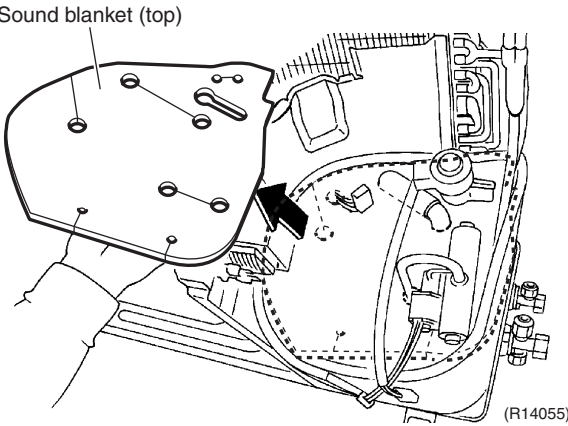
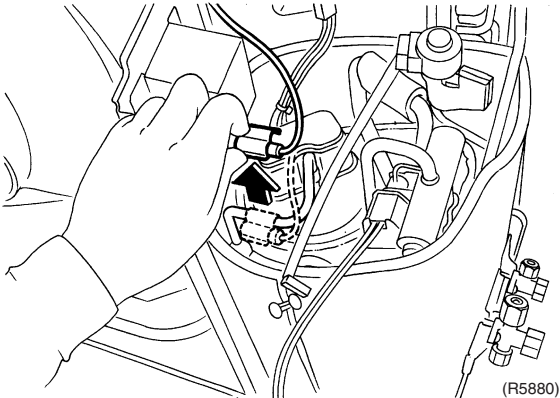
10. Thermistor Assembly



Warning

- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1 Release the outdoor temperature thermistor from the guard net. 2 Remove the 3 screws on the back side of the right side panel. 3 Remove the 2 screws on the right side. 4 Lift the right side panel to unfasten the 2 hooks and remove it.	<p>Outdoor temperature thermistor</p> <p>Guard net</p> <p>Hook</p> <p>Hook</p> <p>(R18804)</p>	
5 Pull out the outdoor heat exchanger thermistor.	<p>(R5879)</p>	<ul style="list-style-type: none"> ■ Be careful not to lose the clip for the thermistor.

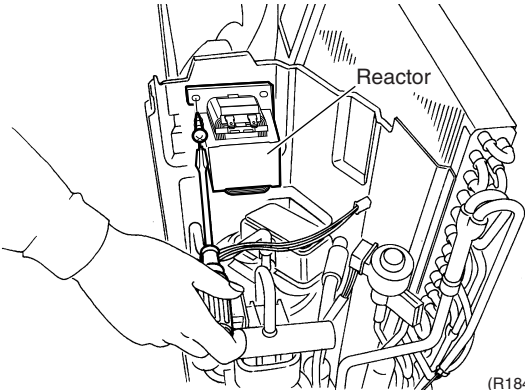
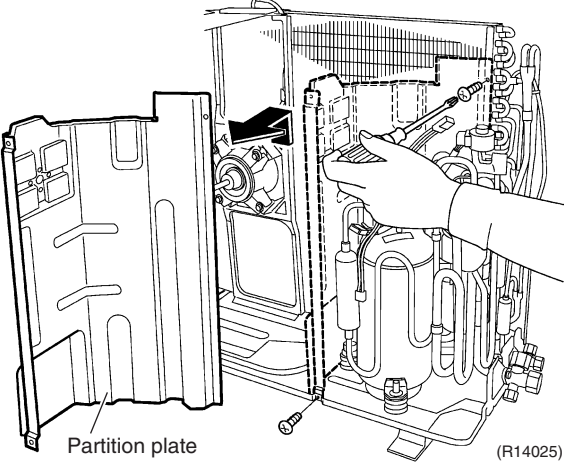
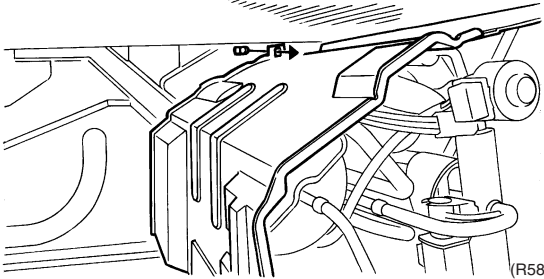
Step	Procedure	Points
6	<p>Remove the sound blanket (top).</p>  <p>(R14055)</p>	<ul style="list-style-type: none"> ■ Since the piping ports on the sound blanket are torn easily, remove the blanket carefully.
7	<p>Release the discharge pipe thermistor.</p>	<ul style="list-style-type: none"> ■ Detach the discharge pipe thermistor while opening the thermistor fixing clip.
8	<p>Remove the thermistor assembly.</p>  <p>(R5880)</p>	<ul style="list-style-type: none"> ■ Be careful not to lose the clip for the discharge pipe thermistor. ■ Meet the edge of the thermistor and the clip when reassembling.

11.Reactor / Partition Plate



Warning

- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Remove the reactor. 1 Remove the screw and remove the reactor.	 <p style="text-align: right;">(R18484)</p>	
2. Remove the partition plate. 1 Remove the 2 screws. 2 Lift the partition plate and remove it.	 <p style="text-align: right;">(R14025)</p>  <p style="text-align: right;">(R5884)</p>	<ul style="list-style-type: none"> ■ When reassembling, make sure to catch the lower hook of the partition plate.

12.Four Way Valve



Warning

- ♦ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.
- ♦ Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.
- ♦ If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)



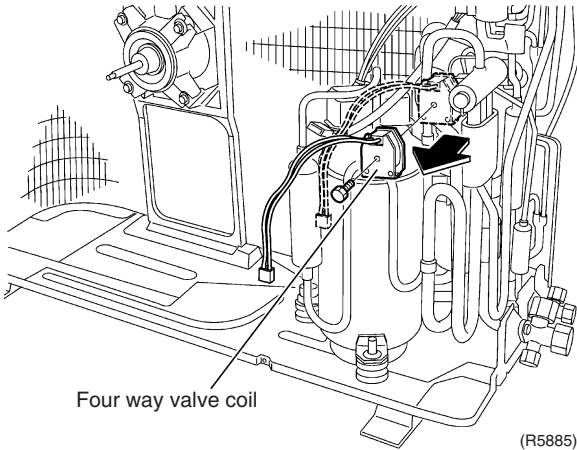
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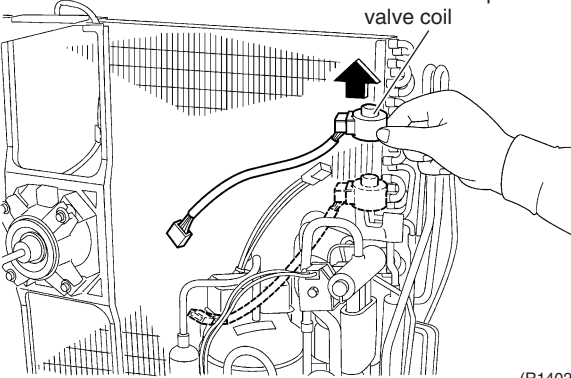
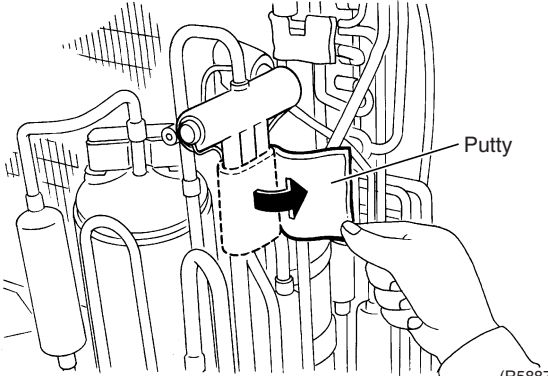
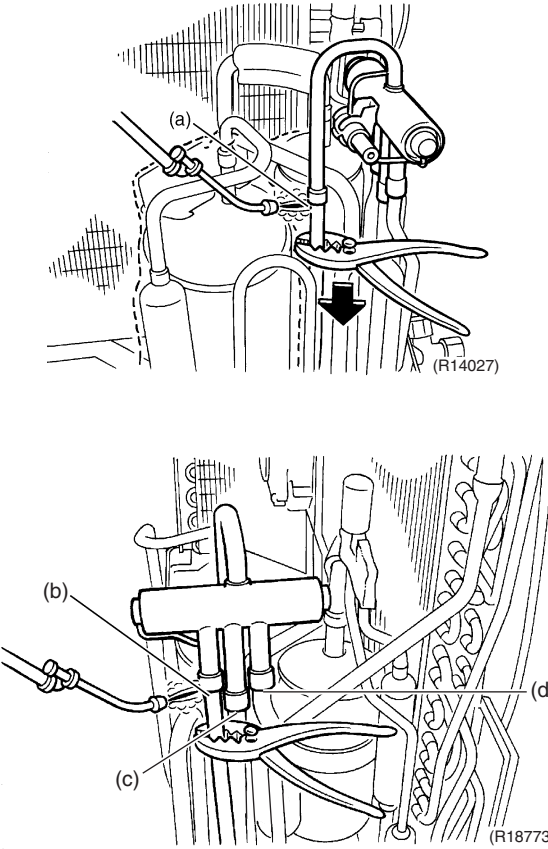
- ♦ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ♦ **Cautions for restoration**
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside the four way valve and the deterioration of the gaskets affected by heat. (Keep below 120°C.) For the sake of this, wrap the four way valve with wet cloth and provide water so that the cloth does not dry.



Note

- ♦ Before working, make sure that the refrigerant gas is empty in the circuit.
- ♦ Be sure to apply nitrogen replacement when heating up the brazed part.
- ♦ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.
- ♦ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.
- ♦ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.
- ♦ Be careful so as not to burn the compressor terminals, the name plate, the outdoor heat exchanger fin.
- ♦ **In case of difficulty with gas brazing machine**
 1. Disconnect the brazed part where is easy to disconnect and restore.
 2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.

Step	Procedure	Points
<p>1 Remove the screw and remove the four way valve coil.</p>	 <p>Four way valve coil</p> <p>(R5885)</p>	

Step	Procedure	Procedure	Points
2	Pull out the electronic expansion valve coil.	 <p style="text-align: right;">(R14026)</p>	
3	Remove the putty.	 <p style="text-align: right;">(R5887)</p>	
4	Heat up the 4 brazed parts of the four way valve. Disconnect them in the order of (a) (b) (c) (d).	 <p style="text-align: right;">(R14027)</p> <p style="text-align: right;">(R18773)</p>	

13. Electronic Expansion Valve



Warning

- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.
- ◆ Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.
- ◆ If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)



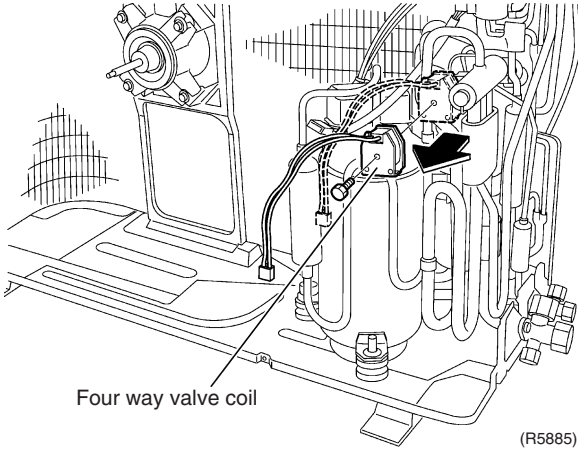
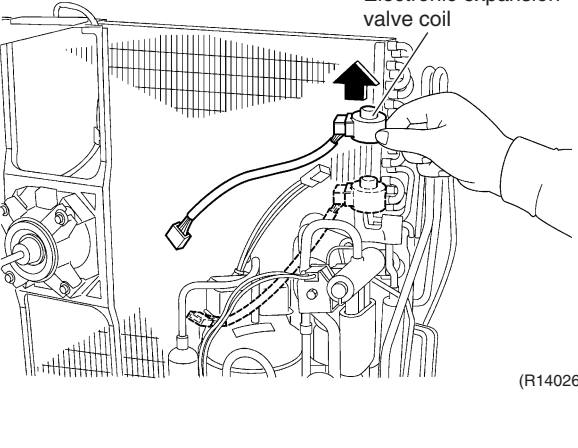
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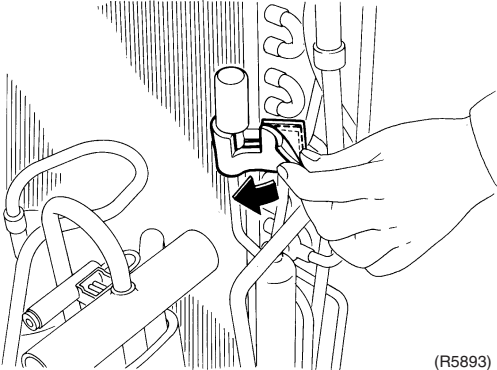
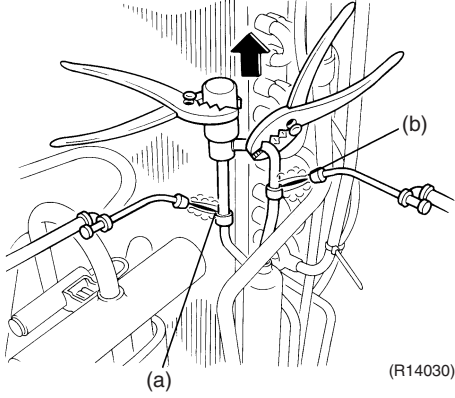
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ **Cautions for restoration**
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside the four way valve and the deterioration of the gaskets affected by heat. (Keep below 120°C.) For the sake of this, wrap the four way valve with wet cloth and provide water so that the cloth does not dry.



Note

- ◆ Before working, make sure that the refrigerant gas is empty in the circuit.
- ◆ Be sure to apply nitrogen replacement when heating up the brazed part.
- ◆ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.
- ◆ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.
- ◆ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.
- ◆ Be careful so as not to burn the compressor terminals, the name plate, the outdoor heat exchanger fin.

Step		Procedure	Points
1	Remove the screw and remove the four way valve coil.	 <p style="text-align: center;">Four way valve coil</p> <p style="text-align: right;">(R5885)</p>	
2	Pull out the electronic expansion valve coil.	 <p style="text-align: center;">Electronic expansion valve coil</p> <p style="text-align: right;">(R14026)</p>	

Step	Procedure	Procedure	Points
3	Remove the putty.	 <p>(R5893)</p>	
4	Heat up the 2 brazed parts and disconnect them in the order of (a) (b).	 <p>(a) (b)</p> <p>(R14030)</p>	

14. Compressor



Warning

- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.
- ◆ Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.
- ◆ If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)
- ◆ Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.



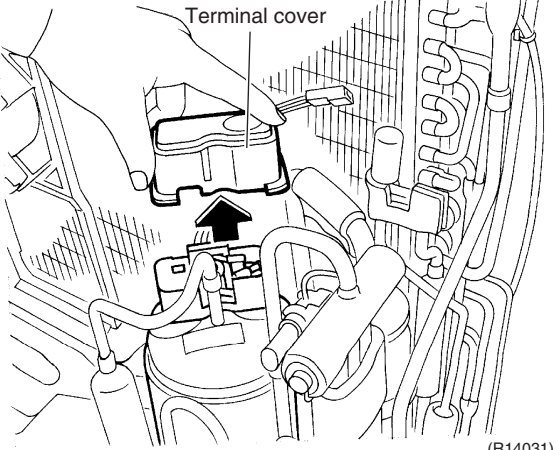
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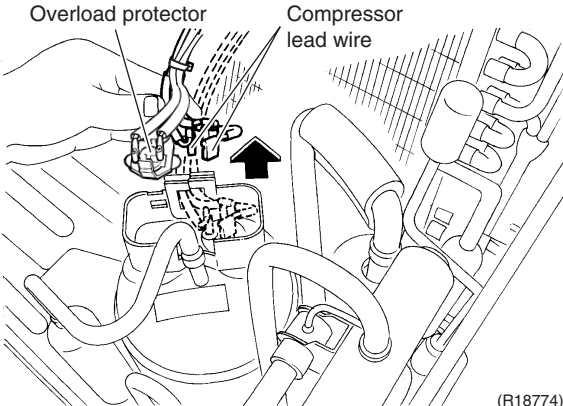
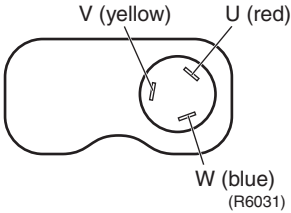
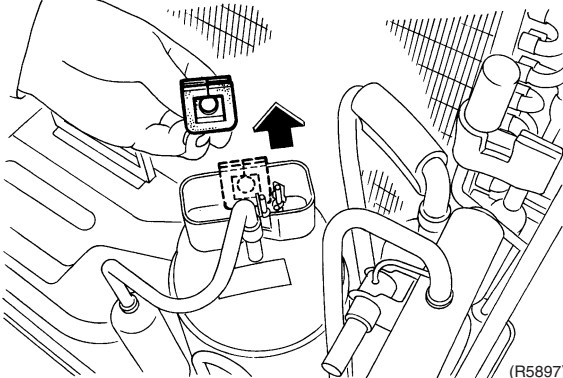
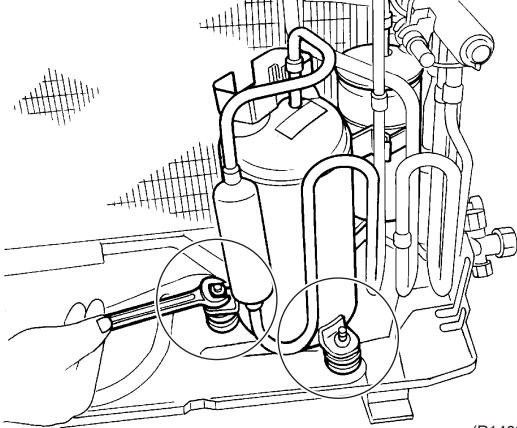
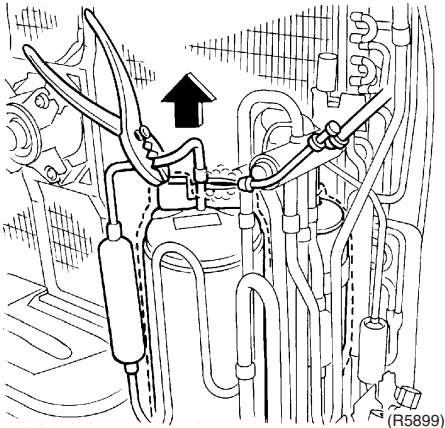
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Cautions for restoration
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside the four way valve and the deterioration of the gaskets affected by heat. (Keep below 120°C.) For the sake of this, wrap the four way valve with wet cloth and provide water so that the cloth does not dry.

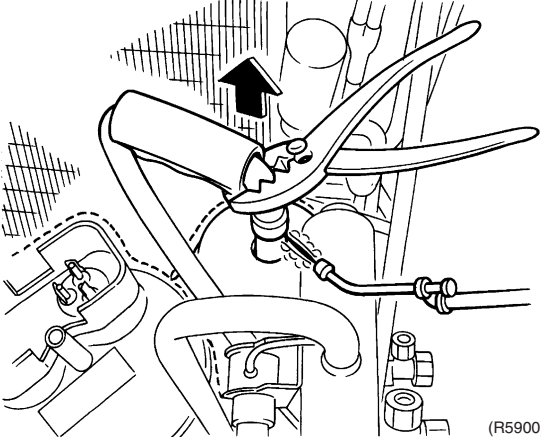
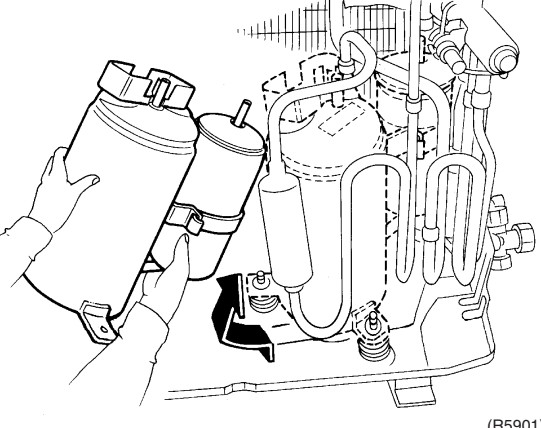


Note

- ◆ Before working, make sure that the refrigerant gas is empty in the circuit.
- ◆ Be sure to apply nitrogen replacement when heating up the brazed part.
- ◆ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.
- ◆ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.
- ◆ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.
- ◆ Be careful so as not to burn the compressor terminals, the name plate, the outdoor heat exchanger fin.
- ◆ In case of difficulty with gas brazing machine
 1. Disconnect the brazed part where is easy to disconnect and restore.
 2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.

Step	Procedure	Points
1	Remove the terminal cover.  <p style="text-align: right;">(R14031)</p>	

Step	Procedure	Procedure	Points
2	Disconnect the compressor lead wires and detach the overload protector.		<p>■ Be careful so as not to burn the compressor terminals or the name plate.</p> 
3	Remove the protecting bushing.		
4	Remove the 2 nuts.		
5	Heat up the brazed part of the discharge side and disconnect.		

Step	Procedure	Points
6	Heat up the brazed part of the suction side and disconnect.	 <p>(R5900)</p>
7	Lift the compressor and remove it.	 <p>(R5901)</p>

Revision History

Month / Year	Version	Revised contents
02 / 2013	Si001275	First edition

Warning



- Daikin products are manufactured for export to numerous countries throughout the world. Prior to purchase, please confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

Dealer

DAIKIN INDUSTRIES, LTD.

Head Office:
Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo Office:
JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan

http://www.daikin.com/global_ac/

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