



**Recall Notice – 801 & 902 Sensor Assemblies**

**Description:**

An unusually large number of sensor block assemblies have been returned for warranty repair in the period from January 2002 to present. These sensors have been tested in the R&D lab before being sent to the Electronics department for repair.

The majority of the failed sensor assemblies were manufactured between January 2002 and August 2002. This coincides with a change in manufacturer of the LED used in both the 801 and 902 sensor assemblies. The original LED was KSB 1383, which was replaced with LX5093-SRC/E.

**902 Sensor Assemblies (SA1371)**

The failure mode of the 902 sensor assembly is that the compensation voltage is less than 0.5 volts causing a sensor fail indication. Compensation voltage is an indication of the sensitivity of the sensor assembly. Normally the compensation voltage will decrease over a time period of three to five years. The 902 sensor assemblies should leave the factory with a compensation voltage of 1.0 volt.

The following procedures have been implemented to address this problem.

1. Only KSB1383 LEDs will be used
2. The compensation voltage of 902 sensor assemblies will be reset to 1.25 volts after testing is complete. Previously the compensation voltage was set before testing and left as found at the end of testing.
3. New 902 sensor assemblies with a compensation voltage less than 1.0 volt will be returned to the Electronics department for rework.
4. The LEDs will be burned in for a period not less than 500 hours before testing begins. Research indicates that the majority of light output decrease occurs in the first 500 hours.

**801 Sensor Assemblies (SA0466)**

The failure mode of the 801 sensor assembly is that the millivolt output on white tape cannot be adjusted to -50 mV.

The following procedures have been implemented to address this problem.

1. Only KSB1383 LEDs will be used
2. The LEDs will be burned in for a period not less than 500 hours before testing begins. Research indicates that the majority of light output decrease occurs in the first 500 hours.



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The following serial numbers are affected:

**902**

0203-1      Manufactured January 2002  
0233-169    Manufactured August 2002

169 units, 33 have been received as defective and reworked.

**801**

0206-1      Manufactured January 2002  
0224-104    Manufactured June 2002

104 units, 14 have been received as defective and reworked.

Due to the high probability of premature failure of these sensor assemblies in the field, we are issuing this service bulletin as a recall notice for all sensor assemblies that fall within the serial numbers listed above.

We appreciate the magnitude of this task, and apologize for the inconvenience it may bring to your organization.

Our records indicate that approximately 60 x 902 analyzers, and 36 x 801 analyzers are impacted by this recall, which would leave in the region of 76 x 902 sensor assemblies, and 54 x 801 sensor assemblies having been shipped as spares.

Due to the high volume of this recall, coupled with the extensive testing periods now implemented into our production schedule, it will take us approximately ten weeks to build up sufficient additional stock to completely replace the suspect assemblies.

Because of this situation, we need to stagger the replacement program, with priority given to sensor assemblies already installed in analyzers, followed by assemblies purchased as spares. We believe we have sufficient capacity to replace all 902 sensor assemblies currently installed in analyzers by the end of October, and for the 801 sensor assemblies, early November.

Please contact Dave Fitzgerald (phone: 403-258-9719 / e-mail: [dfitzgerald@galvanic.com](mailto:dfitzgerald@galvanic.com)) at our head office in Calgary, with details of which analyzers and/or spares you have that fall within the criteria of this recall notice, and we shall endeavor to have the sensor assemblies replaced as efficiently as possible. We shall also compile a customer list of whom we believe to have suspect sensor assemblies, to ensure no units are missed.

Peter Hearnden  
QA/Certification/Materials Manager