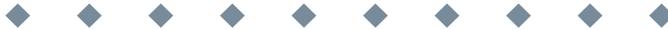




# The ! Voice

## Tips for Addressing ISD Collection Alarms

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



With the expiration of the ORVR table in the TLS-350 ISD software and with the lower non-ORVR vehicle population , it has become even more important to have consistent vapor collection results. This may be achieved by:

- Upgrading the TLS-350 software if you have version 1.05 or lower.
- Enabling the ACCEPT HIGH ORVR setting on the TLS-350 means the TLS looks at a smaller data set to conduct an analysis of vapor collection performance.

Balance systems need to have similar vapor collection results across all gasoline fueling points. This is where the problem comes in: mixing and matching equipment can create issues because different manufacturers' equipment can have different back pressure values. Consequently, Statistical Flow Collect alarms are triggered when a fueling point has lower collection performance compared to the site average. Collect alarms are also caused if the fueling point has an abnormally high number of ORVR transactions.

Collection Performance warnings show up on the ISD Daily report with a numerical result, such as 0.62V/L. This warning is usually caused by an issue with high backpressure in the hanging hardware. It can also be caused by a poorly performing liquid removal device that allows fuel to reside in the vapor path creating a restriction to vapor flow. A quick check of the hose for liquid in the vapor path can indicate a liquid removal device failure.



### 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.



### VST Values

**R:** Respect  
Employees,  
Customers, Vendors,  
and Environment

**O:** Operational  
Excellence, Quality,  
Delivery, Safety &  
Cost

**I:** Innovative Passion,  
Unique, Industry  
Leader, and  
Committed to  
Excellence



### 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.

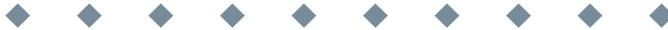




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Sometimes the issue is a component, that by design or malfunction, causes higher backpressure even with brand new equipment. Hose kinks around the nozzle end coupling, for example, can often be enough to trigger ISD collection alarms. Leaky front end components and small hose or breakaway leaks can also cause random ISD Collect alarms. The meter creep test is a handy tool to check for fuel leaking into the vapor path.

Statistical ISD flow collection alarms show up as BLKD on an ISD Daily report. Statistical Flow Collect alarms can be more difficult to troubleshoot because there is often no hardware failure, just an abnormally high number of ORVR transactions. These alarms often clear on their own as the new day brings fresh data from different vehicles. Checking for liquid on statistical alarms is still a good practice, because a hose blocked by fuel will look like an ORVR vehicle with no vapor collected.

Additionally, assist systems can have similar issues since the ORVR table expired. Therefore, maintaining nozzle boots is critical to the ORVR detection process. Nozzle boots should be inspected regularly to avoid Gross/Degr collect alarms.

Meter creep testing is also a valuable tool on assist sites. Kinked vapor hoses are still a common failure on assist style hoses, and V/L testing is the best tool to find vapor hose issues on assist systems. Proper V/L adjustments by a service tech are very important to prevent ISD alarms.



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VST EVR hanging hardware solutions are designed to improve performance and reduce the potential for Statistical ISD Flow Collect alarms.

### Balance Systems

- VST EVR Balance hoses include the only patented variable venturi liquid removal system for maximizing a clear vapor path.
- VST EVR Balance hoses offer the lowest back pressure option in the industry.
- VST Platinum Balance hoses incorporate a safety cable that reduces hose stretch during a drive-off event and improves the likelihood of continued performance of the liquid removal device.
- VST Balance nozzles and safety breakaways far exceed the CARB specification for allowable back pressure limits.

### Assist Systems

- VST low permeation vac assist hoses incorporate a dual-helix wire reinforcement for maximum kink resistance.
- VST low permeation vac assist hoses utilize a unique lip-seal swivel for continual swivel action and eliminates the potential for a cut O-ring or hose kinking.
- VST vac assist safety breakaways offer a simple snap-back design that does not require additional components for repair.



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