


REMOVAL PROCEDURE



SERVICE
MANUAL

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

3 HP Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

Applicable Models

- Heat Pump
RZQ72KMV2C

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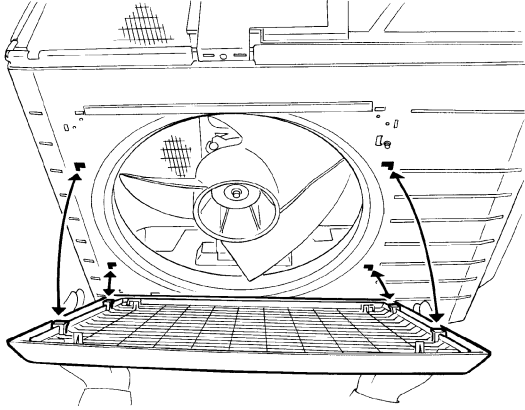
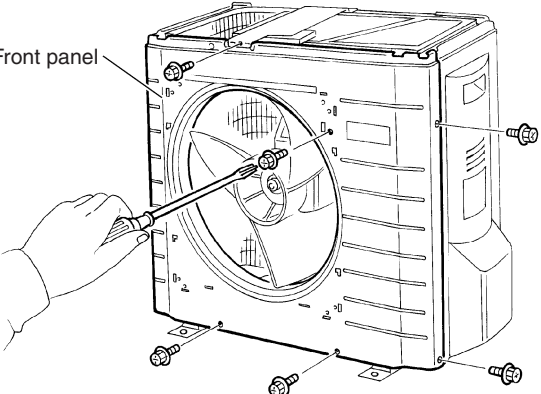
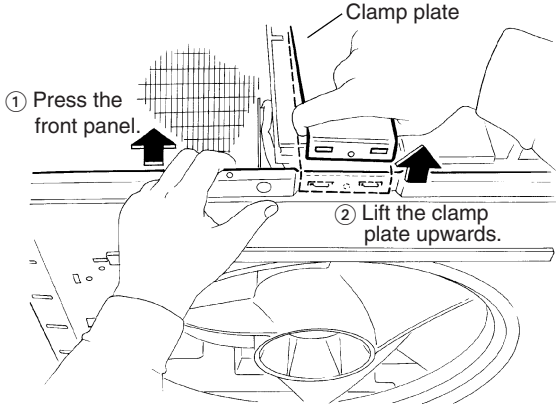
1. Procedure to Remove Panels and Plates

Procedure

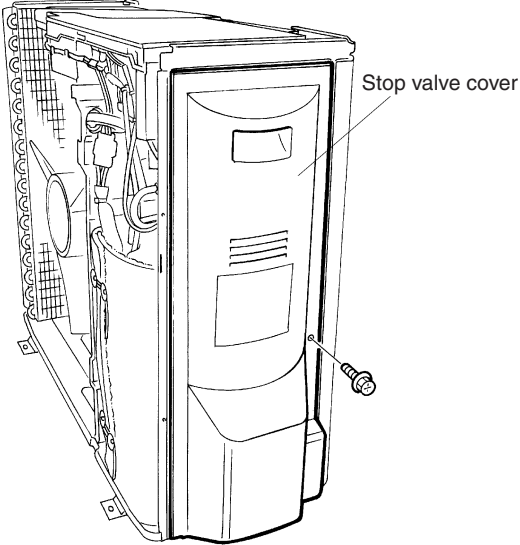
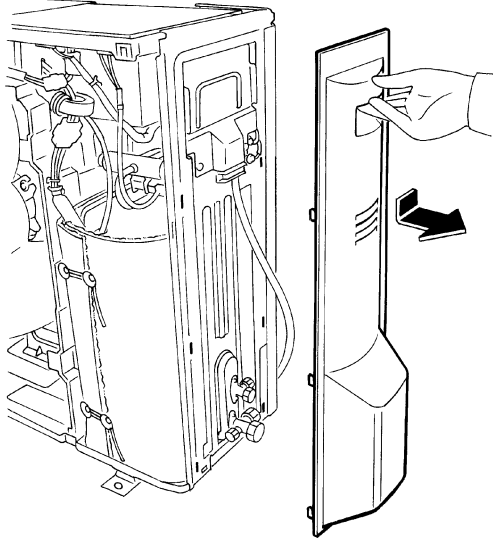
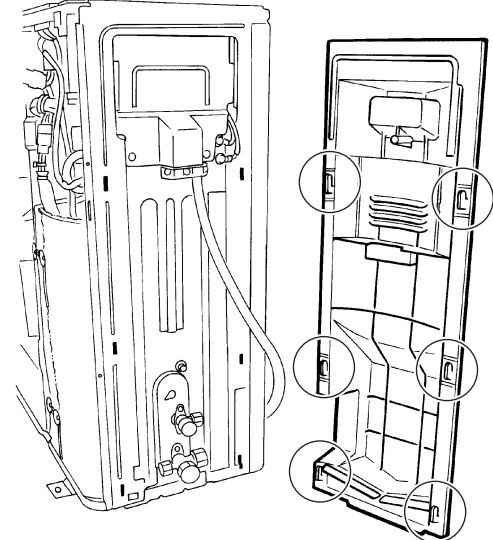


Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Remove the panels and plates.	<p>Top panel</p>	
1 Loosen the 4 screws and lift the top panel.	<p>Outdoor air thermistor</p> <p>Heat exchanger</p>	<p>■ Take care not to cut your finger by the fins of the heat exchanger.</p>
2 Loosen the 4 screws and remove the discharge grille.	<p>Discharge grille</p>	

Step	Procedure	Points
3	<p>Loosen the 6 screws of the front panel.</p>  	<ul style="list-style-type: none"> ■ The front grille has 4 hooks. Slide the discharge grille upwards and remove it.
4	<p>Press the front panel and undo the hooks. Lift the clamp plate and remove it.</p>  <p>① Press the front panel.</p> <p>② Lift the clamp plate upwards.</p>	

Step	Procedure	Points
5	<p>Undo the left side hooks, and then the right side hook. Remove the front panel.</p>	<ul style="list-style-type: none"> ■ Lift the front panel and remove it while pushing the left side panel inwards.
		<ul style="list-style-type: none"> ■ Lift the front panel and undo the right side hook. ■ Fit the right side of the front panel first when installing.

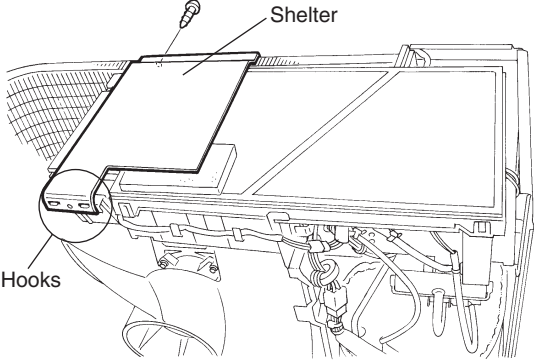
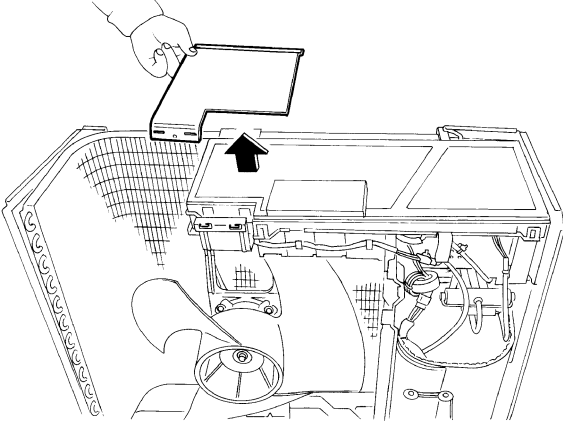
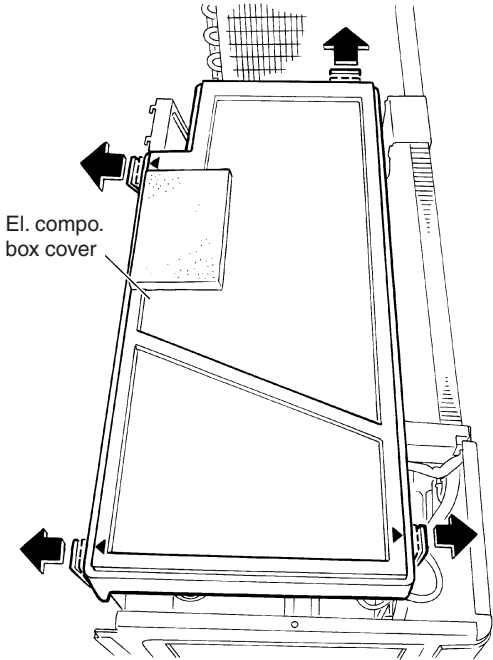
Step	Procedure	Points
2.	Remove the stop valve cover.	
1	<p data-bbox="199 286 467 347">Loosen the screw of the stop valve cover.</p>  <p data-bbox="199 896 467 985">2 Pull down the stop valve cover to undo the hooks and remove it.</p>  	<p data-bbox="1093 1489 1444 1556">■ The stop valve cover has 6 hooks.</p>

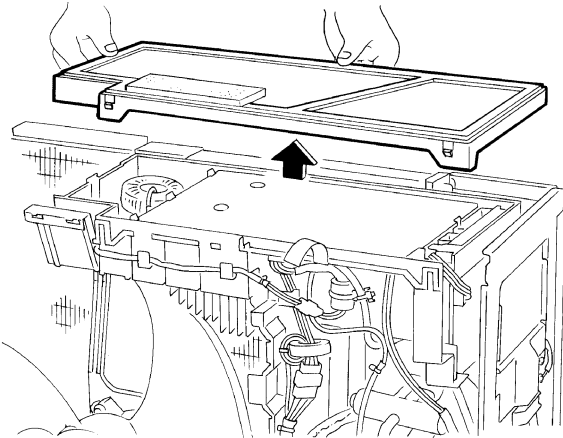
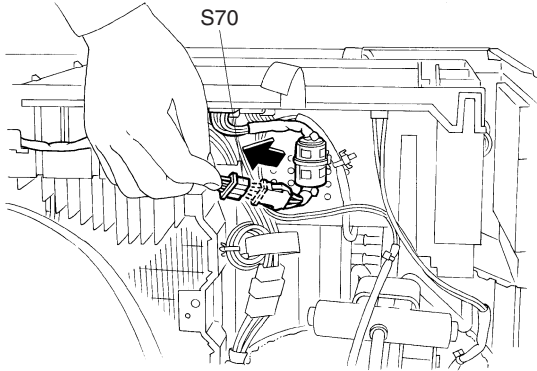
2. Procedure to Remove Fan Motor / Propeller Fan

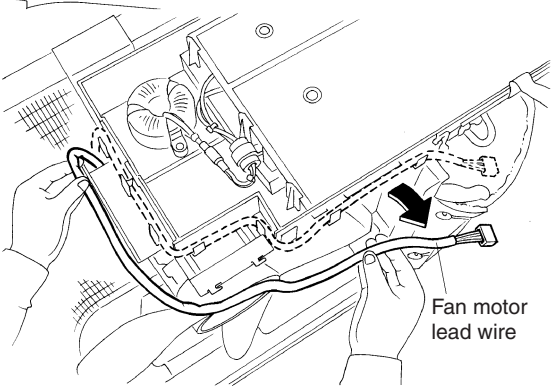
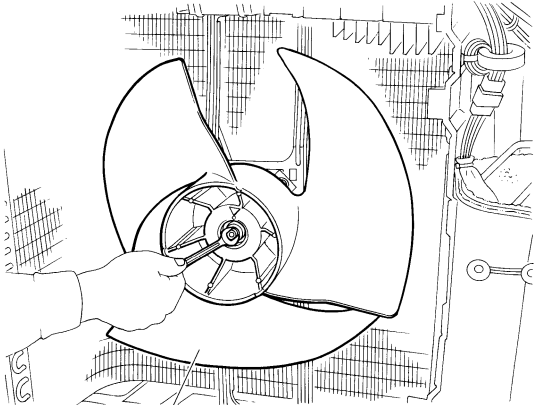
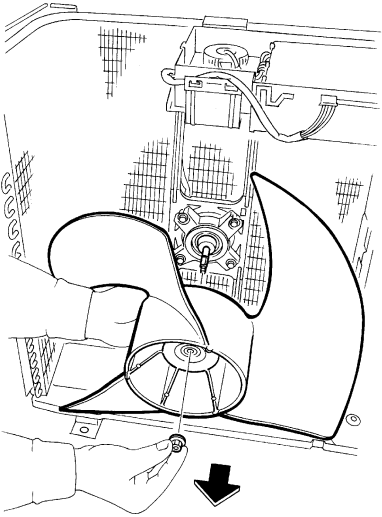
Procedure



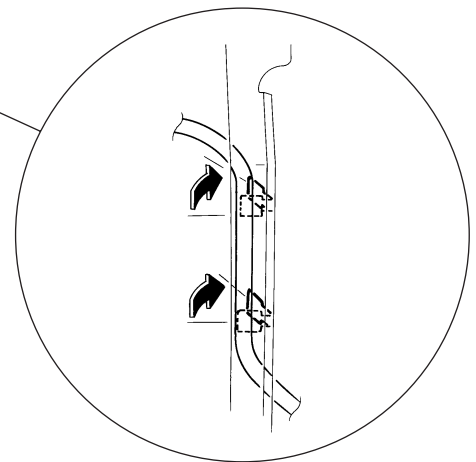
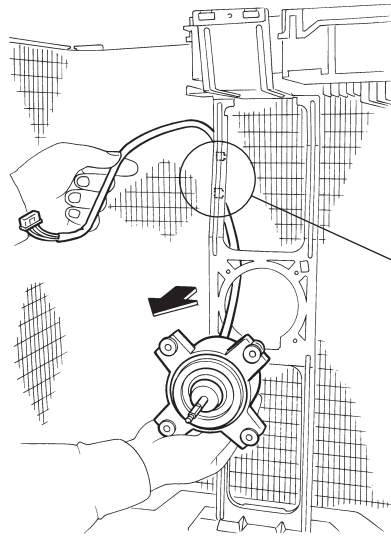
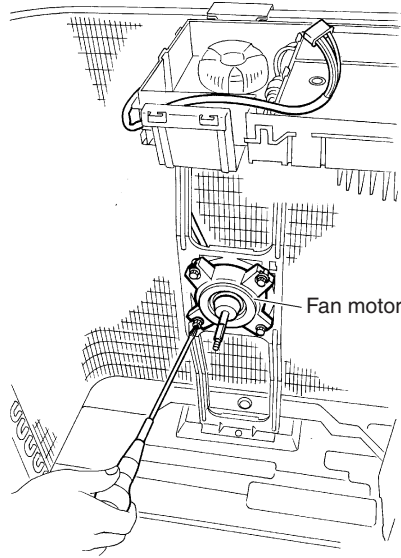
Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
<p>■ Remove the top panel and the front panel.</p>		
<p>1. Remove the el. compo. box cover.</p>		<p>■ This procedure is not necessary to remove the propeller fan only.</p>
<p>1 Loosen the screw on the back of the shelter.</p>		<p>■ The hooks have been released since the front panel was removed.</p>
<p>2 Undo the 2 hooks and remove it.</p>		
<p>3 Release the 4 hooks of the el. compo. box cover and remove it.</p>		

Step	Procedure	Points
		
2. Remove the fan motor.	<p data-bbox="201 779 464 875">1 Disconnect the connector for fan motor (S70).</p> 	

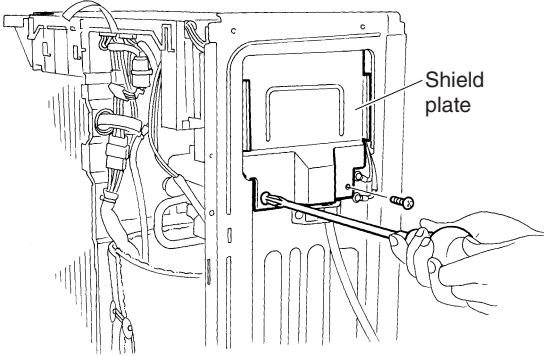
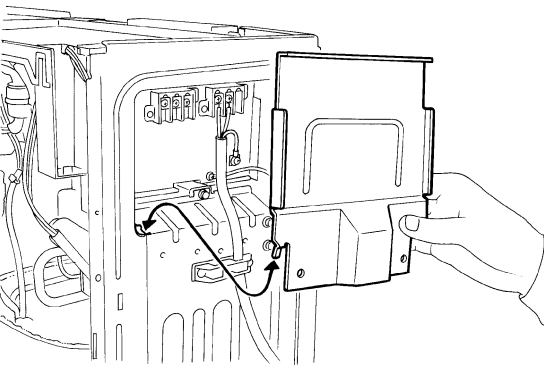
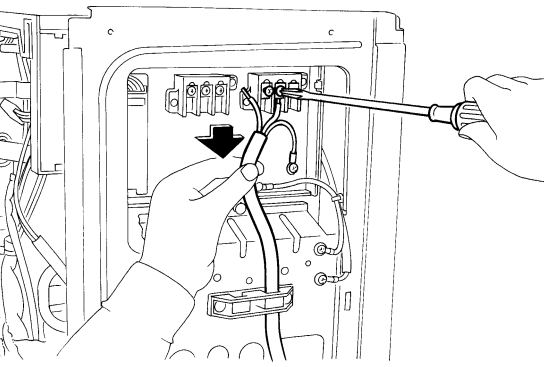
Step	Procedure	Points
2	<p>The illustration shows arrangement of the fan motor lead wire.</p> 	
3	<p>Unscrew the washer-fitted nut (M10) of the propeller fan with a spanner.</p>  	<ul style="list-style-type: none"> ■ Align ▼ mark of the propeller fan with D-cut section of the motor shaft when reassembling.

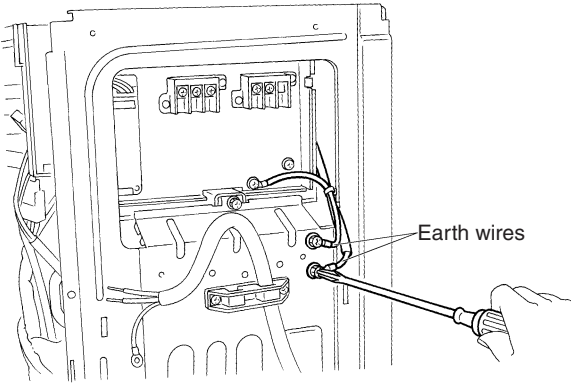
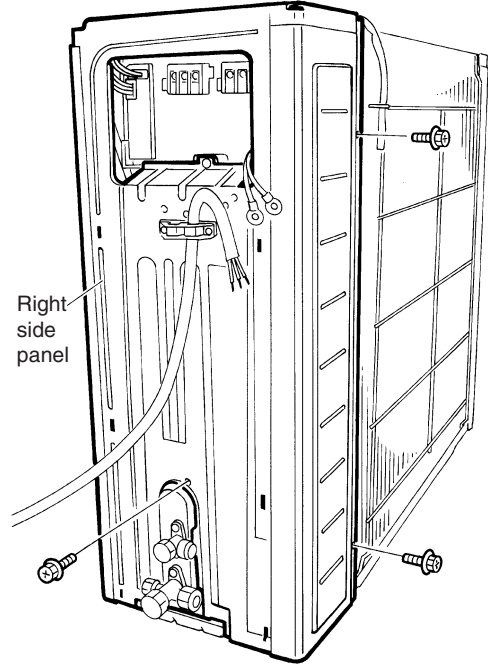
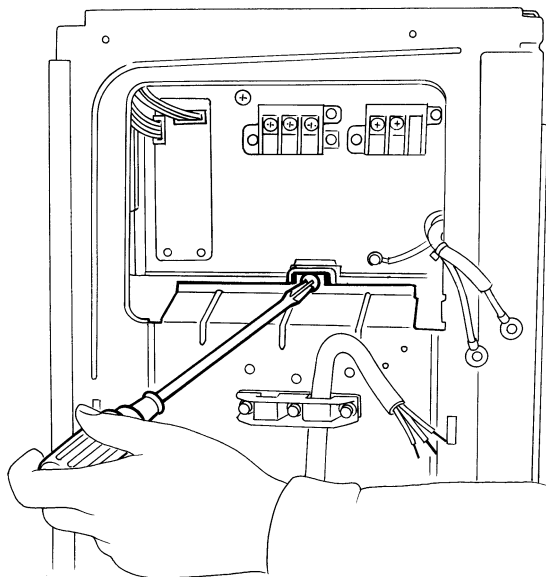
Step	Procedure	Points
4	Remove the 4 screws from the fan motor.	
5	Pull the fan motor out.	<ul style="list-style-type: none"> ■ Put the lead wire through the back of the motor when reassembling (so as not to be entangled with the propeller fan).

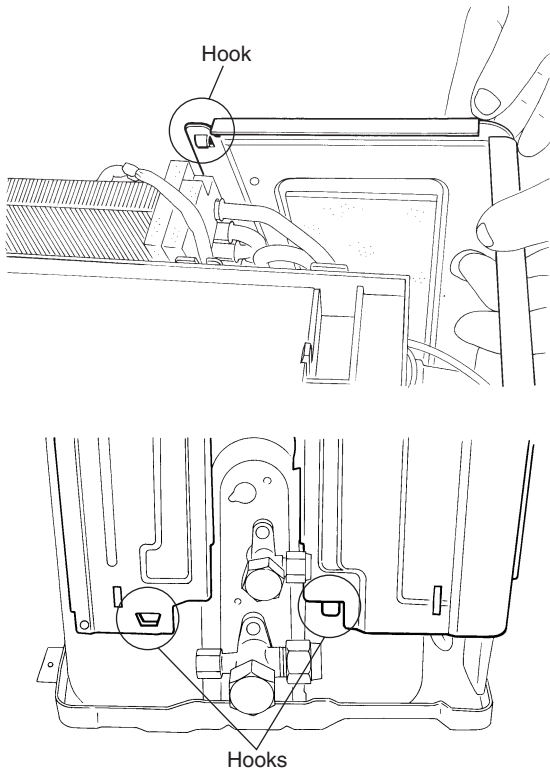
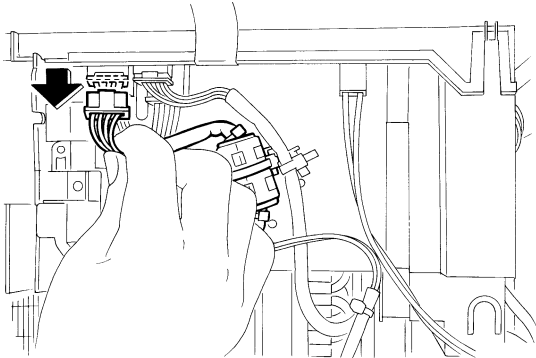
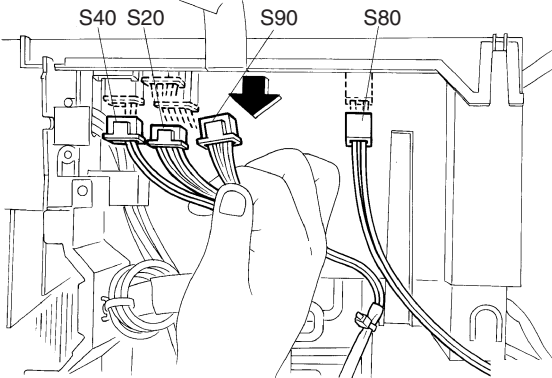


3. Procedure to Remove EI. Compo. Box

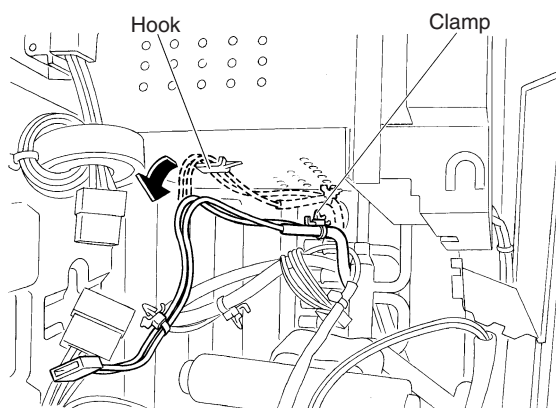
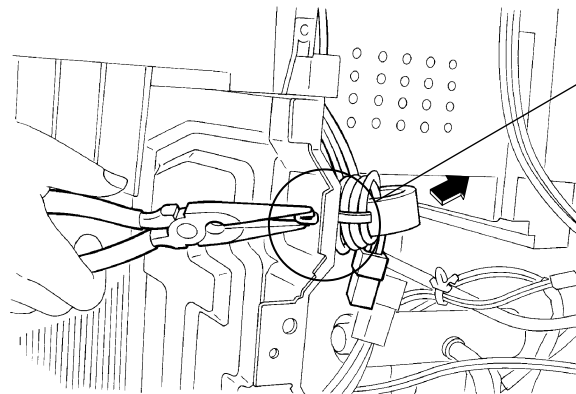
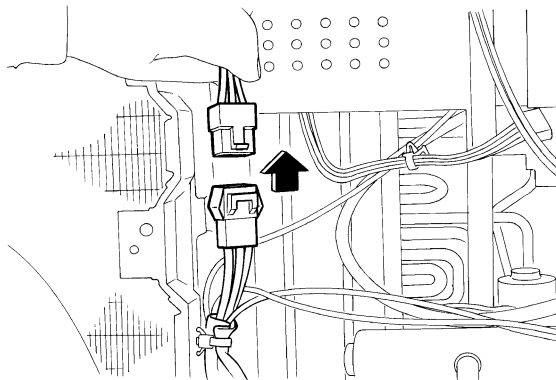
Procedure  **Warning** Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

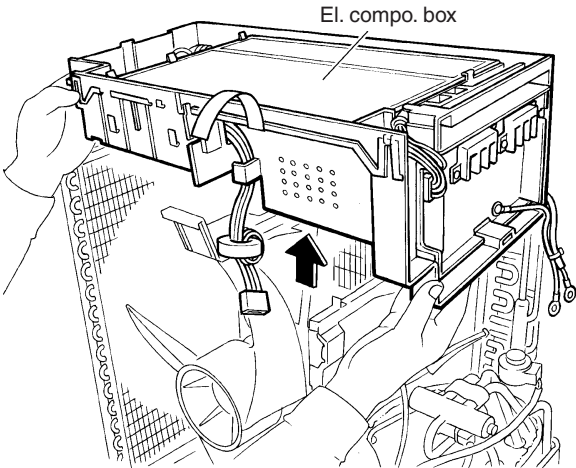
Step	Procedure	Points
<p>■ Remove the top panel and the front panel.</p>		
<p>1. Remove the shield plate.</p>		
<p>1 Loosen the 2 screws.</p>		
<p>2 Slide the cover upward to undo the 1 hook on the bottom left, and then remove the plate.</p>		
<p>3 Disconnect the 2 power supply cables and the 1 earth wire.</p>		

Step	Procedure	Points
4	<p>Disconnect the 2 earth wires.</p> 	
5	<p>Loosen the 3 screws of the right side panel.</p> 	
6	<p>Loosen the fixing screw of the el. compo. box.</p> 	

Step		Procedure	Points
			<ul style="list-style-type: none"> ■ Insert the 2 hooks of the lower part and the 1 hook of the upper back when reassembling.
7	Disconnect the relay harness for fan motor.		
8	Disconnect the connectors of the front side. S20: electronic expansion valve S40: overload protector S80: four way valve S90: thermistors (discharge pipe, outdoor air, heat exchanger)		

Step	Procedure	Points
9	Disconnect the relaying wire connector for the compressor.	
10	Release the clamp by pliers.	
11	Release the clamp and undo the wire from the hook.	



Step	Procedure	Points
12	<p data-bbox="201 215 453 275">Lift the el. compo. box and remove it.</p> 	

4. Procedure to Remove PCB

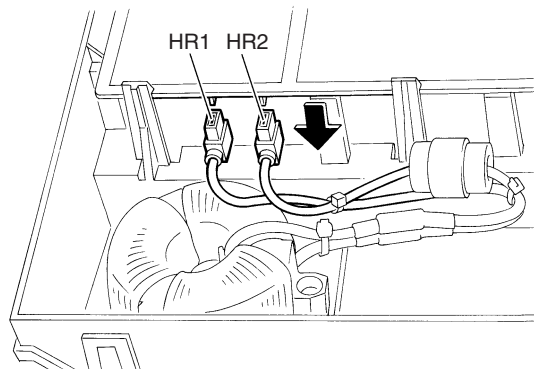
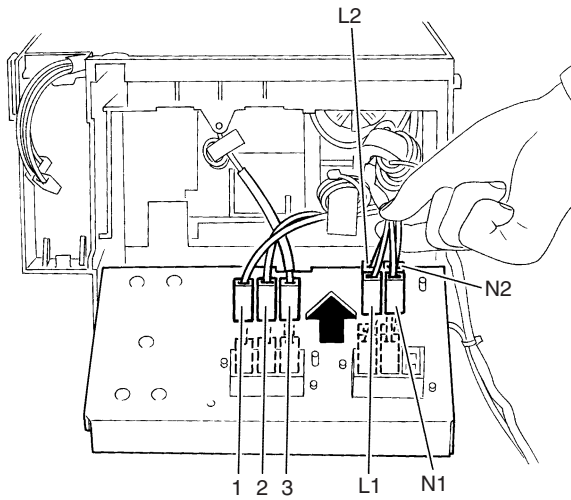
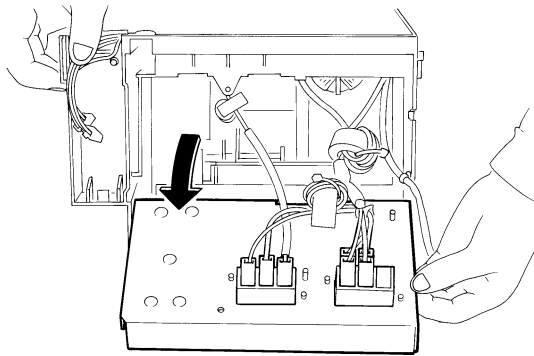
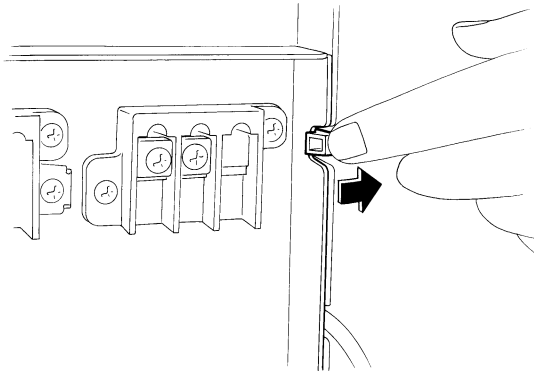
Procedure



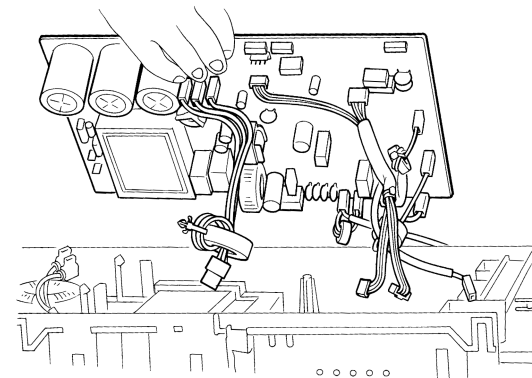
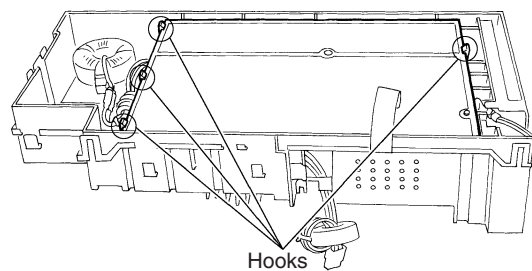
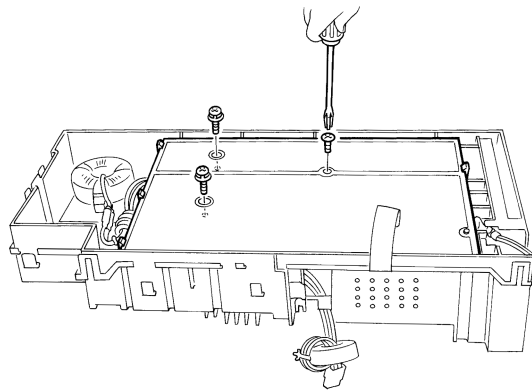
Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
<p>■ Remove the el. compo. box.</p>		
<p>1. Remove the PCB.</p>		
<p>1 Disconnect the connectors for the control PCB (S52, S102).</p>		
<p>2 Undo the 4 clamps by pliers.</p>		
<p>3 Loosen the fixing screw of the cable way board and disconnect the earth wire.</p>		

Step	Procedure	Points
4	Undo the hook on the right.	
5	Open the cable way board.	
6	Disconnect the harnesses.	1: Black 2: White 3: Red L1: Black L2: Brown N1: White N2: Blue
7	Disconnect the 2 harnesses for the reactor (HR1, HR2).	



Step	Procedure	Points
8	Loosen the 3 fixing screws for the main PCB.	
9	Undo the 4 hooks.	
10	Lift up and remove the PCB.	



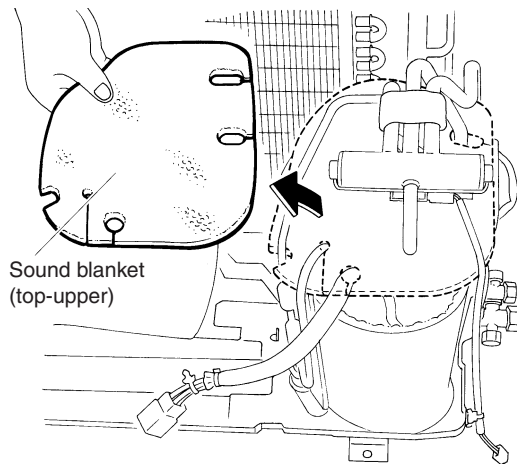
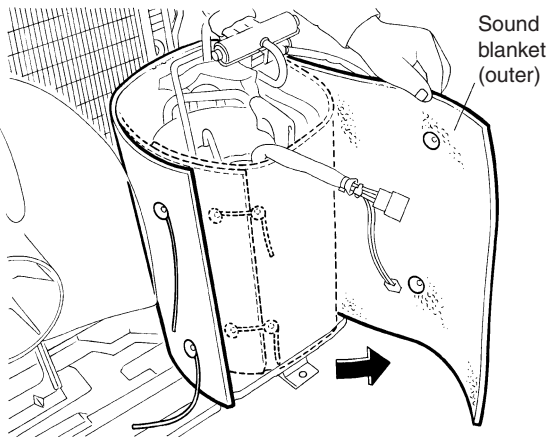
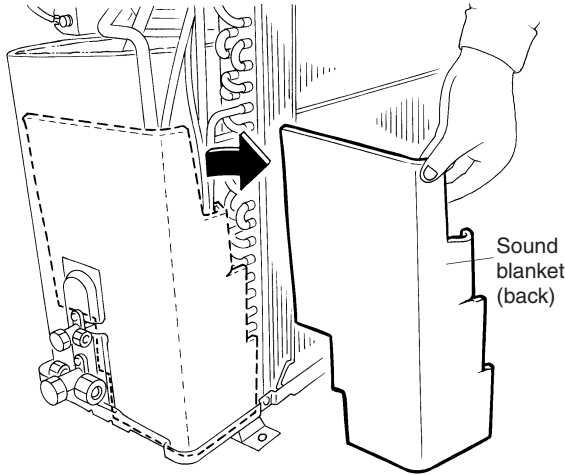
5. Procedure to Remove Sound Blanket

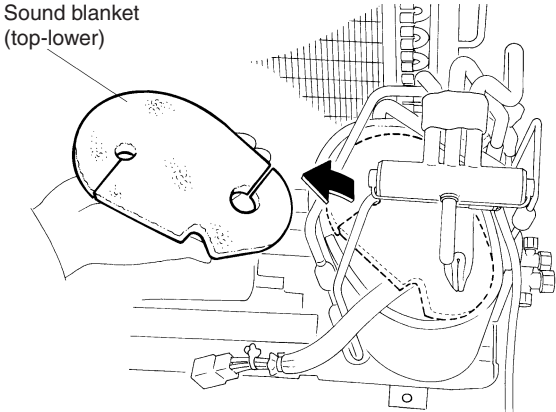
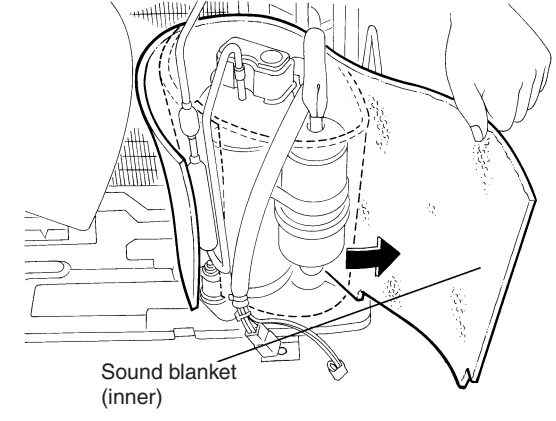
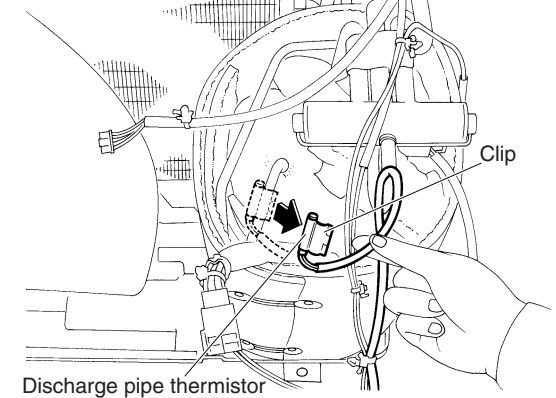
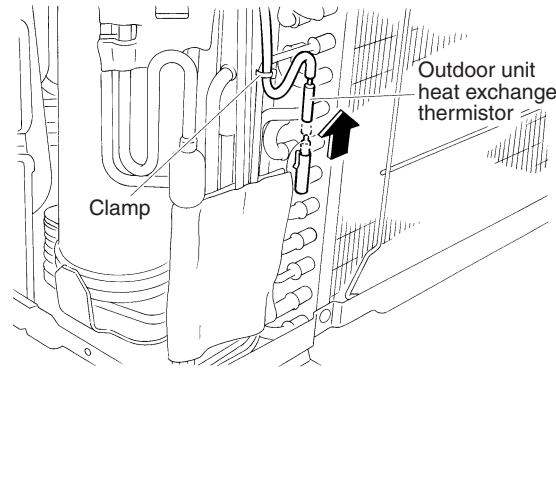
Procedure



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 sound blanket (back).	
2	Remove the sound blanket (outer).	<ul style="list-style-type: none"> Since the piping ports on the sound blanket (outer) are torn easily, remove the blanket carefully.
3	Remove the sound blanket (top-upper).	



Step	Procedure	Points
4	<p>Remove the sound blanket (top-lower).</p> 	
5	<p>Remove the sound blanket (inner).</p> 	<ul style="list-style-type: none"> ■ Since the piping ports on the sound blanket (inner) are torn easily, remove the blanket carefully.
6	<p>Release the discharge pipe thermistor.</p> 	<ul style="list-style-type: none"> ■ Pay attention to the direction of the clip so as not to touch the lead wire of the thermistor when reassembling.
7	<p>Cut the clamp by nippers. Disconnect the outdoor unit heat exchanger thermistor.</p> 	<ul style="list-style-type: none"> ■ Clamps should be always available. Fix it as it was before.

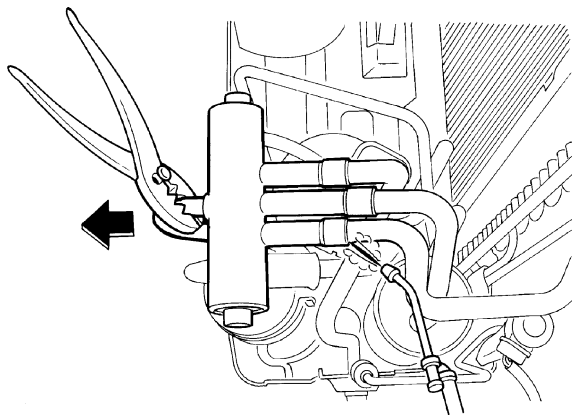
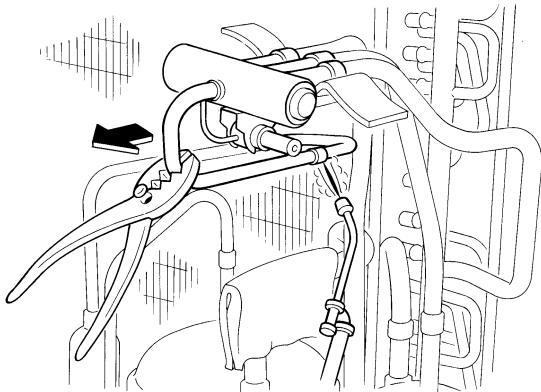
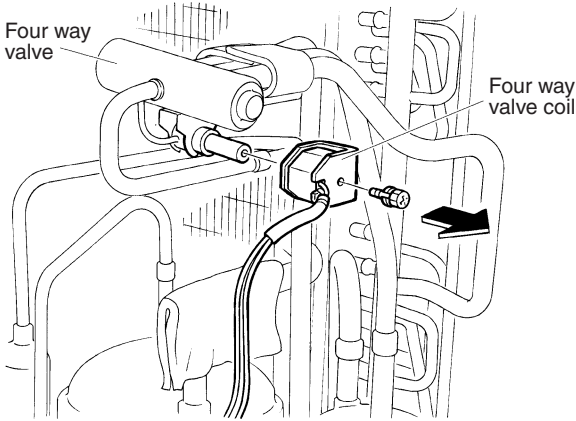
6. Procedure to Remove Four Way Valve

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)
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 outdoor 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>

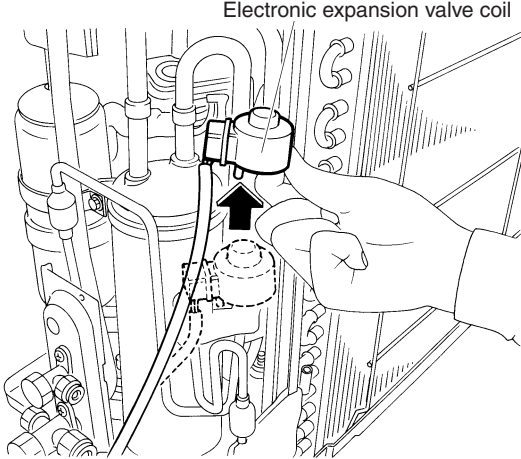
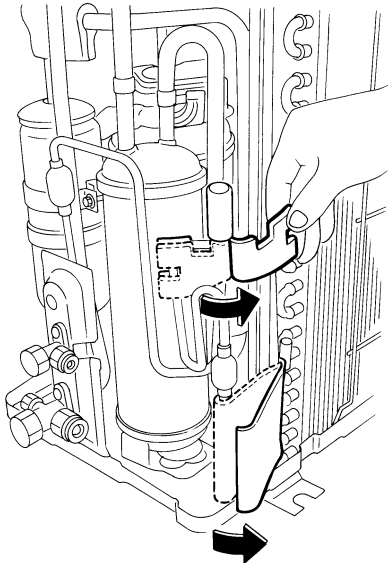


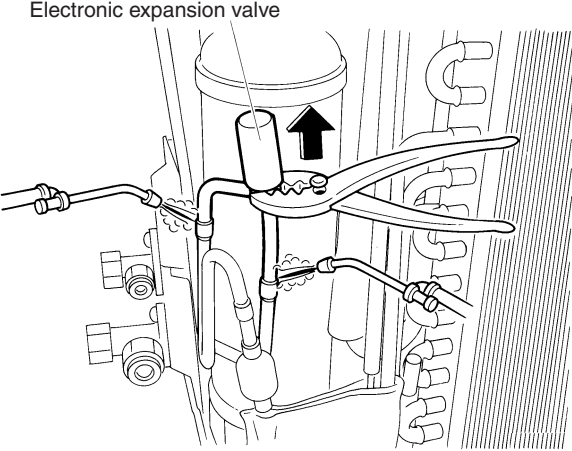
7. Procedure to Remove Electronic Expansion Valve

Procedure



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

Step	Procedure	Procedure	Points
1	Remove the electronic expansion valve coil.		
2	Remove the sheets of putty.		

Step	Procedure	Points
<p>3</p>	<ul style="list-style-type: none"> ■ Before working, make sure that the refrigerant is empty in the circuit. <p>Heat up the 2 brazed parts of the electronic expansion valve and disconnect.</p>  <ul style="list-style-type: none"> ■ Be sure to apply nitrogen replacement when heating up the brazed part. 	<p>Caution Be careful about the electronic expansion valve, pipes and so on, which were heated up by a gas brazing machine, so as not to get burnt your hands.</p> <p>Warning Ventilate when refrigerant leaks during the work. (If refrigerant contacts fire, it will cause to arise toxic gas.)</p>

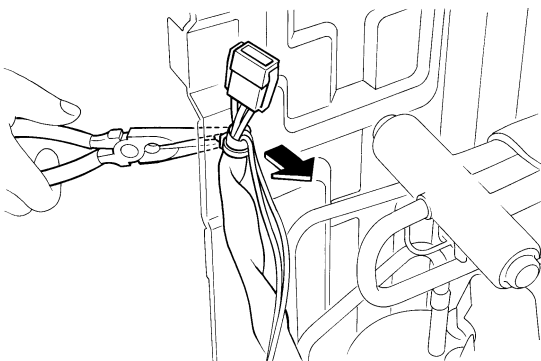
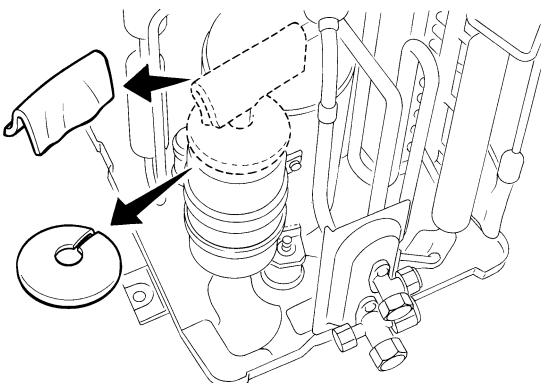
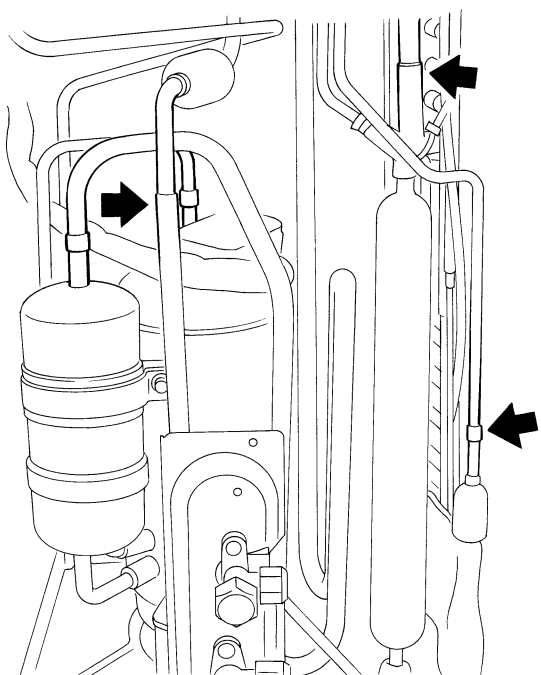
8. Procedure to Remove Compressor

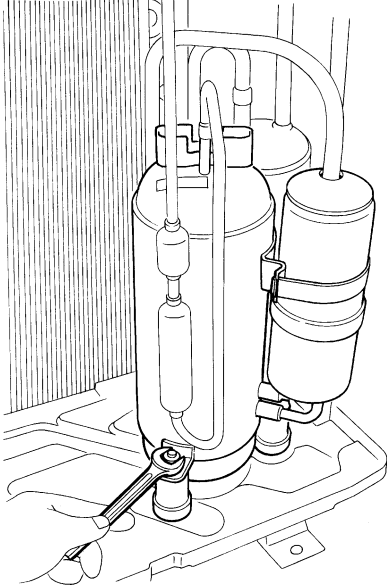
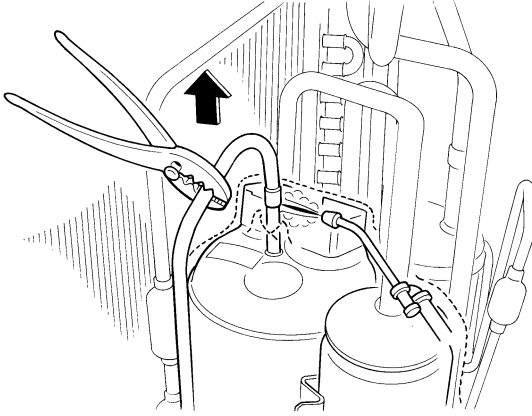
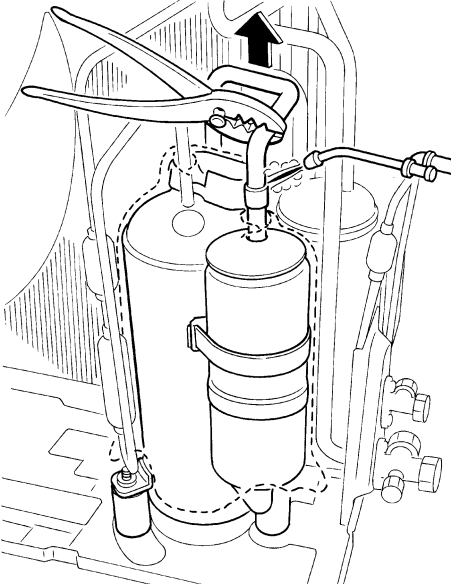
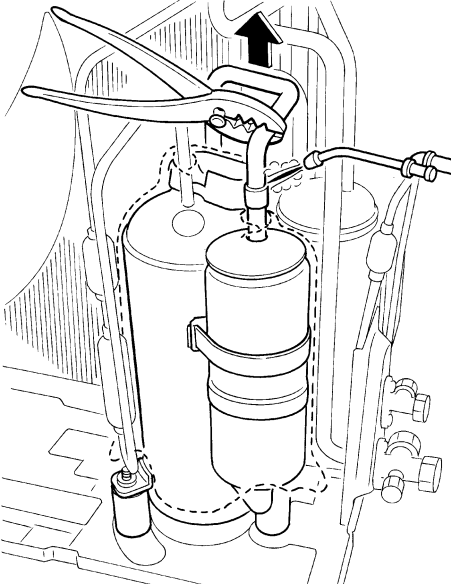
Procedure



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Step	Procedure	Points	
1	Remove the terminal cover.		
2	Disconnect the lead wires of the compressor.		<p>■ Be careful so as not to burn the compressor terminals or the name plate.</p> <p>Make a note.</p> <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;">U V W</p> </div> <p>U : red V : yellow W : blue</p>

Step	Procedure	Procedure	Points
3	Release the clamp by pliers to detach the wire harness for the compressor.		
4	Remove the putty. <ul style="list-style-type: none"> ■ Before working, make sure that the refrigerant is empty in the circuit. ■ Be sure to apply nitrogen replacement when heating up the brazed part. 		
5	Heat up the brazed parts indicated by the arrows.		<p>Warning Ventilate when refrigerant leaks during the work. (If refrigerant contacts fire, it will cause to arise toxic gas.)</p> <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 or the name plate. ■ Be careful so as not to burn the heat exchanger fin. <p>Warning Since it may happen that refrigeration oil in the compressor will catch fire, prepare wet cloth so as to extinguish fire immediately.</p>

Step	Procedure	Points
6	<p>Unscrew the nut of the compressor.</p> 	
7	<p>Heat up the brazed part of the discharge side and disconnect.</p> 	<p>Warning Ventilate when refrigerant leaks during the work. (If refrigerant contacts fire, it will cause to arise toxic gas.)</p> <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 or the name plate.
8	<p>Heat up the brazed part of the suction side and disconnect.</p> 	<ul style="list-style-type: none"> ■ Be careful so as not to burn the heat exchanger fin.
9	<p>Lift the compressor up and remove it.</p> 	<p>Warning Since it may happen that refrigeration oil in the compressor will catch fire, prepare wet cloth so as to extinguish fire immediately.</p>

Revision History

Month / Year	Version	Revised contents
01 / 2013	Si281308	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.



JMI-0107

Organization:
DAIKIN INDUSTRIES, LTD.
AIR CONDITIONING MANUFACTURING DIVISION

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF
COMMERCIAL AIR CONDITIONING, HEATING, COOLING,
REFRIGERATING EQUIPMENT, HEATING EQUIPMENT,
RESIDENTIAL AIR CONDITIONING EQUIPMENT, HEAT
RECLAIM VENTILATION, AIR CLEANING EQUIPMENT,
COMPRESSORS AND VALVES.



JQA-1452

Organization:
DAIKIN INDUSTRIES
(THAILAND) LTD.

Scope of Registration:
THE DESIGN/DEVELOPMENT
AND MANUFACTURE OF AIR
CONDITIONERS AND THE
COMPONENTS INCLUDING
COMPRESSORS USED FOR THEM



EC99J2044

All of the Daikin Group's business facilities and subsidiaries in Japan are certified under the ISO 14001 international standard for environment management.

Dealer

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