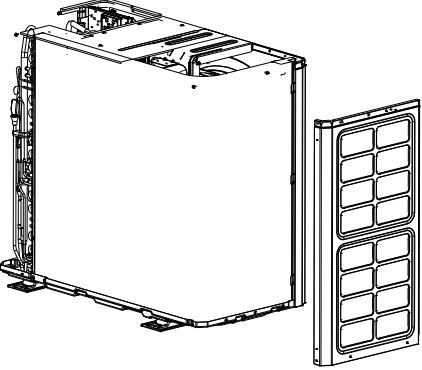
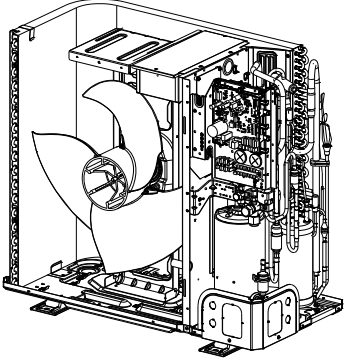
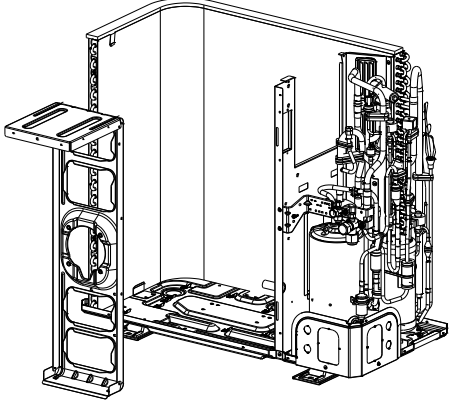
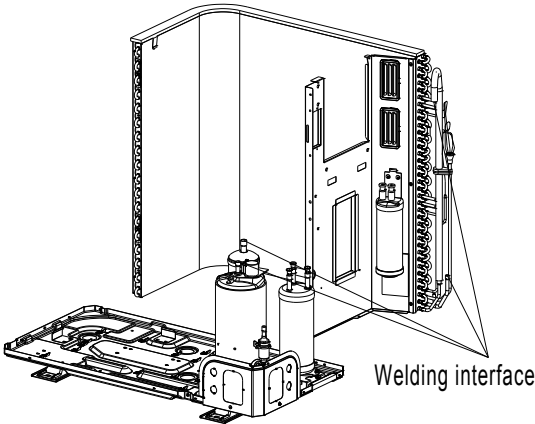
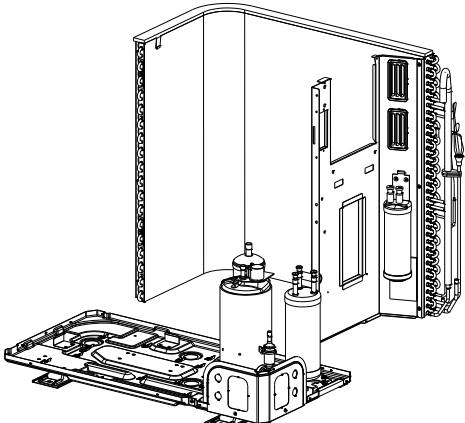
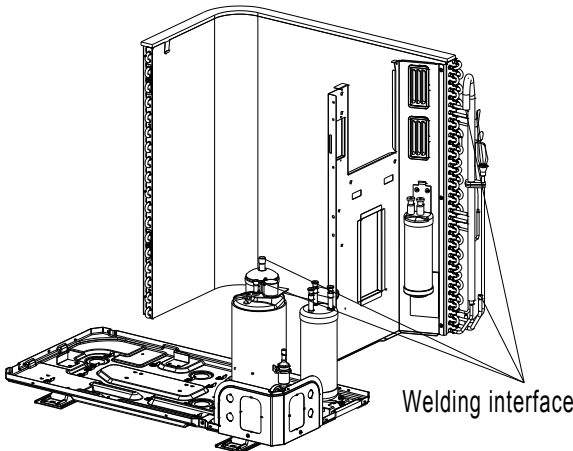
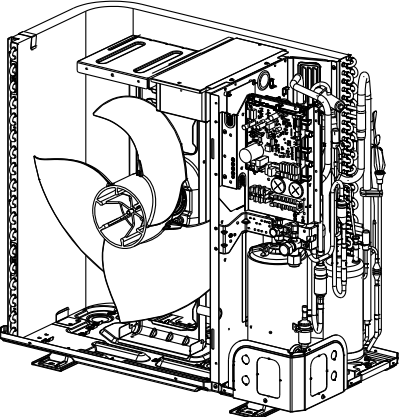
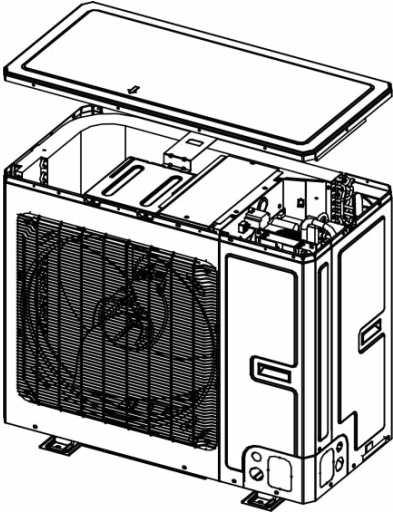


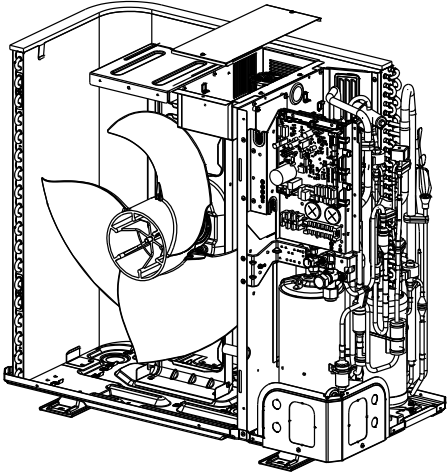
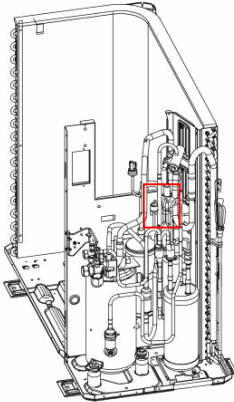
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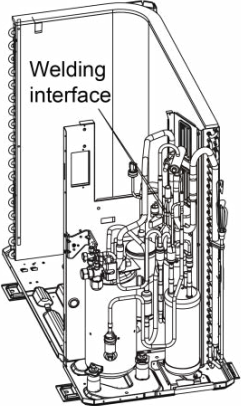
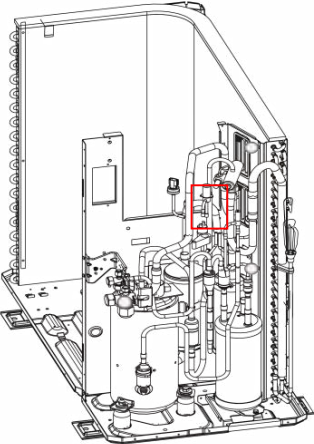
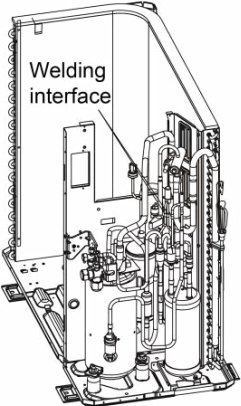
Removal of condenser		
NOTE: Before removing the condenser, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
1. Remove the panels.		<ul style="list-style-type: none"> ● Remove the upper, lower and front panels.
2. Remove the electric box.		<ul style="list-style-type: none"> ● Loosen the wire clamp at the bottom of the electric box. ● Unscrew the screws of electric box. ● The connection wires inside and outside the electric box should be removed.
3. Remove motor support.		<ul style="list-style-type: none"> ● When removing the motor support, be careful to protect the components.

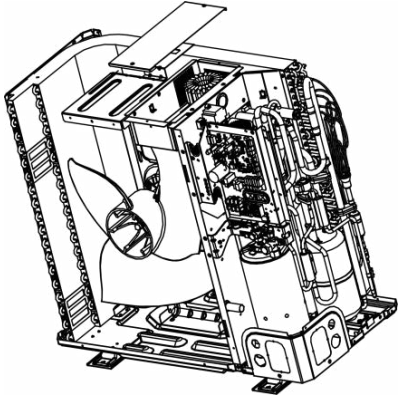
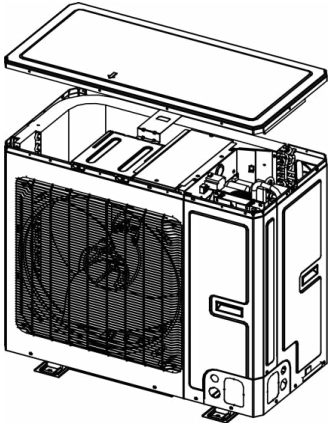
Removal of condenser		
NOTE: Before removing the condenser, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
4. Remove the condenser.		<ul style="list-style-type: none"> ● Heat up the welding points of connection pipes through gas welding until the pipes break off. <p>NOTE: When welding the pipes, do not let the flame burn the other components. The welding points of condenser are steel and copper welding points. Be sure to maintain the welding quality.</p>
5. Take out the condenser.		<ul style="list-style-type: none"> ● Loosen the securing screws of condenser support. Take off the plate type heat exchanger and the support as a whole.
6. Install the new condenser.		<ul style="list-style-type: none"> ● Secure the screws of condenser and support. Then fix them together on the chassis. ● Install the condenser by referring to the positions of entering and leaving pipes. Weld the connection pipes. ● Nitrogen welding: the pressure of nitrogen is $0.5 \pm 0.1 \text{ kgf/cm}^2$ (relative pressure). <p>NOTE: When welding the pipes, do not let the flame burn the other components.</p>

Removal of condenser		
NOTE: Before removing the condenser, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
<p>7. Secure the electric box and arrange the wires according to the requirement.</p>		<ul style="list-style-type: none"> ● Put the electric box in place and tighten up the screws of electric box. ● Arrange and secure the wires as original.
<p>8. Check and open the upper and side panels.</p>		<ul style="list-style-type: none"> ● Check whether each component and connection wire is well connected. ● If everything is OK, place back the upper, left and right side panels.

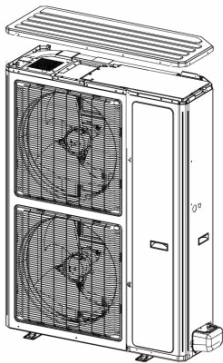
Model: GTS18HN036A

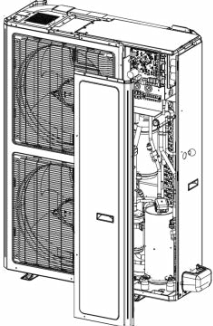
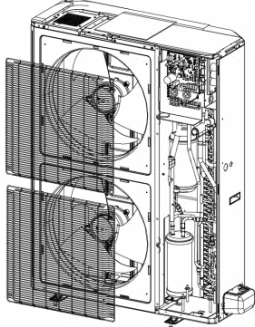
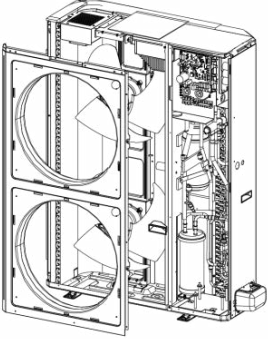
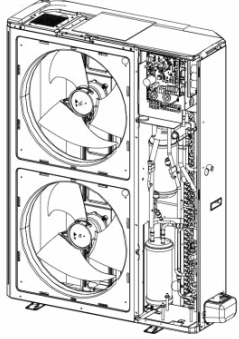
Removal of electronic expansion valve		
NOTE: Before removing the electronic expansion valve, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
1. Remove the electric box.		<ul style="list-style-type: none"> ● Remove the upper, lower and front panels. ● Loosen the wire clamp at the bottom of the electric box ● Unscrew the screws of electric box. ● The connection wires inside and outside the electric box should be removed. ● When removing the electric box, be careful to protect the components.
2. Remove the fixed block.		<ul style="list-style-type: none"> ● Remove the fixed block between the electronic expansion valve and the pipe.

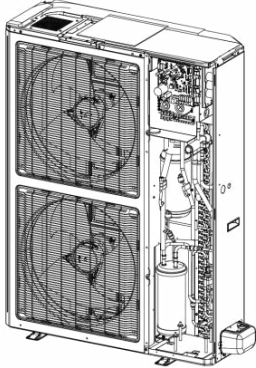
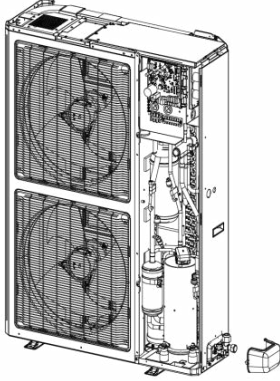
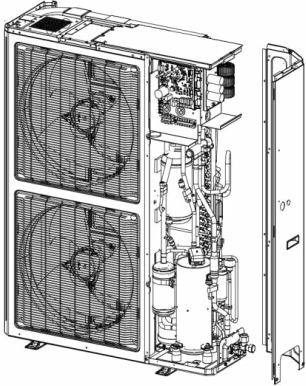
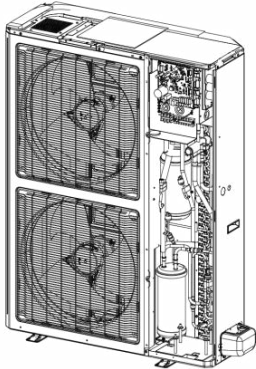
Removal of electronic expansion valve		
NOTE: Before removing the electronic expansion valve, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
3. Remove the electronic expansion valve.		<ul style="list-style-type: none"> ● Take off the coil of electronic expansion valve. ● Loosen the connection pipe of electronic expansion valve by welding. Then remove the connection pipe. NOTE: When welding the pipe, do not let the flame bunt the other components.
4. Take out the electronic expansion valve.		<ul style="list-style-type: none"> ● Take out the electronic expansion valve.
5. Install the new electronic expansion valve.		<ul style="list-style-type: none"> ● Weld the connection pipe of electronic expansion valve. ● When welding the electronic expansion valve, the valve should be wrapped with wet cloth. ● Nitrogen welding: the pressure of nitrogen is $0.5 \pm 0.1 \text{ kgf/cm}^2$ (relative pressure). NOTE: When welding the pipes, do not let the flame burn the other components. ● Install the coil of electronic expansion valve.

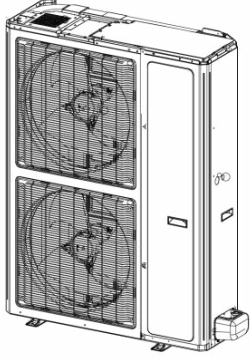
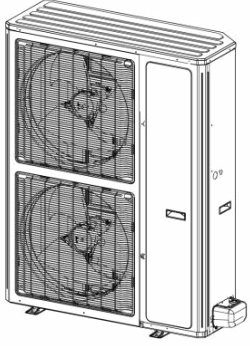
Removal of electronic expansion valve		
NOTE: Before removing the electronic expansion valve, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
6. Secure the electric box and arrange the wires as required.		<ul style="list-style-type: none"> ● Put the electric box back in place and tighten up the screws. ● Arrange the wires as original.
7. Check and open the upper and front panels.		<ul style="list-style-type: none"> ● Check whether each component and connection wire is well connected. ● If everything is OK, install the upper, left and right panels. Tighten up the screws.

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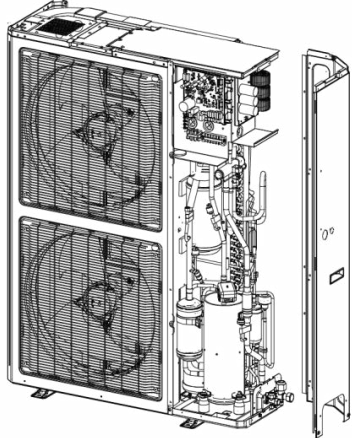
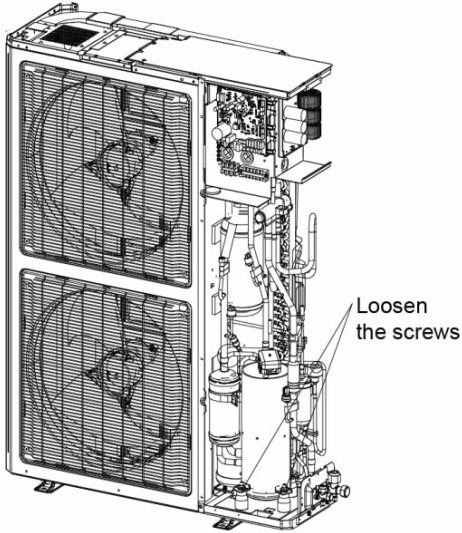
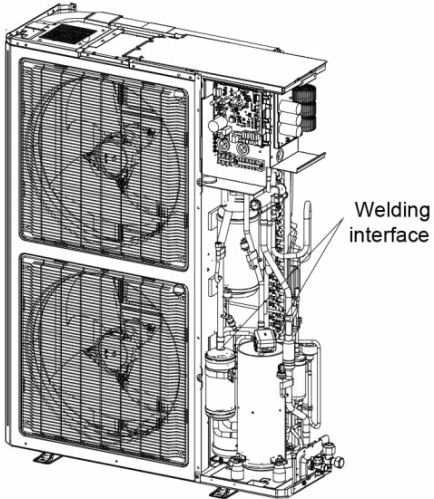
Removal of front panel		
NOTE: Before removing the front panel, make sure power is cut off.		
Step	Picture	Work instruction
1. Remove the upper cover plate.		<ul style="list-style-type: none"> ● Unscrew the screws of the upper cover plate with a screwdriver.

Removal of front panel		
NOTE: Before removing the front panel, make sure power is cut off.		
Step	Picture	Work instruction
2. Remove the front plate.		<ul style="list-style-type: none"> ● Unscrew the screws of the front plate with a screwdriver.
3. Remove the front grill.		<ul style="list-style-type: none"> ● Unscrew the screws of the front grill with a screwdriver.
4. Remove the front panel.		<ul style="list-style-type: none"> ● Unscrew the screws that connect the front panel to the middle insulating board and screws around the front panel.
5. Install the front panel.		<ul style="list-style-type: none"> ● Install the front panel by mounting on 6 clasps on its both sides. Please note that there is one screw on the lower right side.

Removal of front panel		
NOTE: Before removing the front panel, make sure power is cut off.		
Step	Picture	Work instruction
6. Install the grill.		<ul style="list-style-type: none"> ● Attach the grill back in place and tighten up the screws.
7. Remove the valve cover		<ul style="list-style-type: none"> ● Unscrew the screws of the valve cover with a screwdriver.
8. Remove the right side plate.		<ul style="list-style-type: none"> ● Unscrew the screws that connect the right side plate to the electric box and the screws around the right side plate.
9. Install the right side plate.		<ul style="list-style-type: none"> ● Screw up the screws around the right side plate. Be careful to handle well the clasps at the bottom of the right side plate.

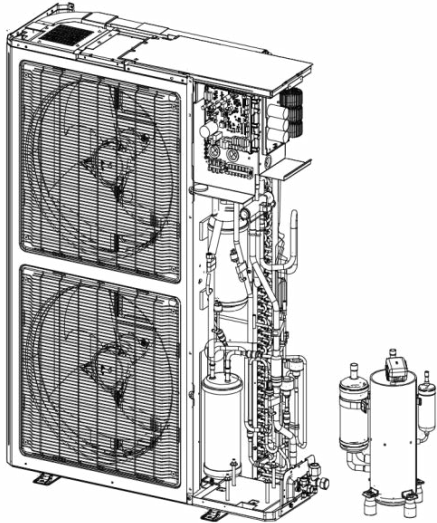
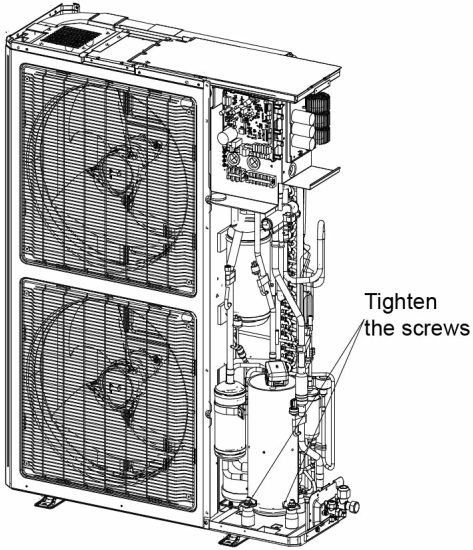
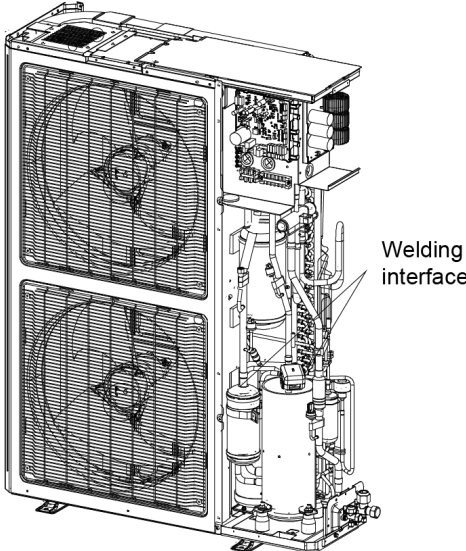
Removal of front panel		
NOTE: Before removing the front panel, make sure power is cut off.		
Step	Picture	Work instruction
10. Install the grill.		<ul style="list-style-type: none"> ● Attach the grill back in place and tighten up the screws.
11. Install the upper cover plate.		<ul style="list-style-type: none"> ● Tighten up the screws around the upper cover plate.

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Disassembly of compressor		
NOTE: Before removing the compressor, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
<p>1. Remove wires.</p>		<ul style="list-style-type: none"> ● Loosen the securing screws of the wires with a screwdriver. ● Remove the wires. <p>NOTE: When removing the wires, mark the wire terminals corresponding to their color so as to avoid misconnection.</p>
<p>2. Loosen the securing screws at the foot of compressor.</p>		<ul style="list-style-type: none"> ● Use a wrench to twist off the screw nuts at the foot of compressor.
<p>3. Break off the pipes that connecting to the compressor.</p>		<ul style="list-style-type: none"> ● Weld the pipes that are connected to the compressor. ● Then remove the pipes. <p>NOTE: When welding the pipes, do not let the flame burn the other components.</p>

Disassembly of compressor

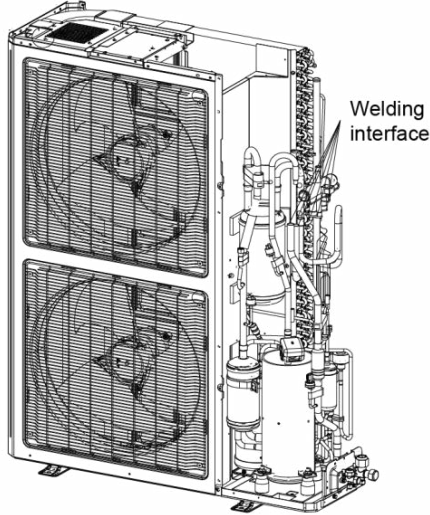
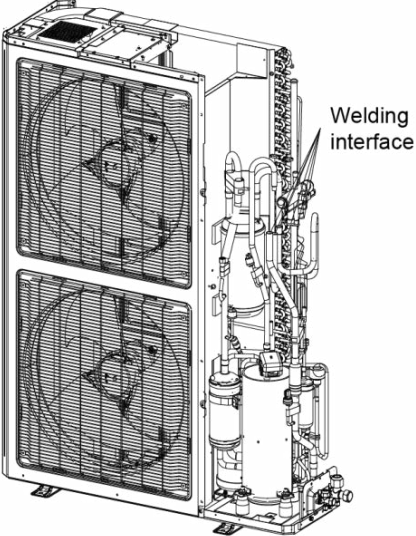
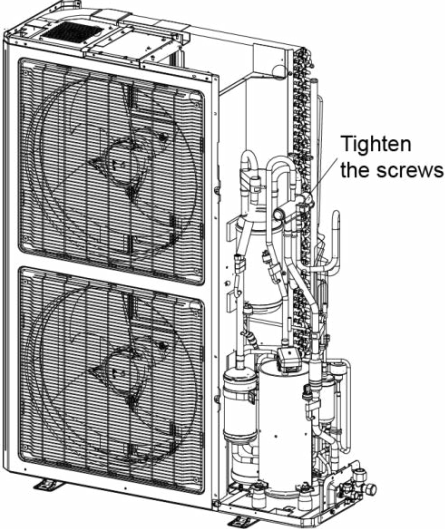
NOTE: Before removing the compressor, make sure there is no refrigerant in the pipeline and power is cut off.

Step	Picture	Work instruction
<p>4. Remove the compressor from the chassis.</p>		<ul style="list-style-type: none"> ● Take out the compressor and replace it. <p>NOTE: When replacing the compressor, avoid touching the nearby pipeline and components.</p>
<p>5. Fix the new compressor back onto the chassis.</p>		<ul style="list-style-type: none"> ● After replacing the compressor, tighten up the screws at the foot of compressor.
<p>6. Connect the compressor suction port and exhaust port with the pipes.</p>		<ul style="list-style-type: none"> ● Weld the compressor connection pipes and connect them to the compressor. <p>NOTE: When replacing the compressor, avoid touching the nearby pipeline and components.</p>

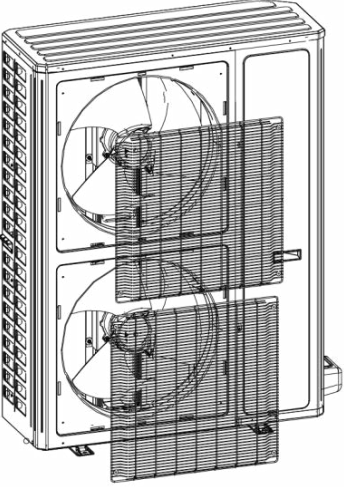
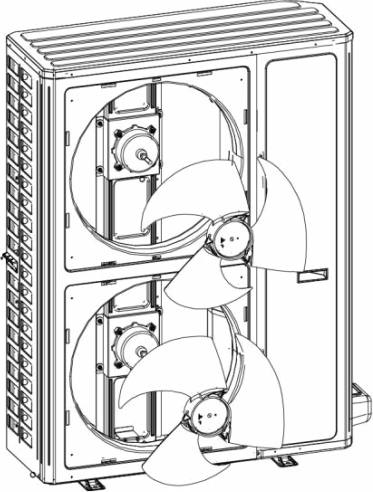
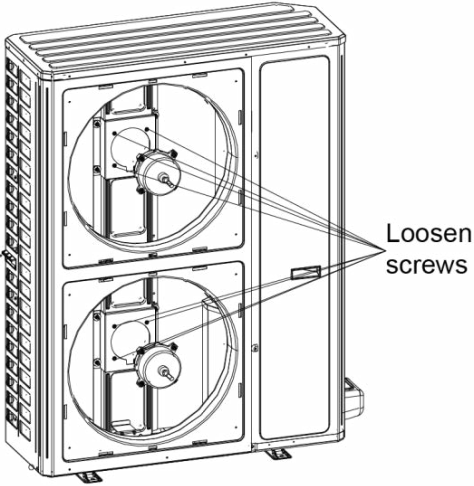
Disassembly of compressor		
NOTE: Before removing the compressor, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
7. Connect the compressor wires.		<ul style="list-style-type: none"> ● Connect the compressor wires to the wire terminals on the top of compressor. <p>NOTE: When connecting the wires, be sure to match the colors with the corresponding wire terminals.</p>

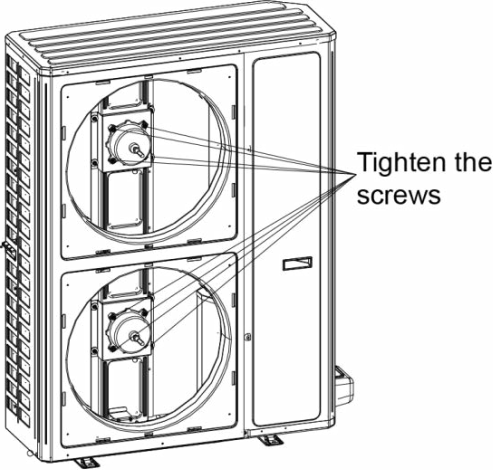
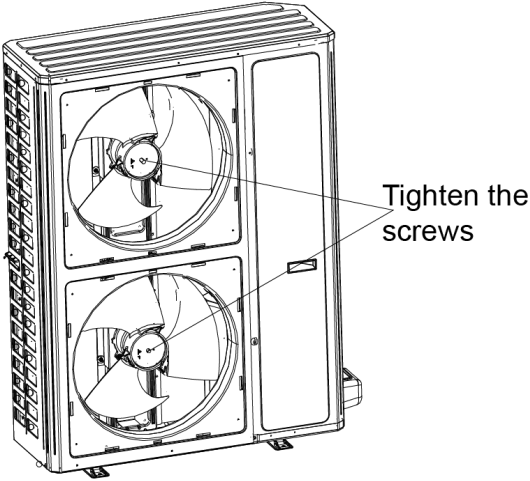
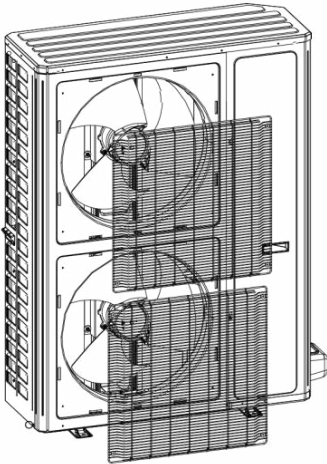
Model: GTS18HN060A

Removal of 4-way valve		
NOTE: Before removing the 4-way valve, make sure refrigerant is fully discharged from the unit and power is cut off.		
Step	Picture	Work instruction
1. Take off the coil of the 4-way valve.		<ul style="list-style-type: none"> ● Carefully unscrew the screws of electromagnetic coil with a screwdriver.

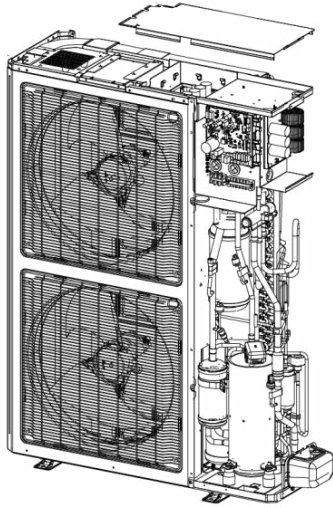
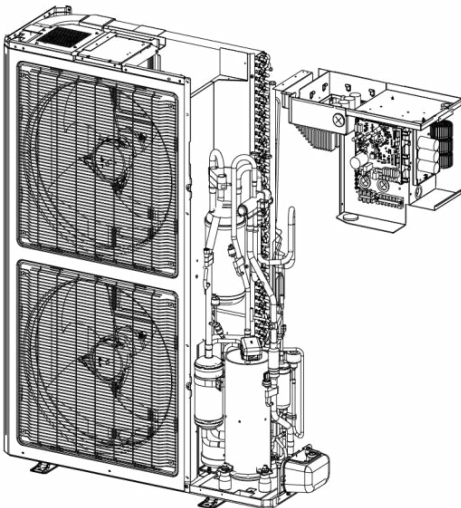
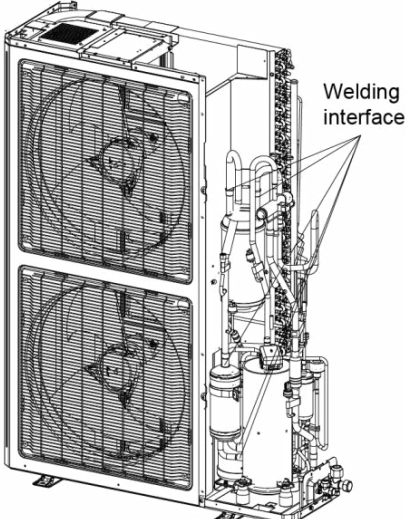
Removal of 4-way valve		
NOTE: Before removing the 4-way valve, make sure refrigerant is fully discharged from the unit and power is cut off.		
Step	Picture	Work instruction
2. Break off the connection pipes from the 4-way valve.		<ul style="list-style-type: none"> ● Use a soldering gun to loosen the 4 joints on the 4-way valve and then remove the connection pipes. <p>NOTE: When welding the pipes, the 4-way valve should be wrapped with wet cloth for cooling. Do not let the flame burn the other components.</p>
3. Replace the 4-way valve and connect it to the connection pipes.		<ul style="list-style-type: none"> ● Replace the 4-way valve and then use a soldering gun to weld the 4 joints of the 4-way valve. <p>Note: When welding the pipes, the 4-way valve should be wrapped with wet cloth for cooling. Do not let the flame burn the other components.</p>
4. Install the coil of 4-way valve.		<ul style="list-style-type: none"> ● Tighten the screws of the coil of 4-way valve with a screwdriver.

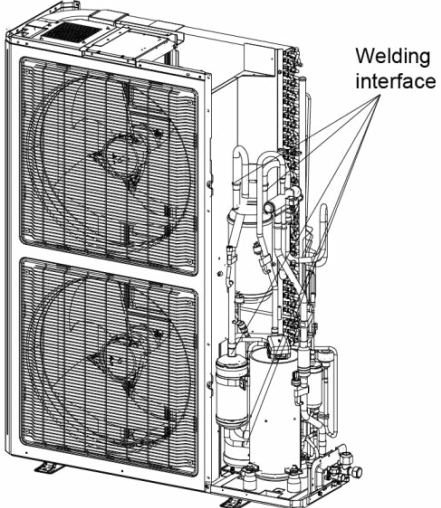
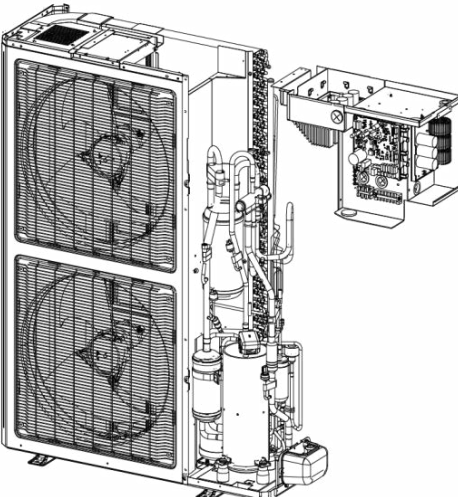
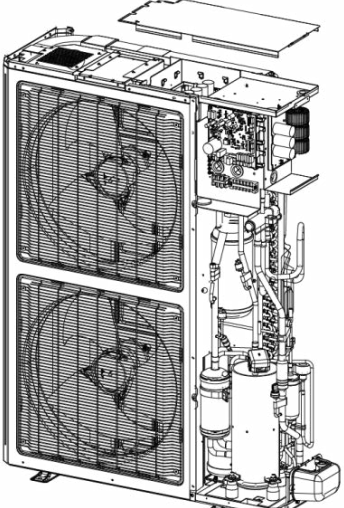
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Removal of fan and motor		
NOTE: Before removing the fan, make sure power is cut off.		
Step	Picture	Work instruction
1. Remove the grill.		<ul style="list-style-type: none"> ● Use a screwdriver to unscrew the two screws on the upper left and lower right corners.
2. Remove the fan.		<ul style="list-style-type: none"> ● Use a wrench to remove the specialized nut and gasket of the fan. <p>NOTE: Please keep the nut and gasket safe after removing them from the fan.</p>
3. Remove motor.	 <p>Loosen screws</p>	<ul style="list-style-type: none"> ● Use a screwdriver to unscrew the bolt of motor. <p>NOTE: Motor wire should be first removed from the electric box.</p>

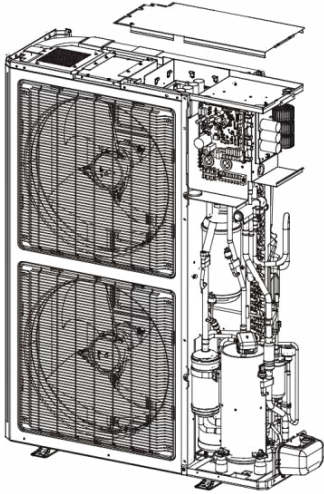
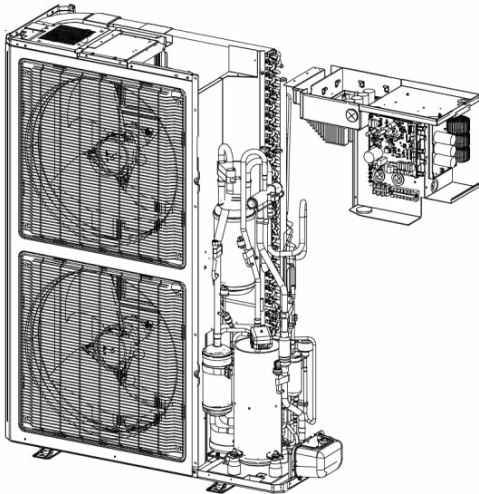
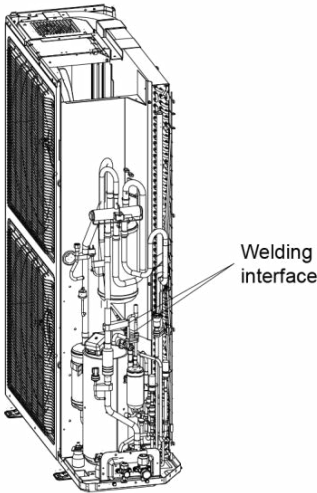
Removal of fan and motor		
NOTE: Before removing the fan, make sure power is cut off.		
Step	Picture	Work instruction
4. Install the motor.		<ul style="list-style-type: none"> ● Replace with a new motor. Then tighten up the screw bolt.
5. Install the fan.		<ul style="list-style-type: none"> ● Install the fan in place. Put on the gasket and use a wrench to secure the screw nut. NOTE:After installing the fan, turn the fan by hand to see if it can run normally. If not, please check for the reason.
6. Install the grill.		<ul style="list-style-type: none"> ● After replacing the motor, use a screwdriver to tighten up the screw bolt that secures the motor.

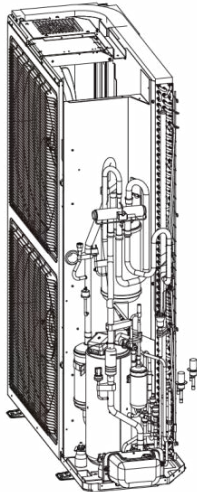
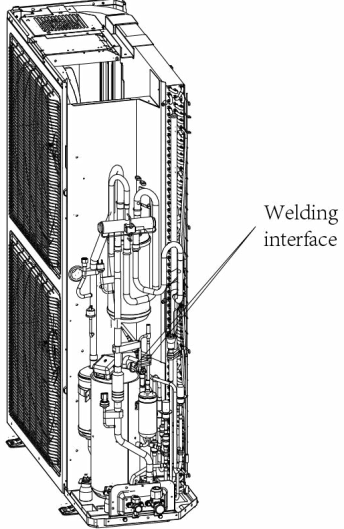
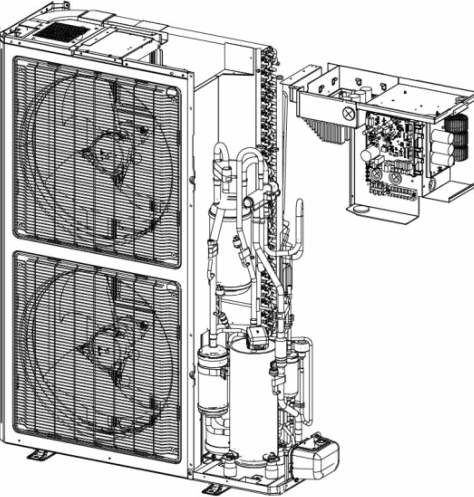
Model: GTS18HN060A

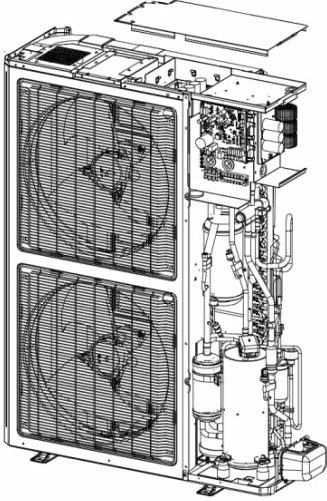
Removal of gas liquid separator		
NOTE: Before removing the gas liquid separator, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
1. Loosen the wire clamp at the bottom of the electric box and the screws of electric box.		<ul style="list-style-type: none"> ● Remove the upper, lower and front panels. ● Loosen the wire clamp at the bottom of the electric box. ● Unscrew the screws of electric box.
2. Remove the electric box.		<ul style="list-style-type: none"> ● The connection wires inside and outside the electric box should be removed. ● When removing the electric box, be careful to protect the components.
3. Remove the compressor/gas liquid separator from the chassis.		<ul style="list-style-type: none"> ● Take away the compressor/gas liquid separator and replace with a new one. <p>NOTE: When replacing the compressor/gas liquid separator, avoid touching the nearby pipeline and components.</p>

Removal of gas liquid separator		
NOTE: Before removing the gas liquid separator, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
4. Install the new gas liquid separator		<ul style="list-style-type: none"> ● Install the gas liquid separator by referring to the positions of entering and leaving pipes. Weld the 2 welding interfaces. ● Nitrogen welding: the pressure of nitrogen is $0.5 \pm 0.1 \text{ kgf/cm}^2$ (relative pressure). NOTE: When welding the pipes, do not let the flame burn the other components. ● Tighten the screws of gas liquid separator.
5. Secure the electric box and arrange the wires as required.		<ul style="list-style-type: none"> ● Put the electric box back in place and tighten up the screws. ● Arrange the wires as original.
6. Check and open the upper and side panels.		<ul style="list-style-type: none"> ● Check whether each component and connection wire is well connected. ● If everything is OK, install the upper, left and right panels. Tighten up the screws.

Model: GTS18HN060A

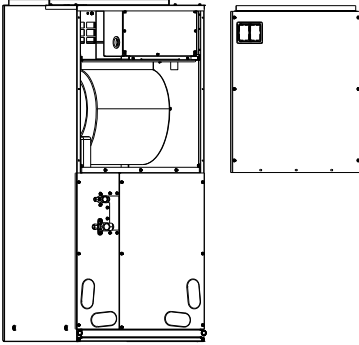
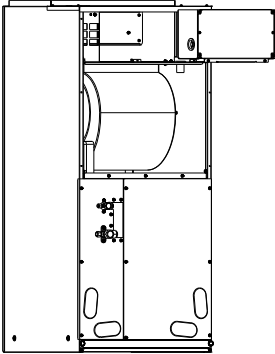
Removal of electronic expansion valve		
NOTE: Before removing the electronic expansion valve, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
1. Loosen the wire clamp at the bottom of the electric box and the screws of electric box.		<ul style="list-style-type: none"> ● Remove the upper, lower and front panels. ● Loosen the wire clamp at the bottom of the electric box. ● Unscrew the screws of electric box.
2. Remove the electric box.		<ul style="list-style-type: none"> ● The connection wires inside and outside the electric box should be removed. ● When removing the electric box, be careful to protect the components.
3. Remove the electronic expansion valve.		<ul style="list-style-type: none"> ● Take off the coil of electronic expansion valve. ● Loosen the connection pipe of electronic expansion valve by welding. Then remove the connection pipe. <p>NOTE: When welding the pipe, do not let the flame bunt the other components.</p>

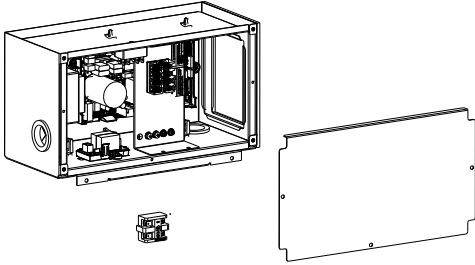
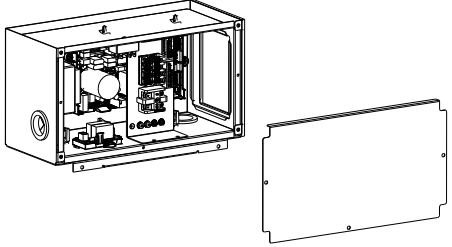
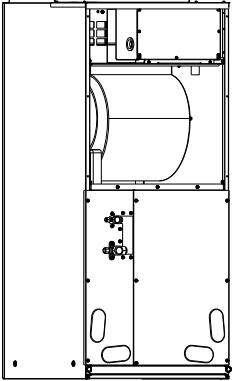
Removal of electronic expansion valve		
NOTE: Before removing the electronic expansion valve, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
4. Take out the electronic expansion valve.		<ul style="list-style-type: none"> ● Take out the electronic expansion valve.
5. Install the new electronic expansion valve.		<ul style="list-style-type: none"> ● Weld the connection pipe of electronic expansion valve. ● When welding the electronic expansion valve, the valve should be wrapped with wet cloth. ● Nitrogen welding: the pressure of nitrogen is $0.5 \pm 0.1 \text{ kg/cm}^2$ (relative pressure). ● NOTE: When welding the pipes, do not let the flame burn the other components. ● Install the coil of electronic expansion valve.
6. Secure the electric box and arrange the wires as required.		<ul style="list-style-type: none"> ● Put the electric box back in place and tighten up the screws. ● Arrange the wires as original.

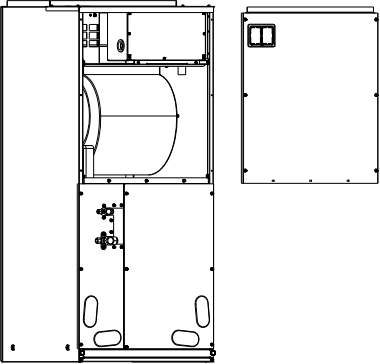
Removal of electronic expansion valve		
NOTE: Before removing the electronic expansion valve, make sure there is no refrigerant in the pipeline and power is cut off.		
Step	Picture	Work instruction
7. Check and open the upper and side panels.		<ul style="list-style-type: none"> ● Check whether each component and connection wire is well connected. ● If everything is OK, install the upper, left and right panels. Tighten up the screws.

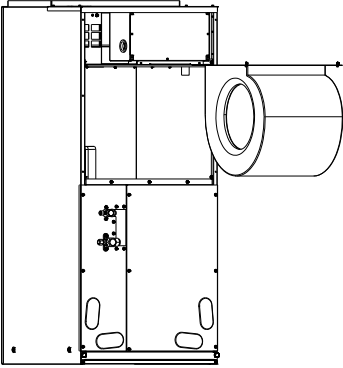
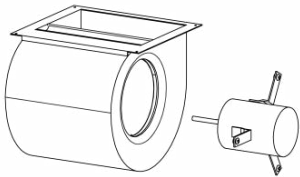
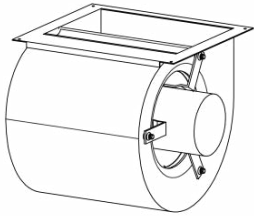
4.5.2 Removal of IDU Major Components

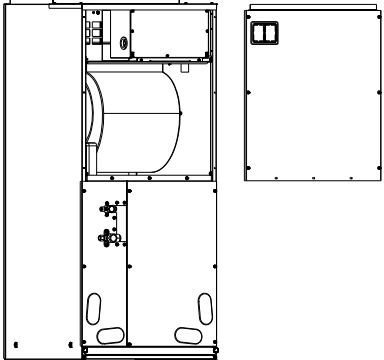
4.5.2.1 Airhandler Unit

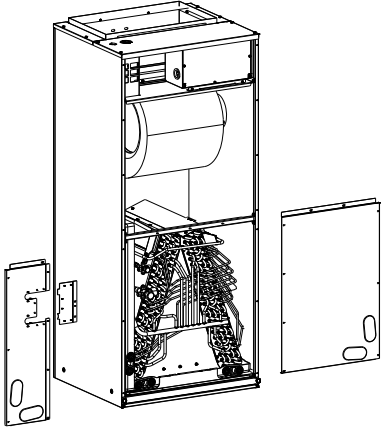
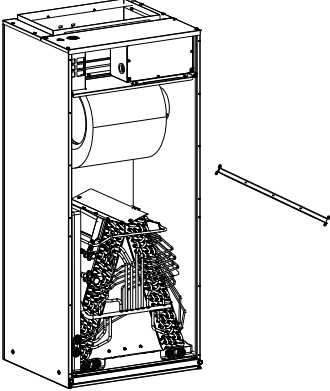
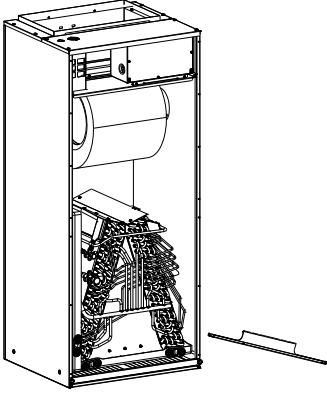
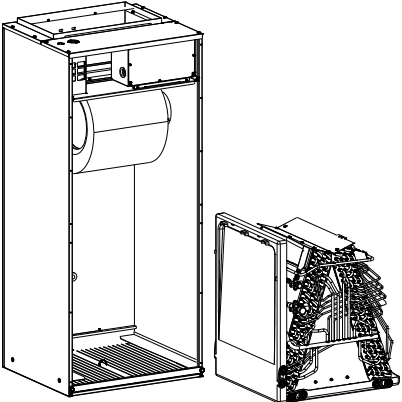
Disassembly and Assembly of the Electric Box		
Step	Picture	Work instruction
1. Remove the upper panel		<ul style="list-style-type: none"> ● Loosen screws around the upper panel with a screwdriver. ● Remove the upper panel away from the unit.
2. Remove the electric box.		<ul style="list-style-type: none"> ● Disconnect the power cord and control line from the wiring terminals, and then draw them out. ● Loosen screws around the electric box with a screwdriver. ● Remove the electric box from the unit.

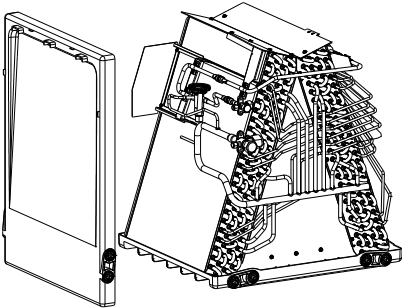
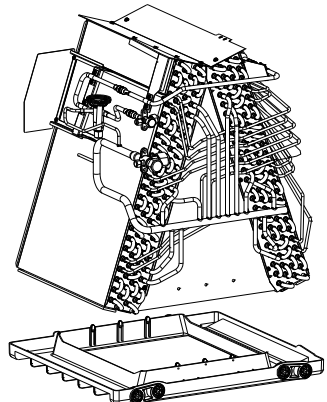
Disassembly and Assembly of the Electric Box		
Step	Picture	Work instruction
3. Remove the electric element.		<ul style="list-style-type: none"> • Disconnect the electric element from the wiring terminal. • Loosen screws around the electric element with a screwdriver. • Remove the electric element from the electric box.
4. Mount the new electric element.		<ul style="list-style-type: none"> • Place the electric element at the proper position. • Tighten the screws around the electric element with a screwdriver. • Wire the electric element to the wiring terminal.
5. Reinstall the electric box.		<ul style="list-style-type: none"> • Place the electric box at the proper position. • Tighten screws around the electric box with a screwdriver. • Connect the power cord and control line properly. • Reassemble the unit as before.

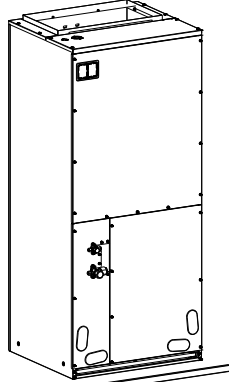
Disassembly and Assembly of the Fan Motor		
Step	Picture	Work instruction
1. Remove the upper panel.		<ul style="list-style-type: none"> • Loosen screws round the upper panel with a screwdriver. • Remove the upper panel from unit.

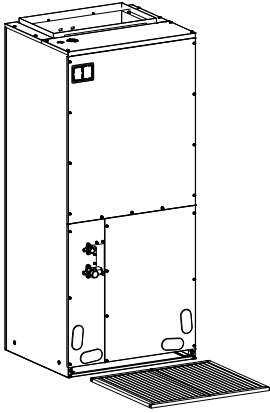
Disassembly and Assembly of the Fan Motor		
Step	Picture	Work instruction
2. Remove the fan.		<ul style="list-style-type: none"> • Disconnect the wires of the fan from the wiring terminal and draw them out. • Loosen screws located at the front of the fan with a screwdriver. • Remove the fan from the unit.
3. Remove the motor.		<ul style="list-style-type: none"> • Loosen screws fixing the motor and fan blades. • Loosen screw bolts fixing the bracket. • Remove the motor rightward from the fan.
4. Reinstall the fan.		<ul style="list-style-type: none"> • Place the motor at the proper position. • Tighten screws fixing the motor and fan blades. • Tighten screw bolts fixing the motor bracket. • After the installation, reassemble the unit as before.

Disassembly and Assembly of the Evaporator and Drain Pan		
Step	Picture	Work instruction
1. Remove the upper panel.		<ul style="list-style-type: none"> • Loosen screws round the upper panel with a screwdriver. • Remove the upper panel from unit

Disassembly and Assembly of the Evaporator and Drain Pan		
Step	Picture	Work instruction
2. Remove the lower panel (1) and panel (2).		<ul style="list-style-type: none"> ● Loosen screws round the lower panel with a screwdriver. ● Remove the lower panel from unit.
3. Remove the enhanced frame if applicable.		<ul style="list-style-type: none"> ● Remove the screws from enhanced frame. ● Disassemble the enhanced frame from the unit.
4. Remove the mounting plate of the drain pan.		<ul style="list-style-type: none"> ● Loosen screws at both side of the mounting plate with a screwdriver. ● Remove the mounting plate from the unit.
5. Remove the primary drain pan.		<ul style="list-style-type: none"> ● Remove the primary drain pan from the unit.

Disassembly and Assembly of the Evaporator and Drain Pan		
Step	Picture	Work instruction
6. Remove the secondary drain pan.		<ul style="list-style-type: none"> ● Remove the secondary drain pan from the unit.
7. Remove the evaporator.		<ul style="list-style-type: none"> ● Remove the evaporator away from the primary drain pan. ● Reassemble the unit as before.

Disassembly and Assembly of the Filter		
Step	Picture	Work instruction
1. Remove the mounting plate.		<ul style="list-style-type: none"> ● Loosen screws fixing the mounting plate with a screwdriver. ● Remove the mounting plate away from the unit.

Disassembly and Assembly of the Filter		
Step	Picture	Work instruction
2. Remove the filter screen.		<ul style="list-style-type: none">● Remove the filter screen away from the unit.● After replacing the filter screen, reassemble the unit as before.