



# REMOVAL PROCEDURE



SERVICE  
MANUAL

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

## 5.0/6.0/7.1 kW Class

-  Outdoor Unit
-  Inverter
-  Pair Type



# **Service Manual Removal Procedure**

## **Outdoor Unit**

### **●Cooling Only**

**RKD50GVMV  
RKD60GVMV  
RKD71GVMV**

**RKD50HVMV  
RKD60HVMV  
RKD71HVMV**

### **●Heat Pump**

**RXD50BVMV  
RXD60BVMV  
RXD71BVMV**

**RXD50HVMV  
RXD60HVMV  
RXD71HVMV**

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**Note:**

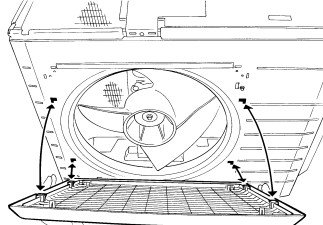
- ♦ The illustrations may be slightly different depending on the model.
- ♦ The illustrations are for heat pump models as representative.

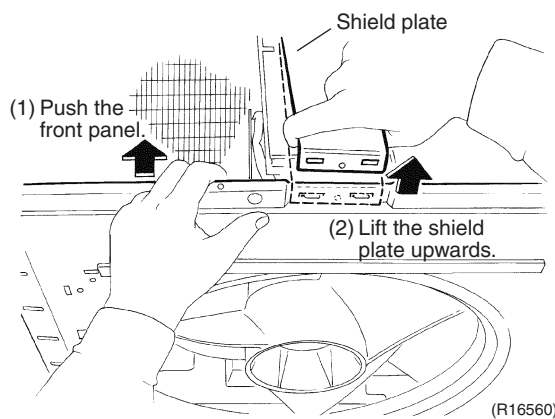
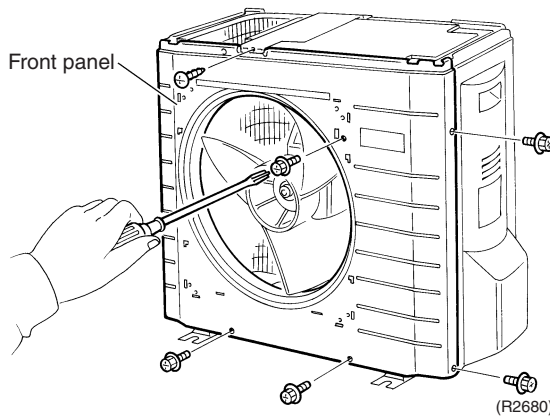
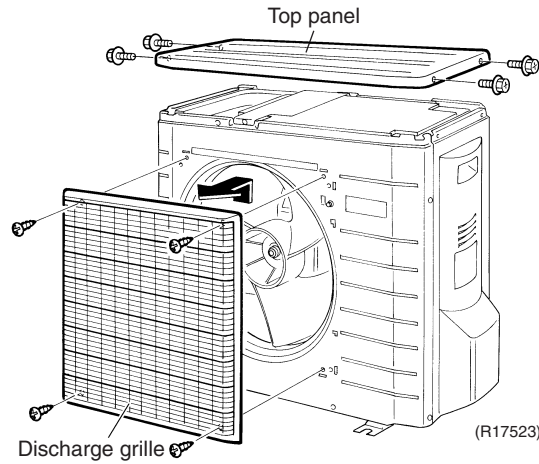
# 1. Outer Panels



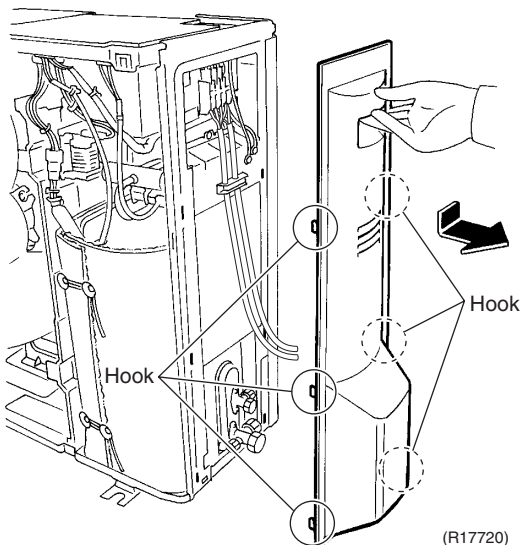
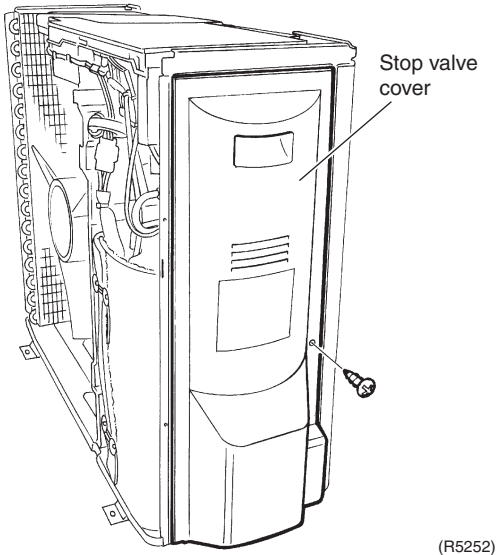
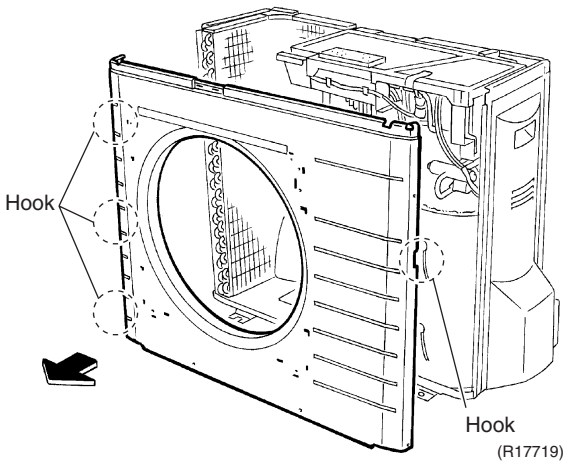
**Warning**

◆ 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 lift the top panel.                           | ■ The discharge grille has 4 hooks.  |
| 2    | Remove the 4 screws and remove the discharge grille.                  |  <p>(R2679)</p> |
| 3    | Remove the 6 screws of the front panel.                               |  |
| 4    | Push the front panel and lift the shield plate to unfasten the hooks. |  |



| Step | Procedure   | Points |
|------|---|--------|
| 5    | Unfasten the left side hooks, and then the right side hook.               |        |
| 6    | Remove the front panel.   |        |
| 7    | Remove the screw of the stop valve cover.                                 |        |
| 8    | Pull the stop valve cover downward to unfasten the 6 hooks and remove it. |        |



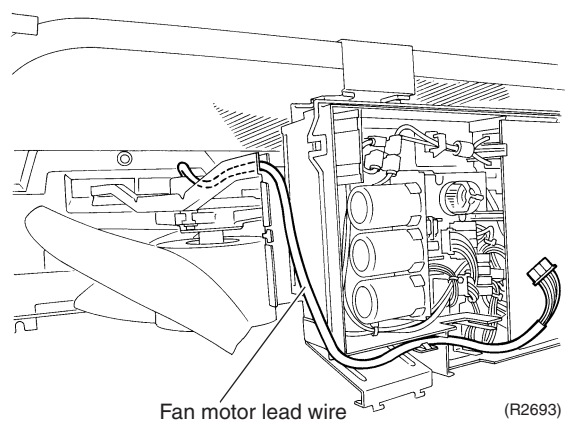
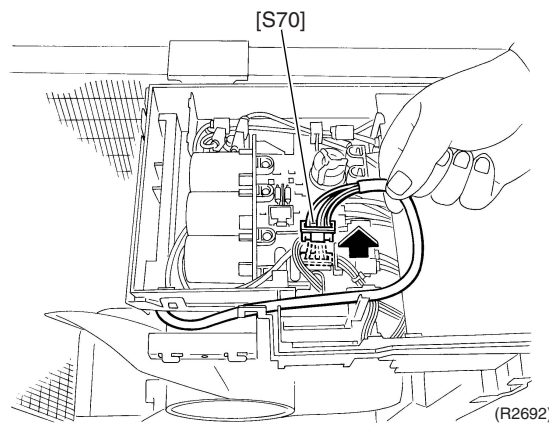
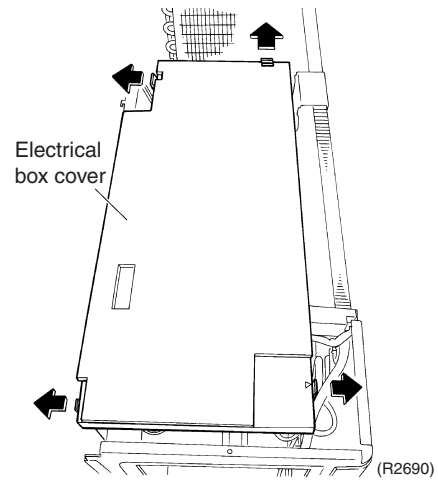
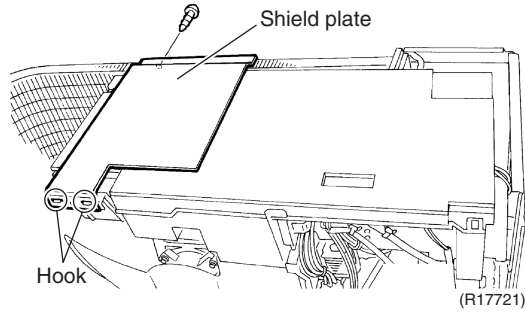
## 2. Outdoor Fan / Fan Motor



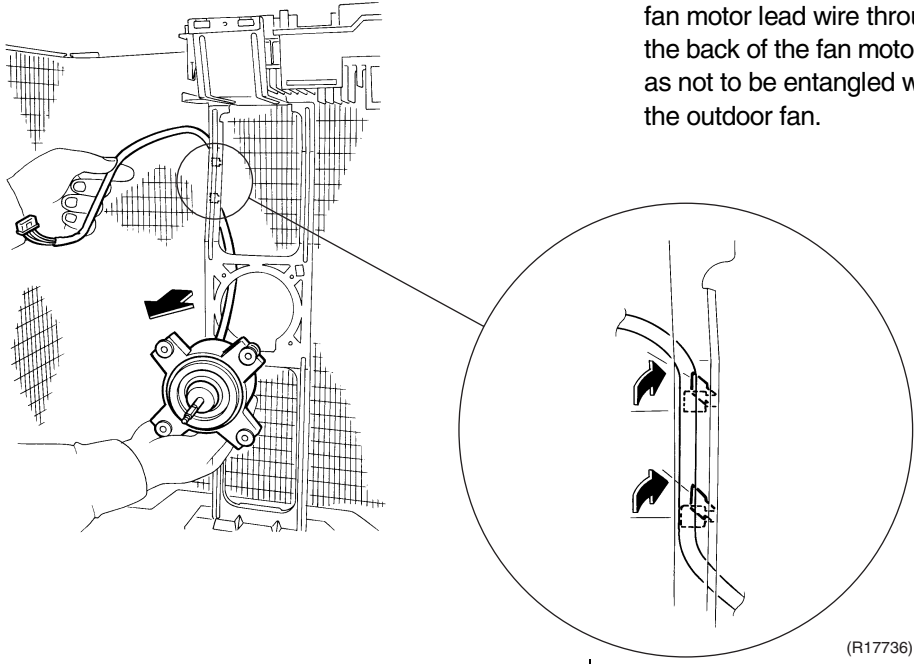
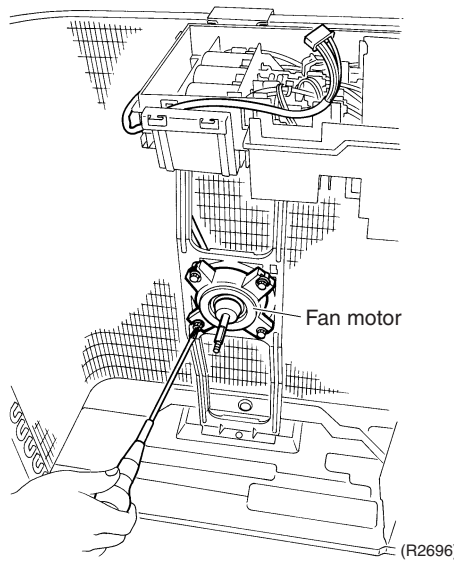
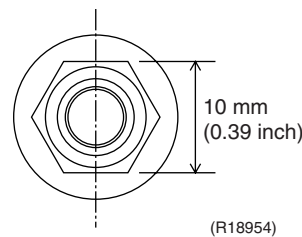
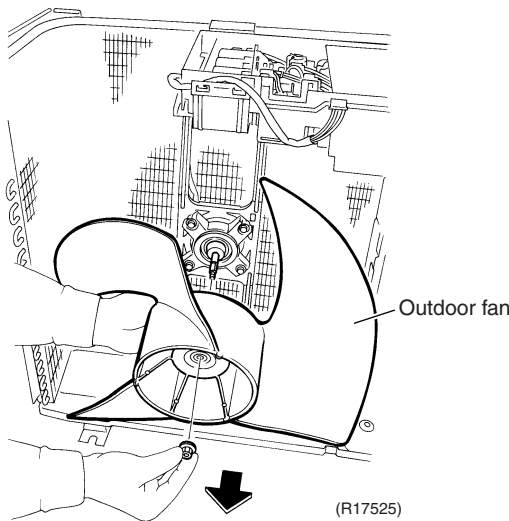
**Warning**

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

| Step | Procedure  | Points           |
|------|--|------------------|
| 1    | Remove the screw of the shield plate.                          |                  |
| 2    | Unfasten the 2 hooks and remove the shield plate.              |                  |
| 3    | Release the 4 hooks of the electrical box cover and remove it. |                  |
| 4    | Disconnect the connector [S70].                                | [S70]: fan motor |
| 5    | The illustration shows arrangement of the fan motor lead wire. |                  |



| Step | Procedure  | Points   |
|------|--|--|
| 6    | Remove the nut of the outdoor fan.   | <ul style="list-style-type: none"> <li>■ Nut size: M6</li> </ul>   |
| 7    | Remove the outdoor fan.  | <ul style="list-style-type: none"> <li>■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.</li> </ul>  |
| 8    | Remove the 2 lower screws from the fan motor first.                          | <ul style="list-style-type: none"> <li>■ Be sure to remove the lower screws first. If the top screws are removed first, the fan motor may tilt down or fall and cause injury because its center of gravity is shifted to the front.</li> </ul> |
| 9    | Then, remove the 2 upper screws.   |  |
| 10   | Release the fan motor lead wire from the 2 hooks and pull the fan motor out. | <ul style="list-style-type: none"> <li>■ 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.</li> </ul>   |

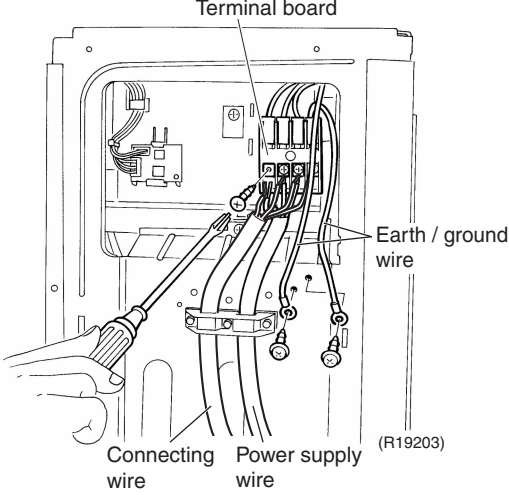
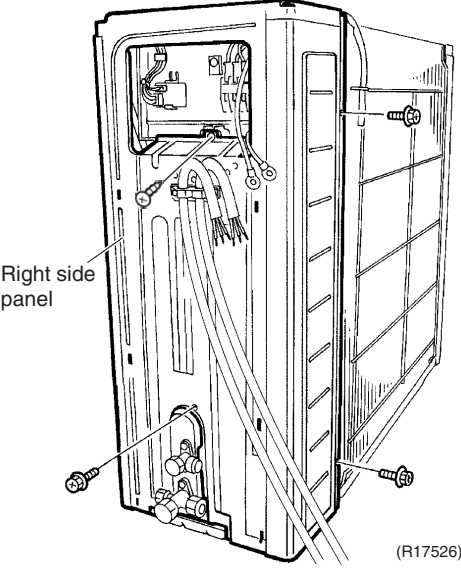
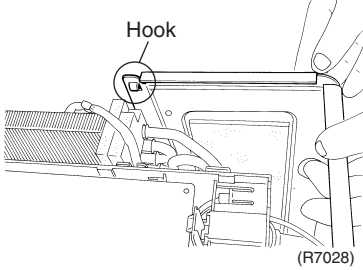
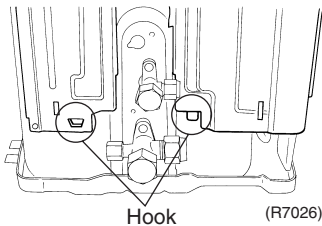
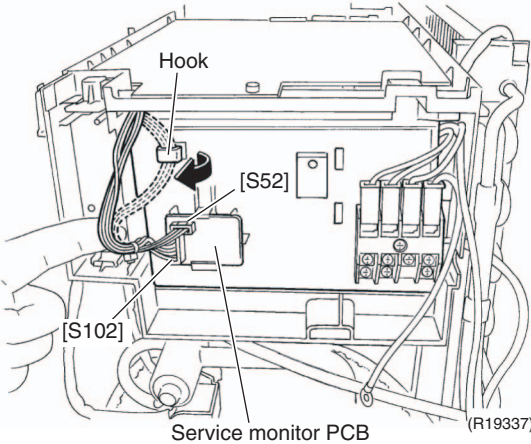


### 3. PCBs / Electrical Box

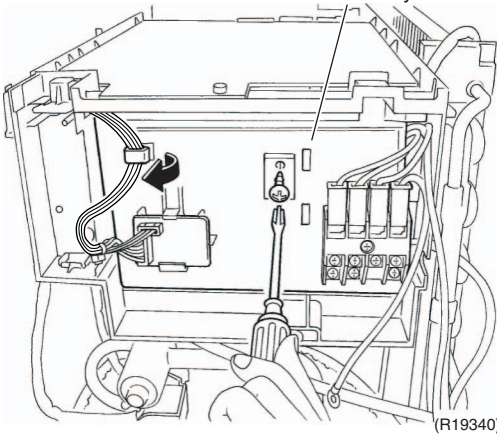
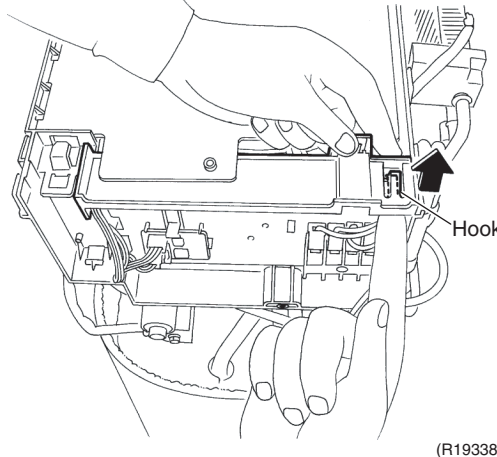
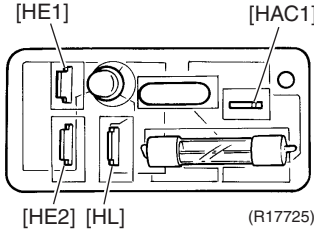
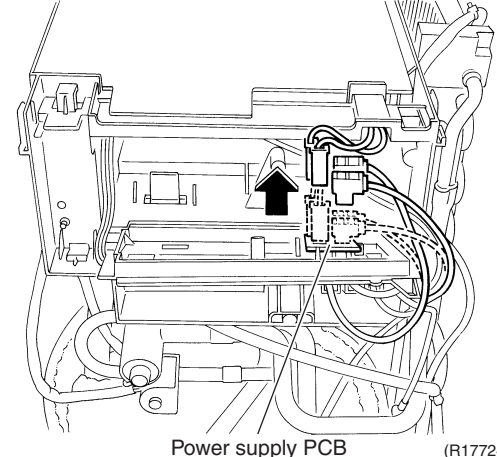
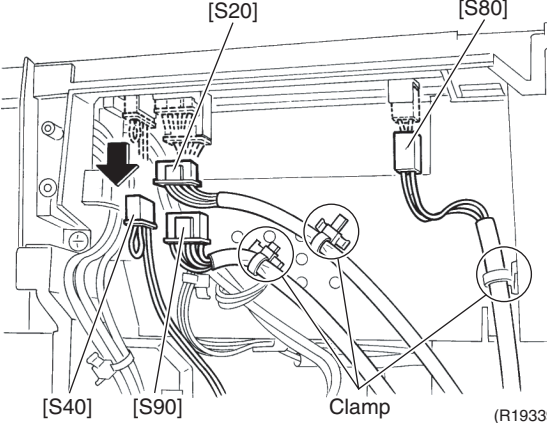
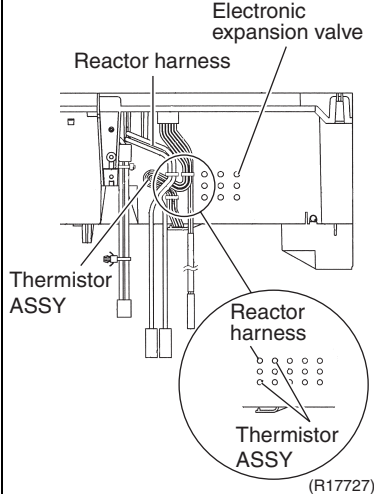


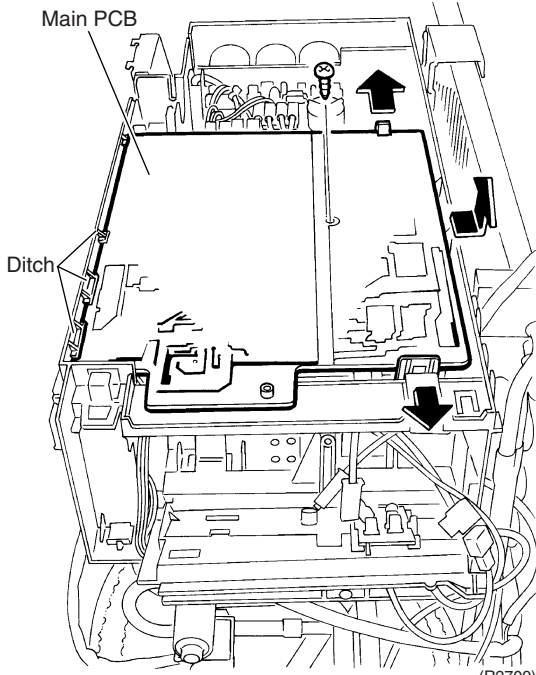
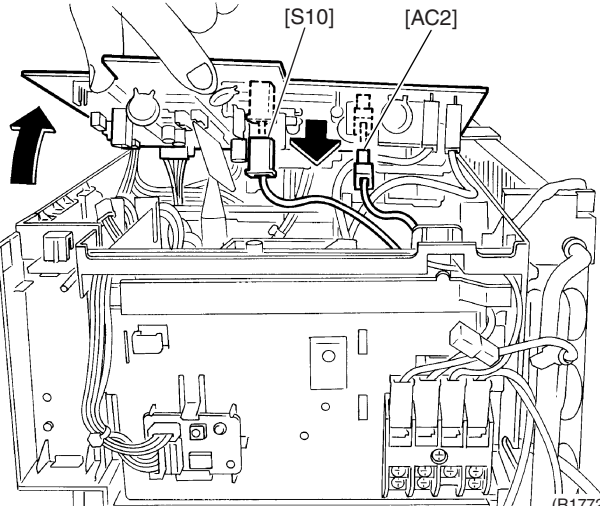
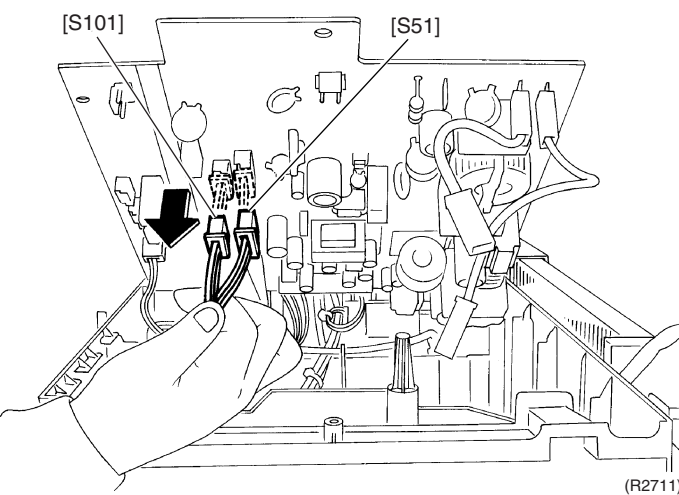
**Warning**

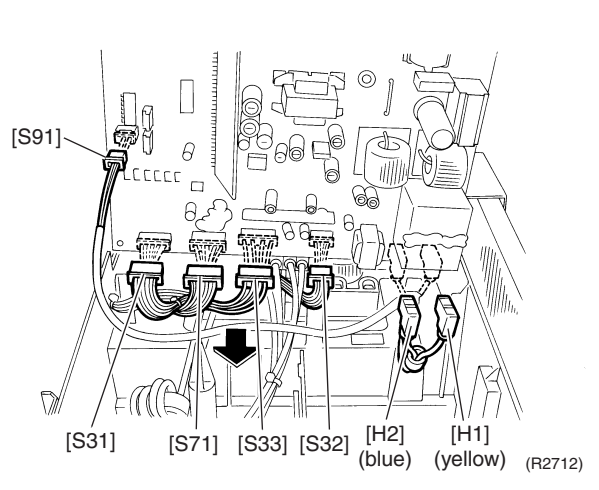
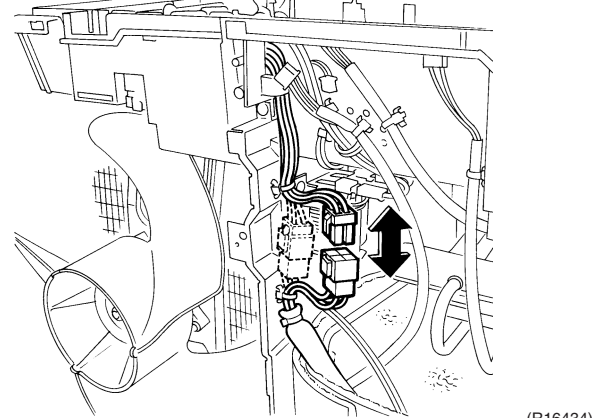
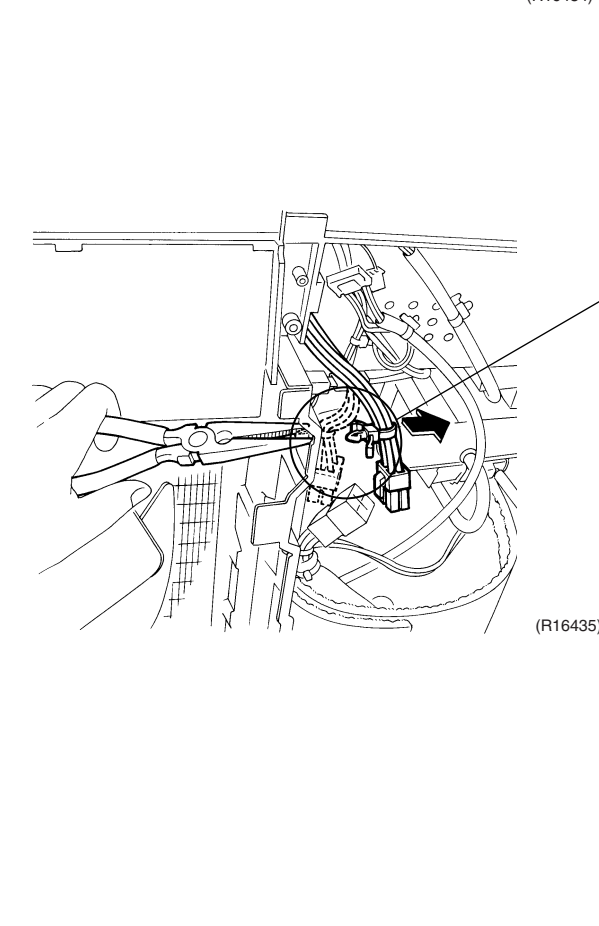
◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

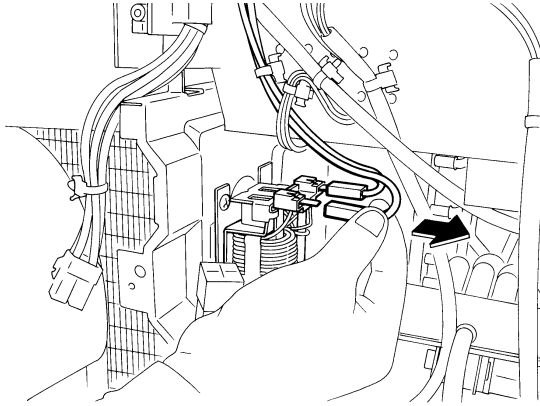
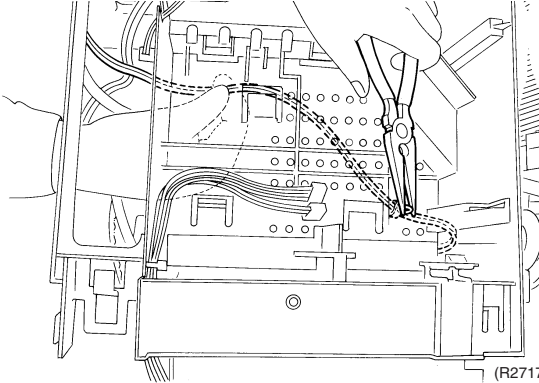
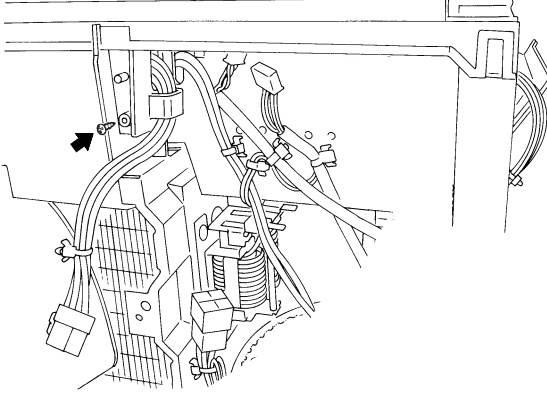
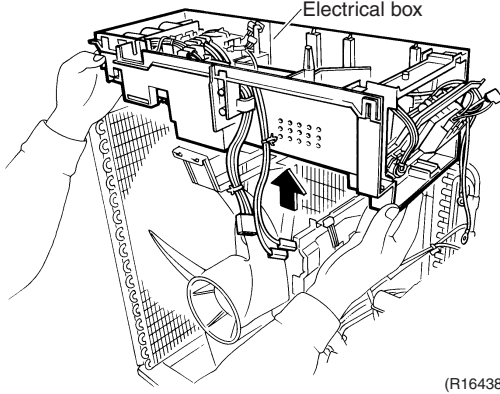
| Step   | Procedure  | Points   |
|--|--|--|
| <p>1. Remove the right side panel.</p> <p>1 Remove the 4 screws and disconnect the connecting wire and the power supply wire.</p> <p>2 Remove the 2 screws and detach the earth / ground wires.</p> <p>3 Remove the screw of the electrical box.</p> <p>4 Remove the 3 screws of the right side panel.</p> <p>5 Remove the right side panel.</p> |   | <p>■ When reassembling, insert the upper hook and the 2 lower hooks back into place.</p>   |
| <p>2. Remove the service monitor PCB.</p> <p>1 Release the harness from the hook.</p> <p>2 Disconnect the connectors [S52] [S102] from the service monitor PCB.</p> <p>3 Remove the service monitor PCB.</p>   |    | <p>[S52]: [S51] on main PCB<br/>[S102]: [S101] on main PCB</p>   |



| Step                    | Procedure   | Points   |
|-------------------------|---|--|
| 3. Remove the main PCB. |   |  |
| 1                       | Remove the screw of the cable way board.                                |  |
| 2                       | Unfasten the hook and open the cable way board.                        | <ul style="list-style-type: none"> <li>■ Power supply PCB</li> </ul>  <p>[HL]: terminal board<br/>                     [HE2]: earth / ground wire<br/>                     [HAC1]: [AC1] on main PCB<br/>                     [HE1]: [E] on main PCB</p> <ul style="list-style-type: none"> <li>■ The cooling only models do not have the harness for [S80].</li> </ul> |
| 3                       | Disconnect the harnesses from the power supply PCB.                   | <p>[S20]: electronic expansion valve<br/>                     [S40]: overload protector<br/>                     [S80]: four way valve coil<br/>                     [S90]: thermistors</p> <ul style="list-style-type: none"> <li>■ When reassembling, insert each clamp into the holes as below.</li> <li>■ When reassembling, the thermistor harness should be placed between the electrical box and the reactor harness as below.</li> </ul>           |
| 4                       | Disconnect the connectors and pull out each clamp of the front side.  |  <p>Electronic expansion valve<br/>                     Reactor harness<br/>                     Thermistor ASSY<br/>                     Reactor harness<br/>                     Thermistor ASSY</p>  |

| Step | Procedure   | Procedure  | Points                            |
|------|---|--|-----------------------------------|
| 5    | Remove the screw of the main PCB.   |  <p>Main PCB</p> <p>Ditch</p> <p>(R2709)</p> |                                   |
| 6    | Unfasten the 2 hooks and release the main PCB from the ditch of the front side. |  |                                   |
| 7    | Disconnect the harnesses [S10] [AC2] while lifting the main PCB.                |  <p>[S10]</p> <p>[AC2]</p> <p>(R17728)</p> | [S10] [AC2]: terminal board       |
| 8    | Disconnect the connectors [S51] [S101].   |  <p>[S101]</p> <p>[S51]</p> <p>(R2711)</p> | [S51] [S101]: service monitor PCB |

| Step   | Procedure  | Points  |
|--|--|---|
| <p>9 Disconnect the connectors.</p> <p>10 Remove the main PCB.</p> |    | <p>[S31]: CN14 on SPM<br/>                 [S32]: CN11 on SPM<br/>                 [S33]: [S34] on MID<br/>                 [S71]: [S72] on MID<br/>                 [S91]: radiation fin thermistor<br/>                 [H1] [H2]: diode bridge</p> |
| <p>4. Remove the electrical box.</p>                               |  |   |
| <p>1 Disconnect the relay connector for the compressor.</p>        |   |   |
| <p>2 Release the clamp with pliers.</p>                            |  |   |

| Step | Procedure   | Procedure  | Points |
|------|---|--|--------|
| 3    | Disconnect the 2 connectors for the reactor.  |  <p>(R2716)</p>    |        |
| 4    | Pull the clamp and draw the thermistor harness out from the back of the electrical box. |  <p>(R2717)</p>   |        |
| 5    | Remove the screw of the electrical box.   |  <p>(R17729)</p> |        |
| 6    | Lift up the electrical box and remove it.   |  <p>(R16438)</p> |        |

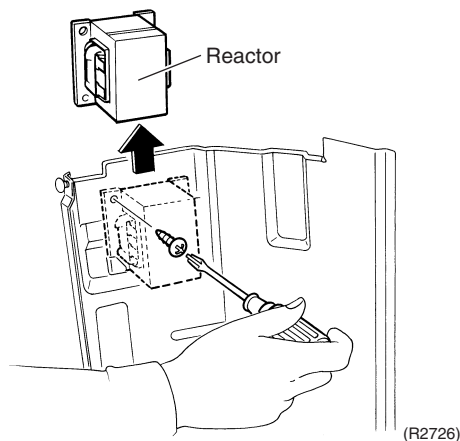
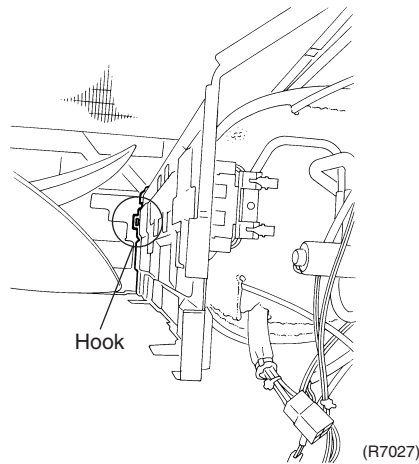
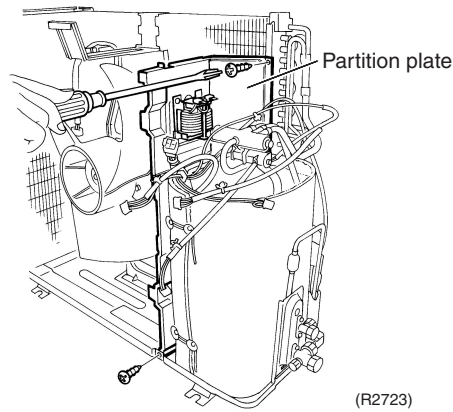
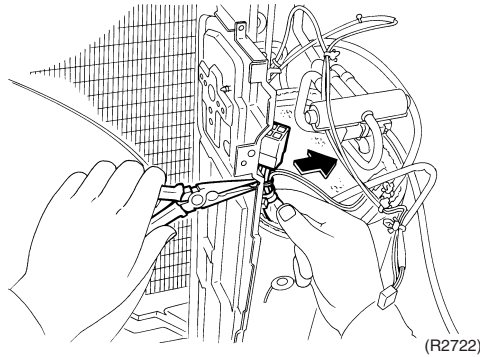
## 4. Reactor



### 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 clamp of the compressor harness with pliers. |   |
| 2    | Remove the 2 screws of the partition plate.              |   |
| 3    | Lift up the partition plate and remove it.               | <ul style="list-style-type: none"> <li>■ The partition plate is fixed to the bottom frame with a hook.</li> </ul> |
| 4    | Remove the screw and remove the reactor.                 |   |

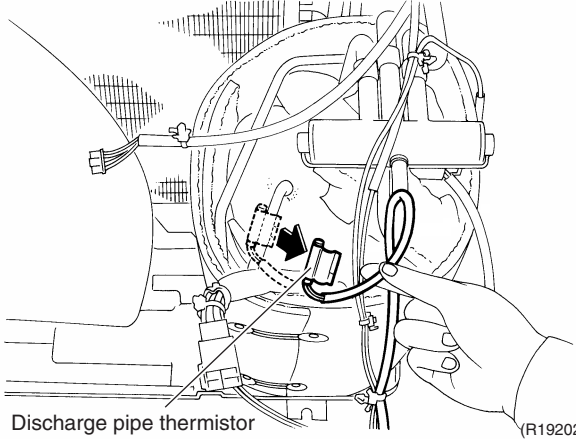
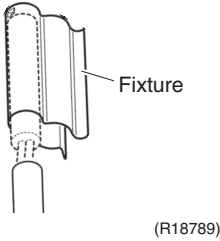
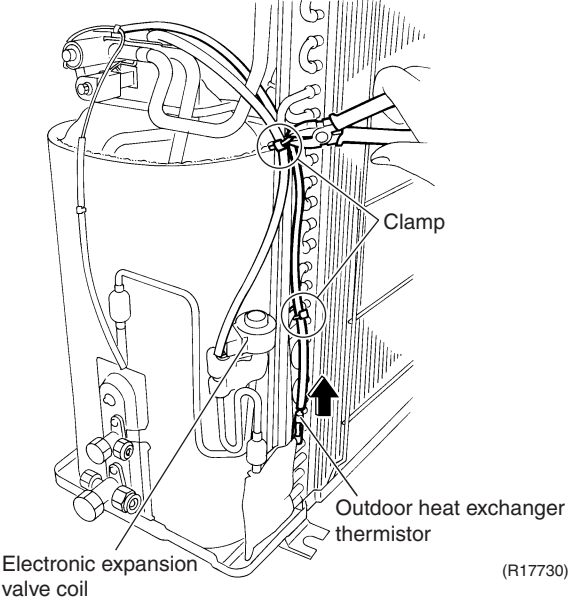


# 5. Thermistors / Sound Blankets

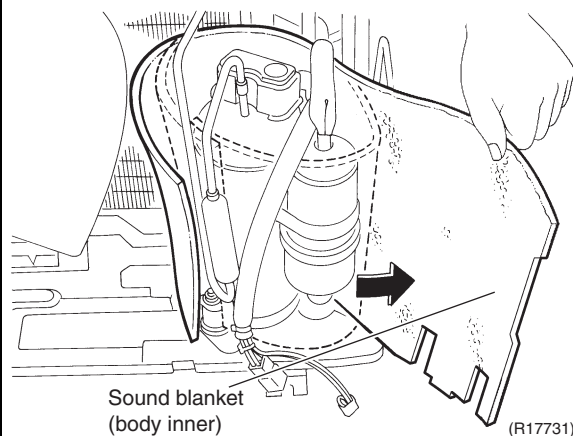
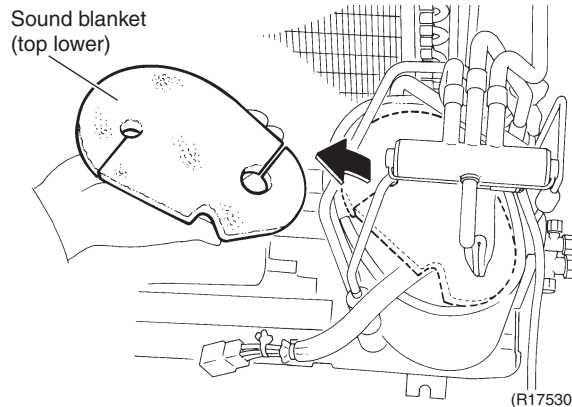
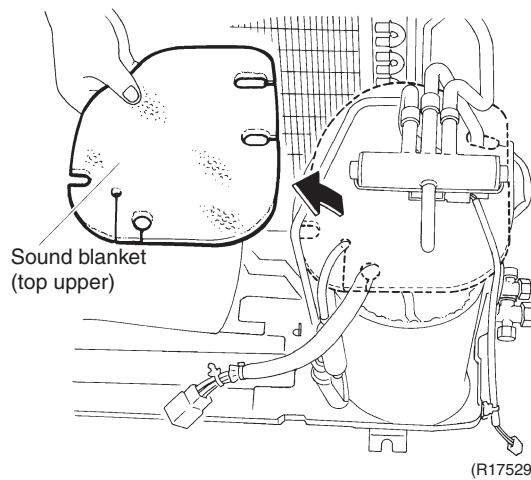
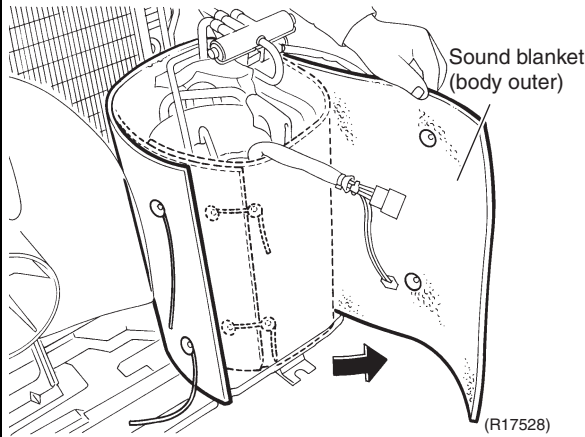


**Warning**

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

| Step | Procedure  | Procedure   | Points   |
|------|--|---|--|
| 1    | Release the discharge pipe thermistor.                               |   | <ul style="list-style-type: none"> <li>■ Be careful not to lose the fixture for the thermistor.</li> </ul>    |
| 2    | Cut the 2 clamps and pull out the outdoor heat exchanger thermistor. |  | <ul style="list-style-type: none"> <li>■ When reassembling, tie the harnesses of electronic expansion valve coil and outdoor heat exchanger thermistor with a clamp as illustrated.</li> <li>■ Some models have no lower clamp.</li> </ul> |

| Step | Procedure                              | Points   |
|------|--|--|
| 3    | Remove the sound blanket (body outer). | <ul style="list-style-type: none"> <li>■ The design of sound blankets varies depending on the model.</li> <li>■ Since the piping ports on the sound blanket (body outer) are torn easily, remove the blanket carefully.</li> </ul> |
| 4    | Remove the sound blanket (top upper).  | <ul style="list-style-type: none"> <li>■ Some models have no sound blanket (top lower).</li> </ul>   |
| 5    | Remove the sound blanket (top lower).  | <ul style="list-style-type: none"> <li>■ Since the piping ports on the sound blanket (body inner) are torn easily, remove the blanket carefully.</li> </ul>  |
| 6    | Remove the sound blanket (body inner). |  |



## 6. 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.



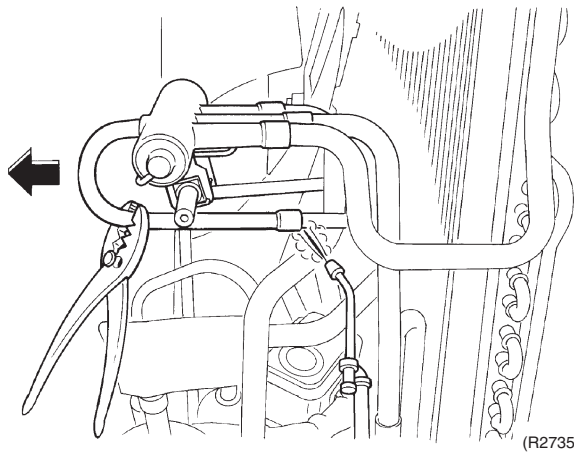
**Note**

- ◆ 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.

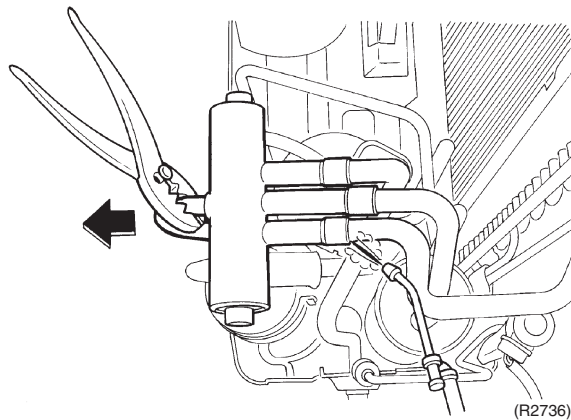
| Step | Procedure  | Points   |
|------|--|--|
| 1    | Remove the screw and remove the four way valve coil. | <ul style="list-style-type: none"> <li>■ Some models do not have a four way valve coil.</li> </ul> |



| Step | Procedure   | Points |
|------|---|--------|
| 2    | Heat up the brazed part of the four way valve and disconnect. |        |
| 3    | Heat up every brazed part in turn and disconnect.             |        |
| 4    | Remove the four way valve.                                    |        |



(R2735)



(R2736)

# 7. Electronic Expansion 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.)



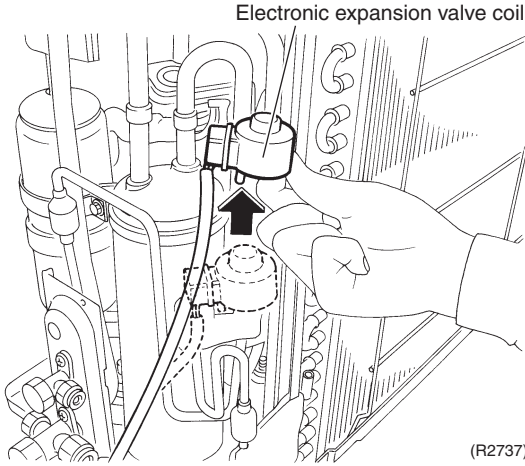
**Caution**

- ◆ 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.

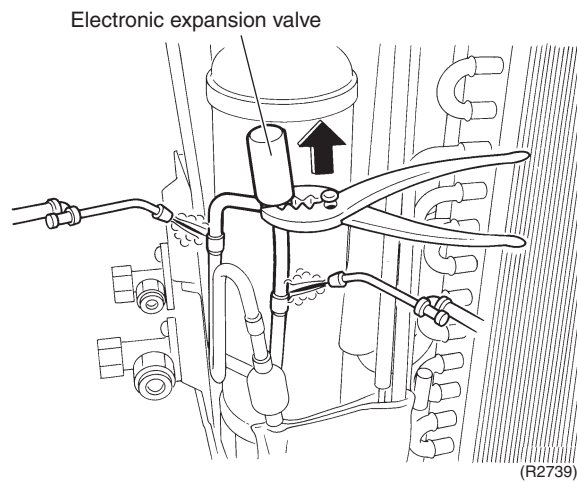
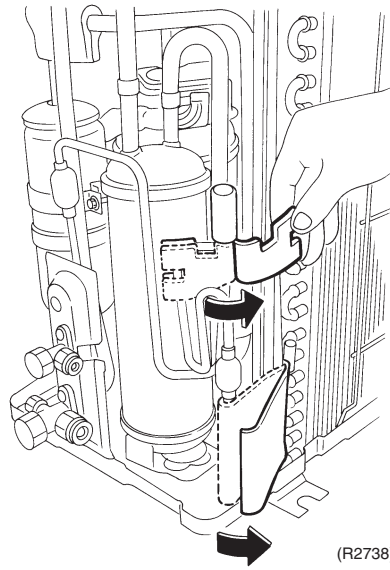


**Note**

- ◆ 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 sheets of putty.   |        |
| 3    | Heat up the 2 brazed parts of the electronic expansion valve and remove it. |        |



## 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.
- ◆ 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.



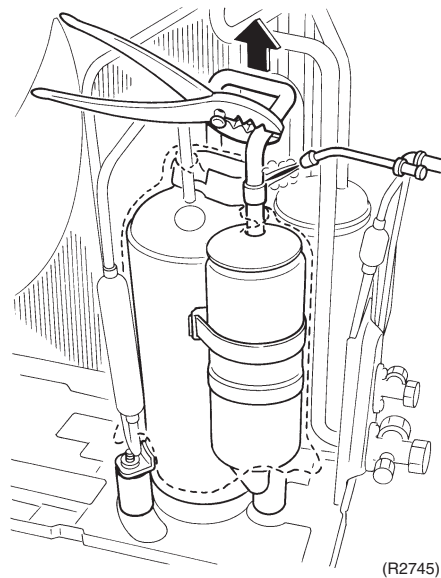
### Note

- ◆ 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    | Remove the terminal cover. <div data-bbox="517 1384 1024 1787" style="text-align: center;"> </div> |        |

| Step | Procedure  | Points   |
|------|--|--|
| 2    | Disconnect the lead wires of the compressor.                     | U : red<br>V : yellow<br>W : blue<br>N : brown |
| 3    | Remove the nut of the compressor.                                | <p>(R16561)</p>                                |
| 4    | Remove the putty of the accumulator.                             | <p>(R17749)</p>                                |
| 5    | Heat up the brazed part of the discharge side and disconnect it. | <p>(R17739)</p>                                |

| Step | Procedure  | Points |
|------|--|--------|
| 6    | Heat up the brazed part of the suction side and disconnect it. |        |
| 7    | Lift the compressor up and remove it.                          |        |



# Revision History

| Month / Year | Version    | Revised contents                |
|--------------|------------|---------------------------------|
| 09 / 2012    | Si001270   | First edition                   |
| 08 / 2013    | Si001270EA | Model addition: RXD50/60/71HVMV |
| 04 / 2014    | Si001270EB | Model addition: RKD50/60/71HVMV |

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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