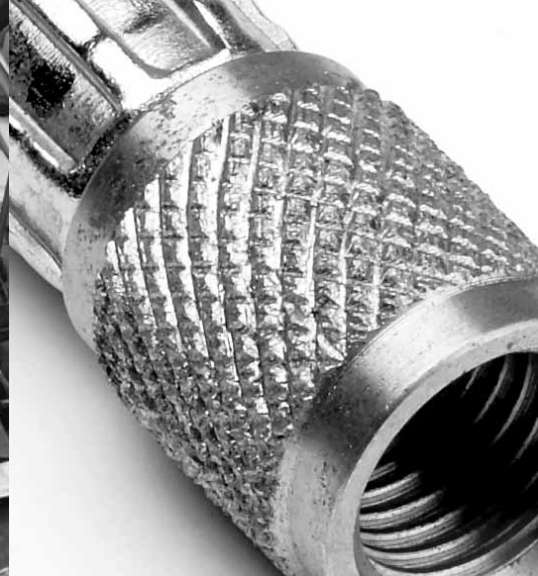


PicoScope® Automotive Accessories

- Oscilloscope Diagnostics • Kits • Current Clamps
- Probes • Cables • Hoses • Adaptors • and more



WHETHER YOU ARE AN ENTHUSIAST, WEEKEND MECHANIC, AUTOMOTIVE TECHNICIAN OR VEHICLE MANUFACTURER, OUR VEHICLE DIAGNOSTICS EQUIPMENT WILL HELP YOU TO SAVE TIME AND MONEY.

The Pico Automotive Diagnostics Kit turns your laptop or desktop PC into a powerful automotive diagnostic tool for fault-finding the increasing number of sensors, actuators and electronic circuits found on today's vehicles. Pico Technology offers a range of kits to

suit any budget, from our 2 channel standard kit which gives you all the basics, to the Advanced kit which contains everything you would need to carry out your diagnostics work. The different kits and their contents are listed below:

2 CHANNEL STANDARD KIT



4 CHANNEL STANDARD KIT



PicoScope 4223 oscilloscope
60 A current clamp
600 A current clamp
1 x red & 1 x black small croc clips
2 x Secondary ignition pick-up leads
1 x red & 1 x black dolphin clips
2 x BNC to 4mm test leads
Insulation-piercing probes
1 x red & 1 x black multimeter probes
Two-pin breakout lead
Acupuncture probe set
2 x 20:1 attenuators
USB Cable
Quick start guide
S-Hook
Carry case
Automotive software CD
Vehicle Electronics course CD

PicoScope 4423 oscilloscope
60 A current clamp
600 A current clamp
2 x red & 2 x black small croc clips
4 x Secondary ignition pick-up leads
1 x red & 1 x black dolphin clips
4 x BNC to 4mm test leads
Insulation-piercing probes
2 x red & 2 x black multimeter probes
Two-pin breakout lead
Acupuncture probe set
4 x 20:1 attenuators
USB Cable
Quick start guide
S-Hook
Carry case
Automotive software CD
Vehicle Electronics course CD

£975 \$1,608.75 €1,179.75

ORDER CODE PP494 Standard 2 Channel Scope Kit

£1395 \$2,301.75 €1,687.95

ORDER CODE PP495 Standard 4 Channel Scope Kit

OUR AWARD-WINNING AUTOMOTIVE OSCILLOSCOPES WORK WITH ANY BIKE, CAR OR TRUCK AND MAKE IT EASIER – AND FASTER – FOR YOU TO FIND FAULTS, SAVING YOU AND YOUR CUSTOMERS TIME AND MONEY

The automotive kit is based around the highly successful range of PicoScope automotive diagnostic oscilloscopes. These high resolution PC oscilloscopes connect to a USB port on your PC and can take up to 32 million samples per trace, making it possible to

capture complex automotive waveforms – including CAN bus and FlexRay signals – and then zoom in on areas of interest. Being PC-based these waveforms can then be saved to your PC for future reference, printed or emailed.

4 CHANNEL ADVANCED KIT



COMMERCIAL VEHICLE KIT



Contains all the items in the standard kit, plus:

- Extra 60 A current clamp
- 2 x Fuse extension leads
- COP probe
- 4 x Spark plug extension leads
- 2 x 60 MHz scope probes
- Set of 4 breakout cables
- Protective rubber case
- Professional carry case
- Premium test lead: BNC to 4mm blue (fixed ground)
- Premium test lead: BNC to 4mm red (removable ground)
- Premium test lead: BNC to 4mm green (removable ground)
- Premium test lead: BNC to 4mm yellow (removable ground)

£1995 \$3,291.75 €2,413.95

ORDER CODE PP537 Advanced 4 Channel Scope Kit

- PicoScope 4423 4-channel automotive oscilloscope
- 2000 A AC/DC current clamp
- 60 A AC/DC current clamp
- 4 x TA000 BNC to 4mm test leads
- 2-pin breakout lead
- 4 x 20:1 attenuator
- 8 x Multimeter probes (4 black, 4 red)
- 4 x Small crocodile clips (2 black, 2 red)
- 2 x Dolphin clips (1 black, 1 red)
- Acupuncture probe set
- 2 x Secondary ignition pickup leads
- Automotive software CD-ROM
- Vehicle Electronics Diagnostic Course CD-ROM
- Quick start guide
- Durable carry case

£1395 \$2,301.75 €1,687.95

ORDER CODE PP540 CV 4 Channel Scope Kit

All prices exclude VAT

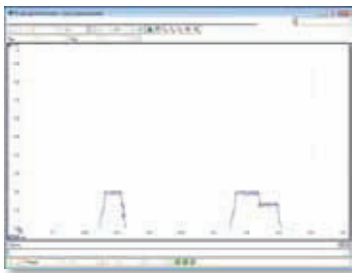
PICKED YOUR KIT? NOW MAKE SURE YOU HAVE THE RIGHT ACCESSORIES TO GO WITH IT...

The Pico range of automotive accessories are ideal for use with PicoScope automotive diagnostics kits, automotive oscilloscopes and other labscopes. Over the next few pages you will find a full list of all the accessories we offer. The items that are included in the four

kits have a colour coded circle next to them to indicate this.

- 2 Channel standard kit ● 4 Channel standard kit
- 4 Channel advanced kit ● Commercial vehicle kit

60 AMP CURRENT CLAMP

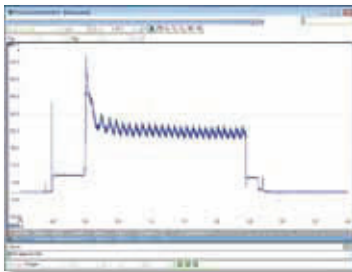


The 60 A current clamp allows you to measure current up to 60 amps in a wire without cutting, disconnecting or stripping the wire. It plugs directly into the PicoScope. When the correct preset test is selected, PicoScope shows current readings in amps.

- ● ● ● BNC 60 A current clamp PP264 £99 \$163.55 €119.79
- 4mm 60 A current clamp PP218 £80 \$132 €96.80



600 AMP CURRENT CLAMP

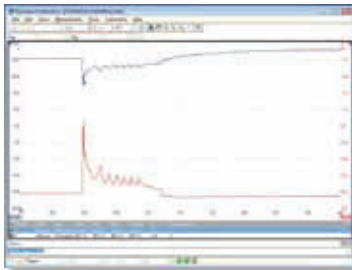


The 600 A current clamp allows you to measure current up to 600 amps in a wire without cutting, disconnecting or stripping the wire. It plugs directly into the PicoScope. When the correct preset test is selected, PicoScope shows current readings in amps.

- ● ● BNC 600 A current clamp PP266 £99 \$163.55 €119.79
- 4mm 600 A current clamp PP179 £80 \$132 €96.80



2000 AMP CURRENT CLAMP

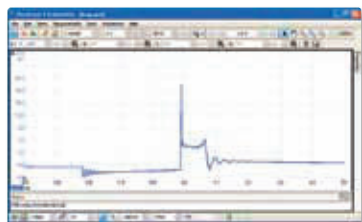


The 2000 A current clamp allows you to measure current up to 2000 amps in a wire without cutting, disconnecting or stripping the wire. Use a TA000 test lead to connect it to the PicoScope. When the correct preset test is selected, PicoScope shows current readings in amps.

- 4mm 2000 A current clamp PP253 £99 \$163.55 €119.79



SECONDARY IGNITION PICKUP



The secondary ignition pickup enables the PicoScope to measure high-tension (HT) voltages in secondary ignition circuits. It clips onto the HT lead with no need to disconnect the lead. The lead includes a ground clip that you must always connect to battery negative (earth) to prevent stray voltages from damaging the PicoScope.



● ● ● ● Secondary ignition pickup PP178 £35 \$57.75 €42.35

COIL-ON-PLUG PROBE

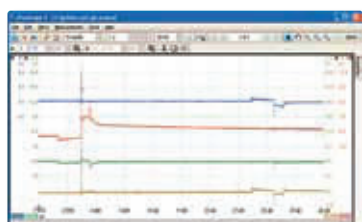


The Coil-on-Plug (COP) probe can pick up secondary ignition waveforms from most coil-on-plug or coil-per-cylinder systems where there are no exposed HT leads. The signal is displayed in PicoScope as kilovolts (kVs).



● Coil-on-plug probe only PP338 £95 \$156.75 €114.95
 ● BNC to BNC cable with ground clip TA033 £15 \$24.75 €18.15
 Coil-on-plug probe kit PP357 £105 \$173.25 €127.05

COIL-ON-PLUG PROBE EXTENSION LEADS

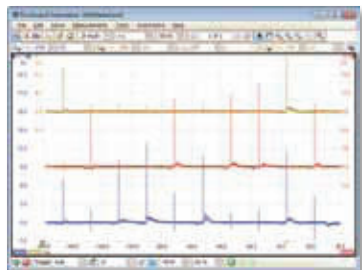


These extension leads give access to the HT (secondary) ignition circuit in coil-on-plug engines. Fit the COP Extension Lead between the coil and the plug, then place a PP178 Secondary Ignition Pickup on the lead to pick up the HT pattern on your PicoScope. Includes an earth (ground) wire to ensure safety.



● Earth wire for coil pack TA106 £7 \$24 €18
 COP extension leads each PP399 £24.99 \$41.23 €30.24
 ● COP extension leads x4 PP400 £95 \$156.73 €114.94

MIXMASTER



The Mixmaster can display up to 12 secondary ignition signals in a parade display on your PicoScope. It is supplied with 4 secondary ignition pickup leads. Additional leads are available separately.



Mixmaster PP361 £225 \$371.25 €272.25
 Extra pack of 4 short secondary ignition pickups
 PP339 £60 \$99 €72.60



INDUCTIVE PICK UP

Detects currents in injector wires, providing a cylinder ID signal for the ACE Misfire Detective software.

Inductive pick up TA032 £45 \$74.25 €54.45

ACUPUNCTURE PROBE SET



The acupuncture probes slide under the insulation of multi-plug terminals from behind the plug, allowing you to pick up signals without stripping wires or disconnecting plugs. This technique is sometimes called back-pinning. Each probe fits onto the 4-mm plug of a TA000 or similar test lead. A storage box containing spare pins and screws is included.

● ● ● ● ● Acupuncture probe set TA008 £29 \$47.85 €35.09

MULTIMETER PROBES



These probes fit all our BNC-to-4-mm test cables. They are used to make contact with exposed wires and terminals

● ● ● ● ● Multimeter probe (black) TA001 £4 \$6.60 €4.84
● ● ● ● ● Multimeter probe (red) TA002 £4 \$6.60 €4.84

LARGE DOLPHIN CLIPS



These clips fit all our BNC-to-4-mm test cables. They are used to make contact with exposed wires and terminals, including battery terminals. For smaller terminals, use the TA003 and TA004 small crocodile clips.

● ● ● ● ● Large dolphin clip (black) TA005 £5 \$8.25 €6.05
● ● ● ● ● Large dolphin clip (red) TA006 £5 \$8.25 €6.05

SMALL CROCODILE CLIPS



These clips fit all our BNC-to-4-mm test cables. They are used to make contact with exposed wires and terminals. For larger terminals, use the TA005 and TA006 large crocodile clips.

● ● ● ● ● Small croc clip (black) TA003 £3 \$4.95 €3.63
● ● ● ● ● Small croc clip (red) TA004 £3 \$4.95 €3.63

INSULATION PIERCING CLIPS



When there is no other way to get to a wire, clamp one of these on and a sharp pin pierces the insulation. Accepts 4mm plugs. Sold as a pair (1 red, 1 black)

● ● ● ● ● Insulation piercing clips TA007 £25 \$41.25 €30.25

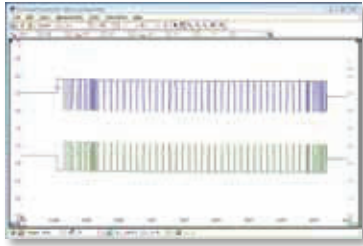
SPRUNG HOOK PROBES



These probes fit all our BNC-to-4-mm test cables. They allow you to make hands-free contact with exposed wires and terminals

Sprung hook probe (black) TA089 £4 \$6.60 €4.84
Sprung hook probe (red) TA090 £4 \$6.60 €4.84

60 MHZ OSCILLOSCOPE PROBE



This 60 MHz oscilloscope probe is used for accurately measuring fast signals like CAN bus and FlexRay. Standard BNC plug 1.2m long.

● 60 MHz oscilloscope probe
MI007 £15 \$24.75 €18.15



DIFFERENTIAL PROBE



The active differential probe lets you measure floating voltages on electric motors and generators. These probes have a bandwidth of 25 MHz, with differential voltage ranges of 700V or 1400V.

700V differential probe TA041 £195 \$321.75 €235.95
1400V differential probe TA057 £220 \$363 €266.20

4MM SHROUDED TO UNSHROUDED ADAPTORS



Converts the shrouded 4-mm (banana) plug on our test leads to an unshrouded plug for use with vehicle manufacturers' breakout boxes.

4mm shrouded to unshrouded adaptor (black)
TA016 £1 \$1.65 €1.21
4mm shrouded to unshrouded adaptor (red)
TA017 £1 \$1.65 €1.21

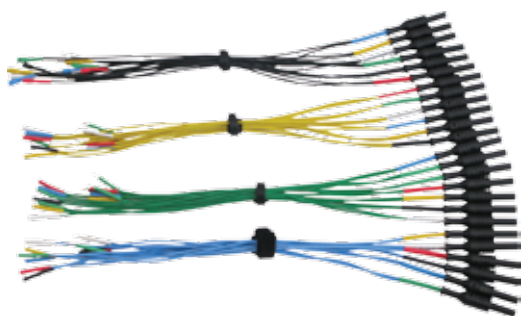
BNC PLUG TO 4MM ADAPTOR



This handy adapter converts a BNC input to two 4-mm sockets, enabling you to plug accessories equipped with 4-mm plugs into the PicoScope

BNC plug to 4mm adaptor MI078 £10 \$16.50 €12.10

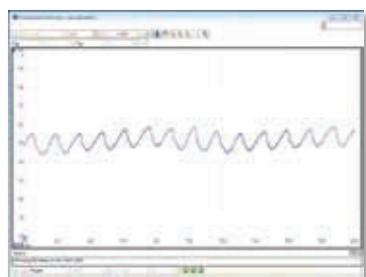
6-WAY UNIVERSAL BREAKOUT LEADS



No need to pierce insulation or back-pin connectors. Fully shrouded and insulated for safety. These breakout leads simply connect into the existing cable loom and enable voltage readings to be taken from numerous sensors in the engine compartment

- Micro 0.6mm PP609 £49 \$80.85 €59.29
- Small 1.5mm PP324 £49 \$80.85 €59.29
- Medium 2.3mm PP325 £49 \$80.85 €59.29
- Large 2.8mm PP326 £49 \$80.85 €59.29
- Breakout lead kit (S, M, L) PP327 £129 \$212.85 €156.09

FUSE EXTENSION LEADS



ATS and mini-ATS sizes for all common fuses. Use with the 60 amp clamp to measure fuse current.

- ● ● ● Fuse extension leads PP408 £29.50 \$48.67 €35.70

2-PIN BREAKOUT LEAD



For standard 2-pin sensors and actuators. With 4mm plugs to connect to PicoScope test leads.

- ● ● ● 2-pin breakout lead TA012 £25 \$41.25 €30.25

BNC TO 4MM TEST LEAD



Custom-made for automotive diagnostics. 3m and 5m long versions available. Fully screened to reduce noise pickup.

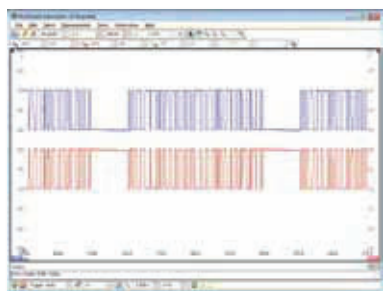
- ● ● 3m test lead TA000 £20 \$33 €24.20
- 5m test lead TA020 £30 \$49.50 €36.30

PREMIUM TEST LEADS



- Premium test lead: BNC to 4mm blue (fixed ground) TA125 £30 \$49.50 €36.30
- Premium test lead: BNC to 4mm red (removable ground) TA126 £30 \$49.50 €36.30
- Premium test lead: BNC to 4mm green (removable ground) TA127 £30 \$49.50 €36.30
- Premium test lead: BNC to 4mm yellow (removable ground) TA128 £30 \$49.50 €36.30
- Set of four premium test leads (one of each) PP718 £100 \$165 €121

CAN TEST BOX



The CAN Test Box allows you to connect your PicoScope oscilloscope, or any other compatible scope, to the 16 pin diagnostic connector enabling you to monitor any signals present, such as the CAN High and Low signals. The CAN Test Box terminal pin ports are accessible with standard 4 mm plugs.

The CAN Test Box uses numbered backlit LEDs which illuminate when signal data is present on the corresponding pin of the Data Link Connector (subject to the vehicle manufacturer's specification). Pulsing LEDs indicate signals alternating high and low.

The CAN Test Box is fitted with a 2.5 metre (8.2 feet) cable so that you can work in a convenient location away from the diagnostic connector, and an additional pass-through connector so that you can hook up your scan tool at the same time as your scope. The box is powered by the diagnostic connector, so no batteries or mains adaptor are needed.

CAN Test Box PP069 £149 \$245.85 €180.29

THE LEDs INDICATE THE FOLLOWING SIGNALS:

- | | |
|-----------------|---|
| • LED 1/9 | 485A/485B |
| • LED 2/10 | Bus+/Bus- lines J1850 |
| • LED 3/8/12/13 | Future upgrade |
| • LED 4 | Chassis GND (Ground) |
| • LED 5 | Signal GND |
| • LED 6/14 | CAN High/Low of SAE J2284 |
| • LED 7/15 | K/L Lines of ISO9141-2 and keyword 2000 |
| • LED 11 | Clock |
| • LED 16 | Batt+ (Voltage supply) |

20:1 ATTENUATOR



Increases the input range to 300 V.
For measuring fuel injector and primary ignition voltages.

●●●● 20:1 Attenuator (each) PP198 £49 \$80.85 €59.29

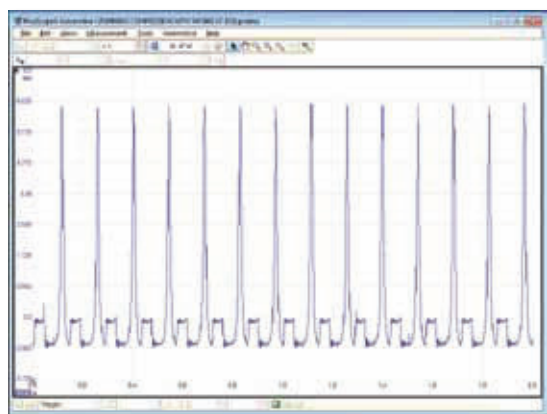
UPGRADE KIT



Transform your 2 channel kit into a 4 channel kit with leads and accessories.

Upgrade kit PP536 £995 \$1 641.75 €1203.95

WPS500X PRESSURE TRANSDUCER



With the uncompromising resolution and accuracy of the WPS500X automotive pressure transducer you can perform quick and accurate pressure analysis of many automotive systems.

- Accurately measure up to 500 psi
- Ultra-fast 100 μ s response time
- Zoom function for enhanced analysis capabilities
- Rechargeable LiPo battery
- Integrated pressure relief / bleed-off valve
- Auto zeroing
- High noise immunity
- Temperature compensated

The WPS500X features an extremely fast 100 μ s response rate from 0% to 90% of full scale and sensitivity down to about 0.07 psi (5 mbar). This provides you with an accurate representation of rapidly changing signals that span across a broad pressure range.

The product includes:

- WPS500X Pressure Transducer
- Carry case
- USB cable
- BNC to BNC cable

WPS500X pressure transducer PP652 £465 \$767.25 €562.65

WPS500X pressure transducer kit PP836 £655 \$1080 €795

KIT CONTAINS: WPS500X low pressure transducer calibrated & labelled, Carry case USB cable, Fuel hose for WPS500, large schraeder, Vacuum hose for WPS500 pressure transducer, Bleed hose for WPS500 pressure transducer, Exhaust adaptor for WPS500 pressure transducer, Compression Hose M14 for WPS500 pressure transducer BNC to BNC cable, 10mm Compression hose, Ford Triton Compression hose, Fuel hose for, Small schraeder, Universal vacuum adaptor

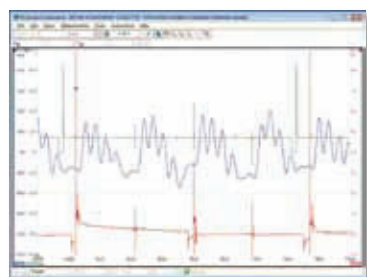
FIRSTLOOK ENGINE DIAGNOSTIC SENSOR



The FirstLook pressure sensor detects pressure and vacuum pulses in the inlet manifold and the exhaust tailpipe. When viewed on the PicoScope display, these pulses can give valuable diagnostic information. Can also be used with the TA040 ACE Misfire Detective software to automatically identify misfires

FirstLook engine sensor TA014 £269 \$443.85 €325.49

VACUUM HOSE



This hose allows you to connect to the intake manifold for vacuum testing.

Vacuum hose TA085 £10 \$16.50 €12.10



BRASS ADAPTOR



To use with the TA085 vacuum hose as a step down into different size hoses.

Brass Adaptor TA129 £10 \$16.50 €12.10

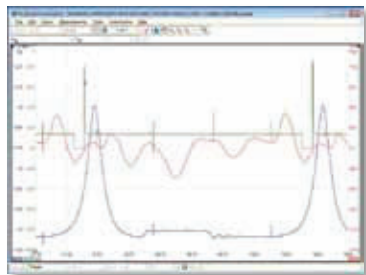
BLEED HOSE



Fits on the PP652 WPS500X pressure transducer's bleed port, allowing you to drain off fuel or oil cleanly.

Bleed hose TA086 £9 \$14.85 €10.89

EXHAUST ADAPTOR



Insert this hose into the tailpipe to detect engine misfires.

Exhaust adaptor TA087 £18 \$29.70 €21.78

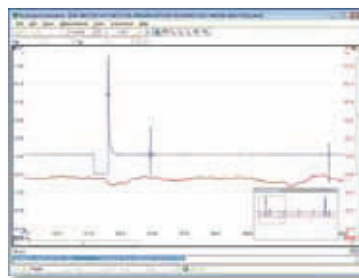
SET OF 2 FUEL HOSES

For use on fuel systems.
One TA083 and one TA117



Set of 2 fuel hoses PP794 £36 \$59.40 €43.56

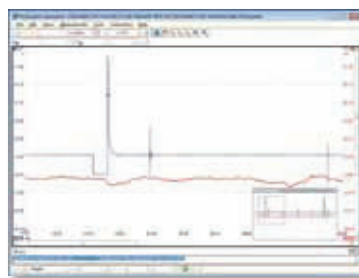
FUEL HOSE WITH LARGE SCHRADER VALVE



Enables connection to fuel systems with WPS500X
See vehicle manufacture data sheets.

Fuel hose with large Schrader valve TA083 £20 \$33 €24.20

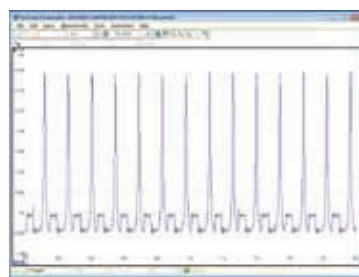
FUEL HOSE WITH SMALL SCHRADER VALVE



Enables connection to fuel systems with WPS500X.

Fuel hose with small Schrader valve TA117 £20 \$33 €24.20

HIGH STRENGTH COMPRESSION HOSES



TA104

These hoses allow the WPS500X to take the place of a compression gauge.

10mm compression hose TA103 £39 \$64.35 €47.19

14mm compression hose TA088 £39 \$64.35 €47.19

Ford Triton compression hose TA105 £39 \$64.35 €47.19

18mm compression hose TA104 £39 \$64.35 €47.19

S-HOOK



Use this S-hook to keep test leads tidy in the engine bay.

● ● ● ● S-hook MI168 £2 \$3.30 €2.42

CABLE IDENTIFIER KIT



Fit these coloured clips on both ends of your screened test leads. Helps to avoid confusion, especially when using all 4 channels of your scope.

● ● ● ● Cable identifier kit. Supplied in all kits

CARRY CASES



The hard outer shell of these cases protects your kit from the inevitable knocks and bumps of workshop life.

● ● Standard carry case PP207 £50 \$82.50 €60.50
 ● Professional carry case PP607 £99 \$163.35 €119.79
 ● Commercial Vehicle carry case PP608 £50 \$82.50 €60.50

PROTECTIVE RUBBER CASE



A rubber case to protect your PicoScope from accidental damage. The boot incorporates a hanging bracket allowing you to hang your scope under the hood.

● Rubber boot PP691 £20 \$33 €24.20
 ● Replacement hanging bracket MI254 £2 \$3.30 €2.42

PICOSCOPE POLO SHIRT



Available in

M: To fit chest size: 38-40 in/90-100cm

L: To fit chest size: 41-43 in/102-107cm

XL: To fit chest size: 44-46 in/110-115cm

2XL: To fit chest size: 47-49 in/117-122cm

Polo shirt MI257 £32.50 \$54 €39

TECHNICAL SUPPORT AND RESOURCES

TRAINING COURSES

Focusing on engine management diagnostics, our courses will show you how to get the best from the PicoScope software and diagnostics kit. The areas covered include the basic working principles of Engine Management systems, testing components and system diagnostics using oscilloscopes. Find out more about our upcoming courses and where your closest venue is by visiting our website.

LIFETIME TECHNICAL SUPPORT

Free lifetime technical support is available for all customers, whether you would like one of our team of experts to answer your query or to advise you on the best products to suit your needs.

NEWSLETTER

Keep up-to-date with the latest news, product developments and offers from Pico Technology.

To join our mailing list, visit: www.picotech.com/maillist.html.

AUTOMOTIVE TECHNICAL EXPERTS

Our team of technical experts are on hand to assist you with your purchase and answer any technical queries you may have.

FREE SOFTWARE UPGRADES

Free software upgrades for the lifetime of the product are available on our website.

WORLDWIDE SUPPORT

Our software is supplied in English, French, German, Italian, Dutch, Spanish, Hungarian and Chinese.

HELP FORUM

Our online help forum is the easy way to get advice from our dedicated team of technical experts.

ORDERING INFORMATION

We aim to despatch orders within 24 hours of receiving payment for products in stock from 9am to 5pm (Monday to Friday).

ORDERING

Pico Technology supports a network of distributors in over 50 countries worldwide who are helping to build and maintain its enviable reputation in the industry. Details of your local distributor who will be happy to help you can be found at www.picoauto.com/automotive-distributors.html

Customers from the UK and those from countries without a local distributor can also place orders direct with Pico Technology by phone, fax or secure e-commerce.

PAYMENT

We accept payment in Sterling, Euros and US Dollars. Payment is also accepted by credit card (Visa or MasterCard) or debit card (Maestro/Switch or Delta).

Please note that all sales are subject to our standard terms and conditions. Prices are believed to be correct at the time of printing but are subject to change without notice.

Please check the current Euro and Dollar prices on our website before ordering.

Errors and omissions excepted. All prices exclude VAT.

WORLDWIDE DISTRIBUTION AND SUPPORT

Pico Technology supports a network of distributors in over 50 countries worldwide who are helping to build and maintain its enviable reputation in the industry. Details of your local distributor who will be happy to help you can be found at

www.picoauto.com/automotive-distributors.html

Customers from the UK and those from countries without a local distributor can also place orders direct with Pico Technology by phone, fax or secure e-commerce.

DISTRIBUTORS IN

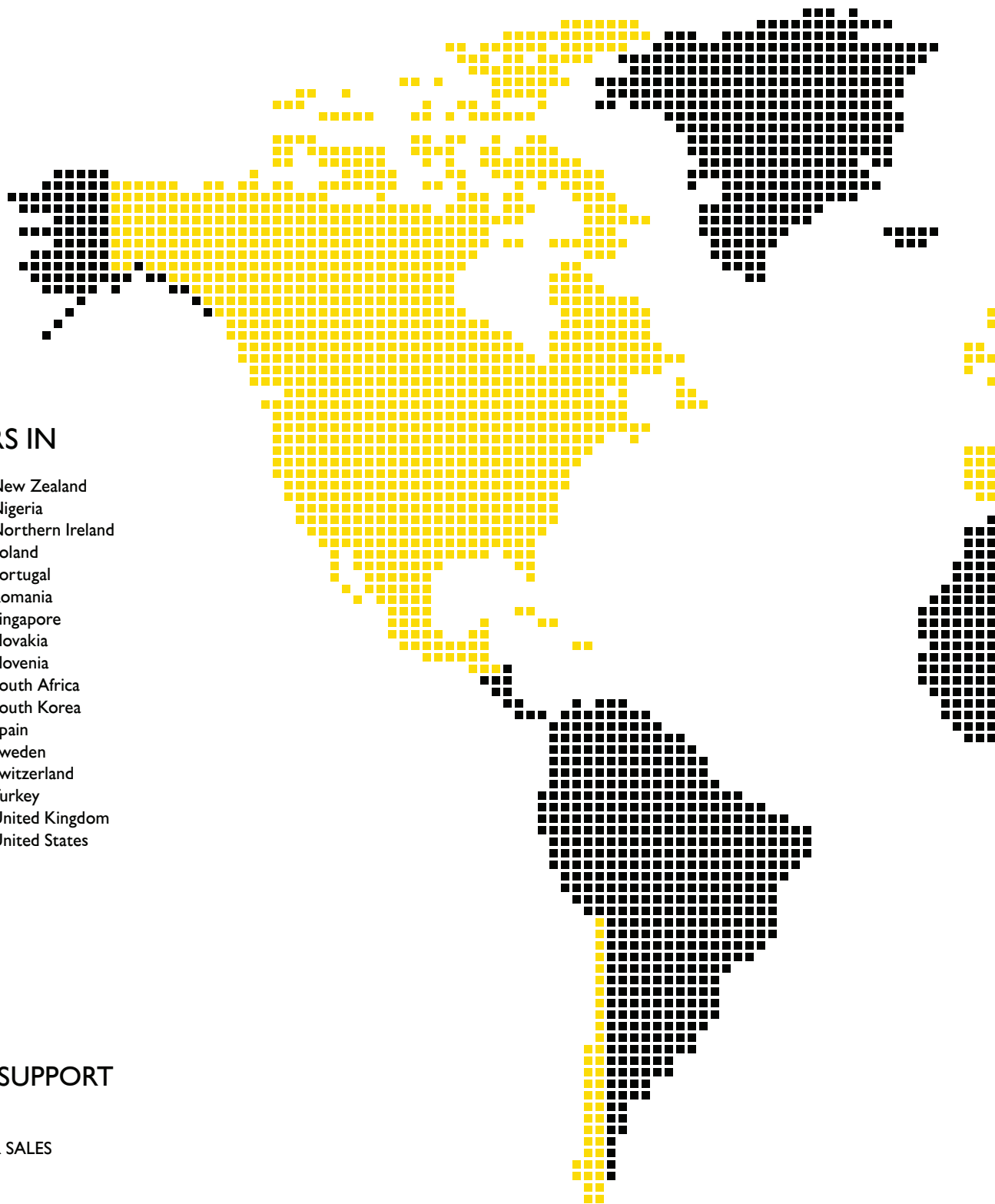
Australia	New Zealand
Austria	Nigeria
Belgium	Northern Ireland
Canada	Poland
Chile	Portugal
China	Romania
Croatia	Singapore
Cyprus	Slovakia
Czech Republic	Slovenia
Denmark	South Africa
Eire	South Korea
Estonia	Spain
Finland	Sweden
France	Switzerland
Germany	Turkey
Greece	United Kingdom
Hong Kong	United States
Hungary	
Israel	
Italy	
Malaysia	
Mexico	
Netherlands	

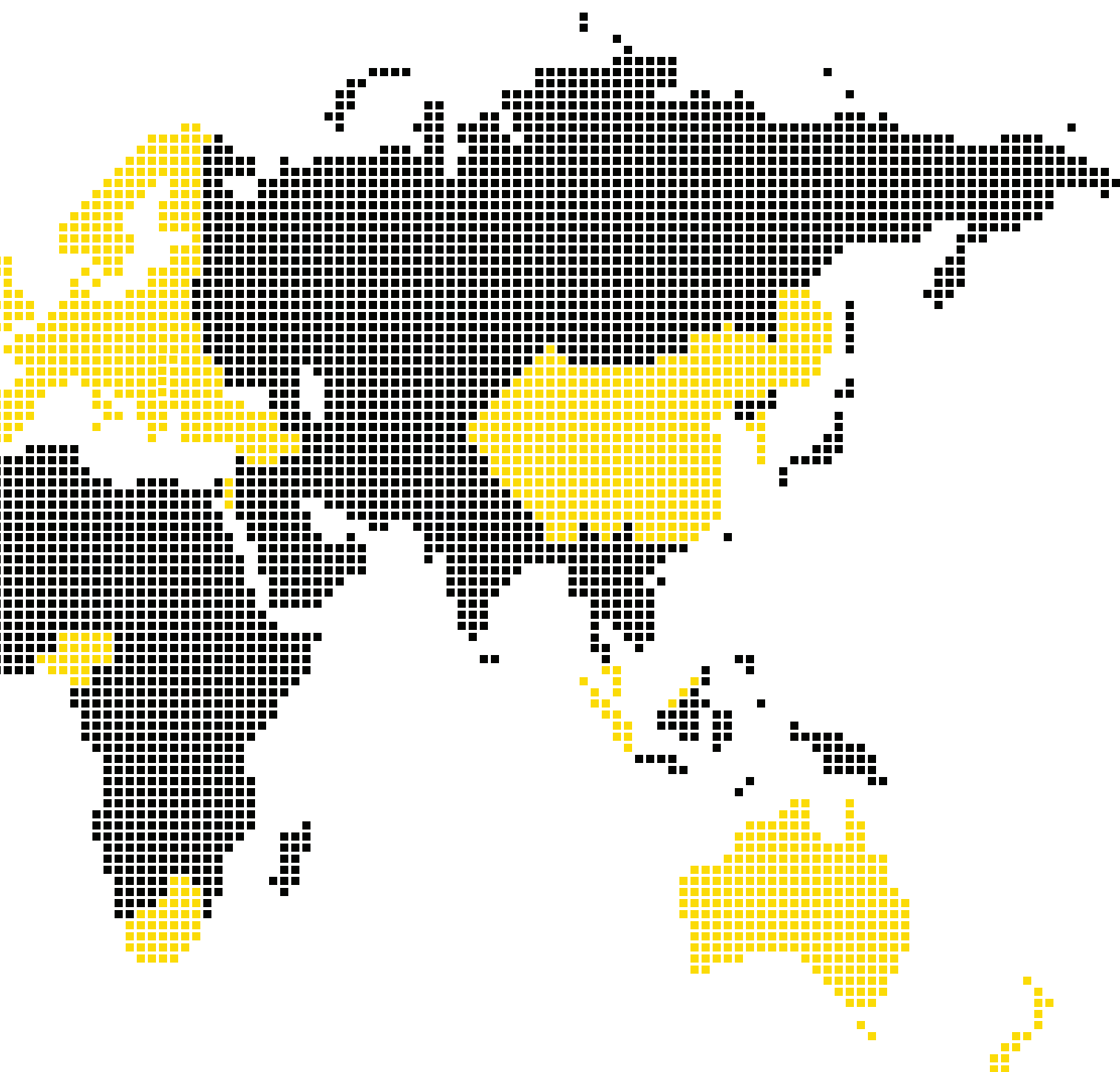
WORLDWIDE SUPPORT

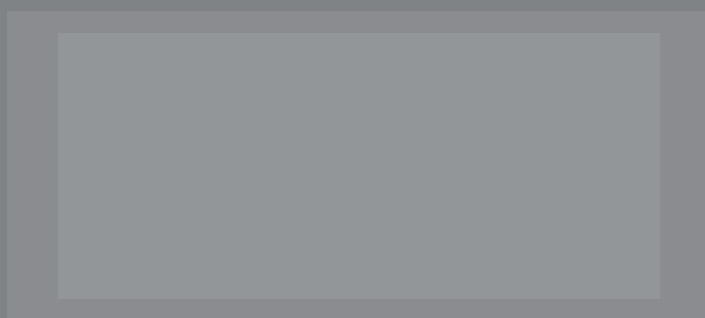
■ DISTRIBUTORS
AUTHORISED FOR SALES
AND TRAINING

■ PICO DIRECT

www.picoauto.com/automotive_distributors.html







Pico Technology
James House
Colmworth Business Park
St. Neots
Cambridgeshire
PE19 8YP
United Kingdom

Tel: +44 (0)1480 396395
Fax: +44 (0)1480 396296
E-mail: sales@picoauto.com

www.picoauto.com