

Kiln Element Paper Test

Running a paper test can be a great way to troubleshoot your kiln if you do not have access to a multimeter. With just some scraps of paper and 5 minutes you can determine if you have any elements or relays that need replacing. Despite its usefulness, the paper test cannot compare to the information that you can get from a multimeter. It will only point you in the direction of a problem, not pinpoint it.

First let's go through the test itself:

1. Start by folding up small strips of paper approximately 50mm (2") long. You will need one paper per element in the kiln that you want to test. Don't use shiny paper that will have china clay in it that could damage the elements, newsprint is best.
2. Turn off the kiln and unplug it (or at least shut it off at the circuit breaker/fused disconnect).
3. Insert the paper scraps in between the coils of each element. It does not matter where along the element.
4. Plug-in and turn on the kiln.
5. Program for Fast Glaze to any cone (or turn manual switches on high).
6. After 5 to 10 minutes the paper should start to scorch or burn.
7. Turn off the kiln and unplug it (or at least shut it off at the circuit breaker/fused disconnect).
8. Use pliers, tweezers, etc. to remove the paper from the elements as they will still be very hot. Make sure to note which pieces burned or scorched and which, if any, did not show any signs of scorching.
9. Vacuum or simply blow out any remaining ashes in the element holders.

Once you have your results, you can start to draw some conclusions. We will look at one section at a time. These are some potential results and causes. Keep in mind you might have any combination of these issues.

If the paper is not burnt in one element in a ring:

1. The element is burnt out/broken and needs to be replaced.
2. Your elements are wired incorrectly at the element terminal block.

If the paper is not burnt in all (2 or 3) elements in a ring:

1. All elements in the ring are burnt out/broken and need replacing.
2. Your relay for that section is burnt out and not working.
3. One (or more) of the power wires to that ring is burnt or disconnected.
4. Your controller is not sending the proper output to the relay. Test the controller.

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