

FAQ Note

All INCON Panel Instruments:

FA 3 Error Code - Loss of Programming Memory

Problem: The instrument loses all program settings whenever the power is shut off. An error message "FA 3" appears when power is turned on.

Explanation: All INCON panel instruments use "battery-backed RAM" for storage of program settings. This lithium battery will typically last **5 to 8 years** before it needs changing. When the battery has lost sufficient charge, its voltage will no longer sustain the RAM memory, when the power to the instrument is off, and the memory will become corrupted. When power is turned on, the instrument verifies the memory checksum. If memory has been corrupted, the checksum does not match. This causes the instrument to automatically dump all memory and re-load the factory default programming. This process is indicated by an "FA 3" error message at start-up. Loss of memory is ALWAYS accompanied by this "FA 3" error message.

Troubleshooting:

- 1) Turn off power to the instrument for 5 or 10 minutes. Turn power back on. If the "FA 3" error message appears immediately as the instrument is powered up proceed to the next step, if not try leaving the power off for longer periods of time, hours or even days, to see if the FA 3 error occurs.
- 2) Remove the instrument from its case. Remove the 2 screws from the top PCB only. Remove the middle and top PC boards together as a unit, from the bottom board.
- 3) Separate the top PCB from the middle PCB. Be careful not to bend any connector pins.
- 4) Locate the lithium battery on the middle PCB. Measure the battery's voltage. A new battery measures above 3.0 volts. A dead battery will measure under 1.5 volts. If the battery is below 2.5 volts it should be replaced.
- 5) There are 3 types of lithium batteries: a soldered battery and 2 types of replaceable batteries. The larger replaceable battery is located on the component side (top) of the middle PC board. The smaller replaceable battery is located on the solder side (bottom) of the middle PC board.
- 6) The soldered battery must be de-soldered and replaced with part number **BK-S**. Pay attention to the polarity of each leg as the battery is replaced. It must be installed the same way as the old battery.
- 7) To change a replaceable type battery, simply lift it out of its holder and snap the new battery into the holder. The larger replacement battery is part number **BK-CC**. The smaller replacement battery is part number **390-0002**.
- 8) Reassemble the PC boards being careful not to bend any connector pins. Install the 2 screws in the top PCB. Place the instrument back into its case.
- 9) The first time the instrument is powered up it should display the "FA 3" error message. If power is cycled again there should be no FA 3 error message.