



Si041252EE

# REMOVAL PROCEDURE



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

**2.0/2.2/2.5/2.8/3.5/3.6/4.1/4.2/4.6/**

**5.0 kW Class**

**7000/9000/12000/15000 Btu/h Class**



Indoor Unit



Inverter



Wall Mounted Type



# Service Manual

# Removal Procedure

## Indoor Unit

### ●Cooling Only

FTKS09JV2S  
FTKS12JV2S

FTKS20KVMA  
FTKS25KVMA  
FTKS35KVMA

FTKS22MVLT  
FTKS28MVLT  
FTKS36MVLT

FTKM09NV2S  
FTKM12NV2S  
FTKM15NV2S

FTKM25NVM  
FTKM35NVM  
FTKM42NVM

FTKM20PVMA  
FTKM25PVMA  
FTKM35PVMA  
FTKM46PVMA

### ●Heat Pump

ATXS20G2V1B  
ATXS25G2V1B  
ATXS35G2V1B  
ATXS42G2V1B  
ATXS50G2V1B

CTXS07LVJU  
FTXS09LVJU  
FTXS12LVJU

FTXS20KVMA  
FTXS25KVMA  
FTXS35KVMA

FTXS22MVLT  
FTXS28MVLT  
FTXS36MVLT

FTXM22NVLT  
FTXM28NVLT  
FTXM36NVLT

FTXM20PVMA  
FTXM25PVMA  
FTXM35PVMA  
FTXM46PVMA

FTXV22NVLT  
FTXV28NVLT  
FTXV36NVLT  
FTXV41NVLT

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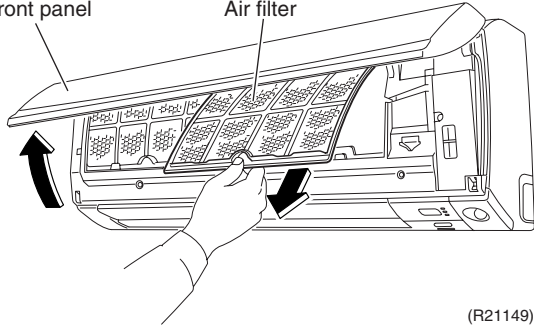
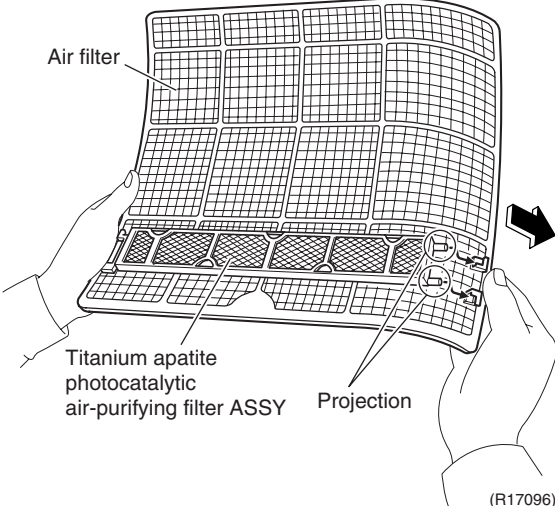
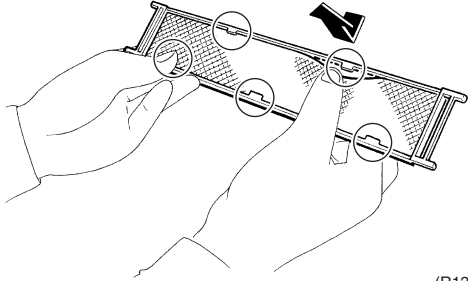
**Note:** ♦ The illustrations may be slightly different depending on the model.

# 1. Air Filters



**Warning**

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

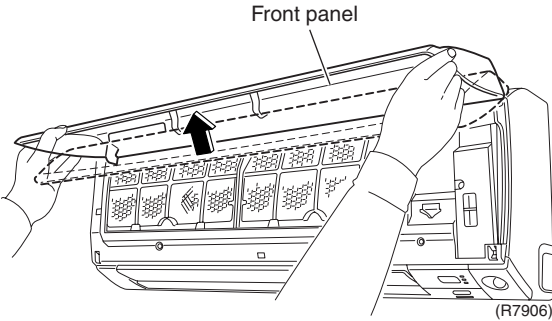
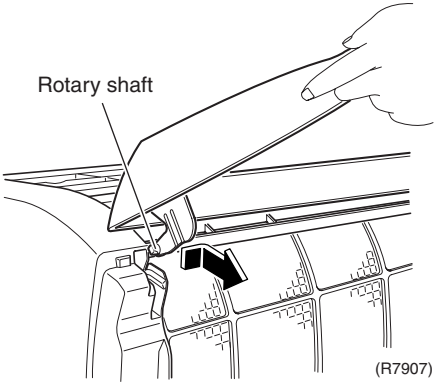
Step	Procedure	Points
<p>1. Remove the air filters.</p> <p>1 Open the front panel.</p> <p>2 Release the air filter from the hooks of the front panel. (2 for each filter.)</p> <p>3 Pull out the air filter downward and remove it.</p>	 <p>(R21149)</p>	<ul style="list-style-type: none"> <li>■ The air filter is not marked for difference between the right and left sides.</li> <li>■ Insert the air filter with the "FRONT" mark faced up.</li> <li>■ The air filter can be set easily by inserting it along the guides.</li> <li>■ Be sure to insert the hooks when reassembling the air filter.</li> </ul>
<p>2. Remove the Titanium apatite photocatalytic air-purifying filters.</p> <p>1 Remove the Titanium apatite photocatalytic air-purifying filter ASSY by unfastening the 2 projections from the back of the air filter.</p> <p>2 Unfasten the 5 hooks and remove the Titanium apatite photocatalytic air-purifying filter from its frame.</p>	 <p>(R17096)</p>  <p>(R13174)</p>	<ul style="list-style-type: none"> <li>■ To prevent the damage, do not remove the Titanium apatite photocatalytic air-purifying filter from the frame when cleaning it.</li> <li>■ The Titanium apatite photocatalytic air-purifying filter is not marked for difference between the right and left sides.</li> </ul>

## 2. Front Panel



### Warning

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

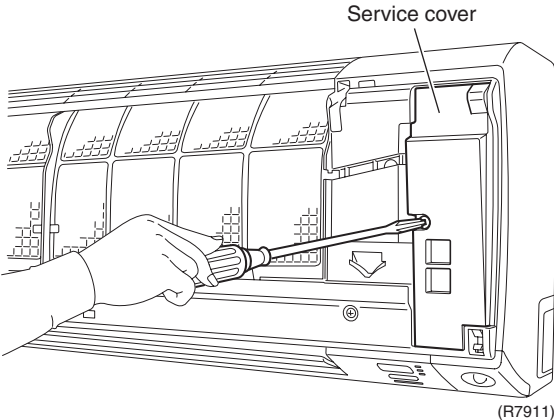
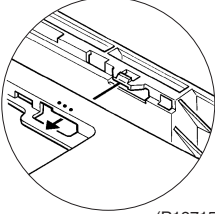
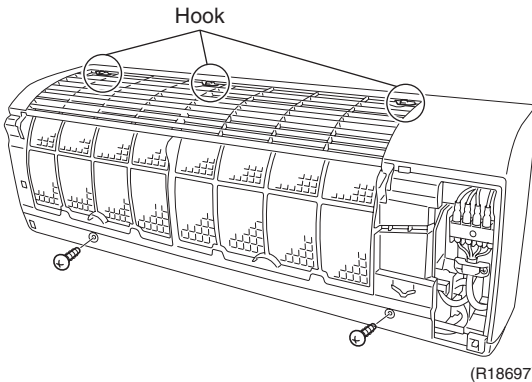
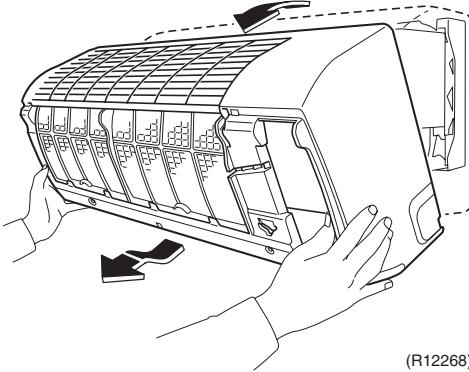
Step	Procedure	Points
1	Open the front panel over the position where it stops.	
2	Slide the front panel to the right and release the left rotary shaft.	<ul style="list-style-type: none"> <li>■ When reassembling the front panel, fit the right and left rotary shafts one by one into the grooves and fully push them into position.</li> </ul>
3	Release the right rotary shaft in the same way.	
4	Remove the front panel.	
		

### 3. Front Grille



**Warning**

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Step	Procedure	Points
1	Remove the screw and remove the service cover.	 <p>(R7911)</p>
2	Remove the 2 screws.	<p>■ The convex marks (...) on the front grille indicate the position of the hooks.</p>  <p>(R12715)</p>
3	Unfasten the 3 hooks at the top.	<p>■ When reassembling, make sure that all the 3 hooks are fastened as they were.</p>
4	Pull out the upper part of the front grille and lift up the lower part, and then remove the front grille.	 <p>(R18697)</p>  <p>(R12268)</p>

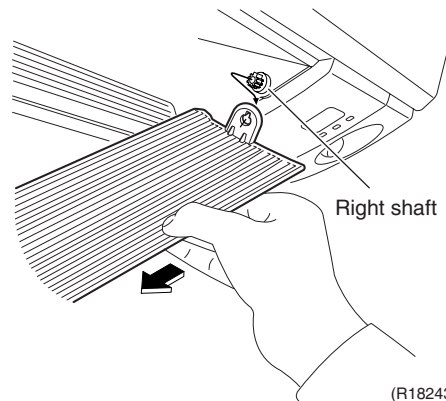
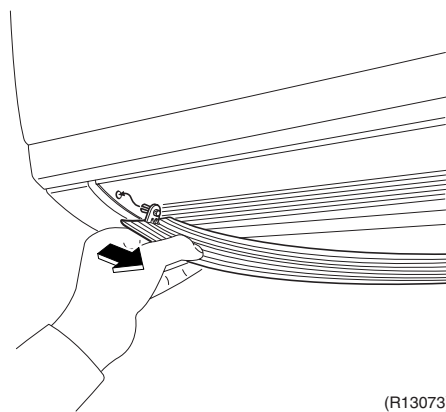
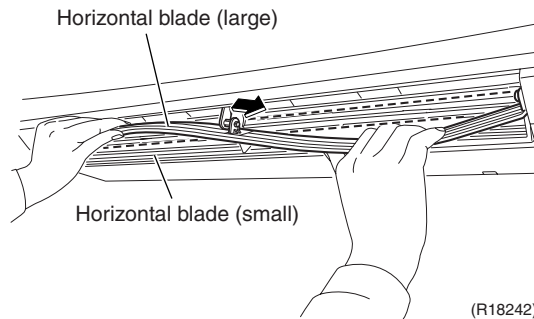
## 4. Horizontal Blades



### 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 (large) slightly.	<ul style="list-style-type: none"> <li>■ The size of the blades is different. When reassembling, mount the large horizontal blade to the upper position and the small horizontal blade to the lower position. Do not put them in the wrong place.</li> </ul>
2	Release the left shaft.	
3	Release the right shaft and remove the horizontal blade (large).	<ul style="list-style-type: none"> <li>■ Installation procedure</li> </ul> <ol style="list-style-type: none"> <li>1. Since the key pattern hook is provided, rotate the blade and fit it to the right shaft first.</li> <li>2. Fit the blade to the center and left shafts.</li> </ol>
4	Remove the horizontal blade (small) in the same way.	

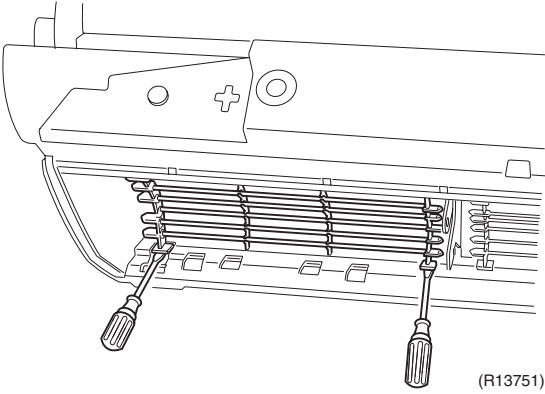
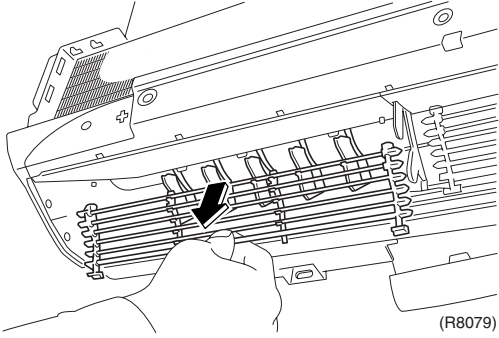
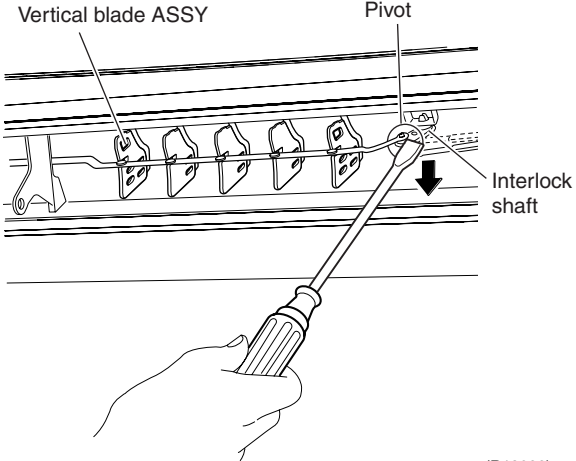
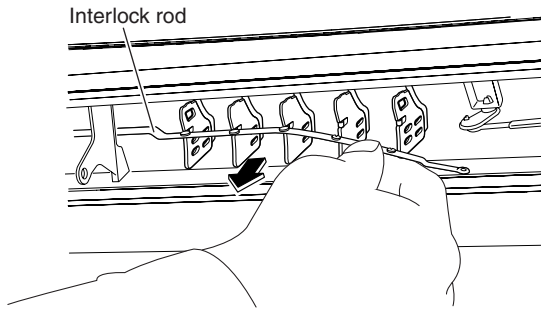


# 5. Vertical Blade ASSYs



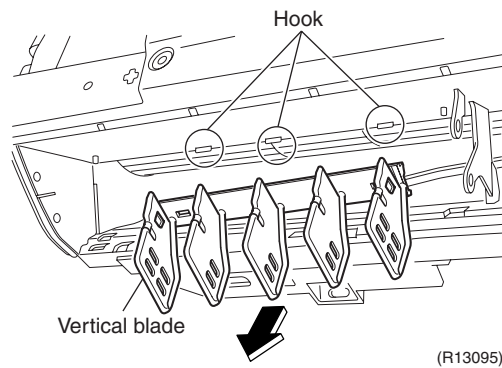
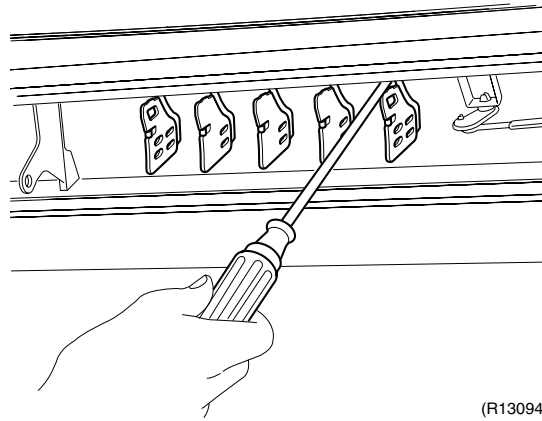
**Warning**

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

Step	Procedure	Points
<p>1. Remove the fan guards.</p> <p>1 Unfasten the 2 hooks at the lower part of the fan guard with a flat screwdriver.</p> <p>2 Remove the fan guard.</p> <p>3 Remove the other fan guard in the same way.</p>	 <p>(R13751)</p>  <p>(R8079)</p>	<p>■ Some models have no fan guard.</p>
<p>2. Remove the vertical blade ASSYs.</p> <p>1 Detach the pivot from the interlock shaft for vertical blades with a flat screwdriver.</p> <p>2 Remove the interlock rod.</p>	 <p>(R13092)</p>  <p>(R13093)</p>	



Step	Procedure	Points
3	Unfasten the 3 hooks at the upper 3 positions by pressing them with a flat screwdriver.	
4	Remove the vertical blade ASSY.	<ul style="list-style-type: none"> <li>■ Each vertical blade ASSY has 5 fins. It is impossible to replace only one fin.</li> </ul>
5	Remove the other vertical blade ASSY in the same way.	<ul style="list-style-type: none"> <li>■ The vertical blade ASSY is not marked for difference between right and left.</li> </ul>



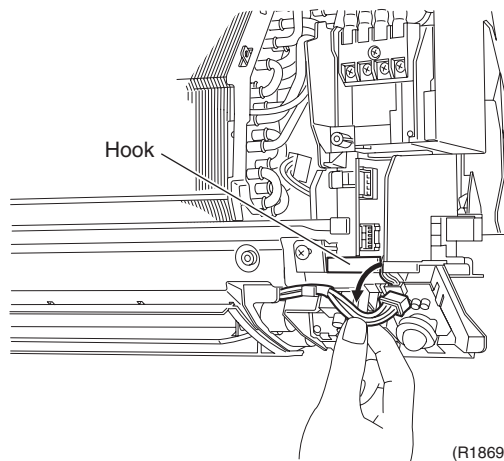
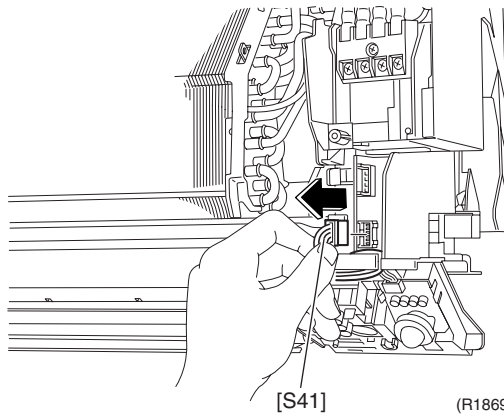
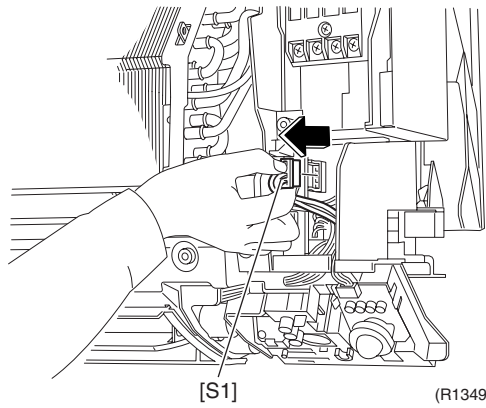
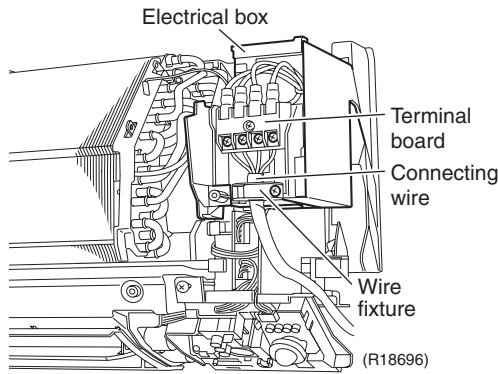
# 6. Electrical Box

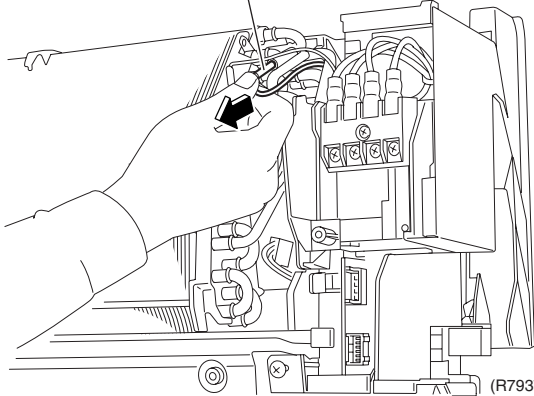
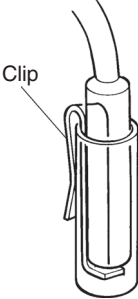
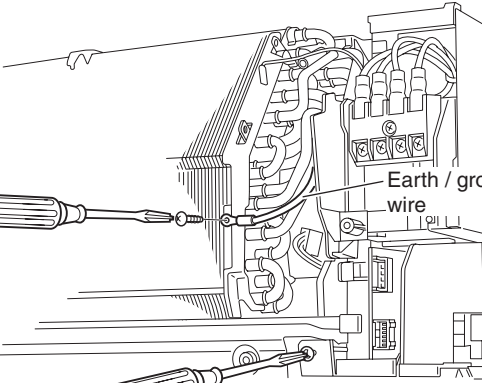
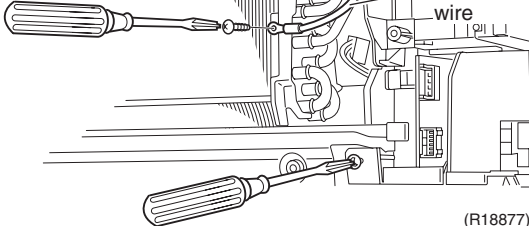
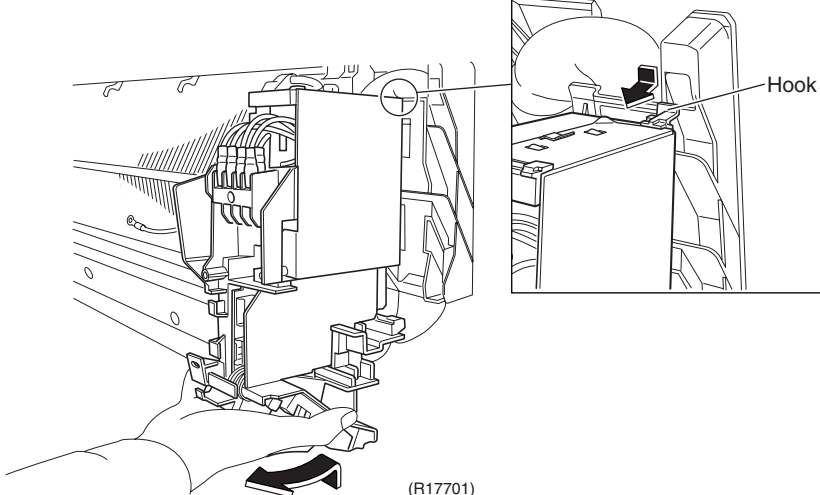


**Warning**

◆ 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 and remove the wire fixture.	<p>■ <b>For U.S. models</b> When reassembling, make sure that the connecting wire is passed through the conduit hole at the bottom of the unit.</p>
2	Remove the 4 screws on the terminal board and disconnect the connecting wire.	
3	Disconnect the connector [S1].	[S1]: fan motor
4	Disconnect the connector [S41].	[S41]: swing motors
5	Release the harness for the swing motors from the hook.	<p>■ When reassembling, be sure to put the harness for the swing motors behind the hook.</p>



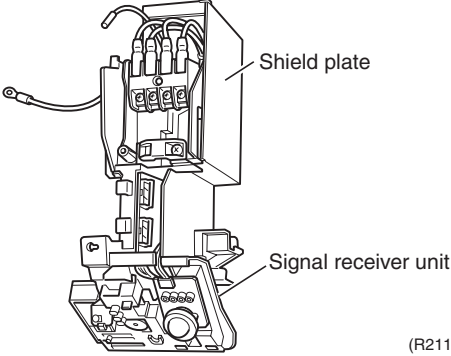
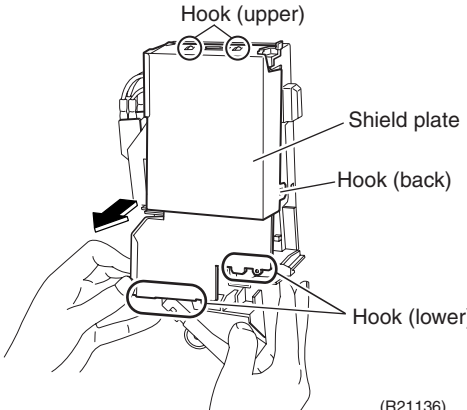
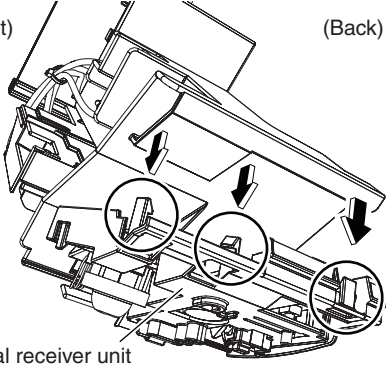
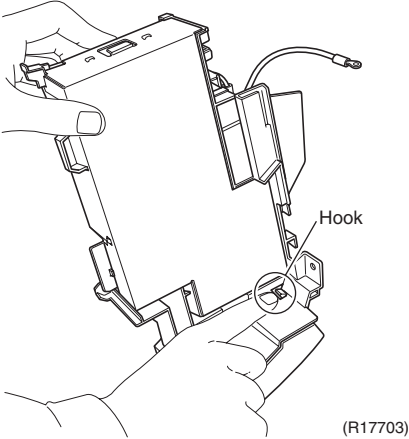
Step	Procedure	Procedure	Points
6	Pull out the indoor heat exchanger thermistor.	<p data-bbox="596 226 916 248">Indoor heat exchanger thermistor</p>  <p data-bbox="995 663 1054 680">(R7937)</p>	<ul style="list-style-type: none"> <li>■ The position of the indoor heat exchanger thermistor varies by model.</li> <li>■ Be careful not to lose the clip of the thermistor.</li> </ul>  <p data-bbox="1305 719 1374 736">(R11268)</p>
7	Remove the screw and detach the earth / ground wire.	 <p data-bbox="916 931 1062 976">Earth / ground wire</p> <p data-bbox="954 1160 1023 1178">(R18877)</p>	
8	Remove the screw of the electrical box.	 <p data-bbox="954 1160 1023 1178">(R18877)</p>	
9	Lift up the electrical box and pull it out.	 <p data-bbox="900 1765 968 1783">(R17701)</p>	<ul style="list-style-type: none"> <li>■ Unfasten the hook at the back.</li> </ul> <ul style="list-style-type: none"> <li>■ There is a hook also at the lower part of the back. When reassembling the electrical box, make sure that it is securely fastened.</li> </ul>

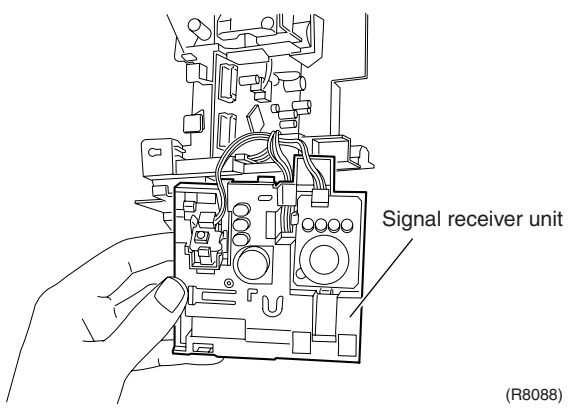
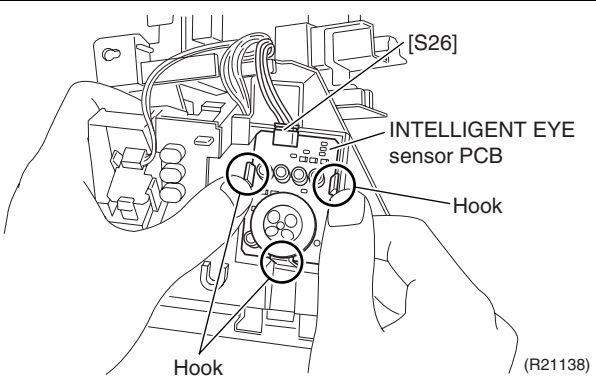
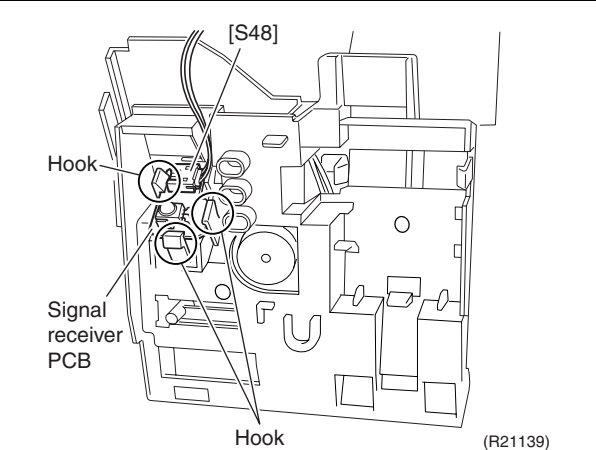
# 7. PCBs

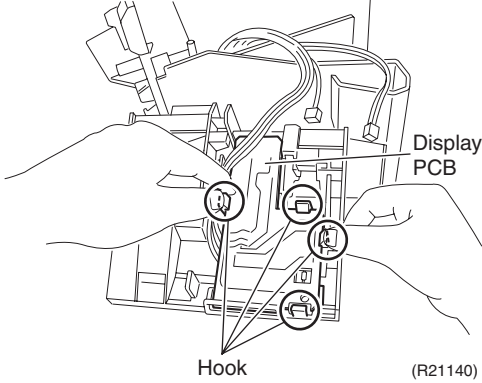
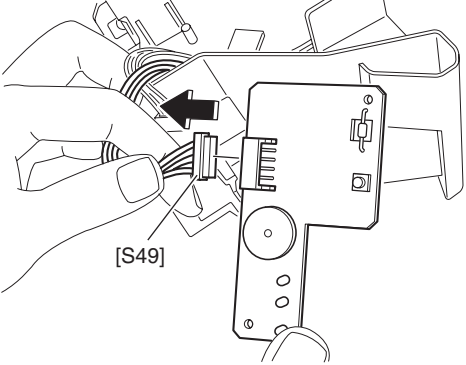
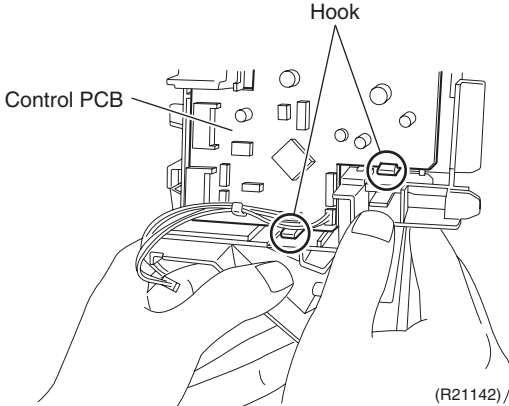
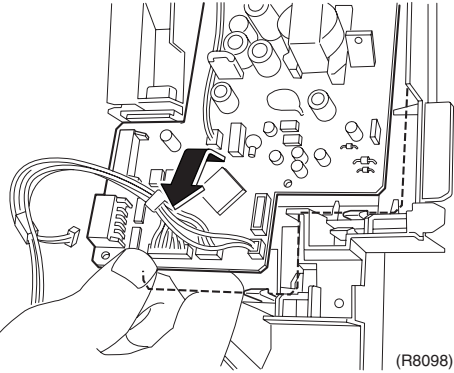


**Warning**

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Step	Procedure	Points
<p>1. Remove the shield plate.</p> <p>1 The figure shows the parts of the electrical box.</p> <p>2 Unfasten the 2 hooks (upper).</p> <p>3 Unfasten the hook (back).</p> <p>4 Lift up the shield plate to unfasten the 2 hooks (lower).</p>	 <p>(R21135)</p>  <p>(R21136)</p>	
<p>2. Remove the signal receiver unit.</p> <p>1 Unfasten the 3 hooks.</p> <p>2 Unfasten the hook on the opposite side.</p>	<p>(Front) (Back)</p>  <p>(R21137)</p>  <p>(R17703)</p>	

Step	Procedure	Points
3	Remove the signal receiver unit.	
3. Remove the INTELLIGENT EYE sensor PCB.		
1	Unfasten the 3 hooks and remove the INTELLIGENT EYE sensor PCB.	
2	Disconnect the connector [S26].	
4. Remove the signal receiver PCB.		
1	Unfasten the 3 hooks and remove the signal receiver PCB.	
2	Disconnect the connector [S48].	

Step	Procedure	Points
<p>5. Remove the display PCB.</p> <p>1 Unfasten the 4 hooks and remove the display PCB.</p> <p>2 Disconnect the connector [S49].</p>	 	<ul style="list-style-type: none"> <li>■ The display PCB faces the rear side of the signal receiver unit.</li> </ul> <p>[S49]: control PCB</p>
<p>6. Remove the control PCB.</p> <p>1 Unfasten the 2 lower hooks of the control PCB.</p> <p>2 Lift up the bottom of the control PCB and pull it out.</p>	 	<ul style="list-style-type: none"> <li>■ The control PCB is also held by 2 upper hooks. When reassembling, be sure to fit all the 4 hooks.</li> </ul>

## 8. Swing Motors



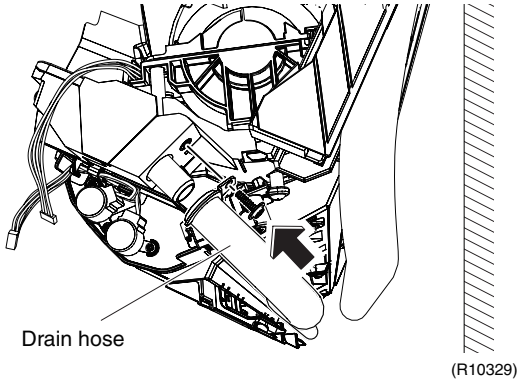
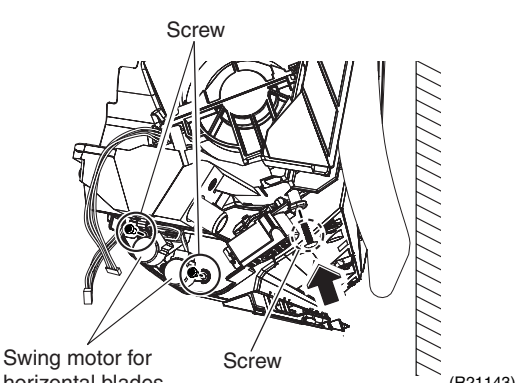
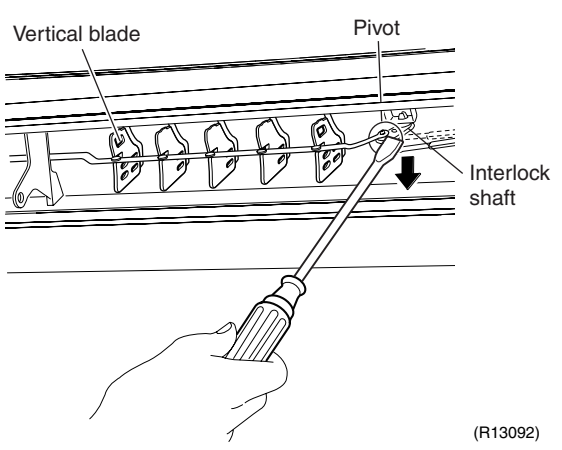
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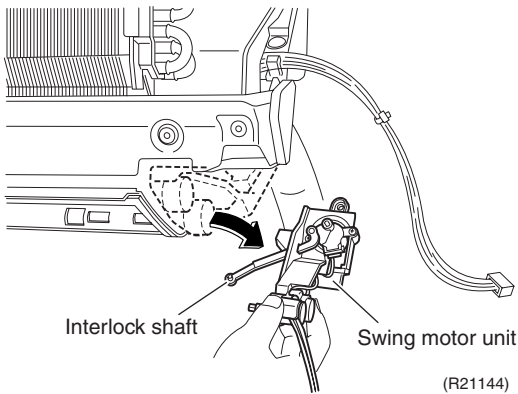
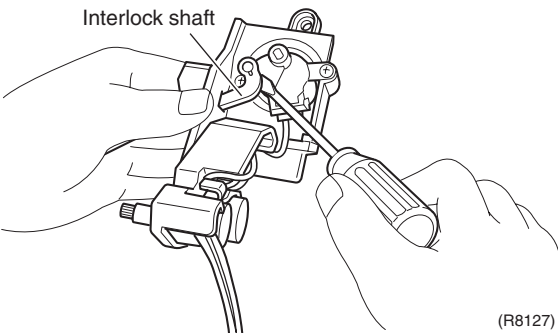
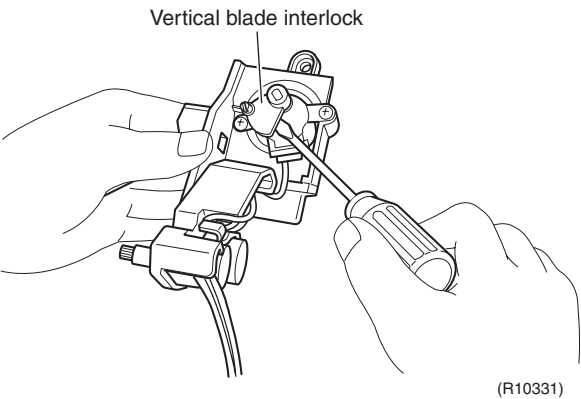
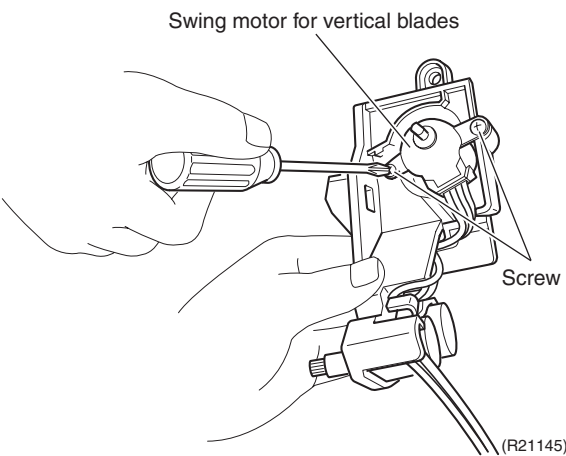
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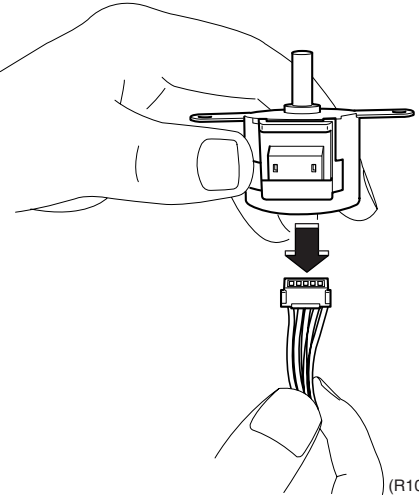
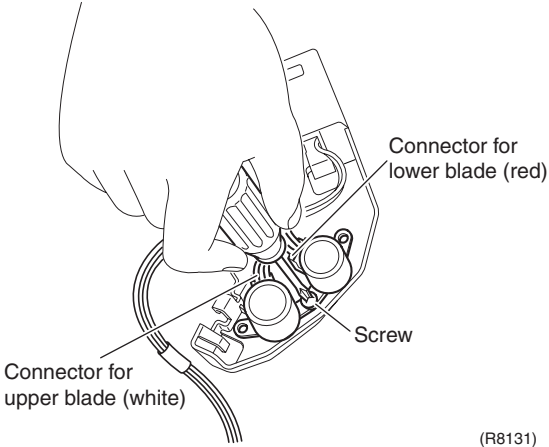
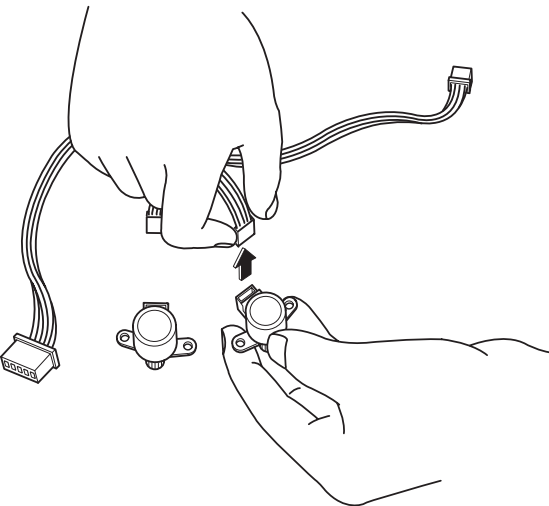
### Caution

- ◆ When reassembling, do not confuse the installing order of the 2 motors for horizontal blades and the colors of the connectors.  
If you set the connectors or motors opposite, the horizontal blades do not move smoothly or noise may be heard.

Step	Procedure	Points
1. Remove the swing motor for vertical blades.		<ul style="list-style-type: none"> <li>■ Lift the indoor unit with a wooden base for easy work.</li> <li>■ Use the short screwdriver from the back.</li> </ul>
1 Remove the screw behind the drain hose, and disconnect the drain hose.  2 Remove the screw at the rear, and remove the 2 screws on the right and the left side of the swing motors for horizontal blades.		<ul style="list-style-type: none"> <li>■ Some models have fan guards. Remove the fan guards beforehand.</li> </ul>
3 Detach the pivot from the interlock shaft for vertical blades with a flat screwdriver to disconnect it from the swing motor unit.		

Step	Procedure	Points
4	Remove the swing motor unit.	
		
5	Detach the interlock shaft from the swing motor with a flat screwdriver.	
		
6	Remove the vertical blade interlock with a flat screwdriver.	
		
7	Remove the 2 screws and remove the swing motor for vertical blades.	
		



Step	Procedure	Points
8	Disconnect the connector.  <p style="text-align: right;">(R10334)</p>	Connector: green
2.	Remove the swing motors for horizontal blades.	<b>■ Reassembling order</b> (1) Set the swing motor for the upper blade first. (connector: white) (2) Then, set the swing motor for the lower blade. (connector: red) (3) Fix the 2 swing motors with 1 screw.
1	Remove the screw and remove the swing motors for horizontal blades.  <p style="text-align: right;">(R8131)</p>	
2	Disconnect the harnesses from the motors.  <p style="text-align: right;">(R10335)</p>	

# 9. Indoor Heat Exchanger



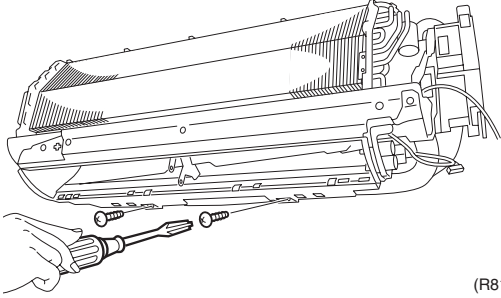
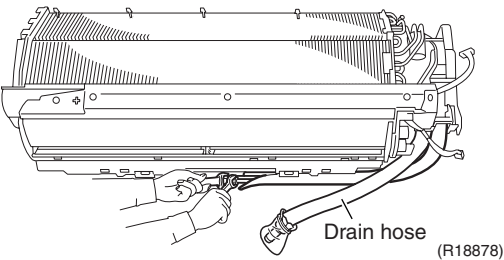
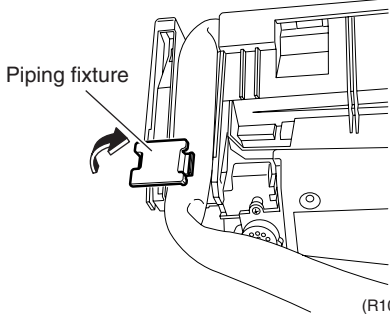
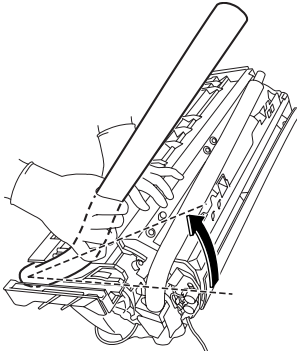
**Warning**

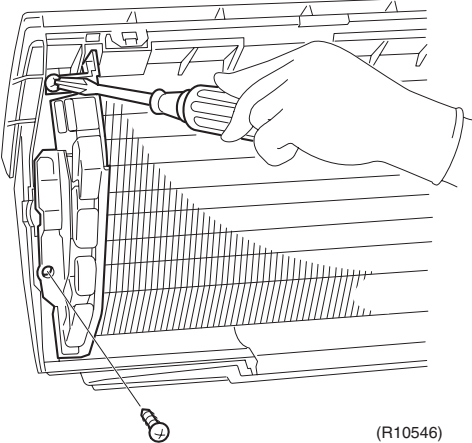
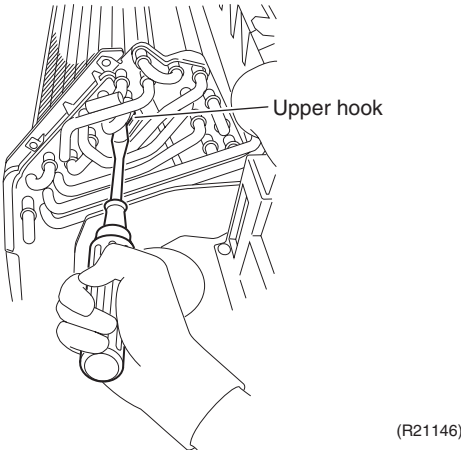
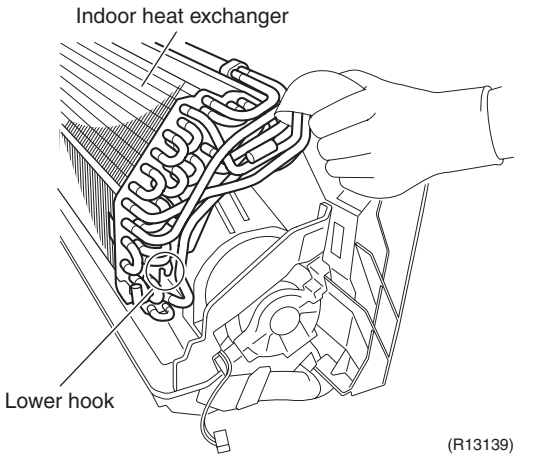
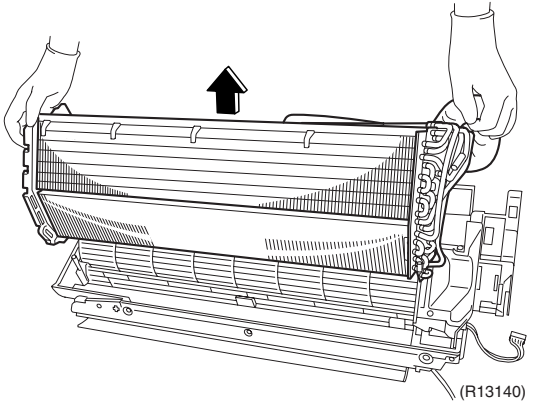
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.
- ◆ In pump-down work, be sure to stop the compressor before disconnecting the refrigerant pipe. If the refrigerant pipe is disconnected with the compressor operating and the stop valve open, air 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 Remove the 2 screws which fix the indoor heat exchanger to the installation plate.</p> <p>2 Lift up the indoor unit slightly and pull out the drain hose.</p> <p>3 Disconnect the gas piping and the liquid piping.</p>	 <p>(R8103)</p>  <p>Drain hose (R18878)</p>	<ul style="list-style-type: none"> <li>■ Place a plastic sheet under the drain pan to prevent from wetting the floor with remaining drain.</li> <li>■ If the drain hose is embedded in the wall, disconnect the drain hose beforehand.</li> <li>■ Carry out the removal work with 2 wrenches.</li> <li>■ When the pipings are disconnected, protect both the openings of the pipes and the indoor unit from entering moisture.</li> </ul>
<p>2. Remove the indoor heat exchanger.</p> <p>1 Detach the indoor unit from the installation plate.</p> <p>2 Unfasten the hook and remove the piping fixture on the back of the indoor unit.</p> <p>3 Slightly widen the auxiliary piping.</p>	 <p>Piping fixture (R10622)</p>  <p>(R17120)</p>	

Step	Procedure	Points
4	Remove the 2 screws on the left side.	
	 <p>(R10546)</p>	
5	Unfasten the upper hook on the right side with a flat screwdriver.	
	 <p>Upper hook</p> <p>(R21146)</p>	
6	After unfastening the lower hook, lift up the indoor heat exchanger by its right side.	
	 <p>Indoor heat exchanger</p> <p>Lower hook</p> <p>(R13139)</p>	<ul style="list-style-type: none"> <li>When reassembling the indoor heat exchanger, make sure that the right hooks (upper and lower) are fastened.</li> </ul>
7	Remove the indoor heat exchanger.	
	 <p>(R13140)</p>	

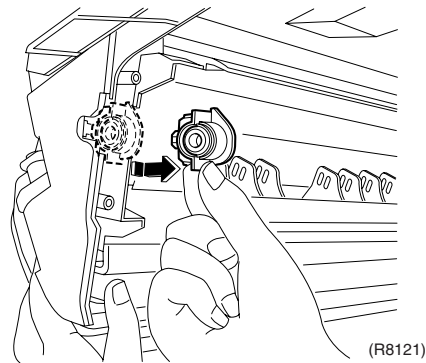
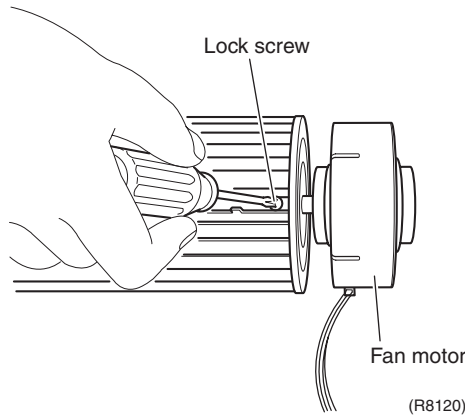
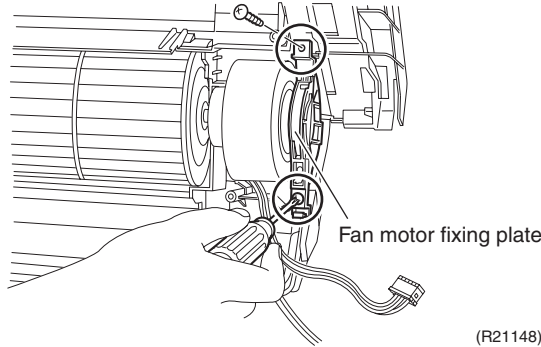
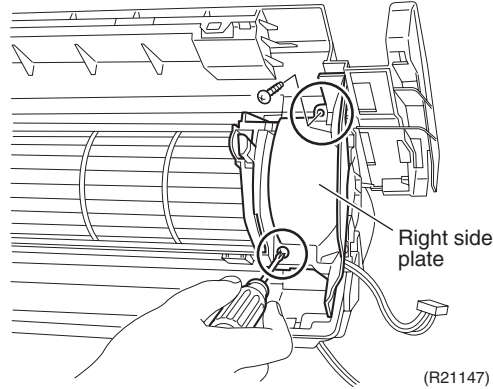
# 10.Fan Motor



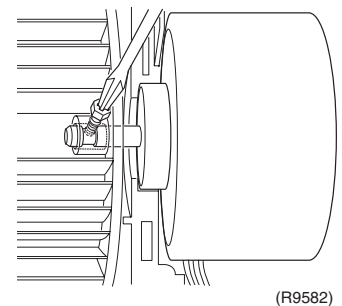
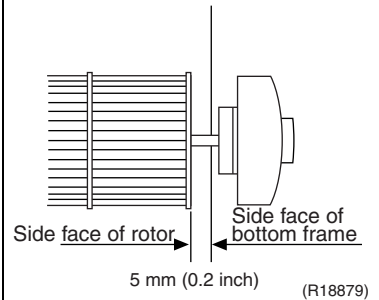
**Warning**

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

Step	Procedure	Points
1	Remove the 2 screws and remove the right side plate.	
2	Remove the 2 screws and remove the fan motor fixing plate.	
3	Loosen the lock screw and remove the fan motor.	
4	Press the bearing ASSY inward.	



■ When reassembling the fan motor and the fan rotor, provide as much as 5 mm (0.2 inch) of play between the side face of the rotor and the bottom frame.



- (1) Insert the fan motor with approx. 5 mm (0.2 inch) left.
- (2) Tighten the screw until it stops. Then turn the screw in one scroll.
- (3) Move the fan rotor and confirm the fan motor and the fan rotor are installed appropriately.
- (4) If appropriate, tighten the screw completely.
- (5) If not appropriate, go back to (1).

# Revision History

Month / Year	Version	Revised contents
09 / 2012	Si041252	First edition
11 / 2012	Si041252_A	Model addition: ATXS20/25/35/42/50G2V1B
04 / 2013	Si041252_B	Model addition: FTKS09/12JV2S, FTK(X)S22/28/36MVLТ, CTXS07LVJU, FTKS09/12LVJU
06 / 2014	Si041252EC	Model addition: FTKM09/12/15NV2S, FTKM25/35/42NVM
12 / 2014	Si041252ED	Model addition: FTK(X)M20/25/35/46PVMA
08 / 2015	Si041252EE	Model addition: FTXM22/28/36NVLT, FTXV22/28/36/41NVLT

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/>

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