



Si001412E



REMOVAL PROCEDURE

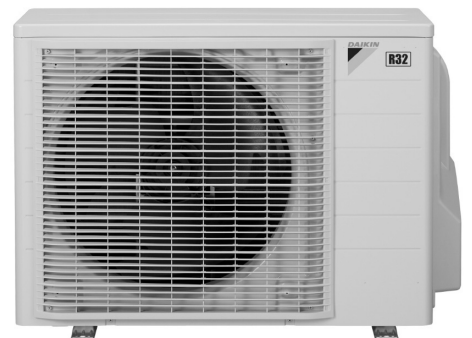


S E R V I C E M A N U A L

2.5/3.5/5.0 kW Class

9000/12000/18000 Btu/h Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Heat Pump

**RXZ09NV1S
RXZ12NV1S
RXZ18NV1S**

**RXZ25NVM
RXZ35NVM
RXZ50NVM**

**RXZ25NVM4
RXZ35NVM4
RXZ50NVM4**

**RXZ25NVMG
RXZ35NVMG
RXZ50NVMG**

**RXZ25NVMV
RXZ35NVMV
RXZ50NVMV**

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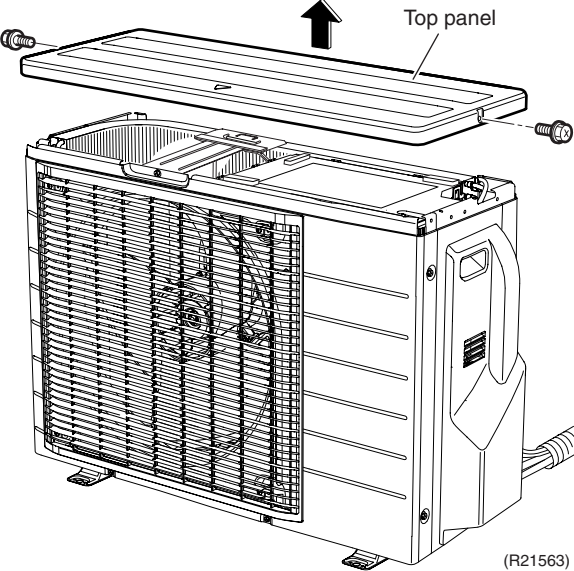
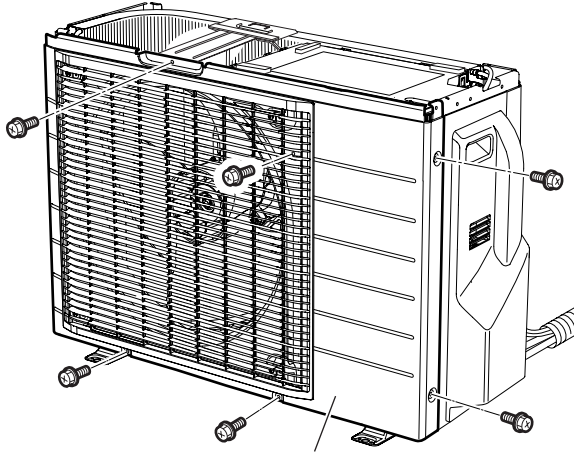
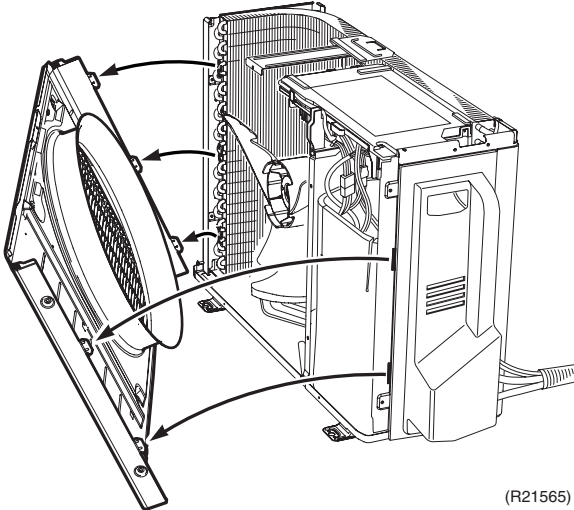
Note: ♦ The illustrations may be slightly different depending on the model.

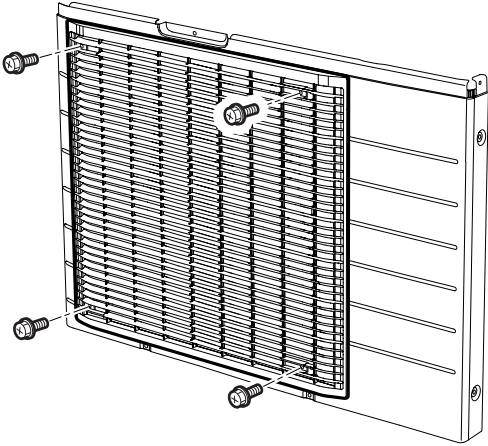
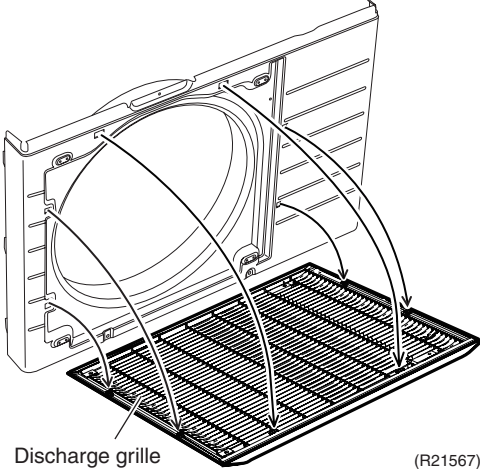
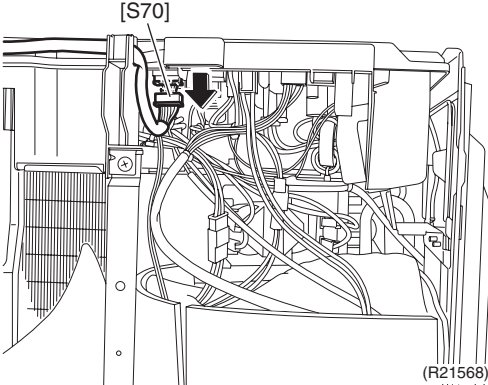
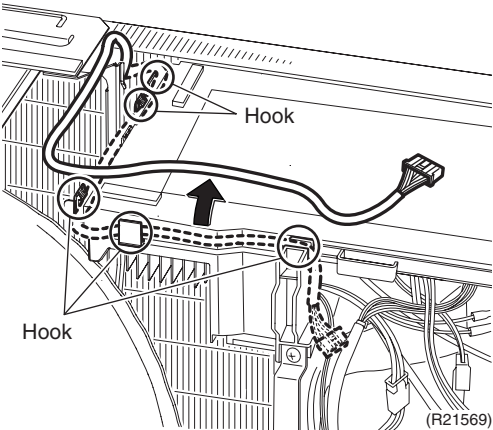
1. Outer Panels / Outdoor Fan / Fan Motor

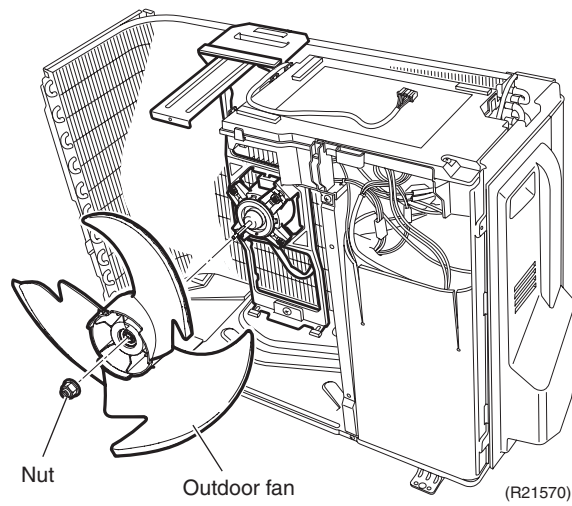
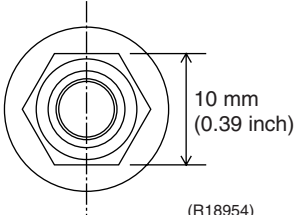
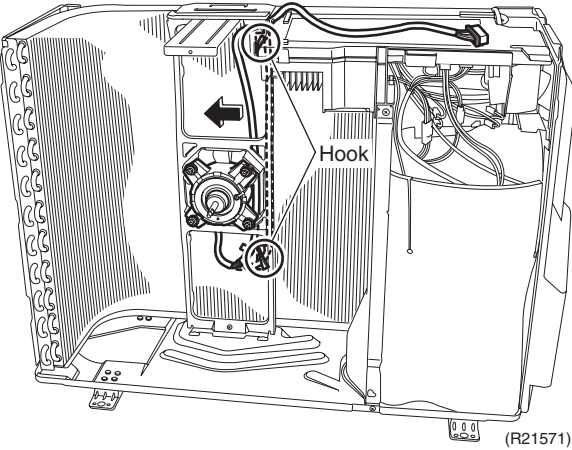
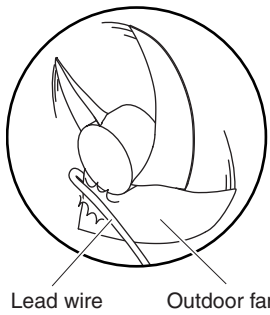
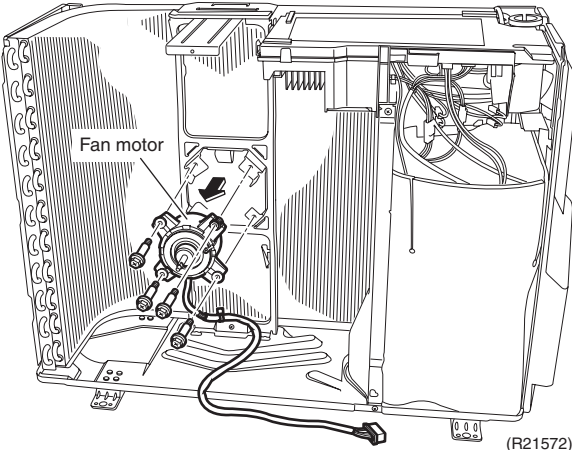



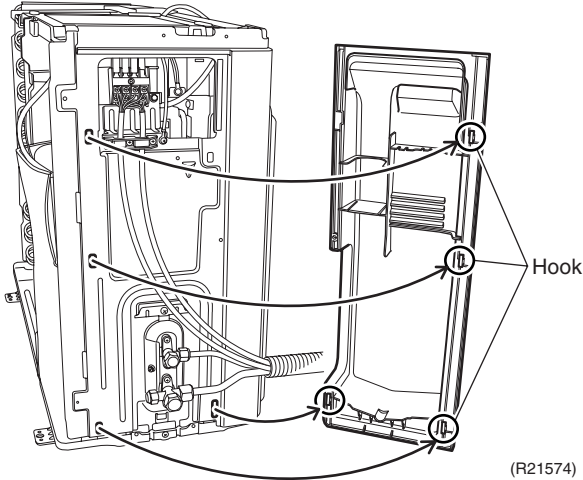
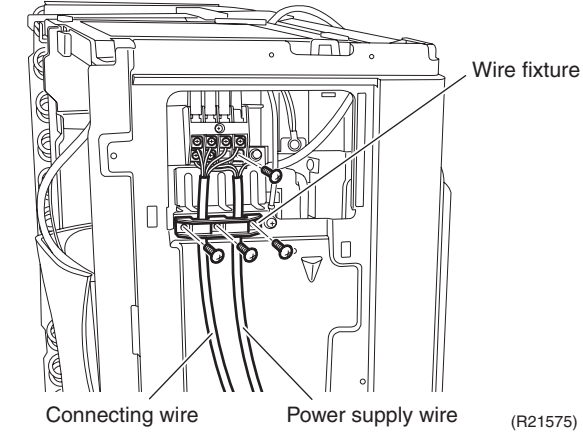
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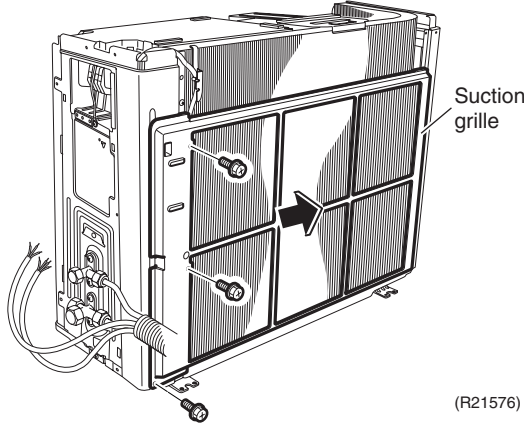
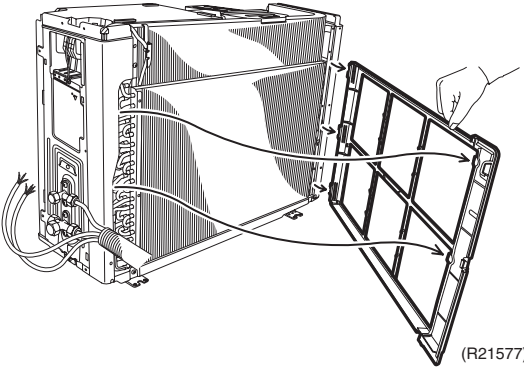
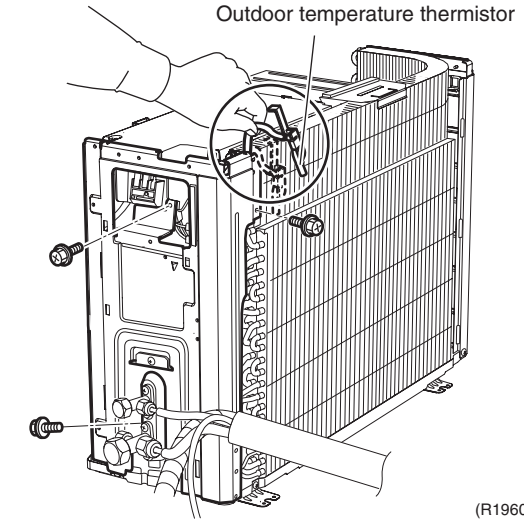
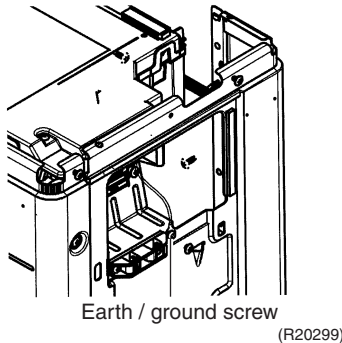
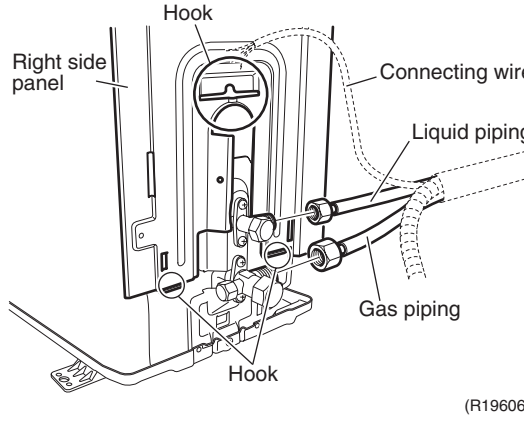
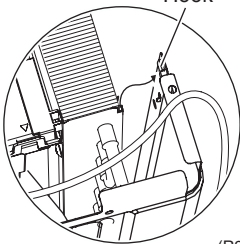
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Remove the 2 screws and remove the top panel.	 <p>(R21563)</p>
2	Remove the 6 screws.	 <p>(R21564)</p>
3	Unfasten the 5 hooks and remove the front panel.	 <p>(R21565)</p>

Step		Procedure	Points
4	Remove the 4 screws.	 <p>(R21566)</p>	
5	Unfasten the 6 hooks and remove the discharge grille.	 <p>Discharge grille</p> <p>(R21567)</p>	
6	Disconnect the connector [S70].	 <p>[S70]</p> <p>(R21568)</p>	[S70]: fan motor
7	Release the fan motor lead wire from the 5 hooks.	 <p>Hook</p> <p>Hook</p> <p>(R21569)</p>	

Step	Procedure	Procedure	Points
8	Remove the nut and remove the outdoor fan.	 <p>(R21570)</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. ■ 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).
9	Unfasten the 2 hooks and release the fan motor lead wire.	 <p>(R21571)</p>	 <p>(R3249)</p>
10	Remove the 4 screws and remove the fan motor.	 <p>(R21572)</p>	<ul style="list-style-type: none"> ■ Be sure to remove the lower screws first. If the upper screws are removed first, the fan motor may tilt or fall because the center of its gravity is toward the front. It may cause injuries.

Step	Procedure	Points
11	Remove the screw of the stop valve cover.	
12	Slide the stop valve cover down and remove it.	
	 <p>(R21573)</p>	
	 <p>(R21574)</p>	<p>■ When reassembling, make sure to fit the 4 hooks.</p>
13	Remove the 7 screws and disconnect the connecting wire and power supply wire.	
14	Remove the 3 screws and remove the wire fixture.	
	 <p>(R21575)</p>	

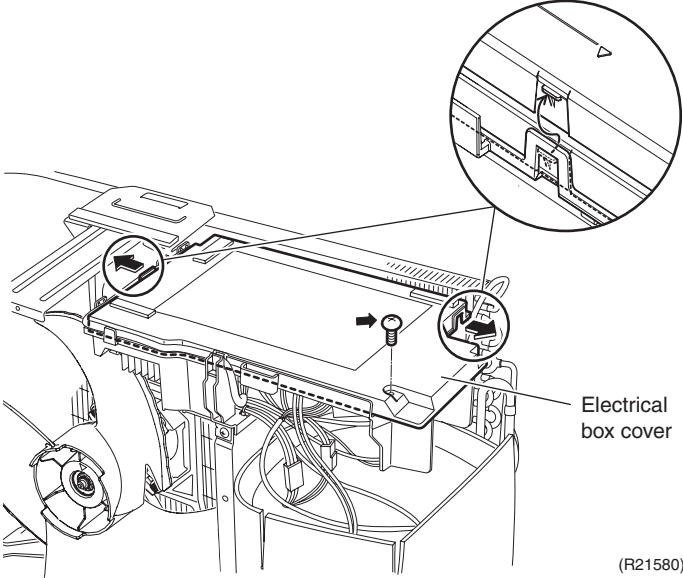
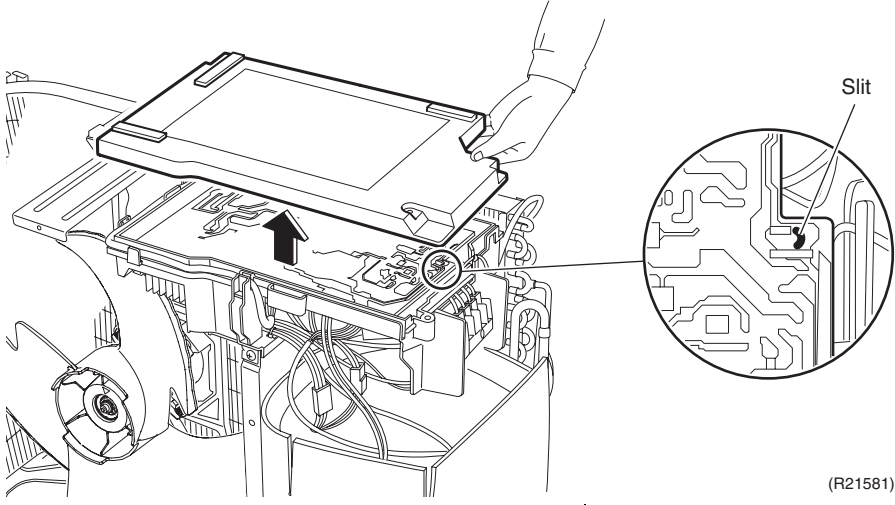
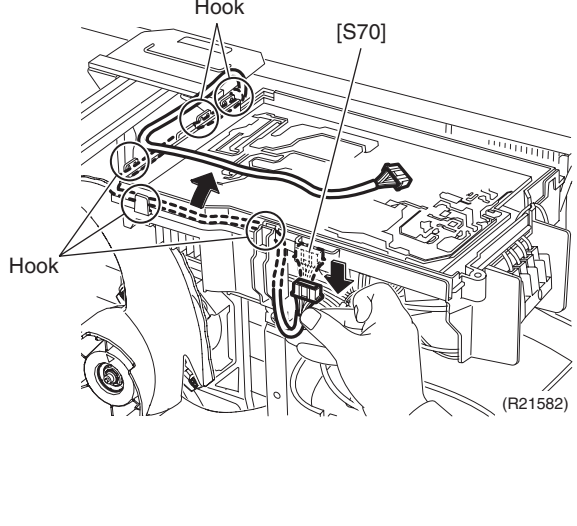
Step	Procedure	Points
15	Remove the 3 screws.	
16	Slide the suction grille to the right.	
 <p>(R21576)</p>		
17	Unfasten the 5 hooks and remove the suction grille.	
 <p>(R21577)</p>		
18	Detach the outdoor temperature thermistor.	
19	Remove the 3 screws on the right side panel.	
20	Remove the earth / ground screw.	
 <p>(R19605)</p>		 <p>Earth / ground screw (R20299)</p>
21	Unfasten the 4 hooks and remove the right side panel.	
22	Remove the liquid piping and the gas piping.	
 <p>(R19606)</p>		<p>■ When reassembling, make sure to fit the 4 hooks.</p>  <p>(R20300)</p>

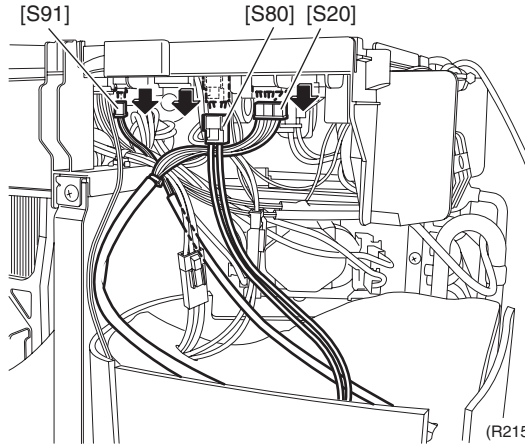
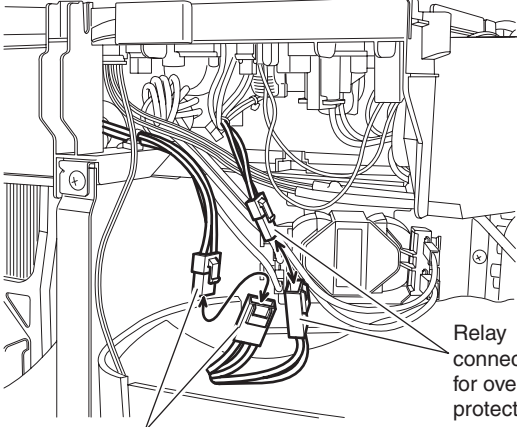
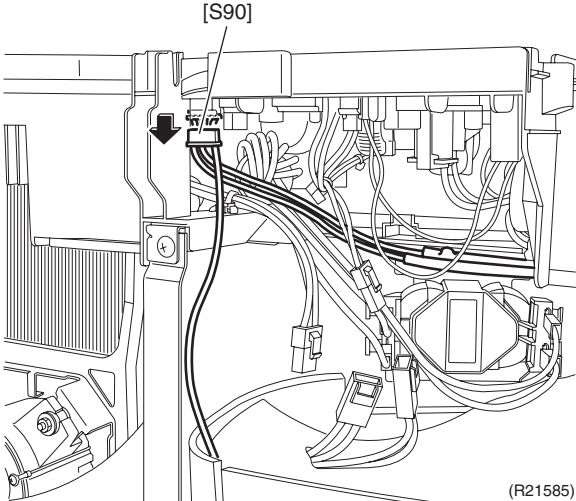
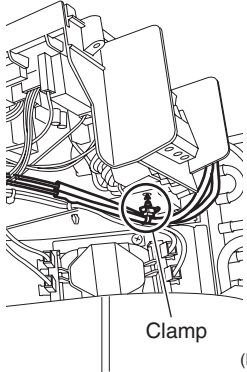
2. Electrical Box



Warning

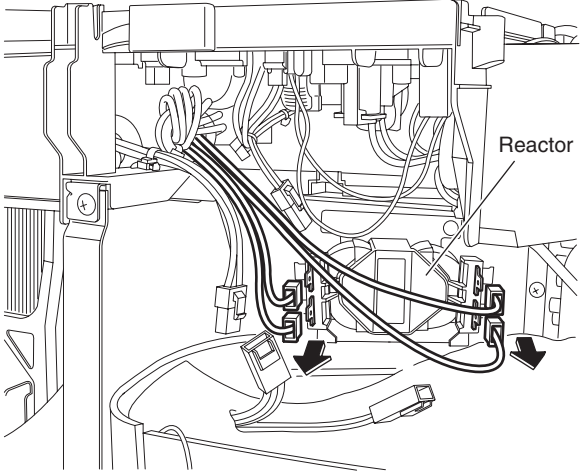
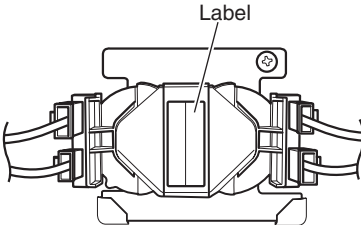
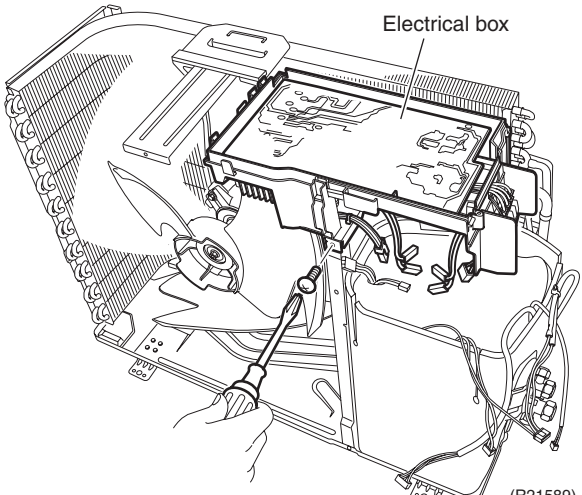
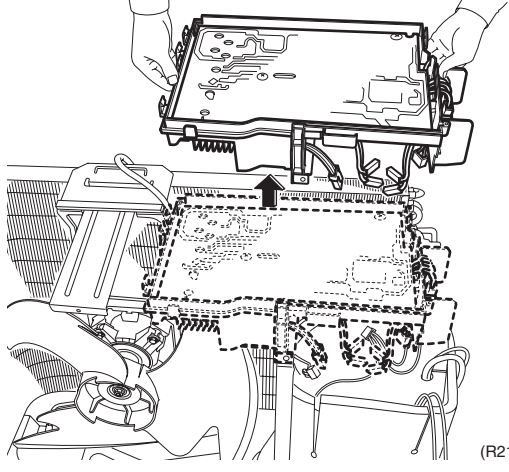
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1 2	Remove the screw on the electrical box cover. Unfasten the 2 hooks of the electrical box cover.	 <p>Electrical box cover</p> <p>(R21580)</p>
3	Lift up the electrical box cover and remove it.	<p>■ You can check the LED A (green) through slit.</p>  <p>Slit</p> <p>(R21581)</p>
4 5	Disconnect the connector [S70]. Release the fan motor harness from the 5 hooks.	<p>[S70]: fan motor</p>  <p>Hook</p> <p>[S70]</p> <p>Hook</p> <p>(R21582)</p>

Step	Procedure	Points
6	Disconnect the connectors [S20], [S80], [S91].	 <p>(R21583)</p>
7	Disconnect the relay connector for the compressor.	
8	Disconnect the relay connector for the overload protector.	 <p>Relay connector for compressor</p> <p>Relay connector for overload protector</p> <p>(R21584)</p>
9	Disconnect the connector [S90].	 <p>(R21585)</p>
10	Detach the clamp at the bottom of the terminal board.	 <p>Clamp</p> <p>(R21586)</p>

[S20]: electronic expansion valve coil
 [S80]: four way valve coil
 [S91]: liquid pipe thermistor

[S90]: thermistor ASSY

Step	Procedure	Procedure	Points
11	Disconnect the 4 terminals from the reactor.	 <p style="text-align: right;">Reactor</p> <p style="text-align: right;">(R21587)</p>	<ul style="list-style-type: none"> ■ When reassembling, match the color of the sleeve with the label on the reactor. right: yellow left: red You can connect 2 harnesses of the same color into either upper or lower.  <p style="text-align: center;">Label</p> <p style="text-align: right;">(R20301)</p>
12	Remove the screw in front of the electrical box.	 <p style="text-align: center;">Electrical box</p> <p style="text-align: right;">(R21589)</p>	
13	Lift up the electrical box and remove it.	 <p style="text-align: right;">(R21590)</p>	

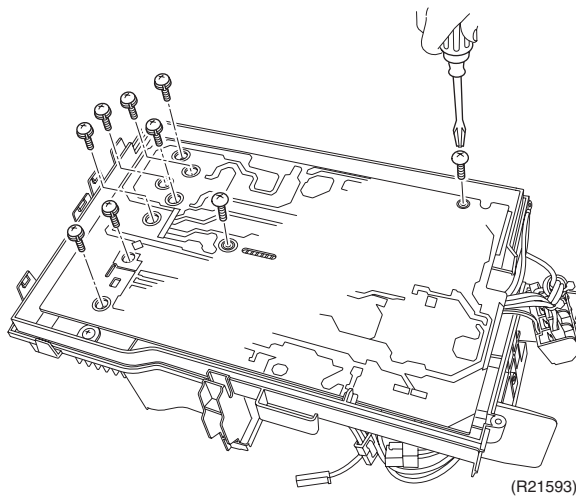
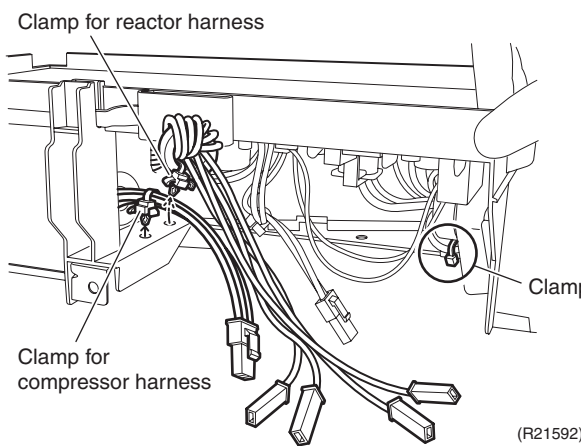
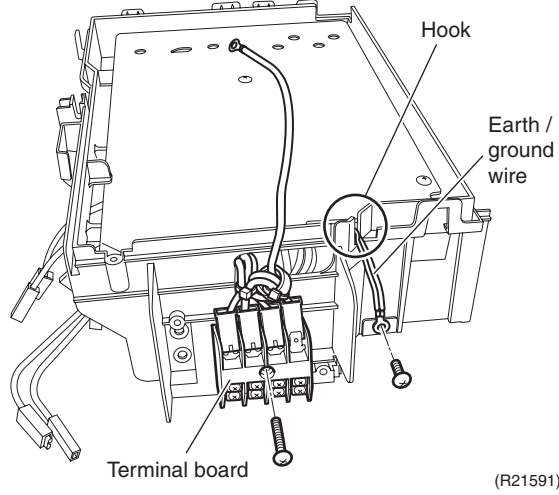
3. PCB



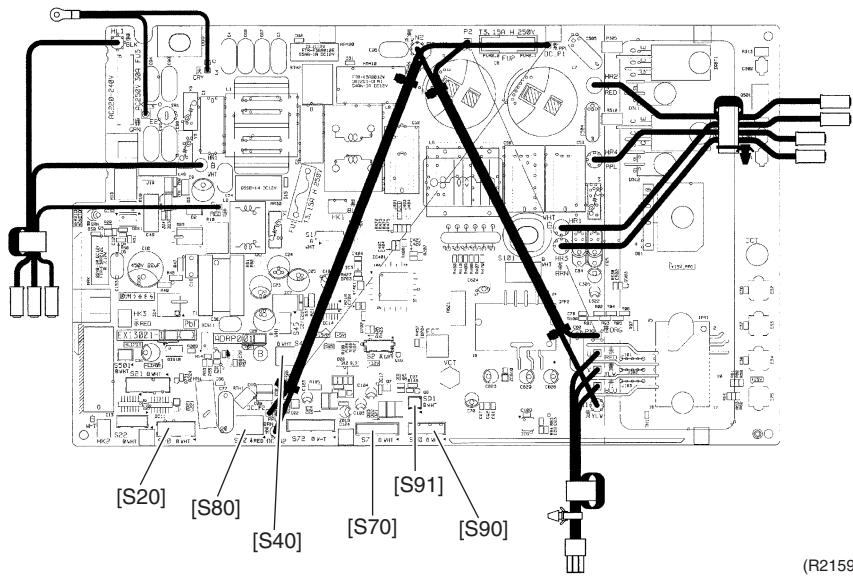
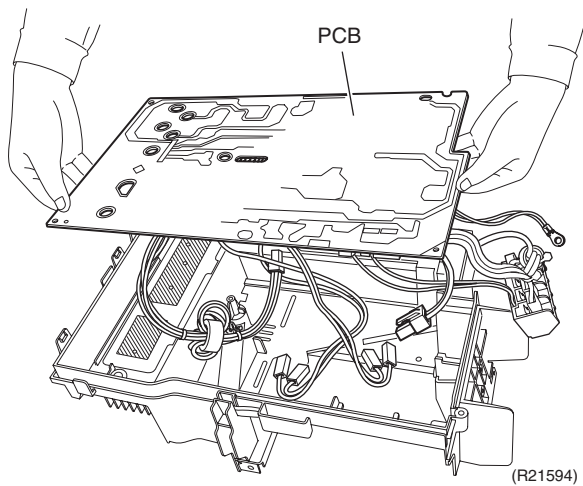
Warning

◆ **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 remove the terminal board.	(R21591)
2	Remove the screw and detach the earth / ground wire.	(R21592)
3	Release the harnesses from the hook.	(R21593)
4	Detach the 2 clamps.	
5	Cut the clamp.	
6	Remove the 9 screws.	



Step	Procedure	Points
7	Lift up the PCB and remove it.	<ul style="list-style-type: none"> ■ In working, be careful not to break the PCB with the excessive force because the PCB and the radiation fin are adhered to one another.
8	Names of the parts on the PCB	<p>[S20]: electronic expansion valve coil [S40]: overload protector [S70]: fan motor [S80]: four way valve coil [S90]: thermistor ASSY [S91]: liquid pipe thermistor</p>



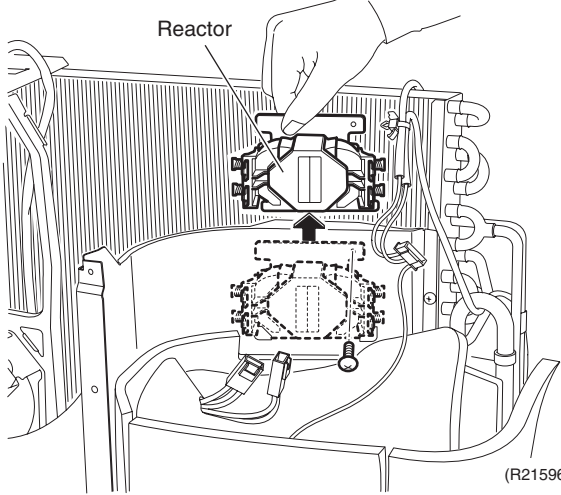
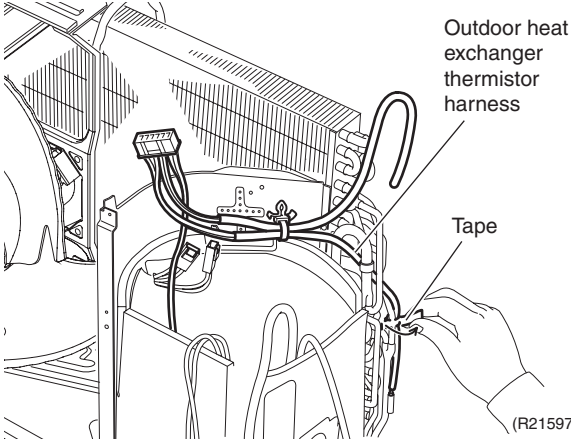
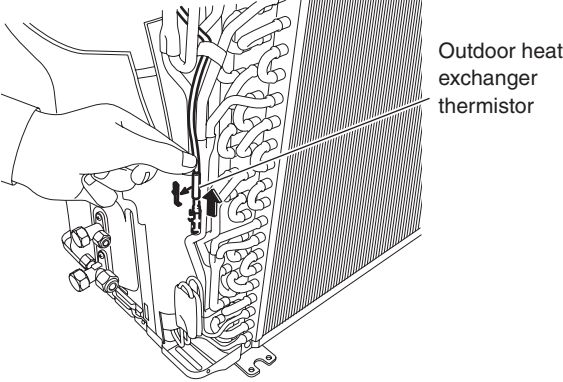
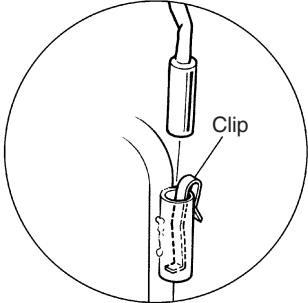
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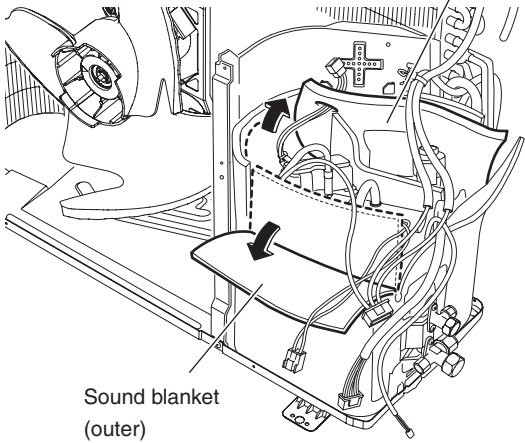
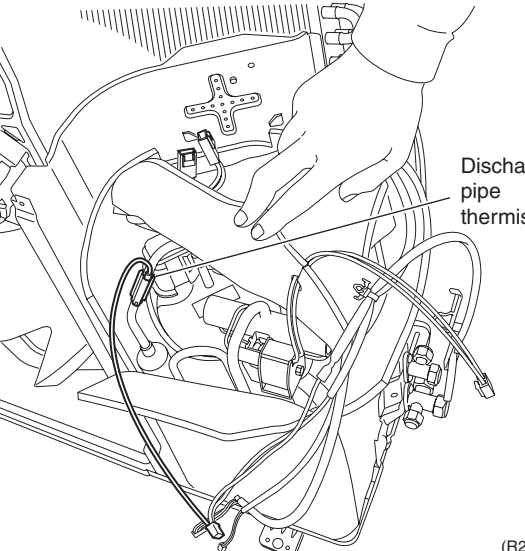
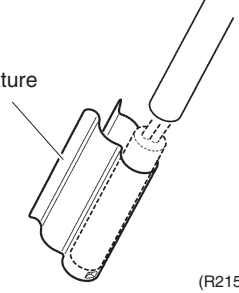
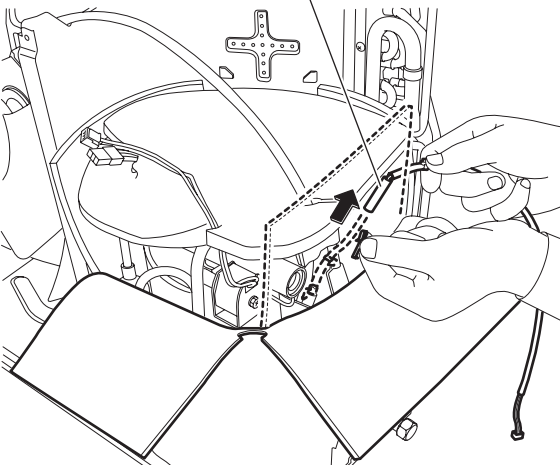
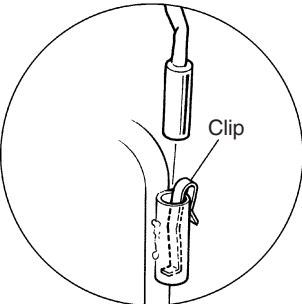
4. Reactor / Thermistor ASSY / Partition Plate

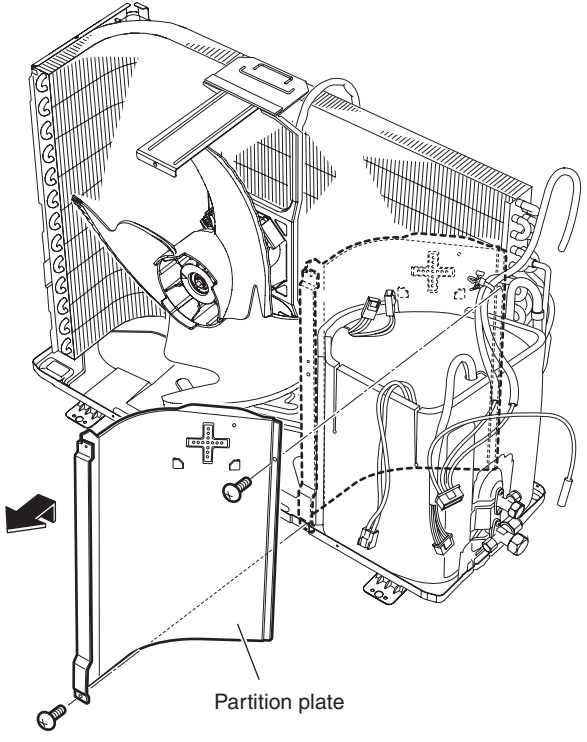
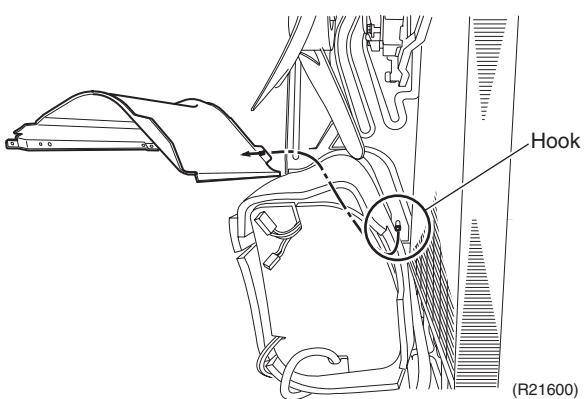


Warning

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Step	Procedure	Points
1. Remove the reactor.	<p data-bbox="202 409 469 472">1 Remove the screw and remove the reactor.</p>  <p data-bbox="1010 853 1078 875">(R21596)</p>	
2. Release the outdoor heat exchanger thermistor.	<p data-bbox="202 972 469 1099">1 Remove the tape from the outdoor heat exchanger thermistor harness.</p>  <p data-bbox="1010 1328 1078 1350">(R21597)</p> <p data-bbox="202 1379 469 1473">2 Release the outdoor heat exchanger thermistor.</p>  <p data-bbox="1010 1787 1078 1809">(R19625)</p>	<p data-bbox="1102 1379 1426 1442">■ Be careful not to lose the clip for the thermistor.</p>  <p data-bbox="1390 1787 1458 1809">(R3264)</p>

Step	Procedure	Points
<p>3. Release the discharge pipe thermistor.</p> <p>1 Open the sound blanket (top).</p> <p>2 Open the front of the sound blanket (outer).</p> <p>3 Detach the discharge pipe thermistor.</p>	<p style="text-align: right;">Sound blanket (top)</p>  <p style="text-align: right;">Discharge pipe thermistor</p> 	<ul style="list-style-type: none"> ■ Since the piping ports on the sound blanket are torn easily, remove the sound blanket carefully. ■ Be careful not to lose the fixture for the discharge pipe thermistor.  <ul style="list-style-type: none"> ■ When reassembling, meet the edge of the thermistor and the fixture.
<p>4. Release the liquid pipe thermistor.</p> <p>1 Open the right side of the sound blanket (outer).</p> <p>2 Detach the liquid pipe thermistor.</p>	<p style="text-align: center;">Liquid pipe thermistor</p> 	<ul style="list-style-type: none"> ■ Be careful not to lose the clip for the thermistor. 

Step	Procedure	Points
5. Remove the partition plate.	<p data-bbox="156 248 456 344">1 Remove the 2 screws and remove the partition plate.</p>  <p data-bbox="1007 965 1075 987">(R21599)</p>	
2 The partition plate is fixed by a hook on the bottom frame.	<p data-bbox="156 1016 456 1113">2 The partition plate is fixed by a hook on the bottom frame.</p>  <p data-bbox="1007 1391 1075 1413">(R21600)</p>	

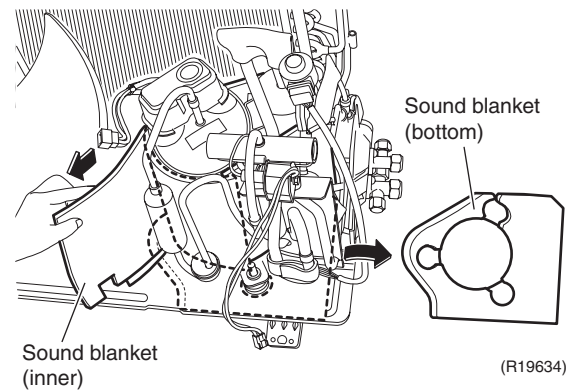
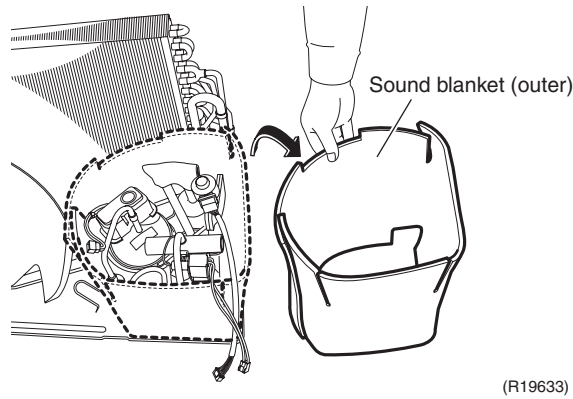
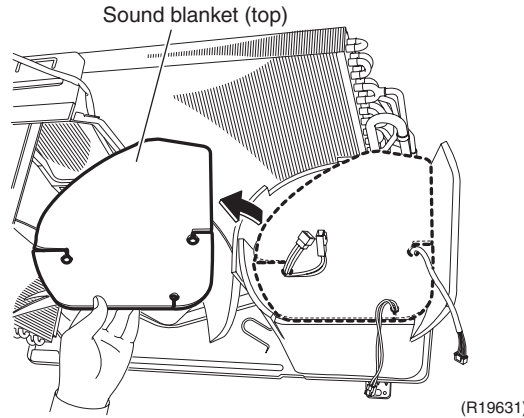
5. Sound Blankets



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 sound blanket (top).	<ul style="list-style-type: none"> ■ Since the piping ports on the sound blanket are torn easily, remove the blanket carefully.
2	Remove the sound blanket (outer).	
3	Open the sound blanket (inner) and pull it out.	
4	Pull out the sound blanket (bottom).	



6. Four Way Valve / 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.)



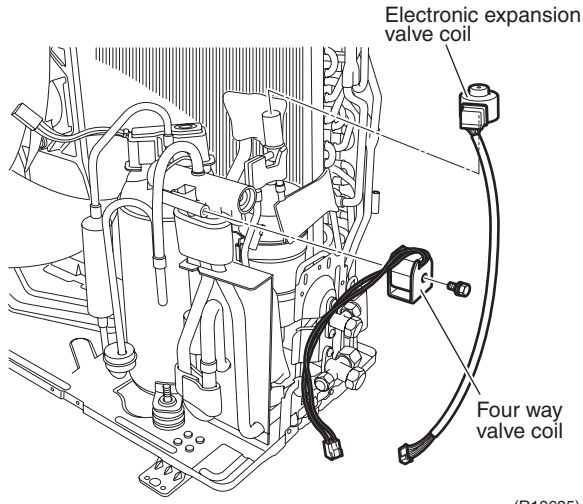
Caution

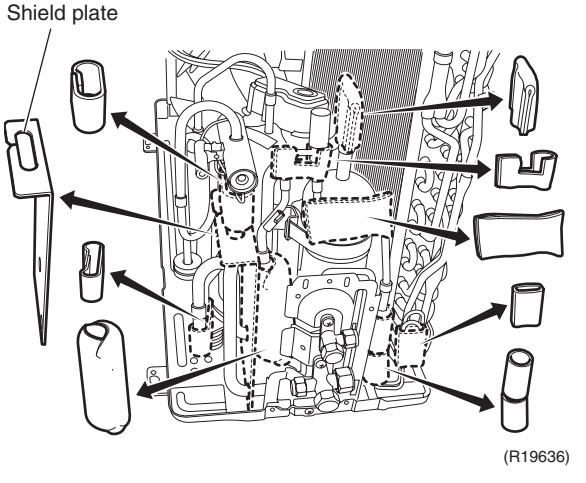
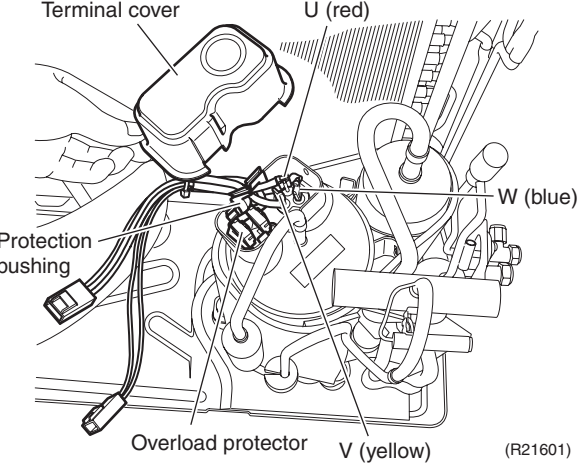
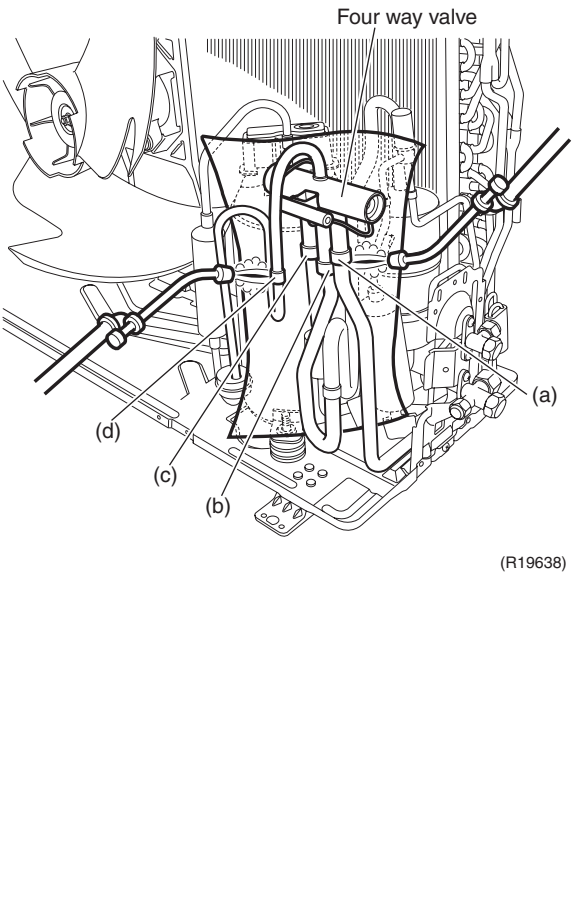
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ **Cautions for restoration**
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside the four way valve and the deterioration of the gaskets affected by heat. (Keep below 120°C (248°F).) For the sake of this, wrap the four way valve with wet cloth and provide water so that the cloth does not dry.

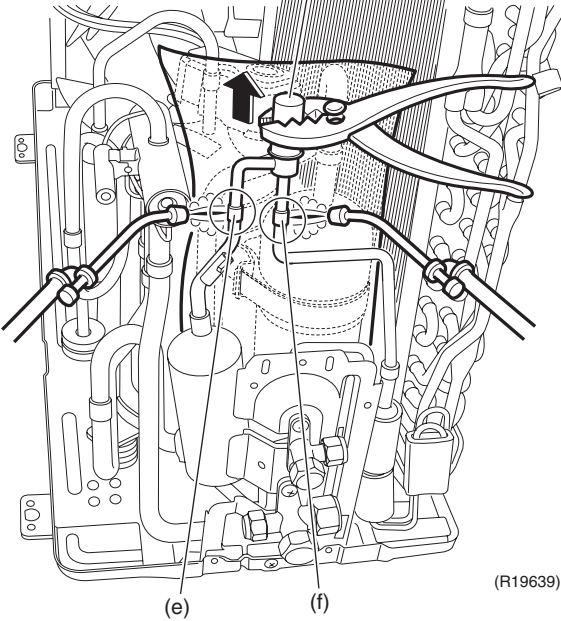
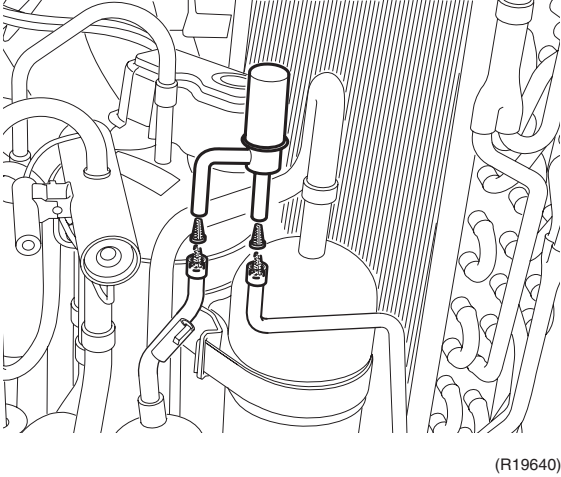


Note

- ◆ 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 screw and remove the four way valve coil.</p> <p>2 Pull out the electronic expansion valve coil.</p>		

Step	Procedure	Points
3	<p>Remove the sheets of putty and shield plate.</p>  <p>Shield plate</p> <p>(R19636)</p>	<ul style="list-style-type: none"> Be careful so as not to burn the compressor terminals or the name plate.
4	<p>Remove the terminal cover and the protection bushing.</p>	
5	<p>Disconnect the compressor lead wires and detach the overload protector.</p>  <p>Terminal cover</p> <p>U (red)</p> <p>W (blue)</p> <p>Protection bushing</p> <p>Overload protector</p> <p>V (yellow)</p> <p>(R21601)</p>	
6	<p>Heat up the 4 brazed parts of the four way valve in the order of (a) (b) (c) (d).</p>	
7	<p>Remove the four way valve.</p>  <p>Four way valve</p> <p>(a)</p> <p>(b)</p> <p>(c)</p> <p>(d)</p> <p>(R19638)</p>	

Step	Procedure	Points
8	Heat up the 2 brazed parts of the electronic expansion valve in the order of (e) (f).	Electronic expansion valve
	 <p>(R19639)</p>	
9	Remove the electronic expansion valve.	
	 <p>(R19640)</p>	

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.



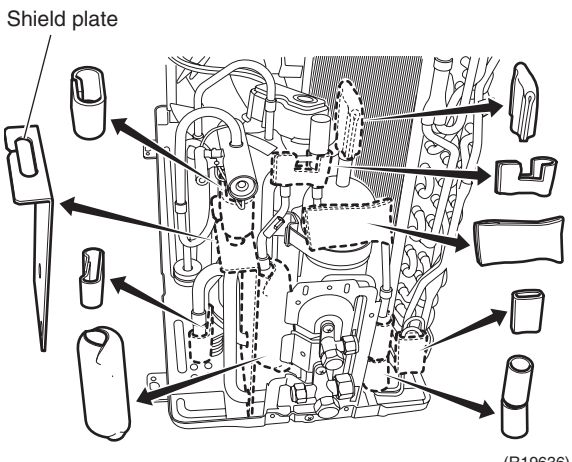
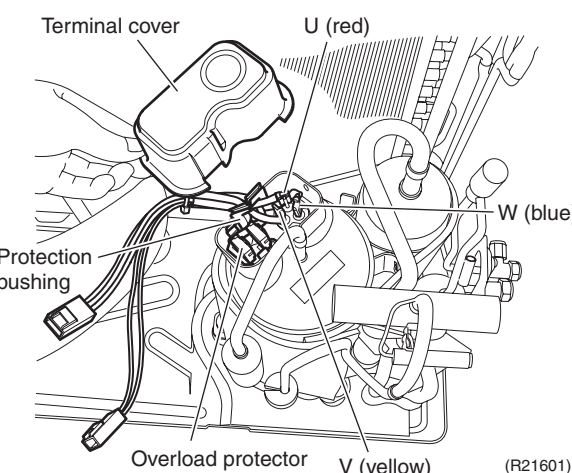
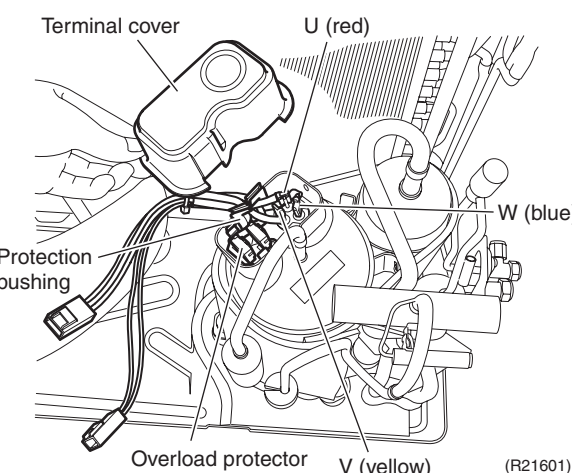
Caution

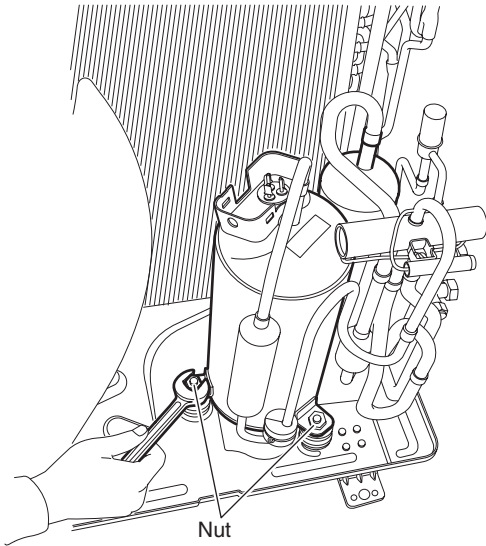
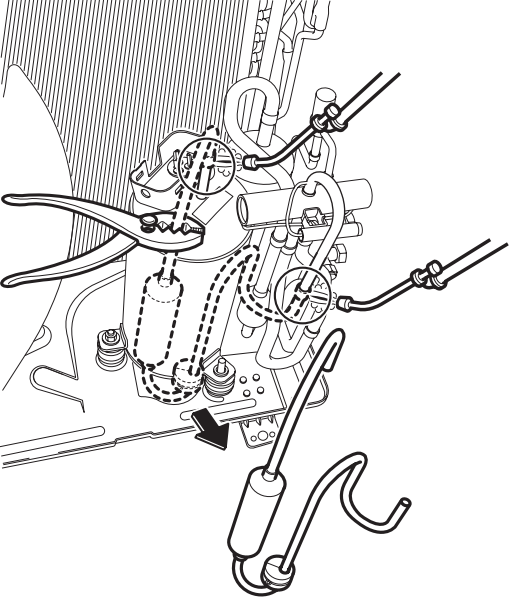
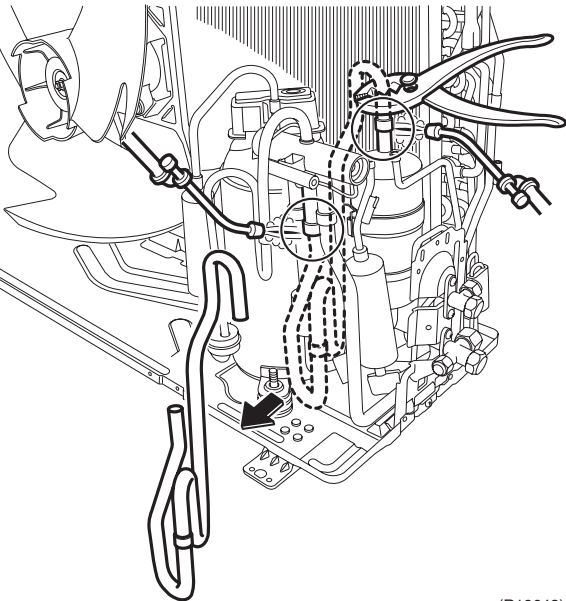
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.

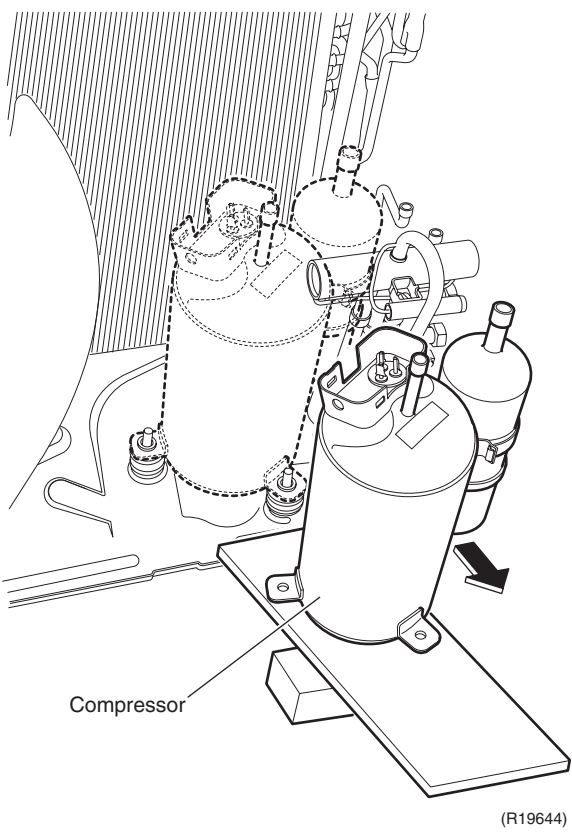


Note

- ◆ 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 sheets of putty and shield plate. 	
2	Remove the terminal cover and the protection bushing. 	
3	Disconnect the compressor lead wires and detach the overload protector. 	

Step	Procedure	Points
4	Remove the 2 nuts.	
	 <p style="text-align: center;">Nut</p>	
	(R19641)	
5	Heat up the 2 brazed parts of the discharge side and disconnect.	
		
	(R19642)	
6	Heat up the 2 brazed parts of the suction side of the accumulator and disconnect.	
		
	(R19643)	

Step	Procedure	Points
7	<p data-bbox="204 212 475 280">Lift the compressor and remove it.</p>  <p data-bbox="566 896 694 929">Compressor</p> <p data-bbox="997 1019 1077 1041">(R19644)</p>	

Revision History

Month / Year	Version	Revised contents
03 / 2015	Si001412E	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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