Sykes-Pickavant has been at the forefront of providing Diagnostic Solutions to the Independent Garage market, for more than 20 years. After many years of development, the range now encompasses a wide selection of Diagnostic and Test products, which have been designed specifically with the Independent Garage in mind and which can be separated into three major product categories:

- **Fault Code Reading & System Testing**
  SPI - Electronic Diagnostic & Service Tools

- **Electronic Testers**
  A range of individual electronic diagnostic tools & testers

- **Pressure Testers**
  A range of Pressure Gauge test kits to complement the diagnostic process

As Vehicle Technology moves forward at an ever-increasing pace, it is important that the independent repairer is able to continue to provide service to his local customers. Therefore at Sykes-Pickavant, we have invested heavily in Research and Development, in order to keep pace with the technology. We have an extensive, on-going, vehicle applications programme in order to keep our products and our customers up-to-date.

With more than 80-years of history, Sykes-Pickavant is one of today’s first leading names in automotive service equipment. Around the world technicians, mechanics and garage owners depend on our products daily and we have built an enviable reputation for high quality, value for money products.

The key to our Diagnostics Range are products which will:

- **Enable servicing operations - without the correct tools, some jobs are impossible**
- **Save time - users enjoy better profits through improved productivity**

Maintaining close contact with the market is a priority, enabling us to develop new products that work hard for our users. As automotive technology moves forward, so do we. Each new vehicle that is sold is carefully evaluated to assess what equipment is required for future servicing operations in the aftermarket. And at the same time, we are constantly updating our own products, to ensure they meet both the latest standards and latest applications in the market place.

Sykes-Pickavant encourages Safety In The Workplace, and has introduced this range of Safety Footwear for the benefit of our End-User customers.

**Safe yet Stylish for the modern Engineer – two styles to choose from:**

**Safety Trainers**
- Oil & Heat Resistant Sole
- Steel Toe Cap & Mid-Sole
- Sizes: UK 7 - 12

**SPW303-SIZE**

**Trekker Safety Work boots**
- Oil Resistant Sole
- Steel Toe Cap & Mid-Sole
- Antistatic
- Sizes: UK 7 - 12

**SPWF50-SIZE**
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Fault Code Reading & System Testing

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Introducing the new Sykes-Pickavant “SPIe” Automotive Electronic Service Tool

Electronic service work on today’s modern vehicles can be complicated but with the new solution from Sykes-Pickavant SPIe - this is safer and easier.

SPIe is an advanced handheld Automotive Electronic Service Device, for use on all vehicles equipped with an EOBD socket, which have modern electronic service functionality built-in.

SPIe has its own internal battery, which is re-charged from the connected vehicle, giving up to one hour usage as a stand alone device. Once SPIe is switched on, select the vehicle to work on and SPIe then guides the operator to find the EOBD socket (Ref B).

- SPIe guides the user through the electronic service functions
- SPIe makes the decisions – the user only needs to select what they want to do
- SPIe includes software for all the Electronic Service functions on the vast majority of popular cars
- SPIe scans all of the ECU’s on the vehicle - fault code reading and clearing for all ECU’s
- SPIe creates a report of functions requiring service when the vehicle arrives
- SPIe also creates a report to show that all work has been completed
- SPIe allows adjustment of all Service functions

- Fault code reading & clearing for all ECU’s
- SPIe includes relevant technical and maintenance data built in for guidance (Ref A)
The on board internal memory can allow for later review of the previous TEN service and diagnostic events completed.

The actual functions the SPe displays are specific to the selected vehicle only, removing any confusion over what tasks are and are not possible.

(Ref C)

SPe is able to carry out a huge range of electronic service functions on the vehicle, from everyday health checking, to less common service tasks such as the regeneration of Diesel Particulate Filters.

SPe will allow safe work on key systems such as Electronic Parking Brakes and Steering Angle Reset through to vehicle system diagnostics with no ill effects to essential ECU operations.
SPe generates vehicle specific reports which can be printed and/or saved.

SPe created an "errors" report listing all error codes and live data parameters.

SPe generates an initial acceptance report listing all faults found on arrival.

All reports can be printed shown to the vehicle owner, and saved for live reference. A final report can be printed showing all errors cleared.

**Technical Data (Ref A)**

<table>
<thead>
<tr>
<th>EVERY 20,000 miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change engine oil</td>
</tr>
<tr>
<td>Change the oil filter</td>
</tr>
<tr>
<td>Change the air filter</td>
</tr>
<tr>
<td>Change brake fluid</td>
</tr>
<tr>
<td>Check brake pads for wear</td>
</tr>
<tr>
<td>Check tyres for wear</td>
</tr>
<tr>
<td>Check operation of lighting devices</td>
</tr>
<tr>
<td>Tyre pressures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine oil including oil in filter 4.5 l Type SAE 5W/40 Sint.</td>
</tr>
<tr>
<td>Manual transmission 2.4 l Type SAE75W/85 Sint.</td>
</tr>
<tr>
<td>Cooling circuit 7.7 l</td>
</tr>
<tr>
<td>Brake fluid Type DOT 4 0.75 l</td>
</tr>
<tr>
<td>Power steering fluid Tutela GL/V 0.9 l</td>
</tr>
<tr>
<td>AUTOMATIC TRANSMISSION Type Tutela GL/V 3.2 l</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BRAKES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilated front brake disc minimum thickness 25.5 mm</td>
</tr>
<tr>
<td>Rear disc minimum thickness 8.5 mm</td>
</tr>
<tr>
<td>Pad minimum thickness Front 7 mm</td>
</tr>
<tr>
<td>Pad minimum thickness Rear 7.0 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHEELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyre pressure Exhaust</td>
</tr>
<tr>
<td>- Front 2.0 bar Rear 2.0 bar</td>
</tr>
<tr>
<td>195/65 R 15 H 2.0 bar 2.0 bar</td>
</tr>
<tr>
<td>205/55 R 16 V 2.0 bar 2.0 bar</td>
</tr>
<tr>
<td>205/60 R 16 V 2.0 bar 2.0 bar</td>
</tr>
<tr>
<td>225/45 R 17 V 2.0 bar 2.0 bar</td>
</tr>
</tbody>
</table>
Once SPe is switched on, select the vehicle to work on and SPe then guides the operator to find the EOBD socket (Ref B)

SPe Package for New User 30650000
c/w 12 months Software Upgrades
Contents: SPe Handset, EOBD Cable, USB Cable, SD Card Reader, USB Memory Stick, Pre OBD Cable Adapter, CD, instructions
12 months Software Upgrades included

SPe Handset Package 30650100
Contents: SPe Handset, EOBD Cable, USB Cable, SD Card Reader, USB Memory Stick, Pre OBD Cable Adapter, CD, instructions

SPe Annual Subscription for Electronic Service Software 306512SUB

SPe comes with TWELVE months of FREE subscription allowing on-line updating of details held on the SD card
Annual Subscription available at extra cost (Year 2 onwards)

Easy to use SPe Keypad

For technicians uncertain of how to carry out these functions, SPe contains a demonstration menu showing details & images of how to complete tasks (Ref C)

SPe - DIAGNOSTICS

Protocols Supported:
- Pulse code
- KL-ISO9141
- K-ISO 14230
- J1850VPW
- J18050PWM
- CAN low / highs
- RS485

Ordering Information Kit & Contents

Optional Extras:
- 30650700 BMW Round Connector Cable
- 30650800 Mercedes Round Connector Cable
- 30650900 Sprinter Round Connector Cable
- 30651000 Iveco Round Connector Cable
- 30651100 Universal Mains Power Supply

Hardware features:

Protocols Supported:
- Pulse code
- KL-ISO9141
- K-ISO 14230
- J1850VPW
- J18050PWM
- CAN low / highs
- RS485
SPI is the latest development of handheld Electronic Service & Diagnostic tools from Sykes-Pickavant. Specially designed to handle the very latest vehicle technology and updateable to cope with future developments when necessary.

SPI is designed with the needs of the Independent Workshop in mind as an all-makes Electronic Service tool with full Diagnostic capability.

Benefits:
- NO plug-in software pods
- Only ONE harness connector for all 16 pin applications
- State of the art technology for up-to-date vehicle communications
- Simple, Effective and Easy to Use!

Features:
- Large multifunctional graphics display with single / dual screen comparison
- Split screen display – view analogue data alongside ECU data
- Requires only ONE harness connector for all 16 pin applications
- Multiplexed vehicle communications, eliminates the need for additional harnesses, adaptors, software modules etc.
- New high performance operating system with re-programmable hardware
- Monthly updates via the Internet, or SD card updating service
- Software coverage for 35 vehicle manufacturers, plus EOBD - applications on SPI Handset & CD
- New bi-material soft-touch case, proven ergonomic design
- Wireless ready for communication with optional add-on modules

Diagnostic Functions
- Fault code reading / clearing
- Live component values
- Engine settings & adjustments
- Fuel additive
- Injector Programming
- Airbag Configuration
- Actuators

Service Functions
- Service settings
- Condition Based Servicing
- Driver information modules
- Service reset
- Electronic park brake
- Key programming
- Tyre Pressure Configuration
- ABS

www.sykes-pickavant.com
Key & Remote Control Programming:
• Fault Code Reading for Vehicle Locking Systems
• Enables garage owners, body shops and car sales owners to match keys to vehicles where the key has been lost or lock sets replaced
• Provides diagnostic information in order to help diagnose faults within the immobiliser system

Wireless:
• SPI is ready to auto detect and communicate with optional add-on wireless modules for measuring voltage / current & temperature - See page 4 for further details

SPI Software suite:
• The SPI software suite enables fast and convenient downloading of all the very latest vehicle application coverage, updates to the application guides, and new hardware updates required to keep your SPI up to date with the very latest in vehicle communication technology.
• SPI screen data can also be presented on the PC screen and printed for presentation to the customer
• PC connection is made via the USB connector

Applications updating:
• Fast and easy monthly Internet updates
• PC update notification feature on your screen to advise you when a new update is available
• Memory card option for users who do not have access to a PC

Contents:

Spare parts:
• 30550100 - SPI Handset
• 30550200 - 16pin Diagnostic Cable
• 30550300 - Legacy Harness Adaptor
• 30550400 - SPI / PC USB Cable
SPi Options:

SPi Hardware c/w full Service & Diagnostic Software 30550000

SPi Hardware upgrade package only (for users with current ACR4 subscription package) 30551000

SPi Hardware c/w Key Coding Software 30552000

SPi Hardware c/w Service, Diagnostic & Key Coding Software 30553000

N.B - SPi is supplied complete with 12 months subscription to the appropriate software package.

SPi Support:

Support is available both online and by telephone:

www.spsupport.com - for software updates, technical information and user forum

Phone 0844 5617861 for technical help & advice

---

SPi – Wireless Automotive Signal Processor ( WASP ) 30550500

Turns your SPi handset into a true live data processor!

Features:

- Communicates wirelessly with the SPi handset – up to 50m range
- Designed to measure common signals on modern vehicles
- Dual display function on SPi handset, shows live data from WASP alongside Diagnostic data from the ECU

Measures:

Voltage, Frequency, Duty Cycle (PWM), High & Low Pulse Widths (PWM) and can also be used with a suitable Amps Clamp for current measurement

- Displays Max & Min values in addition to live data readings
- Graphing function
- Auto-Ranging
- Probes and Leads included
- Battery Powered (2 x AA) with ‘Low Battery’ indication
For users of the previous generation of Sykes-Pickavant diagnostic equipment, the following accessories continue to be available:

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citroen (30 pin)</td>
<td>302122V3</td>
<td><img src="citroen_30pin.png" alt="Image" /></td>
</tr>
<tr>
<td>Fiat Lancia Alfa Romeo (3 pin)</td>
<td>30212600</td>
<td><img src="fiat_lancia_alfa_romeo_3pin.png" alt="Image" /></td>
</tr>
<tr>
<td>Ford (2/3pin)</td>
<td>30213000</td>
<td><img src="ford_23pin.png" alt="Image" /></td>
</tr>
<tr>
<td>GM</td>
<td>30211500</td>
<td><img src="gm.png" alt="Image" /></td>
</tr>
<tr>
<td>GM Multec 2 (10 pin)</td>
<td>30211800</td>
<td><img src="gm_multec_2.png" alt="Image" /></td>
</tr>
<tr>
<td>PSA (2 pin)</td>
<td>30211700</td>
<td><img src="psa_2pin.png" alt="Image" /></td>
</tr>
<tr>
<td>Renault</td>
<td>30212100</td>
<td><img src="renault.png" alt="Image" /></td>
</tr>
<tr>
<td>Rover</td>
<td>30211600</td>
<td><img src="rover.png" alt="Image" /></td>
</tr>
<tr>
<td>Toyota</td>
<td>30211900</td>
<td><img src="toyota.png" alt="Image" /></td>
</tr>
<tr>
<td>VAG &amp; Seat (3 x 2 pins) + 12v adaptor</td>
<td>30212300</td>
<td><img src="vag_seat.png" alt="Image" /></td>
</tr>
<tr>
<td>Volvo</td>
<td>30212000</td>
<td><img src="volvo.png" alt="Image" /></td>
</tr>
</tbody>
</table>
### Fiat Service Reset Tool 303690V2
- Compatible with the latest FT CAN Fiat / Alfa Romeo models e.g. Bravo, Panda, Stilo etc 2005 onwards
- Now Updated to include the latest Fiat / Alfa models:
  - Alfa Mito, Fiat 500, Fiat Punto & Grand Punto (requires Fiat Uniplex - 30215500)
- Also now includes Oil Degradation on all applicable Alfa / Fiat models

### VAG Service Reset Tool 30369100
- Compatible with the latest CAN VAG models
- Resets both STANDARD and LONG-LIFE Service Indicators
- Also resets Airbag lights

### Mercedes SBC Service Tool 30369400
- Service and replace brake system components
- Compatible with latest CAN vehicles
- Enable and Disable SBC systems
- Clear errors from the SBC system after carrying out service and repairs

### Land Rover Service & EPB Combined Reset Tool 30369500
- Compatible with CAN enabled vehicles
- Service Reset – enables Service & Inspection mode – resets the Service Light
- EPB Release – releases the cable to allow Brakes to be serviced
- EPB Reset – resets the cable if the Emergency release cable has been activated
- EPB Unjam – unjams the EPB function when the Brakes are squeaking or dragging
- Clear Codes – clears codes following emergency cable activation or Park Brake jamming

**Applications:**
- Service Reset & EPB:
  - Land Rover Discovery 3 (all models) 2005 – 09 / Range Rover Sport (all models) 2005 – 09

### VAG Park Brake Tool 30369600
- For service and Configuration settings for the EPB on VW Passat, Tiguan, Audi A4 / A5 / A6 / A8 - 2005 - 2010
- Allows the caliper to be retracted electronically, in order to change the brake pads

### Volvo Service & EPB Combined Reset Tool 30369700
- Compatible with the latest CAN enabled systems
- Covers all models with 16 pin EOBD socket
- Automatic model selection
- Resets Dashboard Service Indicator
- Resets Driver Information Module
- Opens & Closes Brake Calipers via EPB function
BluBox EOBD Advanced Data Recorder  30670100

BluBox is an advanced and fully-configurable automotive EOBD Data Recorder, and is an invaluable tool for assisting in the diagnosis of intermittent faults, engine management and economic driving parameters.

BluBox is suitable for use in any country with European specification vehicles, and can be configured in any one of 18 different languages.

BluBox is supplied with its own PC software and USB connection lead. When the software has been loaded onto a suitable PC or Laptop, BluBox can then be configured to meet the needs of the user and of the vehicle being tested.

Select the function you wish to perform and then select the parameters you wish to record. You can also select the sampling rate at which you would like to record.

BluBox is suitable for use in any country with European specification vehicles and can be configured in any one of EIGHTEEN different languages.

Select the function you wish to perform and then select the parameters you wish to record. You can also select the sampling rate at which you wish to record.

Connect to the vehicle and you can now record up to 90 hours of data. For each vehicle you wish to road test, you can select a new set of functions and parameters.

BluBox provides a signal ( buzzer ) when each event is recorded.

When a road test is complete, download the data to your PC/Laptop via the USB and review the data in graph format – you can select how many parameters you wish to view on screen at the same time.

Technical specification

- Power Supply – Via USB or EOBD connector, Internal Re-Chargeable battery Memory – 4Mbyte ( 16Mbit )
- LED device status / Acoustic Buzzer / Weight – 20gms.
- EEC Homologation – E24 / 031874
Automotive Test Meter 30052500

- Auto-ranging Multimeter
- Data hold facility
- AC Volts – 400mV, 4V, 40V, 400V, 600V
- DC Volts – 400mV, 4V, 40V, 400V, 600V
- AC Current – 400uA, 4000uA, 40mA, 400mA, 10A
- DC Current - 400uA, 4000uA, 40mA, 400mA, 10A
- Resistance - 400Ω, 4kΩ, 40kΩ, 400kΩ, 4MΩ, 40MΩ
- Frequency – 4kHz, 40kHz, 400kHz
- Temperature - -20° to +1000° C
- RPM, %Duty Cycle, Dwell Angle
- Diode test, Continuity test

Supplied with:
- Standard leads, extension leads,
- Probes, needle probes, temp coupling
- RPM clamp
- Instruction manual featuring a wide variety of Diagnostic and Component test procedures

Terminator 30041500

- For testing voltage amplitude, duty cycle and frequency (Hertz) quickly and without fear of damage to the circuit that is being tested
- Digital read out and flashing LED’s give a clear indication of the type of signal or voltage being seen, so avoiding the confusion that can often be brought about by the use of a multi-meter
- Specially designed for the testing of automotive sensor signals and voltages
- Built-in LED torch, which illuminates the area of work, thereby significantly reducing the chance of probing the wrong wire

Ideal for Testing:-
- Battery Efficiency
- Speed Sensors & Speedometer
- Ignition Circuits & Relays
- Injectors & Pressure Control Valves

The three LED lamps indicate voltage and the nine different colours represent nine levels of voltage

Battery Efficiency Check

Touch the Terminator’s probe to the battery’s positive (+) pole

CRDI Injector Diagnosis

Drive Signal wire: 0~12V Pulse Signal
Automotive Digital Multimeter

30050000

Features:
- Full control manual range selection
- Large 3½ digit LCD display
- AC/DC Voltage measurement up to 600 Volt
- DC Current measurement up to 10 A
- Tachometer function measures from 500 to 10000 rpm
- Dwell measurement from 0 to 120°
- Temperature measurement from -40°C to 1000°C
- Resistance measurement up to 2 MOhm
- Diode & Continuity Tests
- Overload protection & Auto Power-off
- Automatic Zeroing
- Low battery indicator
- Soft holster for instrument protection
- Data hold facility for ‘freezing’ of readings
- Supplied with test leads, croc clips instructions & 9 volt battery

Dual Display Autoranging

Automotive Digital Multimeter

30053500

Features:
- Fully Autoranging, Primary and Secondary display, Bargraph, Overload protection and Auto power-off.
- Large selectable 4½ or 3½ digit main display - 4 digits secondary display
- 42 segments analog bargraph
- DC Voltage measurement up to 1000 Volt
- AC Voltage measurement up to 750 Volt
- AC/DC Current measurement up to 10 A
- Tachometer function with inductive pickup measures from 30-20000 rpm
- Dwell measurement in degrees from 0- 360° or duty cycle from 0 - 100%
- Temperature measurement from -20°C to 1000°C or 0º to 1832°F (selectable ºC or ºF)
- Resistance measurement up to 40 MOhm
- Frequency measurement from 10 to 20 KHz
- Fuel Injection test measures pulse width from 0.05 to 250 mS, or duty cycle from 0 to 100%
- Oxygen Sensor test function
- Alternator test function
- Fault Code Reader & DTC Decoder
- Diode & Continuity Tests
- Overload Protection & Auto Power-off
- Backlight
- Automatic Zeroing
- Low battery indicator
- Temperature probe: Bead type K thermocouple
- Inductive Pickup for tachometer function
- Soft holster for instrument protections
- Supplied with test leads etc.

100 Amp AC/DC Micro Current Clamp Meter

30040000

Automotive & Industrial Micro Current Digital Clamp Meter-0.001A-100A
Specially designed for measuring very low current, to accuracy of 0.001 of an Amp

Features:
- Small jaw: 1.2”(W) x 0.53” (D) (300x13.4mm)
- Clamp opens up to 1/2 inch (12.5 mm)
- One rotary switch operation.
- Large 4 digit LCD display
- AC/DC Voltage measurement up to 600 Volt.
- AC/DC current measurement from 0.001 up to 100 A.
- Relative measurement
- One touch auto zero.
- Peak Hold Function
- Data Hold Function
- Resistance measurement.
- 2 readings per second sampling
- Continuity check with audible indicator.
- Protective hand guard.
- Low battery indicator.
- Auto power off.
- 50 hrs in use battery life.
- Soft carrying deluxe pouch.
- Test leads and batteries included

1000A AC/DC Current Clamp Meter

30041000

Automotive & Industrial 1000 Amp AC/DC Digital Current Clamp Meter

- AC/DC Voltage measurement up to 1000 volt
- AC/DC Current measurement up to 1000 amps

Features:
- Clamp opens up to 1 inch.
- One rotary switch operation.
- Large 4 digit LCD display
- AC/DC Voltage measurement up to 1000 Volt.
- AC/DC current measurement up to 1000 Volt
- One touch auto zero.
- Peak Hold Function
- Data Hold Function
- Resistance measurement.
- 2 readings per second sampling
- Continuity check with audible indicator.
- Protective hand guard.
- Low battery indicator.
- Auto power off.
- 50 hrs in use battery life.
- Soft carrying deluxe pouch.
- Test leads and batteries included.
Electrical Fault Finder Set 30042000

Track short and open circuits quickly and more easily. The 30042000 allows you to trace troublesome circuits and to locate faults, even when the wires are inside conduits, harnesses, or behind panels and upholstery.

Multiple applications: this professional tool will work on all kinds of circuits with voltages between 6 and 42 Volt DC, such as those found in cars, HGV’s, buses, trailers, tractors, boats, etc. With its wide working voltage range, automatic open/short detection, flexible probe and adjustable sensitivity, the 30042000 Fault Finder enables you to troubleshoot a complete array of common problems, in a wide variety of vehicles.

Short / Open Circuit Fault Finder

- 42 V Ready®: for use in the new generation of vehicles with mixed or single 42 Volt systems
- Operates on DC voltages from 6 to 42 volts
- Internally protected against power surges and overloads
- 8” flexible probe allows reaching wires in congested places
- Transmitter and Receiver LED show open or short circuit conditions
- Variable audio/visual signal provides fast and intuitive feedback on the circuit/wire proximity
- Adjustable sensitivity for all tracing situations
- No wire piercing required, non-contact technology
- Tracing of wires is made possible even inside harnesses, conduits, behind panels, under carpets, upholstery, etc.
- Transmitter has auto polarity and leads with 5 amps alligator clips.

30042000 Kit contents
- 30042100 (transmitter)
- 30042200 (receiver)
- 30042400 Circuit Tester
- Three sizes blade type fuse block connectors
- Foam padded polypropylene carrying case.
- User’s handbook.
- 2 x 9v. alkaline batteries

InteliProbe 30042600

Ideal for locating bad earths, breaks in continuity and short circuits quickly and easily

Intelligent Auto Probe for testing 6v - 24v circuits
- Energize Components
- Polarity test
- Continuity test
- Short Circuit Protection

Professional Cordless Circuit Tester 30042400

A Unique combination of features makes this one of the most productive Circuit Testers available in the market place.

- Safe to use with ECM’s, Sensors, Transducers, Airbags etc
- No ground wire or clips required
- Detects from 3 to 28 volts
- Light, Sound and Vibration to indicate voltage
- Rugged stainless steel construction
- Unique V-groove needle accessory for wire piercing
- Solid state lamp for longer lasting performance
- Long life alkaline batteries included
Range of Electrical Test Leads and Accessories, specially designed for Automotive Testing which can be used with all leading makes of Multimeters and Test Equipment

Test Leads are manufactured from Double Insulated Silicone with multi-strand copper core.
All Leads and Accessories are manufactured to IEC 1010 Rating: 1000v Cat III (fused items = 600v)
All items use standard 4mm cable sockets and are compatible with all leading makes of test equipment.

Automotive Test Lead Set 30049000

- Pair of Double Insulated Test Leads (1.2mtrs)
- Pair of Insulated Croc Clips
- Pair of Slimline Back Probes
- Pair of Cable Piercers

Double Insulated Test Leads - 1.2 mtrs 30049100
- Can be used with all standard 4mm Multimeter connectors and accessories

Double Insulated Test Extension Set - 1.2 mtrs 30049200
- Extends the working range of standard Test Leads

In-Line Fuse Links 10 amp fuse 30049300
- Connect between Test Leads & Probes / Accessories, to protect your Multimeter from accidental overload - 10 amp fuse

Insulated Croc Clips with 10 amp In-Line Fuse 30049400
- Pair of Croc Clips with built-in accidental overload protection - 10 amp fuse

Bed of Nails Insulated Clips 30049700
- Pair of ‘Bed of Nails’ type Clips, providing a high degree of grip and connectivity, particularly suited for Automotive applications

Cable Piercers 30049600
- Pair of Cable Piercers - specially designed ultra-thin wedge profile is ideal for Automotive work

Display Stand 30049900
- Selection of Test Leads & Accessories

Fuse Block Connector Set 30042500
- Allows access to the vehicle electrical circuits, via the fuse socket
- Can be used with standard multimeter probes or clips etc, to check Voltage / Current / Circuits / Components
- Three (3) sizes to fit in place of the relevant circuits fuse
- Provides easy access to circuits to energize or check electrical components and accessories

Set contents
- 2 x 925mm Leads
- 4 x 4mm male jack plugs
- 4 x 40mm croc clips
- 2 x 24mm probes
- 2 x 118mm probes
- 2 x 6mm spade connectors
**MOT VOSA Approved**

**Peace of Mind**
- UK Designed & Manufactured
- Delivered, installed & tested in 24 hours
- 3 Year Warranty

**Ease of Use**
- Large 19" screen technology, with easy to use prompt screens allowing for fast testing
- Laser A4 printer with automatic print of test results

**Latest Technology**
- Latest solid state infra red bench technology
- Remote control for ease of operation
- Automatic RPM selection allows fast ignition recognition
- Anti-flooding device on EGA to protect internal components
- Unique shut-off valve on DSM allows for on-vehicle purging and zeroing — saving time
- 3mtr Smoke sample hose allows for easy access without constant relocation

**Back-Up**
- Full ‘On Site’ Service, Calibration & Support Service
- Technical Helpline Service Available

**MOT VOSA Approved Options:**
- **SP 9400 MOT** - Exhaust Gas Petrol Emissions Tester
- **SP 6502 MOT** - Diesel Smoke Meter
- **SP 6502 ADD** - Diesel Smoke Test add-on (add to SP9400MOT)

N.B. Sykes-Pickavant MOT approved Emissions Test equipment is compatible with existing MOT equipment, previously supplied under the ‘Oliver’ and ‘Autocal’ brands.

Please ask for details concerning approved upgrade packages
5 Gas Diesel Gas Analyser  SP9550

The Sykes-Pickavant SP9550 is an OIML Class 1
5 Gas analyser matched with a unique, patented probe system, enabling diesel exhaust gases to pass through and be analysed, for the very first time!

- Diagnose Diesel Engine Faults
- Test for Harmful Gases from Diesels
- Environmental Air Quality Testing
- Cars - LCV - HGV - PSV

What can be Diagnosed from a Diesel Gas Test?
- EGR Valve blocked, or permanently closed
- EGR Valve permanently open
- Oil burning due to leaking seals / faulty turbo
- Weeping injectors
- Mechanical misfire
- Blocked air-filter
- Performance tuning
- Environmental testing

Features & Benefits
- Tests Diesel gases for Diagnostic and Environmental purposes
- Unique patented technology for removal of particulates
- Measures 5 gases, inc NOx
- Diagnose Diesel engine faults – quicker and more easily
- Test for harmful gas emissions
- Suitable for testing on all types of Diesel systems - Cars - LCV - HGV - PSV etc
- Can also be used to measure Petrol gas emissions (option)
- Technical database included
- Help-line and User Forum available

What support is available?
At Sykes-Pickavant we believe support is vital, particularly when new technology is involved. A technical help-line is available where our support team are available to discuss and advise on Diesel Diagnostic issues. Additionally, we have set up a dedicated on-line User Forum, exclusively for users of the SP9550 Diesel Gas Analyser, in order that users can both share and learn from their diagnostic experiences. Both of these services are FREE for users of SP9550.

Gas Petrol Gas Analyser  SP5550

- Specification as per Diesel EGA
- Includes SP9552 Petrol Probe
- Optional Diesel Probe (SP9551)

N.B. The gas analyser can be used in either Petrol or Diesel mode - simply attach the appropriate probe and select the relevant software

Note:
SP9553 RPM Pick-Up probe is suitable for both Petrol and Diesel applications.
For Diesel RPM Pick-Up it is necessary to use BOTH SP9553 and SP9554.

SP9555 PC Kit includes PC software and PC connecting cable serial connections only.
If the PC has only USB ports, it will be necessary to use SP9556 USB adaptor.

Accessories
- SP9551 Diesel Gas Emissions Probe
- SP9552 Petrol Gas Emissions Probe
- SP9553 RPM Pick-Up Probe
- SP9554 RPM Diesel Adaptor
- SP9555 PC Data Logging and Printing Software
- SP9556 Serial Port ( RS232 ) to USB Adaptor
- SP9557 Oil Temperature Probe

Service:
- Annual Service & Calibration contract
- Replacement Probe Filters (for particulate removal)
- Replacement Paper Filters

www.sykes-pickavant.com
A range of truly portable 4 & 5 Gas Analysers for fault diagnosis, tuning and pre-MOT testing

Features common to all models:-

- Easy to use - no need for daily reconfiguration
- Ideal for both static and dynamic testing
- Light weight - only 1.1kg - truly 'hand-held'
- Fast warm-up - only 150 seconds
- Internal memory - stores up to 250 test results manual or automatic mode
- PC compatible (using optional software)
- Long life internal battery - full 8 hours between charges (via mains or 12v)
- Multi-lingual - English, French, German, Italian, Spanish as standard
- 4 Gas models will measure CO, HC, CO2, O2
- 5 Gas models will measure CO, HC, CO2, O2, NOX
- Infra-Red Gas Bench measures the three IR gases (CO, HC, CO2)
- O2 & NOX are measured using electrochemical sensors
- Test results can be recorded either manually (by pressing the appropriate key), or automatically at timed intervals ideal for on-the-road tests so that no driver intervention is required during the test
- Provides Lambda / AFR measurement, and corrected CO
- OIML Class 1 models include RPM and Oil Temperature measurement

| Model Selection Table |
|------------------------|------------------------|------------------------|------------------------|------------------------|
|                        | OIML Class 1 Models    | Standard Models        |                        |                        |
|                        | 32424200               | 32424000               | 32423200               | 32420000               |
| Gases Measured         | 5 Gas Analyser         | 4 Gas Analyser         | 5 Gas Analyser         | 4 Gas Analyser         |
| OIML Class 1 Certificate| Yes                    | Yes                    | Yes                    | Yes                    |
| Corrected CO           | Yes                    | Yes                    | Yes                    | Yes                    |
| Measures RPM 2/4 stroke, DIS | Yes | Yes | Yes | Yes |
| Measures Oil Temperature| Yes                    | Yes                    | Yes                    | Yes                    |
| Fuel Types: Petrol / LPG / CNG | Yes | Yes | Yes | Yes |
| Exhaust Probe - Standard| Yes                    | Yes                    | Yes                    | Yes                    |
| Exhaust Probe - Stainless Steel | Yes | Yes | Yes | Yes |
| Carrying Case          | Yes                    | Yes                    | Yes                    | Yes                    |

Hand Held Exhaust Gas Analyser Accessories

Infra-Red Printer 32425000
- Compatible with the full range of Hand Held Gas Analysers
- The Gas Analyser sends results via an integral IR transmitter to the remote printer

High Temp Exhaust Probe - Stainless Steel 32427000
- For use during extended tests, or with high temperature exhausts
- Supplied as standard with 5 Gas models

RPM Clamp 32428000
- For use during extended tests, or with high temperature exhausts
- Supplied as standard with 5 Gas models

PC Software 32430000
- Links Gas Analyser to a PC to allow:-
- Display of results on PC screen
- Printing of results on PC printer
- Download of results to PC for storage

OIML Class 1 Certificates
- Yes
- Yes
- Class 1 Accuracy
- Class 1 Accuracy

Corrected CO
- Yes
- Yes
- Yes
- Yes

Measures RPM 2/4 stroke, DIS
- Yes
- Yes
- Yes
- Yes

Measures Oil Temperature
- Yes
- Yes
- Yes
- Yes

Fuel Types: Petrol / LPG / CNG
- Yes
- Yes
- Yes
- Yes

Exhaust Probe - Standard
- Yes
- Yes
- Yes
- Yes

Exhaust Probe - Stainless Steel
- Yes
- Yes
- Yes
- Yes

Carrying Case
- Yes
- Yes
- Yes
- Yes

Diagnostic applications

Using the gas analyser as a diagnostic tool enhances its use, some key faults that have an effect on gas analysis are:
1 - Rich Mixture
2 - Weak Mixture
3 - Ignition Misfire
4 - Fuel Misfire
5 - Tight Valve Clearance
6 - Incorrect Ignition Timing
7 - Incorrect Valve Timing
8 - Faulty Catalytic Converter

Spare parts:
- 32420100 Water Trap End Cap
- 32420200 Water Trap and Filter
- 32420400 Battery Charger
- 32420600 Standard Exhaust Probe & Hose
- 32420700 12v Car Adaptor Power Lead
- 32420800 Spare Filter Set (10)
**Oxygen Sensor Tester**  30045000

The Oxygen Sensor Tester & Simulator has a simple interface which enables a technician to quickly perform measurements and tests on Oxygen Sensors and to determine whether or not the sensor or wiring is defective. It is designed to be used as both, a complement for a scan tool, or as a stand alone tool in the diagnostic process.

**Applications:**
What kind of sensor can it be used with?
Zirconium, Titanium 1 Volt, Titanium 5 Volt, and dual-cell wideband Oxygen sensors.
Sensor may be heated or unheated (1, 2, 3, 4 wires or 5 for wide-band)

**Test Functions:**
• Lazy or Slow sensors are diagnosed with the simple push of a button which performs a response time test in a matter of seconds.

• Wiring can be checked out by using the simulation functions and monitoring the engine response.

• Signal output levels are displayed in real time on a fast response bar-graph.

• Closed loop performance can be monitored by the cross counts of the signal shown in a large alpha-numeric display.

• Allows testing of the sensors on or off the vehicle.

**Technical features**
• 42V Ready
• Bright and powerful LED Bar-graph as well as alpha-numeric display
• Does not require special time-consuming set-up
• Monitors and tests Oxygen Sensors On or Off vehicle
• Provides instant Pass/Fail results for the Oxygen Sensor
• Diagnoses "Lazy" sensors (Slow response) which may not always set a DTC code
• Internally protected against power surges
• High temp 16 AWG silicone test wires for durability
• Protective rubber holster

---

**Digital CO Meter**  30074500

Measures the Carbon Monoxide content of petrol engine exhaust emissions ideal for engine tuning, fault diagnosis and pre-MOT test emissions testing

• Low cost CO measurement, by internal catalytic conversion
• Internal filter system and water separator
• Displays % content of CO
• Supplied with hose (7.5m), probe, clamp, power leads (12v) and spare filters

**Technical features**
• 12v powered for workshop or mobile use
• Large, easy to read 3 digit LCD screen, measures 0 - 9.9 & for accurate readings
• Three way filtration system includes coarse and fine filters, plus automatic water separator
• Fast 60 second warm-up time
• Light weight and fully portable (4kg)
• Dimensions : 145 x 200 x 200mm

**Spare parts:**
• MT9000/F - Spare Filter Pack for Digital CO Meter
Infra-Red Laser Tachometer

Non-contact Infra-red Laser Tachometer for measuring RPM on rotating shafts, pulleys, wheels etc. Laser picks up signal from reflective tape which is placed on the rotating shaft. Accurate to 0.1 RPM and will measure up to 99,999 RPM

• Bright and powerful laser optical system allows for easy targeting of rotating shafts, wheels, pulleys, etc, even in bright daylight.
• Measurements can be obtained from safe and comfortable distances - from 5 to 50 cm.
• The large 5 digits display allows measurements without the need to switch scales or multiply reading ranges.
• Unit comes complete with batteries, reflective tape and soft carrying pouch

Dual Laser Infra Red Thermometer

A high precision non-contact thermometer with dual laser beams that are targeted on a single spot - ensuring optimum distance from object for accurate temperature measurement

• Backlit LCD display
• MAX temp display
• Automatic data hold and display resolution
• High & Low temp alarm setting
• Ideal for air con, cylinder temp, brake temp, cooling system, exhaust cat etc

Digital Diesel Fuel Pressure Sensor Tester

• Uses voltage to measure the High Pressure from the common rail pressure sensor
• Converts signal to PSI and BAR
• Pressure Range 0 - 1500 BAR
• Works on 12v supply
• Ideal for making comparative pressure tests against ECU readings and against actual rail pressure

N.B. Included in Common Rail High Pressure Test Kit (31465000)
See page 32 for details

HT Tester Sets

Set of 4 neon testers for connection between spark plugs and HT leads

• Provides a visual check for detecting HT signal
• Snap-fit connections for ease of use

Sonoscope

A super sensitive sound detector, with a built-in diaphragm which amplifies noise, for assisting in the diagnostic process. Robust metal and plastic construction, with 550mm hose, and 290mm probe

Helps to diagnose many vehicle problems, including :-
• Noisy water pumps
• Faulty wheel bearings
• Alternator and power steering problems
• Air conditioning compressor bearings
• Camshaft and crankshaft knocks
• Noisy tappets etc
Wireless Electronic Stethoscope (ChassisEAR™)

- The Wireless Electronic Stethoscope is designed for the detection of vehicle noises e.g. rattles, squeaks and air ingress under load, during a road test and for the diagnosis of a wide variety of potential faults - e.g. wheel bearings, CV joints, differentials, transmission, injectors, alternators, water pumps, AC compressors and many more……
- Can be used on cars, vans, trucks, buses etc as there are no cable length issues to overcome
- Consists of Receiver Unit, 4 x Transmitter Units (4 channels), 4 pick-up leads, pick-up fixing straps, headphones, batteries, instruction manual & storage case
- Pick-up clamps can be attached to many different parts of the vehicle in order to amplify the sounds made under load and in actual driving conditions.

N.B. – Due care and consideration should be taken of driving conditions and regulations when operating the ChassisEAR™ on the road.

Set contents
- 1 x Receiver Unit
- 4 x Transmitters (Channels 1-4)
- 4 x Pick Up Leads & Clamps
- 12 x Velcro Straps
- 12 x Plastic Straps
- 1 x Headphones
- 1 x 6 AA Batteries
- 4 x 4 AAA Batteries
- 1 x Moulded Storage Case

Deluxe Videoscope Kit 32300800

A new, high specification Videoscope, ideal for the Automotive Service market
Take and record photo and video images 2GB SD Memory card will store up to 25,000 images

- Unique 3.9mm semi-flexible probe – the smallest on the market -Ideal for internal engine inspections via the glowplug / spark plug aperture
- Unique image reversal feature (i.e. mirror image) -When using reverse mirror probe, this feature will correct the image for viewing
- Unique fully rotating 110° reverse angle mirror probe
- Zoom feature – 1.5 zoom magnification
  - Zoom can also be used in conjunction with the image reversal function
- Compact, lightweight hand-held design – 3.5" extra-wide TFT monitor
- Extra-bright LED light source with dimmer function

Supplied with :-
- SD memory card (2GB)
- AV cable for TV monitor connection and viewing
- USB cable for download of images / videos to PC
- Mains charger / adaptor and power lead
- Lens cleaning kit and protective storage case

Image Reversal Feature

Reverse Mirror Probe
Introduction to Cooling System Pressure Testing

Sykes-Pickavant has been involved in the design and manufacture of Cooling System Testers for more than 40 years and now manufactures a comprehensive range of System Testers, covering Cars, LCV’s and HGV’s, using both hand and air-pressure pumps, along with the latest addition to the range, the new Electric Cooling System Tester.

Individual vehicle System and Cap adaptors are available for all types of SP System Tester and all are inter-changeable between different models of SP System Tester, with the use of simple adaptors, which are readily available. Details of the range of System and Cap adaptors for each System Tester are shown with the appropriate model, along with a summary of kit content options which are available.

**‘316’ Series - One Man Cooling System Testing** 33169000

**Electric Cooling System Tester - Complete Set**

This latest tester turns Cooling System testing into a genuine one-man operation, as it is no longer necessary to have an assistant on-hand to check for leaks whilst the technician is operating a pump!

The Electric Cooling System Tester uses the vehicles’ own 12v. supply to operate a fast-acting pump which is automatically regulated, and has a pressure limiter with auto shut-off for safety. Most systems can be pressurised and tested in less than one minute.

The unit is supplied with a 4m power lead, and a 4m pressure hose and sits on a mobile trolley for ease of use both in and out of the workshop.

A comprehensive, 20 piece, set of Cap Adaptors (ref 33167500) is supplied with this kit, covering the majority of European and Asian applications, and these adaptors are also fully compatible with all current SP Cooling System Tester kits.

**Electric Cooling System Tester - Pump Unit Only** 33169100

Electric Cooling System Tester - Electric Pump Unit c/w Trolley and Hose Assembly

**Spare parts:**
- 33162100 Flexible Pressure Hose Assembly for Electric Cooling System Tester
- 33162300 Power Cable for Electric Cooling System Tester

**Cooling System Adaptor Set (20 piece) for Electric Cooling System Tester** 33167500

Set of 20 Cap & System Adaptors covering the Majority of European and Asian applications, for use with the Electric Cooling System Tester. All vehicle adaptors are compatible with alternative SP Cooling System Testers, via a simple adaptor supplied with this set.

**Cooling System Cap & Hand Pump Set** 33167600

A basic Cooling System Testing Set, comprising of the 20 piece set of System Connectors (33167500 - above), coupled with our standard ‘317’ series quick-connect Hand Pump (03170100)

**Cooling System Cap Set for Japanese Vehicles** 33162200

**‘317’ Series - Pump** 03170100

Featuring a self-testing metal hand pump and precision gauge, with specially designed pressure release valve for safe de-pressurising cooling systems. Ideal for detecting leaks in radiators, heater matrix, hoses, cylinder heads, engine blocks, water pumps etc.

Gauge & Hose assembly c/w quick-connect coupling

**‘318’ Series - Parts**

03180200 - Connector Hose
03180900 - 318 Pump Gauge Assembly

03182200 - Cap Connector Hose
03180700 - 318 Pump Seal and Washer Set

www.sykes-pickavant.com
## Individual Cap Adaptors for ‘316’ Series

<table>
<thead>
<tr>
<th>REFERENCE</th>
<th>DESCRIPTION</th>
<th>APPLICATIONS</th>
<th>CAP NO.</th>
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<td>CAP</td>
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<tr>
<td>33160200</td>
<td>CAP</td>
<td>Audi, Daewoo, Ford, Saab, Skoda, VW, New VW</td>
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<td>33160300</td>
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COOLING SYSTEM TESTING

‘315’ Series Cooling System Test Master Kit

The ‘315’ Series Cooling System programme from Sykes-Pickavant provides extensive coverage for both popular and less popular models and is constantly updated as new models are released. More than 30 specialist Cooling System Cap Adaptors are also available.

- All ‘315’ Series Cap Adaptors are compatible with older Sykes-Pickavant Cooling System Kits
- Master Kit of 14 Cap Adaptors for Cars & LCV’s covers 80% of the UK market
- Wide applications coverage – applications information included
- Hand Pump with Pressure Gauge
- Quick-Connect Hose for Cap Adaptors
- N.B. – Compatible with older Sykes-Pickavant Cooling System Kits & Adaptors
- Includes special adaptors which allow you to use your old style cap adaptors with this new kit

Full applications information contained within each kit. Also available online at www.sykes-pickavant.com

Optional Cap Adaptors:

| 33152700 | JAG XF+XJ/XK 2007 ONWARDS |
| 33153300 | CAMRY/CELICA 1995 ONWARDS |
| 33154300 | MERCEDES A/B CLASS |
| 33155100 | VOLVO FH12 |
| 33156800 | TOYOTA CRD, LEXUS, PRIUS |

Spare parts:

- 33150100 - Hand Pressure pump
- 33150200 - Gauge Assembly
- 33150300 - Hose Assembly
- 33150400 - Pump Seal Kit
COOLING SYSTEM TESTING

Combustion Leakage Tester 33194000
Compatible with Sykes-Pickavant Cooling System Testers ‘317’, ‘318’ & ‘319’ Series
• Diagnose cylinder head leaks by detecting the presence of CO2 in the cooling system
• Fluid colour change indicates the presence of CO2
• Variable pressure valve allows for use with motorcycles, cars, vans and HGV
• Supplied with both Standard and Sensitive Reaction Fluid, for accurate diagnosis of cooling system faults.
• Replacement Bottles of Reaction Fluid:-
  • Standard 33194200
  • Sensitive 33194400
A strong colour change from blue to yellow, using either the standard or sensitive reaction fluid, indicates the presence of carbon dioxide in a vehicle’s cooling system. Supplied with convenient wire hook for hanging under the bonnet.

Spare parts:
• 33194170 Tester Body, Valve & Gauge Assembly
• 33194500 Connector Hose Assembly
• 33195300 Set of O Ring Seals (2)
• 33195470 Glass Sight Tube only

Cooling System Speed Filler 33160000
The Air Operated Cooling System Speed Filler offers some advantages over the more traditional methods of filling:
• The system integrity can be assessed prior to filling the cooling system with coolant.
• Significantly reduced coolant wastage and mess.
• High efficiency, labour saving and cost effective.
• Uses standard workshop compressed air to generate vacuum (70 - 170 psi)
This kit enables a cooling system to be refilled quickly while eliminating the chances of an air lock. Modern vehicle design has meant that the cooling radiator is often positioned either in line with or below the top of the engine. This means the use of gravity to fill the cooling system is not always possible.
The 33160000 overcomes this issue by first forming a vacuum in the cooling system then using this vacuum to “suck” the new coolant in to the cooling system. By “sucking” the new coolant in by means of a vacuum, no airlocks can form and the speed of the refill is much increased.

Refractometer 03201000
This multi-purpose tool tests Coolant, Battery Acid and Screenwash, using an Optical prism test technique.
• Coolant - tests both propylene and ethylene based anti-freeze coolant solutions and determines the freezing point
• Battery Acid - indicates the specific gravity of the battery electrolyte
• Screen Wash - shows the freezing point of screenwash fluids
• Freezing point shown in degrees °C
Spare Part - 03201700 Spare Lens Cover for Refractometer

Antifreeze & Coolant Hydrometer 03200000
• Measures the volume percentage of Ethylene Glycol contained in the cooling system
• Safe to use from -5°C to -40°C

Antifreeze & Coolant Hydrometer 03200200
• Measures the volume percentage of Polypropylene Glycol contained in the cooling system
• Safe to use from -5°C to -40°C
‘319’ Series - Universal expansion plug system

For use with hand pump, or with airline adaptor (for HGV)
- Also compatible with ‘318’ Series threaded caps and adaptors to extend applications coverage.
- Features a self-testing metal hand pump and precision gauge, with specially designed pressure release valve for safe de-pressurising of cooling systems.
- Designed to cover three types of system test:-
  - Leak detection
  - Thermostat and thermo-switch operation
  - Temperature testing

The special patented design of the Expansion Plugs, features a tapering rubber cone to fit a variety of radiator and header tank neck diameters. With a range of just 5 plug sizes, it is possible to cover a very wide range of applications, from small cars through to commercial vehicles and heavy plant.

The Safety Retaining Clamp has been specially designed to provide added safety in certain applications, e.g. plastic expansion bottles, situations of extreme cold, or very high water temperatures, and when it is not practical to fully clean the surfaces of the aperture neck. The Safety Retaining Clamp greatly reduces the risk of the expansion clamp slipping from its fixed position, particularly under high pressure, and it is recommended to be used for all applications.

Blanking caps are also provided with the ‘319’ series System Testers, in order to perform Radiator Sealing tests, off the vehicle. Temperature testing can be carried out by using the Thermometer in conjunction with the appropriate expansion plug and by observing the change (or lack of change) in the fluid temperature and by measuring the rate of change of temperature.

### Cooling System Pressure Testing ‘319’ Series

#### Expansion Plug System Test Kit - Car Kit

- 03190100  Pump, gauge and hose assembly
- Universal expansion plugs x 3
  (applications range from 21mm to 50mm apertures)
- Safety retaining clamp
- Thermometer
- Small bayonet adaptor for Japanese vehicles

- 03191500  Optional extra : Stepped expansion plug for Mercedes
  (applications range from 27mm to 44mm)

#### Technical: 33190000 Expansion Plugs

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<th>D</th>
<th>ØA Expanded</th>
<th>ØA</th>
<th>ØB Expanded</th>
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<tr>
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<td>70 33 36 41 44 50 50</td>
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</tbody>
</table>

Note: All dimensions in millimetres

### Cooling System Pressure Testing ‘319’ Series

#### Expansion Plug System Test Kit - Commercial Kit

- 03193000  Airline adaptor and gauge assembly, for fast pressurising of large capacity systems on Commercial Vehicles and Plant equipment
- Universal expansion plugs x 2
  (applications range from 33mm to 65mm apertures)
- Safety retaining clamp
- Thermometer
- Small bayonet adaptor for Japanese vehicles

- 03191500  Optional extra : Stepped expansion plug for Mercedes
  (applications range from 27mm to 44mm)

#### Technical: 33190500 Expansion Plugs

<table>
<thead>
<tr>
<th>D</th>
<th>ØA Expanded</th>
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Note: All dimensions in millimetres
### ‘319 series - Expansion Plug System Adaptors and Connectors

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<tr>
<th>APPLICATION</th>
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<th>REFERENCE</th>
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<tr>
<td>Radiator System Connectors : 319 series - threaded connectors</td>
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<tr>
<td>No.1 Universal Expanding Connector</td>
<td></td>
<td>Expansion Plug (21 - 38mm)</td>
<td>03191100</td>
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</tr>
<tr>
<td>No.2 Universal Expanding Connector</td>
<td></td>
<td>Expansion Plug (27 - 42mm)</td>
<td>03191200</td>
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<td>No.3 Universal Expanding Connector</td>
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<td>Expansion Plug (33 - 50mm)</td>
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<tr>
<td>No.4 Universal Expanding Connector</td>
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<td>Expansion Plug (40 - 65mm)</td>
<td>03191400</td>
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<tr>
<td>No.5 Stepped Expanding Connector (Mercedes)</td>
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<td>Expansion Plug (27 - 44mm)</td>
<td>03191500</td>
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<tr>
<td>Daihatsu, Mazda, Mitsubishi, Nissan, Subaru, Toyota, Some Honda motorcycles</td>
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<td>System Connector: Small Japanese Bayonet</td>
<td>03191600</td>
<td></td>
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<tr>
<td>Cooling System Thermometer</td>
<td></td>
<td></td>
<td>03192500</td>
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<tr>
<td>Airline Adaptor &amp; Gauge Connector</td>
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<td></td>
<td>03193000</td>
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#### Technical Specifications

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Note: All dimensions in millimetres

Full Range of Expansion Plugs for Cars, LCV’s & HGV’s.

#### Contents - 33190000

<table>
<thead>
<tr>
<th>Contents - 33190000</th>
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<tbody>
<tr>
<td>03190100</td>
<td>03191600</td>
<td>03192100</td>
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<td>03192870</td>
<td>03192900</td>
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<tr>
<td>03191100</td>
<td>03191200</td>
<td>03193300</td>
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Note: 319 Series is compatible with all 318 series system connectors and adaptors.
Petrol Engine Compression Tester 31400000

Checks cylinder compression to assist in the diagnosis of faulty valves, piston rings, cylinder heads and gaskets.

Large, shock protected, easy to read dual scale gauge, for quick and accurate checks
- Pressure relief valve allows repeated cylinder tests, without removing the gauge
- Dual threads (M14 & M18) for quick and easy connection to spark plug ports

### Specification

<table>
<thead>
<tr>
<th>Specification</th>
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<tbody>
<tr>
<td>• 300mm flexible rubber hose</td>
</tr>
<tr>
<td>• M14 / M18 dual thread coupling</td>
</tr>
<tr>
<td>• Gauge scale 0 - 20bar, 0 - 190psi.</td>
</tr>
<tr>
<td>• Gauge diameter 83mm</td>
</tr>
<tr>
<td>• Gauge to DIN16005, DIN16063, BS1780 standards</td>
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</table>

Petrol Engine Compression Tester - Extra Long Hose 31402000

Similar to 31400000 Petrol Compression Tester but with extra-long flexible rubber hose for easy access to restricted plug ports
- Fitted with extra-long 460mm rubber hose
- Specification as per 31400000

Petrol Engine Compression Tester Kit 31400300

Comprehensive kit, based on the 31400000 Petrol Compression tester. Suitable for vehicles with M10, M12, M14 and M18 Spark plug threads. Supplied complete with extensions, thread chasers and service kit.

### Set contents

<table>
<thead>
<tr>
<th>Set contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Petrol Compression Tester Gauge 31400000 - 1</td>
</tr>
<tr>
<td>• Spark Plug Port extensions M10, M12, M14 (2), M18 - 5 in total</td>
</tr>
<tr>
<td>• Thread Chaser M14</td>
</tr>
<tr>
<td>• Thread Chaser M10 / M12 - 1</td>
</tr>
<tr>
<td>• Service Kit of non-return valves and O-rings - 1</td>
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</tbody>
</table>

Optional Individual Spark Plug port extensions:
- 31400200  Deep Extension M14 x 1.25 x 63mm
- 31400400  M14 Extension Set - M14 x 1.25 x 63mm and M14 1.25 x 94mm
- 31400600  Deep Extension M14 x 1.25 x 94mm
- 31400700  M18 Extension - M18 x 1.5 x 57mm
- 31400900  Extra-Long Flexible Adaptor M14 x 158mm for Ford Zetec / Duratec
- 31401000  M10 Extension - M10 x 1.0 x 57mm
- 31401200  M12 Extension - M12 x 1.25 x 57mm
- 31401100  Long reach petrol compression adaptor M12 x 380mm

Spare parts

- 31400500  Service Kit for 31400000 Compression Tester

31401100  Renault M12 extra long flexible adaptor

31400900  Ford Zetec / Duratec extra long flexible adaptor
Petrol Compression Test Set 31405000
• Quick-Release Petrol Compression test set – specially designed for deep seated spark plug ports, as found on most modern petrol engines
• Positive lock quick release connector, ensures adaptors can’t accidentally be left in the spark plug port (which would then become extremely difficult to remove with deep seated plug ports)
• Specially designed self-centering adaptors ensure minimal risk of cross threading when attempting to screw the compression adaptor in to the spark plug port. Without this feature, it would be very difficult to successfully fit an adaptor into a deep seated plug port, and would be very easy to accidentally cross thread, and potentially cause damage to the engine.

<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 10mm Universal Adaptor&lt;br&gt;• 12mm Universal Adaptor&lt;br&gt;• 14mm Universal Adaptor&lt;br&gt;• 14mm Ford Duratec Adaptor&lt;br&gt;• 20 bar Pressure Gauge Assembly with 500mm braided high pressure hose - Ref 31405070</td>
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</table>

<table>
<thead>
<tr>
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<tr>
<td>• 500mm Flexible Rubber Hose&lt;br&gt;• Gauge Scale 0-20bar - 0-190psi&lt;br&gt;• Gauge Diameter 83mm&lt;br&gt;• Gauge to DIN 16005, 16063, BS1780 standards</td>
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</tbody>
</table>

Cylinder Leak Tester 31380000
An alternative to conventional compression testers, which provides a direct indication of the location of the leak, by measuring the rate of loss of compression for individual cylinders.
• Helps to diagnose worn and broken pistons or rings, burnt and leaking valves and faulty head gaskets
• Supplied with a wide variety of adaptors to fit the majority of petrol & diesel engines, on cars, LCV’s, motorcycles, marine engines etc..
• Can be used with any additional adaptors from the Sykes-Pickavant Compression Testing range - petrol or diesel

<table>
<thead>
<tr>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Air Input Pressure: 5 bar (min) - 8 bar (max)&lt;br&gt;• Pressure Gauge Diameter: 70mm</td>
</tr>
</tbody>
</table>

Oil Pressure Test Set 31470000
Helps to diagnose worn oil pumps and engines, faulty oil pressure switches and pressure warning indicators
• Shock protected dual scale gauge, for quick and accurate oil pressure checks
• Permanently oil primed, long flexible hose, enables access to difficult to reach oil switch ports.
• Small profile, quick coupling adaptors with built-in shut-off valve for fast secure connection

<table>
<thead>
<tr>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>• 1m flexible oil primed hose&lt;br&gt;• Guage Scale 0 - 10 bar, 0 - 150psi&lt;br&gt;• Guage diameter 80mm&lt;br&gt;• Guage to DIN16005, DIN16063, BS1780 standards</td>
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<table>
<thead>
<tr>
<th>Set contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 1m Oil Primed Hose&lt;br&gt;• Oil Switch Port Adaptors x 10: R1/8 DIN 2999: M10 x1.0&lt;br&gt;1/8 x 27 NPT: M12 x 1.5&lt;br&gt;1/4 x 18 NPT: M14 x 1.5&lt;br&gt;3/8 x 20 UNF: M16 x 1.5&lt;br&gt;1/2 x 20 UNF: M18 x 1.5&lt;br&gt;90° Elbow x 1</td>
</tr>
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</table>

Optional: 31470200 2m Oil Primed Hose & Test Gauge
Diesel Engine Compression Testing - Standard Car Kit

Comprehensive test kit for both direct and indirect diesel injected engines

- Checks engine compression under cranking conditions
- Enables cylinder access through dummy injector and glow plug adaptors
- Built-in pressure relief valve enables repeat tests without dismantling
- Recently updated contents to cover the latest 2006 / 07 applications

**Specification**

- 560mm Rubber Hose
- Gauge Scale 0 - 60bar, 0 - 860psi
- Gauge Diameter 83mm
- Gauge to DIN16005, DIN16063, BS1780 standards

**Set contents**

- 31420100 Gauge and Hose Assembly
- 31473070 Elbow Connector

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>THREAD</th>
<th>LENGTH</th>
<th>DESCRIPTION</th>
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<td>GLOW PLUG</td>
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<tr>
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<td>GLOW PLUG</td>
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<tr>
<td>31422500</td>
<td>M24 x 2.00mm</td>
<td>64mm</td>
<td>INJECTOR</td>
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<td>31423570</td>
<td>M20 x 1.5mm</td>
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<tr>
<td>31425970</td>
<td>M10 x 1.00mm</td>
<td>83mm</td>
<td>GLOW PLUG</td>
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</table>

Refer to pages 28/29 for full model application details.

**Use with Optional Kit** 31420500 to upgrade for:

- HGV / Industrial / Plant applications (in conjunction with gauge 31420100)

**Spare Parts:**

- 31400500 Service Kit for 31420100 Compression Tester
- 01420500 Seals and Washers

Diesel Engine Compression Tester - Premier Car Kit

Premier Car Kit containing a wide variety of popular dummy glow plug and injector applications. Additional applications coverage :-

- Contains additional glowplug adaptors and dummy injectors, for Mercedes, VW/Audi, Land Rover and PSA applications

**Set contents**

- 31420100 Gauge and Hose Assembly
- 31473070 Elbow Connector

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>THREAD</th>
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<td>102mm</td>
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Refer to pages 28/29 for full model application details
Diesel Compression Adaptor Sets

• A new range of short sets of adaptors for Diesel Compression Testing to complement existing kits
• Suitable for all previous models of SP Diesel Compression Testers
• Each set contains the appropriate adaptors for a particular engine series, which often cover more than one manufacturer
• Applications for the full range of adaptor sets are provided with each short set

**Vauxhall / Opel & Mercedes** 31428800

- **Applications:**
  - GM Astra G,H / Corsa C / Frontera B / Meriva / Omega B / Sintra / Signum / Vectra B,C / Zafira 1.7DDTi, CDTi, Di, 2.0DTi, 2.2DTR, 3.0CDTi
  - Mercedes C, E, CLK, S, V Class / Vito / Sprinter 2.2, 2.7, 3.2 & 3.9CDi

**Nissan & Toyota** 31428900

- **Applications:**
  - Nissan Almera / Primera / X Trail 2.2DDT & 2.2DDTi
  - Toyota Avensis / Corolla / Previa / Landcruiser 2.0, 3.0D

**Ford, Fiat & PSA** 31429100

- **Applications:**
  - Citroen Berlingo / C1, C2, C3, C4, C5, C8 / Evasion / Synergie Jumpy / Dispatch / Jumper / Relay / Picasso / Xantia / Xsara 1.4, 1.6, 2.0, 2.0 16v, 2.2HDi
  - Fiat Ducato / Scudo / Ulysse 2.0, 2.0 16v, 2.2JTD
  - Ford Fiesta / Focus / CMAX / Fusion 1.4 & 1.6TDCi
  - Lancia Phedra / Zeta 2.0, 2.0 16v, 2.2 JTD
  - Mazda 2, 1.4
  - Peugeot 107 / 1007 / 206 / 206CC / 207 / 306 / 307 / 307CC / 406 / 406CC / 407 / 607 / 806 / 807 / Boxer / Expert / Partner 1.4, 1.6, 2.0, 2.0 16v, 2.2HDi
  - Suzuki Grand Vitara / Liana 1.4, 2.0
  - Toyota Aygo 1.4
  - Volvo S40 / V50 1.6

**Fiat Group & Vauxhall / Opel** 31429200

- **Applications:**
  - Alfa 146 / 156 / 147 / 159 / 166 / 1.9JTD 16v / 1.9JTD16V 16v / 2.4JTD
  - Fiat Brava / Bravo / Croma / Doblo / Cargo / Grande Punto / Marea / Mulpapl / Punto / Idea / Panda / Strada 1.3D / Multijet 1.3JTD, 16v, 1.9D / Multijet 1.9JTD & 2.4D
  - Lancia Kappa / Lybra / Musa / Thesis / Ypsilon 1.3 / Multijet 1.3JTD, 1.9JTD, 1.9 & 2.4JTD
  - GM Aglia / Astra H / Corsa C & D / Meriva / Signum / Tigra / Vectra C / Zafira 1.3CDTi, 1.9CDTi, 16v
  - Saab 9-3, 1.9TID
  - Suzuki Wagon R+ 1.3DDis

**Nissan / Renault** 31429300

- **Applications:**
  - Nissan Almera / Interstar / Kubistar / Micra / Note 1.5DCi, 2.2DCi, 2.5DCi
  - Renault Clio / Espace IV / Kangoo / Laguna2 / Master / Megane / Modus Scenic2 / Trafic / Vel Satis 1.5DCi, 2.2DCi, 2.5DCi
  - Vauxhall Movano 2.2DCi & 2.5DCi

**Ford / Jaguar** 31429400

- **Applications:**
  - Ford Fiesta / Focus / Mondeo / Transit / Connect 1.8TDDi, 1.8TDCi, 2.0DDi, 2.0TDCi & 2.4DDi
  - Jaguar 2.0D X Type
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### Diesel Compression Testing - Applications Listing & Kit Contents

#### APPLICATIONS & KIT CONTENTS

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**INDIVIDUAL OPTIONAL APPLICATIONS**

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**DUMMY INJECTORS**

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[www.sykes-pickavant.com](http://www.sykes-pickavant.com)
Diesel Engine Compression Tester 31430000

HGV / Commercial Starter Kit

A starter kit of Adaptors and Clamping plates for checking compression on both direct and indirect Commercial Diesel Injected Engines. Suitable for all types of heavy duty diesel engines - HGV, Industrial, Plant, Marine, Agricultural

**Specification:**
- Hose Assembly length: 560mm
- Gauge scale range: 0 - 60 bar, 0 - 860 psi
- Gauge diameter: 83mm
- Gauge to DIN16005, DIN16063, BS1780 standards

**Set contents**
- Injector Mandrel Set (31420500)
- Diesel Compression Gauge (31420100)

**Spare parts**
- 31400500 Service Kit for 31420100 Compression Tester

---

Diesel Engine Compression Tester Upgrade Kit 31420500

For owners of Car Application Diesel Compression Kits:-
- Injector Mandrel Set to upgrade 314200V2 or 314295V2, for HGV
- Extends applications coverage to commercial vehicles
- Also suitable for use with older generations of SP Diesel Compression kits

---

Diesel Engine Compression Tester Comprehensive HGV / Commercial Master Kit 314395V2

A comprehensive Master Kit covering the majority of HGV, Industrial, Plant, Marine and Agricultural applications

- A universal mandrel system allows the user to duplicate a wide variety of injectors
- A selection of common dummy injectors are also included

The kit is supplied with detailed applications information. For each application, the user is able to assemble the required components to create the necessary ‘dummy’ injector. The correct combination of components for each application is clearly identified in the applications & instructions booklet; with a scale diagram showing the order of assembly.

**Specification:**
- Hose Assembly length: 560mm
- Gauge scale range: 0 - 60 bar, 0 - 860 psi
- Gauge diameter: 83mm
- Gauge to DIN16005, DIN16063, BS1780 standards
- Kit supplied with comprehensive vehicle applications information book

**Set contents**
- 31420100 Diesel Compression Tester
- Dummy Injectors (7)
- Centre Pillars, Pilot Pins, Clamping Plates (3 of each)
- Collars & Shoulder Nuts (3 of each)
- Spacers, End Adaptors (6 of each)
- Special Application adaptors (2)
- Service Kit of seals and washers (1)
Diesel Injector Tester & Aspirator (DITA) 31450000

A mechanical pressure tester and aspirator, for checking the correct operation of diesel injectors

- Tests nozzle opening pressure, injector spray pattern and correct needle seating helps in the diagnosis of injector chatter and back leakage
- Suitable for testing all mechanical injectors with 12mm & 14mm screw fittings bench mounted

Safety features:
- Mechanically damped gauge, prevents over-pressurisation
- Built-in aspirator removes test fluid spray away from the operator
- Visual inspection of the injector spray pattern against the mirrored disc
- Safety viewing screen
- Universal clamp for holding injectors securely
- Reservoir level indicator (test fluid can be re-used)

Technical specifications

- Gauge Diameter - 107mm
- Gauge Scale - 0 to 400 bar / 6000 psi.
- Maximum injector diameter 70mm
- Supplied with 12mm and 14mm quick-fit injector adaptors
- Handle length - 420mm
- Clamp spread - 70mm
- H - 500mm W - 520mm D - 410mm

Tests available

- Nozzle opening pressure
- Injector spray pattern
- Injector condition and chatter
- Injector back leakage and needle seating

Special features:

- 0 - 400 bar / 6000 psi damped gauge
- 12mm and 14mm quick fit injector adaptors
- Safety viewing screen
- Atomised fluid extractor
- Injector nozzle inspection disc
- Test fluid storage and recovery system
- PCL compatible compressed air connection

Spare parts

- 31450500 Injector Pipe Assy
Common Rail Diesel (CRD) Low Pressure Test Gauge 31461000

- Low Pressure Test Gauge Set for Common Rail Diesel Systems
- An essential part of the diagnostic process is to test the pressure between the fuel tank and the high pressure pump

Includes:
- Universal connecting hoses and special 8mm & 10mm connectors for PSA & Renault
- Fuel tap and T-Connector assembly
- 10 bar Fuel Pressure Gauge assembly - 10bar / 145psi
- Relief valve and leak-off pipe for safe de-pressurisation

Common Rail Diesel (CRD) Fuel Return Flow Kit 31462000

- Diesel Fuel Return Flow Kit
- Return flow / injector leak-back tester for up to 6 cylinders
- Acrylic block with 6 graduated fuel chambers and connecting hoses
- Provides easy to read cylinder comparison due to compact block design
- Connector sets for Bosch, Delphi, Siemens & Denso systems

Individual System Connectors:-
- 31462170 - Bosch CRD adaptor set (6)
- 31462270 - Siemens CRD adaptor set (6)
- 31462370 - Denso CRD adaptor set (6)
- 31462470 - Delphi CRD adaptor set (6)

Spare parts
- 31462500 - Set of six Fuel Pipes
- 31462600 - Pipe Adaptor Set

Common Rail Diesel (CRD) Low Pressure Combined Kit 31460000

- A complete kit for Low Pressure testing on Common Rail Systems

Consists of:-
- 31461000 - CRD Low Pressure Test Set
- 31462000 - CRD Fuel Return Flow Kit

Common Rail Diesel (CRD) High Pressure Test Set 31465000

- High Pressure Test Gauge allows direct connection to the high pressure pump providing cranking pressure of the measurement of the pump
- Electronic sensor tester tests the High Pressure Sensor Signal at the sensor allowing comparison to code reader component data
- Complete with a selection of pipes and adaptors for most applications
- Connect to standard 12mm and 14mm system connectors

Set contents
- High Pressure Gauge to 1750 bar (25,000psi)
- High Pressure manifold
- High Pressure system connectors x5
Fuel Injection Pressure Test Kit for Petrol Engine Vehicles
31487500

A Universal Injection Pressure Test Kit for modern Electronic, Multi-point injection systems.
• Shock protected, fuel resistant dual scale gauge – to 10bar / 145psi.
• Relief valve for safe depressurisation
• Quick coupling adaptors and connectors
• Wide applications range :-
  - S type, 8mm plastic push-in fittings, as used on Alfa, Audi, Citroen, Fiat, Ford, GM, Peugeot, VW etc.
  - Schrader type valve test port adaptors (7/16 & 8mm) as used on Alfa, BMW, Chrysler, Ferrari, Fiat, Ford, GM, Mercedes, MINI, & Volvo etc.
  - Specialist Renault fittings for use on Renault 1.2/1.4/1.6 Petrol Engines - Clio, Twingo, Kangoo, Extra, Megane, Scenic etc.
• Optional fittings available for older models

Set contents
• Multi Point Fuel Pressure Gauge Assembly
• Rubber Fuel Hose Extensions x2
• Fuel Tap & Connector Assembly
• Specialist System Connectors x4

Combined Petrol & Diesel Fuel Injection Test Kit
31468000

A Universal Injection Pressure Test Kit for modern Electronic Multi-Point injection systems – both Petrol & Diesel in one kit.
• Shock protected, fuel resistant dual scale gauge – to 10 bar / 145psi.
• Relief valve for safe de-pressurisation
• Fuel tap and T-connector assembly
• Quick-coupling adaptors and connectors
• This kit combines the applications from both our Multi-Point Petrol engine kit and our CRD Low Pressure Diesel engine kit
• Optional fittings available to suit older vehicles

Set contents
• Multi Point Fuel Pressure Gauge Assembly
• Rubber Fuel Hose Extensions x2
• Fuel Tap & Connector Assembly
• Specialist System Connectors x4

Diesel Injection Pressure Test upgrade kit
31461500

Add to any SP Petrol Fuel Injection Pressure test kit to give Diesel Pressure Test ability

Contents
• Diesel System Connectors x4

Petrol Injection Pressure Test upgrade kit
31481500

Add to any SP CRD Low Pressure Diesel test kit to give Petrol Pressure test ability

Contents
• Rubber Fuel Hose Extensions x2
• Special Renault Petrol engine connectors x2
Fuel Injection Pressure Testing Kit for Multi-Point Systems

A universal kit which covers a wide range of both mechanical and electronic multi-point fuel injection systems, to assist in the diagnosis of common fuel injection problems.

- Shock protected and fuel resistant dual scale gauge
- Relief valve for safe depressurisation
- Fits the self-test point on modern Ford and GM vehicles
- Quick coupling adaptors and hose connections, with built-in shut-off valves for fast and secure connections
- Convenient hook for suspending the gauge assembly under-bonnet

**Specification**
- 450mm rubber fuel hose, and additional hose extensions
- Gauge scale 0 - 10bar, 0 - 145psi.
- Gauge diameter 100mm
- Gauge to DIN16005, DIN16063, BS1780 standards

**Optional Extra :**
314856V2 - Upgrade kit to allow testing on Low Pressure Single Point Injection Systems

Consists of 31487200 Low Pressure Gauge and Hose Assembly (0 - 2 bar : 0 - 30 psi) and M14 x 1.5 QR Conical Adaptor

*This upgrade, when used in conjunction with the Multi Point Kit (314800V2) provides the capacity to test a wide range of Low Pressure Single Point Systems (e.g. Bosch Mono Motronic, Magnetti Marelli Mono, Weber CFi, Bosch SPI, Rover MEMS SPI, GM Multec SPI)*

**Set contents**
- Multi-Point Fuel Pressure Gauge Assembly x 1
- Rubber Fuel Hose Extensions x 5
- Fuel Tap and Connector Assembly x 1
- Threaded Connector Sets x 4 (M8, M10, M12, M14)
- Standard System Connectors x 4
- Specialist System Connectors x 4 (Ford, GM, Fiat, Renault)

Combined Fuel Injection Pressure Testing Kit for Multi-Point & Single-Point Systems

Combines all the components required for single and multi-point testing

**Combined contents of:-**
- 314800V2 Multi-Point Testing Kit
- 314856V2 Single-Point Upgrade Kit

**Set contents**
- 31487100 Multi-Point Fuel Pressure Gauge Assembly x 1
- 31487200 Single-Point Fuel Pressure Gauge Assembly x 1
- Rubber Fuel Hose Extensions x 5
- Fuel Tap and Connector Assembly x 1
- Threaded Connector Sets x 4 (M8, M10, M12, M14)
- Standard System Connectors x 4
- Specialist System Connectors x 4 (Ford, GM, Fiat, Renault)

Individual Adaptors

- **31488000** Fuel Injection Special Adaptors - Ford EECIV Flexible Adaptor - included in standard MPI kits but available separately as an add-on for owners of older kits. **Petrol Applications**
- **31489000** Fuel Injection Special Adaptors - Renault Fuel Pressure Plastic T Connectors (2) included in standard MPI kits, but available separately as an add-on for owners of older kits. **Petrol Applications**
- **31488500** Fuel Injection Special Adaptors - Fiat / GM quick-connect - included in standard MPI kits, but available separately as an add-on for owners of older kits. **Petrol & Diesel Applications**
- **31460600** VAG PD Pump Test Adaptor. **Diesel Applications**
Vacuum & Pressure Pump Kit 01391000

A complete workshop test kit designed for a variety of Automotive Vacuum and Pressure related diagnostic tasks. Ergonomically designed hand held pump, used to generate Vacuum or Pressure.

Includes a selection of connectors for Vacuum and Pressure system testing, along with variety of fittings and accessories for the siphoning of fluids and for brake bleeding.

Large integral gauge gives clear and accurate readings
- Pressure - max. 60 psi. (0 to 4 bar)
- Vacuum - max. 30"Hg (0 to -1 bar)

Can be used to check the following:
- Vacuum Systems : MAP / EGR Valve / Brake Servo / Brake bleeding / Siphoning fluids etc
- Pressure Systems : Turbo waste gate / actuators / valve seats etc

Additional System Tests which can be carried out:
- Fuel Systems - pressure regulators
- Ignition Systems - advance and retard
- Brake Systems - bleeding
- Air Con Systems - heater control

The fittings supplied with this kit, allow access to even the smallest of vacuum pipes.

Spare parts
- 01391500 Replacement Bottles & Fittings Set

Diesel System Fuel Bleeding Kit 31463000

- For priming / bleeding of diesel fuel filters, pumps and systems
- Prime fuel pumps
- Test fuel feed system integrity using both Pressure and Vacuum
- Search for air & fuel leaks

Set contents
- 01391000 - Vacuum / Pressure pump with gauge (01391500 - Bleed bottle & accessories inc)
- 31488500 - Specialist connectors for Ford, PSA, Fiat Group (8mm)
- 31460400 - Specialist connectors for Ford, PSA, Fiat Group (10mm)
- 10006670 x2 - Standard Connection Hoses
- 03173070 - Quick release connector for vacuum pump

Diesel System Fuel Bleeding Hose Set 31463500

- A set of hoses which can be used with most commonly available Vacuum / Pressure pumps

Set contents
- 31488500 - Specialist connectors for Ford, PSA, Fiat Group (8mm)
- 31460400 - Specialist connectors for Ford, PSA, Fiat Group (10mm)
- 10006670 x2 - Standard Connection Hoses
- 03173070 - Quick release connector for vacuum pump

N.B. A suitable bleed bottle and accessory set will also be required (e.g. 01391500)
Vacuum Testing - Vacuum Gauge Test Kit 01397000

Suitable for testing a wide range of Automotive Vacuum applications. Tests vacuum related systems, including ignition, carburetors, automatic transmissions, computer systems, fuel systems etc.

**Specification:**
- Heavy duty 80mm dual scale compound gauge
- Gauge scales 0-30in Hg mercury / 1 bar, or mmHg / psi
- Supplied with a selection of suitable connectors and 1 metre of 3/16 (od) x 1/16 (id) polyurethane hose
- Complete with comprehensive instruction manual

Also suitable for bleeding brakes and checking brake servos. Identifies leaks in fuel lines, air-conditioning systems, heater cores, motorcycle and marine engine crank cases.

<table>
<thead>
<tr>
<th>Spare parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>01397270 Vacuum Hose Pipe</td>
</tr>
<tr>
<td>01397600 Pipe Connection Fittings</td>
</tr>
</tbody>
</table>

**Set contents**
- 01397500 - Vacuum Gauge Assembly x 1
- Polyurethane Hose 1/16 id (3/16 od) x 1
- Set of vacuum connectors (4) x 1

Catalyst Back Pressure / Vacuum Tester 31440000

- Measures the back pressure (or vacuum) via the Lambda Sensor socket, to indicate blocked or damaged catalytic converters.
- A blockage usually indicates a blocked or broken catalytic converter.
- Calibrated gauge scale indicates progressive pass / fail for tests at idle speed and for tests under load - coloured indication.

<table>
<thead>
<tr>
<th>Set contents</th>
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</thead>
<tbody>
<tr>
<td>31440100 Pressure Gauge and Hose Assembly x 1</td>
</tr>
<tr>
<td>Lambda Sensor Socket connectors x 2 (M12, M18)</td>
</tr>
<tr>
<td>Thread Cleaners x 2 (M12 x 1.25, M18 x 1.5)</td>
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<tr>
<td>Special Adaptor for Toyota vehicles x 1</td>
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<tr>
<td>Service Kit of seals and washers x 1</td>
</tr>
</tbody>
</table>

**Specification**
- Gauge scale = -1 to + 2 bar
- 2m heat resistant pipe for dynamic testing
- Suitable for M12 x 1.25 and M18 x 1.5 Lambda (Oxygen) Sensor sockets
- Fits most European, Asian, Japanese vehicles
- Gauge to DIN16005, DIN16063, BS1780 standards

Mityvac Hand Held Vacuum & Pressure Pumps

Choose from either:
- **Metal Bodied Pump** – Silverline Die-Cast Aluminium Vacuum & Pressure pump
- **PVC Bodied Pump** – Selectline PVC Vacuum Pump

Silverline Elite Automotive Kit MV8550

**Features:**
- Latest new model upgraded to achieve 4bar (60psi) pressure
- Dual convertor to switch from Vacuum to Pressure
- Ideal for a wide variety of diagnostic tests which require a pressure source e.g. EVAP sensors, Cooling system leak tests etc.
- Ideal for a wide variety of workshop tasks requiring Vacuum and / or Pressure e.g. diagnostics, brake bleeding, fluid transfer, evacuation, sampling, windshield repair etc.

**Kit Contents:**
- Silverline Dual Vacuum and Pressure Pump to 4bar
- NEW large 480ml Fluid Reservoir with quick connection to pump
- Selection of 12 vacuum caps
- Diagnostic Adaptor kit
- Brake Bleeding Adaptor kit
- Tubing and Tube Connectors

Silverline Dual Vacuum & Pressure Hand Pump to 4bar MV8510

- Pump with gauge only

Selectline Automotive Tune-Up & Brake Bleeding Kit MV8000

**Features:**
- Lightweight, noncorrosive and chemical resistant
- Ideal for use around delicate components and vehicle finishes e.g. Windshield repair, Brake bleeding etc.
- Ideal for Brake Bleeding and basic diagnostic checks requiring vacuum

**Kit Contents:**
- Selectline Hand Vacuum Pump
- 135ml Fluid Reservoir with transfer lid
- Selection of bleed screw adaptors & manifold plugs
- Tubing and tube Connectors

Selectline Hand Vacuum Pump MV8010

- Pump with gauge only