



Technical bulletin

PRODUCT:	Common rail injector
OEM:	Bosch, Delphi, Denso, Schaeffler (Continental, Siemens, VDO), Stanadyne
FITS:	Various
JOB:	How to recode a common rail injector

Whenever an injector is either installed into a vehicle, or swapped from cylinder to cylinder, the calibration code, also known as a correction code, trim code or IQ/IMA/ISA/CLC/QR code, must be reprogrammed into the ECU. This ensures that the timing, and quantity of fuel delivered, are realigned for optimum engine, fuel consumption and emissions performance.



How to recode a common rail injector

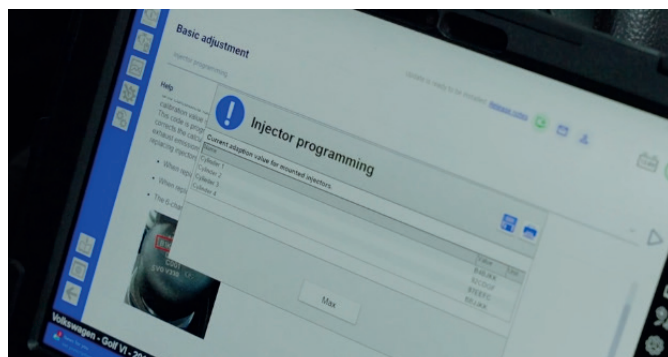
- » before installing the injector, note the unique calibration code on each injector, and which cylinder it will be fitted to - the injector code is also printed on all Carwood bags
- » once the injector has been correctly installed (see our how-to remove and refit a common rail injector guide) connect a diagnostic scan tool
- » turn the ignition on, with the engine off unless specified
- » open the injector coding/programming function

- » select the correct cylinder and enter the injector calibration code exactly as printed on the injector
- » Note codes are case sensitive, so enter it exactly as printed and take care not to confuse letters and numbers i.e. '0' and 'O'
- » if the diagnostic tool requires more than the 6 characters on some injectors, add a trailing 0 at the end to enable the procedure
- » save/write the code to the ECU - the ECU will store the new code until it is changed again
- » repeat the process for other injectors, as required
- » some systems will require a pilot relearn, also known as small quantity learning, injector relearn or adaptation, after the injector has been reprogrammed and installed - if required, follow the VM's guidelines to perform
- » start the engine and check that the engine is running as it should and the rail pressure is stable
- » check there are no misfires or fault codes - clear if needed
- » road test the vehicle and recheck for faults

Important checks

Each system varies, so always follow the vehicle manufacturer's coding instructions and remember to:

- » always enter the exact injector code i.e. correct case, character/digit
- » never mix injector codes between cylinders
- » never generate new, modify existing or use a generic or copied code



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