TOTALFLOW
Technical Bulletin 111

LevelMaster RS-485 Electrical Changes (Revision AY Boards)

Totalflow Technical Bulletin

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Operation Change with revision AY LevelMaster PC Boards

Parts effected: PC board 2018546-003 revision AY or greater.

Reason for change:

In an effort to improve the reliability of the LevelMaster product, a modification has been made to the RS-485 communications circuit (electronic board part number 2018546-003). The improvement involved the addition of and changing out of some parts on the board to reconfigure the RS-485 circuit from DC to AC coupled. This change not only improves the reliability of the RS-485 communications, but also reduced the overall power consumption of the board.

This revision caused two changes to the operation of the board:

1. The number and configuration of the jumpers have changed such that the jumpers must be configured as follows:

    - On all intermediate boards, excluding the unit at the end of the RS-485 bus, jumpers 3 and 5 are to be installed.

    - The last unit on the RS-485 bus must be terminated, on this board install jumpers 3,4 and 5.

2. The B&B 485 to 232 converter used on the LevelMaster cable (part number 2100241-002) will not work with jumper 4 in place on revision AY or above electronic boards. When using the LevelMaster cable to troubleshoot or reconfigure a LevelMaster unit with MasterLink, jumper 4 must be removed from the unit being tested. If the cable is being used on a bus with more than one board, the termination jumper on the last board must be removed before communication with any of the boards on the bus is possible. Jumper 4 should be replaced after maintenance is completed.

As a troubleshooting aide, should an earlier DC coupled board (revision AX or earlier) that is installed as an intermediate board have jumpers 3 and 5 installed, the receive LED light will illuminate and stay lit as long as the jumpers are in place. Communications for the entire bus will not occur until these jumpers are removed. As a reminder, these older DC coupled boards require no jumpers except the end of the bus, which is terminated the same as the AC coupled end units, with jumpers 3, 4, and 5.

Conclusion

If you have questions about this bulletin please call our technical service staff at (800) 442-3097 option 1,2 for upgrade information.