Part 21 (PAR) Event # 50504

| | | | |
|---|---|---|---|
| **Rep Org:** | ELECTROSWITCH | **Notification Date / Time:** | 10/03/2014 10:15 (EDT) |
| **Supplier:** | ELECTROSWITCH | **Event Date / Time:** | 09/30/2014 (EDT) |
| | | **Last Modification:** | 10/03/2014 |
| **Region:** | 1 | **Docket #:** | |
| **City:** | WEYMOUTH | **Agreement State:** | Yes |
| **County:** | | **License #:** | |
| **State:** | MA | | |

| | | | | |
|---|---|---|---|---|
| **NRC Notified by:** | LARRY FRIEDMAN | **Notifications:** | PAUL KROHN | R1DO |
| **HQ Ops Officer:** | JOHN SHOEMAKER | | STEVEN VIAS | R2DO |
| **Emergency Class:** | NON EMERGENCY | | CHRISTINE LIPA | R3DO |
| **10 CFR Section:** | | | JACK WHITTEN | R4DO |
| 21.21(d)(3)(i) | DEFECTS AND NONCOMPLIANCE | | PART 21 GROUP | EMAIL |

PART 21 REPORT - SERIES 20 MODULE MAY ALLOW THE SIDE COVER TO TOUCH THE WIRE INSULATION

The following information was excerpted from report received via email:

"The orientation (90 degrees) of the placement (soldering) of the internal wire on the resistor terminal used in the above referenced Series 20 modules may allow the side cover screw to touch the wire insulation. The engineering drawing nor manufacturing assembly instructions did not clearly describe the correct orientation.

"On the basis of our evaluation, it was determined on September 30, 2014, that Electroswitch does not have the capability to perform the evaluation to determine if a defect, which could create a substantial safety hazard, exists.

"Purchasers are being advised to perform testing to verify operation or return the product to Electroswitch.

"The following personnel may be contacted regarding this notification:

Larry Friedman
Quality Assurance Manager
781-607-3309

Ed Reszenski
Engineering Manager
781-607-3341"

**********

IE19
NRR

**ELECTROSWITCH** • *SWITCHES & RELAYS*
*UNIT OF ELECTRO SWITCH CORP.*
180 King Avenue • Weymouth, MA 02188 • Phone 781-335-5200 • Fax 781-335-4253

October 2, 2014

U. S. Nuclear Regulatory Commission
NRC Operations Center
Facsimile # 301-816-5151

Subject: 10 CFR Part21 Reporting of Defects and Noncompliance
Electroswitch Report # 10CFR21-???????? 50504

To whom it may concern:

The enclosed report addresses a reportable notification on an Electroswitch Series 20 Module.

A copy of the report will be mailed to our affected nuclear customers.

Please sign below, acknowledging receipt of this report, and return a copy to the attention of Larry Friedman, Quality Assurance Manager, at the above address or fax to 781-335-4253 within 10 working days after receipt.

Sincerely,
ELECTROSWITCH

Larry Friedman

Larry Friedman
Quality Assurance Manager

Please let us know if ANY of your mailing information changes – name of recipient, name of company/facility, address, etc. Mark the changes on this acknowledgement form and send to us by mail to the address above or by FAX to 781-335-4253.

RECEIVED: _____

DATE: _____

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The following information is supplied in accordance with the requirements of 10 CFR Part21.

**A. Name and address of individual informing the Nuclear Regulatory Commission:**

Larry Friedman – Quality Assurance Manager
Electroswitch
180 King Avenue
Weymouth, MA 02188

**B. Identification of the basic component supplied which has a deviation (departure from the technical requirements included in the procure document):**

The Series 20 Module (Electroswitch part #29172M-284D, 30993M-XXX family, 30994M-XXX family, 32761M-XXX family, 32762M-XXX family, 32763M-XXX family, 38050M-XXX family, 40908M-XXX family and 60912M-XXX family) shipped to customers between January 29, 2004 (date code 0404) and December 1, 2012 (date code 1249).

NOTE: Any Series 20 Module, which does not have lamps, is not subject to this notice.

**C. Identification of the facility supplying the basic component which contains a deviation:**

Electroswitch
180 King Avenue
Weymouth, MA 02188

**D. Nature of the deviation:**

The orientation (90°) of the placement (soldering) of the internal wire on the resistor terminal used in the above referenced Series 20 Modules may allow the side cover screw to touch the wire insulation. The Engineering drawing nor Manufacturing assembly instructions did not clearly describe the correct orientation.

**E. The date on which the information of such deviation was determined:**

On the basis of our evaluation, it was determined on September 30, 2014 that Electroswitch does not have the capability to perform the evaluation to determine if a defect, which could create a substantial safety hazard, exists.

**F. The number and location of all basic components which may contain the deviation:**

Refer to Appendix A of this notification report.

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**G. The evaluation and corrective action which has been taken to identify and correct the deviation:**

Refer to Appendix B of this notification report.

**H. Any advice related to the identified deviation about the basic component that has been, is being or will be given to purchasers:**

Purchasers are being advised to perform testing to verify operation or return the product to Electroswitch.

The following personnel may be contacted regarding this notification:

Larry Friedman
Quality Assurance Manager
781-607-3309

Ed Reszenski
Engineering Manager
781-607-3341

Sincerely,

Larry Friedman
Quality Assurnace Manager

cc: K. Lloyd
E. Reszenski

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## Appendix A:

| Customer Name | Electroswitch Order # | Ship Date | Year shipped | Item Number | Item description | Quantity | Lamps (Y/N) |
|---|---|---|---|---|---|---|---|
| DUKE ENERGYPROGRESS (CP&L) | 336468 | 11/24/04 | 2004 | 38050M-94 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 337139 | 03/04/05 | 2005 | 38050M-15 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 340303 | 03/04/05 | 2005 | 38050M-29 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 355341 | 11/07/05 | 2005 | 38050M-42 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 375203 | 09/27/06 | 2006 | 38050M-132 | SERIES 20 MODULE | 6 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 412063 | 10/08/08 | 2008 | 38050M-38 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 414006 | 10/22/08 | 2008 | 38050M-100 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 423388 | 04/24/09 | 2009 | 38050M-65 | SEREIS 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 425802 | 05/19/09 | 2009 | 38050M-305 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 427601 | 08/05/09 | 2009 | 38050M-73 | SERIES 20 DUALTRAIN | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 428233 | 06/30/09 | 2009 | 38050M-19 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 433307 | 10/14/09 | 2009 | 38050M-35 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 438929 | 03/04/10 | 2010 | 38050M-305 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 440540 | 04/07/10 | 2010 | 38050M-65 | SEREIS 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 441019 | 04/13/10 | 2010 | 38050M-40 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 445323 | 07/06/10 | 2010 | 38050M-35 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 447443 | 08/04/10 | 2010 | 38050M-305 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 451350 | 11/24/10 | 2010 | 38050M-35 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 451897 | 12/03/10 | 2010 | 38050M-42 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 451897 | 12/03/10 | 2010 | 38050M-42 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 452294 | 12/10/10 | 2010 | 38050M-42-1 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 452668 | 12/16/10 | 2010 | 38050M-65 | SEREIS 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 452668 | 12/20/10 | 2010 | 38050M-65 | SEREIS 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 453462 | 01/14/11 | 2011 | 38050M-13 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 453462 | 01/17/11 | 2011 | 38050M-47 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 453462 | 01/17/11 | 2011 | 38050M-47 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 454790 | 02/28/11 | 2011 | 38050M-43 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 455118 | 02/28/11 | 2011 | 38050M-38 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 455268 | 02/28/11 | 2011 | 38050M-103 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 457448 | 04/01/11 | 2011 | 38050M-29 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 457802 | 03/25/11 | 2011 | 38050M-40 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 459103 | 04/25/11 | 2011 | 38050M-42-1 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 459405 | 03/22/11 | 2011 | 38050M-65 | SEREIS 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 462589 | 06/01/11 | 2011 | 38050M-120 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 463535 | 05/24/11 | 2011 | 38050M-44 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 463535 | 05/24/11 | 2011 | 38050M-45 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 464383 | 07/15/11 | 2011 | 38050M-65 | SEREIS 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 465241 | 07/29/11 | 2011 | 38050M-35 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 465773 | 08/04/11 | 2011 | 38050M-29 | SERIES 20 MODULE | 5 | Y |

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| Customer Name | Electroswitch Order # | Ship Date | Year shipped | Item Number | Item description | Quantity | Lamps (Y/N) |
|---|---|---|---|---|---|---|---|
| DUKE ENERGYPROGRESS (CP&L) | 467066 | 08/31/11 | 2011 | 38050M-38 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 467246 | 09/14/11 | 2011 | 38050M-43 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 470532 | 10/12/11 | 2011 | 38050M-47 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 470918 | 11/04/11 | 2011 | 38050M-43 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 474544 | 12/13/11 | 2011 | 38050M-40 | SERIES 20 MODULE | 7 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 475926 | 01/20/12 | 2012 | 38050M-19 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 479493 | 04/12/12 | 2012 | 38050M-43 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 482085 | 05/01/12 | 2012 | 38050M-43 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 482505 | 05/11/12 | 2012 | 38050M-102 | SERIES 20 MODULE | 4 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 484752 | 07/05/12 | 2012 | 38050M-40 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 487506 | 08/28/12 | 2012 | 38050M-35 | SERIES 20 MODULE | 1 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 489866 | 09/28/12 | 2012 | 38050M-47 | SERIES 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 490642 | 10/19/12 | 2012 | 38050M-65 | SEREIS 20 MODULE | 3 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 490976 | 10/30/12 | 2012 | 38050M-40 | SERIES 20 MODULE | 2 | Y |
| DUKE ENERGYPROGRESS (CP&L) | 490976 | 10/30/12 | 2012 | 38050M-45 | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY | 485915 | 08/09/12 | 2012 | 32761M-106D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY | 489682 | 09/24/12 | 2012 | 32761M-124D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 320929 | 01/29/04 | 2004 | 32763M-027D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 355583 | 09/26/05 | 2005 | 32761M-173D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 355583 | 09/26/05 | 2005 | 32762M-178D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 356913 | 10/19/05 | 2005 | 32761M-120D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 356939 | 10/25/05 | 2005 | 32761M-215D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 357187 | 10/14/05 | 2005 | 32761M-124D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 364704 | 02/17/06 | 2006 | 32762M-111D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 364704 | 02/17/06 | 2006 | 32762M-114D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 366754 | 03/20/06 | 2006 | 32763M-029D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 366754 | 03/20/06 | 2006 | 32763M-047D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 380955 | 12/19/06 | 2006 | 32761M-187D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 382592 | 02/01/07 | 2007 | 32761M-215D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 382933 | 03/05/07 | 2007 | 32761M-175D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 386896 | 05/04/07 | 2007 | 32761M-155D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 387807 | 05/15/07 | 2007 | 32761M-175D | SERIES 20 MODULE | 3 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 395189 | 11/05/07 | 2007 | 30994M-103D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 396420 | 12/14/07 | 2007 | 30993M-117D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 405457 | 03/21/08 | 2008 | 29172M-284D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 407331 | 05/22/08 | 2008 | 29172M-284D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 409547 | 09/08/08 | 2008 | 29172M-284D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 409558 | 08/11/08 | 2008 | 32763M-036D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 411797 | 08/14/08 | 2008 | 32761M-104D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 415213 | 11/20/08 | 2008 | 30993M-181D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 431258 | 10/02/09 | 2009 | 32761M-153D | SERIES 20 MODULE | 2 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 444566 | 06/28/10 | 2010 | 30993M-181D | SERIES 20 MODULE | 1 | Y |
| GEORGIA POWER COMPANY/VOGTLE | 445643 | 06/24/10 | 2010 | 30994M-103D | SERIES 20 MODULE | 1 | Y |

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| Customer Name | Electroswitch Order # | Ship Date | Year shipped | Item Number | Item description | Quantity | Lamps (Y/N) |
|---|---|---|---|---|---|---|---|
| TENNESSEE VALLEY AUTH | 417825 | 01/27/09 | 2009 | 60912M-42 | SERIES 20 MODULE | 6 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 11/06/09 | 2009 | 60912M-122 | SERIES 20 SWITCH | 5 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 10/23/09 | 2009 | 60912M-128A | SERIES 20 MODULE | 9 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 11/10/09 | 2009 | 60912M-15 | SERIES 20 MODULE | 3 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 11/09/09 | 2009 | 60912M-2 | SERIES 20 MODULE | 5 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 11/06/09 | 2009 | 60912M-24 | SERIES 20 MODULE | 14 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 11/11/09 | 2009 | 60912M-24 | SERIES 20 MODULE | 8 | Y |
| TENNESSEE VALLEY AUTH | 430582 | 10/27/09 | 2009 | 60912M-8 | SERIES 20 MODULE | 9 | Y |
| TENNESSEE VALLEY AUTH | 431008 | 10/16/09 | 2009 | 60912M-200 | SERIES 20 MODULE | 1 | Y |
| TENNESSEE VALLEY AUTH | 431008 | 10/16/09 | 2009 | 60912M-200 | SERIES 20 MODULE | 1 | Y |
| TENNESSEE VALLEY AUTH | 437827 | 02/19/10 | 2010 | 60912M-20 | SERIES 20 MODULE | 4 | Y |
| TENNESSEE VALLEY AUTH | 446162 | 06/22/10 | 2010 | 60912M-32 | SERIES 20 MODULE | 2 | Y |
| TENNESSEE VALLEY AUTH | 451779 | 11/15/10 | 2010 | 60912M-211 | SERIES 20 MODULE | 8 | Y |
| ENTERGY CORPORATION | 461648 | 05/17/11 | 2011 | 40908M-07 | SERIES 20 MODULE | 2 | Y |

| Electroswitch | NON CONFORMANCE REPORT | Rev: J | Document no: NONCON-1 CAR #14-001 Rev. A |
|---|---|---|---|

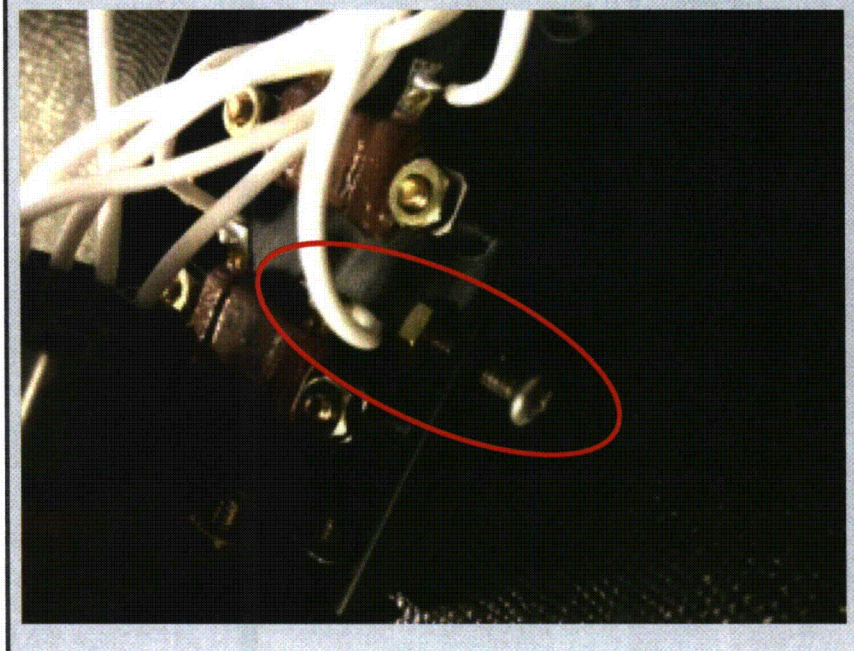
## APPENDIX B

| DATE: 9/10/14 | REF. #: Email from Dale Mathers of TVA | INITIATED BY: Larry Friedman |
|---|---|---|
| ITEM: 60912M-xxx Series 20 Module | | |
| NONCONFORMANCE : Workmanship | | AREA: Customer complaint |

ANY EMPLOYEE

DESCRIPTION OF NON CONFORMANCE: (RECEIVED IN AN EMAIL FROM DALE MATHERS DATED SEPT. 10, 2014)

An email was received from Dale Mathers describing a situation he had encountered on two (2) Series 20 Modules (part numbers 60912M-24 with date 0944 and 60912M-8 with date code 0943). He stated that the screw, when fully inserted, hits the white wire. They have had two switches short out when it hits the wire, thereby, affecting the green LED.



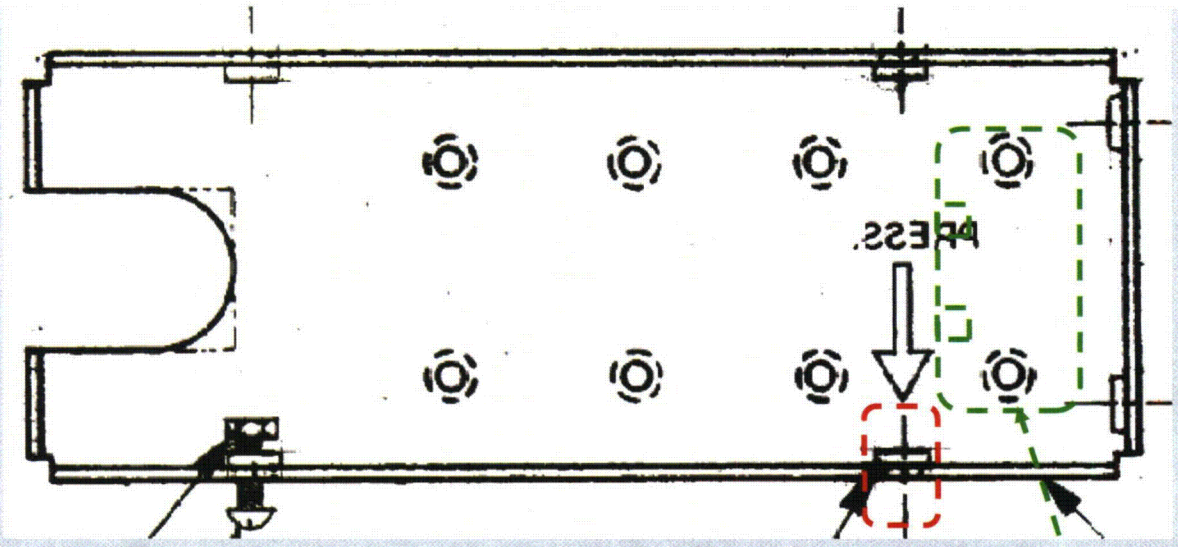
QC MGR

IMMEDIATE DISPOSITION/SHORT TERM FIX: (DUE WITHIN 10 WORKING DAYS OF FINDING)

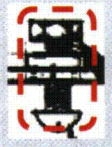
1. Immediate disposition once information was received:
   Evaluation: Reviewed Engineering switch drawings and Manufacturing assembly instructions.
   Results: It was found that this issue was previously identified in the November 2012 timeframe At that time, a visual aid showing the incorrect and correct orientation of the wire on the resistor was developed. Specifically, it showed the wires on the resistor were to be soldered in line with the terminal rather than at 90°.

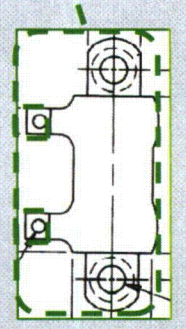
*** All blocks to be completed and legible – no pencil**

| Electroswitch | NON CONFORMANCE REPORT | Rev: J | Document no: NONCON-1 CAR #14-001 Rev. A |
|---|---|---|---|

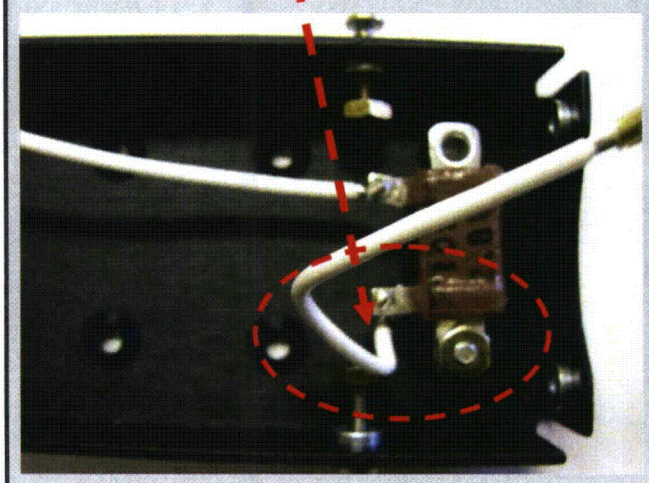


Location and length of screw in relation to location and length of resistor terminal on top panel do not allow for any interference.
Orientation of wire to terminal could allow screw to touch wire insulation.
Short could only occur if screw penetrates insulation or insulation is stripped to far back.

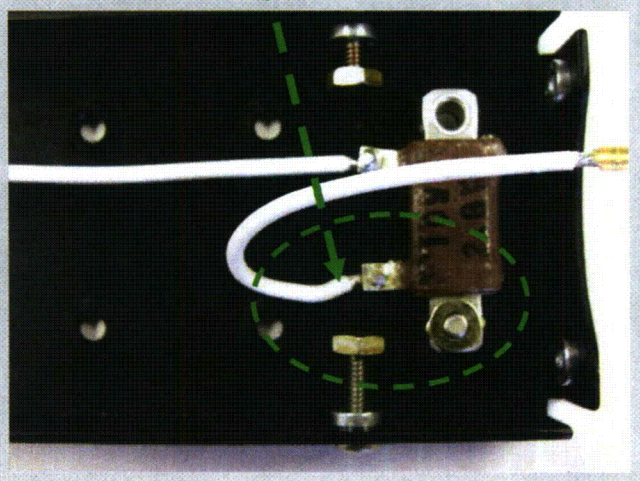




**Incorrect orientation**



**Correct orientation**



To prevent possibility of cover screw having contact with the wire attached to the resistor.

* **All blocks to be completed and legible – no pencil**

| Electroswitch | NON CONFORMANCE REPORT | Rev: J | Document no: NONCON-1 CAR #14-001 Rev. A |
|---|---|---|---|

2. Researched shipment history. Found the following shipments since 2009 –

| Order | Release # | Customer | Customer P.O. | Shipped | Item | Resistors movable | Resistors | Nuclear C.O.C. | Shipment date |
|---|---|---|---|---|---|---|---|---|---|
| CO 447337 | 1 | ATC/Argo Turboserve | 00143145 | 1 | 60912M-1 | Y | 2 | No | 7/27/2010 |
| CO 430582 | 1 | TVA | 00078567 | 5 | 60912M-122 | Y | 2 | Yes | 11/6/2009 |
| CO 430582 | 1 | TVA | 00078567 | 9 | 60912M-128A | N | 4 | Yes | 10/23/2009 |
| CO 430582 | 1 | TVA | 00078567 | 3 | 60912M-15 | Y | 2 | Yes | 11/10/2009 |
| CO 430582 | 1 | TVA | 00078567 | 5 | 60912M-2 | Y | 2 | Yes | 11/9/2009 |
| CO 437827 | 1 | TVA | 54889-WB2-09-0488 | 4 | 60912M-20 | N | 2 | Yes | 2/19/2010 |
| CO 447337 | 1 | ATC/Argo Turboserve | 00143145 | 6 | 60912M-20 | N | 2 | Yes | 7/27/2010 |
| CO 431008 | 1 | TVA | 00078754-1, Rev 1 | 1 | 60912M-200 | N | 2 | Yes | 10/16/2009 |
| CO 431008 | 1 | TVA | 00078754-1, Rev 1 | 1 | 60912M-200 | N | 2 | Yes | 10/16/2009 |
| CO 430582 | 1 | TVA | 00078567 | 3 | 60912M-202 | | 0 | Yes | 10/26/2009 |
| CO 433446 | 1 | ATC/Argo Turboserve | 00120750 | 5 | 60912M-204 | N | 4 | No | 9/30/2009 |
| CO 442720 | 1 | ATC/Argo Turboserve | 00134271 | 1 | 60912M-204 | N | 4 | No | 4/28/2010 |
| CO 443114 | 1 | ATC/Argo Turboserve | 00134977 | 2 | 60912M-204 | N | 4 | No | 4/28/2010 |
| CO 439341 | 1 | ATC/Argo Turboserve | 00129502 | 4 | 60912M-205 | N | 4 | No | 4/23/2010 |
| CO 439341 | 1 | ATC/Argo Turboserve | 00129502 | 4 | 60912M-206A | N | 4 | No | 4/22/2010 |
| CO 439341 | 1 | ATC/Argo Turboserve | 00129502 | 1 | 60912M-207 | | 0 | No | 4/21/2010 |
| CO 444416 | 1 | TVA | 106556 | 2 | 60912M-209 | N | 2 | No | 6/11/2010 |
| CO 470538 | 1 | ATC/Argo Turboserve | 00186291 | 3 | 60912M-209 | N | 2 | No | 10/25/2011 |
| CO 518192 (RA #5461) | 1 | TVA | CS-RA 5461 | 1 | 60912M-209 | N | 2 | No | 1/17/2014 |
| CO 447337 | 1 | ATC/Argo Turboserve | 00143145 | 2 | 60912M-21 | N | 2 | No | 7/27/2010 |
| CO 460572 | 1 | ATC/Argo Turboserve | 00163673 | 1 | 60912M-21 | N | 2 | No | 3/28/2011 |

*** All blocks to be completed and legible – no pencil**

| Electroswitch | NON CONFORMANCE REPORT | Rev: J | Document no: NONCON-1 CAR #14-001 Rev. A |
|---|---|---|---|

| Order | Release # | Customer | Customer P.O. | Shipped | Item | Resistors movable | Resistors | Nuclear C.O.C. | Shipment date |
|---|---|---|---|---|---|---|---|---|---|
| CO 445448 | 1 | ATC/Argo Turboserve | 00136557 | 4 | 60912M-210 | N | 2 | No | 6/23/2010 |
| CO 453082 | 1 | ATC/Argo Turboserve | 00151227 | 4 | 60912M-210 | N | 2 | No | 12/22/2010 |
| CO 509287 | 1 | ATC/Argo Turboserve | 00280219 | 1 | 60912M-210 | N | 2 | No | 8/21/2013 |
| CO 447337 | 1 | ATC/Argo Turboserve | 00143145 | 1 | 60912M-211 | N | 2 | No | 7/27/2010 |
| CO 451779 | 1 | TVA | 158015 | 8 | 60912M-211 | N | 2 | Yes | 11/15/2010 |
| CO 453082 | 1 | ATC/Argo Turboserve | 00151227 | 8 | 60912M-212 | N | 4 | No | 12/22/2010 |
| CO 509287 | 1 | ATC/Argo Turboserve | 00280219 | 1 | 60912M-212 | N | 4 | No | 8/22/2013 |
| CO 453082 | 1 | ATC/Argo Turboserve | 00151227 | 4 | 60912M-213 | N | 2 | No | 12/22/2010 |
| CO 492819 | 1 | ATC/Argo Turboserve | 00238369 | 8 | 60912M-214 | Y | 2 | No | 11/7/2012 |
| CO 500501 | 1 | ATC/Argo Turboserve | 00256609 | 2 | 60912M-216 | Y | 1 | No | 3/26/2013 |
| CO 507031 | 1 | Carlton-Bates | 1941-016950 | 1 | 60912M-216 | Y | 1 | No | 7/3/2013 |
| CO 430582 | 1 | TVA | 00078567 | 14 | 60912M-24 | Y | 2 | Yes | 11/6/2009 |
| CO 430582 | 1 | TVA | 00078567 | 8 | 60912M-24 | Y | 2 | Yes | 11/11/2009 |
| CO 439338 | 1 | ATC/Argo Turboserve | 00129499 | 1 | 60912M-32 | N | 1 | No | 2/9/2010 |
| CO 446162 | 1 | TVA | 119397-3 | 2 | 60912M-32 | N | 1 | Yes | 6/22/2010 |
| CO 439341 | 1 | ATC/Argo Turboserve | 00129502 | 2 | 60912M-40 | N | 2 | No | 4/21/2010 |
| CO 474130 | 1 | TVA | CC-J.Kely-10/12/11 | 2 | 60912M-401 | | 0 | No | 12/5/2011 |
| CO 417825 | 1 | TVA | 00073295 | 6 | 60912M-42 | N | 2 | Yes | 1/27/2009 |
| CO 430582 | 1 | TVA | 00078567 | 9 | 60912M-8 | Y | 2 | Yes | 10/27/2009 |

3. Purged stock. Results: There were no Series 20 Modules in stock or in process.

RESPONDED DATE: 9/17/14

DISPOSITIONED BY:
LARRY FRIEDMAN

*** All blocks to be completed and legible – no pencil**

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|---|---|---|---|

DEPARTMENT MGR

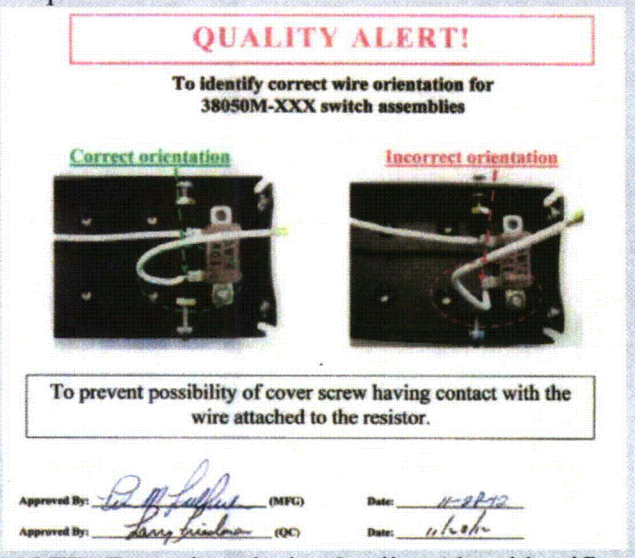
WHAT CAUSED THE NONCONFORMANCE? (ROOT CAUSE):

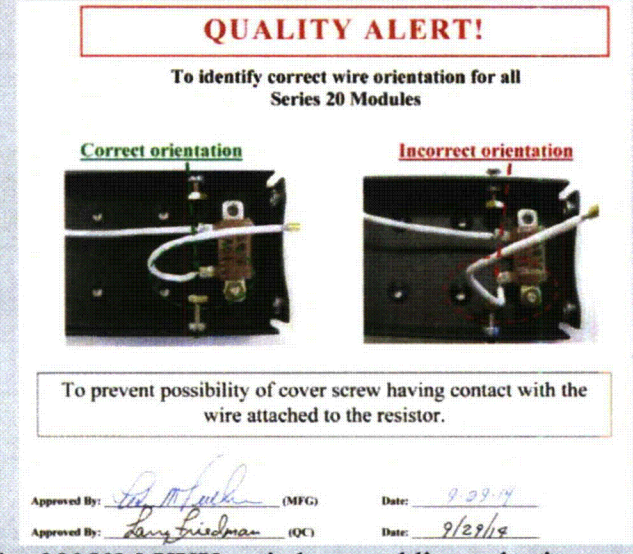
The root cause has been determined to be the lack of documentation describing the orientation of the placement (soldering) of the wire on the resistor terminal. The orientation at 90° could allow the screw to touch the wire insulation.

SIGNATURE: LARRY FRIEDMAN

ACTIONS TO PREVENT RECURRENCE (CORRECTIVE ACTION):

1. Quality had developed a visual aid for the Manufacturing assembly and Quality inspection personnel.




NOTE: Even though the Quality Alert identifies the 38050M-XXX switch assemblies only, it was to encompass all of the Series 20 Modules. The Quality Alert has been revised accordingly.

**Preventive Action Report Reference # (Where Applicable):**

ASSIGNED TO: * Larry Friedman DUE DATE: 9/30/14

SIGNATURE AT COMPLETION: LARRY FRIEDMAN DATE: 9/29/14

*

*** All blocks to be completed and legible – no pencil**

| Electroswitch | NON CONFORMANCE REPORT | Rev: J | Document no: NONCON-1 CAR #14-001 Rev. A |
|---|---|---|---|

QM

CLOSE OUT DETAILS (REVIEW EFFECTIVENESS OF ACTIONS TAKEN):

1. Quality will monitor all future production runs of this switch to ensure this type of discrepancy does not reoccur. This Corrective Action Report will be updated with results after a 30 day period of time or two subsequent manufacturing builds of the Series 20 Module.

| SIGNATURE: | DATE: |
|---|---|
| **Larry Friedman** | **TARGET DATE: 11/1/14** |

ANY

COMMENTS:

It is noted that Electroswitch does not have the capability to perform the evaluation to determine if a defect exists and Electroswitch will inform the purchasers.

*** All blocks to be completed and legible – no pencil**