



Si041551EB

# REMOVAL PROCEDURE



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

**1.5/2.0/2.5/3.5/4.2/5.0 kW Class**  
**9000/12000/15000/18000 Btu/h Class**



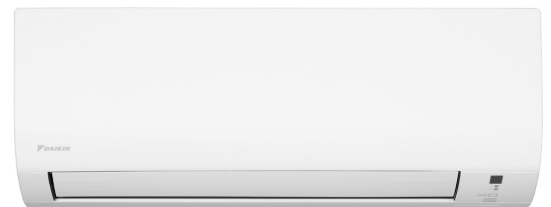
Indoor Unit



Inverter / Non-Inverter



Wall Mounted Type



# **Service Manual Removal Procedure**

## **Indoor Unit**

### **●Cooling Only**

**CTKC15QVM4  
CTKC20QVM4**

**CTKM25PV14  
CTKM35PV14  
CTKM42PV14  
CTKM50PV14**

**CTKM09PV2S  
CTKM12PV2S  
CTKM15PV2S  
CTKM18PV2S**

**CTKS25QVM  
CTKS35QVM**

**CTV25PV1G  
CTV35PV1G  
CTV50PV1G**

**FTKC09QV2S  
FTKC12QV2S**

**FTKC25QVM  
FTKC35QVM  
FTKC25QVM4  
FTKC35QVM4  
FTKC25QVMV  
FTKC35QVMV**

**FTKM25PVM  
FTKM35PVM  
FTKM42PVM  
FTKM50PVM**

# Table of Contents

1. Air Filters / Front Panel .....	2
2. Front Grille .....	3
3. Horizontal Blade.....	4
4. Electrical Box .....	5
5. PCBs.....	8
6. Drain Pan / Swing Motors / Vertical Blade ASSYs.....	12
7. Indoor Heat Exchanger .....	16
8. Fan Rotor / Fan Motor.....	18



**Note:**

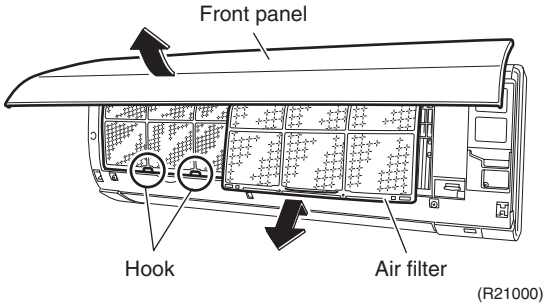
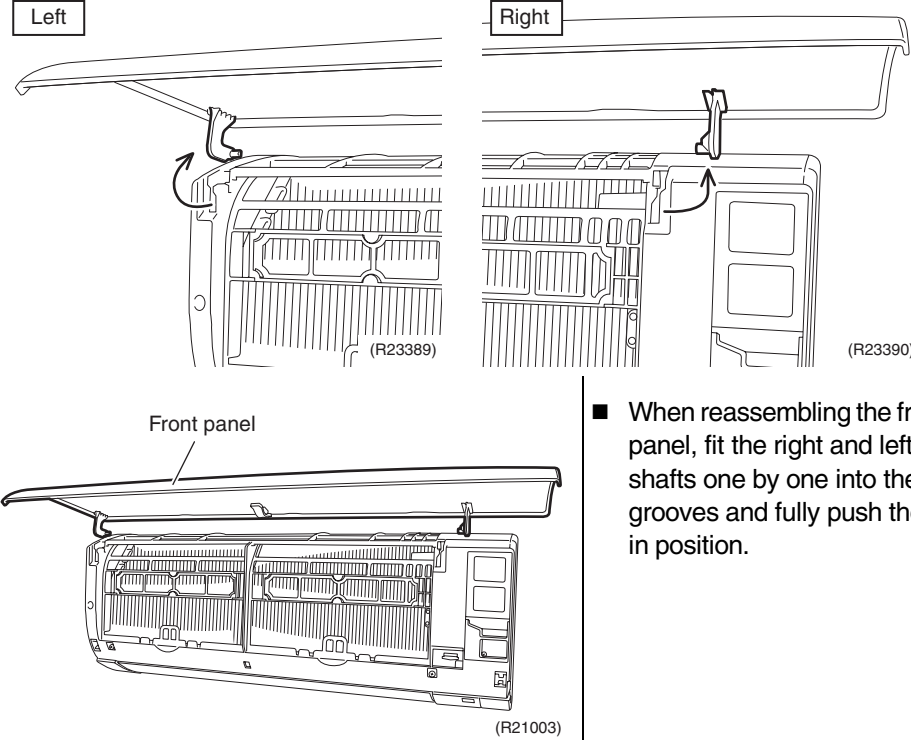
♦ The illustrations may be slightly different depending on the model.

# 1. Air Filters / Front Panel



**Warning**

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

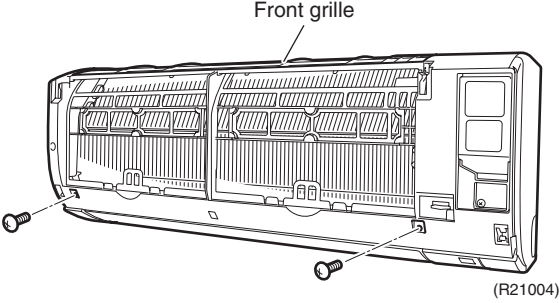
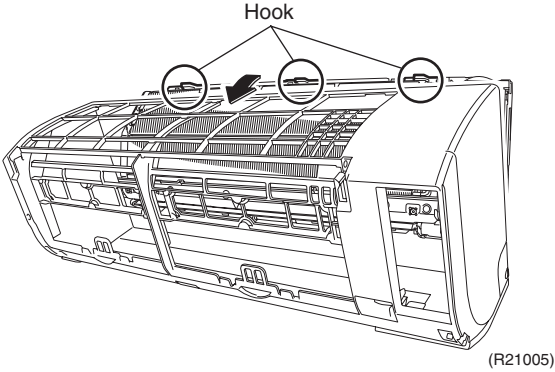
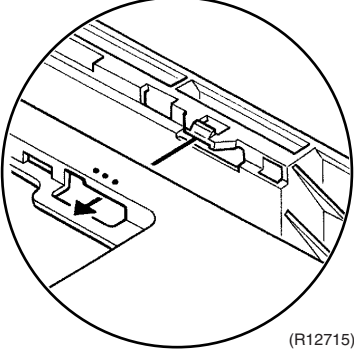
Step	Procedure	Points
<p>1. Remove the air filters.</p> <p>1 Open the front panel.</p> <p>2 Unfasten the 2 hooks and pull out the air filter.</p>		<ul style="list-style-type: none"> <li>■ The air filter is not marked for difference between the right and left sides.</li> <li>■ When reassembling, insert the air filter along the guides.</li> <li>■ Insert the air filter with the "FRONT" mark faced up.</li> <li>■ Be sure to insert the 2 hooks when installing the air filter.</li> </ul>
<p>2. Remove the front panel.</p> <p>1 Release the left and right shafts.</p> <p>2 Remove the front panel.</p>		<ul style="list-style-type: none"> <li>■ When reassembling the front panel, fit the right and left shafts one by one into the grooves and fully push them in position.</li> </ul>

## 2. Front Grille



### 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 2 screws of the front grille.	 <p>(R21004)</p>
2	Unfasten the 3 hooks at the top.	<ul style="list-style-type: none"> <li>■ The convex marks (...) on the front panel indicate the position of the hooks.</li> </ul>  <p>(R21005)</p>
3	Pull out the upper part of the front grille, lift up the lower part, and then remove the front grille.	 <p>(R12715)</p> <ul style="list-style-type: none"> <li>■ When reassembling, make sure that all the 3 hooks are fastened.</li> </ul>

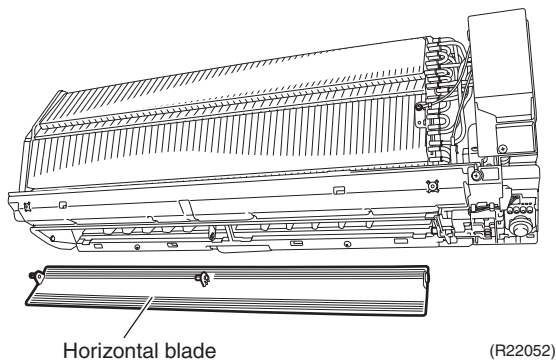
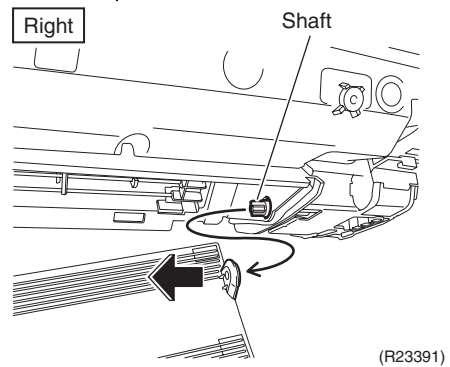
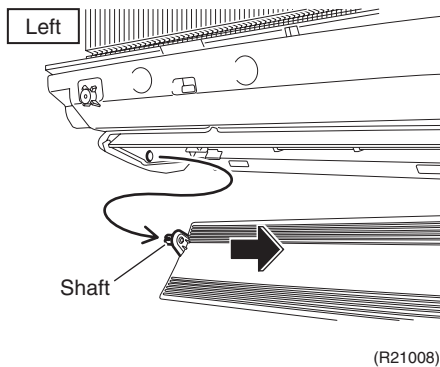
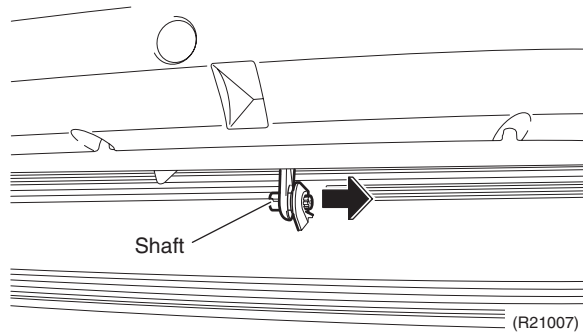
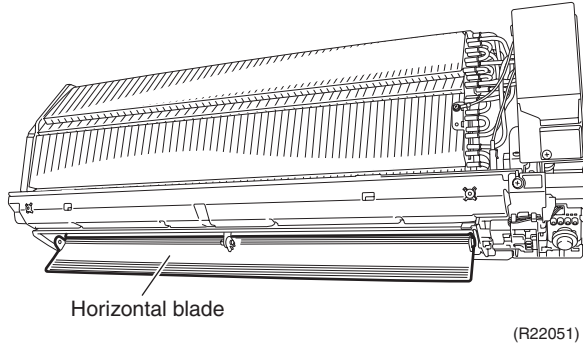
### 3. Horizontal Blade



**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 center shaft while bending the horizontal blade slightly.	<p>■ Reassembling procedure</p> <ol style="list-style-type: none"> <li>1. Fit the horizontal blade to the right shaft first. Make sure to rotate the horizontal blade so the shaft fits correctly.</li> <li>2. Fit the horizontal blade to the center and left shafts.</li> </ol>
2	Release the left shaft.	
3	Release the right shaft.	
4	Remove the horizontal blade.	

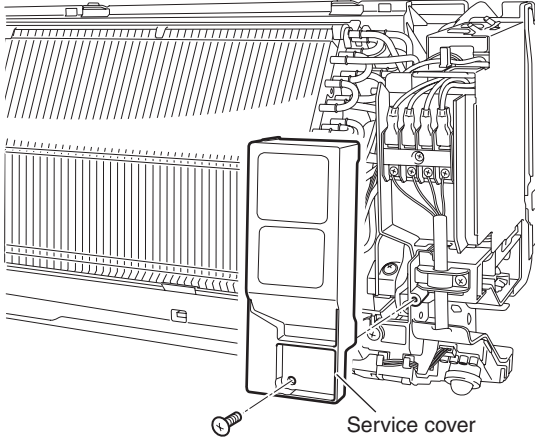
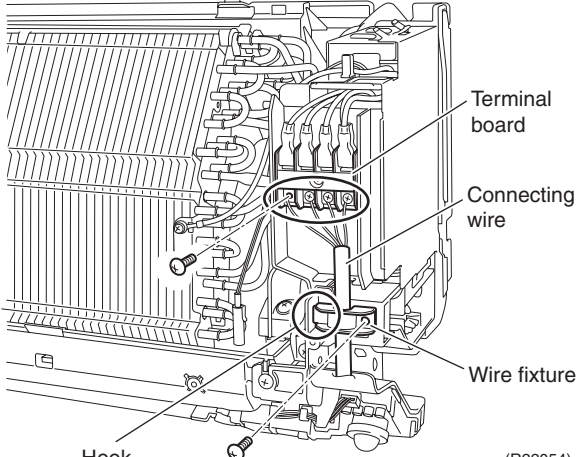
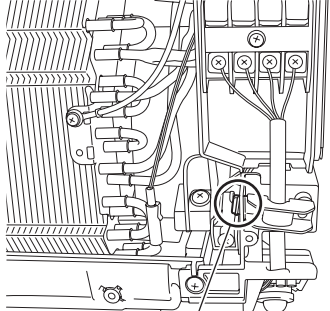
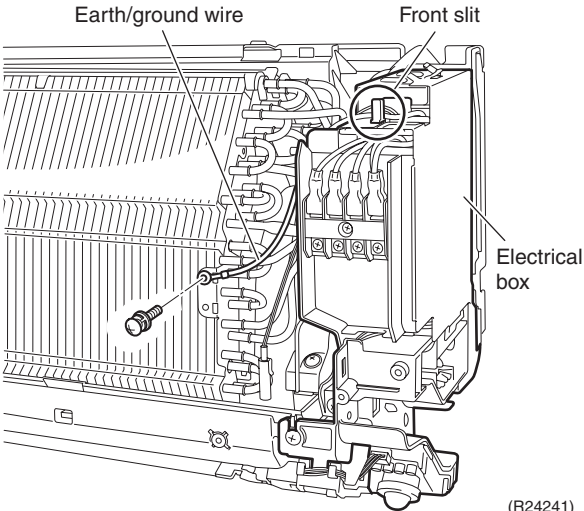
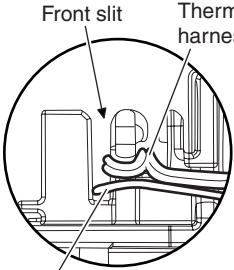


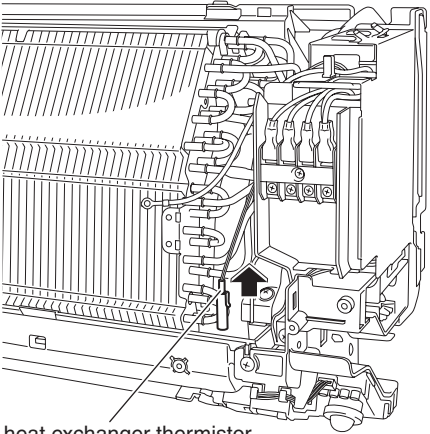
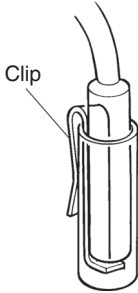
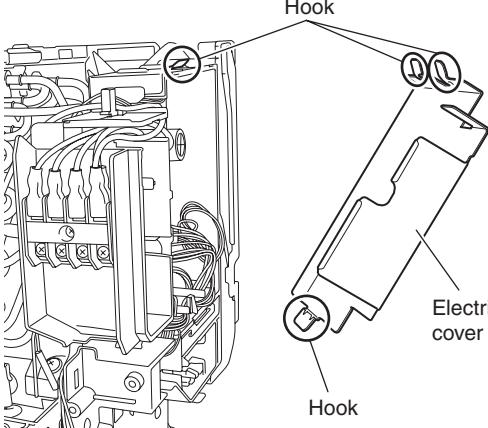
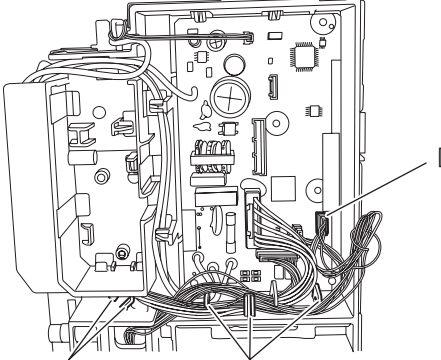
# 4. Electrical Box



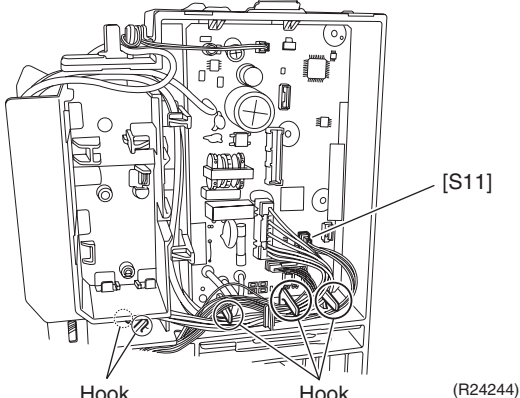
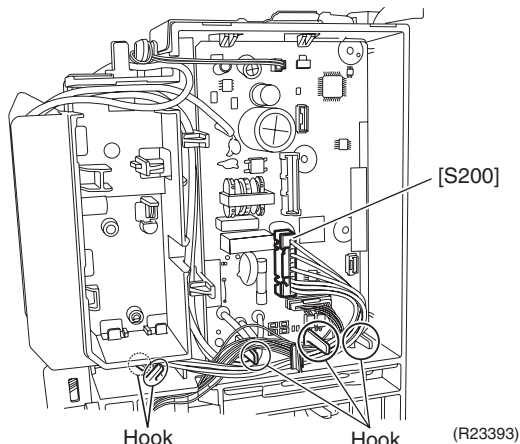
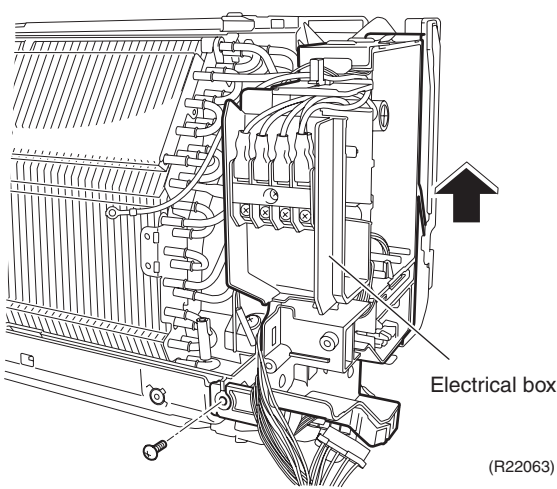
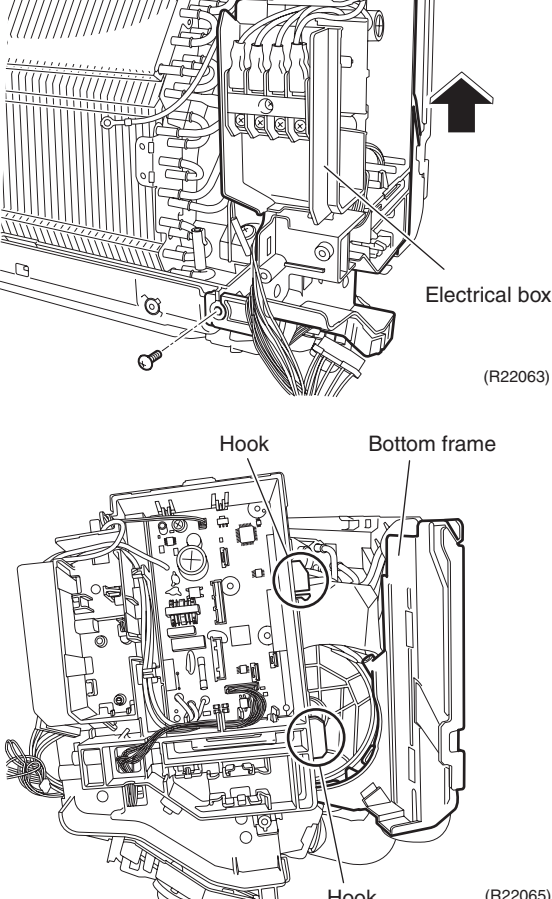
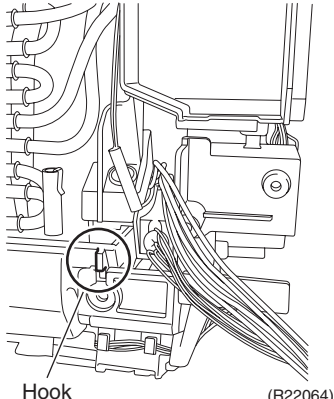
**Warning**

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

Step	Procedure	Points
<p>1. Disconnect the connecting wire.</p> <p>1 Remove the screw, and then the service cover.</p> <p>2 Remove the screw, unfasten the hook and remove the wire fixture.</p> <p>3 Remove the 4 screws of the terminal board and disconnect the connecting wire.</p>	 <p>Service cover</p> <p>(R22053)</p>  <p>Terminal board</p> <p>Connecting wire</p> <p>Wire fixture</p> <p>Hook</p> <p>(R22054)</p>	<ul style="list-style-type: none"> <li>■ Service cover can be removed without removing the front grille.</li> <li>■ There is no hook at the top of the service cover. Be careful not to drop it when the screw is loosened.</li> <li>■ When reassembling, be sure to fasten the hook before tightening the screw.</li> </ul>  <p>Hook</p> <p>(R22055)</p>
<p>2. Remove the electrical box.</p> <p>1 Remove the screw and detach the earth/ground wire.</p> <p>2 Release the earth/ground wire from the front slit at the top of the electrical box.</p>	 <p>Earth/ground wire</p> <p>Front slit</p> <p>Electrical box</p> <p>(R24241)</p>	<ul style="list-style-type: none"> <li>■ When reassembling, be sure to insert the earth/ground wire in the front slit and under the thermistor harness.</li> </ul>  <p>Front slit</p> <p>Thermistor harness</p> <p>Earth/ground wire</p> <p>(R24242)</p>

Step		Procedure	Points
3	Pull out the indoor heat exchanger thermistor.	 <p>Indoor heat exchanger thermistor (R22058)</p>	<ul style="list-style-type: none"> <li>Be careful not to lose the clip of the thermistor.</li> </ul>  <p>(R11268)</p> <ul style="list-style-type: none"> <li>The position of the indoor heat exchanger thermistor varies depending on the model.</li> </ul>
4	Unfasten the 4 hooks and remove the electrical box cover.	 <p>Hook (R22059)</p> <p>Electrical box cover</p> <p>Hook</p>	<ul style="list-style-type: none"> <li>When reassembling, make sure that the 4 hooks are securely fastened.</li> </ul>
5	Disconnect the connector [S6].		[S6]: swing motor for horizontal blade
6	Release the harnesses from the 5 hooks.	 <p>Hook (R24243)</p> <p>Hook</p> <p>[S6]</p>	



Step	Procedure	Procedure	Points
7	Disconnect the connector [S11].		<p>[S11]: swing motor for vertical blades</p>
8	Release the harnesses from the 5 hooks.		<ul style="list-style-type: none"> <li>Some models do not have the harness for [S11].</li> </ul>
9	Disconnect the connector [S200].		<p>[S200]: fan motor</p>
10	Release the harnesses from the 5 hooks.		
11	Remove the screw of the electrical box.		<ul style="list-style-type: none"> <li>When reassembling, make sure to fasten the hook at the front of the electrical box.</li> </ul>
12	Slightly lift the electrical box upward and remove it.		 <ul style="list-style-type: none"> <li>When reassembling, make sure that the 2 hooks are securely fastened to the bottom frame.</li> </ul>

# 5. PCBs

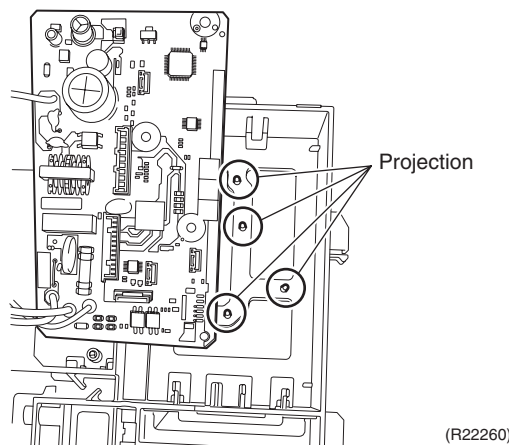
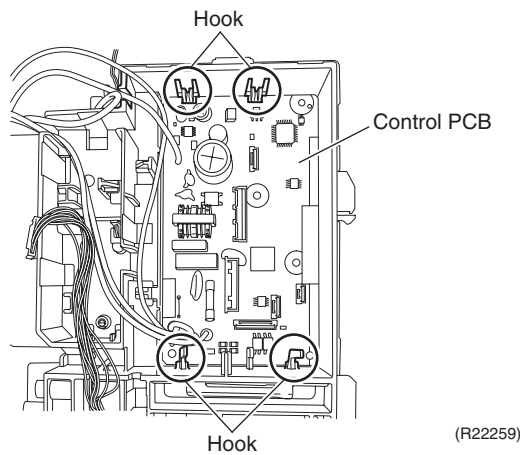
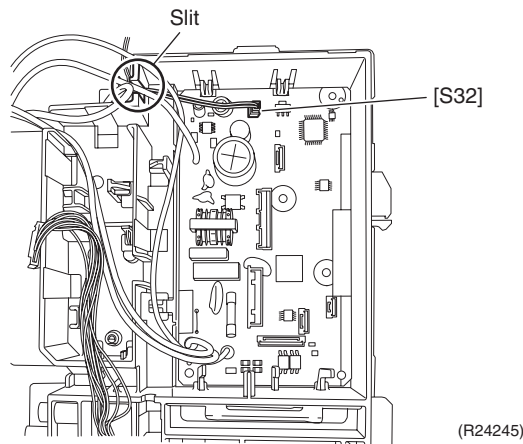
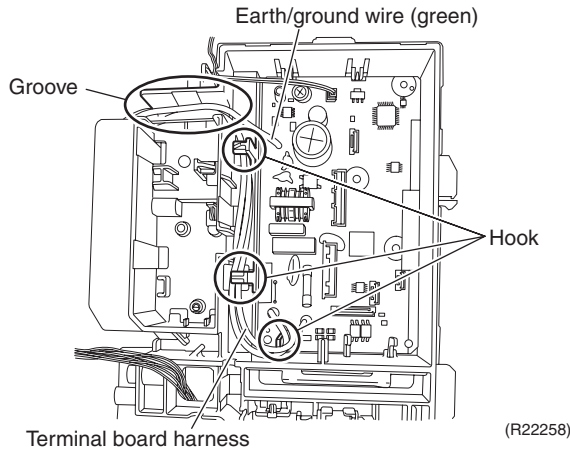


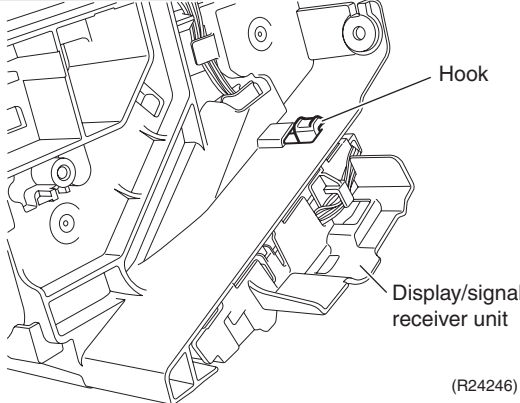
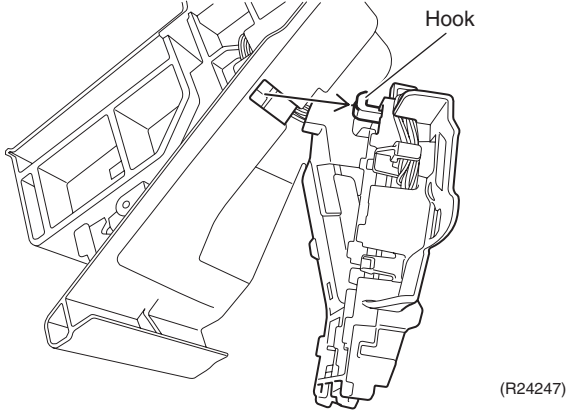
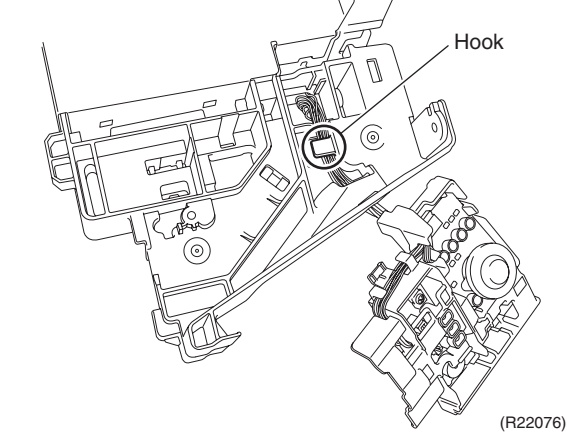
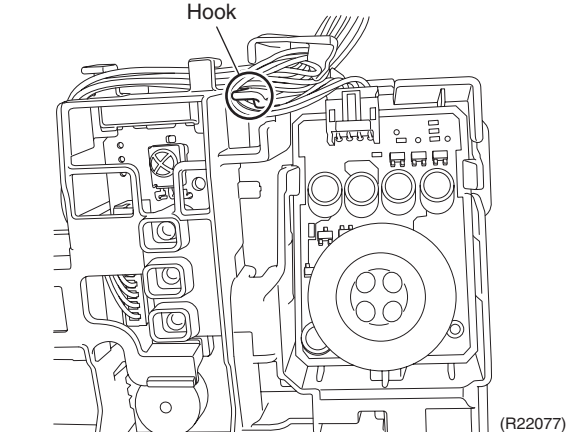
**Warning**

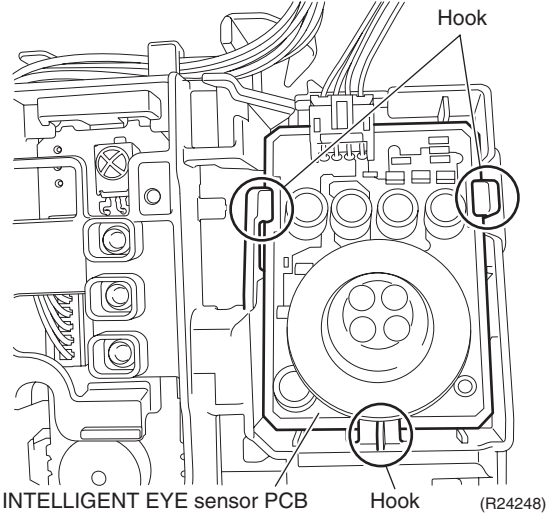
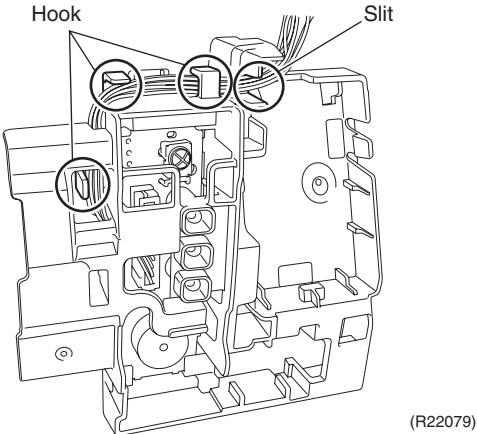
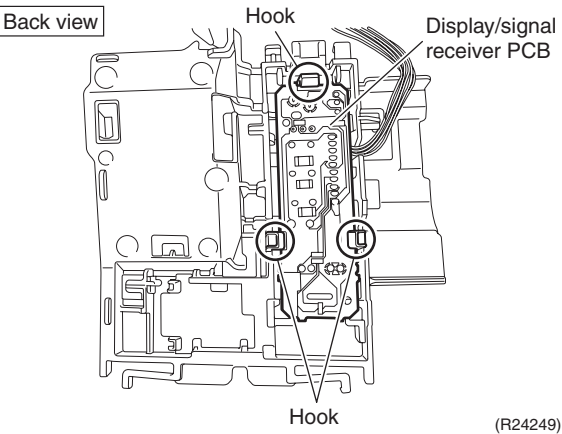
♦ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Remove the control PCB.	<p>(R22066)</p>	[S26]: display/signal receiver PCB
1 Remove the connector [S26].		
2 Release the harnesses from the 3 hooks and the slit.		
3 Disconnect all the 5 terminals.	<p>(R22067)</p>	<p>(R22265)</p>
4 Release the earth/ground wire (yellow/green) from the slit and the groove.	<p>(R22069)</p>	

Step	Procedure	Points
5	Release the earth/ground wire (green) from the groove.	
6	Release the terminal board harness from the groove and the 3 hooks.	
7	Remove the connector [S32] and release the harness from the slit.	[S32]: thermistor
8	Unfasten the 4 hooks and remove the control PCB.	
		<ul style="list-style-type: none"> <li>■ When reassembling, be sure to fit the control PCB to the 4 projections.</li> </ul>



Step	Procedure	Points
2. Remove the INTELLIGENT EYE sensor PCB.	<p data-bbox="496 237 743 266">Back of the electrical box</p>  <p data-bbox="979 331 1034 353">Hook</p> <p data-bbox="935 546 1066 595">Display/signal receiver unit</p> <p data-bbox="995 640 1066 663">(R24246)</p>	<ul style="list-style-type: none"> <li data-bbox="1091 210 1461 309">Some models do not have the INTELLIGENT EYE sensor PCB.</li> </ul>
1. Unfasten the hook of the display/signal receiver unit.	 <p data-bbox="919 703 973 725">Hook</p> <p data-bbox="995 1070 1066 1093">(R24247)</p>	
2. Release the harness of the display/signal receiver unit from the hook.	 <p data-bbox="951 1173 1005 1196">Hook</p> <p data-bbox="995 1552 1066 1574">(R22076)</p>	
3. Release the harness from the hook.	 <p data-bbox="679 1630 734 1653">Hook</p> <p data-bbox="995 2038 1066 2060">(R22077)</p>	<ul style="list-style-type: none"> <li data-bbox="1091 1608 1461 2060">The INTELLIGENT EYE sensor PCB can be removed without disconnecting the connector.</li> </ul>

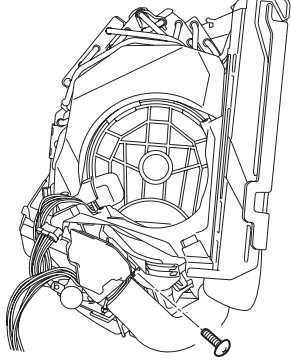
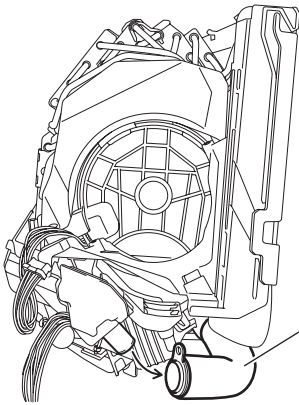
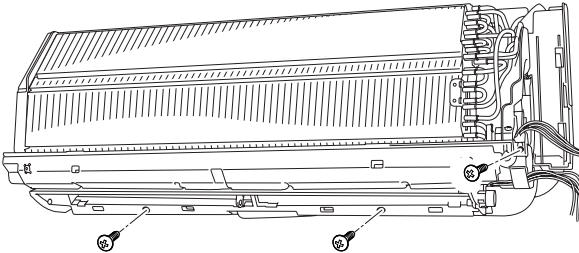
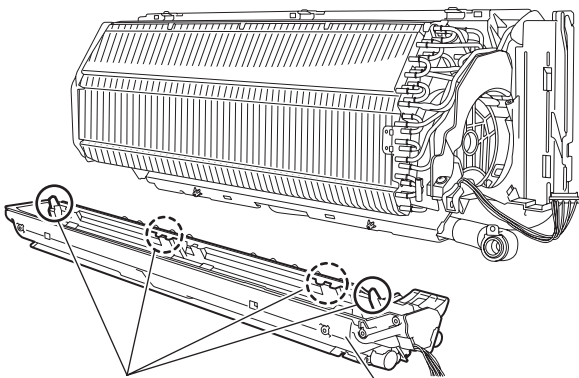
Step	Procedure	Points
4	Unfasten the 3 hooks and remove the INTELLIGENT EYE sensor PCB.	
3. Remove the display/signal receiver PCB.	1 Release the harness from the slit and the 3 hooks.	
2	Turn over the PCB ASSY, unfasten the 3 hooks and remove the display/signal receiver PCB.	

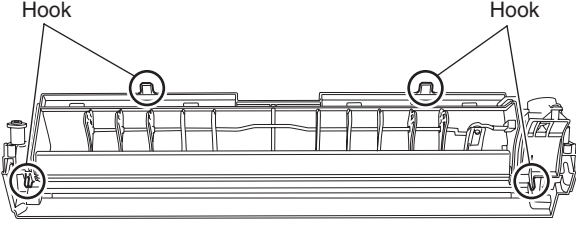
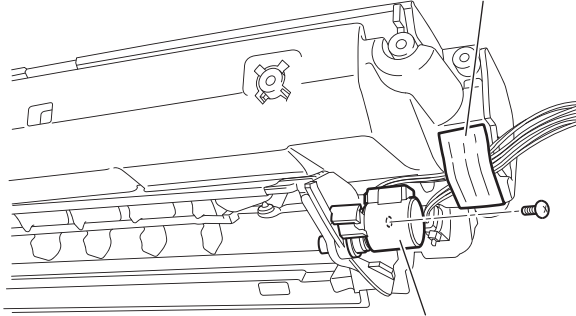
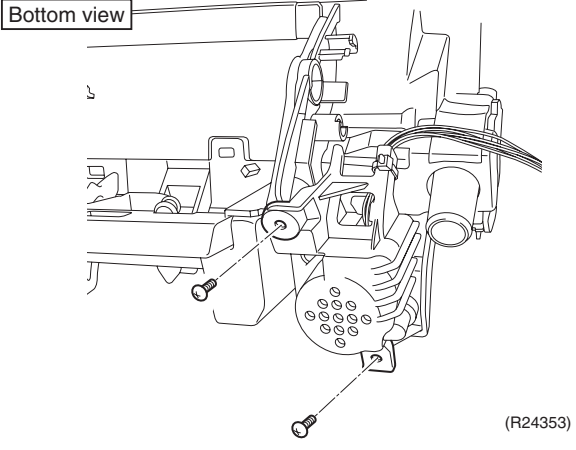
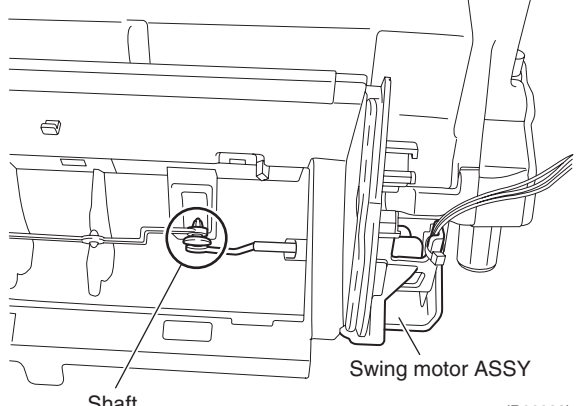
# 6. Drain Pan / Swing Motors / Vertical Blade ASSYs

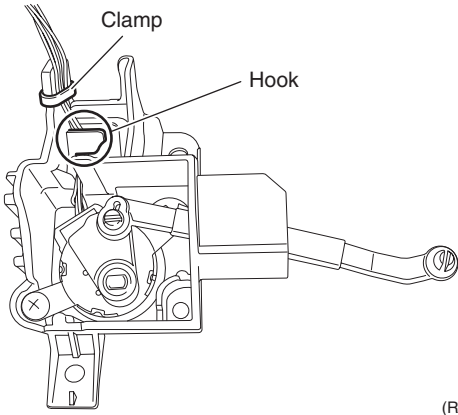
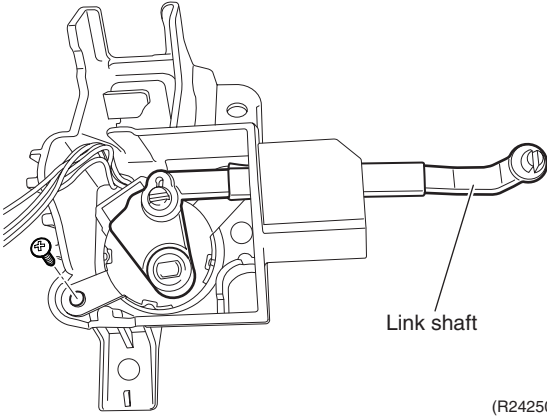
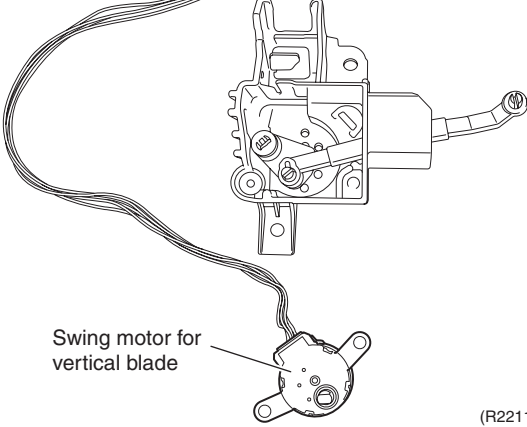
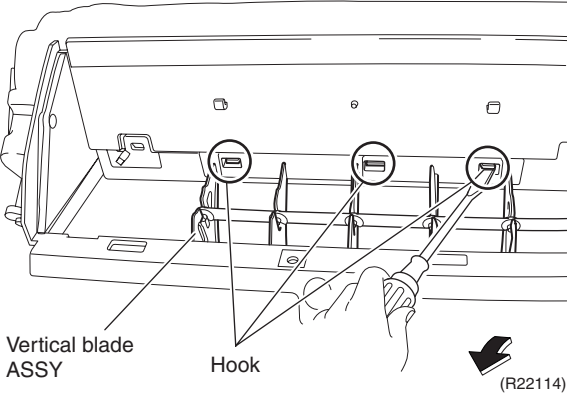


**Warning**

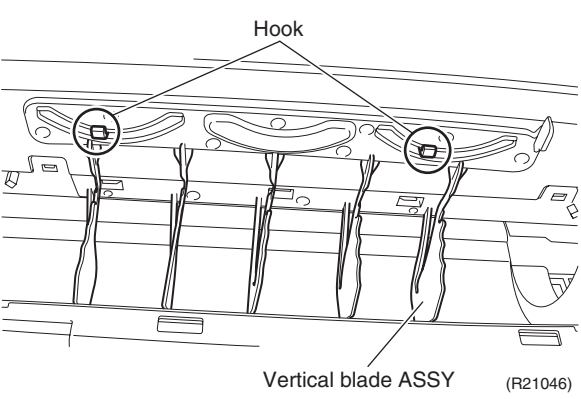
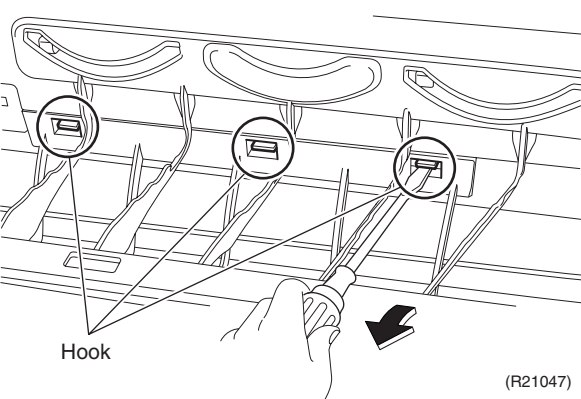
◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1.	Remove the drain pan.	<ul style="list-style-type: none"> <li>■ Use a short screwdriver from the back.</li> </ul>
1	Lift up the indoor unit and remove the screw.	
	<p>Right view</p>  <p>(R24352)</p>	
2	Disconnect the drain hose.	<ul style="list-style-type: none"> <li>■ Hold the indoor unit up with a piece of wood.</li> </ul>
	 <p>Drain hose</p> <p>(R22082)</p>	<ul style="list-style-type: none"> <li>■ Place a plastic sheet around the drain pan to prevent wetting the floor with remaining drain.</li> </ul>
3	Remove the 3 screws.	
	 <p>(R22083)</p>	
4	Unfasten the 4 hooks and remove the drain pan.	
	 <p>Hook</p> <p>Drain pan</p> <p>(R22084)</p>	

Step	Procedure	Points
	 <p style="text-align: right;">(R22085)</p>	<ul style="list-style-type: none"> <li>When reassembling, make sure that all the 4 hooks are fastened.</li> </ul>
<p>2. Remove the swing motor for horizontal blade.</p>	 <p style="text-align: right;">(R22086)</p>	
<p>1 Remove the filament tape.</p> <p>2 Remove the screw, and then the swing motor for horizontal blade.</p>		
<p>3. Remove the swing motor for vertical blades.</p> <p>1 Remove the 2 screws.</p> <p>2 Release the shaft of the vertical blade ASSY from the swing motor shaft with a flat screwdriver and remove the swing motor ASSY.</p>	<p>Bottom view</p>  <p style="text-align: right;">(R24353)</p>  <p style="text-align: right;">(R22088)</p>	<ul style="list-style-type: none"> <li>Some models do not have the swing motor for vertical blades.</li> </ul>

Step	Procedure	Points	
3	Cut the clamp and release the harness from the hook.	 <p>Clamp</p> <p>Hook</p> <p>(R22089)</p>	
4	Remove the screw and pull out the link shaft.	 <p>Link shaft</p> <p>(R24250)</p>	
5	Remove the swing motor for vertical blades.	 <p>Swing motor for vertical blade</p> <p>(R22113)</p>	
4. Remove the vertical blade ASSYs (auto-swing models).	 <p>Vertical blade ASSY</p> <p>Hook</p> <p>(R22114)</p>	<ul style="list-style-type: none"> <li>■ Each vertical blade ASSY has 5 fins. It is impossible to replace only one fin.</li> <li>■ The vertical blade ASSY is not marked for difference between right and left.</li> </ul>	
1	Unfasten the 3 hooks of the vertical blade ASSY by pressing them with a flat screwdriver.		
2	Remove the vertical blade ASSY.		
3	Remove the other vertical blade ASSY in the same way.		



Step	Procedure	Points
5. Remove the vertical blade ASSYs (manual swing models).	 <p>Diagram (R21046) showing the vertical blade assembly. A label 'Hook' points to the top of the assembly, and 'Vertical blade ASSY (R21046)' points to the main body of the assembly.</p>	<ul style="list-style-type: none"> <li>■ Each vertical blade ASSY has 5 fins. It is impossible to replace only one fin.</li> <li>■ The vertical blade ASSY is not marked for difference between right and left.</li> </ul>
1 Unfasten the upper 2 hooks.		
2 Unfasten the 3 hooks at the shaft mounting part by pressing them with a flat screwdriver.	 <p>Diagram (R21047) showing a hand using a flat screwdriver to unfasten hooks on the shaft mounting part. A label 'Hook' points to the hook being unfastened, and a downward arrow indicates the direction of the screwdriver tip.</p>	
3 Remove the vertical blade ASSY.		
4 Remove the other vertical blade ASSY in the same way.		

# 7. Indoor Heat Exchanger



**Warning**

- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.
- ◆ In pump-down work, be sure to stop the compressor before disconnecting the refrigerant pipe. If the refrigerant pipe is disconnected with the compressor operating and the stop valve open, air may be sucked in and may generate an over-pressure in refrigeration cycle, thus resulting in pipe rupture or accidental injury.
- ◆ When removing or reinstalling the indoor heat exchanger, be sure to wear gloves or wrap the indoor heat exchanger with cloths. (You may be injured by the fins.)

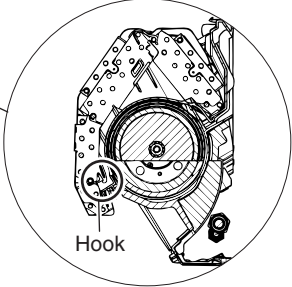
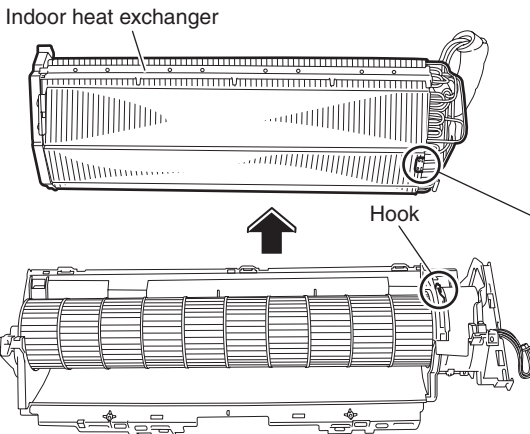
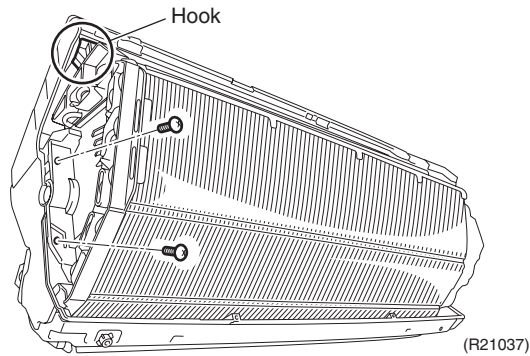
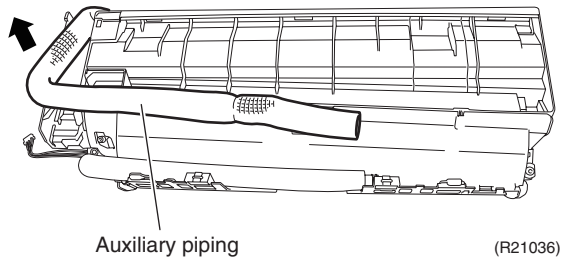
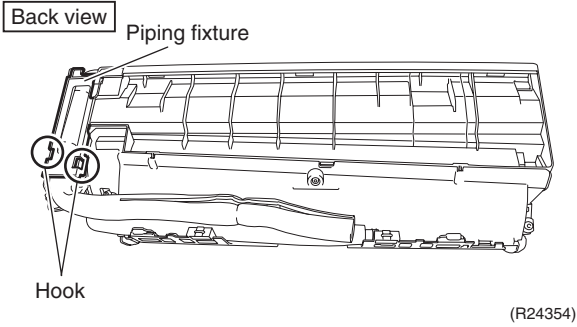


**Caution**

- ◆ Be sure to conduct pump down operation before disassembling the refrigerant pipe.
- ◆ If the refrigerant leaks, repair the spot of leaking, then collect all refrigerant from the unit. After conducting vacuum drying, recharge proper amount of refrigerant.
- ◆ From the viewpoint of global environmental protection, make sure to use a vacuum pump for air purging.

Step	Procedure	Points
<p>1. Disconnect the refrigerant piping.</p> <p>1 Pull out and disconnect the drain hose.</p> <p>2 Wrap the open ends of the drain hose with plastic sheets to prevent water dripping.</p> <p>3 Disconnect the flare nut for gas piping.</p> <p>4 Disconnect the flare nut for liquid piping.</p> <p>5 Protect the open ends of both the pipes and the unit from moisture intrusion.</p>	<p>(R24397)</p>	<ul style="list-style-type: none"> <li>■ Place a plastic sheet around the drain pan to prevent wetting the floor with remaining drain.</li> <li>■ Hold the indoor unit up with a piece of wood.</li> <li>■ If embedded in the wall, the drain hose can be disconnected from the back of the unit.</li> </ul> <p>(R24396)</p> <ul style="list-style-type: none"> <li>■ Carry out the removal work with 2 wrenches.</li> </ul>
<p>2. Remove the indoor heat exchanger.</p> <p>1 Detach the indoor unit from the installation plate.</p>	<p>(R24398)</p>	

Step	Procedure	Points
2	Unfasten the 2 hooks and remove the piping fixture on the back of the indoor unit.	
3	Slightly pull out the auxiliary piping.	
4	Remove the 2 screws on the left side and unfasten the hook on the rear side.	
5	Unfasten the 2 hooks on the right side and lift up the indoor heat exchanger.	<p>■ When reassembling the indoor heat exchanger, make sure that the 2 hooks are fastened.</p>



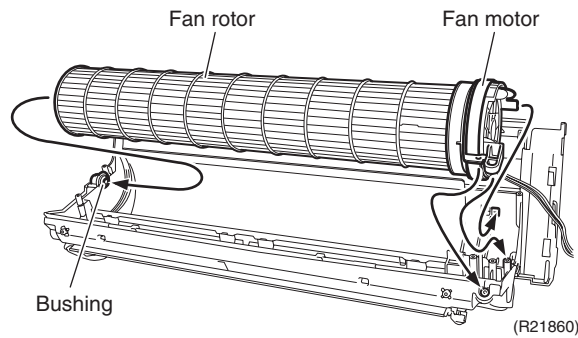
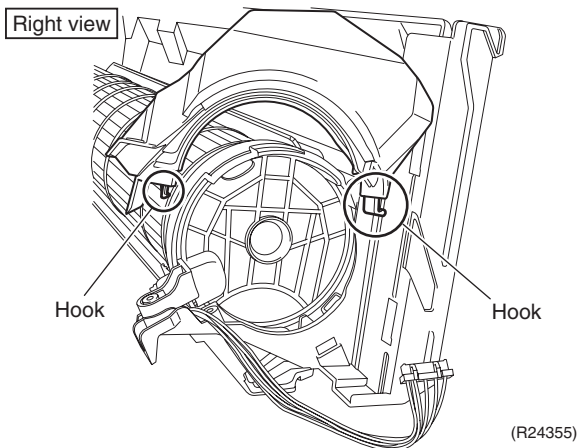
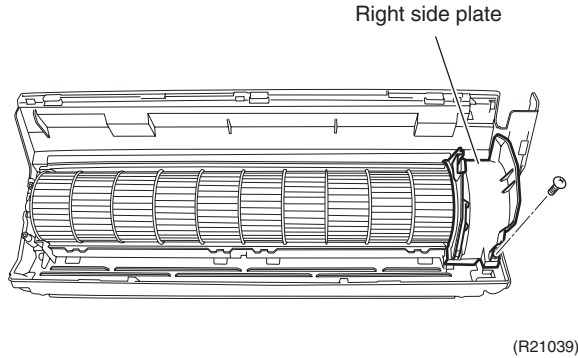
# 8. Fan Rotor / Fan Motor



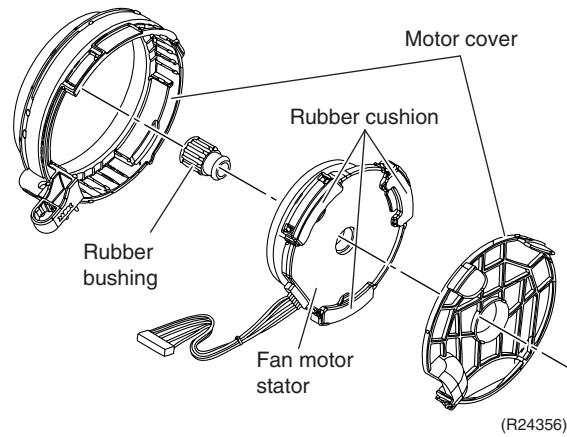
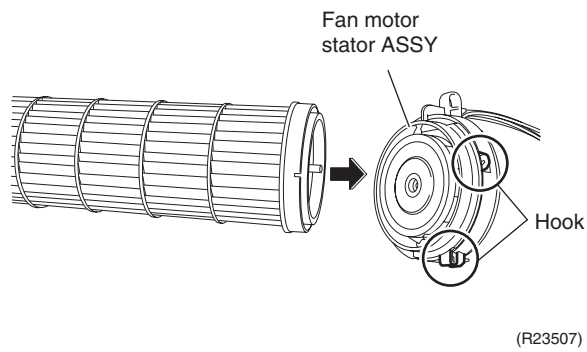
**Warning**

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

Step	Procedure	Points
1	Remove the screw of the right side plate.	
2	Unfasten the 2 hooks and remove the right side plate.	
3	Remove the fan rotor/ fan motor.	<p>■ When reassembling, make sure the bushing and the 3 projections are fastened.</p>



Step	Procedure	Points
4	Pull out and remove the fan motor stator ASSY from the fan rotor.	
5	Unfasten the 2 hooks of the fan motor stator ASSY.	
6	Disassemble the fan motor stator ASSY.	



# Revision History

Month / Year	Version	Revised contents
07 / 2015	Si041551E	First edition
05 / 2016	Si041551EA	Model addition: FTKC09/12QV2S, FTKC25/35QVM, FTKC25/35QVM4, FTKC25/35QVMV
12 / 2016	Si041551EB	Model addition: CTKC15/20QVM4, CTKS25/35QVM

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/products/ac/>

©All rights reserved