

Technical Service Bulletin 030224

Screw Terminal Connectors

In an ongoing effort to proactively improve the quality and reliability of the Comark transmitter product-line, the Customer Service Department is issuing a Technical Service Bulletin for the **Screw Terminal Connectors** presently installed in your transmitter.

All Comark transmitters incorporate screw terminal connectors for terminating many of the AC and DC power and data lines required to operate the transmitter. When properly installed and maintained, these connectors will work as designed.

Improper installation or the lack of regularly scheduled maintenance on the screw terminal connectors, particularly the **AC mains** feeds, could jeopardize the integrity of the transmitter equipment and pose a serious safety concern to personnel.

It is not uncommon for the strands of heavy-gauge wire to deform under the terminal lug of a screw terminal type connector due to thermal cycling (an expansion and contraction of the individual wire strands).

The effect of this thermal cycling is a gradual loosening of the wires from the connector that will produce an increase in the electrical resistance of the connection. The resulting high resistance connection will experience localized heating and may contribute to a system failure. Since this is not a short-circuit condition, system circuit breakers will not trip. This loosening is most evident during the first few months of transmitter operation after installation.



NOTE: This characteristic is not exclusive to Comark equipment, but rather an inherent trait with these connector styles.

To resolve this situation, Comark recommends that all **Screw Terminal Connectors**, particularly the **AC mains**, be checked for tightness monthly during the first six months of transmitter operation. Follow-up inspections should be included as a part of a regularly scheduled maintenance plan.

CAUTION

To prevent equipment failure and/or a safety risk to operators and maintenance personnel, it is imperative that any electrical maintenance be performed by qualified personnel according to specifications, and in full compliance with local and state electrical codes.

WARNING

Before performing any maintenance procedure, ensure that the transmitter is **OFF** and disconnected from the AC mains voltage. The removal of panels identified with warning symbols can expose the mains voltages. These voltages can cause injury or death. Do not allow personnel to work alone on the transmitter.

Please contact the Comark Customer Service Department at 800-345-9295 if further information or clarification to this Technical Service Bulletin is required.



AC Mains Feed



Example of an AC Mains catastrophic failure

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