



REMOVAL PROCEDURE



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

1.5 kW Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

Applicable Model

- **Cooling Only**
RK15KEVM

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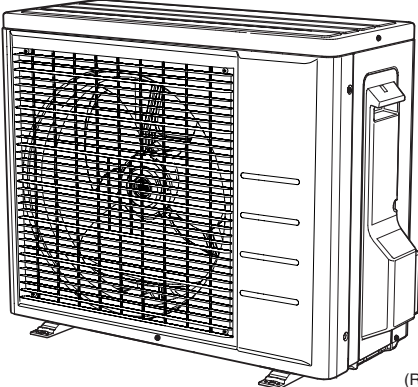
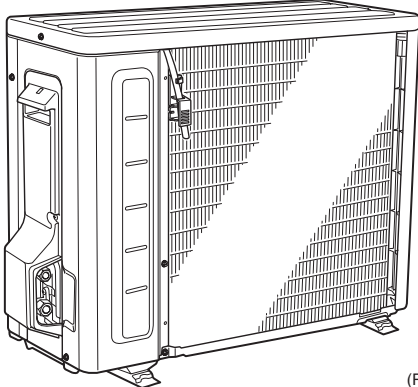
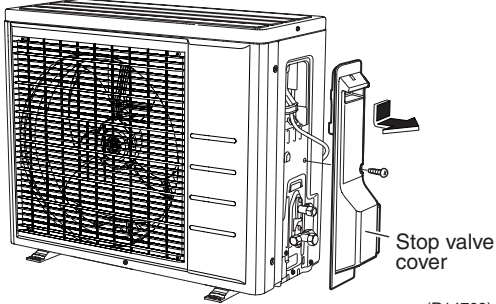
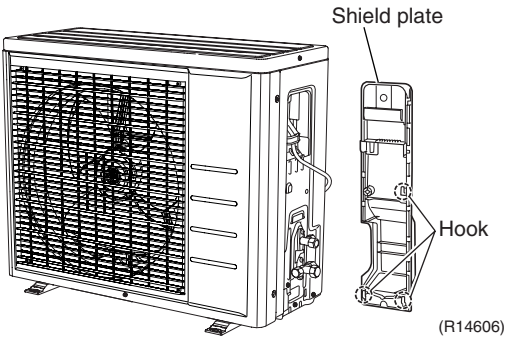
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1. Removal of Outer Panels

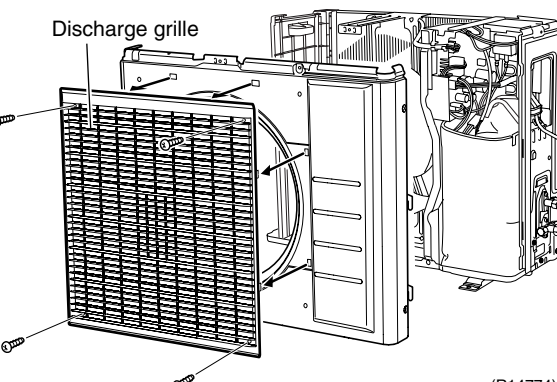
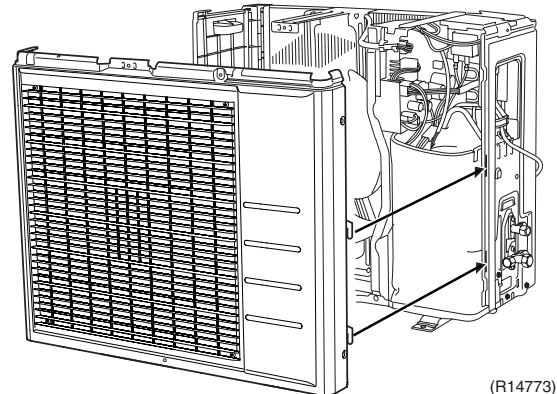
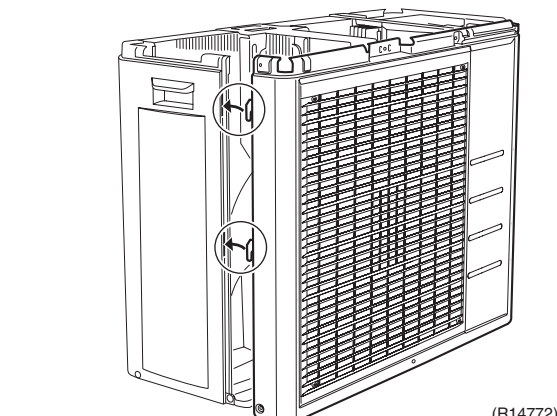
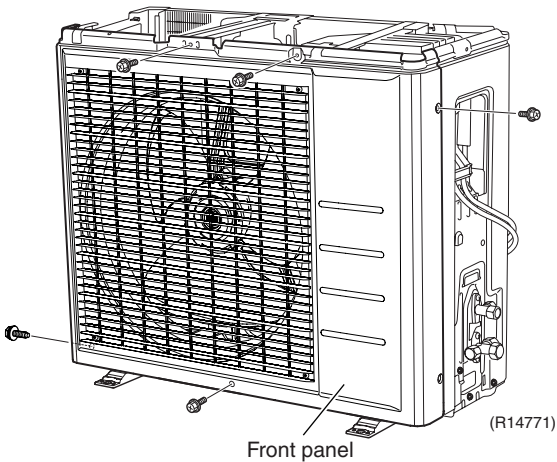
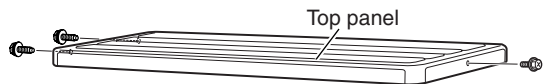
Procedure



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

Step	Procedure	Points
1. Appearance features	 <p>(R10707)</p>  <p>(R14768)</p>	<ul style="list-style-type: none"> Take care not to cut your finger by the fins of the outdoor heat exchanger.
2. Remove the panels.	<p>1 Remove the screw of the stop valve cover. Pull down the stop valve cover and remove it.</p>  <p>(R14769)</p>  <p>(R14606)</p>	<ul style="list-style-type: none"> The stop valve cover is united with the shield plate. When reassembling, make sure to fit the 3 hooks.

Step	Procedure	Points
2	Remove the 3 screws (right: 1 screw, left: 2 screws) and remove the top panel.	
3	Remove the 5 screws of the front panel.	
4	Lift up the left side and unfasten the hooks.	
5	Unfasten the right side hooks and remove the front panel.	
6	Remove the 4 screws of the discharge grille.	
7	Unfasten the 6 hooks and remove the discharge grille.	



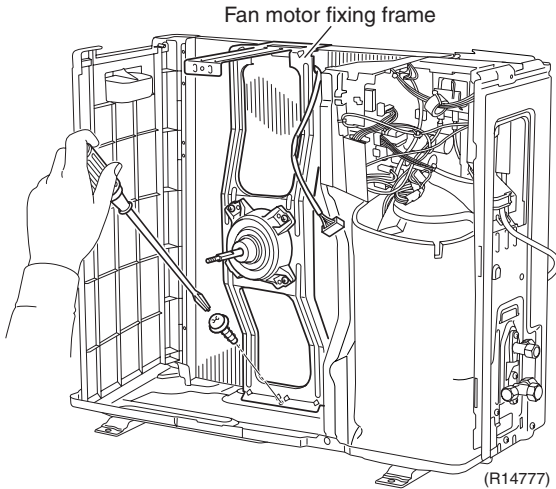
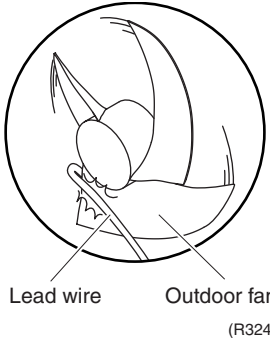
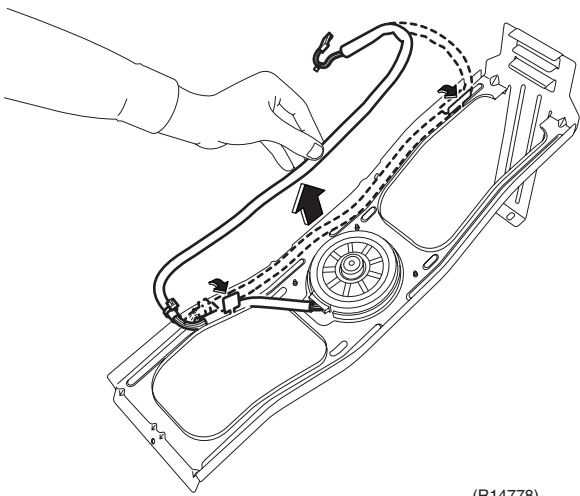
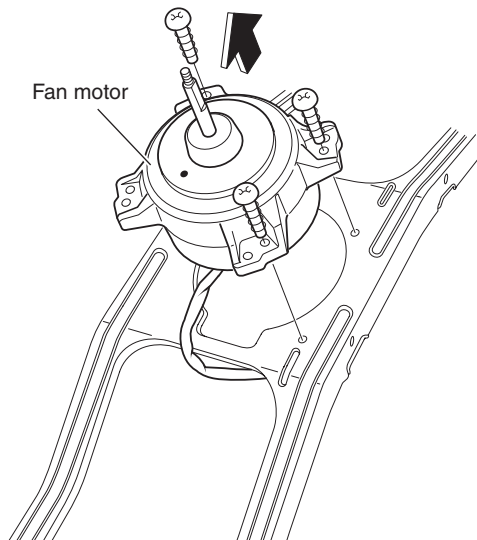
2. Removal of Outdoor Fan / Fan Motor

Procedure



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

Step	Procedure	Points
<p>1. Remove the outdoor fan.</p> <p>1 Remove the nut of the outdoor fan.</p> <p>2 Remove the outdoor fan.</p>		<p>Preparation</p> <ul style="list-style-type: none"> ■ Remove the panels according to the "Removal of Outer Panels". ■ Nut size: M6 <ul style="list-style-type: none"> ■ When reassembling, align ▼ mark of the outdoor fan with D-cut section of the motor shaft.
<p>2. Remove the fan motor.</p> <p>1 Disconnect the connector for the fan motor [S70].</p> <p>2 Release the fan motor lead wire from the hooks.</p>		

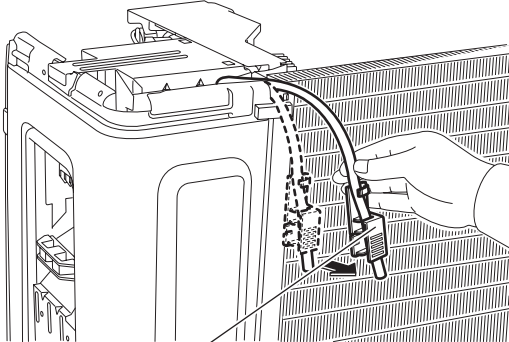
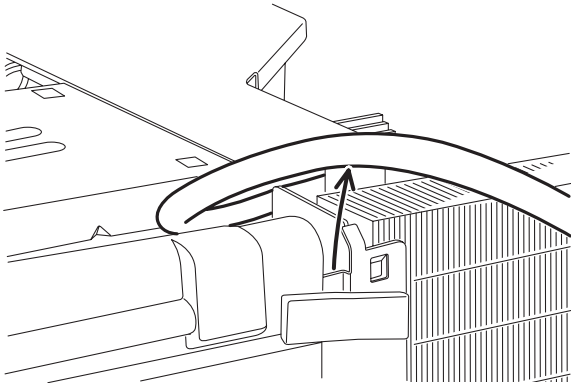
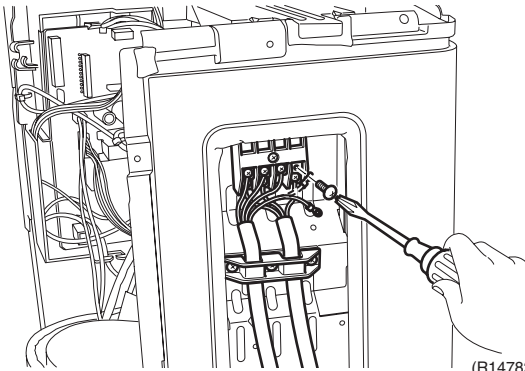
Step	Procedure	Points
3	<p>Remove the screw and remove the fan motor fixing frame.</p>  <p style="text-align: right;">(R14777)</p>	<p>■ When reassembling, put the fan motor lead wire through the back of the fan motor so as not to be entangled with the outdoor fan.</p>  <p style="text-align: right;">(R3249)</p>
4	<p>Release the fan motor lead wire from the hooks.</p>  <p style="text-align: right;">(R14778)</p>	
5	<p>Remove the 3 screws to remove the fan motor.</p>  <p style="text-align: right;">(R14779)</p>	

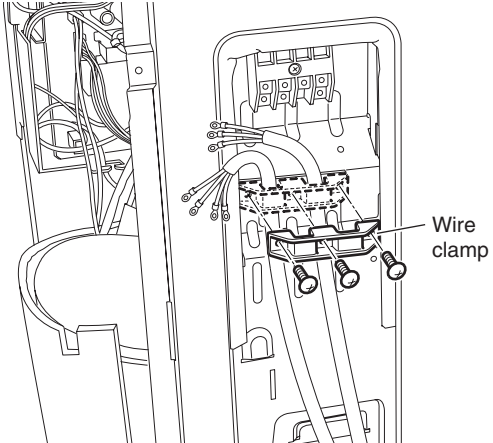
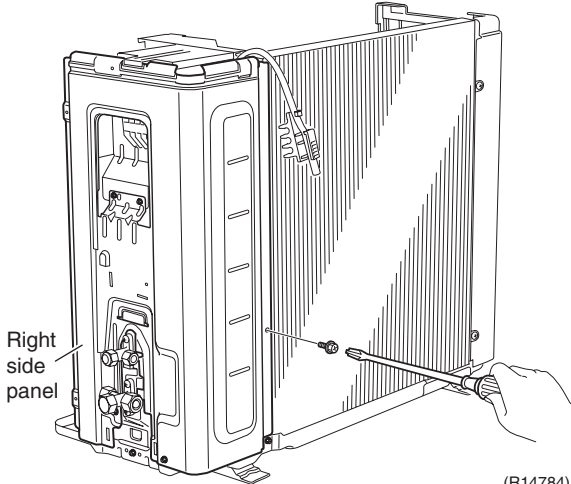
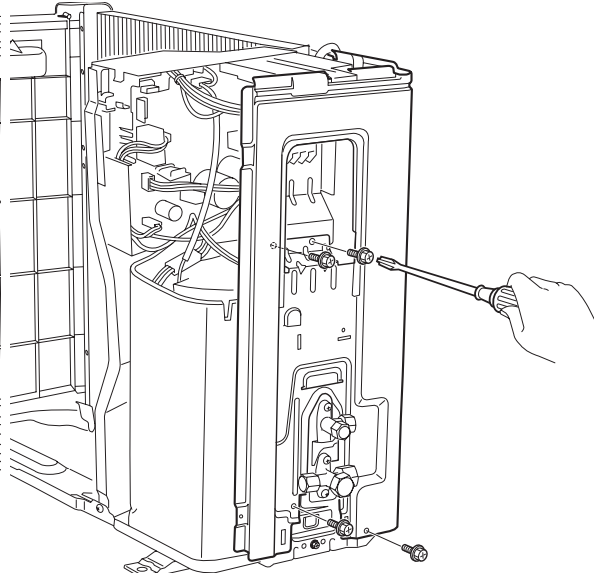
3. Removal of Electrical Box / PCBs

Procedure

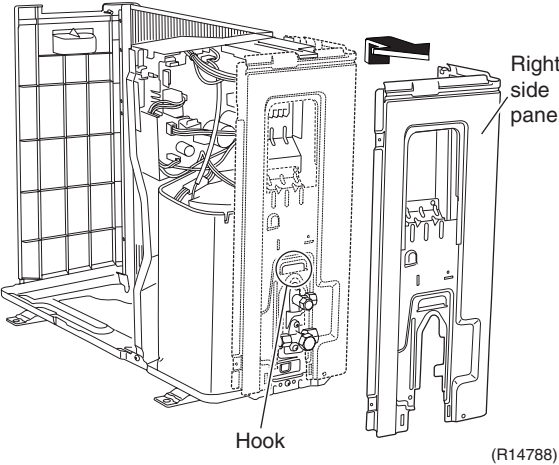
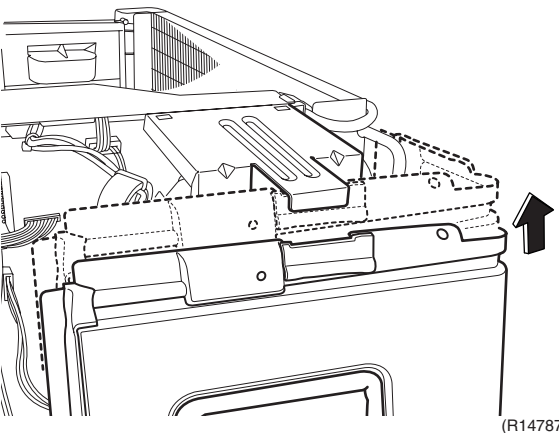
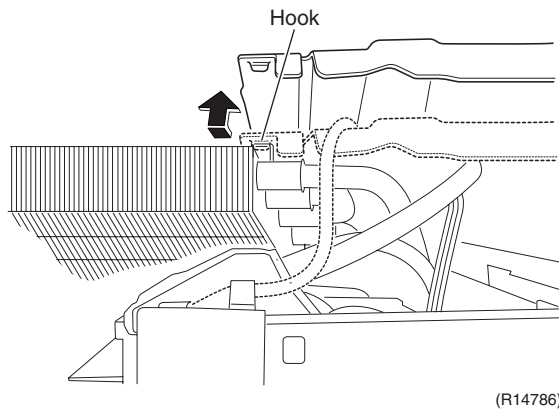


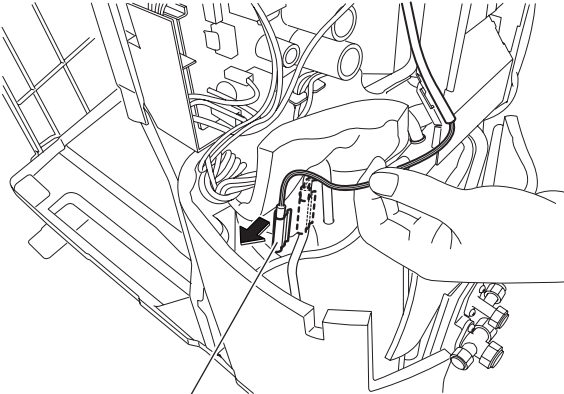
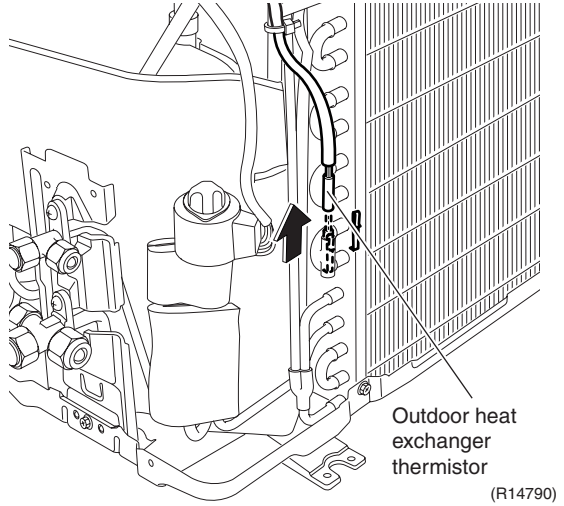
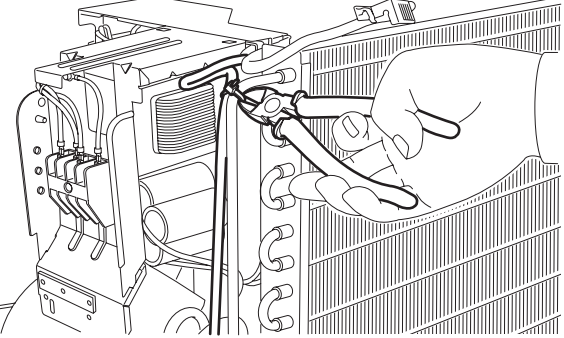
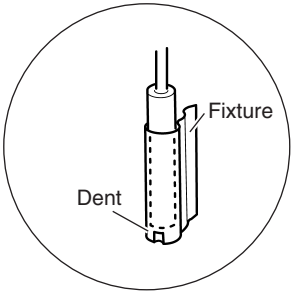
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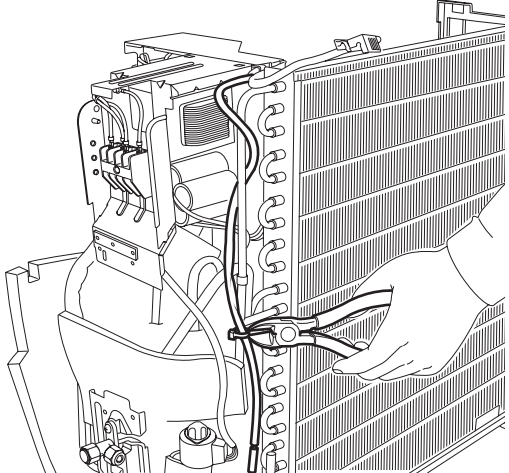
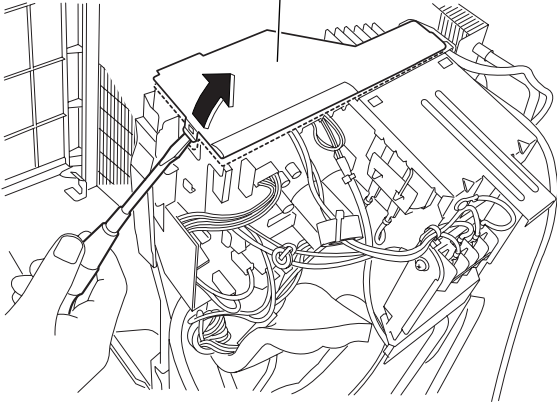
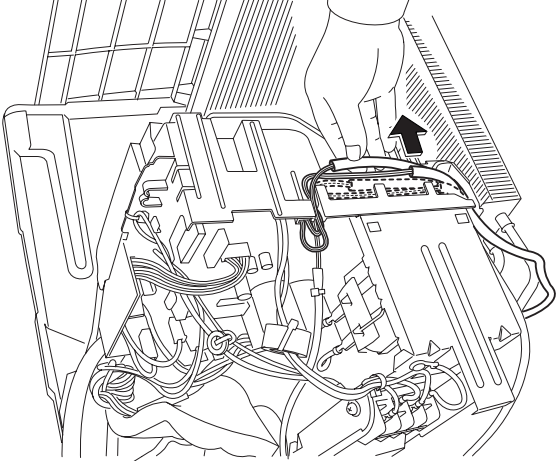
Step	Procedure	Points
1. Remove the right side panel.	 <p style="text-align: center;">Outdoor temperature thermistor (R14780)</p>  <p style="text-align: right;">(R14781)</p>  <p style="text-align: right;">(R14782)</p>	<p>Preparation</p> <ul style="list-style-type: none"> ■ Remove the panels according to the "Removal of Outer Panels".
1	Unhook the outdoor temperature thermistor.	
2	Release the outdoor temperature thermistor from the groove.	
3	Remove the screws and release the connecting wires.	

Step	Procedure	Points
4	<p>Remove the 3 screws and remove the wire clamp.</p>  <p>(R14783)</p>	
5	<p>Remove the screw on the rear side of the right side panel.</p>  <p>(R14784)</p>	
6	<p>Remove the 4 screws on the right side panel.</p>  <p>(R14785)</p>	

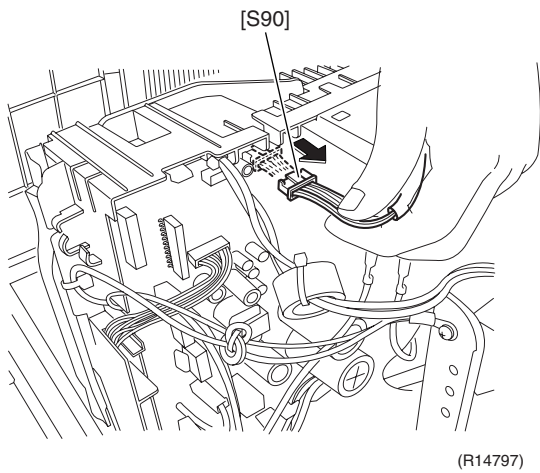
Step	Procedure	Points
7	Unfasten the hook on the rear side.	<ul style="list-style-type: none"> When reassembling, make sure to fit the hook.
8	Unfasten the hook above the electrical box.	
9	Unfasten the hook, and remove the right side panel.	



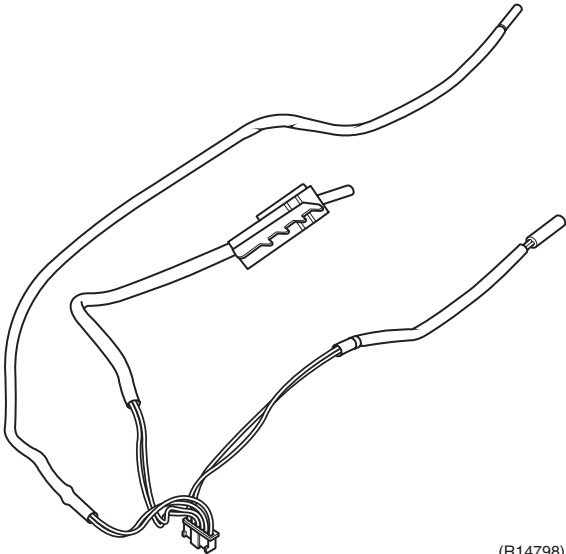
Step	Procedure	Points
<p>2. Remove the thermistors.</p> <p>1 Release the discharge pipe thermistor.</p> <p>2 Release the outdoor heat exchanger thermistor.</p> <p>3 Cut the upper clamp.</p>	 <p>Discharge pipe thermistor (R14789)</p>  <p>Outdoor heat exchanger thermistor (R14790)</p>  <p>(R14791)</p>	<ul style="list-style-type: none"> ■ Pay attention so as not to lose the fixture for thermistor. ■ When reassembling, do not insert the thermistor up to the dent of fixture.  <p>Fixture Dent (R11740)</p>

Step	Procedure	Points
4	Cut the lower clamp.	 <p>(R14792)</p>
5	Lift the hook with a flat screwdriver, and remove the electronic components mounting plate.	<p>Electronic components mounting plate</p>  <p>(R14795)</p>
6	Release the harnesses.	 <p>(R14796)</p>

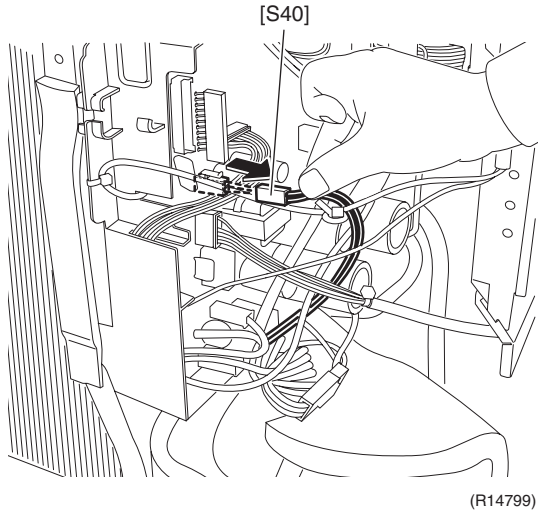
Step	Procedure	Points
7	Disconnect the connector for the thermistors [S90].	[S90]: outdoor temperature thermistor, outdoor heat exchanger thermistor, discharge pipe thermistor
8	Remove the thermistor ASSY.	
3. Remove the electrical box.		
1	Disconnect the connector for the overload protector [S40].	



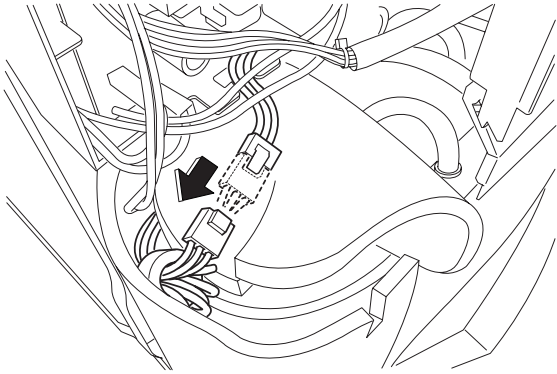
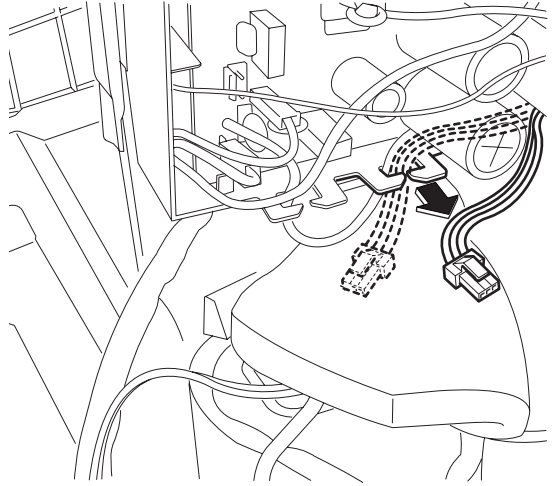
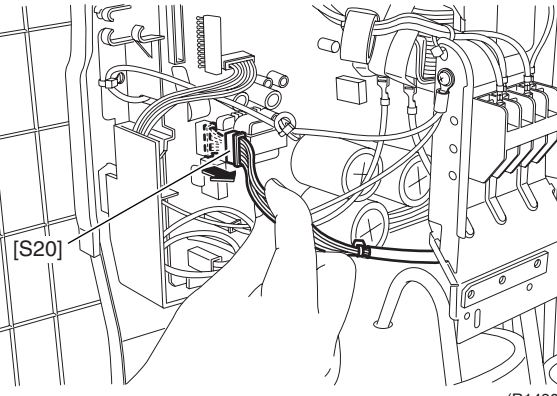
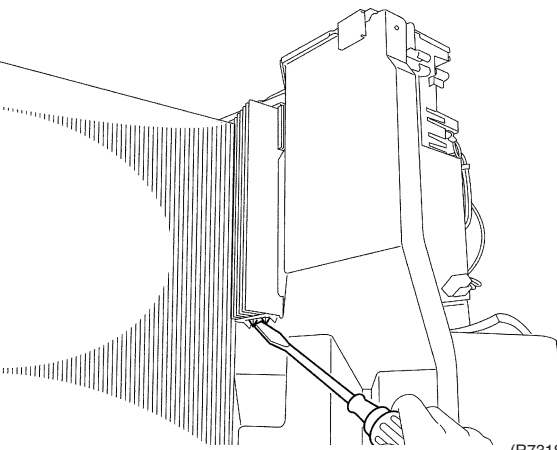
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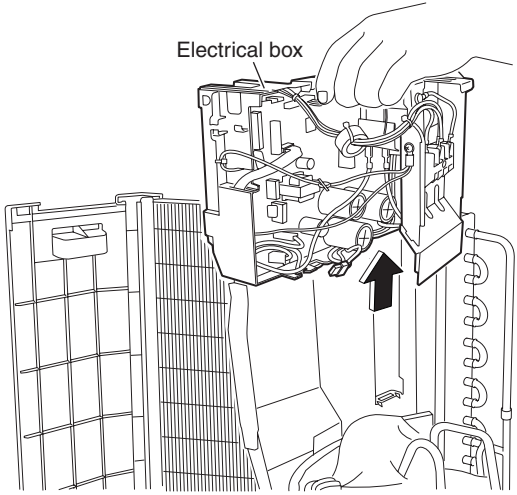
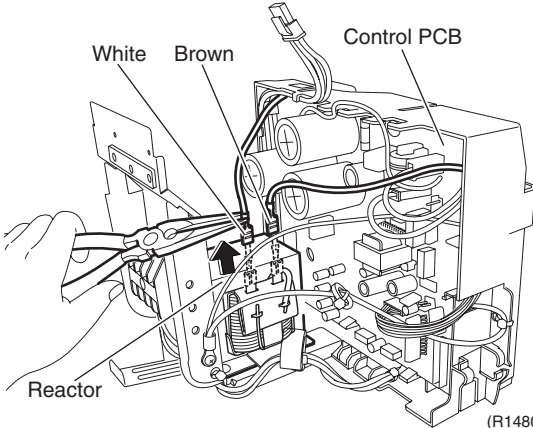
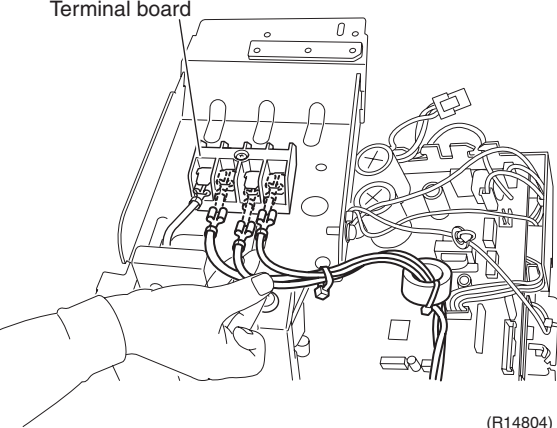


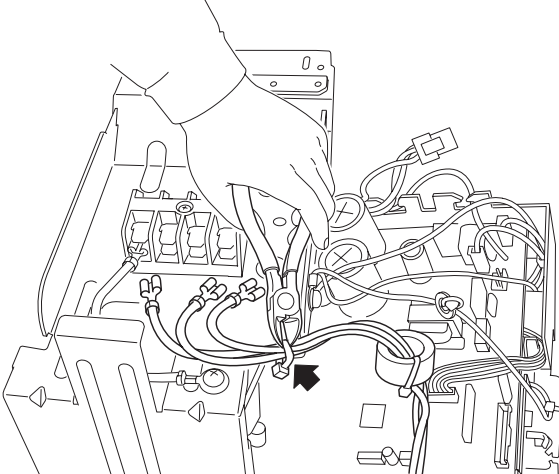
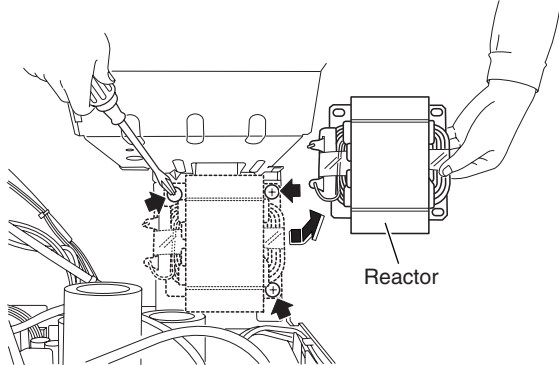
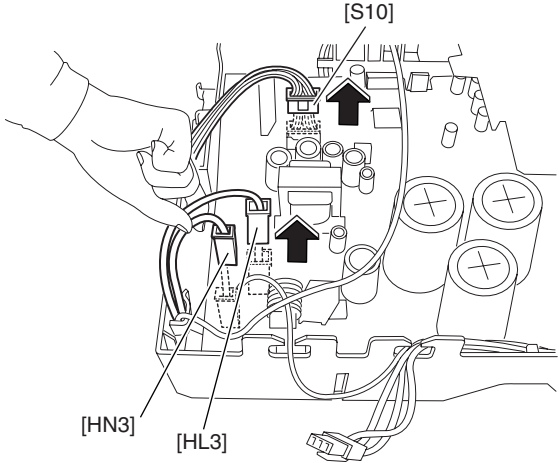
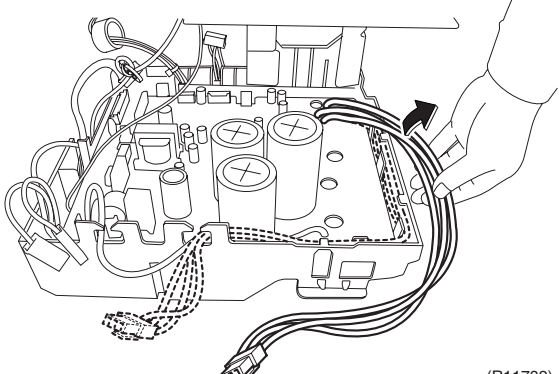
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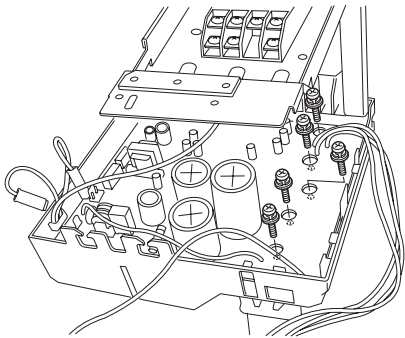
(R14799)

Step	Procedure	Points
2	<p>Disconnect the relay connector for the compressor motor.</p> 	
3	<p>Release the harnesses from the hook.</p> 	
4	<p>Disconnect the connector for the electronic expansion valve coil [S20].</p> 	
5	<p>Unfasten the hook of the electrical box from the partition plate with a flat screwdriver.</p> 	<p>■ The electrical box can be removed without a screwdriver.</p>

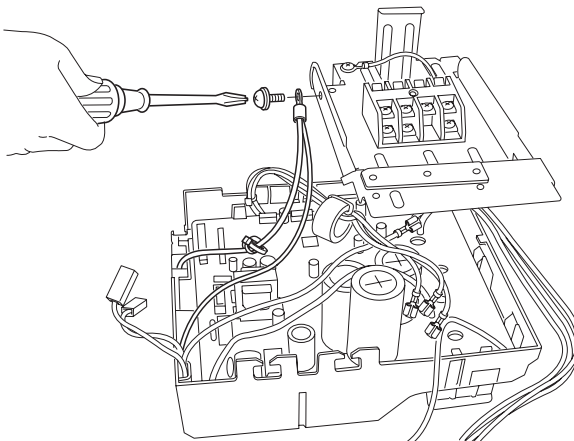
Step	Procedure	Points
6	<p>Lift and remove the electrical box.</p> 	
4. Remove the control PCB.		
1	<p>Disconnect the 2 terminals of the reactor.</p> 	
2	<p>Pull out the terminals from the terminal board.</p> 	

Step	Procedure	Points
3	Cut the clamp.	
	 <p>(R14805)</p>	
4	Remove the 3 screws and remove the reactor.	
	 <p>Reactor</p> <p>(R11777)</p>	
5	Disconnect the 3 connectors for the filter PCB [S10] [HN3] [HL3].	
	 <p>[S10]</p> <p>[HN3]</p> <p>[HL3]</p> <p>(R14807)</p>	
6	Release the harnesses.	
	 <p>(R11782)</p>	

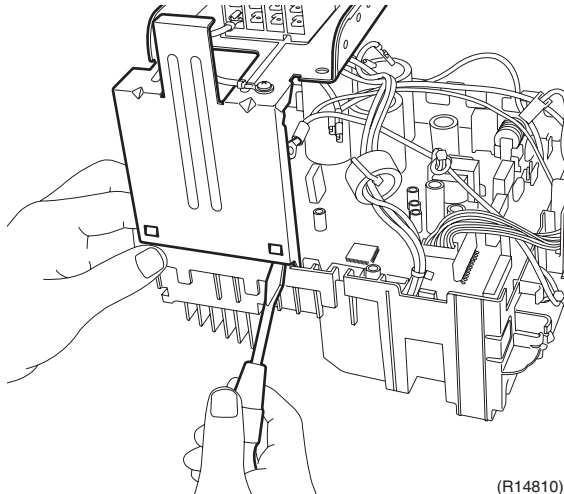
Step	Procedure	Points
7	Remove the 5 screws of the control PCB.	
8	Remove the screw of the earth wire.	
9	Remove the plate with a flat screwdriver.	
10	Remove the screw.	



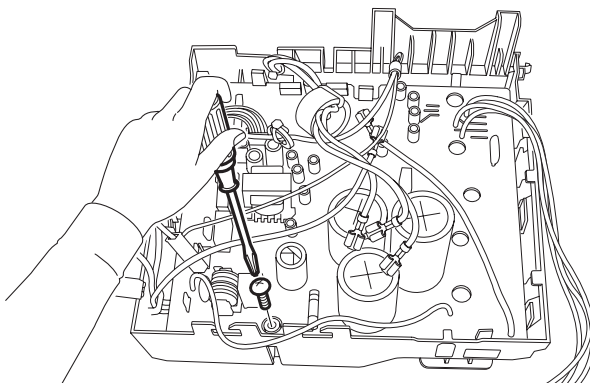
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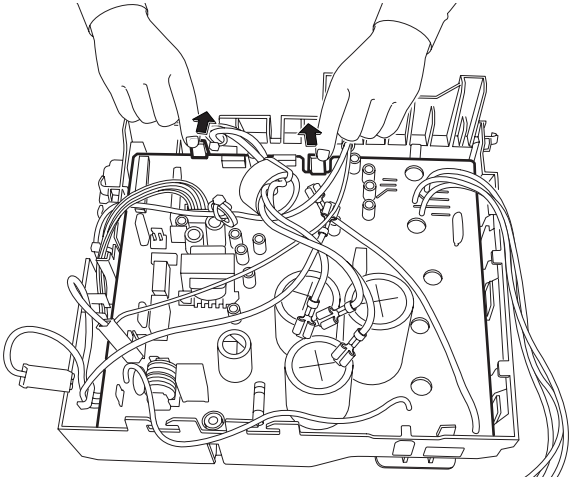
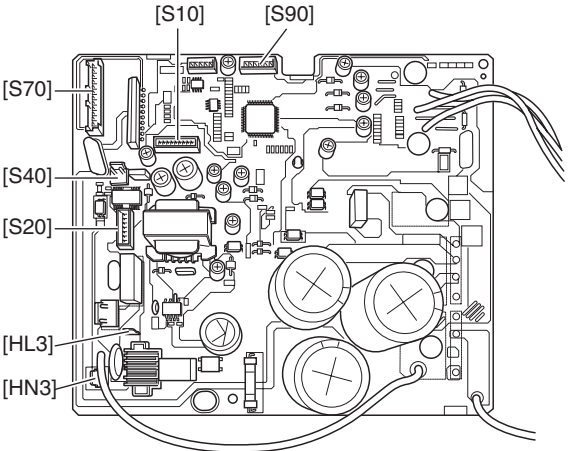
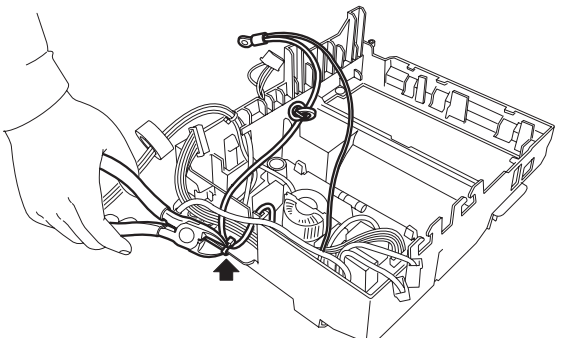
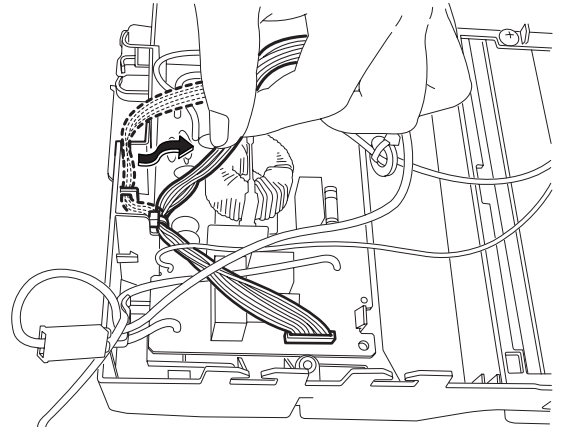
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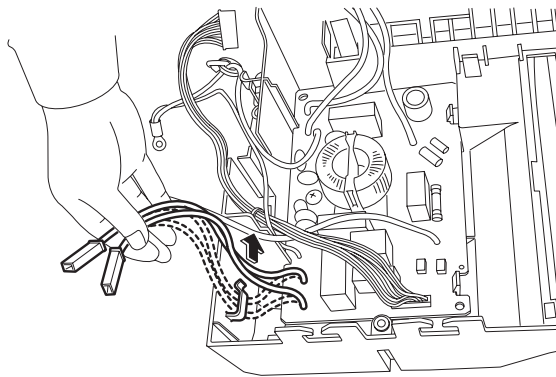
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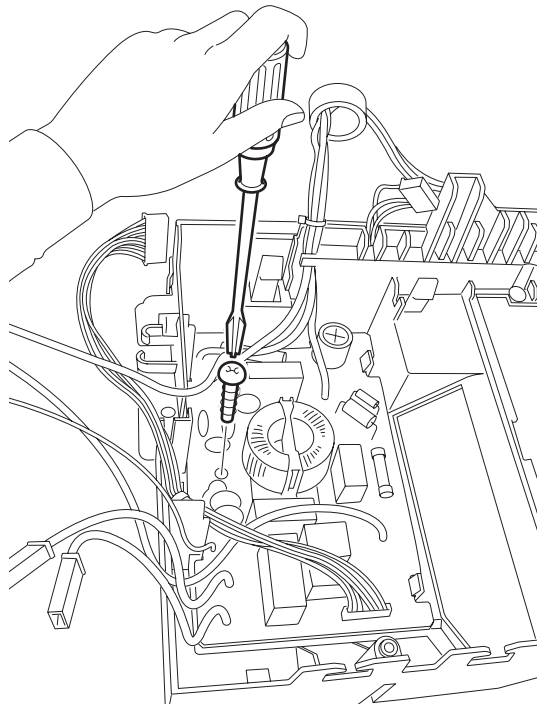
(R14811)

Step	Procedure	Points
<p>11 Unfasten the 2 hooks. 12 Lift and remove the control PCB.</p>	 <p>(R14812)</p>	
<p>13 Feature of the control PCB</p>	 <p>(R14850)</p>	<p>[S10] [HN3] [HL3]: filter PCB [S20]: electronic expansion valve coil [S40]: overload protector [S70]: fan motor [S90]: thermistors</p>
<p>5. Remove the filter PCB.</p>	<p>1 Cut the clamp.</p>  <p>(R14813)</p> <p>2 Release the harnesses from the hooks.</p>  <p>(R14814)</p>	

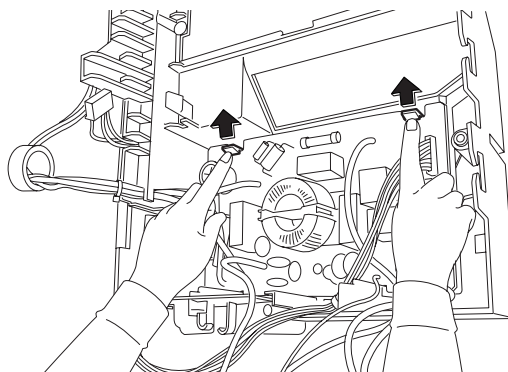
Step	Procedure	Points
3	Remove the screw.	
4	Unfasten the 2 hooks.	



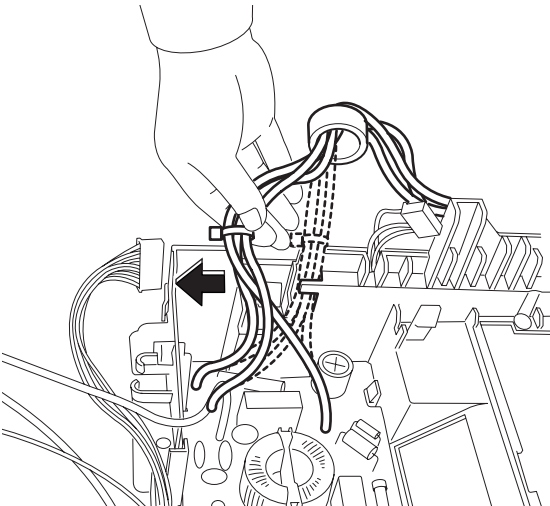
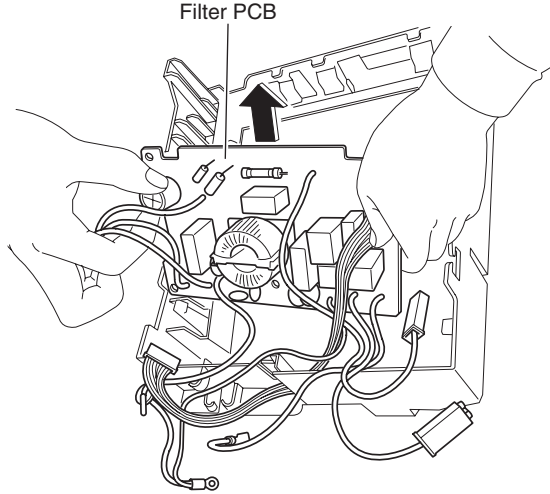
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(R14816)



(R14817)

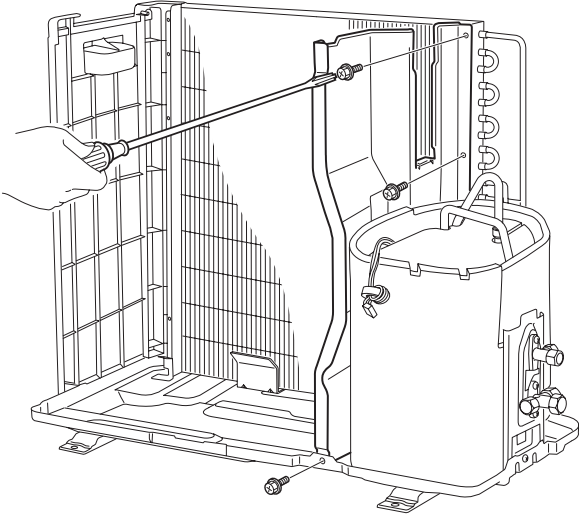
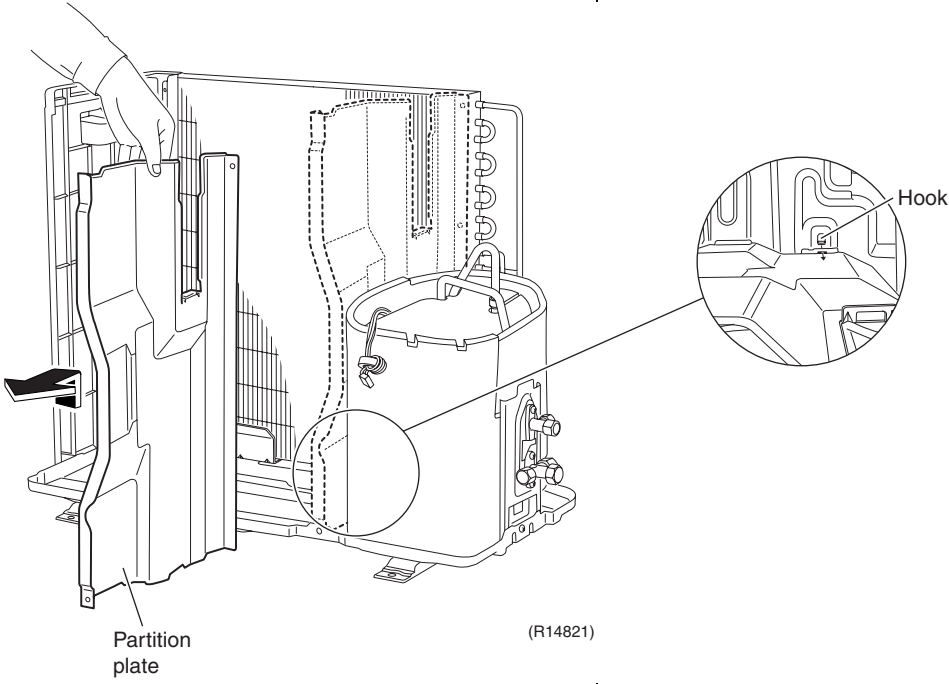
Step	Procedure	Points
5	Release the harnesses.	
		
	(R14818)	
6	Remove the filter PCB.	
		
	(R14819)	

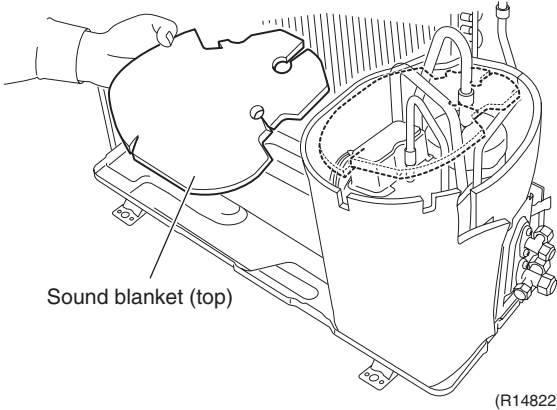
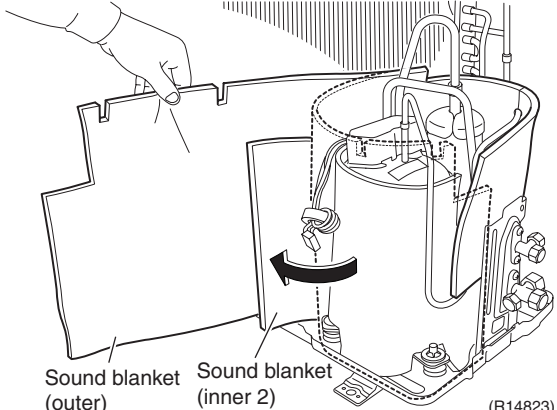
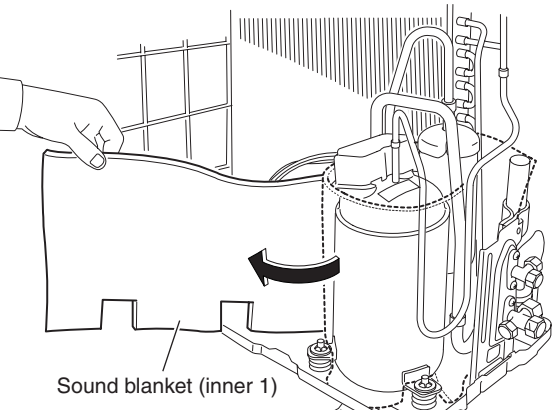
4. Removal of Sound Blankets

Procedure



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

Step	Procedure	Points
1. Remove the partition plate.	 <p>(R14820)</p>	
1 Remove the 3 screws.	<p>2 The partition plate has a hook on the lower side. Lift and pull the partition plate and remove it.</p>  <p>(R14821)</p>	<ul style="list-style-type: none"> ■ When reassembling, fit the lower hook into the bottom frame.

Step	Procedure	Points
2. Remove the sound blankets.		<ul style="list-style-type: none"> Since the piping ports on the sound blanket are torn easily, remove the blanket carefully.
1 Lift and remove the sound blanket (top).		
2 Pull the sound blankets (outer and inner 2) out.		
3 Pull the sound blanket (inner 1) out.		

5. Removal of Electronic Expansion Valve ASSY

Procedure



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

Step	Procedure	Points
<p>1 Pull out the electronic expansion valve coil.</p>	<p>Electronic expansion valve coil</p> <p>(R14830)</p>	<p>Warning Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p>
<p>2 Remove the 2 screws.</p>	<p>Screw</p> <p>(R14831)</p>	<p>Warning If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p>
<ul style="list-style-type: none"> ■ 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. 	<p>Electronic expansion valve ASSY</p> <p>(R14851)</p>	<p>Caution Never remove the electronic expansion valve because it contains plastic parts. They may melt with heat and cause operation failure. Replace the whole assembly.</p>
<p>3 Remove the putty and heat up the brazed part.</p>	<p>(R14851)</p>	<p>Caution Do not directly heat the electronic expansion valve. Wrap the electronic expansion valve with wet cloth and provide water so that the cloth does not dry. (Keep below 120°C.)</p>
<p>4 Remove the electronic expansion valve ASSY.</p>	<p>(R14851)</p>	<p>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.</p>

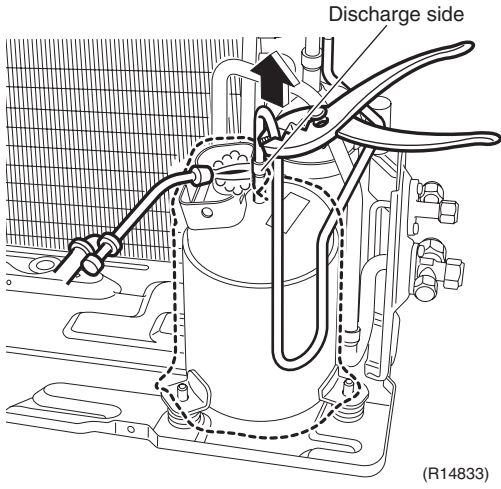
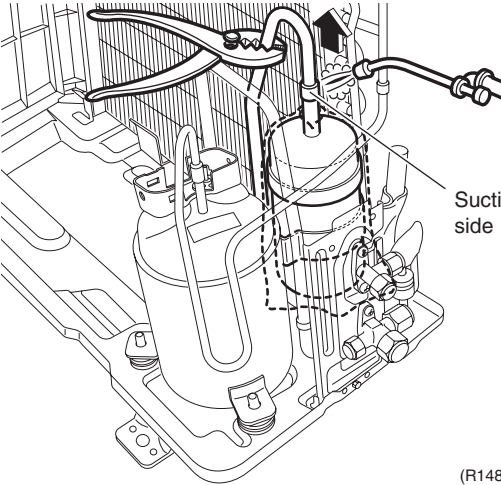
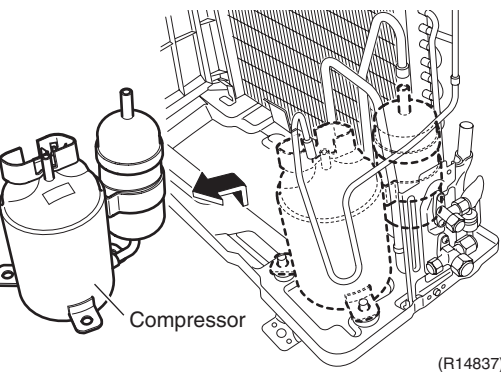
6. Removal of Compressor

Procedure



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

Step	Procedure	Points
1. Remove the peripheries.		
1 Remove the terminal cover.		
2 Remove the protection bushing.		
3 Disconnect the terminals of the compressor.		
4 Remove the overload protector.		
5 Remove the 3 fixtures of the compressor with a flat screwdriver.		

Step	Procedure	Points
<p>2. Remove the compressor.</p> <ul style="list-style-type: none"> ■ 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. 	 <p style="text-align: right;">(R14833)</p>	<p>Warning Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p> <p>Warning If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p> <p>Warning Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.</p>
<p>1 Heat up the brazed part of the discharge side and disconnect.</p> <p>2 Heat up the brazed part of the suction side and disconnect.</p> <p>3 Lift the compressor up and remove it.</p>	 <p style="text-align: right;">(R14836)</p>	<p>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.</p>
<p>Note:</p> <ul style="list-style-type: none"> ■ 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 heat exchanger fin. 	 <p style="text-align: right;">(R14837)</p>	<p>Cautions for restoration</p> <ol style="list-style-type: none"> 1. Restore the piping by non-oxidation brazing. 2. Avoid excessive heating. (Keep below 120°C) <p>In case of difficulty with gas brazing machine</p> <ol style="list-style-type: none"> 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.

Revision History

Month / Year	Version	Revised contents
08/2012	Si001159	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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