



TIMING LIGHT DIESEL CONVERTER BOX

MODEL NO: **TL95**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instruction manual



Wear eye protection



Wear protective gloves

1. SAFETY

▲ DANGER BE AWARE, LEAD-ACID BATTERIES CAN GENERATE EXPLOSIVE GASES DURING CHARGING. CARE SHOULD BE EXERCISED DURING CONNECTION/DISCONNECTION OF THE CONVERTER BOX AND ASSOCIATED EQUIPMENT TO AVOID/PREVENT SPARKS.

1.1. PERSONAL PRECAUTIONS

- ✓ Wear safety eye protection and protective clothing and avoid touching eyes while working near a battery.
- ✓ Follow good workshop practice by ensuring jewellery is removed, long hair is tied back and there is no loose clothing.
- ✓ Ensure there is another person within close range to come to your aid should a problem arise and follow routine first aid requirements in the event of any accident or injury.

- ✗ **Note:** When used in conjunction with a timing light, the flashing from the light can make rotating components appear stationary.
- ✗ **DO NOT** be tempted to touch an apparently stationary component, which is in fact, rotating.

☐ **WARNING!** Ignition components may contain very high voltages; always refer to manufacturers data for advice.

1.2. GENERAL SAFETY INSTRUCTIONS

- ☐ **WARNING!** Ensure adequate ventilation or an exhaust gas extraction system is used. Always adhere to all legal requirements, and workshop good practice requirements in your working environment.
- ✓ Ensure the ignition is switched off before attaching the power clamps to the battery. If the battery terminals are corroded or dirty, clean them before attaching any clamps.
- ✗ **DO NOT** cross-connect leads from the converter box to the battery. Ensure positive (+) (RED) is to positive and negative (-) BLACK is to negative.
- ✗ **DO NOT** allow inductive pick-up, or leads, to contact exhaust or other engine parts as the heat will cause damage.
- ✗ **DO NOT** pull the cable or clamps from the battery terminals.
- ✗ **DO NOT** use the converter box in damp, or wet locations.

2. INTRODUCTION

Used to detect the pulse from the fuel pipes of diesel fuel injectors. Works on most direct injection diesel engines fitted with 6mm (1/4") to 10mm (3/8") external fuel pipes. Suitable for use with most timing lights, engine analysers and multi-meters that have an inductive pick-up.

3. SPECIFICATION

Model no: TL95
 Input power: 6-30V DC
 Trigger point: 15% of the highest pressure
 Clamp size: 6mm (1/4") to 10mm (3/8")

4. CONTENTS

System Component Identification:

1	Black battery clamp (NEG-)	6	Power Lead
2	Red battery clamp (POS+)	7	Black Clip (Sensor lead)
3	Pick-up loop	8	Yellow Clip (Sensor lead)
4	Indicator Light	9	Sensor lead
5	Piezo clamp (diesel sensor)		

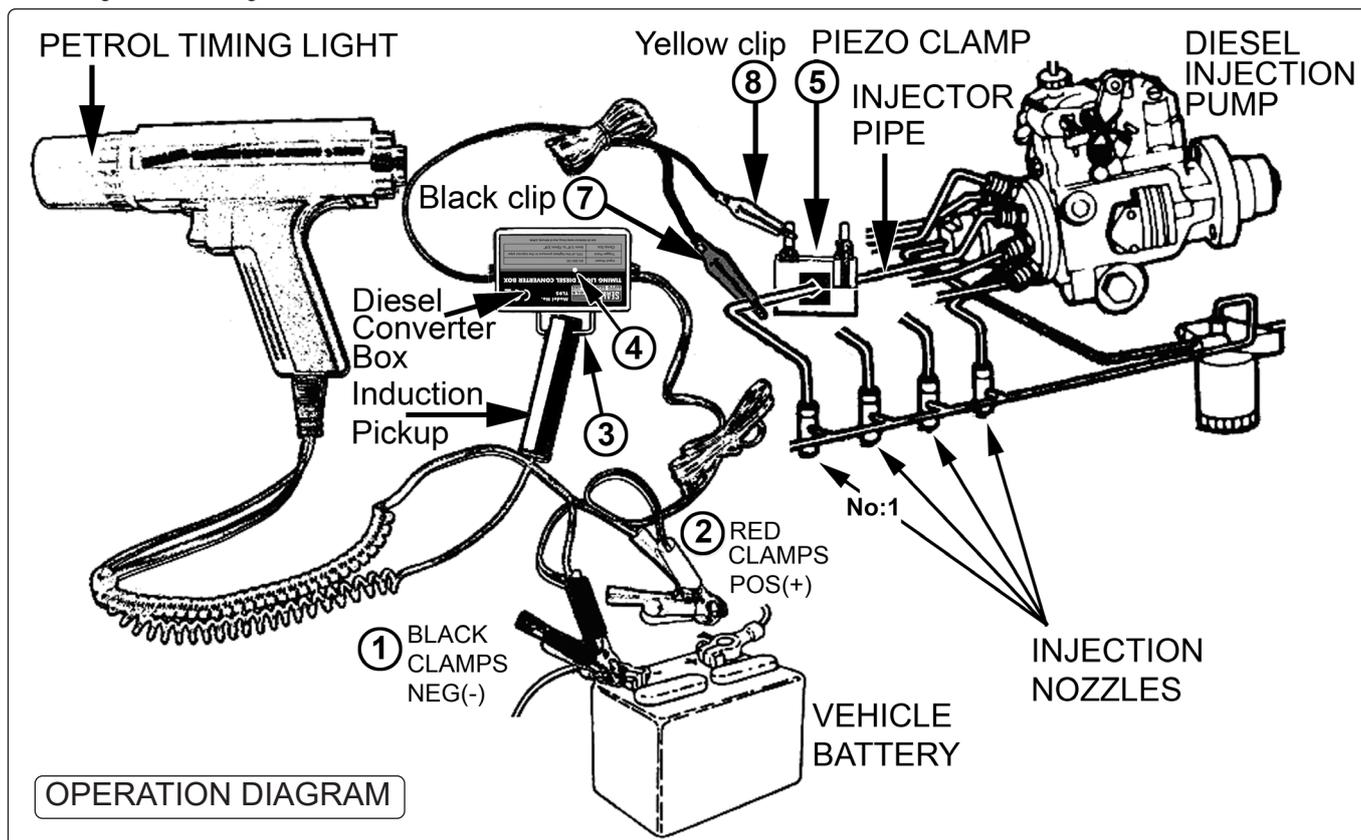
5. SET UP & OPERATION

- 5.1. You must use a monitoring device such as a timing light, engine analyser or multimeter in conjunction with the diesel converter box in order to be able to read RPM on the device's display. The most common use for this information will be for setting a constant engine speed for diesel engine smoke testing. Remember to set up your monitoring device for the correct number of cylinders.
- 5.2. Ensure that the vehicle ignition is off. Locate the fuel pipes connecting the pump to the fuel injectors. For engine timing purposes the Piezo Clamp should be attached to the pipe going to the No.1 cylinder.



- 5.3. Fix the Piezo Clamp (5) onto a straight section of the Injector fuel pipe for the No.1 cylinder as close to the pump as possible in order to get the strongest reading. The Piezo Clamp and fuel pipe should be clean and dry. Make sure that the Piezo Clamp is in full contact with the fuel pipe but **DO NOT** overtighten as this could cause damage to the sensor within the clamp.
- 5.4. Take the Sensor Lead and connect the YELLOW clip (8) to one of the adjustable fixings on the clamp and the BLACK clip (7) to the same Injector fuel pipe to which the clamp is connected.
 - ❑ **WARNING!** Ensure that the Black Sensor clip **DOES NOT** touch any of the Glow Plugs and associated mountings or wiring as this may cause a short circuit which could disable engine operation and may damage any connected monitoring device.
- 5.5. Take the Power Lead and connect the RED clamp (2) to the positive side of the vehicle battery and the BLACK clamp (1) to the negative of the battery.

Note: The monitoring device used i.e. A Timing Light, Engine Analyzer or Digital Multimeter may also be powered from the vehicle's battery.
- 5.6. Attach the inductive pickup from your chosen monitoring device e.g. a timing light, onto the Pickup Loop (3) on the converter box. If the timing light inductive pickup has an arrow mark, ensure that the mark is face up when attached to the Pickup Loop.
- 5.7. Start the engine and allow it to reach operating temperature, then read the results from the timing light. The Indicator Light on the converter box (4) should flash consistently. If the indicator light does not flash, check all the connections or relocate the Piezo Clamp to another section of the fuel pipe. **Note:** Low vehicle battery, defective Injector Pump, or lack of fuel may prevent the Indicator Light from flashing.



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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