




REMOVAL PROCEDURE



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

6.0 kW Class

-  Outdoor Unit
-  Non-Inverter
-  Pair Type



Service Manual Removal Procedure

Outdoor Unit

●Cooling Only

RN60HV1A

RN60JV1

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Note:

- ◆ The illustrations may be slightly different depending on the model.

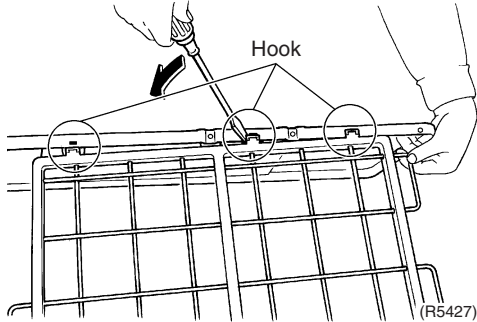
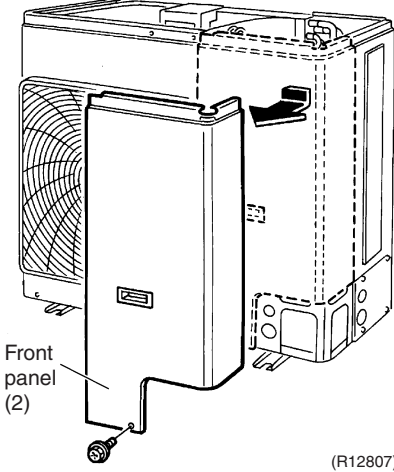
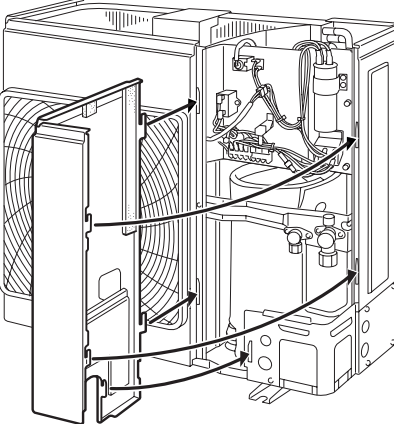
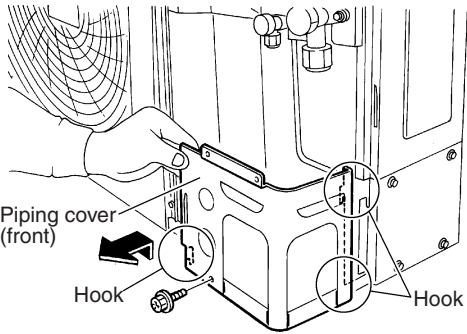
1. Removal of Outer Panels

Procedure



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 top panel.	<p>Top panel</p> <p>(R5423)</p>	<ul style="list-style-type: none"> ■ Piping may be slightly different from the illustrations.
1 Remove the 8 screws of the top panel.	<p>(R5424)</p>	<ul style="list-style-type: none"> ■ Take care not to cut your finger by the fins of the outdoor heat exchanger.
2 Pull the suction grille to unfasten the hook.	<p>Suction grille</p> <p>(R5425)</p>	
3 Lift up and remove the top panel.	<p>(R5426)</p>	

Step	Procedure	Points
4	Unfasten the hooks with a flat screwdriver and remove the suction grille.	
2. Remove the front panel (2).	 <p style="text-align: right;">(R5427)</p>  <p style="text-align: right;">(R12807)</p>  <p style="text-align: right;">(R12808)</p>	<p>■ When reassembling, fit the 5 hooks.</p>
3. Remove the piping cover (front).	<p>1 Remove the screw and remove the piping cover (front).</p>  <p style="text-align: right;">(R13234)</p>	

Step	Procedure	Points
4. Remove the front panel (1).	<p>Front panel (1)</p> <p>(R12810)</p> <p>(R5432)</p> <p>(R8322)</p>	

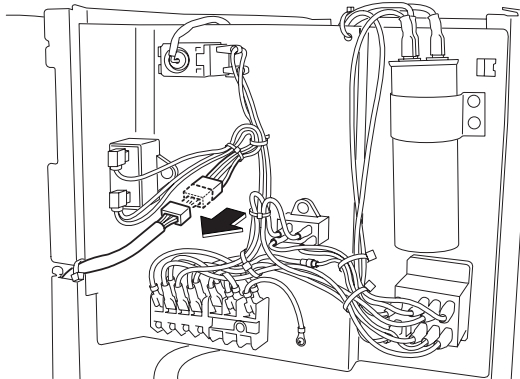
2. Removal of Outdoor Fan / Fan Motor

Procedure

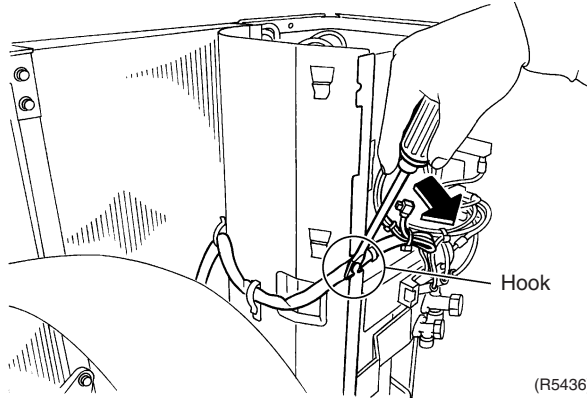


Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

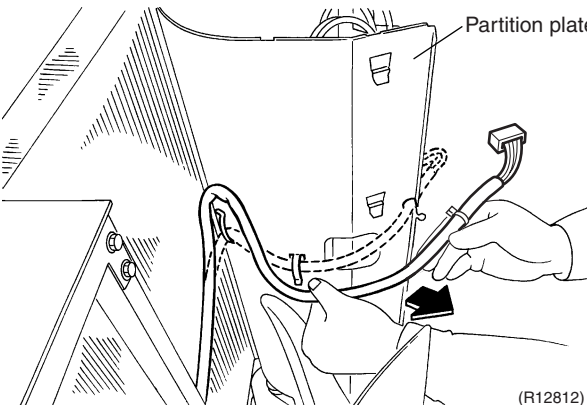
Step	Procedure	Points
1	Disconnect the relay connector for the fan motor.	<p>Preparation</p> <ul style="list-style-type: none"> Remove the front panel according to the "Removal of Outer Panels".
2	Unfasten the hook with a flat screwdriver.	<ul style="list-style-type: none"> Put the fan motor lead wire through the back of the fan motor when reassembling so as not to be entangled with the outdoor fan.
3	Release the fan motor lead wire from the partition plate.	<p>Lead wire Outdoor fan (R3249)</p>



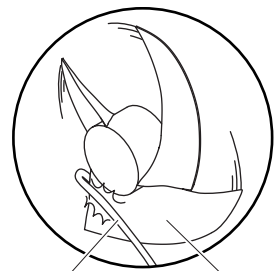
(R15492)



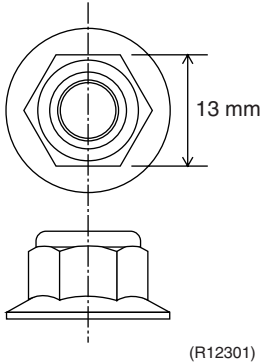
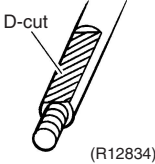
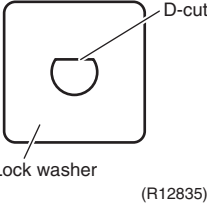
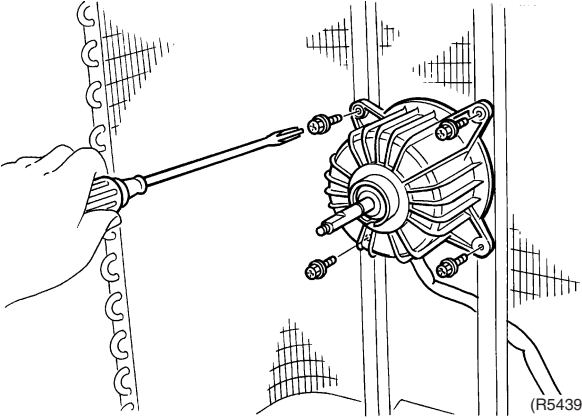
(R5436)



(R12812)



Lead wire Outdoor fan
(R3249)

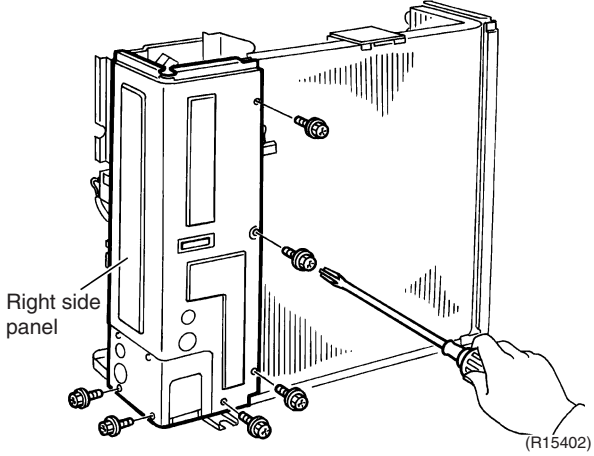
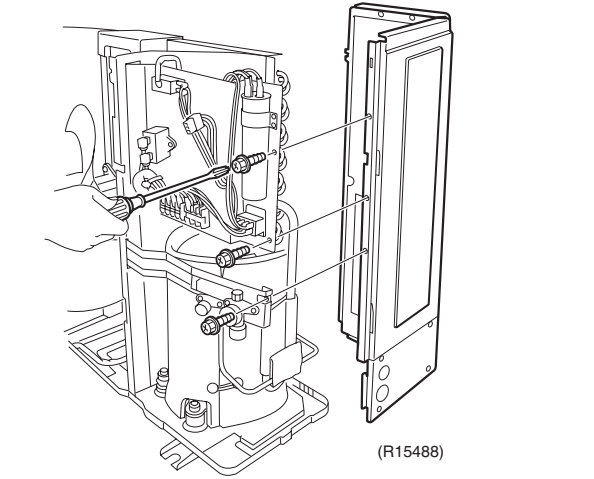
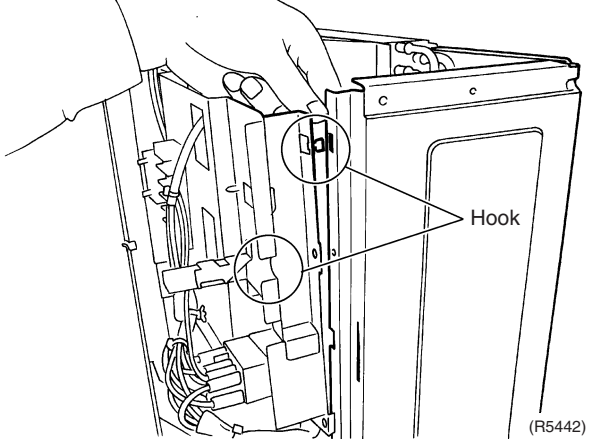
Step	Procedure	Points
4	Remove the nut and remove the outdoor fan.	<ul style="list-style-type: none"> ■ Nut size : M8  <ul style="list-style-type: none"> ■ When reassembling, fit the D-cuts of the lock washer and the shaft of fan motor.  
5	Remove the 4 screws and remove the fan motor.	 <ul style="list-style-type: none"> ■ Be sure to remove the lower screws first. If the upper screws are removed first, the fan motor may tilt or fall because the center of its gravity is toward the front. It may cause injuries. ■ M5 × 16

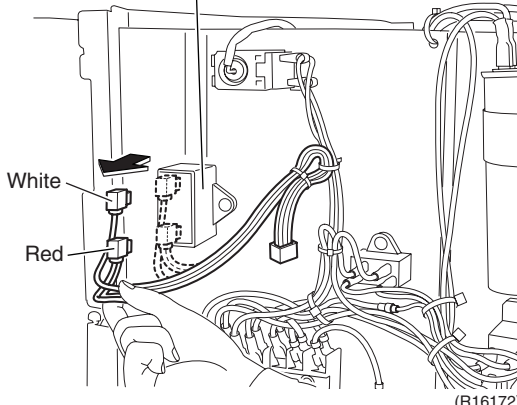
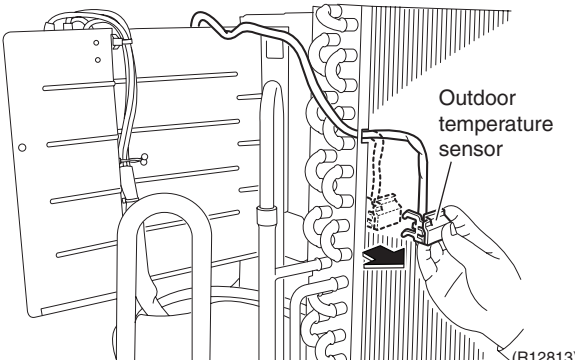
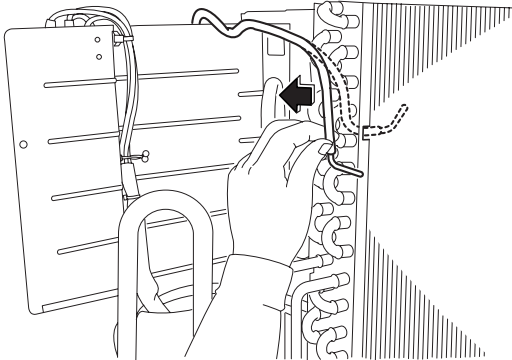
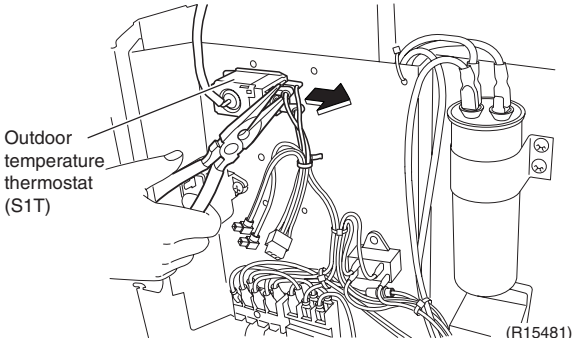
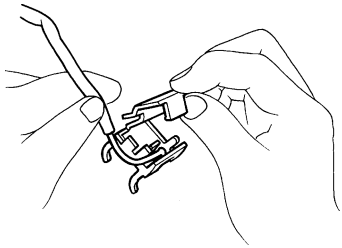
3. Removal of Electrical Component ASSY

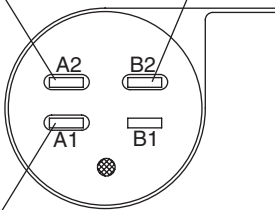
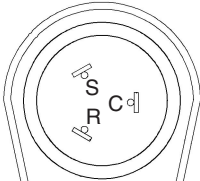
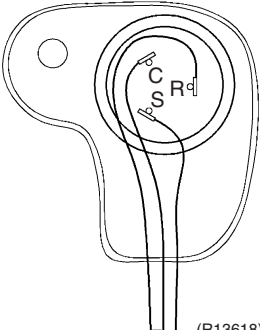
Procedure

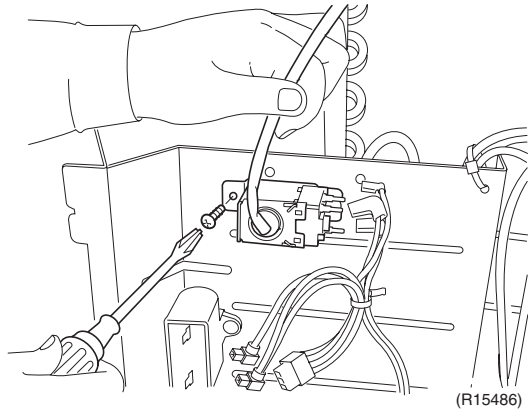


Warning Be sure to wait for 10 minutes or more after turning off all power supplies before disassembling work.

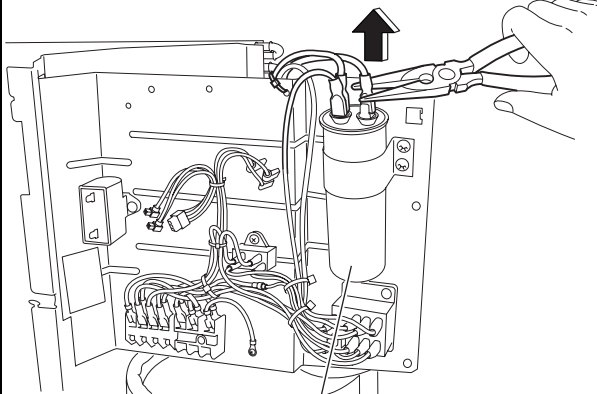
Step	Procedure	Points
1. Remove the side panel.	  	<p>Preparation</p> <ul style="list-style-type: none"> Remove the top panel, front panel (1) (2), and piping cover (front) according to the "Removal of Outer Panels".

Step	Procedure	Points
<p>2. Remove the electrical component ASSY.</p>	<p>Fan motor capacitor (C12R)</p>  <p>White</p> <p>Red</p> <p>(R16172)</p> <p>Outdoor temperature sensor</p>  <p>(R12813)</p>  <p>(R12814)</p> <p>Outdoor temperature thermostat (S1T)</p>  <p>(R15481)</p> <p>to X11A: black</p> <p>to X11A: orange</p> <p>L</p> <p>H</p> <p>C</p> <p>to K1M(4): white</p> <p>S1T</p> <p>(R15472)</p>	 <p>■ Remove the sensor fixing plate.</p>
<p>1. Disconnect the 2 terminals from the fan motor capacitor (C12R).</p>		
<p>2. Detach the outdoor temperature sensor.</p>		
<p>3. Disconnect the terminals of the outdoor temperature thermostat (S1T).</p>		

Step	Procedure	Points
4	Remove the screw and remove the outdoor temperature thermostat.	
5	Disconnect the terminals from the capacitor (C11R).	<p>■ Compressor capacitor (C11R)</p> <p>to compressor (R terminal) : red (S terminal) : yellow</p>  <p>to magnetic contactor K1M(6): red (R17612)</p>
6	Cut the 3 clamps.	<p>■ Compressor lead wire Pattern 1</p>  <p>(R12819)</p>
7	Disconnect the blue terminal: K1M (2).	<p>S : yellow C : blue R : red</p> <p>Pattern 2</p>  <p>(R13618)</p> <p>S : yellow C : blue R : red</p>

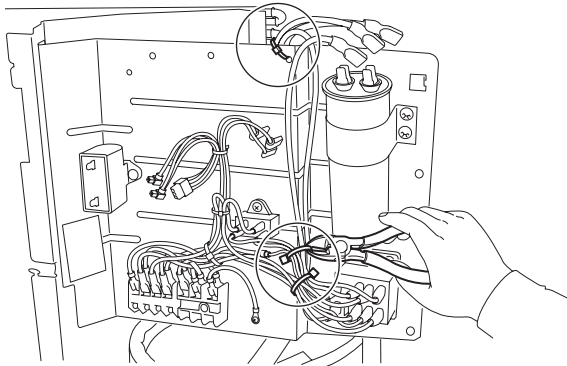


(R15486)

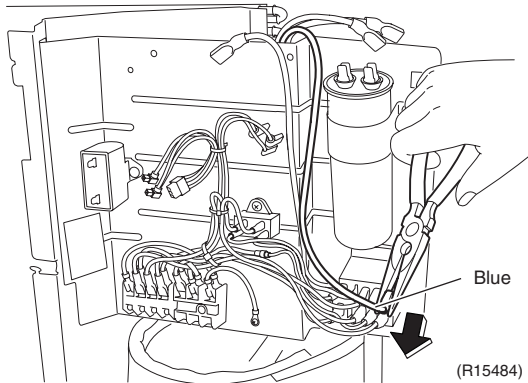


Compressor capacitor

(R15482)

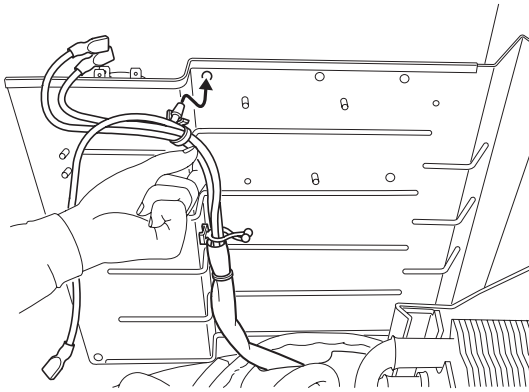
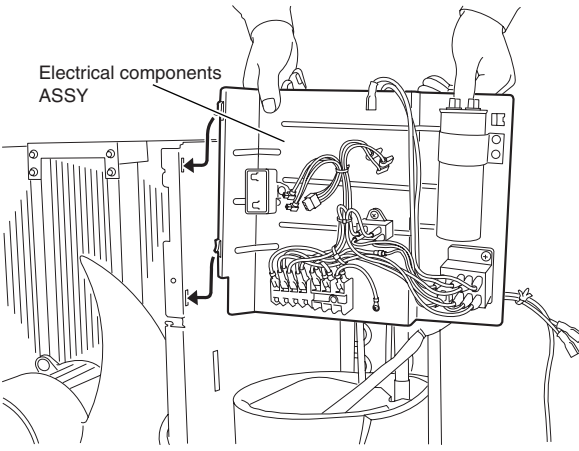


(R15483)



(R15484)

Blue

Step	Procedure	Points
8	Detach the clamp for the compressor lead wire (rear side).	
	 <p>(R6749)</p>	
9	Lift the electrical components ASSY to unfasten the 2 hooks and remove it.	
	 <p>Electrical components ASSY</p> <p>(R15485)</p>	

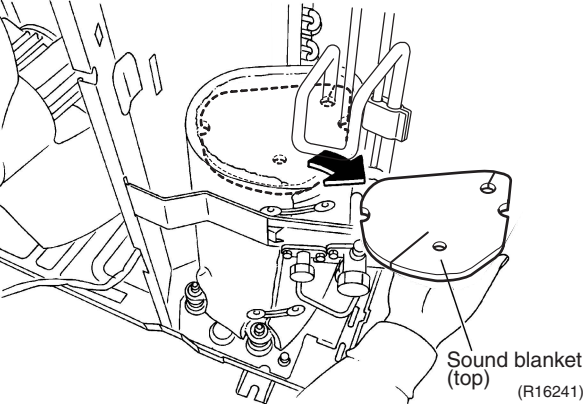
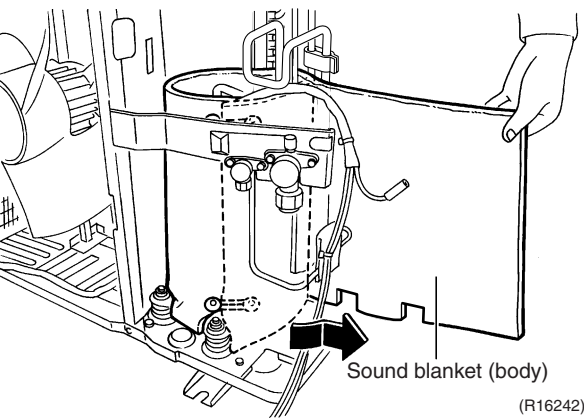
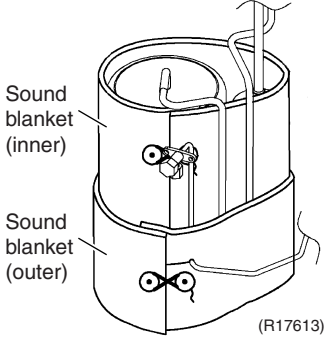
4. Removal of Sound Blankets

Procedure



Warning

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

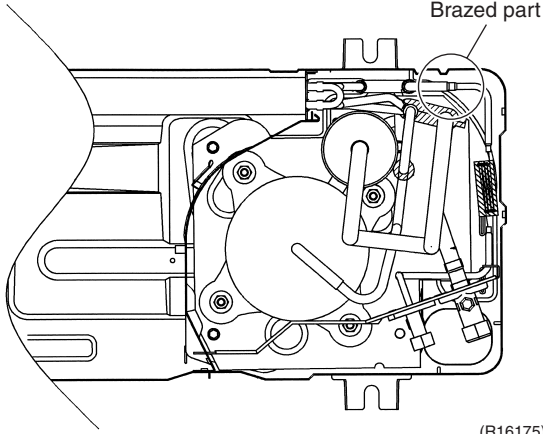
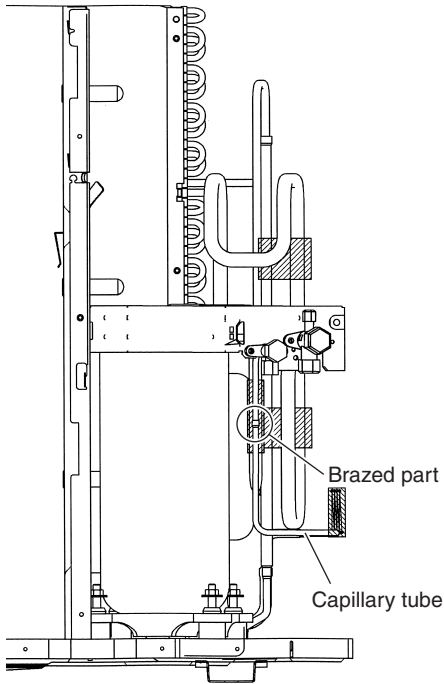
Step	Procedure	Procedure	Points
1	Remove the sound blanket (top).		<p>Preparation</p> <ul style="list-style-type: none"> ■ Remove the electrical components ASSY according to the "Removal of Electrical Components ASSY". ■ Since the piping ports on the sound blanket are torn easily, remove the blanket carefully.
2	Remove the sound blanket (body).		<ul style="list-style-type: none"> ■ Some models have outer and inner sound blankets. 

5. Removal of Capillary Tube

Procedure



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

Step	Procedure	Points
<ul style="list-style-type: none"> ■ 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. 	 <p style="text-align: right;">(R16175)</p>	<p>Warning Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p> <p>Warning If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p> <p>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.</p>
<p>1 Heat up the 2 brazed parts and remove the capillary tube.</p>	 <p style="text-align: right;">(R16176)</p>	<p>Cautions for restoration</p> <ol style="list-style-type: none"> 1. Restore the piping by non-oxidation brazing. 2. Avoid excessive heating. (Keep below 120°C) <p>In case of difficulty with gas brazing machine</p> <ol style="list-style-type: none"> 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.
<p>Note:</p> <ul style="list-style-type: none"> ■ 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 heat exchanger fin. 		

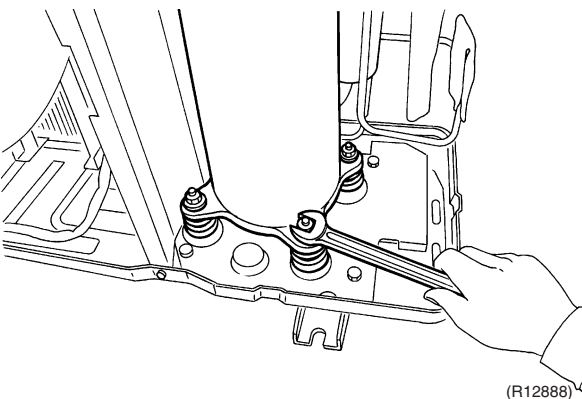
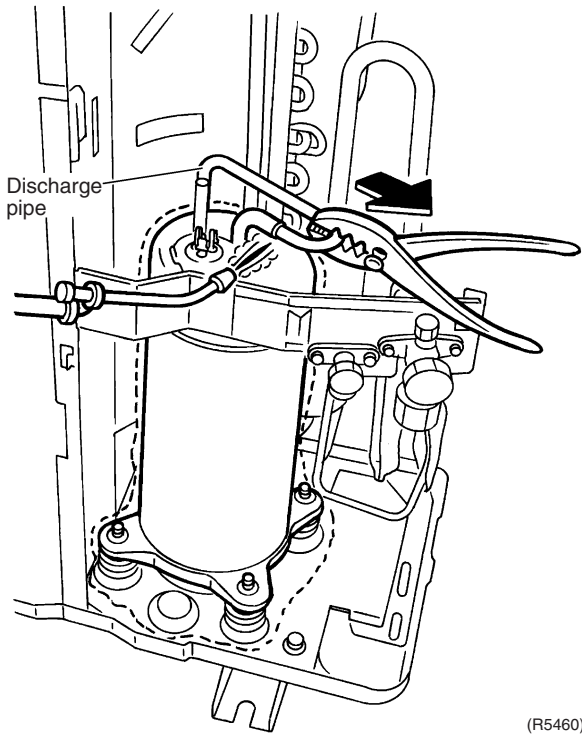
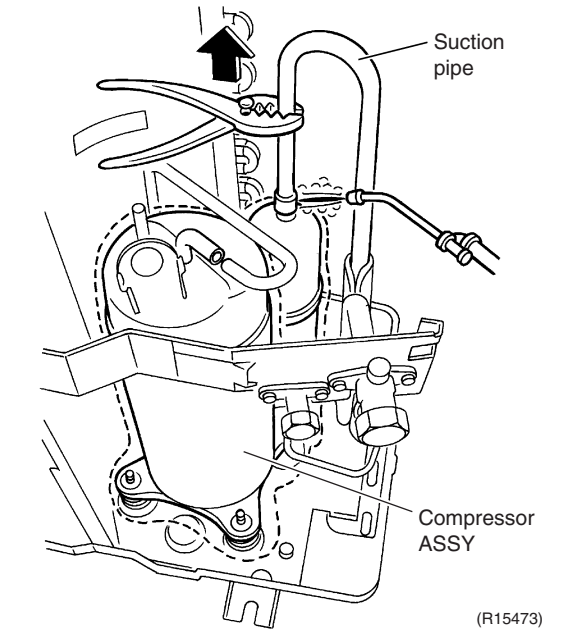
6. Removal of Compressor ASSY (Pattern 1)

Procedure



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

Step	Procedure	Procedure	Points
1	Remove the terminal cover.	<p>Terminal cover</p> <p>(R5455)</p> <p>Terminal cover fixture</p> <p>(R5456)</p>	
2	Disconnect the compressor lead wires.	<p>Red (R)</p> <p>Blue (C)</p> <p>Yellow (S)</p> <p>(R5457)</p>	<p>■ Be careful so as not to burn the compressor terminals or the name plate.</p> <p>(R12819)</p>
3	Remove the gasket.	<p>Gasket</p> <p>(R5458)</p>	<p>S : yellow C : blue R : red</p>

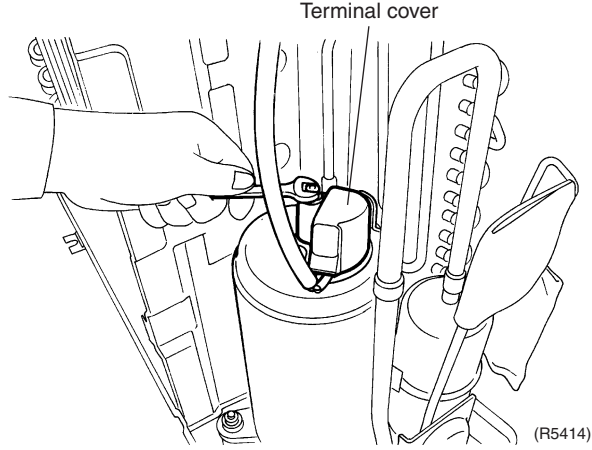
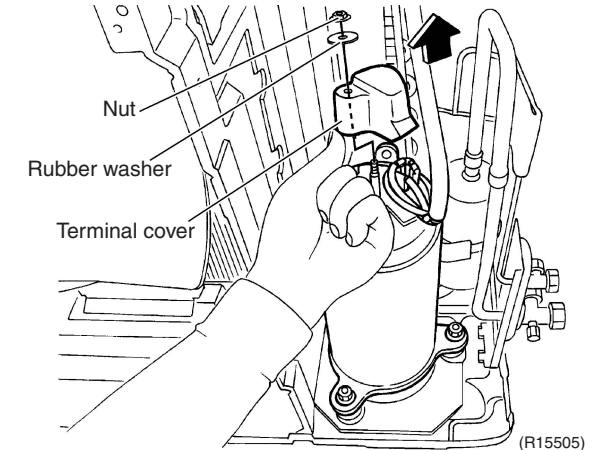
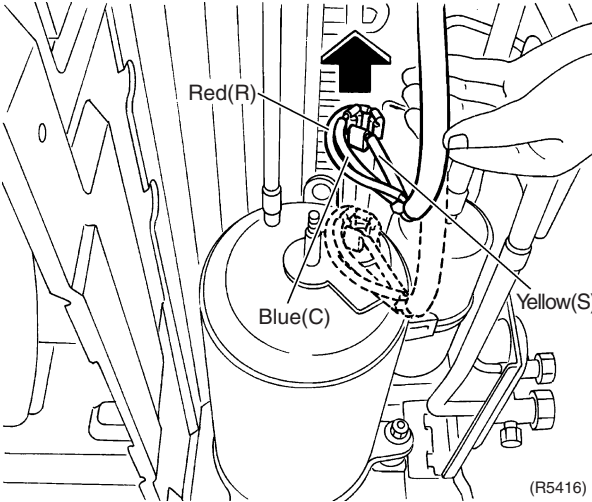
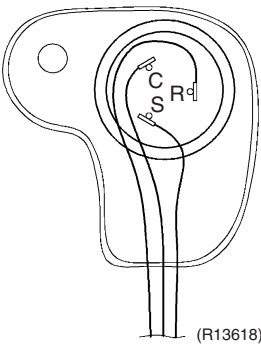
Step	Procedure	Points
4	Remove the 4 nuts of the compressor.	<p>Warning Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p>
<ul style="list-style-type: none"> ■ Before working, make sure that the refrigerant gas is empty in the circuit. ■ Be sure to apply nitrogen replacement when heating up the brazed part. 	 <p style="text-align: right;">(R12888)</p>	<p>Warning If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p>
5	Heat up the brazed part of the discharge side and disconnect.	<p>Warning Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.</p>
6	Heat up the brazed part of the suction side and disconnect.	<p>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.</p>
7	Lift the compressor ASSY up and remove it.	<p>Cautions for restoration</p> <ol style="list-style-type: none"> 1. Restore the piping by non-oxidation brazing. 2. Avoid excessive heating. (Keep below 120°C)
<p>Note:</p> <ul style="list-style-type: none"> ■ 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 heat exchanger fin. 	 <p style="text-align: right;">(R5460)</p>  <p style="text-align: right;">(R15473)</p>	<p>In case of difficulty with gas brazing machine</p> <ol style="list-style-type: none"> 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.

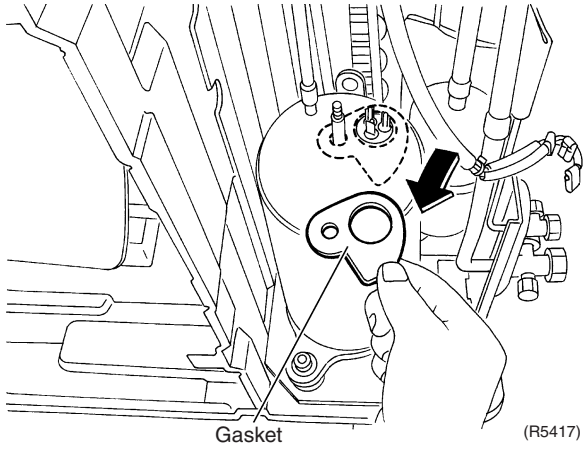
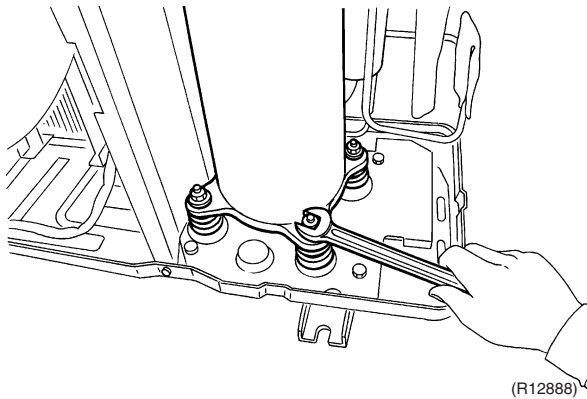
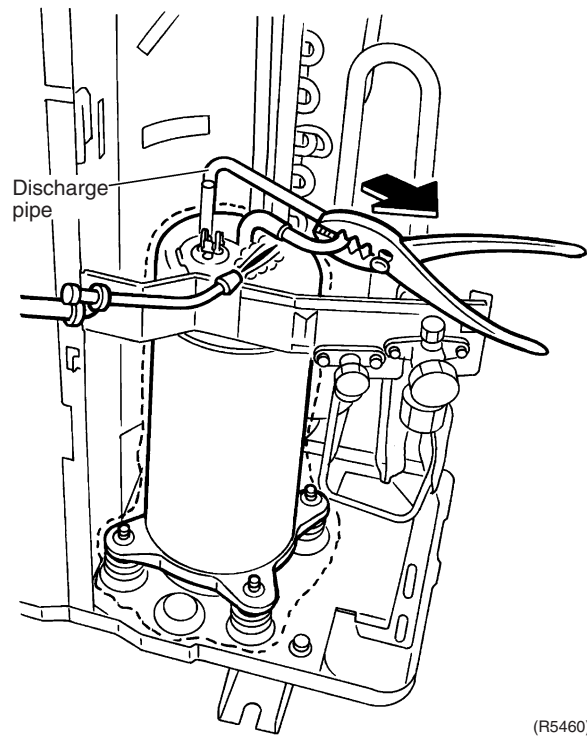
7. Removal of Compressor ASSY (Pattern 2)

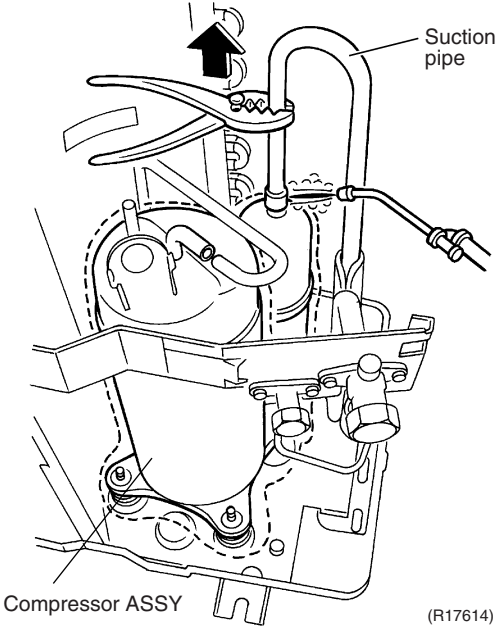
Procedure



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 terminal cover.	 <p>(R5414)</p>  <p>(R15505)</p>
2	Disconnect the compressor lead wires.	 <p>(R5416)</p>  <p>(R13618)</p> <p>S : yellow C : blue R : red</p>

Step	Procedure	Points
3	Remove the gasket.	<p>Warning Be careful not to get yourself burnt with the pipes and other parts that are heated by the gas brazing machine.</p>
4	Remove the 4 nuts of the compressor.	<p>Warning If the refrigerant gas leaks during work, ventilate the room. (If the refrigerant gas is exposed to flames, toxic gas may be generated.)</p>
<ul style="list-style-type: none"> ■ 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. 	 	<p>Warning Since it may happen that the refrigerant oil in the compressor catches fire, prepare wet cloth so as to extinguish fire immediately.</p>
5	Heat up the brazed part of the discharge side and disconnect.	<p>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.</p>
6	Heat up the brazed part of the suction side and disconnect.	<p>Cautions for restoration</p> <ol style="list-style-type: none"> 1. Restore the piping by non-oxidation brazing. 2. Avoid excessive heating. (Keep below 120°C)
		<p>In case of difficulty with gas brazing machine</p> <ol style="list-style-type: none"> 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
	 <p>Compressor ASSY (R17614)</p>	<p>Note:</p> <ul style="list-style-type: none">■ 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 heat exchanger fins.

Revision History

Month / Year	Version	Revised contents
01 / 2013	Si011087	First edition

Warning



- Daikin products are manufactured for export to numerous countries throughout the world. Prior to purchase, please confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

Dealer

DAIKIN INDUSTRIES, LTD.

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