




# REMOVAL PROCEDURE



SERVICE  
MANUAL

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

## 2.5 kW Class 9000 Btu/h Class

-  Outdoor Unit
-  Non-Inverter
-  Pair Type



# **Service Manual Removal Procedure**

## **Outdoor Unit**

### **Applicable Models**

#### **●Cooling Only**

**R09LV2S**

**AR09KV2S**

**R25HV1**

**R25HV14**

**R25MV16**

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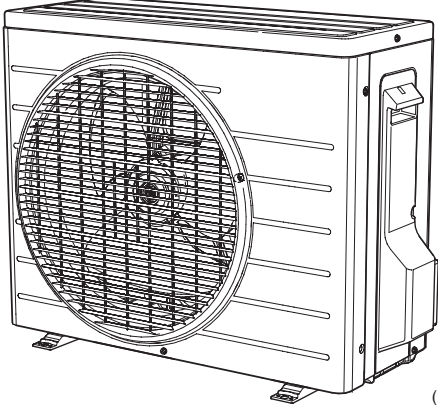
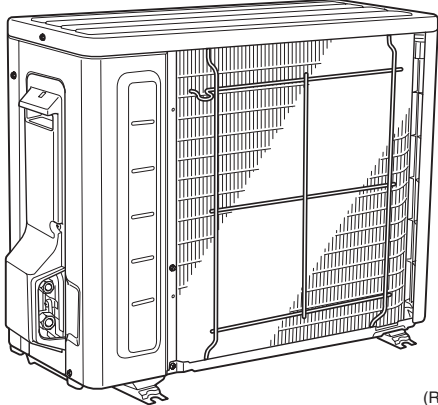
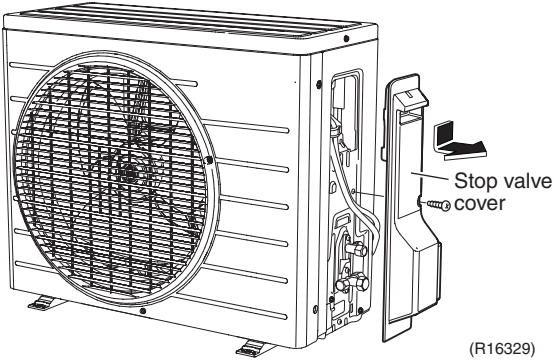
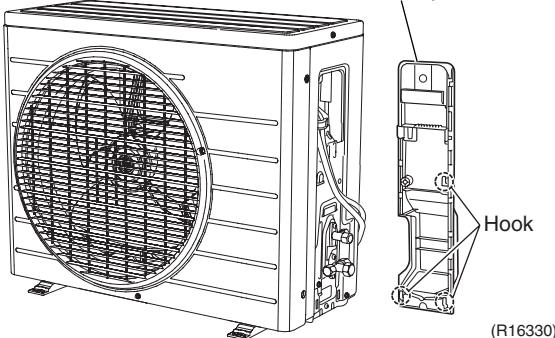
**Note:** ♦ The illustrations may be slightly different depending on the model.

# 1. Removal of Outer Panels

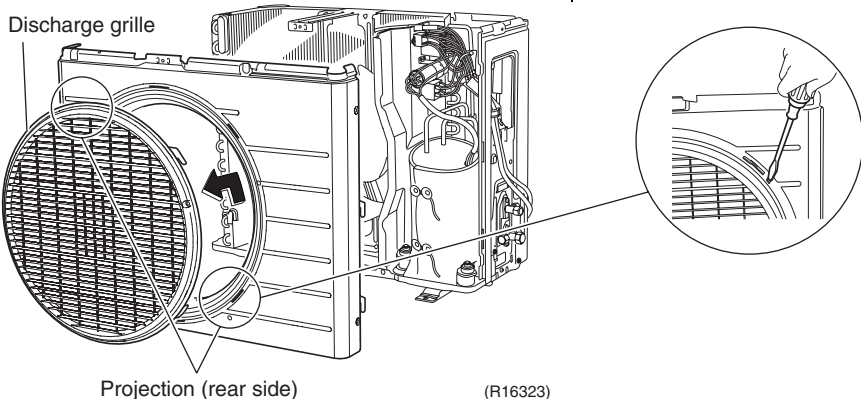
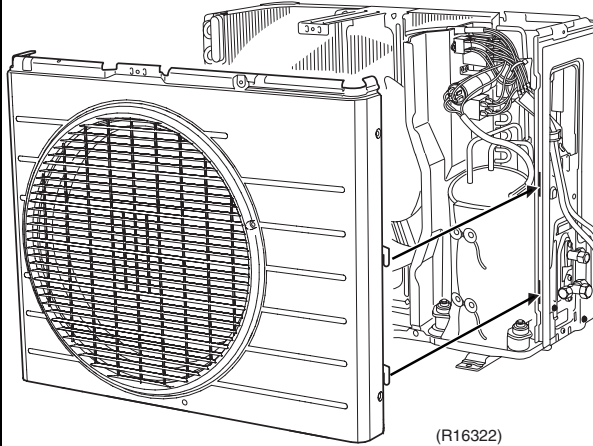
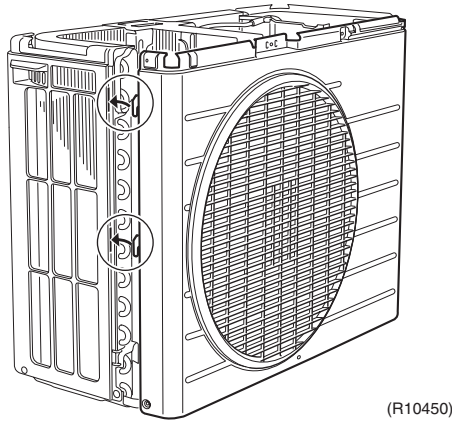
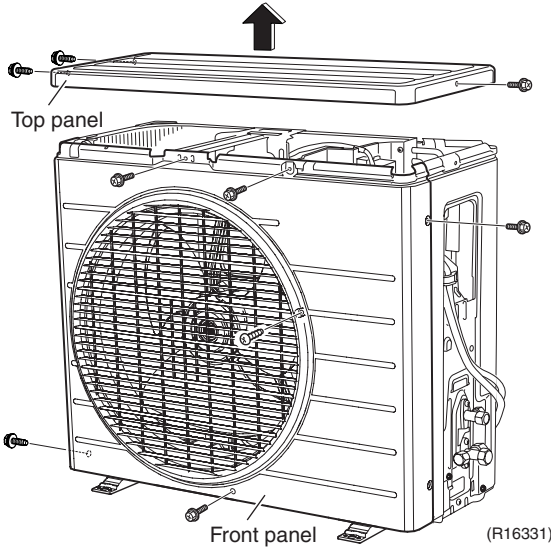
**Procedure**



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

Step	Appearance features	Procedure	Points
1	Appearance features	 <p>(R10742)</p>  <p>(R10743)</p>	<ul style="list-style-type: none"> <li>■ Take care not to cut your finger by the fins of the outdoor heat exchanger.</li> </ul>
2	Remove the screw of the stop valve cover. Pull down and remove the stop valve cover.	 <p>(R16329)</p> <p>Stop valve cover</p>  <p>(R16330)</p> <p>Shield plate</p> <p>Hook</p>	<ul style="list-style-type: none"> <li>■ The stop valve cover is united with the shield plate.</li> <li>■ When reassembling, make sure to fit the 3 hooks.</li> </ul>

Step	Procedure	Points
3	Remove the 3 screws (left: 2 screws, right: 1 screw) and lift the top panel from the rear side at first.	
4	Remove the 6 screws of the front panel.	
5	Lift up the left side and unfasten the hooks.	
6	Release the right side hooks and remove the front panel.	
7	The discharge grille has 2 projections to prevent its rotation. Press the projection from the rear side and rotate the discharge grille to remove it.	

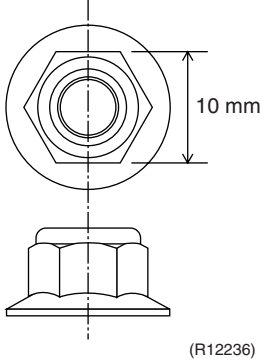


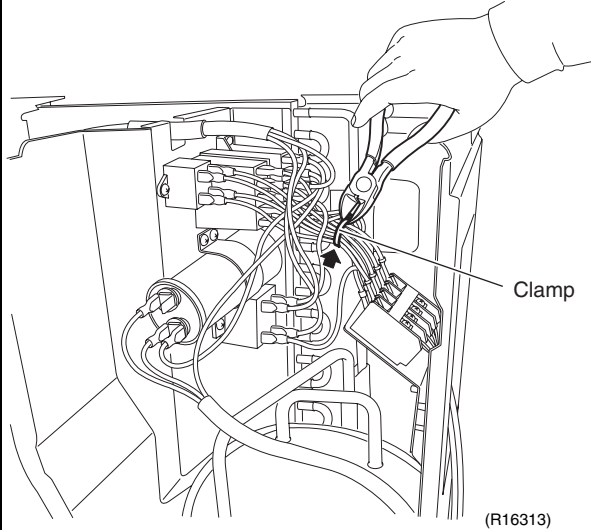
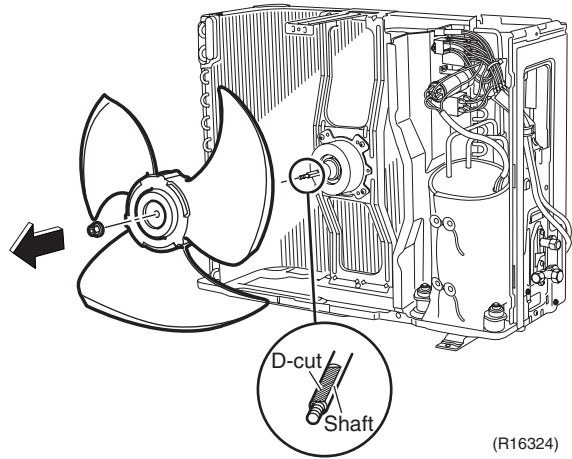
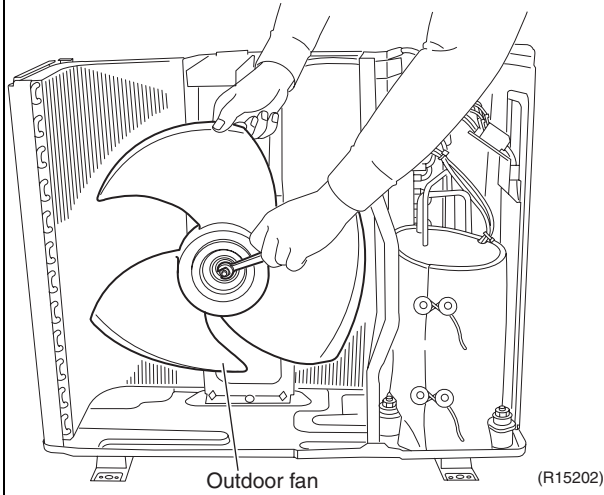
## 2. Removal of Outdoor Fan / Fan Motor

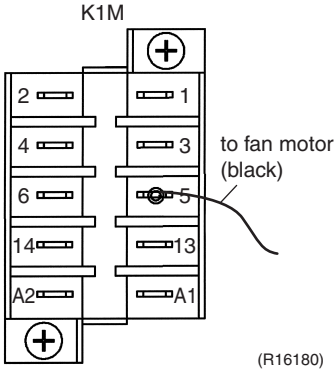
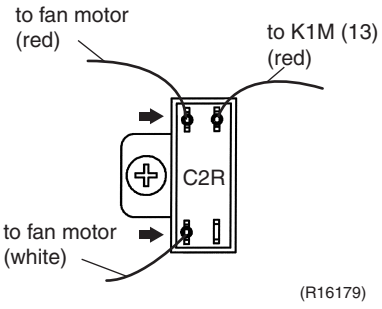
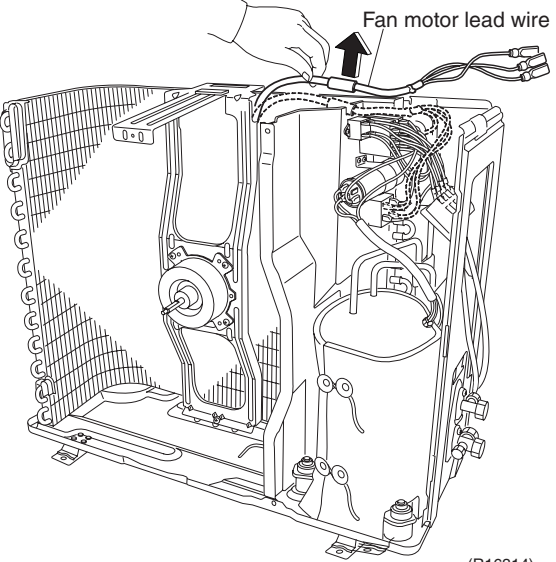
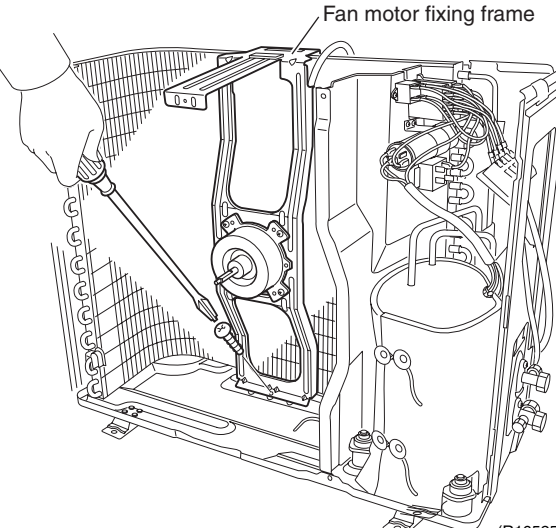
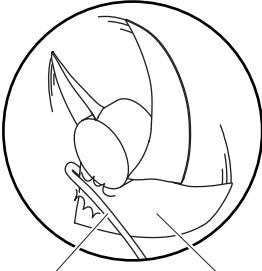
**Procedure**



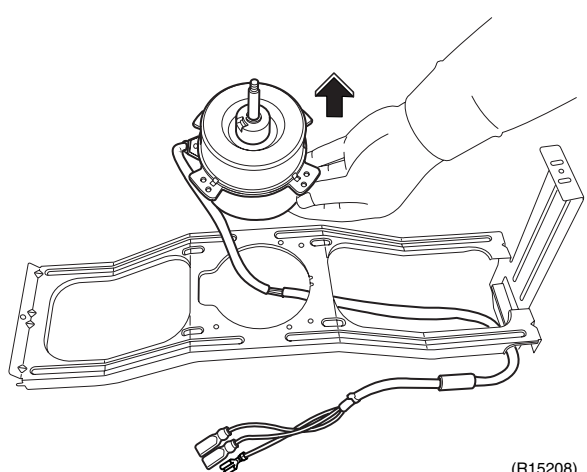
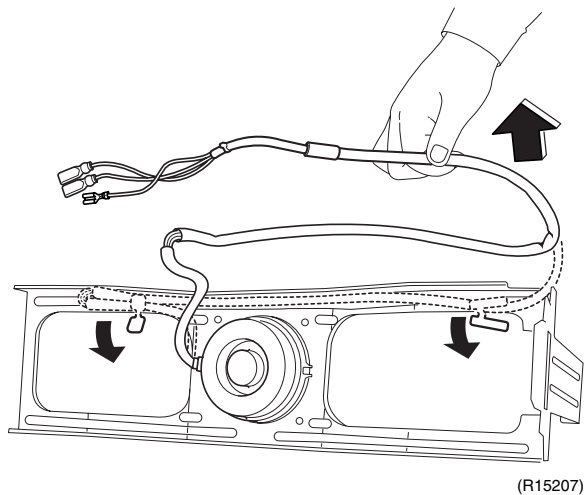
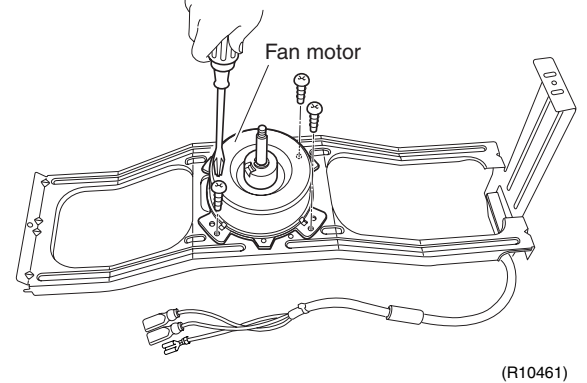
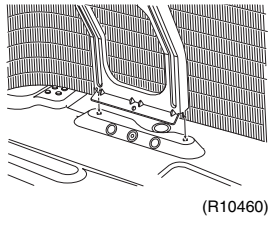
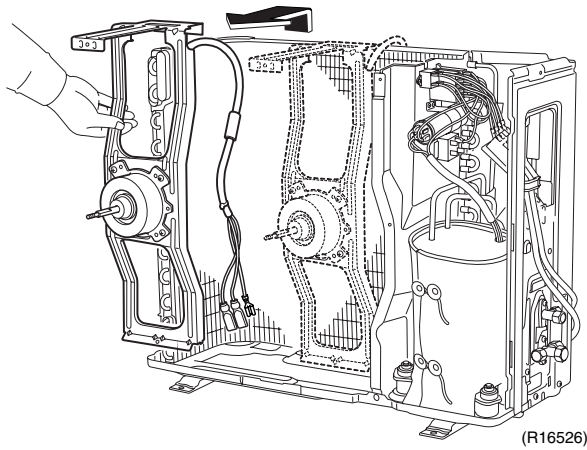
**Warning** Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Remove the nut of the outdoor fan.	<ul style="list-style-type: none"> <li>■ Nut size : M6</li> </ul>  <p style="text-align: right; margin-right: 100px;">(R12236)</p> <ul style="list-style-type: none"> <li>■ Align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft when reassembling.</li> </ul>
2	Remove the outdoor fan.	
3	Cut the clamp.	



Step	Procedure	Procedure	Points
4	Pull out the terminal (black) from K1M (5).	 <p style="text-align: center;">K1M</p> <p style="text-align: center;">(R16180)</p>	
5	Pull out the 2 terminals (red, white) from the fan capacitor (C2R).	 <p style="text-align: center;">(R16179)</p>	
6	Release the fan motor lead wire from the groove.	 <p style="text-align: center;">(R16314)</p>	
7	Remove the screw to detach the fan motor fixing frame.	 <p style="text-align: center;">(R16525)</p>	<p>■ Put the fan motor lead wire through the back of the fan motor when reassembling so as not to be entangled with the outdoor fan.</p>  <p style="text-align: center;">(R3249)</p>

Step	Procedure	Points
8	Remove the fan motor fixing frame.	<ul style="list-style-type: none"> <li>■ When reassembling, fit the lower hooks into the bottom frame.</li> </ul>
9	Remove the 3 screws and remove the fan motor.	<ul style="list-style-type: none"> <li>■ Screw size: M4 × 16</li> </ul>
10	Release the harness from the hooks.	
11	Remove the fan motor.	





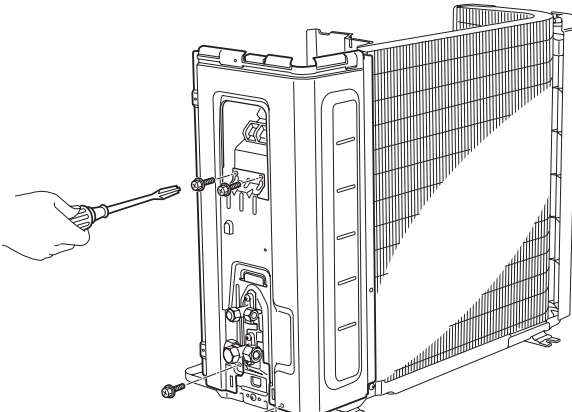
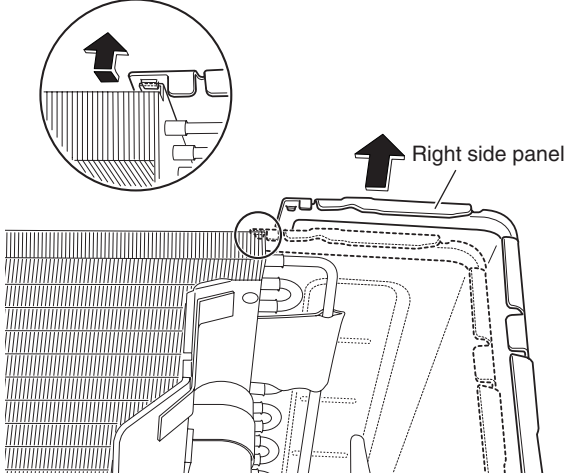
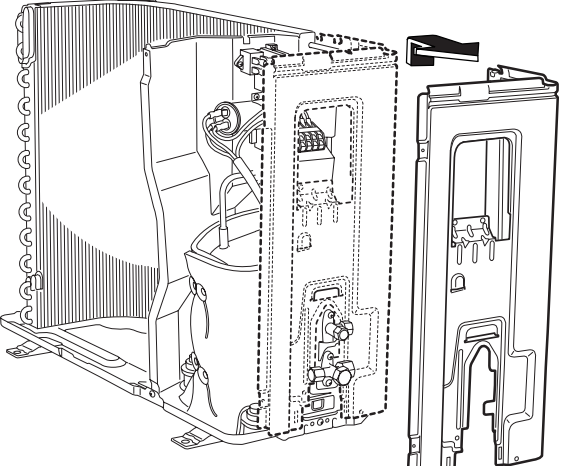
### 3. Removal of Electrical Components

**Procedure**

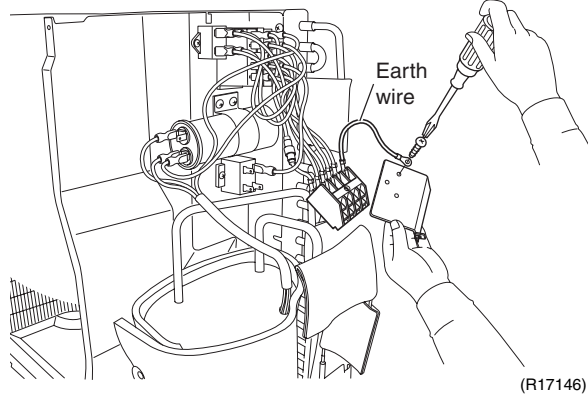
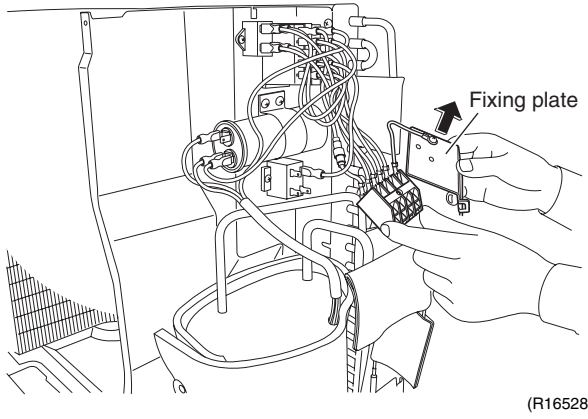
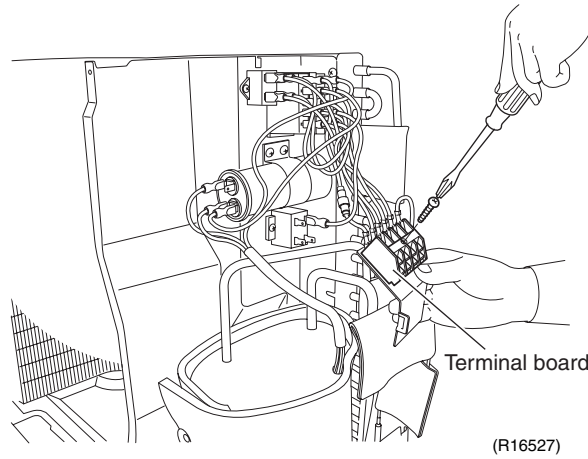


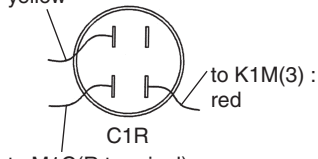
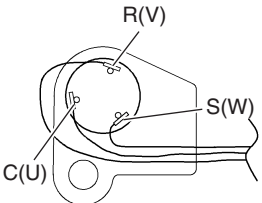
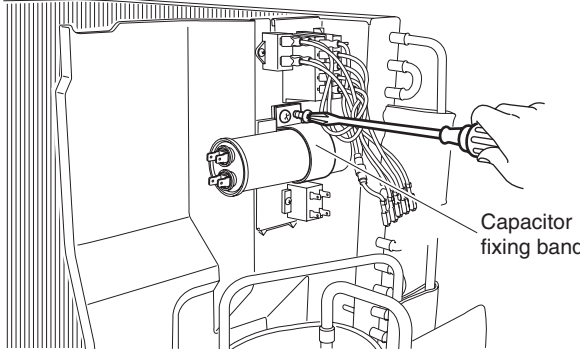
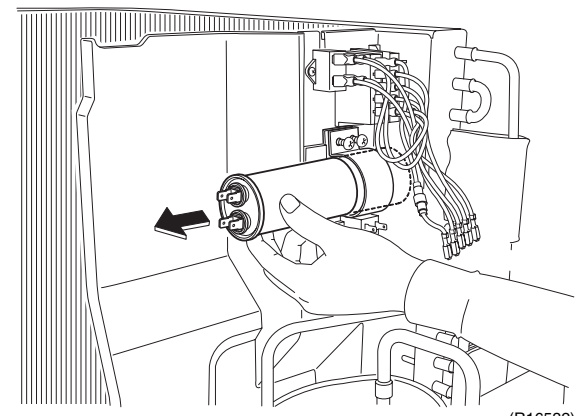
**Warning** Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

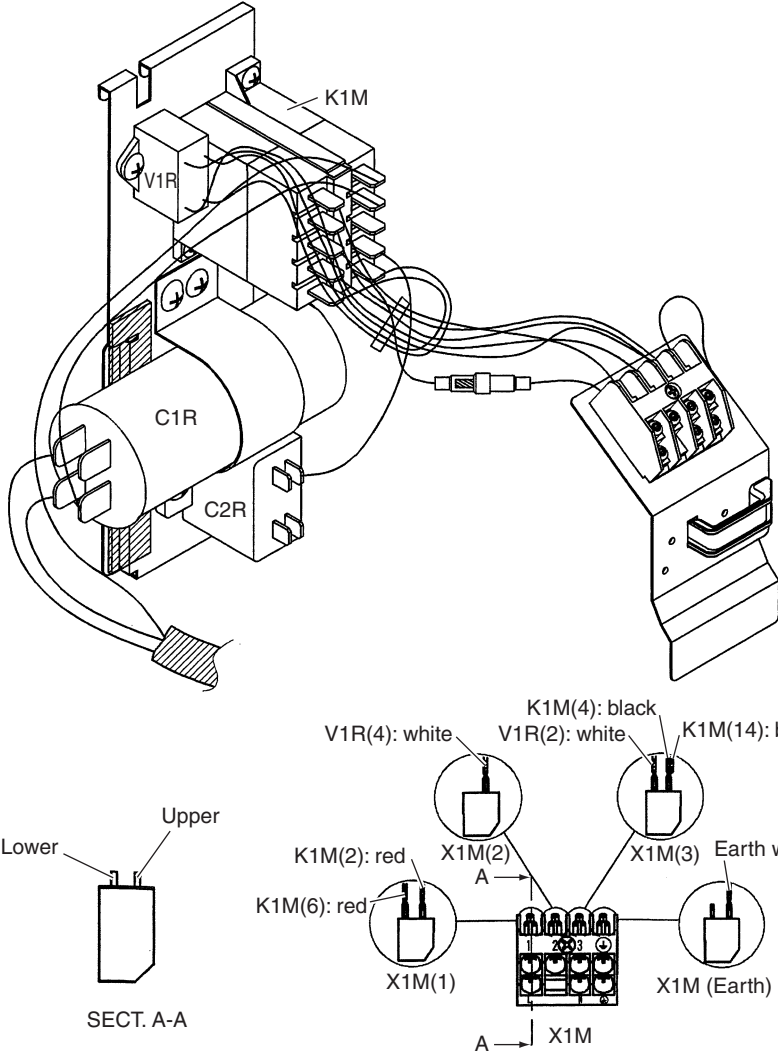
Step	Procedure	Points
1	Remove the 7 screws on the terminal board and disconnect the connecting wire and the power supply wire.	<p>Terminal board</p>
2	Remove the screw and remove the wire clamp.	<p>Wire clamp</p> <p>Connecting wire</p> <p>Power supply wire</p> <p>(R16325)</p>
3	Remove the screw on the rear side.	<p>(R15219)</p>
4	Lift up the guard net and remove it.	<p>Guard net</p> <p>(R15221)</p>

Step	Procedure	Points
5	Remove the 4 screws on the right side.	
	 <p>(R15222)</p>	
6	Unfasten the hook of the right side panel.	<ul style="list-style-type: none"> <li>■ When reassembling, make sure to fit the hook.</li> </ul>
	 <p>Right side panel</p> <p>(R10467)</p>	
7	Remove the right side panel.	
	 <p>(R16317)</p>	

Step	Procedure	Points
8	Remove the screw of the terminal board.	
9	Detach the fixing plate.	
10	Remove the screw of the earth wire.	



Step	Procedure	Points
11	Pull out the 3 terminals from the compressor capacitor (C1R).	<p>■ Compressor capacitor</p> <p>to M1C(S terminal) : yellow</p>  <p>to M1C(R terminal) : red (R17611)</p> <p>■ Compressor lead wire</p>  <p>(R15375)</p>
12	Pull out the harnesses from the terminal board.	<p>S(W) : yellow C(U) : blue R(V) : red</p>
13	Remove the 2 screws to loosen the capacitor fixing band.	 <p>Capacitor fixing band (R16531)</p>
14	Remove the compressor capacitor.	 <p>(R16532)</p>

Step	Procedure	Points
15	<p data-bbox="199 215 454 271">Layout of the electrical components</p>  <p data-bbox="491 1025 715 1254">             Lower Upper              SECT. A-A         </p> <p data-bbox="746 918 1444 1276">             K1M(4): black              V1R(4): white              V1R(2): white              K1M(14): black              K1M(2): red              X1M(2)              A              X1M(3)              Earth wire: green/yellow              K1M(6): red              X1M(1)              X1M (Earth)              A → X1M         </p>	<p data-bbox="1388 1265 1460 1288">(R17147)</p>

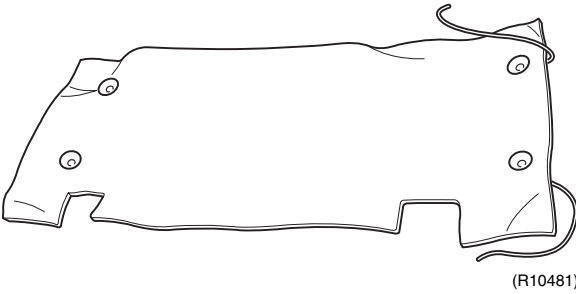
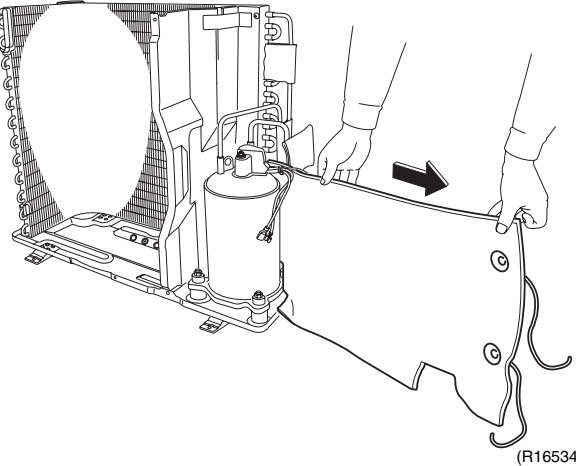
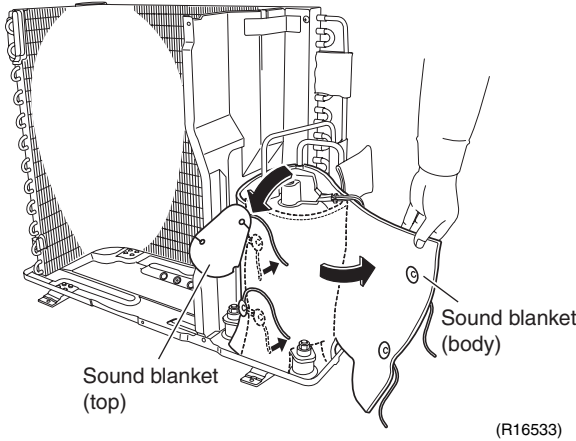
# 4. Removal of Sound Blankets

**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 sound blanket (top).	<b>Preparation</b>
2	Untie the 2 strings and open the sound blanket (body).	<ul style="list-style-type: none"> <li>■ Remove the outer panels according to the "Removal of Outer Panels / Fan Motor".</li> <li>■ Remove the terminal board and fixing plate according to the "Removal of Electrical Components".</li> </ul>
3	Remove the sound blanket (body).	<ul style="list-style-type: none"> <li>■ Since the piping ports on the sound blanket are torn easily, remove the sound blanket carefully.</li> </ul>



## 5. Removal of Capillary Tube (Pattern 1)

### Procedure



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

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 style="text-align: right;">(R16836)</p>	<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>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>1 Remove the putty. Heat up the 2 brazed parts and remove the capillary tube.</p>	<p style="text-align: right;">(R16826)</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. Avoid excessive heating. (Keep below 120°C)</li> </ol> <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>
<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>		

# 6. Removal of Capillary Tube (Pattern 2)

**Procedure**



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

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 style="text-align: right;">(R16177)</p>	<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>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>1 Remove the putty. Heat up the 2 brazed parts and remove the capillary tube.</p>	<p style="text-align: right;">(R16178)</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. Avoid excessive heating. (Keep below 120°C)</li> </ol> <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>
<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>		



# 7. Removal of Compressor ASSY

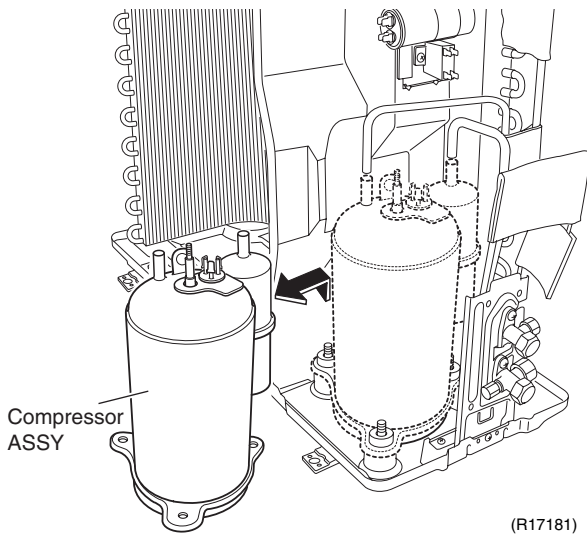
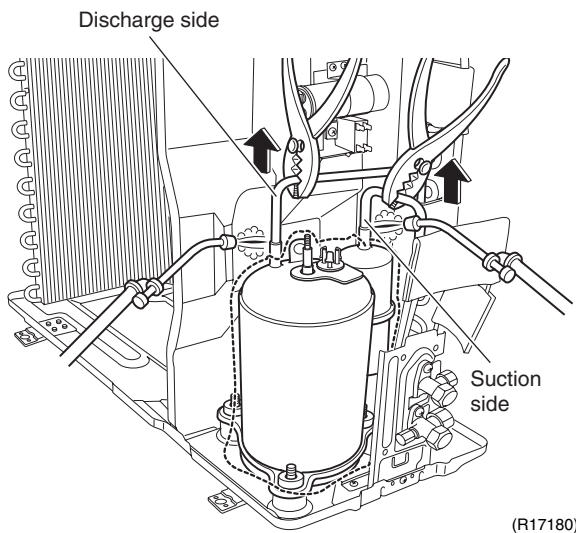
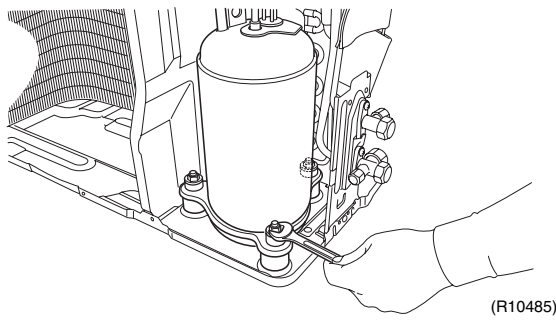
**Procedure**



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

Step	Procedure	Procedure	Points
1	Remove the nut.	<p>(R10482)</p>	
2	Remove the terminal cover.	<p>Terminal cover</p> <p>(R10483)</p>	
3	Disconnect the compressor lead wires.		<p>(R15375)</p>
4	Remove the gasket.	<p>Gasket</p> <p>(R17179)</p>	<p>S(W) : yellow                      C(U) : blue                      R(V) : red</p>

Step	Procedure	Points
5	Remove the 3 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>
<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> If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p>
6	Heat up the brazed part of the discharge side and disconnect.	<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>
7	Heat up the brazed part of the suction side and disconnect.	<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>
8	Lift the compressor ASSY up and remove it.	<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. Avoid excessive heating. (Keep below 120°C)</li> </ol> <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>
<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>		



# Revision History

Month / Year	Version	Revised contents
08/2012	Si011188	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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