





Si001419E

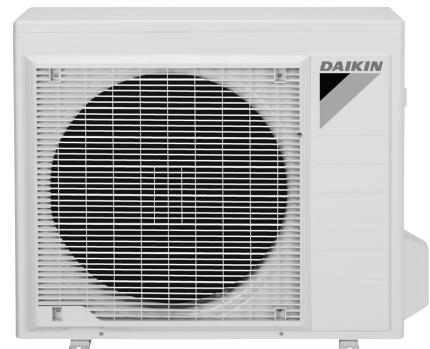
REMOVAL PROCEDURE



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

18000 Btu/h Class

-  Outdoor Unit
-  Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Heat Pump
RX18N5VL

Table of Contents

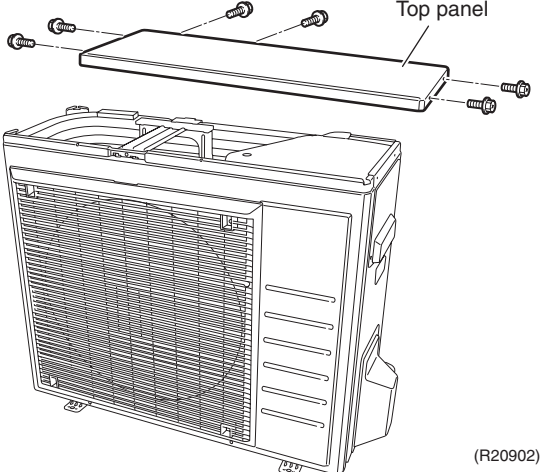
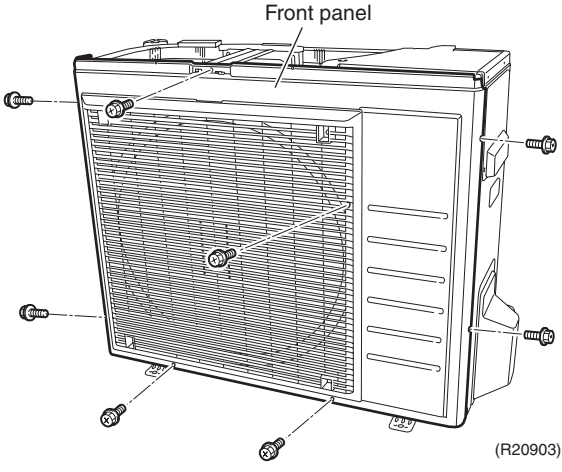
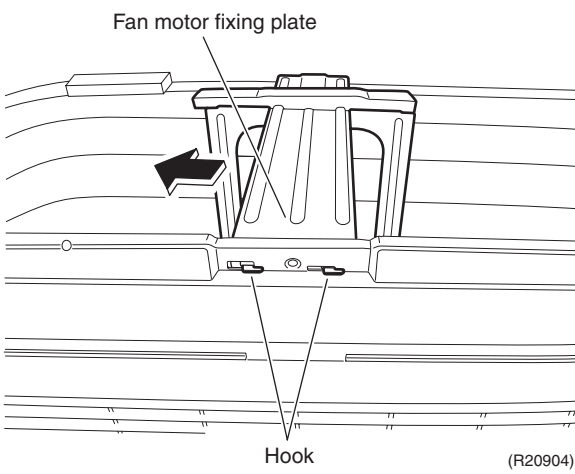
| | |
|--|----|
| 1. Outer Panels | 2 |
| 2. Outdoor Fan / Fan Motor..... | 4 |
| 3. Electrical Box | 7 |
| 4. PCB..... | 11 |
| 5. Thermistor ASSY / Partition Plate | 14 |
| 6. Sound Blankets | 17 |
| 7. Electronic Expansion Valve Coil / Four Way Valve..... | 18 |
| 8. Compressor..... | 21 |

1. Outer Panels

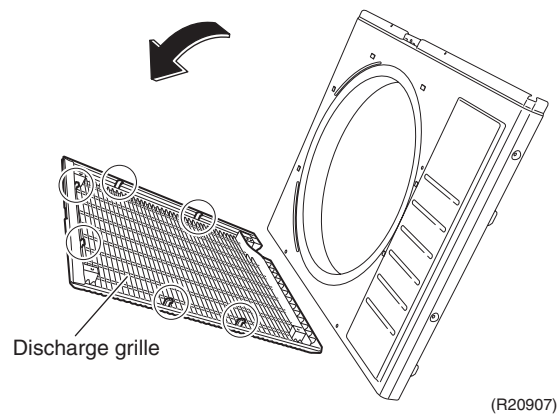
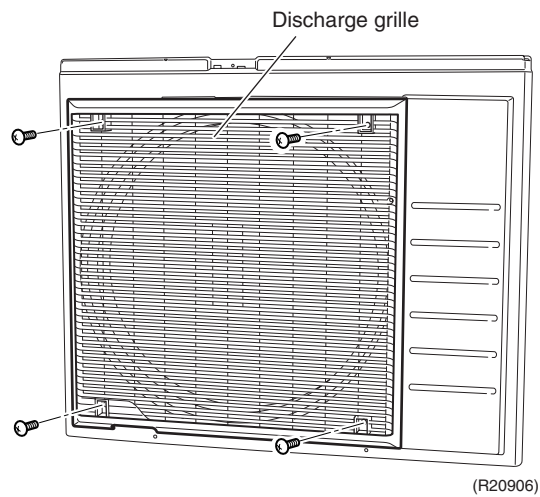
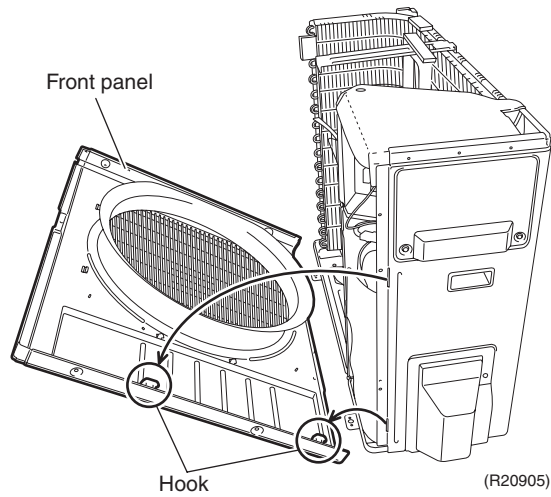


Warning

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

| Step | Procedure | Points |
|------|--|--|
| 1 | Remove the 6 screws and remove the top panel. |  |
| 2 | Remove the 8 screws of the front panel. |  |
| 3 | Slide the fan motor fixing plate to the left and unfasten the 2 hooks. |  |

| Step | Procedure | Points |
|------|---|--------|
| 4 | Unfasten the 2 hooks on the right side. | |
| 5 | Remove the front panel. | |
| 6 | Remove the 4 screws of the discharge grille. | |
| 7 | Unfasten the 6 hooks and remove the discharge grille. | |

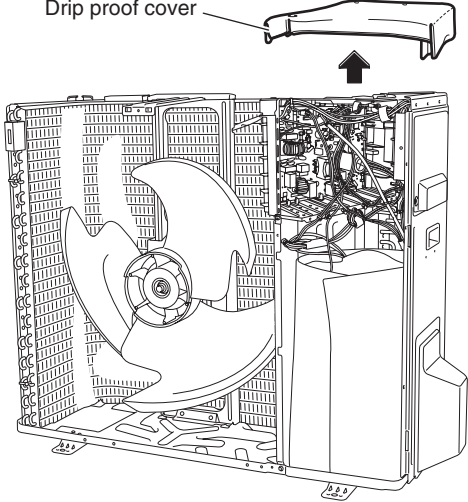
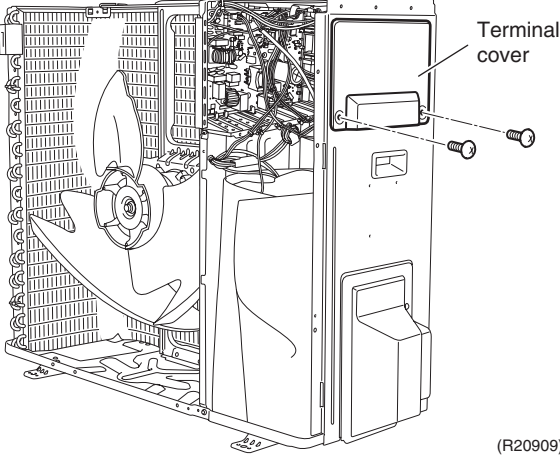
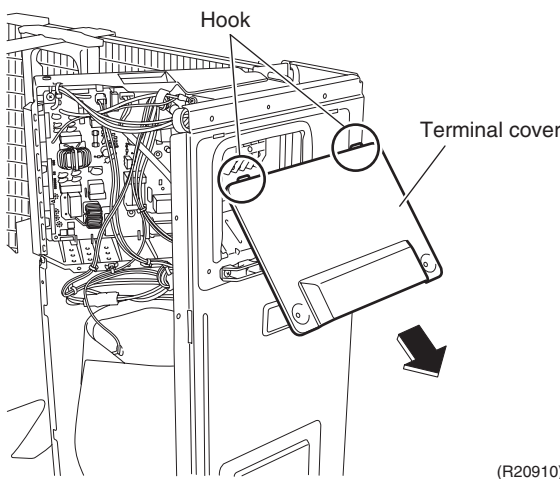


2. Outdoor Fan / Fan Motor

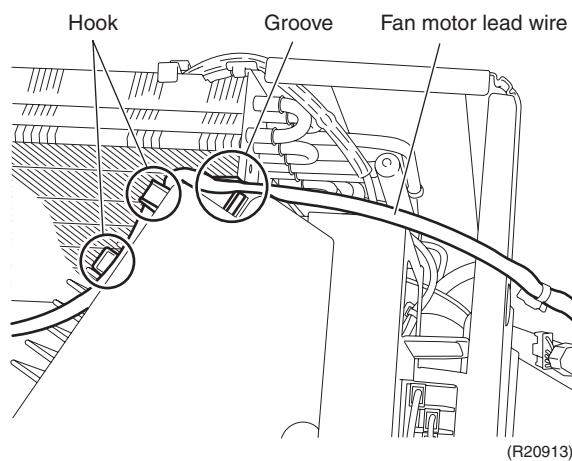
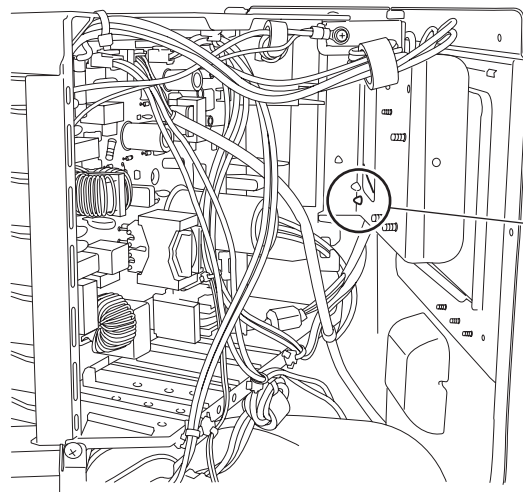
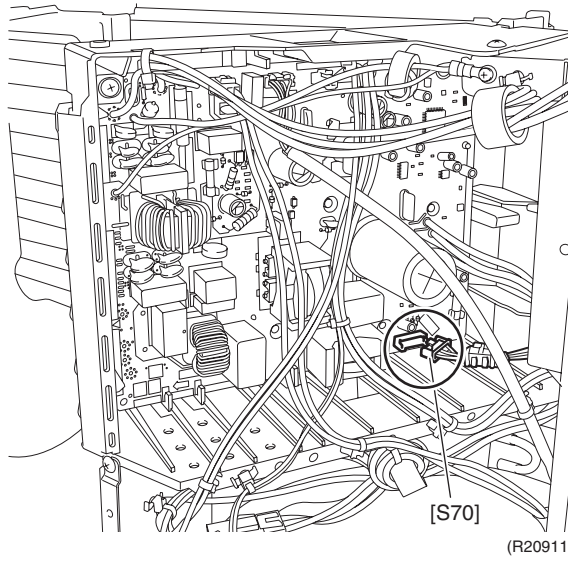


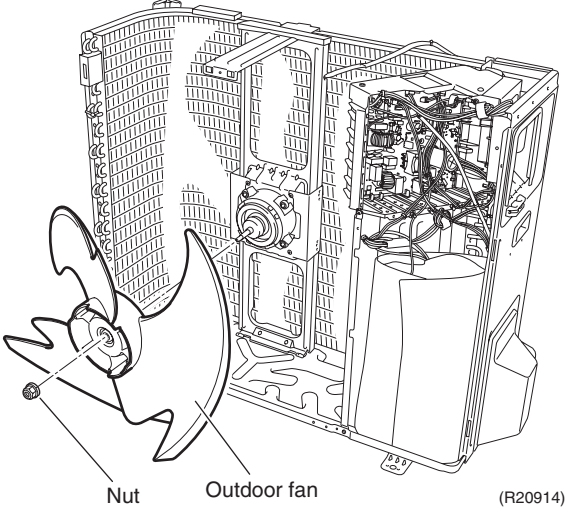
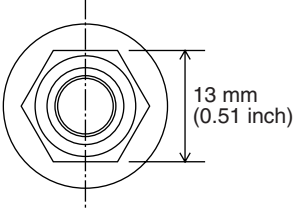
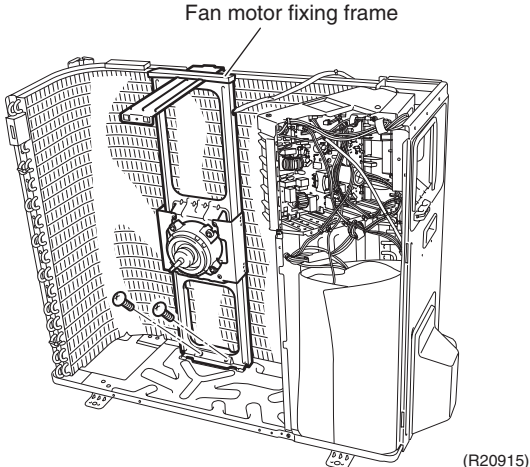
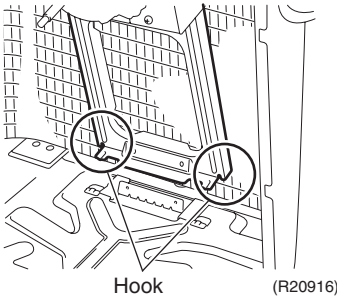
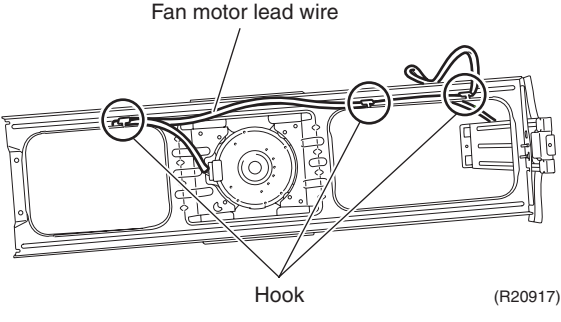
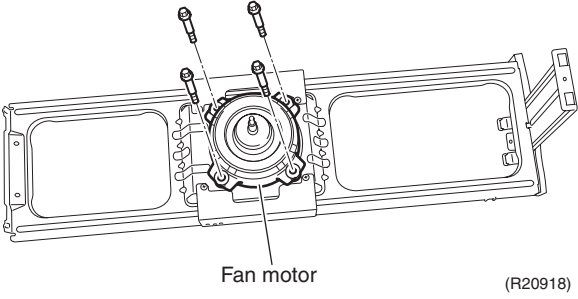
Warning

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

| Step | Procedure | Procedure | Points |
|------|--|--|--------|
| 1 | Remove the drip proof cover. |  <p>Drip proof cover</p> <p>(R20908)</p> | |
| 2 | Remove the 2 screws of the terminal cover. |  <p>Terminal cover</p> <p>(R20909)</p> | |
| 3 | Open the terminal cover and pull down to unfasten the 2 hooks. |  <p>Hook</p> <p>Terminal cover</p> <p>(R20910)</p> | |
| 4 | Remove the terminal cover. | | |

| Step | Procedure | Points |
|------|--|---------------------------------|
| 5 | Disconnect the connector [S70]. | [S70]: fan motor |
| 6 | Unfasten the clamp of the fan motor lead wire (on the outer side of the electrical box). | Top view |
| 7 | Release the fan motor lead wire from the groove and unfasten the 2 hooks. | Hook Groove Fan motor lead wire |



| Step | Procedure | Procedure | Points |
|------|---|--|---|
| 8 | Remove the nut and remove the outdoor fan. |  | <p>■ Nut size : M8</p>  <p>(R18965)</p> |
| 9 | Remove the 2 screws and remove the fan motor fixing frame. |  | <p>■ When reassembling, fit the lower hooks into the bottom frame.</p>  |
| 10 | Unfasten the 3 hooks on the fan motor fixing frame and release the fan motor lead wire. |  | |
| 11 | Remove the 4 screws and remove the fan motor. |  | |

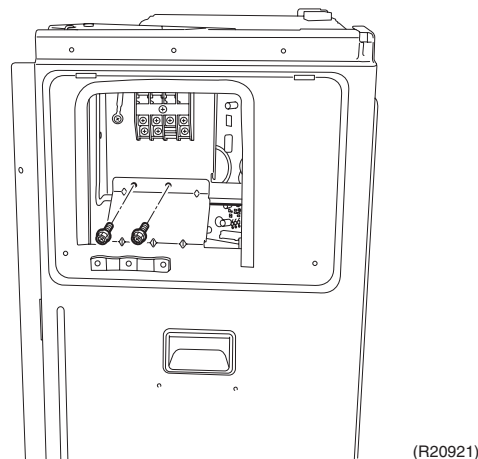
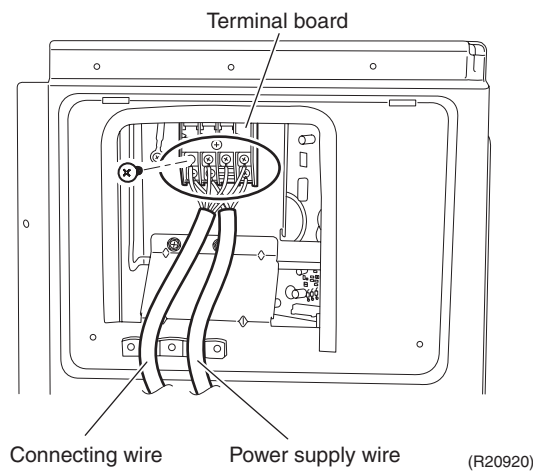
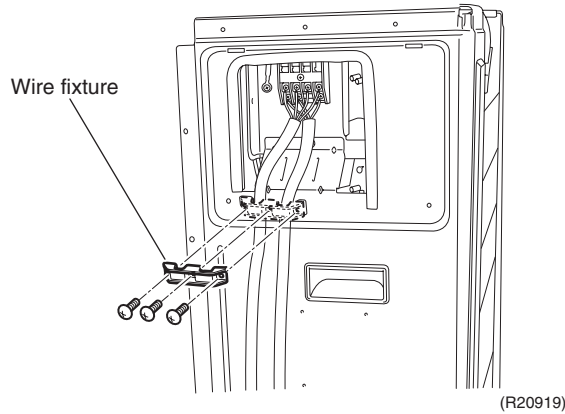
3. Electrical Box

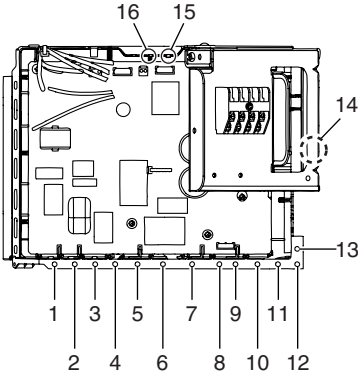
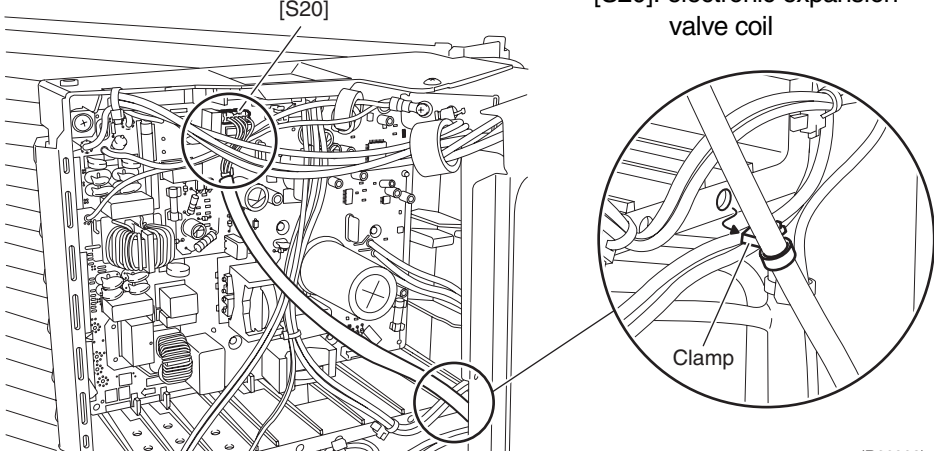


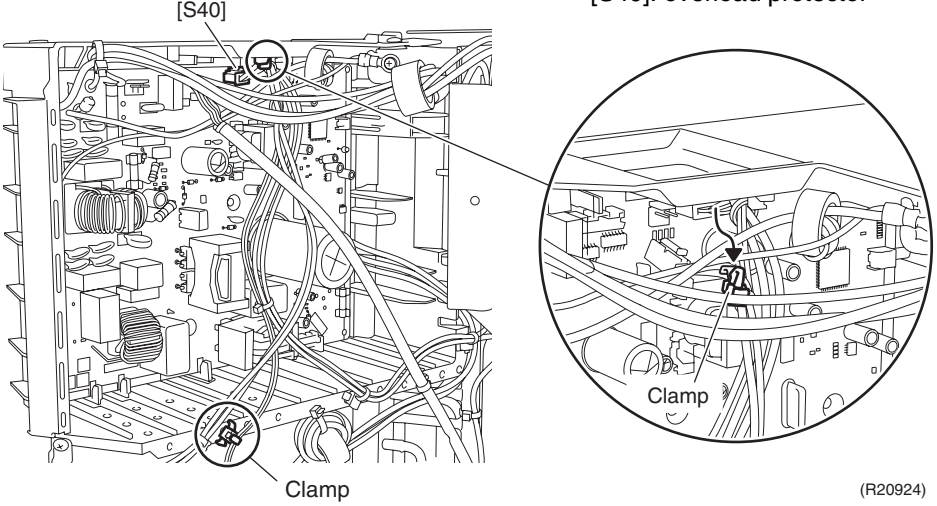
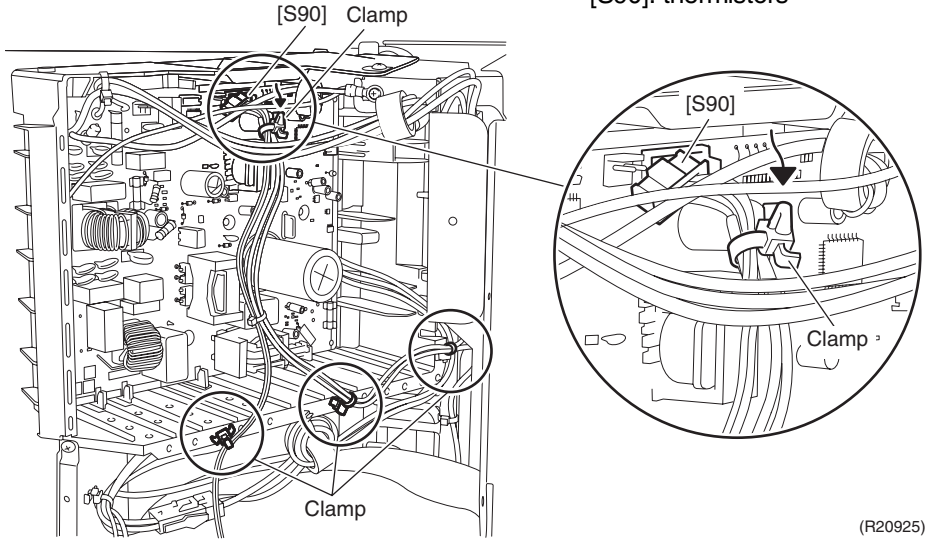
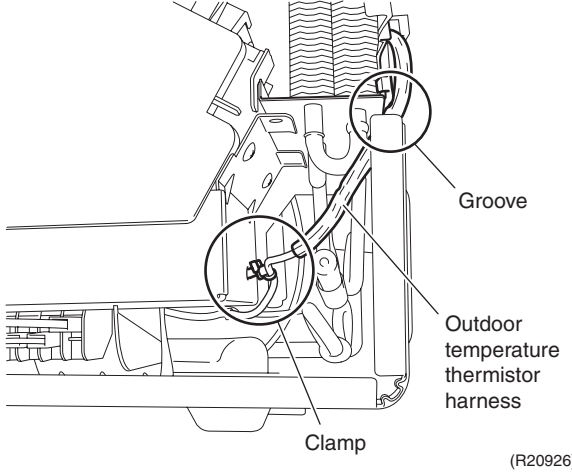
Warning

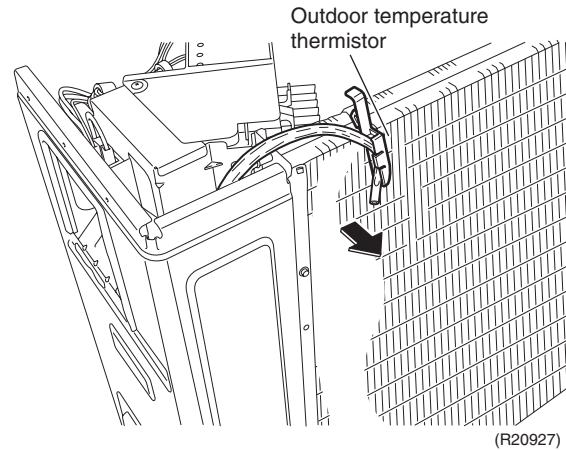
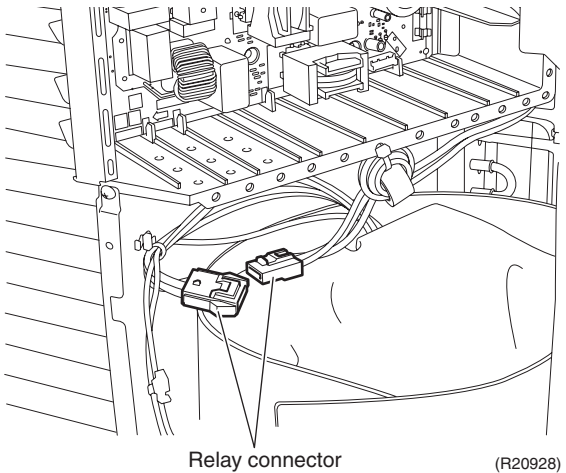
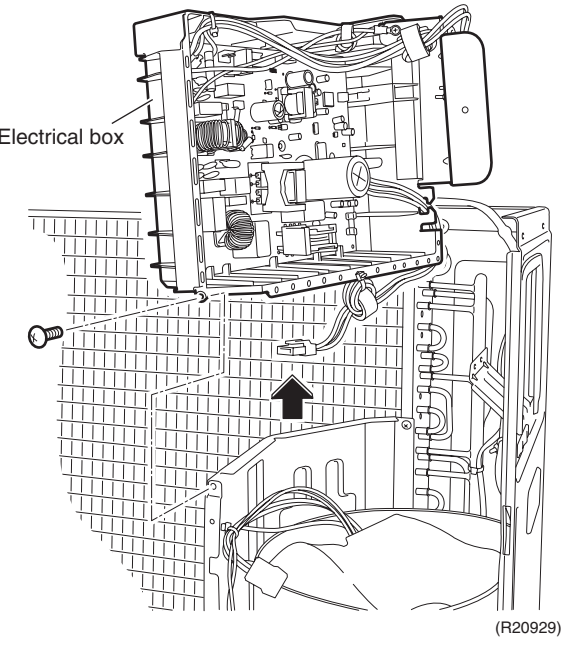
- ◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

| Step | Procedure | Points |
|------|---|--------|
| 1 | Remove the 3 screws and remove the wire fixture. | |
| 2 | Remove the 7 screws on the terminal board and disconnect the connecting wire and power supply wire. | |
| 3 | Remove the 2 screws. | |



| Step | Procedure | Points |
|------|---|---|
| 4 | Disconnect the connector [S80] and pull out the clamp (Hole No.5). | <p>[S80]: four way valve coil</p> <ul style="list-style-type: none"> ■ When reassembling, connect the connectors in the following order. Be sure to insert the wiring clamps of lead wires into the appropriate holes. (1) [S90]: Hole No.15, 14, 13, 7, 3 (2) [S40]: Hole No.16, 2 (3) [S20]: Hole No.10 (4) [S80]: Hole No.5 <p>Hole No. for wiring clamps</p>  <p>(R20922) (R20993)</p> |
| 5 | Disconnect the connector [S20] and pull out the clamp (Hole No.10). | <p>[S20]: electronic expansion valve coil</p>  <p>(R20923)</p> |

| Step | Procedure | Points |
|------|--|--|
| 6 | <p>Disconnect the connector [S40] and pull out the 2 clamps (Hole No.16 and 2).</p>  | <p>[S40]: overload protector</p> <p>(R20924)</p> |
| 7 | <p>Disconnect the connector [S90] and pull out the 4 clamps (Hole No.15, 13, 7, and 3).</p>  | <p>[S90]: thermistors</p> <p>(R20925)</p> |
| 8 | <p>Pull out the clamp from the Hole No.14 and release the outdoor temperature thermistor harness from the groove.</p>  | <p>(R20926)</p> |

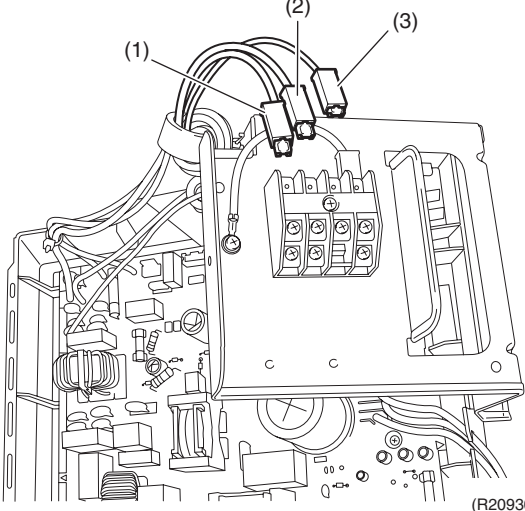
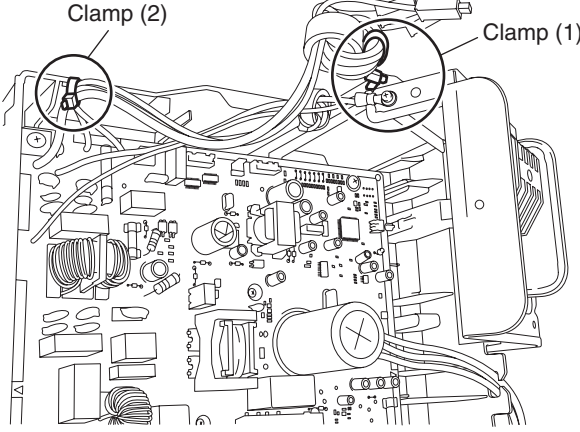
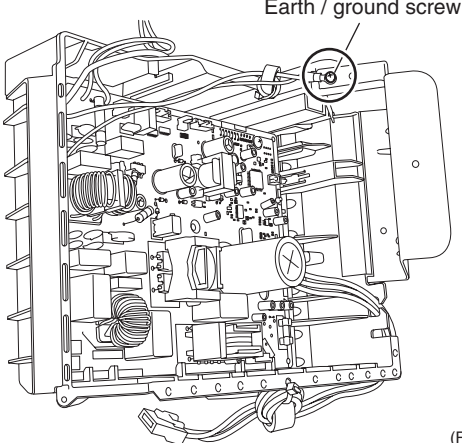
| Step | Procedure | Points |
|------|---|--------|
| 9 | Remove the outdoor temperature thermistor. | |
| |  <p style="text-align: center;">Outdoor temperature thermistor</p> <p style="text-align: right;">(R20927)</p> | |
| 10 | Disconnect the relay connector for compressor. | |
| |  <p style="text-align: center;">Relay connector</p> <p style="text-align: right;">(R20928)</p> | |
| 11 | Remove the screw and remove the electrical box. | |
| |  <p style="text-align: center;">Electrical box</p> <p style="text-align: right;">(R20929)</p> | |

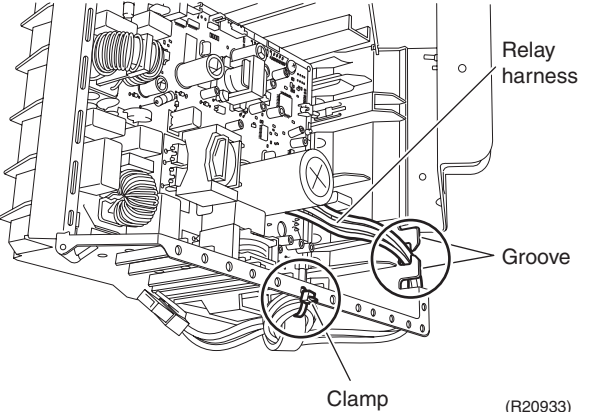
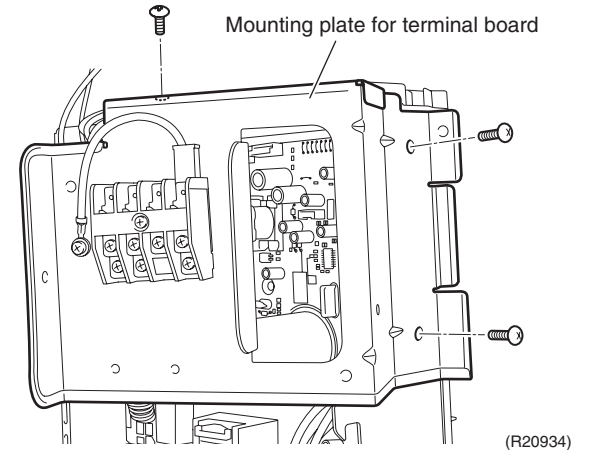
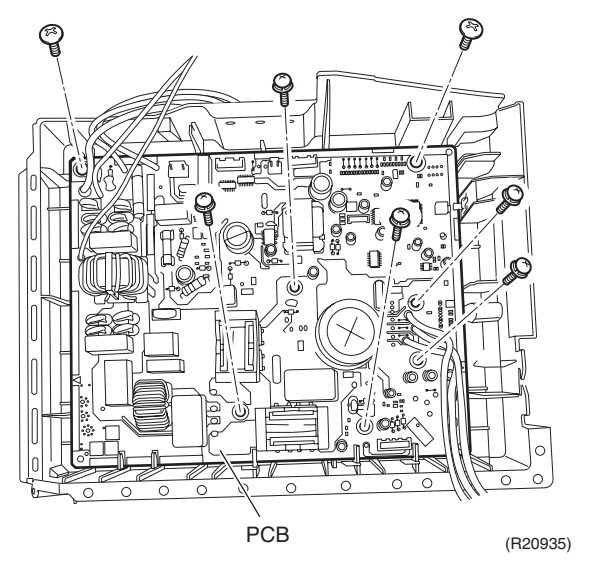
4. PCB

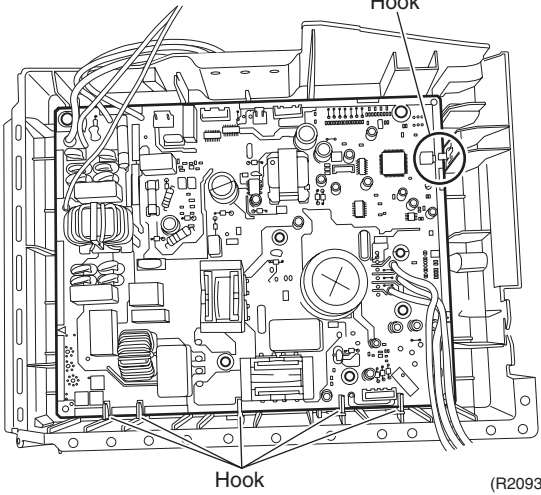
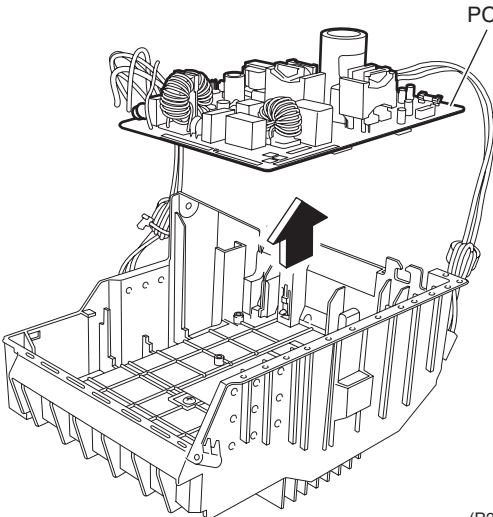


Warning

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

| Step | Procedure | Procedure | Points |
|------|---|--|---|
| 1 | Pull out the 3 terminals from the terminal board. |  <p>(R20930)</p> | <ul style="list-style-type: none"> ■ Before pulling out the terminals, confirm the terminal locations. <p>(1): black (front) (2): white (front) (3): red (front)</p> |
| 2 | Pull out the clamp (1) and cut the clamp (2). |  <p>(R20931)</p> | |
| 3 | Remove the earth / ground screw. |  <p>(R20932)</p> | |

| Step | Procedure | Points |
|------|--|--------|
| 4 | <p>Cut the clamp and release the relay harness from the groove.</p>  | |
| 5 | <p>Remove the 3 screws of the mounting plate for terminal board.</p>  | |
| 6 | <p>Remove the 7 screws of the PCB.</p>  | |

| Step | Procedure | Points |
|------|---|--------|
| 7 | Unfasten the 6 hooks.  <p>(R20936)</p> | |
| 8 | Remove the PCB.  <p>(R20937)</p> | |

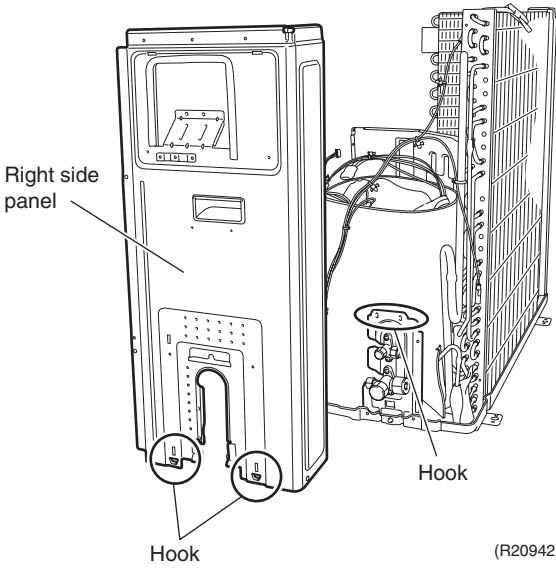
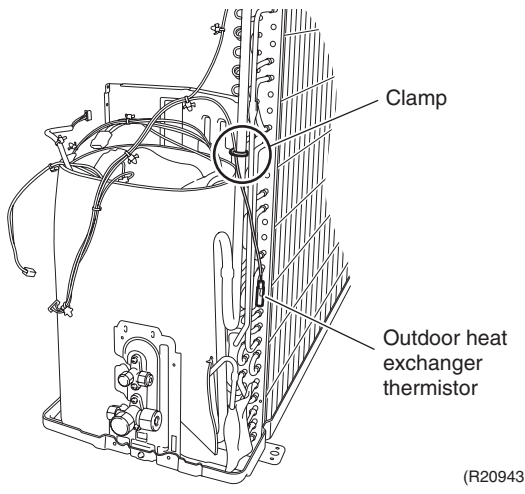
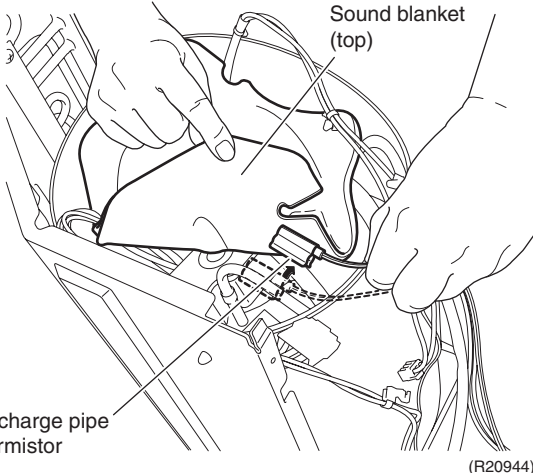
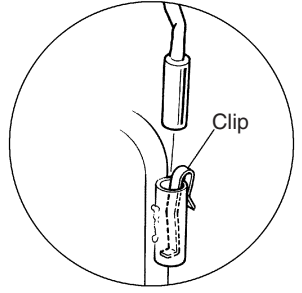
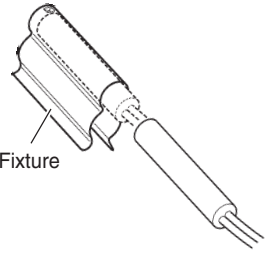
5. Thermistor ASSY / Partition Plate

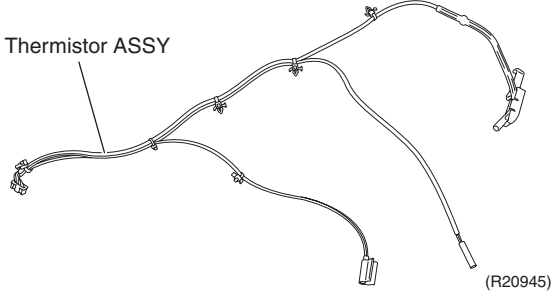
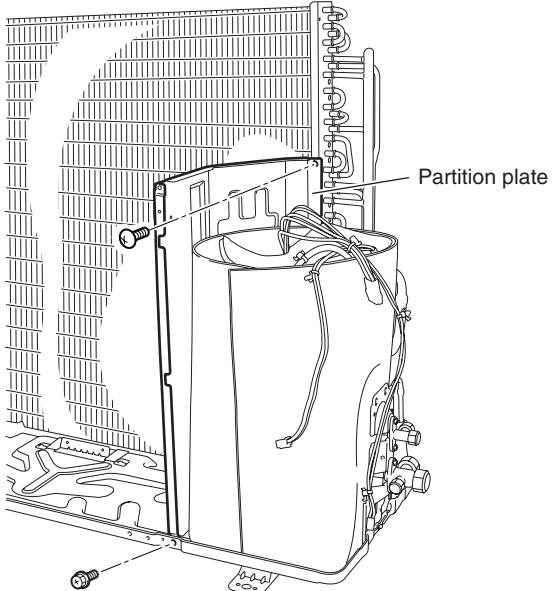
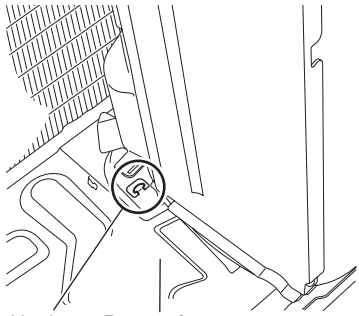


Warning

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

| Step | Procedure | Points |
|--|---|---|
| 1. Remove the right side panel. | <p>Stop valve cover</p> <p>(R20938)</p> | |
| 1 Remove the screw of the stop valve cover. | | |
| 2 Slide the stop valve cover downward and remove it. | <p>Stop valve cover</p> <p>(R20939)</p> | <p>■ When reassembling, make sure to fit the 3 hooks.</p> <p>Hook</p> <p>Hook</p> <p>Hook</p> <p>(R20940)</p> |
| 3 Remove the 4 screws of the right side panel. | <p>Right side panel</p> <p>(R20941)</p> | |

| Step | Procedure | Points |
|------|--|---|
| 4 | <p>Unfasten the 3 hooks and remove the right side panel.</p>  <p>Right side panel</p> <p>Hook</p> <p>Hook</p> <p>(R20942)</p> | |
| 2. | <p>Remove the thermistor ASSY.</p> <p>1</p> <p>Cut the clamp and pull out the outdoor heat exchanger thermistor.</p>  <p>Clamp</p> <p>Outdoor heat exchanger thermistor</p> <p>(R20943)</p> <p>2</p> <p>Open the sound blanket (top) and detach the discharge pipe thermistor.</p>  <p>Sound blanket (top)</p> <p>Discharge pipe thermistor</p> <p>(R20944)</p> | <p>■ Be careful not to lose the clip for the thermistor.</p>  <p>Clip</p> <p>(R3264)</p> <p>■ Be careful not to lose the fixture for the thermistor.</p>  <p>Fixture</p> <p>(R20999)</p> |

| Step | Procedure | Points |
|------|--|---|
| 3 | <p>Remove the thermistor ASSY.</p>  <p>Thermistor ASSY</p> <p>(R20945)</p> | |
| 3. | <p>Remove the partition plate.</p> <p>1 Remove the 2 screws and remove the partition plate.</p>  <p>Partition plate</p> <p>(R20946)</p> | <p>■ When reassembling, fit the lower hook into the bottom frame.</p>  <p>Hook Bottom frame (R20947)</p> |

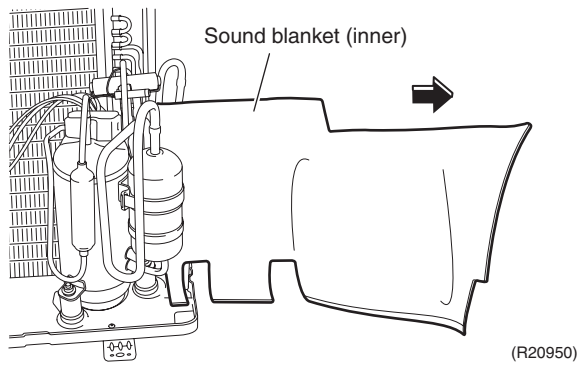
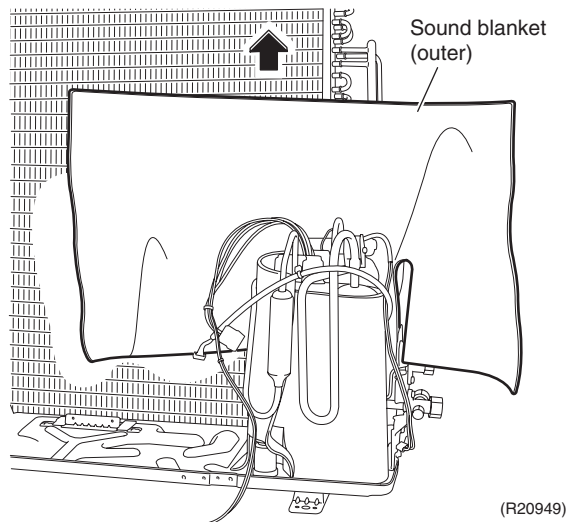
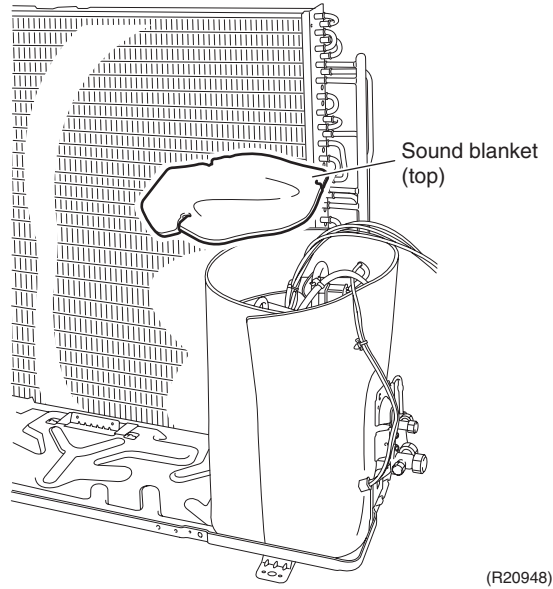
6. Sound Blankets



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). | (R20948) |
| 2 | Open and pull up the sound blanket (outer). | (R20949) |
| 3 | Remove the sound blanket (inner). | (R20950) |



7. Electronic Expansion Valve Coil / 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.)



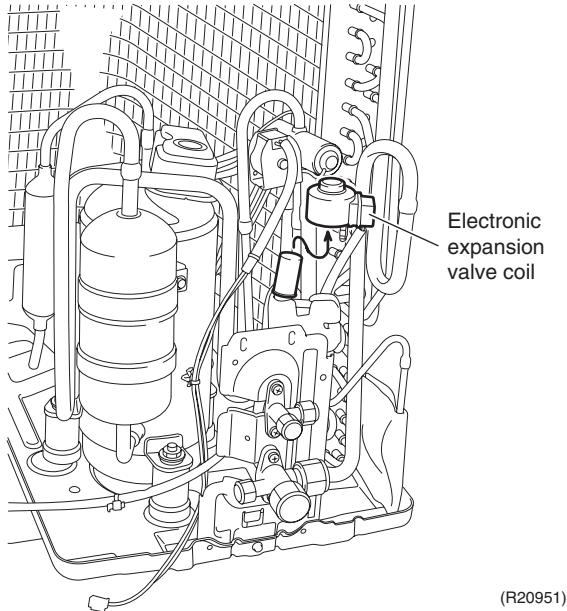
Caution

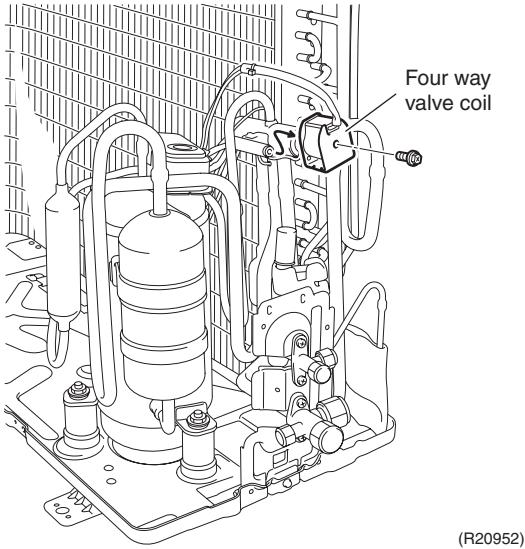
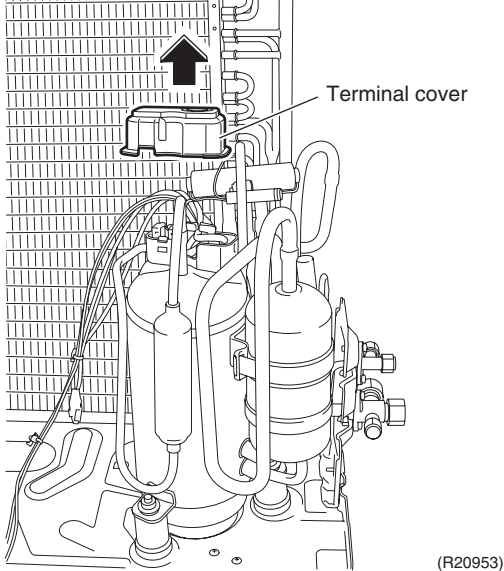
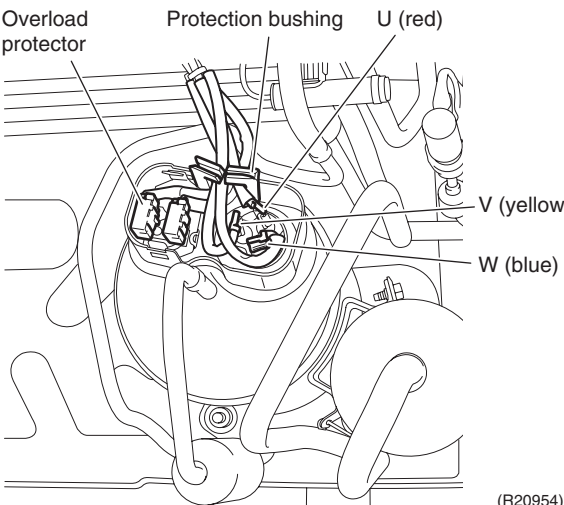
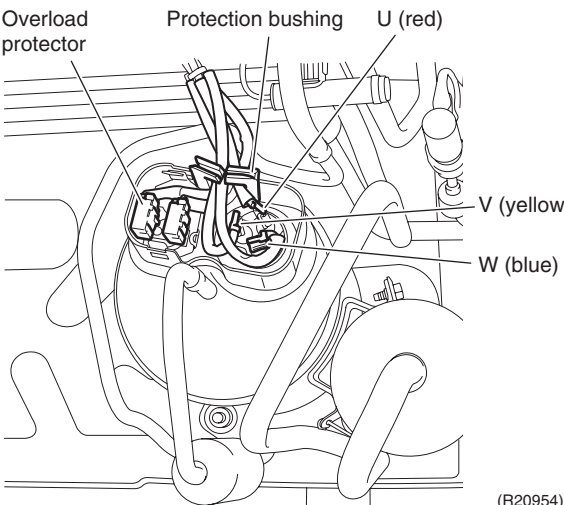
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ **Cautions for restoration**
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside 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.

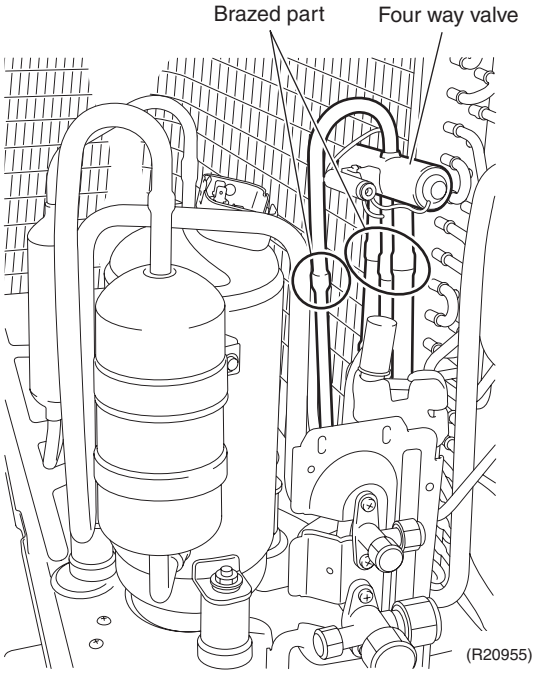


Note

- ◆ 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. |  |

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

| Step | Procedure | Points |
|------|--|--------|
| 6 | <p data-bbox="201 215 448 309">Heat up the 4 brazed parts and remove the four way valve.</p>  <p data-bbox="743 226 858 253">Brazed part</p> <p data-bbox="911 226 1050 253">Four way valve</p> <p data-bbox="995 869 1066 891">(R20955)</p> | |

8. 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.



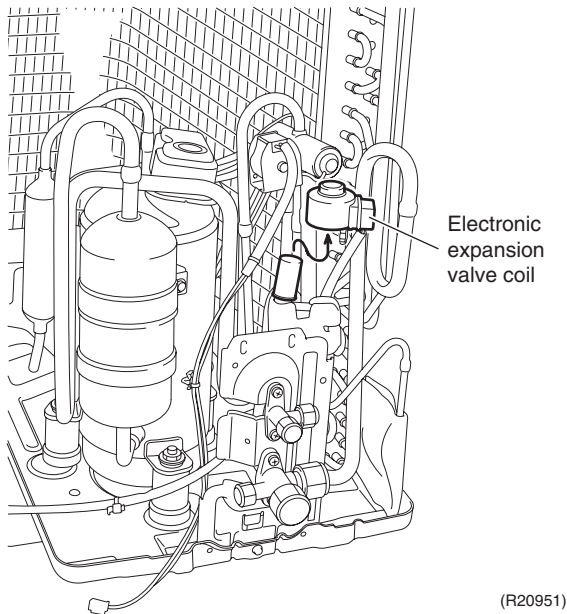
Caution

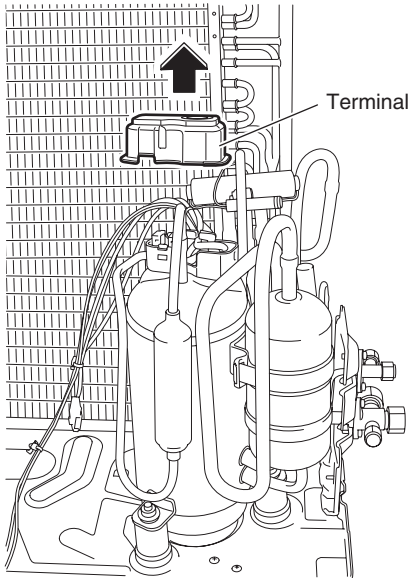

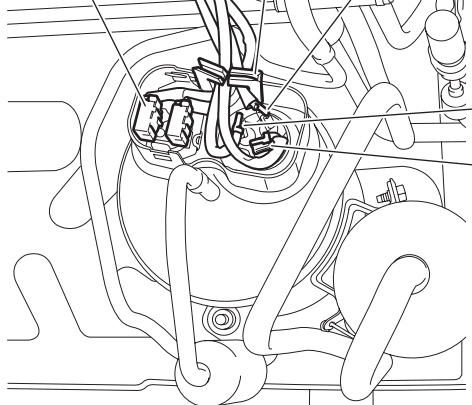



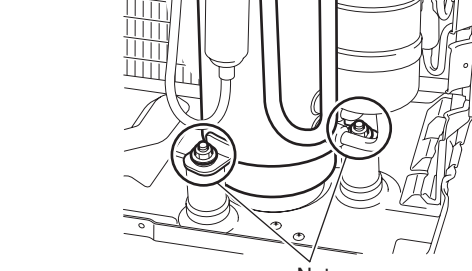
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



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 | Pull out the electronic expansion valve coil. |  <p style="text-align: right;">(R20951)</p> |

| Step | Procedure | Procedure | Points |
|------|---|---|--------|
| 2 | Remove the terminal cover. |  <p>Terminal cover</p> <p>(R20953)</p> | |
| 3 | Remove the protection bushing. |  <p>Overload protector</p> <p>Protection bushing</p> <p>U (red)</p> | |
| 4 | Disconnect the compressor lead wires and the overload protector. |  <p>V (yellow)</p> <p>W (blue)</p> <p>(R20954)</p> | |
| 5 | Heat up the brazed part of the discharge side pipe and disconnect it. |  <p>Brazed part of the discharge side pipe</p> <p>Brazed part of the suction side pipe</p> | |
| 6 | Heat up the brazed part of the suction side pipe and disconnect it. |  | |
| 7 | Remove the 2 nuts. |  <p>Compressor</p> <p>Nut</p> | |
| 8 | Lift up the compressor and remove it. |  <p>Compressor</p> <p>Nut</p> <p>(R20956)</p> | |

Revision History

| Month / Year | Version | Revised contents |
|--------------|-----------|------------------|
| 01 / 2015 | Si001419E | 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

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