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trouble shooting tips

No. 12 - Dead Batteries on Gilbarco® TCR™-G2 Memory Expansion Boards

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We have found the main reason for Batteries going dead, on the T16749-G1 Memory Expansion Board on the TCR-G2 Gilbarco Cash Register Consoles, is leakage between the Memory Circuits and the 5 VDC Logic circuits on the W2067 Logic Board during a power down.

If this occurs the Battery on the Memory Expansion Board is powering all IC's on the Logic Board and not just the RAM and Clock circuits. The higher the leakage the faster the Battery will drain. If the Battery drains below 1.5 VDC memory loss will occur and the probability that the Battery will recharge on power up is slim. This will then cause memory loss on every power down of the Register.

You can determine, with a simple test, if this leakage was the cause of the Battery failure once you have replaced the Memory Expansion Board (or at least the battery on the board).

1. Ensure the Memory Expansion Board is installed properly, plugged solidly into P110 on the Logic Board, and that the Battery Jumper is in the "JP2-B" (ON) position and JP1 is in the "ENABLE" position.

2. **Do not** turn on the TCR-G2 power!

3. With a digital Voltmeter measure voltage at the +5 VDC Logic Test Point on the W1544-G1 Regulator Board as shown on page 43 of the Gilbarco MDE-2214B Service Manual (Negative lead on the positive, system ground, end of Capacitor C2 and the positive lead on the + end of Capacitor C40). You should read 0 VDC if the Logic Board is good.

If you read any voltage, even as low as 0.5 VDC, there is leakage occuring and the Logic Board should be replaced.

Please Note! ERI does test all its rebuilt Logic Boards for this problem.