

# AIRSYS WPU

## Part Replacement Procedure

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### HVAC Models

**3R1C1**  
**5R1C1**  
**7E1C2**

**9E1C2**  
**13E1C3**  
**18E1C4**

# **SAFETY INSTRUCTIONS**

## **IMPORTANT**

All service work must be done by qualified professional technicians. Always wear protective gear and comply with all general and local safety standards and codes. Adhere to all warnings and safety instructions on the units and in this manual. AIRSYS and its U.S. distributor, AIRSYS North America, shall not be held liable for any damage to persons or property due to improper operation or servicing of this equipment.

### **WARNING**

Risk of electric shock. Switch off all electric breakers before servicing the units. Failure to comply can cause serious injury or death.

The AIRSYS Lead/Lag Controller utilizes 208/230V power and is not electrically isolated from the outdoor units. Some internal sensors and protection devices require and receive voltage from the controller. To ensure that there is no power in the unit, switch off both the controller breaker and the outdoor unit breaker.

### **WARNING**

Risk of contact with high speed rotating fan blades. Turn off the unit and verify that the fan blades have stopped rotating before working around the fans. Failure to comply can cause serious injury or death.

### **CAUTION**

The surfaces of compressors, motors, and discharge lines may become extremely hot during operation. Allow enough time for the components to cool before working on these components. Wear protective gear and exercise caution when working near hot surfaces. Failure to comply can cause injury.

### **CAUTION**

Risk of contact with sharp edges. Always wear protective gloves when handling panels and other components. Failure to comply can cause injury.

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## **EVAPORATOR FAN REPLACEMENT**

1. Shut off the power to the WPU.
2. Remove the bottom left and right panels.
3. Remove the wire junctions.



4. Place a board or a metal sheet against the evaporator coil to protect it during fan replacement.



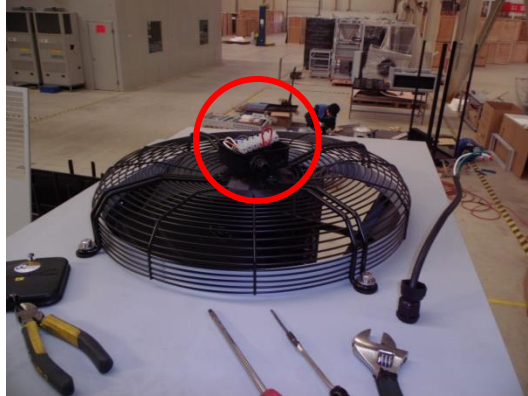
5. Remove the 6 nuts securing the fan assembly to the unit.



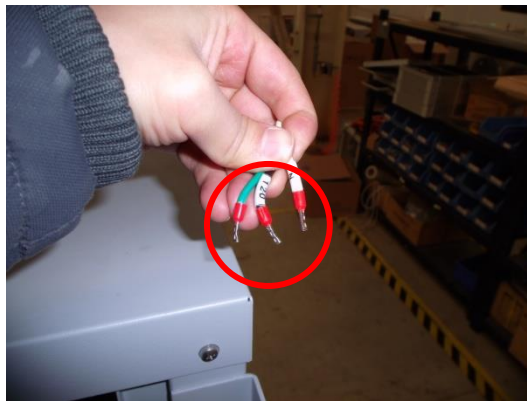
6. Replace the fan in the assembly with the new part.
7. Place the fan assembly into the unit and refasten the 6 nuts.
8. Reconnect the wiring per the wiring diagram and remove the board or sheet protecting the evaporator coil. Ensure that all connections are watertight.

## **CONDENSER FAN REPLACEMENT**

1. Shut off the power to the WPU.
2. Remove the wiring cover from the condenser fan.



3. Disconnect the wiring to the condenser fan (3 wires)



4. Loosen the 4 screws securing the condenser fan and remove it from the unit.



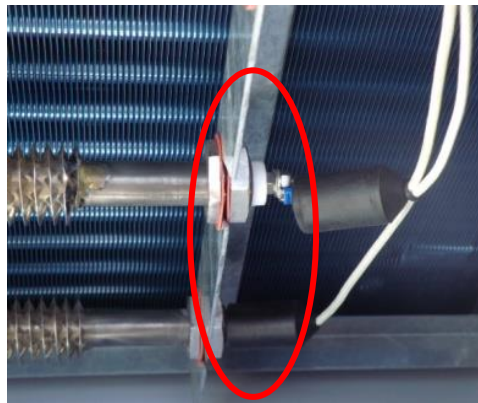
5. Ensure that all necessary jumpers are connected on the replacement fan. Consult the wiring diagram for the correct wiring.
6. Secure the replacement fan to the unit by fastening the 4 screws.
7. Reconnect the wiring from the unit per the wiring diagram.

## **ELECTRIC HEATER**

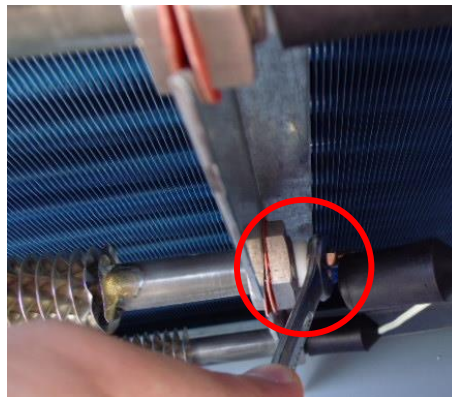
1. Shut off the power to the WPU.
2. Remove the bottom left and bottom right panels.



3. Disconnect the wiring from the heater.



4. Loosen the nuts on both sides of the heating element and remove the malfunctioning element.



5. Replace the heating element and tighten the nuts to secure it to the unit.
6. Reconnect the wiring.

## **DAMPER ACTUATOR**

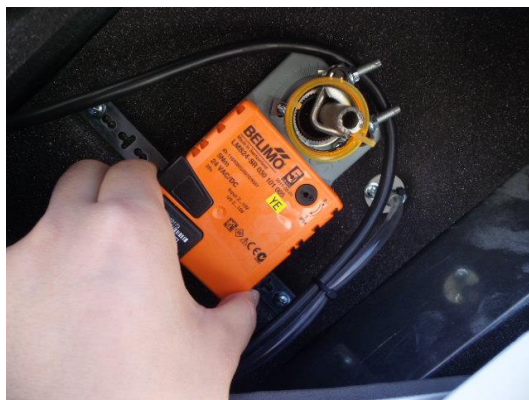
1. Shut off the power to the WPU.
2. Remove the damper cover.



3. Loosen the nuts securing the actuator to the damper shaft.



4. Remove the damper actuator.





5. Disconnect the plug



6. Replace the actuator. Reconnect the plug, then fasten to the unit and tighten the nuts.

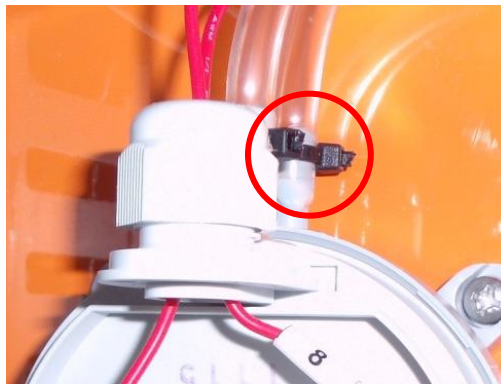


## **AIR PRESSURE DIFFERENTIAL SWITCH**

1. Open the electrical panel.
2. Take off the cover and disconnect the contacts.



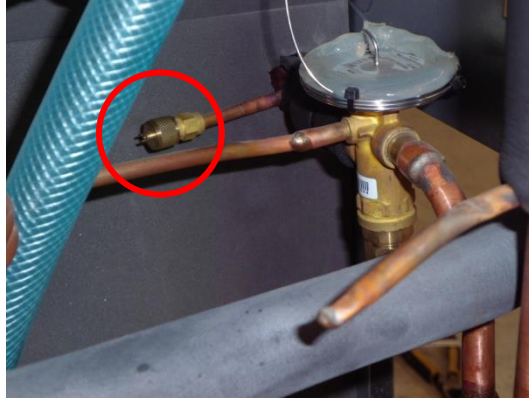
3. Cut the zip ties securing the air tubes to the switch.



4. Replace the switch and reconnect the contacts. Ensure that the switch has been set to 250.

## **THERMAL EXPANSION VALVE**

1. Shut off power to the WPU.
2. Remove the bottom front panel.
3. Remove the valve core from the valve.



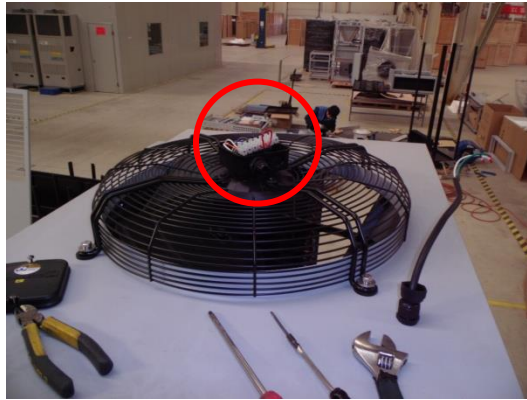
4. Place a wet cloth around the copper tube near the thermal expansion valve inlet and outlet joints. Use a torch to unsolder the connections and remove the expansion valve.



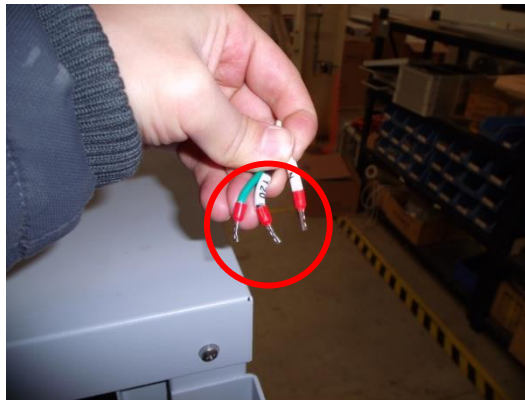
5. Replace the valve. Use a torch to solder the thermal expansion valve to the inlet and outlet.
6. Solder the bypass tube to the thermal expansion valve.

## **CONDENSER COIL**

1. Shut off power to the WPU.
2. Remove the middle front, upper front, upper left, and upper right side panels.
3. Remove the wiring cover from the condenser fan.



4. Disconnect the wiring to the condenser fan (3 wires)

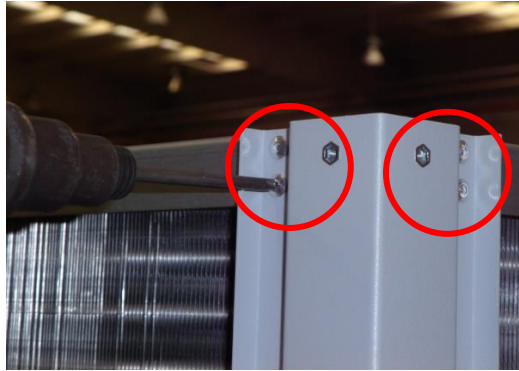


5. Loosen the 4 screws securing the condenser fan and remove it from the unit.

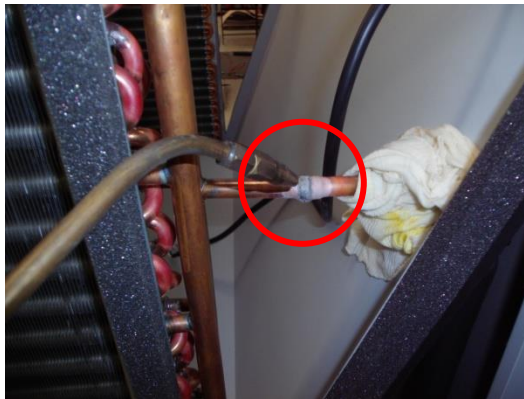


6. Remove the top cover.

7. Remove the bar around the condenser coil.



8. Use a torch to unsolder the condenser inlet and outlet joints.



9. Remove the condenser coil.



10. Replace the condenser coil and solder the condenser inlet and outlet.
11. Reinstall the condenser fan by reconnecting the wiring and securing the fan to the top of the unit.

## **EVAPORATOR COIL**

1. Shut off power to the WPU.
2. Remove the bottom front, bottom left, and bottom right panels.
3. Remove the wire junctions to the evaporator fan.



4. Remove the 6 nuts securing the fan assembly to the unit.

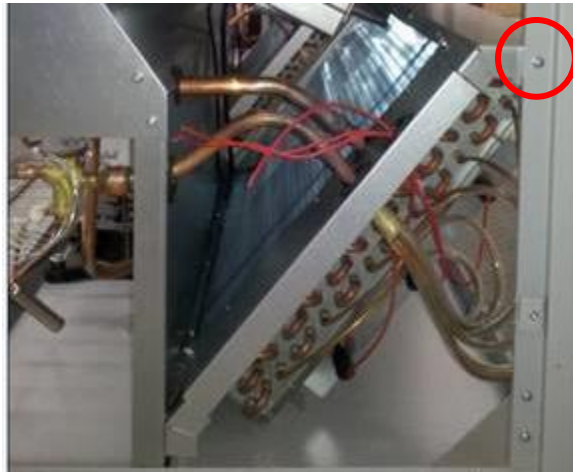


5. Remove the fan assembly from the unit.
6. Use a torch to unsolder the evaporator inlet and outlet joints.

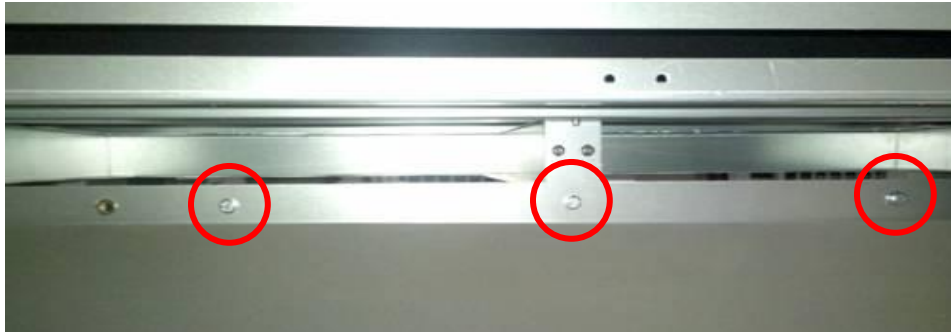




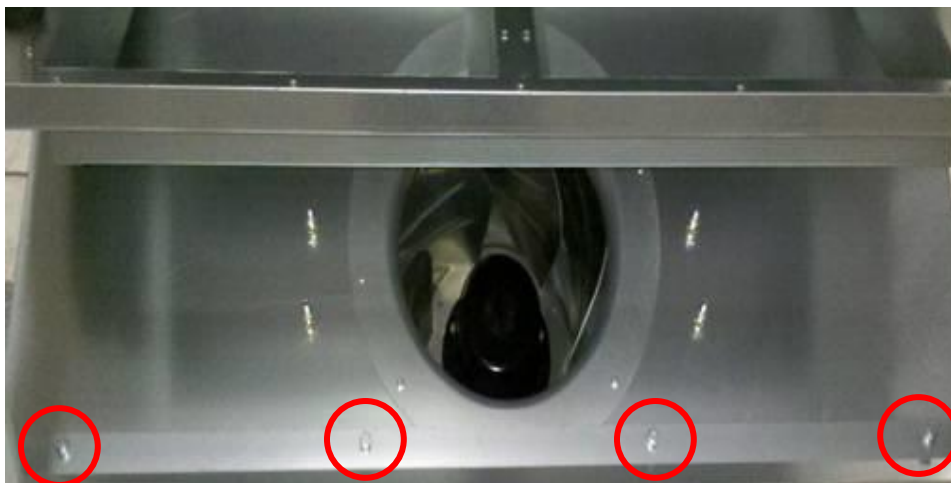
7. Remove 2 screws (one on each side) securing the coil to the sides of the unit.



8. Remove the frontal screws under the air filter.



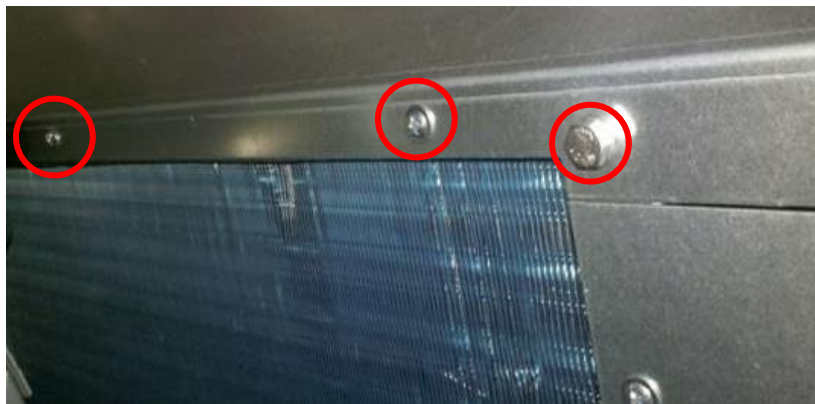
9. Remove the screws behind the fan assembly.



10. Remove the thermal insulation behind the compressor compartment and remove the screws under it.



11. Remove the bolts and screws securing the coil to the frame.



12. Pull the top part of the frame upwards until the evaporator coil can be removed.
13. Replace the coil and reattach all mounting screws.
14. Use a torch to solder the evaporator inlet and outlet.
15. Replace the evaporator fan assembly and reconnect the wiring.