DAIKIN

Si001354EA

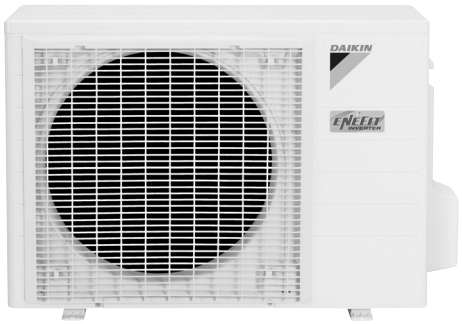
REMOVAL PROCEDURE

SERVICE MANUAL

SERVICE MANUAL

2.2/2.8/3.6 kW Class

- Outdoor Unit
- Inverter
- Pair Type



Service Manual
Removal Procedure

Outdoor Unit

●Cooling Only

RKS22MVLT
RKS28MVLT
RKS36MVLT

●Heat Pump

RXM22NVLT
RXM28NVLT
RXM36NVLT

RXS22MVLT
RXS28MVLT
RXS36MVLT

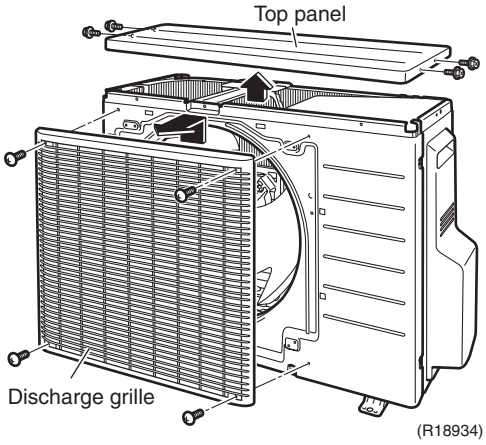
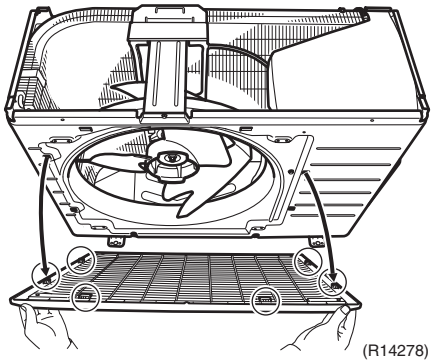
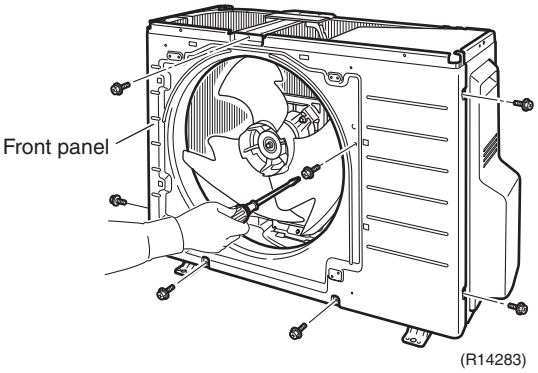
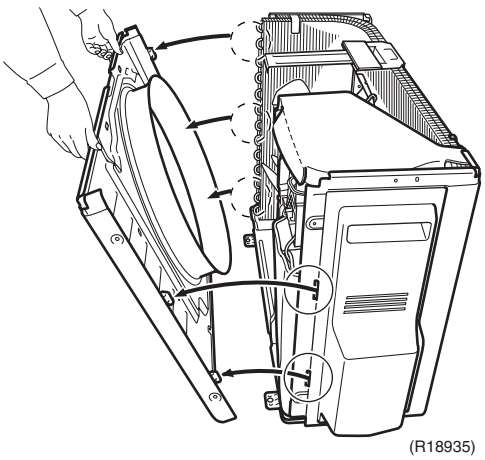
Table of Contents

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

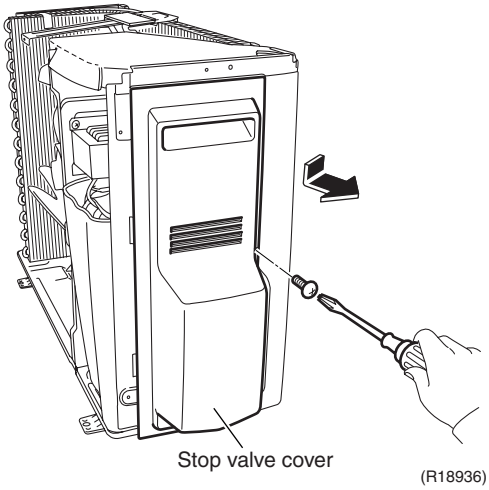
1. Outer Panels

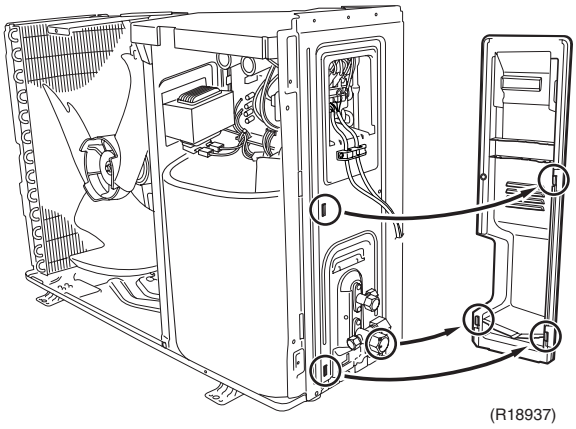
Warning

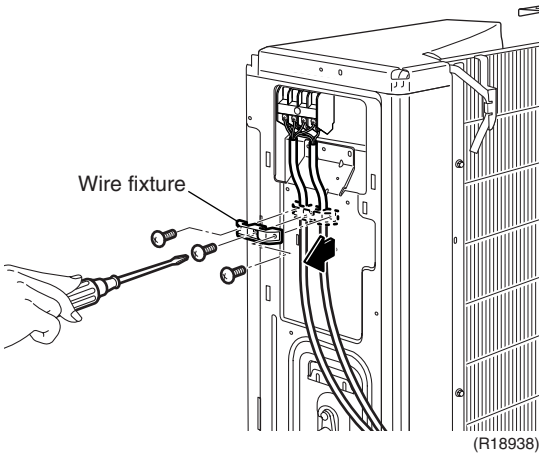
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

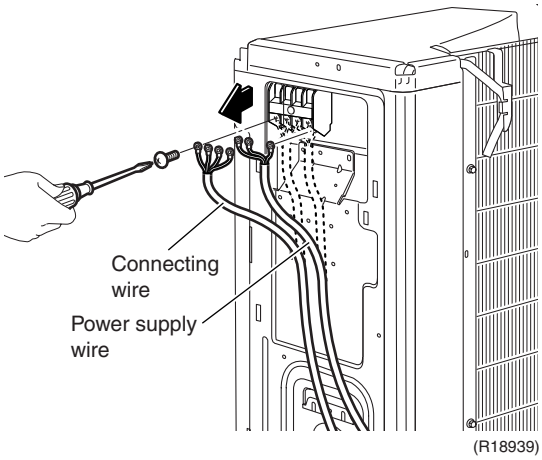
Step	Procedure		Points
1	Remove the 4 screws and remove the top panel.		■ Slide the discharge grille upward and remove it.
2	Remove the 4 screws and remove the discharge grille.		
			■ The discharge grille has 6 hooks.
3	Remove the 7 screws of the front panel.		
4	Unfasten the 2 right side hooks.		■ When reassembling, fit the left side of the front panel first.
5	Unfasten the 3 left side hooks and remove the front panel.		

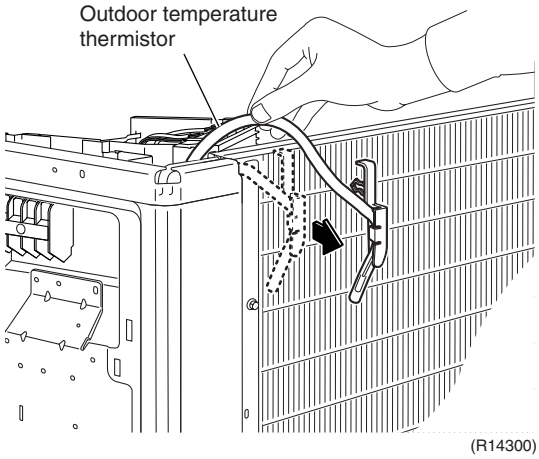
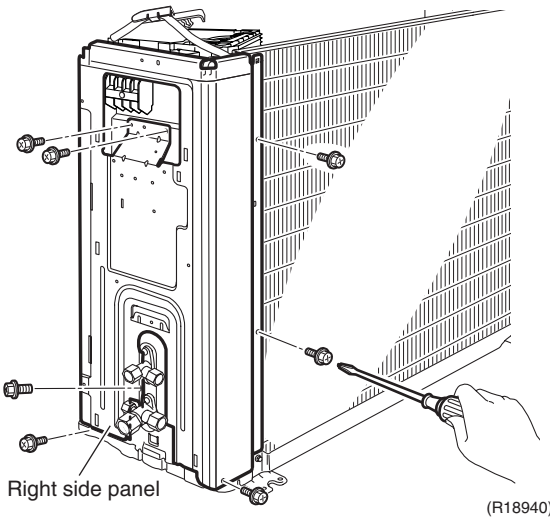
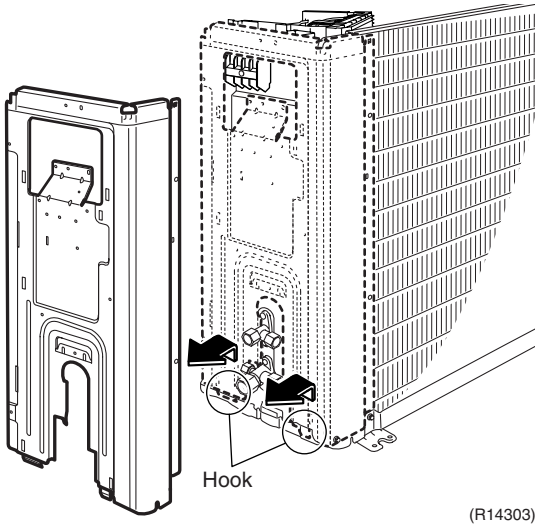
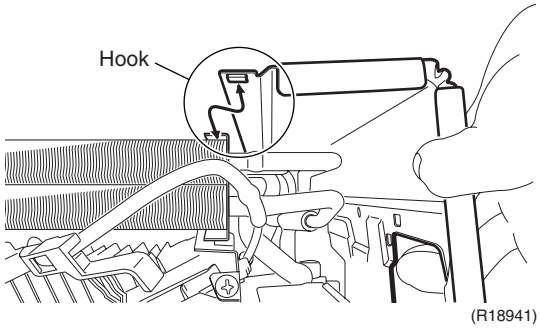
Step	Procedure	Points
6	Remove the screw of the stop valve cover.	
7	Pull down the stop valve cover to unfasten the hooks and remove it.	■ The stop valve cover has 3 hooks.
8	Remove the 3 screws and remove the wire fixture.	
9	Remove the 7 screws and remove the connecting wire and the power supply wire.	







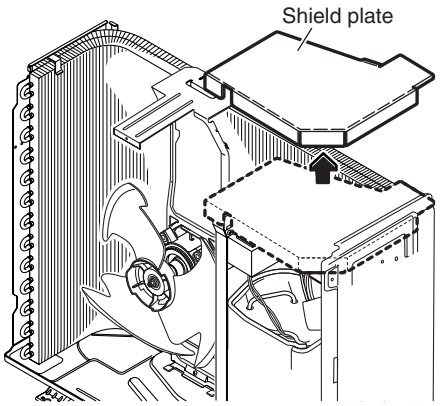
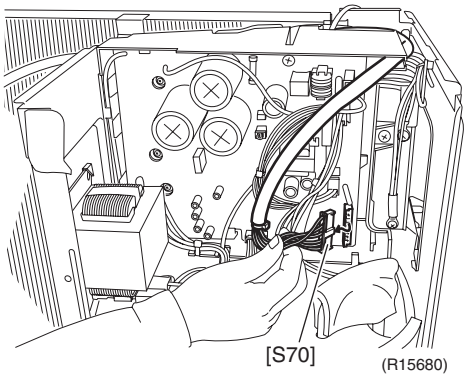
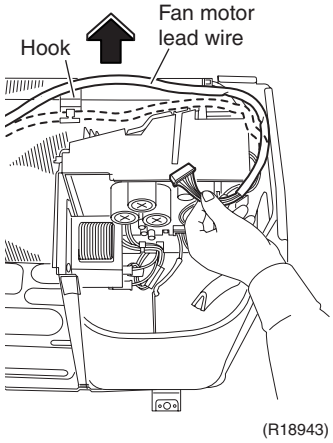
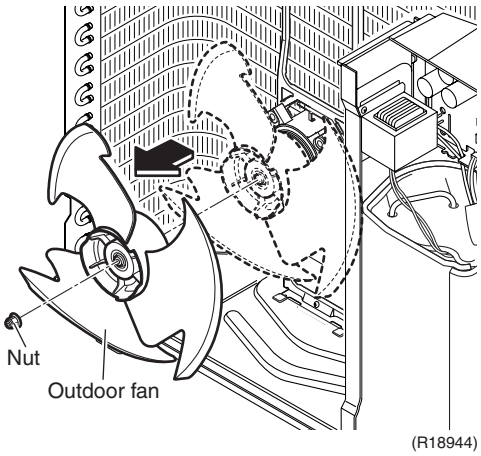
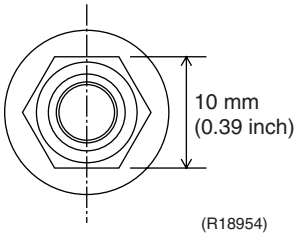


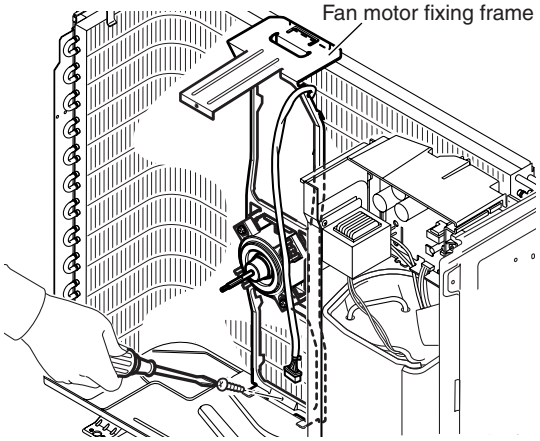
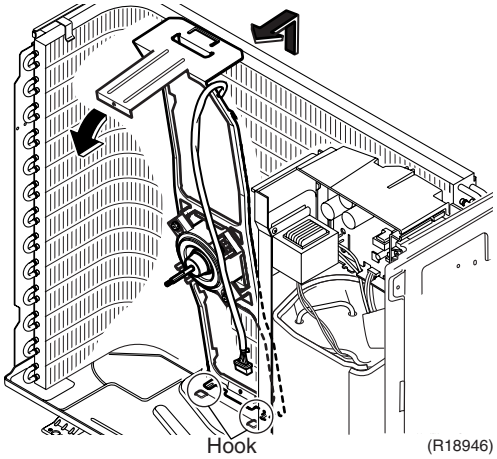
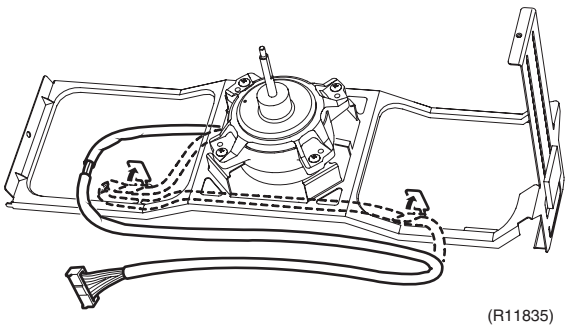
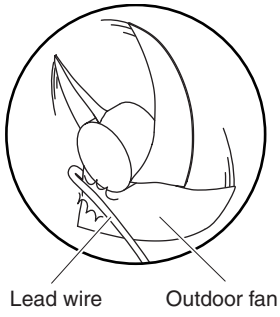
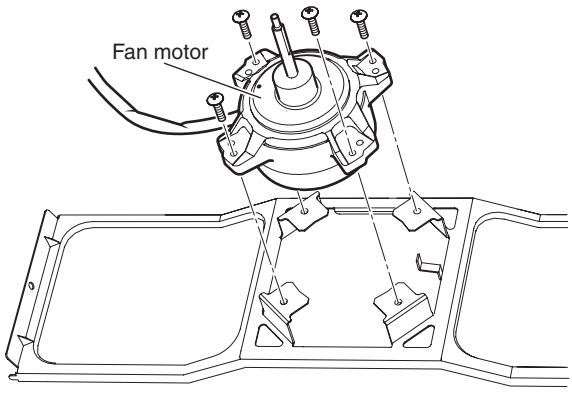
Step	Procedure	Points
10	Pull out the outdoor temperature thermistor.  (R14300)	
11	Remove the 7 screws of the right side panel.  (R18940)	
12	Unfasten the 2 lower hooks and the upper hook.  (R14303)	■ When reassembling, insert the 2 lower hooks and the upper hook of the back.
13	Remove the right side panel.  (R18941)	

2. Outdoor Fan / Fan Motor

Warning

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

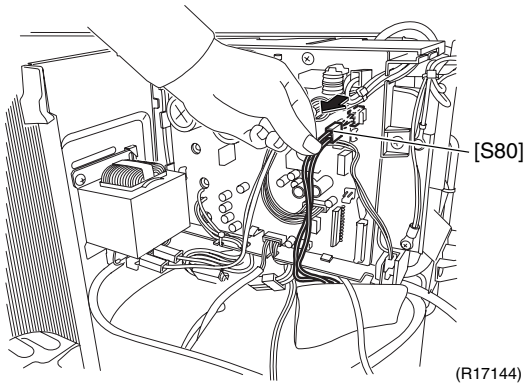
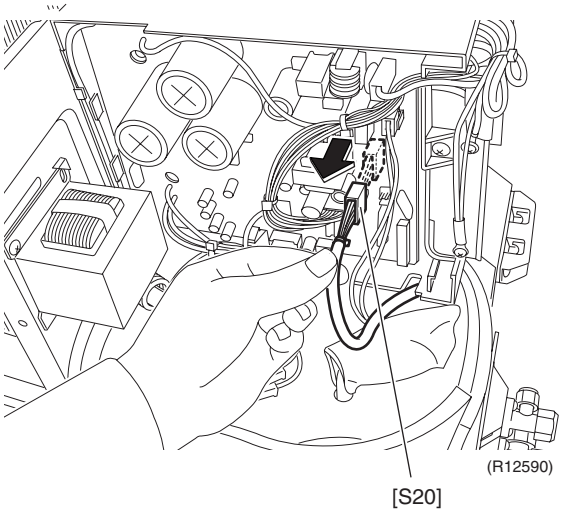
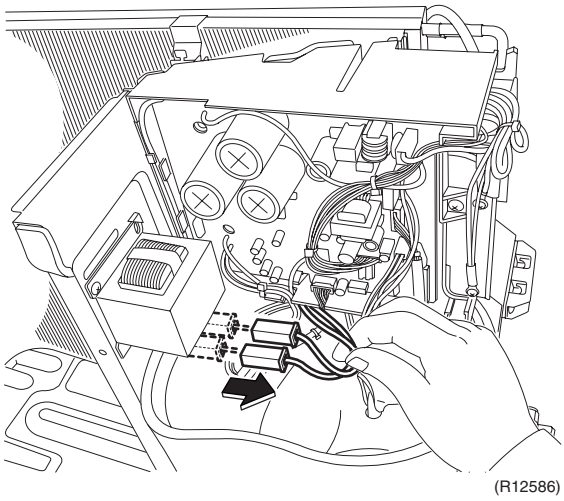
Step	Procedure		Points
1	Remove the shield plate.		
2	Disconnect the connector [S70].		[S70]: fan motor
3	Release the fan motor lead wire from the hook.		
4	Remove the nut of the outdoor fan.		■ Nut size: M6  ■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.

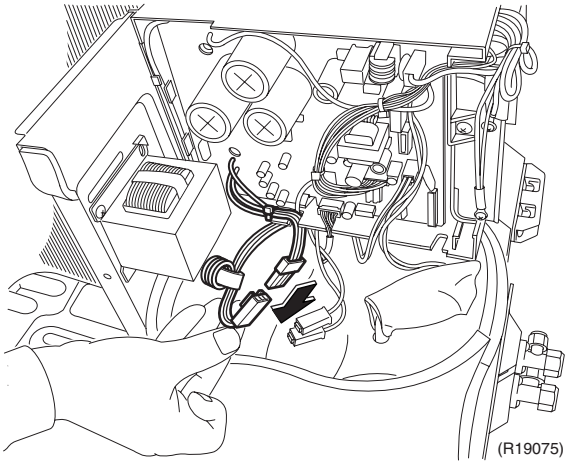
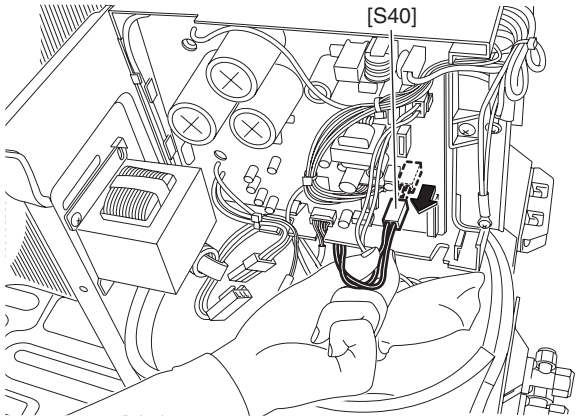
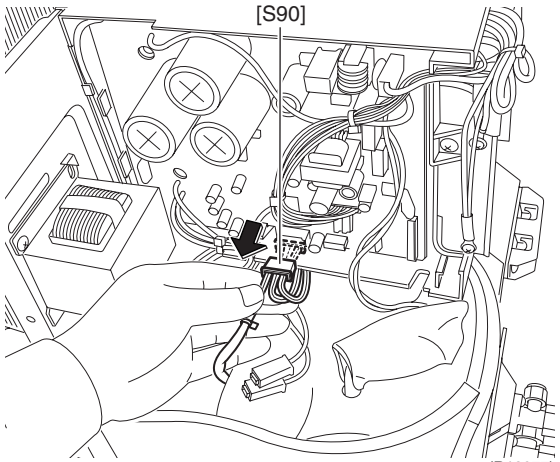
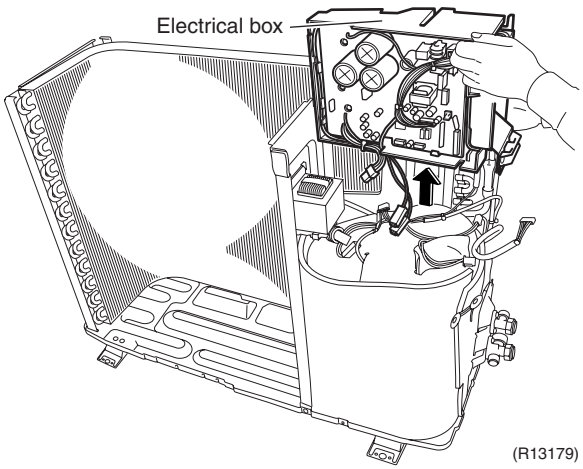
Step	Procedure		Points
5	Remove the screw of the fan motor fixing frame.	 (R18945)	
6	Unfasten the 2 hooks at the bottom.	 (R18946)	■ When reassembling, fit the 2 lower hooks into the bottom frame.
7	Remove the fan motor fixing frame.		
8	Open the 2 hooks and release the fan motor lead wire.	 (R11835)	■ When reassembling, put the fan motor lead wire through the back of the fan motor so as not to be entangled with the outdoor fan.  (R3249)
9	Remove the 4 screws and remove the fan motor.	 (R19106)	

3. Electrical Box

Warning

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

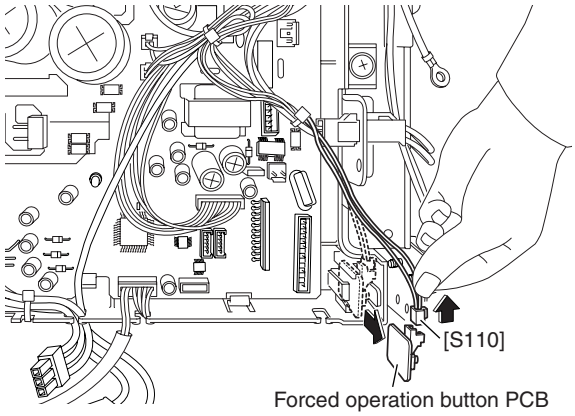
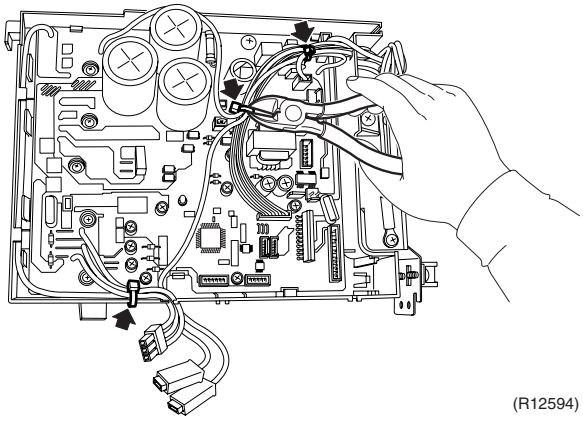
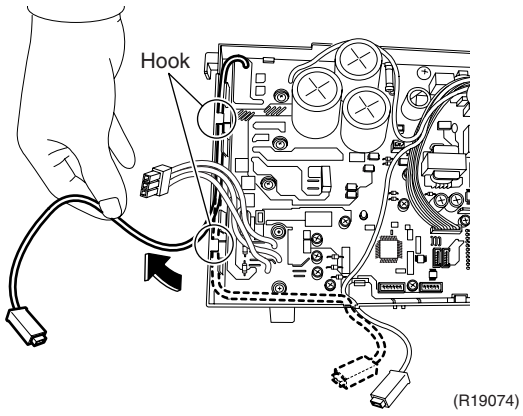
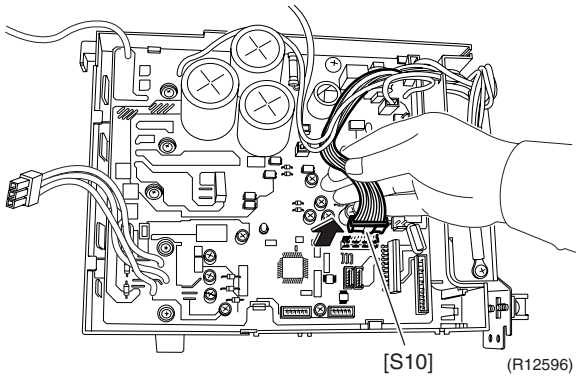
Step	Procedure		Points
1	Disconnect the connector [S80].		■ The cooling only models have no harness for [S80]. [S80]: four way valve coil
2	Disconnect the connector [S20].		[S20]: electronic expansion valve coil
3	Disconnect the 2 connectors for the reactor.		■ When reassembling, you can connect the 2 harnesses in either way regardless of the color.

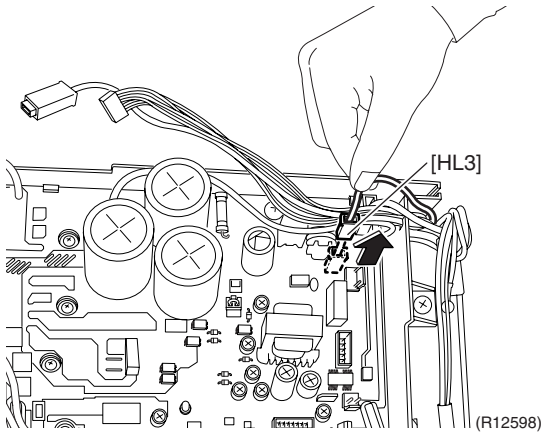
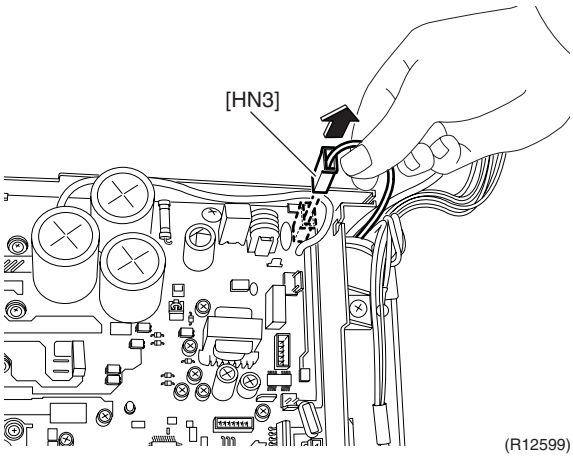
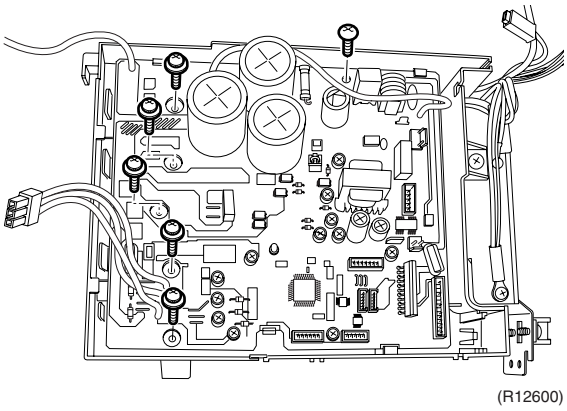
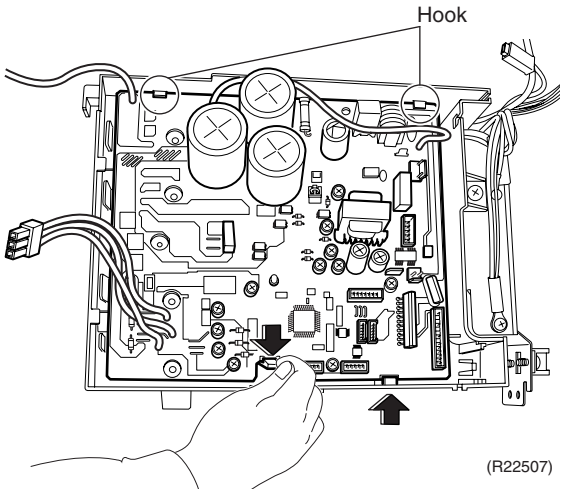
Step	Procedure		Points
4	Disconnect the relay connector for the compressor.	 (R19075)	
5	Disconnect the connector [S40].	 (R19076)	[S40]: overload protector
6	Disconnect the connector [S90].	 (R19077)	[S90]: thermistors ■ When reassembling, connect the connectors in the following order. (1) [S90] (2) [S40] (3) compressor relay (4) reactor (5) [S20] (6) [S70] (7) [S80]
7	Lift and remove the electrical box.	 (R13179)	

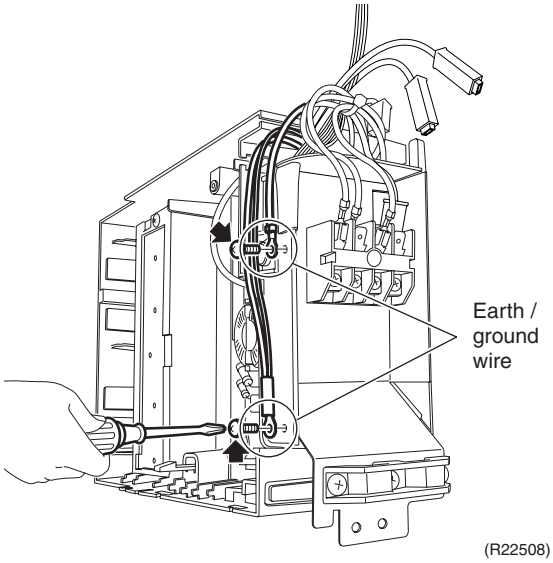
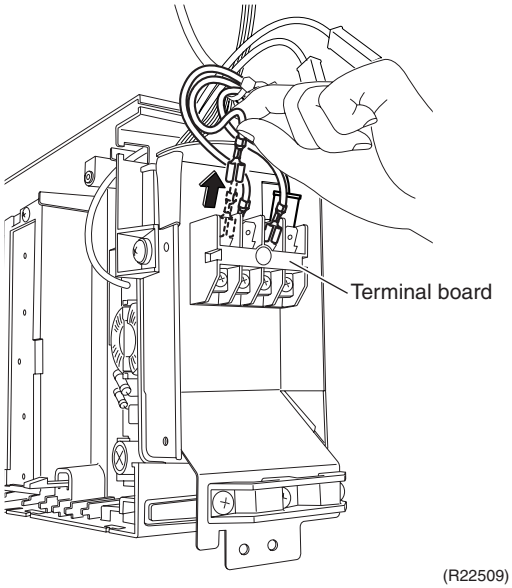
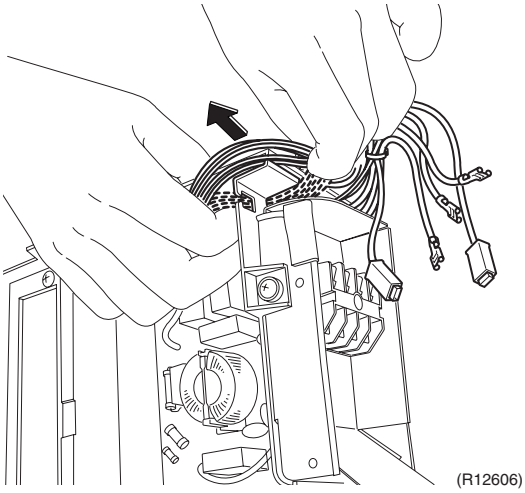
4. PCBs

Warning

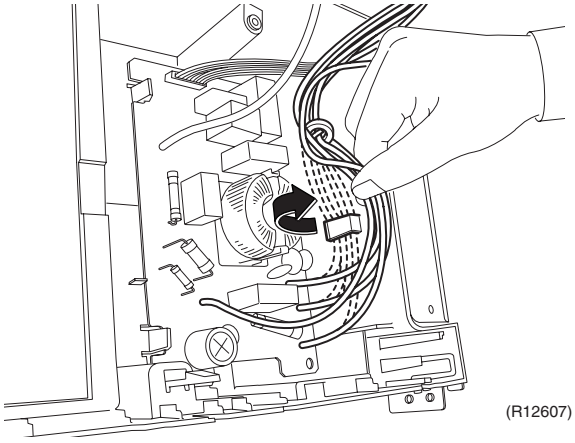
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

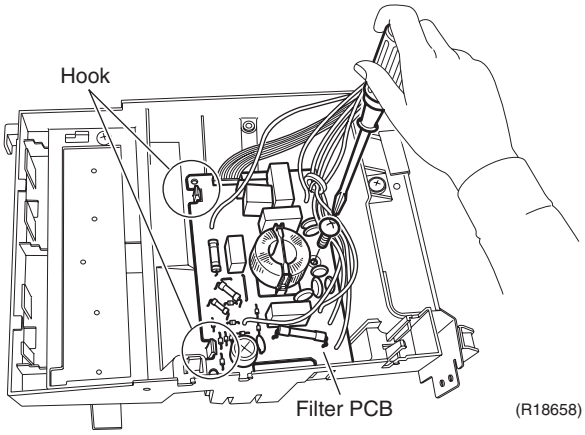
Step	Procedure	Points
1. Remove the main PCB.		■ You can remove the main PCB after you disconnect the lead wires on the terminal board without removing the electrical box. ■ Be careful of a sharp protrusion at the back of the forced operation button PCB. [S110]: main PCB
1	Pull out the forced operation button PCB.	
2	Disconnect the connector [S110] and remove the forced operation button PCB.	
3	Cut the 3 clamps.	
4	Release the harnesses from the 2 hooks.	
5	Disconnect the connector [S10].	[S10]: filter PCB 

Step	Procedure		Points
6	Disconnect the connector [HL3].		[HL3]: filter PCB (orange)
7	Disconnect the connector [HN3].		[HN3]: filter PCB (blue)
8	Remove the 6 screws.		
9 10	Unfasten the 2 hooks on the lower side. Lift and remove the main PCB.		■ The electrical box has also 2 hooks on the upper side. When reassembling, be sure to fit all the 4 hooks.

Step	Procedure	Points
2. Remove the filter PCB.		
1 Remove the 2 screws and release the earth / ground wires.	 (R22508)	
2 Disconnect the connectors from the terminal board.	 (R22509)	1 : black, back 2 : white, back 3 : red, front ⏚ : yellow / green, back
3 Release the harnesses from the groove.	 (R12606)	

Step	Procedure	Points
4	Release the harnesses from the hook.	
5	Remove the screw.	
6	Unfasten the 2 hooks and remove the filter PCB.	

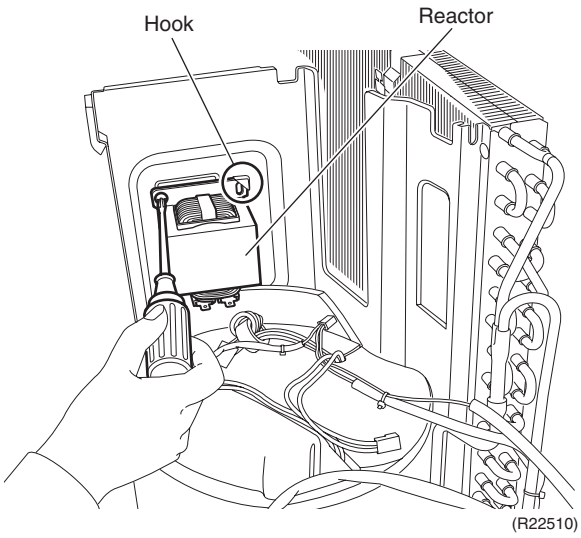
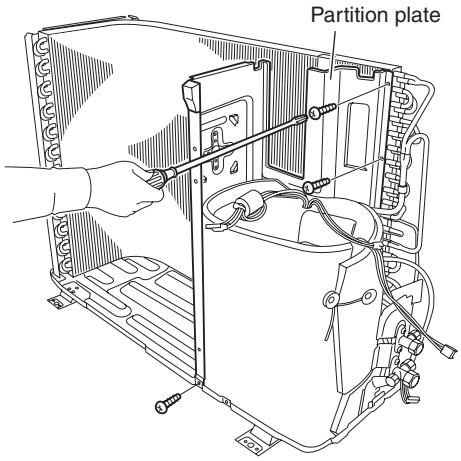
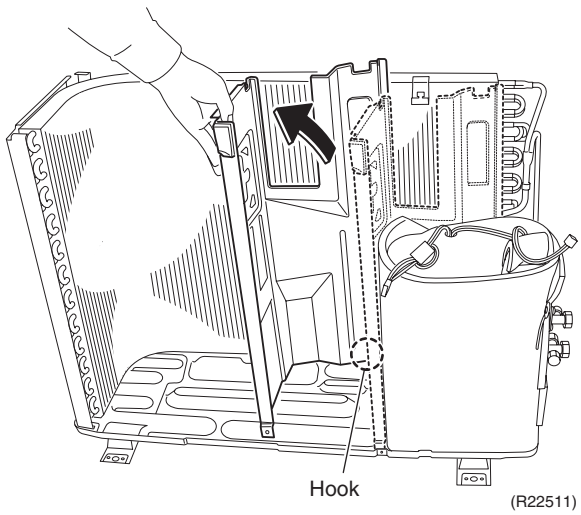




5. Reactor / Partition Plate

Warning

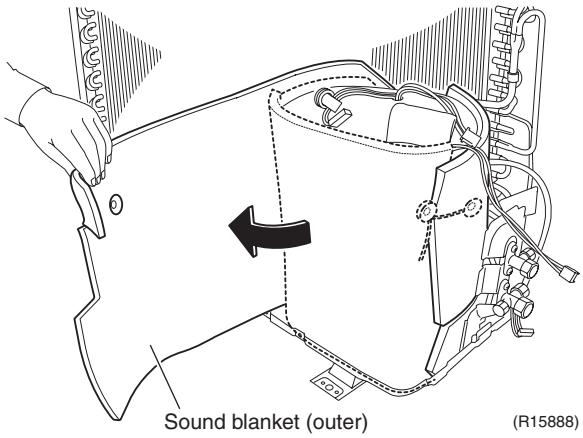
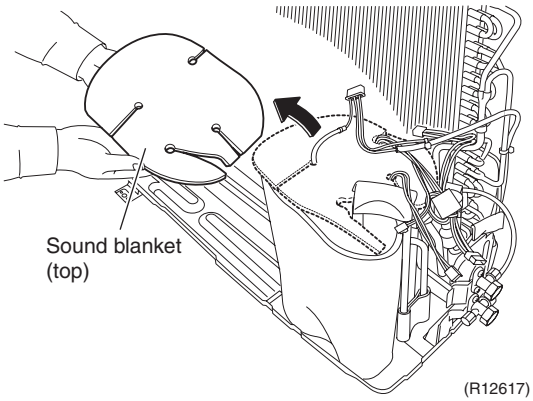
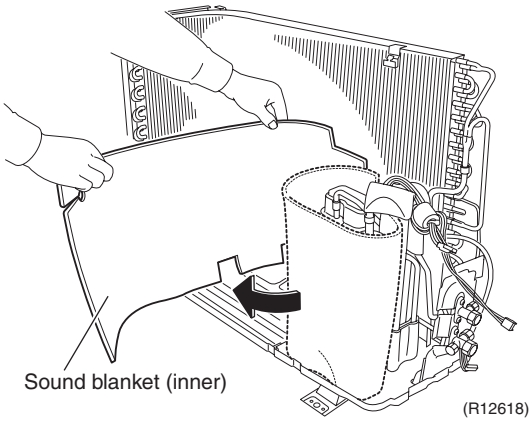
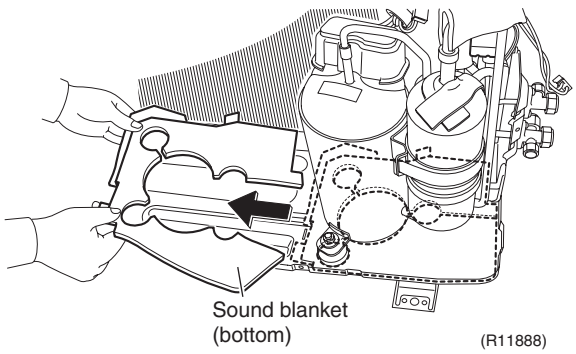
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

Step	Procedure	Points
1. Remove the reactor.	 (R22510)	■ When reassembling, make sure to catch the hook.
1 Remove the screw and slide the reactor to the left to unfasten the hook.		
2 Remove the reactor.		
2. Remove the partition plate.	 (R18984)	
1 Remove the 3 screws.		
2 The partition plate has a hook on the lower side. Lift and pull the partition plate and remove it.	 (R22511)	■ When reassembling, fit the lower hook into the bottom frame.

6. Sound Blankets

Warning

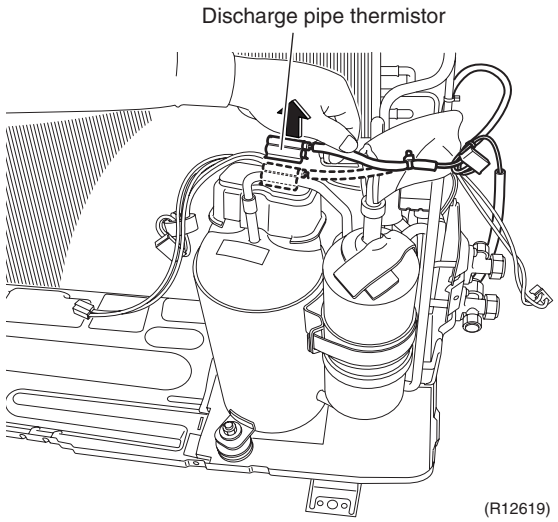
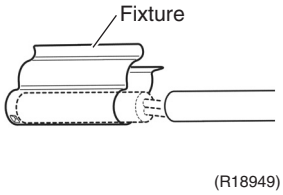
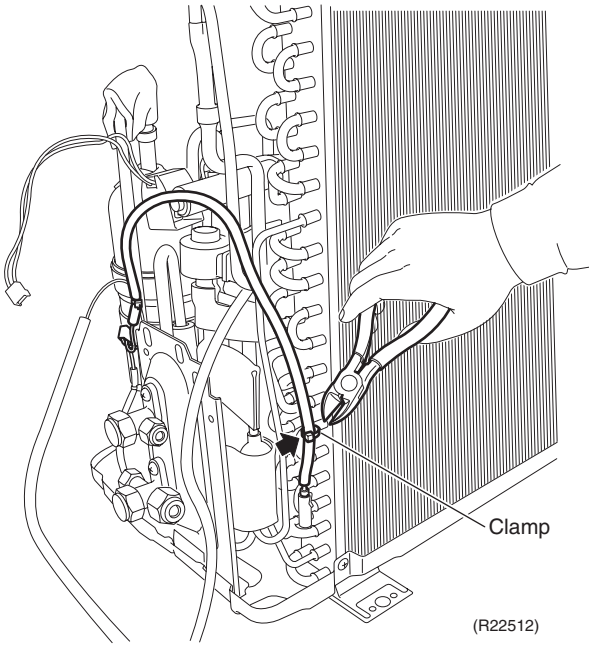
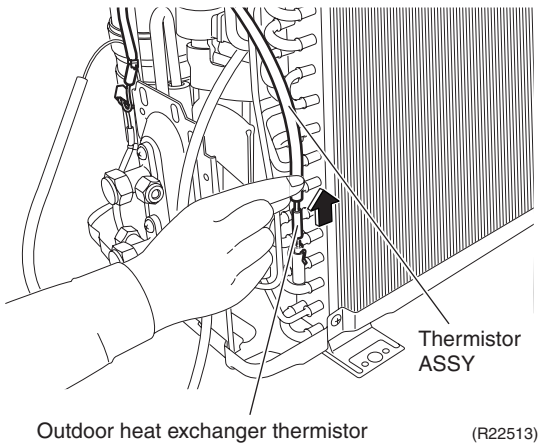
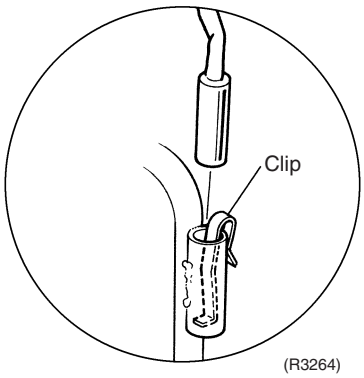
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

Step	Procedure		Points
1	Untie the string and open the sound blanket (outer).		■ Since the piping ports are torn easily, remove the sound blanket carefully.
2	Pull out the sound blanket (outer).		
3	Remove the sound blanket (top).		
4	Pull out the sound blanket (inner).		
5	Pull out the sound blanket (bottom).		

7. 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	Release the discharge pipe thermistor.		■ Be careful not to lose the fixture for the thermistor. 
2	Cut the clamp.		■ The position of the clamp and outdoor heat exchanger thermistor varies by model.
3	Pull out the outdoor heat exchanger thermistor and remove the thermistor ASSY.		■ Be careful not to lose the clip for the thermistor. 

8. Four Way Valve

Warning

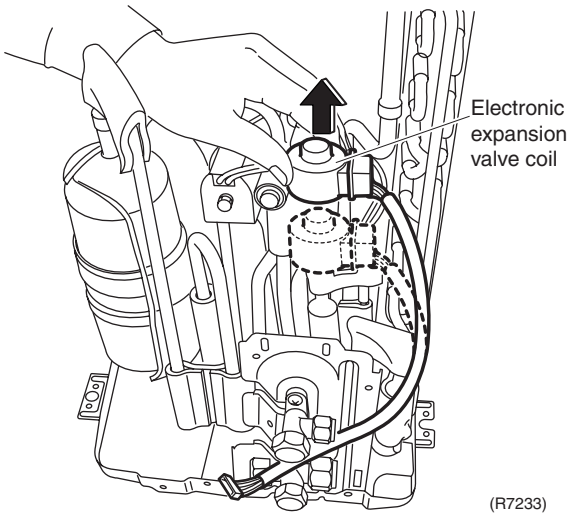
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**
- **Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.**
- **If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)**

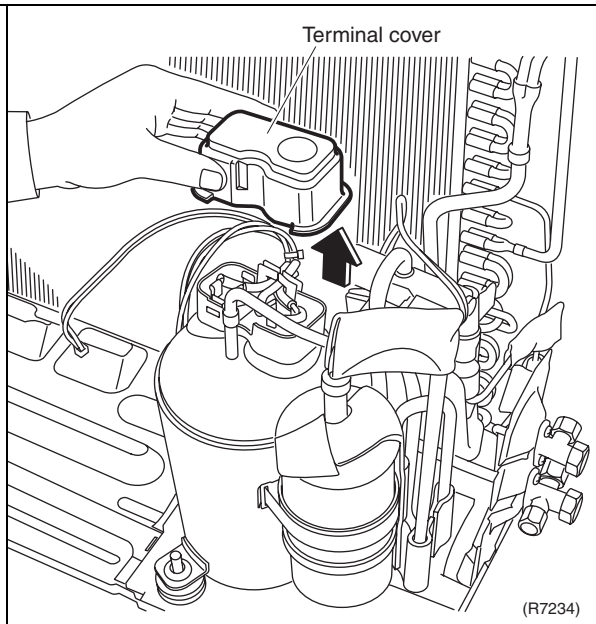
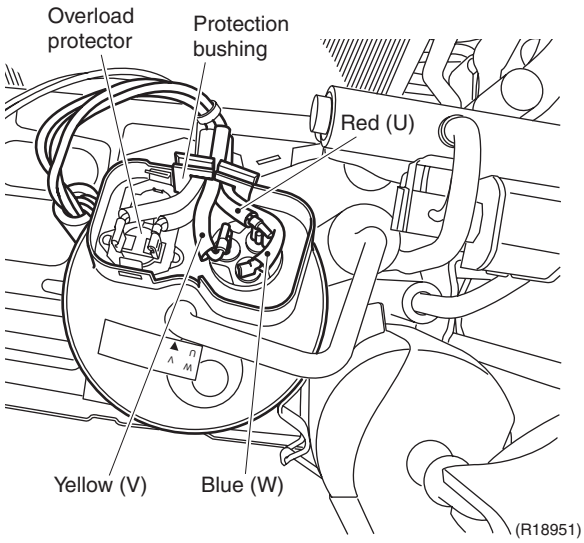
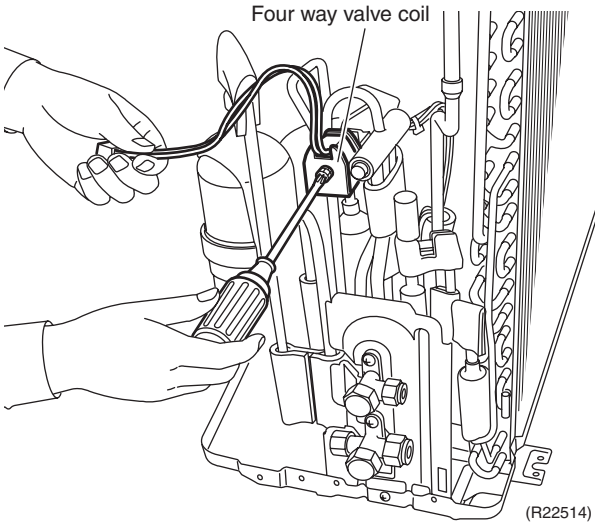
Caution

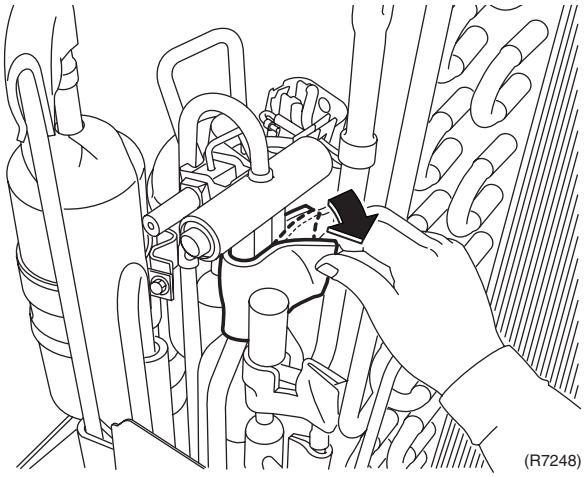
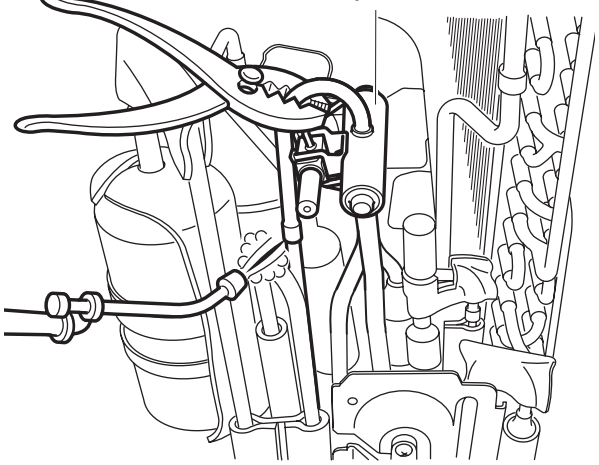
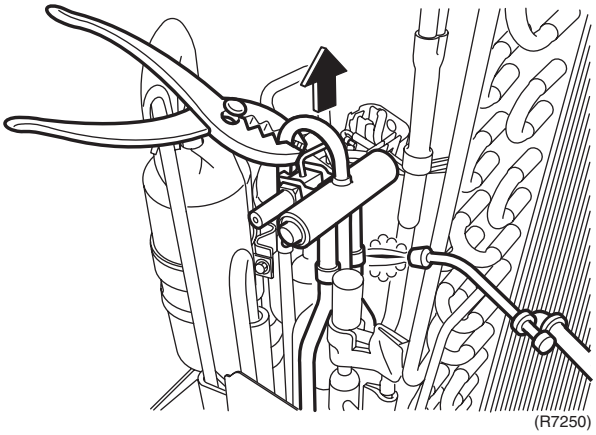
- **From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.**
- **Cautions for restoration**
  1. Restore the piping by non-oxidation brazing.
  2. It is required to prevent the carbonization of the oil inside the four way valve and the deterioration of the gaskets affected by heat. (Keep below 120°C (248°F).) For the sake of this, wrap the four way valve with wet cloth and provide water so that the cloth does not dry.

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	Pull out the electronic expansion valve coil.		■ The cooling only models have no four way valve.

Step	Procedure		Points
2	Remove the terminal cover.		
3	Disconnect the lead wires of the compressor.		
4	Remove the overload protector.		
5	Remove the protection bushing.		
6	Remove the screw and remove the four way valve coil.		

Step	Procedure	Points
7	Remove the sheets of putty.  (R7248)	■ The position of the sheets of putty varies by model.
8	Heat up the 4 brazed parts and withdraw the piping with pliers. Four way valve  (R7249)  (R7250)	

9. Compressor

Warning

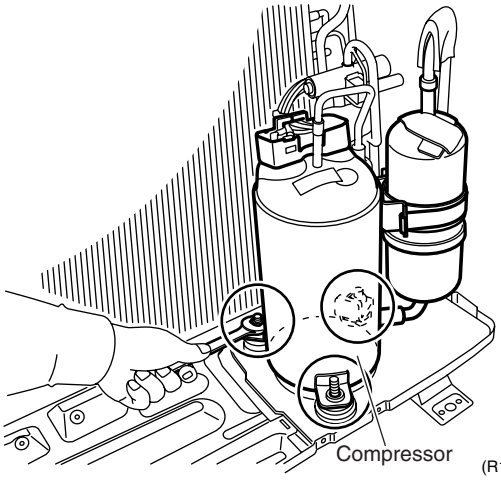
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**
- **Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.**
- **If the refrigerant gas leaks during work, ventilate the room. (If the 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.**

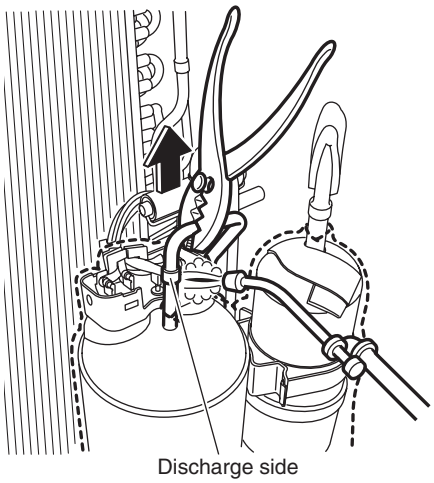
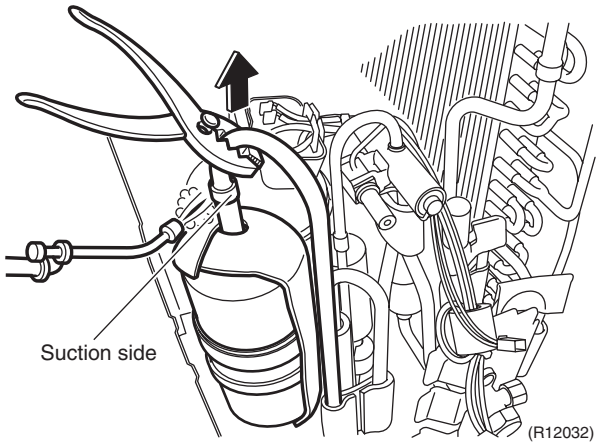
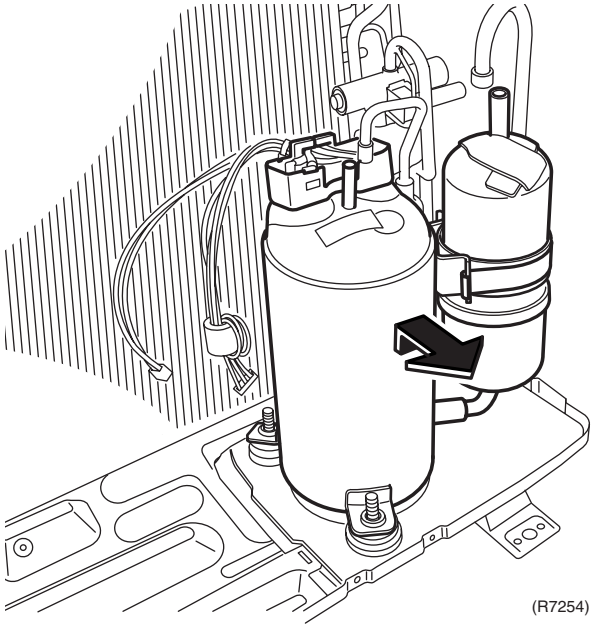
Caution

- **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 3 nuts of the compressor.	 (R10887)	

Step	Procedure		Points
2	Heat up the brazed part of the discharge side and disconnect.		
3	Heat up the brazed part of the suction side and disconnect.		
4	Lift up the compressor and remove it.		

Revision History

Month / Year	Version	Revised contents
05 / 2013	Si001354E	First edition
08 / 2015	Si001354EA	Model addition: RXM22/28/36NVLT

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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Si001354EA
08/2015 AK.B