



## Glascraft MH and MH2 Hose Heat Testing and Troubleshooting

**CAUTION:** If you do not have some general electrical knowledge and understand how to use a multimeter or if you are not comfortable performing these tests, **DO NOT** attempt them.

The hose heat system on the MH and MH2 can be tested with a few simple tests using a good multimeter.

**1. Check main power supply to the machine to ensure proper input voltage.**

**NOTE:** If you have a 3 phase 220V system that has a wild leg or high leg, make sure that the wild leg is connected to the L1 terminal at the main switch block. The L2 and L3 leads supply hose power and should be an even 110-120V each. If you change these leads make sure that you check the rotation of the electric motor. To reverse rotation switch L2 and L3.

**2. With power off to the machine, lift the console lid and check and reset the hose breaker (3CB), check the 63 amp buss fuse (7FU) and check the small ½ amp fuse (6FU) that goes to the low voltage control circuit for the hose. NOTE: Use an ohm meter or continuity tester to check the 6FU fuse, it is hard to visibly tell if the small amperage fuses are good.**

**3. Check all electrical connections involved in the hose heat circuit. Look for any abnormalities. Burnt wiring smell, discolored connections (which would indicate heat from a loose connection) or anything else out of the ordinary.**

**4. If the breaker, fuses, and all connections look good you can then check for power output from the machine and hose continuity.**

**5. With power off to the machine, unhook the power leads from the front of the machine to the hose. Turn on the power and hose heat. Check the AC voltage between the two leads coming out of the machine. If you are using a 50' hose, your tap setting, at the transformer, should be set at 15VAC. This means you should read approximately 15-18 volts AC.**

**6. Next check for continuity between the two leads going into the hose. Resistance should be approx. .3 ohms.**

**7. If you do not have continuity between the two hose leads then there is a bad connection or broken wire somewhere in the hose. Double check the connection from the hose to the whip and at the turn around connection in the whip.**

**8. If you do not have proper voltage coming out of the machine, check the hose relay (3SSR).**

With the machine power and hose heat on, the Watlow controller set and calling for heat. (This will test the hose heat circuit under load) The two large terminals at the bottom of the relay switch (#1, power in and #2, power feed to the hose) should read the same voltage, approx. 15-18 VAC.

Terminals 3 and 4 go to the controller and should read 5-8 VDC (this is the only DC circuit in the control box)

If you have power from your controller to #3 and #4 (relay switch “on”) but #2 has no voltage or more than 2 volts lower than #1. Replace the relay.

If there is no voltage from #3 and #4 then the controller or TSU could be the problem.

**Good luck and call if you need help.**

**Thanks, John Powers**