

**Keithley 2000 - Feature #1158**

**Broken K2000 unit received, need repairs**

09/22/2014 11:31 AM - tin

|                        |        |                        |            |
|------------------------|--------|------------------------|------------|
| <b>Status:</b>         | Closed | <b>Start date:</b>     | 09/22/2014 |
| <b>Priority:</b>       | Normal | <b>Due date:</b>       |            |
| <b>Assignee:</b>       | tin    | <b>% Done:</b>         | 0%         |
| <b>Category:</b>       |        | <b>Estimated time:</b> | 0.00 hour  |
| <b>Target version:</b> |        |                        |            |

**Description**  
 Unit powers on.  
 VFD works.  
 Keypad works.  
 Self-test faults:

|       |              |  |
|-------|--------------|--|
| 100.2 | SIGNAL NOISY | Primary checks should be the references and power supplies. Secondary tests are the op amps of the integrator (U138 and U137), gain op amp U142, and the zero-cross comparator U145.                               |
| 201.1 | SENSE LO 0   | The A/D MUX (U166) is configured for x1 gain (/x1 control line low) by closing U129; pin 2 to 3. Measure 0V at AD_IN.  |
| 201.2 | MUX LO       | This test is similar to test 201.1, except signal LO is routed through R274 to S8 of U163.   |
| 300.1 | FRONT END LO | Signal LO is connected to SIG/100 through Q114 and divider R117  |
| 301.1 | 7V REFBOOT   | This +7V, which is used by the ohms circuit as a voltage reference, is switched by U133 (/7V control line low) to op amp U123 which is a unity gain buffer.  |
| 301.2 | 13.3 REFBOOT | The +13.3V divider output is routed through analog switch U133 (/7V control line low) to op amp U123.  |
| 302.1 | 2W SENSE 7V  | The +7V reference is again switched to REFBOOT, and routed through R272, Q109, the 9.9MR half of divider R117, the parallel combination of R115, R324 and L109, and then through R113, R107, R103, R108, and K101. |
| 302.2 | 2W SENSE 13V | Same as test 302.1 except the +13.3V reference is used   |
| 303.1 |              |  |
| 303.2 |              |  |
| 304.1 |              |  |
| 400.2 |              |  |
| 401.2 |              |  |
| 402.2 |              |  |
| 403.2 |              |  |
| 500.1 |              |  |
| 500.2 |              |  |
| 600.1 |              |  |
| 600.2 |              |  |
| 601.2 |              |  |

Readings going randomly up on DCV,ohms, or just show overflow.

Last calibration date: 03/13/1995  
 Calibration counts: 1

**History**

#1 - 08/05/2016 05:14 AM - tin

- Status changed from New to Closed

Worklog: <https://xdevs.com/fix/kei2000>