




Si00-774

REMOVAL PROCEDURE



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

5.0/5.6/6.0/7.1 kW Class 15000/18000/24000 Btu/h Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Cooling Only

**RKD15GV2S
RKD18GV2S**

**RKD50BVM
RKD60BVM
RKD71BVM**

**RKD50BVMA
RKD60BVMA
RKD71BVMA**

●Heat Pump

**RX15FVJU
RX18FVJU
RX24FVJU**

RX56AV1C

**RXD50BVMA
RXD60BVMA
RXD71BVMA**

RXD50CMVMC

**RXD60DMV2C
RXD71DMV2C**

Table of Contents

1. Removal of Outer Panels	2
2. Removal of Outdoor Fan / Fan Motor	6
3. Removal of PCBs / Electrical Box	10
4. Removal of Reactor	17
5. Removal of Sound Blankets.....	19
6. Removal of the Four Way Valve	21
7. Removal of Electronic Expansion Valve	22
8. Removal of Compressor	23



Note:

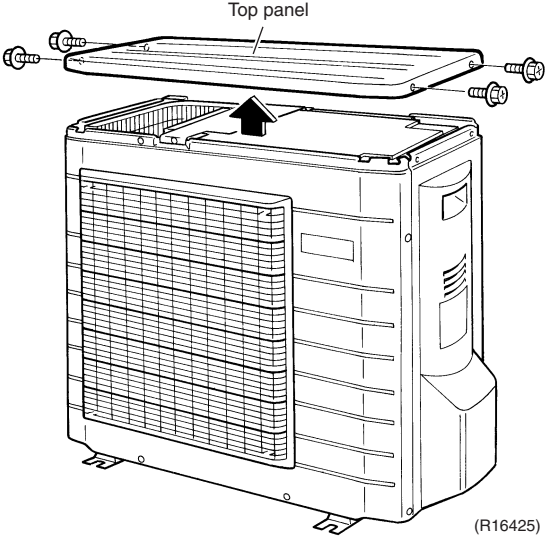
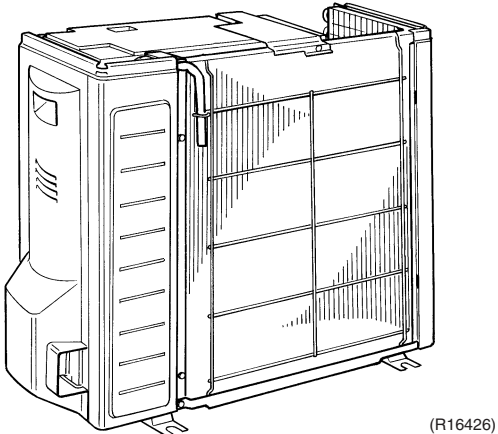
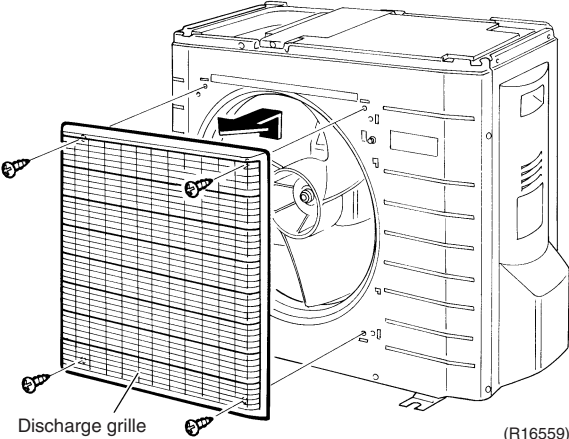
- ♦ The illustrations may be slightly different depending on the model.
- ♦ The illustrations are for heat pump models as representative.

1. Removal of Outer Panels

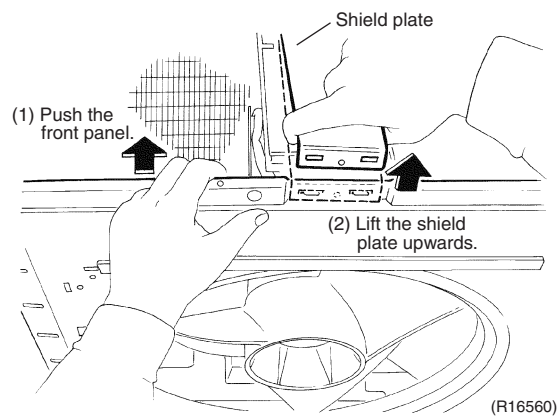
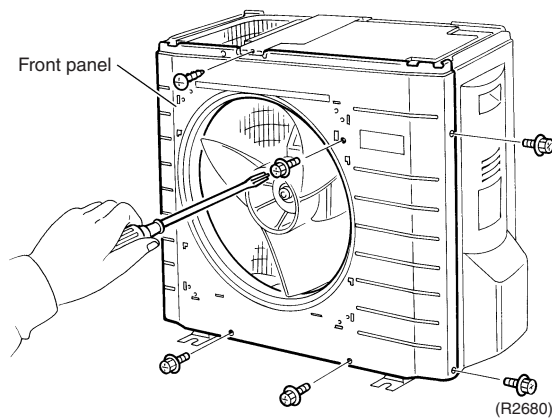
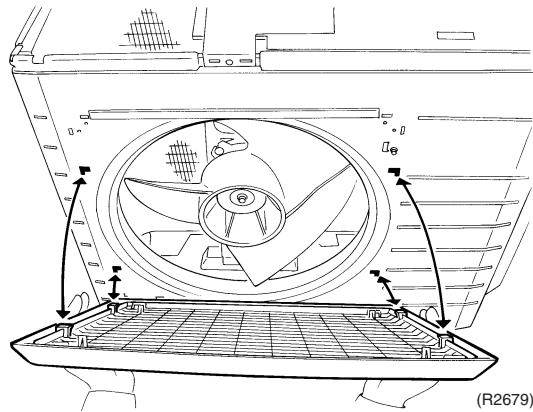
Procedure

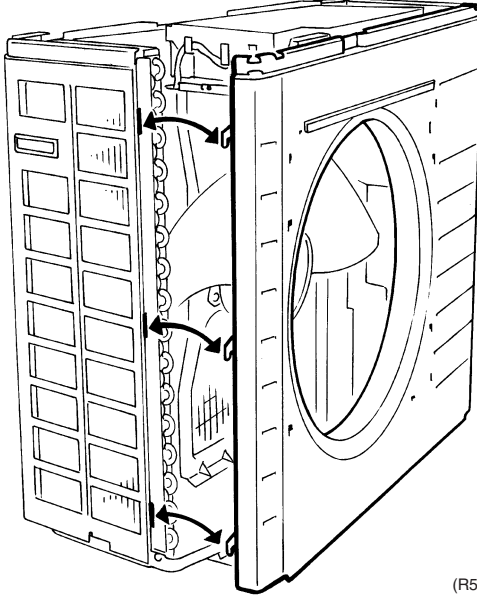
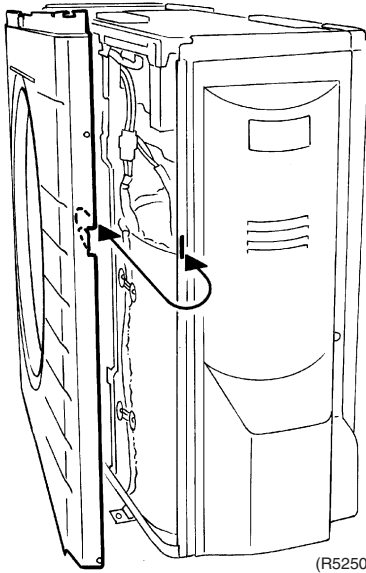
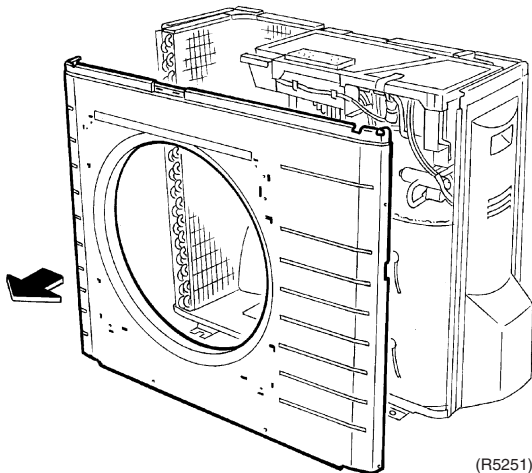


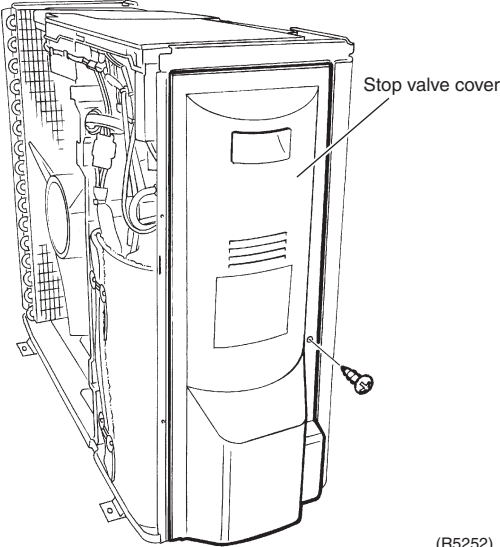
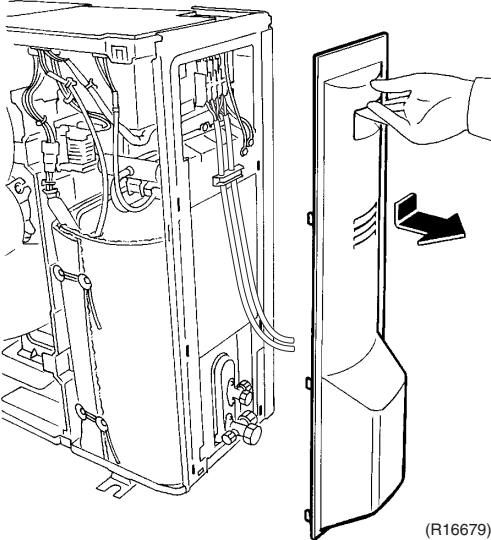
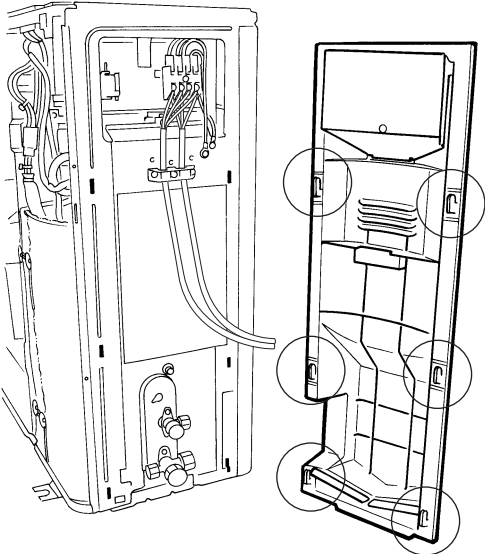
Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
<p>1. Remove the panels.</p> <p>1 Remove the 4 screws and lift the top panel.</p> <p>2 Remove the 4 screws and remove the discharge grille.</p>	 <p style="text-align: center;">Top panel</p> <p style="text-align: right;">(R16425)</p>  <p style="text-align: right;">(R16426)</p>  <p style="text-align: center;">Discharge grille</p> <p style="text-align: right;">(R16559)</p>	<ul style="list-style-type: none"> ■ Take care not to cut your finger by the fins of the outdoor heat exchanger. ■ Slide the discharge grille upward and remove it.

Step	Procedure	Points
3	Remove the 6 screws of the front panel.	<ul style="list-style-type: none"> ■ The discharge grille has 4 hooks.
4	Push the front panel and lift the shield plate to unfasten the hooks.	



Step	Procedure	Points
<p>5</p>	<p>Unfasten the left side hooks, and then the right side hook. Remove the front panel.</p>  <p>(R5249)</p>  <p>(R5250)</p>  <p>(R5251)</p>	<ul style="list-style-type: none"> ■ Lift the front panel while pushing the left side panel inward. ■ Lift the front panel and unfasten the right side hook. ■ When reassembling the front panel, fit the right side hook first.

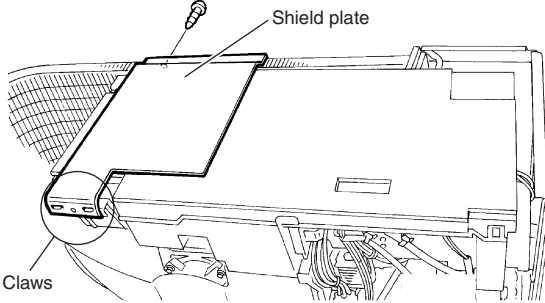
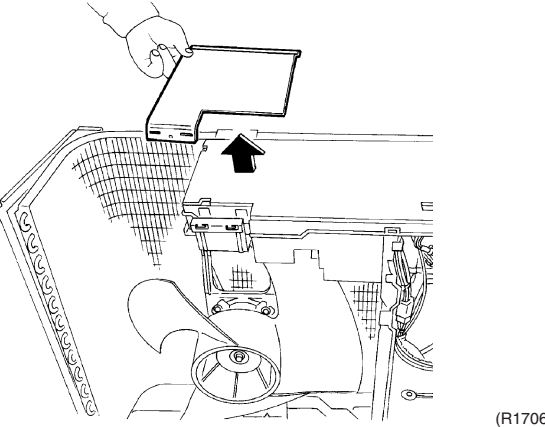
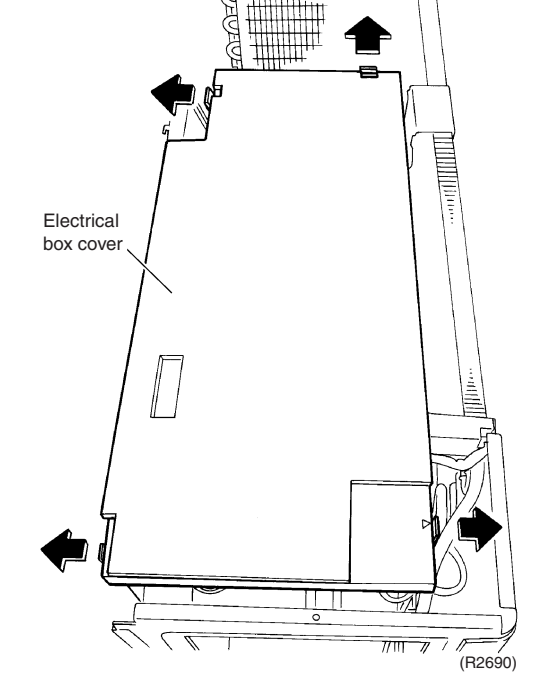
Step	Procedure	Points
2.	Remove the stop valve cover.	
1	<p data-bbox="204 286 448 344">Remove the screw of the stop valve cover.</p>  <p data-bbox="970 853 1031 871">(R5252)</p>	
2	<p data-bbox="204 898 469 1016">Pull the stop valve cover downward to unfasten the hooks and remove it.</p>  <p data-bbox="965 1442 1034 1460">(R16679)</p>	<p data-bbox="1098 1491 1442 1550">■ The stop valve cover has 6 hooks.</p>
	 <p data-bbox="930 2078 999 2096">(R16680)</p>	

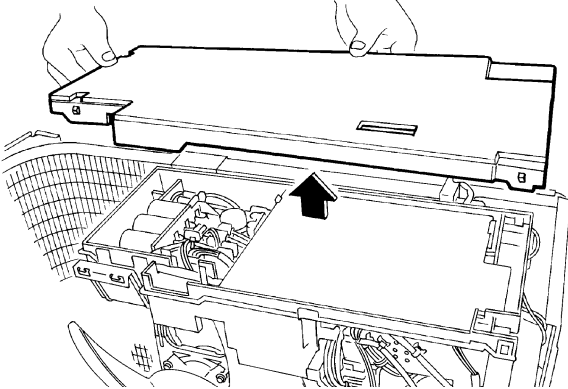
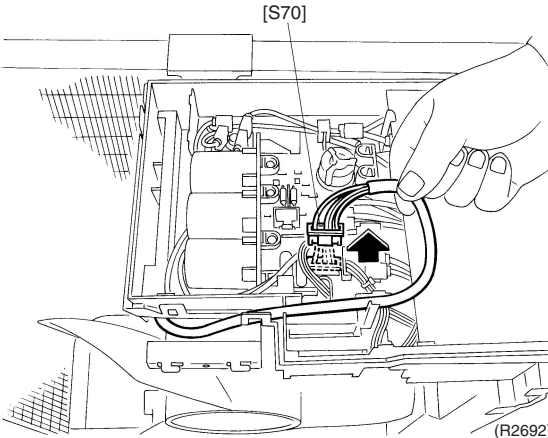
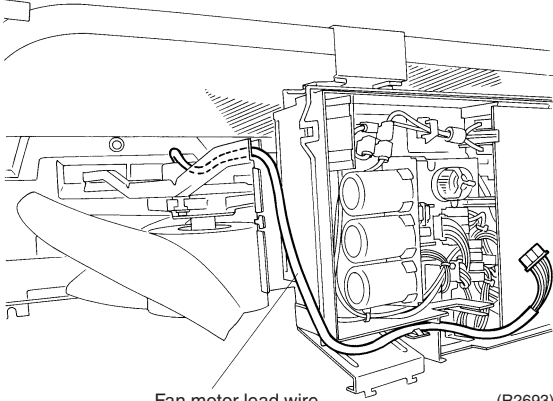
2. Removal of Outdoor Fan / Fan Motor

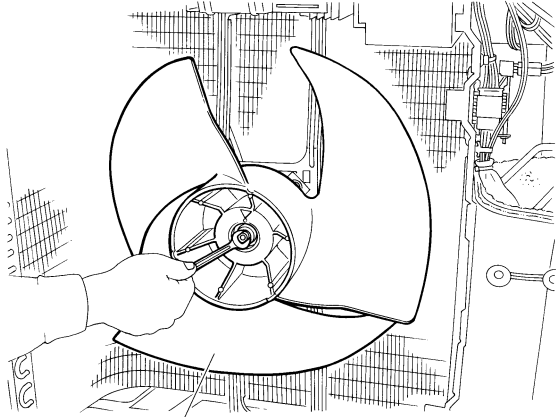
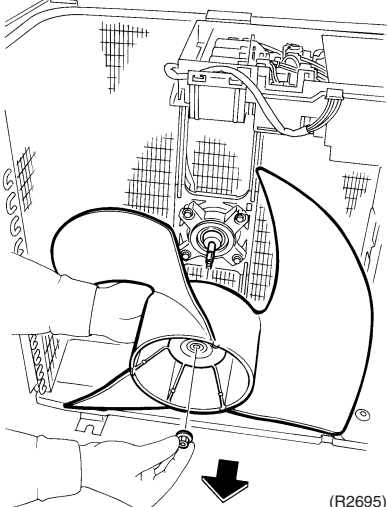
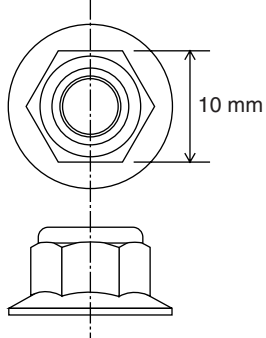
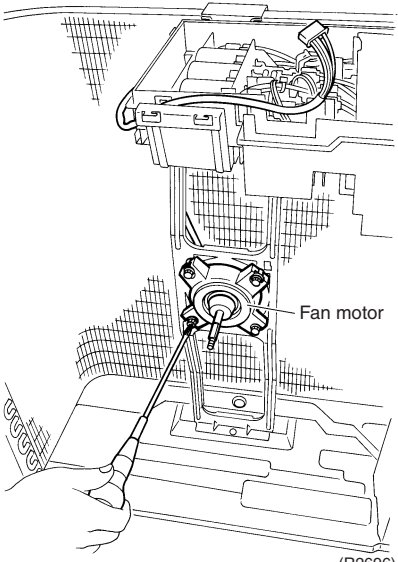
Procedure

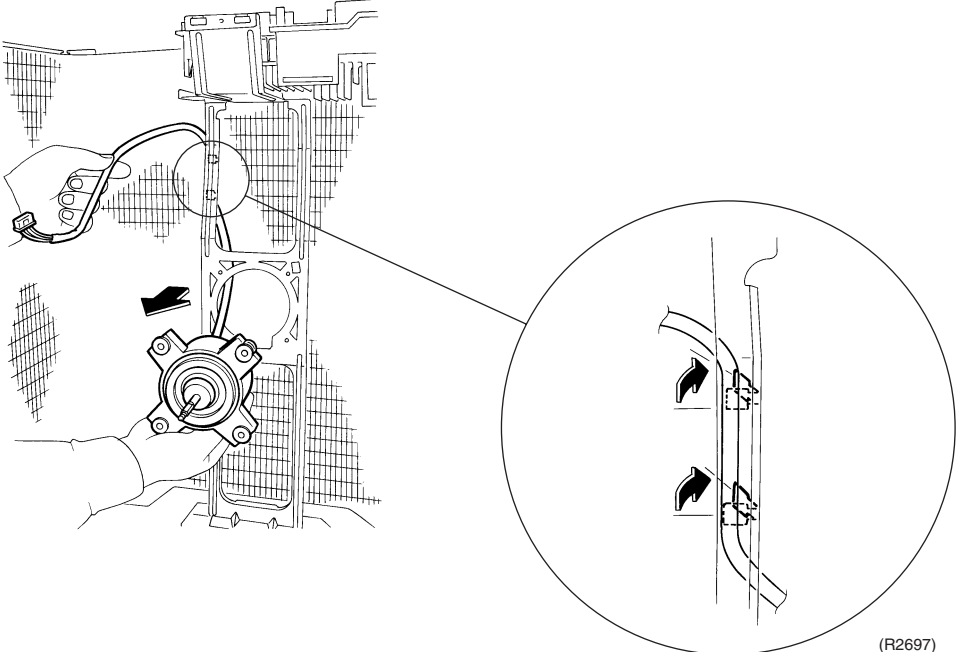


Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Remove the electrical box cover.	 <p style="text-align: right;">(R16429)</p>	<p>Preparation</p> <ul style="list-style-type: none"> ■ Remove the top panel and the front panel according to the "Removal of Outer Panels". ■ This procedure is not necessary to remove the outdoor fan only.
2. Unfasten the 2 hooks and remove the shield plate.	 <p style="text-align: right;">(R17063)</p>	
3. Release the 4 hooks of the electrical box cover and remove it.	 <p style="text-align: right;">(R2690)</p>	

Step	Procedure	Points
	 <p style="text-align: right;">(R16431)</p>	
<p>2. Remove the fan motor.</p> <p>1</p> <p>2</p>	<p>1 Disconnect the connector for the fan motor [S70].</p>  <p style="text-align: right;">(R2692)</p> <p>2 The illustration shows arrangement of the fan motor lead wire.</p>  <p style="text-align: right;">(R2693)</p>	

Step	Procedure	Points
<p>3 Remove the nut of the outdoor fan.</p>	 <p>Outdoor fan (R2694)</p>  <p>(R2695)</p>	<p>■ Nut size: M6</p>  <p>(R12236)</p> <p>■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.</p>
<p>4 Remove the 2 lower screws from the fan motor first.</p>	 <p>Fan motor (R2696)</p>	<p>■ Be sure to remove the lower screws first. If the top screws are removed first, the fan motor may tilt down or fall and cause injury because its center of gravity is shifted to the front.</p>
<p>5 Then, remove the 2 upper screws.</p>		

Step	Procedure	Points
6	<p data-bbox="201 217 459 338">Release the fan motor lead wire from the 2 hooks and pull the fan motor out.</p> 	<ul data-bbox="1098 217 1457 371" style="list-style-type: none">■ 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 data-bbox="1385 1077 1445 1099">(R2697)</p>

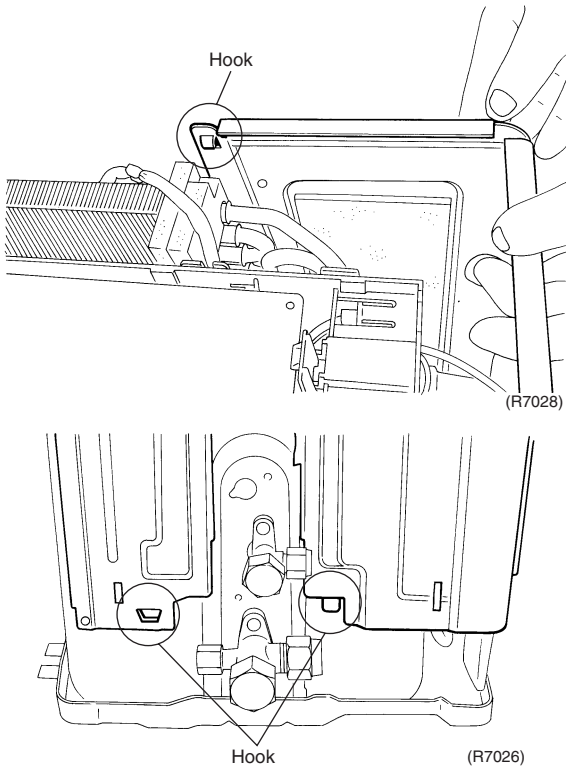
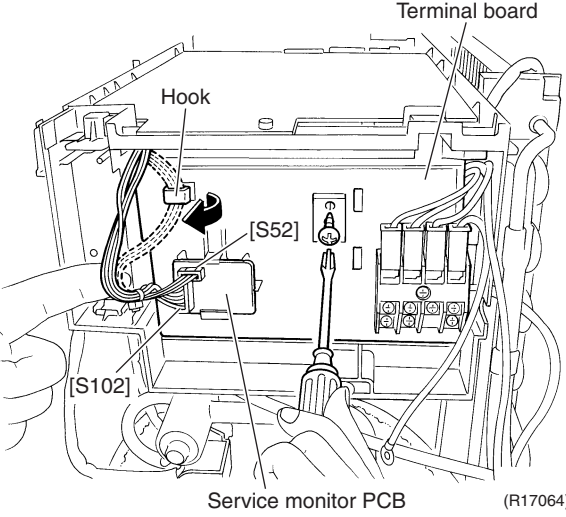
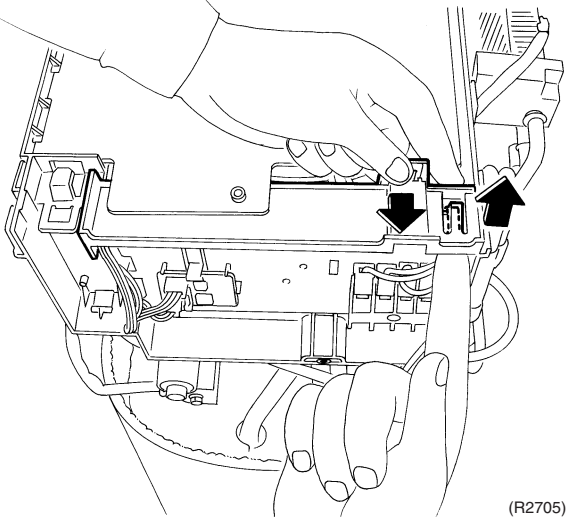
3. Removal of PCBs / Electrical Box

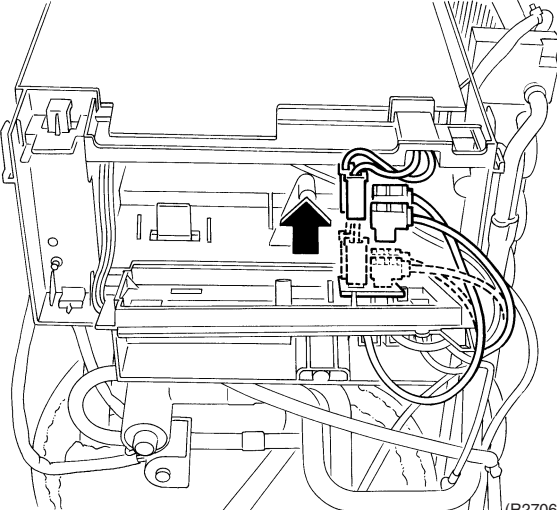
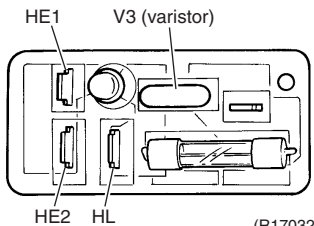
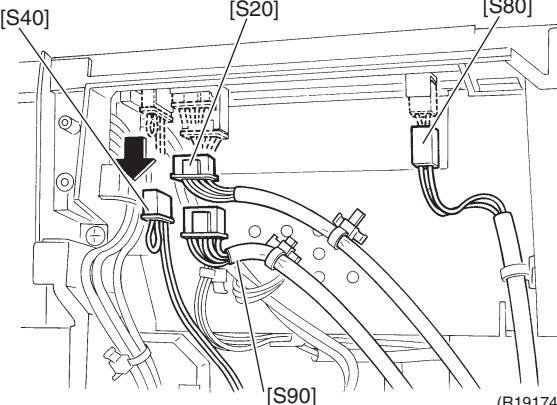
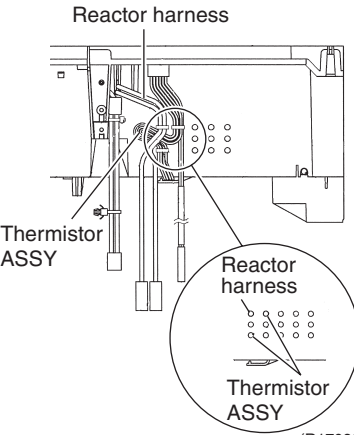
Procedure



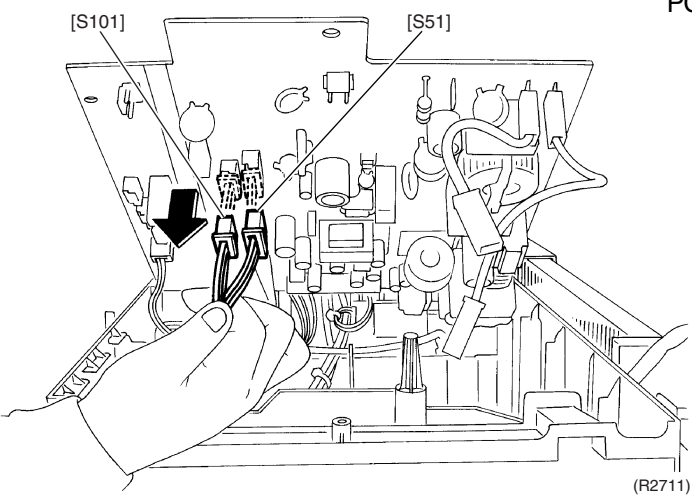
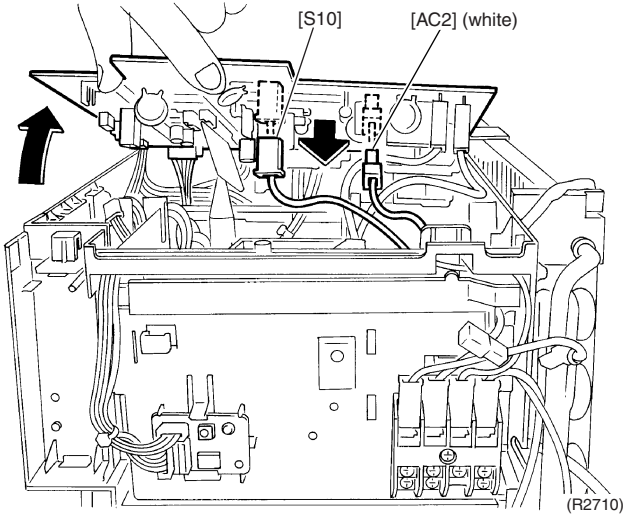
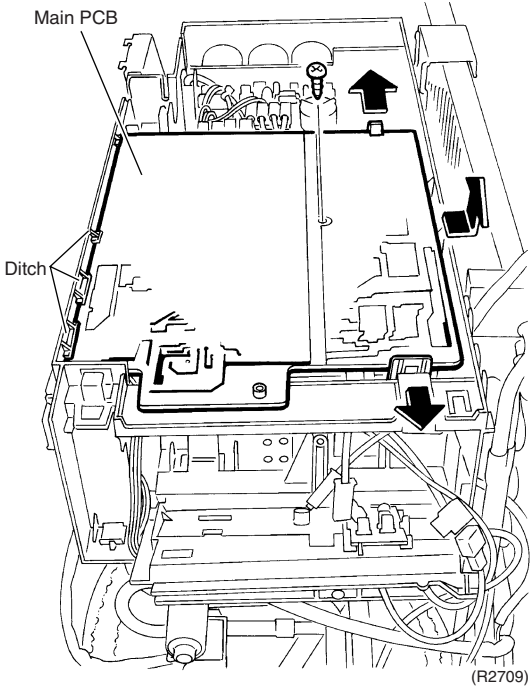
Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

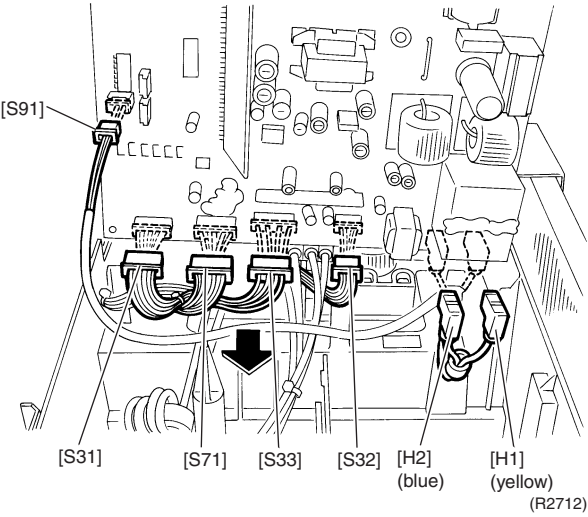
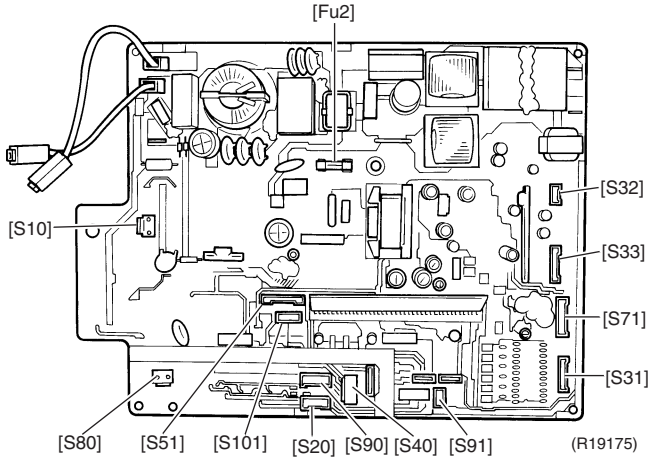
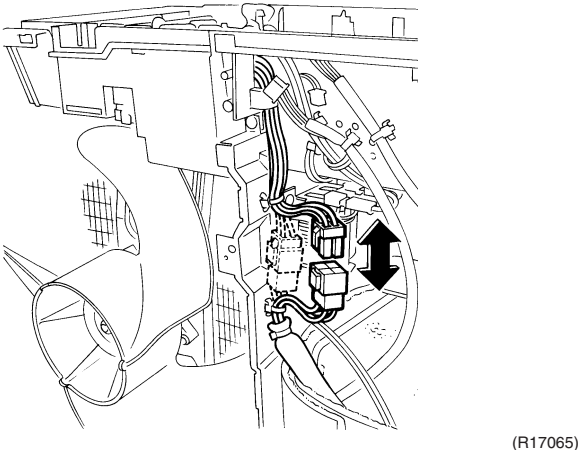
Step	Procedure	Points
1. Remove the right side panel.		<p>Preparation</p> <ul style="list-style-type: none"> ■ Remove the top panel and the front panel according to the "Removal of Outer Panels". ■ Colors of the connection wires are as follows. <ul style="list-style-type: none"> (1) black (2) white (3) red (⊕) yellow / green
1 Remove the 4 screws and disconnect the connection wire and the power supply wire.		
2 Remove the 2 screws and detach the earth / ground wires.		
3 Remove the 3 screws of the right side panel.		
4 Remove the screw of the electrical box.		

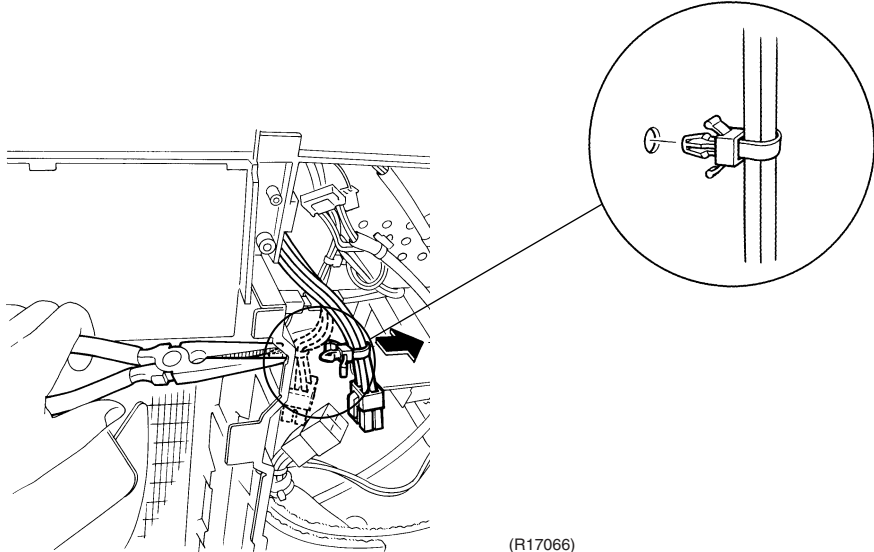
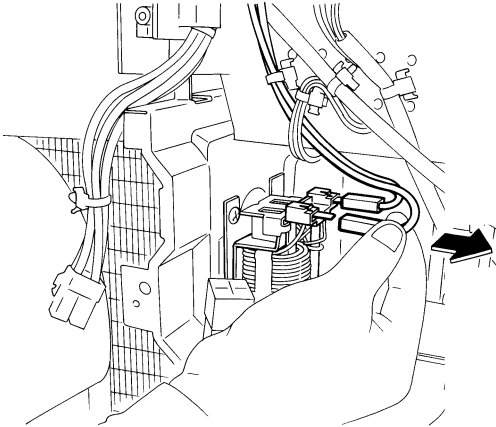
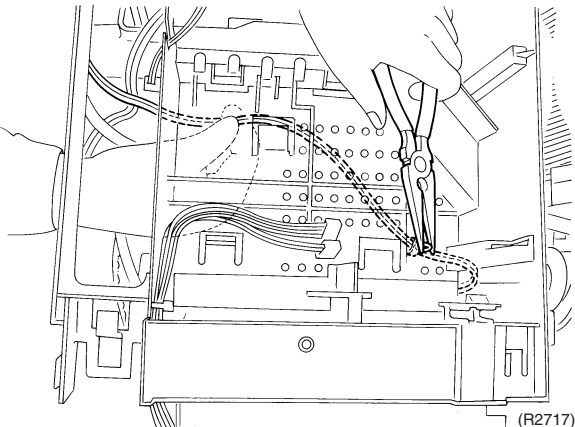
Step	Procedure	Points
5	Unfasten the hooks and remove the right side panel.	<ul style="list-style-type: none"> ■ When reassembling, insert the upper hook and the 2 lower hooks back into place.
		
2. Remove the service monitor PCB.		
1	Release the harness from the hook.	
2	Disconnect the connectors [S52] [S102] from the service monitor PCB.	
3	Remove the service monitor PCB.	
4	Remove the screw of the terminal board.	
3. Remove the main PCB.		
1	Unfasten the hook to release the terminal board. Open the terminal board.	

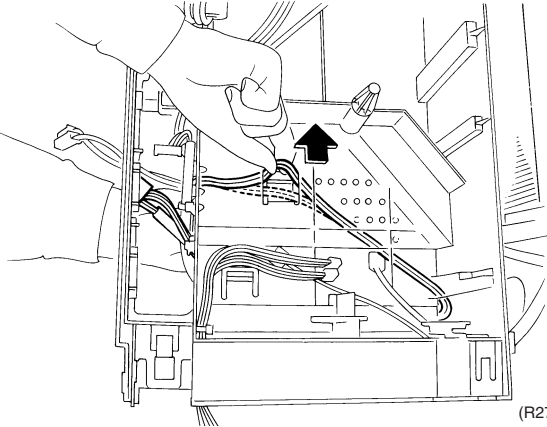
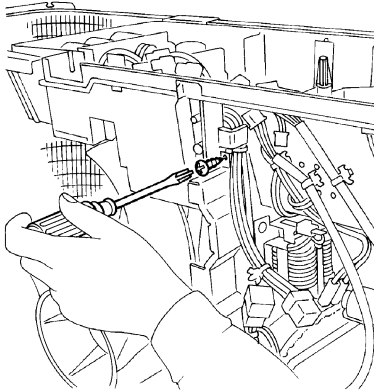
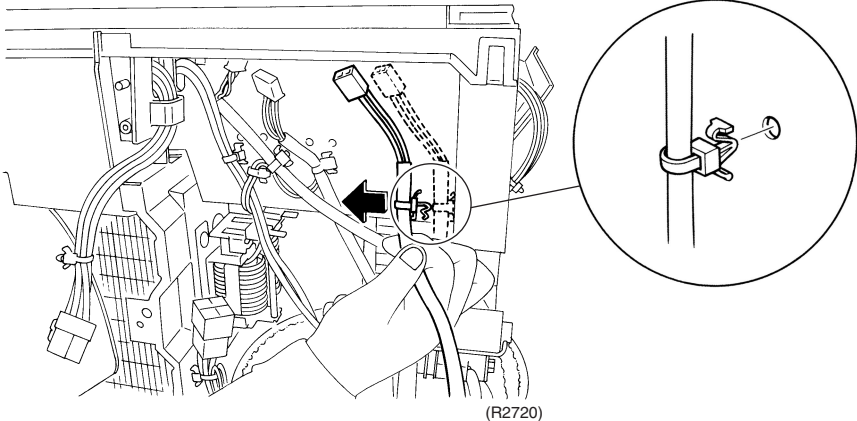
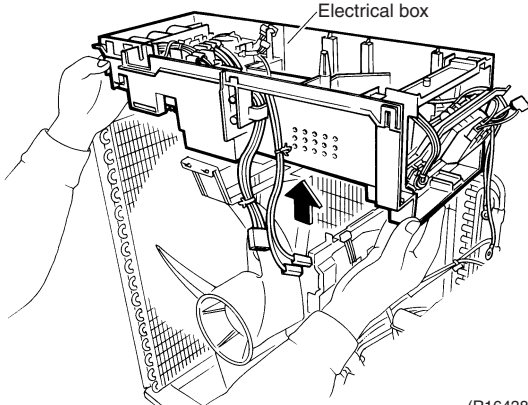
Step		Procedure	Points
2	Disconnect the harnesses from the power supply PCB.	 <p>(R2706)</p>	<p>■ power supply PCB</p>  <p>(R17032)</p> <p>[HL] (black): terminal board [HE2] (yellow/green): earth [HAC1] (black): main PCB (AC1) [HE1] (yellow/green): main PCB (E)</p>
3	Disconnect the connectors of the front side.	 <p>(R19174)</p>	<p>[S20]: electronic expansion valve [S40]: overload protector [S80]: four way valve [S90]: thermistors</p> <p>■ The cooling only models do not have the harness for [S80]. ■ When reassembling, insert each clamp into the holes. ■ When reassembling, the thermistor harness should be placed between the electrical box and the reactor harness as below.</p>  <p>Reactor harness</p> <p>Thermistor ASSY</p> <p>Reactor harness</p> <p>Thermistor ASSY</p> <p>(R17093)</p>

Step	Procedure	Points
4	Remove the screw of the main PCB.	
5	Unfasten the 2 hooks and release the main PCB from the ditch of the front side.	
6	Disconnect the harnesses [S10] [AC2] while lifting the main PCB.	[S10] [AC2]: terminal board
7	Disconnect the connectors [S51] [S101].	[S51] [S101]: service monitor PCB



Step	Procedure	Points
<p>8</p> <p>Disconnect the connectors and remove the main PCB.</p>	 	<p>[S10]: terminal board [S20]: electronic expansion valve [S31]: CN14 on SPM [S32]: CN11 on SPM [S33]: [S34] on MID [S40]: overload protector [S51]: [S52] on service monitor PCB [S71]: [S72] on MID [S80]: four way valve [S90]: thermistors [S91]: radiation fin thermistor [S101]: [S102] on service monitor PCB [H1] [H2]: diode bridge</p>
<p>9</p> <p>Disconnect the relay connector for the compressor.</p>		

Step	Procedure	Points
10	<p>Release the clamp with pliers.</p>  <p>(R17066)</p>	
11	<p>Disconnect the 2 connectors for the reactor.</p>  <p>(R17067)</p>	
12	<p>Pull the clamp and draw the thermistor harness out from the back of the electrical box.</p>  <p>(R2717)</p>	

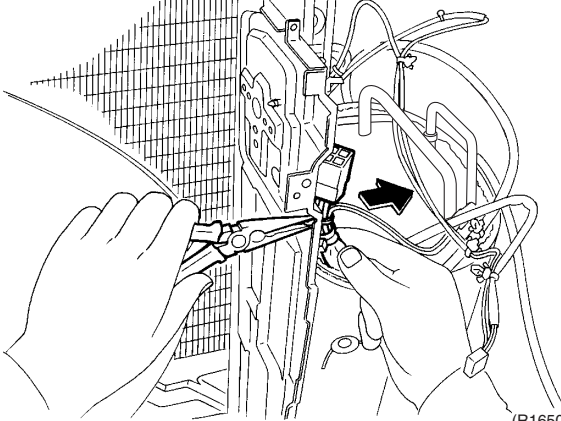
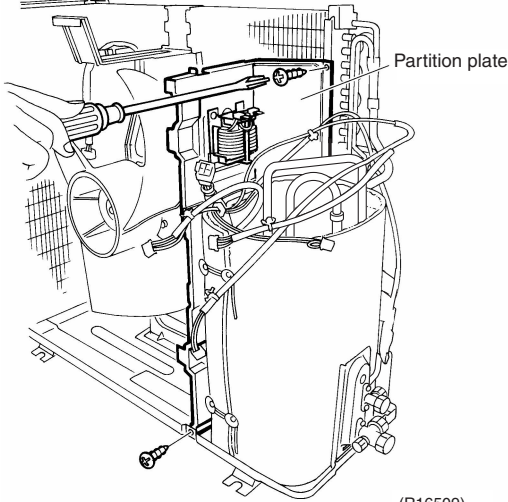
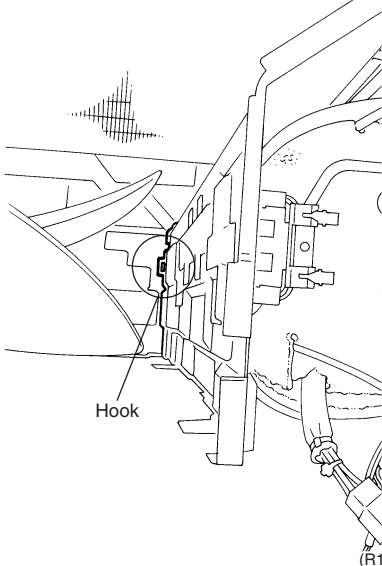
Step	Procedure	Points
13	<p>Remove the screw of the electrical box.</p>  <p>(R2718)</p>  <p>(R17068)</p>	
14	<p>Release the clamp of the four way valve harness.</p>  <p>(R2720)</p>	
15	<p>Lift up and remove the electrical box.</p>  <p>(R16438)</p>	

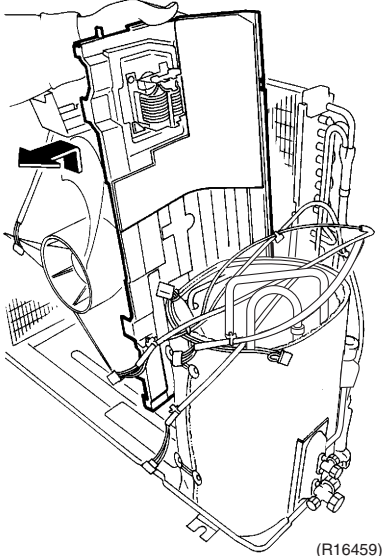
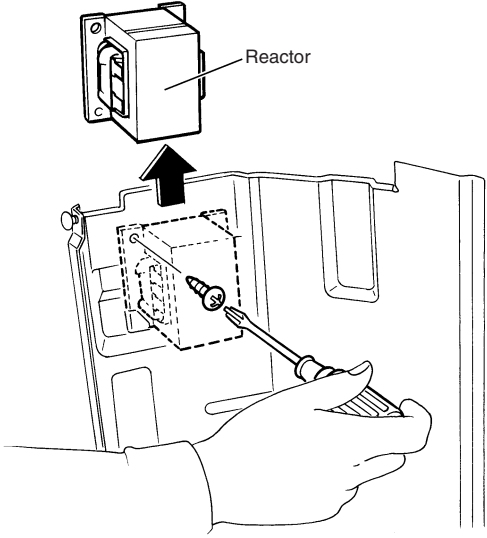
4. Removal of Reactor

Procedure



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

Step	Procedure	Points
1	Release the clamp with pliers.  <p style="text-align: right;">(R16508)</p>	
2	Remove the 2 screws of the partition plate.  <p style="text-align: right;">(R16509)</p>  <p style="text-align: right;">(R16439)</p>	<ul style="list-style-type: none"> ■ The partition plate is fixed to the bottom frame with a hook.

Step	Procedure	Points
3	<p>Lift up the partition plate and remove it.</p>  <p>(R16459)</p>	
4	<p>Remove the screw. Slide the reactor upward and remove it from the partition plate.</p>  <p>(R2726)</p>	

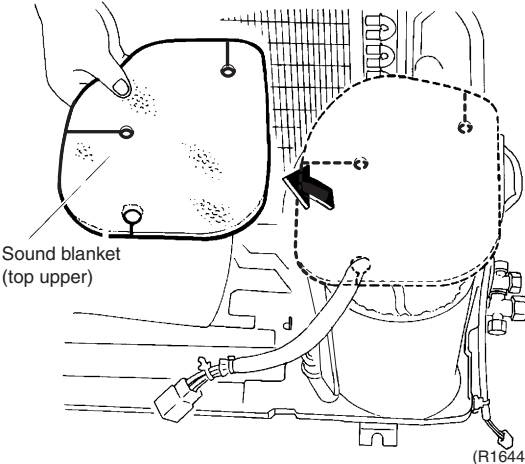
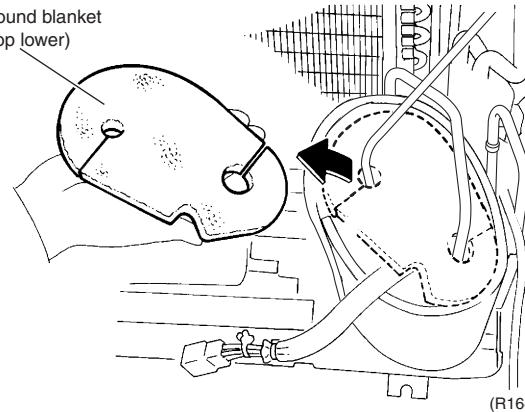
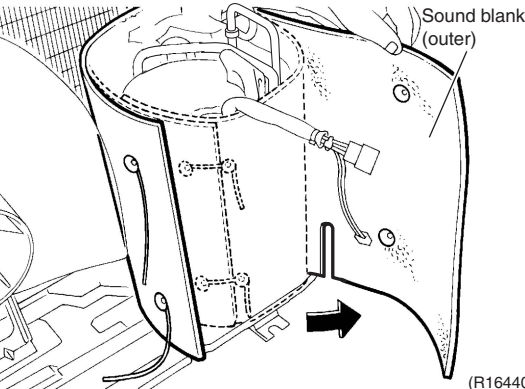
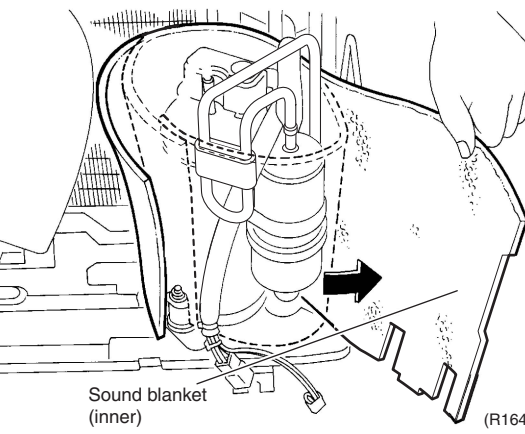
5. Removal of Sound Blankets

Procedure



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

Step	Procedure	Points
<p>1. Remove the thermistor ASSY.</p>	<p>(R16557)</p>	<ul style="list-style-type: none"> Remove the outer panels according to the "Removal of Outer Panels / Fan Motor". Remove the electrical box according to the "Removal of Electrical Box".
<p>1 Release the discharge pipe thermistor.</p>	<p>Discharge pipe thermistor (R16460)</p>	<ul style="list-style-type: none"> Be careful not to lose the clip for the thermistor.
<p>2 Cut the clamp and pull out the outdoor heat exchanger thermistor.</p>	<p>Clamp (R16461)</p> <p>Outdoor heat exchanger thermistor</p>	<p>Clip (R12287)</p>
<p>3 Remove the thermistor ASSY.</p>		



Step	Procedure	Points
2. Remove the sound blankets.		
1 Remove the sound blanket (top upper).	 <p style="text-align: right;">(R16441)</p>	<ul style="list-style-type: none"> Since the piping ports are torn easily, remove the sound blanket carefully.
2 Remove the sound blanket (top lower).	 <p style="text-align: right;">(R16442)</p>	<ul style="list-style-type: none"> Some models do not have the sound blanket (top lower).
3 Remove the sound blanket (outer).	 <p style="text-align: right;">(R16440)</p>	
4 Remove the sound blanket (inner).	 <p style="text-align: right;">(R16443)</p>	

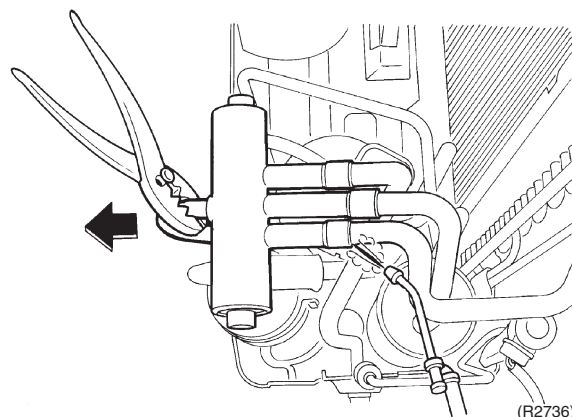
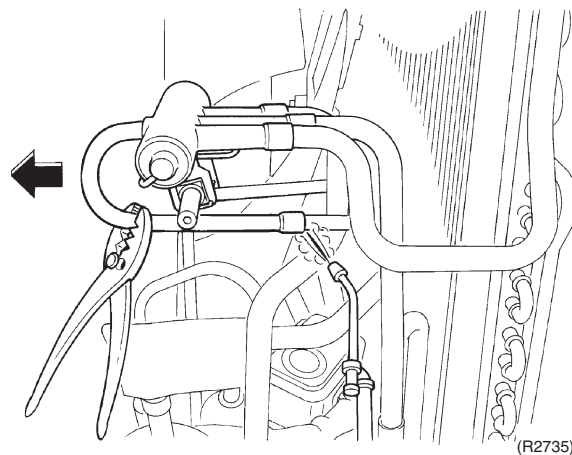
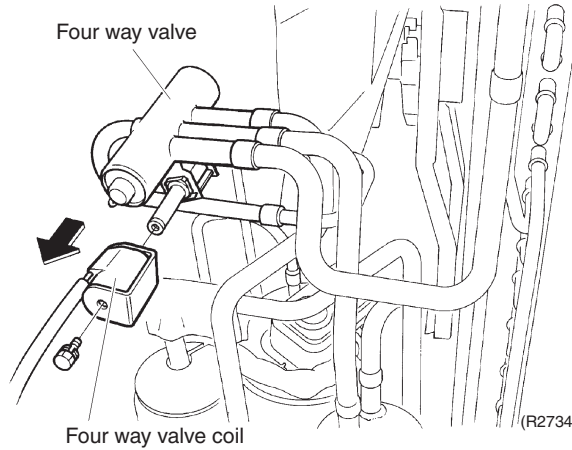
6. Removal of the Four Way Valve

Procedure



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

Step	Procedure	Points
1	Loosen the screw of the four way valve coil.	<ul style="list-style-type: none"> ■ Provide a protective sheet or a steel plate so that the brazing flame cannot influence peripheries. ■ Be careful so as not to break the pipes by pressing it excessively by pliers when withdrawing it.
2	Heat up the brazed part of the four way valve and disconnect.	<p> Caution Be careful about the four way valve, pipes and so on, which were heated up by a gas brazing machine, so as not to get burnt your hands.</p> <p>Cautions for restoration</p> <ol style="list-style-type: none"> 1. Restore the piping by non-oxidation brazing. Braze it quickly when no nitrogen gas can be used. 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. For the sake of this, wrap the four way valve with wet cloth and provide water so that the cloth will not be dried and avoid excessive heating. (Keep below 120°C (248°F))
3	Heat up every brazed part in turn and disconnect.	<p>In case of the 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 by a miniature copper tube cutter in order to make it easy to disconnect. <p> Note: Do not use a metal saw for cutting pipes by all means because the sawdust come into the circuit.</p>

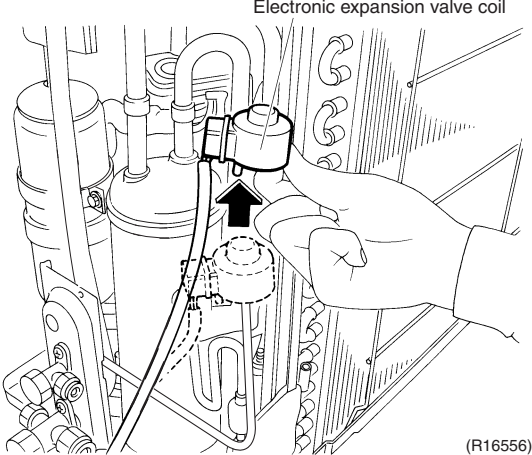
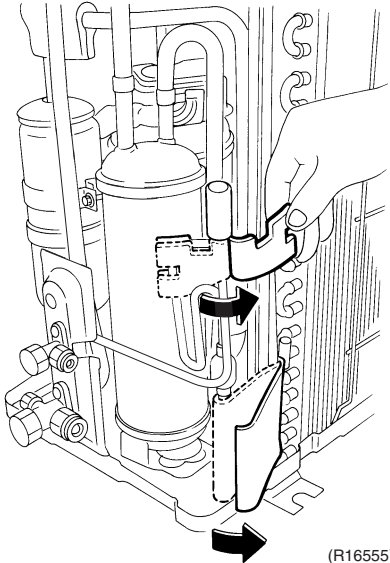
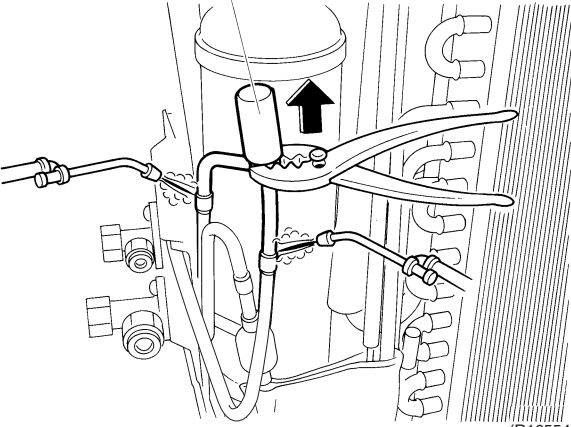


7. Removal of Electronic Expansion Valve

Procedure



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

Step	Procedure	Points
1	<p>Remove the electronic expansion valve coil.</p>  <p>(R16556)</p>	
2	<p>Remove the sheets of putty.</p>  <p>(R16555)</p>	
3	<p>Heat up the 2 brazed parts of the electronic expansion valve and remove it.</p>  <p>(R16554)</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>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>

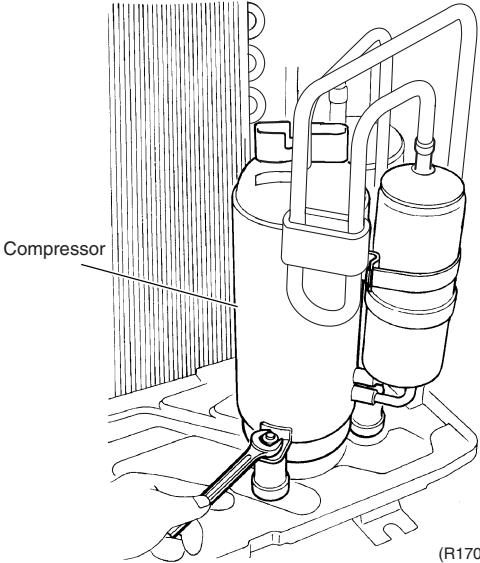
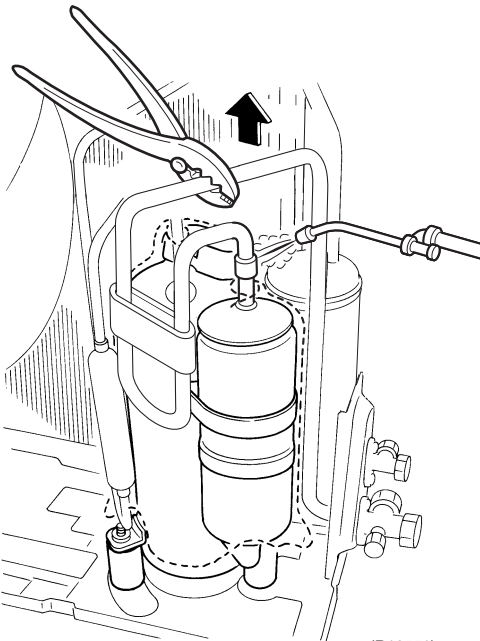
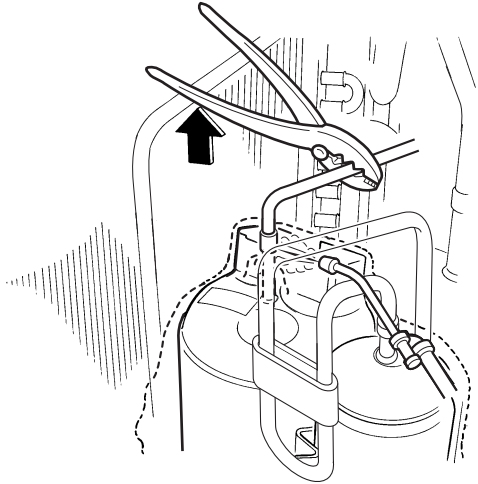
8. Removal of Compressor

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 terminal cover.	<p>(R16444)</p>	
2	Disconnect the lead wires of the compressor.	<p>(R16561)</p>	<p>U : red V : yellow W : blue N : brown</p>

Step	Procedure	Points
3	Remove the nut of the compressor.	 <p style="text-align: right;">(R17034)</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. 		
4	Heat up the brazed part of the discharge side and disconnect it.	
5	Heat up the brazed part of the suction side and disconnect it.	
<ul style="list-style-type: none"> ■ 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;">(R16551)</p>
6	Lift the compressor up and remove it.	 <p style="text-align: right;">(R16552)</p>

Cautions for restoration

1. Restore the piping by non-oxidation brazing.
2. Avoid excessive heating. (Keep below 120°C (248°F))

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.

Warning
 Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.

Warning
 If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)

Warning
 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.

Revision History

Month / Year	Version	Revised contents
07 / 2013	Si00-774	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

DAIKIN INDUSTRIES, LTD.

Head Office:
Umeda Center Bldg., 2-4-12, Nakazaki-Nishi,
Kita-ku, Osaka, 530-8323 Japan

Tokyo Office:
JR Shinagawa East Bldg., 2-18-1, Konan,
Minato-ku, Tokyo, 108-0075 Japan

http://www.daikin.com/global_ac/

©All rights reserved