Si001422E

REMOVAL PROCEDURE

SERVICE MANUAL

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

7.1 kW Class

- Outdoor Unit
- Inverter
- Pair Type

Service Manual
Removal Procedure

Outdoor Unit

●Cooling Only
RKM71PVMA

●Heat Pump
RXM71PVMA

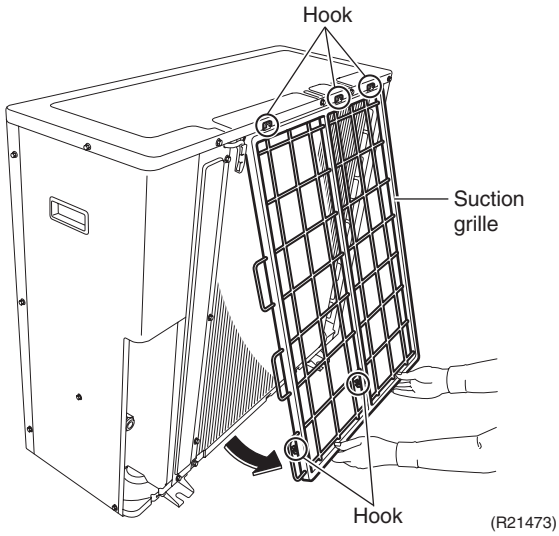
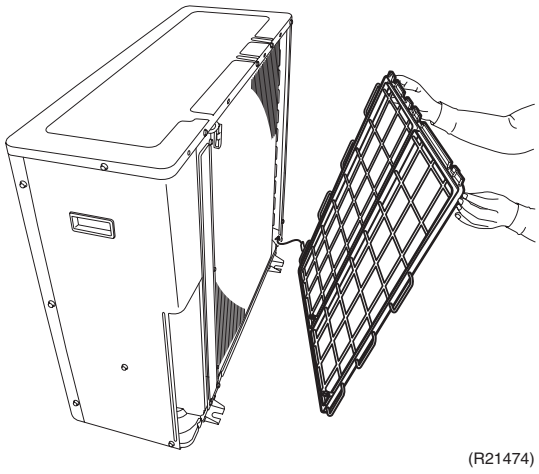
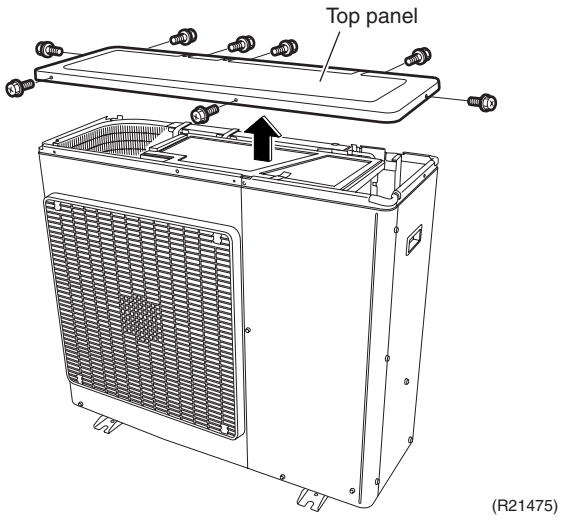
Table of Contents

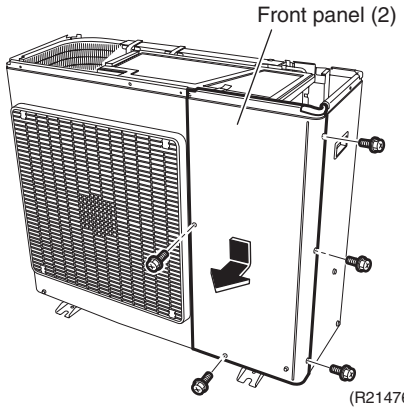
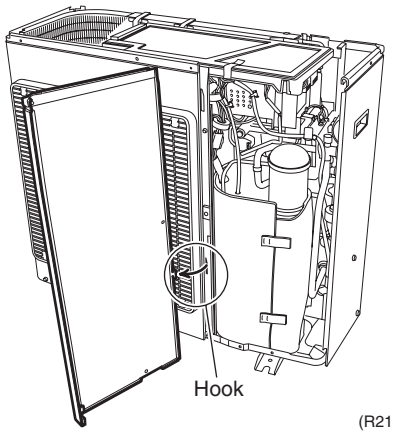
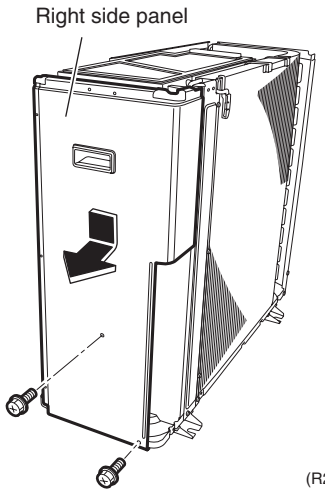
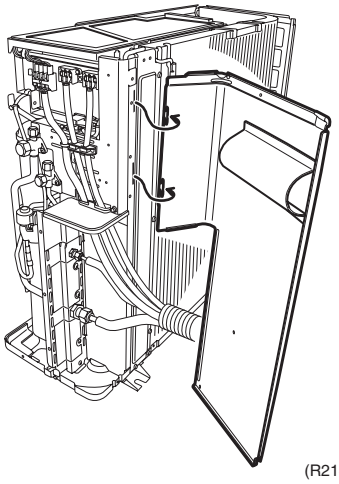
Note:
- The illustrations may be slightly different depending on the model.
- The illustrations are for heat pump models as representative.

1. Outer Panels

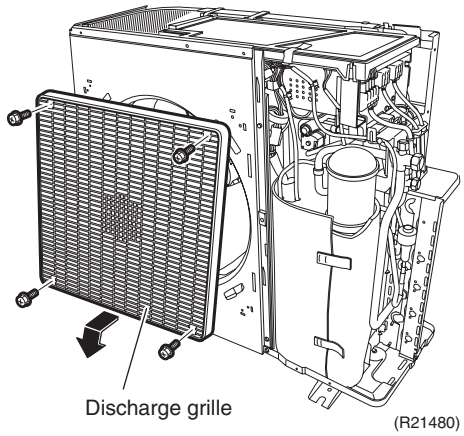
Warning

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

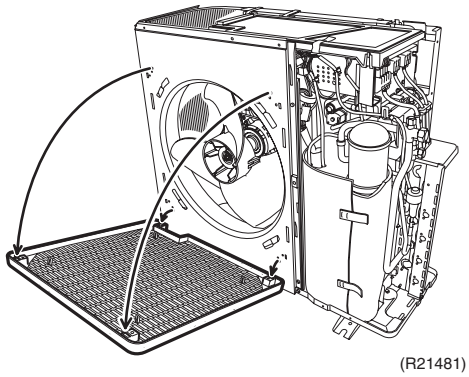
Step	Procedure		Points
1	Unfasten the 2 hooks on the bottom of the suction grille.		
2	Slide downward the suction grille to unfasten the upper 3 hooks.		
3	Remove the suction grille.		
4	Remove the 8 screws and remove the top panel.		

Step	Procedure		Points
5	Remove the 5 screws of the front panel (2).	 (R21476)	
6	Slide downward the front panel (2) to unfasten the hook.	 (R21477)	■ When reassembling, make sure to fit the hook.
7	Remove the 2 screws of the right side panel.	 (R21478)	
8	Slide down the right side panel and remove it.	 (R21479)	■ When reassembling, make sure to fit the 2 hooks.

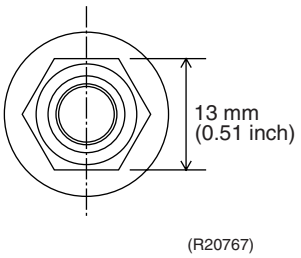
Step	Procedure	Points
9	Remove 4 screws on the discharge grille.	■ Remove the discharge grille and the outdoor fan first to remove the front panel (1).
10	Pull the bottom of the discharge grille.	
11	Slide downward the discharge grille to unfasten the upper 2 hooks.	

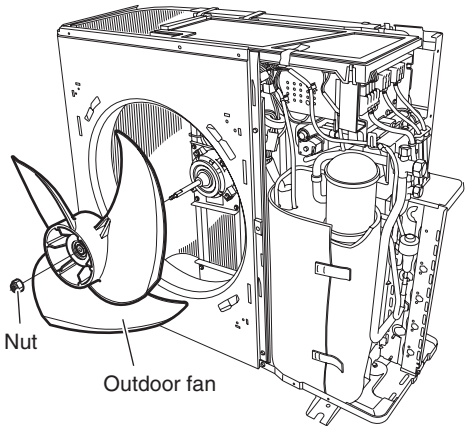


■ When reassembling, make sure to fit the 4 hooks.



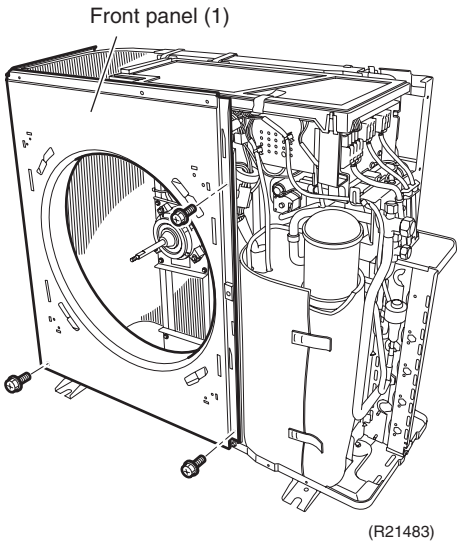
12	Remove the nut and remove the outdoor fan.	■ Nut size: M8

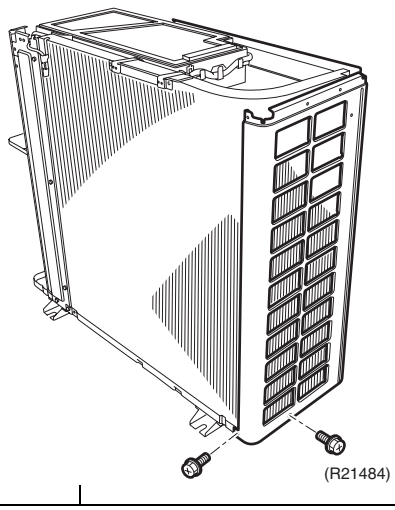


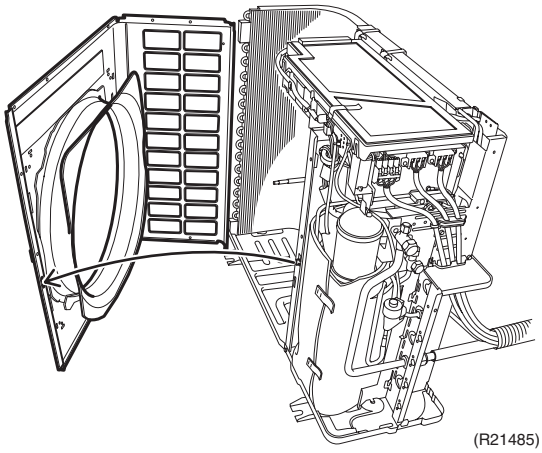
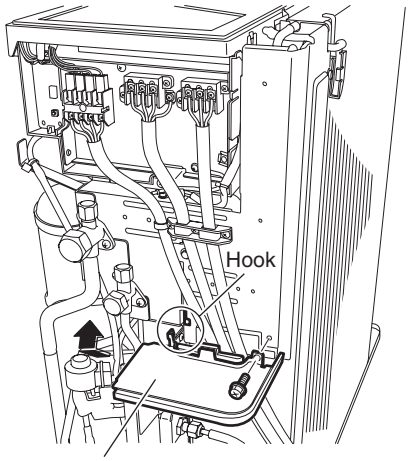
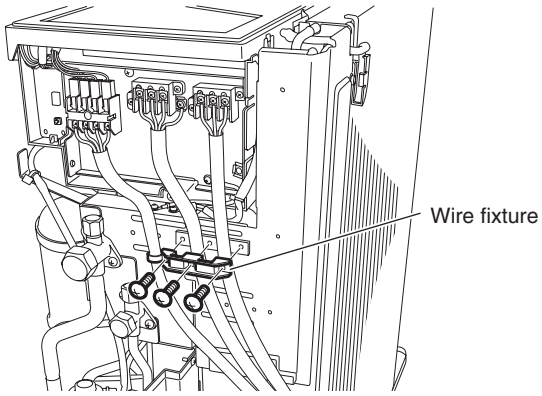
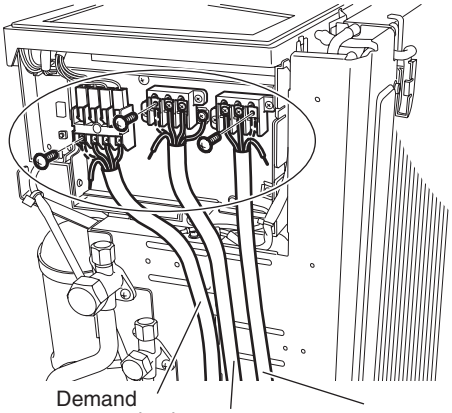
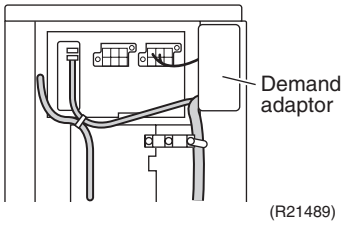


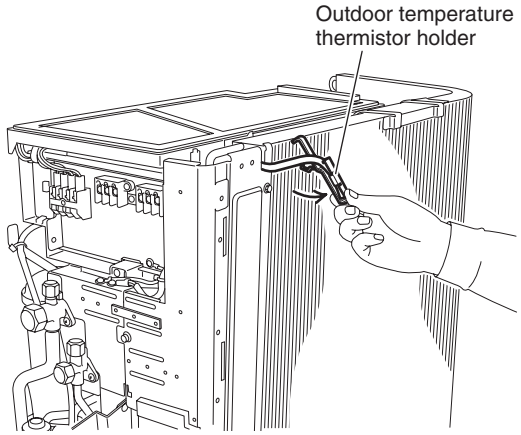
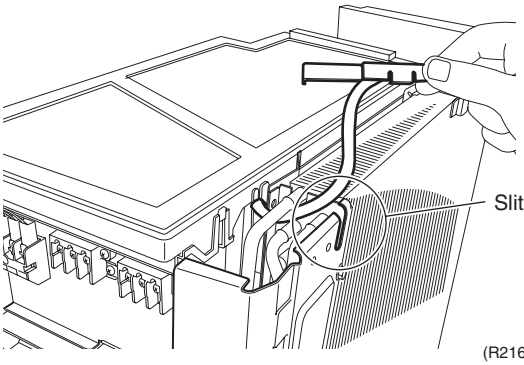
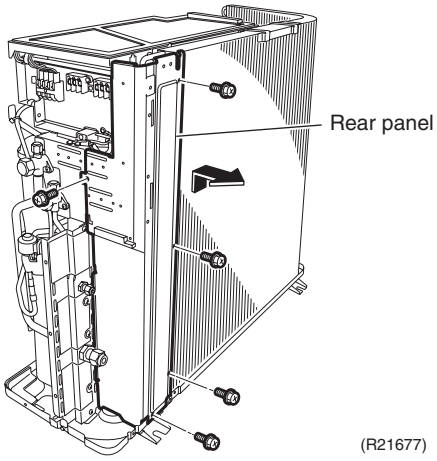
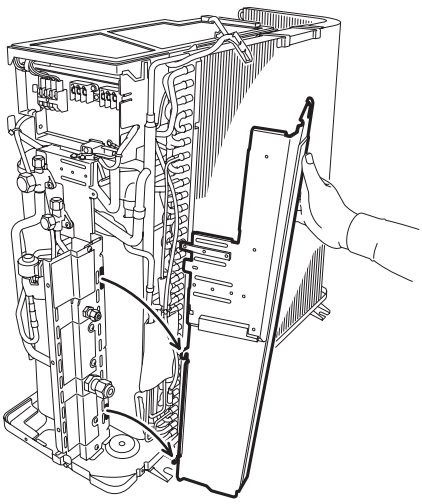
■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.

13	Remove the 5 screws of the front panel (1).	





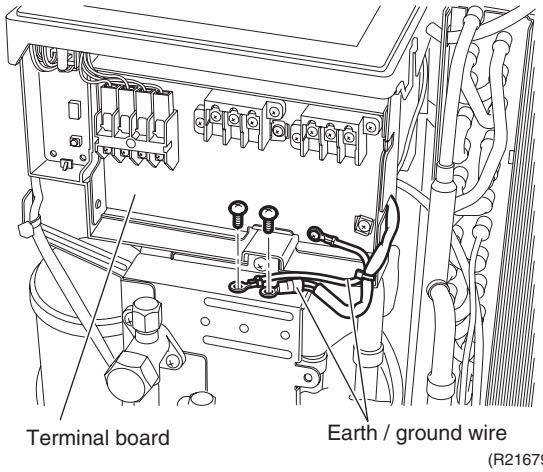
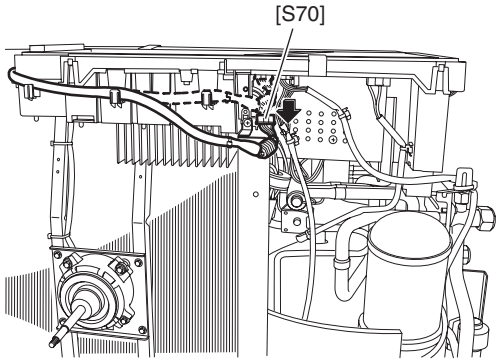
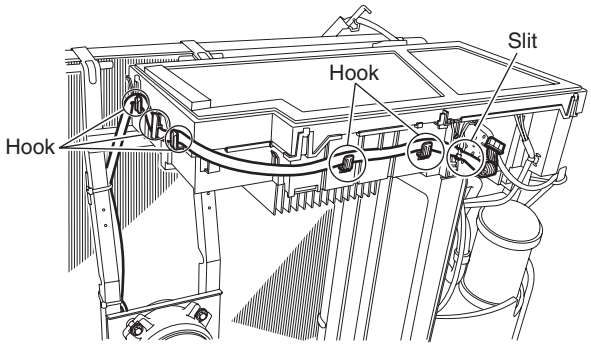
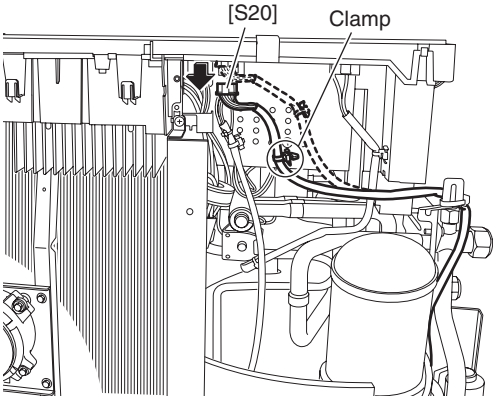
Step	Procedure		Points
14	Lift up the front panel (1) to unfasten the hook.	 (R21485)	
15	Remove the front panel (1).		
16	Remove the screw of the partition plate (2).	 (R21486)	
17	Slide the partition plate (2) to the left and lift up to remove it.		
18	Remove the 3 screws and remove the wire fixture.	 (R21487)	
19	Remove the 11 screws on the terminal boards and release the demand communication wire, connecting wire, power supply wire.	 (R21488)	■ In case that the demand adaptor is attached optionally, remove the demand adaptor first.  (R21489)

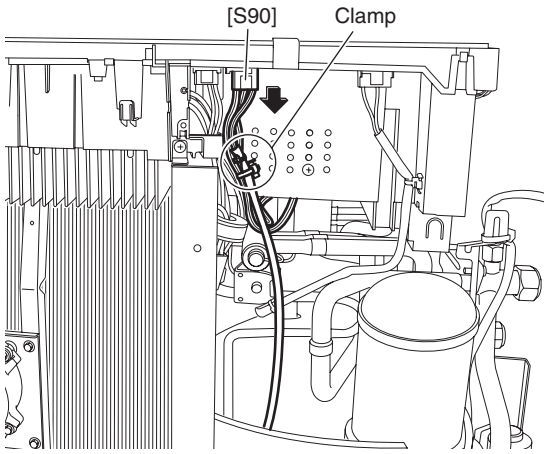
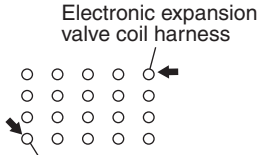
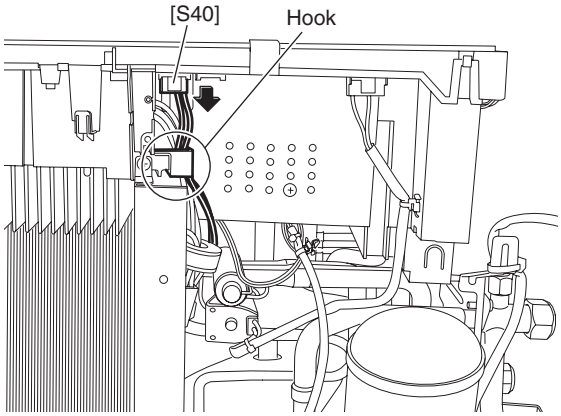
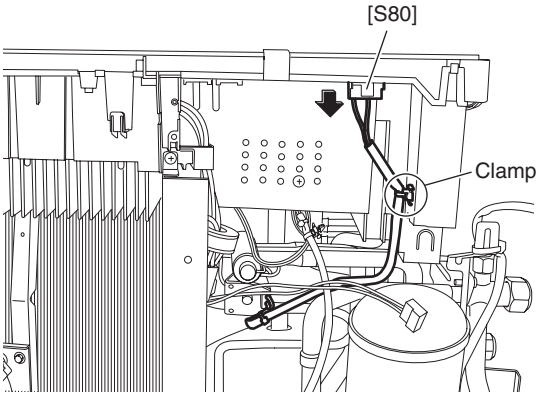
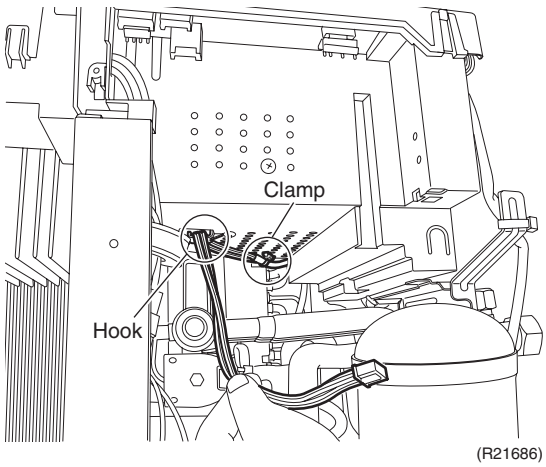
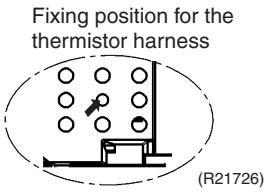
Step	Procedure		Points
20	Detach the outdoor temperature thermistor holder.	 (R21490)	
21	Release the thermistor harness from the slit.	 (R21676)	
22	Remove the 5 screws and remove the rear panel.	 (R21677)  (R21678)	■ When reassembling, make sure to fit the 2 hooks.

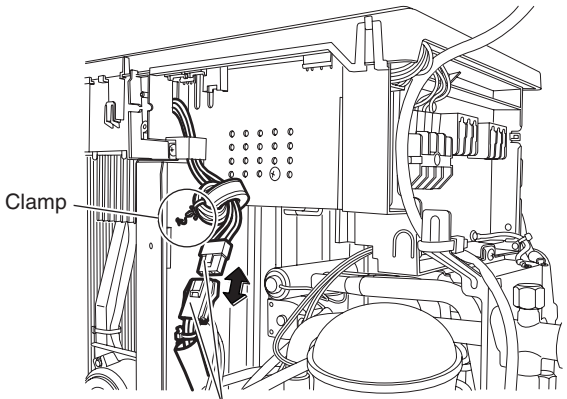
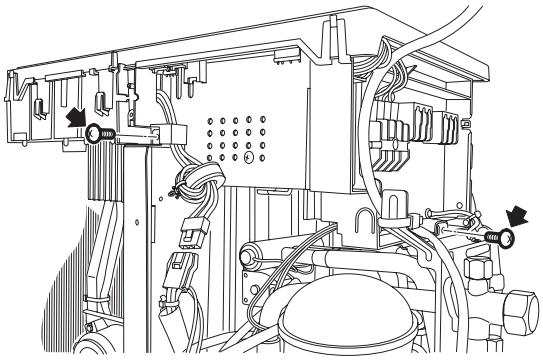
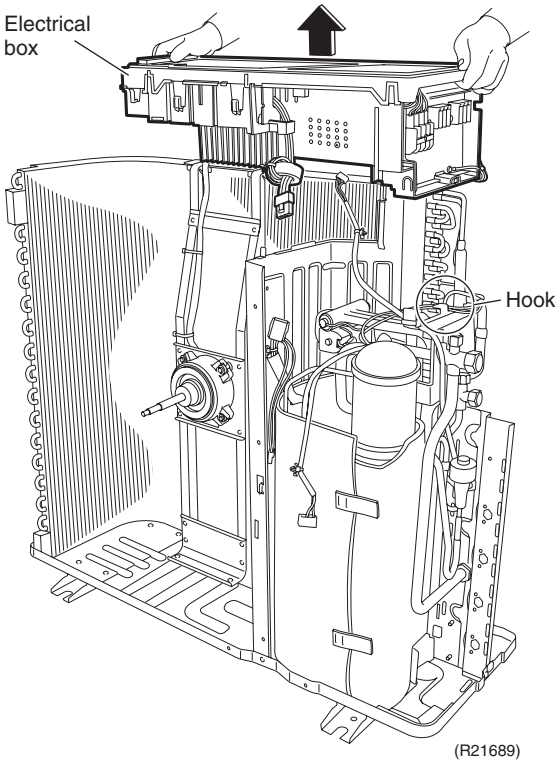
2. Electrical Box

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 2 screws and detach the earth / ground wires.	 (R21679)	
2	Disconnect the connector [S70].	 (R21680)	[S70]: fan motor
3	Release the fan motor lead wire from the slit and the 5 hooks.	 (R21681)	
4	Disconnect the connector [S20].	 (R21682)	[S20]: electronic expansion valve coil
5	Pull out the clamp and release the harness.		

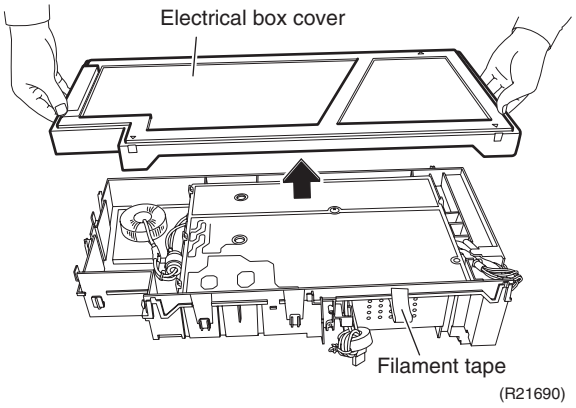
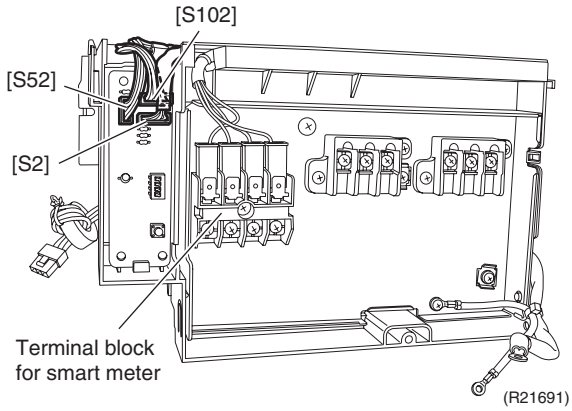
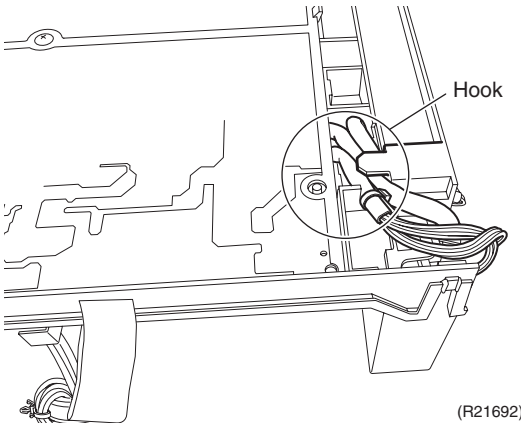
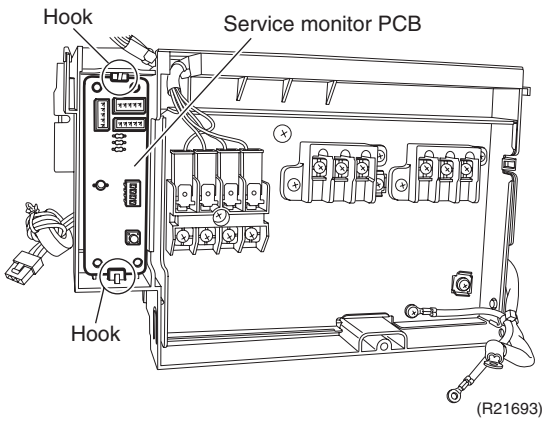
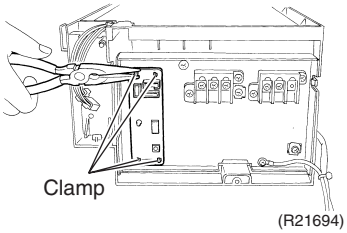
Step	Procedure		Points
6	Disconnect the connector [S90].	 (R21683)	[S90]: thermistors ■ When reassembling, insert each clamp into the small holes. ■ When reassembling, insert the clamp of the thermistor ASSY harness into the hole as below.  (R21725)
7	Pull out the clamp and release the harness.		
8	Disconnect the connector [S40].	 (R21684)	[S40]: overload protector
9	Release the harness from the hook.		
10	Disconnect the connector [S80].	 (R21685)	[S80]: four way valve coil ■ Cooling only models have no harness for [S80].
11	Pull out the clamp and release the harness.		
12	Release the thermistor harness from the hook on the bottom of the electrical box.	 (R21686)	■ When reassembling, insert the clamp into the small hole.  (R21726)
13	Pull out the clamp.		

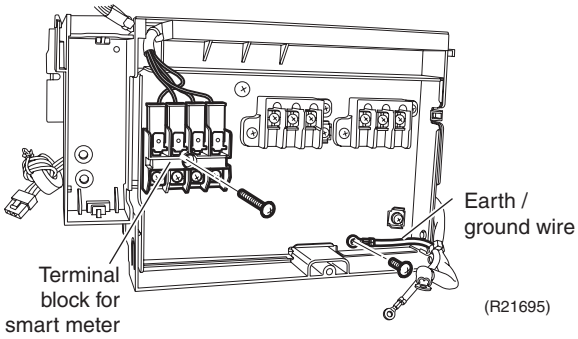
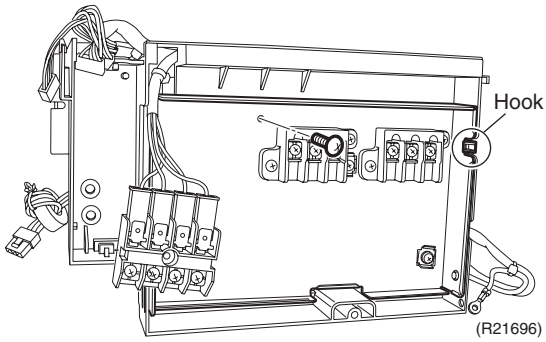
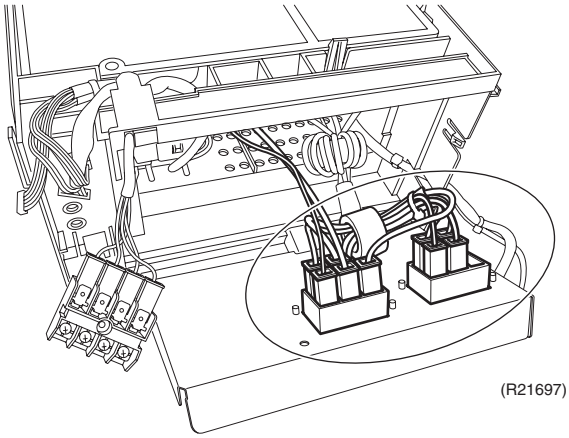
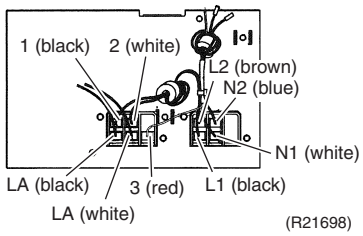
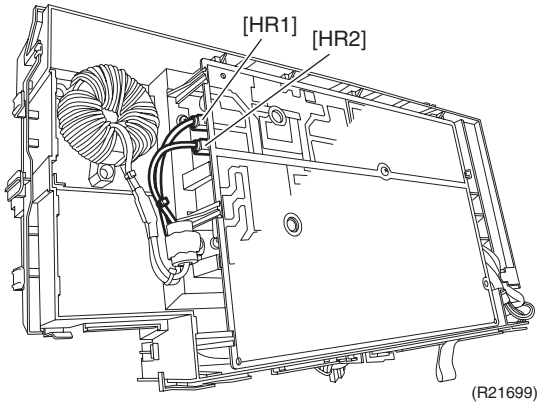
Step	Procedure		Points
14	Disconnect the relay connector for the compressor and pull out the clamp.	 (R21687)	
15	Remove the 2 screws.	 (R21688)	
16	Lift up and remove the electrical box.	 (R21689)	■ When reassembling, make sure to fit the hook.

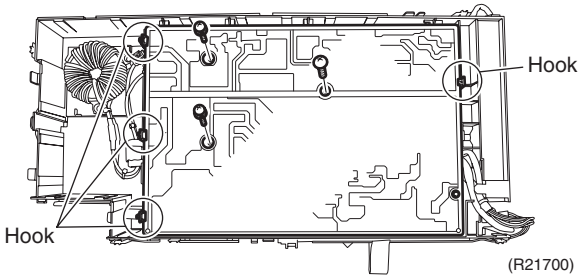
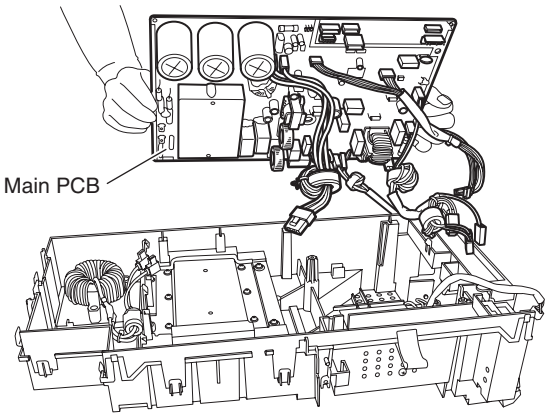
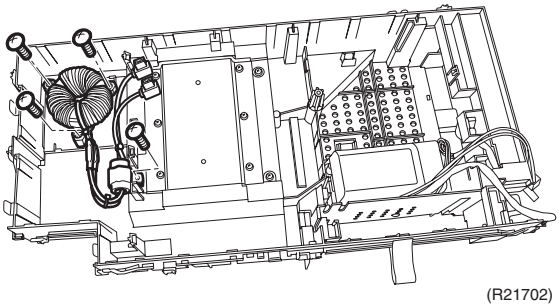
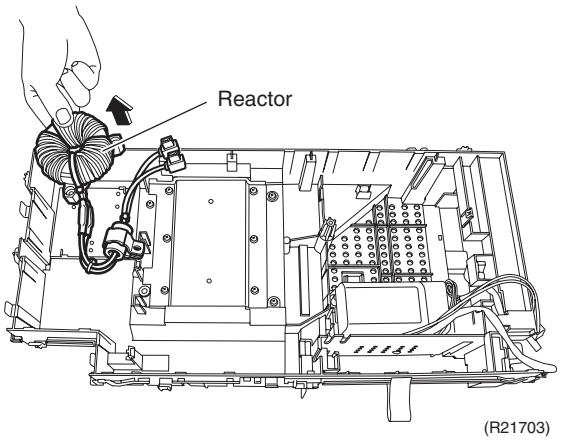
3. PCB

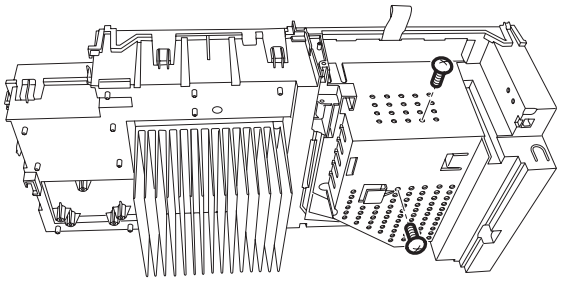
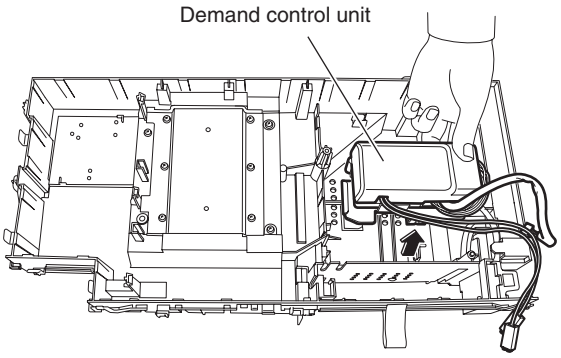
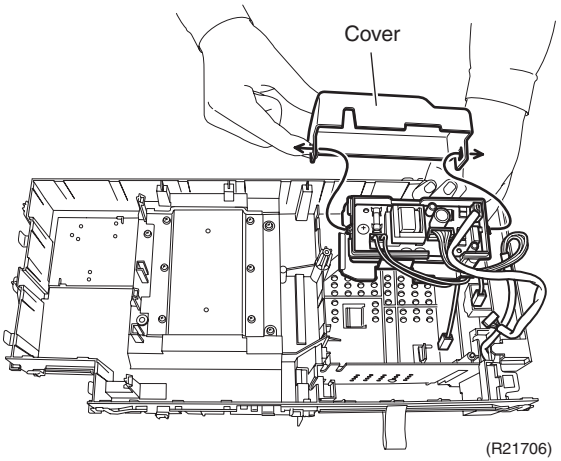
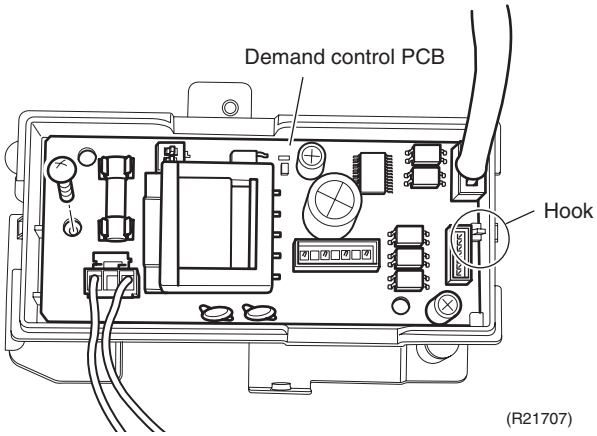
Warning

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

Step	Procedure	Points
1. Remove the service monitor PCB.		
1 Peel off the filament tape and open the electrical box cover.		
2 Disconnect the connectors [S2], [S52], [S102].		[S2]: demand control PCB [S52] [S102]: main PCB ■ Cooling only models have no connector for [S2]. ■ Cooling only models have no terminal block for smart meter.
3 Release the harness from the hook and groove.		
4 Unfasten the 2 hooks and remove the service monitor PCB.		■ In case of cooling models, the service monitor PCB is fixed with clamps instead of the hooks. Pinch the 4 clamps and remove the service monitor PCB. 

Step	Procedure	Points
2. Remove the main PCB.		
1 Remove the screw on the terminal block for smart meter.		■ Cooling only models have no terminal block for smart meter.
2 Remove the earth / ground screw.		
3 Remove the screw.		
4 Unfasten the hook on the right and open the terminal board cover.		
5 Pull out all the terminals.		■ When reassembling, connect the connectors as below.  ■ Cooling only models have no connector [LA].
6 Pull out the terminals [HR1], [HR2] from the main PCB.		[HR1]: reactor (white) [HR2]: reactor (blue) ■ The harness for [HR2] has a ferrite core.

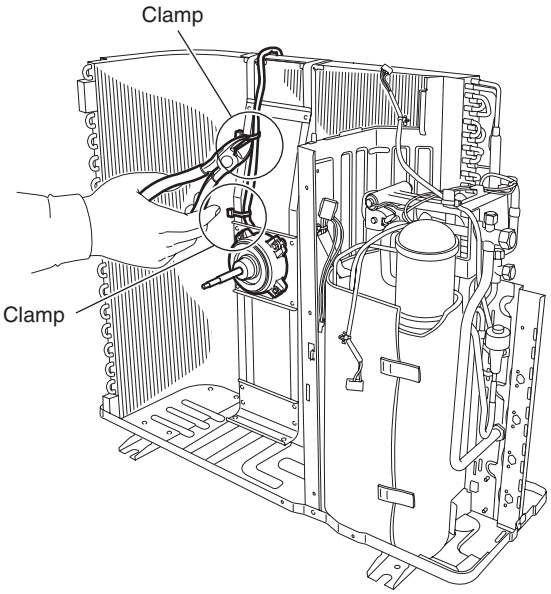
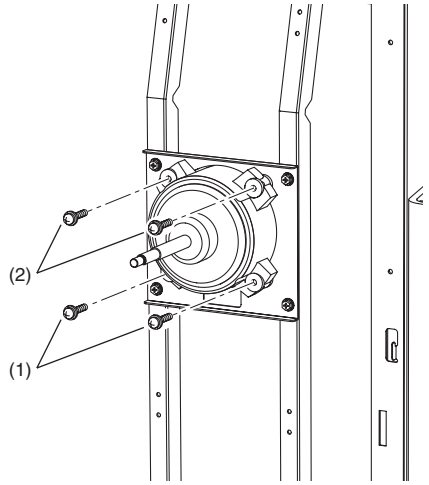
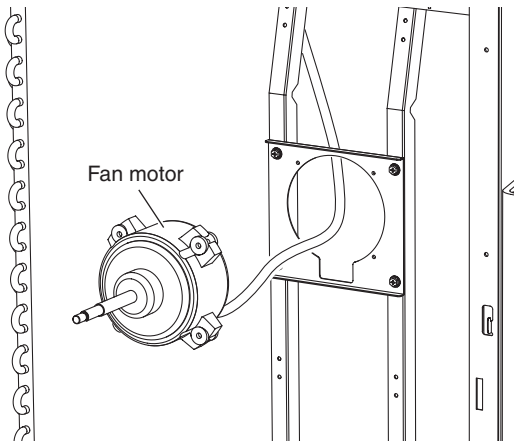
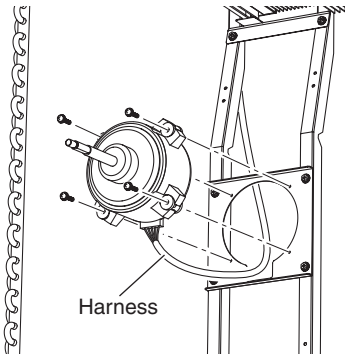
Step	Procedure		Points
7	Remove the 3 screws and unfasten the 4 hooks.	 (R21700)	
8	Lift up and remove the main PCB.	 (R21701)	
3. Remove the reactor.			
1	Remove the 4 screws.	 (R21702)	
2	Remove the reactor.	 (R21703)	

Step	Procedure	Points
4. Remove the demand control PCB.		■ Some models have no demand controller.
1 Remove the 2 screws.	 (R21704)	
2 Lift up and remove the demand control unit.	 (R21705)	
3 Unfasten the 2 hooks and open the cover.	 (R21706)	
4 Remove the screw. 5 Unfasten the hook and remove the demand control PCB.	 (R21707)	

4. Fan Motor

Warning

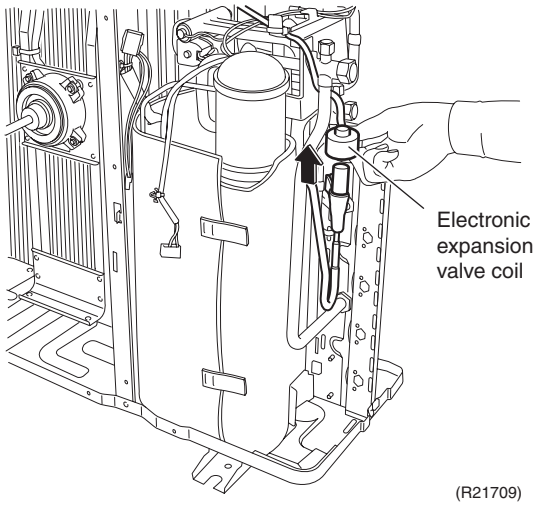
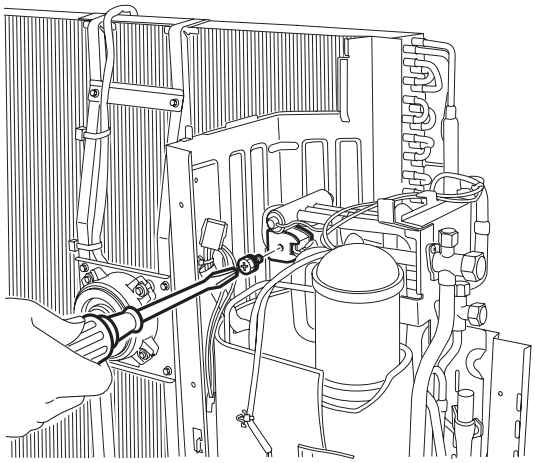
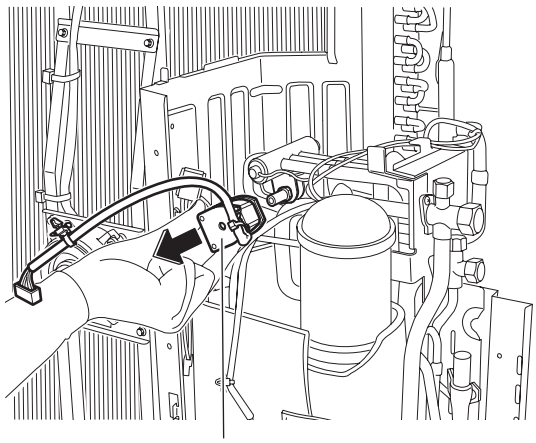
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

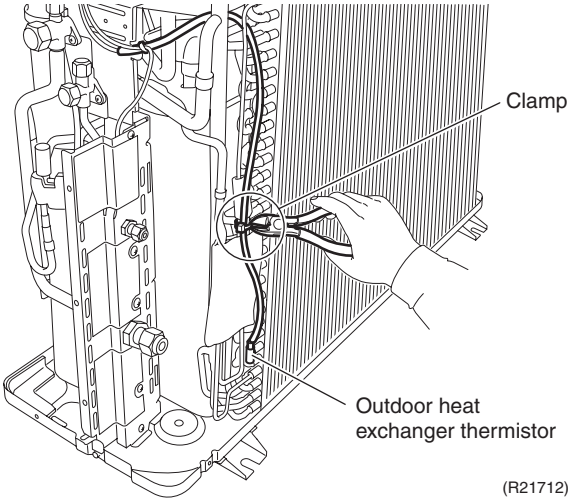
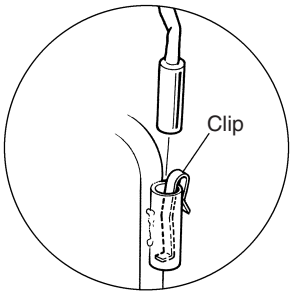
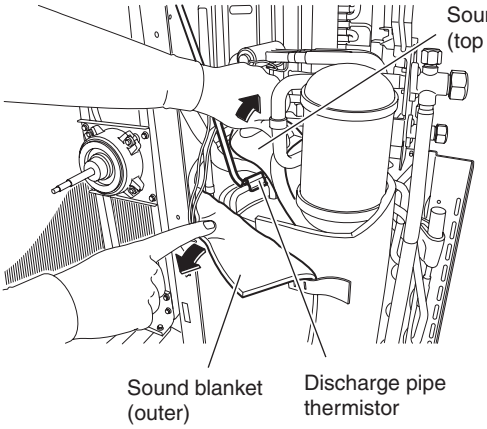
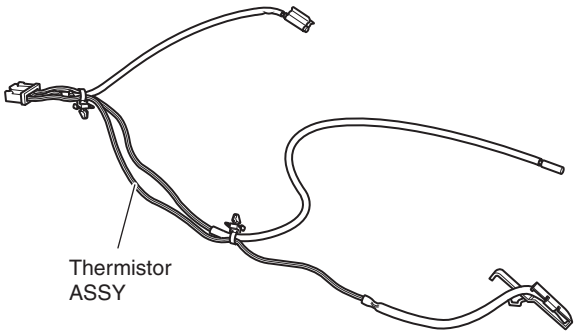
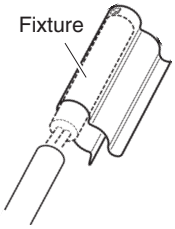
Step	Procedure		Points
1	Cut the 2 clamps.	 (R21708)	
2 3	Remove the 2 lower screws of the fan motor. Then remove the 2 upper screws.	 (R6442)	■ Be sure to remove the lower screws (1) first. If the top screws (2) are removed first, the fan motor may tilt down or fall and cause injury because its center of gravity is shifted to the front.
4	Remove the fan motor.	 (R6443)	■ When reassembling, make sure that the wire harness is facing downward.  (R6444)

5. Coils / Thermistor ASSY

Warning

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

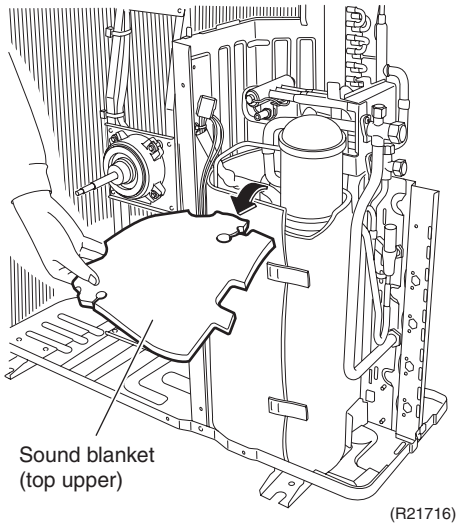
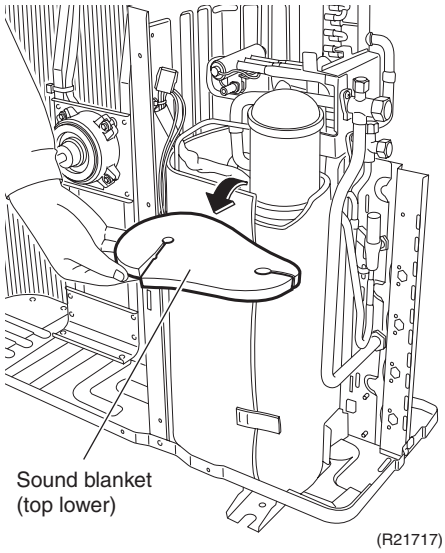
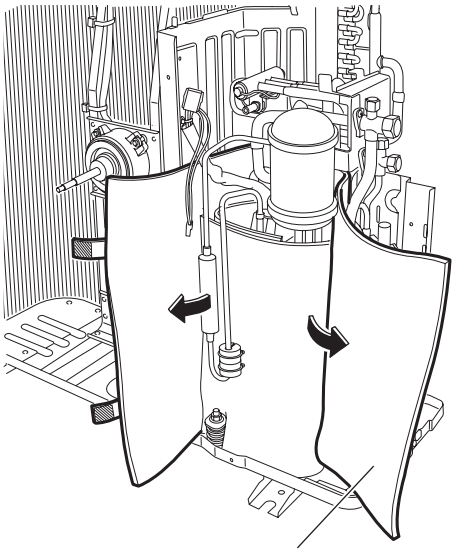
Step	Procedure	Points
1. Remove the electronic expansion valve coil.		
1 Pull out the electronic expansion valve coil.	 (R21709)	
2. Remove the four way valve coil.		
1 Remove the screw.	 (R21710)	
2 Pull out the four way valve coil.	 (R21711)	

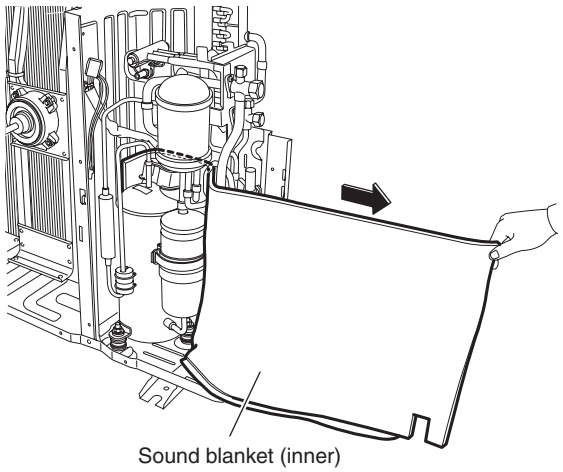
Step	Procedure	Points
3. Remove the thermistor ASSY.		■ Be careful not to lose the clip for the thermistor.
1 Cut the clamp. 2 Pull out the outdoor heat exchanger thermistor.	 (R21712)	 (R3264)
3 Slightly open the sound blanket (outer) and the sound blanket (top upper). 4 Detach the discharge pipe thermistor and remove the thermistor ASSY.	 (R21713)  (R21714)	■ Be careful not to lose the fixture for the thermistor.  (R21715)

6. Sound Blankets

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 (top upper).	 (R21716)	■ Since the piping ports on the sound blanket are torn easily, remove the sound blanket carefully.
2	Remove the sound blanket (top lower).	 (R21717)	
3	Open the sound blanket (outer) and remove it.	 (R21718)	

Step	Procedure		Points
4	Remove the sound blanket (inner).	 Sound blanket (inner) (R21719)	

7. Compressor

Warning

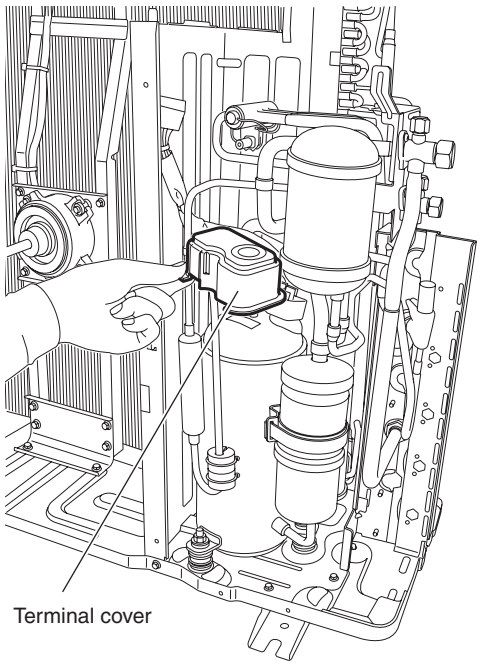
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**
- **Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.**
- **If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)**
- **Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.**

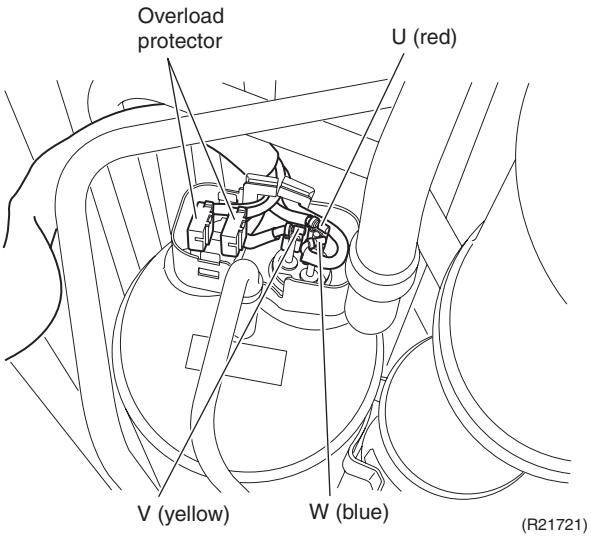
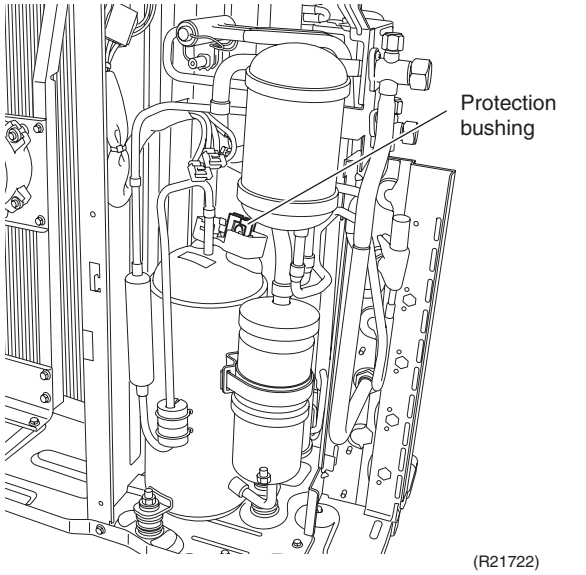
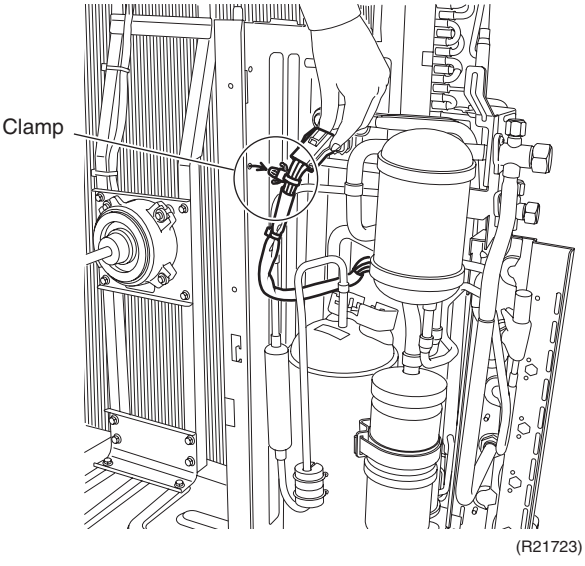
Caution

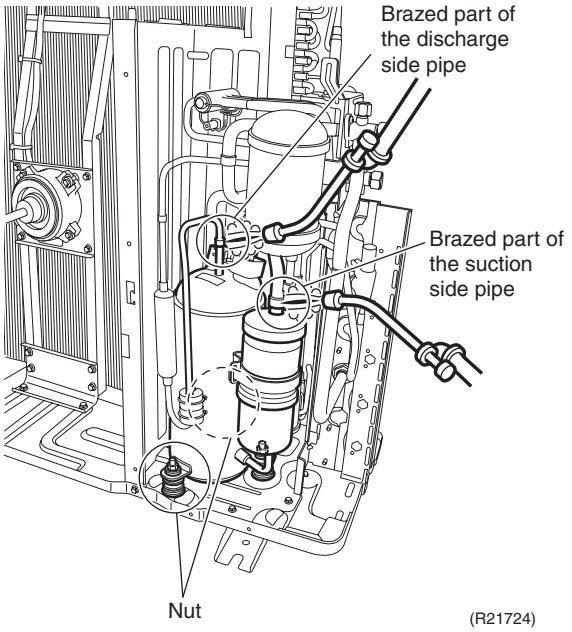
- **From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.**
- **Restore the piping by non-oxidation brazing.**

Note

- **Before working, make sure that the refrigerant gas is empty in the circuit.**
- **Be sure to apply nitrogen replacement when heating up the brazed part.**
- **Do not use a metal saw for cutting pipes by all means because the sawdust comes into the circuit.**
- **When withdrawing the pipes, be careful not to pinch them firmly with pliers. The pipes may get deformed.**
- **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, the name plate, the outdoor heat exchanger fin.**
- **In case of difficulty with gas brazing machine.**
  1. Disconnect the brazed part where is easy to disconnect and restore.
  2. Cut pipes on the main unit with a tube cutter in order to make it easy to disconnect.

Step	Procedure		Points
1	Remove the terminal cover.	 (R21720)	

Step	Procedure		Points
2	Disconnect the lead wires of the compressor and overload protector.		
3	Remove the protection bushing.		
4	Pull out the clamp and remove the compressor lead wire.		

Step	Procedure		Points
5	Heat up the blazed part of the discharge side pipe and disconnect it.		
6	Heat up the brazed part of the suction side pipe and disconnect it.		
7	Remove the 2 nuts.		
8	Lift up and remove the compressor.		

Revision History

Month / Year	Version	Revised contents
03 / 2015	Si001422E	First edition

Warning

- Daikin products are manufactured for export to numerous countries throughout the world. Prior to purchase, please confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

Dealer

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● Specifications, designs and other content appearing in this brochure are current as of March 2015 but subject to change without notice.

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