


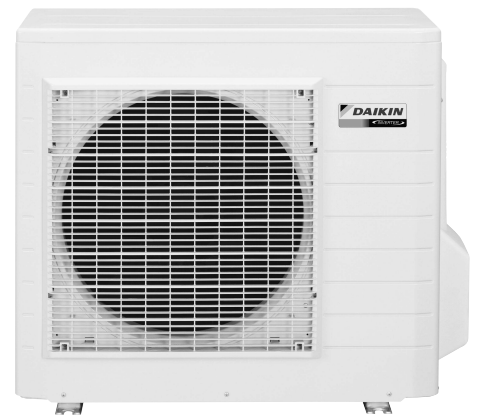
REMOVAL PROCEDURE



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

5.0/6.0/7.1 kW Class 18000 Btu/h Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

Applicable Models

●Cooling Only

RKD18HV2S

RKD50GVM

RKD60GVM

RKD71GVM

RKD50GVM4

RKD60GVM4

RKD71GVM4

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Note:

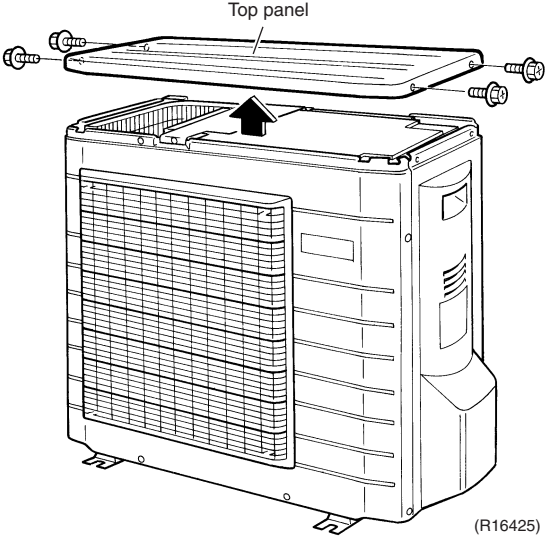
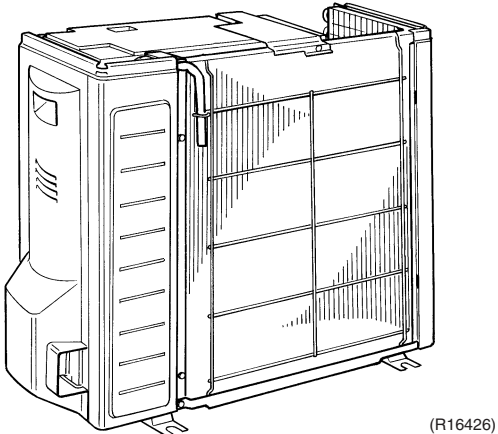
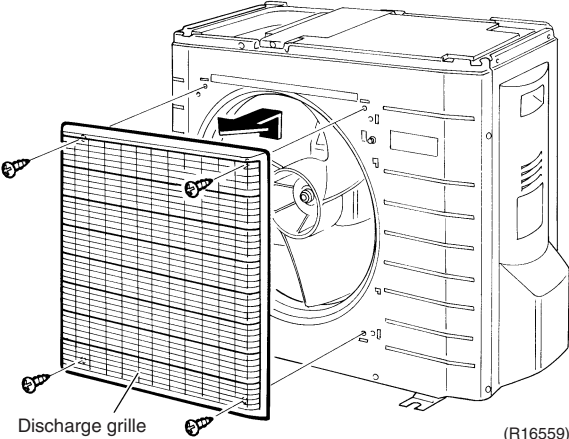
♦ The illustrations may be slightly different depending on the model.

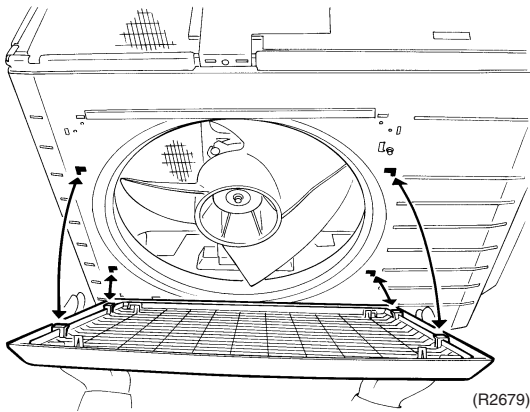
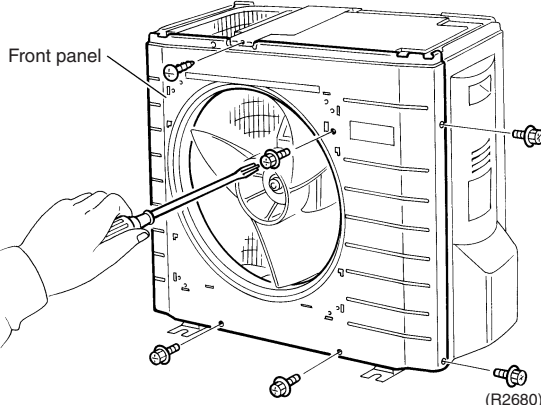
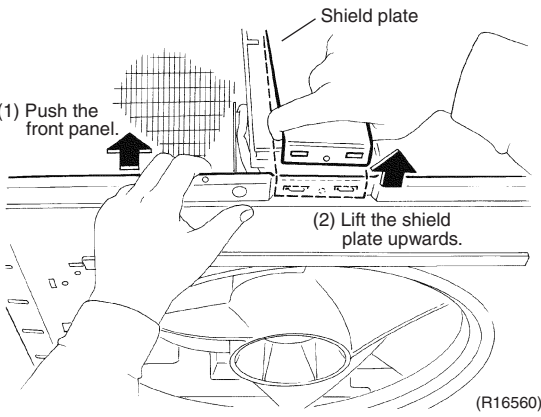
1. Removal of Outer Panels

Procedure

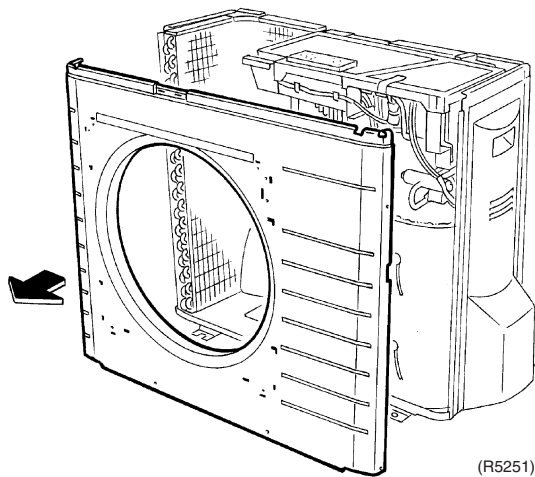
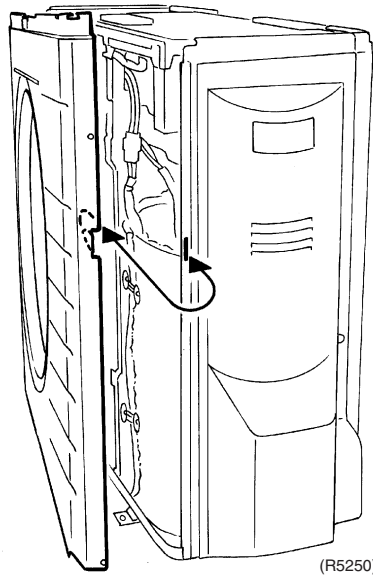
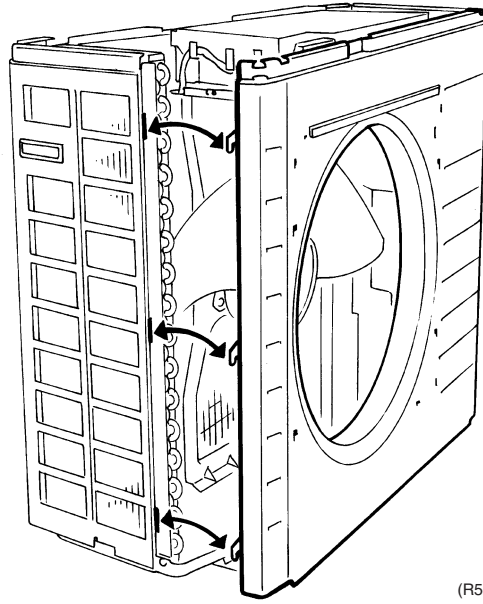


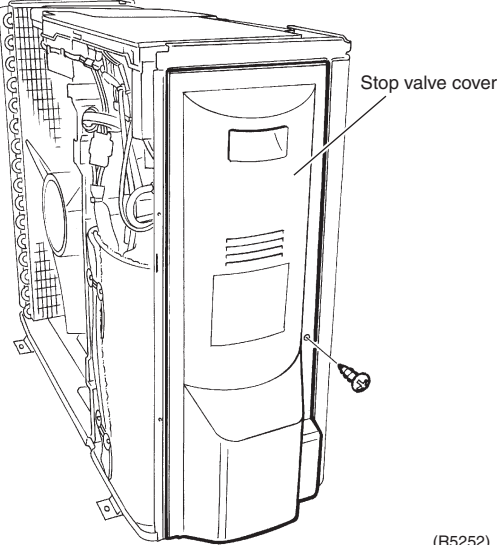
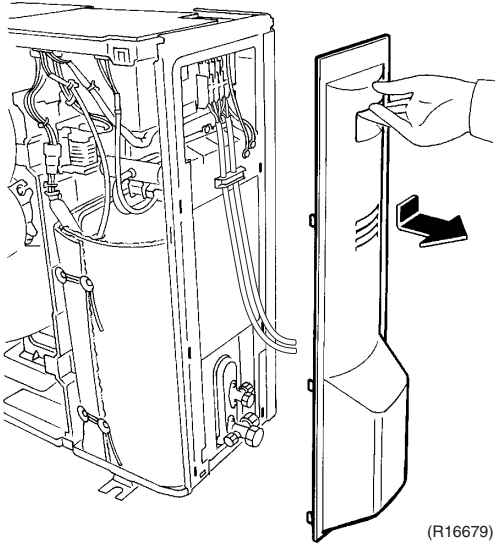
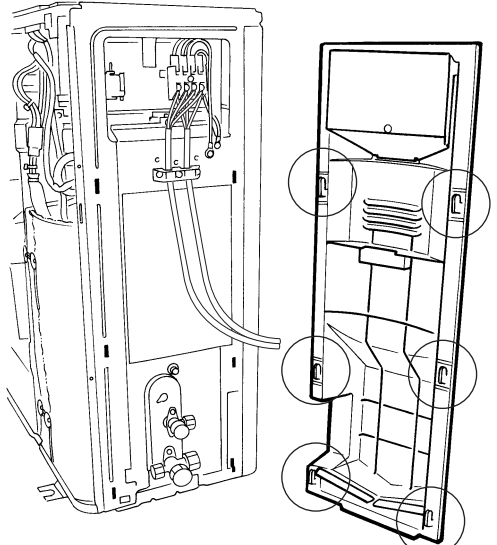
Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

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>	  	<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	<p>Remove the 6 screws of the front panel.</p>  <p>(R2679)</p>	<ul style="list-style-type: none"> ■ The discharge grille has 4 hooks.
4	<p>Push the front panel and lift the shield plate to unfasten the hooks.</p>  <p>(R2680)</p>  <p>(R16560)</p>	

Step	Procedure	Points
5	Unfasten the left side hooks, and then the right side hook. Remove the front panel.	<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.



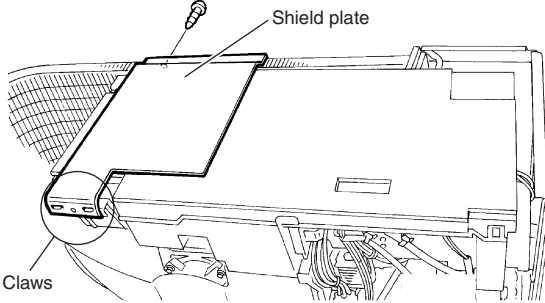
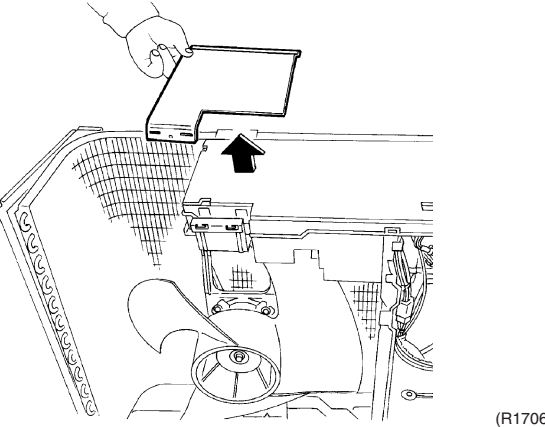
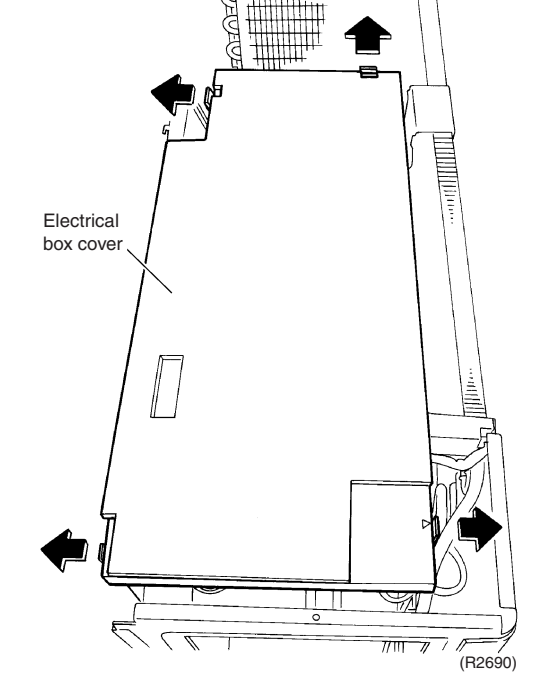
Step	Procedure	Points
2.	Remove the stop valve cover.	
1	Remove the screw of the stop valve cover.	
	 <p data-bbox="970 853 1031 873">(R5252)</p>  <p data-bbox="970 1442 1031 1462">(R16679)</p>  <p data-bbox="930 2076 991 2096">(R16680)</p>	<p data-bbox="1098 1491 1442 1554">■ The stop valve cover has 6 hooks.</p>

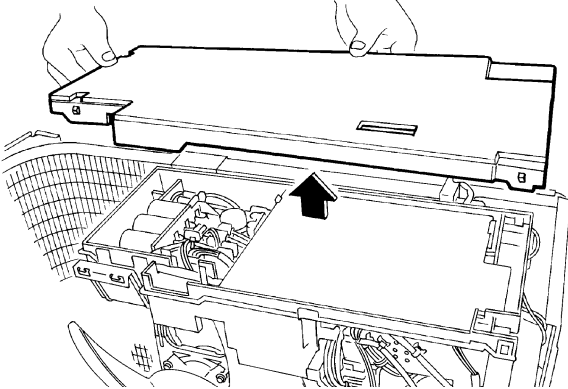
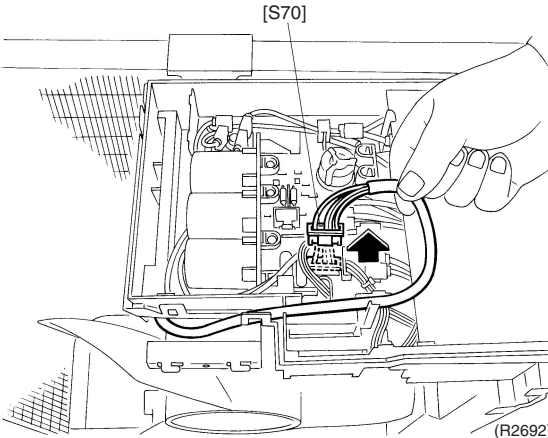
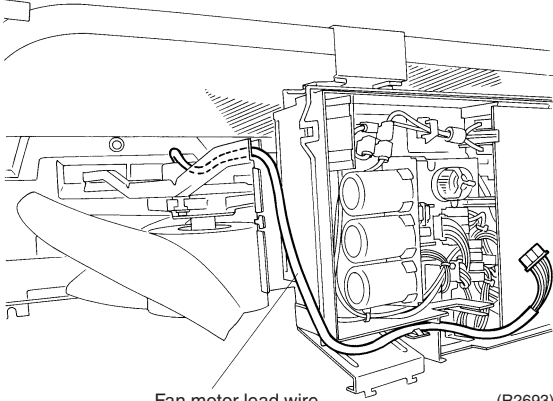
2. Removal of Outdoor Fan / Fan Motor

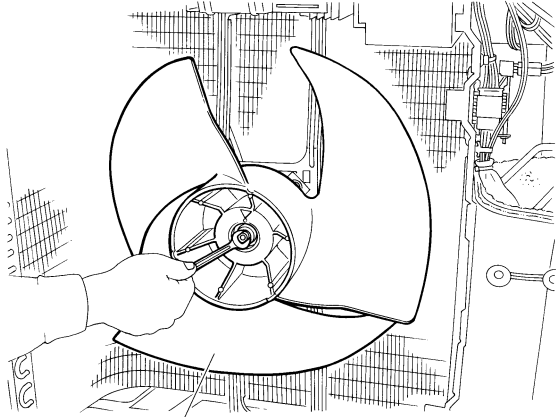
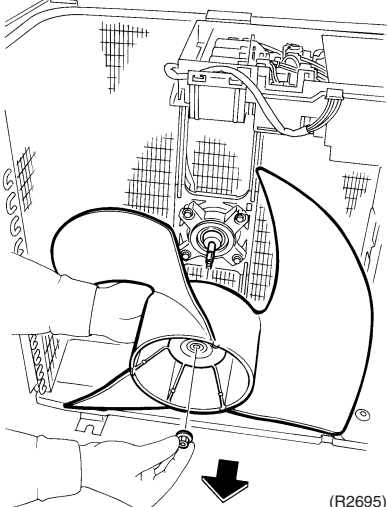
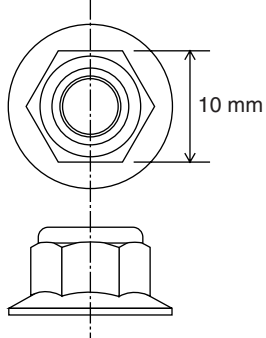
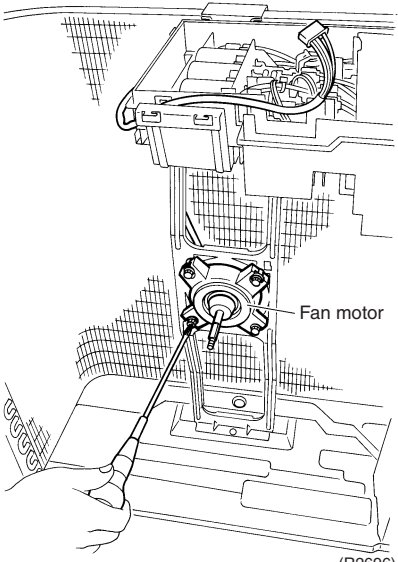
Procedure



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: center;">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	Release the fan motor lead wire from the 2 hooks and pull the fan motor out.	<ul 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.

(R2697)

3. Removal of PCBs / Electrical Box

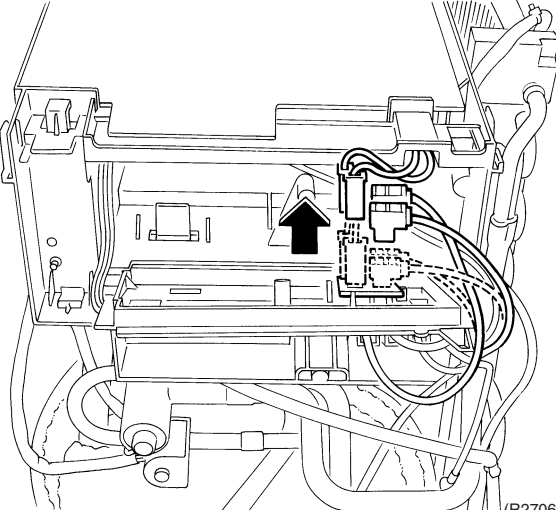
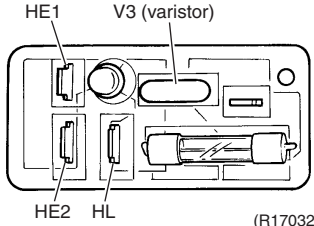
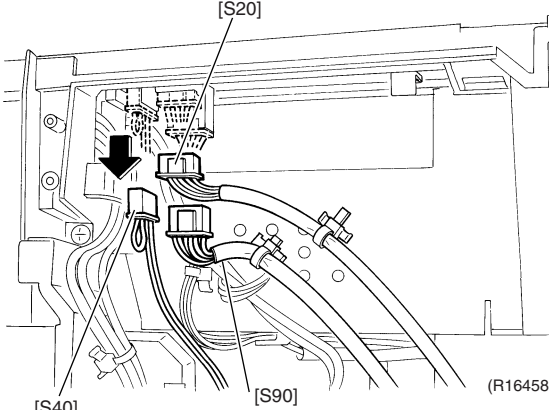
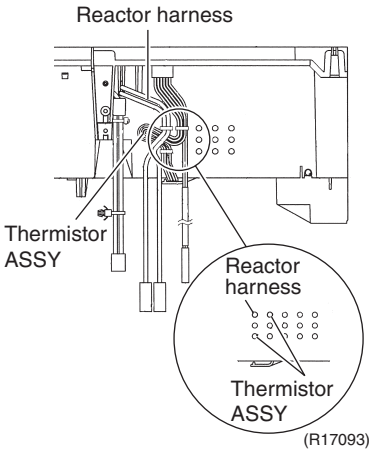
Procedure

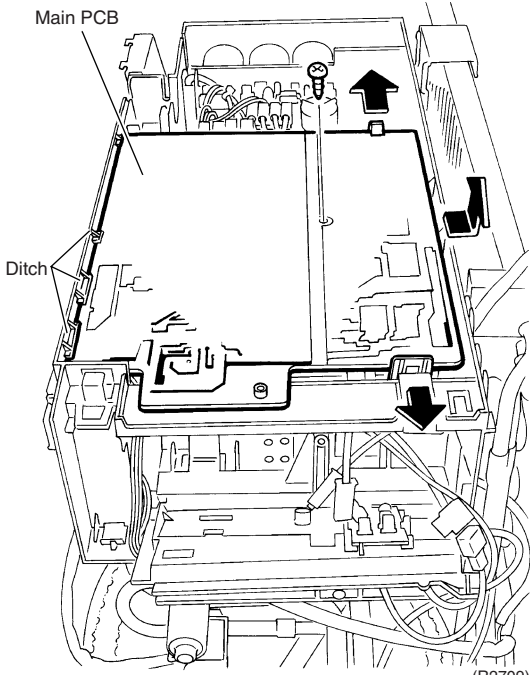
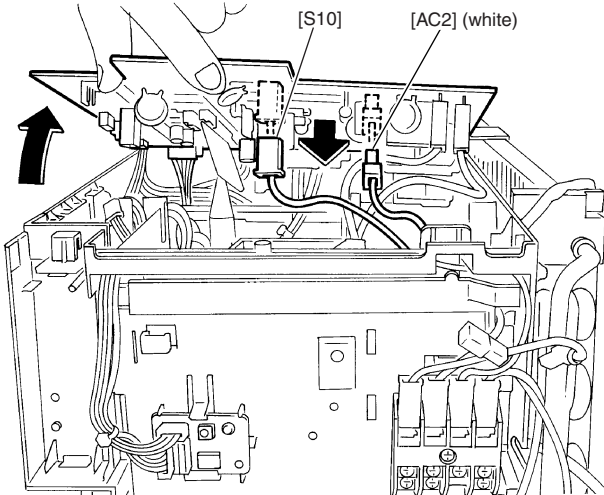
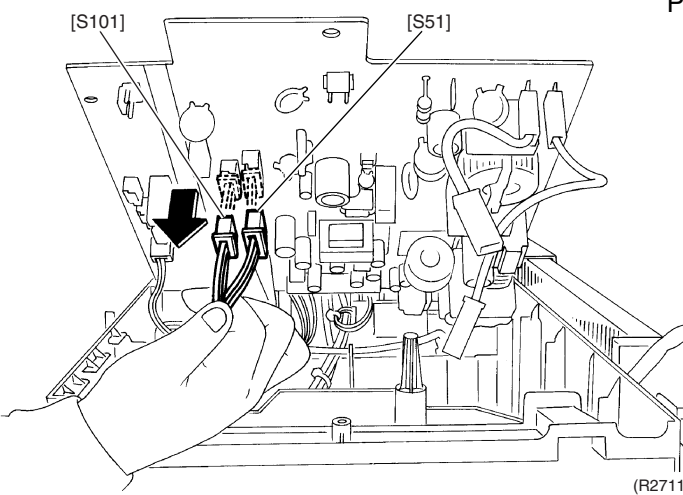


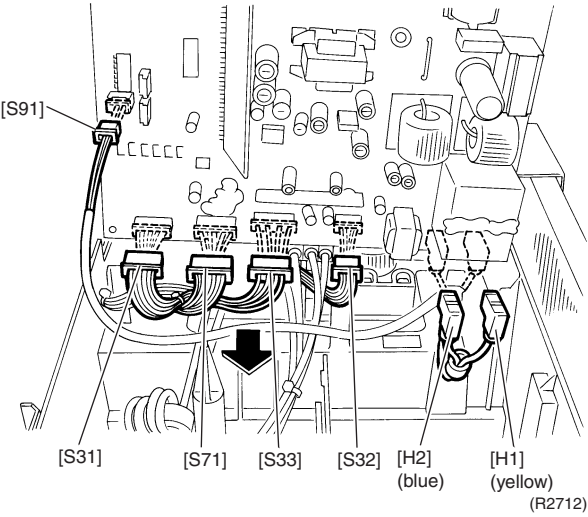
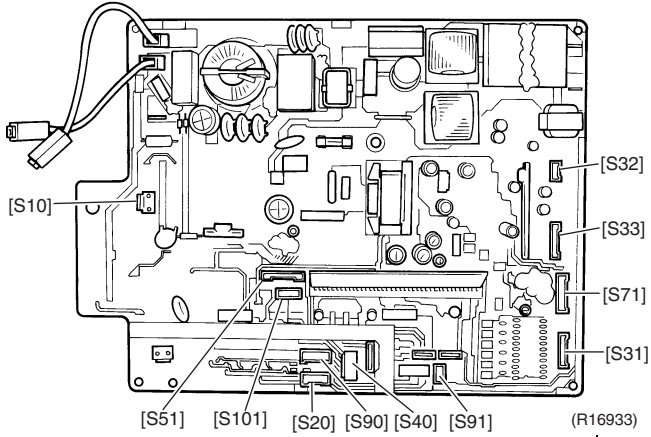
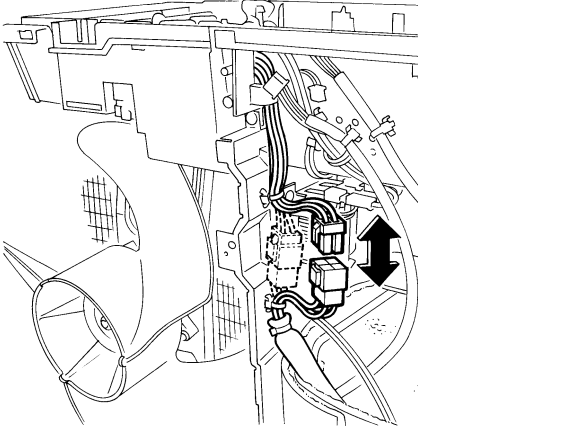
Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

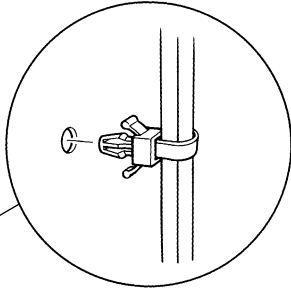
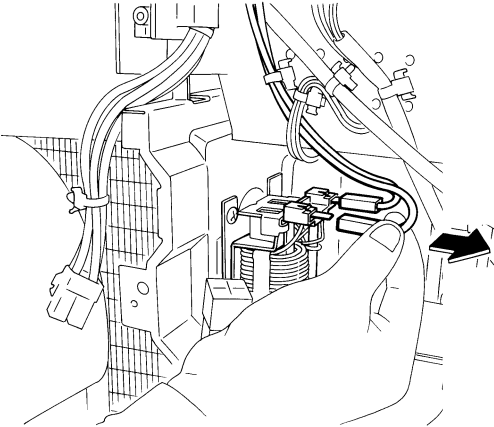
Step	Procedure	Points
1. Remove the right side panel.		<p>Preparation</p> <ul style="list-style-type: none"> ■ Remove the top panel and the front panel according to the "Removal of Outer Panels". ■ Colors of the connection wires are as follows. <ul style="list-style-type: none"> (1) black (2) white (3)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

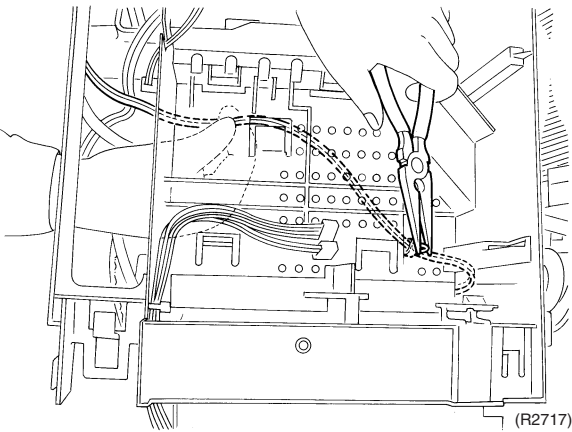
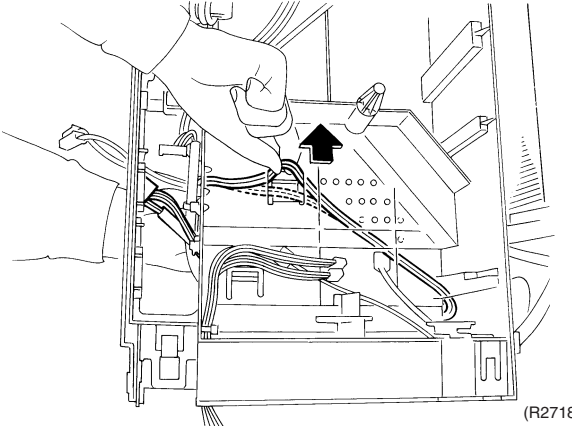
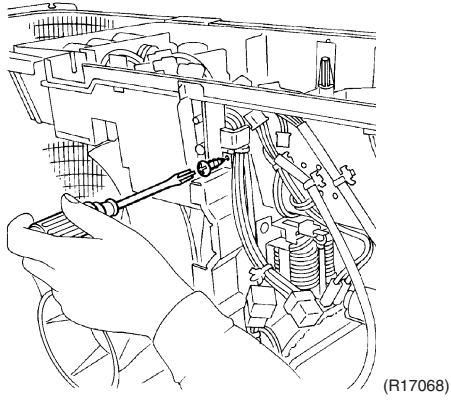
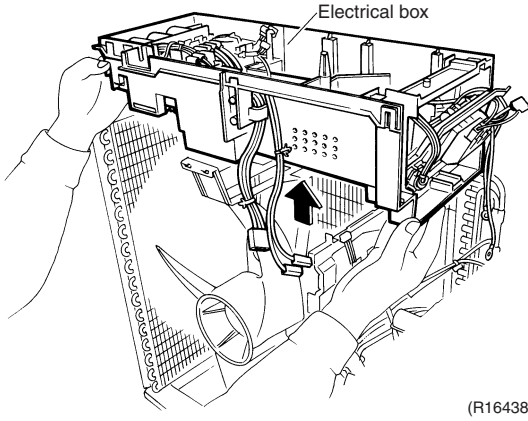
Step	Procedure	Points
5	Unfasten the hooks and remove the right side panel.	<ul style="list-style-type: none"> ■ When reassembling, insert the upper hook and the 2 lower hooks back into place.
2. Remove the service monitor PCB.		
1	Release the harness from the hook.	
2	Disconnect the connectors [S52] [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>(R16458)</p>	<p>[S20]: electronic expansion valve [S40]: overload protector [S90]: thermistors</p> <p>■ 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 Thermistor ASSY Thermistor ASSY Reactor harness</p> <p>(R17093)</p>

Step	Procedure	Points
<p>4 Remove the screw of the main PCB.</p> <p>5 Unfasten the 2 hooks and release the main PCB from the ditch of the front side.</p>	 <p>Main PCB</p> <p>Ditch</p> <p>(R2709)</p>	
<p>6 Disconnect the harnesses [S10] [AC2] while lifting the main PCB.</p>	 <p>[S10]</p> <p>[AC2] (white)</p> <p>(R2710)</p>	<p>[S10] [AC2]: terminal board</p>
<p>7 Disconnect the connectors [S51] [S101].</p>	 <p>[S101]</p> <p>[S51]</p> <p>(R2711)</p>	<p>[S51] [S101]: service monitor PCB</p>

Step	Procedure	Points
8	<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 [S90]: thermistors [S91]: radiation fin thermistor [S101]: [S102] on service monitor PCB [H1] [H2]: diode bridge</p>
9	<p>Disconnect the relay connector for the compressor.</p> 	

Step	Procedure	Points
10	Release the clamp with pliers.	
11	Disconnect the 2 connectors for the reactor.	(R17066)
		(R17067)

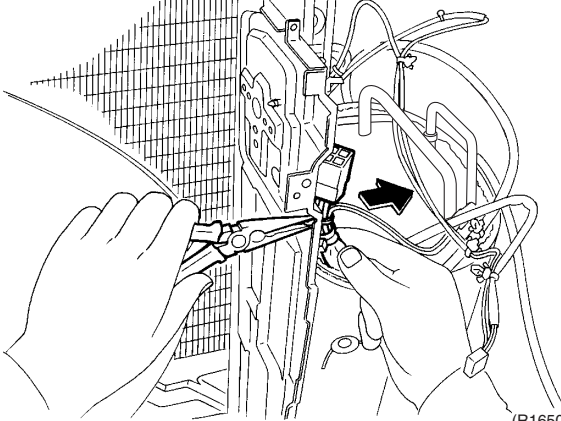
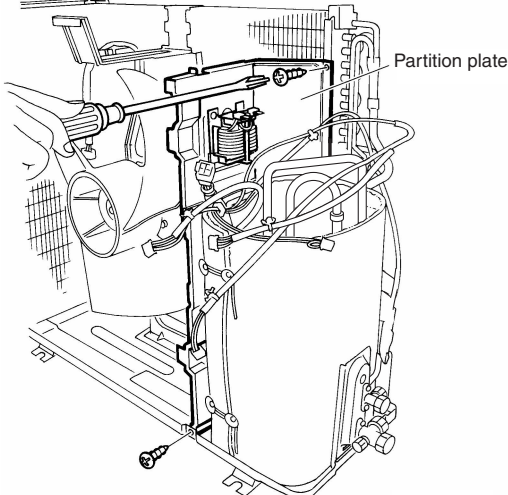
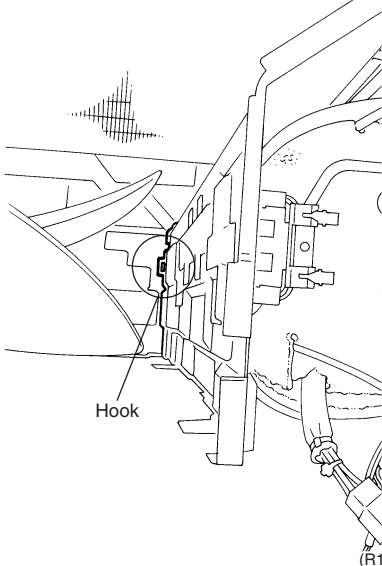
Step	Procedure	Points
12	<p>Pull the clamp and draw the thermistor harness out from the back of the electrical box.</p>  	
13	<p>Remove the screw of the electrical box.</p> 	
14	<p>Lift up and remove the electrical box.</p> 	

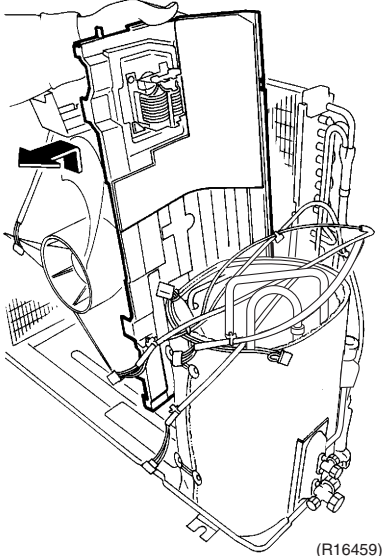
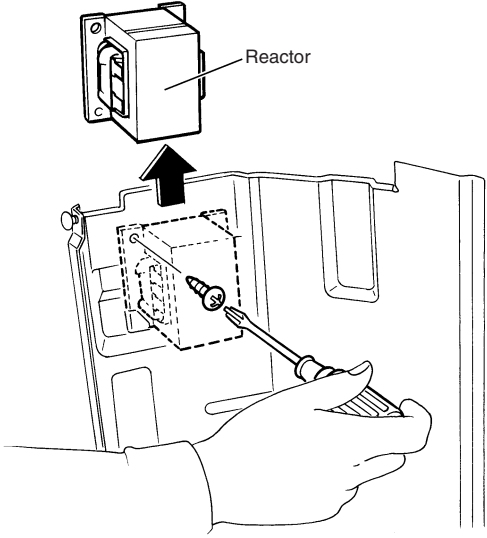
4. Removal of Reactor

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>	

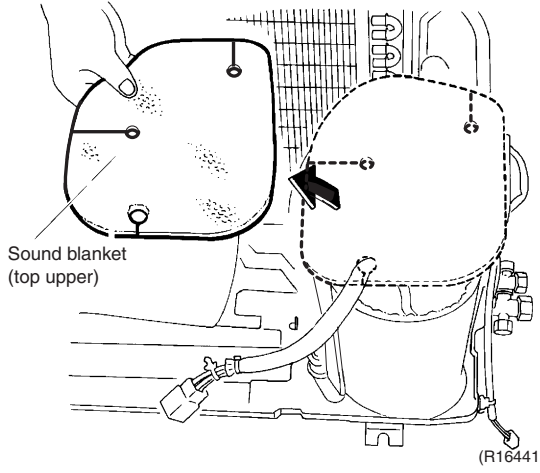
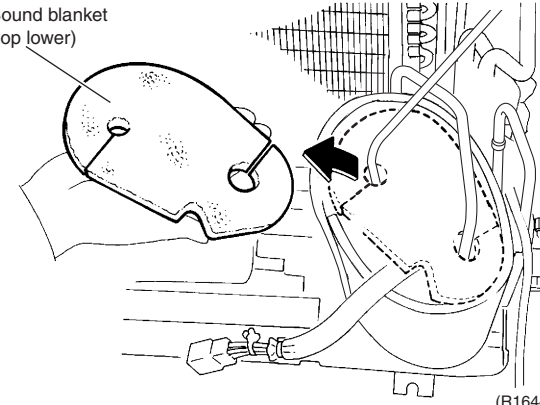
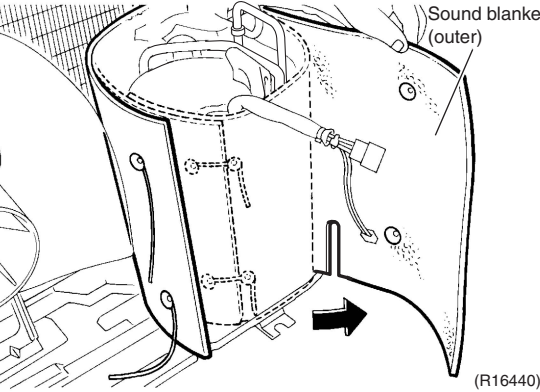
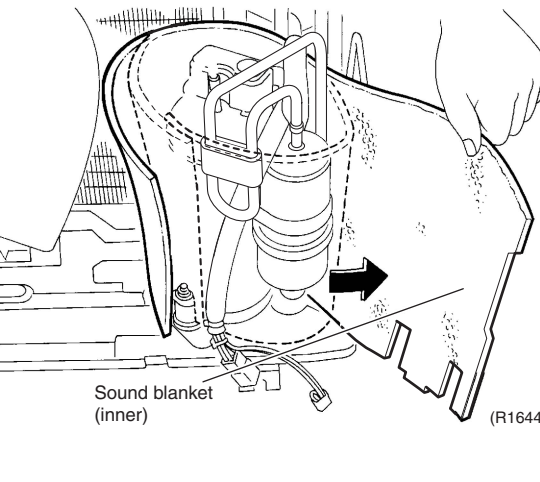
5. Removal of Sound Blankets

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>		

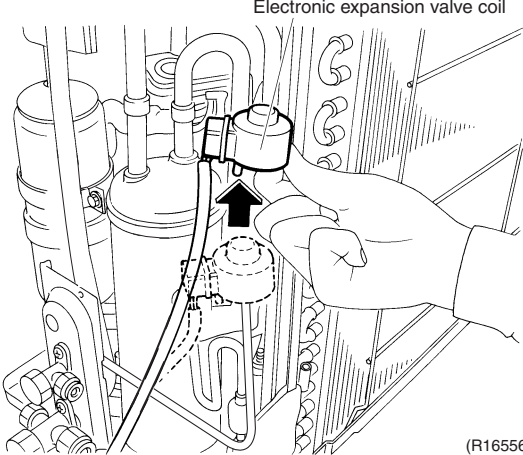
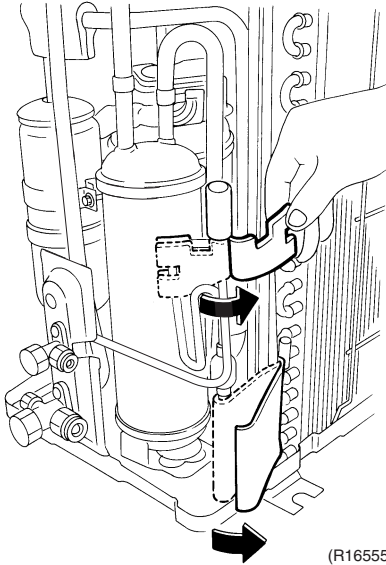
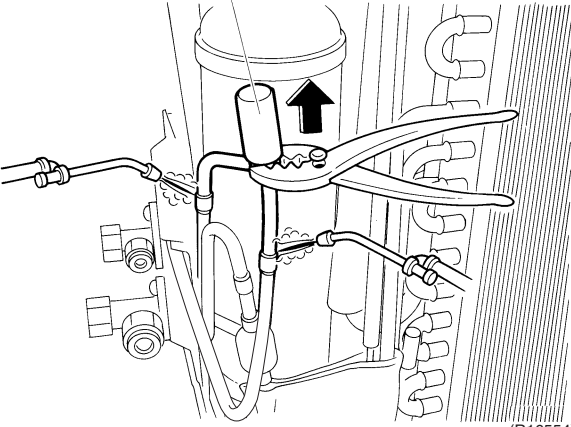
Step	Procedure	Points
2. Remove the sound blankets.		
1 Remove the sound blanket (top upper).	 <p>(R16441)</p>	<ul style="list-style-type: none"> Since the piping ports are torn easily, remove the sound blanket carefully.
2 Remove the sound blanket (top lower).	 <p>(R16442)</p>	<ul style="list-style-type: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

6. 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.

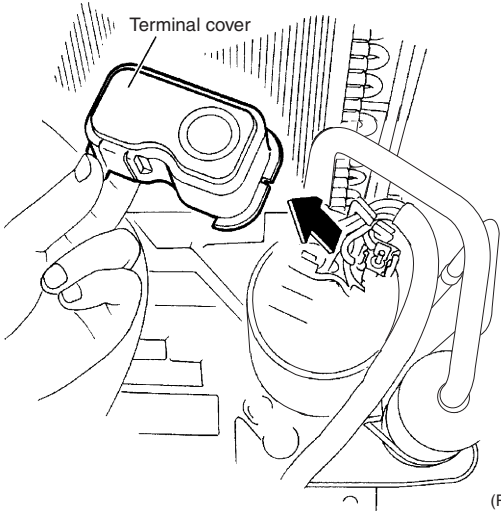
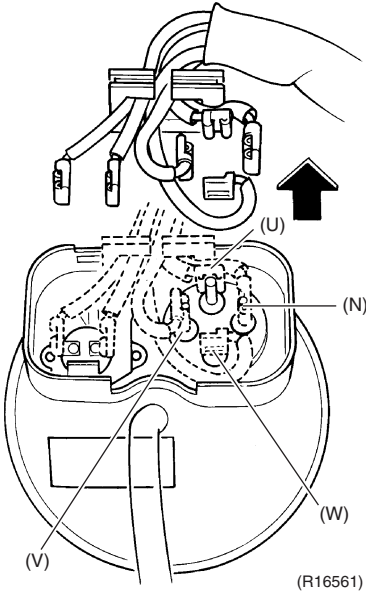
Step	Procedure	Points
1	<p>Remove the electronic expansion valve coil.</p>  <p>(R16556)</p>	
2	<p>Remove the sheets of putty.</p>  <p>(R16555)</p>	
3	<p>Heat up the 2 brazed parts of the electronic expansion valve and remove it.</p>  <p>(R16554)</p>	<p>Warning Be careful not to get yourself burnt with 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>

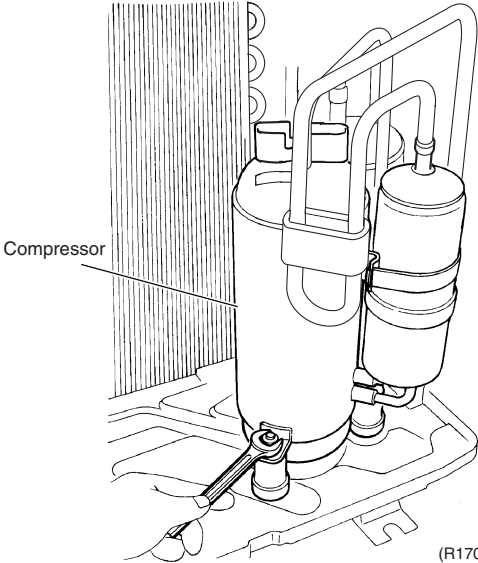
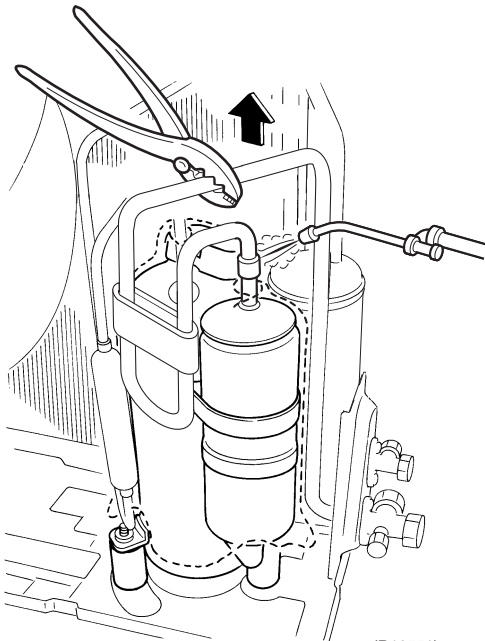
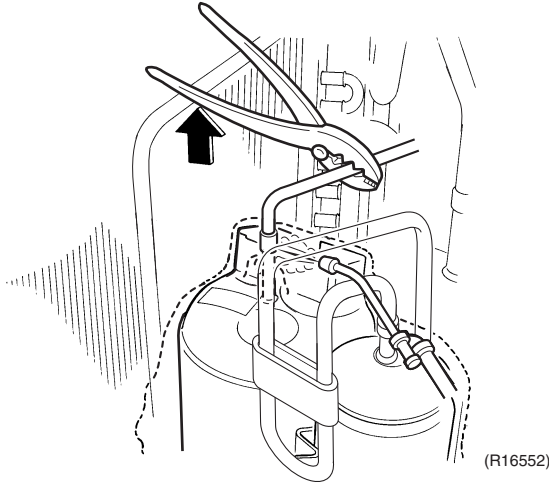
7. Removal of Compressor

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>	Cautions for restoration <ol style="list-style-type: none"> 1. Restore the piping by non-oxidation brazing. 2. Avoid excessive heating. (Keep below 120°C) In case of difficulty with gas brazing machine <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. <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>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>
<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.	
6	Lift the compressor up and remove it.	
	 <p style="text-align: right;">(R16551)</p>  <p style="text-align: right;">(R16552)</p>	

Revision History

Month / Year	Version	Revised contents
08/2012	Si001165	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/

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