Mat Wire Repair Instructions

Before You Start

Mat Wire Repair Kit Contents

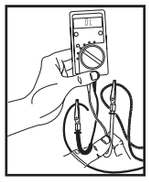
- 1 hollow piece of braid
  - shipped with lead wire inside to maintain its shape
  - discard lead wire after step 6
- piece of resistance wire
- 3 large heat shrinks
- 3 medium heat shrinks (no longer included)
- 3 small heat shrinks

How to Test Nuheat

DO NOT CONNECT MAT TO POWER DURING TESTING

Insulation Test

To ensure that the copper conductors are fully insulated:
Acquire a digital ohm/multi meter with alligator clips or equivalent testing device. Place one meter probe on the ground outer metallic braid and the other probe on the copper wire inside the white lead.

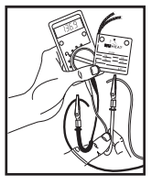


- Confirm that the reading is 1 million ohms to infinity.

Repeat these steps to check the reading between the metallic braid and the copper wire inside the black lead.

Resistance Test

To ensure continuity in your heating mat:
Acquire a digital/multi meter with alligator clips or equivalent testing device. Set the ohm meter to the lowest setting. Place one of the meter probes on the copper wire in the white lead and the other probe on the copper wire in the black lead.



- Confirm that your ohm reading is within -5% or +10% of the factory reading listed on the mat tag. Record reading in the Mat Resistance Log.

Note: Nuheat must be tested before, during and after installation to validate the warranty.

Repairing Mat Wire

1. Determine the location of the damaged wire.

2. Using a sharp blade cut the fabric along side the wire approximately 8" on either side of the point of damage. Cut close to the wire being careful not to nick or cut it.

3. Gently pull the wire away from the fabric.

4. Cut the wire at the damaged section.

5. Take the large heat shrinks and place one on each open end of the mat resistance wire.

6. Take the hollow piece of braiding from the repair kit and slip it over one of the ends of resistance wire from the mat.

Note: Bunch the braid between your fingers while it is still on the packaged lead wire to make it easier to feed the resistance wire through it.

7. Cut 2" from each end of the damaged wire, leaving a space of approximately 4".

8. Push back the steel braiding from the resistance wire on the mat to expose approximately 3" of insulated resistance wire.

9. Very carefully strip 1/8" of insulation from each end of the resistance wire.

10. From the repair kit take the piece of resistance wire and strip 1/8" of insulation from one end.

11. Take one small heat shrink from the repair kit and place it over the new piece of resistance wire.

12. Take the end of the resistance wire from the damaged mat and the new piece of resistance wire and overlap the 1/8" of bared wire ends.

13. Carefully slide the heat shrink over the overlapping ends ensuring the solder ring is centered over the overlapping bare resistance wires. Ensure that the resistance wires are within the heat shrink seals (the blue and clear bands).

Note: Keep the metal braid at least 1" away from the heat shrink during the heating process to prevent a short between the wire and the metal braiding.

14. With the heat gun, heat the heat shrink until the solder ring melts on the overlapped connection and the plastic tubing is shrunk tight around the insulation protecting the wire.

Note: Heat the ends of the heat shrink first to seal in the solder.

15. Cut the loose end to the appropriate length, making sure that the stripped resistance wires overlap. Repeat the same procedure as steps 13 to 15.

16. Pull the bunched steel braiding over the repaired wire connections making sure the hollow braid contacts the existing braid on both ends. Take the large heat shrinks and place one at each end of the hollow braid wire and heat as per Step 15.

17. Place the repaired wire into the mat fastening it in place with duct tape. A space of one inch must be maintained between the mat wires - wires cannot overlap.

After finishing the repair, conduct Insulation & Resistance Tests.

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