



The ! Voice

Flow Collect Troubleshooting for Balance Systems

Doug Harty, Sr. Application Engineer { harty@vsthose.com }



Out of all the tech support calls I receive, Flow Collect troubleshooting is the most common one by far. I've found that there are many possible solutions and some easy checks to guide you to the correct solution. These are the best troubleshooting steps I've found to best diagnose Flow Collect alarms. They are sequenced them from simple checks to more complicated and involved checks that will require test equipment.

1. Drain affected hose, look for fuel in vapor path.
 - If fuel is found, look for a hanging hardware defect.
 - A dry hose strongly indicates the liquid removal device is functional and fuel hose is intact.
2. Conduct meter creep test (authorize the pump and check for meter movement when not dispensing).
 - Any movement of dispenser meter while nozzle trigger is off is a sign of equipment damage.
3. Check ISD Software version.
 - 1.01-1.05 can create false alarms, update to latest available.
4. Enable ACCEPT HIGH ORVR in EVR Setup on TLS-350.
5. Check TLS for DIM string and add a "G" to DIM init string if missing.



VST Mission

To design and manufacture innovative products for retail refueling systems that are specifically engineered to protect the environment and consumers with safety and reliability.



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VST Vision

VST strives to become the most trusted company in the global gasoline dispensing industry by manufacturing environmentally sustainable products and solutions that reduce harmful vapor emissions to create a future that protects the communities in which people live and work every day.





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- 6. Check flow rates across all gasoline hoses and ensure flow rate is over 6 GPM.
 - Large differences in flow rates between nozzles can cause Flow Collect alarms.
 - Replace fuel filters as needed.
- 7. Check meter map.
 - Search for out-of-sequence flow meters.
 - If in doubt, do a manual remap.
 - Do not upload the map from a laptop because a manual map will confirm DIM communication with every fueling point.
 - Clear the tank map if needed.
- 8. Conduct a Dynamic Backpressure test
 - Inspect the vapor piping.
 - Look for piping liquid traps/restrictions and leftover 5/8" copper piping from prior vacuum assist style installations.
- 9. Conduct a Liquid Removal test.
 - Hose vapor paths tend to stay dry normally, and a failure might not be noticed if the hose is dry on initial inspection.
- 10. Conduct a Flow Meter operability test.



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11. Conduct a pressure decay test.

- Make sure hoses, breakaways, dispenser piping, and other components are vapor tight.

Remember, with all these ISD Alarms that began at the first of the year because of the ORVR table expiration, sites will still have real alarms caused by real equipment problems, and they will still need a proper hardware diagnosis.



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