

## Combined Gas Analyser & Diesel Smoke Meter

SP9500MOT



### 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 ease 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

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 mis-fire
- Blocked air-filter
- Performance tuning
- Environmental testing

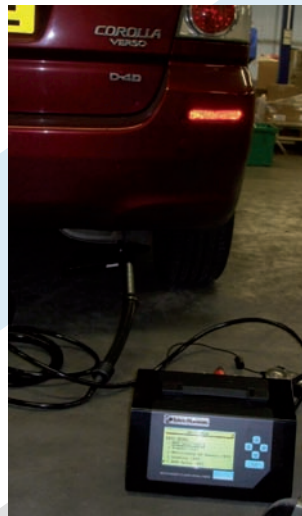
### Features & Benefits

- 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.

SP9550



## SP5550 - 5 Gas Petrol Gas Analyser

- 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

## 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

### 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

## Service:-

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

## 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 recharges (via mains or 12v)
- Multi-lingual - English, French, German, Italian, Spanish as standard
- 4 Gas models will measure CO, HC, CO<sub>2</sub>, O<sub>2</sub>
- 5 Gas models will measure CO, HC, CO<sub>2</sub>, O<sub>2</sub>, NOX
- Infra-Red Gas Bench measures the three IR gases (CO, HC, CO<sub>2</sub>)
- O<sub>2</sub> & NOX are measure 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

### 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



### Model Selection Table

	OIML Class 1 Models		Standard Models	
	32424200 5 Gas Analyser	32424000 4 Gas Analyser	32423200 5 Gas Analyser	32420000 4 Gas Analyser
Gases Measured	CO/CO <sub>2</sub> /O <sub>2</sub> /HC/NOX	CO/CO <sub>2</sub> /O <sub>2</sub> /HC	CO/CO <sub>2</sub> /O <sub>2</sub> /HC/NOX	CO/CO <sub>2</sub> /O <sub>2</sub> /HC
OIML Class 1 Certificate	Yes	Yes	Class 1 Accuracy	Class 1 Accuracy
Corrected CO	Yes	Yes	Yes	Yes
Measures RPM 2/4 stroke, DIS	Yes	Yes		
Measures Oil Temperature	Yes	Yes		
Fuel Types: Petrol / LPG / CNG	Yes	Yes	Yes	Yes
Exhaust Probe - Standard		Yes		Yes
Exhaust Probe - Stainless Steel	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



### Oil Temp Probe 32429000

- For direct Oil Temperature measurement - supplied as standard with OIML Class 1 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



### Spare Parts:

- 32420100 Water Trap End Cap
- 32420200 Water Trap and Filter
- 32420400 Battery Charger
- 32420500 Mains Power Lead
- 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 wideband)

### 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 course 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



## Digital CO Meter - Spare Parts:

- MT9000/F - Spare Filter Pack for Digital CO Meter
- 30074400 - Exhaust Probe
- 30074600 - Replacement Hose Assembly