




# REMOVAL PROCEDURE



SERVICE  
MANUAL

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

## 4.0/5.0 kW Class

-  Outdoor Unit
-  Inverter
-  Multi Type



# **Service Manual Removal Procedure**

## **Outdoor Unit**

### **Applicable Models**

#### **●Heat Pump**

**2AMX40G2V1B**

**2AMX50G2V1B**

**2MXS40H2V1B**

**2MXS50H2V1B**

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**Note:**

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

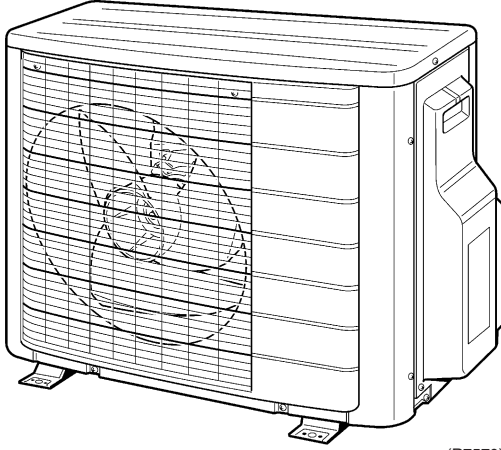
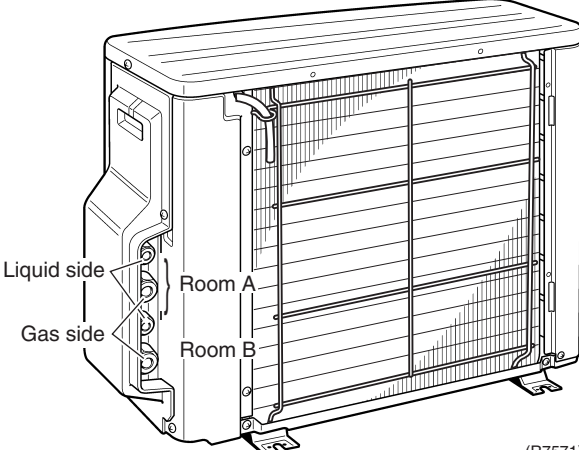

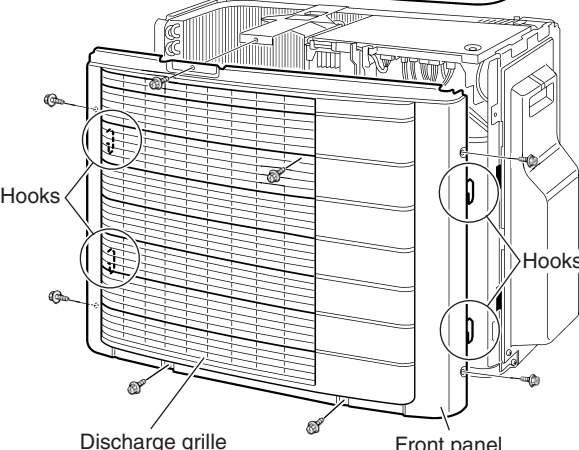
# 1. Removal of Outer Panels

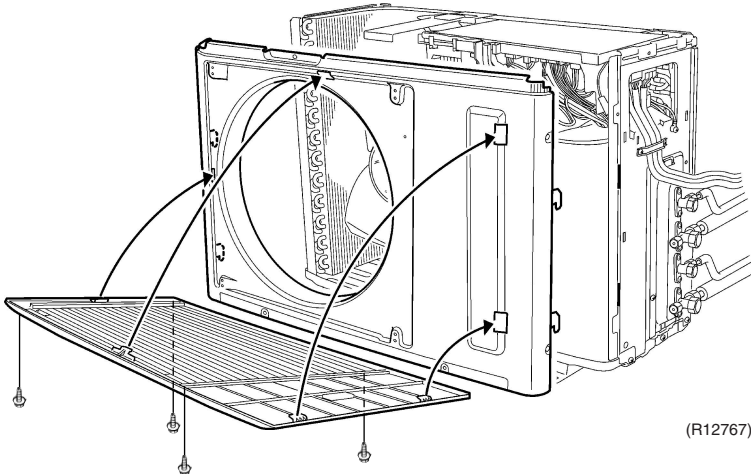
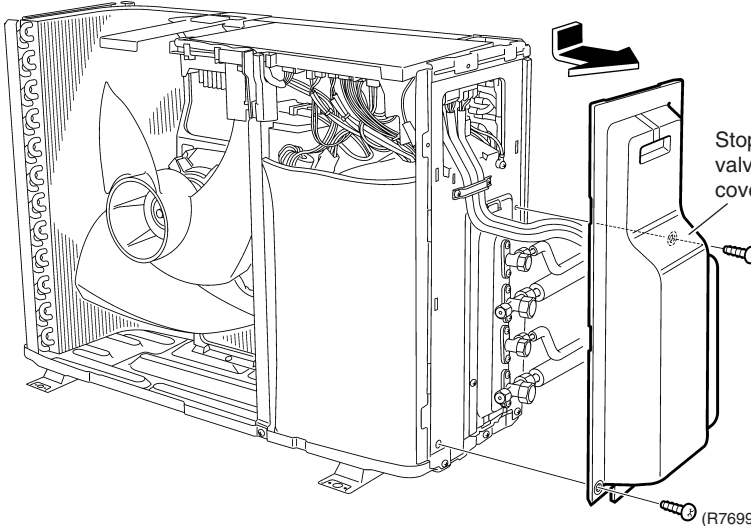
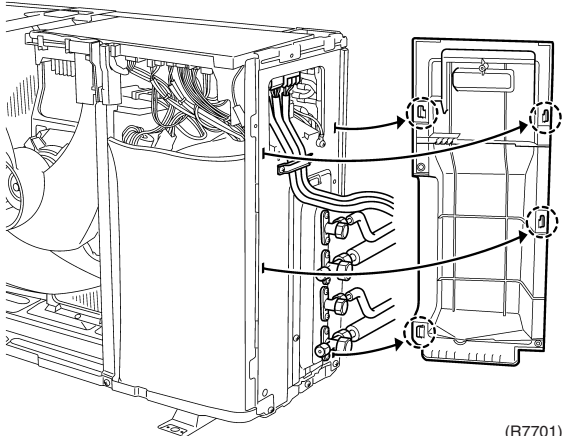
**Procedure**



**Warning**

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

Step	Procedure	Procedure	Points
1	External appearance	 <p>(R7570)</p>  <p>(R7571)</p>	
2	Remove the 2 screws and remove the top panel.	 <p>Top panel</p>	
3	Remove the 8 screws and remove the front panel.	 <p>(R12527)</p>	<p>■ The front panel has 4 hooks.</p>

Step	Procedure	Points
4	<p>Remove the 4 screws and remove the discharge grille.</p>  <p>(R12767)</p>	<p>■ When reassembling, make sure to fit the 4 hooks.</p>
5	<p>Remove the 2 screws and remove the stop valve cover.</p>  <p>(R7699)</p>  <p>(R7701)</p>	<p>■ When reassembling, make sure to fit the 4 hooks.</p>

## 2. Removal of Electrical Box

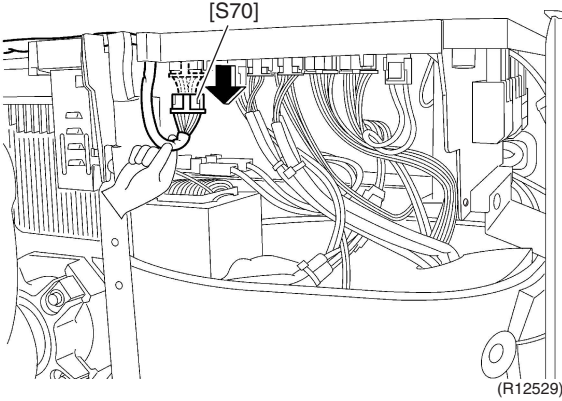
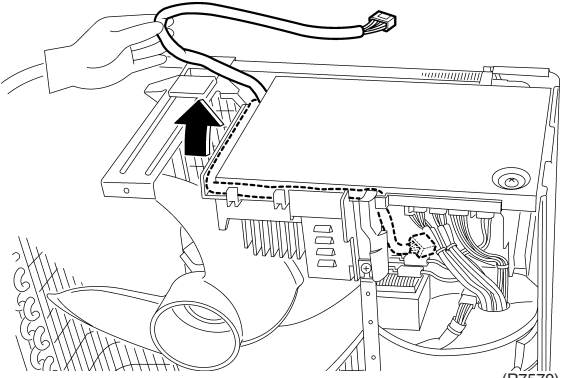
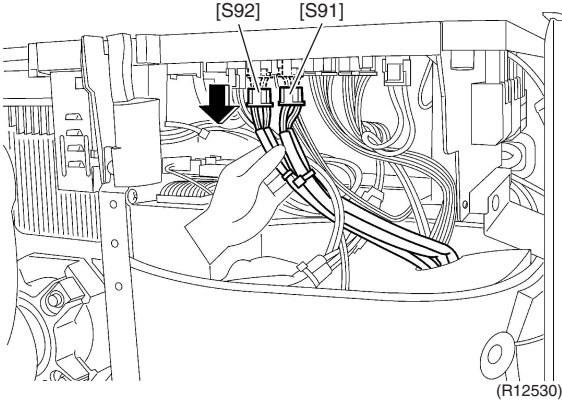
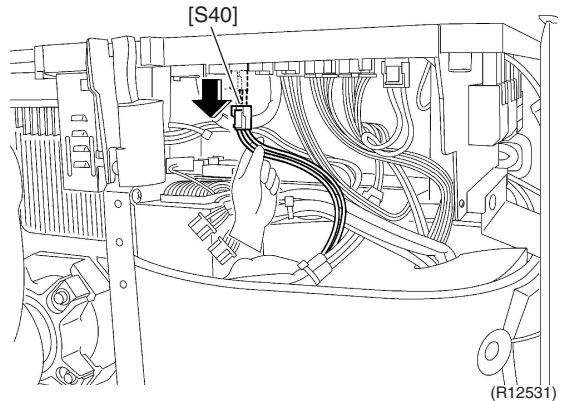
**Procedure**



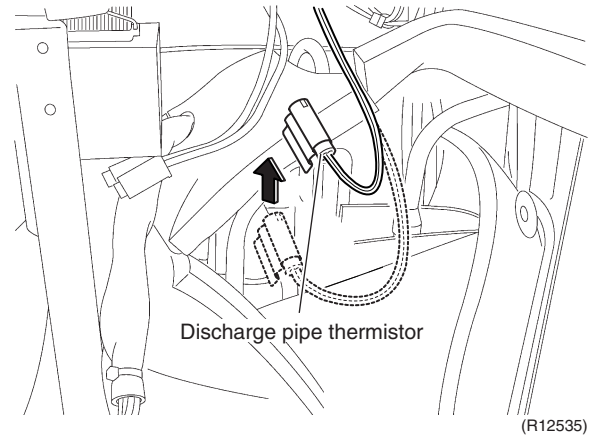
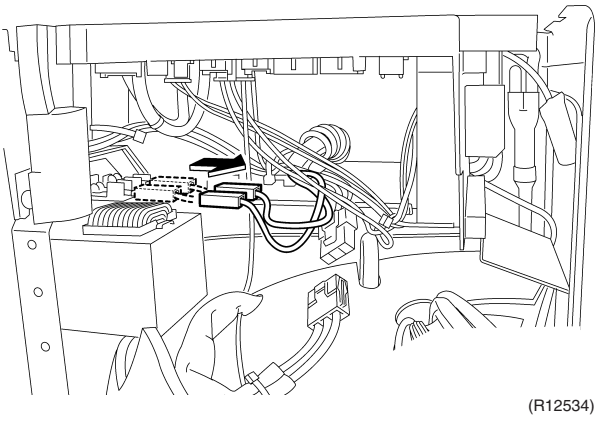
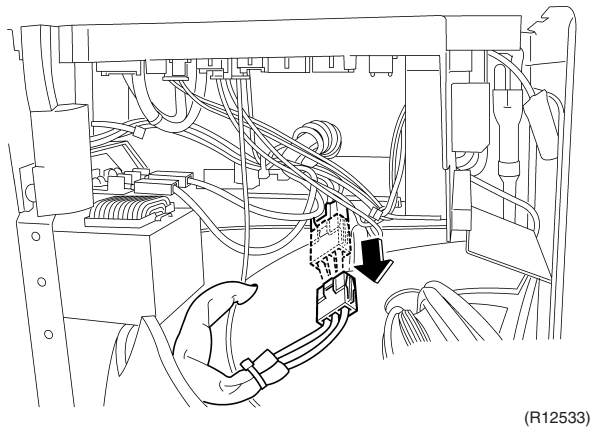
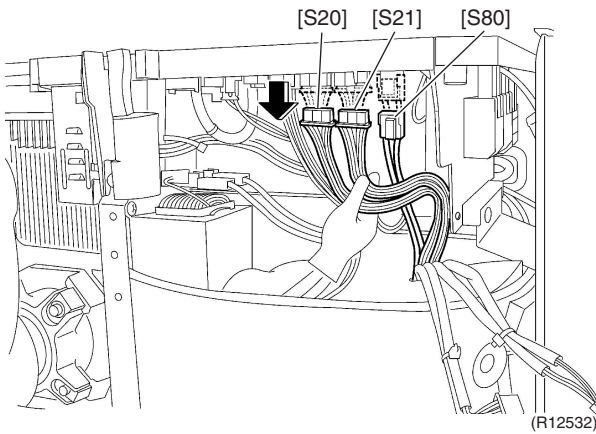
**Warning**

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

Step	Procedure	Points
<p>1. Disconnect the connecting wires.</p> <p>1 Remove the 2 screws of earth wires. Remove the 2 screws and remove the wiring fixture. Then remove all the screws to disconnect the power supply cables and the connecting wires.</p>	<p style="text-align: right;">(R7573)</p>	<p>■ When reassembling, fasten the wires with screws on the terminal board.</p>
<p>2. Remove the electrical box.</p> <p>1 Release the outdoor temperature thermistor.</p> <p>2 Lift up the guard net and remove it.</p>	<p style="text-align: right;">(R7208)</p> <p style="text-align: right;">(R7209)</p>	

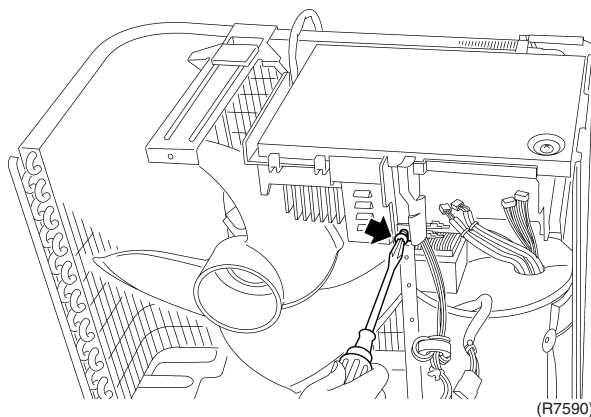
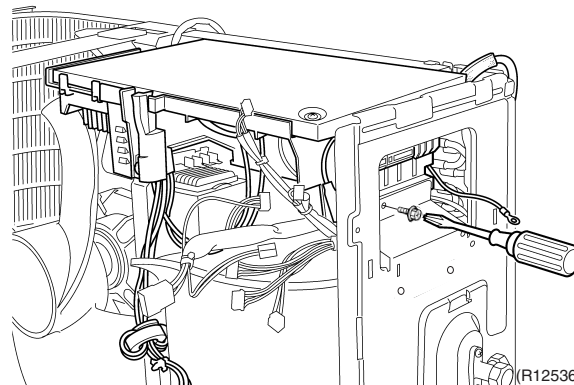
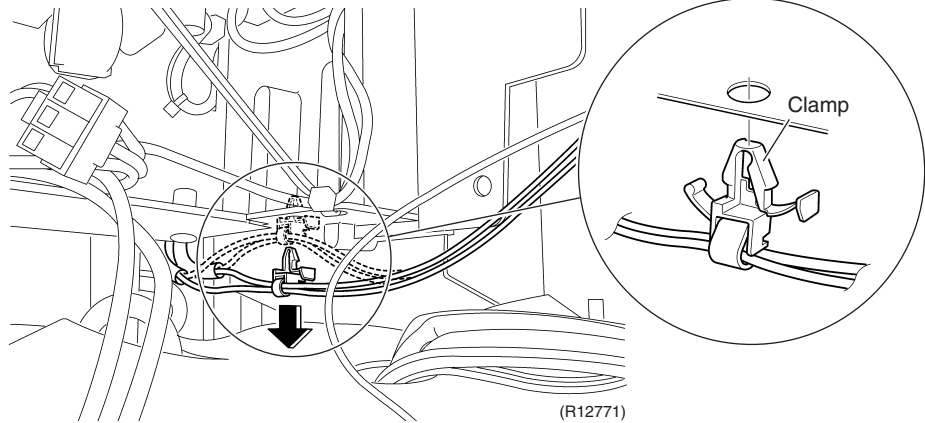
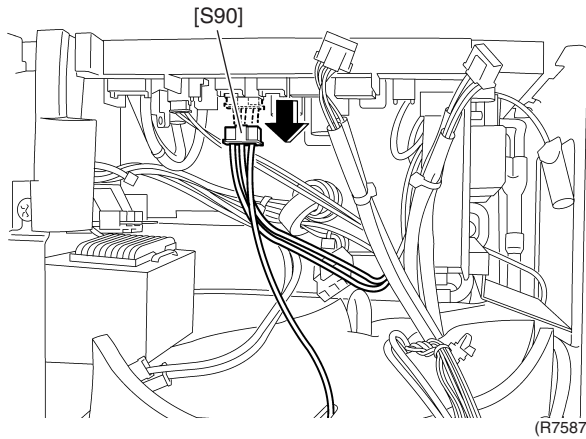
Step	Procedure	Points
3	<p>Disconnect the connector for the fan motor [S70].</p> 	
4	<p>Release the fan motor lead wire.</p> 	
5	<p>Disconnect the connector for the gas pipe thermistor [S91] and for the liquid pipe thermistor [S92].</p> 	<p>[S91]: gas pipe thermistor (white)                  [S92]: liquid pipe thermistor (red)</p>
6	<p>Disconnect the connector for the overload protector [S40].</p> 	<p>[S40]: overload protector</p>

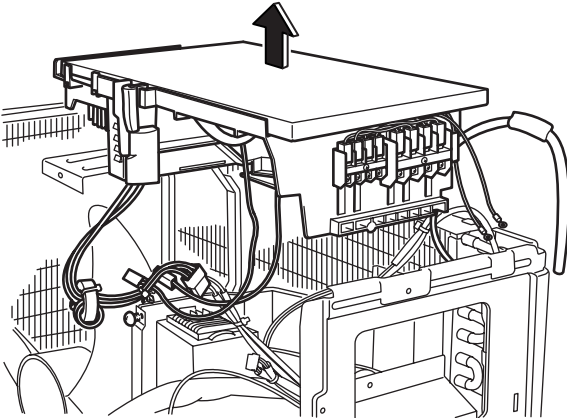
Step	Procedure	Points
7	Disconnect the connectors [S20], [S21], [S80].	<p>[S20]: outdoor electronic expansion valve coil for room A (white)</p> <p>[S21]: outdoor electronic expansion valve coil for room B (red)</p> <p>[S80]: four way valve coil</p>
8	Disconnect the relay connector for the compressor.	
9	Disconnect the 2 connectors for the reactor.	
10	Release the discharge pipe thermistor.	<ul style="list-style-type: none"> <li>■ Meet the edge of the thermistor and the clip.</li> <li>■ Be careful not to lose the clip for the thermistor.</li> </ul>





Step	Procedure	Points
11	Disconnect the connector for the thermistors [S90].	[S90]: thermistors (outdoor temperature, outdoor heat exchanger, discharge pipe)
12	Detach the clamp for the thermistors from the electrical box.	
13	Remove the screw on the right side of the electrical box.	
14	Loosen the screw in front of the electrical box.	



Step	Procedure	Points
15	<p data-bbox="201 217 421 277">Lift and remove the electrical box.</p>  <p data-bbox="995 689 1066 707">(R12537)</p>	

### 3. Removal of PCB

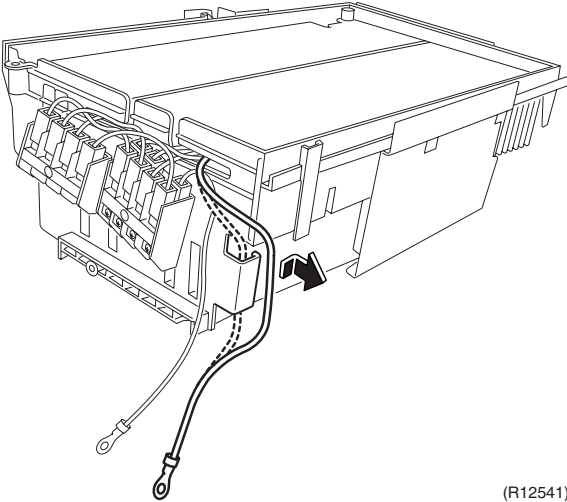
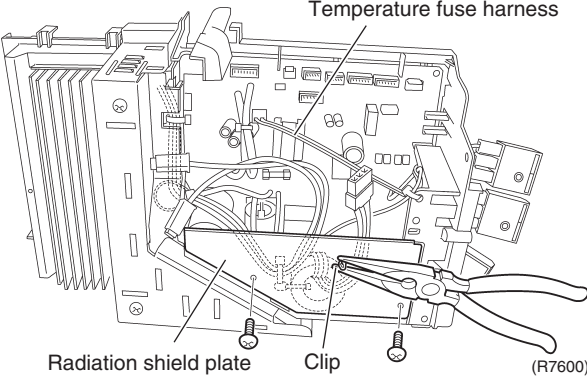
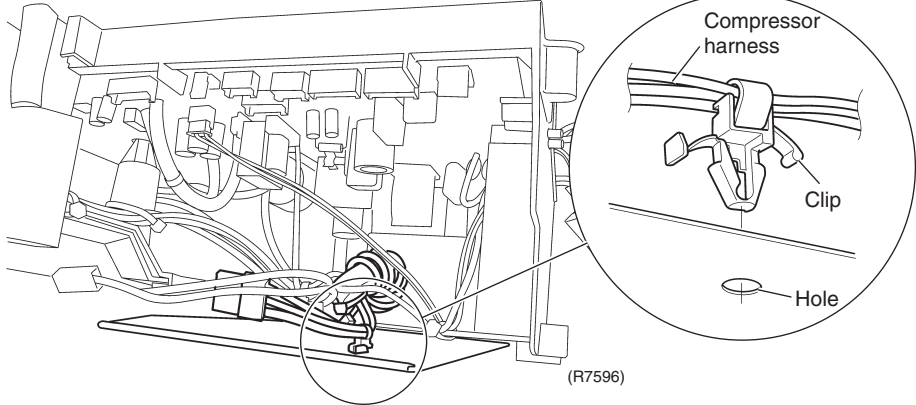
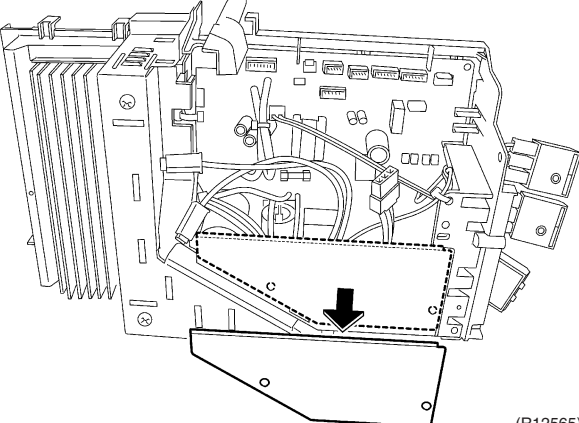
#### Procedure

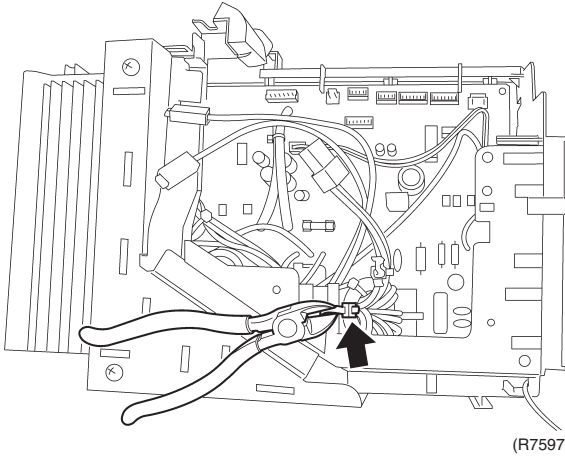
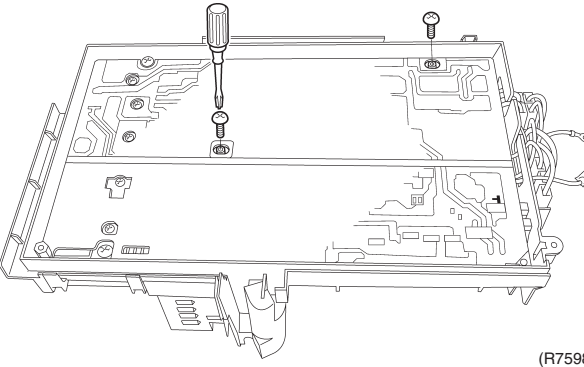
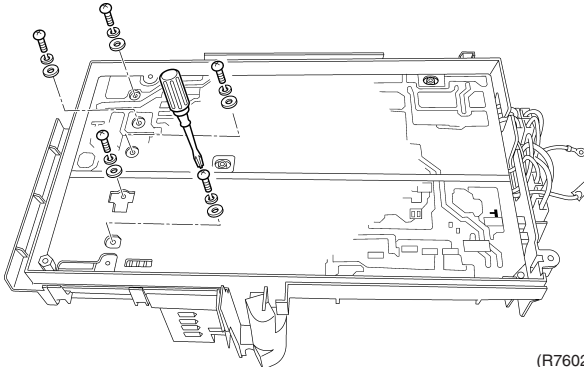
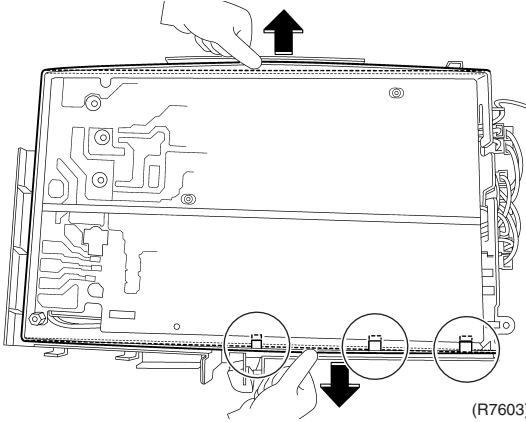


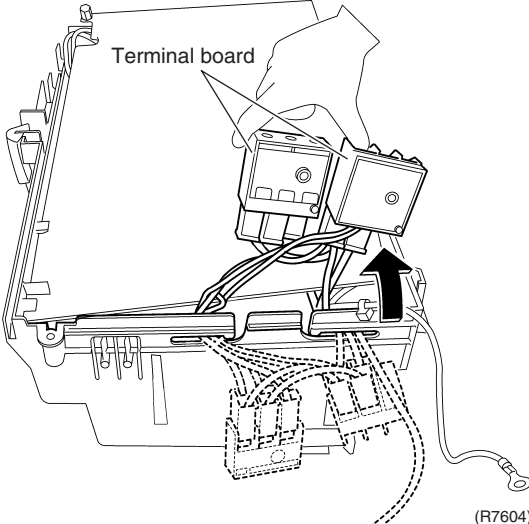
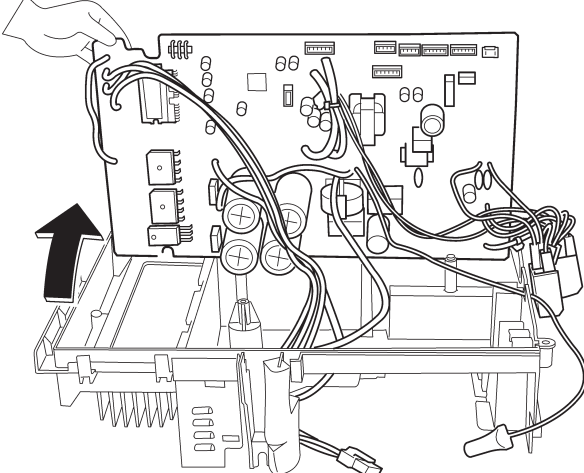
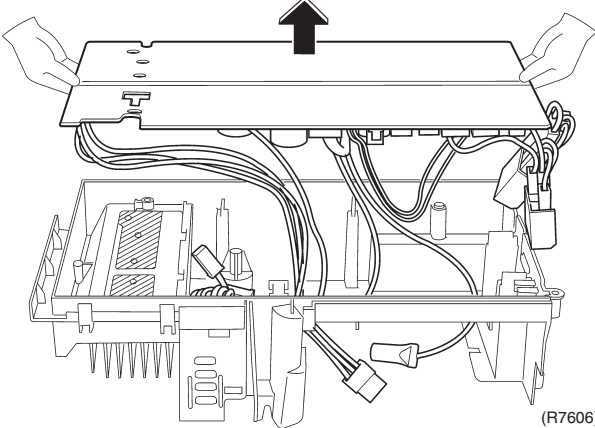
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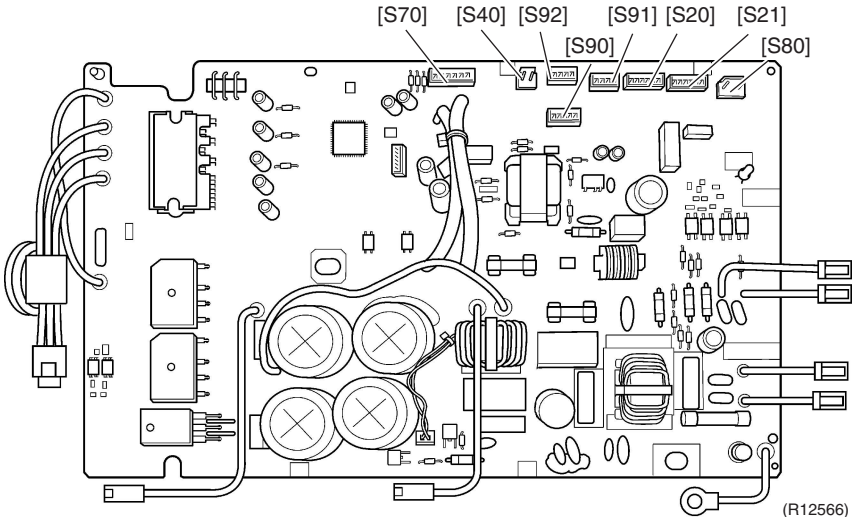
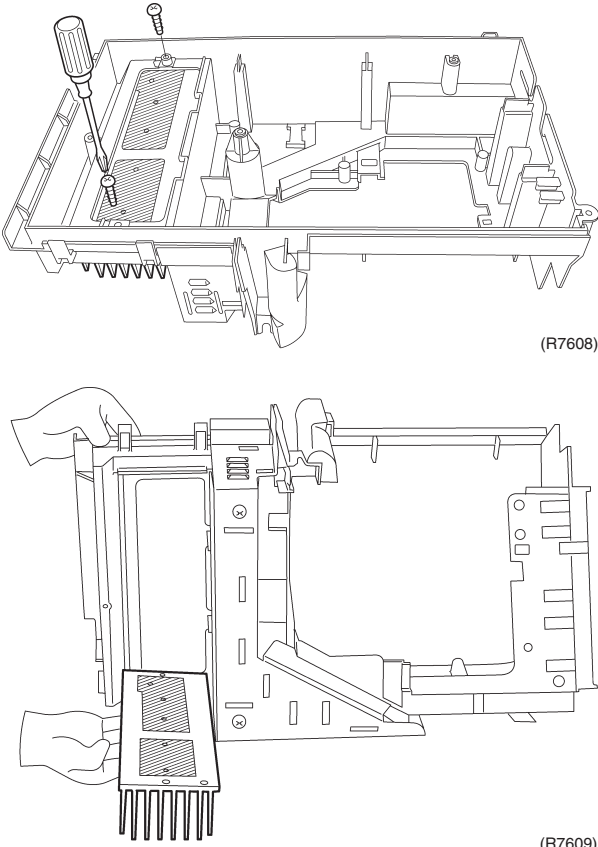
Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Procedure	Points
1	Remove the screw and remove the electrical box cover.	<p>Electrical box cover</p> <p>M4 x 12</p> <p>(R12538)</p>	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>■ Remove the panels according to the “Removal of Outer Panels”.</li> <li>■ Remove the electrical box according to the “Removal of Electrical Box”.</li> </ul>
2	Detach the insulation sheet.	<p>Insulation sheet</p> <p>(R12539)</p>	<ul style="list-style-type: none"> <li>■ The trimmed part goes front.</li> </ul>
3	Remove the 2 screws and remove the terminal boards.	<p>Terminal board</p> <p>(R12772)</p>	<ul style="list-style-type: none"> <li>■ The thermal fuse is united with terminal board.</li> </ul>

Step	Procedure	Points
4	<p>Release the earth wire from the hook.</p>  <p>(R12541)</p>	
5	<p>Remove the 2 screws and detach the clip to remove the radiation shield plate.</p>  <p>(R7600)</p>  <p>(R7596)</p>  <p>(R12565)</p>	

Step	Procedure	Points
6	Cut the clamp and release the wire harnesses.	
	 <p>(R7597)</p>	
7	Remove the 7 screws in total to remove the PCB.	
	 <p>(R7598)</p>	
	 <p>(R7602)</p>	
8	Lift up the back side of the electrical box slightly and unfasten the hooks of the front.	<ul style="list-style-type: none"> <li>■ When reassembling, make sure that the hooks of the electrical box are placed on the PCB.</li> </ul>
	 <p>(R7603)</p>	

Step	Procedure	Points
9	<p>Release the lead wires from the hooks and remove the terminal boards.</p>  <p>(R7604)</p>	
10	<p>Lift up the PCB.</p>  <p>(R7605)</p>	
11	<p>Remove the PCB.</p>  <p>(R7606)</p>	

Step	Procedure	Procedure	Points
12	Disconnect the connectors from the terminal board.	 <p style="text-align: right;">(R12566)</p>	<p>[S20]: outdoor electronic expansion valve coil for room A                  [S21]: outdoor electronic expansion valve coil for room B                  [S40]: overload protector                  [S70]: fan motor                  [S80]: four way valve coil                  [S90]: thermistors                  [S91]: gas pipe thermistor                  [S92]: liquid pipe thermistor</p>
13	Remove the 2 screws and remove the radiation fin.	 <p style="text-align: right;">(R7608)</p> <p style="text-align: right;">(R7609)</p>	



# 4. Removal of Sound Blankets

**Procedure**

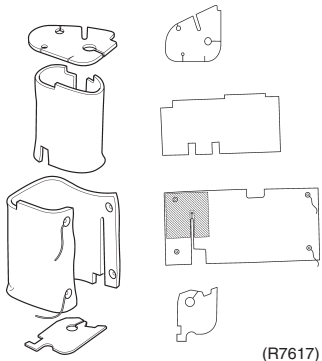


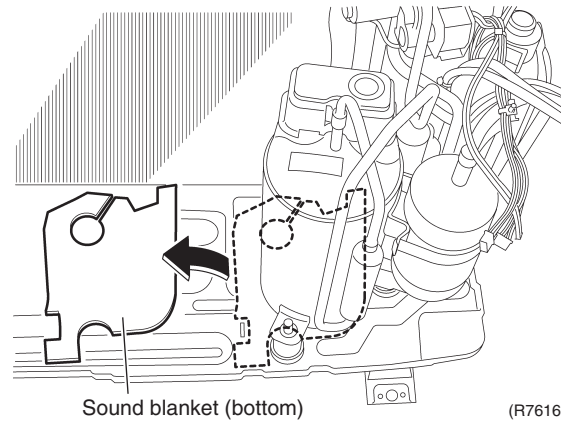
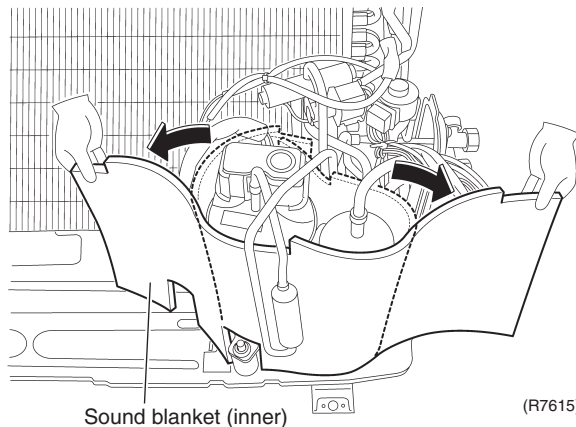
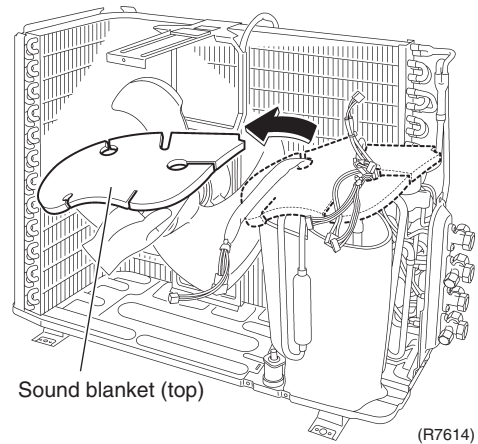
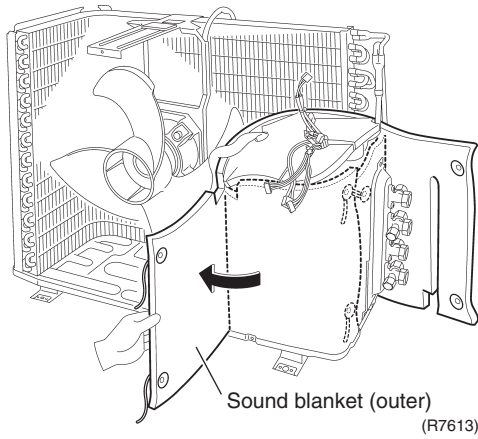
**Warning**

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Step	Procedure	Points
<p>1. Remove the right side panel.</p> <p>1 Remove the 6 screws and remove the right side panel.</p>	<p style="text-align: right;">(R12567)</p>	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>■ Remove the panels according to the “Removal of Outer Panels”.</li> <li>■ Remove the electrical box according to the “Removal of Electrical Box”.</li> </ul>
<p>2. Remove the partition plate.</p> <p>1 Remove the 2 screws.</p> <p>2 The partition plate has 2 hooks on the lower side. Lift and pull the partition plate and remove it.</p>	<p style="text-align: right;">(R7611)</p> <p style="text-align: right;">(R7612)</p>	<ul style="list-style-type: none"> <li>■ When reassembling, fit the lower hooks into the bottom frame.</li> <li>■ Remove the screw to remove the reactor.</li> </ul>



Step	Procedure	Points
3.	Remove the sound blankets.	
1	Release the strings, open the sound blanket (outer) and pull it out.	
2	Remove the sound blanket (top).	<p>■ Since the piping ports are torn easily, remove the sound blanket carefully.</p> 
3	Open the sound blanket (inner) and pull it out.	
4	Pull out the sound blanket (bottom).	



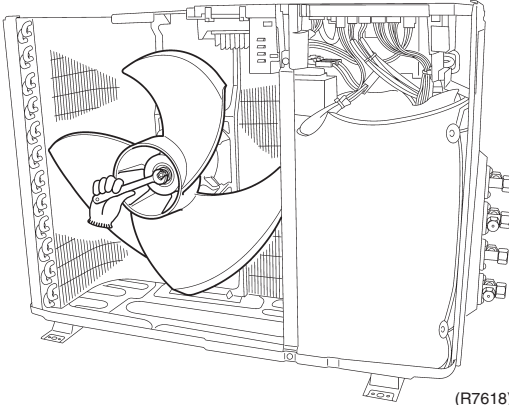
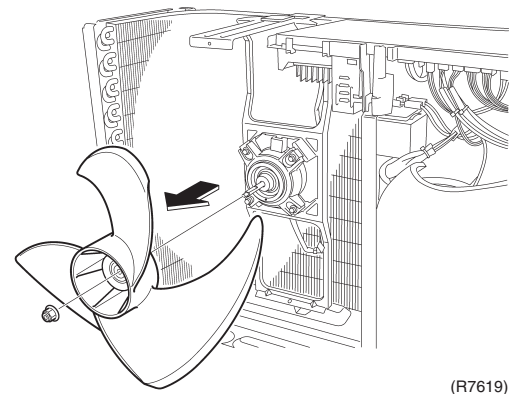
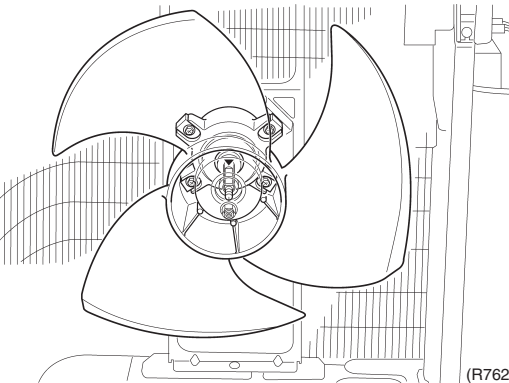
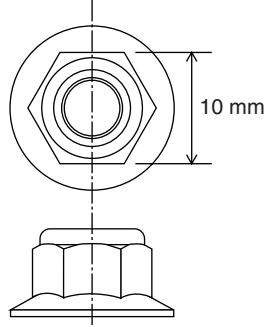
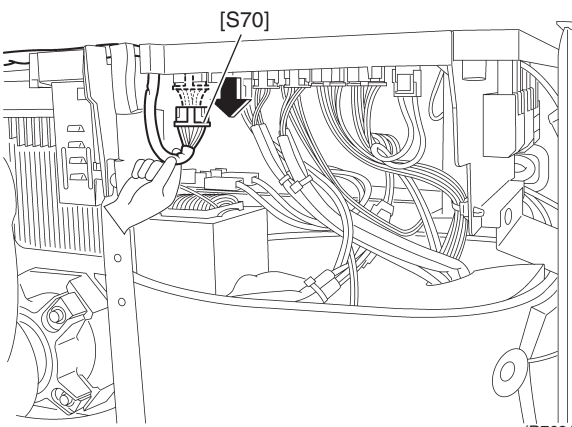
# 5. Removal of Outdoor Fan / Fan Motor

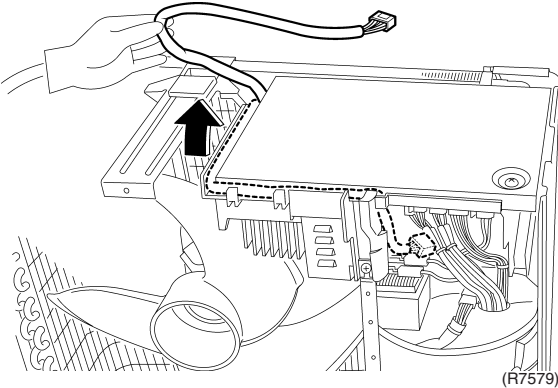
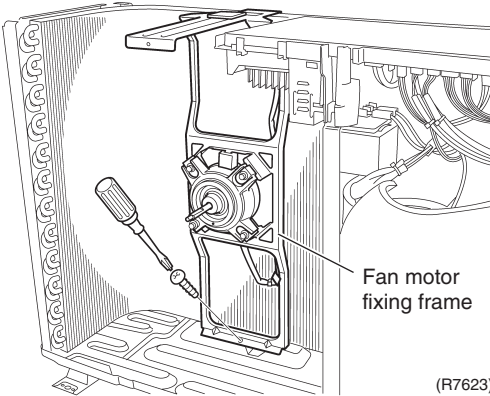
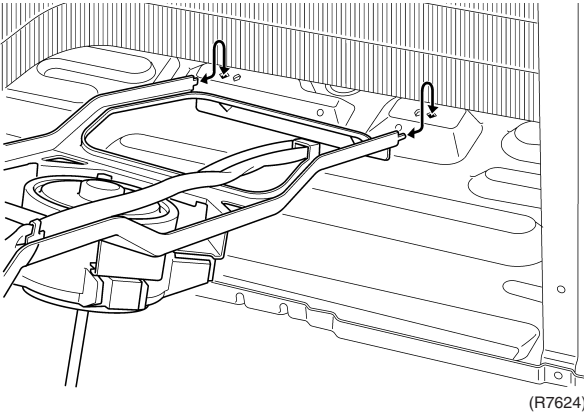
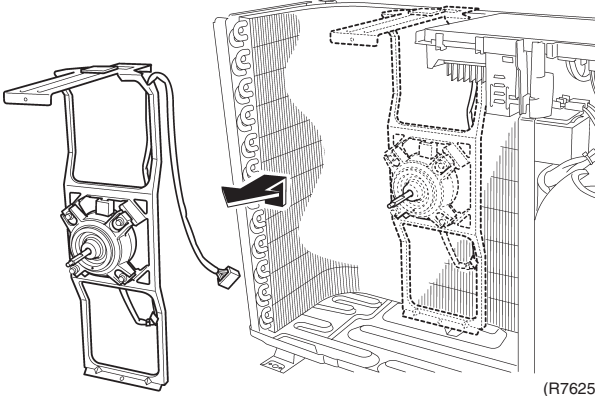
**Procedure**

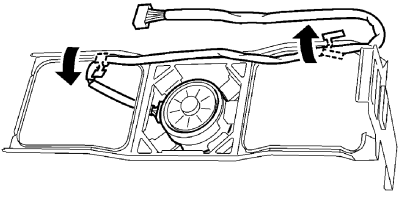
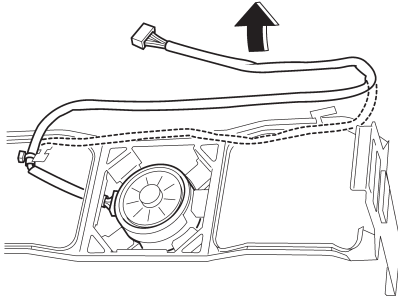

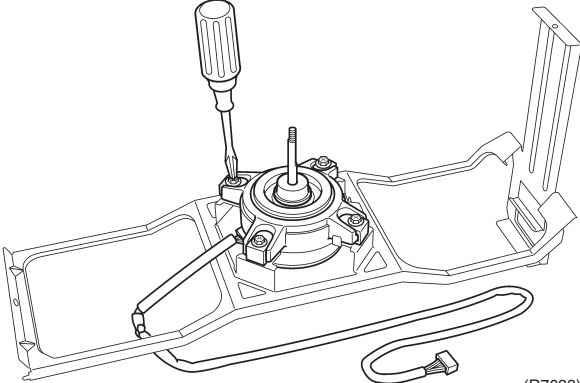
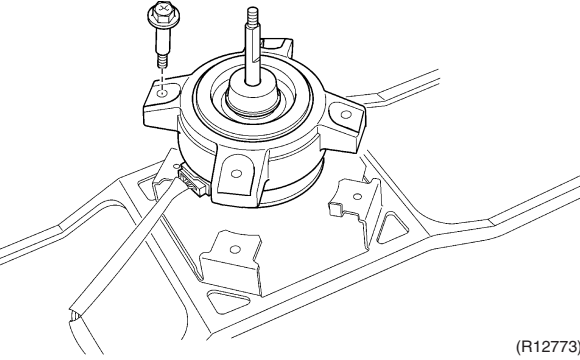


**Warning**

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Step	Procedure	Points
<p>1. Remove the outdoor fan.</p> <p>1 Remove the washer fitted nut.</p> <p>2 Remove the outdoor fan.</p>	 <p>(R7618)</p>  <p>(R7619)</p>  <p>(R7620)</p>	<p>■ Nut size: M6</p>  <p>10 mm</p> <p>(R12236)</p> <p>■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.</p>
<p>2. Remove the fan motor.</p> <p>1 Disconnect the connector for the fan motor [S70].</p>	 <p>[S70]</p> <p>(R7621)</p>	

Step	Procedure	Points
2	Release the fan motor lead wire.	
	 <p>(R7579)</p>	
3	Remove the screw of the fan motor fixing frame.	
	 <p>Fan motor fixing frame</p> <p>(R7623)</p>	
4	Remove the fan motor fixing frame.	
	 <p>(R7624)</p>	
	 <p>(R7625)</p>	

Step	Procedure	Procedure	Points
5	Turn the fan motor fixing frame backward and open the 2 hooks of the fan motor lead wire.	 <p>(R7626)</p>	
6	Release the fan motor lead wire.	 <p>(R7627)</p>	<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.</p>  <p>Lead wire Outdoor fan</p> <p>(R12215)</p>
7	Remove the 4 screws and remove the fan motor.	 <p>(R7628)</p>  <p>(R12773)</p>	

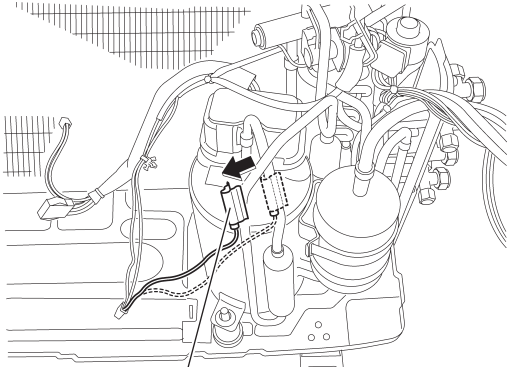
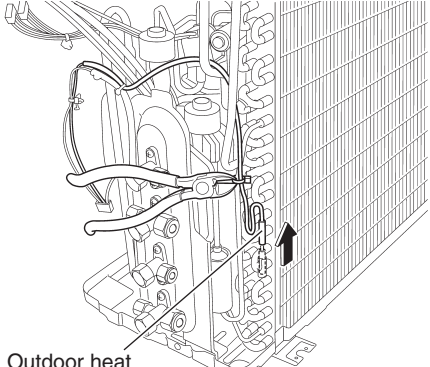
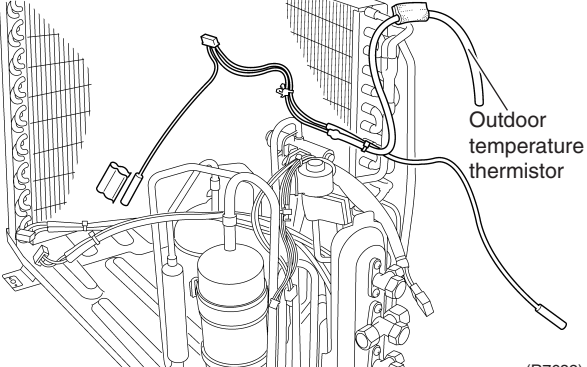
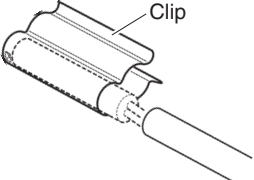
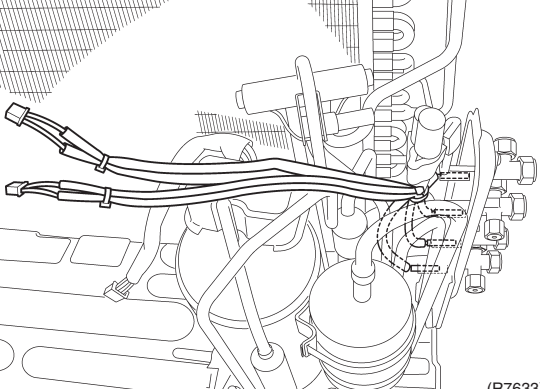
# 6. Removal of Thermistors

**Procedure**

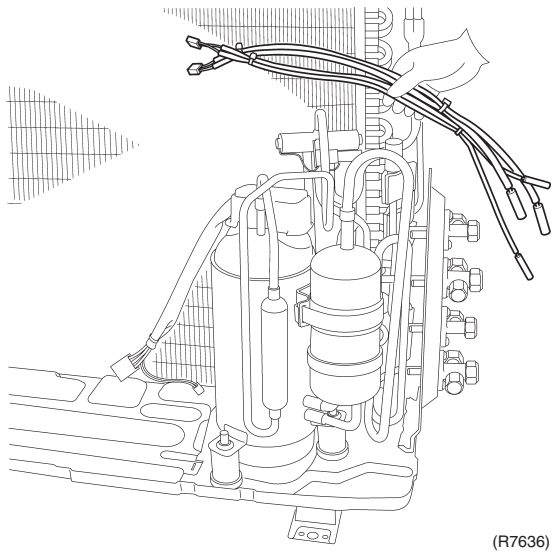
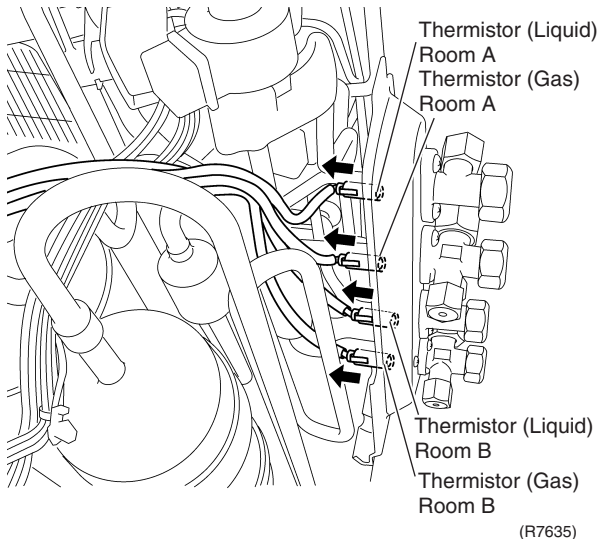
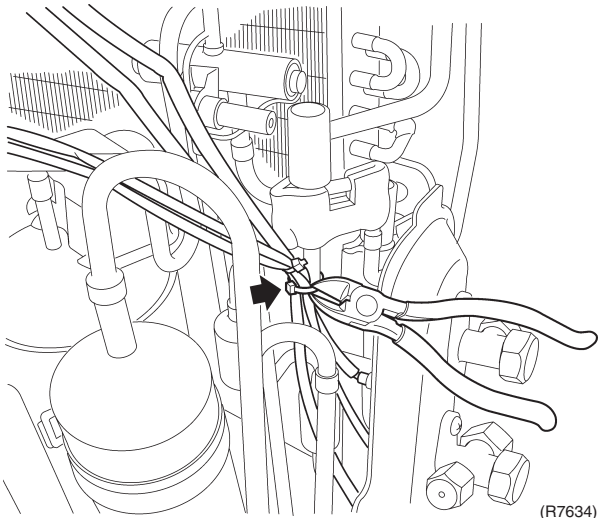


**Warning**

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 assembly of thermistors.</p> <p>1 Release the discharge pipe thermistor.</p> <p>2 Cut the clamp and pull out the outdoor heat exchanger thermistor.</p> <p>3 The thermistors are united as an assembly.</p>	 <p>Discharge pipe thermistor (R7630)</p>  <p>Outdoor heat exchanger thermistor (R7631)</p>  <p>Outdoor temperature thermistor (R7632)</p>	<p>■ Be careful not to lose the clip for the thermistor.</p>  <p>Clip (R12279)</p>
<p>2. Remove the liquid / gas pipe thermistors.</p> <p>1 The figure shows the liquid / gas pipe thermistors.</p>	 <p>(R7633)</p>	

Step	Procedure	Points
2	Cut the clamp.	
3	Peel the putty and remove the thermistors.	<p>[S91] : gas pipe thermistor                      room A (black)                      room B (gray)</p> <p>[S92] : liquid pipe thermistor                      room A (black)                      room B (gray)</p>
4	The figure shows the arrangement of the assembly of the liquid / gas thermistors.	





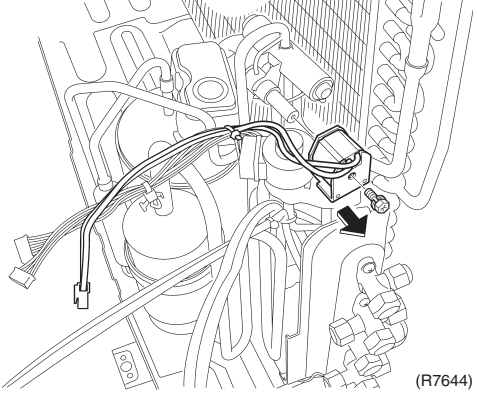
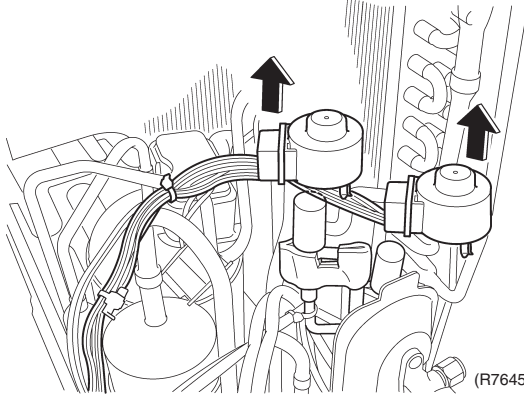
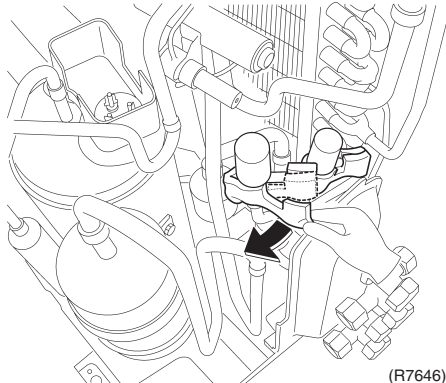
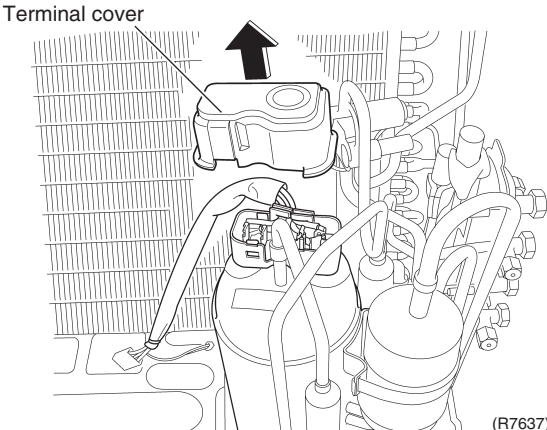
# 7. Removal of Four Way Valve / Outdoor Electronic Expansion Valves

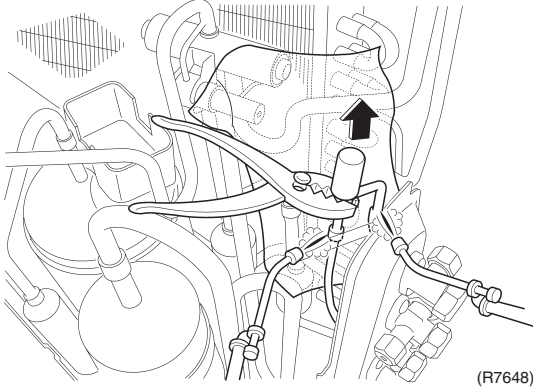
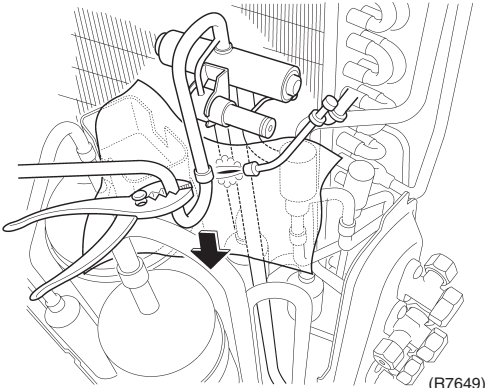
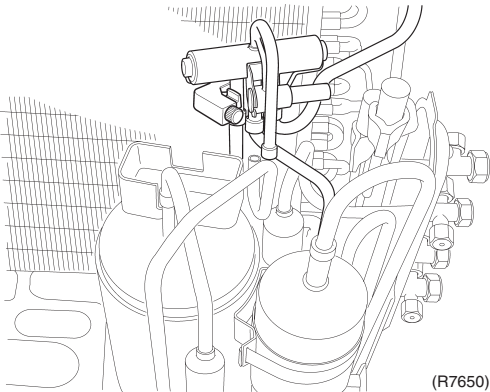
## Procedure



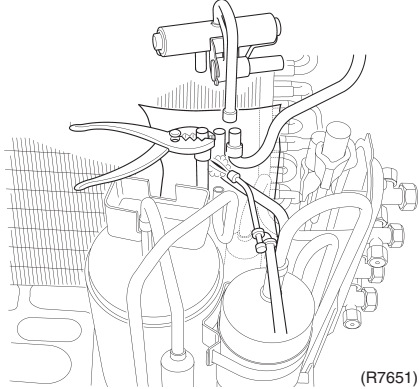
### Warning

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

Step	Procedure	Points
1.	Remove the peripheries.	<b>Preparation</b>
1	Remove the screw and remove the four way valve coil.	<ul style="list-style-type: none"> <li>■ Remove the sound blankets according to the "Removal of Sound Blankets".</li> </ul>  <p style="text-align: right;">(R7644)</p>
2	Pull out the outdoor electronic expansion valve coils.	<ul style="list-style-type: none"> <li>■ Detach the four way valve coil and the clamp, and then detach the wire harnesses.</li> </ul>  <p style="text-align: right;">(R7645)</p>
3	Remove the putty.	 <p style="text-align: right;">(R7646)</p>
4	Remove the terminal cover.	 <p style="text-align: right;">(R7637)</p>

Step	Procedure	Points
<ul style="list-style-type: none"> <li>■ Before working, make sure that the refrigerant gas is empty in the circuit.</li> <li>■ Be sure to apply nitrogen replacement when heating up the brazed part.</li> </ul>		<p><b>Warning</b>                      Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p>
<p>2. Remove the outdoor electronic expansion valves and the four way valve.</p>		<p><b>Warning</b>                      If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p>
<p>1 Heat up the 2 brazed parts of the outdoor electronic expansion valve and remove it.</p>	 <p style="text-align: right;">(R7648)</p>	<p><b>Caution</b>                      From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.</p>
<p>2 Heat up the brazed parts of the four way valve.</p>	 <p style="text-align: right;">(R7649)</p>	<p><b>Cautions for restoration</b></p> <ol style="list-style-type: none"> <li>1. Restore the piping by non-oxidation brazing.</li> <li>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.</li> </ol>
<p>3 Cut the pipes.</p>	 <p style="text-align: right;">(R7650)</p>	<p><b>In case of difficulty with gas brazing machine</b></p> <ol style="list-style-type: none"> <li>1. Disconnect the brazed part where is easy to disconnect and restore.</li> <li>2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.</li> </ol>



Step		Procedure	Points
4	Heat up the brazed parts. Pull the pipe with pliers and disconnect.	 <p>(R7651)</p>	<b>Note:</b> <ul style="list-style-type: none"><li>■ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.</li><li>■ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.</li><li>■ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.</li></ul>

# 8. Removal of Compressor

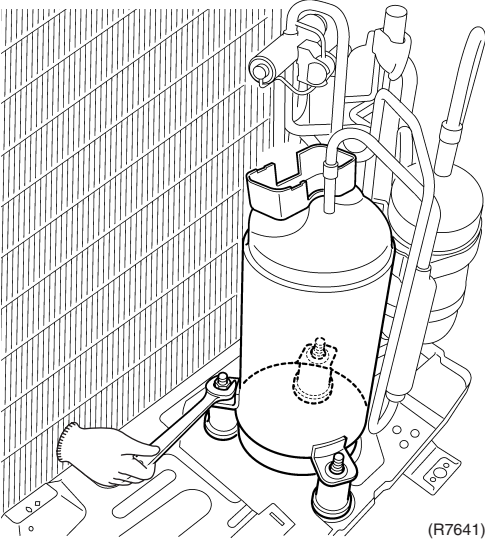
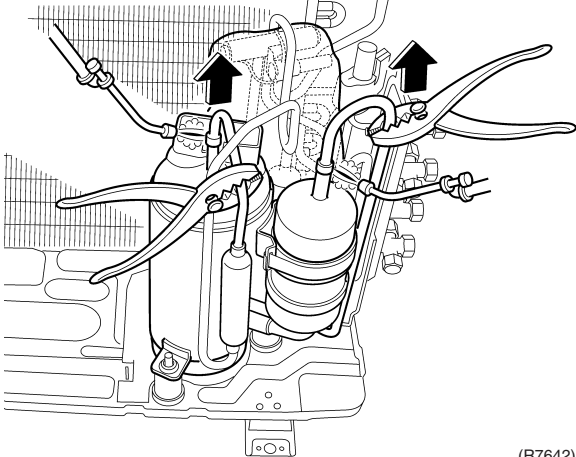
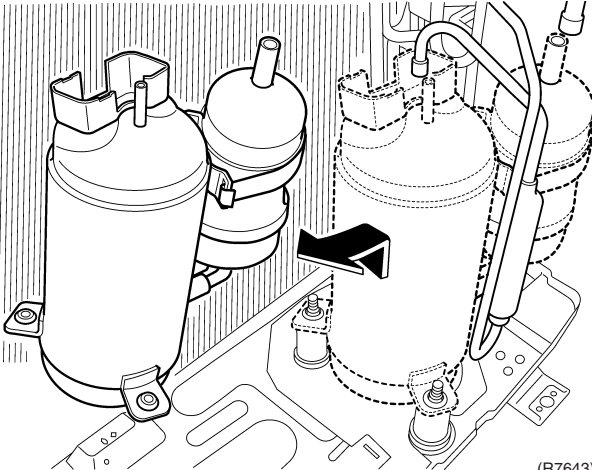
**Procedure**



**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 terminal cover.	<p>Terminal cover</p> <p>(R7637)</p>
2	Disconnect the compressor terminals.	<p>Red (U)</p> <p>Yellow (V)</p> <p>Blue (W)</p> <p>(R7638)</p> <p>(R7639)</p>
3	Unfasten the hooks with a flat screwdriver and remove the overload protector.	<p>(R7640)</p>

Step	Procedure	Points
4	Remove the 2 nuts of the compressor.	<p><b>Warning</b> Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p> <p><b>Warning</b> If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p> <p><b>Warning</b> Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.</p>
<ul style="list-style-type: none"> <li>■ Before working, make sure that the refrigerant gas is empty in the circuit.</li> <li>■ Be sure to apply nitrogen replacement when heating up the brazed part.</li> </ul>	 <p style="text-align: right;">(R7641)</p>  <p style="text-align: right;">(R7642)</p>	<p><b>Caution</b> From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.</p>
5	Heat up the brazed part of the discharge side and disconnect.	<p><b>Cautions for restoration</b></p> <ol style="list-style-type: none"> <li>1. Restore the piping by non-oxidation brazing.</li> <li>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.</li> </ol>
6	Heat up the brazed part of the suction side and disconnect.	<p><b>In case of difficulty with gas brazing machine</b></p> <ol style="list-style-type: none"> <li>1. Disconnect the brazed part where is easy to disconnect and restore.</li> <li>2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.</li> </ol>
7	Lift the compressor up to remove.	
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>■ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.</li> <li>■ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.</li> <li>■ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.</li> <li>■ Be careful so as not to burn the compressor terminals, the name plate, the heat exchanger fin.</li> </ul>	 <p style="text-align: right;">(R7643)</p>	

# Revision History

Month / Year	Version	Revised contents
08/2012	Si121173	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

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