

REMOVAL PROCEDURE



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

5.0/6.0 kW Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Cooling Only

**RKS50FVMV
RKS60FVMV**

●Heat Pump

**RXS50FVMV
RXS60FVMV**

**RXS50GVMV
RXS60GVMV**

Table of Contents

1. Outer Panels	2
2. Outdoor Fan / Fan Motor.....	4
3. Electrical Box	6
4. PCBs.....	10
5. Sound Blankets / Thermistors	12
6. Four Way Valve.....	14
7. Electronic Expansion Valve.....	16
8. Compressor.....	18



Note:

- ♦ The illustrations may be slightly different depending on the model.
- ♦ The illustrations are for heat pump models as representative.

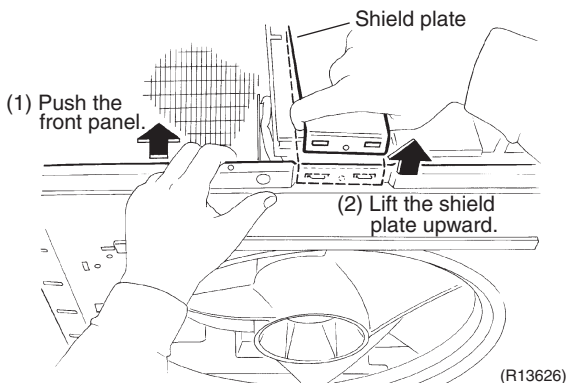
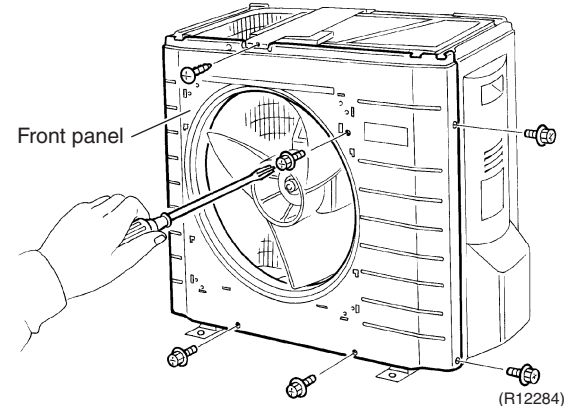
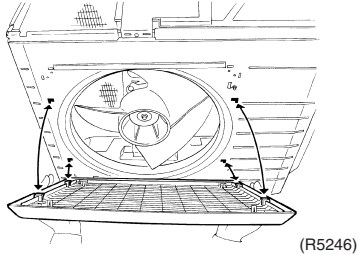
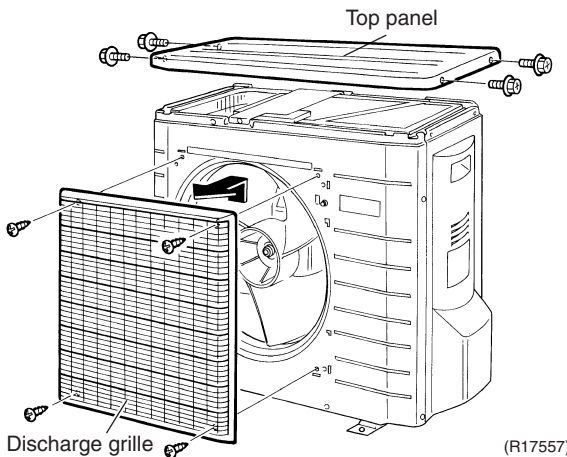
1. Outer Panels



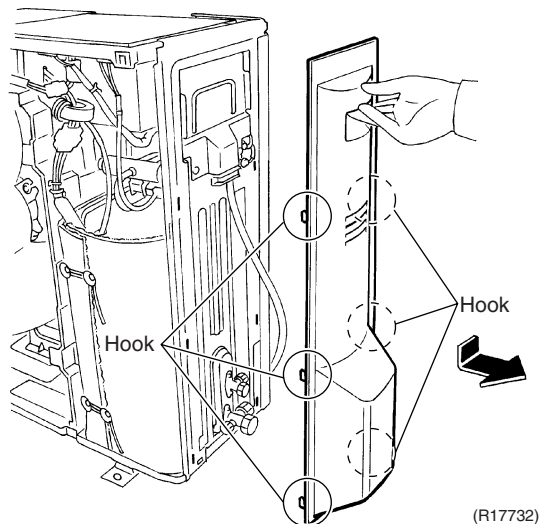
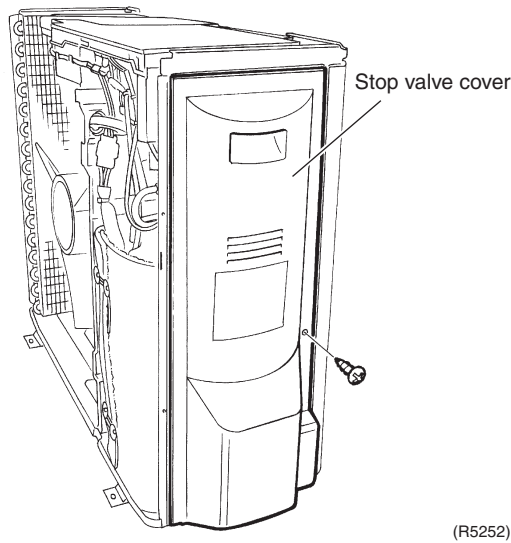
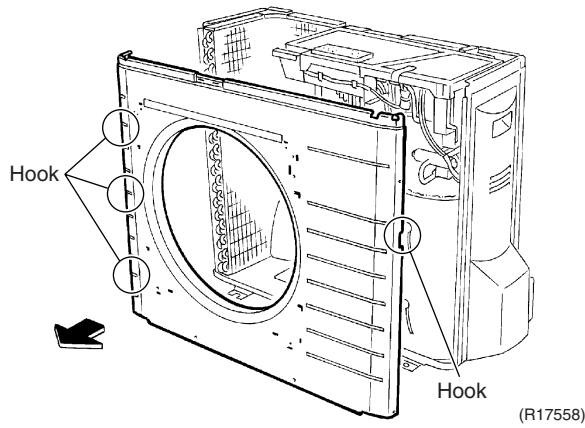
Warning

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

Step	Procedure	Points
1	Remove the 4 screws and lift the top panel.	
2	Remove the 4 screws and remove the discharge grille.	<p>■ The discharge grille has 4 hooks.</p>
3	Remove the 6 screws of the front panel.	
4	Push the front panel inward and lift the shield plate to unfasten the hooks.	



Step	Procedure	Points
5	Unfasten the left side hooks, and then the right side hook of the front panel.	■ When reassembling, fit the right side of the front panel first.
6	Remove the front panel.	
7	Remove the screw of the stop valve cover.	
8	Pull the stop valve cover downward to unfasten the 6 hooks and remove it.	

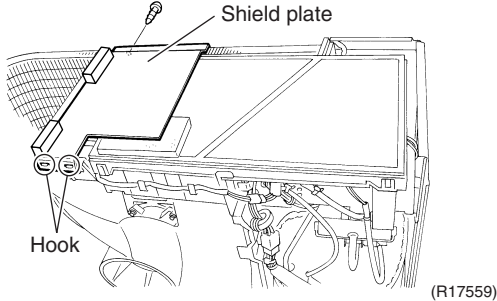
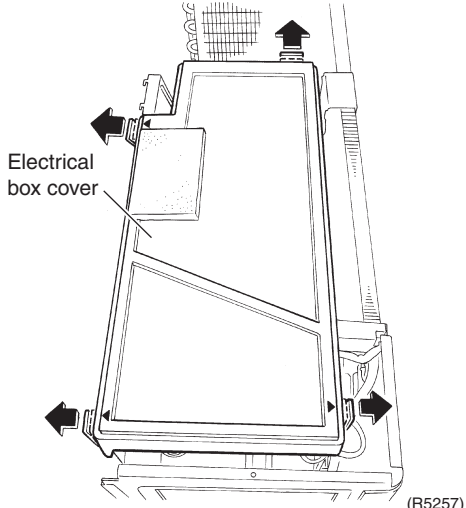
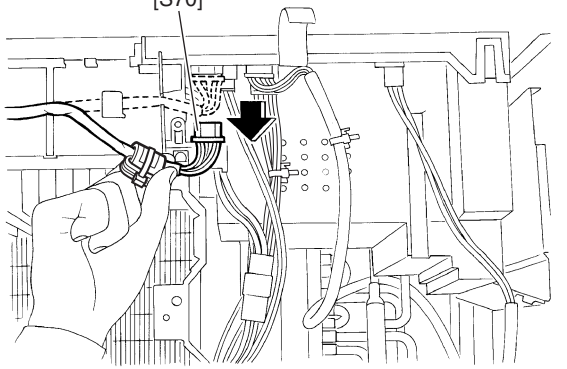
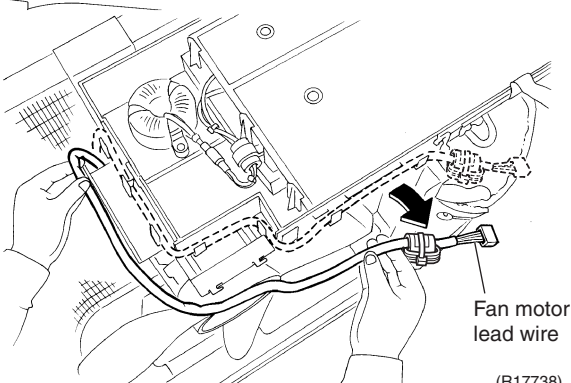
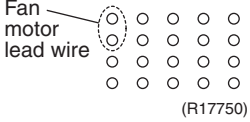


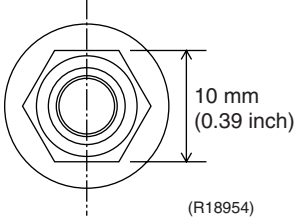
2. Outdoor Fan / Fan Motor

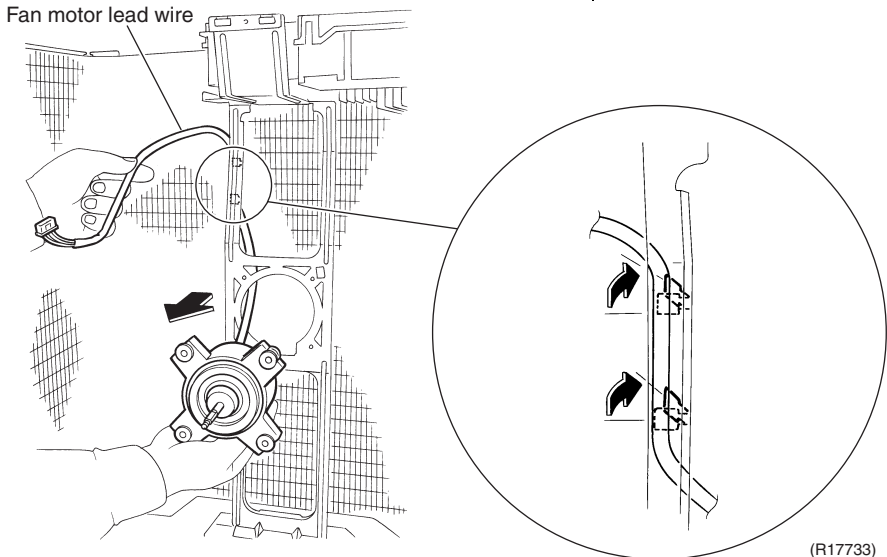
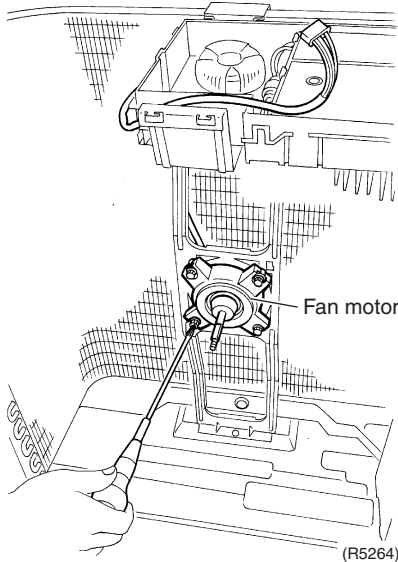
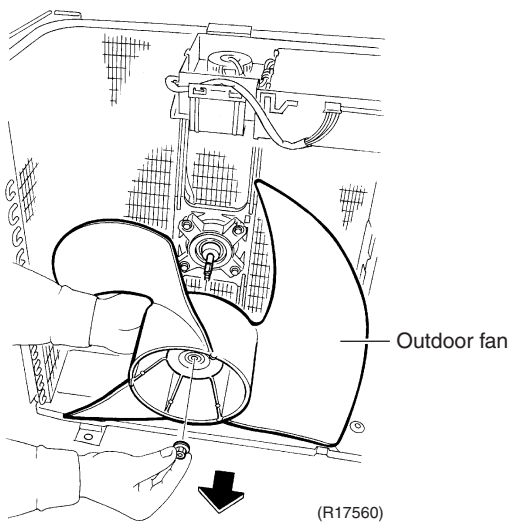


Warning

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

Step	Procedure	Points
<p>1. Remove the electrical box cover.</p> <p>1 Remove the screw of the shield plate.</p> <p>2 Unfasten the 2 hooks and remove the shield plate.</p> <p>3 Unfasten the 4 hooks of the electrical box cover and remove it.</p>	 <p style="text-align: right;">(R17559)</p>  <p style="text-align: right;">(R5257)</p>	
<p>2. Remove the fan motor.</p> <p>1 Disconnect the connector [S70] and pull out the clamp at the front.</p> <p>2 Release the fan motor lead wire from the 7 hooks.</p>	 <p style="text-align: right;">(R17737)</p>  <p style="text-align: right;">(R17738)</p>	<p>[S70]: fan motor</p> <ul style="list-style-type: none"> ■ When reassembling, insert the clamp into the hole as below.  <p style="text-align: right;">(R17750)</p>

Step	Procedure	Points
3	Remove the nut of the outdoor fan.	<ul style="list-style-type: none"> ■ Nut size: M6
4	Remove the outdoor fan.	
5	Remove the 2 lower screws from the fan motor first.	<ul style="list-style-type: none"> ■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.
6	Then, remove the 2 upper screws.	<ul style="list-style-type: none"> ■ Be sure to remove the lower screws first. If the top screws are removed first, the fan motor may tilt down or fall and cause injury because its center of gravity is shifted to the front.
7	Release the fan motor lead wire from the 2 hooks and pull out the fan motor.	<ul style="list-style-type: none"> ■ 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.

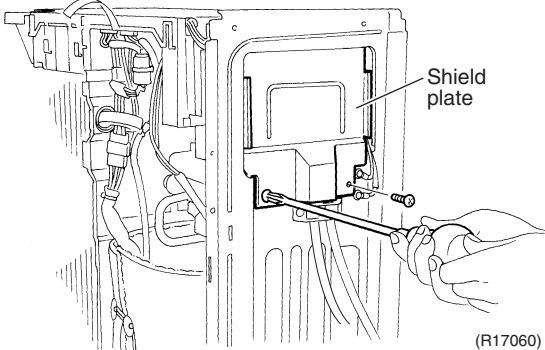
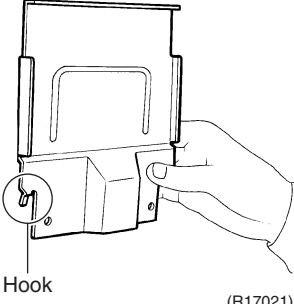
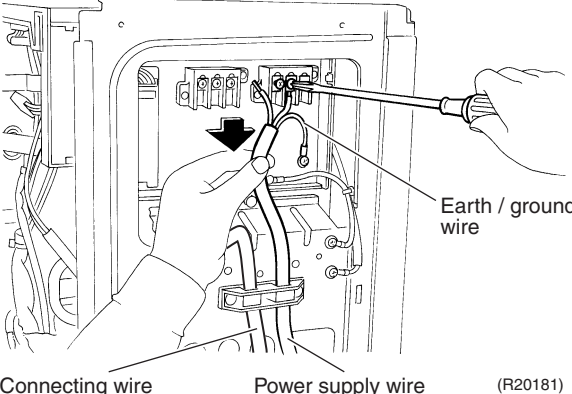
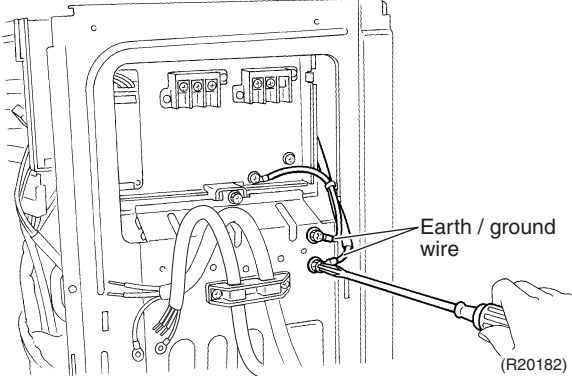


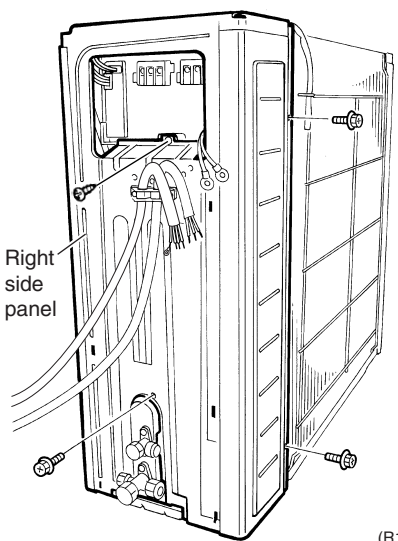
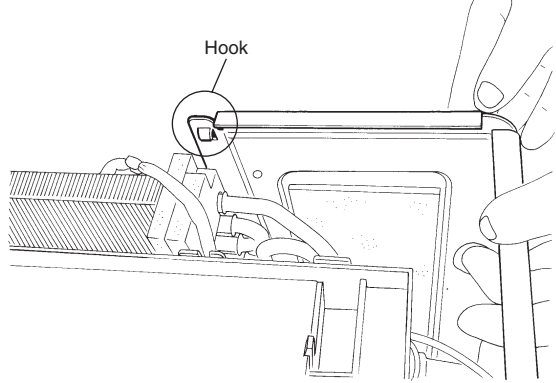
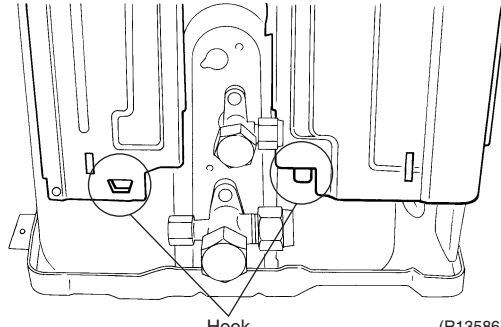
3. Electrical Box

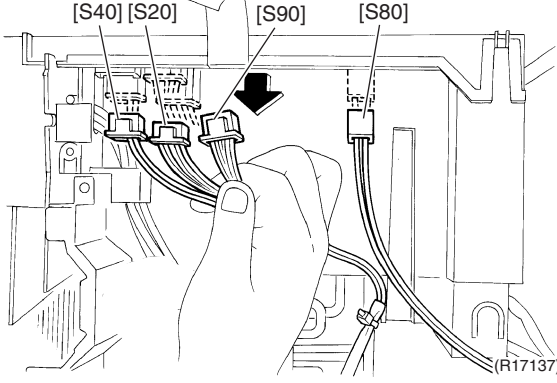
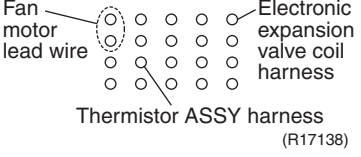
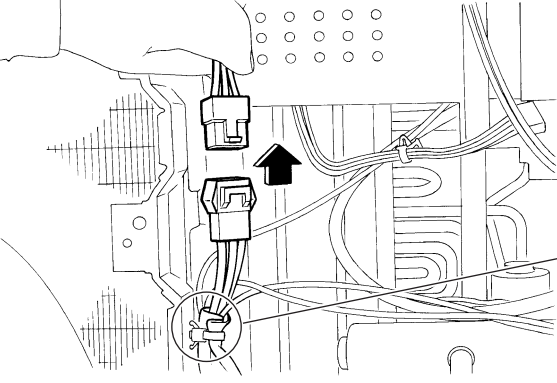
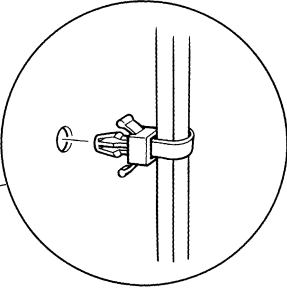
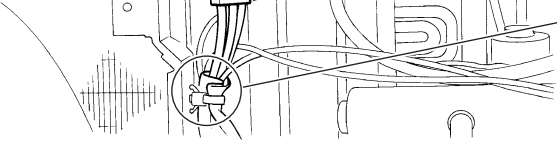
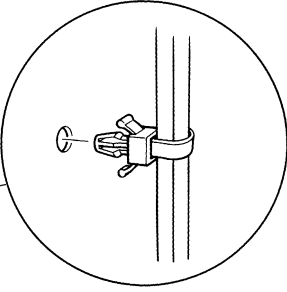
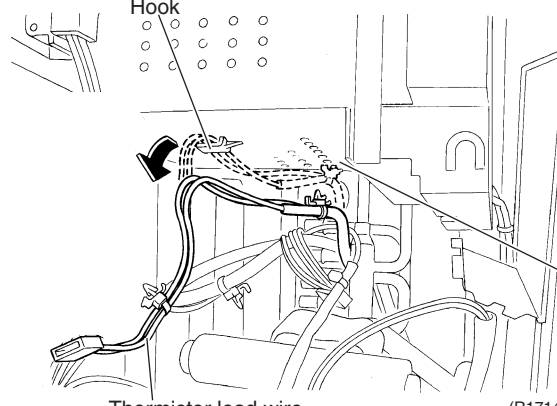
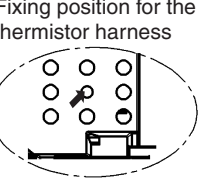
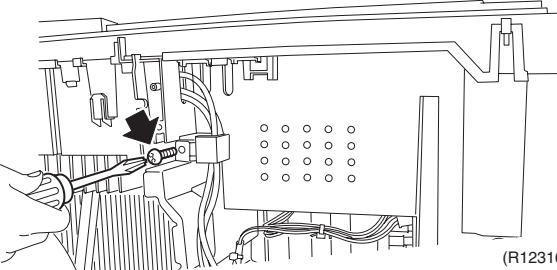


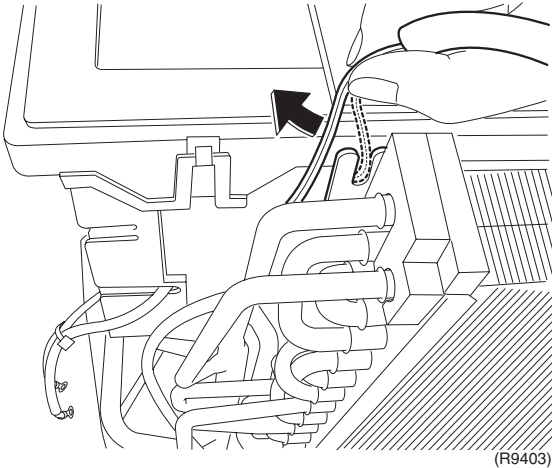
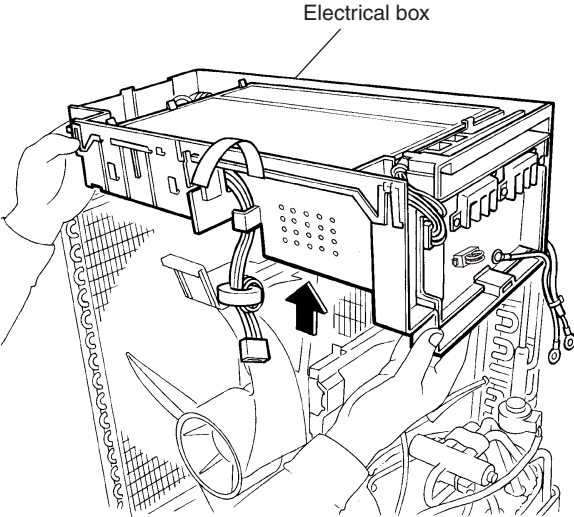
Warning

◆ 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 2 screws of the shield plate.</p>  <p style="text-align: right;">(R17060)</p>	
2	<p>Slide the shield plate upward to unfasten the hook on the bottom left, and then remove the shield plate.</p>  <p style="text-align: center;">Hook</p> <p style="text-align: right;">(R17021)</p>	
3	<p>Remove all the screws of the terminal boards and of the earth / ground wires. Disconnect the power supply wire and the connecting wire.</p>  <p style="text-align: center;">Connecting wire Power supply wire</p> <p style="text-align: right;">(R20181)</p>	
4	<p>Remove the 2 screws and detach the earth / ground wires.</p>  <p style="text-align: right;">(R20182)</p>	

Step	Procedure	Points
5 6	<p>Remove the 3 screws of the right side panel.</p> <p>Remove the screw of the electrical box.</p>  <p>(R17734)</p>	
7	<p>Unfasten the hooks and remove the right side panel.</p>  <p>(R5272)</p>  <p>(R13586)</p>	<p>■ When reassembling, insert the upper hook and the 2 lower hooks back into place.</p>

Step	Procedure	Procedure	Points
8	Disconnect the connectors and pull out each clamp of the front side.	 <p>(R17137)</p>	<p>[S20]: electronic expansion valve coil [S40]: overload protector [S80]: four way valve coil [S90]: thermistors</p> <p>■ When reassembling, insert each clamp into the hole as below.</p>  <p>(R17138)</p>
9	Disconnect the relay connector for the compressor.	 <p>(R17139)</p>	
10	Release the clamp.	 <p>(R17139)</p>	
11	Detach the clamp and release the thermistor lead wires from the hook.	 <p>Hook</p> <p>Thermistor lead wire</p> <p>(R17140)</p>	<p>■ When reassembling, insert the clamp into the small hole.</p>  <p>Fixing position for the thermistor harness</p>
12	Remove the screw.	 <p>(R12316)</p>	

Step	Procedure	Points
13	Release the harness of the outdoor temperature thermistor from the hook.  <p>(R9403)</p>	
14	Lift and remove the electrical box.  <p>Electrical box</p> <p>(R13587)</p>	

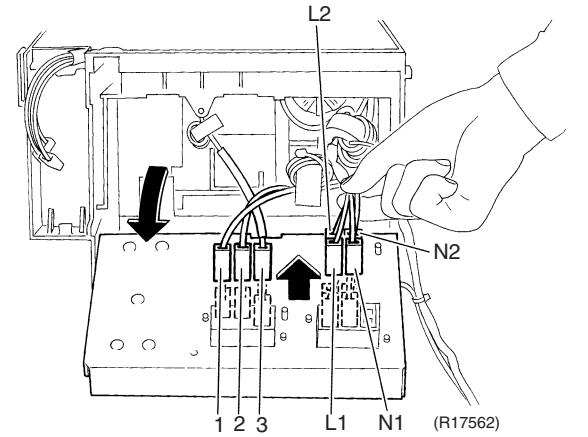
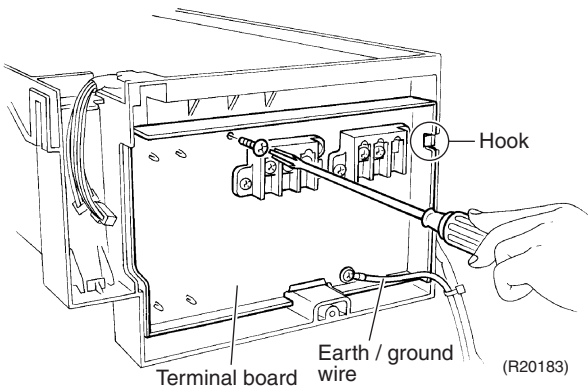
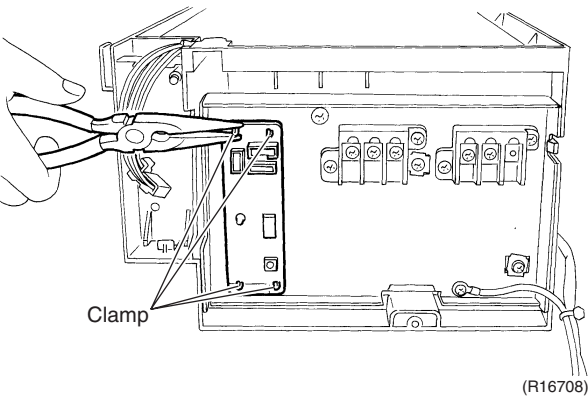
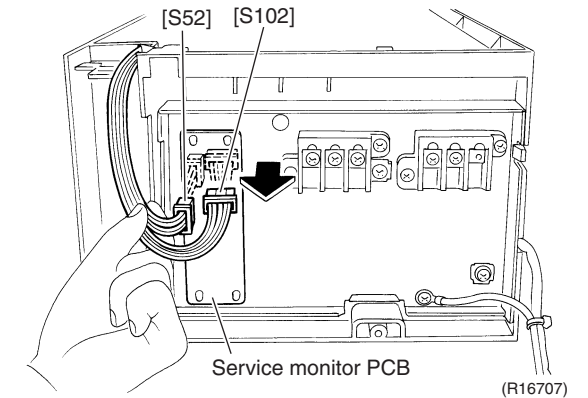
4. PCBs



Warning

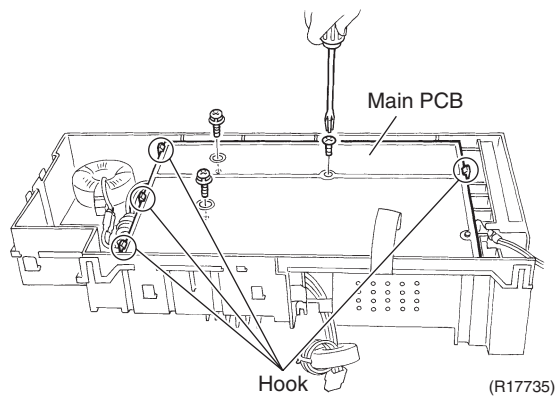
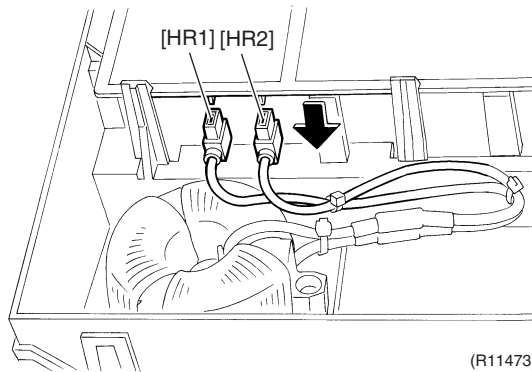
◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Disconnect the connectors [S52] [S102] from the service monitor PCB.	[S52]: control PCB [S102]: control PCB
2	Detach the 4 clamps with pliers and remove the service monitor PCB.	
3	Remove the screws of the terminal board and the earth / ground wire.	
4	Unfasten the hook on the right.	
5	Open the terminal board.	
6	Disconnect the harnesses.	



- 1: Black
- 2: White
- 3: Red
- L1: Black
- L2: Brown
- N1: White
- N2: Blue

Step	Procedure	Points
7	Disconnect the 2 connectors [HR1] [HR2].	[HR1] [HR2]: reactor
8	Remove the 3 screws of the main PCB.	
9	Unfasten the 4 hooks.	
10	Lift up and remove the main PCB.	



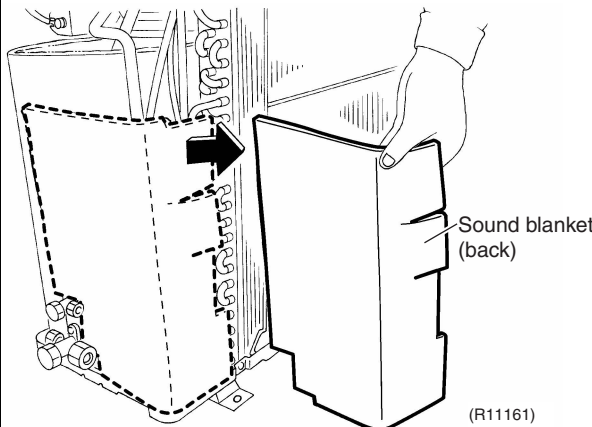
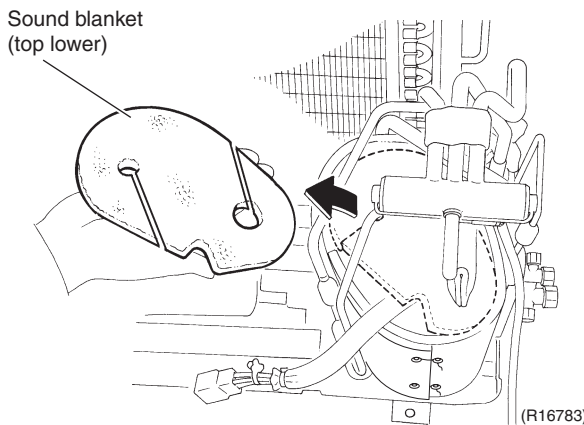
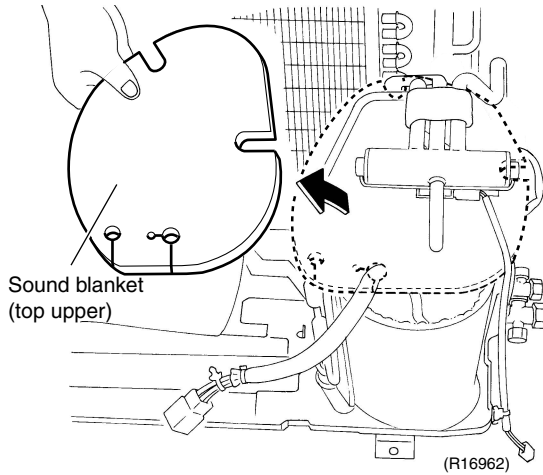
5. Sound Blankets / Thermistors



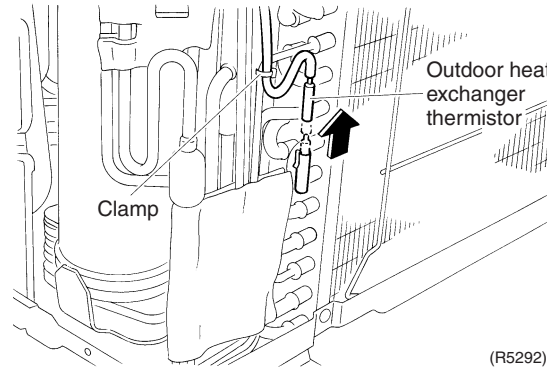
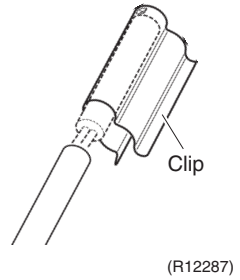
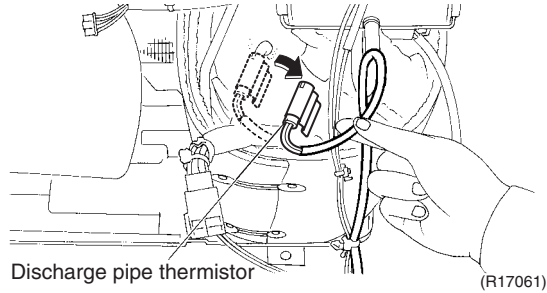
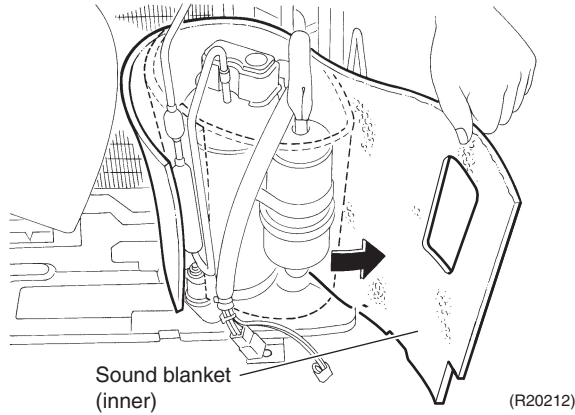
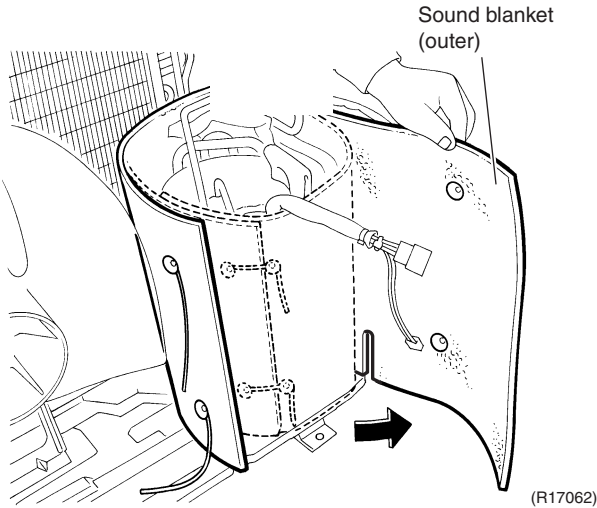
Warning

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

Step	Procedure	Points
1	Remove the sound blanket (top upper).	<ul style="list-style-type: none"> ■ The design of the sound blankets varies depending on the model.
2	Remove the sound blanket (top lower).	
3	Remove the sound blanket (back).	



Step	Procedure	Points
4	Remove the sound blanket (outer).	<ul style="list-style-type: none"> Since the piping ports are torn easily, remove the sound blankets carefully.
5	Remove the sound blanket (inner).	
6	Release the discharge pipe thermistor.	<ul style="list-style-type: none"> Be careful not to lose the clip for the thermistor.
7	Cut the clamp and pull out the outdoor heat exchanger thermistor.	



6. 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.)



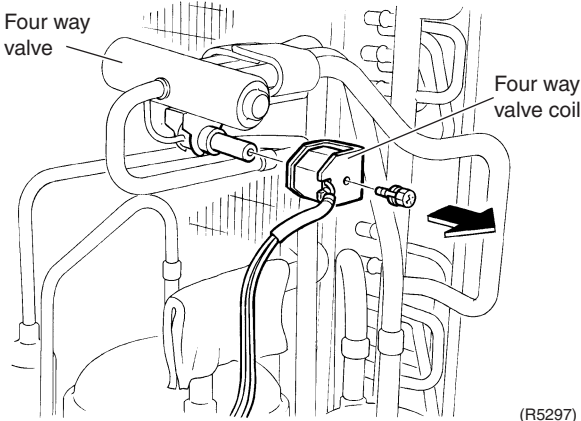
Caution

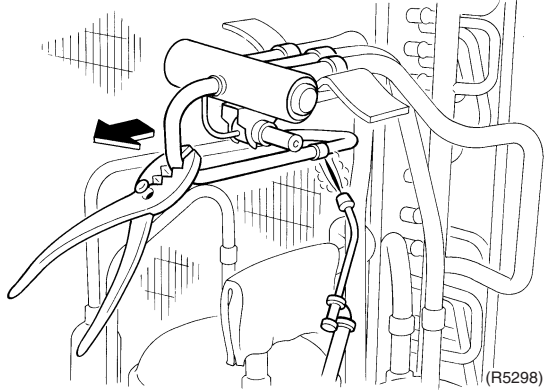
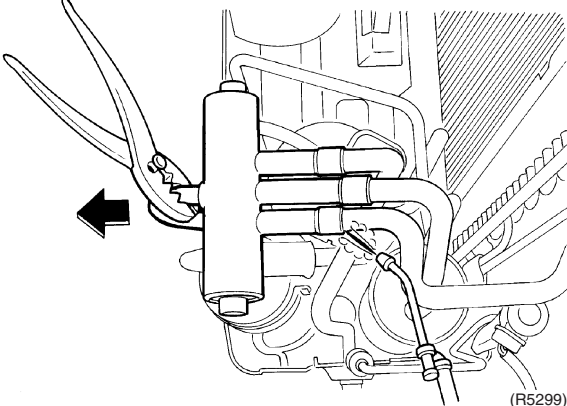
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ **Cautions for restoration**
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside the four way valve and the deterioration of the gaskets affected by heat. (Keep below 120°C (248°F).) 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>		<ul style="list-style-type: none"> ■ The cooling only models have no four way valve coil.

Step	Procedure	Points
2	<p data-bbox="199 219 470 309">Heat up the brazed part of the four way valve and disconnect it.</p>  <p data-bbox="991 600 1050 622">(R5298)</p>	
3	<p data-bbox="199 703 448 792">Heat up every brazed part in turn and disconnect it.</p>  <p data-bbox="1002 1151 1061 1173">(R5299)</p>	

7. 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.)
- ◆ Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.



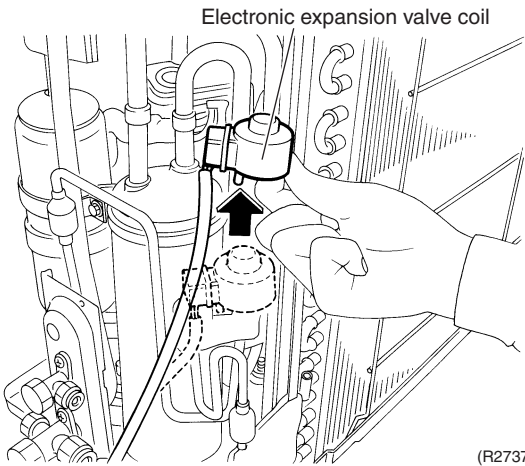
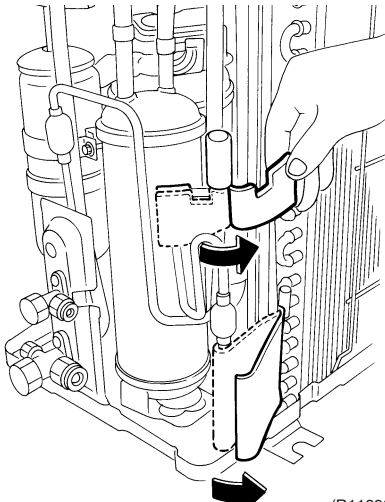
Caution

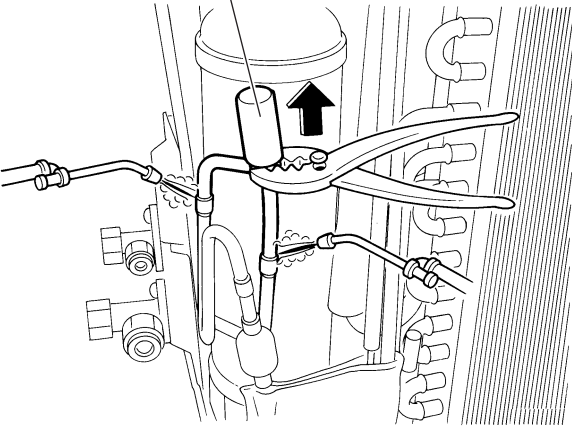
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



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	Procedure	Points
1	Pull out the electronic expansion valve coil.	 <p style="text-align: center;">Electronic expansion valve coil</p> <p style="text-align: right;">(R2737)</p>	
2	Remove the sheets of putty.	 <p style="text-align: right;">(R11398)</p>	

Step	Procedure	Points
3	<p data-bbox="199 219 448 344">Heat up the 2 brazed parts of the electronic expansion valve and remove it.</p> <p data-bbox="518 237 775 264">Electronic expansion valve</p>  <p data-bbox="1010 689 1066 707">(R2739)</p>	

8. 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.



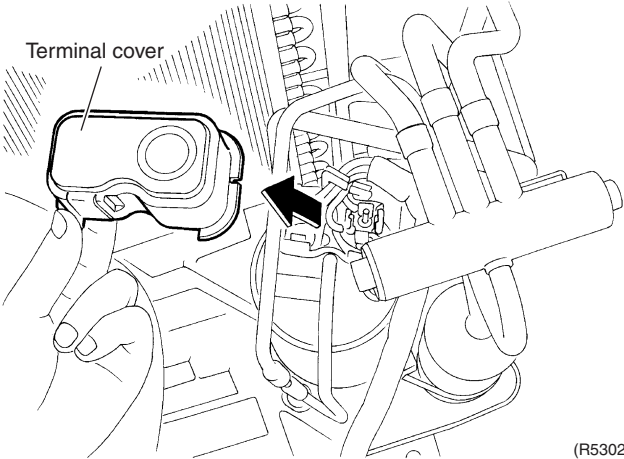
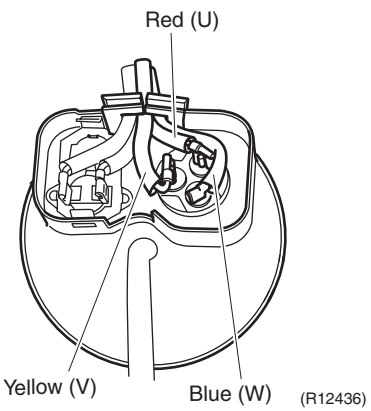
Caution

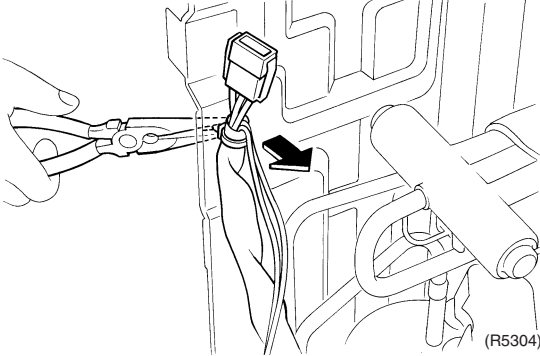
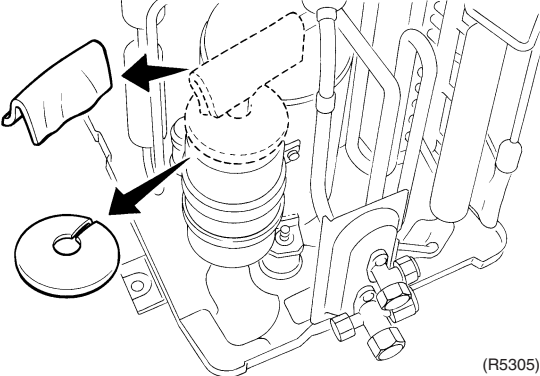
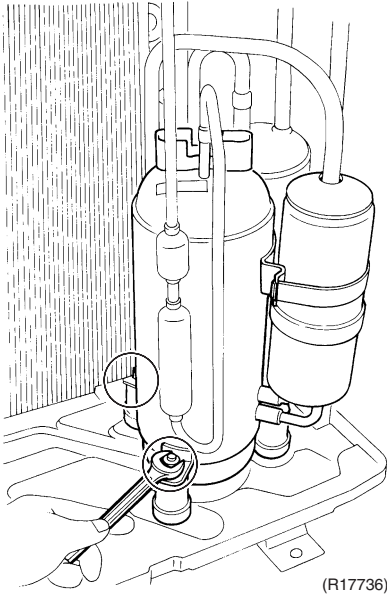
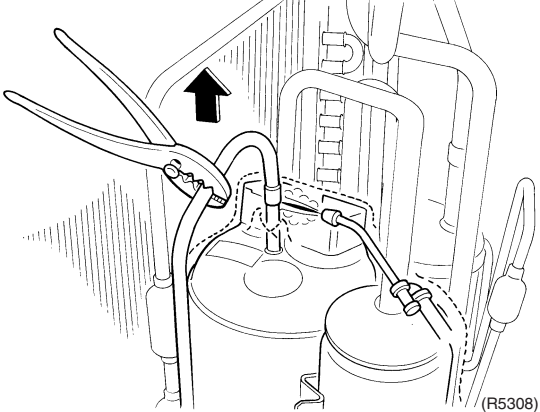
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



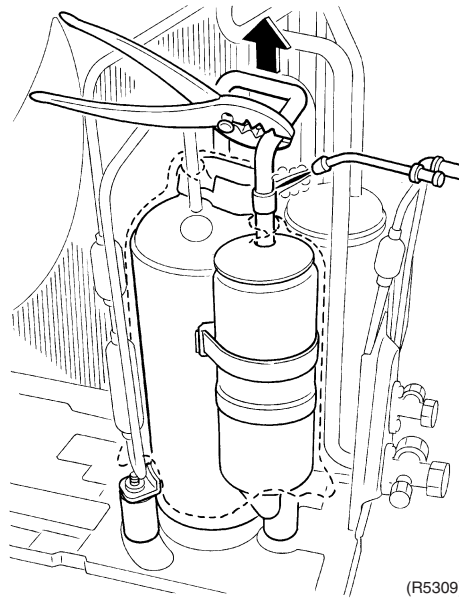
Note

- ◆ 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. 	
2	Disconnect the lead wires of the compressor. 	

Step	Procedure	Points
3	Release the clamp with pliers to detach the compressor lead wires.	
	 <p>(R5304)</p>	
4	Remove the putty.	
	 <p>(R5305)</p>	
5	Remove the 2 nuts of the compressor.	
	 <p>(R17736)</p>	
6	Heat up the brazed part of the discharge side and disconnect it.	
	 <p>(R5308)</p>	

Step	Procedure	Points
7	Heat up the brazed part of the suction side and disconnect it.	
8	Lift up the compressor and remove it.	



Revision History

Month / Year	Version	Revised contents
09 / 2012	Si001269	First edition
03 / 2014	Si001269EA	Model addition: RXS50/60GVMV

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>

©All rights reserved