

Simulating Snow Melt Control Operation with the 090 Snow/Ice Sensor

A number of requests have been received from the field regarding testing of snow melt systems. Usually the testing is to be done before the outdoor air and slab temperatures are cold enough to test (system is in WWCO (Warm Weather Cut Off)). Enclosed is a procedure on how to simulate a cold air and slab temperature (20 degree F).

Required Material : 2 - 47,000 ohm (47kΩ) resistors. (any wattage is o.k.) These components can be purchased at any electronic jobber (Radio Shack etc.). You may also purchase a tekmar 10 kΩ simulator 002 to do this test.

Note: Before doing this procedure, ensure that you have tested the control and sensor according to the appropriate data brochure.

Test Procedure

Step #1. Disconnect the brown lead on the 090 sensor from terminal #15 on the 661 or terminal #22 on the 662.

Step #2. Disconnect the outdoor sensor wire from terminal #18 on the 661 or terminal #29 on the 662.

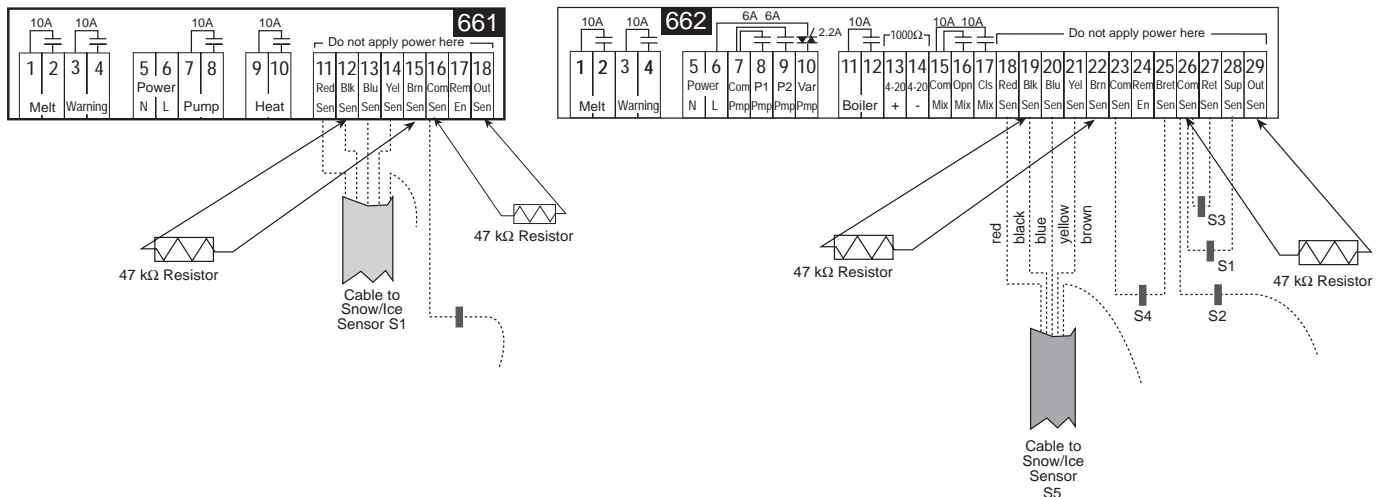
Step #3. Connect a 47K ohm resistor across terminals #12 & 15 on the 661. On the 662 control, connect the resistor across terminals #19 and #22. This simulates a slab temperature of 20 degree F.

Note: Leave the black lead from the 090 connected to its terminal.

Step #4. Connect the second 10 kΩ resistor across terminals #16 & 18 on the 661. On the 662 control, connect the resistor across terminals #26 & 29 on the 662. The control now thinks that the outdoor air temperature is 20 degrees F.

Step #6. Pour some water on the 090 sensor. The water detect and melting light on the control should turn on. Once turned on, the system should begin delivery of heat to the slab.

Step #7. When the test is completed, remove resistors and reconnect the 090 Snow /Ice sensor and outdoor sensor wires.



Yours truly,
tekmar Control Systems Ltd.