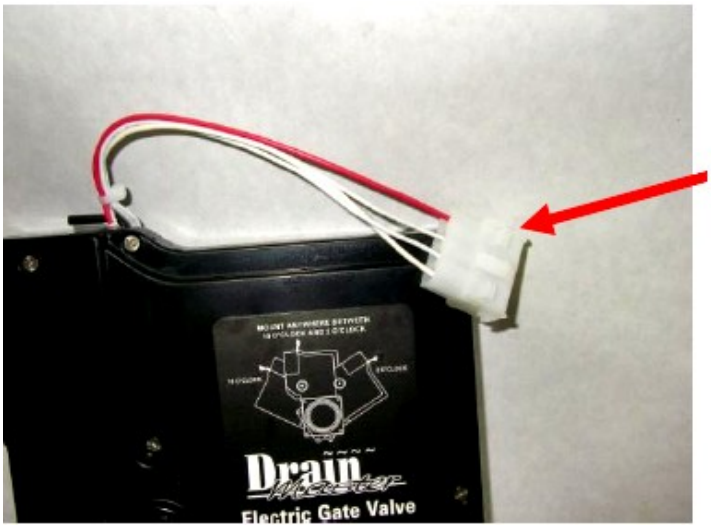
DM73 Troubleshooting procedures for Drain Master Premium Valves

1. VERIFYING THE VALVE FOR CORRECT OPERATION

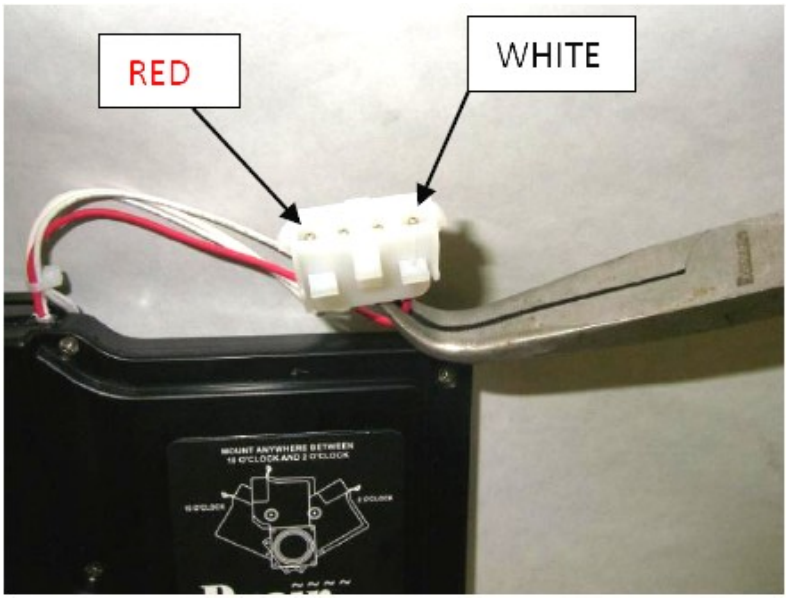
The first thing most people think when their Drain Master valve doesn't work, is to blame the valve itself. In our experience 95 + percent of the time it is not the valve!

The most effective method to trouble shoot any valve issue, is to disconnect the valve plug from the rest of the wiring. This is done by disconnecting the 4 pin Mate-N-Lok electrical plug located about 8" away from the back of the valve.



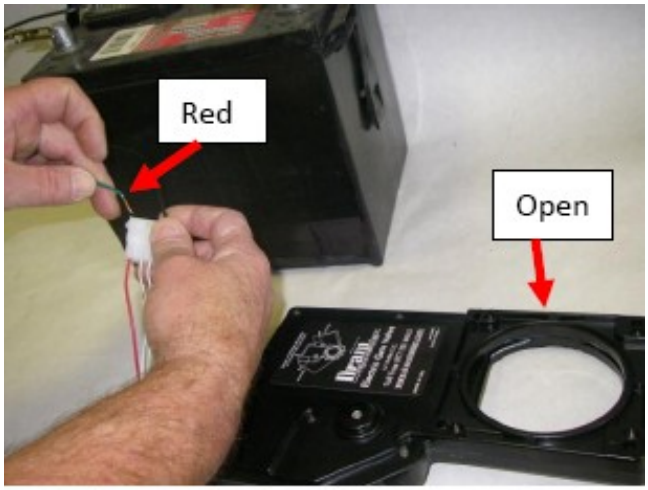
Mate-N-Lok

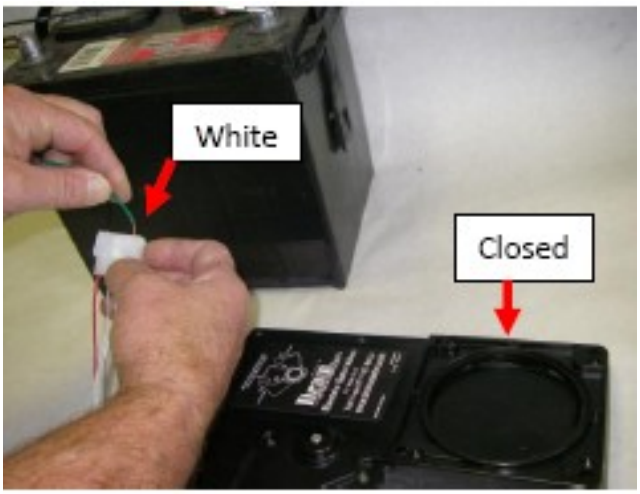
The 2 outer pins are the motor wires, a Red and a White wire, they come directly out of the back of the valve itself.



Using a 12 V DC battery or battery charger set on 12 V DC, use a set of spare wires, connect the white wire connector pin to the positive terminal and the red wire connector pin to the negative terminal.

The valve should OPEN in about 1 second! Do NOT exceed 1 to 2 seconds at most.
Now reverse the wires by putting the red wire on the Positive terminal and the white wire on the Negative. The valve should close. Again Do NOT exceed 1 to 2 seconds at most. If this works repeat the cycle a few times just to make sure. This procedure verifies the valve itself is Ok. Look for faults in a) the wiring b) the switch c) the 12 V DC power source or d) or maybe a blown fuse DM PN 5778. A Trouble shooting flow chart is shown on page 4.



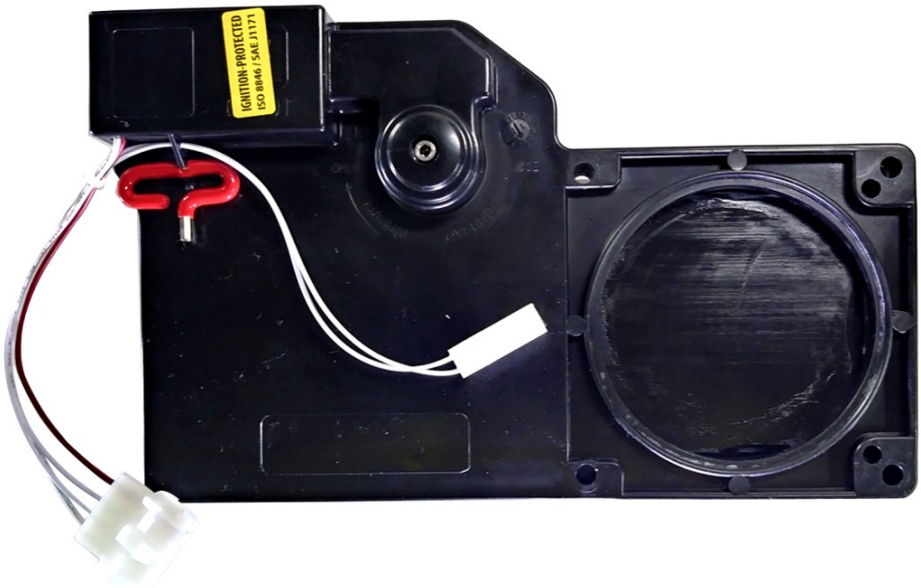


In the event the valve does not OPEN or CLOSE with the above procedure chances are the valve has failed and needs to be replaced. If the valve works but is very sluggish (opens and closes but very slowly) the valve may need to be removed and cleaned. **Click here to see the Cleaning Procedure**

2. PRINCIPLE OF THE LED LIGHT

The LED light, if your valve is equipped with it, is located either on the right side of the small operator switch or it is integrated in the top (open) part of the switch rocker. The LED indicates when the valve is no longer full closed and it will remain on until the operator closes the valve

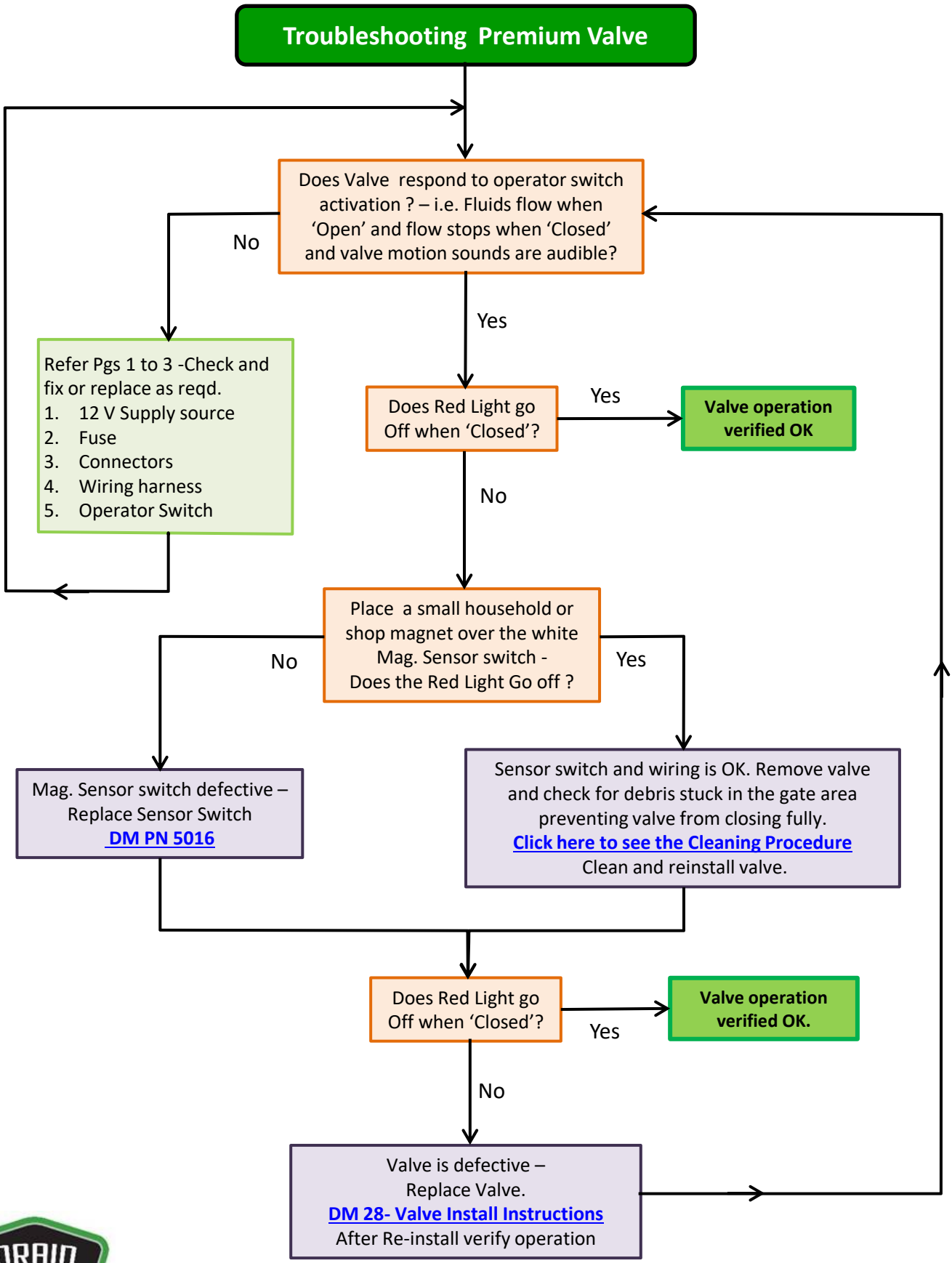
The way this works is that there is a small micro switch located on the back of the valve itself.



On the inside of the valve, a magnet is glued to the slide gate. When the valve is closed, the magnet lines up under the switch, and the light goes out. The micro switch itself is a NC or Normally Closed style and the magnet holds the contacts apart. When the magnet leaves its position under the micro switch the contacts close and the light goes on. It will remain ON until the magnet returns to its home place under the micro switch.

3. VERIYING THE LED LIGHT – What to do If Light will not go out

Follow the Flow Chart shown on Page 4 -The steps listed will guide you how to verify the valve operation and to troubleshoot Valve or Red light malfunctions. Use the flow chart together with the explanations and diagrams given above.


Troubleshooting Premium Valve
Does Valve respond to operator switch activation ? – i.e. Fluids flow when 'Open' and flow stops when 'Closed' and valve motion sounds are audible?
No
Yes
Refer Pgs 1 to 3 -Check and fix or replace as reqd.
1. 12 V Supply source
2. Fuse
3. Connectors
4. Wiring harness
5. Operator Switch
Does Red Light go Off when 'Closed'?
Yes
Valve operation verified OK
No
Place a small household or shop magnet over the white Mag. Sensor switch - Does the Red Light Go off ?
No
Yes
Mag. Sensor switch defective – Replace Sensor Switch
DM PN 5016
Sensor switch and wiring is OK. Remove valve and check for debris stuck in the gate area preventing valve from closing fully.
Click here to see the Cleaning Procedure
Clean and reinstall valve.
Does Red Light go Off when 'Closed'?
Yes
Valve operation verified OK.
No
Valve is defective – Replace Valve.
DM 28- Valve Install Instructions
After Re-install verify operation