

Cascade and Triumph/Dorpat (controller devices) updates

1. Response time measurement major fix to read more reliably actual response time for many injectors.
2. ATV310 controller support for UIS measurements and improvements for existing controllers.
3. Major developments for 4 pin (2 coil) injector measurements including reliable pulse data transfer to main controller and windows Cascade software.
4. Response time check logic changes for Delphi coding. More reliable response time coding in out of limits situations.
5. Support added for Delphi coding to show at which pressure range results are out of limits (if they are).
6. Support added for making long pulses (more than 5 ms in general)
7. Completed transitioning all pulse profiles to a new pulse creation logic that prevents any unexpected behaviour in extreme situations (like coil short during test)
8. Introduced Bosch DCI injector coding. More injectors coming soon.
9. General updates to factory testplans of several Denso and VDO injectors for better agreement with new injectors and coding procedure.
10. Important bug fix for general stability of the controller. Prevents random crashes of the controller that sometime lead to loss of USB communication.
11. Fixes to Bosch BIP signal detection that has been moved to controller for improving the detection speed and reliability.

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1. external flow valve logic updated to ensure proper closure of the valve during prepare pulses stage of the test
2. UIS tester: Implemented BIP angle real time measurement for feedback
3. UIS Tester: refined pulse timing logic for better compatibility with Bosch original testplans.
4. All Solenoid injectors: fixed a possibility that high inductance injectors in case of long pulses could be run with insufficient current in the beginning of the pulse main part (last part of the pulse, usually lower current)
5. Introduced ability to create all pulse profiles with dynamic pid controlled series in stead of fixed length long steps.
6. Re-enforced Piezo voltage protection algorithm for charge type piezo profiles (Siemens/VDO)