DAIKIN

Si121294EA

REMOVAL PROCEDURE

SERVICE MANUAL

SERVICE MANUAL

6.8/7.1/7.5 kW Class

- Outdoor Unit
- Inverter
- Multi Type

Service Manual
Removal Procedure

Outdoor Unit

●Cooling Only

3MKS71ESG

3MKS71FSG

3MKS75KVM

●Heat Pump

3MXS68KVM

Table of Contents

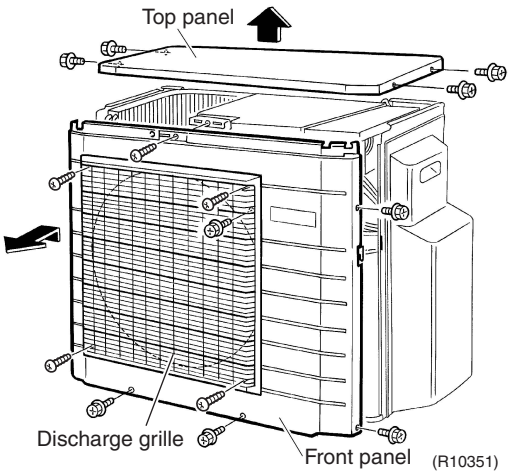
Note:
- The illustrations may be slightly different depending on the model.
- The illustrations are for heat pump models as representative.

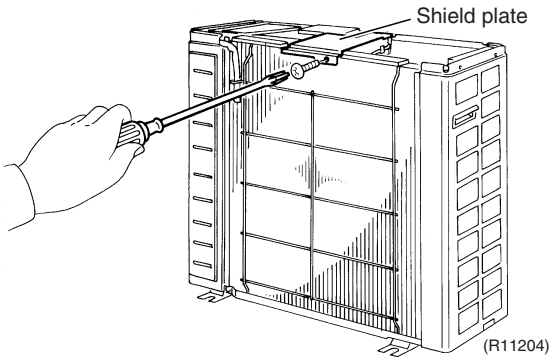
1. Outer Panels

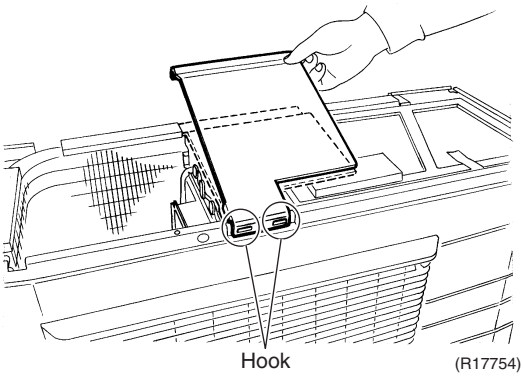
Warning

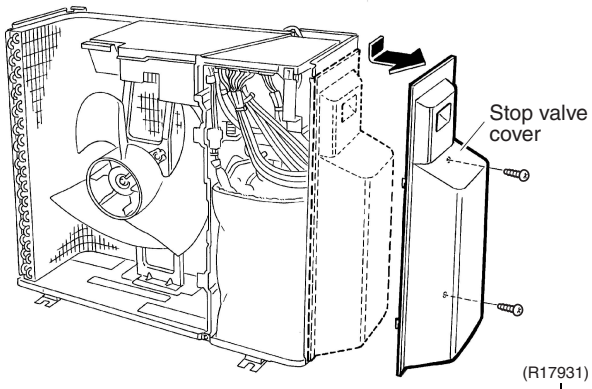
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

Step	Procedure	Points
1	Remove the 4 screws of the top panel and the 6 screws of the front panel.	
2	Remove the 4 screws of the discharge grille.	
3	Remove the screw of the shield plate.	
4	Unfasten the 2 hooks and remove the shield plate.	
5	Remove the 2 screws of the stop valve cover.	





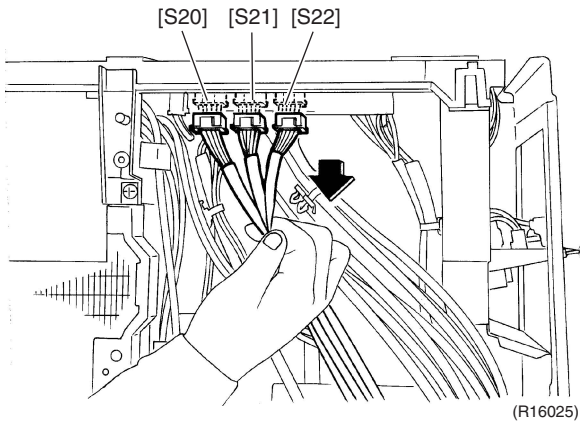
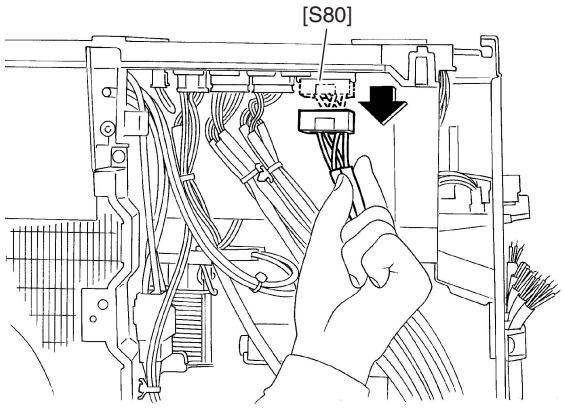
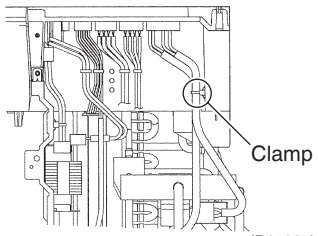
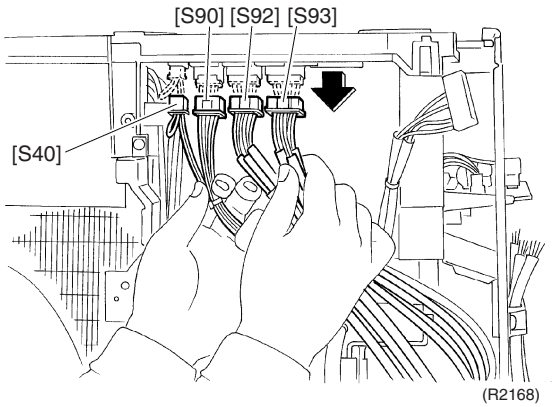
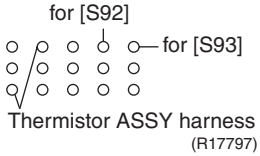
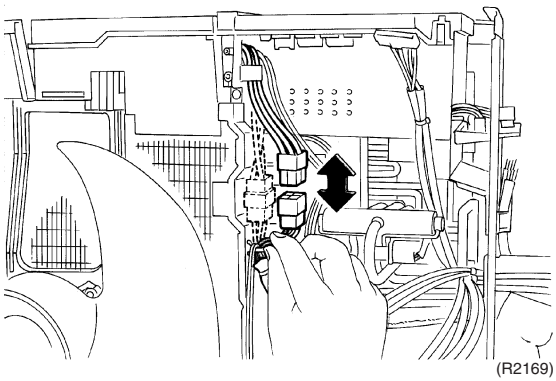
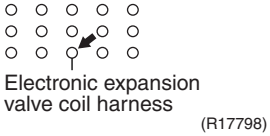


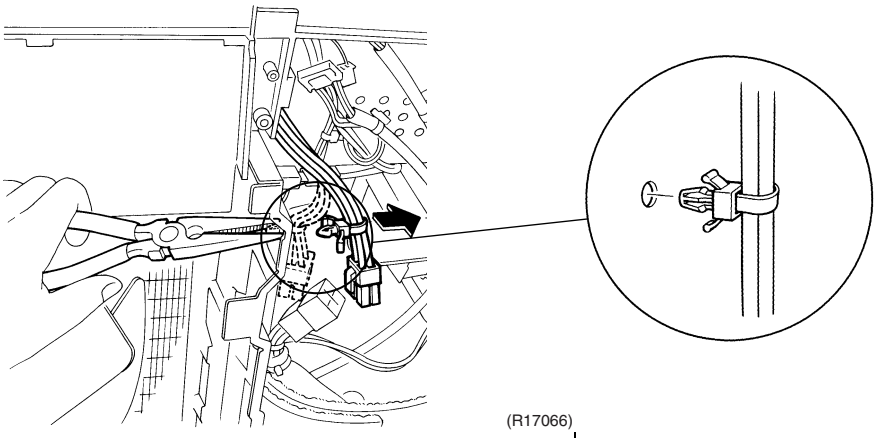
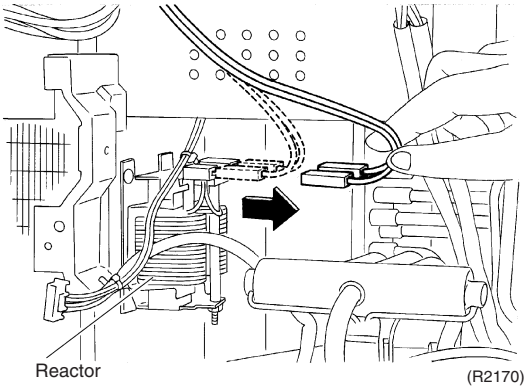
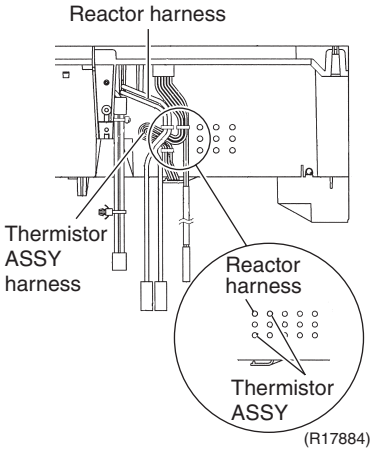
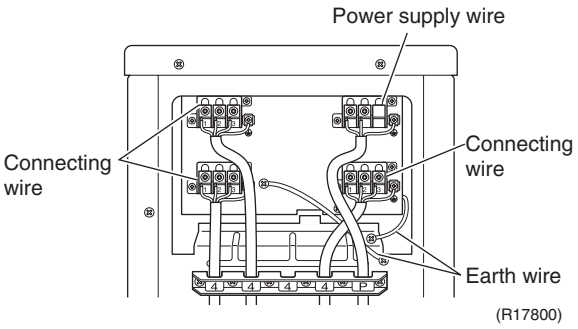
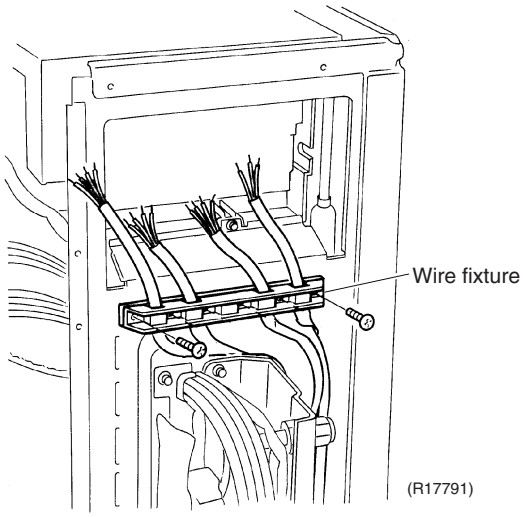


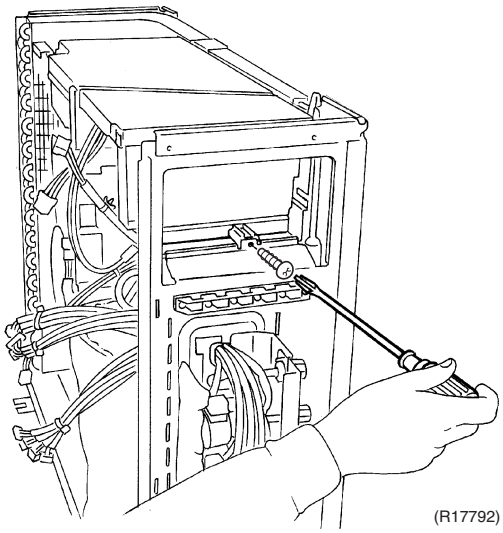
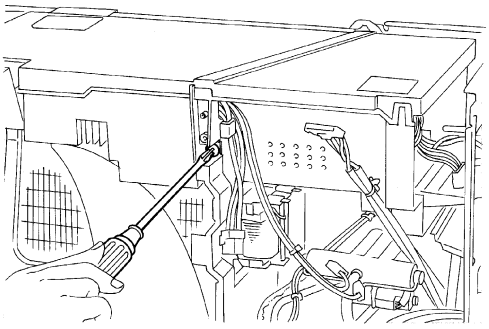
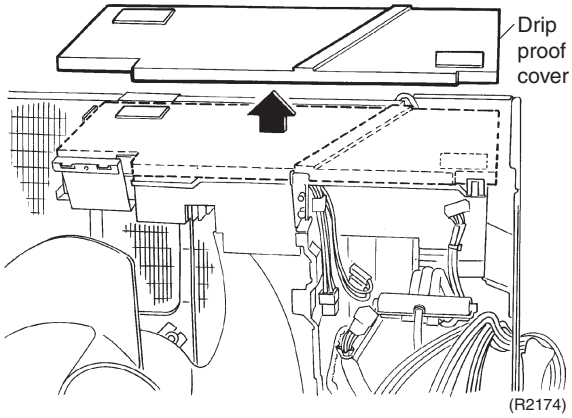
2. Electrical Box

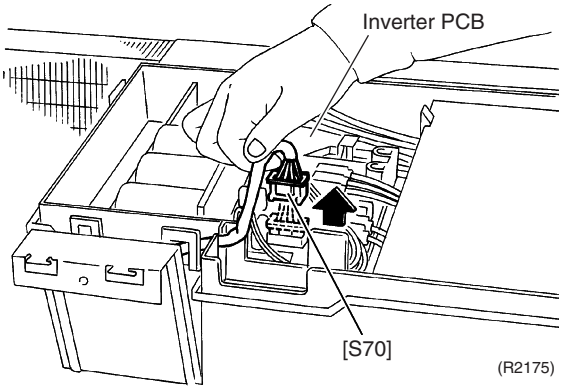
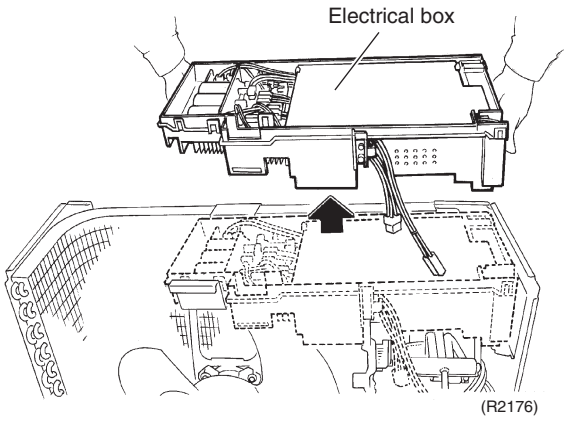
Warning

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

Step	Procedure		Points
1	Disconnect the connectors for the electronic expansion valve coils [S20] [S21] [S22].	 (R16025)	[S20]: white [S21]: red [S22]: blue
2	Remove the connector for the four way valve coil [S80].	 (R11729)	■ The cooling only models have no harness for [S80]. ■ When reassembling, insert the clamp into the hole as below.  (R17397)
3	Disconnect the connectors for the thermistors [S90] [S92] [S93] and the connector for the overload protector [S40].	 (R2168)	[S90]: thermistors (outdoor temperature, outdoor heat exchanger, discharge pipe) [S92]: gas pipe thermistors [S93]: liquid pipe thermistors ■ When reassembling, insert the clamp of the thermistor ASSY harness into the hole as below.  (R17797)
4	Disconnect the relay connector of the compressor.	 (R2169)	■ When reassembling, insert the clamp of the electronic expansion valve coil harness into the hole as below.  (R17798)

Step	Procedure	Points
5	Release the clamp with pliers.  (R17066)	
6	Disconnect the reactor lead wires.  Reactor (R2170)	■ When reassembling, insert each clamp into the holes as below. ■ When reassembling, the thermistor harness should be placed between the electrical box and the reactor harness as below.  Reactor harness Thermistor ASSY harness Reactor harness Thermistor ASSY (R17884)
7	Remove the screws and disconnect the connecting wires, power supply wires, and earth wires.  Power supply wire Connecting wire Connecting wire Earth wire (R17800)	
8	Remove the 2 screws of the wire fixture.  Wire fixture (R17791)	

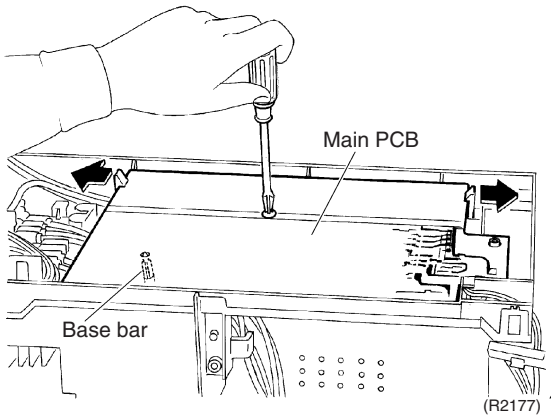
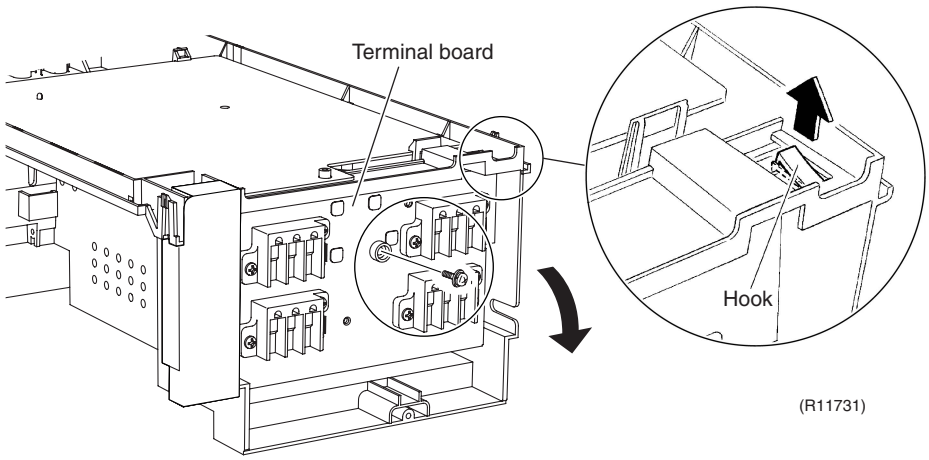
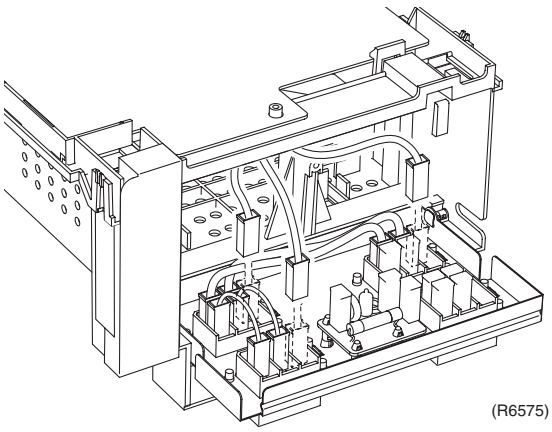
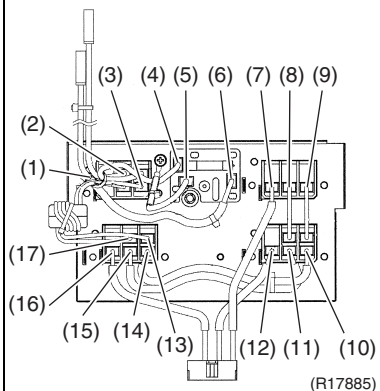
Step	Procedure		Points
9	Remove the screw of the electrical box.	 (R17792)	
10	Remove the screw of the electrical box.	 (R2173)	
11	Remove the drip proof cover.	 (R2174)	

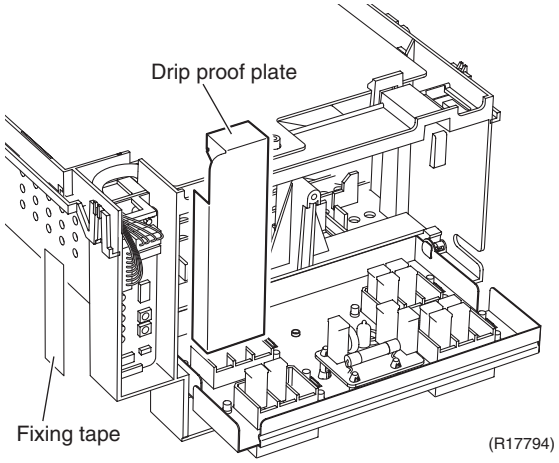
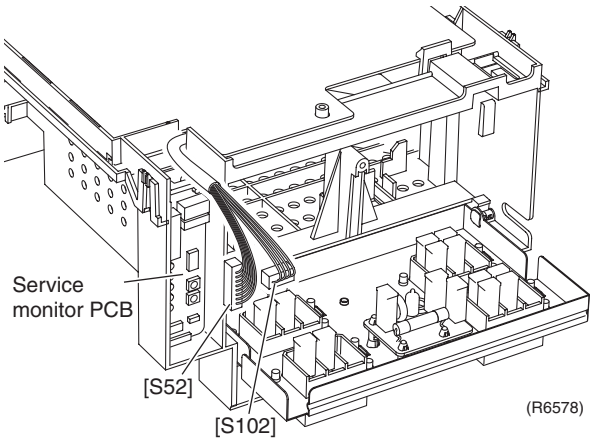
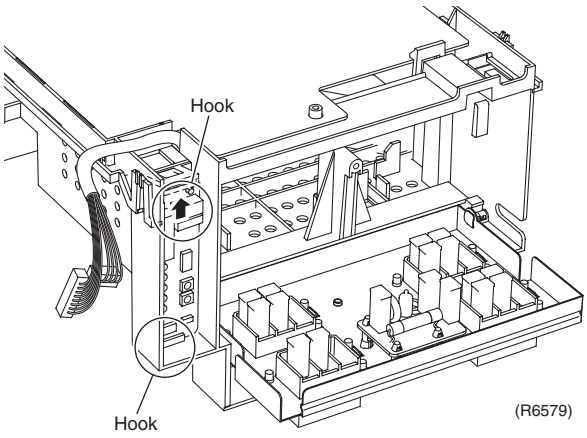
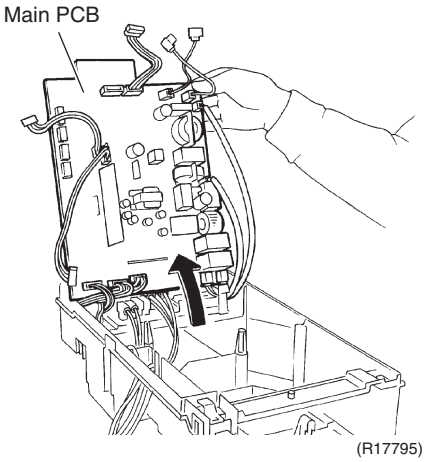
Step	Procedure		Points
12	Disconnect the connector for the fan motor [S70] from the inverter PCB.		
13	Lift up the electrical box and remove it.		

3. PCBs

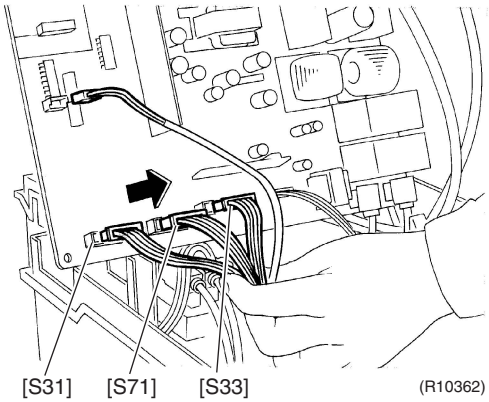
Warning

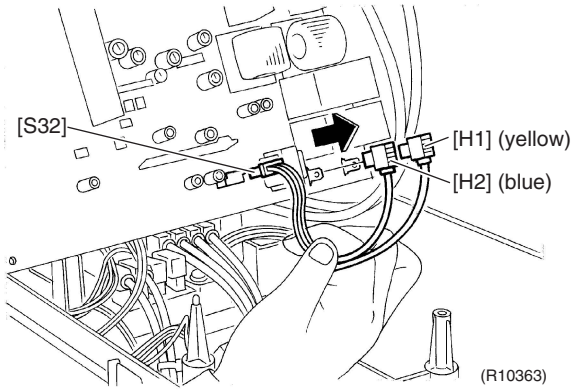
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**

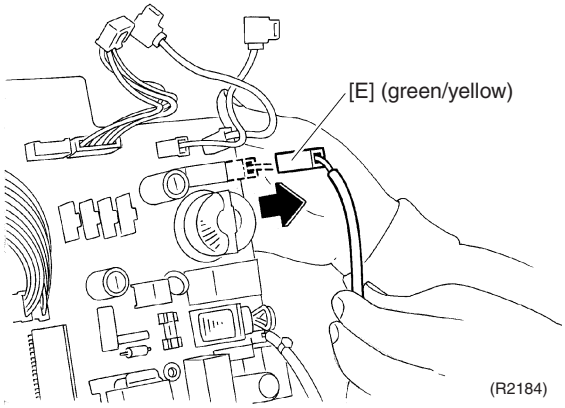
Step	Procedure	Points
1. Remove the service monitor PCB and the main PCB.		
1	Remove the screw of the main PCB and release the 2 hooks.	
2	Remove the screw and release the hook of the terminal board, and open the terminal board.	
3	Disconnect each connector on the back of the terminal board.	  (1) white (10) black (2) blue (11) white (3) black (12) yellow (4) brown (13) black (5) green / yellow (14) black (6) brown (15) white (7) red (16) blue (8) white (17) white (9) black

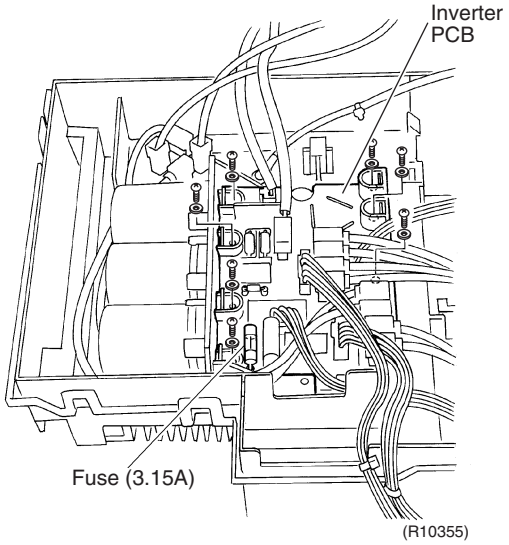
Step	Procedure		Points
4	Detach the fixing tape for the drip proof plate.		
5	Remove the drip proof plate.		
6	Disconnect the connectors [S52] [S102] from the service monitor PCB.		
7	Release the 2 hooks to remove the service monitor PCB.		
8	Remove the service monitor PCB.		
9	Lift up the main PCB.		

Step	Procedure	Points
10	Disconnect the connectors [S31] [S32] [S33] [S71] [H1] [H2].	
11	Disconnect the connector [E].	
2.	Remove the inverter PCB (MID2).	
1	Remove the 7 screws to remove the inverter PCB (MID2).	





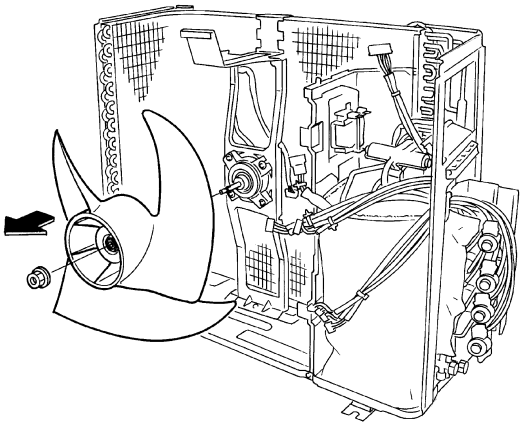
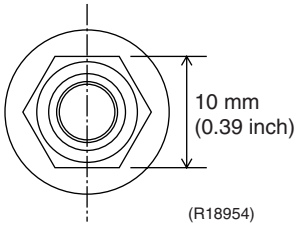
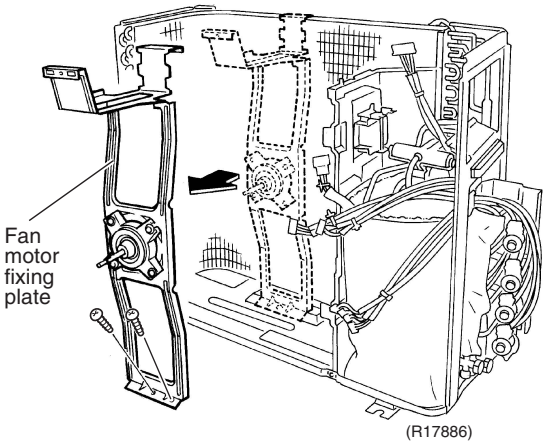
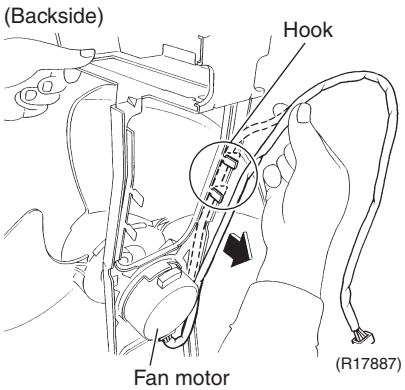
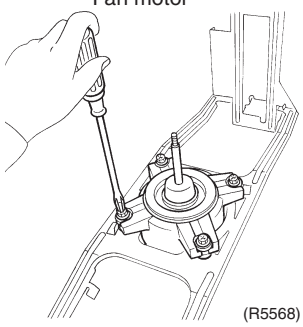




4. Fan Motor

Warning

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

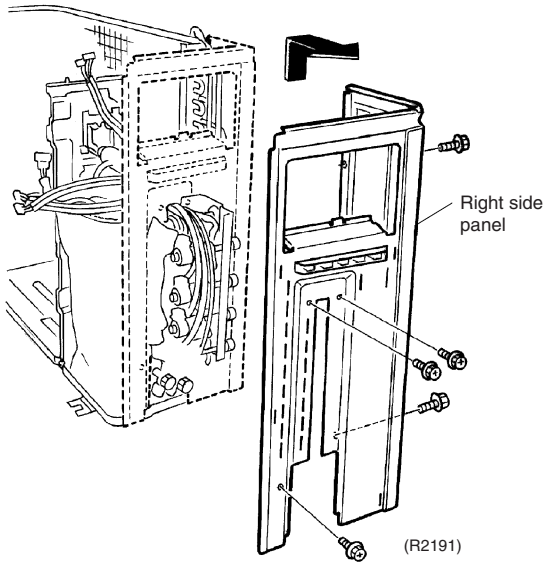
Step	Procedure		Points
1	Remove the nut and remove the outdoor fan.	 (R10362)	■ Nut size : M6  (R18954) ■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.
2	Remove the 2 screws of the fan motor fixing plate.	 (R17886)	■ When reassembling, fix the fan motor lead wire to the clamps to avoid contact with the outdoor fan.
3	Open the 2 hooks and release the fan motor lead wire.	 (R17887)	
4	Remove the 4 screws and remove the fan motor.	 (R5568)	

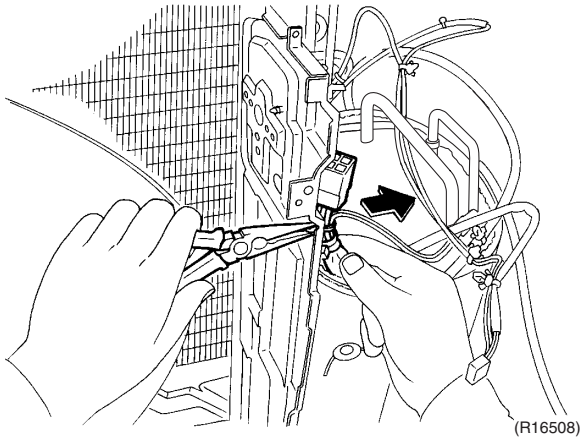
5. Sound Blankets

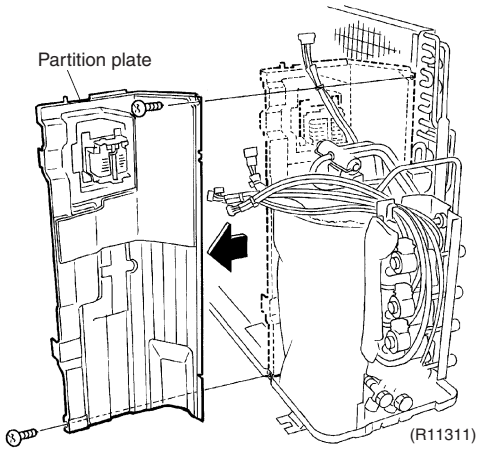
Warning

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

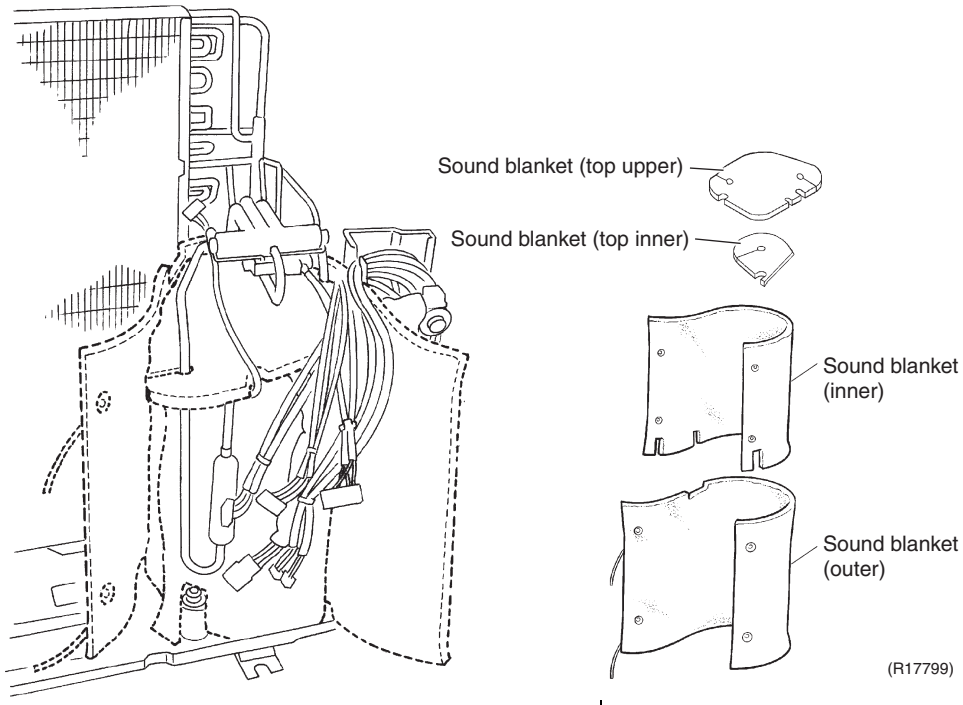
Step	Procedure	Points
1	Remove the 5 screws of the right side panel.	
2	Release the clamp with pliers.	
3	Remove the 2 screws and remove the partition plate.	







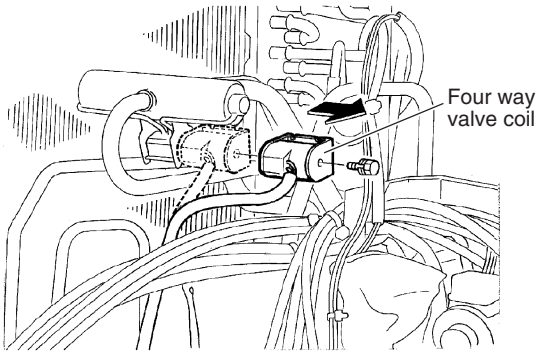
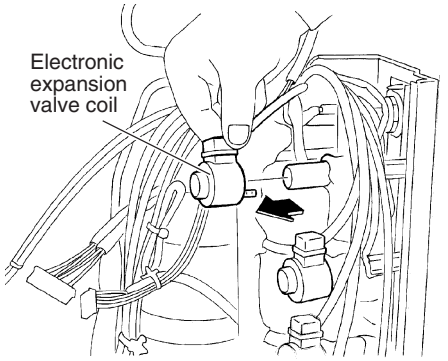
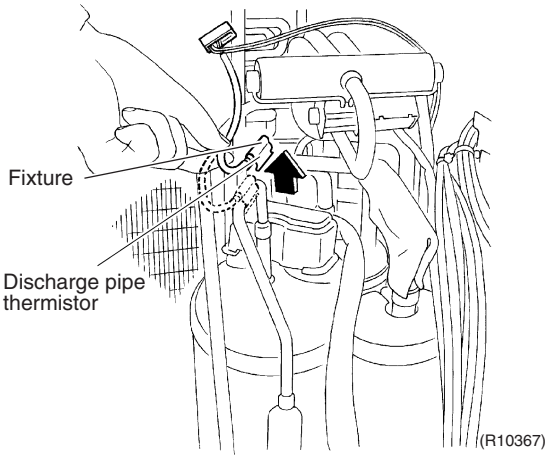
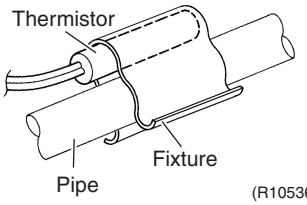
Step	Procedure	Points
4	Remove the sound blanket (top upper, top inner, outer, inner).	■ Carefully remove the sound blanket, which is easily torn in the piping section.

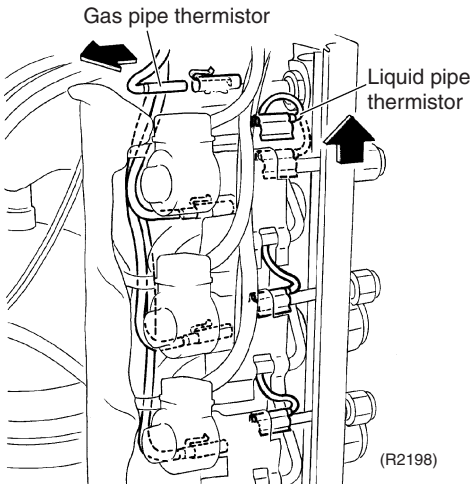
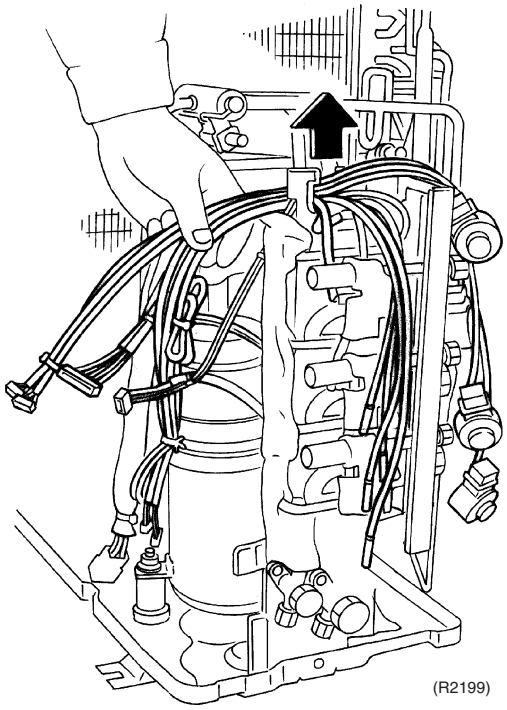


6. Coils / Thermistors

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 four way valve coil.	 (R2194)	
2	Remove the electronic expansion valve coil for each room.	 (R2196)	
3	Release the fixture and remove the discharge pipe thermistor.	 (R10367)	■ Place the thermistor so that its end comes up to the end of the fixture. ■ Be careful not to lose the fixture for the discharge pipe thermistor.  (R10536)

Step	Procedure		Points
4	Peel off the putty and pull out the liquid and gas pipe thermistors.		■ Place the thermistor so that its end comes up to the end of the fixture. ■ Be careful not to lose the clip or fixtures for the liquid and gas pipe thermistor.
5	Remove the wire harnesses.		

7. Four Way Valve

Warning

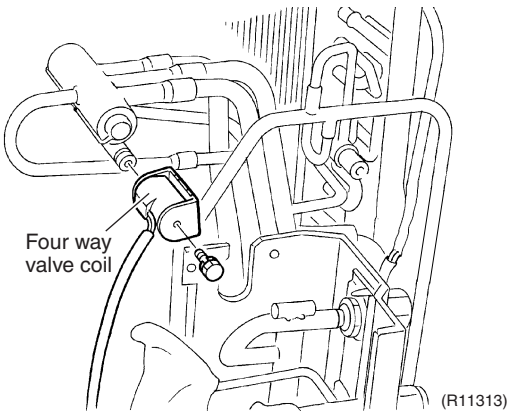
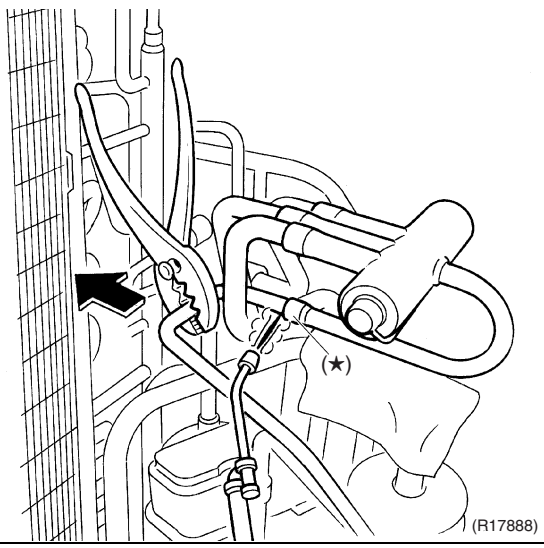
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**
- **Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.**
- **If the refrigerant gas leaks during work, ventilate the room. (If the 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.		■ The cooling only models have no four way valve coil.
2	Heat the brazed points of the four way valve.		■ Disconnect the point (★) first.

8. Distributor

Warning

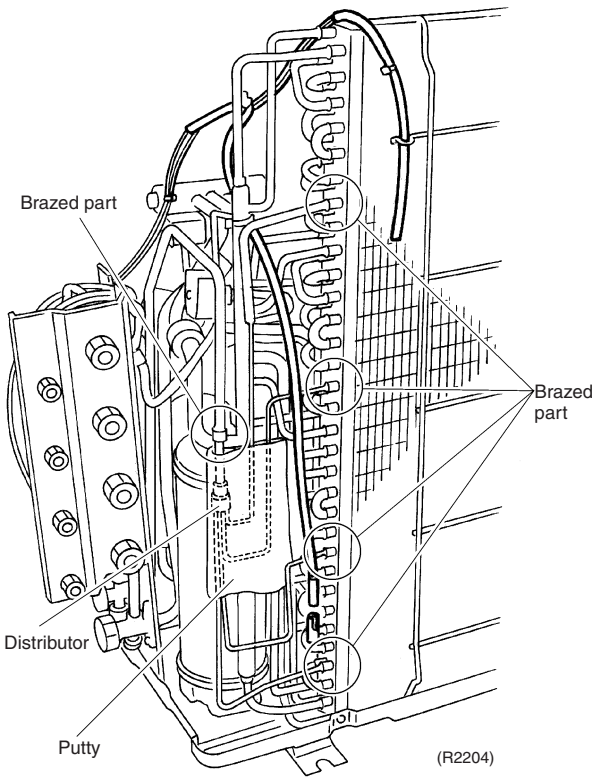
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**
- **Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.**
- **If the refrigerant gas leaks during work, ventilate the room. (If the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

9. Compressor

Warning

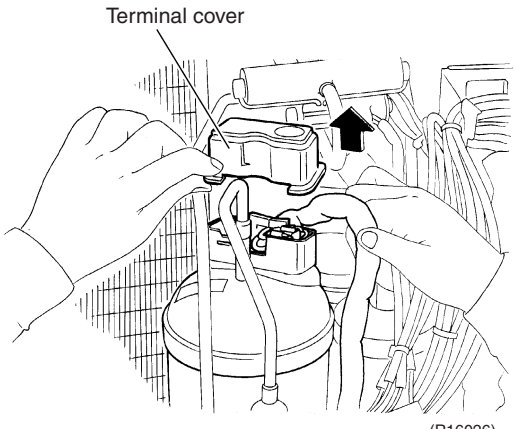
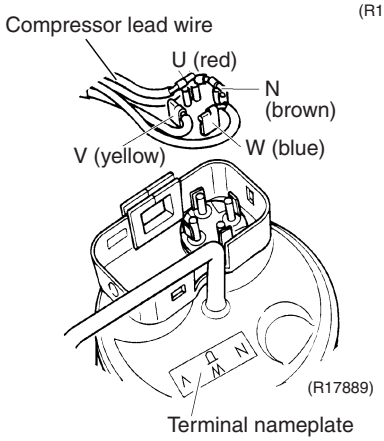
- **Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.**
- **Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.**
- **If the refrigerant gas leaks during work, ventilate the room. (If the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

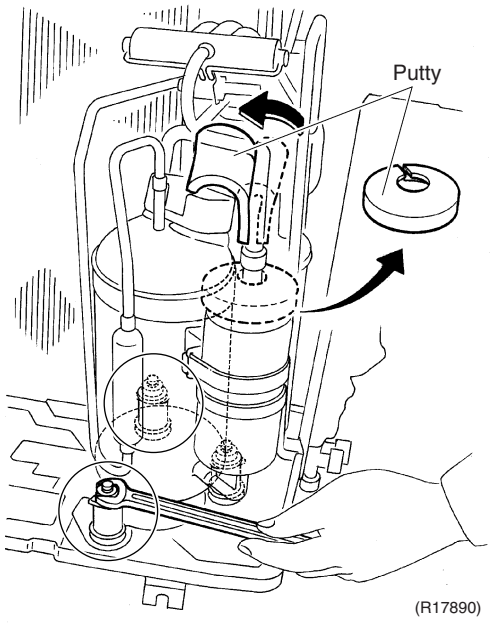
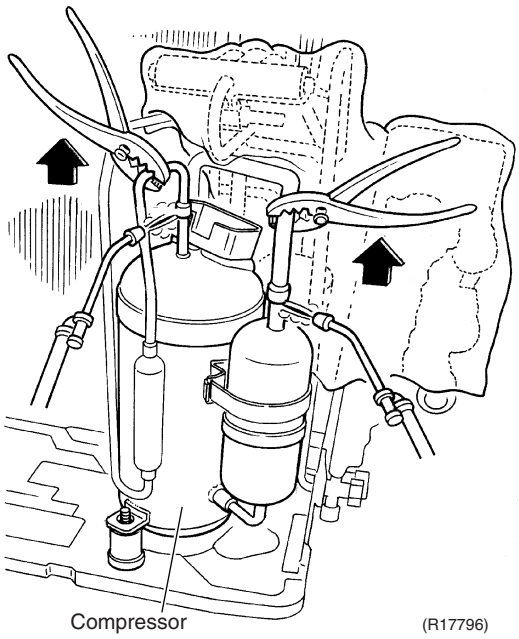
Caution

- **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 terminal cover.	 (R16026)	
2	Disconnect the compressor lead wires.		

Step	Procedure		Points
3	Remove the 2 sheets of putty.		
4	Remove the 2 nuts.		
5	Disconnect the brazed parts of the compressor.		
6	Remove the compressor.		

Revision History

Month / Year	Version	Revised contents
09 / 2012	Si121294	First edition
04 / 2015	Si121294EA	Model addition: 3MKS71FSG

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 April 2015 but subject to change without notice.

Si121294EA
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