


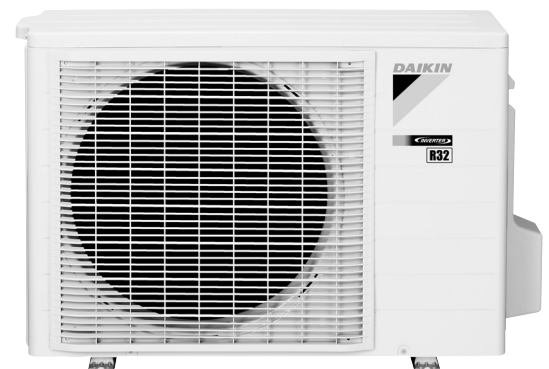
REMOVAL PROCEDURE



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

5.0 kW Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Cooling Only

RKH50QRV16

RKH50RRV16

RKP50PRV16

RKP50QRV16

RKPA50QRV16

RKPD50QRV16

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Note:

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

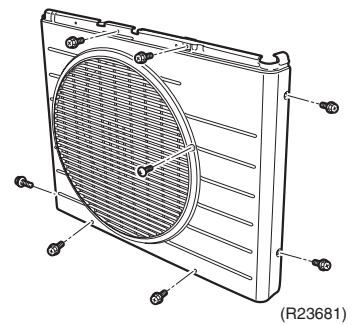
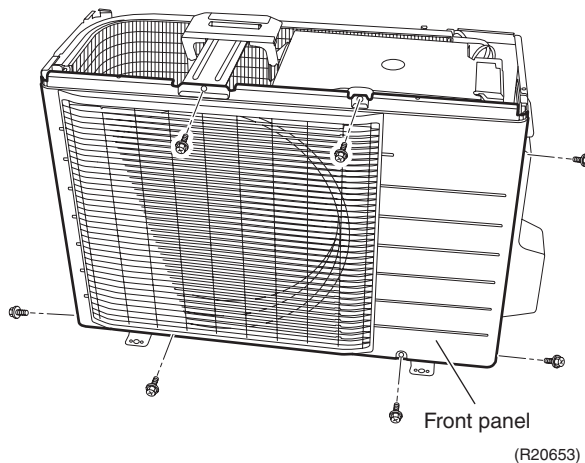
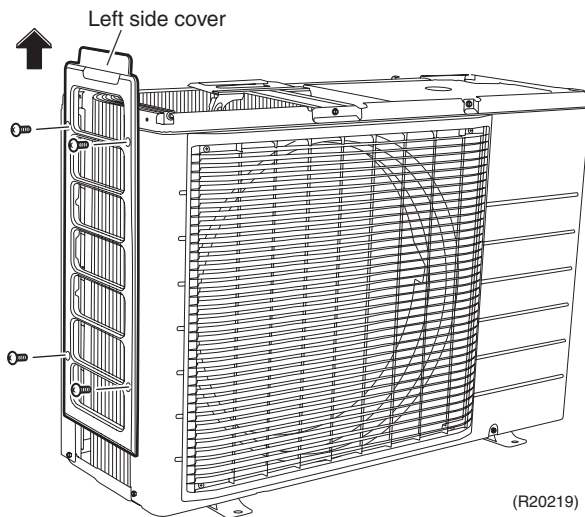
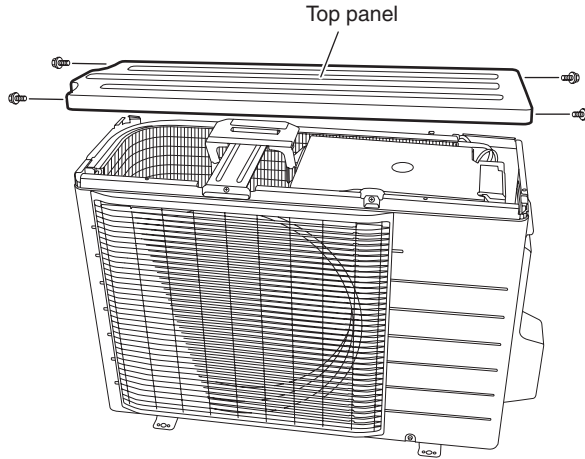
1. Outer Panels



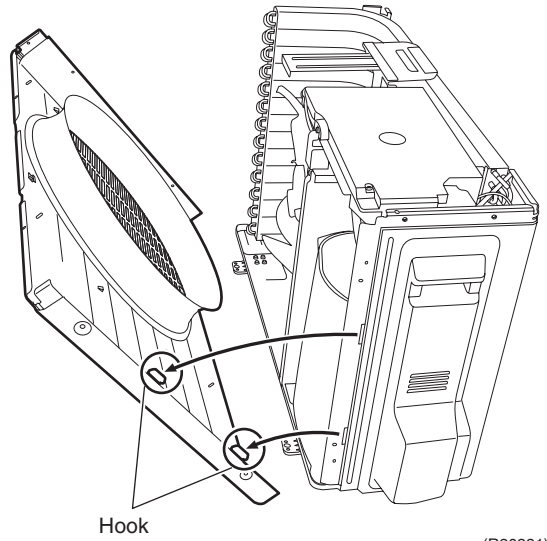
Warning

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

Step	Procedure	Points
1	Remove the 4 screws, and then the top panel.	<ul style="list-style-type: none"> ■ The shape of the discharge grille varies depending on the model.
2	Remove the 4 screws, and then the left side cover.	<ul style="list-style-type: none"> ■ Some models do not have the left side cover.
3	<p>For square grille models, remove the 7 screws of the front panel.</p> <p>For round grille models, remove 8 screws.</p>	<ul style="list-style-type: none"> ■ For round grille models



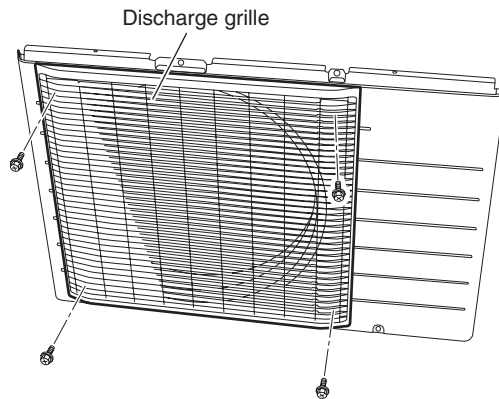
Step	Procedure	Points
4	Unfasten the 2 hooks and remove the front panel.	<ul style="list-style-type: none"> ■ When reassembling, make sure that the 2 hooks are securely fastened.
5	Remove the 4 screws of the discharge grille.	
6	Unfasten the 6 hooks and remove the discharge grille.	



Hook

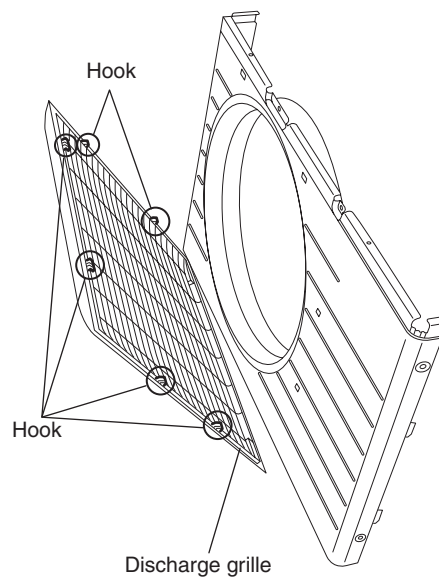
(R20221)

■ For square grille models



Discharge grille

(R22577)

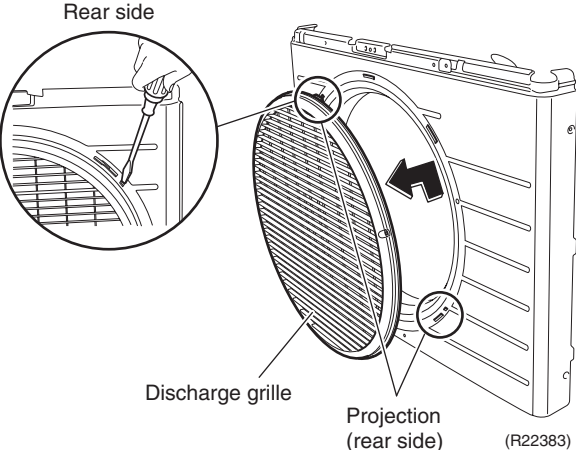
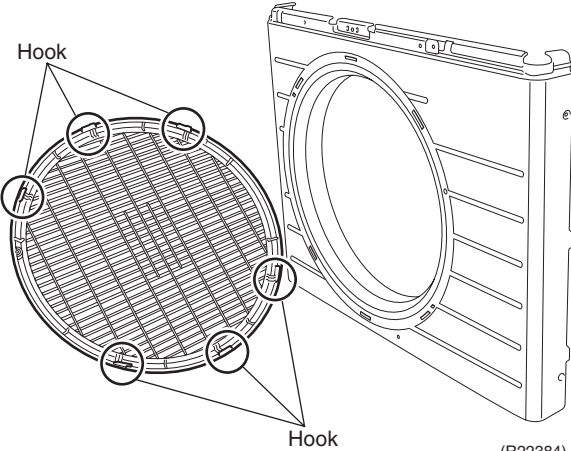


Hook

Hook

Discharge grille

(R20654)

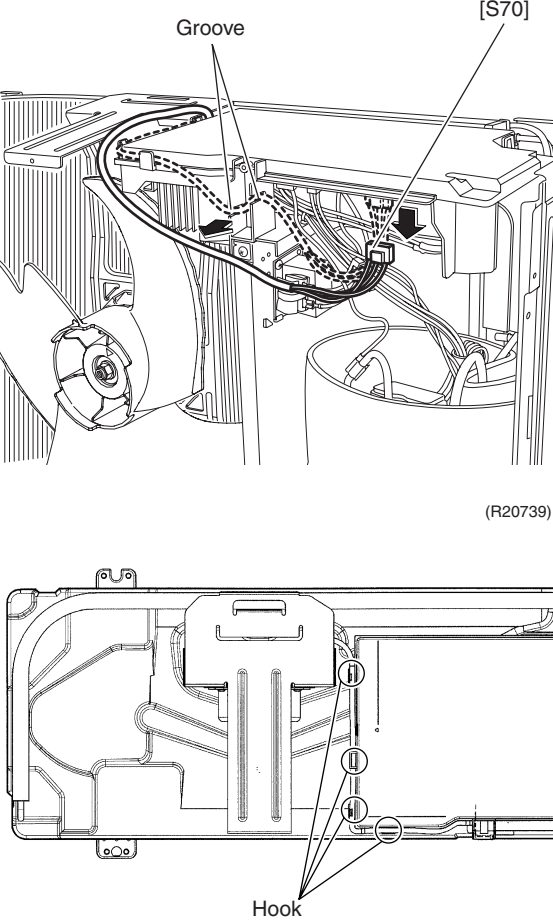
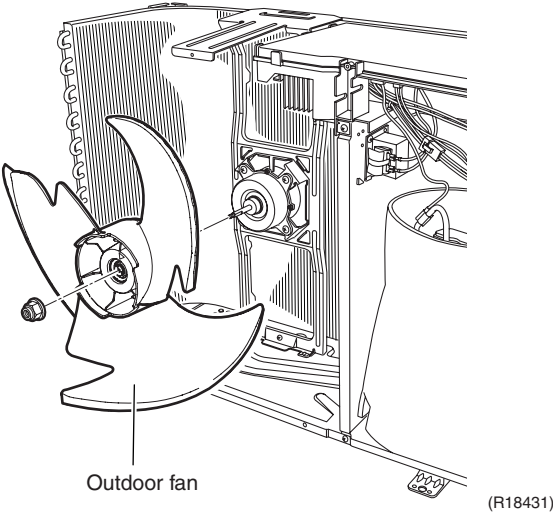
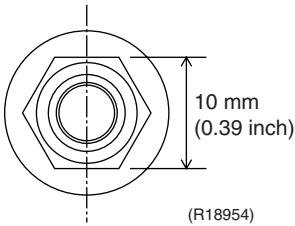
Step	Procedure	Points
7	<p>Press the 2 projections from the rear side and rotate the discharge grille.</p> <p>■ For round grille models</p> 	
8	<p>Unfasten the 6 hooks and remove the discharge grille.</p> 	

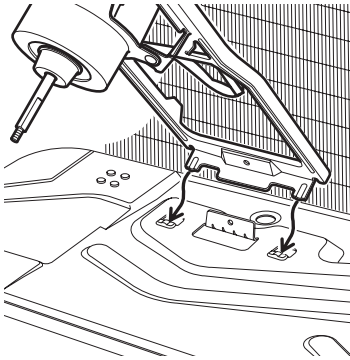
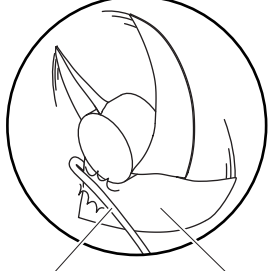
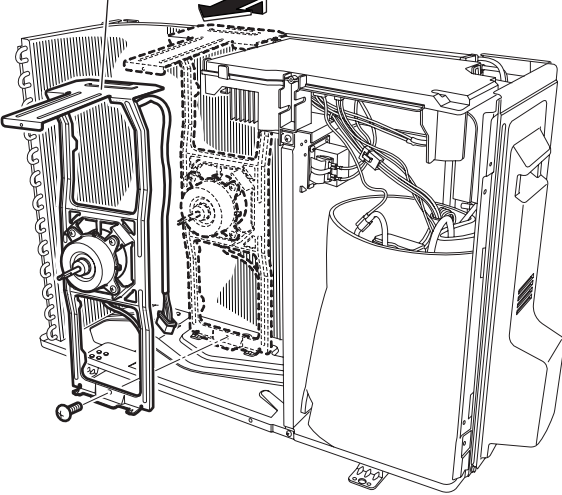
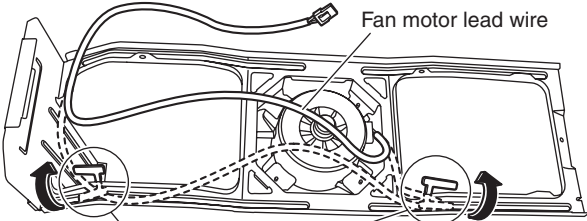
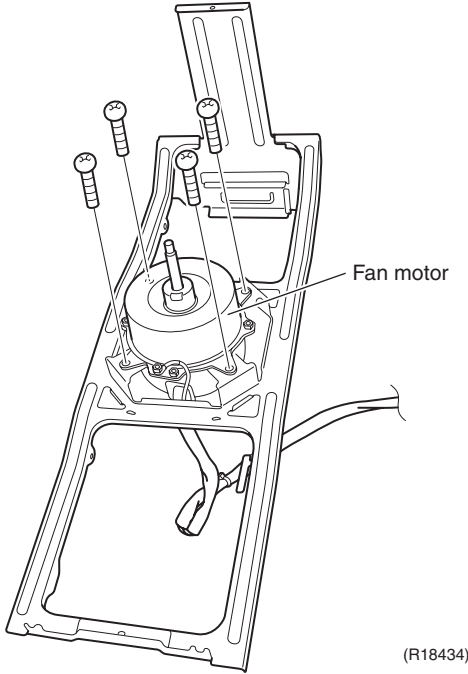
2. Outdoor Fan / Fan Motor



Warning

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

Step	Procedure	Points
<p>1 Disconnect the connector [S70].</p> <p>2 Release the fan motor lead wire from the groove of the partition plate and from the 4 hooks on the electrical box.</p>	 <p>(R20739)</p> <p>(R19360)</p>	<ul style="list-style-type: none"> ■ This procedure is not necessary to remove only the outdoor fan. <p>[S70]: fan motor</p>
<p>3 Remove the nut, and then the outdoor fan.</p>	 <p>(R18431)</p>	<ul style="list-style-type: none"> ■ Nut size: M6  <p>(R18954)</p> <ul style="list-style-type: none"> ■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.

Step	Procedure	Points
4	Remove the screw of the fan motor fixing frame.	<ul style="list-style-type: none"> When reassembling, fit the 2 lower hooks into the bottom frame.
5	Unfasten the 2 hooks at the bottom and remove the fan motor fixing frame.	 <p>(R22574)</p>
6	Open the 2 hooks and release the fan motor lead wire.	<ul style="list-style-type: none"> When reassembling, put the fan motor lead wire through the back of the fan motor to avoid entanglement with the outdoor fan.
7	Remove the 4 screws, and then the fan motor.	 <p>Lead wire Outdoor fan (R3249)</p>
	<p>Fan motor fixing frame</p>  <p>(R18432)</p>	
	<p>Fan motor lead wire</p>  <p>Hook</p> <p>(R18433)</p>	
	<p>Fan motor</p>  <p>(R18434)</p>	

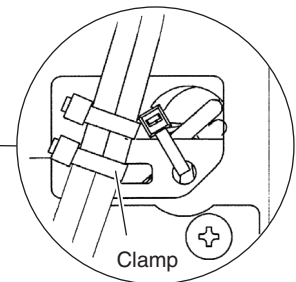
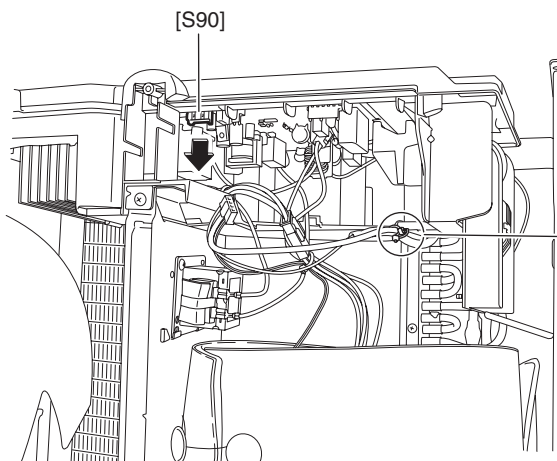
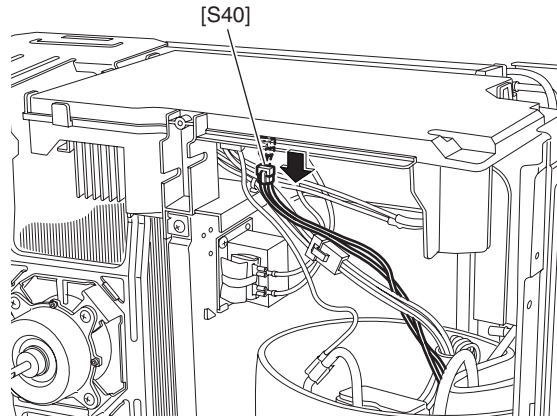
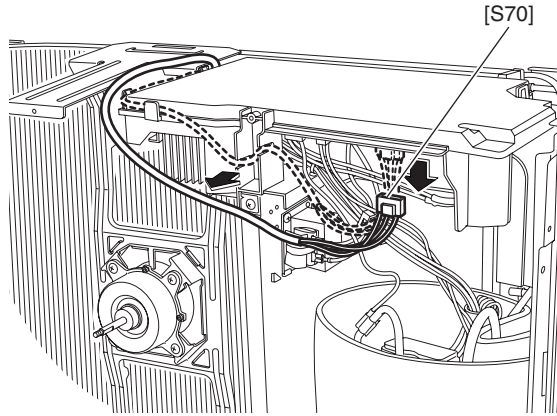
3. Electrical Box



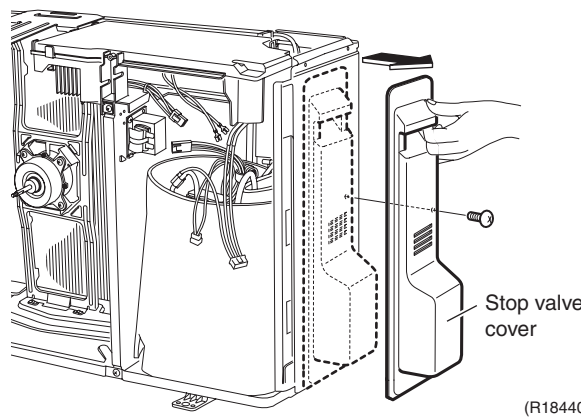
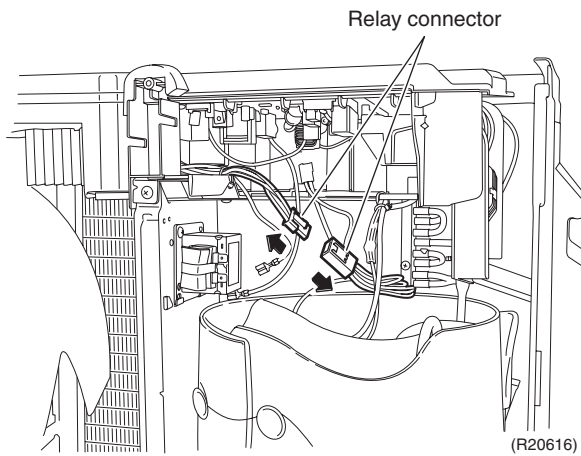
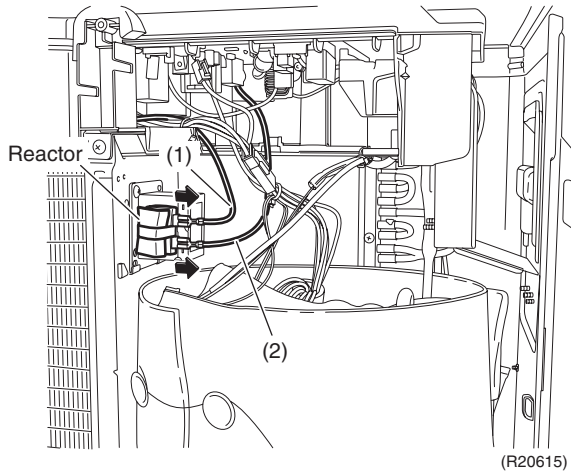
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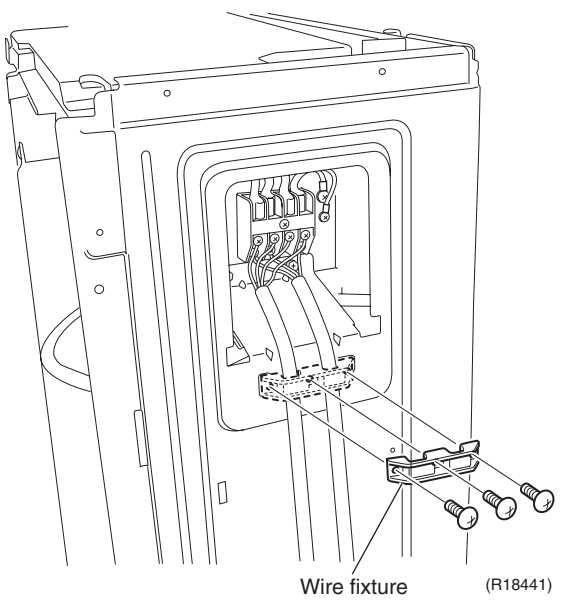
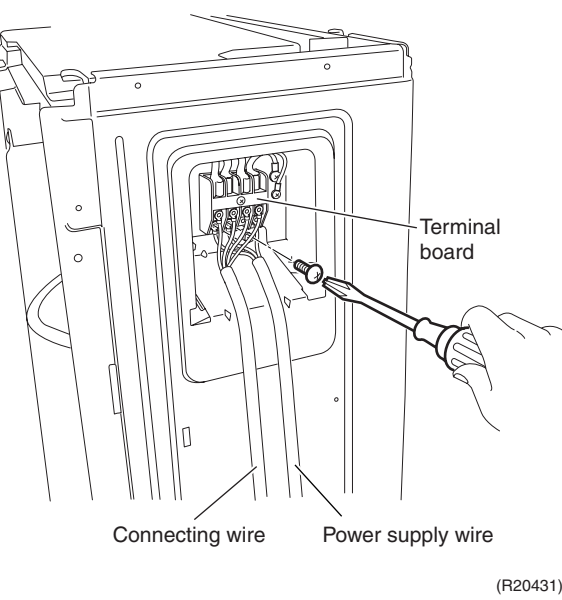
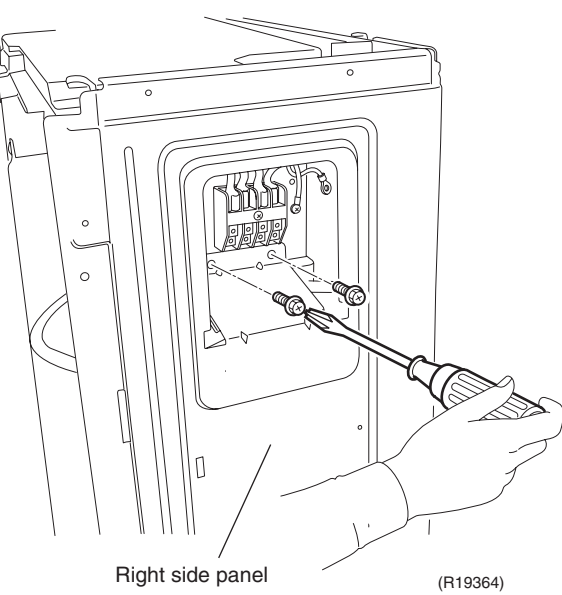
- ♦ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

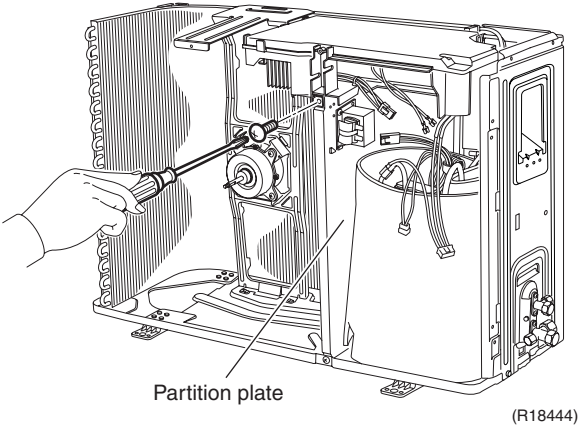
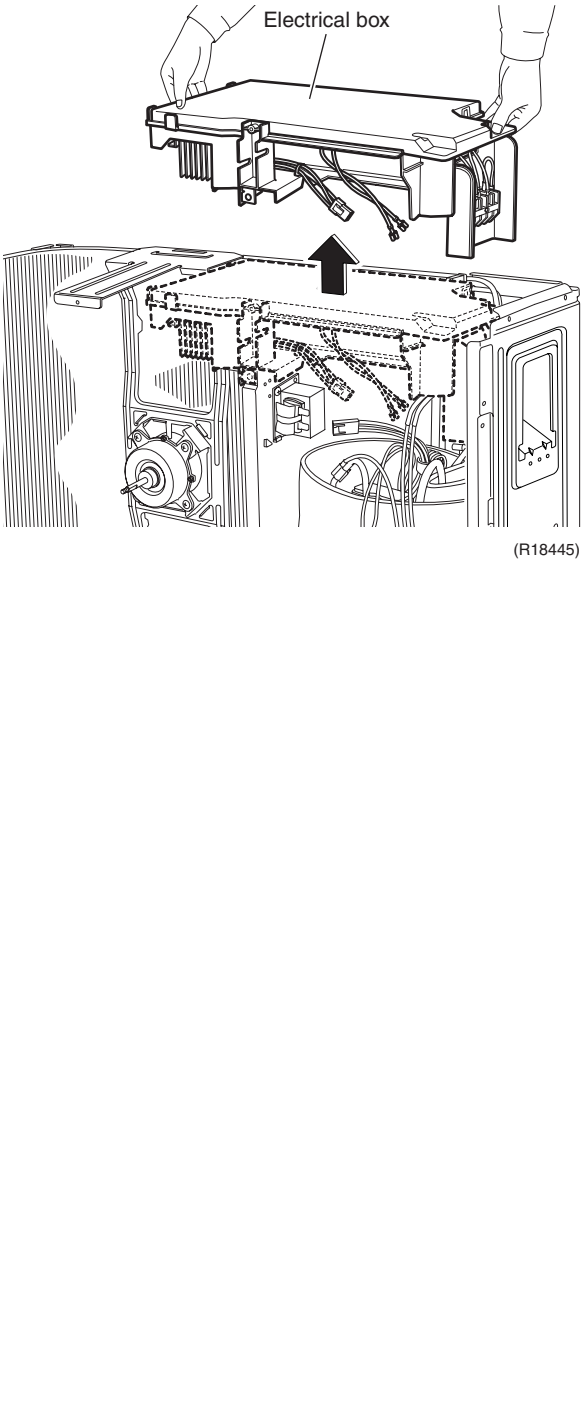
Step	Procedure	Points
1	Disconnect the connector [S70].	[S70]: fan motor
2	Disconnect the connector [S40].	[S40]: overload protector
3	Disconnect the connector [S90].	[S90]: thermistors
4	Cut the clamp.	Clamp



Step	Procedure	Points
5	Disconnect the 2 connectors of the reactor.	(1) orange (2) brown
6	Disconnect the relay connector for the compressor.	
7	Remove the screw, and then the stop valve cover.	



Step	Procedure	Points
8	Remove the 3 screws, and then the wire fixture.	
	 <p>Wire fixture (R18441)</p>	
9	Remove the 7 screws on the terminal board and disconnect the connecting wire and the power supply wire.	
	 <p>Terminal board</p> <p>Connecting wire Power supply wire</p> <p>(R20431)</p>	
10	Remove the 2 screws on the right side panel.	
	 <p>Right side panel (R19364)</p>	

Step	Procedure	Points
11	<p>Remove the screw on the partition plate.</p> 	
12	<p>Lift and remove the electrical box.</p> 	

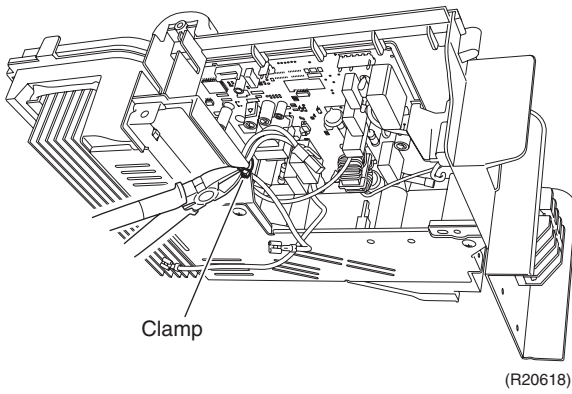
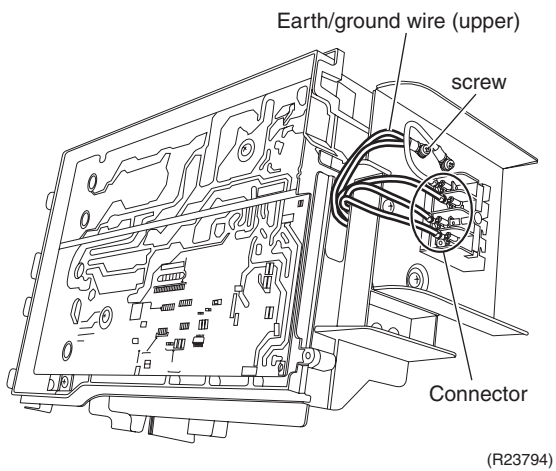
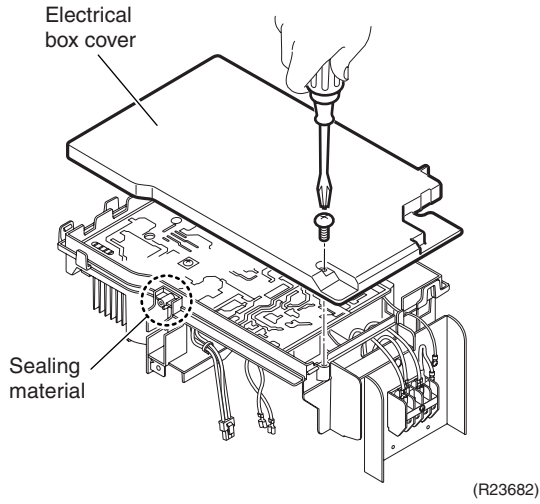
4. PCB

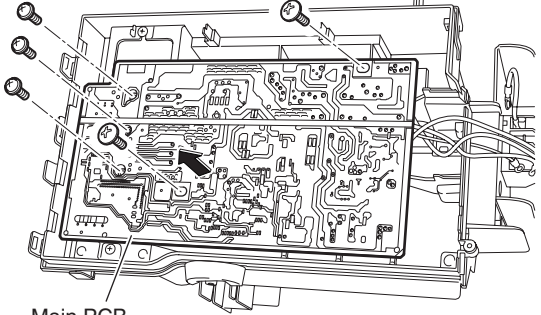
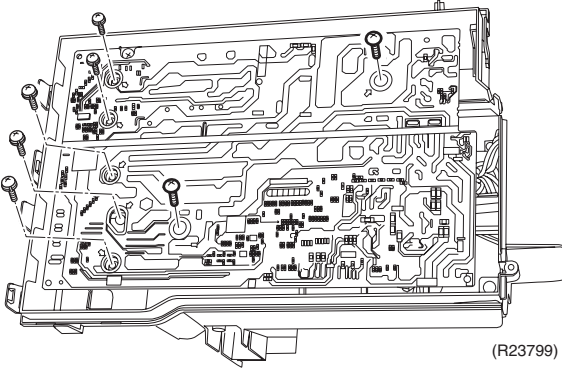


Warning

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

Step	Procedure	Points
1	Remove the screw, and then the electrical box cover.	<ul style="list-style-type: none"> Some models have sealing material.
2	Disconnect the 3 connectors from the terminal board.	
3	Remove the screw and release the earth/ground wire (upper).	(R20237)
4	Cut the clamp.	



Step	Procedure	Points
5	Remove the screws, and then the main PCB.	<ul style="list-style-type: none"> ■ The main PCB may be fixed by 5 or 7 screws, depending on the model.
	<p data-bbox="485 226 711 255">■ Pattern 1 (5 screws)</p>  <p data-bbox="552 573 651 602">Main PCB</p> <p data-bbox="995 613 1066 642">(R23683)</p> <p data-bbox="485 680 711 710">■ Pattern 2 (7 screws)</p>  <p data-bbox="995 1061 1066 1090">(R23799)</p>	

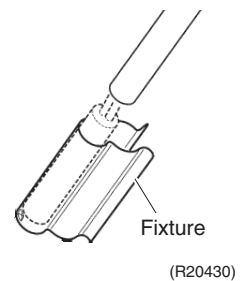
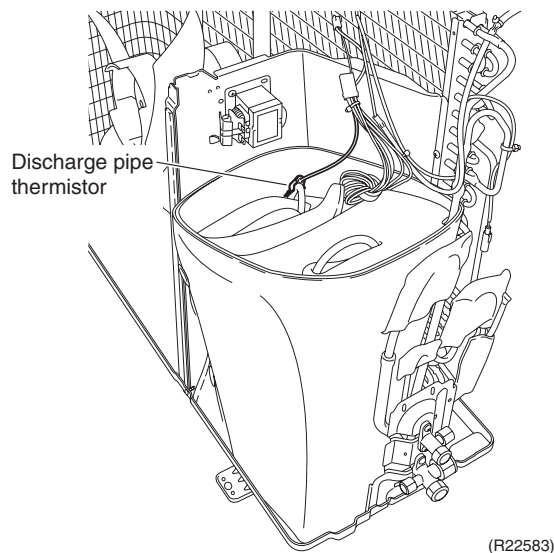
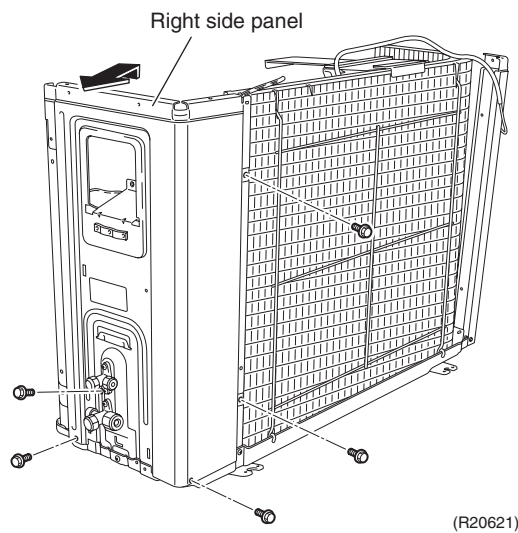
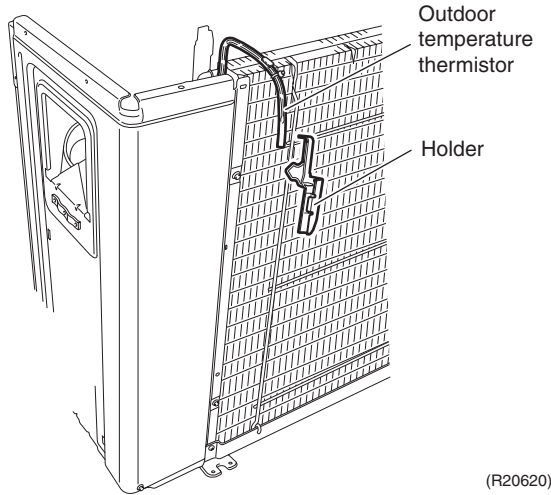
5. Thermistor ASSY

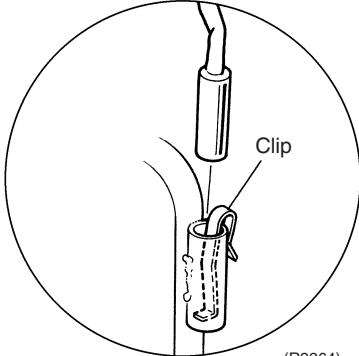
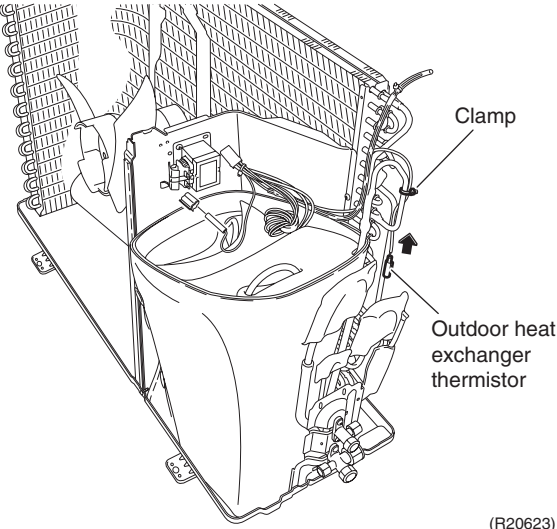
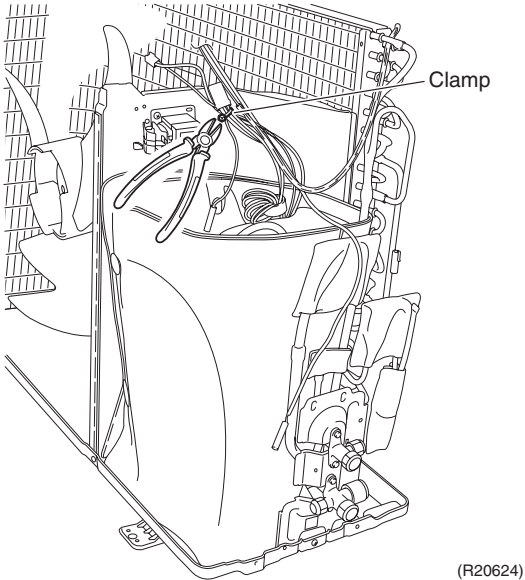
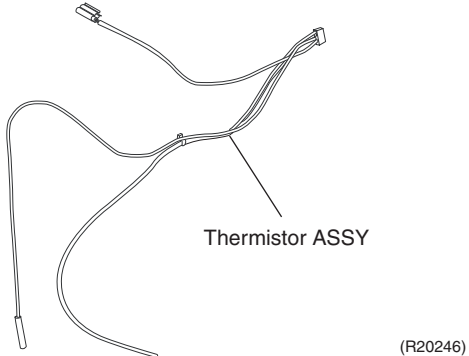


Warning

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

Step	Procedure	Points
1	Detach the holder and pull out the outdoor temperature thermistor.	<ul style="list-style-type: none"> ■ The shape of the protection net varies depending on the model.
2	Remove the 5 screws of the right side panel.	<ul style="list-style-type: none"> ■ When reassembling, insert the 2 lower hooks and the upper hook of the back.
3	Remove the right side panel.	
4	Release the discharge pipe thermistor.	<ul style="list-style-type: none"> ■ Be careful not to lose the fixture for the thermistor.



Step	Procedure	Points
5	Cut the clamp and pull out the outdoor heat exchanger thermistor.	<ul style="list-style-type: none"> ■ Be careful not to lose the clip for the thermistor.
6	Cut the clamp and release the thermistor ASSY.	 <p>(R3264)</p>
7	Remove the thermistor ASSY.	
	 <p>(R20623)</p>	
	 <p>(R20624)</p>	
	 <p>(R20246)</p>	

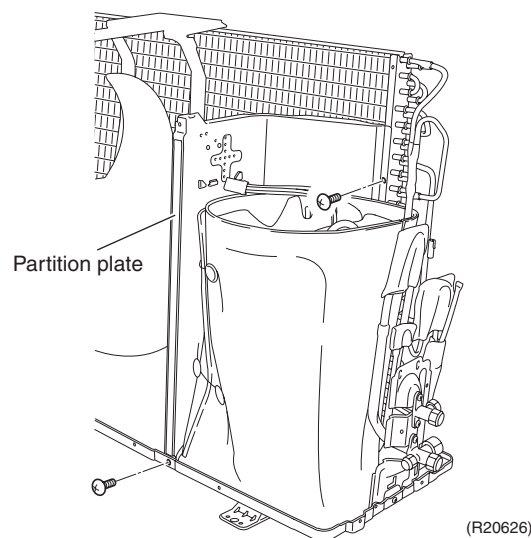
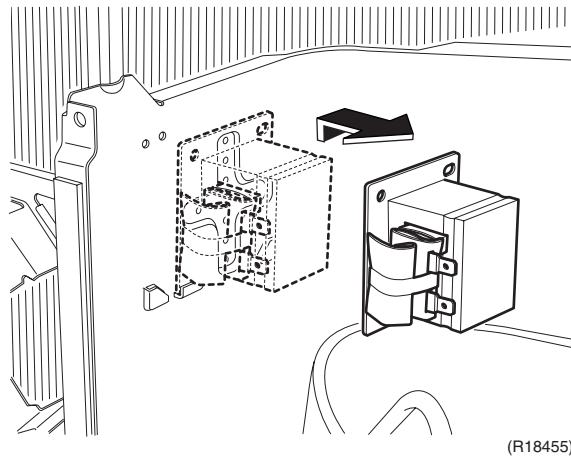
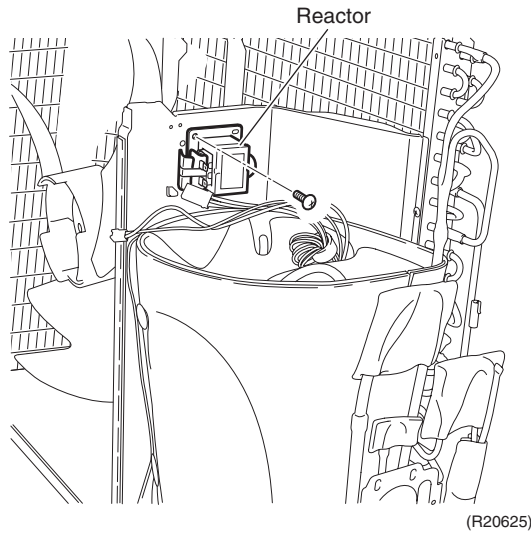
6. Reactor / Sound Blankets



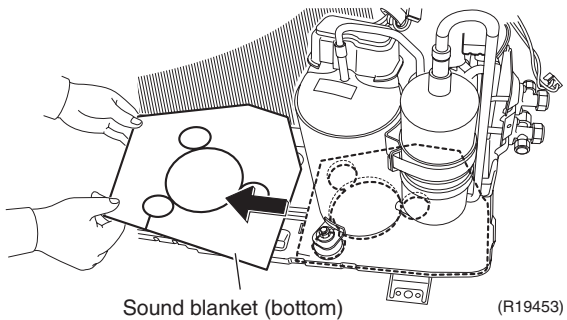
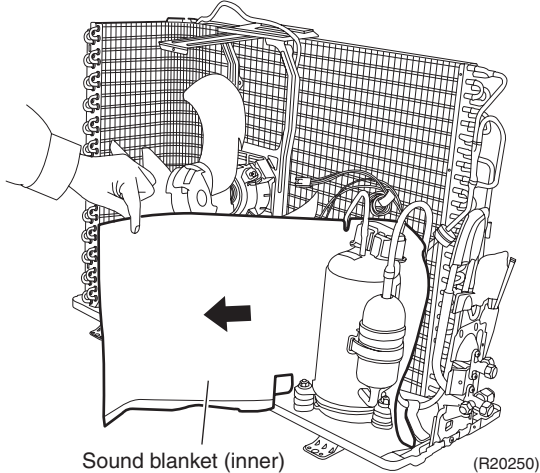
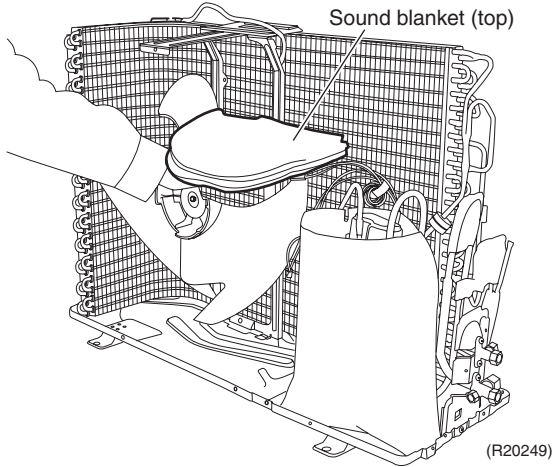
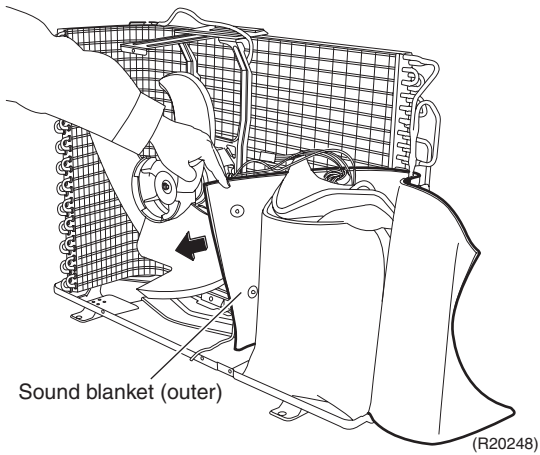
Warning

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

Step	Procedure	Points
1	Remove the screw.	
2	Remove the reactor.	<ul style="list-style-type: none"> ■ There is a hook at the bottom of the reactor.
3	Remove the 2 screws, and then the partition plate.	



Step	Procedure	Points
4	Untie the string and pull out the sound blanket (outer).	<ul style="list-style-type: none"> Since the piping ports are torn easily, remove the sound blanket carefully.
5	Remove the sound blanket (top).	<ul style="list-style-type: none"> Some models do not have the sound blanket (top).
6	Pull out the sound blanket (inner).	<ul style="list-style-type: none"> Some models do not have the sound blanket (inner). When reassembling, mount the sound blankets and the partition plate in the following order. <ol style="list-style-type: none"> (1) Bottom (2) Inner (3) Outer (4) Top (5) Partition plate
7	Pull out the sound blanket (bottom).	<ul style="list-style-type: none"> Some models do not have the sound blanket (bottom).



7. Capillary Tube



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.)



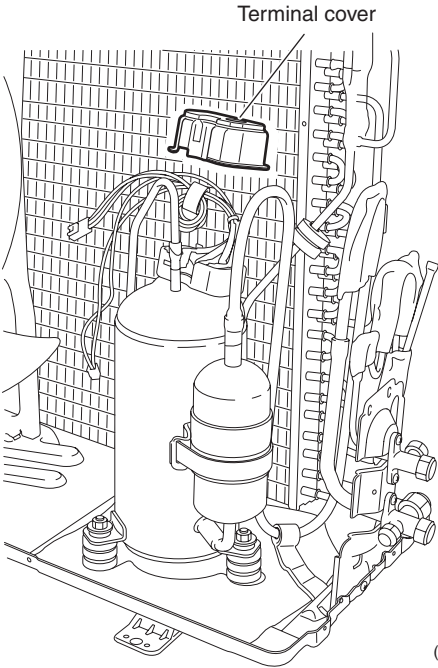
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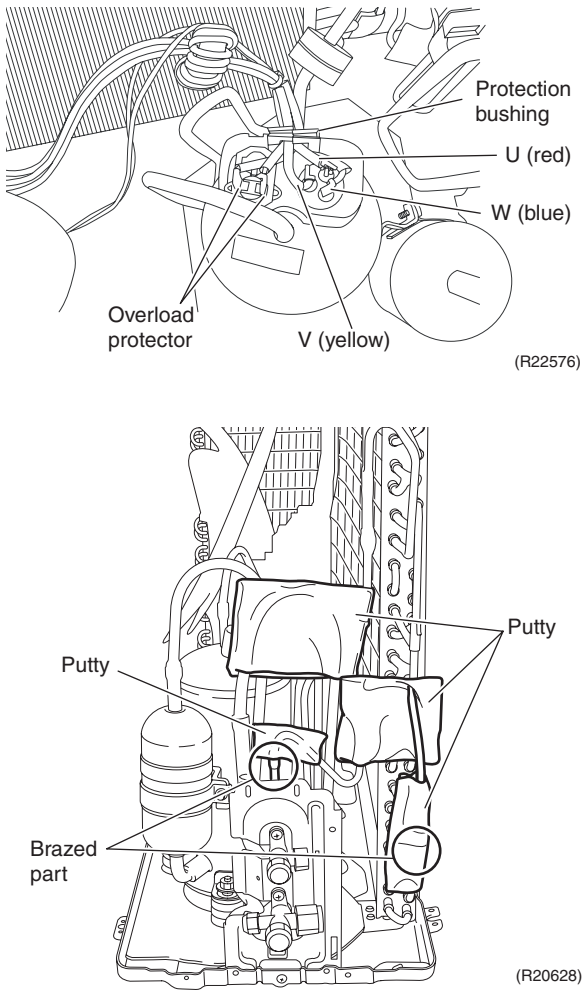
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



Note

- ◆ Before working, make sure that the refrigerant gas is empty in the circuit.
- ◆ Be sure to apply nitrogen replacement when heating up the brazed part.
- ◆ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.
- ◆ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.
- ◆ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.
- ◆ Be careful so as not to burn the compressor terminals, the name plate, the outdoor heat exchanger fin.
- ◆ In case of difficulty with gas brazing machine
 1. Disconnect the brazed part where is easy to disconnect and restore.
 2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.

Step	Procedure	Points
1	Remove the terminal cover.	 <p style="text-align: right;">(R20627)</p>

Step	Procedure	Points
2	Remove the protection bushing.	<p>■ The shape of the capillary tube varies depending on the model.</p>
3	Disconnect the compressor lead wires and the overload protector.	
4	Remove the putties.	
5	Heat up the 2 brazed parts and remove the capillary tube.	
	 <p>The first diagram (R22576) shows a close-up of the compressor lead wires and the overload protector. Labels include: Protection bushing, U (red), W (blue), Overload protector, and V (yellow).</p> <p>The second diagram (R20628) shows the capillary tube assembly with putties and brazed parts. Labels include: Putty and Brazed part.</p>	

8. 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.



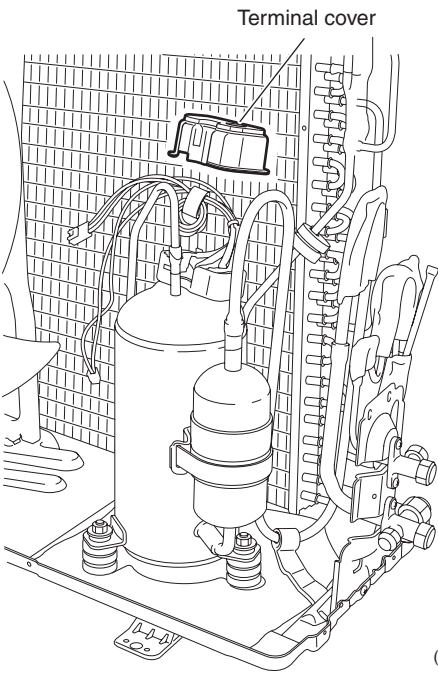
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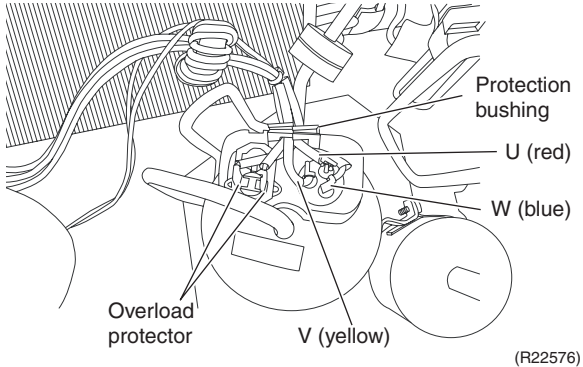
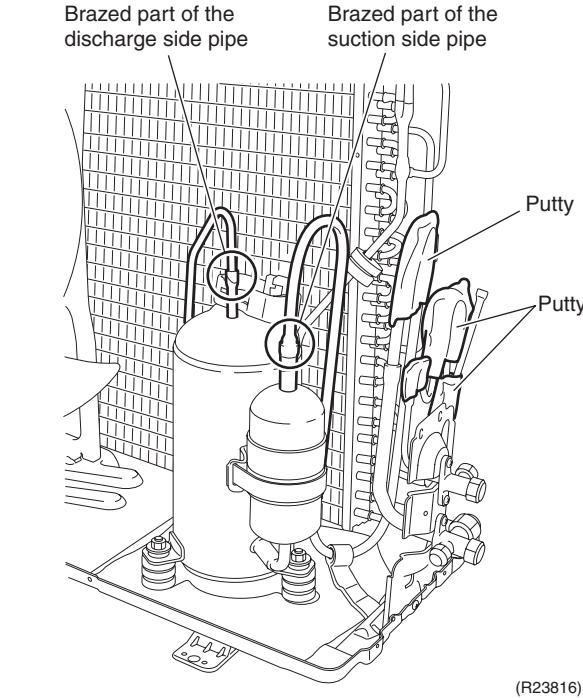
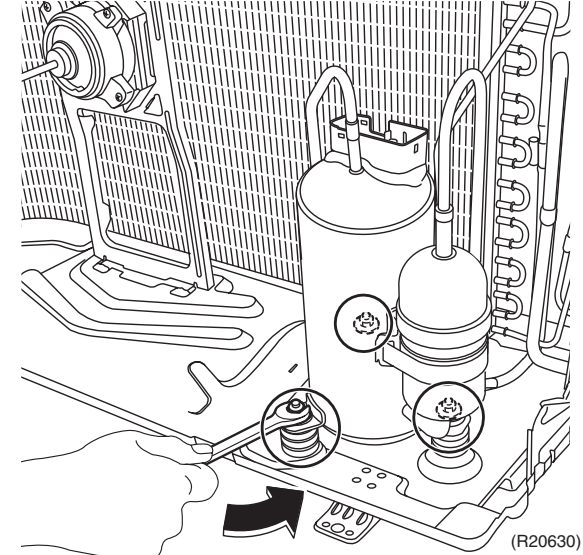
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



Note

- ◆ Before working, make sure that the refrigerant gas is empty in the circuit.
- ◆ Be sure to apply nitrogen replacement when heating up the brazed part.
- ◆ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.
- ◆ When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.
- ◆ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries.
- ◆ Be careful so as not to burn the compressor terminals, the name plate, the outdoor heat exchanger fin.
- ◆ In case of difficulty with gas brazing machine
 1. Disconnect the brazed part where is easy to disconnect and restore.
 2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.

Step	Procedure	Points
1	Remove the terminal cover.	 <p style="text-align: right;">(R20627)</p>

Step	Procedure	Points
2	Remove the protection bushing.	
3	Disconnect the compressor lead wires and the overload protector.	
		
4	Remove the putties.	
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 of the compressor.	
8	Lift the compressor up and remove it.	
		

Revision History

Month / Year	Version	Revised contents
08 / 2014	Si001409E	First edition
11 / 2015	Si001409EA	Model addition: RKP50QRV16, RKPA50QRV16, RKP50QRV16
08 / 2016	Si001409EB	Model addition: RKH50QRV16, RKH50RRV16

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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