

Incorrect or out of phase engine timing can result in damage to the valves. The Tool Connection cannot be held responsible for any damage caused by using these tools in anyway.

Safety Precautions – Please read

- Disconnect the battery earth leads (check radio code is available)
- Remove spark or glow plugs to make the engine turn easier
- Do not use cleaning fluids on belts, sprockets or rollers
- Always make a note of the route of the auxiliary drive belt before removal
- Turn the engine in the normal direction (clockwise unless stated otherwise)
- Do not turn the camshaft, crankshaft or diesel injection pump once the timing chain has been removed (unless specifically stated)
- Do not use the timing chain to lock the engine when slackening or tightening crankshaft pulley bolts
- Do not turn the crankshaft or camshaft when the timing belt/chain has been removed
- Mark the direction of the chain before removing
- It is always recommended to turn the engine slowly, by hand and to re-check the camshaft and crankshaft timing positions.
- Crankshafts and Camshafts may only be turned with the chain drive mechanism fully installed
- Do not turn crankshaft via camshaft or other gears
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques
- Always refer to the vehicle manufacturer's service manual or a suitable proprietary instruction book
- Incorrect or out of phase engine timing can result in damage to the valves
- It is always recommended to turn the engine slowly, by hand, and to re-check the camshaft and crankshaft timing positions
- Always wear wear gloves, safety goggles and safety boots.
- Always tighten components to the manufacturers recommended torque settings
- Where injectors are badly sieved due to corrosion/carbon build up it is advised that the injectors be soaked over night in a cleaning agent to soften the build up
- Cleanliness is essential, dirt and carbon can easily fall into the cylinder when the injector is removed



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Guarantee



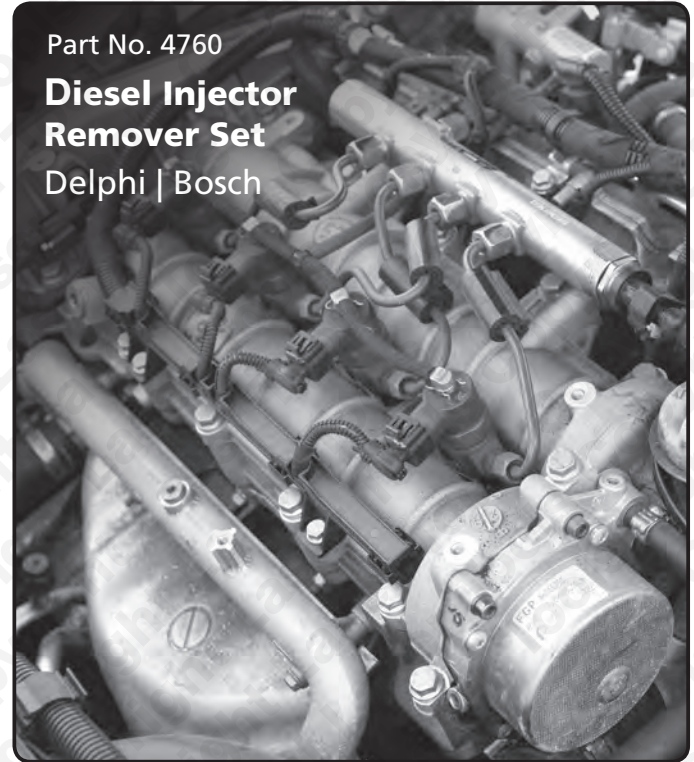
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If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1928 818186**. Normal wear and tear being excluded as are consumable items and abuse.

LASER®

Part No. 4760

Diesel Injector Remover Set Delphi | Bosch



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Diesel Injector Removal Set

The 4760 set is a professional kit designed to allow the user to remove stubborn stuck Bosch and Delphi common rail diesel injectors using a slide hammer (Part No 4811 slide hammer available separately).

The 4760 set includes the special hexagon key required to remove the internal components from the injectors which allows the stronger injector internal threads to be used for pulling.

Note: The 4760 adaptors have a M20 internal thread to allow the use of a slide hammers fitted with a M20 metric thread.

Applications: Bosch and Delphi Common Rail Diesel Injectors.



Ref	Size	Description
A	M20 x M17 x 1.0	Bosch injector adaptor
B	M20 x M14 x 1.5	Delphi injector adaptor
C	M10 x 1/2" with hole	Injector insert tool
D	M20 x 5/8" UNF	Slide hammer adaptor with locknut

Instruction

Preparation

- Remove fuel and engine components required to access the injectors.
- Clean the areas around the injectors, if necessary soak the area in suitable cleaning agent to help soften significant carbon/corrosion build up.
- Remove the electrical connections from the injectors.
- Remove the Low and high pressure fuel pipes from the injectors.

(N.B. the injection system manufacturers recommend the replacement of metal High pressure injection pipes if removed, see manufacturers recommendations)

- Many Common Rail injection systems have coded injectors, it is advised note is made of the injector numbers and the cylinders they came from.
- Remove the injector solenoid (Sockets 4843 available separately)
- Remove the internal components of the injector.
- Bosch – press down on the internal components and slide out the small central "C" clip, lift out the internal components (these components are very small so great care should be exercised not to loose or mix up these components)
- Using the Injector Insert Tool (C) remove the injector lower internal components.
- Remove the injector fixings/clamps.
- Thread the correct adaptor (dependent on injector type) into the injector. It is recommended that this adaptor is tightened briefly using an air impact wrench as the vibration will help loosen the injector. Stop immediately if the injector starts to spin as the injector HP connection port could foul on the rocker box etc.
- Where the slide hammer to be used has a M20 thread on it, the Slide Hammer Adaptor is not required. Where the slide hammer to be used has a 5/8" UNF thread the Adaptor must be used and properly tightened in place using the locking nut provided.
- The injector is now ready for removal.

Additional information:

Due to the length of the 4811 slide hammer it may be necessary to remove the vehicles bonnet to allow access in some extreme cases where the engine if reclined in the engine bay access can only be gained by removal of the engine (for example: Citroen C8/Peugeot 807 HDI diesels)

