



## Service Bulletin

### **THIS SERVICE BULLETIN ONLY APPLIES TO 489 RELAYS**

**Issue:** In the following situations, the 489 may issue a differential trip when no true differential condition exists:

- occurrence of high level faults outside the 489 zone of differential protection
- presence of dc offset currents such as those caused by transformer energization inrush

Protection is not compromised, however, the relay may trip depending on the level of fault current or dc offset and the differential settings.

**Product:** 489 Generator Management Relay

**Problem:**

1. Unequal **internal** CT saturation causes the 489 to read differential current when none exists.
2. Unequal **external/system** CT saturation causes the 489 to read differential current when none exists.

**Fix:**

1. Contact GE Power Management to have your relay updated to eliminate the unequal **internal** CT saturation problem.
2. Ensure that your main CTs are matched as closely as possible in terms of transient response and burden to minimize any unequal **external** CT saturation problems.

**Units Affected:**

- 489s with serial numbers in the range:  
A3281144 to A3281549  
A3290000 to A3290928  
A3200000 to A3200183

**Symptoms:**

- The 489 issues a differential trip when no differential existed in the zone of protection.
- Typically, this has only been experienced when dc offset currents are present.

**Actions:**

- If the problem does appear and your relay is in the serial number range specified above, please contact GE Power Management to have your relay upgraded.

**Contact:** Contact the Technical Support Call Center

- Telephone: 905-294-6222 or 1-800-547-8629
- Fax: 905-201-2098
- Email: [info.pm@indsys.ge.com](mailto:info.pm@indsys.ge.com)
- Post Mail: 215 Anderson Ave., Markham, Ontario, Canada L6E 1B3

Or visit our Web Site at: [www.GEIndustrial.com/pm](http://www.GEIndustrial.com/pm)



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### **How to Verify the Serial Number of Your Relay**

To verify the firmware revision of your relay, follow the following steps with the unit powered:

1. Press the ACTUAL key until the A6 ACTUAL VALUES page is reached.
2. Press the MESSAGE down key until the 489 MODEL INFO. message is displayed.
3. Press the ENTER key.
4. Press the MESSAGE down key until the 489 SERIAL NUMBER message is displayed.

#### Revision Code:

A3291194

