ABC COMPANIES
Exclusive U.S. VANHOOL Distributor

TECH TIPS
#2007

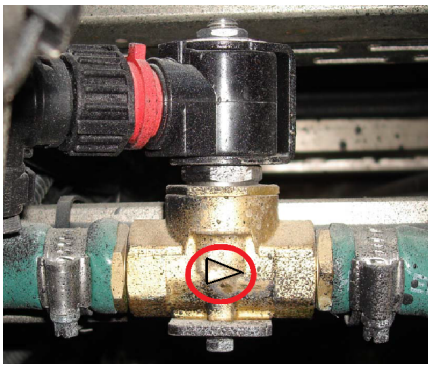
COACH MODEL :	MY2017 - 2020 Van Hool Coaches with **Cummins Engines ISX12 & L9**
DATE :	01 Sep 2020 (Revised 22 July 2021)
SUBJECT :	Shaw Gen 4, 5 & 6 DEF Header troubleshooting

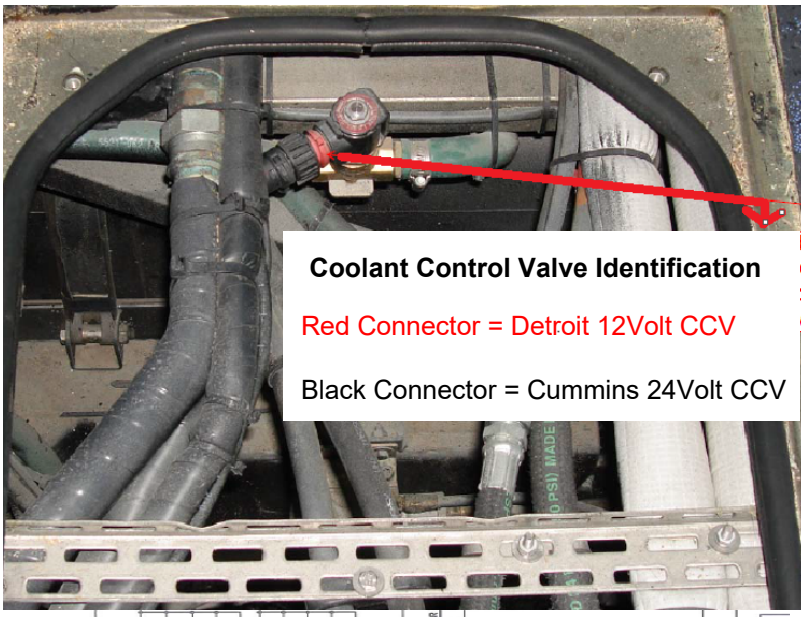
During diagnostics of a DEF concern, you may have some of the following codes, 3868 DEF Quality Fault, 4677 DEF Level, and 4572 DEF Temperature Fault.

These codes DO NOT necessarily mean the sensor has failed. Before replacing the sensor, the following steps should be performed. If you find no resolution after performing the following steps, along with the Cummins troubleshooting, then contact ABC CustomerCare at 1-877-427-7278 option 3

1. -Check DEF Coolant Control Valve.

-Ensure it is not installed backwards and flows in the correct direction.
-Test and inspect the valve is not stuck or commanded on.
-Use Cummins software to cycle the heat control valve.



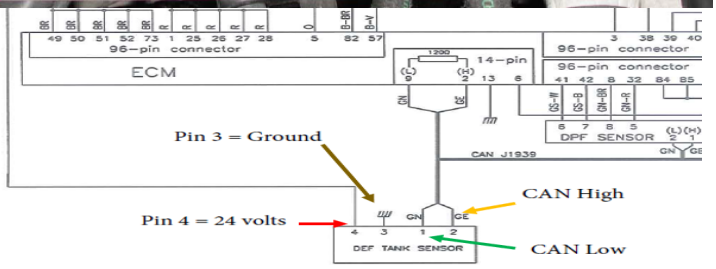


2. -Test Pin 4 to the DEF sending unit for 24volts.

-Test Pin 3 for a good ground.
-Test and inspect the CAN line

-Ohms across Pins 1 & 2 should be 60Ω.

-Flash Cummins software even if it is not called for.



Shelf life of DEF depends on storage and temperature. Coaches that have been stored for extended periods of time with temperatures 90 degrees or higher may have degraded or have contaminated DEF. DEF has a concentration of 32.5% of Urea. Cummins monitors this level. Degraded Urea happens when concentration levels change, resulting in failure codes. You may need to drain your DEF and replenish with new Fresh DEF.

3. Inspect DEF quality. One possible tester is the AdBlue Tester DEF-906.(Any DEF tester can be Used)

If Urea concentration is not correct. You must drain and replace with new DEF.

Number Of Floating Discs	Urea Level	Reference	Stage
0	<29%	Change Fluid	⚠
1	30%	Change Fluid	⚠
2	32.5%	Ideal	✓
3	35%	Change Fluid	⚠