


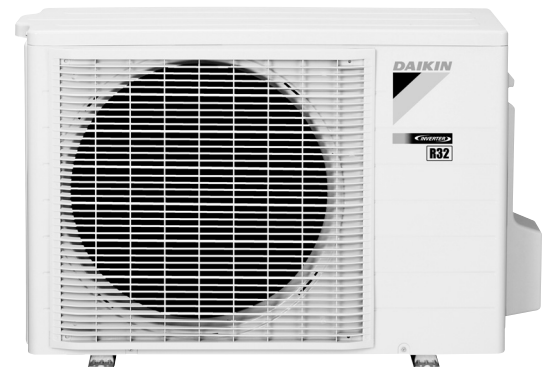
# REMOVAL PROCEDURE



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

### 4.0/5.0/6.0/7.1 kW Class 18000/24000/28000 Btu/h Class

-  Outdoor Unit
-  Inverter
-  Pair Type



# **Service Manual Removal Procedure**

## **Outdoor Unit**

### **●Cooling Only**

RKC18QV2S  
RKC24QV2S  
RKC28QV2S

RKC50QVM  
RKC60QVM  
RKC71QVM

RKC50QVM4  
RKC60QVM4  
RKC71QVM4

RKC50QVMV  
RKC60QVMV  
RKC71QVMV

### **●Heat Pump**

RHM50HVMV  
RHM60HVMV  
RHM71HVMV

RHP40HVL  
RHP50HVL

RXF50QVMA  
RXF60QVMA

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

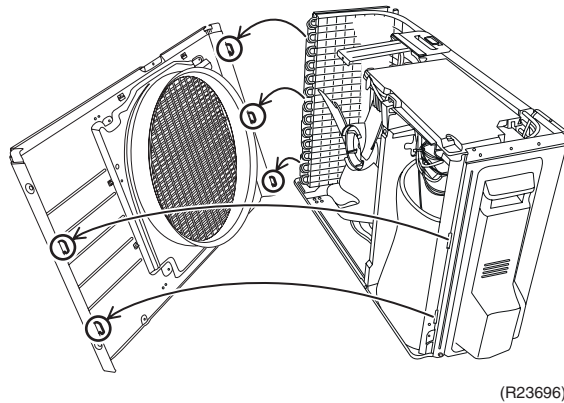
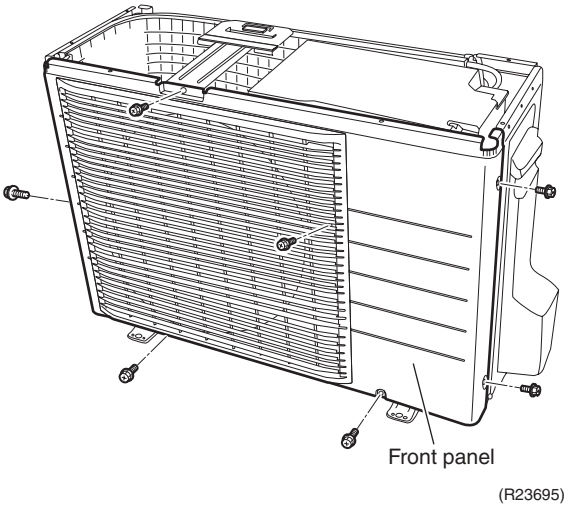
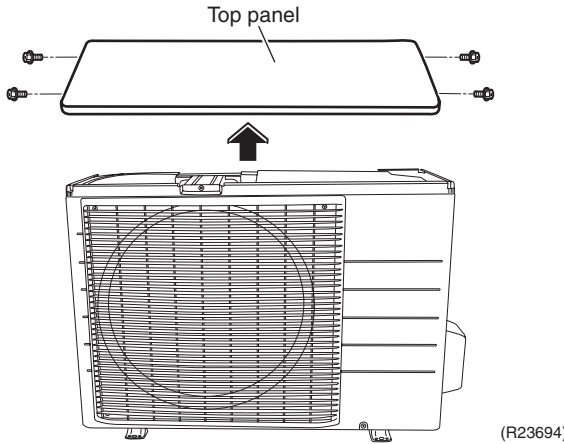
# 1. Outer Panels



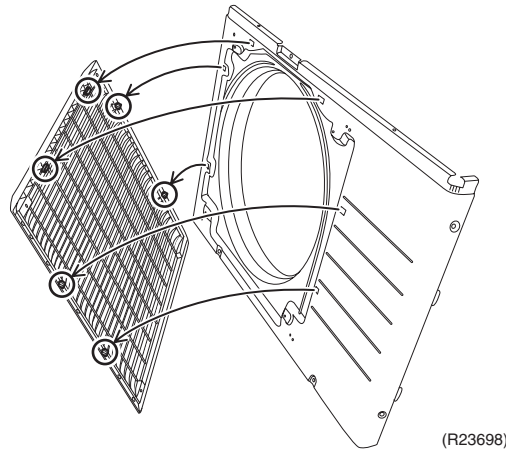
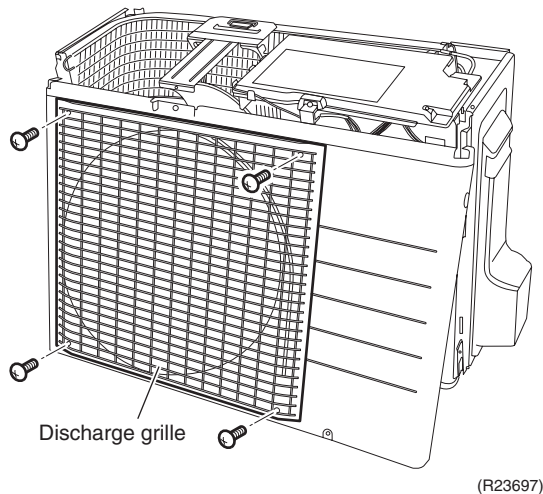
**Warning**

◆ 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 then the top panel.	(R23694)
2	Remove the 7 screws of the front panel.	(R23695)
3	Unfasten the 2 hooks on the right side first, then unfasten the 3 hooks on the left side and remove the front panel.	<p>■ When reassembling, make sure that the 5 hooks are securely fastened.</p>



Step	Procedure	Points
4	Remove the 4 screws of the discharge grille.	
5	Unfasten the 6 hooks and remove the discharge grille.	■ When reassembling, make sure that the 6 hooks are securely fastened.



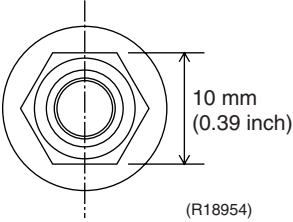
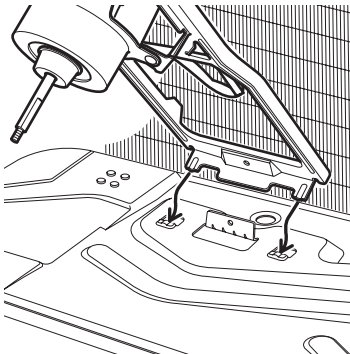
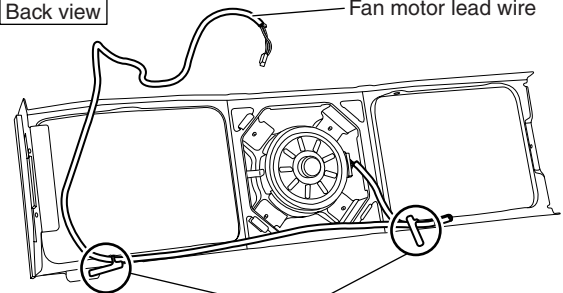
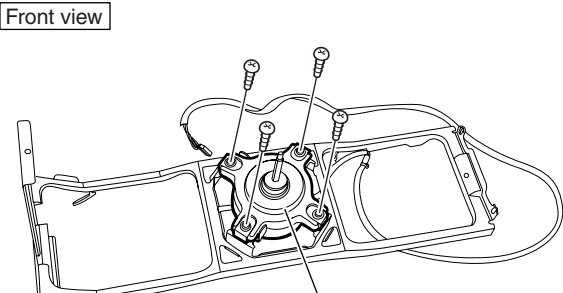
## 2. Outdoor Fan / Fan Motor



**Warning**

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

Step	Procedure	Points
1	Cut the clamp and pull out the sealing material.	
	<p style="text-align: right;">(R23699)</p>	
2	Disconnect the connector [S79].	[S79]: fan motor
	<p style="text-align: right;">(R23700)</p>	
3	Release the fan motor lead wire from the 2 slits and from the 4 hooks on the electrical box.	<p>■ When reassembling, put the fan motor lead wire through the back of the fan motor to avoid any entanglement with the outdoor fan.</p>
	<p style="text-align: right;">(R23701)</p>	<p style="text-align: right;">(R3249)</p>

Step	Procedure	Points
4	Remove the nut, and then the outdoor fan.	<p>■ Nut size: M6</p>  <p>10 mm (0.39 inch)</p> <p>(R18954)</p> <p>■ When reassembling, align the ▼ mark of the fan rotor with the D-cut section of the motor shaft.</p>
5	Remove the screw of the fan motor fixing frame.	<p>■ When reassembling, fit the 2 lower hooks into the bottom frame.</p>
6	Unfasten the 2 hooks at the bottom and remove the fan motor fixing frame.	 <p>(R22574)</p>
7	Open the 2 hooks and release the fan motor lead wire.	 <p>Back view</p> <p>Fan motor lead wire</p> <p>Hook</p> <p>(R23704)</p>
8	Remove the 4 screws, and then the fan motor.	 <p>Front view</p> <p>Fan motor</p> <p>(R24357)</p>

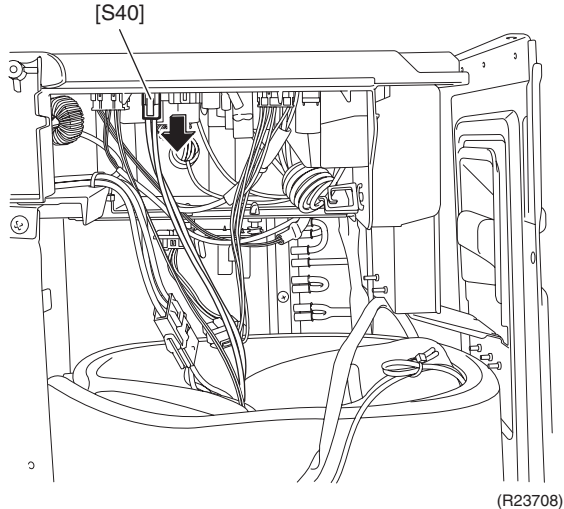
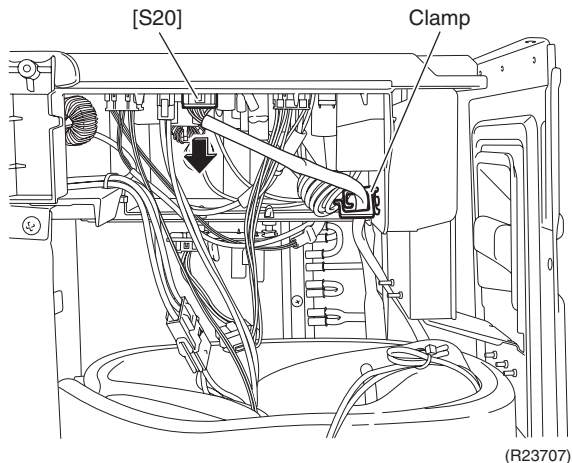
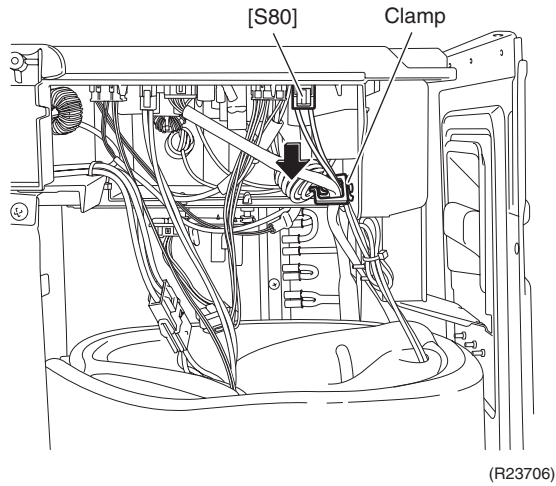
### 3. Electrical Box



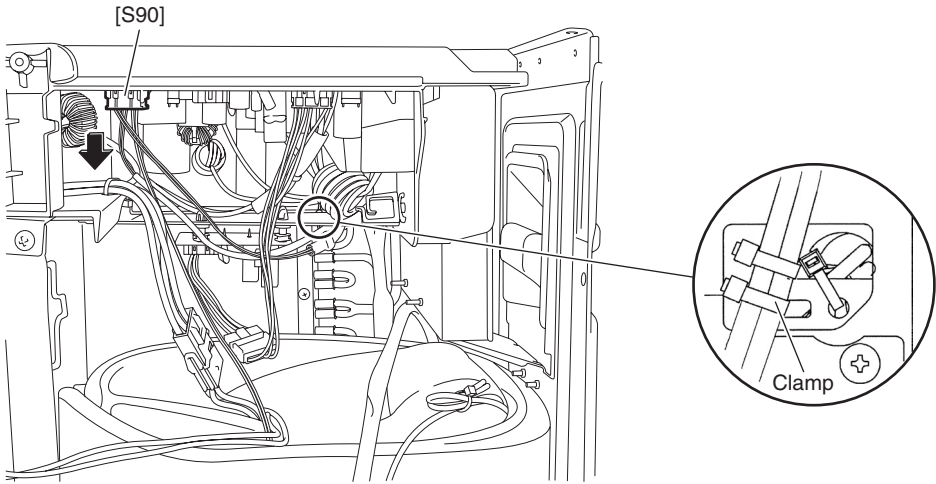
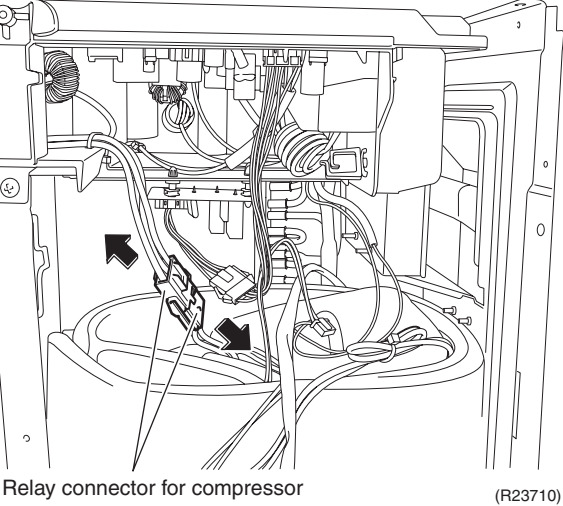
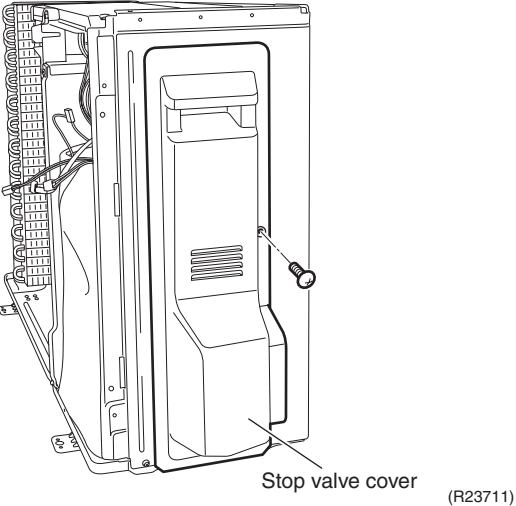
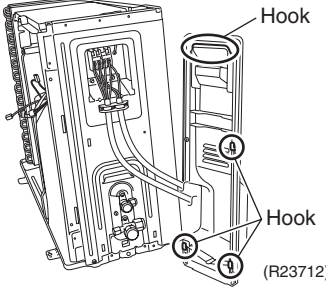
**Warning**

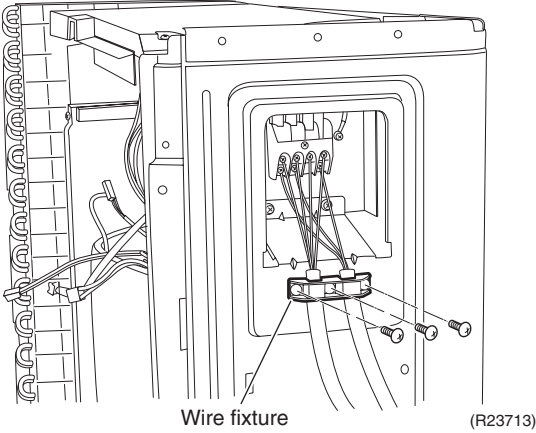
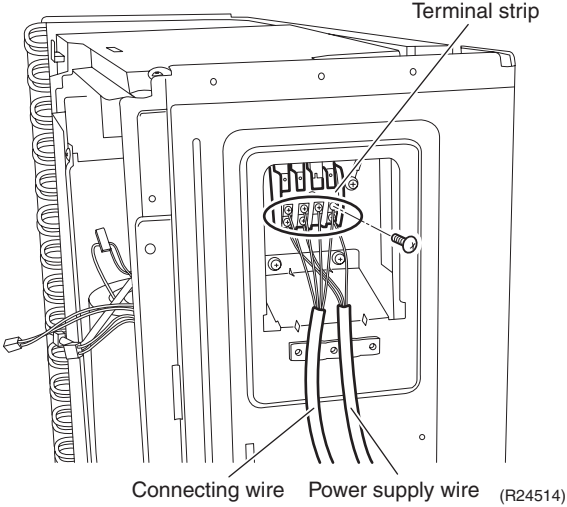
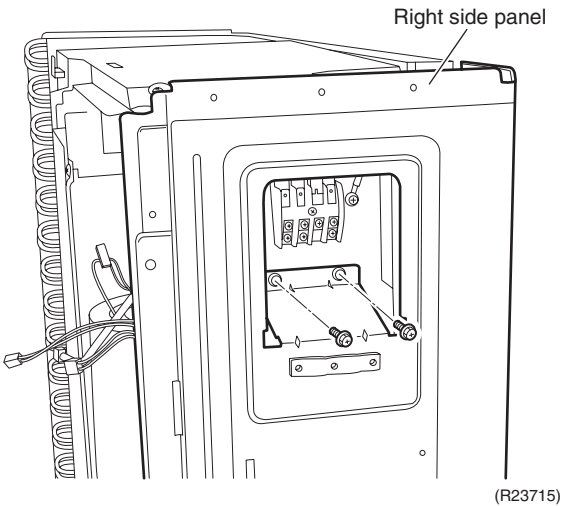
◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

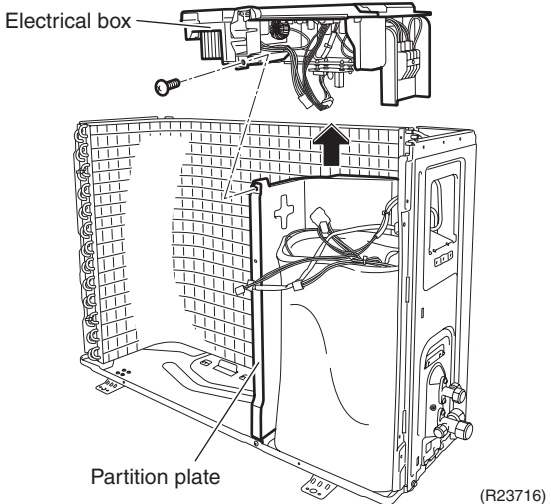
Step	Procedure	Points
1	Disconnect the connector [S80] and release the harness from the clamp.	<ul style="list-style-type: none"> <li>■ The electrical box can be removed without removing the fan motor.</li> <li>[S80]: four way valve</li> <li>■ Cooling only models do not have the connector [S80].</li> </ul>
2	Disconnect the connector [S20] and release the harness from the clamp.	<ul style="list-style-type: none"> <li>[S20]: electronic expansion valve coil</li> </ul>
3	Disconnect the connector [S40].	<ul style="list-style-type: none"> <li>[S40]: overload protector</li> </ul>





Step	Procedure	Points
4	Disconnect the connector [S90] and cut the clamp.	[S90]: thermistors
		(R23709)
5	Disconnect the relay connector for the compressor.	
	 <p data-bbox="501 1290 804 1312">Relay connector for compressor</p>	(R23710)
6	Remove the screw of the stop valve cover.	
7	Slide the stop valve cover downward and remove it.	
	 <p data-bbox="807 1845 967 1868">Stop valve cover</p>	(R23711)
		<p>■ When reassembling, make sure that the 4 hooks are securely fastened.</p>
		 <p data-bbox="1374 1738 1442 1760">(R23712)</p>

Step	Procedure	Points
8	Remove the 3 screws, and then the wire fixture.	
	 <p>Wire fixture (R23713)</p>	
9	Remove the 7 screws on the terminal strip and disconnect the connecting wire and the power supply wire.	
	 <p>Terminal strip Connecting wire Power supply wire (R24514)</p>	
10	Remove the 2 screws on the right side panel.	
	 <p>Right side panel (R23715)</p>	

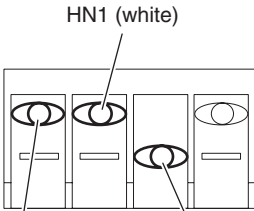
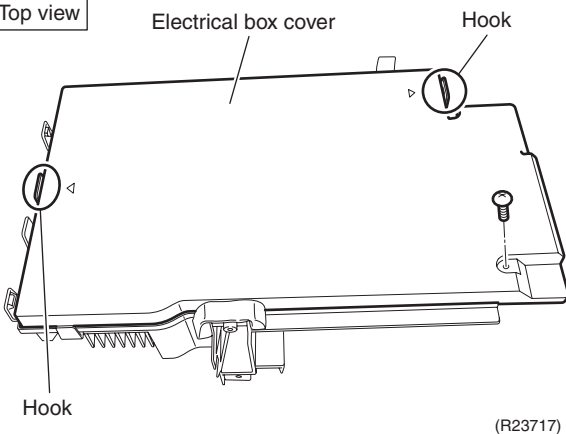
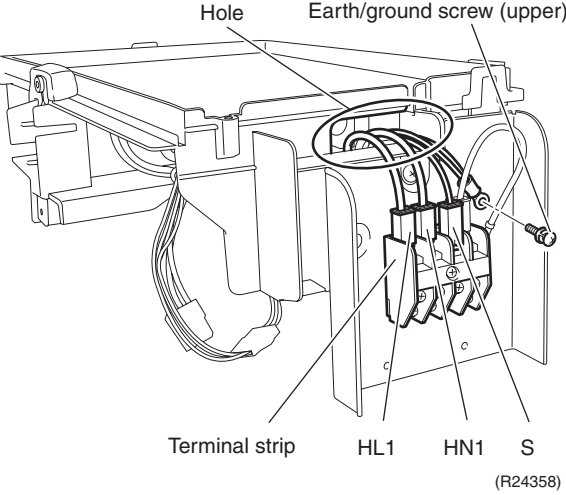
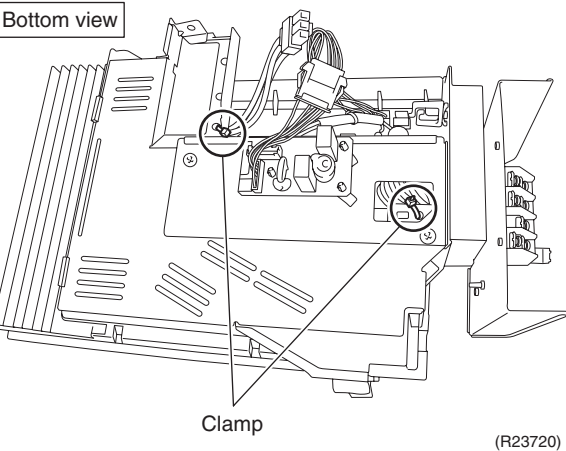
Step	Procedure	Points
11	Remove the screw on the partition plate.	
12	Lift up and remove the electrical box.	
 <p data-bbox="517 232 1070 734">The diagram illustrates the removal of the electrical box. The top portion shows a close-up of the electrical box being lifted away from the partition plate, with a screw being removed. The bottom portion shows the electrical box being lifted up from the partition plate, with an arrow indicating the direction of movement. Labels include 'Electrical box' and 'Partition plate'. A reference code '(R23716)' is also present.</p>		

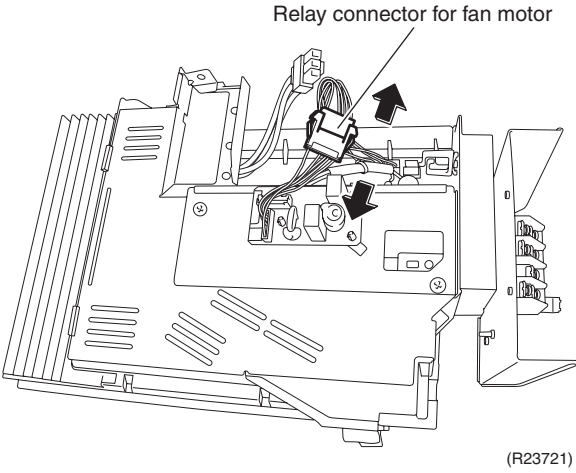
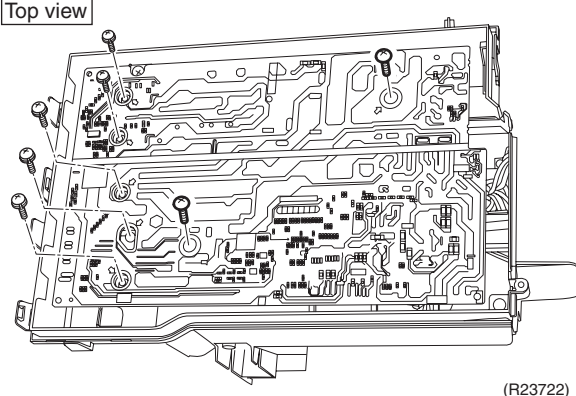
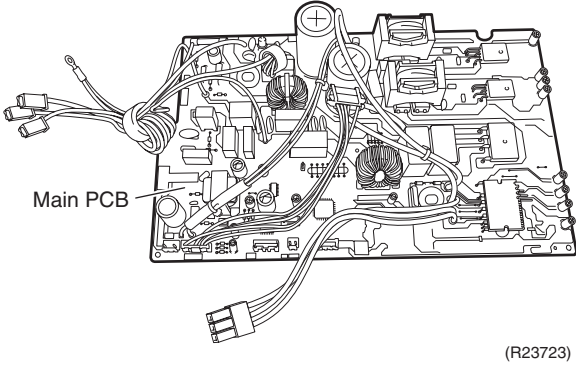
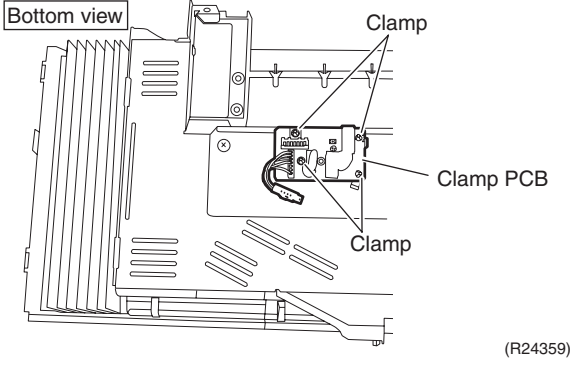
# 4. PCBs



**Warning**

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

Step	Procedure	Points
1	Remove the screw.	<ul style="list-style-type: none"> <li>■ The locations of the hooks are indicated with ▼ mark on the electrical box cover.</li> </ul>
2	Unfasten the 2 hooks and remove the electrical box cover.	<ul style="list-style-type: none"> <li>■ When reassembling, make sure that the 2 hooks are securely fastened.</li> </ul>
3	Disconnect the 3 connectors from the terminal strip.	<ul style="list-style-type: none"> <li>■ When reassembling, put all the wires through the hole of the electrical box.</li> </ul>
4	Remove the earth/ground screw (upper).	<p>[HL1] [HN1] [S]: terminal strip</p>
5	Cut the 2 clamps.	
<p>Top view</p> 		
		
<p>Bottom view</p> 		

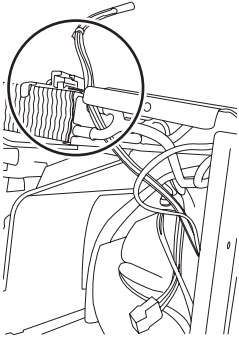
Step	Procedure	Points
6	<p>Disconnect the relay connector for the fan motor.</p> 	
7	<p>Remove the 7 screws, and then the main PCB.</p>  	
8 9	<p>Turn over the electrical box.</p> <p>Pinch the 4 clamps and remove the clamp PCB.</p> 	

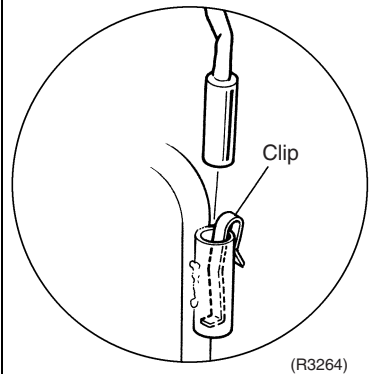
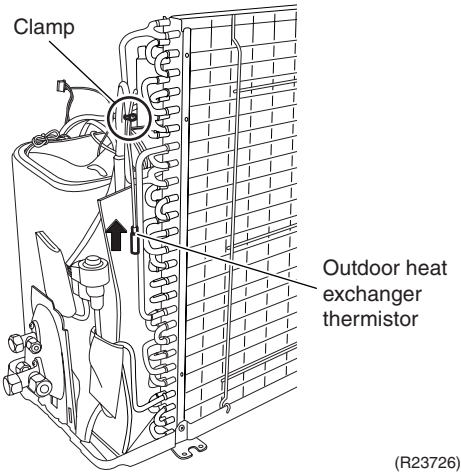
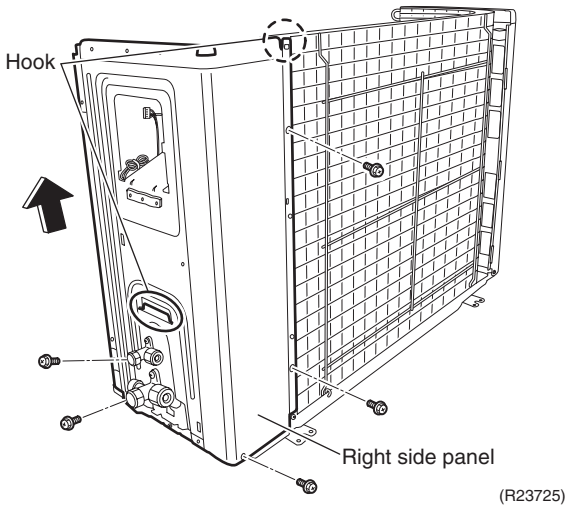
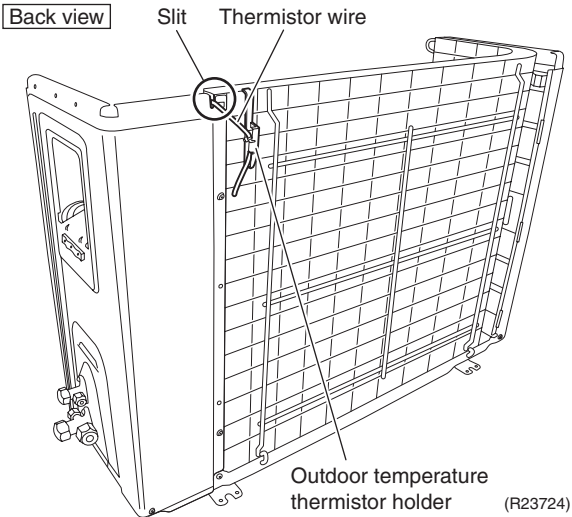
# 5. Thermistor ASSY



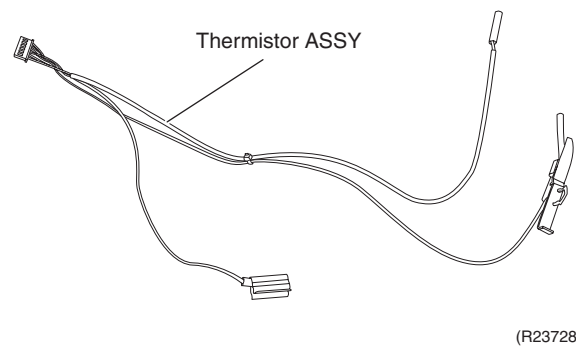
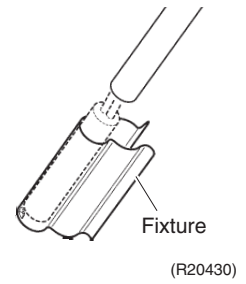
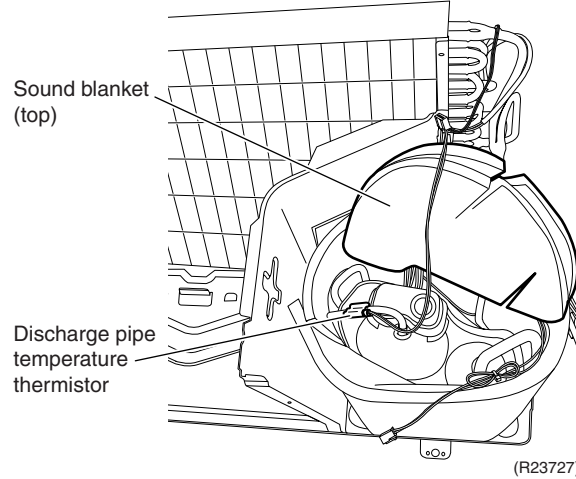
**Warning**

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

Step	Procedure	Points
1	Pull out the outdoor temperature thermistor holder and release the thermistor wire from the slit.	<ul style="list-style-type: none"> <li>■ When reassembling, pass the outdoor temperature thermistor through the top U-bend of the outdoor heat exchanger.</li> </ul>
2	Remove the 5 screws.	 <p style="text-align: right;">(R20243)</p>
3	Lift up the right side panel to unfasten the 2 hooks.	<ul style="list-style-type: none"> <li>■ When reassembling, make sure that the 2 hooks are securely fastened.</li> </ul>
4	Remove the right side panel.	<ul style="list-style-type: none"> <li>■ Some models do not have the clamp.</li> </ul>
5	Cut the clamp.	<ul style="list-style-type: none"> <li>■ The location of the outdoor heat exchanger thermistor varies depending on the model.</li> </ul>
6	Pull out the outdoor heat exchanger thermistor.	<ul style="list-style-type: none"> <li>■ Be careful not to lose the clip for the thermistor.</li> </ul>



Step	Procedure	Points
7	Open the sound blanket (top) and detach the discharge pipe temperature thermistor.	<ul style="list-style-type: none"> <li>■ Be careful not to lose the fixture for the thermistor.</li> </ul>
8	Remove the thermistor ASSY.	



# 6. Partition Plate / Sound Blankets

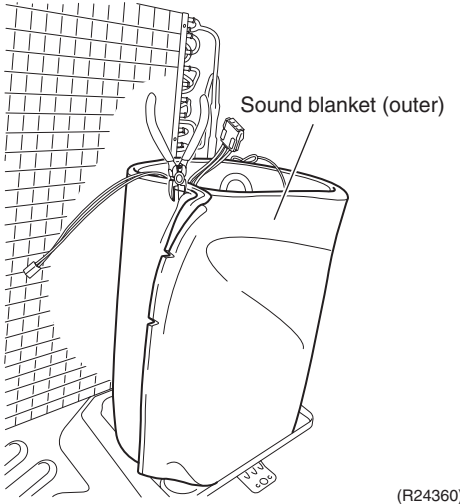
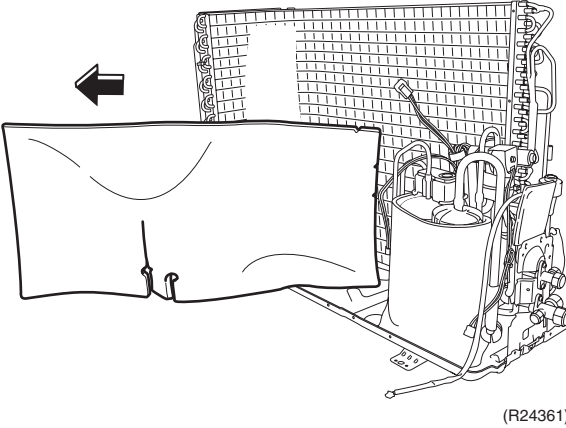
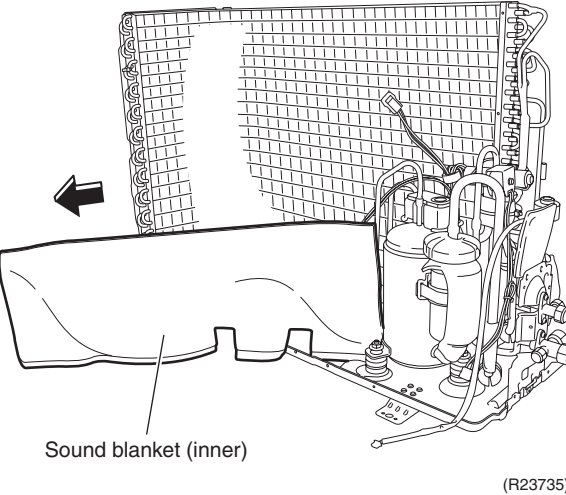


**Warning**

◆ 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 partition plate.</p> <p>1 Remove the 2 screws.</p> <p>2 Lift up the partition plate and remove it.</p>	<p>Partition plate</p> <p>(R23729)</p>	<p>■ When reassembling, fit the lower hook into the bottom frame.</p> <p>Hook</p> <p>(R23730)</p>
<p>2. Remove the sound blankets.</p> <p>1 Remove the sound blanket (partition plate).</p> <p>2 Remove the sound blanket (top).</p>	<p>Sound blanket (partition plate)</p> <p>(R23731)</p> <p>Sound blanket (top)</p> <p>(R23732)</p>	<p>■ Since the piping ports are torn easily, remove the sound blanket carefully.</p> <p>■ Some models do not have the sound blanket (partition plate).</p>



Step	Procedure	Points
3	Cut the strings and open the sound blanket (outer).	
	 <p style="text-align: right;">(R24360)</p>	
4	Remove the sound blanket (outer).	
	 <p style="text-align: right;">(R24361)</p>	
5	Remove the sound blanket (inner).	
	 <p style="text-align: right;">(R23735)</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.



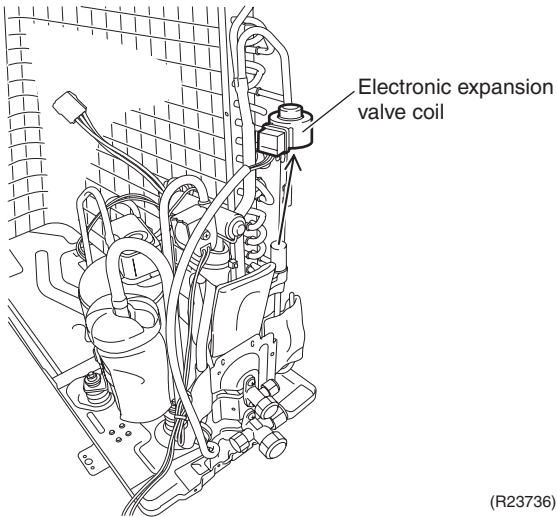
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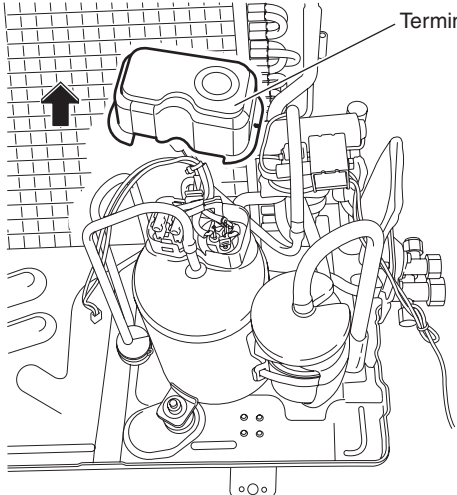
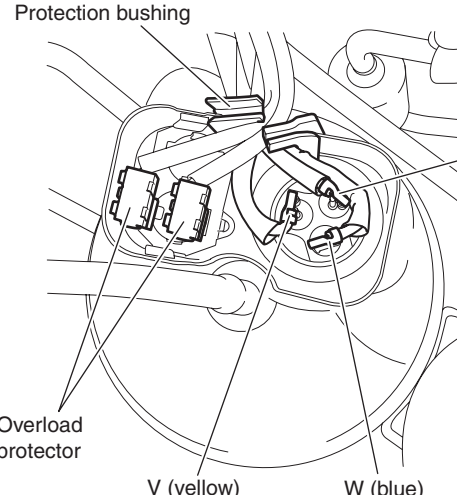
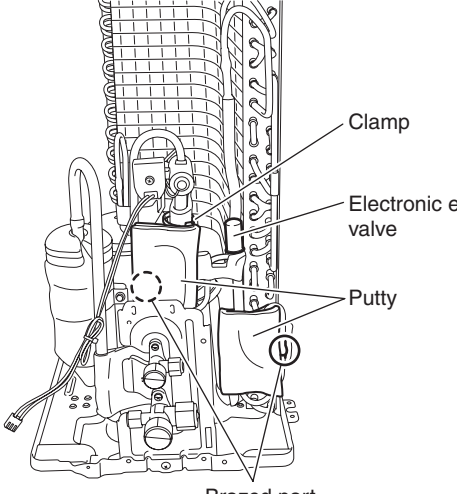
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



**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
<p>1 Pull out the electronic expansion valve coil.</p>	 <p style="text-align: right;">(R23736)</p>	

Step	Procedure	Points
2	<p>Remove the terminal cover.</p>  <p>Terminal cover</p> <p>(R23737)</p>	
3	<p>Remove the protection bushing.</p>	
4	<p>Disconnect the compressor lead wires (U, V, W) and the overload protector.</p>  <p>Protection bushing</p> <p>U (red)</p> <p>Overload protector</p> <p>V (yellow) W (blue)</p> <p>(R23738)</p>	
5	<p>Cut the clamp.</p>	
6	<p>Remove the putties.</p>	
7	<p>Heat up the 2 brazed parts and remove the electronic expansion valve.</p>  <p>Clamp</p> <p>Electronic expansion valve</p> <p>Putty</p> <p>Brazed part</p> <p>(R23739)</p>	

# 8. 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.)



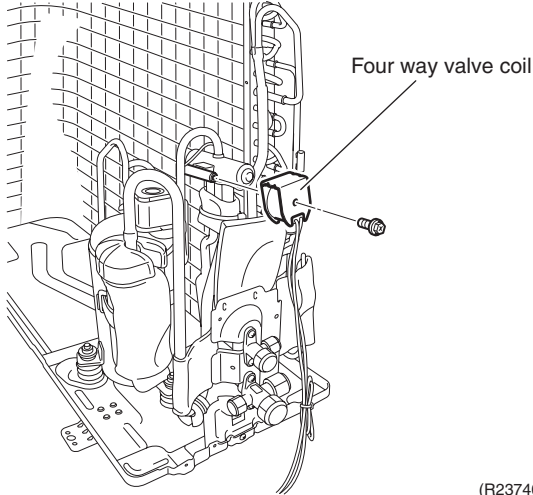
**Caution**

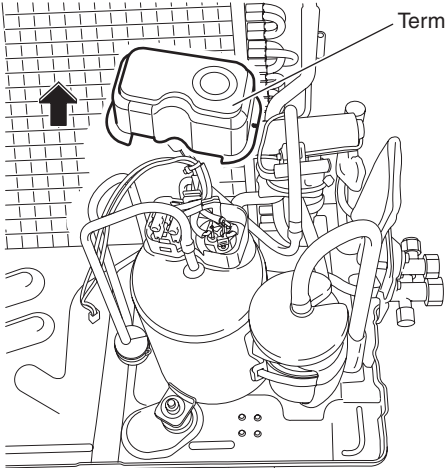

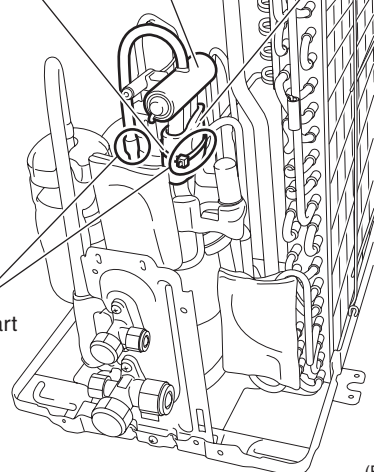
- ♦ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ♦ **Cautions for restoration**
  1. Restore the piping by non-oxidation brazing.
  2. It is required to prevent the carbonization of the oil 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</p>	<p>Remove the screw, and then the four way valve coil.</p>		<p>■ Cooling only models do not have four way valve.</p>

Step	Procedure	Points
2	Remove the terminal cover.	 <p>Terminal cover</p> <p>(R23741)</p>
3	Remove the protection bushing.	 <p>Protection bushing</p> <p>U (red)</p> <p>Overload protector</p> <p>V (yellow) W (blue)</p> <p>(R23738)</p>
4	Disconnect the compressor lead wires (U, V, W) and the overload protector.	
5	Cut the clamp.	 <p>Clamp Four way valve Putty</p> <p>Brazed part</p> <p>(R23742)</p>
6	Remove the putty.	
7	Heat up the 2 brazed parts and remove the four way valve.	

## 9. 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.



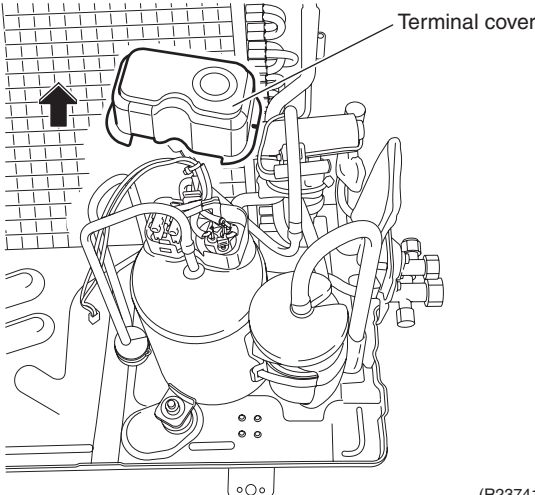
### Caution

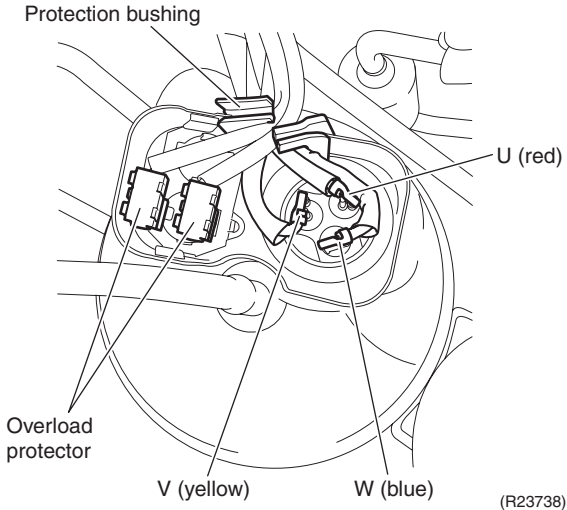
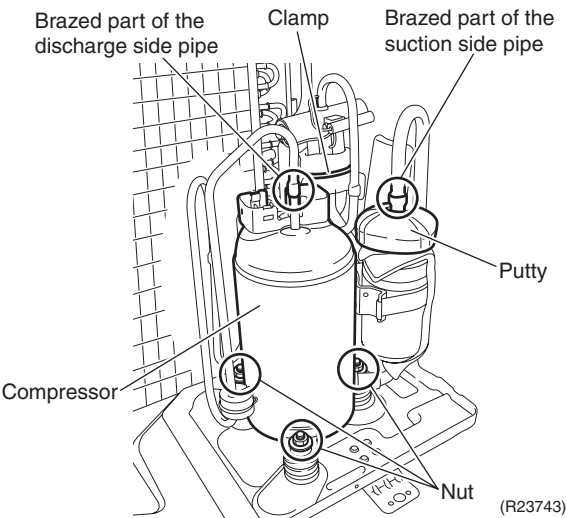
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



### 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. <div style="text-align: center;">  <p>(R23741)</p> </div>	

Step	Procedure	Points
2	Remove the protection bushing.	
3	Disconnect the compressor lead wires (U, V, W) and the overload protector.	
4	Cut the clamp.	
5	Remove the putties.	
6	Heat up the brazed part of the discharge side pipe and disconnect it.	
7	Heat up the brazed part of the suction side pipe and disconnect it.	
8	Remove the 3 nuts of the compressor.	
9	Lift up the compressor and remove it.	

# Revision History

Month / Year	Version	Revised contents
09 / 2016	Si001658E	First edition
12 / 2016	Si001658EA	Model addition: RKC18/24/28QV2S, RKC50/60/71QVM, RKC50/60/71QVM4, RKC50/60/71QVMV, RFX50/60QVMA



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/products/ac/>

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