POWER INSTRUMENTS

PRODUCT ADVISORY LETTER (PAL)

PRODUCT ADVISORY LETTER NO.: CU46-13001

DATE: 3-7-2013

CRITICALITY: Low. Nuisance SOEs can fill the sequence of events memory and erroneous outputs showing “RF Output” disappearing can occur. Protective relaying functionality is unaffected. The UPLC works fine but may measure and display the transmit level incorrectly sometimes, even though the TX level is stable and working fine.

AFFECTED PRODUCT / APPLICATION: UPLC Power Line Carrier in the FSK mode, mainly on short line applications with low line attenuation

AFFECTED MODULE(S): UPLC’s with catalog #s where the catalog number ends in “NSX”, which means that they contain old standard Power Amplifier modules (Part # CU20-PA1MN-001) which shipped before March 1, 2013.

SYMPTOM(s): The displayed measured value of the TX level varies significantly, or there are many nuisance false “TX Power Level Low” SOEs in the sequence of events file. Also erroneous outputs showing “RF Output” disappearing can occur.

RECOMMENDATION: Ametek recommends the corrective action listed below be taken for all UPLCs with the symptoms described above where the SOEs or “Main RF Output” / “Redundant RF Output” selections are being used by the customer.

CORRECTIVE ACTION: Call Ametek at phone # 800-785-7274 (customer service) to obtain a RMA number and reference this PAL. The affected old standard Power Amp boards can be returned for upgrade to a modified Power Amp, or if needed an advance replacement modified Power Amp (Part # CU20-PA1MN-101) can be supplied on a limited basis. In addition, a software key is supplied by Ametek, based on the MAC address of the UPLC, to change the catalog # to end in “ASX” instead of “NSX”. This is all available at no charge and will not affect any applicable warranty.

TECHNICAL DETAILS: The old standard Power Amp design effectively measures the summation of the TX forward power and reverse (reflected) power to give the real TX forward power. This design is susceptible to incorrect measurements for TX power for a few applications where there is a high level interfering signal, relative to the TX signal, coming from another source. The actual transmit level is steady and the UPLC functions as it should, but the displayed measured value of the TX level can fluctuate. This can cause nuisance false “TX Power Level Low” SOEs that could fill up the SOE memory. The 2 applications causing interference include high level signals coming from a far end transmitter on a low attenuation line, or another transmitter not having adequate isolation, 20 dB or greater, to the UPLC transmitter with both transmitters connected to an isolating hybrid. For practical purposes, this issue only occurs on UPLCs in the FSK mode with short or low attenuation power lines, or where UPLCs in the FSK mode are combined with ON-OFF carrier sets through hybrids and there is not enough isolation in the hybrid. Again this issue with the old standard Power Amps does not affect the protective relaying functionality of the UPLC as a power line carrier transmitter/receiver. The modified Power Amp’s TX power level measurement is completely unaffected by interfering signals, and is designated in the UPLC catalog number by the letter “A” in the 3rd from the last digit of the catalog number. The electronic catalog # controls the calculation of the measured TX power level making it match the hardware design of the Power Amp and thus a software key is required to change it.

Ametek Power Instruments appreciates your past support and we want to continue to provide you the best service possible. Please help us by letting us know if future notices should be sent to another individual.

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