




REMOVAL PROCEDURE



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

4.0/5.0/5.2/5.8/6.8 kW Class

-  Outdoor Unit
-  Inverter
-  Multi Type



Service Manual Removal Procedure

Outdoor Unit

●Cooling Only

3MKS50ESG

3MKS50FSG

3MKS58KVM

**3MKS58LVMA
3MKS58LVMA9**

**3MKS68LVMA
3MKS68LVMA9**

●Heat Pump

3AMX52E4V1B

3MXS40K3V1B

3MXS52E4V1B

3MXS52KVM

**3MXS52LVMA
3MXS52LVMA9**

3MXS68G3V1B

**3MXS68LVMA
3MXS68LVMA9**

4MXS68F3V1B

Table of Contents

1. Outer Panels	2
2. Electrical Box	4
3. PCBs	9
4. Fan Motor	12
5. Sound Blankets	13
6. Coils / Thermistors	16
7. Distributor	18
8. Four Way Valve	19
9. Compressor	20



Note:

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

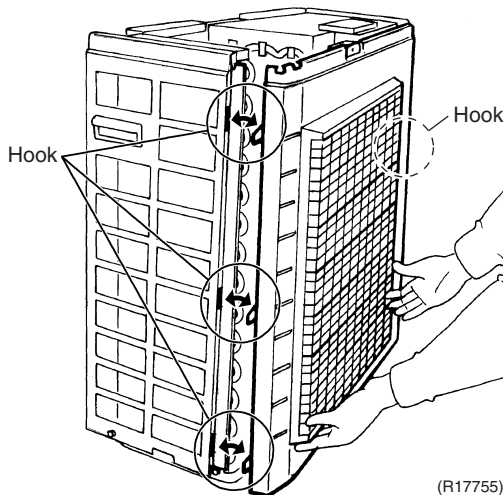
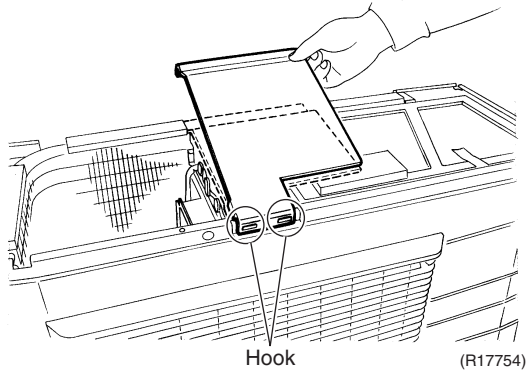
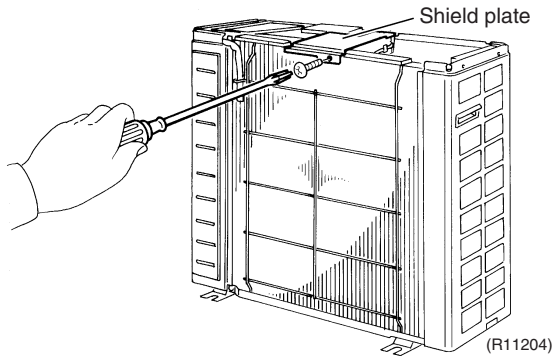
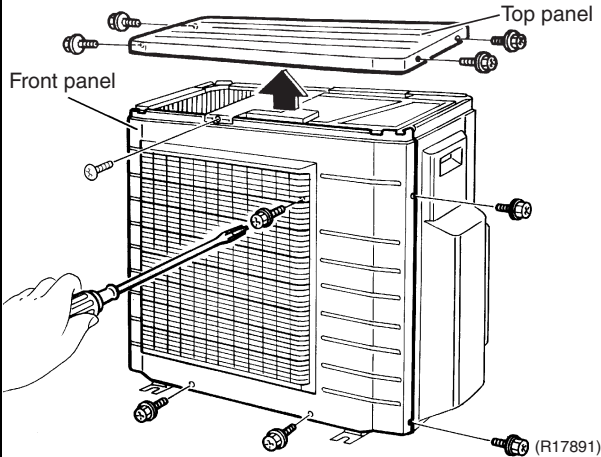
1. Outer Panels

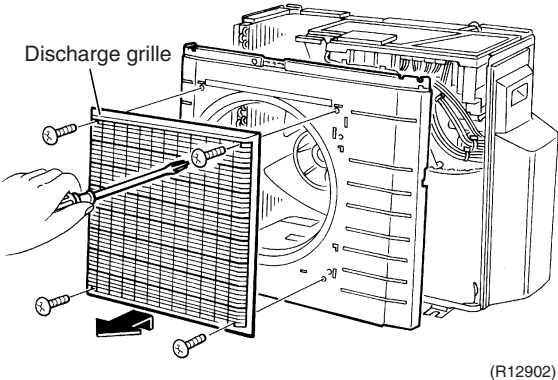
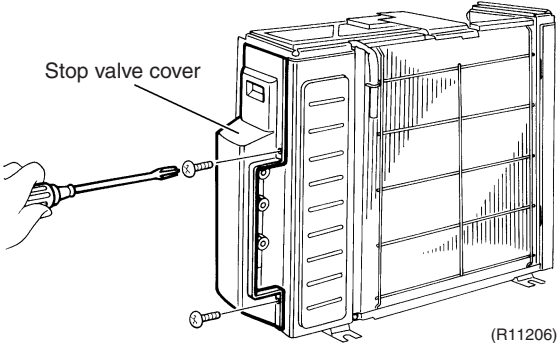
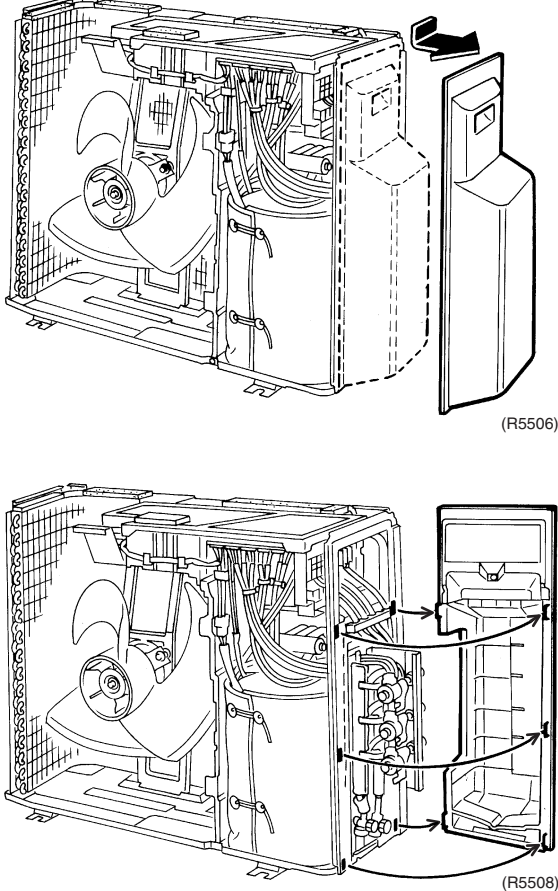


Warning

◆ 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.	<p>■ The illustrations are for 3-room models as representative.</p>
2	Remove the 6 screws of the front panel.	
3	Remove the screw of the shield plate.	
4	Unfasten the 2 hooks and remove the shield plate.	
5	Unfasten the 4 hooks and remove the front panel.	



Step	Procedure	Points
6	Remove the 4 screws and remove the discharge grille.	 <p>Discharge grille</p> <p>(R12902)</p>
7	Remove the 2 screws of the stop valve cover.	 <p>Stop valve cover</p> <p>(R11206)</p>
8	Slide the stop valve cover downward and remove it.	 <p>(R5506)</p> <p>(R5508)</p>

■ When reassembling, make sure to fit the 5 hooks.

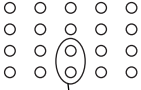
2. Electrical Box

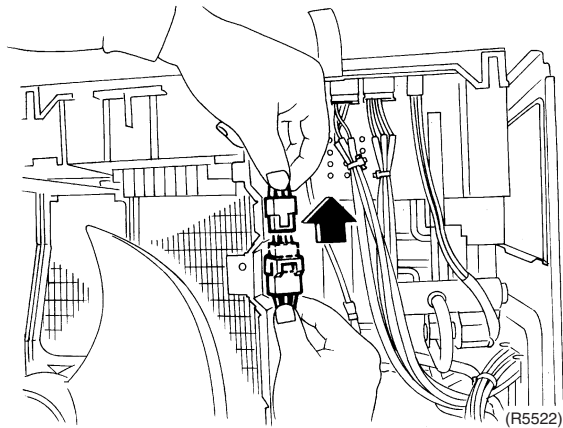
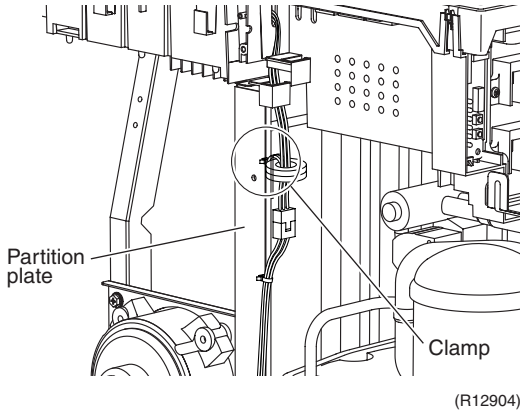
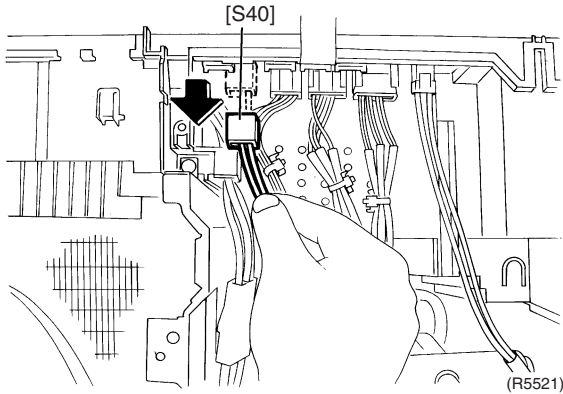
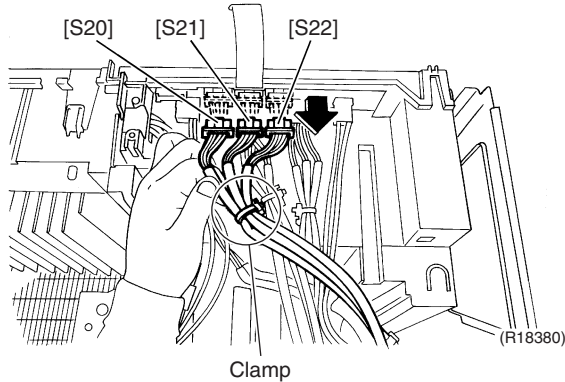


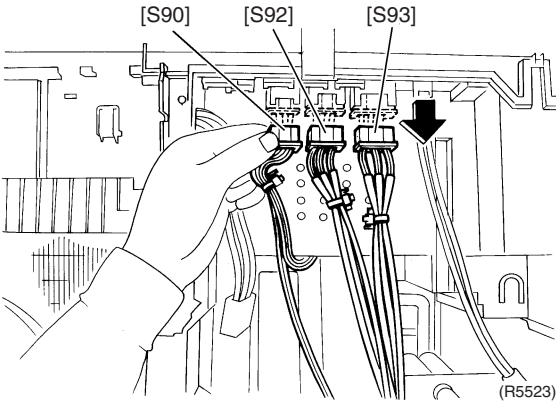
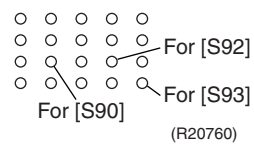
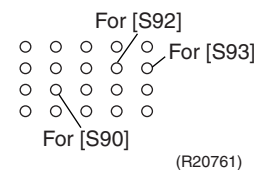
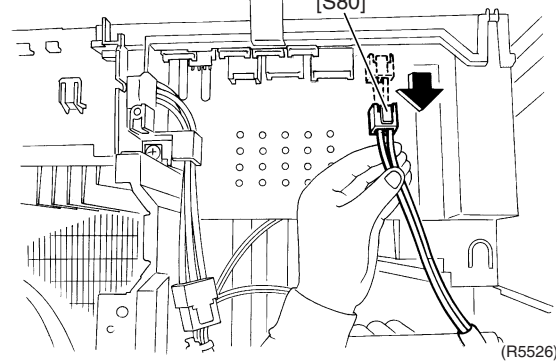
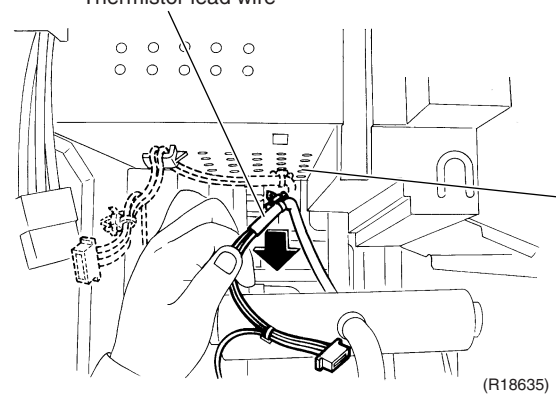
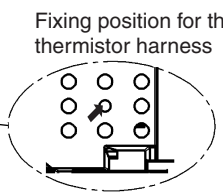
Warning

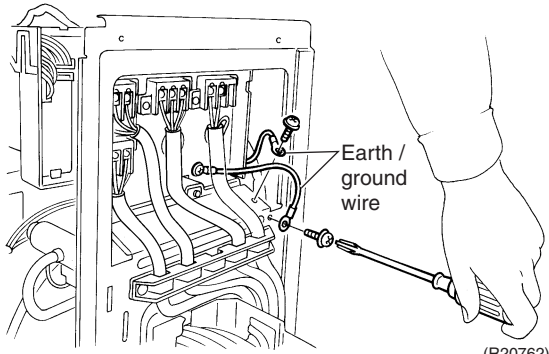
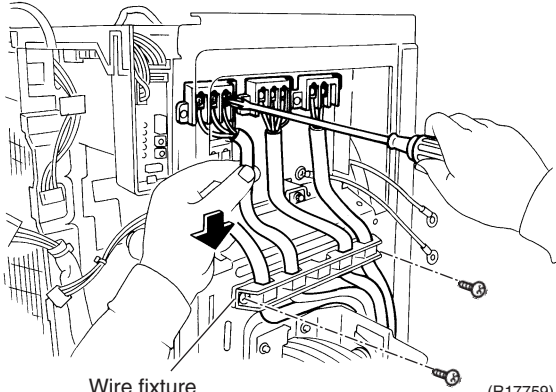
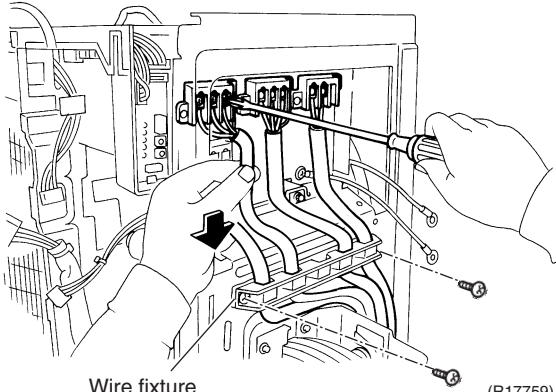
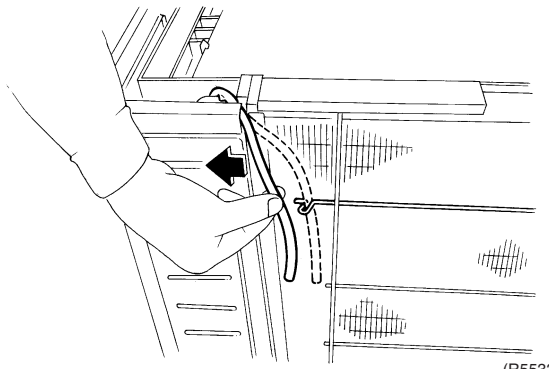
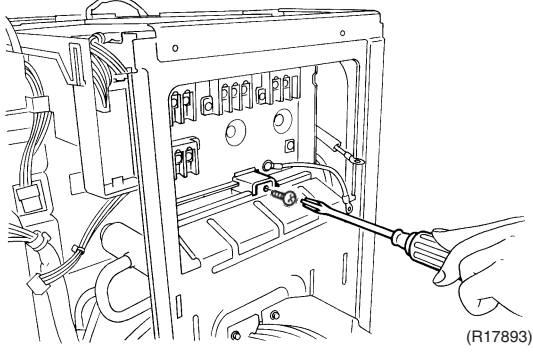
◆ Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

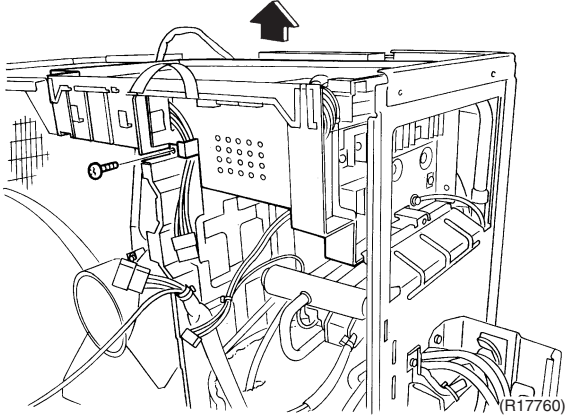
Step	Procedure	Points
1. Disconnect the harnesses.	<p style="text-align: center;">(R18379)</p>	
1 Peel off the fixing tape.		
2 Unfasten the 4 hooks and remove the electrical box cover.		
3 Detach the clamp and disconnect the connector [S70].	<p style="text-align: center;">(R17166)</p>	<p>[S70]: fan motor</p> <ul style="list-style-type: none"> ■ When reassembling, insert the clamp into either hole as below. <p style="margin-left: 20px;">For the ferrite core of fan motor harness</p> <p style="text-align: center;">(R17167)</p>
4 Release the fan motor lead wire from the hooks.	<p style="text-align: center;">(R17168)</p>	<ul style="list-style-type: none"> ■ Some models have no ferrite core for the harness of [S70].

Step	Procedure	Points
5	Disconnect the connectors for the electronic expansion valve coil.	[S20] (white) : room A [S21] (red) : room B [S22] (blue) : room C
6	Pull out the clamp.	<ul style="list-style-type: none"> ■ The 4-room model has [S23] (yellow) for room D. ■ When reassembling, insert the clamp of the electronic expansion valve coil ASSY into either hole as below.
7	Disconnect the connector [S40].	 <p>For the electronic expansion valve coil (R20759)</p>
8	Pull out the clamp with pliers.	[S40] : overload protector
9	Disconnect the relay connector of the compressor.	



Step		Procedure	Points
10	Disconnect each connector.		<p>[S90] : thermistors [S92] : gas pipe thermistors [S93] : liquid pipe thermistors</p> <ul style="list-style-type: none"> When reassembling, insert each clamp of the thermistor harnesses into the holes as below. <p>50/58 class 3MXS52KVM, 3MXS52LVMA(9)</p>  <p>40/68 class 3AMX52E4V1B, 3MX52E4V1B</p> 
11	Disconnect the connector [S80].		<p>[S80] : four way valve coil</p> <ul style="list-style-type: none"> The cooling only models have no harness for [S80].
12	Pull out the clamp of the thermistor lead wire.		<ul style="list-style-type: none"> When reassembling, insert the clamp into the small hole. 

Step	Procedure	Points
2.	Remove the electrical box.	
1	<p>Remove the 2 screws of the earth / ground wires.</p>  <p>(R20762)</p>	
2	<p>Remove the screws on the terminal board and disconnect all the connecting wires and the power supply wire.</p>  <p>Wire fixture</p> <p>(R17759)</p>	
3	<p>Remove the 2 screws and remove the wire fixture.</p>  <p>(R17759)</p>	
4	<p>Detach the outdoor temperature thermistor.</p>  <p>(R5533)</p>	
5	<p>Remove the screw on the right side of the electrical box.</p>  <p>(R17893)</p>	

Step	Procedure	Points
6	Remove the screw of the electrical box.	
7	<p>Lift up and remove the electrical box.</p> 	

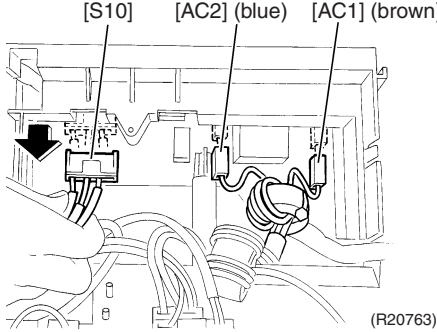
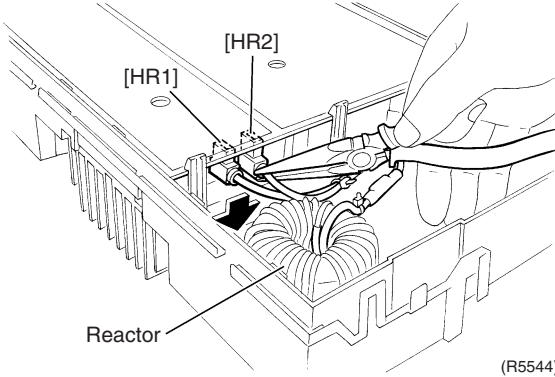
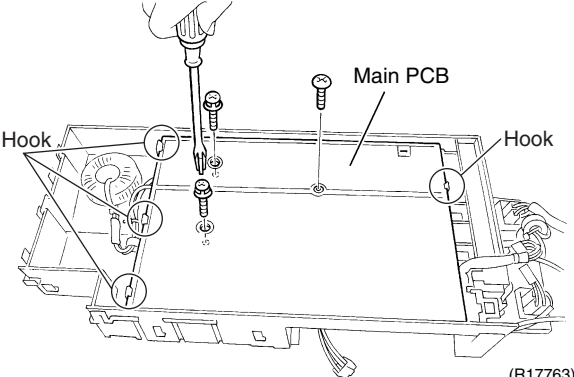
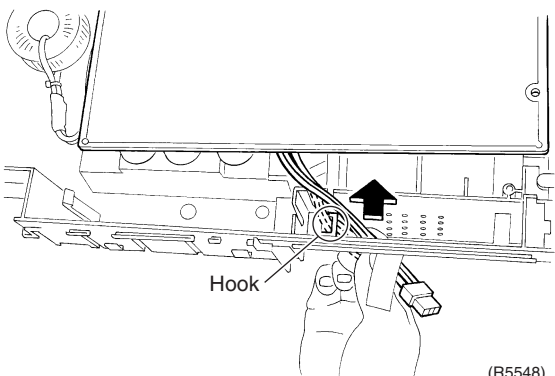
3. PCBs

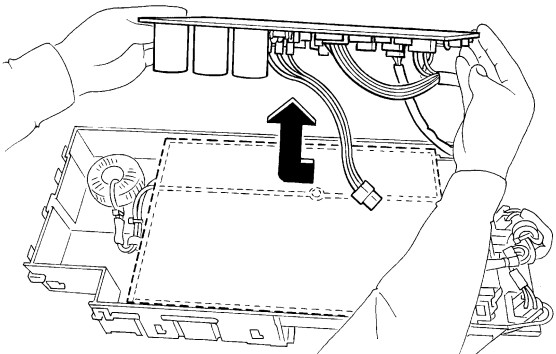
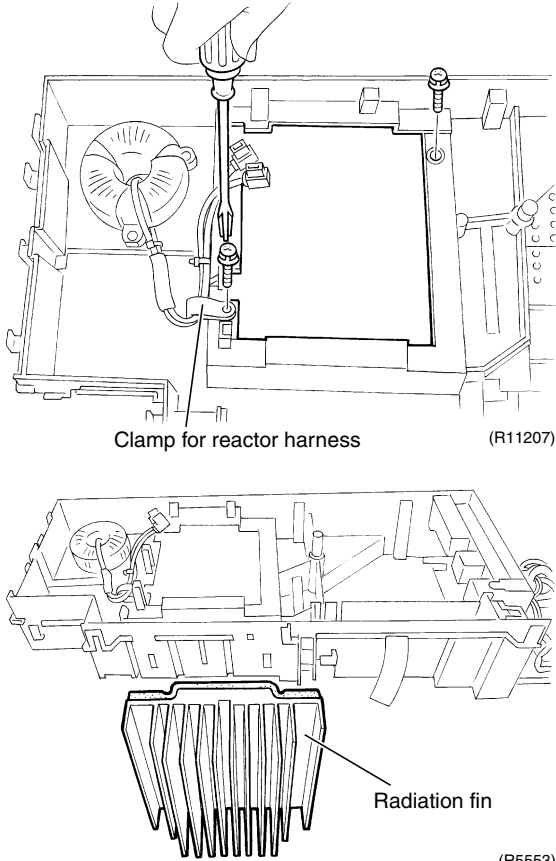
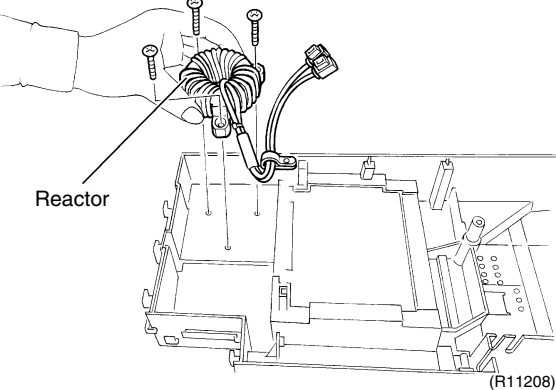


Warning

- ◆ 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 service monitor PCB.</p> <p>1 Disconnect the connectors [S52] [S102] from the service monitor PCB.</p> <p>2 Unfasten the upper hook and remove the service monitor PCB.</p>	<p style="text-align: right;">(R18805)</p> <p style="text-align: right;">(R18381)</p>	
<p>2. Remove the main PCB.</p> <p>1 Remove the screw of the terminal board and open it.</p>	<p style="text-align: right;">(R17896)</p> <p style="text-align: right;">(R5539)</p>	

Step	Procedure	Points
2	Disconnect the connectors for the terminal board on the right side.	[AC1] [AC2] : power supply [S10] : transmission
		
3	Disconnect the 2 connectors for the reactor on the left side.	
		
4	Remove the 3 screws of the main PCB.	
5	Release the 4 hooks and lift up the main PCB.	
		
6	Release the relay harness for the compressor from the hook.	
		

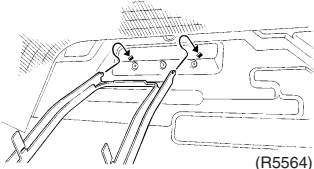
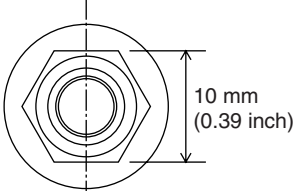

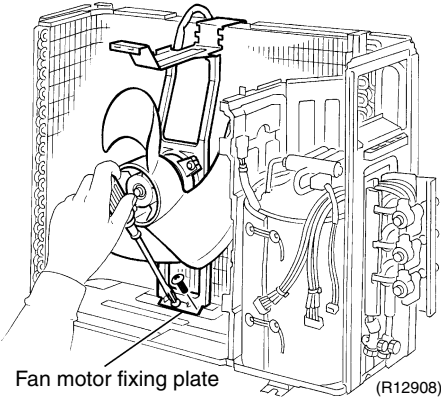
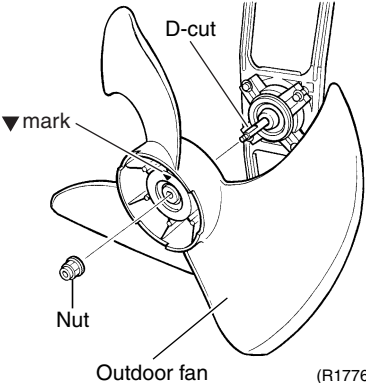
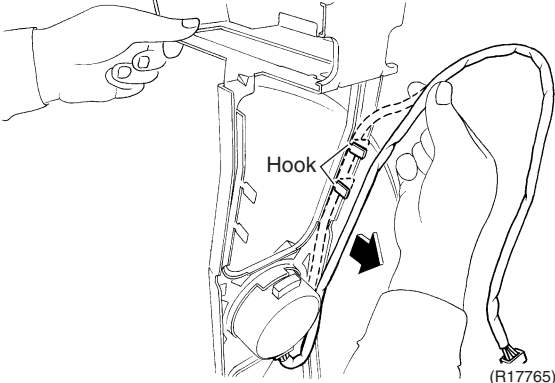
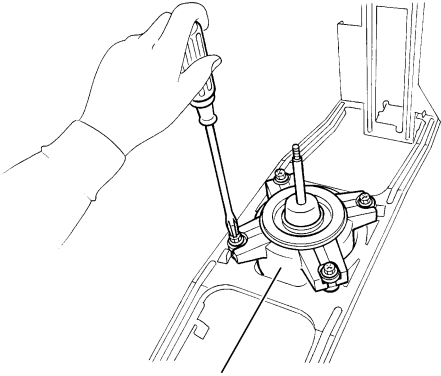
Step	Procedure	Procedure	Points
7	Remove the main PCB.	 <p>(R5549)</p>	<ul style="list-style-type: none"> ■ In working, be careful not to break the main PCB. The main PCB and the radiation fin are adhered to one another.
8	Remove the 2 screws and remove the radiation fin.	 <p>Clamp for reactor harness (R11207)</p> <p>Radiation fin (R5553)</p>	<ul style="list-style-type: none"> ■ When reassembling, make sure to use the silicon grease.
9	Remove the 3 screws and remove the reactor.	 <p>Reactor (R11208)</p>	

4. Fan Motor



Warning

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

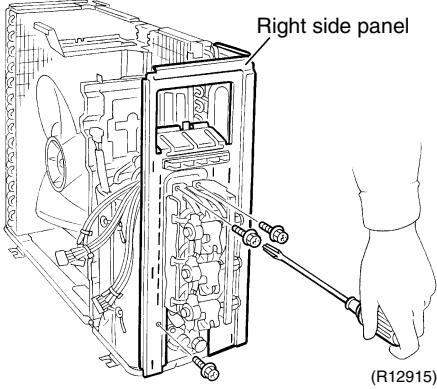
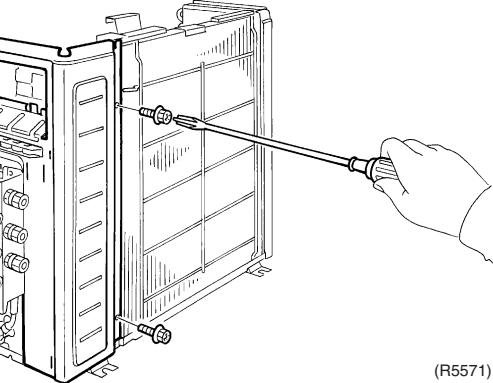
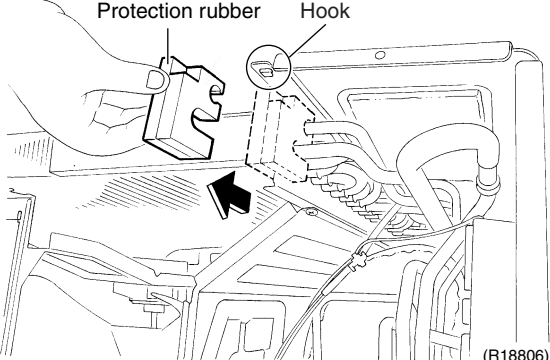
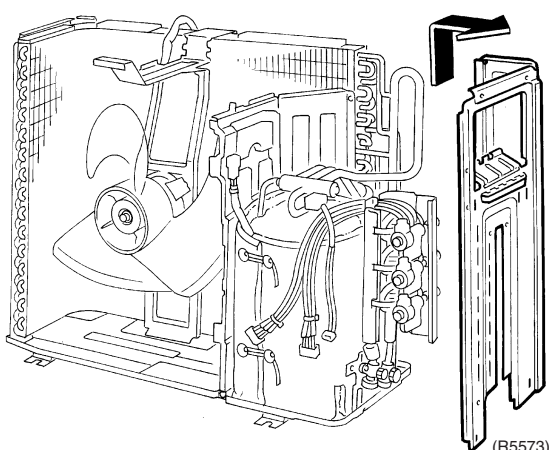
Step	Procedure	Points
1	Remove the 2 screws and remove the fan motor fixing plate.	 <p>(R5564)</p> <ul style="list-style-type: none"> ■ When reassembling, fit the lower hooks.
2	Remove the nut and remove the outdoor fan.	<ul style="list-style-type: none"> ■ Nut size: M6  <p>(R18954)</p> <ul style="list-style-type: none"> ■ When reassembling, align the ▼ mark of the outdoor fan with the D-cut section of the motor shaft.
3	Open the 2 hooks and release the fan motor lead wire.	<ul style="list-style-type: none"> ■ 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.
4	Remove the 4 screws and remove the fan motor.	 <p>Lead wire Outdoor fan (R12215)</p>
	 <p>Fan motor fixing plate (R12908)</p>  <p>Outdoor fan (R17764)</p>  <p>Hook (R17765)</p>  <p>Fan motor (R12913)</p>	

5. Sound Blankets

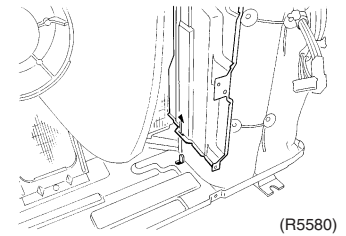
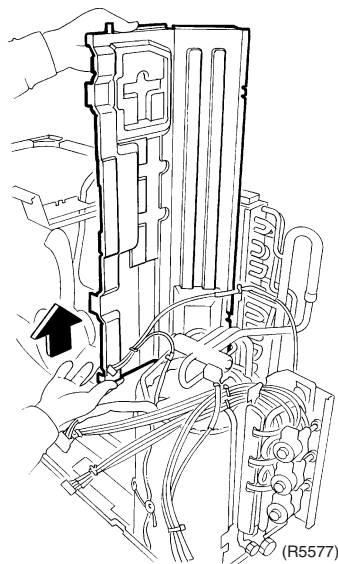
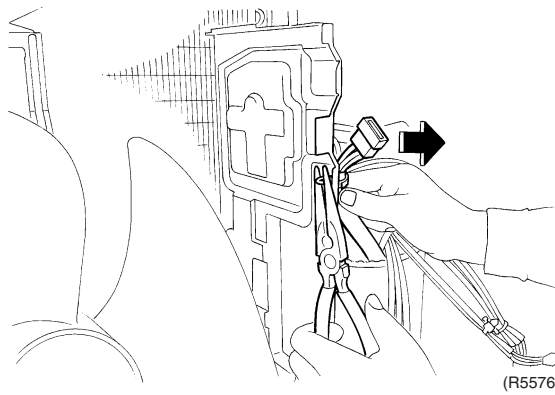
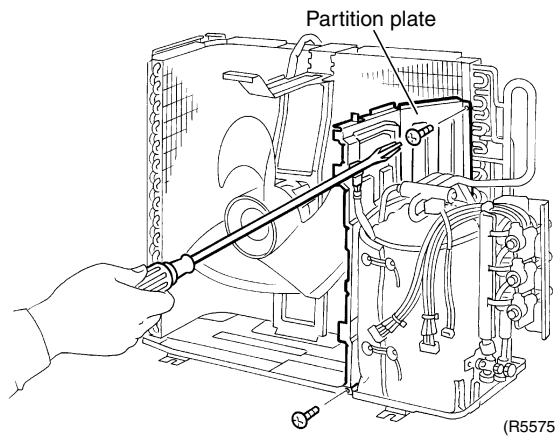


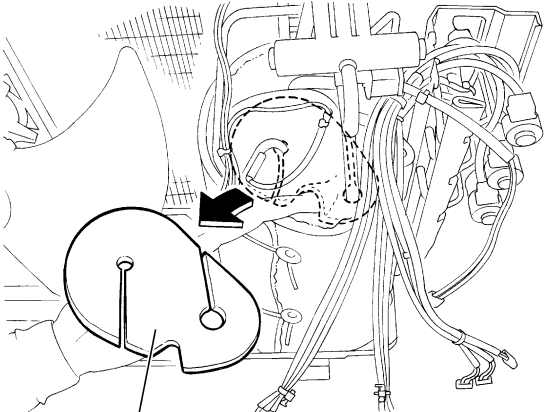
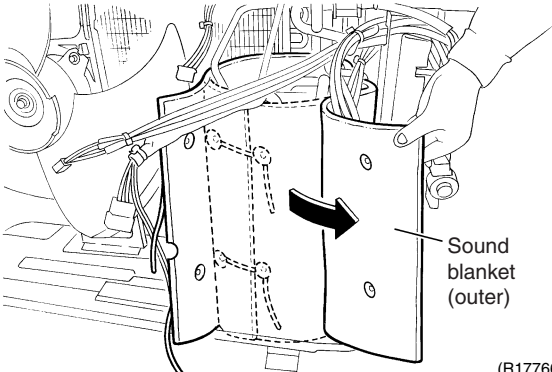
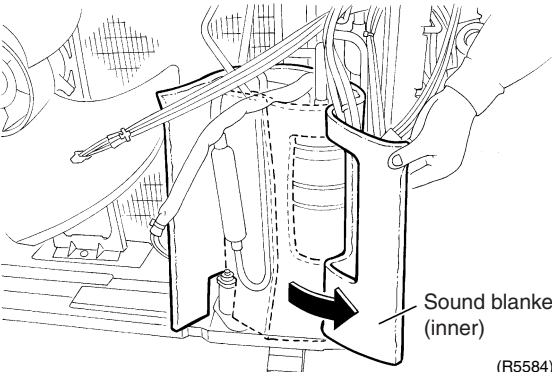
Warning

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

Step	Procedure	Points
1. Remove the right side panel.		
1 Remove the 3 screws of the right side panel.		
2 Remove the 2 screws on the back.		<p>■ There is a hook on the back.</p>
3 Remove the protection rubber.		
4 Lift up and remove the right side panel.		

Step	Procedure	Points
2.	Remove the partition plate.	
1	Remove the 2 screws of the partition plate.	
2	Detach the clamp of the relay harness for the compressor.	
3	Lift up and remove the partition plate.	<p>■ When reassembling, make sure to fit the lower hook of the partition plate.</p>



Step	Procedure	Points	
3.	Remove the sound blankets.		
1	Remove the sound blanket (top upper).	<ul style="list-style-type: none"> ■ Since the piping ports on the sound blanket are torn easily, remove the blanket carefully. ■ The shape of the sound blankets differs depending on the model. 	
2	Remove the sound blanket (top inner).		 <p style="text-align: center;">Sound blanket (top inner) (R5582)</p>
3	Open the sound blanket (outer) and pull it out.		 <p style="text-align: center;">Sound blanket (outer) (R17766)</p>
4	Open the sound blanket (inner) and pull it out.		 <p style="text-align: center;">Sound blanket (inner) (R5584)</p>

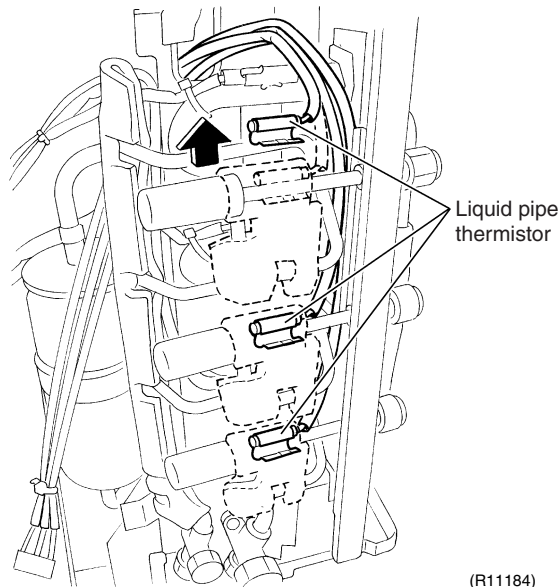
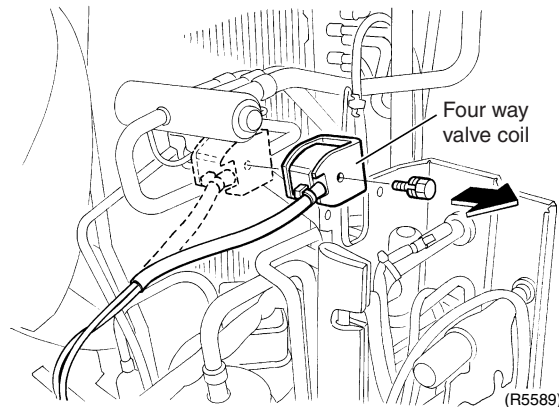
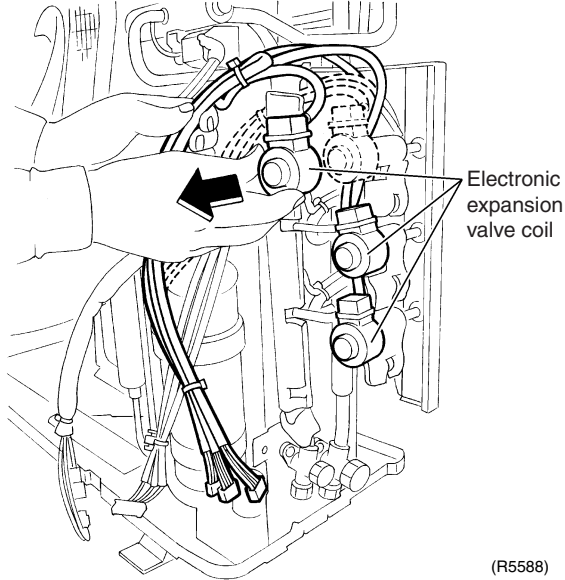
6. Coils / Thermistors

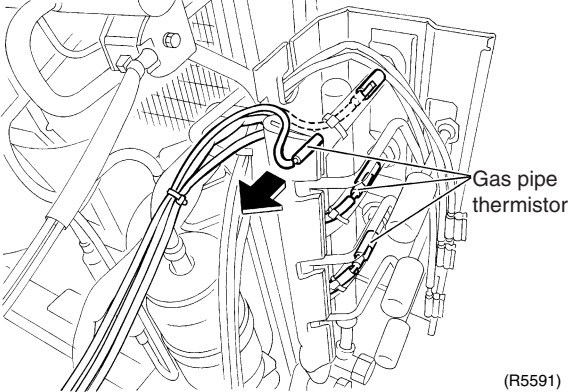


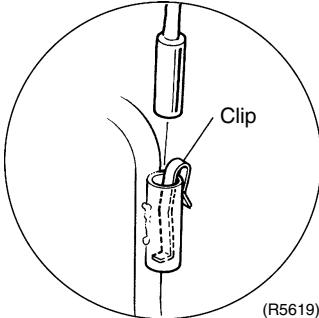
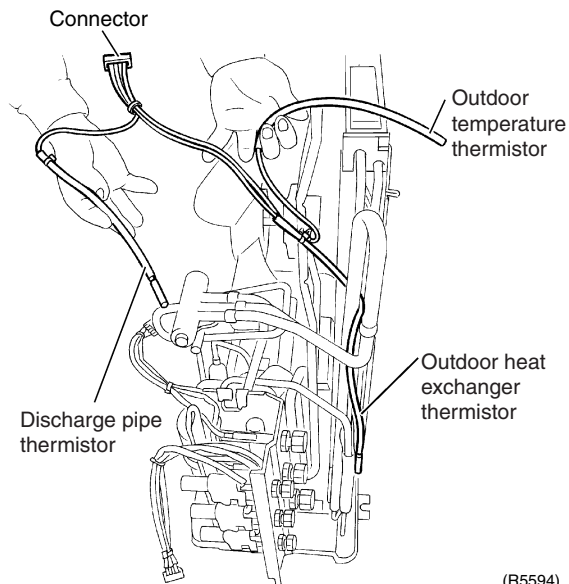
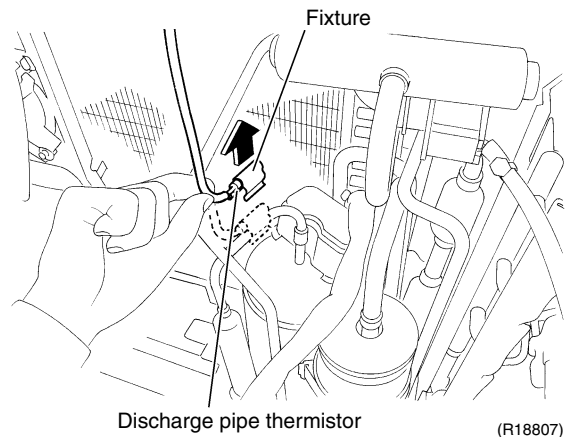
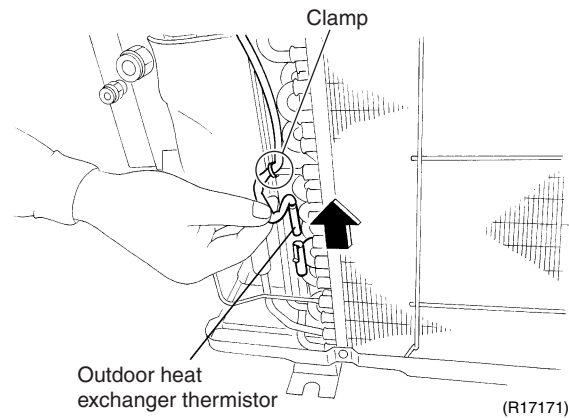
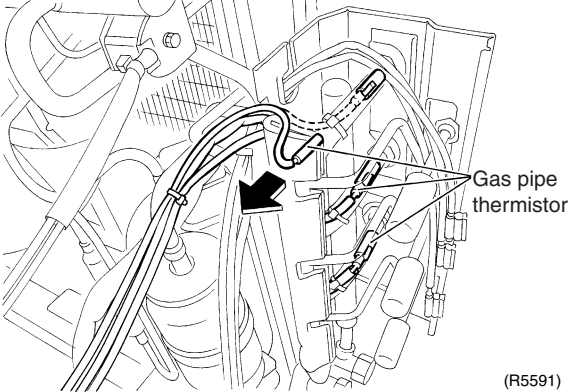
Warning

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

Step	Procedure	Points
1	Pull out the electronic expansion valve coils.	
2	Remove the screw and remove the four way valve coil.	■ The cooling only models have no four way valve coil.
3	Open the putty and remove the liquid pipe thermistors.	■ When reassembling, meet the edge of the thermistor and the fixture.



Step	Procedure	Points
4	Pull out the gas pipe thermistors.	
5	Cut the clamp.	<ul style="list-style-type: none"> ■ Be careful not to lose the clip.
6	Pull out the outdoor heat exchanger thermistor.	<ul style="list-style-type: none"> ■ The positions of the clamp and outdoor heat exchanger thermistor differ depending on the model.
7	Remove the discharge pipe thermistor.	<ul style="list-style-type: none"> ■ When reassembling, meet the edge of the thermistor and the fixture.
8	Remove the assembly of thermistors.	



7. 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.)



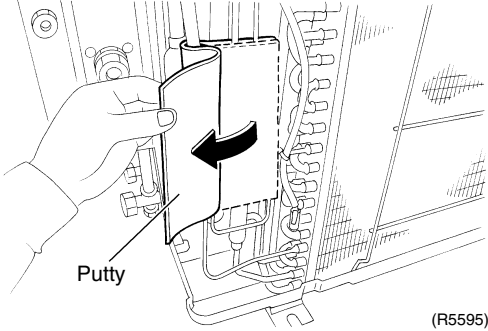
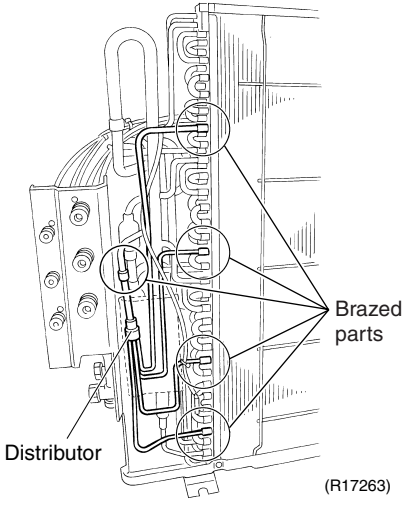
Caution

- ◆ 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	Procedure	Points
1	Remove the putty.		
2	Heat up and disconnect the brazed parts to remove the distributor.		

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

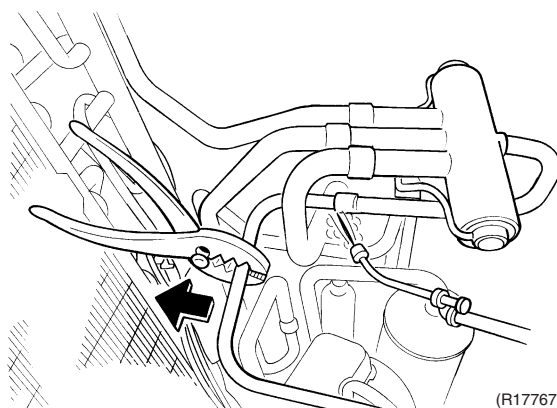
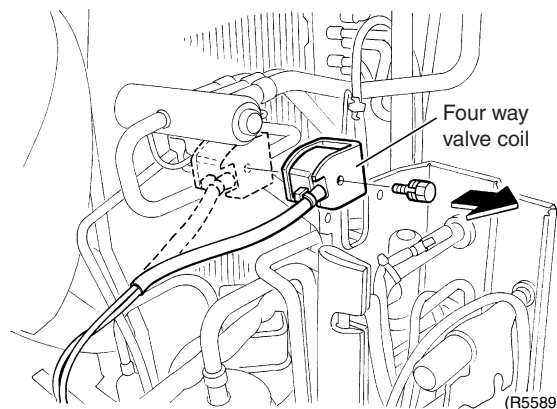
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Cautions for restoration
 1. Restore the piping by non-oxidation brazing.
 2. It is required to prevent the carbonization of the oil inside 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	Remove the screw and remove the four way valve coil.	<ul style="list-style-type: none"> ■ Some models have no four way valve coil.
2	Heat up the brazed parts and remove the four way valve.	



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.



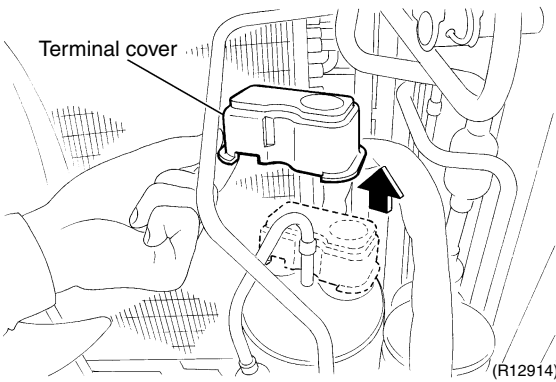
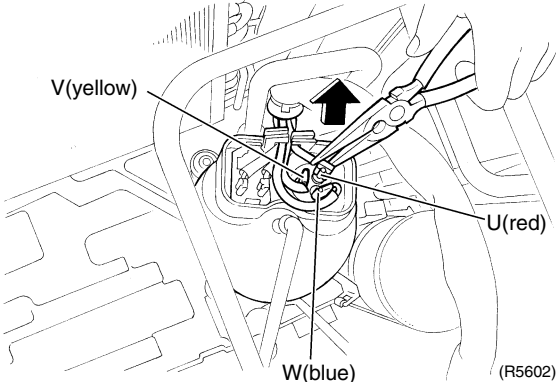
Caution

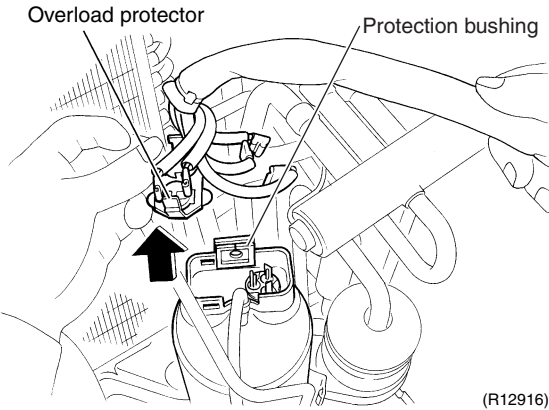
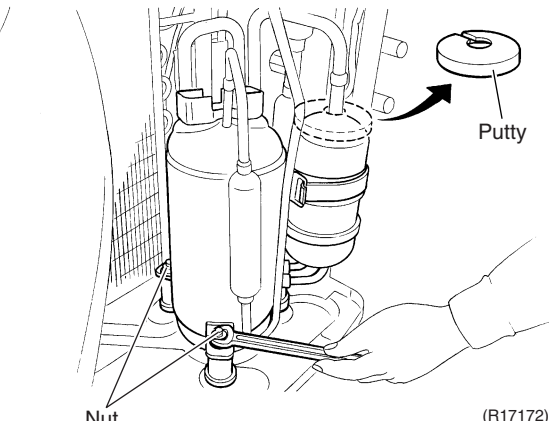
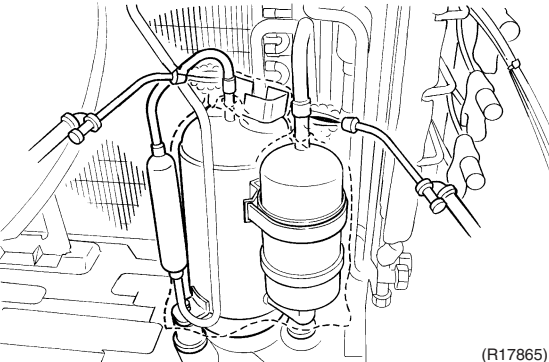
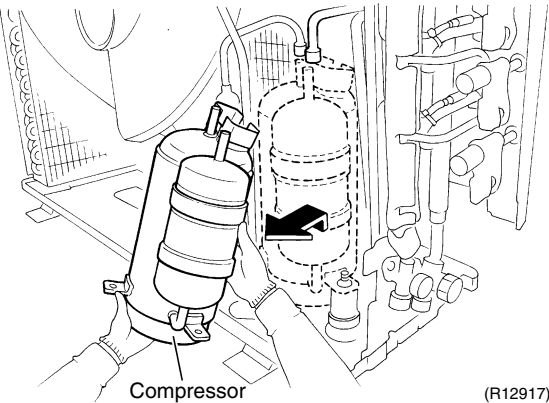
- ◆ From the viewpoint of global environment protection, do not discharge the refrigerant gas in the atmosphere. Make sure to collect all the refrigerant gas.
- ◆ Restore the piping by non-oxidation brazing.



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	Procedure	Points
1	Remove the terminal cover.		
2	Disconnect the compressor lead wires.		

Step		Procedure	Points
3	Detach the overload protector.		
4	Remove the protection bushing.		
5	Remove the putty.		
6	Remove the 2 nuts.		
7	Heat up the brazed parts.		
8	Remove the compressor.		

Revision History

Month / Year	Version	Revised contents
09 / 2012	Si121291	First edition
02 / 2013	Si121291_A	Model addition: 3AMX52E4V1B, 3MXS40K3V1B, 3MXS52E4V1B, 3MXS68G3V1B, 4MXS68F3V1B
08 / 2014	Si121291EB	Model addition: 3MKS58/68LVMA9, 3MXS52/68LVMA9
04 / 2015	Si121291EC	Model addition: 3MKS50FSG

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