



eti® **NETCOM**® **MODEL ADH NEMA**
AUTOMATIC AIR DEHYDRATOR WITH ETHERNET

ADH NETCOM AC NEMA AUTOMATIC AIR DEHYDRATOR HUMIDITY SENSOR ASSEMBLY REPLACEMENT PROCEDURE

Replacement Kit Part Number 24092
Document Part Number 24105



Lethal Voltages Present

Lethal voltages are present inside the ADH NETCOM. Service should be performed by qualified personnel only. There are no user serviceable components inside the chassis.



Abnormal Odor or Smoke

In the event of smoke or a burning or abnormal odor, immediately interrupt power to the ADH NETCOM with the POWER switch at the rear of the unit, unplug the unit, or turn off the circuit breaker controlling the outlet. Note that only the AC model of the ADH NETCOM has an ON / OFF switch.



Pneumatics

Each of the air pumps inside the ADH NETCOM automatic air dehydrator is capable of generating as much as 24 psig (1,655mbar). Other attached dry air sources may be capable of generating even higher pressures. Proper safety practice requires treating all pneumatic components with care. Always vent the system to atmospheric pressure before servicing pneumatic components.



Rack Mounting

Before and after rack mounting the ADH NETCOM, ensure that the rack is stable. Mounting of the ADH NETCOM into a rack should be such that a hazardous condition is not created due to uneven mechanical loading. Verify that adequate air flow and power source capacity is available to the unit. Ensure that the ADH NETCOM maximum operating temperature of 130°F (55°C) will not be compromised by other components in the rack. Ensure reliable earthing of the ADH NETCOM.

ADH NETCOM AC NEMA HUMIDITY SENSOR ASSEMBLY REPLACEMENT PROCEDURE

This procedure addresses the removal and replacement of the Humidity Sensor Assembly in an ADH NETCOM AC NEMA Automatic Air Dehydrator. It is recommended to read the entire procedure prior to beginning work.

INVENTORY LIST

Identify the following items in this kit prior to beginning work.

| QTY. | PART NO. | DESCRIPTION |
|------|----------|------------------------------------|
| 1 | 23707 | SENSOR/TERMINAL BLOCK ASSEMBLY |
| 1 | 24105 | Instruction Manual (this document) |

TOOLS REQUIRED

The following tools are needed to perform this procedure:

- Small flat blade screwdriver
- Tubing wrench or vacuum tube pliers
- Diagonal Cutters
- Long screwdriver

NOTE :

On AC units, it might be useful to move the power filter module and switch assembly out of the way for better access to the humidity sensor during this procedure. Refer to Figure 1a. To do so, from the inside of the machine, after first noting their placement, carefully disconnect the three electrical leads from the filter module. Do not separate the leads from the spade lugs. Then, from the back of the machine, unscrew the two screws securing the power filter module to the machine chassis then gently push the power filter module toward the back of the dehydrator. It is not necessary to fully remove the power filter module.

LIMITED WARRANTY

ETI's two year limited warranty covering defects in workmanship and materials applies. Contact Customer Service for complete warranty information.

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HUMIDITY SENSOR ASSEMBLY REMOVAL AND REPLACEMENT

To replace the Humidity Sensor Assembly (23368) in either an ADH NETCOM Automatic Air Dehydrator with AC power or an ADH NETCOM with Redundant DC power, perform the steps below. Refer to Figure 1a or 1b, respectively, for AC and DC unit illustrations.

1. Shut off machine power by unplugging the unit.
2. Open the two front door latches, loosen the two captive screws in the corners of the housing opposite the hinges, then open the NEMA box. Place an object underneath the door once open to help support it during this procedure.
3. Remove the orange Ethernet cable on the left by disconnecting both ends, then removing it. Set aside for re-use. Remove the power cable connector on the right by loosening the captive screw on each end of the green connector, then unplugging the connector. Disconnect the ground wire by loosening the ground wire retaining screw, then carefully removing the ground wire. Refer to Figure 1.

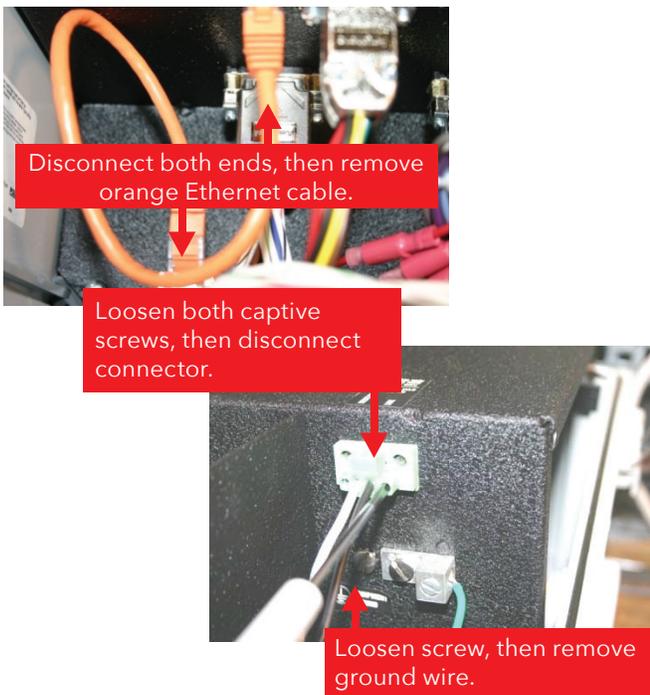


Figure 1. DISCONNECTING THE ETHERNET CABLE, THE POWER CABLE CONNECTOR, AND THE GROUND WIRE.

4. Remove and retain the four mounting screws from the four corners of the protective front cover, then slowly lift the front cover, carefully flip it over, then set it down, upside down, to rest on the inside of the enclosure door. Be careful as there are still many wires connected between the enclosure and the front cover and there isn't a lot of slack. Note that the two upper front cover mounting screws are located in plain sight in the top corners of the front cover, while the two lower front cover corner mounting screws are located down in the front "well" of the unit. Use a long-handled screwdriver to remove them.
5. For greater access during this procedure, disconnect the "Y" hose assembly at the point of the outlet port as shown in Figure 2.

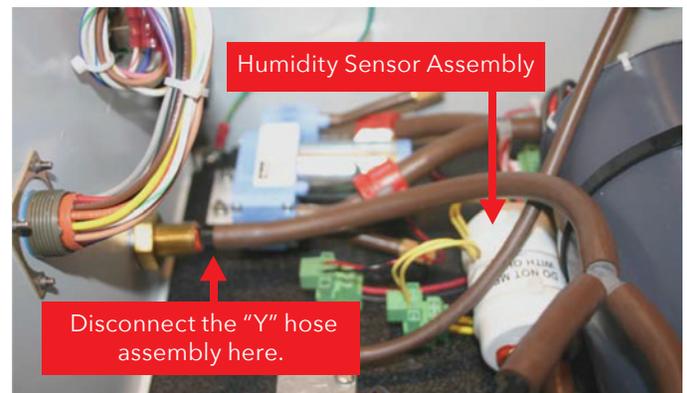


Figure 2. "Y" HOSE ASSEMBLY DISCONNECT POINT.

6. Disconnect the humidity sensor terminal block from the electrical connector by loosening the captive screw at either end of the connector then disconnecting the terminal block. Refer to Figure 3.

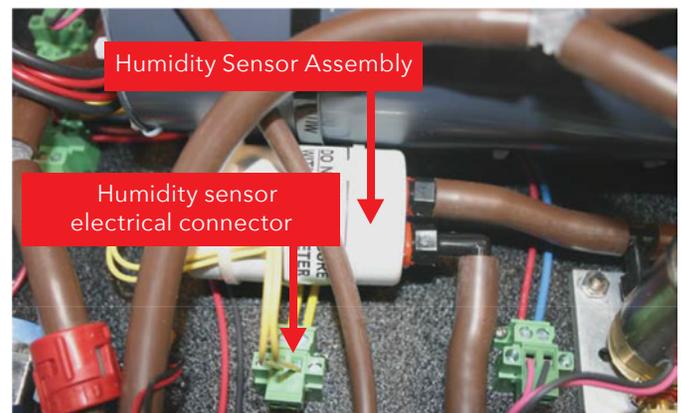


Figure 3. THE ADH NETCOM AC NEMA AUTOMATIC AIR DEHYDRATOR HUMIDITY SENSOR ASSEMBLY AND ELECTRICAL CONNECTOR.

- Using a tubing wrench or vacuum tubing pliers, carefully remove the two air hoses connected to the existing humidity sensor. Try to not move the fittings or break the seal. Refer to Figure 4.

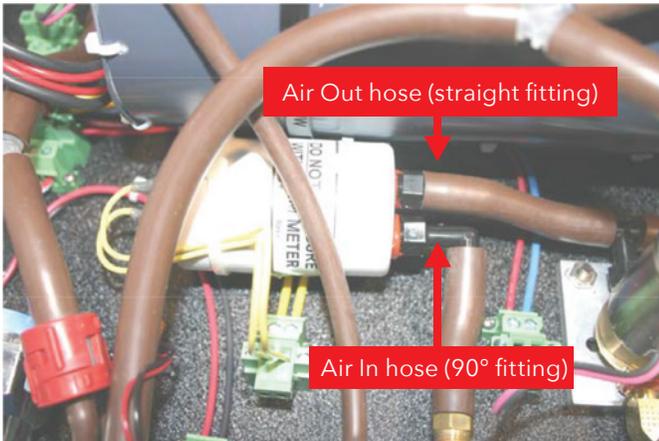


Figure 4. THE TWO HUMIDITY SENSOR AIR HOSES.

- Using the diagonal cutters, cut the two tie wraps securing the humidity sensor assembly to the two tie wrap mounts.
- Once both air hoses and the terminal block have been disconnected and the two tie wraps have been cut, remove the existing humidity sensor from the dehydrator.
- Place the new humidity sensor onto the two tie wrap mounts from which the original assembly was removed. Rotate the sensor on the two mounts so that the two air hoses reach their respective 90° and straight fittings, just as they were on the original assembly. The Air Out hose connects to the straight fitting. The Air In hose connects to the 90° fitting. There is no right or wrong angle for the humidity sensor itself in terms of its function. All that matters is that each air hose connects securely to its respective fitting. Do not yet apply the tie wraps.
- Install the new humidity sensor terminal block to the electrical connector which was removed in step 6. Tighten the two captive end screws to secure the terminal block in place.
- Once the rotation of the humidity sensor is determined based on the position of the hoses to the fittings, secure the new humidity sensor assembly in place by feeding the two tie wraps from the kit through the slot in each mount, knurled side up. Tighten the tie wraps, then cut off the excess from each one.
- Reconnect the "Y" section of the tubing assembly, disconnected in step 5, to the outlet port fitting.
- Reinstall the front cover removed in step 4 of this section. If it was placed upside down on the lid of the unit during this procedure, carefully turn the cover back over and work it back into position, past the wires and other components in the enclosure. Reinstall the four corner screws securing the front cover to the chassis.
- Reconnect the ground wire by inserting it behind the retaining screw from which it was removed in step 3, then tighten the ground wire retaining screw. Connect the terminal block to the power connector by holding it in place then tightening the two captive screws. Reconnect both ends of the orange Ethernet cable removed in step 3 of this section. It does not matter which end of the Ethernet cable goes into which receptacle.
- With the ground wire, power connector and Ethernet cable reconnected, close the lid of the NEMA enclosure and secure the two latches opposite the hinges. Secure the lid in place by reinstalling the two captive screws in the two outer corners of the lid.

CONTACTING CUSTOMER SERVICE

For technical help, questions or comments concerning this product or any ETI product contact Customer Service 8:00 a.m. - 5:00 p.m. Eastern Time.

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