

Technical Bulletin

Bulletin No.

005 Rev B

Subject:

Multiple Station LED's Illuminated but Stations Do Not Water

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Product Applicability:

Evolution DX2 Controller

Engineering Release:

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APPROVED FOR GENERAL RELEASE

ERROR SYMPTOMS

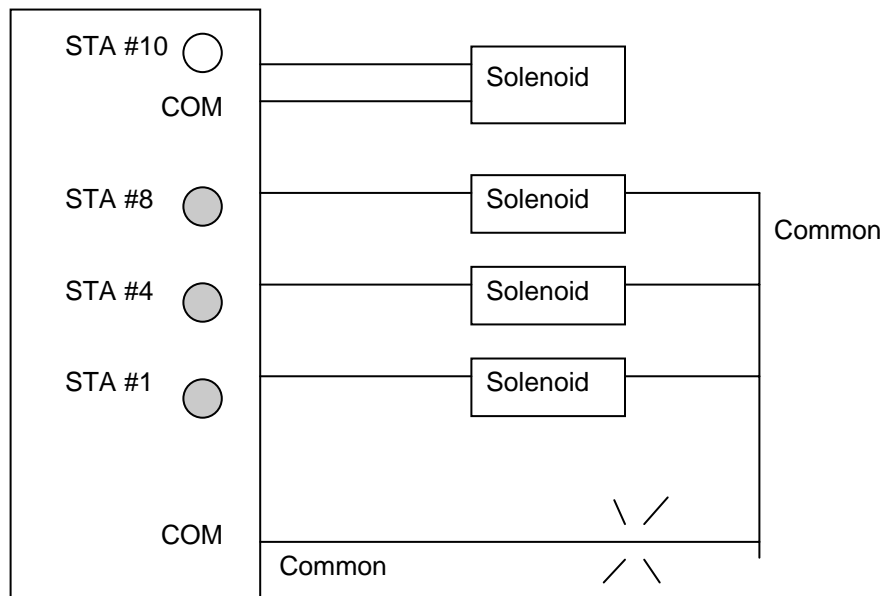
- Multiple stations do NOT water.
- Station LED for the suspect zone turns on and other station LED's also turn on.

The Evolution DX2 Controller has the unique ability to detect and identify broken or missing common valve solenoid wiring connections.

If a zone does not water but that station's red LED light turns on as well as other various LED's for other stations, the field common wire for those stations is likely not connected to the controller (floating). Check the field wiring common connection at the controller and at the field junction where they may be tied together. Check for continuity of the common line from the controller to the field valve.

The following schematic diagram illustrates a sample wiring configuration of four solenoids connected to station outputs:

Controller Station Output Board



The solenoids are connected to station outputs 1, 4, and 8 with one common return line to the station output board. Station #10 does not share the common return line of stations 1, 4, and 8.

When station one turns on, 24 VAC is applied to the station output and the LED illuminates. If the common line is broken or open, (as shown by the cross marks) current does not flow and the solenoid is not energized. However, a small amount of current flows through the solenoid coils back to each station output LED. This causes the station LED's #4, and #8 to illuminate, creating the illusion that the stations are on. This unstable condition can cause unpredictable operation of the associated solenoids, which may or may not become energized.

This condition may be further complicated if the stations associated with the common return line are located on another station output board within the controller.

This condition is possible whenever groups of field valve wiring configurations are tied together to one common return line.

End of Bulletin