

REMOVAL PROCEDURE



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

4/5/6 HP Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

Applicable Models

●Heat Pump

RZQ100KV4A

RZQ125KV4A

RZQ150KV4A

RZQ160KV4A

Table of Contents

1. Procedure to Remove Outside Panels.....	2
2. Procedure to Remove Propeller Fan and Fan Motor	3
3. Procedure to Remove Switch Box	4
4. Procedure to Remove PCB.....	5
5. Procedure to Remove Pressure Sensor, Electronic Expansion Valve, and Others	6
6. Procedure to Remove Thermistor	7
7. Procedure to Remove Four Way Valve.....	8
8. Procedure to Remove Compressor.....	9

1. Procedure to Remove Outside 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	For the suction grille, pull the lower parts (in 7 places) frontward, disengage the hooks at the top of the grille with a slotted screwdriver, and then press the overall grille downward to disassemble it.	<p>Top panel</p>
2	For the front panel (1), unscrew a single mounting screw and then press this panel downward to remove it.	<p>Front panel (1)</p> <p>Hooks</p> <p>Suction grille</p>
3	For the top panel, unscrew the 8 mounting screws and then remove this panel.	<p>Side rear panel</p>
4	For the front panel (1), unscrews the 7 mounting screws and the remove this panel.	<p>Front panel (2)</p>
5	For the front piping cover, unscrew a single mounting screw and then remove this panel.	<p>Front piping cover</p>
6	For the side piping cover, unscrew the 4 mounting screws and then remove this panel.	<p>Side piping cover</p>
7	For the side rear panel, unscrew the 5 mounting screws and then remove this panel.	<p>Side rear panel</p>

2. Procedure to Remove Propeller Fan and 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>■ Remove the front panel (2) accordance with the Procedure to remove Outside Panels.</p>		
<p>1. Remove the propeller fan</p>		
<p>1 Unscrew the 4 screws that fix the air discharge grille and disengage the 4 hooks at the top and bottom of the grille, and then remove this air discharge grille.</p> <p>2 Unfasten the fan lock nut that fixes the propeller fan.</p>		
<p>2. Remove the fan motor</p>		
<p>■ Remove the front panel (1) accordance with the Procedure to remove Outside Panels.</p>		
<p>1 Remove the connector (X206A, X207A) for fan motor from the PCB.</p> <p>2 Cut the clamp of lead wires (located on the reverse side of the stop valve mounting plate).</p> <p>3 Pull out the lead wires through the opening of the partition panel, and then unclamp the 3 clamps. (Note that the partition plate has 3 hooks.)</p> <p>4 Unfastening the 4 lock from the fan motor, enables the removal of this motor.</p>		<p>■ In order to disconnect the connector, do not pull the lead wire. Hold the connector part and then press the hooks.</p> <p>■ Cautions in mounting the motor Be sure to fix the motor lead wire with a clamp. Not heeding this caution will cause the entanglement of the lead wire around the fan, which will result in damage to the fan.</p>

3. Procedure to Remove Switch 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 front panel (2) accordance with the Procedure to remove Outside Panels.</p>	<p>Screws fixing the reactor</p> <p>Cable tie (outdoor air thermistor)</p>	<p>■ If the top panel cannot be removed</p> <p style="text-align: center;">↓</p> <p>Even though workability is degraded, it is possible to pull the switch box to the front without removing the top panel.</p>
<p>1 Disconnect each connector on the PCB. (Refer to the Points column.)</p>	<p>Pressure sensor lead wire</p> <p>Clamp</p>	<p>■ The figure below shows connectors to be disconnected.</p>
<p>2 Remove the 2 faston terminals. After that, unscrew the 3 screws that fix the reactor, and then remove the reactor.</p>	<p>A set of lead wires</p>	<p>Upper fan motor [X106A] Lower fan motor [X107A]</p> <p>Electronic expansion valve [X21A]</p> <p>Outdoor air thermistor [X11A]</p> <p>Integrated thermistor [X12A]</p> <p>Liquid pipe thermistor [X13A]</p> <p>Pressure sensor [X17A]</p> <p>Four way valve [X25A] Crankcase heater [X28A]</p> <p>Solenoid valve 1 [X26A]</p> <p>Solenoid valve 2 [X27A]</p>
<p>3 Cut the clamp.</p>	<p>Clamp</p>	
<p>4 Remove the clamp of the pressure sensor lead wire.</p>	<p>Screws fixing the terminal block</p>	
<p>5 Cut the clamp of the outdoor air thermistor.</p>	<p>Terminal cover</p>	
<p>6 Disconnect a set of lead wires together from the clamp.</p>	<p>Terminal block for compressor</p>	
<p>7 Remove the terminal cover, and then disconnect the 3 lead wires from the terminal block for the compressor.</p>		<p>■ Precaution for mounting the pressure sensor</p> <p style="text-align: center;">↓</p>
<p>8 Unscrew the 2 screws that fix the terminal block.</p>		<p>To prevent the lead wire from hanging over the PCB, hook the lead wire of 160 to 170 mm in length from the front end of the connector on the clamp.</p>
<p>9 Disengage the 3 hooks, and then pull out the switch box upward.</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 top panel and the front panel (2) accordance with the Procedure to remove Outside Panels.</p>			
<p>1. Remove the PCB (A2P)</p> <p>1 Disconnect the connector (X205A) from the PCB.</p> <p>2 While pressing the 2 hooks, remove the PCB (A2P).</p>			
<p>2. Remove the PCB (A1P)</p>			
<p>■ Remove the switch box accordance with the Procedure to remove the Switch Box.</p>			
<p>1 Remove the clamp from the compressor harness.</p>			
<p>2 Press the hooks to remove the terminal block.</p>			
<p>3 Cut the 2 clamps (A).</p>			
<p>4 Extend the hooks, and then remove the support leg of the cover of electrical components.</p>			
<p>5 Disengage the 3 hooks on the left side, and then while pushing down the 2 hooks on the right side, remove the whole cover of the electric components.</p>			
<p>6 Cut the clamps (B).</p>			
<p>7 Disconnect the connector listed in point column.</p>			
<p>8 Remove the PCB (A1P) together with the radiation fin.</p>		<p>■ Connectors used on the PCB</p> <ul style="list-style-type: none"> • Compressor (X102A) • Earth wire (E1) • Reactors (P1 and P2) • Power supply cable (X1A) • Indoor-Outdoor connection cable (X803A) 	

5. Procedure to Remove Pressure Sensor, Electronic Expansion Valve, and Others

Procedure



Warning

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

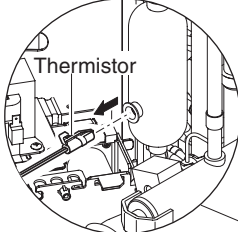
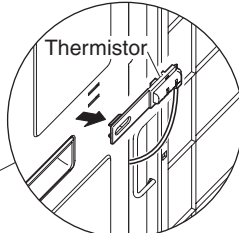
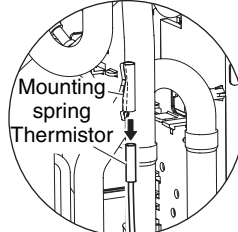
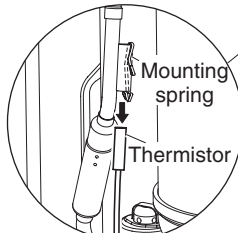
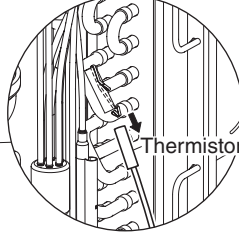
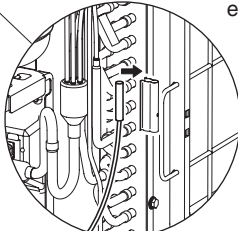
Step	Procedure	Points
<p>■ Remove the top panel and the front panel (2) accordance with the Procedure to remove Outside Panels.</p>		
<p>1. Remove the pressure sensor</p>		
<p>1 Disconnect the pressure sensor connector (X17A).</p>		
<p>2 Use 2 spanners to remove the pressure sensor.</p>		
<p>2. Remove the solenoid valve</p>		
<p>1 Disconnect the solenoid valve connector (X26A or X27A).</p>		<p>■ Before removing the solenoid valve or the electronic expansion valve, be sure to recover the refrigerant.</p>
<p>2 Unscrew the 1 screw that fixes the solenoid valve coil, and then remove the coil.</p>		
<p>3 Remove brazing from the 2 places, and then remove the solenoid valve.</p>		<p>■ Precaution for mounting the coil for the electronic expansion valve</p> <p style="text-align: center;">↓</p> <p>Align the dimple of the electronic expansion valve and the stopper of the electronic expansion valve coil, and then press them in until you hear them click.</p>
<p>3. Remove the electronic expansion valve.</p>		
<p>1 Disconnect the electronic expansion valve connector (X21A).</p>		
<p>2 Pull out the coil for the electronic expansion valve coil upward.</p>		
<p>3 Remove brazing from the 2 places, and then remove the electronic expansion valve.</p>		

6. Procedure to Remove Thermistor

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 (2) and side panel accordance with the Procedure to remove Outside Panels.</p>		
<p>1 Pull out the outdoor air thermistor to the front, and then slide this thermistor to the right to remove it.</p>	 <p>Discharge pipe thermistor (R2T)</p>	 <p>Outdoor air thermistor (R1T)</p>
<p>2 Pinch the mounting spring that fixes the discharge pipe thermistor to pull out this thermistor.</p>	 <p>Suction pipe thermistor (R3T)</p>	
<p>3 Press the fixing section of the suction pipe thermistor to pull out this thermistor.</p>	 <p>Liquid pipe thermistor (R6T)</p>	 <p>Intermediate heat exchanger thermistor (R5T)</p>
<p>4 Pull the fixing bracket of the heat exchanger's distribution pipe thermistor to the front, and then remove this thermistor.</p>		 <p>Heat exchanger distribution pipe thermistor (R4T)</p>
<p>5 Press the fixing section of the intermediate heat exchanger thermistor to pull out this thermistor.</p>		
<p>6 Press the fixing section of the liquid pipe thermistor to pull out this thermistor.</p>	<p>*1 The heat exchanger's distribution pipe thermistor, intermediate heat exchanger thermistor, and liquid pipe thermistor are joined together with a single connector. Consequently, these 3 thermistors should be replaced at the same time.</p>	

7. 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
<ul style="list-style-type: none"> ■ Recover the refrigerant. ■ According to the procedure for the removal related to the outside panel, remove the front panel (2) and the side panel. ■ According to the procedure to remove switch box, remove the switch box. 		<ul style="list-style-type: none"> ■ Be sure to remove the four way valve only after the refrigerant is completely recovered.
<p>1 Unscrew the 1 screw that fixes the four way valve coil, and then remove this coil.</p> <p>2 Remove brazing from the 4 places, and then remove the four way valve. (Refer to point column.)</p>		<ul style="list-style-type: none"> ■ To prevent the four way valve from exceeding a temperature of 120°C, conduct brazing work while cooling the valve with wet cloths or else.

8. Procedure to Remove Compressor

Procedure



Warning

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

Step	Procedure	Points
<ul style="list-style-type: none"> ■ Recover the refrigerant. (Refer to point column.) ■ Remove the front panel (2) and the front piping cover bracket. 		<ul style="list-style-type: none"> ■ Be sure to remove the compressor only after the refrigerant is completely recovered.
<p>1 Unscrew the 5 screws that fix the stop valve mounting plate, and then remove this mounting plate.</p>		<ul style="list-style-type: none"> ■ Terminal block
<p>2 Remove the gas piping and the liquid piping.</p>		
<p>3 Remove the compressor terminal cover.</p>		<ul style="list-style-type: none"> ■ 1 out of the nuts that fix the compressor is located outside of the partition panel.
<p>4 Disconnect the lead wires from the terminal block.</p>		
<p>5 Loosen the 2 strings, and then pull out the sound insulation of the compressor.</p>		<ul style="list-style-type: none"> ■ Be sure to cut 3 pipes by using a pipe cutter before disconnecting the brazed sections of pipes. A sudden disconnection of the brazed sections can cause oil to catch fire.
<p>6 Unfasten to remove the 3 nuts that fix the compressor. (Refer to point column.)</p>		
<p>7 Cut the suction pipe and the discharge pipe using a pipe cutter. (Refer to point column.)</p>		
<p>8 Remove brazing from the 3 places.</p>		
<p>9 Lift to pull out the compressor.</p>		

Revision History

Month / Year	Version	Revised contents
01/2013	Si281316	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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