MAVAM ESPRESSO, LLC

TECHNICAL DOCUMENT

Pressure Sensor testing and troubleshooting

The pressure sensor reads the steam pressure and translates it into a DC voltage. This will help you troubleshoot any issues with the sensor. The sensor is located next to the steam boiler and attached by a copper pipe. This procedure is the same for all models and versions of the machine.

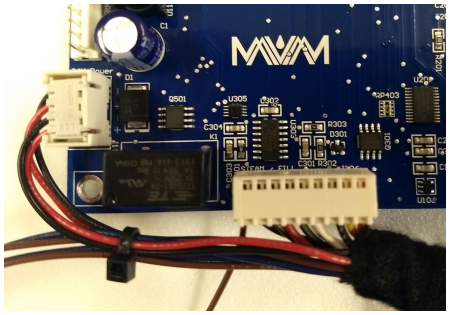
There are two possible issues:

1. "Steam Sensor Missing" Error message.
2. Incorrect steam pressure readings.

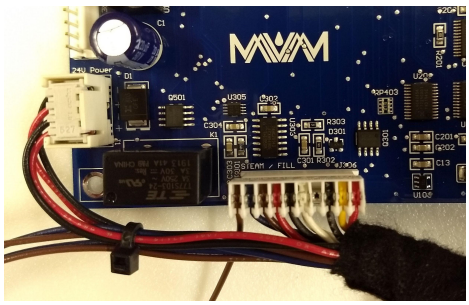
You will need a Multimeter to conduct the troubleshooting.

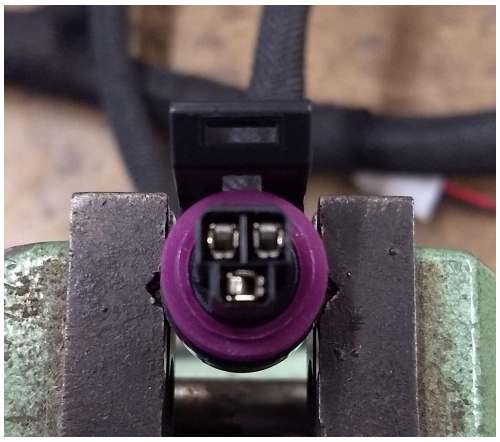
1: Perform a visual inspection

NOTE: Make sure power is OFF to the unit before performing these steps.



Remove the protective cover from J306 on the BCU and make sure the wire is securely crimped in the connector.





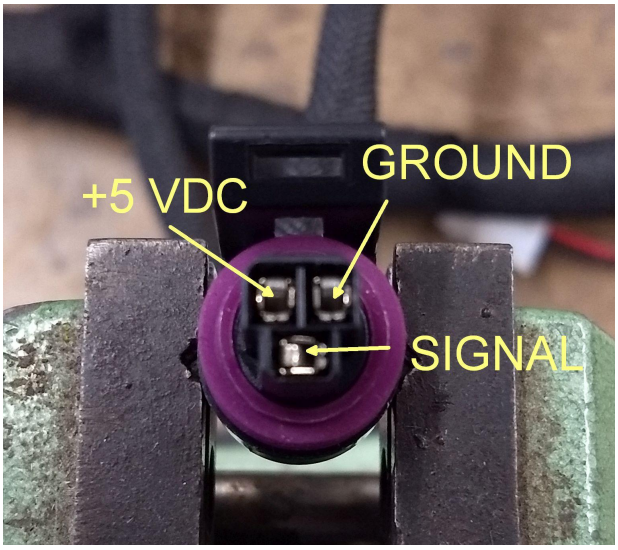
Remove the connector from the sensor and make sure you can see the pins are flush with the connector face.

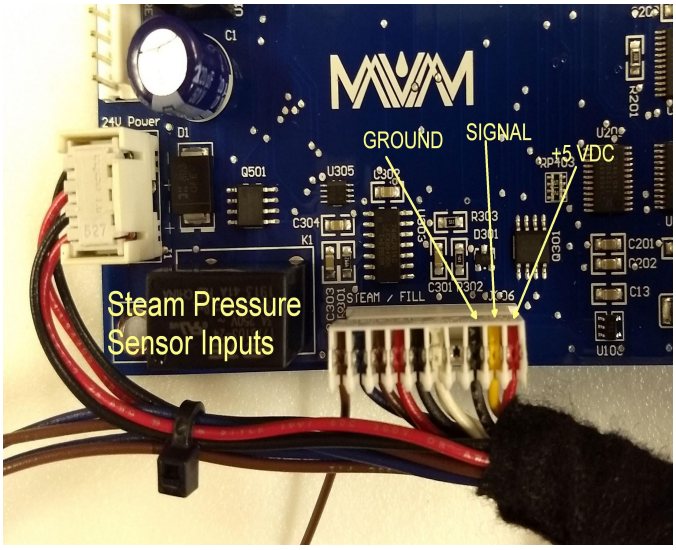
2: Measure continuity between sensor connector and BCU.

You will need a multimeter for the following steps.

<u>Set your meter to OHMS or Continuity for this step.</u>

Place ONE probe on GROUND of the steam sensor connector and the OTHER on GROUND of the J306 of the BCU. You should read continuity (Zero ohms or close to it). Repeat this step with SIGNAL and +5 VDC. You should read continuity (Zero ohms or close to it) for all three pins.





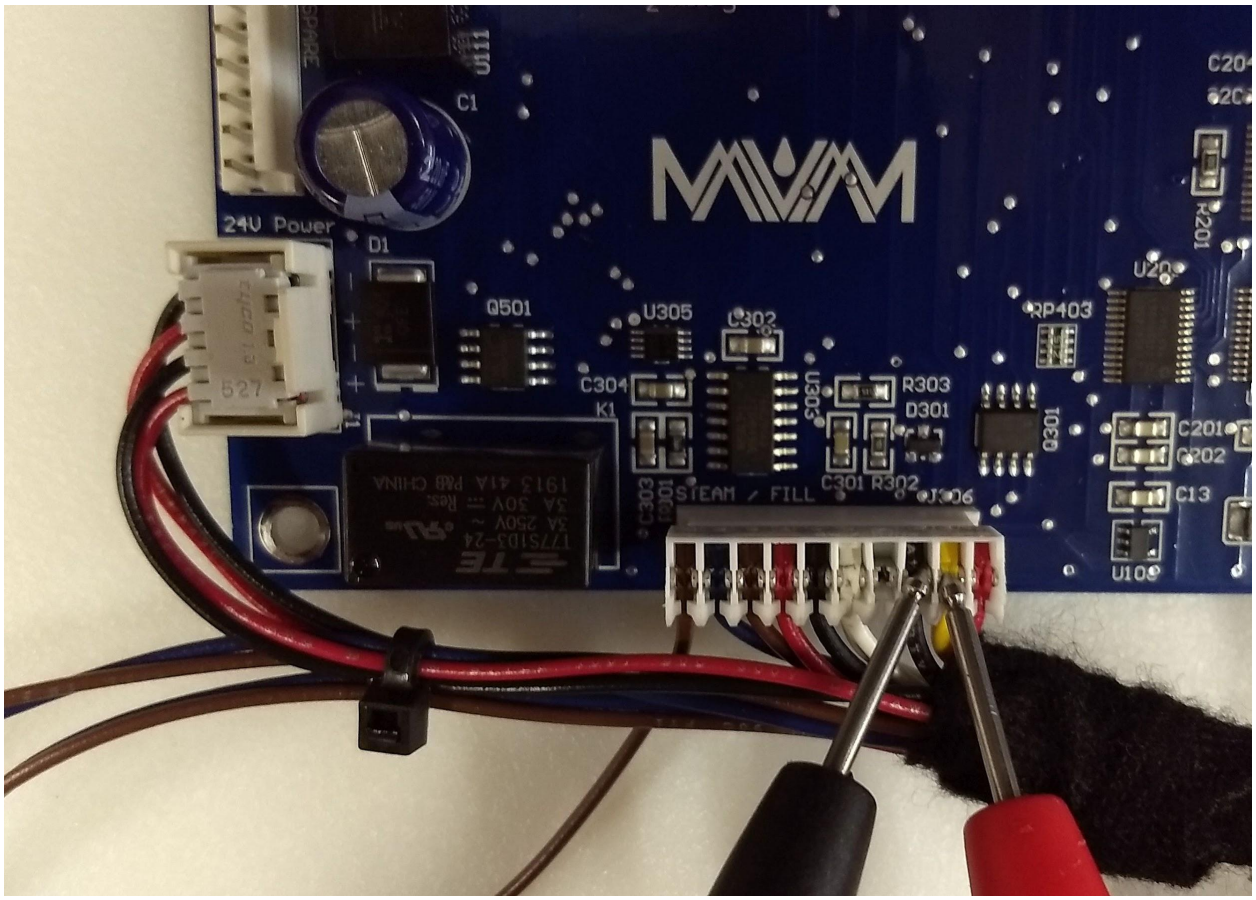
<u>NOTE: Make sure your meter probe touches the “ears” of the connector on the BCU.</u>

If you do not get continuity on any of the wires then the harness or one of the connectors may be faulty. Broken connections can result in “Pressure Sensor Missing” message.

3: Voltage measurements

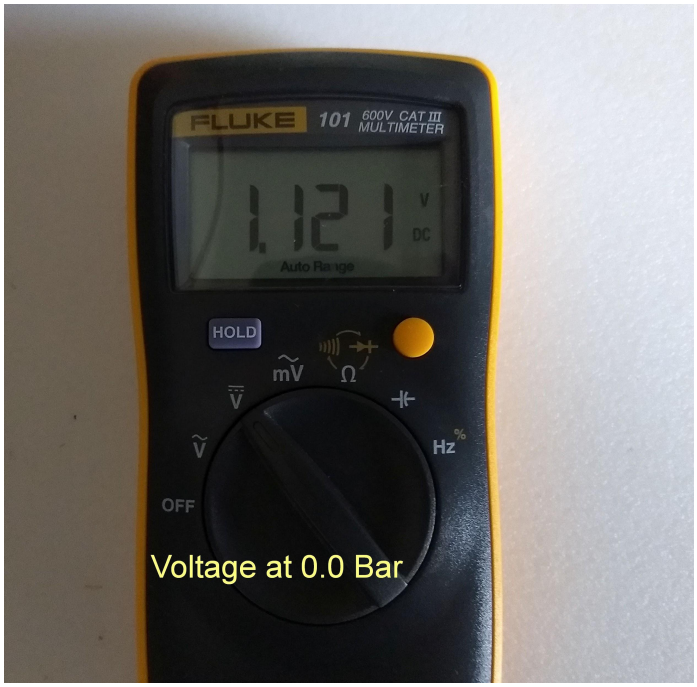
NOTE: Power must be ON for these tests. Exercise all necessary caution!

With power ON and all connectors attached measure the voltage of the sensor output at J306 on the BCU. Set your meter to DC voltage 20V range if not automatic. Place the probes as shown in the photo.



NOTE: Make sure the probe tips touch the “ears” of the connector.

Your readings should be as shown below



Voltage of between 1.1 ~ 1.2 VDC at 0.0 Bar.

Voltage of between 1.7 ~ 1.8 at 1.2 Bar.

Since you are measuring during operation these may vary a bit. Any voltage close to these indicates the sensor is GOOD. Voltages outside of this range can result in incorrect pressure readings. If the voltages are different contact MAVAM for further assistance.