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INFORMATION ONLY

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TD220MAX 1.2.16 recording “PA Temperature Too HOT” Event

Problem Description

Some deployed TD220MAX radios running release 1.2.16 have recorded a “PA Temperature Too HOT” alarm in their Event Log. Although these events have been recorded, no loss of functionality nor interruption of service has been found to occur. These are false alarms.

Previous “Too Hot” Issue

TD220MAX units running releases before 1.2.16 could corrupt the modem calibration. The radio could become “Stuck in TX” which could lead to a “Too Hot” alarm. With the calibration lost, transmissions weren’t correct which caused an interruption of service (no receives).

Release 1.2.16 prevents corrupt calibration but units that had already lost calibration cannot be recovered by loading 1.2.16. Corrupted units must be returned to the factory for recalibration.

Situation Analysis

We’ve analyzed units that have been returned due to the “Too Hot” event and have found no problems with the units, they were operational and passed testing.

Root Cause

Lab tests show that the same low power operation that led to corrupting the calibration can cause jitter on the over temperature alarm line. Specifically, if the power supply is insufficient when the radio starts a transmit, the unit will reboot. The “Too Hot” alarm is logged if there is enough time to write flash before rebooting.

Corrective Action

TD220MAX units running release 1.2.16 or later may have a “Too Hot” event in their Event Log and continue to operate correctly. In that case, they do not need to be returned for service as there is no loss of functionality.

Release 1.2.20 updates the code monitoring the over temperature alarm line. To prevent these false alarms, update to release 1.2.20 or later.