2. Sys Fail 09 Troubleshooting

The instructions below can troubleshoot a "sys fail 09" message.

- Carefully review <u>all</u> reported System Failures before beginning any troubleshooting procedures.
 - NOTE: When diagnosing System Failure it is helpful to filter the ON SCREEN EVENT LOGS in Service Mode. To show Sys Fail messages only see Appendix A.
- Take a photo of the On Screen Event Logs (filtered for Sys Fail) to share with Tech Support if needed.
- Review service manual troubleshooting steps for section 4.4.5 for Sys Fail 11 or other errors
- Troubleshoot any Sys Fail 11 messages before troubleshooting Sys Fail 9 messages.
 Sys Fail 11 guidance is located in section 4.4.5.12-4.4.5.14 of M1128921 and section 3 of this document.



Troubleshoot Sys Fail 9 per section 4.4.5.8 through 4.4.5.10.
 NOTE: it is advisable to complete the Heat Engine Resistance check described below before replacing parts!

2.1. Heat Engine Resistance Check

This test will evaluate warmer heat engine functionality, by measuring resistance across the heat engine.

Heat engine resistance can be tested as follows:

- 1. Allow the heater coil and reflective dish to cool to room temperature.
- 2. Remove back cover over electronics enclosure assembly.
- 3. Remove heat engine connector from power board at connector J29, as shown below



4. Measure Resistance across the heat engine at pins 1 and 2 of the connector.



NOTE: Be careful not to spread. stretch or deform terminals while measuring resistance.

- Every Heat Engine has a slightly different resistance due to manufacturing variation.
 - Nominal Resistance = 26.5 Ohm for the 115V version.
 - Nominal Resistance = 96.8 Ohm for the 230V version.
- Resistances outside of the range from 25-30 Ohm in the 115V heat engine indicate a likely heat engine failure.
 - o Replace 115V heat engine.
 - o Do not replace PCA's.
- Resistances outside of the range from 92-108 Ohm in the 230V heat engine indicate a likely heat engine failure.
 - o Replace 230V heat engine.
 - o Do not replace PCA's.