


# REMOVAL PROCEDURE



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

### 7.1 kW Class

-  Outdoor Unit
-  Inverter
-  Pair Type



# **Service Manual Removal Procedure**

## **Outdoor Unit**

### **●Cooling Only**

**RKM71PV16**

**RKM71QV16**

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

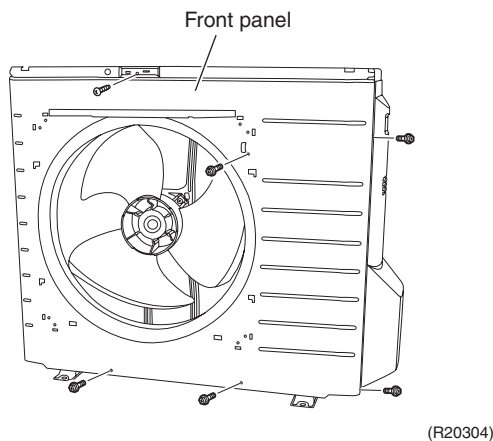
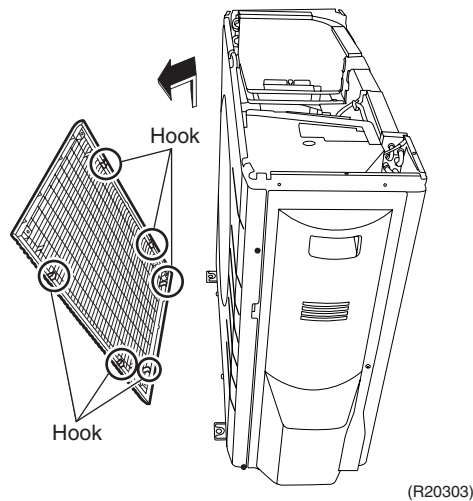
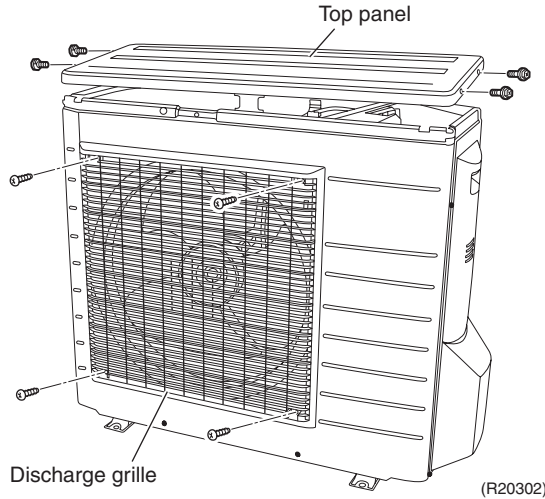
# 1. Outer Panels

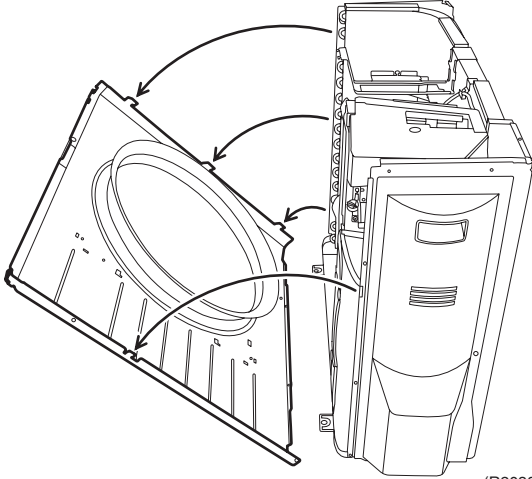
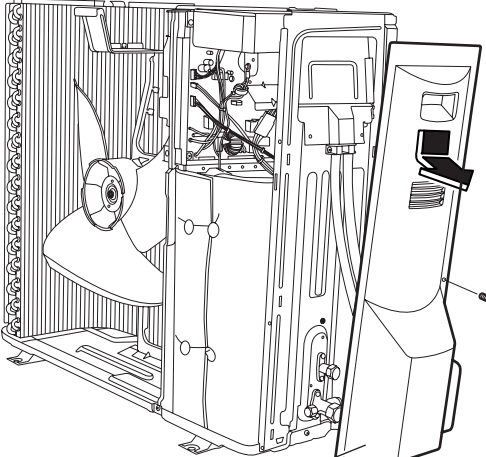
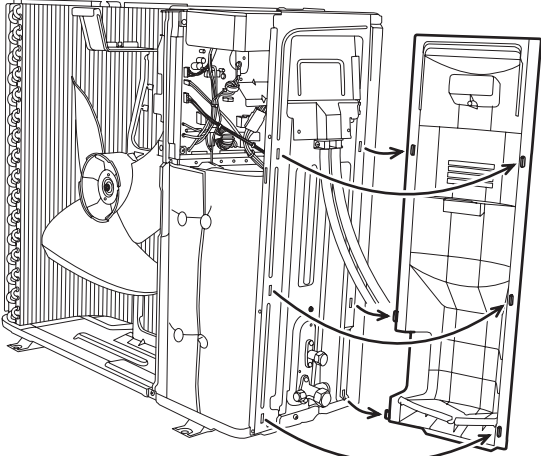


**Warning**

◆ 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 remove the top panel.	<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 4 screws of the discharge grille.	
3	Slide the discharge grille upward and remove it.	<ul style="list-style-type: none"> <li>■ The discharge grille has 6 hooks.</li> </ul>
4	Remove the 6 screws of the front panel.	



Step	Procedure	Points
5	Unfasten the right side hook.	
6	Unfasten the 3 left side hooks and remove the front panel.	
	 <p style="text-align: right;">(R20305)</p>	
7	Remove the screw of the stop valve cover.	
8	Pull down the stop valve cover to unfasten the hooks and remove it.	
	 <p style="text-align: center;">Stop valve cover</p> <p style="text-align: right;">(R20306)</p>	
	 <p style="text-align: right;">(R20307)</p>	<p>■ The stop valve cover has 6 hooks.</p>

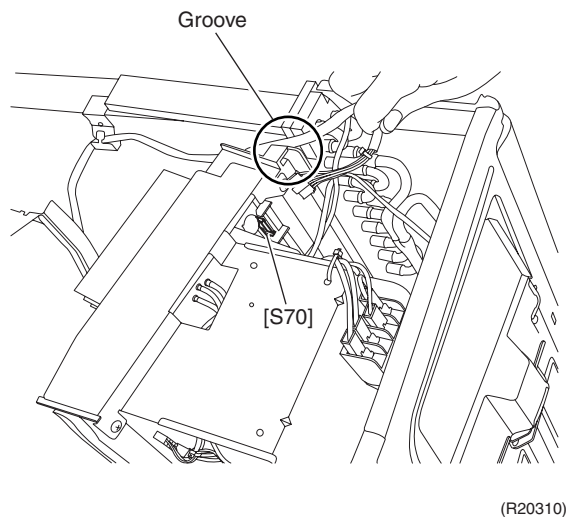
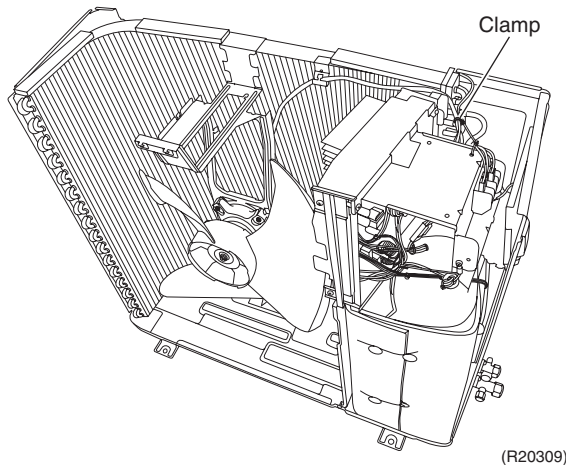
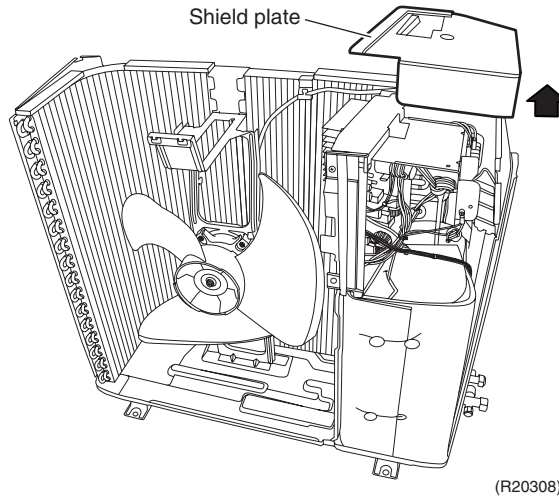
## 2. Outdoor Fan / Fan Motor

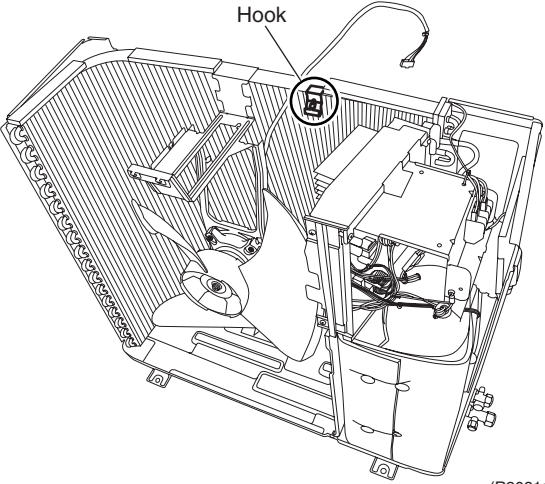
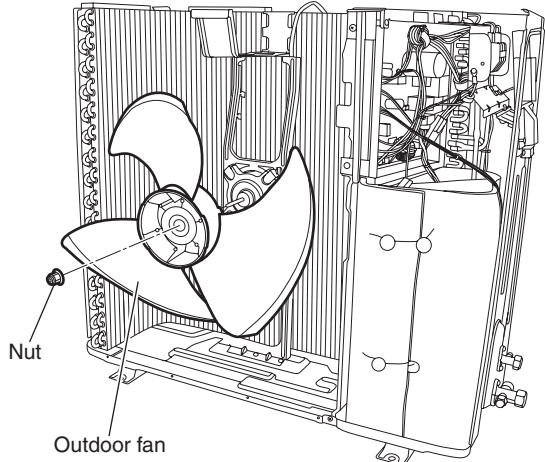
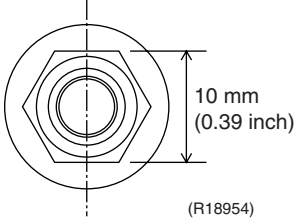
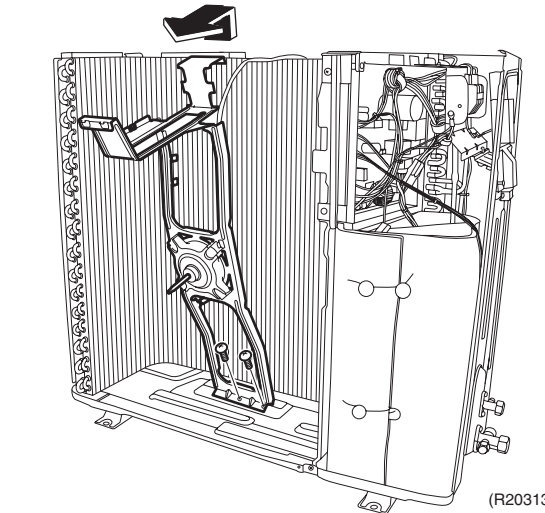
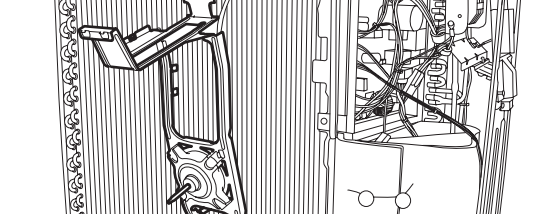
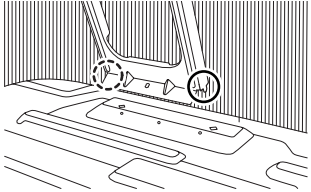


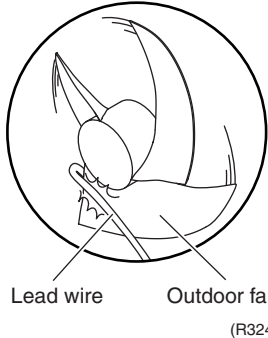
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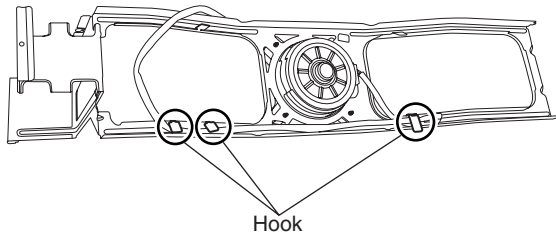
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Remove the shield plate.	
2	Cut the clamp.	
3	Disconnect the connector [S70] and release the fan motor lead wire from the groove.	[S70]: fan motor

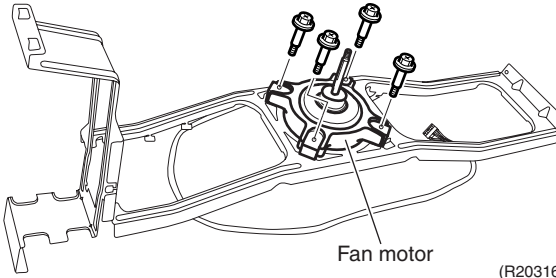


Step	Procedure	Procedure	Points
4	Release the fan motor lead wire from the hook of the outdoor heat exchanger.	 <p style="text-align: right;">(R20311)</p>	
5	Remove the nut and remove the outdoor fan.	 <p style="text-align: right;">(R20312)</p>	<p>■ Nut size: M6</p>  <p style="text-align: right;">(R18954)</p> <p>■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.</p>
6	Remove the 2 screws of the fan motor fixing frame.	 <p style="text-align: right;">(R20313)</p>	<p>■ When reassembling, fit the 2 lower hooks into the bottom frame.</p>
7	Pull up the fan motor fixing frame to unfasten the 2 hooks at the bottom.	 <p style="text-align: right;">(R20314)</p>	 <p style="text-align: right;">(R20314)</p>
8	Remove the fan motor fixing frame.		

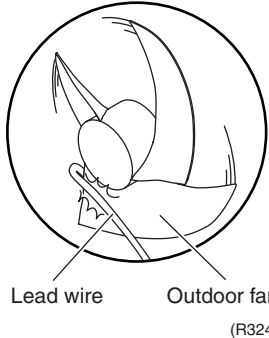
Step	Procedure	Points
9	<p>Open the 3 hooks and release the fan motor lead wire.</p>	
10	<p>Remove the 4 screws and remove the fan motor.</p>	<p>■ When reassembling, put the fan motor lead wire through the back of the fan motor so as not to be entangled with the outdoor fan.</p>  <p>Lead wire      Outdoor fan (R3249)</p>



(R20315)



(R20316)



(R3249)



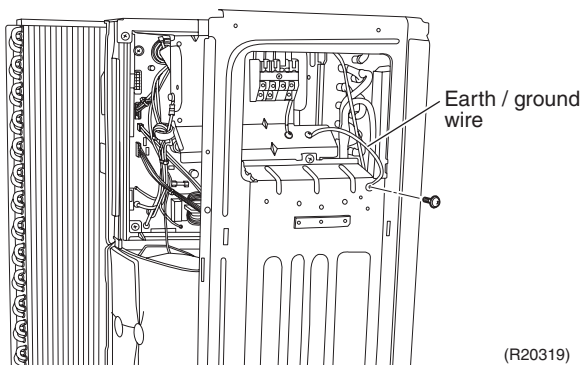
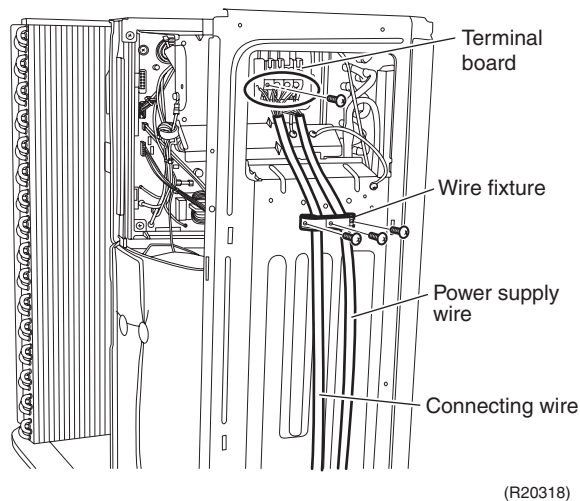
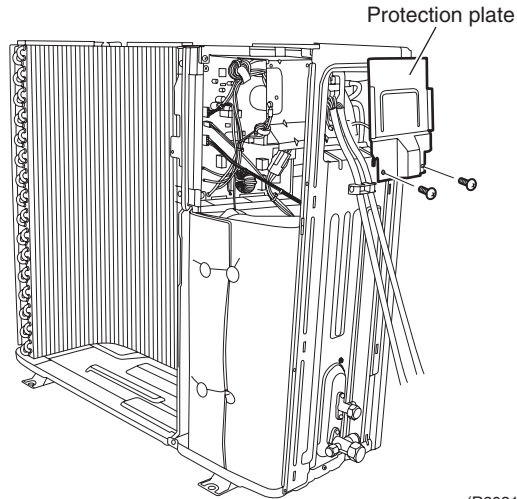
### 3. Electrical Box

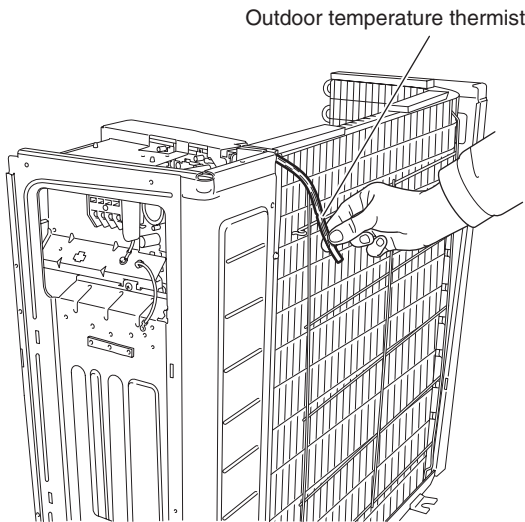
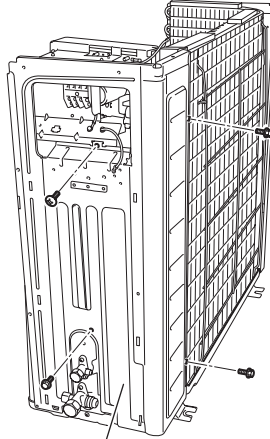
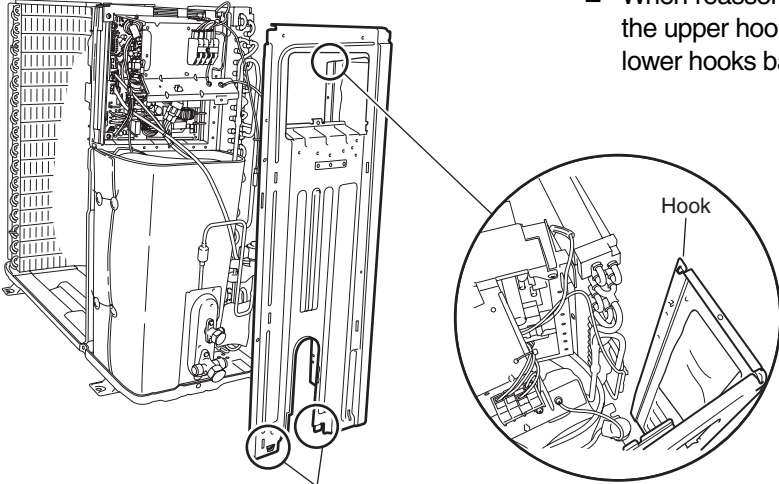


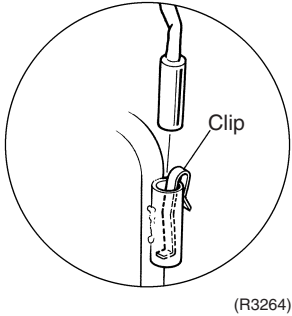
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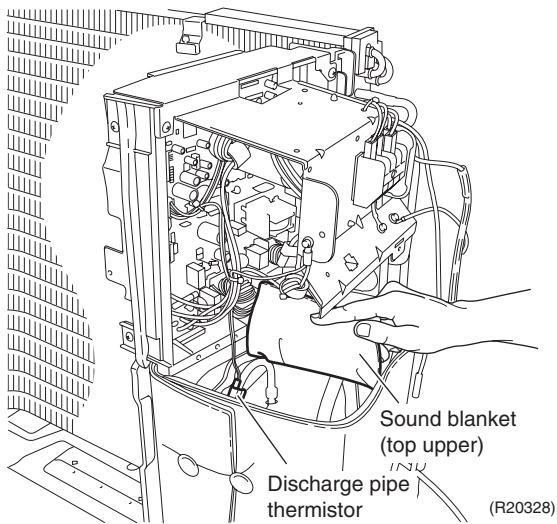
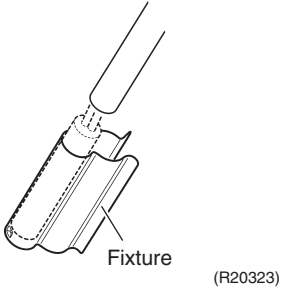
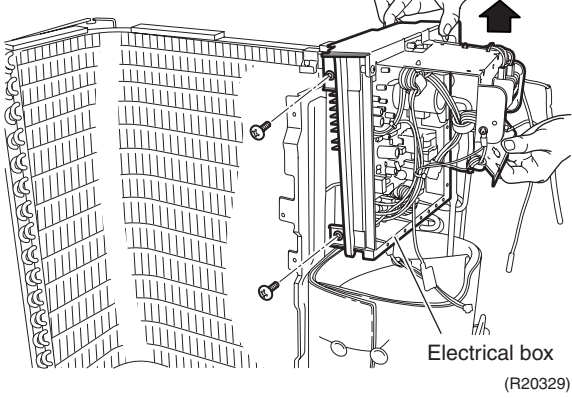
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Remove the 2 screws and remove the protection plate.	(R20317)
2	Remove the 3 screws and remove the wire fixture.	(R20318)
3	Remove the 7 screws on the terminal board and disconnect the connecting wire and power supply wire.	(R20319)
4	Remove the earth / ground screw.	



Step		Procedure	Points
5	Release the outdoor temperature thermistor.	 <p style="text-align: center;">Outdoor temperature thermistor</p> <p style="text-align: right;">(R20320)</p>	
6	Remove the 4 screws of the right side panel.	 <p style="text-align: center;">Right side panel</p> <p style="text-align: right;">(R20321)</p>	
7	Unfasten the 3 hooks and remove the right side panel.	 <p style="text-align: center;">Hook</p> <p style="text-align: right;">(R20322)</p>	<p>■ When reassembling, insert the upper hook and the lower hooks back into place.</p>

Step	Procedure	Points
8	Cut the clamp.	<ul style="list-style-type: none"> <li>Be careful not to lose the clip for the thermistor.</li> </ul>
9	Pull out the outdoor heat exchanger thermistor.	 <p>(R3264)</p>
10	Disconnect the connector [S40].	[S40]: overload protector
11	Disconnect the connector [S20].	[S20]: electronic expansion valve coil
12	Disconnect the relay connector for compressor.	Relay connector for compressor (R20326)

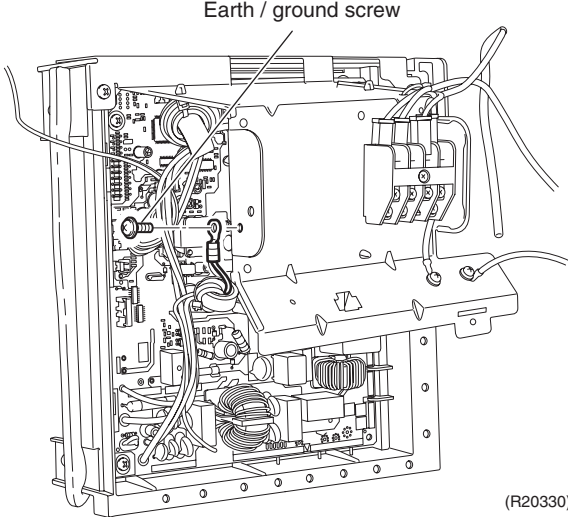
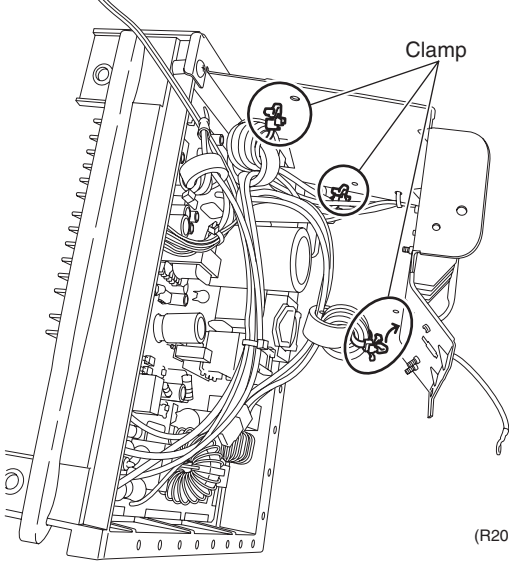
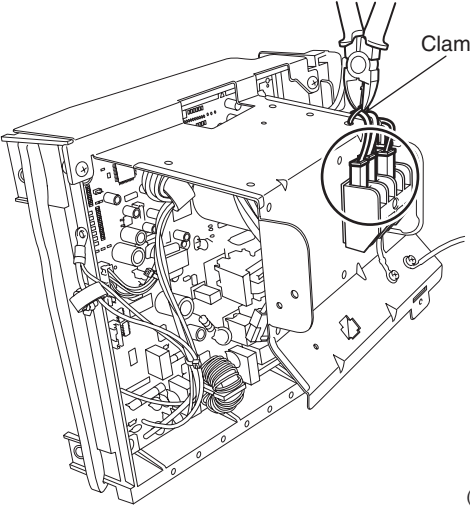
Step	Procedure	Points
13	<p>Open the sound blanket (top upper) and detach the discharge pipe thermistor.</p> 	<p>■ Be careful not to lose the fixture for the thermistor.</p> 
14	<p>Remove the 2 screws and remove the electrical box.</p> 	

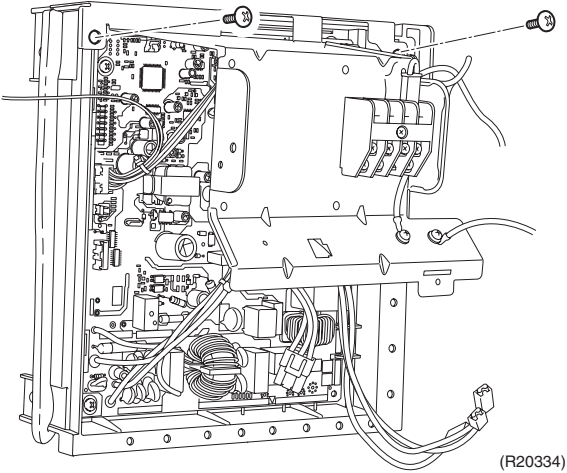
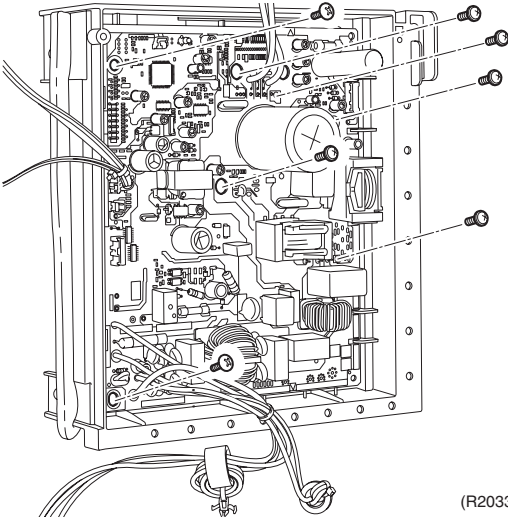
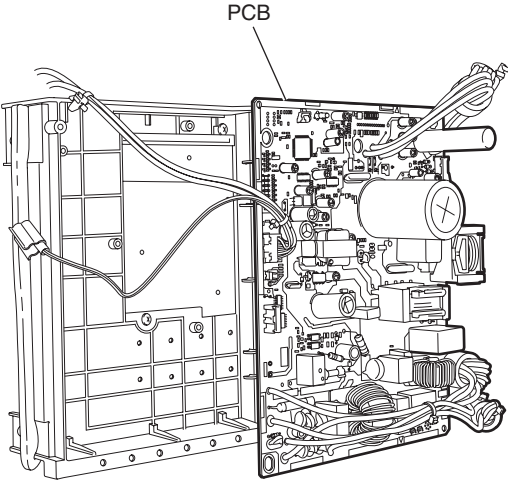
## 4. PCB



### 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 screw and release the earth / ground wire.	 <p style="text-align: right;">(R20330)</p>	
2	Pull out the 3 clamps.	 <p style="text-align: right;">(R20331)</p>	
3	Cut the clamp.	 <p style="text-align: right;">(R20332)</p>	<ul style="list-style-type: none"> <li>■ Before pulling out the terminals, confirm the terminal locations.</li> <li>(1): black (back)</li> <li>(2): white (back)</li> <li>(3): red (front)</li> <li>⊥ : yellow / green (back)</li> </ul>
4	Pull out the terminals from the terminal board.		

Step	Procedure	Points
5	<p>Remove the 2 screws and remove the electrical component mounting plate.</p>  <p>(R20334)</p>	
6	<p>Remove the 7 screws.</p>  <p>(R20335)</p>	
7	<p>Lift up and remove the PCB.</p>  <p>(R20336)</p>	

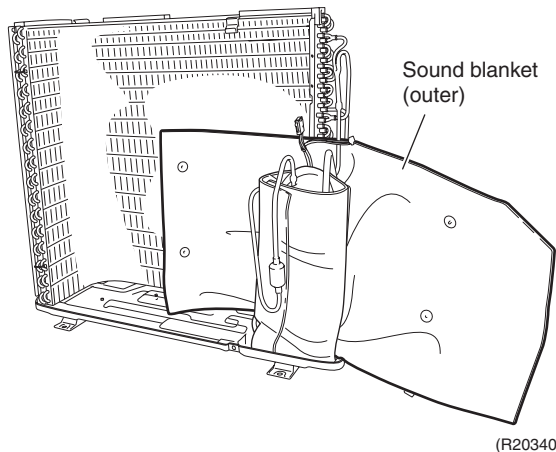
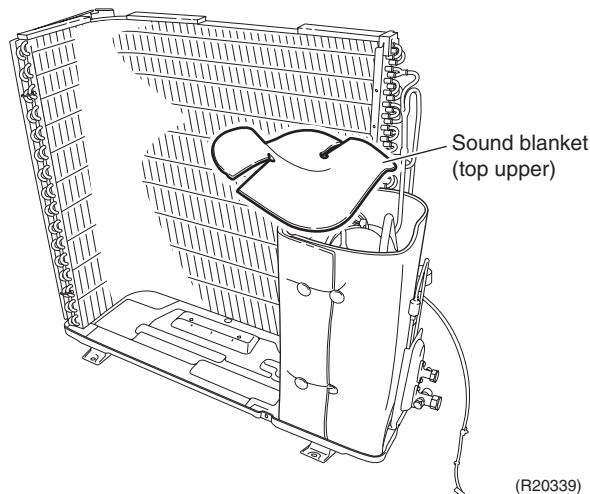
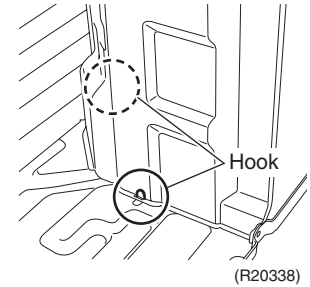
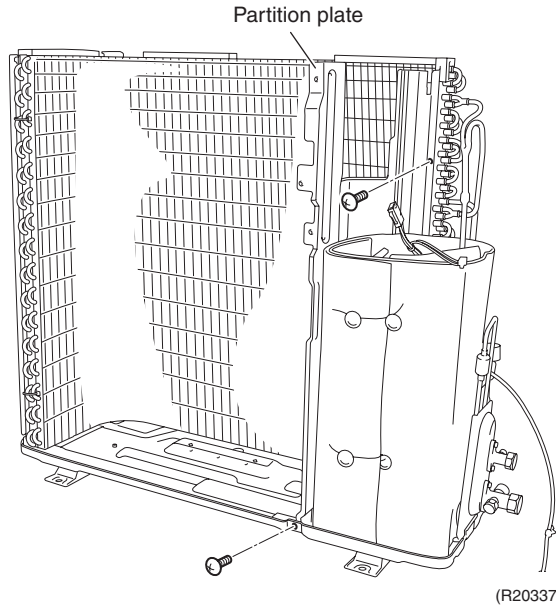
## 5. Partition Plate / Sound Blankets

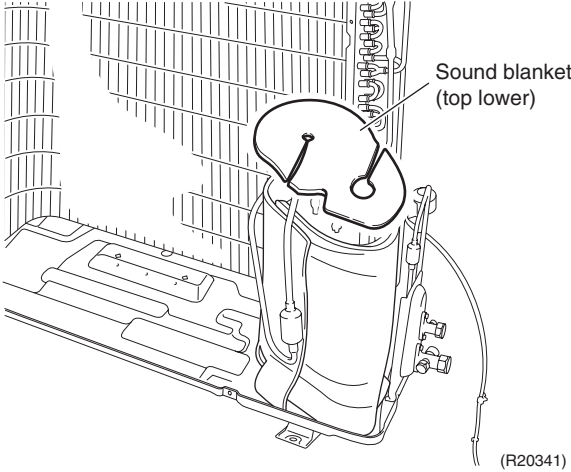
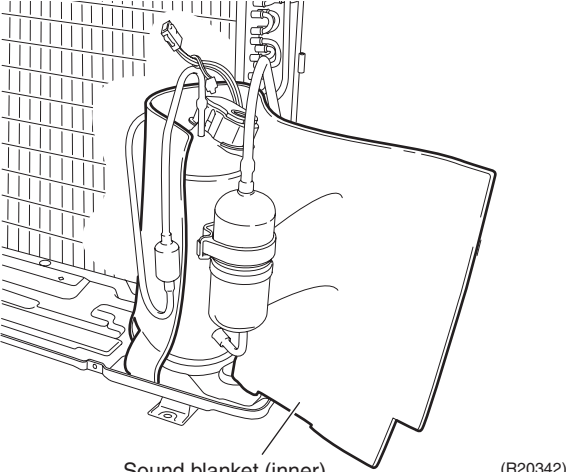


### Warning

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

Step	Procedure	Points
1	Remove the 2 screws and remove the partition plate.	<ul style="list-style-type: none"> <li>■ When reassembling, fit the 2 lower hooks into the bottom frame.</li> </ul>
2	Remove the sound blanket (top upper).	<ul style="list-style-type: none"> <li>■ Since the piping ports are torn easily, remove the sound blankets carefully.</li> </ul>
3	Remove the sound blanket (outer).	



Step	Procedure	Points
4	Remove the sound blanket (top lower).	
		
5	Remove the sound blanket (inner).	
		



## 6. 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.)



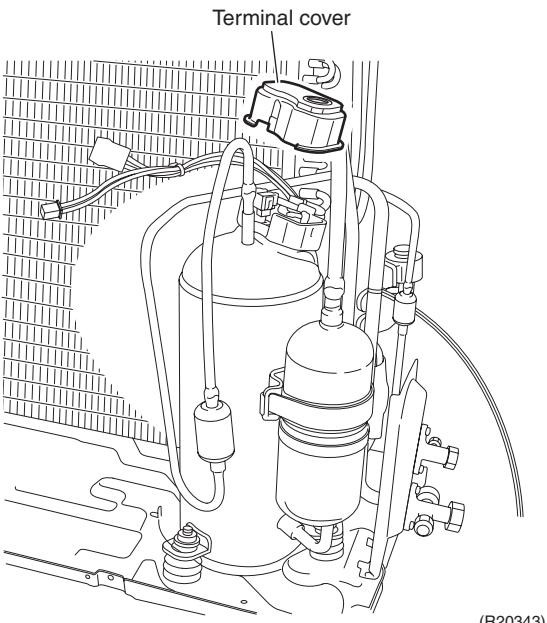
**Caution**

- ◆ 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.

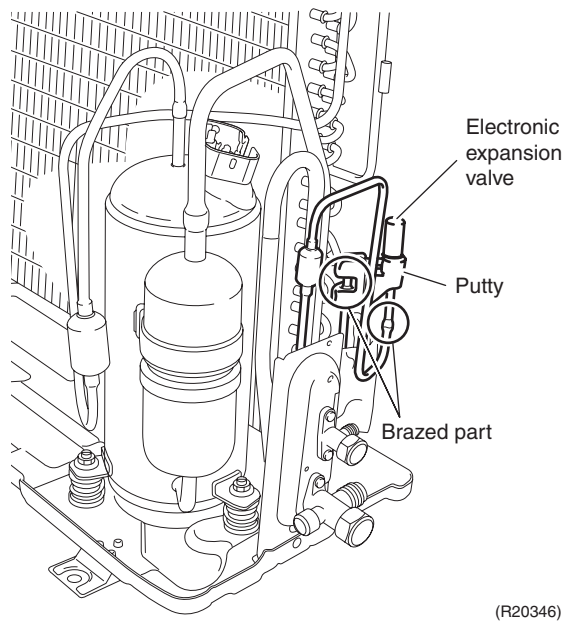
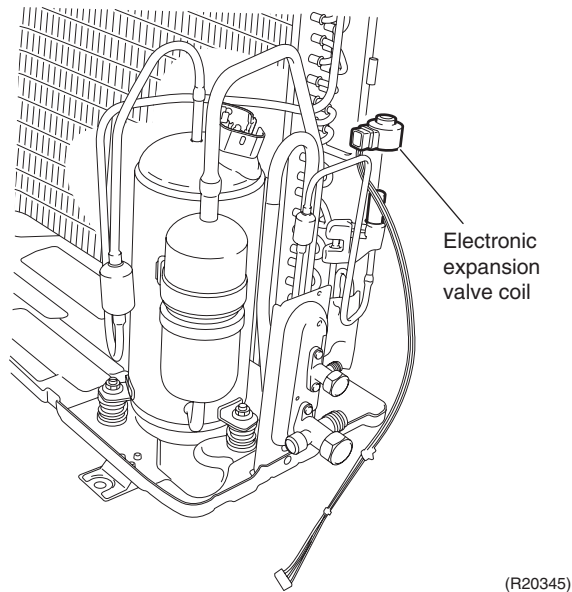
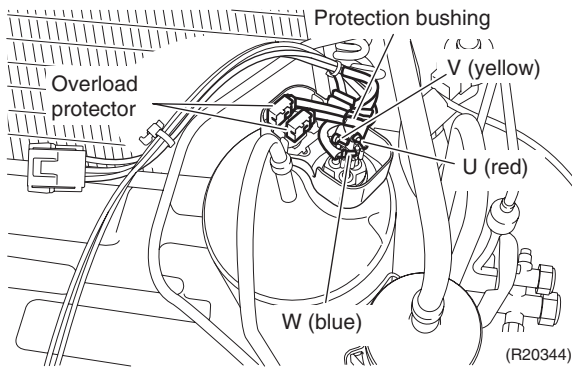


**Note**

- ◆ 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
<p>1 Remove the terminal cover.</p>	 <p style="text-align: right;">(R20343)</p>	

Step	Procedure	Points
2	Pull out the compressor lead wires.	
3	Remove the overload protector.	
4	Remove the protection bushing.	
5	Pull out the electronic expansion valve coil.	
6	Remove the sheets of putty.	
7	Heat up the 2 brazed parts and remove the electronic expansion valve.	



## 7. 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.



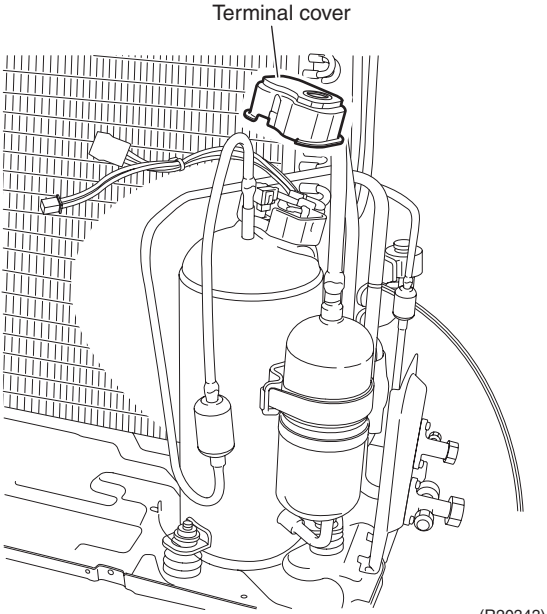
### Caution

- ◆ 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.

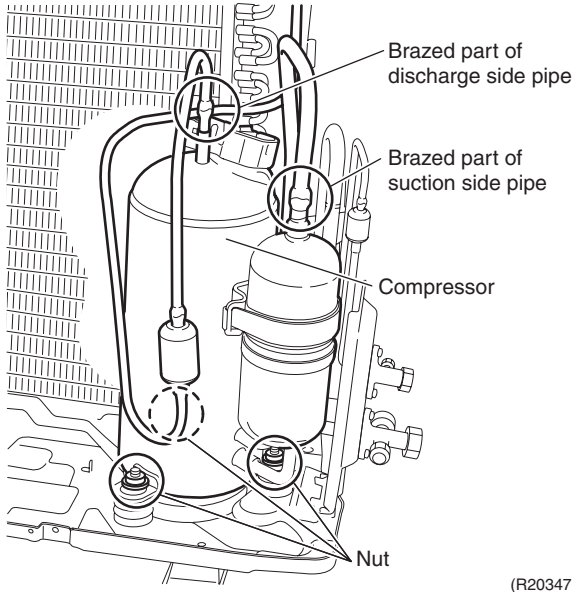
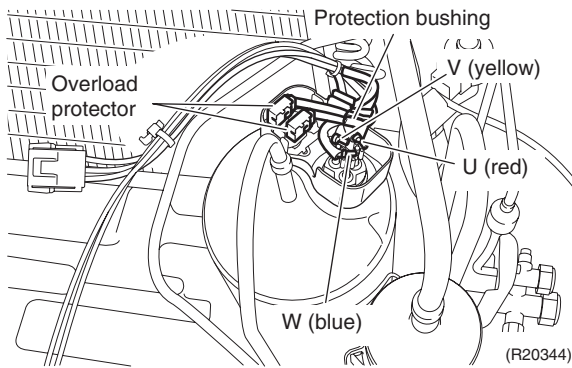


### Note

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- ◆ 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.  	

Step	Procedure	Points
2	Pull out the compressor lead wires.	
3	Remove the overload protector.	
4	Remove the protection bushing.	
5	Heat up the brazed part of the discharge side pipe and disconnect it.	
6	Heat up the brazed part of the suction side pipe and disconnect it.	
7	Remove the 3 nuts.	
8	Lift up the compressor and remove it.	



# Revision History

Month / Year	Version	Revised contents
05 / 2014	Si001408E	First edition
04 / 2015	Si001408EA	Model addition: RKM71QV16

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.**

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Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,  
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