

PRODUCT ADVISORY LETTER (PAL)

PRODUCT ADVISORY LETTER NO.: CU46-20006a (UPLC-II V5.02 Transceiver Board Reboot Issue)

DATE: May 18, 2020 (*Revised "symptoms" to be more accurate on October 15, 2020*)

AFFECTED PRODUCT(S): All UPLC-II that shipped between 5/13/2019 and 10/31/2019

AFFECTED MODULE(S): Transceivers hardware rev 16 (A list of specific serial numbers can be supplied of the affected units per customer, upon request.)

SYMPTOM(s): After running for a few minutes to a few days, the unit will start rebooting randomly on its own. The UPLC-II SOEs will show the event named "Watchdog reset (255)". For FSK systems (DTT, POTT or DCUB), there would be temporary loss-of-signal alarms and a hardware General Alarm output occurring for every reboot, which would last for over 20 seconds. For On-Off systems (DCB), there would be only a temporary hardware General Alarm output occurring for every reboot, which would last for over 20 seconds.

RECOMMENDATION: Ametek recommends that all units on the affected list of serial numbers be modified by taking the corrective action below.

NERC CIP CYBER SECURITY NOTICE: There are no changes that were made that affect cyber security.

CORRECTIVE ACTION: This is a critical issue due to the unit being out of service during the time to reboot. There are 2 methods of repair available. The units can be returned to Ametek for fast modification or the customer can do a more involved process of reprogramming a programmable logic chip in the field with an Ametek supplied connection pod & software program. If needed, advance replacement Transceiver boards for these units can be supplied on a limited basis and the affected boards can be returned using the same packaging. Call Ametek at phone # 800-785-7274 (customer service) and reference this PAL to obtain an RMA number or email us at repair.pulsar@ametek.com. This modification to the Transceiver board is available at no charge and will not affect any applicable warranty.

TECHNICAL DETAILS: The hardware design was changed due to obsolete memory chips and with time we discovered as many as about 8% of the units were rebooting given enough time. Although we have not seen any units take longer than 4 days to reboot, we have no way to guarantee that they may not eventually reboot. The problem was troubleshot, and we discovered a hardware design mistake that caused the high-speed clock timing to occasionally be slightly off enough to cause a rebooting issue. Significant analysis and temperature testing were performed to verify all the fixes completely stopped the issue. There have been no reoccurrences of this issue since the design fix was applied.

AMETEK 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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