




# REMOVAL PROCEDURE



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

### 3.5 kW Class 13000 Btu/h Class

-  Outdoor Unit
-  Non-Inverter
-  Pair Type



# **Service Manual Removal Procedure**

## **Outdoor Unit**

### **Applicable Models**

#### **●Cooling Only**

**R13LV2S**

**AR13KV2S**

**R35HV1**

**R35HV14**

**R35JV1V**

**R35MV16**

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**Note:**

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

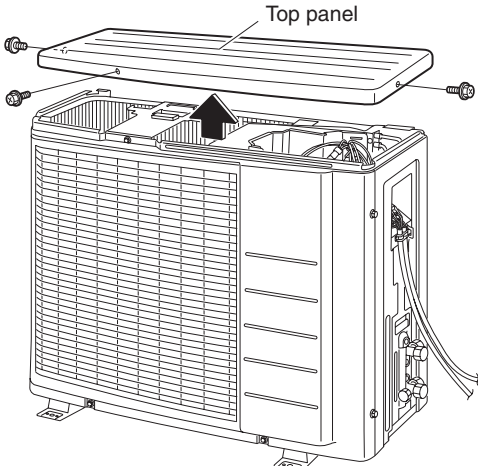
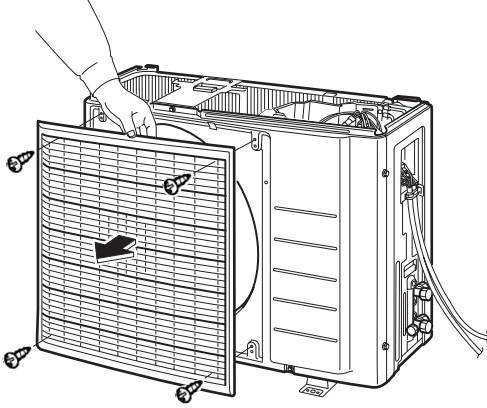
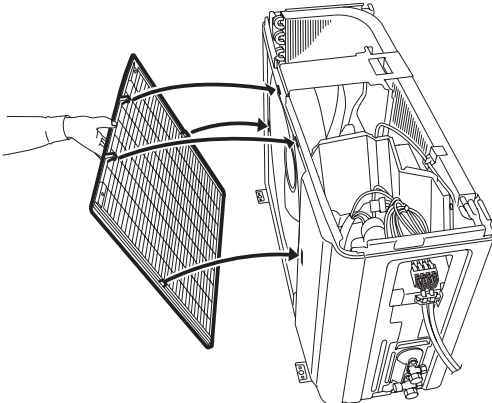
# 1. Removal of Outer Panels / Fan Motor (Pattern 1)

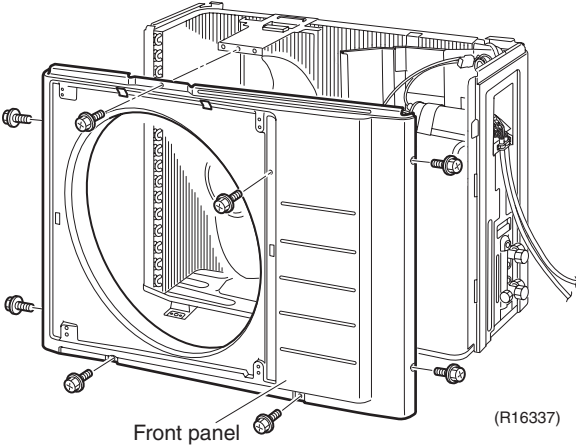
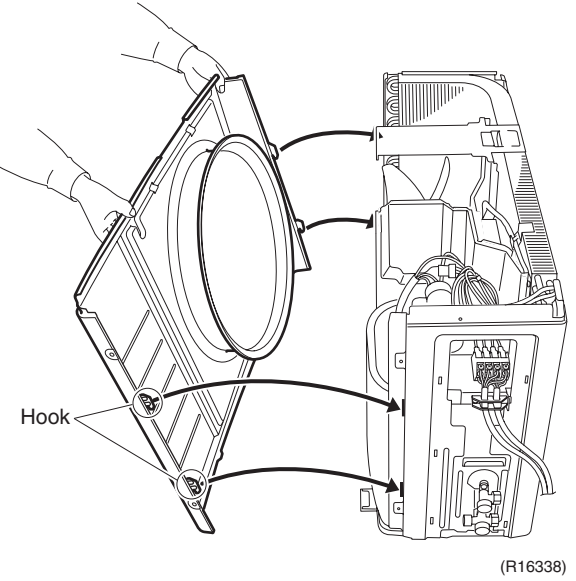
**Procedure**

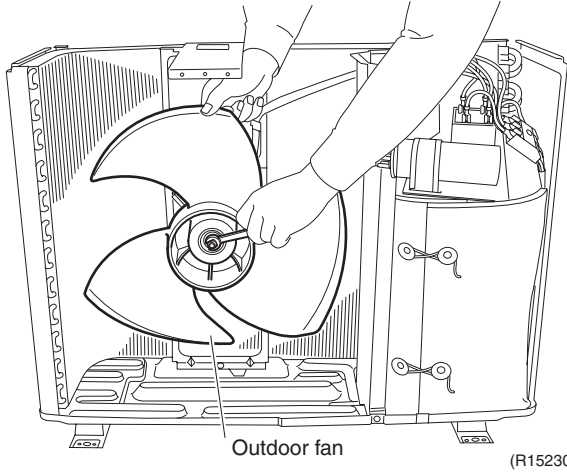
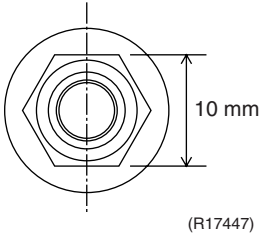
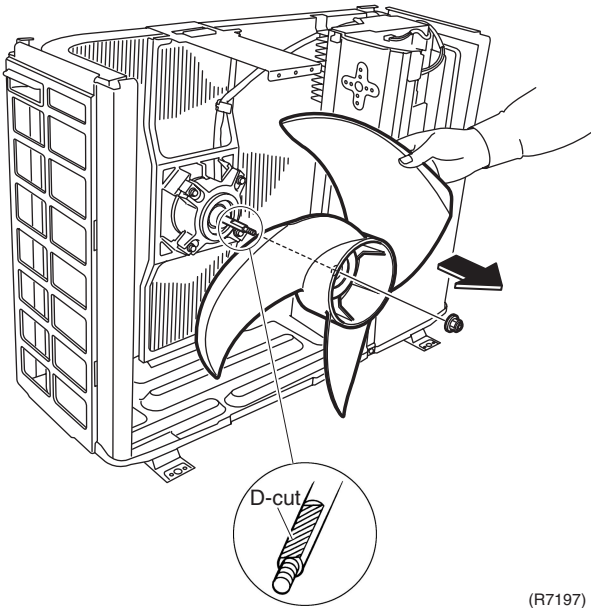
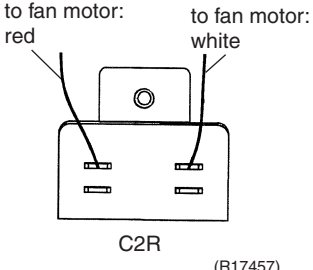
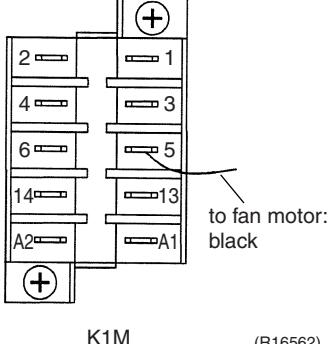


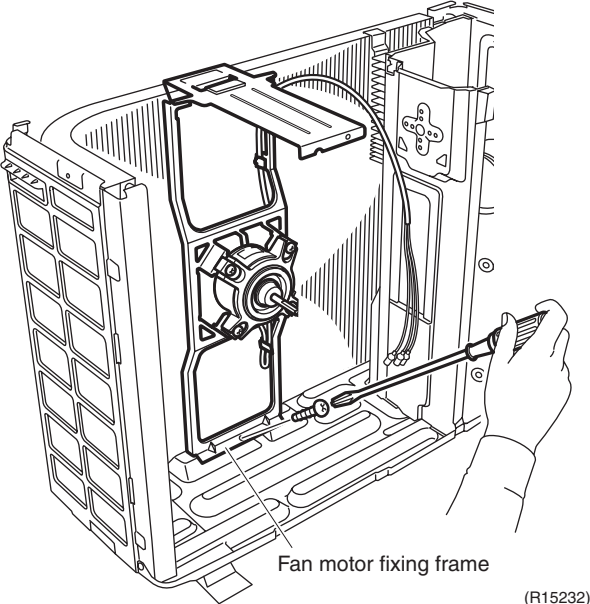
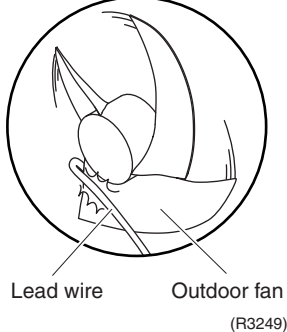
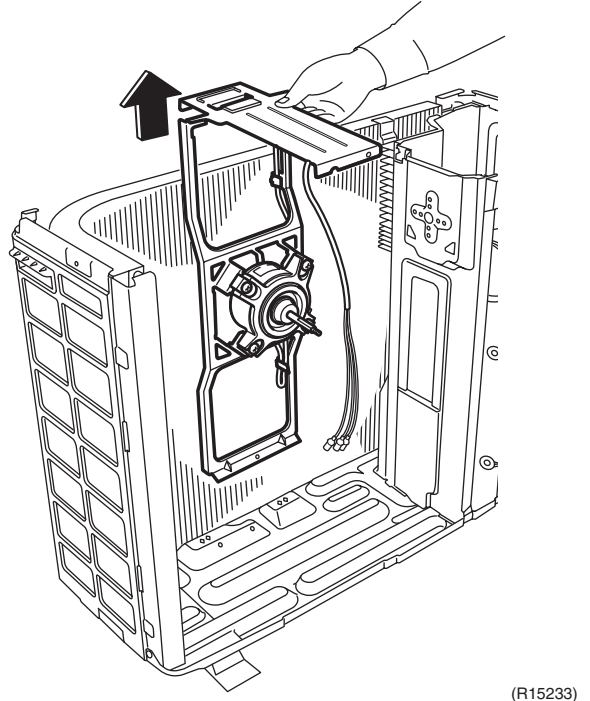
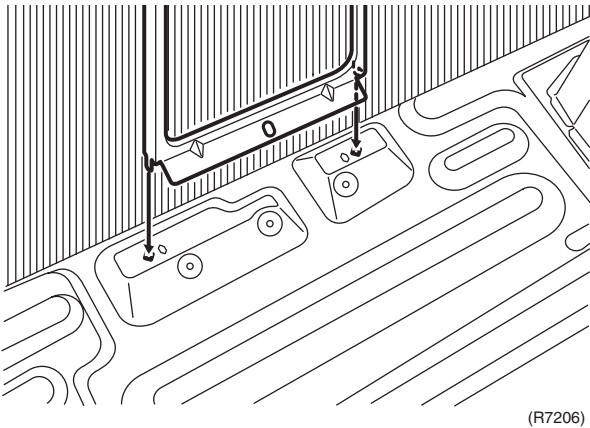
**Warning** Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
<p>1. Appearance features</p>	<p>(R15226)</p> <p>(R16332)</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>
<p>2. Remove the panels.</p> <p>1 Remove the screw of the stop valve cover. Pull down the stop valve cover and remove it.</p>	<p>Stop valve cover</p> <p>Shield plate</p> <p>Hook</p> <p>(R7188)</p> <p>(R16333)</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 5 hooks.</li> </ul>

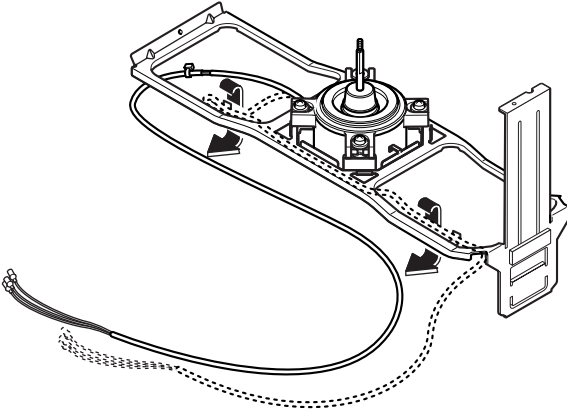
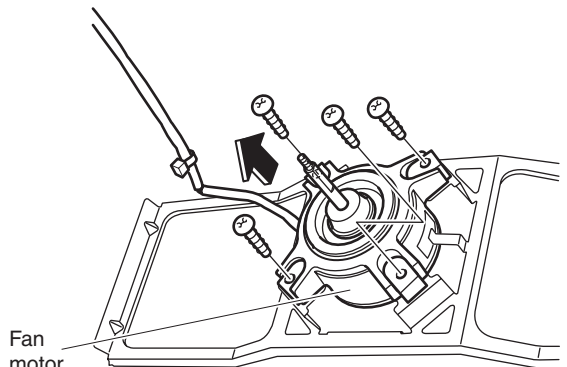
Step	Procedure	Points	
2	Remove the 3 screws and remove the top panel.	 <p>(R16334)</p>	<p>■ The discharge grille has 4 hooks.</p>
3	Remove the 4 screws and remove the discharge grille.	 <p>(R16335)</p>	
		 <p>(R16336)</p>	

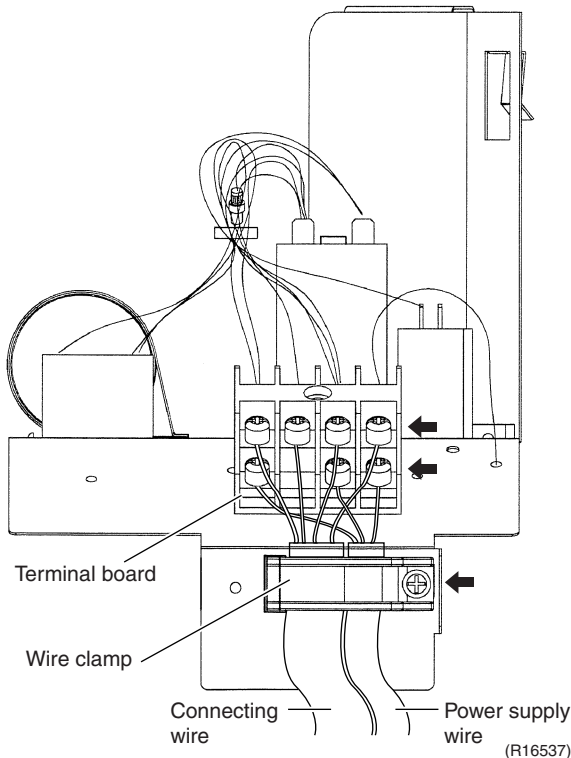
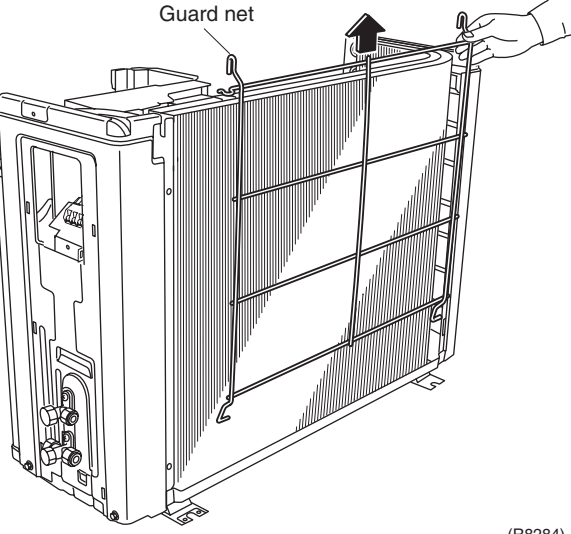
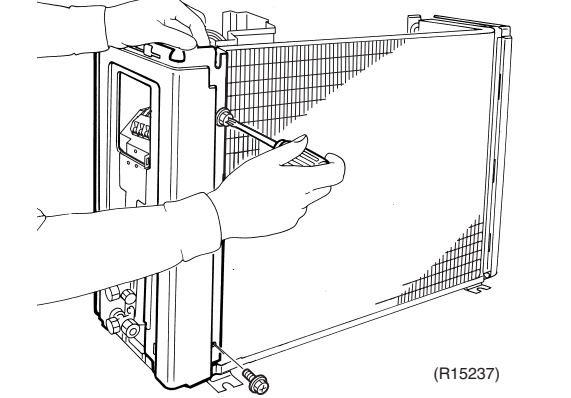
Step	Procedure	Points
4	Remove the 8 screws of the front panel.	
	 <p style="text-align: right;">(R16337)</p>	
5	Unfasten the hooks. Pull and remove the front panel.	<ul style="list-style-type: none"> <li>■ The front panel has 4 hooks.</li> </ul>
	 <p style="text-align: right;">(R16338)</p>	

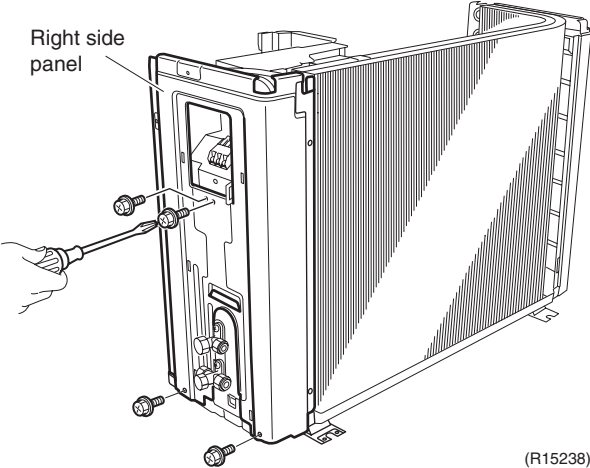
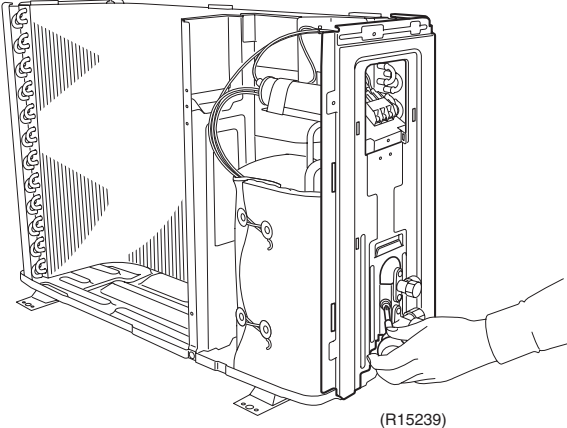
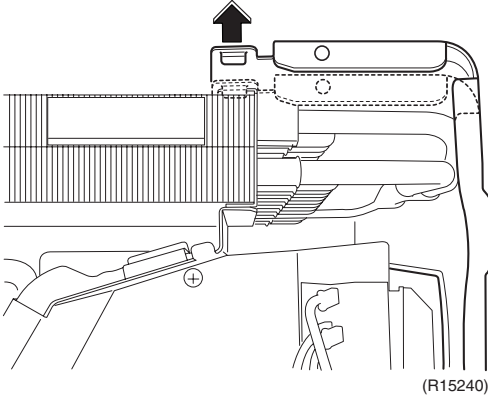
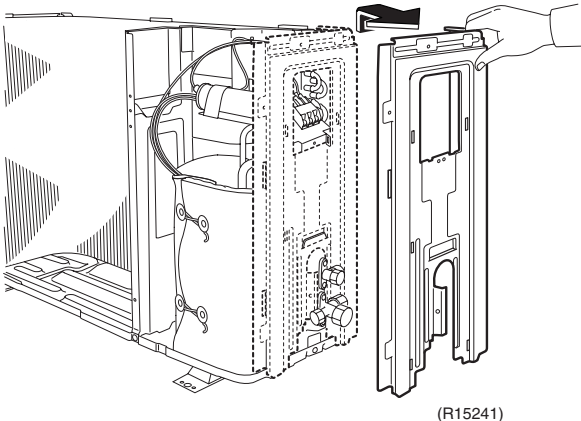
Step	Procedure	Points
3. Remove the fan motor.		
1 Remove the nut of the outdoor fan.		<p>■ Nut size: M6</p> 
2 Remove the outdoor fan.		<p>■ Align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft when reassembling.</p>
3 Pull out the 2 terminals (red, white) from the fan capacitor (C2R).		
4 Pull out the terminal (black) from K1M (5).		
5 Release the fan motor lead wire from the hook.		

Step	Procedure	Points
6	Remove the screw and remove the fan motor fixing frame.	<ul style="list-style-type: none"> <li>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.</li> </ul>
	 <p>Fan motor fixing frame (R15232)</p>	 <p>Lead wire Outdoor fan (R3249)</p>
	 <p>(R15233)</p>	
	 <p>(R7206)</p>	<ul style="list-style-type: none"> <li>When reassembling, fit the lower hooks into the bottom frame.</li> </ul>



Step	Procedure	Points
7	Release the fan motor lead wire from the hooks.	
	 <p>(R15234)</p>	
8	Remove the 4 screws and remove the fan motor.	
	 <p>Fan motor</p> <p>(R15235)</p>	

Step	Procedure	Points
4. Remove the right side panel.	<p data-bbox="153 277 467 443">1 Remove the 7 screws on the terminal board and disconnect the connecting wire and the power supply wire.</p> <p data-bbox="153 483 467 544">2 Remove the screw and remove the wire clamp.</p> 	
3 Lift up and remove the guard net.		
4 Remove the 2 screws on the rear side.		

Step	Procedure	Points
5	Remove the 4 screws on the right side.	
	 <p>Right side panel</p> <p>(R15238)</p>	
6	Remove the screw near the connection port.	
	 <p>(R15239)</p>	
7	Unfasten the hook of the right side panel.	<p>■ When reassembling, make sure to fit the hook.</p>
	 <p>(R15240)</p>	
8	Remove the right side panel.	
	 <p>(R15241)</p>	

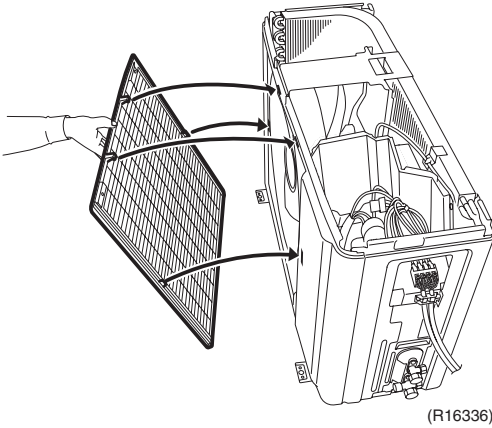
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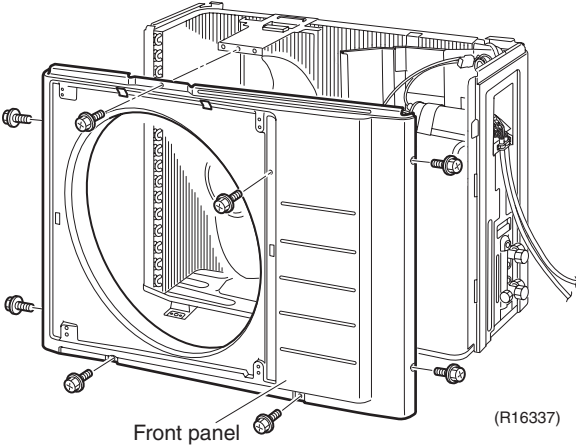
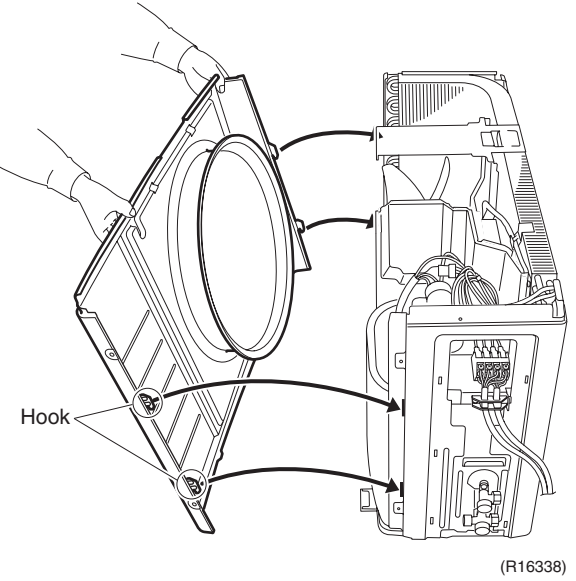
**Procedure**

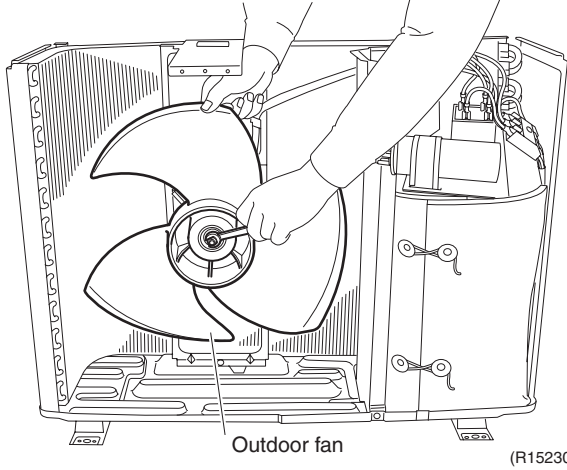
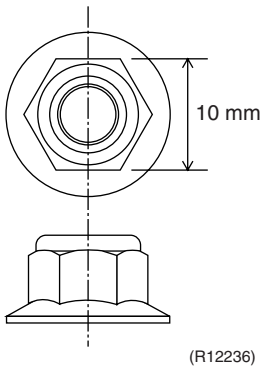
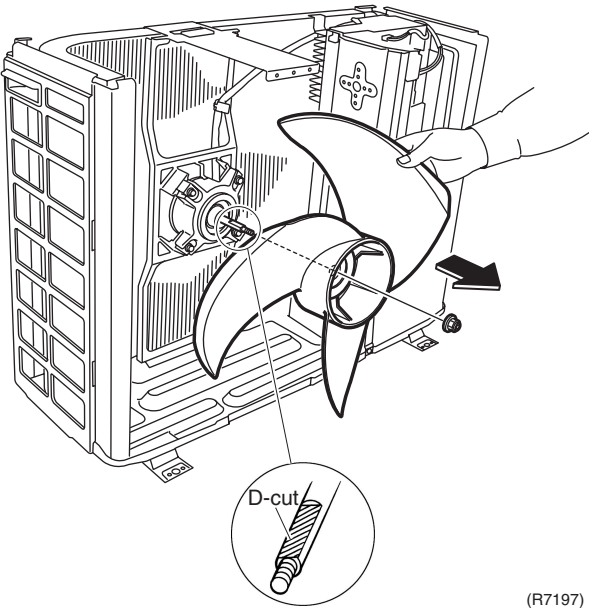
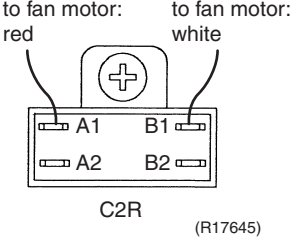
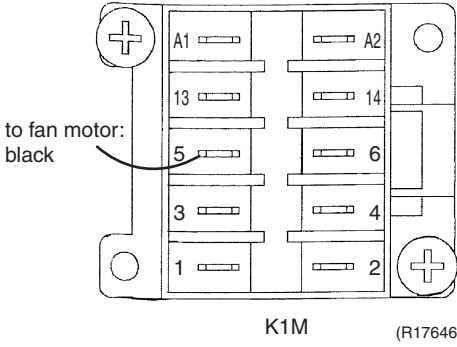


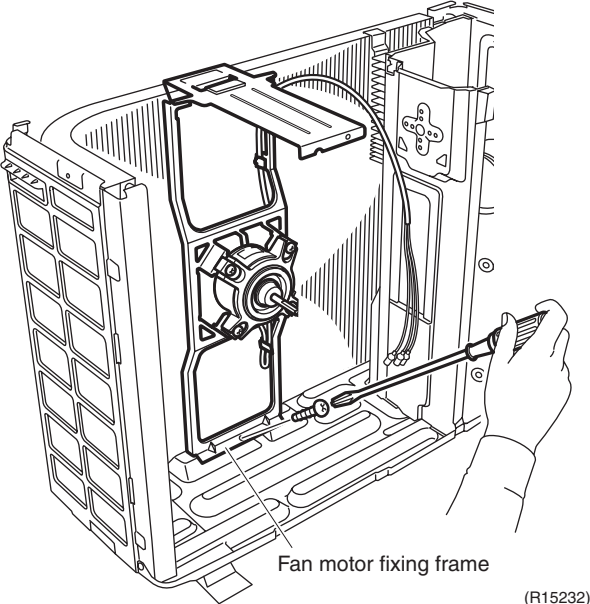
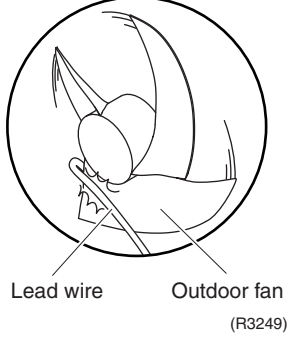
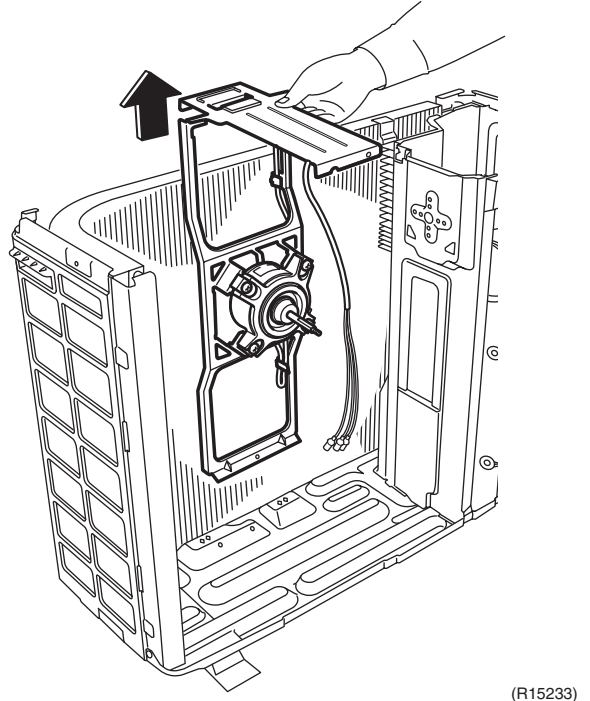
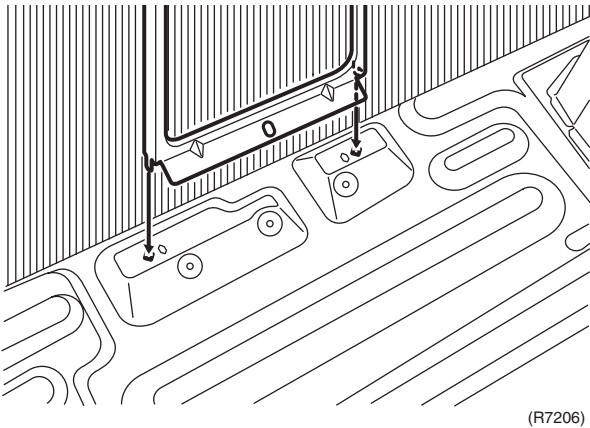
**Warning** Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
<p>1. Appearance features</p>	<p>(R15226)</p> <p>(R16332)</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>
<p>2. Remove the panels.</p> <p>1 Remove the screw of the stop valve cover. Pull down the stop valve cover and remove it.</p>	<p>Stop valve cover</p> <p>(R7188)</p> <p>Shield plate</p> <p>Hook</p> <p>(R16333)</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 5 hooks.</li> </ul>

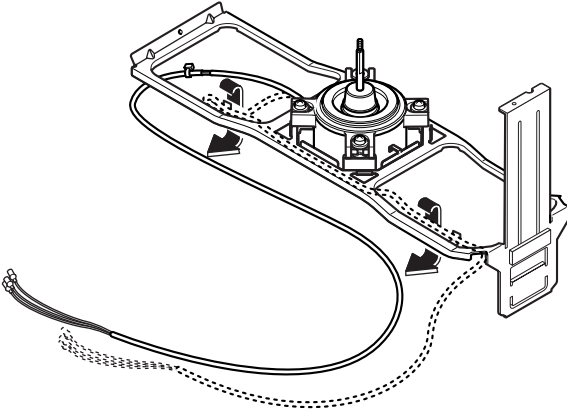
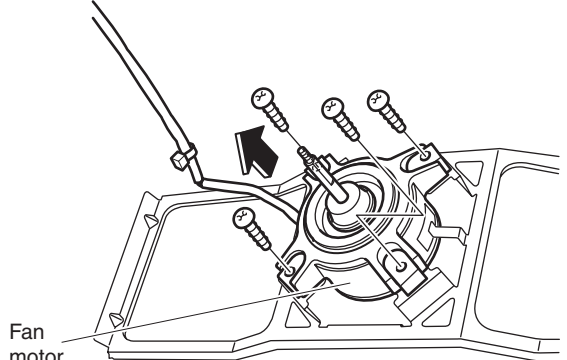
Step	Procedure	Points
2	Remove the 3 screws and remove the top panel.	(R16334)
3	Remove the 4 screws and remove the discharge grille.	(R16335)
	 <p data-bbox="967 1648 1035 1671">(R16336)</p>	<p>■ The discharge grille has 4 hooks.</p>

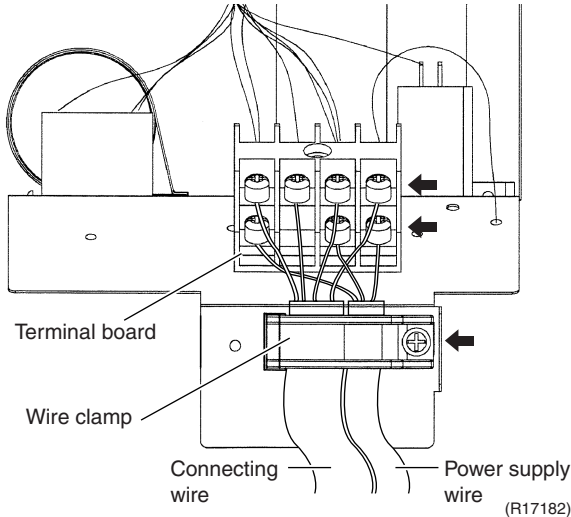
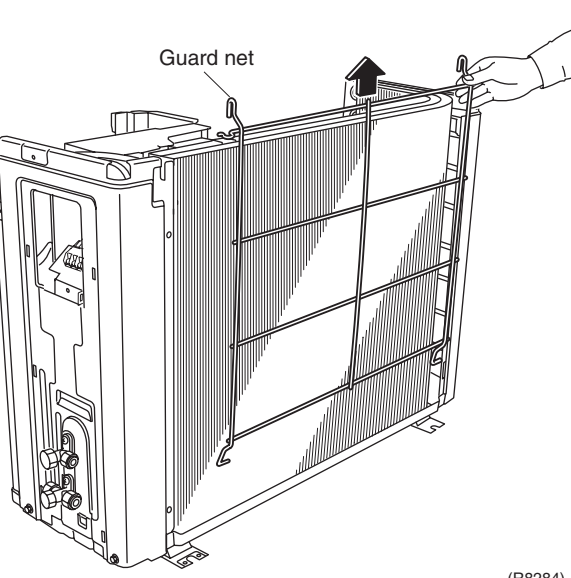
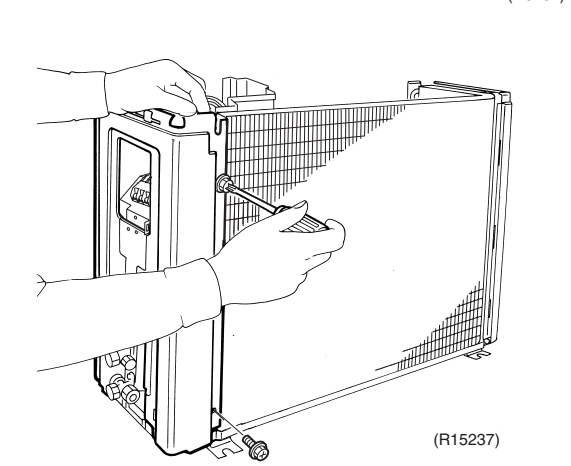
Step	Procedure	Points
4	Remove the 8 screws of the front panel.	
	 <p style="text-align: right;">(R16337)</p>	
5	Unfasten the hooks. Pull and remove the front panel.	<ul style="list-style-type: none"> <li>■ The front panel has 4 hooks.</li> </ul>
	 <p style="text-align: right;">(R16338)</p>	

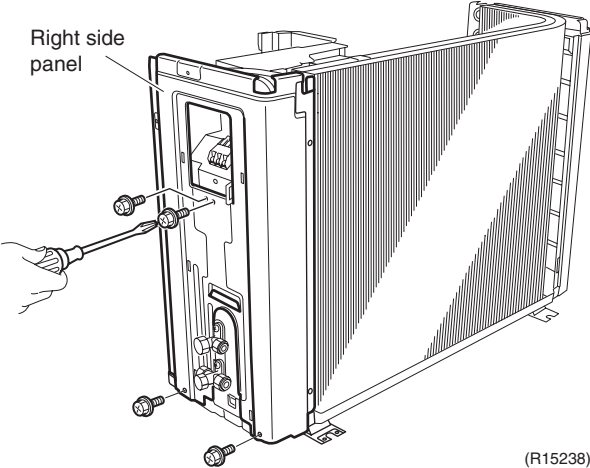
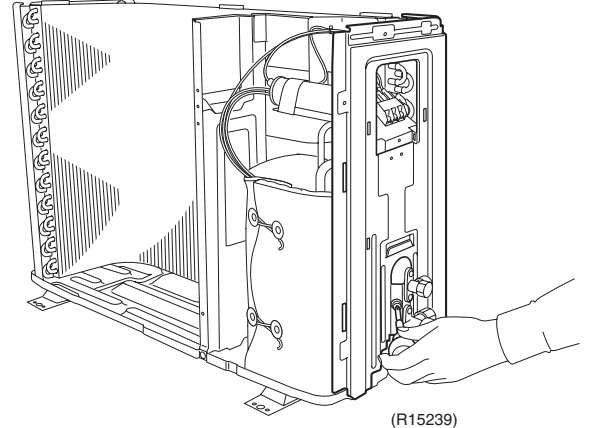
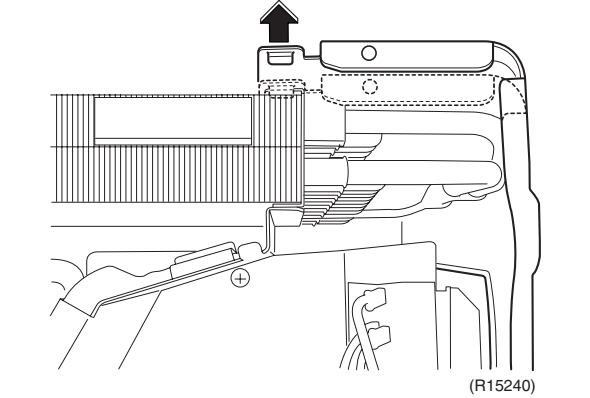
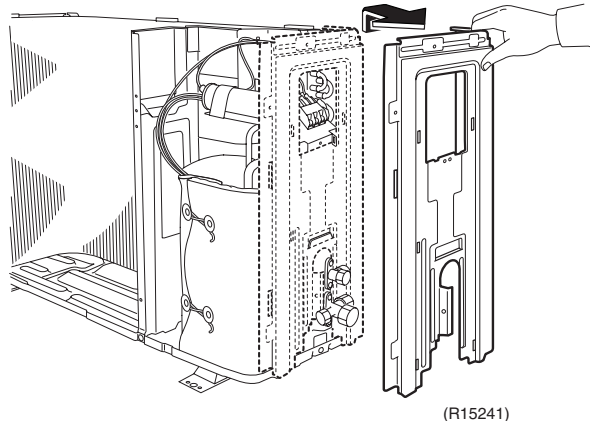
Step	Procedure	Points
3. Remove the fan motor.		
1 Remove the nut of the outdoor fan.	 <p style="text-align: center;">Outdoor fan (R15230)</p>	<p>■ Nut size: M6</p>  <p style="text-align: right;">10 mm (R12236)</p>
2 Remove the outdoor fan.	 <p style="text-align: center;">D-cut (R7197)</p>	<p>■ Align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft when reassembling.</p>
3 Pull out the 2 terminals (red, white) from the fan capacitor (C2R).	 <p style="text-align: center;">C2R (R17645)</p>	
4 Pull out the terminal (black) from K1M (5).		
5 Release the fan motor lead wire from the hook.	 <p style="text-align: center;">K1M (R17646)</p>	

Step	Procedure	Points
6	<p>Remove the screw and remove the fan motor fixing frame.</p>	<ul style="list-style-type: none"> <li>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.</li> </ul>
	 <p>Fan motor fixing frame (R15232)</p>	 <p>Lead wire Outdoor fan (R3249)</p>
	 <p>(R15233)</p>	
	 <p>(R7206)</p>	<ul style="list-style-type: none"> <li>When reassembling, fit the lower hooks into the bottom frame.</li> </ul>



Step	Procedure	Points
7	Release the fan motor lead wire from the hooks.	
	 <p>(R15234)</p>	
8	Remove the 4 screws and remove the fan motor.	
	 <p>Fan motor</p> <p>(R15235)</p>	

Step	Procedure	Points
4. Remove the right side panel.		
<p>1 Remove the 7 screws on the terminal board and disconnect the connecting wire and the power supply wire.</p> <p>2 Remove the screw and remove the wire clamp.</p>		
3 Lift up and remove the guard net.		
4 Remove the 2 screws on the rear side.		

Step	Procedure	Points
5	Remove the 4 screws on the right side.	
	 <p>Right side panel</p> <p>(R15238)</p>	
6	Remove the screw near the connection port.	
	 <p>(R15239)</p>	
7	Unfasten the hook of the right side panel.	<p>■ When reassembling, make sure to fit the hook.</p>
	 <p>(R15240)</p>	
8	Remove the right side panel.	
	 <p>(R15241)</p>	

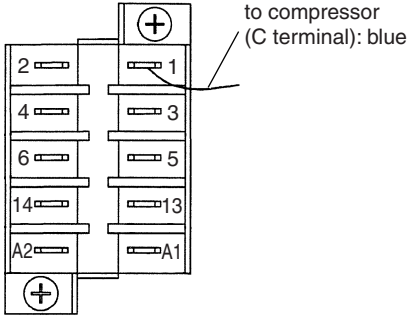
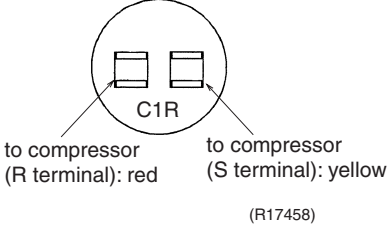
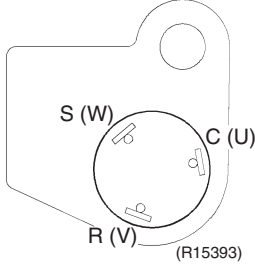
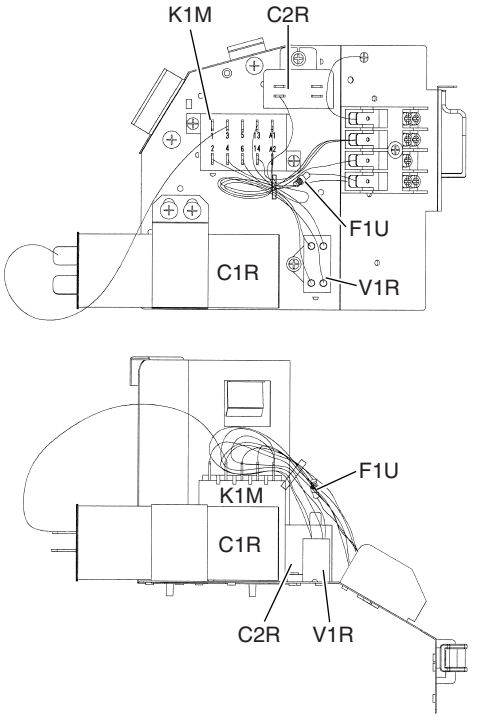
### 3. Removal of Electrical Component ASSY (Pattern 1)

**Procedure**



**Warning**

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

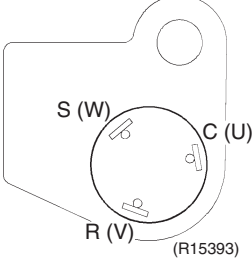
Step	Procedure	Points
1	<p>Pull out the terminal (blue) from K1M (1).</p>  <p style="text-align: center;">K1M (R16341)</p>	
2	<p>Pull out the 2 terminals (red, yellow) from the compressor capacitor (C1R).</p>  <p style="text-align: center;">C1R (R17458)</p>	<p>■ Compressor lead wire</p>  <p style="text-align: center;">(R15393)</p>
3	<p>Remove the electrical component ASSY.</p>  <p style="text-align: center;">(R16342)</p>	<p>S (W): yellow C (U): blue R (V): red</p>

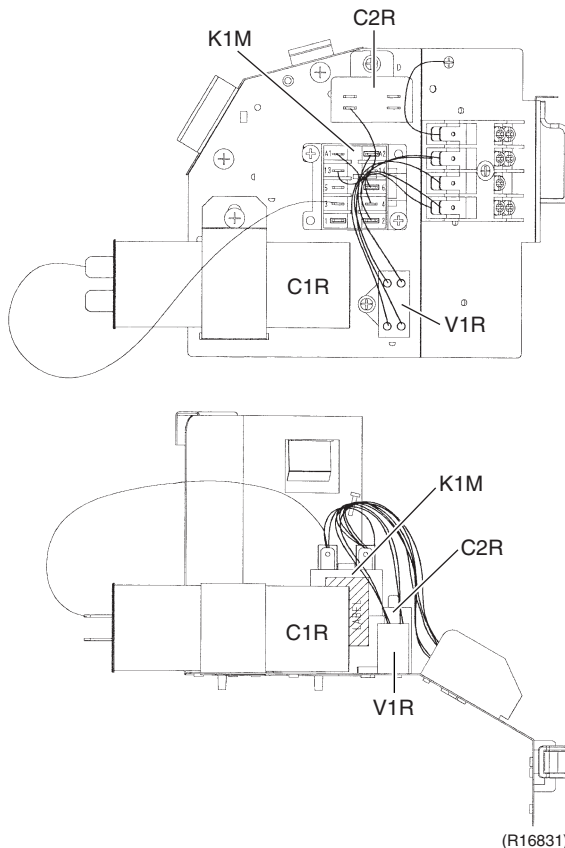
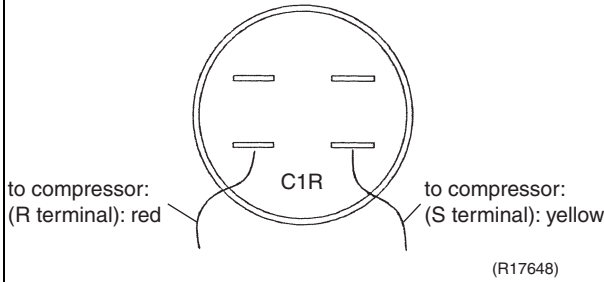
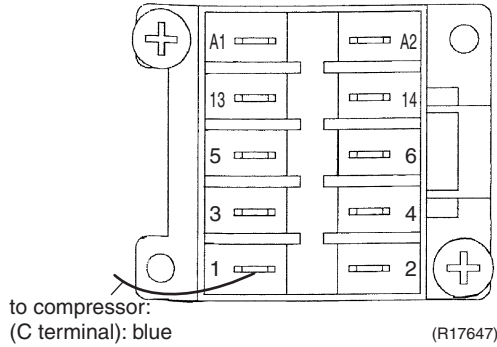
# 4. Removal of Electrical Component ASSY (Pattern 2)

**Procedure**



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

Step	Procedure	Points
1	Pull out the terminal (blue) from K1M (1).	
2	Pull out the 2 terminals (red, yellow) from the compressor capacitor (C1R).	<p>■ Compressor lead wire</p>  <p>S (W): yellow C (U): blue R (V): red</p>
3	Remove the electrical component ASSY.	



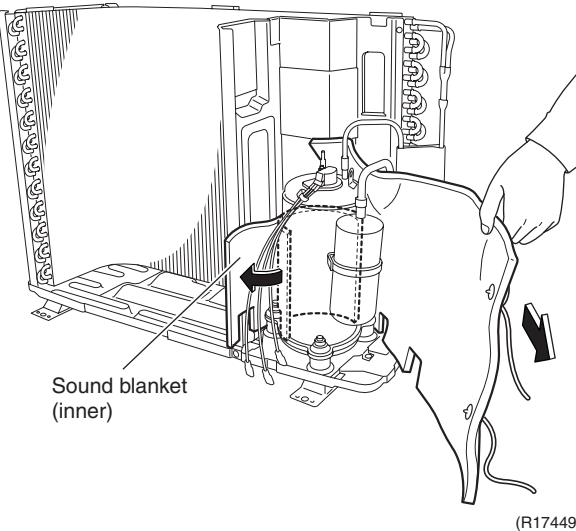
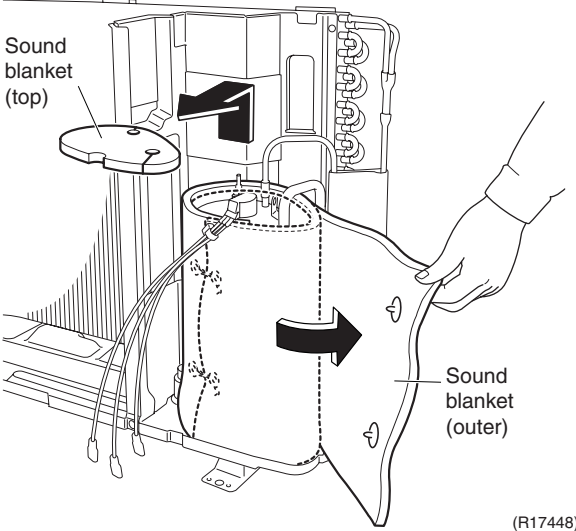
# 5. Removal of Sound Blankets

**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 (outer).	<ul style="list-style-type: none"> <li>■ Remove the outer panels according to the "Removal of Outer Panels / Fan Motor".</li> <li>■ Remove the electrical component ASSY according to the "Removal of Electrical Component ASSY".</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>
4	Remove the sound blanket (inner).	<ul style="list-style-type: none"> <li>■ Some models have no sound blanket (inner).</li> </ul>



## 6. 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;">(R16377)</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;">(R16378)</p>
<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 Capillary Tube (Pattern 2)

**Procedure**



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

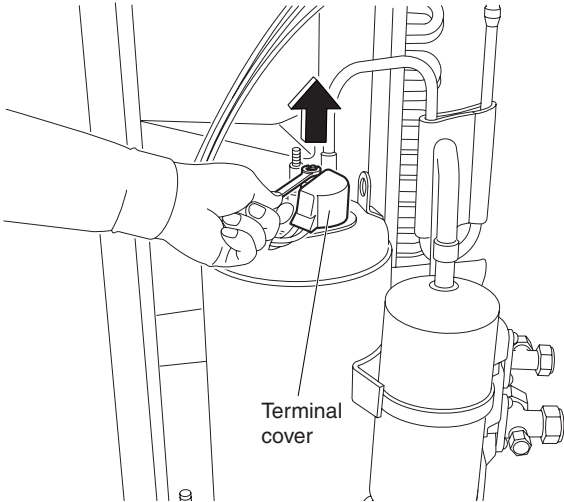
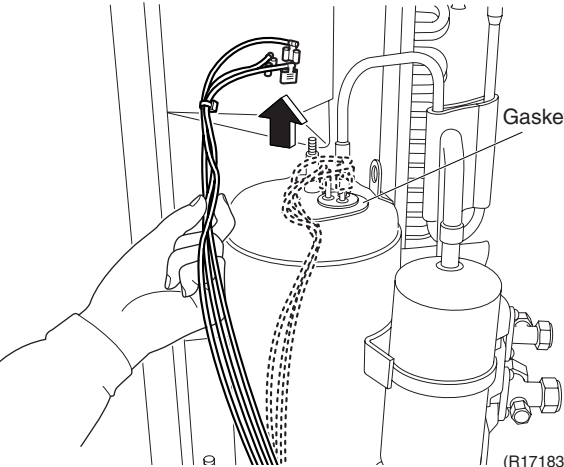
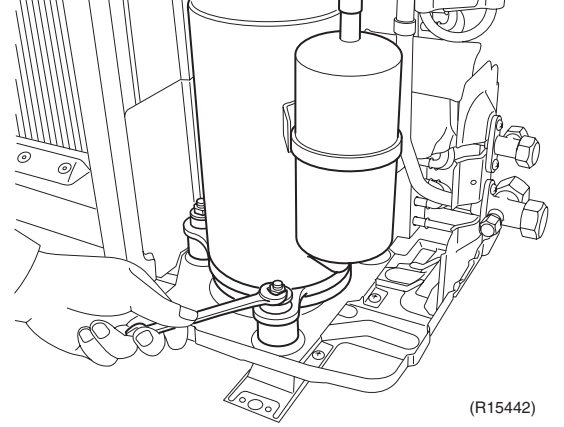
Step	Procedure	Points
<ul style="list-style-type: none"> <li>■ Before working, make sure that the refrigerant gas is empty in the circuit.</li> <li>■ Be sure to apply nitrogen replacement when heating up the brazed part.</li> </ul>		<p><b>Warning</b> Be careful not to get yourself burnt with the pipes 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><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>1 Remove the putty. Heat up the 2 brazed parts and remove the capillary tube.</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>
<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>		

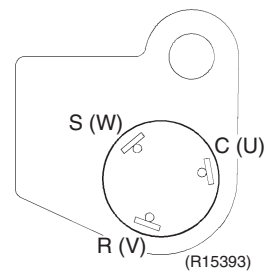


# 8. Removal of Compressor ASSY

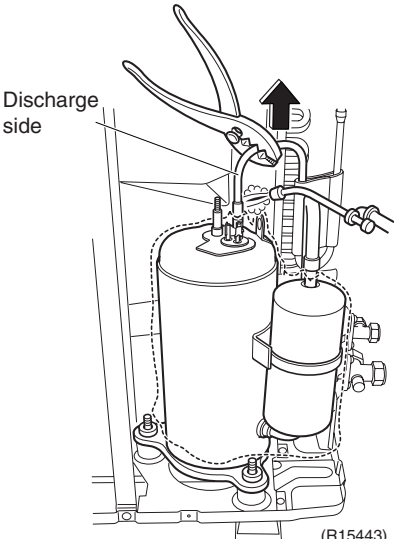
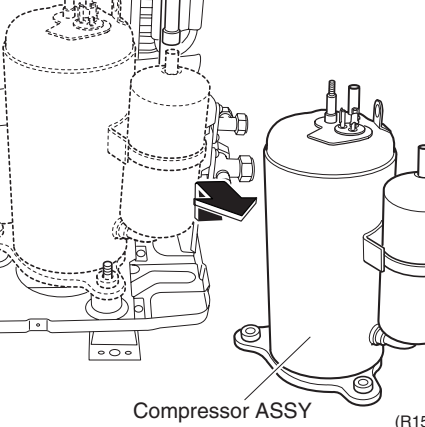
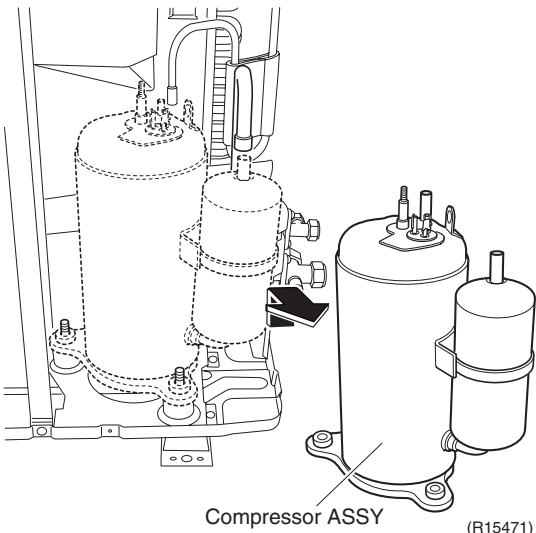
**Procedure**

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

Step	Procedure	Points
1	Remove the nut and remove the terminal cover.	 <p>(R15244)</p>
2	Disconnect the compressor lead wires.	(R15244)
3	Remove the gasket.	 <p>(R17183)</p>
4	Remove the 3 nuts of the compressor.	 <p>(R15442)</p>



S (W): yellow  
 C (U): blue  
 R (V): red

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: center;">Discharge side (R15443)</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>
5	Heat up the brazed part of the discharge side and disconnect.	<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 suction 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> <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>
7	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>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: center;">Suction side (R15444)</p>  <p style="text-align: center;">Compressor ASSY (R15471)</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>

# Revision History

Month / Year	Version	Revised contents
08/2012	Si011184	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.

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