

REMOVAL PROCEDURE



SERVICE
MANUAL

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

3.5/4.5/4.6/5.0/6.0 kW Class 15000/18000 Btu/h Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Cooling Only

**RKS46LVMA
RKS50LVMA
RKS60LVMA**

●Heat Pump

**RXS15LVJU
RXS18LVJU**

**RXS46LVMA
RXS50LVMA
RXS60LVMA**

**RXS35LAVMA
RXS50LAVMA**

**RXS35RV1A
RXS45RV1A
RXS50RV1A**

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Note:

- ♦ The illustrations may be slightly different depending on the model.
- ♦ The illustrations are for heat pump models as representative.

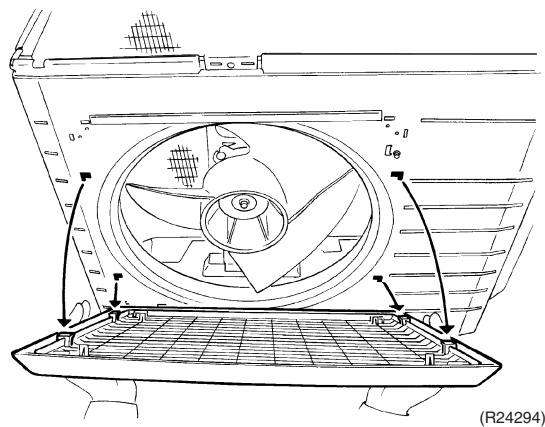
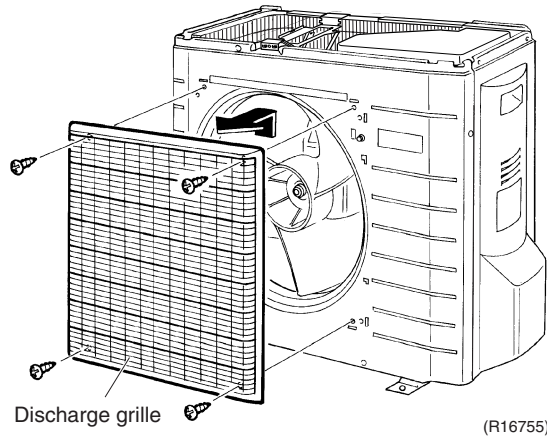
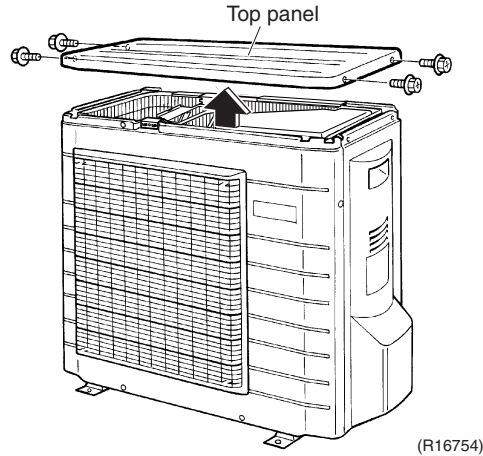
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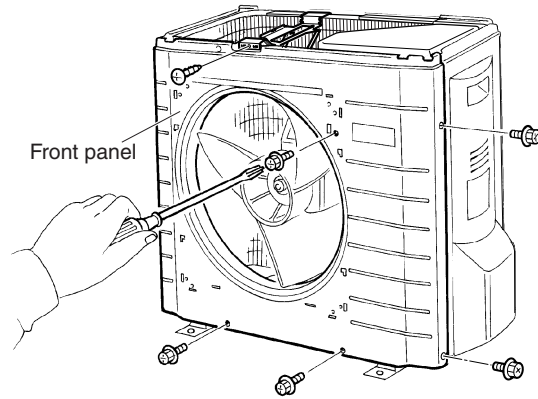
Warning

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

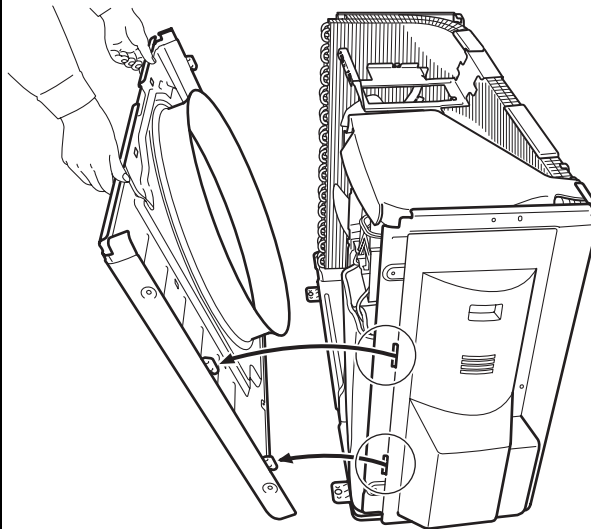
Step	Procedure	Points
1	Remove the 4 screws, and then the top panel.	<ul style="list-style-type: none"> ■ Take care not to cut your finger by the fins of the outdoor heat exchanger.
2	Remove the 4 screws, and then the discharge grille.	<ul style="list-style-type: none"> ■ Slide the discharge grille upward to remove it. ■ When reassembling, make sure the 4 hooks are securely fastened.



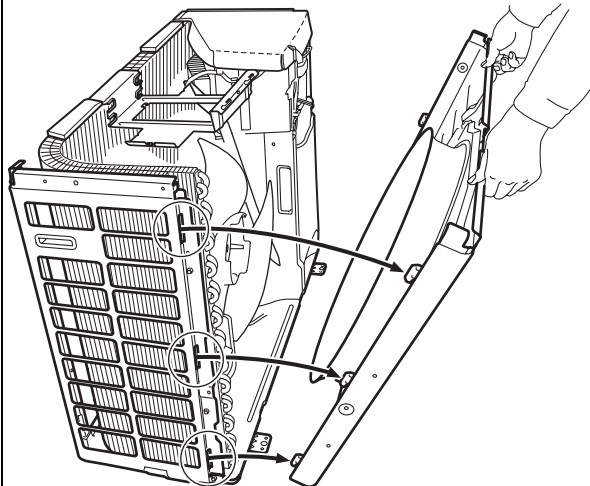
Step	Procedure	Points
3	Remove the 6 screws of the front panel.	
4	Unfasten the right side hooks.	
5	Unfasten the left side hooks and remove the front panel.	<ul style="list-style-type: none"> ■ When reassembling, fit the left side of the front panel first.



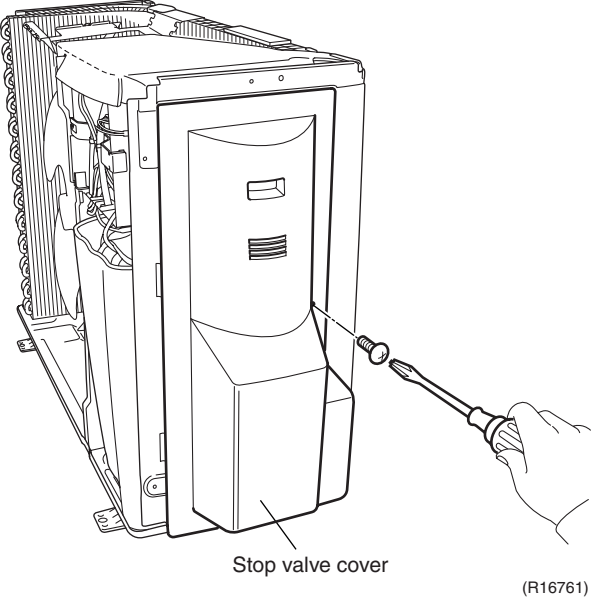
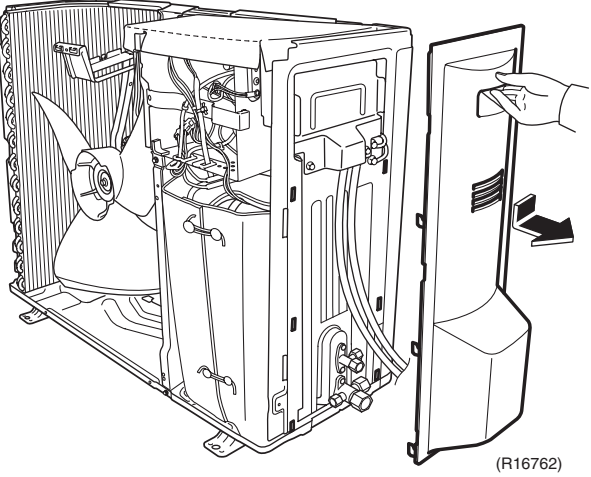
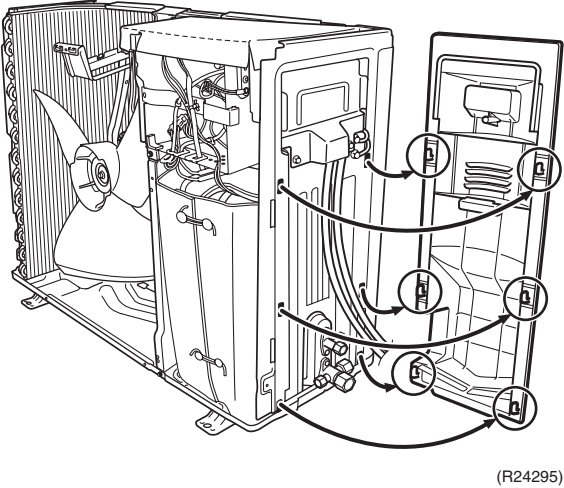
(R16757)



(R16759)



(R16760)

Step	Procedure	Points
6	Remove the screw of the stop valve cover.	
	 <p style="text-align: center;">Stop valve cover</p> <p style="text-align: right;">(R16761)</p>	
7	Pull down the stop valve cover to unfasten the hooks.	
8	Remove the stop valve cover.	
	 <p style="text-align: right;">(R16762)</p>	
	 <p style="text-align: right;">(R24295)</p>	<p>■ When reassembling, make sure the 6 hooks are securely fastened.</p>

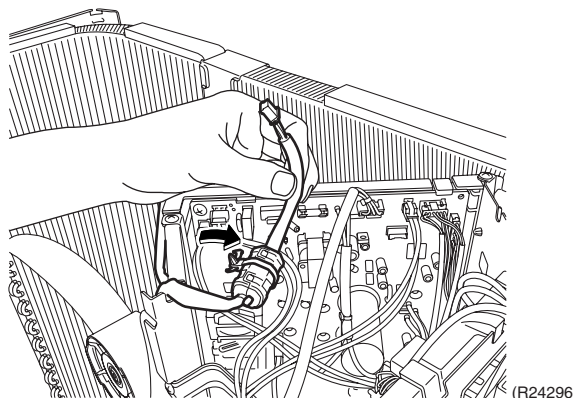
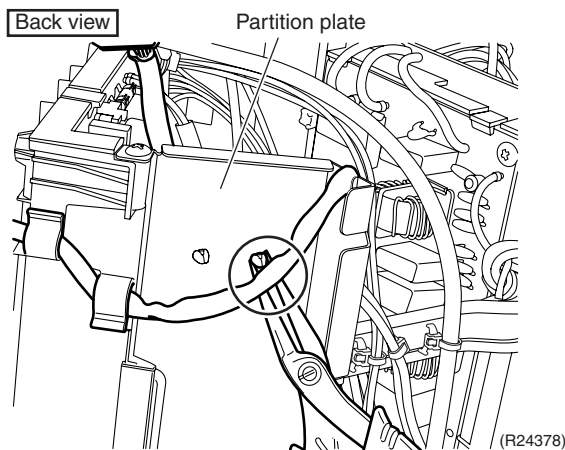
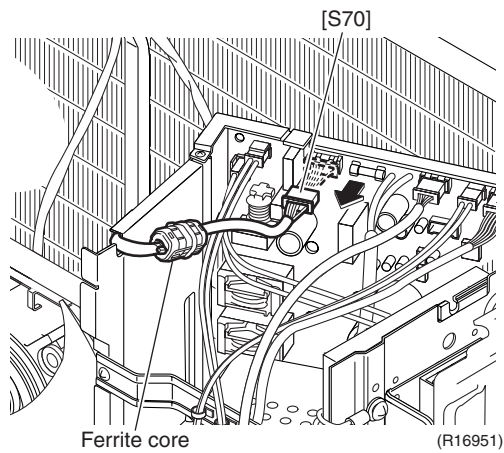
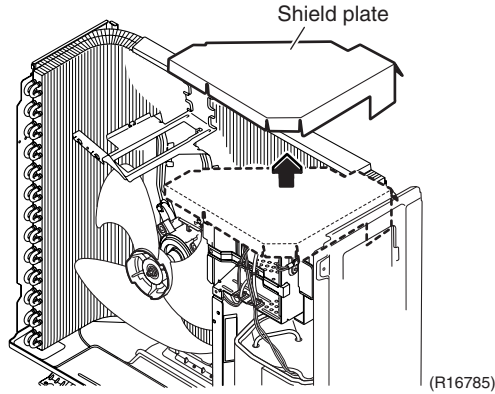
2. Outdoor Fan / Fan Motor

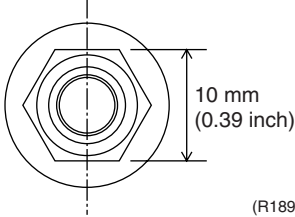


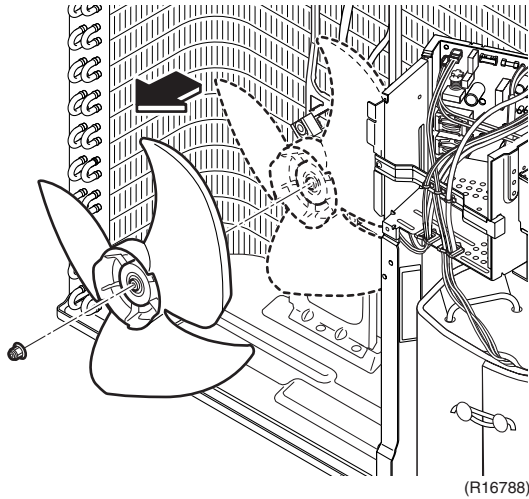
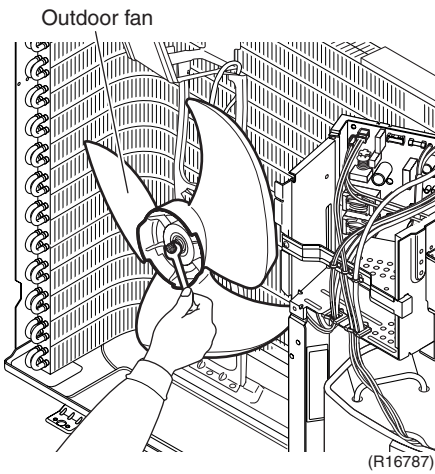
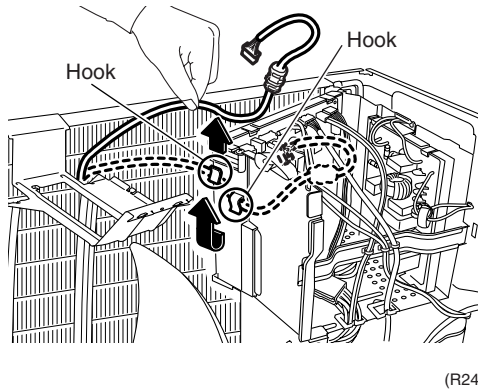
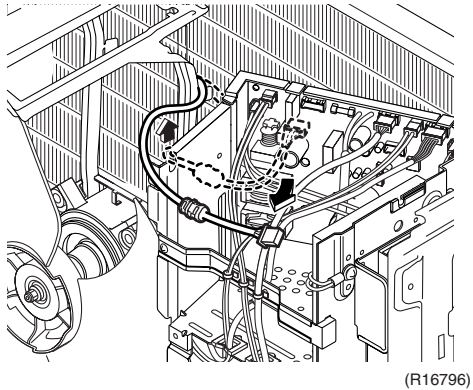
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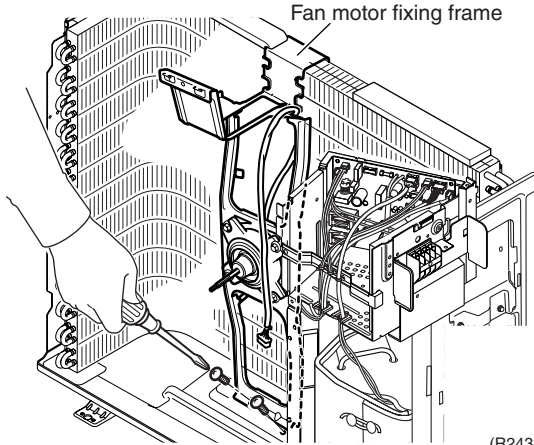
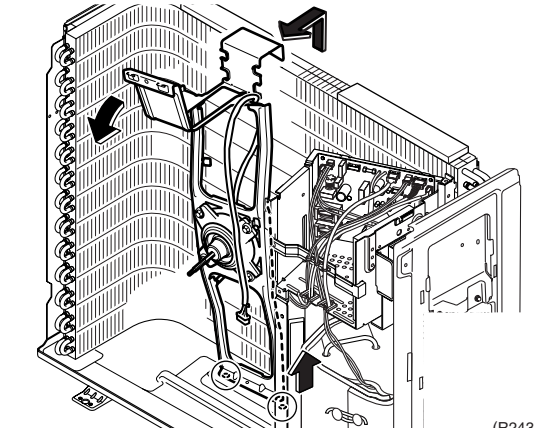
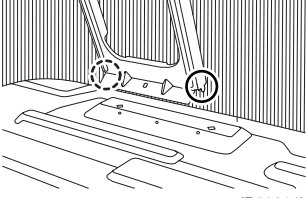
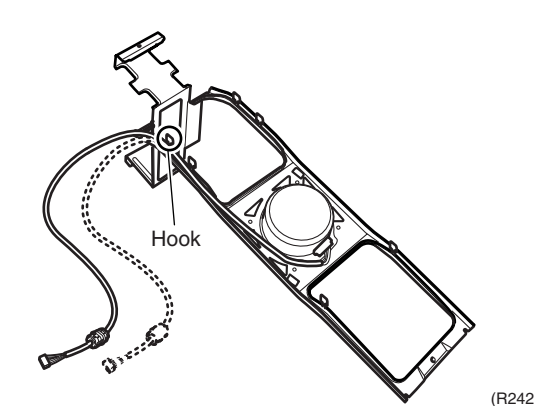
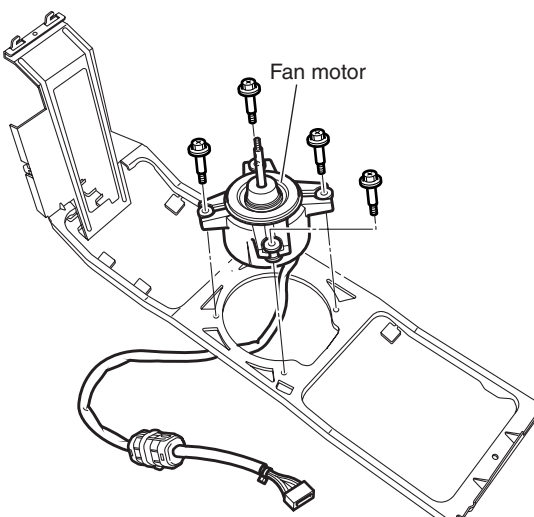
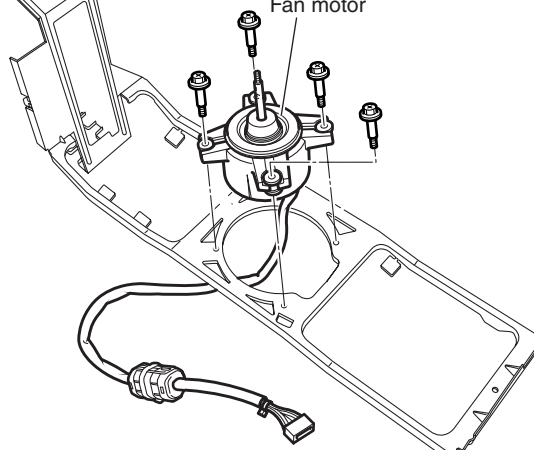
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Remove the shield plate.	
2	Disconnect the connector [S70].	[S70]: fan motor
3	Release the clamp that fixes the fan motor lead wire's ferrite core to the partition plate.	<ul style="list-style-type: none"> ■ Pinch the clamp with pliers and push from the back to remove.



Step	Procedure	Points
4	Release the fan motor lead wire from the groove and from the 2 hooks on the partition plate.	
5	Remove the nut of the outdoor fan.	<p>■ Nut size: M6</p>  <p>(R18954)</p>
6	Remove the outdoor fan.	<p>■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.</p>



Step	Procedure	Points	
7	Remove the 2 screws of the fan motor fixing frame.	 <p>Fan motor fixing frame</p> <p>(R24380)</p>	
8	Pull up the fan motor fixing frame to unfasten the 2 hooks at the bottom.	 <p>(R24381)</p>	<p>■ When reassembling, make sure the 2 hooks are securely fastened.</p>  <p>(R20314)</p>
9	Remove the fan motor fixing frame.	 <p>(R24297)</p>	<p>■ When reassembling, make sure the hook is securely fastened.</p>
10	Open the hook and release the fan motor lead wire.	 <p>Hook</p> <p>Fan motor</p> <p>(R16792)</p>	
11	Remove the 4 screws, and then the fan motor.	 <p>(R16792)</p>	

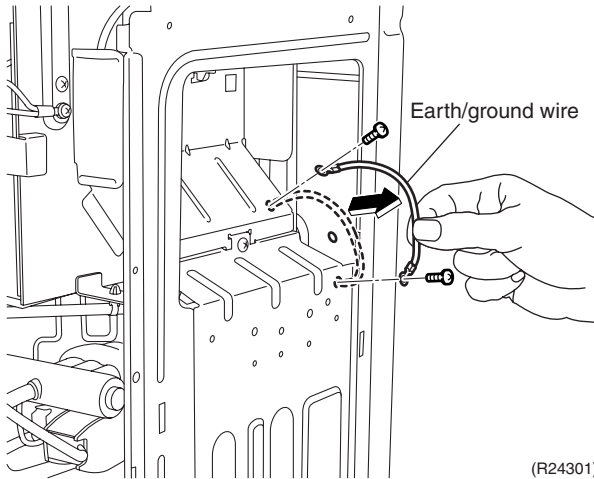
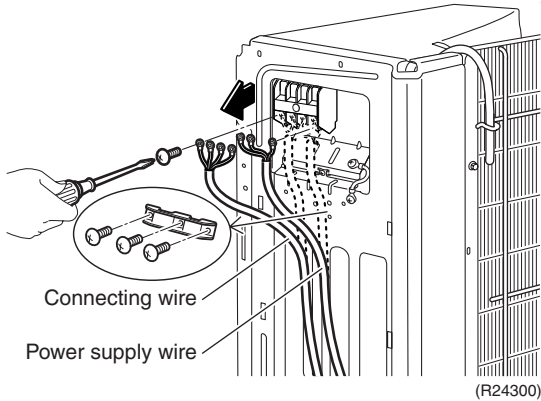
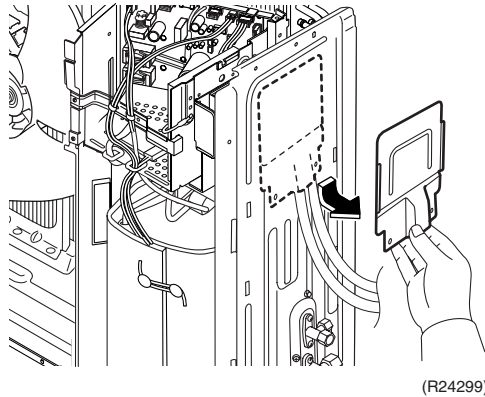
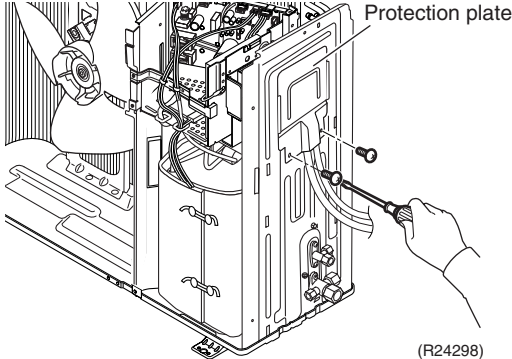
3. Electrical Box



Warning

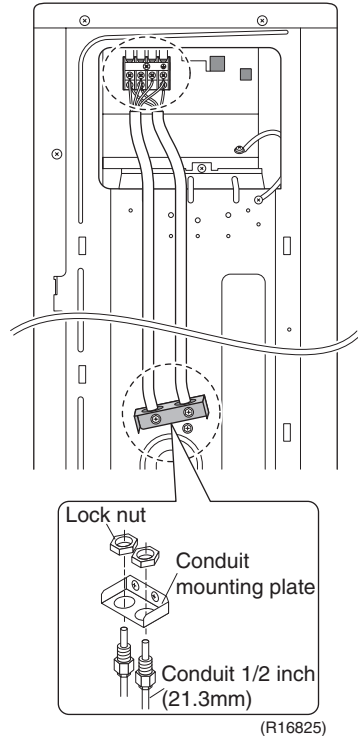
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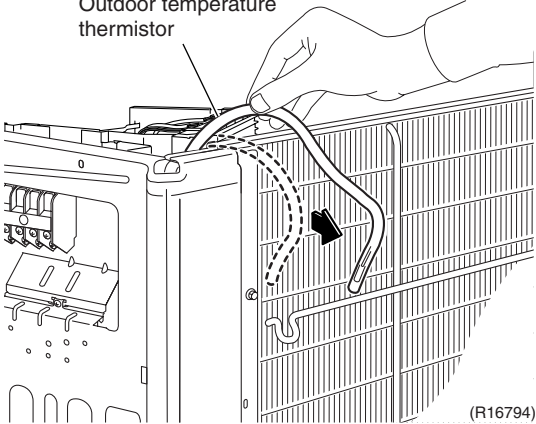
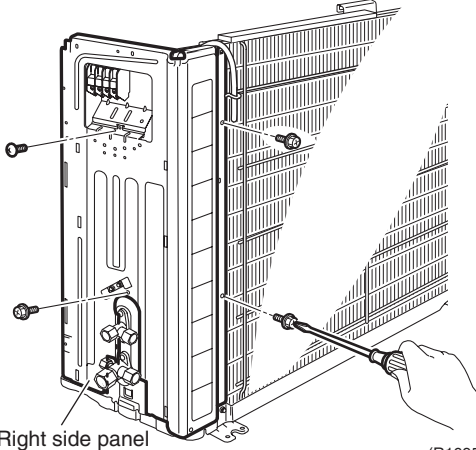
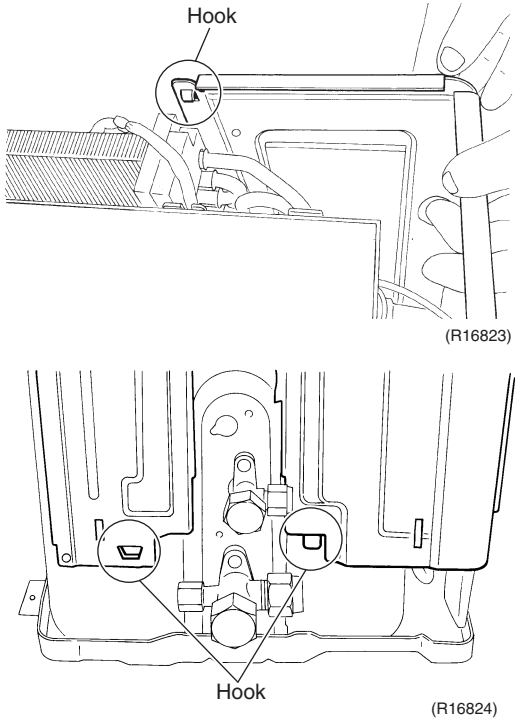
Step	Procedure	Points
1	Remove the 2 screws of the protection plate.	
2	Remove the protection plate.	
3	Remove the 3 screws, and then the wire fixture.	
4	Remove the 7 screws, and then the connecting wire and the power supply wire.	
5	Remove the 2 screws, and then the earth/ground wire.	



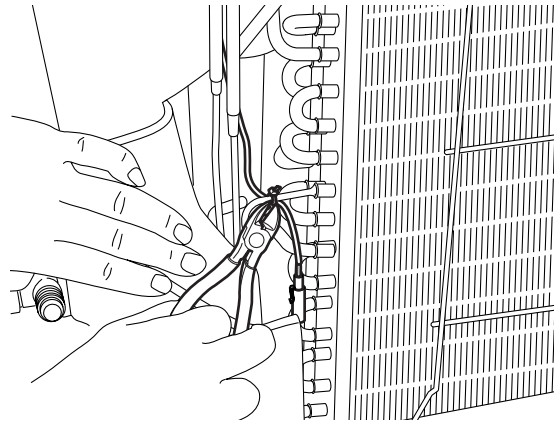
For U.S. models

■ When reassembling, pass the connecting wires through the conduit and secure them with a lock nut.

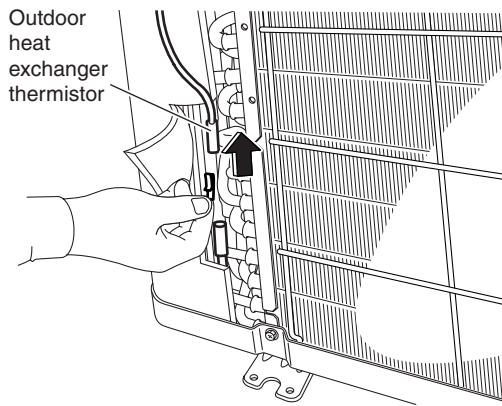


Step		Procedure	Points
6	Pull out the outdoor temperature thermistor.	<p data-bbox="587 226 790 275">Outdoor temperature thermistor</p>  <p data-bbox="979 633 1050 654">(R16794)</p>	
7	Remove the 4 screws of the right side panel.	 <p data-bbox="555 1115 710 1135">Right side panel</p> <p data-bbox="986 1131 1056 1151">(R16957)</p>	
8	Unfasten the 3 hooks and remove the right side panel.	 <p data-bbox="699 1189 756 1209">Hook</p> <p data-bbox="962 1507 1032 1527">(R16823)</p> <p data-bbox="730 1861 788 1881">Hook</p> <p data-bbox="946 1877 1016 1897">(R16824)</p>	<p data-bbox="1094 1167 1453 1294">■ When reassembling, make sure the upper hook and the 2 lower hooks are securely fastened.</p>

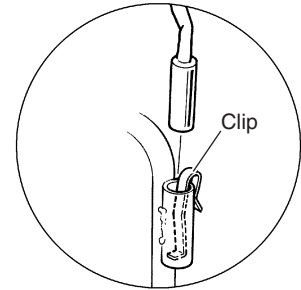
Step	Procedure	Points
9	Cut the clamp.	
10	Pull out the outdoor heat exchanger thermistor.	<p>■ Be careful not to lose the clip for the thermistor.</p>
11	Remove the clamp, and then disconnect the connector [S70].	[S70]: fan motor



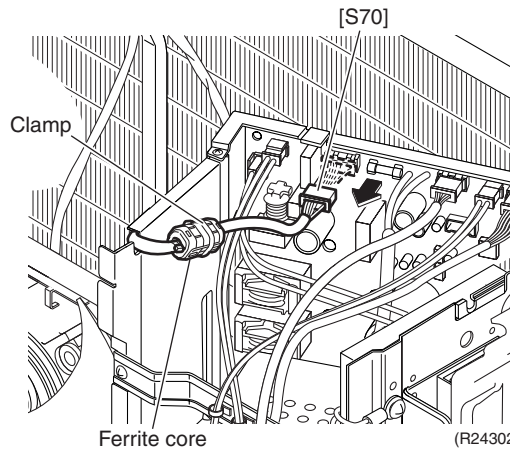
(R16766)



(R16819)

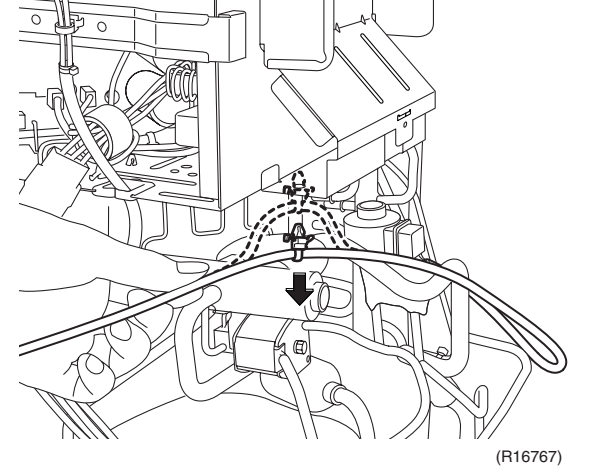
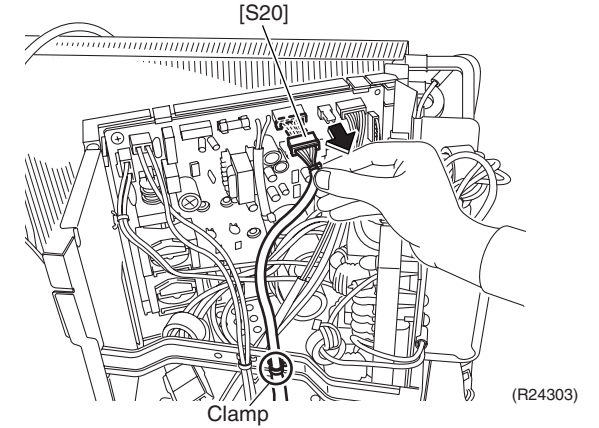
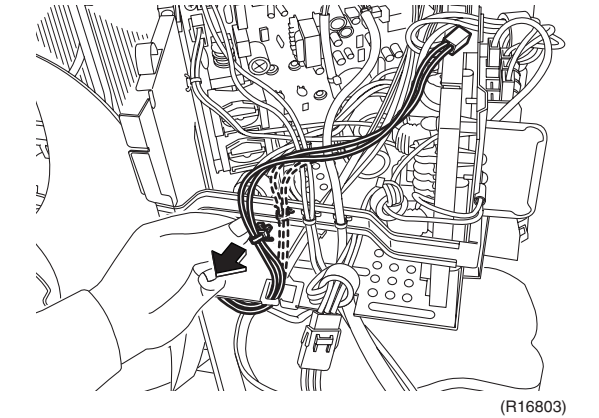
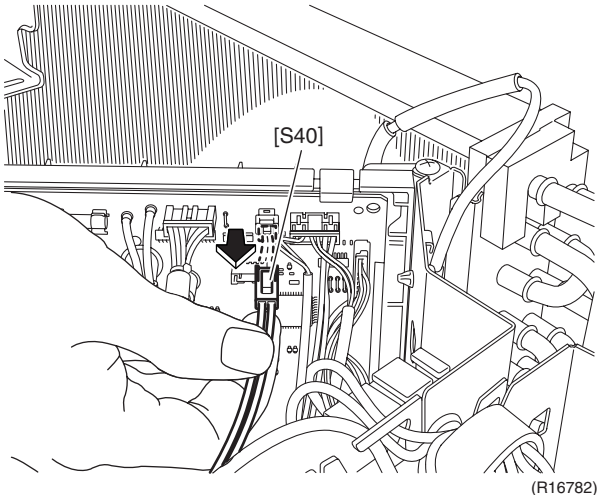


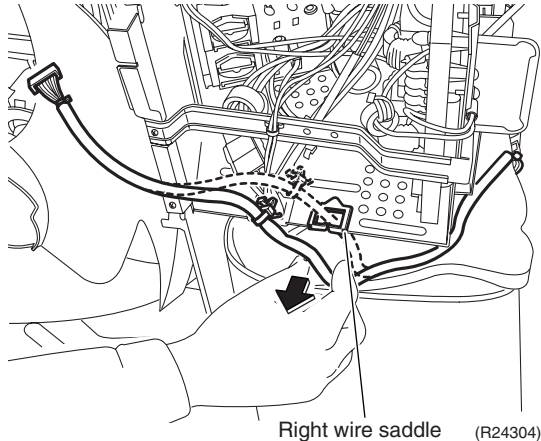
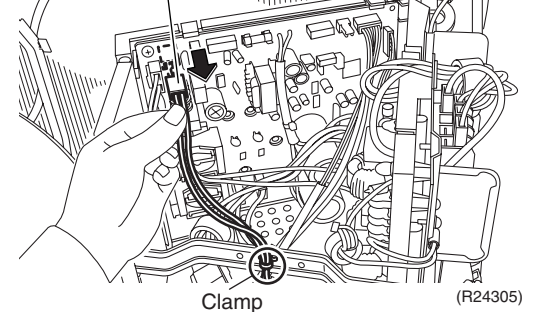

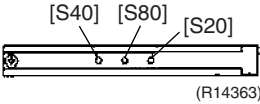
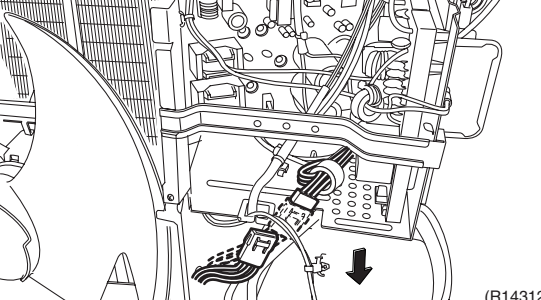
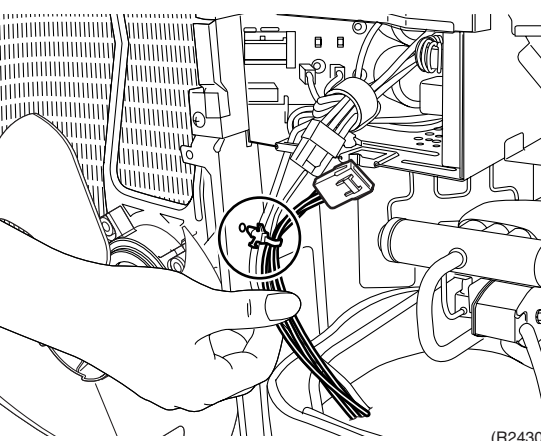
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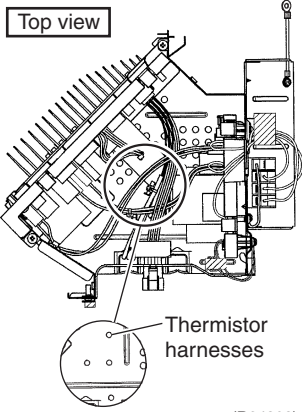


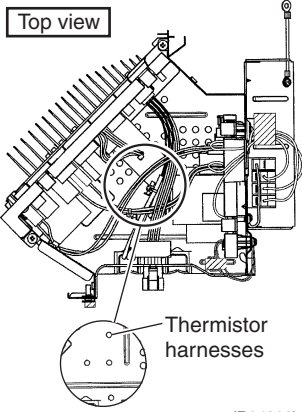
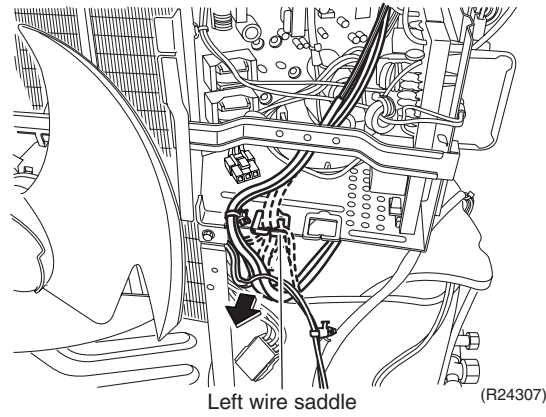
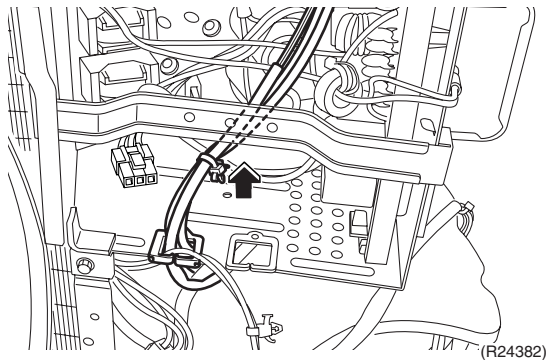
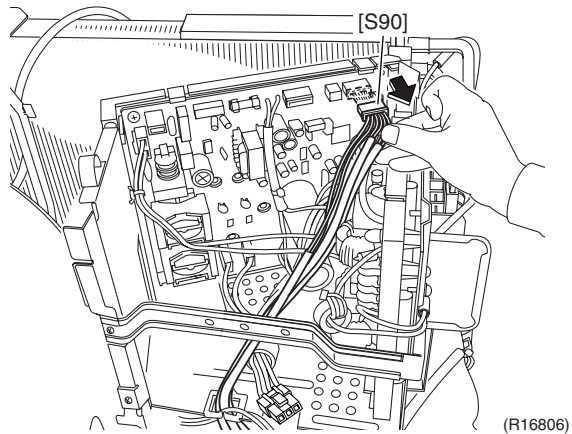
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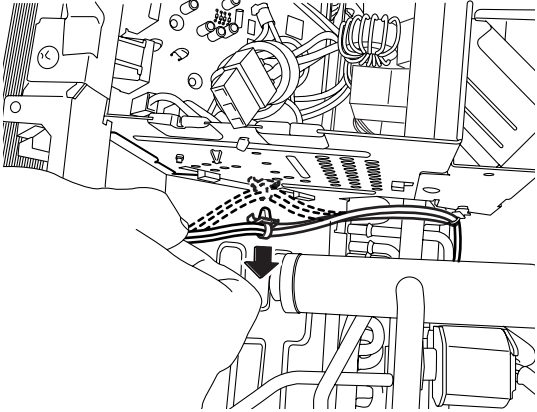
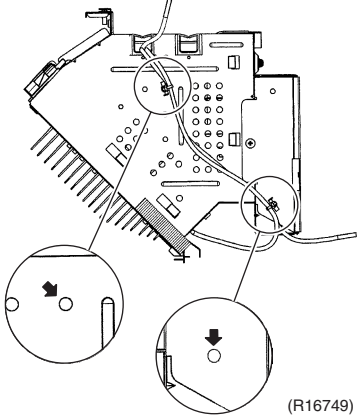
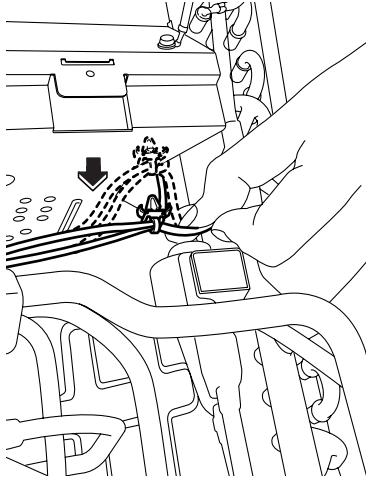
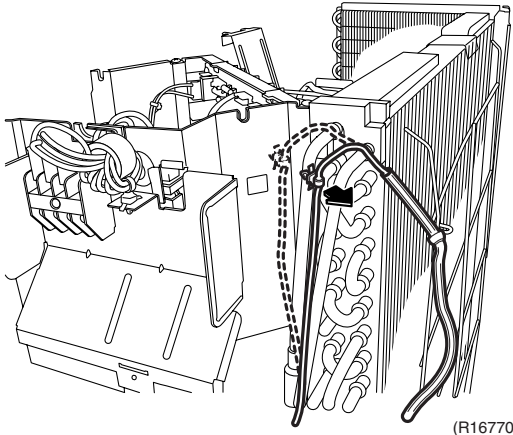
Step	Procedure	Points
12	Disconnect the connector [S40].	[S40]: overload protector
13	Pull out the clamp.	
14	Remove the clamp, and then disconnect the connector [S20].	[S20]: electronic expansion valve coil
15	Pull out the clamp at the bottom of the electrical box.	



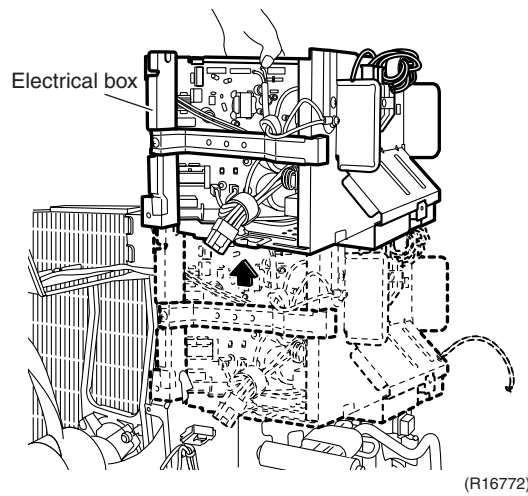
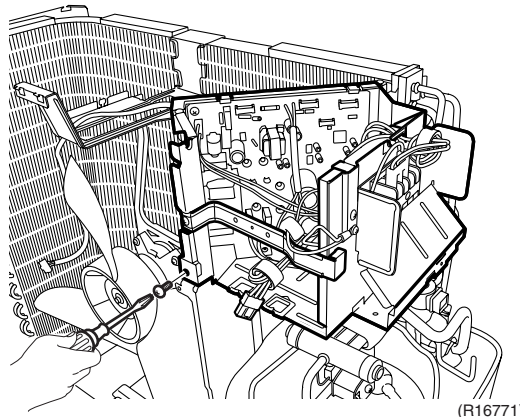
Step	Procedure	Points	
16	Remove the harness from the right wire saddle.	 <p>Right wire saddle (R24304)</p>	
17	Disconnect the connector [S80].	 <p>[S80]</p> <p>Clamp (R24305)</p>	<p>[S80]: four way valve coil</p> <ul style="list-style-type: none"> ■ The cooling only models do not have the harness for [S80]. ■ When reassembling, insert the clamps of harnesses as shown below.
18	Pull out the clamp.	 <p>Clamp (R24305)</p>	 <p>[S40] [S80] [S20]</p> <p>(R14363)</p> <ul style="list-style-type: none"> ■ When reassembling, connect the connectors in the following order:
19	Disconnect the relay connector for the compressor.	 <p>(R14312)</p>	
20	Pull out the clamp from the partition plate.	 <p>(R24306)</p>	

Step	Procedure	Points
21	Disconnect the connector [S90].	[S90]: thermistors
22	Pull out the clamp.	<ul style="list-style-type: none"> ■ When reassembling, pass the thermistor harness under the harnesses (HL2: blue, HN2: white) from the filter PCB. ■ When reassembling, insert the clamp as shown below.
23	Remove the harnesses from the left wire saddle.	<p>Top view</p>  <p>Thermistor harnesses</p>



Step	Procedure	Points
24	Pull out the 3 clamps.	<ul style="list-style-type: none"> ■ When reassembling, make sure the 2 clamps are securely fastened to the bottom of the electrical box.
	 <p>(R16768)</p>	 <p>(R16749)</p>
	 <p>(R16769)</p>	
	 <p>(R16770)</p>	

Step	Procedure	Points
25	Remove the screw of the electrical box.	
26	Remove the electrical box.	

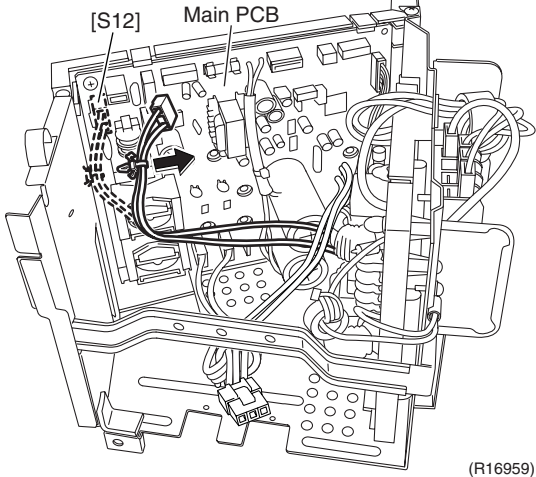
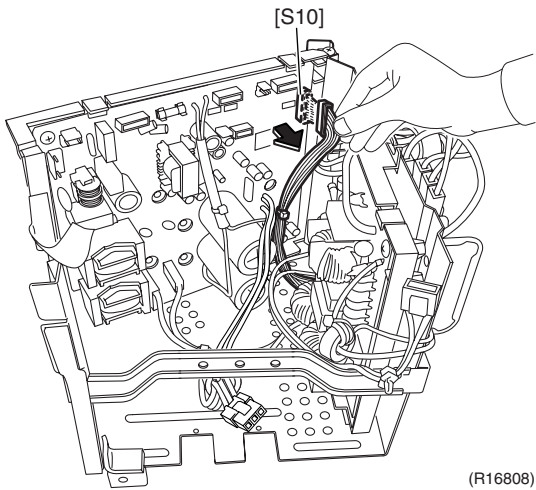
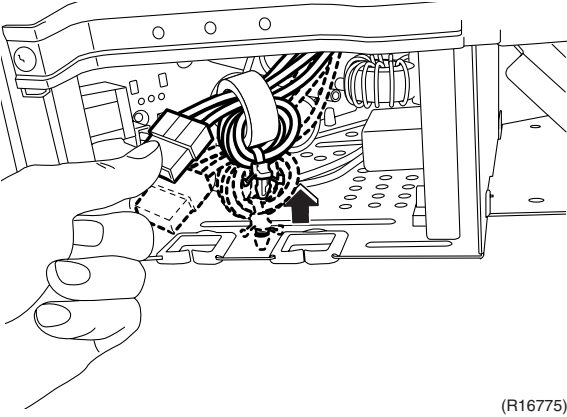
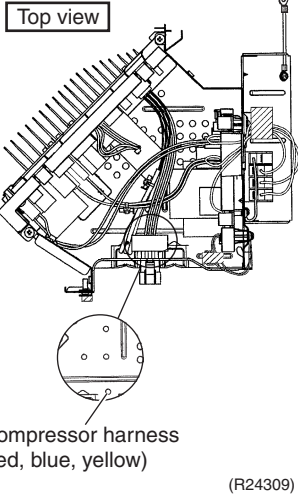


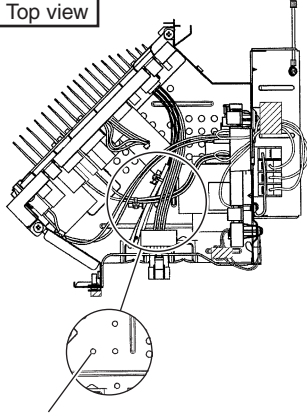
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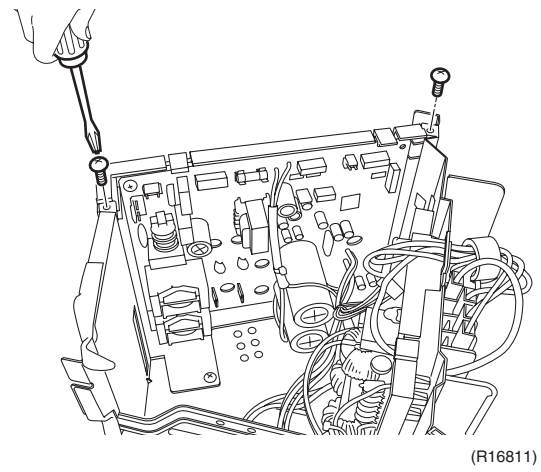
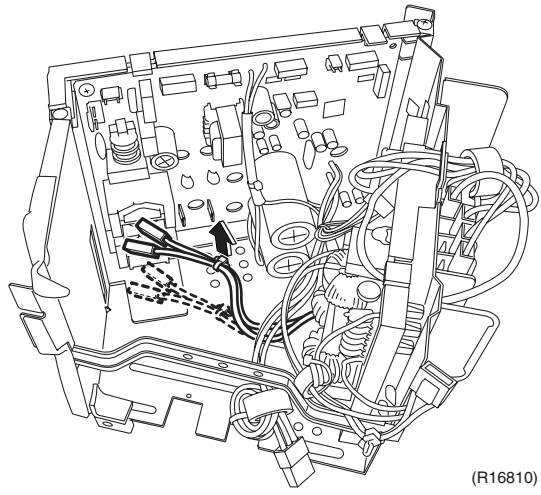
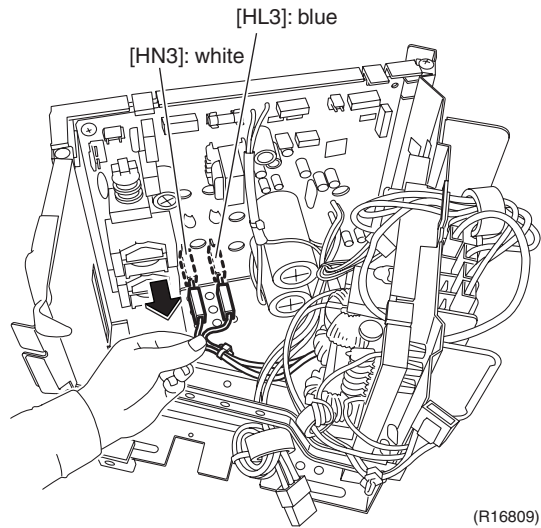


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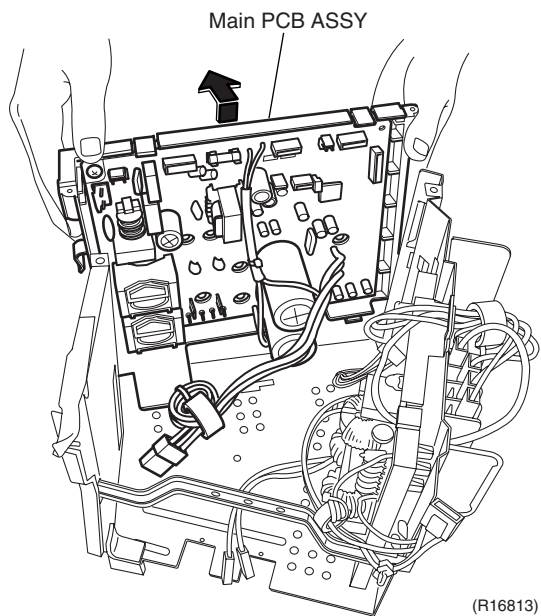
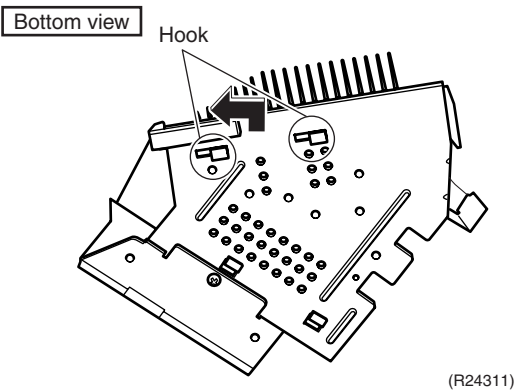
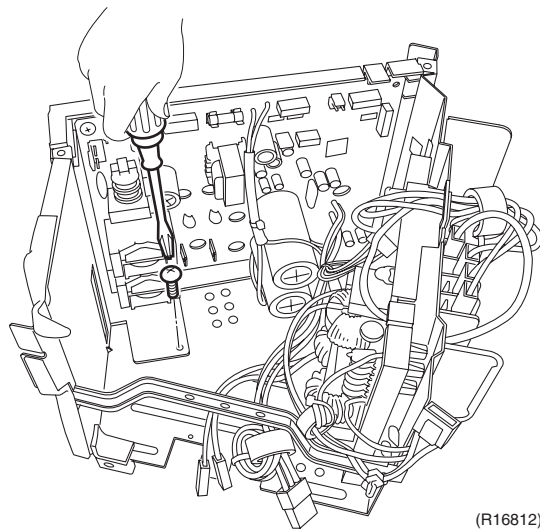
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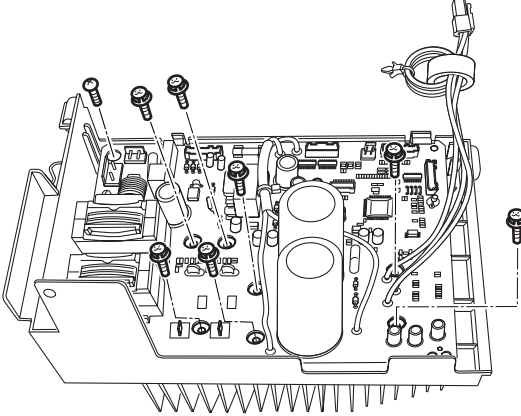
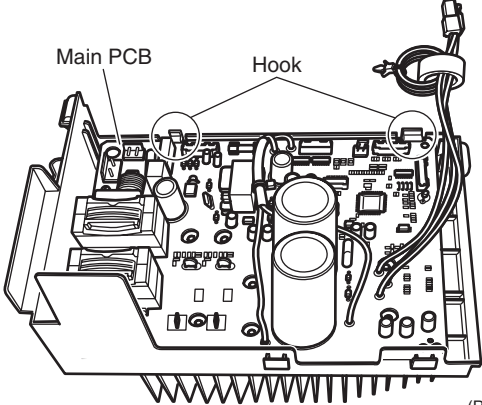
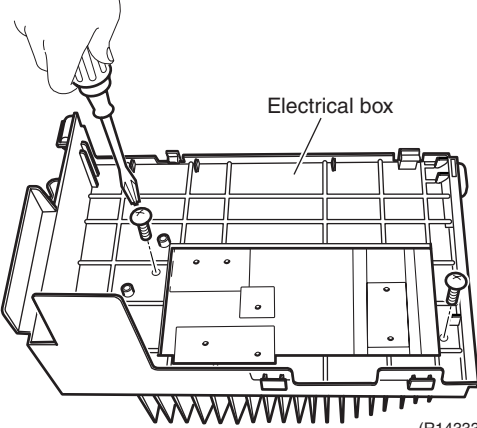
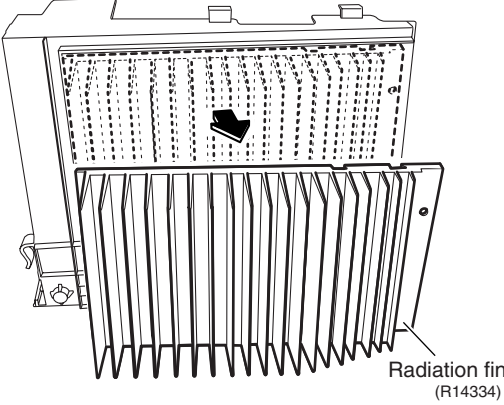
Step	Procedure	Points
1. Remove the main PCB.		[S12]: filter PCB
2. Disconnect the connector [S10].		[S10]: filter PCB
3. Pull out the clamp.		<p>■ When reassembling, make sure the compressor harness clamp is securely fastened.</p>
		<p>Top view</p>  <p>Compressor harness (red, blue, yellow)</p>

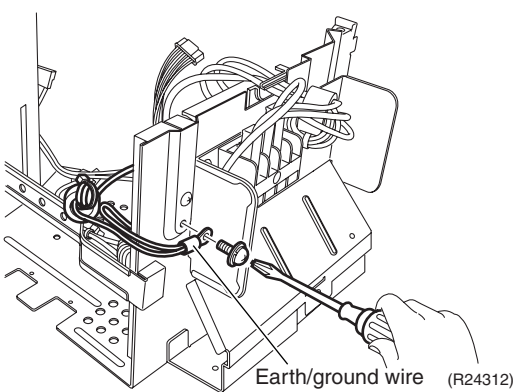
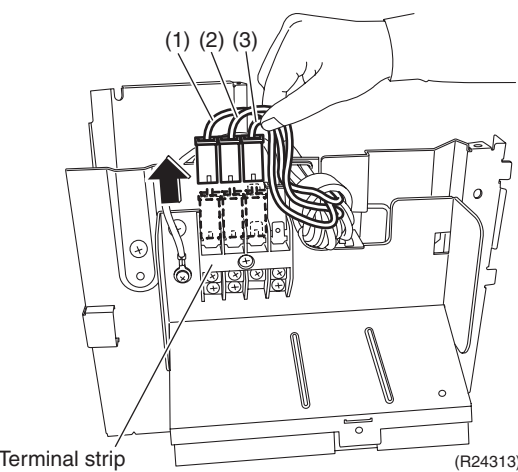
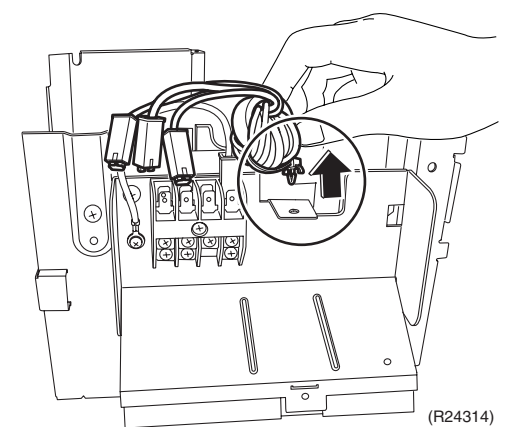
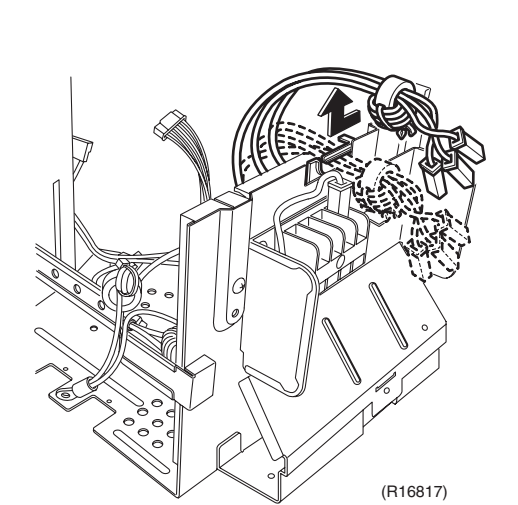

Step	Procedure	Points
4	Disconnect the connectors [HN3] and [HL3].	[HL3] [HN3]: filter PCB
5	Pull out the clamp.	<ul style="list-style-type: none"> When reassembling, make sure the clamp is securely fastened as shown below.
6	Remove the 2 upper screws.	<p>Top view</p>  <p>Harnesses from [HL2] (blue) and [HN2] (white)</p>



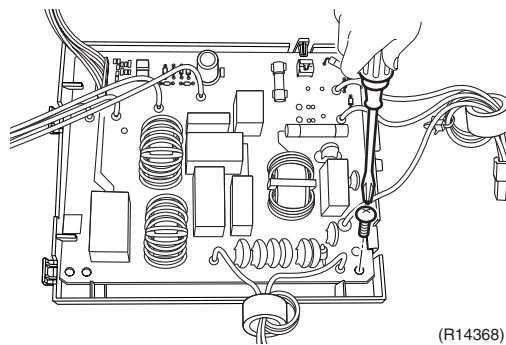
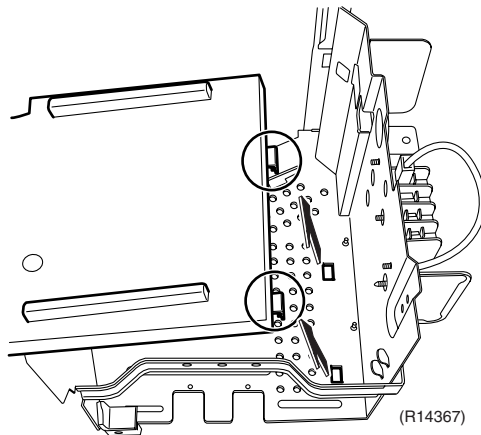
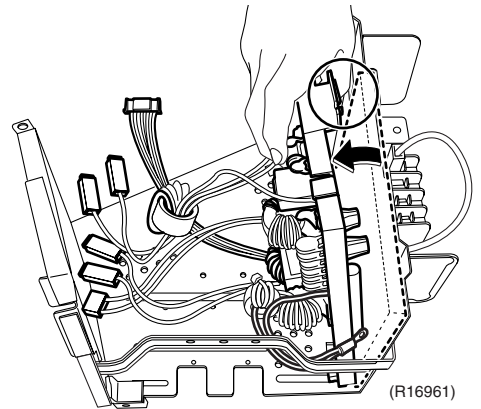
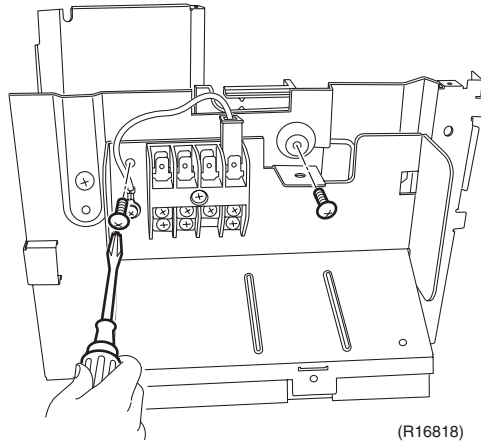
Step	Procedure	Points
7	Remove the screw.	
8	Unfasten the 2 hooks at the bottom.	
9	Remove the main PCB ASSY.	



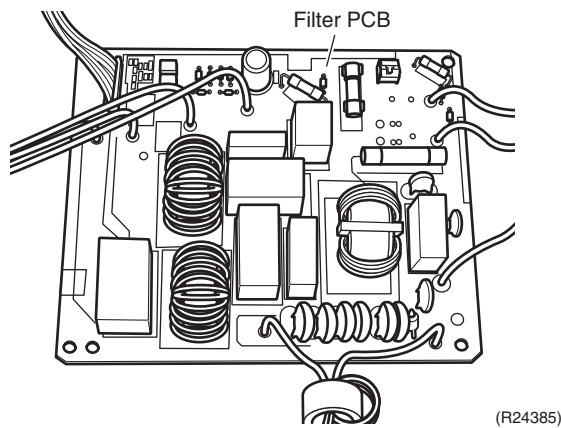
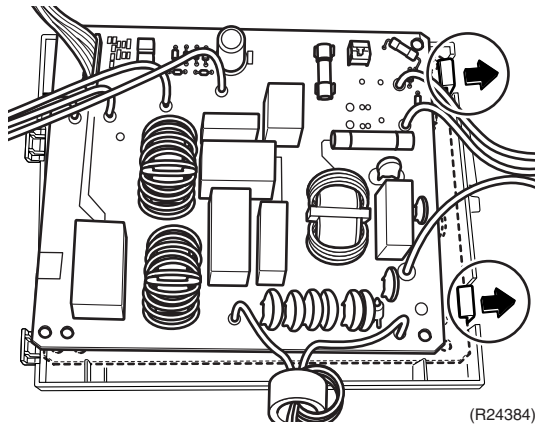
Step	Procedure	Points
<p>10 Remove the 8 screws.</p> <p>11 Unfasten the 2 hooks.</p> <p>12 Remove the main PCB.</p>	 <p>(R14330)</p>  <p>Main PCB</p> <p>Hook</p> <p>(R24383)</p>	
<p>2. Remove the radiation fin.</p> <p>1 Remove the 2 screws on the bottom of the electrical box.</p> <p>2 Remove the radiation fin.</p>	 <p>Electrical box</p> <p>(R14333)</p>  <p>Radiation fin</p> <p>(R14334)</p>	

Step	Procedure	Points
3. Remove the filter PCB.		<p>(1): black (lower) (2): white (lower) (3): red (upper)</p>
1 Remove the earth/ground wire screw.		
2 Pull out the terminals from the terminal strip.		
3 Pull out the clamp.		
4 Release the harnesses from the groove.		

Step	Procedure	Points
5	Remove the 2 screws.	
6	Unfasten the 3 hooks and remove the filter PCB ASSY.	
7	Remove the screw.	



Step	Procedure	Points
8	Unfasten the 2 hooks.	
9	Remove the filter PCB.	

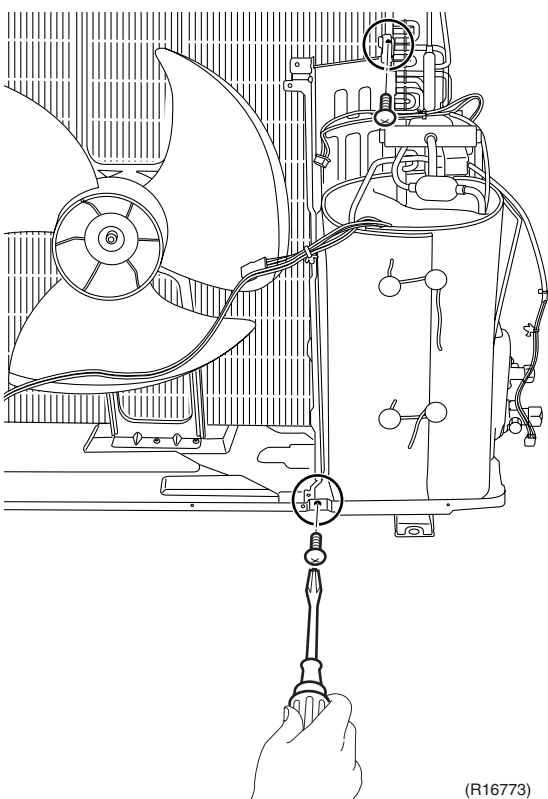
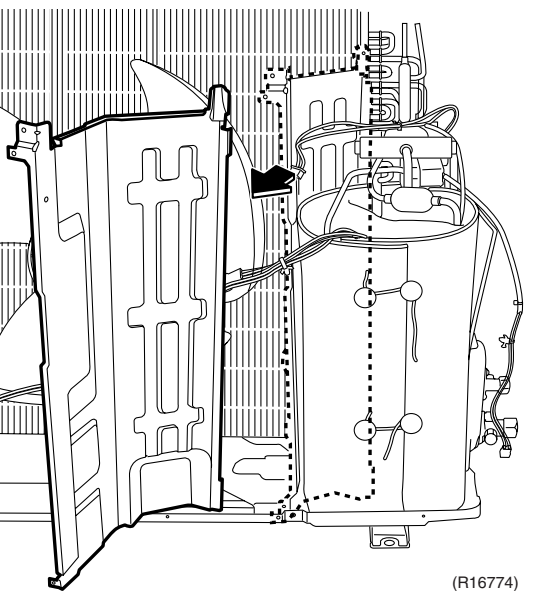


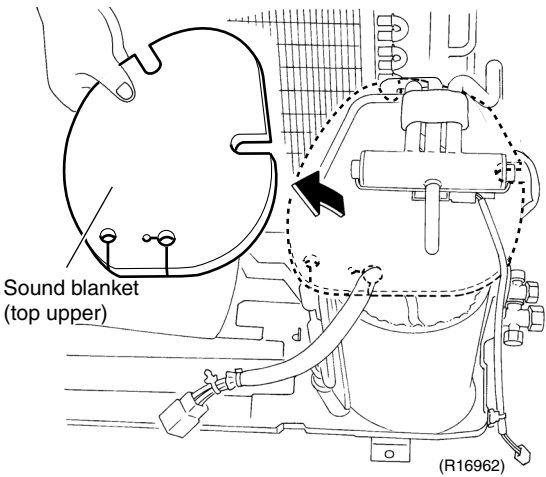
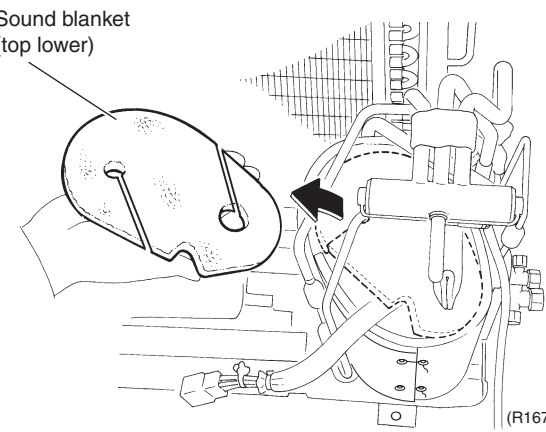
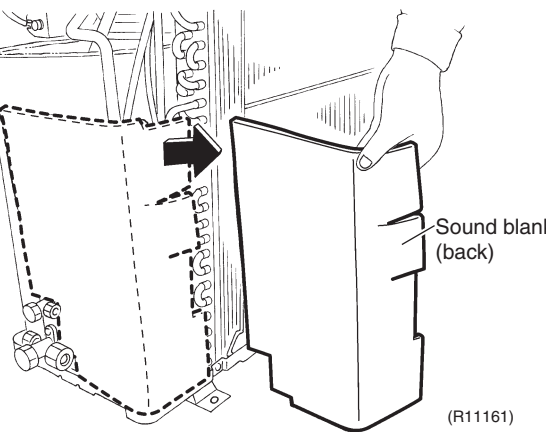
5. Sound Blankets / Thermistors



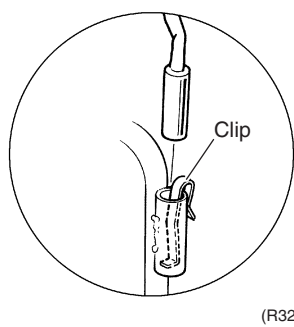
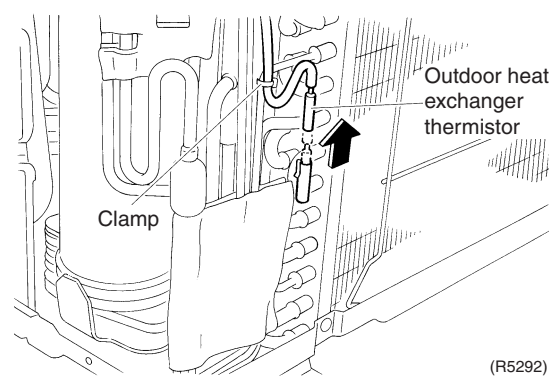
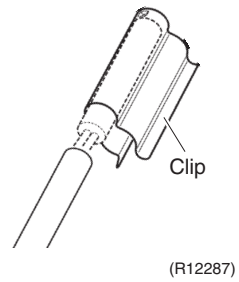
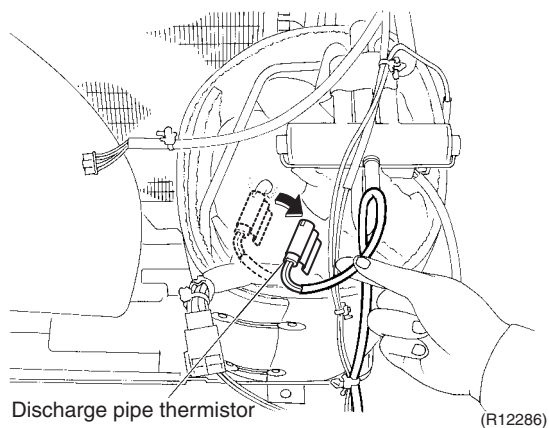
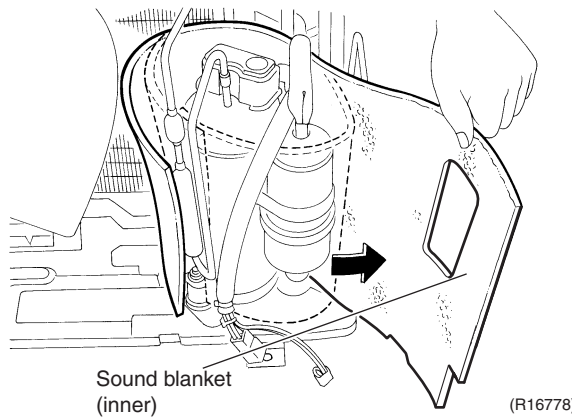
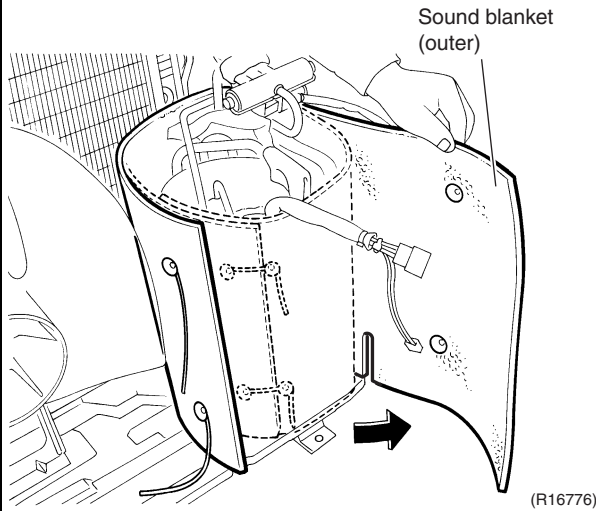
Warning

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

Step	Procedure	Points
1. Remove the partition plate.	 <p>(R16773)</p>	
2. Remove the partition plate.	 <p>(R16774)</p>	

Step	Procedure	Points
2. Remove the sound blankets.		
1 Remove the sound blanket (top upper).	 <p>Sound blanket (top upper)</p> <p>(R16962)</p>	
2 Remove the sound blanket (top lower).	 <p>Sound blanket (top lower)</p> <p>(R16783)</p>	
3 Remove the sound blanket (back).	 <p>Sound blanket (back)</p> <p>(R11161)</p>	

Step	Procedure	Points
4	Remove the sound blanket (outer).	<ul style="list-style-type: none"> Since the piping ports are torn easily, remove the sound blankets carefully.
5	Remove the sound blanket (inner).	<ul style="list-style-type: none"> Be careful not to lose the clip for the thermistor.
6	Release the discharge pipe thermistor.	<ul style="list-style-type: none"> Be careful not to lose the clip for the thermistor.
7	Cut the clamp and pull out the outdoor heat exchanger thermistor.	



6. Four Way 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.)



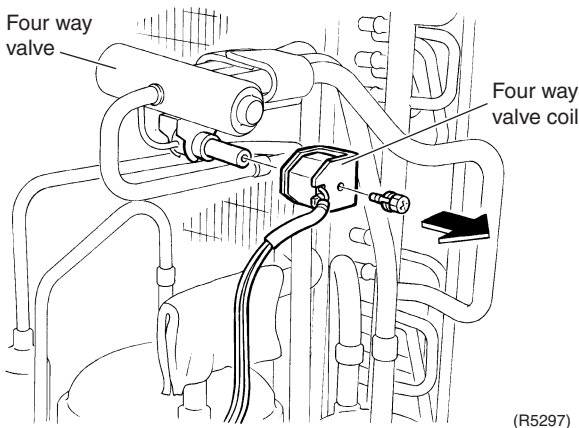
Caution

- ◆ 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.

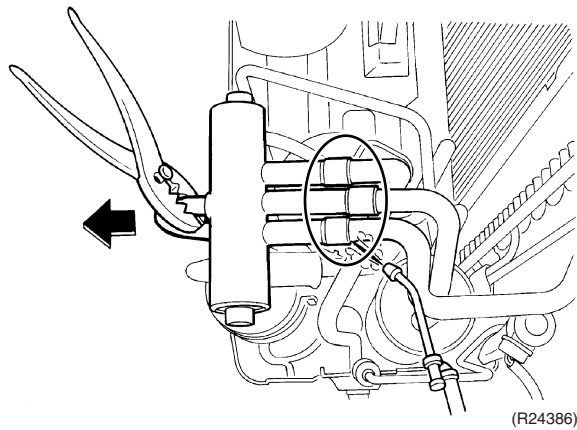
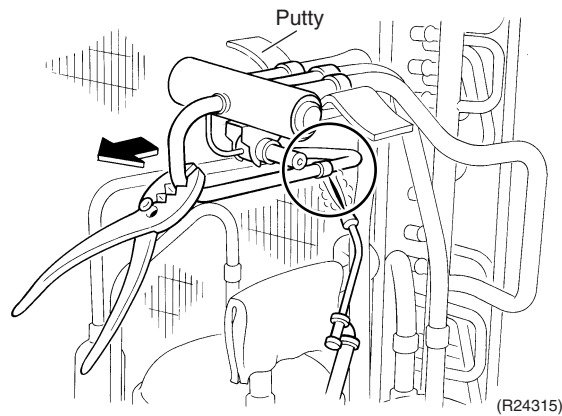


Note

- ◆ 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</p>	<p>Remove the screw, and then the four way valve coil.</p> 	<ul style="list-style-type: none"> ■ The cooling only models do not have the four way valve coil.

Step	Procedure	Points
2	Remove the putty.	
3	Heat up the brazed part of the four way valve and disconnect.	
4	Heat up the 3 brazed parts in turn and disconnect the four way valve.	



7. 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.)



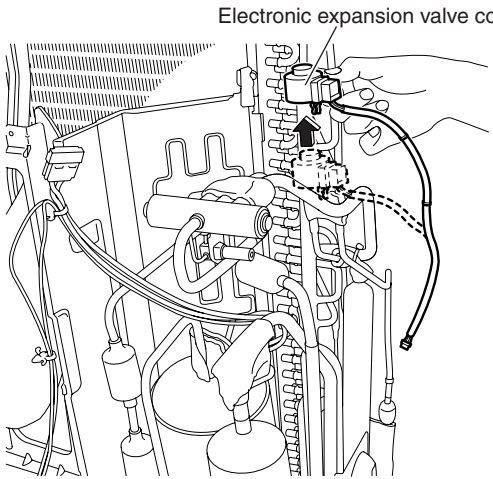
Caution

- ◆ 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.

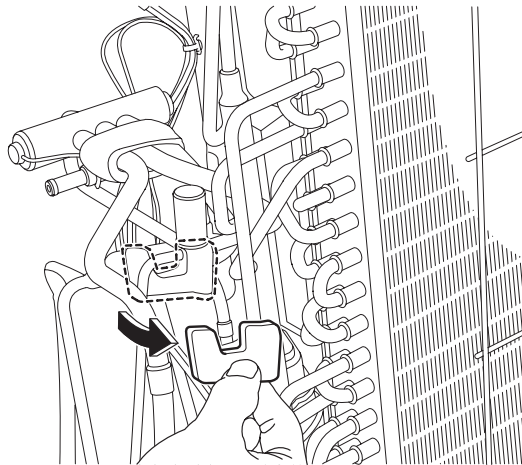


Note

- ◆ 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.

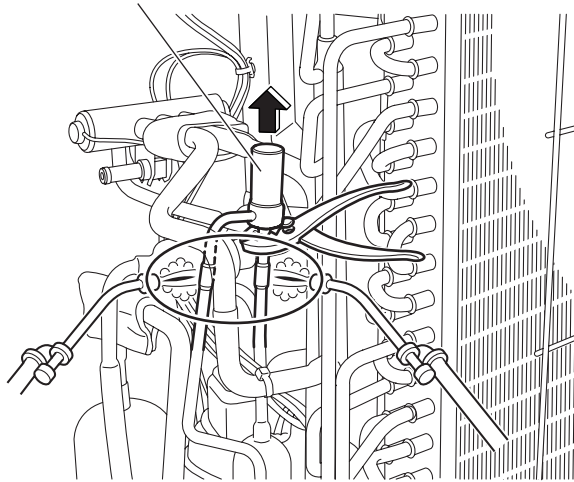
Step	Procedure	Points
1	<p>Pull out the electronic expansion valve coil.</p>  <p style="text-align: right;">(R16751)</p>	<ul style="list-style-type: none"> ■ The location of the electronic expansion valve coil varies depending on the model.

Step	Procedure	Points
2	Remove the putties.	
3	Heat up the 2 brazed parts of the electronic expansion valve and remove it.	



(R16752)

Electronic expansion valve



(R24316)

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.



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.

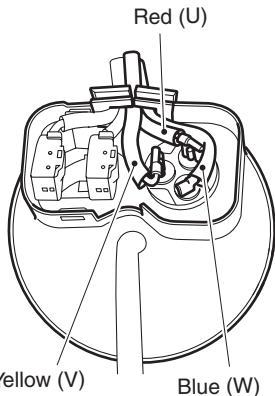


Note

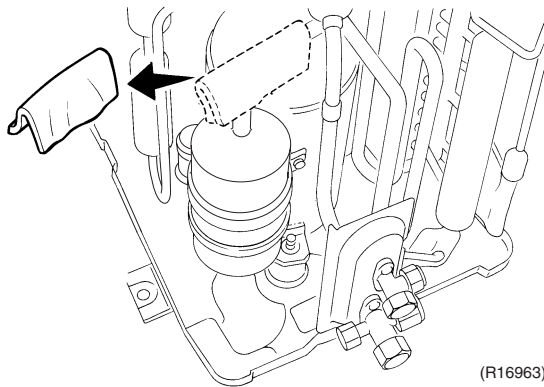
- ◆ Before working, make sure that the refrigerant gas is empty in the circuit.
- ◆ Be sure to apply nitrogen replacement when heating up the brazed part.
- ◆ Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.
- ◆ When withdrawing the pipes, be careful not 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 terminal cover. <div style="text-align: center; margin-top: 20px;"> </div>	

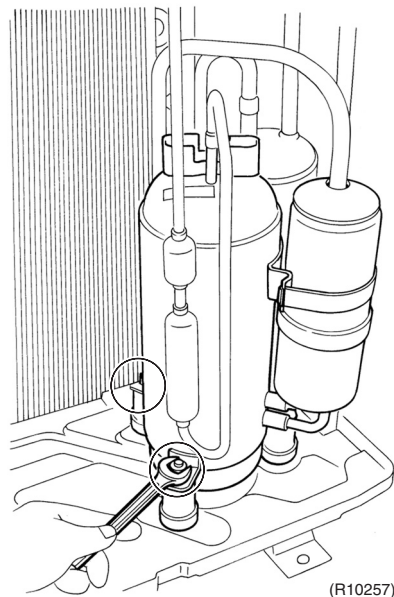
Step	Procedure	Points
2	Disconnect the lead wires (U, V, W) of the compressor.	
3	Remove the putty.	
4	Remove the 2 nuts of the compressor.	



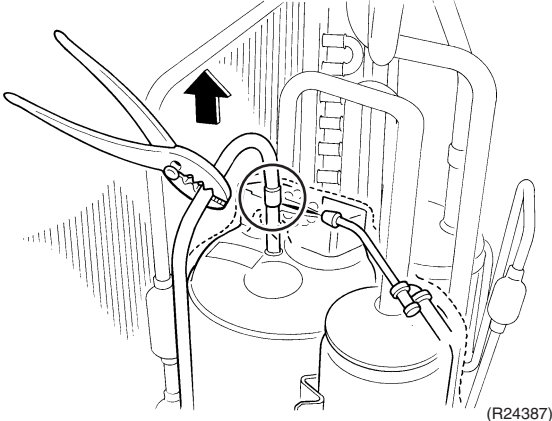
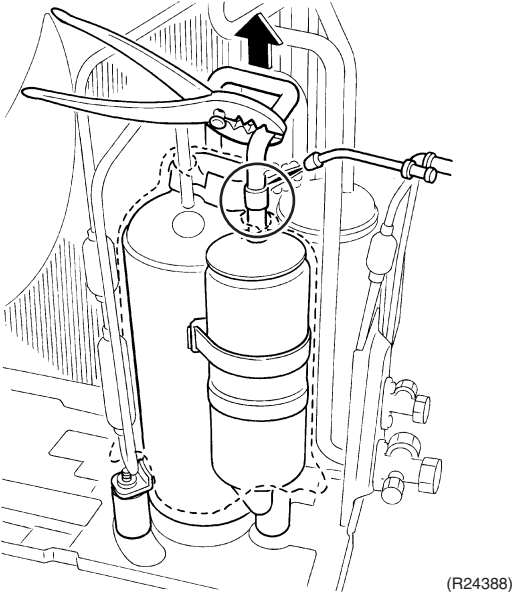
(R16784)



(R16963)



(R10257)

Step	Procedure	Points
5	Heat up the brazed part of the discharge pipe side and disconnect it.	
	 <p>(R24387)</p>	
6	Heat up the brazed part of the suction pipe side and disconnect it.	
7	Lift the compressor up and remove it.	
	 <p>(R24388)</p>	

Revision History

Month / Year	Version	Revised contents
08 / 2012	Si001163	First edition
12 / 2016	Si001163EA	Model addition: RXS35/45/50RV1A

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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