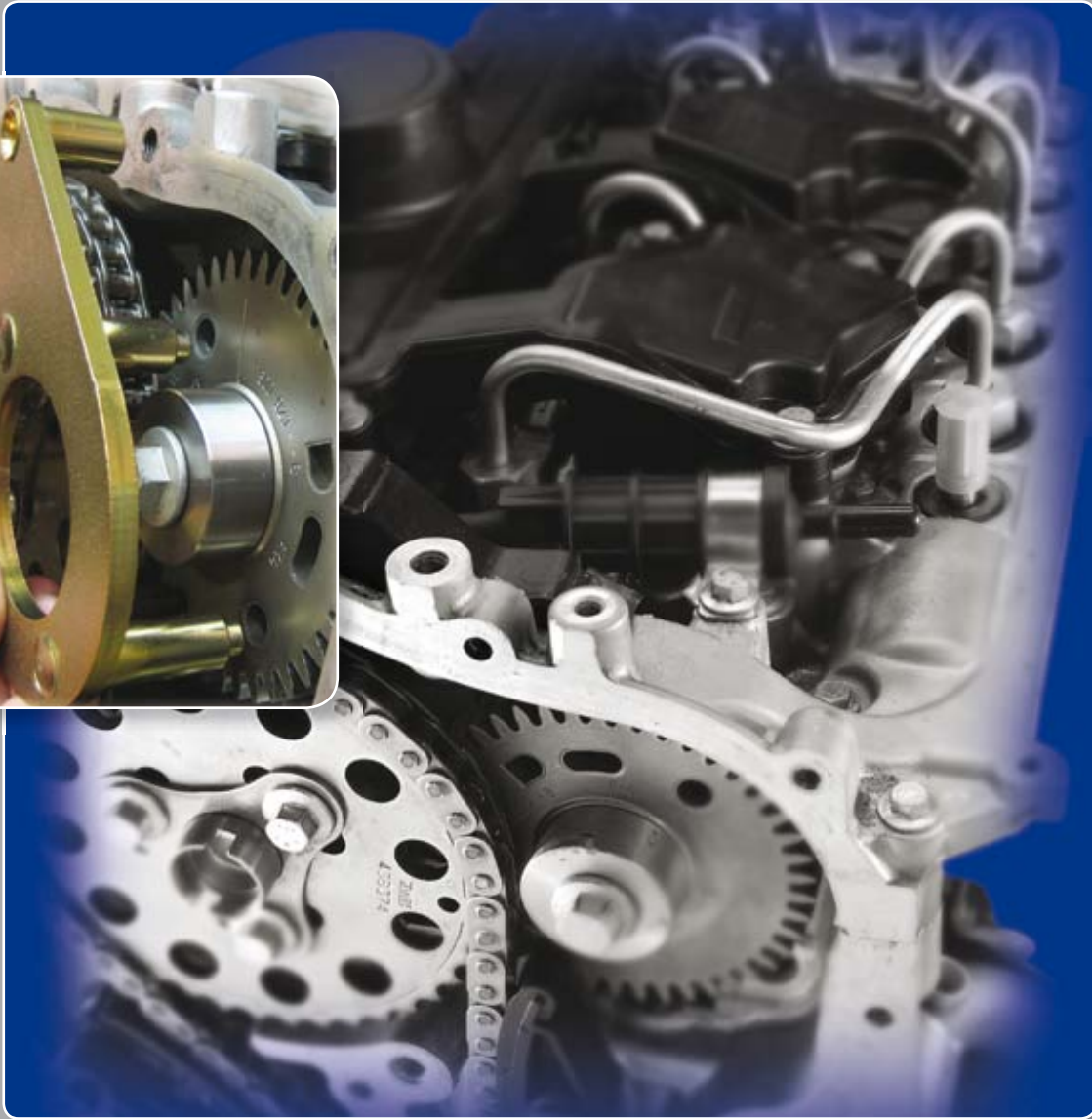




PRODUCT FINDER



Engine Timing Tools



Engine Test Kits



Specialist Sockets
& Wrenches



Undercar

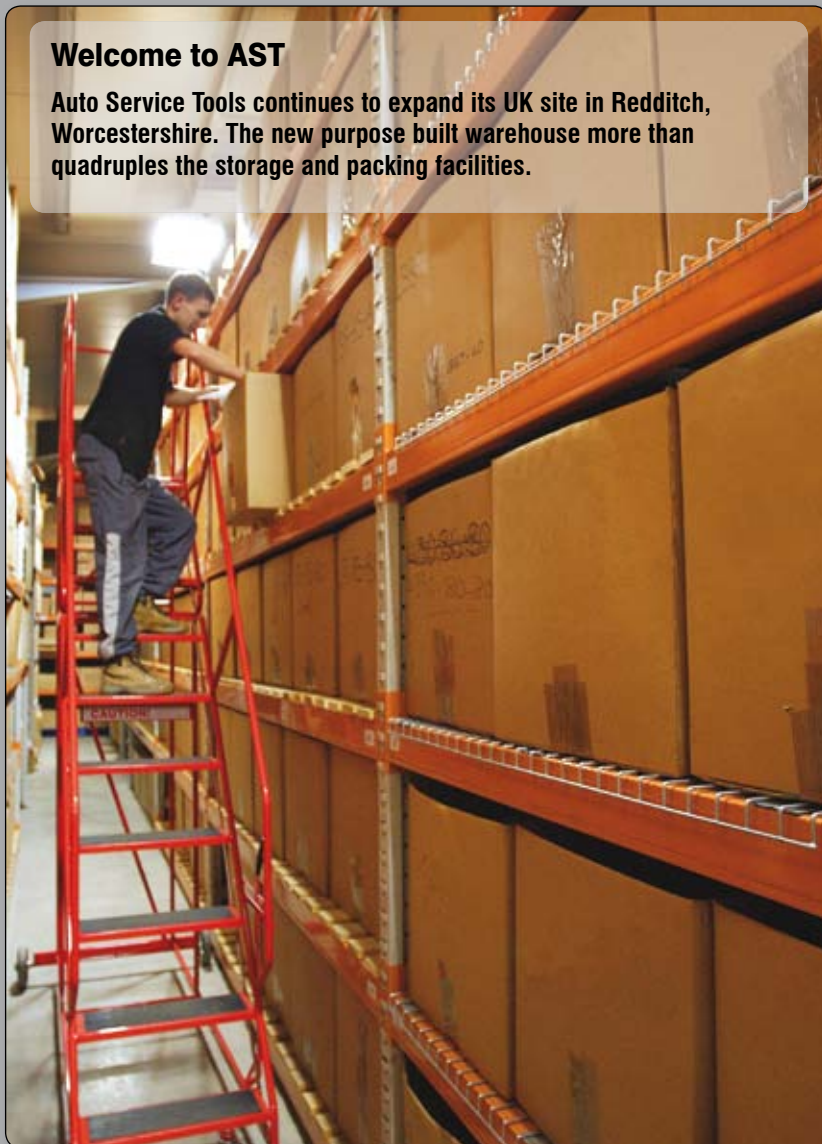


Workshop Tools

AST FEATURES

Welcome to AST

Auto Service Tools continues to expand its UK site in Redditch, Worcestershire. The new purpose built warehouse more than quadruples the storage and packing facilities.



UK Headquarters



Design & Development



Manufacturing



AST Brand & Bespoke products



Technical Support & Product Training

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including TDC Finder, Multi-Lock, Uni-Lock,
Belt Tension, Serpentine Belt, Sprocket Holding
Tools & Pulley Removers.

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applications for TWIN CAMS, DIESELS, FRENCH engines
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DIESEL ENGINE COMPRESSION/ CYLINDER LEAKAGE ADAPTOR

APPLICATION GUIDE – Comprehensive vehicle/engine
listing for test adaptors + which kits include which adaptors.

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AST Part Number Cross Reference to Vehicle
Manufacturers’ specialised service tool numbers

PART NUMBER / INDEX _____ 148 – 149

Every effort has been made to ensure that the application data
given is correct and accurate and is provided in good faith E&OE.

AST has a policy of continuous development and reserve the right to
change product specification or appearance without prior notice.

UNIVERSAL TIMING TOOLS





TDC FINDER – (Top Dead Centre)

AST5005

An essential tool for “finding” top dead centre (TDC) position on Petrol and Diesel engines during engine timing procedures and/or prior to timing pin insertion.

The “TDC Finder” locates into the spark plug / glow plug hole, and as the engine is rotated, clearly shows when the piston has achieved TDC by visible movement of the Indicator Float.

- **SAVES TIME + MONEY -**

Quickly and simply determines TDC position for engine timing.

- **UNIVERSAL APPLICATION -**

For Petrol and Diesel engines in cars & vans.

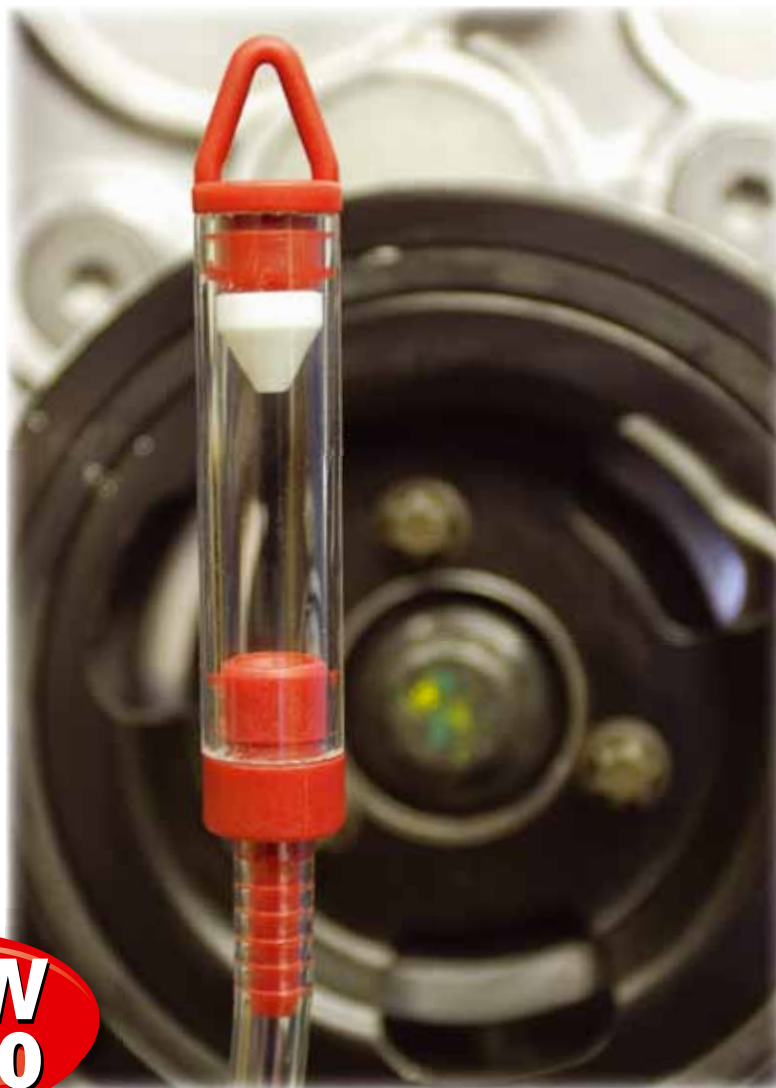
COMPLETE WITH -

- Adaptors for **8mm to 18mm** spark plug and glow plug holes.
- Extension Piece to **overcome difficult access** / reach deep seated spark plug holes.
- Magnetic attachment for **Hands Free** use.

- **DETAILED INSTRUCTIONS -**

Action Video instruction on set-up and use of the tool.

Replacement Adaptors - 8/10/12/14/18mm
+ **Extension Piece** are available as
Spares Set - AST5006.



MULTI-LOCK – Twin Cams / Quad Cams

AST4500

Universal Sprocket Locking Device for Twin Cam & Quad Cam engines.

Locks into teeth of sprockets to retain camshaft timing position during timing belt replacement.

- Great time saver – “Acts as a second pair of hands”
- Features Adjustable arms and variable pitch to provide wide engine application coverage.
- Slotted head design allows fitting on Flanged Sprockets
- Ratchet Locking Handles – lever action ensures firm fix.



With this tool you will also need . . .

Extension Bridge Piece AST4501 extends distance between Locking Arms to provide even greater application coverage.



AST4501



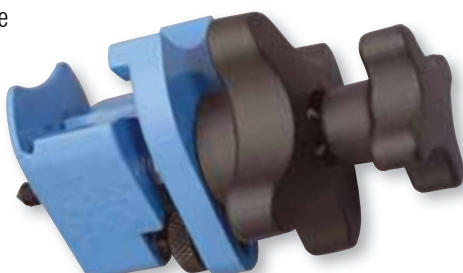
UNI-LOCK – Single Cams

AST4650

Universal Sprocket Locking Device for single cam & two cam V engines plus diesel injection pump sprockets.

Maintains camshaft/sprocket on timing marks during belt replacement applications.

- Reach for the UNI-LOCK when you need to “clamp” that sprocket in timed position.
- Super Compact design provides wide application coverage.
- Very Easy to fit – ensures sprocket stays on its timing mark.
- Time saving aid.



MULTI-LOCK / UNI-LOCK Combination Set

AST4695

A Super Universal Timing Set comprising:-

- **AST4500 Multi-Lock II** for twin cam and quad cam engines
- **AST4501 Extension Bridge** Piece for Multi-Lock II
- **AST4650 Uni-Lock** for single cam, two cam V and diesel pump sprockets

Set provides a wide ranging ‘Sprocket Locking onto timing mark’ capability on a range of engines.





Camshaft Sprocket Holding Tools

AST4394 & AST4844

Many engine timing procedures require the camshaft sprocket(s) to be 'free to turn' on the camshaft during belt tensioning or timing adjustment.

AST Sprocket Holding Tools provide a safe and correct means of counter-holding the sprocket whilst releasing and tightening the sprocket bolt/nut.



AST4394

AST4844

4 x sizes Inter-changeable Location Pins

Belt Tension Tester

AST4395A

**Simple yet effective and accurate set-up...
based on thickness of the belt.**

Tension status is clearly indicated by position of the tester plunger.

- Straightforward to use – no complicated conversions or tables
- Quickly assesses correct timing belt tension for each application
- No need to know manufacturer's specifications
- Suitable for up to **30mm** wide timing belts



Pin Set – Automatic Tensioners

AST4593

Set of 6 Spring Steel Pins for retaining tensioner plunger in 'locked-down' position whilst replacing timing belts.

- Pins are spring steel, double wound for strength,
- Pin sizes 0.80 to 1.90mm.





Auxiliary/Serpentine Belt Tool Set

AST4765

- Designed to overcome restricted working space in this area of the engine compartment.
- Long handle, incorporates a Ratchet Drive.
- Complete with 13, 14, 15, 16 & 18mm sockets PLUS 3/8" & 1/2" drives.
- Belt Remover/Installer provides reach and manoeuvrability to thread the belt around the pulley system.

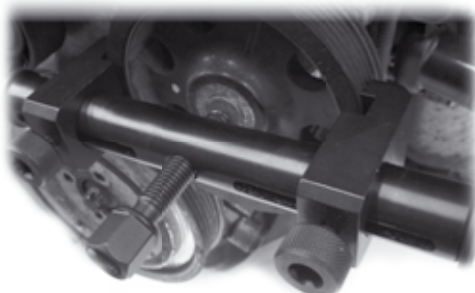


Crankshaft Pulley Remover (Ribbed Belts)

AST4969

A compact, sturdy Remover that fixes firmly onto the Ribbed Pulleys commonly found on modern car engines, and works in the limited space of the engine compartment.

- For removal of Ribbed Auxiliary Pulleys – **Crankshafts, Air Conditioning, Alternators etc.**
- Special **Low Profile** and **Jaw design**
 - works in limited space available
 - clamps securely on to pulley grooves.
- Wide range – **45 to 175mm** diameter pulleys

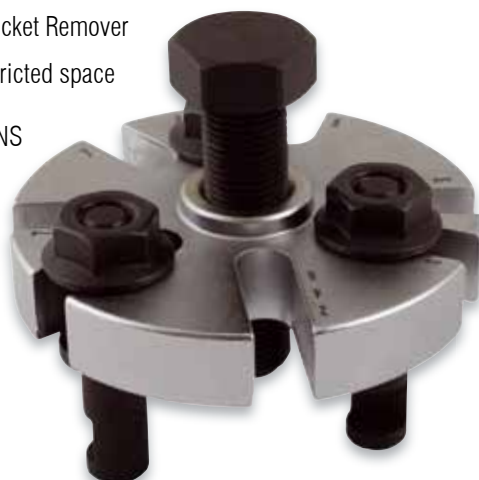


Multi-Position Camshaft Sprocket Remover

AST4989

A quality, Universal Sprocket Remover, designed to provide numerous fixing positions and diameter configurations to fix into the sprocket spokes or holes.

- Super **MULTI-POSITION** Sprocket Remover
- Compact design for use in restricted space
- Legs adjust to MULTI-POSITIONS providing **9 different configurations** to fit into Spokes or Holes commonly found on camshaft and other sprockets.



VEHICLE SPECIFIC
& MULTI-MARQUE
TIMING TOOLS

Quick Finder

Page layouts to help you find the Vehicle Specific Timing Tools you need . . .

Working down this sequence makes it easy to find the part number of the tools required.

1 Vehicle Maker
(in alphabetical order)

CHEVROLET (Daewoo) TIMING TOOLS

Petrol Tensioner Adjuster -Water Pump (Belt)

ASTV501A

Models:

Kalos (04-07) Rezzo (04-07)
Lacetti (04-07) Nexia (95-97)
Nubira (97-07) Lanos (97-03)
Tacuma/

Engines:

1.4 A14SMS, F14S3 **1.5** A15DM, A15SMS,
A15MF
1.4 16v. F14D3 **1.6 16v.** A16DM, A16DMS,
F16D3



2 Engine Fuel
Petrol (Green)
Diesel (Blue)

CHRYSLER-JEEP TIMING TOOLS

Diesel 2.5CRD (Belt)

NEW

AST4945

Models:

Voyager (01-07)
Grand Voyager (01-07)

Also for LDV Maxus

Engines:

2.5CRD
R2516C

Includes Balancer
Shaft Locking Pins



3 Main Heading
Engine Size or Group

4 Models
(Year covered by tools)

Diesel 2.1D Turbo (Belt)

AST4390

Models:

Wrangler (88-95)
Cherokee (84-95)

Also for RENAULT diesels

Engines:

2.1D Turbo
J8S



5 Engine Code

Petrol 1.8 / 2.0 / 2.4 Crankshaft Pulley R & I (Belt)

AST4745

Models:

Neon (95-04) Voyager (94-07)
Stratus (94-01) Grand Voyager (94-07)
PT Cruiser (00-07)

Engines:

1.8, 2.0, 2.4
ECB,
ECC,
EDZ

With this set you will also need . . .

**Crankshaft Pulley
Remover**

AST4842



Tensioner Locking Pin Set
(Automatic Belt Tensioners)

AST4593



Set Comprises- Remover Adaptor
(for use with AST4842 Pulley
Remover) and Pulley Installer.

6 Additional Tools . . .
which are required to effectively
cover this engine timing application

7 Product Reference

Petrol USA Chrysler (Belt) 2.2 / 2.4 / 2.5 / 2.5V6 / 3.0V6

AST4645

Models:

Chrysler
Dodge
Eagle
Plymouth

Kit also covers U.S. models - Acura, Honda,
Hyundai, Isuzu and Mitsubishi
Tools also included in U.S Multi-Marque
Timing Kit AST4660 - see page 49.



www.asttools.co.uk

HELPLINE: +44 (0)1527 528848

11

Technical Helpline



AST Technical and Product Support Staff have many years of practical experience within the Automotive Industry and are directly involved in the development and testing of the products.

If you need any help in identifying the AST product you need or advice on a particular application relating to our tools . . .

Please contact us on the HELPLINE or by fax or email.

HELPLINE: +44(0)1527 528848

Fax: +44(0) 1527 517174 email: sales@asttools.co.uk

**We are here
to help you**

Petrol Twin Spark 1.4 to 2.0 16v. / 2.0JTS (Belt) AL-Fi System

AST4910

The **AL-Fi** System has been developed by AST to offer a universal and flexible solution to camshaft timing on ALFA ROMEO and FIAT 16v. engines.

Engine timing and belt replacement on this range of engines requires the camshafts to be 'set' in their 'timed' positions by use of Camshaft Setting Plates fixed on the engine in place of designated bearing caps at specified cylinder locations.

The **AL-Fi** concept is based on Universal Support Blocks (one for all inlet camshafts and one for all exhaust camshafts), on to which a range of inter-changeable Setting Plates can be mounted.

Each group of Setting Plates cover a range of engines thus avoiding the need for lots of single dedicated 'engine specific' camshaft plates

The initial application range can be easily expanded simply by adding further Setting Plate Sets covering more models and engines as the need arises.



Wide application coverage
based on AL-Fi
Universal Camshaft
Setting Plate System

Models:

145 (96-01)	166 (98-07)
146 (96-01)	Spider (95-06)
147 (01-09)	GTV (98-06)
155 (95-98)	GT (04-09)
156 (97-06)	

Engines:

1.4 16v.TS	1.6 16v.TS (105CV)	1.6 16v.TS (120CV)	1.8 16v.TS	2.0 16v.TS	2.0 JTS
335.03	372.03	321.02	322.01	162.01	932A2.000
		321.03	322.05 (156)	323.01	937A1.000
		321.04	671.06	323.10	
		676.01		341.03	
				363.01	
				672.04	



With this kit you will also need . . .

AST4519

**TDC Positioning Tool –
All engines**
(Requires suitable DTI
such as AST3054-10)

AST4519



AST4528

**Flywheel Holding Tool
(Crank Pulley removal)
2.0JTS engines**

AST4528



AST4774

**Twin camshaft/JTS engines
Removal/ Installation of
Variable Valve/Camshaft
Timing Unit "Variator"**

AST4774





Petrol 1.8 16v (Belt)

AST4995

Models:
159 (05-09)

Engines:
939A4.000

Also for VAUXHALL/OPEL
and FIAT models



Petrol 2.5 / 3.0 24v. V6 (Belt)

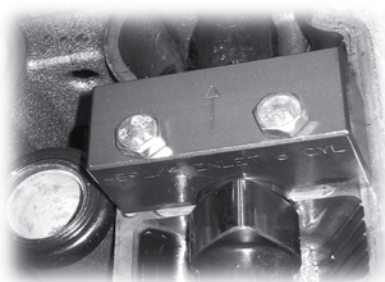
AST4590

Models:
156 (97-06)
166 (98-07)
GTV (96-04)

Engines:

2.5 V6	3.0 V6
324.01	161.02
324.05	161.05(GTV)
342.01	343.01
362.01	361.01

For 3.2 V6 see Kit AST4890



With this kit you will also need . . .
AST4519, AST4892 and AST4394 (see below for details)

Petrol 3.2 24v. V6 (Belt)

AST4890

Models:
147GTA (02-09)
156GTA (02-05)
166 (05-08)
Spider (03-06)
GTV (03-06)
GT (04-09)

Engines:
3.2 V6
932A.000
936A.000

For 2.5 & 3.0 V6
see Kit AST4590



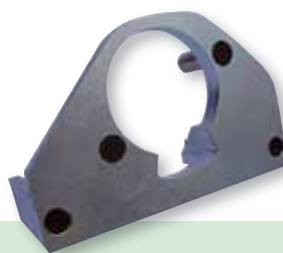
With both AST4590 & AST4890 kits you will
also need . . .



AST4519 TDC Positioning Tool
(Requires suitable DTI such as
AST3054-10)

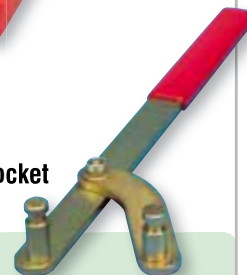
AST4519

**AST4892
Crank Pulley
Holding Tool**
Pulley has
HIGH TORQUE
LOADING



AST4892

**AST4394
Camshaft Sprocket
Holding Tool**



AST4394

Petrol ALFA – FIAT Combination Kit (Belt)

AST4970

Wide application coverage based on AL-Fi Universal Camshaft Setting Plate System

The complete Engine Timing and Belt Replacement Tool Kit for the full range of ALFA ROMEO Twin Spark/JTS 16v. (Belt) and FIAT 1.8 16v. + 2.0/2.4 20v. (Belt) petrol engines.

Utilises the **AL-Fi Universal System** for Camshaft Setting and includes all the Crankshaft and Belt Tensioner Tools required for timing applications on this large range of engines.

ALFA ROMEO

Models:

145, 146, 147, 155, 156, 166, Spider/GTV, GT
1.4, 1.6, 1.8 & 2.0 Twin Spark + 2.0JTS engines

Engines:

162.01, 321.02, 321.03, 321.04, 322.01, 322.05(156), 323.01,
323.10, 335.03, 341.03, 363.01, 372.03, 671.06, 672.04, 676.01,
932A2.000 and 937A1.000

FIAT

Models:

Punto, Brava/Bravo, Marea/Marea Weekend, Barchetta,
Coupe, Stilo. 1.8 16v., 2.0 and 2.4 20v. engines

Engines:

175A3.000, 182A1.000, 182A2.000, 182B3.000, 182B7.000, 183A1.000, 183A6.000,
188A6.000, 192A2.000 and 192A4.000



With this kit you will also need . . .

a suitable DTI such as **AST3054-10** for use with the TDC Positioning Tool



AST3054-10

Diesel 1.9JTD(M) / 2.4JTD (Belt)

AST4850

Models:

145 (98-01)
146 (98-01)
147 (01-09)
156 (97-08)
159 (05-09)
CrossWagon (04-08)
166 (98-08)
GT (04-09)
Brera (05-09)
Spider (06-09)

Engines:

1.9JTD 8v.	1.9JTD 16v.	2.4JTD 10v.	2.4JTD 20v.
323.02	192A5.000	325.01	841G.000
371.01	192B1.000	342.02	841H.000
182B9.000	937A4.000	362.02	841M.000
937A2.000	937A5.000	839A6.000	939A3.000
937A3.000	939A2.000	841C.000	939A9.000
939A1.000	939A8.000		
939A2.000			
939A7.000			

**Also for FIAT
and LANCIA models**

Coverage Includes latest
**16v. 1.9JTD(M)
& 20v. 2.4JTD**



AUDI – see VOLKSWAGEN Timing Tools PAGES 72-80



Petrol 1.6 N40 / N45 / N45T (Chain)

AST4870

Models:

116i. E81/E87 (03-09)
316i. E46/E90 (01-09)
316Ci. E46 (01-06)
316ti. E46 (01-05)

Engines:

N40 / N45 / N45T
B16
B16A
B16AC



With this kit you will also need . . .

To carry out removal & installation of the Timing Chain Assembly and related service work you will also need Timing Chain Service Tool Set **AST5045**

AST5045

Petrol 1.6 to 1.9 s.o.h.c. M43 (Chain)

AST4146

Models:

316i. E36/E46 (93-04)
316i. Compact E36 (98-01)
318i. E36/E46 (93-01)
518i. E34 (94-96)
Z3. 1.8/1.9 E36 (96-03)

Engines:

M43
16 4E 2
16 4E 3
18 4E 2
19 4E 1

**Kit also covers
BMW M40 (Belt)
engines (-93)**



Petrol 1.8 & 2.0 N42 / N46 / N46T (Chain)

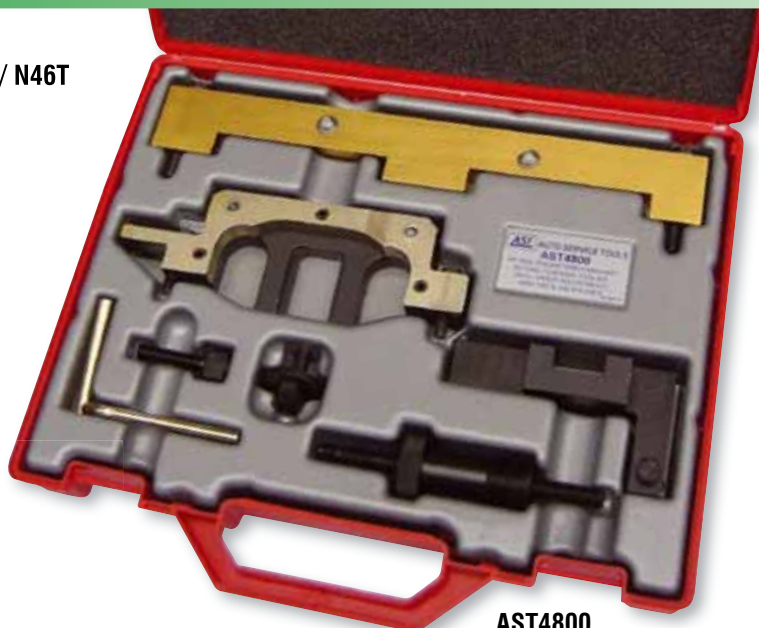
AST4800 / AST4815

Models:

118i. E87 (04-09)
120i. E87 (04-09)
316i. E46 (01-05)
316ti. Compact E46 (01-05)
318i. E46 (01-07)
318ti. Compact E46 (01-05)
318i. E90 (05-08)
320i. E90 (05-08)
520i. E60 (04-08)
Z4. 2.0 E85 (04-09)
X3. 2.0i. E83 (05-09)

Engines:

N42 / N46 / N46T
B18
B18A
B20
B20A
B20B



AST4800
Engine Timing,
including VANOS alignment

Overhaul of
VALVETRONIC
SYSTEM



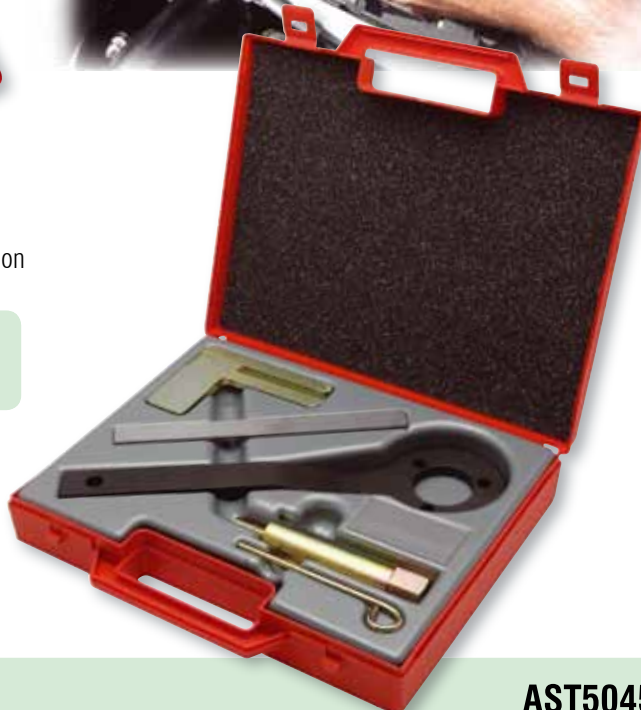
AST4815
Camshaft/Carrier Bracket Removal and Installation

AST4835 Combination Set
1 each AST4800 and AST4815



With these kits you will also need . . .

To carry out removal & installation of the Timing Chain Assembly and related service work you will also need Timing Chain Service Tool Set **AST5045**



AST5045



Petrol 1.8 to 3.0 Twin Cams (Chain) M42 / M44 / M50 / M52 / M52(TU) / M54 / M56

AST4425

Models:

318iS. E36 (92-99)
318ti. Compact E36 (94-01)
320i. E36/E46 (92-07)
323i. E36/E46 (95-01)
325i. E36/E46 (92-07)
328i. E36/E46 (95-01)
330i. E46 (00-07)
520i. E39/E60 (96-05)
523i. E39 (96-00)
525i. E39/E60 (00-05)
528i. E39 (96-00)
530i. E39/E60 (00-05)
728i. E38 (94-02)
730i. E65 (02-05)
Z3. (E36) 1.9-3.0 (96-03)
Z4. (E85) 2.2-3.0 (03-06)
X3. (E83) 2.5-3.0 (03-07)
X5. (E53) 3.0 (99-07)

Engines:

M42 / M44 / M50 / M52 no VANOS (VVT)

18 4S 1
19 4S 1
20 6S 2 (Early)
25 6S 2 (Early)

M50 / M52 Single VANOS (VVT) variants

20 6S 2(Later)
20 6S 3
25 6S 2(Later)
25 6S 3
28 6S 1

M52(TU) / M54 / M56 Twin VANOS (VVT) variants

20 6S 4
22 6S 1
25 6S 4
25 6S 5
28 6S 2
30 6S 3

**AST4425 must
be used with
AST4895 Kit**

**AST4425 must be
used with AST4312 Wrench**



AST4425

+ With this kit you will also need . . .

For engines with Twin VANOS (VVT) Units

AST4895 Twin VANOS Timing Tool Set

For BMW M52(TU) / M54 / M56 engines.

Essential for dismantling, assembly
and timing of Twin VANOS Unit.

See AST4425 for models/engine
applications.



AST4895

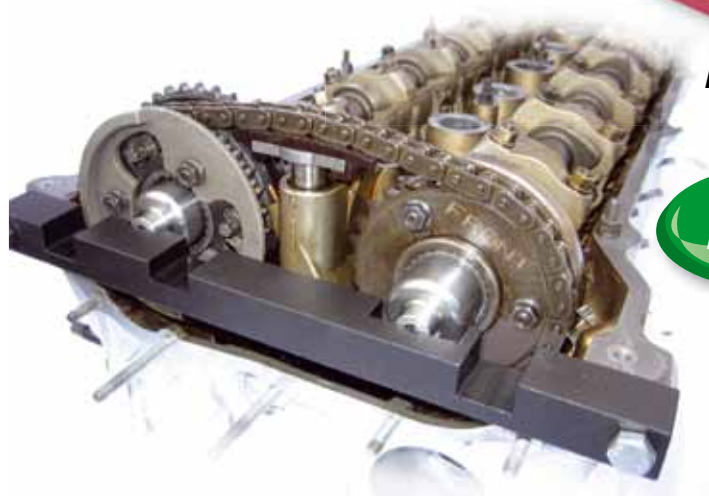
Use with
AST4425 Kit

For engines with Single VANOS (VVT) Unit



AST4312 VANOS Engagement Wrench

For BMW twin camshaft engines with
single VANOS unit mounted on Inlet
camshaft. Use with AST4425 Kit.
See AST4425 for models/engine
applications.



AST4895

AST4312

Petrol 2.5 / 3.0 N51 / N52 / N52K / N53 / N54 (Chain)

AST5000

Models:

128i. E82 (07-09)
130i. E81/87 (05-08)
135iS. E82 (07-09)
323i. E90/91/92/93 (04-09)
325i/xi. E90/91/92/93 (04-09)
328i/xi. E90/91/92/93 (04-08)
330i/xi. E90/91/92/93 (04-09)
335i/xi. E90/91/92/93 (05-09)
523i/Li. E60/61 (04-09)
525i/Li/xi. E60/61 (04-09)
528i/xi. E60/61 (06-08)
530i/Li/xi. E60/61 (05-09)
535i/xi. E60/61 (06-08)
630i. E63/64 (04-08)
730i/Li. E65/66 (04-08)
X3 2.5/3.0 E83 (06-09)
X5 3.0 E70 (06-09)
Z4 2.5/3.0 E85/86 (05-09)

Engines:

N51 / N52 / N52K

Valvetronic

N53 / N54

Direct Injection

Non - Valvetronic



With this kit you will also need . . .

To carry out removal & installation of the Timing Chain Assembly and related service work you will also need **AST5045** Timing Chain Service Tool Set



AST5045



Petrol 5.0 / 5.6 V12 M70 / M73 (Chain)

AST4564

Models:

750i. E32/E38 (87-02)
850i. E31 (90-99)

Engines:

M70 / M73

50 12 A
54 12 1
54 12 2
56 12 1



VISCOUS FAN Wrenches

AST3050A – 32mm A/F
AST3051A – 36mm A/F
AST3090 – Counter-Holding Tool

Also for **FORD**,
LAND ROVER,
VAUXHALL/OPEL
and **VAG** models



Diesel 1.7 / 2.5td/tds M41 / M51 (Chain)

AST4411

Models:

318tds. E36 (94-00)
325td/tds. E36 (91-99)
525td/tds. E34/E39 (90-00)
725tds. E38 (95-02)

Engines:

M41 / M51

Also for **RANGE ROVER 2.5DT/SE**
and **VAUXHALL/OPEL Omega-B**

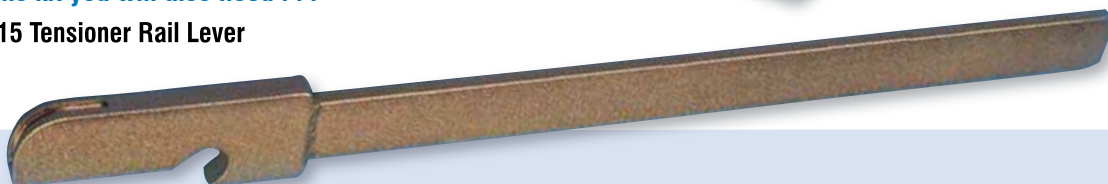


Kit Includes
Injection Pump Remover /
Sprocket Retainer
AST4414



With this kit you will also need . . .
AST4415 Tensioner Rail Lever

AST4415



Diesel 2.0d / 3.0 d M47/ TU / T2: M57 / TU / T2 (Chain)

AST4555A

Models:

118d. E87 (03-07)
120d. E87 (03-07)
318d/td. E46/E90/91 (00-08)
320d/cd. E46/E90/91 (97-08)
325d. E90/91/92/93 (06-09)
330d/xd/cd. E46/E90/91/92/93 (98-08)
335d. E90/91/92 (06-09)
520d. E39/E60/61 (99-09)
525d/xd. E39/E60/61 (99-09)
530d/xd. E39/E60/61 (98-09)
535d. E60/61 (04-09)
635d. E63/64 (04-09)
730d/Ld. E38/E65/66 (98-08)
X3. 2.0d. E83 (03-07)
X3. 3.0d/sd. E83 (03-09)
X5. 3.0d. E53/E70 (00-09)

Engines:

M47 / M57
M47TU / M57TU
M47T2 / M57T2
20 4D 1
20 4D 4
25 6D 1
25 6D 2
30 6D 1
30 6D 2
30 6D 3
30 6D 4
30 6D 5

Also for
LR Freelander(Td4)/RANGE ROVER (Td6),
ROVER 75 & VAUXHALL Omega



If removing the pump you will also need . . .

AST4553 Pump Remover / Sprocket Retainer

Retains position of the pump sprocket in-situ, whilst the pump is removed, reducing the level of engine dis-assembly required.



AST4553



With this Kit you will also need . . .

AST5013 Crankshaft Turning Tool

To rotate engine (later versions) you will need Crankshaft Turning Tool (M47T2 / M57TU / M57T2)



AST5013

Diesel 2.0d N47 / N47S (Chain)

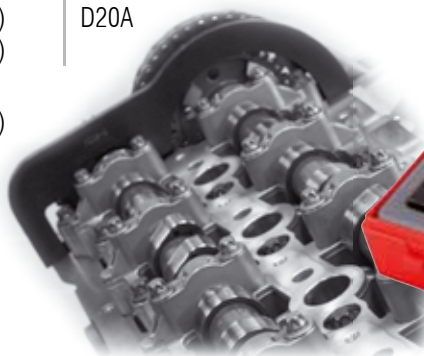
AST5010

Models:

118d. E81/87 (06-09)
120d. E81/82/87 (06-09)
123d. E81/82/87 (07-09)
318d. E90/91 (07-09)
320d. E90/91/92 (05-09)
520d. E60/61 (06-08)
X3. 2.0d. E83 (07-09)

Engines:

N47 / N47S
D20A



If removing the pump you will also need . . .

AST5014 Pump Remover / Sprocket Retainer

Retains position of the HP pump sprocket in-situ, whilst the pump is removed, reducing the level of engine dis-assembly required.



AST5014

BMW MINI – see MINI Timing Tools PAGE 51



Petrol Belt Tensioner Adjuster - Water Pump (Belt)

ASTV501A

Models:

Kalos (04-08)
Aveo (06-08)
Espero/Aranos (95-97)
Nexia (95-97)
Lanos (97-03)
Nubira / Lacetti (97-09)
Cruze (2009)

Engines:

1.4 A13DM A14MS F14S3	1.5 G15MF 1.5 16v. A15DM A15SMS A15MF	1.6 16v. A16DM A16DMS F16D3 LXT
1.4 16v. F14D3		



Petrol 1.6 16v. (Belt)

AST4620

Models:

Cruze (2009)

Engines:

LXT



With this kit you will also need . . .

ASTV501A

Belt Tensioner Adjuster – (Water Pump)



ASTV501A

Petrol 1.4 / 1.6 / 1.8 16v. (Belt)

AST4995

Models:

Aveo (2009)
Cruze (2009)

Engines:

1.4 16v.
G14D

1.6 16v.
LDE, LLU, LXV

1.8 16v.
2HO



Diesel 2.0d VCDi (Belt)

**NEW
2010**

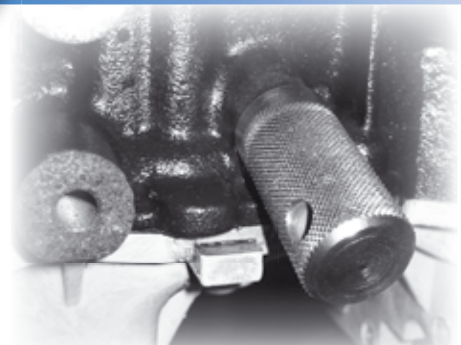
AST5040

Models:

Nubira/Lacetti (07-09)
Evanda/Epica (06-09)
Captiva (07-09)

Engines:

RA420
Z20S1





Diesel 2.1D Turbo (Belt)

AST4390

Models:

Wrangler (88-95)
Cherokee (84-95)

Also for RENAULT diesels

Engines:

2.1D Turbo
J8S



Diesel 2.5CRD / 2.8CRD (Belt)

AST4945A

Models:

Voyager (01-08)
Grand Voyager (01-08)
Jeep Cherokee (01-08)

Also for
LDV Maxus (2.5CRD)

Engines:

2.5CRD
R2516C
R2516K

2.8CRD

R2816C5
R2816K4



Petrol 1.8 / 2.0 / 2.4 Crankshaft Pulley R & I (Belt)

AST4745

Models:

Neon (95-04)
Stratus (94-01)
PT Cruiser (00-09)
Voyager (94-08)
Grand Voyager (94-08)

Engines:

1.8, 2.0, 2.4
ECB
ECC
EDZ



Set Comprises:-
Remover Adaptor
(for use with AST4842 Pulley
Remover) and Pulley Installer.



With this set you will also need . . .

**AST4842 Crankshaft
Pulley Remover**



AST4842

**AST4593
Tensioner Locking Pin Set
(Automatic Belt Tensioners)**



AST4593

CHRYSLER U.S. – see U.S. Vehicle Timing Tools PAGES 65-66

Diesel 1.4 / 1.6 / 2.0 / 2.2 HDi: DV4/DV6/DW10/DW12 (Belt)

AST4820

Models:

Citroën

C1 (05-09)
C2 (03-09)
C3/Pluriel (02-09)
C4 (04-09)
C4 Picasso (06-09)
C5/II/III (04-09)
C6 (06-09)
C8 (02-07)
Xantia (98-01)
Xsara (99-06)
Xsara Picasso (99-09)
Evasion/Synergie (99-02)
Berlingo (99-09)
Dispatch/Jumpy (99-09)
Relay/Jumper I/II (01-06)

Peugeot

107 (05-09)
1007 (05-09)
206/CC (99-09)
207 (06-09)
306 (99-02)
307/CC (01-09)
308 (07-09)
406 (98-04)
406 Coupe (00-06)
407 (04-09)
607 (00-09)
806 (99-02)
807 (02-07)
Partner 2.0Hdi (99-08)
Expert I/II (99-07)
Boxer I/II (02-06)

Engines:

1.4Hdi

DV4TD(8HT/8HW/8HX/8HZ)
DV4TED4(8HV/8HY)

1.6Hdi

DV6TED4(9HY/9HZ)
DV6ATED4
(9HW/9HX not Partner)

2.0Hdi

DW10TD(RHY)
DW10UTD(RHV)
DW10UTED4(RHK)
DW10ATED/L3(RHS/RHZ)
DW10ATED4(RHM/RHW)
DW10ATED4/L4(RHT)
DW10BTED4(RHR)
DW10BTED/L3(RHX)
DW10BTED4(RHJ/RHL)

2.2Hdi

DW12ATED/DW12TED4
(4HX/4HZ)
DW12TED4/L4(4HW)
DW12UTED(4HY)
DW12BTED(4HP/4HR/4HS/4HT)



For TUD/XUD diesels – see Kit AST4388A
For DW8 diesels – see Kit AST4822

Also for FIAT, LANCIA models

Includes tools for
Adjustable Crank
Gear timing.



With this kit you will also need . . .

AST6055 Exhaust Pipe Clamp Pliers
on C1/107 1.4Hdi & 308 1.6Hdi models.



AST6055

Diesel 1.4 / 1.6 HDi: DV4/DV6 (Belt)

AST4735A

Models:

Citroën

C1 (05-09)
C2 (03-09)
C3/Pluriel (02-09)
C4 (04-09)
C4 Picasso (06-09)
C5/II/III (04-09)
Xsara (02-04)
Xsara Picasso (04-09)
Berlingo (05-09)

Peugeot

107 (05-09)
1007 (05-09)
206/CC (01-09)
207 (06-09)
307/CC (01-08)
308 (07-09)
407 (04-09)

Engines:

1.4Hdi

DV4TD
(8HT/8HW/8HX/8HZ)
DV4TED4
(8HV/8HY)

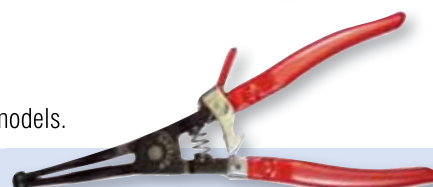
1.6Hdi

DV6TED4 (9HY/9HZ)
DV6ATED4 (9HW/9HX)



With this kit you will also need . . .

AST6055 Exhaust Pipe Clamp Pliers on C1/107 1.4Hdi & 308 1.6Hdi models.



AST6055

Diesel 1.5D to 2.5D: TUD / XUD (Belt)

AST4388A

Models:

Citroën

Saxo (96-03)
ZX (91-98)
Xsara (97-00)
Xantia (93-01)
XM (90-01)
Evasion/Synergie (95-00)
C15 (93-02)
Berlingo (96-99)
Dispatch/Jumpy (95-01)
Relay/Jumper (94-02)

Peugeot

106 (94-03)
306 (93-00)
406 (95-00)
605 (93-00)
806 (95-00)
Partner I/II (96-00)
Expert (95-00)
Boxer (94-02)

Engines:

TUD5

(VJX/VJY/VJZ)

XUD7

(A9A)

XUD9

(D8A/D8B/D8C/D9B/
DHV/DHW/DHX/DHY/
DJY/DJZ)

XUD11

(P8A/P8B/P8C/PHZ/PJZ)

DJ5

(T9A/THX/THY/THZ)



Also for FIAT, LDV, NISSAN, ROVER models

For HDi diesels – see Kit AST4820

NOTE: AST4388A Kit also covers TU/XU petrol engines



With this kit you will also need . . .

AST3398

Flywheel Holding Tool

(Crank Pulley removal)

1.8D and 1.9D



AST3398

AST4358

Flywheel Holding Tool

(Crank Pulley removal)

– 1.9D Turbo and 2.1D Turbo



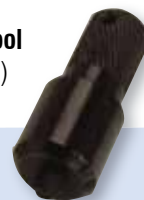
AST4358

AST4359

Flywheel Holding Tool

(Crank Pulley removal)

– 1.5D



AST4359

Diesel 1.9D: DW8 (Belt)

AST4822

Models:

Citroën

Xsara (98-04)
C15 (01-06)
Dispatch/Jumpy (99-07)
Berlingo (98-07)

Peugeot

206 (98-04)
306 (98-02)
Partner I/II (98-07)
Expert (99-07)

Engines:

DW8

DW8/L3
DW8/L/W3
DW8B
DW8B/L4
DW8B/L/W3
(WJY/WJZ)

Also for LDV Pilot



For HDi diesels – see Kit AST4820



Diesel 2.8 D/TDi/HDi (Belt)

AST4865

Models:

Citroën

Relay/Jumper (01-06)

Peugeot

Boxer I/II (00-06)

Engines:

8140.63

8140.43

8140.43S



Also for FIAT, IVECO
and RENAULT models

Diesel 3.0HDi (Chain)

AST4925

Models:

Citroën

Relay/Jumper III (06-09)

Peugeot

Boxer III (06-09)

Engines:

F1C (F30DT)



Also for FIAT,
IVECO models

Diesel 2.7 TDV6 (Belt)

AST4965

Models:

Citroën

C5 III (07-09)

C6 (06-09)

Peugeot

407/Coupe (04-09)

607 (04-09)

Engines:

DT17TED4 (UHZ)

DT17BTED4 (UHZ)

Covers Automatic
& Manual Transmission
models

Also for JAGUAR
and LAND ROVER models



Petrol 1.4 / 1.6 16v. EP3 / EP6 / EP6DT / EP6DTS (Chain)

AST5020

Models:

Citroën

C4 (08-09)
C4 Picasso (08-09)

Peugeot

207 (06-09)
207CC (07-09)
308 (07-09)

Engines:

1.4VTi (Valvetronic)

EP3(8FS)

1.6VTi (Valvetronic)

EP6(5FW)

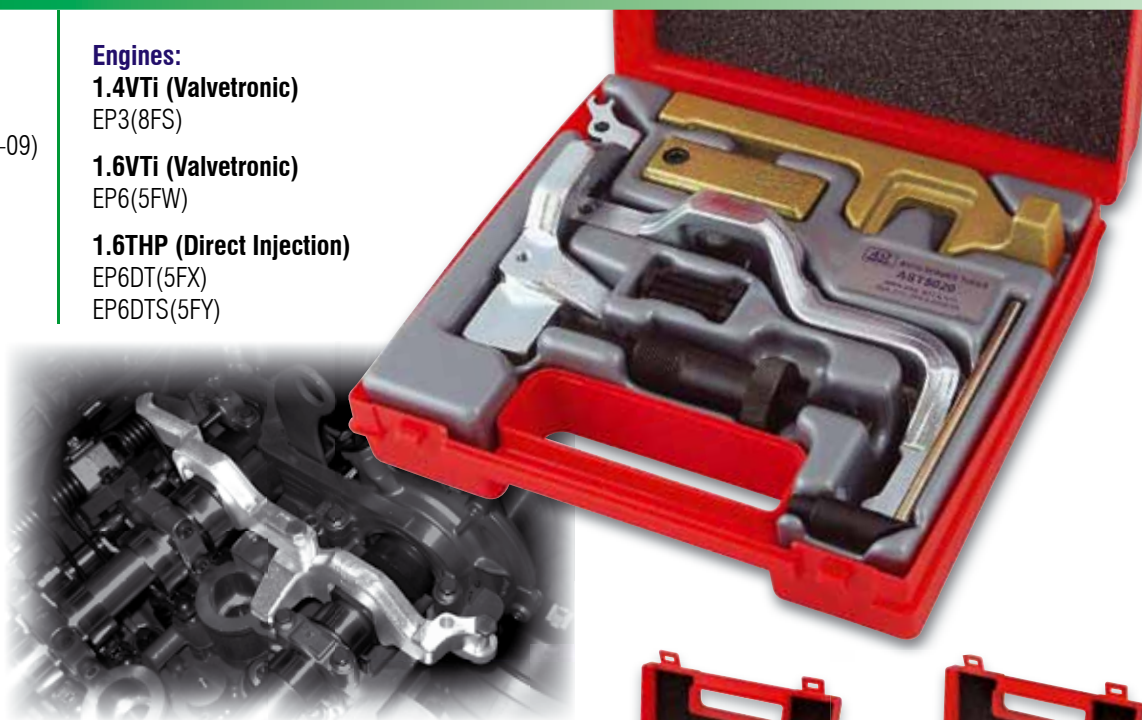
1.6THP (Direct Injection)

EP6DT(5FX)

EP6DTS(5FY)

Also for

MINI models



AST5025 / AST5030

Two smaller kits are available to cover each of the engine types

AST5025 for EP3 / EP6 Valvetronic engines.

AST5030 for EP6DT/DTS Direct Injection engines

All these kits utilise the same case + insert as **AST5020** Kit and can be upgraded to cover the additional engines, at a later date, as required.



With this kit you will also need . . .

To carry out removal & installation of the Timing Chain Assembly and related service work you will also need

AST5045 Timing Chain Service Tool Set.



AST5045

Petrol 1.4 16v. ET+ KFU-KFW (Belt)

AST4935

Models:

Citroën

C2 (03-09)
C3/Pluriel (04-09)
C4 (04-09)
Saxo (00-03)
Xsara (00-04)
Berlingo (01-09)

Peugeot

106 (00-03) 306 (00-02)
1007 (05-09) 307 (01-08)
206/CC (00-09) Partner (00-09)
207 (06-09)

Engines:

ET3J4(KFU)

TU3A/JP
(KFV/KFW)





Petrol 1.8 / 2.0 / 2.2 16v. EW7 / EW10 / EW12 (Belt)

AST4825

Models:

Citroën

Xsara (00-05)
Xsara Picasso (99-07)
C4 (04-09)
C4 Picasso (06-09)
C5 II/III (00-09)
C8 (02-09)
Evasion/Synergie (00-02)
Dispatch/Jumpy (00-09)

Peugeot

206/CC (98-07)
307/CC (01-09)
406/Coupe (99-06)
407/Coupe (04-09)
607 (00-09)
806 (00-02)
807 (02-09)
Expert I/II/III (00-09)

Engines:

1.8 16v.

EW7J4(6FZ)
EW7A(6FY)

2.0 16v.

EW10A(RFJ)
EW10J4S(RFK)
EW10J4
EW10J4/L5
EW10J4R/L5
EW10J4/L4/5(RFN/RFR)

2.0 HPI

EW10D(RLZ)
2.2 16v.
EW12J4/L5(3FZ)
EW12J4(3FY)



With this kit you will also need . . .

AST4576 Crank Pulley Flange Repositioning Tool - engines with non-adjustable camshaft sprockets



For ET codes – see Set AST4935
For TU/XU codes – see Kit AST4388A

AST4576

Petrol 3.0 24v. V6 (Belt)

AST4580

Models:

Citroën

Xantia (97-01)
XM (97-00)
C5 (00-08)
C6 (05-09)

Peugeot

406/Coupe (97-06)
605 (97-00)

Engines:

ES9J4S(XFX)-406
ES9J4/L3(XFZ)-XANTIA/XM/406/605
ES9A(XFV)-C5/C6



Also for RENAULT Laguna, Safrane & Espace models

Petrol 1.0 to 2.0 TU / XU (Belt)

AST4388A

Models:

Citroën

C2 (03-09)
C3/Pluriel (02-09)
C4 (04-08)
AX (91-97)
Saxo (96-03)
ZX (91-98)
Xsara (97-06)
Xsara Picasso (99-06)
Xantia (93-01)
XM (93-00)
Evasion/Synergie (94-01)
C15 (92-98)
Berlingo (97-09)
Relay/Jumper (94-06)

Peugeot

106 (93-03)
1007 (05-09)
205 (89-96)
206/CC (98-09)
207 (06-08)
306 (93-03)
307/CC (01-09)
405 (92-97)
406 (95-02)
406 Coupe (97-02)
605 (93-00)
806 (94-01)
Partner I/II (96-07)
Boxer I/II (94-06)

Engines:

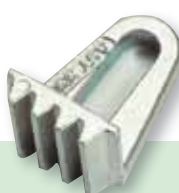
1.0 TU9(CDY/CDZ),
1.1 TU1(HDY/HDZ/HFX/HFY/HFZ)
1.4 TU3(KDX/KDY/KDZ/KFX/KFZ)
1.6 TU5(BDY/BFZ/NFT/NFV/NFW/NFY/NFZ)
1.6 16v. TU5JP4(NFU/NFX/NFS)
1.8 XU7(LFW/LFX/LFZ)
1.8 16v. XU7JP4(LFY)
2.0 XU10(RFL/RFU/RFW/RFX)
2.0 Turbo XU10(RGX/RGY)
2.0 16v. XU10JP4
(RFS/RFT/
RFV/RFY)



With this kit you will also need . . .

AST3398

Flywheel Holding Tool
(Crank Pulley Removal)
XU 1.6 to 2.0



AST3398

AST4358

Flywheel Holding Tool
(Crank Pulley Removal)
XU 1.8/2.0 16v.



AST4358

NOTE: Kit AST4388A also covers
TUD / XUD diesel engines

For EW codes – see Kit AST4825.
For ET(KFU) + KFV/KFW codes – see Set AST4935

DIESEL INJECTION PUMP TIMING & REMOVAL TOOLS



Diesel COMBINATION – Bosch + CAV/RotoDiesel (Timing) AST4400G

Injection Pumps:

Bosch VE (Rotary)
Diesel Kiki VE
Nippondenso VE
CAV/RotoDiesel

Bosch VE pumps with M8, M10 and M12 service ports.

CAV/RotoDiesel with Top Entry service port.

A Combination Kit covering the most popular 'distributor type' fuel injection pumps found in cars and vans.

Kit comes complete with DTI (Dial Gauge).



Diesel BOSCH VE - Rotary Injection Pumps (Timing) AST4398G

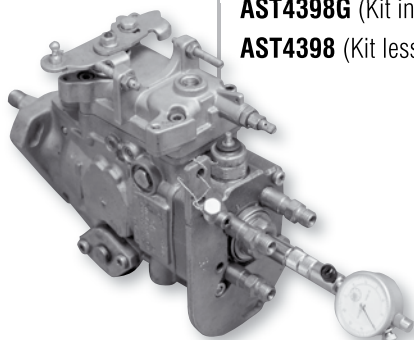
Injection Pumps:

Bosch VE (Rotary)
Diesel Kiki VE
Nippondenso VE

Static Timing of **Bosch VE 'distributor type'** fuel injection pumps found in cars and vans. Covers M8, M10 and M12 service port connections.

AST4398G (Kit includes DTI)

AST4398 (Kit less DTI)



Diesel CAV/ROTODIESEL/LUCAS - Injection Pumps (Timing) AST3168G

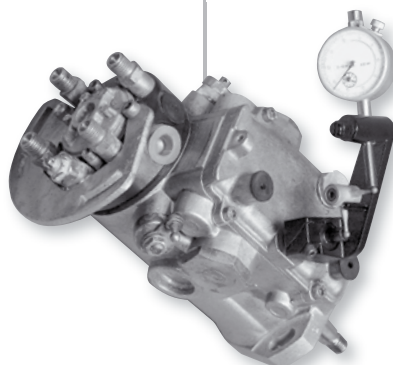
Injection Pumps:

CAV/RotoDiesel

Static Timing of **CAV/RotoDiesel** fuel injection pumps found in cars and vans. Covers Top Entry service port connection.

AST3168G (includes DTI)

AST3168 (Kit less DTI)





Diesel BMW – Pump Removers / Sprocket Retainers

**AST4414, AST4553,
AST4554, AST5014**

Many BMW diesel engines are designed to allow for retention of the pump sprocket position, in-situ, when removing/replacing the pump. This minimises the level of engine dis-assembly required as the pump sprocket / timing chain remain undisturbed.

AST4414
M41/M51
BMW diesels

3 Series **E36**, 5 Series **E34** and 7 Series **E38**
(NOTE: AST4414 is also included in AST4411 Kit)



AST4553
M47/M57
BMW diesels

**E38, E39, E46, E53, E60,
E63, E65, E70, E83, E90.**



AST4554
M47
BMW diesels

**Rover 75,
LR Freelander,
Vauxhall/Opel Omega B**



AST5014
N47/N47S
BMW diesels

E60, E81, E83, E87, E90



Diesel FORD – 2.0/2.2/2.4 DURATORQ Timing/Pump Sprocket Retainer

AST4730

Models:
FORD
Mondeo (01-07)
Transit (00-08)
JAGUAR
X-Type (03-08)
LDV
Convoy (02-06)

Kit covers Timing + Retention of pump sprocket position,
in-situ, when removing pump.

Minimises level of engine
dis-assembly required –
sprockets/timing chain remain
undisturbed.



Details of specific engine codes can be found
in the AST4730 entry of the relevant vehicle manufacturers.

DIESEL INJECTION PUMP TIMING & REMOVAL TOOLS



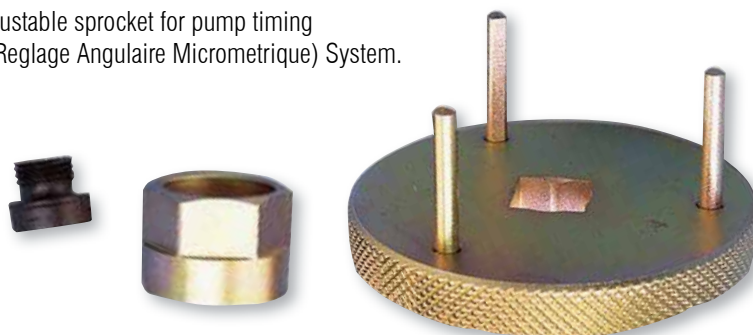
Timing Tools

Diesel RENAULT – ‘RAM’ System (Timing)

AST4389

Renault 1.9 diesels F8Q/F9Q in:
Renault
Mitsubishi
Vauxhall/Opel
Volvo

With adjustable sprocket for pump timing
‘RAM’ (Reglage Angulaire Micrometrique) System.



Diesel VAUXHALL/OPEL – Fuel System Priming

AST4491

Models:

Astra-G/	Omega (98-03)
Astravan (98-06)	Sintra (98-99)
Zafira (99-05)	Frontera (98-04)
Vectra (97-05)	Signum (03-05)

Engines:

2.0 & 2.2 DTi diesels

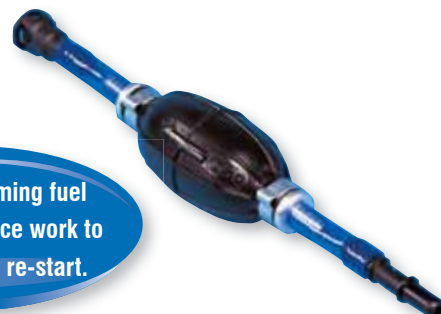
2.0D

X20DTH
X20DTL
Y20DTH
Y20DTL

2.2D

X22DTH
Y22DTH
Y22DTR

Essential for priming fuel
system after service work to
enable engine to re-start.



DODGE TIMING TOOLS



Diesel 2.0CRD (Belt)

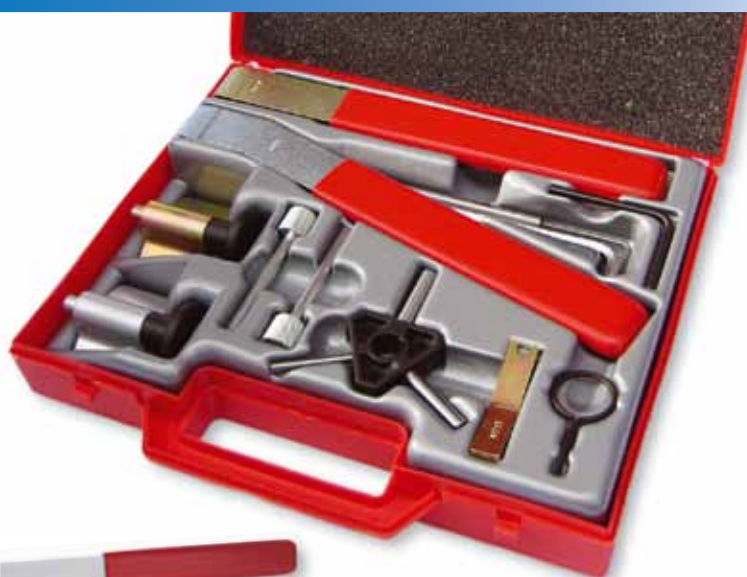
AST4840

Models:

Caliber (06-09)

Engines:

ECD



With this kit you will also need . . .

**AST4844 Sprocket Holding Tool
with Inter-changeable Pins**



AST4844

AST4950

Petrol 1.2 / 1.4 8v. (Belt)

Models:

New 500 (07-09)
Idea (04-09)
Linea (07-09)
Grande Punto (07-09)
Doblo / Cargo (05-09)
Panda EV02 (05-09)

Also for FORD models

Engines:

1.2
169A4.000
199A4.000

1.2
188A4.000-**EV02 Only**

1.4
350A1.000



Petrol 1.2 / 1.4 16v. Twin Cams / T-JET (Belt)

UPDATED

AST4510A

Models:

New 500 (07-09)
Panda (07-08)
Punto (97-08)
Grande Punto (07-09)
Idea (04-09)
Linea (07-08)
Palio Weekend (01-06)
New Bravo (07-09)
Brava/Bravo (98-02)
Marea/Weekend (98-00)
Stilo (01-08)

Also for LANCIA models

Engines:

1.2 16v.
176B9.000
182B2.000
188A5.000
1.4 16v.
843A1.000
169A3.000
192B2.000
198A1.000
198A4.000
199A6.000

**New VVT &
Crank Tool for
1.4 16v engines**



Petrol 1.4 12v. s.o.h.c. (Belt)

AST4515

Models:

Brava/Bravo (95-98)
Marea/Weekend (96-00)
Marengo (96-00)

Also for LANCIA Ypsilon

Engines:

182A3.000
182A5.000





Petrol 1.6 16v. Twin Cams (Belt)

AST4520A

Models:

Palio Weekend (97-06) Stilo (01-08)
Siena (97-03) Multipla (99-09)
Brava/Bravo (95-02) Doblo/Cargo (02-06)
Marea/Weekend (96-03)

Engines:

178B3.000
182A4.000
182A6.000
182B6.000

Also for LANCIA Delta, Lybra



With this kit you will also need . . .



AST4519
TDC Positioning Tool (Requires suitable DTI such as AST3054-10)

AST3398
Flywheel Holding Tool
(Crank Pulley removal) -
Palio Weekend (-00),
Stilo.



AST4523
Flywheel Holding Tool
(Crank Pulley removal)
Brava/Bravo, Marea/Weekend,
Multipla, Doblo/Cargo,
Palio Weekend (00-).



AST4519

AST3398

AST4523

Petrol 1.8 16v. Twin Cams (Belt)

AST4995

Models:

Croma (05-09)

Engines:

1.8 16v
939A4.000



With this kit you will also need . . .

AST4742 Module Removal Set
To Remove Ignition Module for timing adjustment applications.



AST4742

Camshaft Sprocket Holding Tool

AST4844

Timing belt replacement on Fiat Petrol engines requires the camshaft sprockets to be 'free to turn' on camshafts. AST4844 is used to counter-hold the sprocket(s) whilst releasing and tightening the sprocket bolt.

DO NOT use timing tools for counter-holding camshafts whilst releasing / tightening sprocket bolt.



AST4844
4 x sizes Inter-changeable Location Pins





Petrol FIAT 1.8 16v. 2.0/2.4 20v. Twin Cams (Belt)

AST4915 AST4920

Two Engine Timing Belt Replacement Tool Kits covering FIAT Twin Cams. Both kits utilise the **AL-Fi Universal Camshaft Setting System** and includes tools for Crankshaft/Flywheel locking and belt tensioning.

AST4915 Kit – 1.8 16v engines

Models: Punto, Brava/Bravo, Marea/Marea Weekend, Barchetta, Coupe, Stilo.

Engines: 182A2.000, 183A1.000, 183A6.000, 188A6.000 and 192A4.000

AST4920 Kit – 1.8 16v. + 2.0 / 2.4 20v. engines

Models: Punto, Brava/Bravo, Marea/Marea Weekend, Barchetta, Coupe, Stilo.

Engines: 175A3.000, 182A1.000, 182A2.000, 182B3.000, 182B7.000, 183A1.000, 183A6.000, 188A6.000, 192A2.000 and 192A4.000



With engines 175A3, 182A1, 182A2, 182B3, 182B7, 183A1, 192A2 you will also need . . .

AST4519 TDC Positioning Tool
(Requires suitable DTI such as AST3054-10)



Petrol “VARIATOR” (VVT) Wrench

AST4774

Twin camshaft engines

Removal and Installation of Variable Valve / Camshaft Timing Unit “Variator”.

Also for ALFA ROMEO and LANCIA models





Petrol FIAT – ALFA Twin Cams - Combination Kit (Belt)

AST4970



Wide application coverage based on AL-Fi Universal Camshaft Setting Plate System

The complete Engine Timing and Belt Replacement Tool Kit for the full range of ALFA ROMEO Twin Spark/JTS 16v. (Belt) and FIAT 1.8 16v. + 2.0/2.4 20v. (Belt) petrol engines.

Utilises the **AL-Fi Universal System** for Camshaft Setting and includes all the Crankshaft and Belt Tensioner Tools required for timing applications on this large range of engines.

FIAT

Models:

Punto, Brava/Bravo, Marea/Marea Weekend, Barchetta, Coupe, Stilo. 1.8 16v., 2.0 and 2.4 20v. engines

Engines:

175A3.000, 182A1.000, 182A2.000, 182B3.000, 182B7.000, 183A1.000, 183A6.000, 188A6.000, 192A2.000 and 192A4.000



ALFA ROMEO

Models:

145, 146, 147, 155, 156, 166, Spider/GTV, GT 1.4, 1.6, 1.8 & 2.0 Twin Spark + 2.0JTS engines

Engines:

162.01, 321.02, 321.03, 321.04, 322.01, 322.05(156), 323.01, 323.10, 335.03, 341.03, 363.01, 372.03, 671.06, 672.04, 676.01, 932A2.000 and 937A1.000



PATENT APPLIED



With this kit you will also need . . .

a suitable DTI such as **AST3054-10** for use with the TDC Positioning Tool



AST3054-10

Petrol 2.2 16v. Twin Cams (Chain)

AST4766

Models:

Croma (05-09)

Engines:

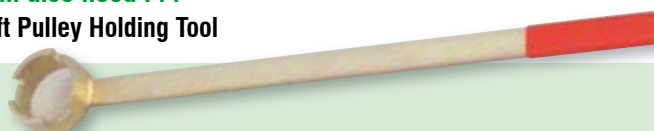
194A1.000



With this kit you will also need . . .

AST4768 Crankshaft Pulley Holding Tool

AST4768



AST4880
Models:

New 500 (07-09) Linea (07-08)
Panda (03-09) Idea (04-09)
Punto (03-09) Doblo/Cargo (04-09)
Grande Punto (05-09)

Engines:

169A1.000 199A3.000
169B1.000 199B2.000
188A8.000 223A9.000
188A9.000
199A2.000

AST4880 Complete Overhaul Timing Kit includes engine Setting/Locking tools (from AST4885) and additional special tools for retaining engine timing when carrying out cylinder head and major overhaul work.

AST4885 Smaller Set for Engine Timing Applications only. Comprises: Camshaft Setting Tools and Flywheel Locking Pin.

AST4885

Diesel 1.6JTD Multijet (Belt)
AST4735A
Models:

Scudo (07-09)

Engines:

DV6UTED4(9HU)


Diesel 1.6JTD / 1.9JTD / 2.0JTD / 2.4JTD Multijet (Belt)
AST4850
Models:

Punto (99-06)
Grande Punto (05-09)
Idea (04-08)
Brava/Bravo (98-02)
Linea (07-09)
New Bravo (07-09)
Marea/Weekend (99-03)
Stilo (01-06)
Croma (05-09)
Multipla (99-07)
Doblo/Cargo (02-09)
Palio Weekend (02-06)
Sedici (06-09)
Strada Pick-Up (03-06)

**Also for
ALFA ROMEO and
LANCIA models**

Engines:

1.6JTD 16v.	1.9JTD 8v.	2.4JTD 10v.
198A2.000	192A9.000	185A6.000
198A3.000	192B4.000	
198A6.000	192B5.000	2.4JTD 20v.
350A2.000	199A5.000	939A3.000
	939A1.000	
1.9JTD 8v.	939A5.000	
182B4.000	939A7.000	
182B9.000	223A7.000	
186A6.000		
186A8.000	1.9JTD 16v.	
186A9.000	192A5.000	
188A2.000	937A5.000	
188A7.000	939A2.000	
188B2.000	939A8.000	
192A1.000		
192A3.000	2.0JTD 16v.	
192A8.000	198A5.000	

For 1.9D/TD and PSA 1.9/2.1 engines in Fiat models – see Kit AST4545





Diesel 1.9D/TD / 2.1TD / 2.4TD (Belt)

AST4545

Models:

Punto (99-03)
Brava/Bravo (95-00)
Marea/Weekend (96-00)
Doblo/Cargo (00-06)
Scudo (96-01)
Ulysse (95-00)
Ducato (98-02)

Engines:

Fiat	PSA
160A7.000	D8B
182A7.000	D9B
182A8.000	P8C
185A2.000	DHX
185A6.000	DJY
188A3.000	
223A6.000	

For 1.9JTD and 2.4JTD
Multijet diesels – see Kit AST4850

NOTE: Kit AST4545 also covers
PSA 1.9D & 2.1TD diesels.



Diesel 2.0JTD / 2.2JTD (Belt)

AST4820

Models:

Ulysse (99-07)
Scudo (99-07)
Ducato (01-06)

Engines:

DW10ATED
(RHM/RHT/RHV/RHW/RHX/RHZ)
DW12TED4
(4HW)

Also for CITROËN / PEUGEOT models (HDi)

Citroën/Peugeot
engines in
Fiat Models



Diesel 2.3JTD (Belt) / 3.0JTD (Chain)

AST4925

Models:

Ducato (02-09)

Engines:

2.3JTD (Belt)	3.0JTD (Chain)
F1AE0481C	F1CE0481D

Also for IVECO Daily



Diesel 2.5D / 2.5DT / 2.8D / 2.8JTD (Belt)

AST4865

Models:

Croma (93-97)
Ducato (87-06)
Talento (87-02)

Engines:

2.5D	2.5DT	2.8D/Turbo	2.8JTD
8144.67	8140.27	8140.43	8140.43S
	8140.47R	8140.63	
	8144.21		
	8144.97Y		

Also for CITROËN, PEUGEOT, IVECO, RENAULT models





Diesel 1.3 16v. DURATORQ (Chain) Engine Overhaul Timing AST4880

Models:

KA (2009)

AST4880 Complete Overhaul Timing Kit includes engine Setting/Locking tools (from AST4885) and additional special tools for retaining engine timing when carrying out cylinder head and major overhaul work.

Also for FIAT and LANCIA models

AST4885 Smaller Set for Engine Timing Applications only. Comprises Camshaft Setting Tools and Flywheel Locking Pin.

AST4885



Diesel 1.4 /1.6TDCi, 1.8DT/TDdi/TDCi, 2.0TDCi DURATORQ (Belt) AST4830

Models:

Fiesta (00-09)
Focus (98-09)
Focus C-Max (03-07)
C-Max (07-09)
Mondeo (07-09)
Tourneo Connect (02-09)
Courier (00-02)
Transit Connect (02-09)
Fusion (02-09)
S-Max (06-09)
Galaxy (06-09)
Kuga (08-09)

Engines:

1.4 TDCi

F6JA, F6JB,
F6JC, F6JD

1.6TDCi

HHJA, HHJB,
G8DA, G8DB,
HHDA, HHDB,
HHJD

1.8 D Turbo

RTN, RTQ,
RTP, C9DC

1.8TDdi

BHDA/B,
BHPA, C9DA/B,
C9DC

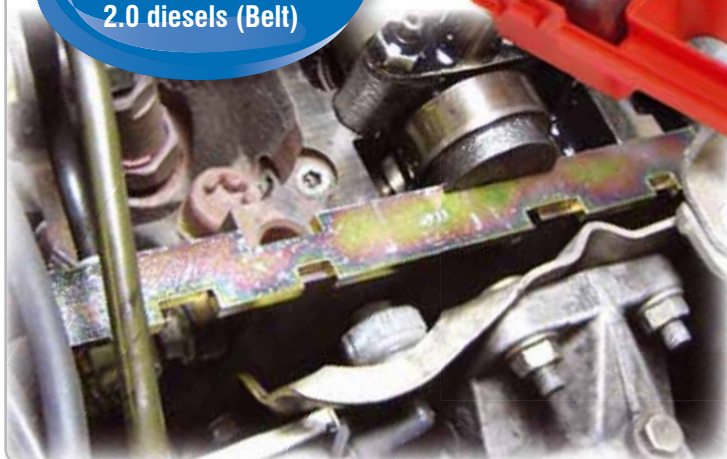
1.8TDCi

F9DA/B, FFBA,
FFDA, FFWA,
HCPA, HCPB,
KKDA, P7PA,
P9PA, QYWA,
R2PA, R3PA,
RWPA, QYBA,
QYWA,

2.0 TDCi

AZBA, AZWA,
G6DA, G6DB,
G6DC, G6DD,
G6DE, G6DF,
QXWB, QXBA,
QXWA,

**Covers ALL modern
FORD 1.4, 1.6, 1.8 &
2.0 diesels (Belt)**





Diesel 1.4 / 1.6TDCi DURATORQ (Belt)

AST4735A

Models:

Fiesta (02-09)
Fusion (02-09)
Focus (04-09)
Focus C-Max (03-07)
C-Max (07-09)

Also for

**CITROËN/PEUGEOT,
VOLVO and MAZDA models**

Engines:

1.4TDCi

F6JA
F6JB
F6JC
F6JD

1.6TDCi

G8DA
G8DB
HHDA
HHDB
HHJA
HHJB
HHJD



Diesel 1.6D, 1.8D/TD/TCi, 1.9D, 2.5D/Turbo/TCi (Belt)

AST4331

Models:

Fiesta/Van (84-02)
Escort/Orion (84-99)
Sierra (90-93)
P100 (89-94)
Courier/Kombi (89-02)
Mondeo (93-00)
Galaxy (95-00)
Transit (94-00)

Engines:

1.6D

LTA
LTB
LTC

1.8D/TD

RTA RTH
RTB RTJ
RTC RTK
RTD RVA
RTE RFA
RTF RFM
RTG RFN

1.9D

IZ
AFN
AHN
AVG

2.5D/T/TCi

4FA 4HB 4GA 4GE
4FB 4HC 4GB 4GF
4FC 4EB 4GC 4HA
4FD 4EC 4GD 4HD
4ED

Early diesel engines
selection



Diesel 1.9TDi – Galaxy (Belt)

AST4333

Models:

Galaxy (95-00)

Engines:

1Z AHU
AFN AVG

For later 1.9TDi (Pumpe Düse)
engines in Galaxy – see AST4840 Kit



Diesel 1.9TDi (Pumpe Düse) - Galaxy (Belt)

AST4840

Models:

Galaxy (99-06)

Engines:

ANU
ASZ
AUY

Also for
VAG models

COVERS Pumpe Düse
engine variants with
Hydraulic and Mechanical
belt tensioners





Diesel 2.0 / 2.2 / 2.4 - TDDi / TDCi DURATORQ (Chain) Engine Timing and Pump R & I

AST4730

Models:

Mondeo (01-07)
Transit (00-09)

Engines:

2.0Ddi	2.0TDCi	HJBE	QJBC	F4FA
ABFA	FMBA	N7BA	QJBD	2.4TDCi
D3FA	FMBB	N7BB	2.4Ddi	FXFA
F3FA	FIFA	SDBA	D2FA	H9FA
2.0TDdi	HJBA	2.2TDCi	D2FB	H9FB
D5BA	HJBB	QJBA	D4FA	JXFA
D6BA	HJBC	QJBB	D0FA	PHFA

**Also for JAGUAR,
LAND ROVER &
LDV models**

AST4730 covers Engine Timing
and Pump Removal/Installation
(retention of pump sprocket position
with pump removed).



Engine Timing

AST4731

AST4731 covers Engine Timing Applications only, for same applications as AST4730 Kit above,
Plus Transit (06-09) 2.2TDCi with codes P8FA, QVFA, QWFA.

NOTE: AST4731 Set is included in AST4730 Kit



With kits AST4730 / AST4731 you will also need . . .

AST4833 for Mondeo (01-07) Specialised Wrench, **essential** to
overcome restricted access to the auxiliary belt tensioner – auxiliary belt
removal and installation.



AST4833

Diesel 2.5D/D Turbo, 2.5TCi – Transit (Belt)

AST4625

Models:

Transit (94-00)

Engines:

2.5D	4FD	2.5D Turbo	4GB	4GF	2.5TCi
4FA	4HB	4EB	4GC	4HA	4ED
4FB	4HC	4EC	4GD	4HD	
4FC		4GA	4GE		



Petrol 1.2 DURATEC (Belt)

AST4950

Models:

KA (2009)

Also for FIAT models





Petrol 1.25 to 2.3 16v. DURATEC (Belt/Chain)

AST4404C

Models:

Fiesta (95-09)
Fusion (02-09)
Puma (97-02)
Focus (98-09)
Focus C-Max (03-07)
C-Max (07-09)
Mondeo (93-09)
Cougar (98-01)
S-Max (06-09)
Galaxy (06-09)
Tourneo Connect (02-06)
Transit Connect (02-06)
Transit (06-09)

Also for
MAZDA & VOLVO models

Engines:

1.25 16v. (Belt)

DHA, DHB
DHC, DHD, DHE
DHF, DHG
F8JA, F8JB
FUJA, FUJB
M7JA, M7JB
SNJA, STJA

1.4 16v. (Belt)

ASDA, ASDB,
FHA, FHD
FHE, FHF
FXDA/C
FXDB/D
FXJA, FXJB
SPJA

1.6 16v. (Belt)

FYDA/C, FYDB/D
FYJA, FYJB, L1F
L1J, L1L, L1N
L1Q, L1T, L1V
L1W, HWDA
HWDB

1.7 16v. (Belt)

MHA, MHB

1.8 16v. (Belt)

EYDB, EYDC
EYDD, EYDE
EYDF, EYDG
EYDI, EYDJ
EYPA, EYPC
RKA, RKB
RKF, RKH
RKJ, RKK

1.8 16v. (Chain)

CDBB, CGBA/B,
CHBA/B, CSDA,
CSDB, QQDA,
QQDB, QQDC

2.0 16v. (Belt)

EDBA/C, EDBB
EDBD, EDDDB
EDDC, EDDDD
EDDF, NGA
NGB, NGC
NGD

2.0 RS/ST170 (Belt)

ALDA, HMDA

2.0 16v. (Chain)

AOBA, AODA,
AODB, AOWA,
CJBA/B, N4JB

2.3 16v. (Chain)

SEBA, SEWA,
GZFA, GZFB



With this set you will also need . . .

AST4629 Crankshaft Pulley Remover/Installer Set

Fiesta/Courier 1.25 / 1.4 16v. (-02)

DHA, DHB, DHD, DHE, DHF, DHG, FHA, FHE, L1T, L1V
– uses AST4627 installer only

Puma 1.4/1.6 16v. (-7/98), 1.7 16v. (-02)

FHD, FHF, L1W, MHA, MHB
– uses complete AST4629 Set



AST4629

AST4736 Crankshaft Pulley Holding Tool

Fiesta 2.0 ST150 (Chain) N4JB

Focus/Focus C-Max, C-Max 1.8 16v./2.0 16v. (Chain)

CSDA, CSDB, QQDA, QQDB, QQDC, AODA, AODB

Mondeo 1.8 16v./2.0 16v./2.3 16v. (Chain)

AOBA, CDBB, CGBA/B, CHBA/B, CJBA/B, SEBA

S-Max / Galaxy / Transit 2.0 16v./2.3 16v. (Chain)

AOWA, GZFA, GZFB, SEWA



AST4736



With Set AST4404C you will also need . . .

AST4834 Flywheel Holding Tool Set

Fiesta 1.25 / 1.4 16v. (2009) – SNJA, STJA, SPJA

New procedures require use of Flywheel Holding Tool during belt replacement



AST4834



Petrol 1.6 Ti-VCT 16v. DURATEC (Belt)

AST4930

Models:

Fiesta (08-09)
Focus (04-09)
Focus C-Max (03-07)
Mondeo (07-09)

Engines:

HXDA
HXJA
PNBA
RHBA

Also covers variable
camshaft timing
adjustment



Flywheel Holding Tool Set

AST4834

Covers broad range of FORD applications – on both Petrol and Diesel engines
Used to 'lock' flywheel (at starter motor position) for

- maintaining crankshaft in timing position or
- counter-holding crankshaft when removing / installing crankshaft pulley during belt replacement

Applications include:

1.8TDDi / TDCi diesels
New 2.0TDCi diesel
1.6 Ti-VCT petrol engines
1.25/1.4 16v. petrol engine (2009 Fiesta)

3 Adaptor sizes
included



Petrol 2.8 (Chain)

AST4648

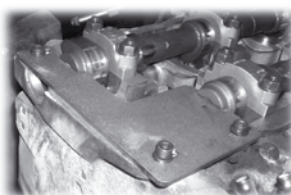
Models:

Galaxy (95-00)

Also for SEAT &
VW models

Engines:

AAA
AMY



VISCOUS FAN Wrenches

AST3050A – 32mm

AST3051A – 36mm

AST3090 – Counter-Holding Tool

Also for BMW,
VAUXHALL/OPEL and
VAG applications



Camshaft Sprocket Holding Tool

AST4844

Timing belt replacement on Ford Petrol engines requires the camshaft sprockets to be 'free to turn' on camshafts. AST4844 is used to counter-hold the sprocket(s) whilst releasing and tightening the sprocket bolt.

**Sprocket Holding Tool with
Inter-changeable Location Pins**



FORD U.S. – see U.S. Vehicle Timing Tools PAGES 65-66



Petrol 1.6 to 3.0 s.o.h.c / Twin Cams (Belt)

AST4656

Models:

Civic (91-95)
Accord (93-03)
Prelude (92-01)
Shuttle/Odyssey (95-01)

Engines:

1.6 B16A2 **1.8** F18A3, F18B2, F18B4
2.0 F20A4, F20B3, F20B5, F20B6, F20B7, F20Z1, F20Z2
2.2 F22Z2, F22B5, F22B8, H22A2, H22A5, H22A7, H22A8
2.3 F23A7 F23Z5, H23A2, H23A3
3.0 J30A1



Timing Tools



With this set you will also need . . .

AST4936 Crankshaft Pulley Holding Tool Set (Belt/Chain)

For Crankshaft Pulleys with Internal Hexagon – Pulley removal required for belt replacement applications. Adaptors are used in conjunction with common Handle Assembly AST4939.

Models:

Jazz 1.2 / 1.4	Legend 3.5	Stream 1.7
Civic 1.4 / 1.6 / 1.7	S2000 2.0	Shuttle/Odyssey 2.2 / 2.3
Accord 1.8 / 2.0 / 2.3 /	FR-V 1.7	CR-V 2.2CDTi
2.4 / 3.0 / 2.2CDTi	FR-V 2.2CDTi	



AST4936 Crankshaft Holding Tool Set (Belt/Chain)

Diesel 2.0TDi (Belt)

AST4406A

Models:

Civic (95-01)
Civic Aerodeck (97-01)
Accord (96-03)

Engines:

20T2N
20T2R

**Also for
ROVER models**



With this kit you will also need . . .

**AST4844 Sprocket Holding Tool
with Inter-changeable Location Pins**

AST4844

HONDA / ACURA U.S. – see U.S. Vehicle Timing Tools PAGES 65-66



Petrol 1.6 / 1.8 / 2.0 / 2.4 Twin Cams (Belt)

AST4657

Models:

Lantra (91-96)
Sonata (93-01)
Trajet (00-05)
Santa-Fe (01-06)

Engines:

G4-N	G4CP	4JP
G4-P	G4-R	G4JS



Also for
MITSUBUSHI models

IVECO TIMING TOOLS



Diesel 2.3JTD (Belt) / 3.0JTD (Chain)

AST4925

Models:

Daily (03-09)

Engines:

2.3JTD

F1AE0481A
F1AE0481B
F1AE0481F
F1AE0481G
F1AE0481H

3.0JTD

F1CE0481A(HPI)
F1CE0481B(HPT)
F1CE0481F(HPI)
F1CE0481H(HPT)

Also for FIAT Ducato



Diesel 2.5D / 2.8D (Belt)

AST4865

Models:

Daily (91-06)
Turbo Daily (94-00)

Engines:

2.5D

8140.07
8140.21
8140.27S
8140.47
8140.47R
8140.67F
8140.97

2.8D

8140.23
8140.43B
8140.43C
8140.43N
8140.43R
8140.43S
8140.63
8140.23.27
8140.43.37

Also for FIAT, PSA,
RENAULT models





Petrol 3.2 / 3.5 / 4.0 / 4.2 V8 (Chain)

AST4980

Models:

XJ8 (97-09)
XJR (97-09)
S-Type (99-08)
XF (08-09)
XK8 (97-09)
XKR (98-09)

Engines:

AJ26 series
AJ27 series
AJ28 series
AJ34 series

3.2

AC
KB
KC
3.5
RB

4.0

BC LC
CC MA
CE MB
DC NB
EC NC
GB PA
GC PB
LB

4.2

1B 5G SB
2B 9G TB
3B HB PC
1G HG

Also for

LAND ROVER models



With this Kit you will also need . . .

AST4985

Crankshaft Pulley Removal / Installer Set -

Incorporates Pulley Removal and Holding Tool.

Crankshaft Pulley must be removed for engine overhaul applications / removal of front timing chain cover.

Essential Tools - crank pulley bolt is tightened to 375Nm.



AST4985

Diesel 2.0D / 2.2D (Chain) Engine Timing and Pump Removal/Installation

AST4730

AST4730 covers Engine Timing and Pump Removal/Installation (retention of pump sprocket position with pump removed).

Models:

X-Type (03-09)

Engines:

2.0D **2.2D**
FMBA QJBA
FMBB

AST4731

Covers Engine Timing Applications only for same applications as AST4730 Kit

NOTE: AST4731 Set is included in AST4730 Kit



Also for **LAND ROVER, FORD & LDV models**

Diesel 2.7 TDV6 (Belt)

AST4965

Models:

S-Type (04-08)
XJ6 (04-09)
XF (07-09)

Engines:

276DT/7G

**Covers Automatic
& Manual Transmission
models**

Also for

**LAND ROVER
and PSA models**



JEEP – see **CHRYSLER** Timing Tools **PAGE 19**



Diesel 1.3JTD Mutijet 16v. (Chain) Engine Overhaul Timing

AST4880

Models:

Ypsilon (03-06)
Musa (04-09)

Engines:

188A9.000

Also for FIAT models

AST4880 Complete Overhaul Engine Kit includes engine Setting/Locking tools (from AST4885) and additional special tools for retaining engine timing when carrying out cylinder head and major overhaul work.



Engine Setting/Locking

AST4885

AST4885 smaller Set for Engine Timing Applications only. Comprises Camshaft Setting Tools and Flywheel Locking Pin.



Diesel 1.9JTD / 2.4JTD (Belt)

AST4850

Models:

Lybra (99-07)
Musa (04-09)
Kappa (98-02)
Thesis (02-07)

Engines:

1.9JTD 8v.	2.4JTD 10v.	2.4JTD 20v.
323.02	838A8.000	841C.000
371.01	839A5.000	841D.000
188B2.000	839A6.000	841G.000
937A2.000		841H.000

Also for
ALFA ROMEO
and **FIAT** models

Kit Covers
latest 2.4 20v.
engines



Diesel 2.0JTD / 2.2JTD (Belt)

AST4820

Models:

Zeta (99-02)
Phedra (02-07)

Engines:

2.0JTD	2.2JTD
DW10ATED	DW12
(RHW/RHZ/ RHM/RHK/RHR)	(4HW)

Also for
CITROËN/
PEUGEOT and
FIAT models



Petrol 1.2 / 1.4 16v. Twin Cams (Belt)

AST4510A

Models:

Ypsilon (96-09)
Musa (04-09)

Engines:

1.2 16v	1.4 16v
176B9.000	843A1.000
188A5.000	

Also for
FIAT models

Kit includes latest
VVT and Crank
Locking Tools





Petrol 1.4 12v. s.o.h.c (Belt)

AST4515

Models:

Ypsilon (96-00)

Engines:

840A2.000
840A4.000

Also for

FIAT models



Petrol 1.6 16v. Twin Cams (Belt)

AST4520A

Models:

Delta (96-99)

Lybra (99-06)

Engines:

182A4.000
182A6.000
182B6.000

Also for FIAT models



With this kit
you will also need . . .



AST4519

TDC Positioning Tool

(Requires suitable DTI
such as AST3054-10)



AST4519

AST4523

Flywheel Holding Tool

(Crank Pulley removal)



AST4523

Petrol 2.0 16v. EW (Belt)

AST4825

Models:

Phedra (02-06)

Engines:

EW10
(RFN)

Also for

CITROËN/PEUGEOT models



With this kit you will also need . . .

AST4576 Crank Pulley Flange Repositioning Tool -
engines with non-adjustable camshaft sprockets



AST4576



Petrol 3.0 V6 (Belt)

AST4580

Models:

Phedra (02-06)

Engines:

XFW

Also for

CITROËN /
PEUGEOT &
RENAULT models





Diesel 2.2 Td4 (Belt)

AST5015

Models:

Freelander 2 (06-09)

Engines:

Td4 / DW12BTED4



Also for VOLVO models

Diesel 2.0 Td4 / 3.0 Td6 (Chain)

AST4555A

Models:

Freelander (00-06)

Td4 (2.0d)

Range Rover (02-06)

Td6 (3.0d)

Engines:

204D3/Td4 (2.0 M47:BMW)

306D1/Td6 (3.0 M57:BMW)

Also for BMW &
ROVER models



If removing Pump you will also need . . .



M47 / M57 Pump Remover / Sprocket Retainers

AST4553

for In Line engines



AST4554

for Transverse
mounted engines



AST4553

AST4554

Diesel 2.0D Turbo "L Series" (Belt)

AST4406A

Models:

Freelander (97-00)

Also for ROVER &
HONDA models

Engines:

20T2N

20T2R



With this set you will also need . . .

AST4844 Sprocket Holding Tool
with Inter-changeable Pins



AST4844



Diesel 2.5D Turbo (Chain)

AST4411

Models:

Range Rover (94-02)

Engines:

256T (M51:BMW)

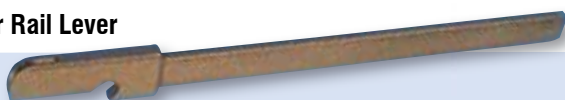
**Also for BMW, ROVER
& VAUXHALL/OPEL
models**



With this kit you will also need . . .

AST4415 Tensioner Rail Lever

AST4415



Diesel 2.5D / 200Tdi / 300Tdi (Belt)

AST3243

Models:

90/110/130/Defender (85-99)
Discovery (90-98)
Range Rover/Classic (93-95)

Engines:

200Tdi
300Tdi
19L



With this kit you will also need . . .

AST4921 Crankshaft Pulley Holding Tool – Defender/
Discovery/Range Rover – Later 200Tdi & 300Tdi

AST4921



Diesel 2.4 Td4 (Chain) Engine Timing and Pump R & I

AST4730

Models:

Defender (06-09)

Engines:

244DT

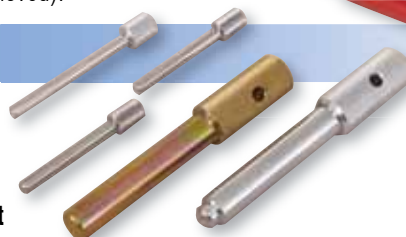
**Also for FORD and
JAGUAR models**

AST4730 Kit covers Engine Timing and Pump Removal/Installation
(retention of pump sprocket position with pump removed).

AST4731

AST4731 covers Engine Timing Applications
only for same applications as AST4730 Kit

NOTE: AST4731 Set is included in AST4730 Kit





Diesel 2.5D Td5 (Chain)

AST4875

Models:

90/110/130/Defender (99-07)
Discovery II (98-05)

Engines:

10P, 15P (Td5)



Diesel 2.7 TDV6 (Belt)

AST4965

Models:

Discovery 3 (04-09)
Range Rover Sport (05-09)

Engines:

276DT

Also for
JAGUAR and PSA models.

**Covers Automatic &
Manual Transmission
models**



Petrol 1.8 / 2.0 16v. (Belt)

AST4386

Models:

Freelander (97-06)
Discovery (93-97)

Engines:

18K16
20T4 (T16)

Also for ROVER models



NOTE: Kit AST4386 also covers 2.0D Turbo "L Series" diesels in LAND ROVER Freelander.

Petrol 2.5 KV6 (Front & Rear Belts)

AST4605A

Models:

Freelander (00-06)

Also for MG/ROVER models



With this Kit you will also need . . .

AST4614 Crankshaft Pulley Holding Tool

AST4614



Petrol 4.2 / 4.4 V8 (Chain)

AST4980

Models:

New Range Rover (06-09)

Range Rover Sport (05-09)

Discovery 3 (05-09)

Also for JAGUAR models

Engines:

4.2 4.4

428PS 448PN



With this Kit you will also need . . .

AST4985 Crankshaft Pulley Removal / Installer Set -

Incorporates Pulley Removal and Holding Tool.

Crankshaft Pulley must be removed for engine overhaul applications / removal of front timing chain cover.

Essential Tools - crank pulley bolt is tightened to 375Nm.



AST4985



Diesel XUD 1.9D (Belt)

AST4388A

Models:

Sherpa (95-96)
200 (95-96)
300 (95-96)
400 (95-96)
Pilot (96-02)

Engines:

XUD9A
XUD9A/L3

Also for CITROËN/
PEUGEOT models



Diesel DW8 1.9D (Belt)

AST4822

Models:

Pilot (02-05)

Engines:

DW8B/L4

Also for CITROËN/
PEUGEOT models



Diesel 2.5D/Di (Belt)

AST4625

Models:

Convoy (97-02)

Engines:

4EB
4HB

Also for
FORD Transit



Diesel 2.4 TD/TDi (Chain) Engine Timing and Pump R & I

AST4730

Models:

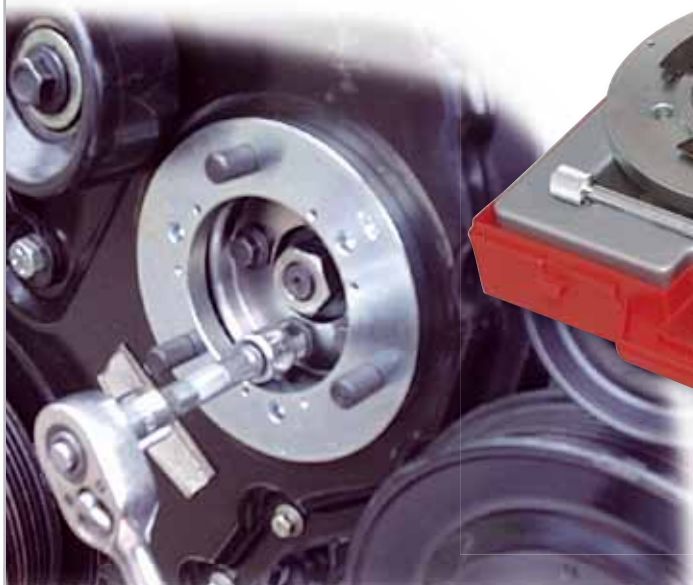
Convoy (02-06)

Engines:

ZSD424

Also for FORD & JAGUAR models

AST4730 Kit covers Engine Timing and Pump Removal/Installation (retention of pump sprocket position with pump removed).

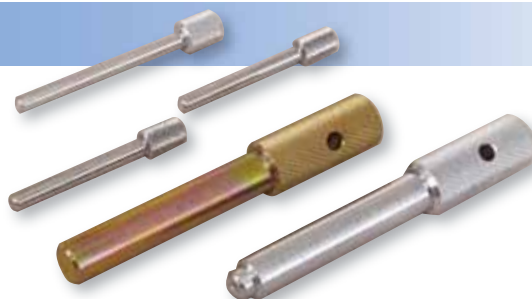


Timing Tools

AST4731

AST4731 covers Engine Timing Applications only for same applications as AST4730 Kit.

NOTE: AST4731 Set is included in AST4730 Kit



Diesel 2.5CRD (Belt)

UPDATED

AST4945A

Models:

Maxus (05-09)

Engines:

VM2516L
VM2516L09

Also for CHRYSLER-JEEP models





Petrol 1.25 to 2.3 16v. (Belt/Chain)

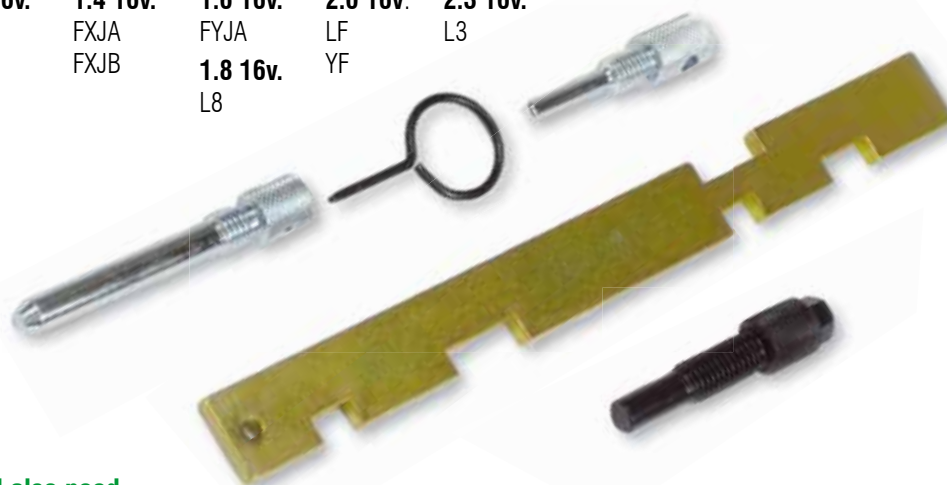
AST4404C

Models:

121 (95-00)
2 (02-07)
3 (03-09)
5 (05-09)
6 (02-09)
MX-5 (05-09)
MPV (02-05)
Tribute (01-04)

Engines:

1.25 16v.	1.4 16v.	1.6 16v.	2.0 16v.	2.3 16v.
DHA	FXJA	FYJA	LF	L3
FUJA	FXJB	1.8 16v.	YF	
FUJB		L8		



Also for FORD models



With this Set you will also need . . .

**AST4629 Crankshaft Pulley Remover/
Installer Set (Belt)**
121 - 1.25 16v. DHA



AST4629

**AST4736 Crankshaft Pulley Holding
Tool (Chain)**
3 & 6 - 1.8, 2.0, 2.3 16v.
L8, LF, YF, L3



AST4736

**AST4394 Camshaft
Sprocket Holding
Tool (Belt)**



AST4394

Diesel 1.4 / 1.6D (Belt)

AST4735A

Models:

2 (02-09)
3 (04-09)

Engines:

F6JA
F6JB
Y6



Also for FORD, VOLVO and PSA models

Diesel 1.8D (Belt)

AST4331

Models:

121 (95-97)

Engines:

RJK



MG-ROVER – see ROVER Timing Tools PAGES 61-62



Petrol 1.4 / 1.6 16v. Twin Cams N12 & N14 (Chain)

AST5020

Models:

Mini One R56 (07-09)
Cooper R55/R56 (06-09)
Cooper S R55/R56 (06-09)

Engines:

N12 1.4 & 1.6 (Valvetronic)
N14 1.6 (Direct Injection)

Also for

CITROËN/PEUGEOT models



Timing Tools

AST5025 / AST5030

Two smaller kits are available to cover the each of the engine types

AST5025 for N12 Valvetronic engines.

AST5030 for N14 Direct Injection engines

All these kits utilise the same case + insert as **AST5020** Kit and can be upgraded to cover the additional engines, at a later date, as required.



With this Kit you will also need . . .

To carry out removal & installation of the Timing Chain Assembly and related service work you will also need **AST5045** Timing Chain Service Tool Set.



AST5045

Diesel 1.6 (Belt)

AST5044

Models:

Cooper D R55/R56 (06-09)

Engines:

W16



Incorporates Front Panel Support Guides to place Front Panel in "Assembly Position" for timing belt replacement.





Petrol 1.8 to 3.5 16v./V6 (Belt)

AST4657

Models:

Colt (89-95)	Space Runner (99-04)
Lancer (89-95)	Space Wagon (92-05)
Carisma (96-05)	Outlander (03-07)
Galant (93-03)	Shogun/Pajero/Pinnin/
Sigma (91-96)	Montero (94-07)
Eclipse (91-95)	Challenger (98-00)
3000GT (93-00)	Grandis (04-09)
Space Star (99-06)	L200/Triton (97-06)

Engines:

1.8 16v./GDi 4G67, 4G93	2.5 V6 6G73, 6A13
2.0 / 16v./ V6 / GDi 4G63, 4G94, 6A12	3.0 V6 6G72
2.4/GDi 4G64, 4G69	3.5/GDi V6 6G74



Also for HYUNDAI models

Diesel 1.9D DI-D (Belt)

AST4760B

Models:

Carisma (97-05)
Space Star (00-06)

Engines:

F9Q-1/2
F8Q

**Also for
RENAULT and
VAUXHALL/OPEL
models**



**For adjusting injection pump timing you will need....
AST4389 "RAM" Injection Timing Tool Set**

Models:

Carisma (97-02)

Engines:

F8Q



AST4389

Diesel 2.0D DI-D (Belt)

AST4840

Models:

Grandis (05-09)
Outlander (07-09)

Engines:

BSY (Unit Injection)

**COVERS Pumpe Düse
engine variants with
Hydraulic and Mechanical
belt tensioners**





Diesel 1.5 dCi (Belt)

AST4961

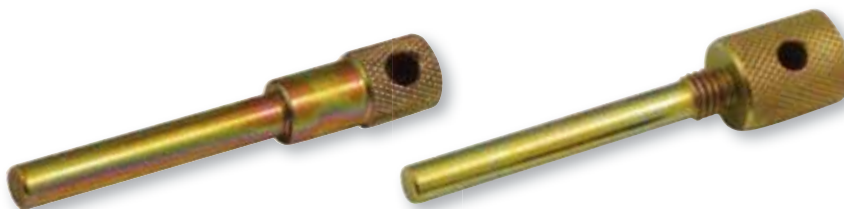
Models:

Micra K12 (03-09)
Almera N16 (02-06)
Note E11 (06-09)
Qashqai J10 (07-09)
Kubistar X76 (03-09)

Engines:

K9K – 260/270/
272/274/
276/702/
704/710

Also for RENAULT models



Diesel 1.5 / 1.9 / 2.2 / 2.5 dCi (Belt)

AST4760B

Models:

Micra K12 (03-09)
Almera N16 (02-06)
Note E11 (06-09)
Qashqai J10 (07-09)
Primera P12 (03-07)
Kubistar X76 (03-09)
Primastar X83 (02-09)
Interstar X70 (02-09)

Engines:

1.5dCi
K9K – 260/270/272/274/
276/702/704/710

1.9dCi

F9Q – 760/762/772/774

2.2dCi

G9T – 722/750

2.5dCi

G9U – 632/650/
720/724/726/
750/754

Also for

RENAULT and
VAUXHALL/OPEL models



Diesel 2.0 dCi (Chain)

AST4975

Models:

Qashqai J10 (07-09)
X-Trail T31 (07-09)
Primastar X83 (06-09)

Engines:

2.0dCi
M9R – 780/830/832/833

Also for RENAULT and VAUXHALL/OPEL models



With this Kit you will also need . . .

AST4939 Universal Handle for Crank Pulley Holding Tool

AST4939



Petrol 1.6 16v. Twin Cams (Belt)

AST4962

Models:

Kubistar X76 (03-09)

Engines:

K4M – 752/753

Also for

RENAULT models



OPEL – see VAUXHALL/OPEL Timing Tools PAGES 67-71

PEUGEOT – see CITROËN-PEUGEOT PAGES 20-24



Petrol 1.4 / 1.6 / 1.8 / 2.0(t) 16v. Twin Cams (Belt) K4J / K4M / F4P / F4R BASIC SET

AST4960

Models:

Clio II (99-06)
Megane (99-03)
Megane Scenic (99-00)
Scenic (99-03)
Laguna (98-01)
Laguna II (01-05)

Engines:

1.4 16v.

K4J - 700/710/711/712/
713/714/715/750

1.6 16v.

K4M - 700/701/704/706/708/
709/710/711/712/714/
718/720/724/732/734/
740/742/743/744/745/
746/748.

1.8 16v. (Laguna II)

F4P - 720/722/770/771/
772/773/774/775



Set **AST4960** covers belt replacement on the above models / engine codes.

K4J/K4M/F4P/F4R engines were originally introduced in 1998.

As the engines have developed, additional timing tools have become necessary to follow correct **RENAULT** belt replacement procedures, involving releasing camshaft sprockets and changing to a fixed crankshaft gear.

Workshops with **AST4960** can extend the application coverage of their **AST4960** Set via the additional timing tools detailed below.



To extend the application coverage of AST4960 Set, you will need....

For 1.4 & 1.6 16v. engines (K4J / K4M)

AST4623 Camshaft Sprocket Locking Device

Models:

Clio III (05-09)
Modus (04-08)
Scenic II (03-09)
Grand Scenic II (03-09)
Laguna II (05-07)
Kangoo (01-09)

Engines:

1.6 16v.

K4M - 708/716/730/732/750/752/753/
760/761/766/782/800/801/812/813



AST4623

AST4924 Timing Belt Guide Pulley Wrench

Models:

Clio III (05-09)
Modus (04-08)
Megane II (02-09)
Scenic II (03-09)
Grand Scenic II (03-09)
Laguna II (05-07)
Kangoo (01-09)

Engines:

1.4 16v.

K4J - 730/732/740/770/780

1.6 16v.

K4M - 708/716/730/732/750/752/753/
760/761/764/766/782/790/791/792/
794/800/801/802/804/812/813



AST4924

For 1.8 & 2.0(t) 16v. engines (F4P / F4R(t)) AST4923 Camshaft Sprocket Locking Device

Models:

Clio II (06-09)
Megane 99-03)
Megane II (02-09)
Megane/Scenic (99-00)
Scenic/RX4 (99-03)
Scenic/Grand Scenic II (03-09)
Laguna (98-01)
Laguna II (01-07)
Espace/Grand Espace (98-02)
Espace/Grand Espace IV (02-09)
Traffic II (01-09)

Engines:

1.8 16v.

F4P - 720/722
(Megane & Scenic) /760

2.0(t) 16v.

F4R - 700/701/712/
713/714/715/720/722/
730/732/740/741/744/
746/770/771/776/780/
784/786/787/790/791/
792/794/795/796/797/
820/830



AST4923

ALL THE TOOLS DETAILED ABOVE ARE ALSO AVAILABLE IN THE **LARGER COMBINATION KITS** DETAILED ON PAGE 55



Petrol 1.4 / 1.6 / 1.8 / 2.0(t) 16v. Twin Cams (Belt) K4J / K4M / F4P / F4R

AST4964

Models:

Clio II (99-06)
Clio III (05-09)
Modus (04-08)
Megane (99-03)
Megane II (02-09)
Megane Scenic (99-00)
Scenic/RX4 (99-03)
Scenic II (03-09)
Grand Scenic II (03-09)
Laguna (98-01)
Laguna II (01-07)
Espace (02-09)
Grand Espace (02-09)
Kangoo (01-09)
Trafic II (01-09)

Engines:

Full details of specific engine codes covered by AST4964 Kit are provided on the Application Charts on Pages 56-57.



NEW KITS FOR REVISED RENAULT TIMING BELT REPLACEMENT PROCEDURES

These engines were originally introduced in 1998. As the engines developed over the years, additional timing tools have become necessary to follow correct **RENAULT** belt replacement procedures, involving releasing camshaft sprockets and changing to a fixed crankshaft gear.

COMPREHENSIVE COVERAGE

AST4964 Kit incorporates **ALL** the required timing tools needed to cover the current belt replacement procedures on the complete range of **RENAULT 1.4, 1.6, 1.8 & 2.0 16v. engines**, across **ALL** models detailed.



Two Smaller Kit Options

AST4962, AST4963

Two smaller kits are available to cover each engine range separately.

Kit AST4962 – 1.4 & 1.6 16v. K4J / K4M

Kit AST4963 – 1.8 & 2.0(t) 16v. F4P / F4R

These kits utilise the same case + insert as **AST4964** and can be upgraded with the tools required to cover the additional applications at a later date. Full details of specific engine codes covered by each kit are provided on the Application Charts Pages 56-57.



AST4962



AST4963



Renault Timing Tools - K4J / K4M / F4P / F4R Engines

			COMBINATION KITS (see PAGE 55 for applications)			BASIC SET + ADDITIONAL TIMING TOOLS (see PAGE 54 for applications)			
Engine Type	Engine Code	Year	AST4964 Full Kit All Engines	AST4962 1.4/1.6 Engines	AST4963 1.8/2.0 Engines	AST4960 Basic Set	AST4623 Sprocket Hold	AST4924 Pulley Wrench	AST4923 Sprocket Hold
K4J - 1.4 16v.	700	00-06	●	●		●			
	710	01-09	●	●		●			
	711	01-09	●	●		●			
	712	99-06	●	●		●			
	713	99-06	●	●		●			
	714	00-03	●	●		●			
	715	00-06	●	●		●			
	730	02-09	●	●		●		●	
	732	03-09	●	●		●		●	
	740	05-09	●	●		●		●	
	750	99-03	●	●		●			
	770	04-08	●	●		●		●	
	780	05-09	●	●		●		●	
K4M - 1.6 16v.	700	99-03	●	●		●			
	701	99-03	●	●		●			
	704	99-03	●	●		●			
	706	99-03	●	●		●			
	708	99-09	●	●		●	(2)	(2)	
	709	99-03	●	●		●			
	710	01-05	●	●		●			
	711	01-05	●	●		●			
	712	00-03	●	●		●			
	714	01-05	●	●		●			
	716	05-07	●	●		●	●	●	
	718	01-05	●	●		●			
	720	98-01	●	●		●			
	724	98-01	●	●		●			
	730	01-09	●	●		●	●	●	
	732	01-05	●	●		●	(2)	(2)	
	734	01-05	●	●		●			
	740	01-05	●	●		●			
	742	02-05	●	●		●			
	743	01-05	●	●		●			
	744	01-05	●	●		●			
	745	01-05	●	●		●			
	746	02-05	●	●		●			
	748	02-05	●	●		●			
	750	01-07	●	●		●	●	●	
	752	01-09	●	●		●	●	●	
	753	01-09	●	●		●	●	●	
	760	02-09	●	●		●	(1)	●	
	761	02-09	●	●		●	(1)	●	
	764	03-09	●	●		●		●	
	766	05-09	●	●		●	●	●	
	782	03-07	●	●		●	●	●	
	790	04-08	●	●		●		●	
	791	04-08	●	●		●		●	
	792	04-08	●	●		●		●	
	794	04-08	●	●		●		●	



Renault Timing Tools - K4J / K4M / F4P / F4R Engines

			COMBINATION KITS (see PAGE 55 for applications)			BASIC SET + ADDITIONAL TIMING TOOLS (see PAGE 54 for applications)			
Engine Type	Engine Code	Year	AST4964 Full Kit All Engines	AST4962 1.4/1.6 Engines	AST4963 1.8/2.0 Engines	AST4960 Basic Set	AST4623 Sprocket Hold	AST4924 Pulley Wrench	AST4923 Sprocket Hold
K4M - 1.6 16v.	800	05-09	●	●		●	●	●	
Continued	801	05-09	●	●		●	●	●	
	802	04-08	●	●		●		●	
	804	04-08	●	●		●		●	
	812	05-09	●	●		●	(1)	●	
	813	05-09	●	●		●	(1)	●	
F4P - 1.8 16v.	720	00-05	●		●	●			(1)
	722	00-05	●		●	●			(1)
	760	98-01	●		●	●			●
	770	01-05	●		●	●			
	771	01-05	●		●	●			
	772	01-05	●		●	●			
	773	01-05	●		●	●			
	774	01-05	●		●	●			
	775	01-05	●		●	●			
F4R - 2.0 16v.	700	98-02	●		●	●			●
	701	98-02	●		●	●			●
	712	01-05	●		●	●			●
	713	01-05	●		●	●			●
	714	01-07	●		●	●			●
	715	01-05	●		●	●			●
	720(t)	01-06	●		●	●			●
	722(t)	01-06	●		●	●			●
	730	99-04	●		●	●			●
	732	01-04	●		●	●			●
	740	99-03	●		●	●			●
	741	99-03	●		●	●			●
	744	99-03	●		●	●			●
	746	01-03	●		●	●			●
	770	02-09	●		●	●			●
	771	02-09	●		●	●			●
	776(t)	04-07	●		●	●			●
	780	99-01	●		●	●			●
	784(t)	05-07	●		●	●			●
	786(t)	05-07	●		●	●			●
	787(t)	05-07	●		●	●			●
	790	02-09	●		●	●			●
	791	02-09	●		●	●			●
	792	02-09	●		●	●			●
	794(t)	02-06	●		●	●			●
	795(t)	02-06	●		●	●			●
	796(t)	04-06	●		●	●			●
	797(t)	04-06	●		●	●			●
	820(t)	06-09	●		●	●			●
	830	06-09	●		●	●			●

(1) = Megane/Scenic
(2) = Kangoo



Petrol 1.2 to 2.2 (Belt)

D4F / D7F / E7F / E7J / F3P / F7P / F3R / J7R / F7R / J7T

AST4390

Models:

Twingo (96-07)
Clio (90-98)
Clio II (98-09)
Clio III (05-09)
Modus (04-08)
R19 (89-96)
Megane (95-03)
Megane Scenic (96-99)
Laguna (94-01)
Safrane (92-01)
Espace (91-99)
Extra/Rapid/Express (90-02)
Kangoo (98-09)

Engines:

1.2 – D7F 700/701/702/703/704/708/
710/720/722/726/730/744/746/764/766
E7F 700/704/706/708/750
1.2 16v s.o.h.c. -
D4F 702/704/706/708/712/714/716/722/ 728/730/740/764
1.4 – E7J 601/624/626/634/635/700/706/710/711/716/
718/719/720/724/726/728/740/742/745/754/756/
757/764/770/771/773/780
1.8 – F3P 674/678/682/700/704/706/708/710/
712/714/720/724/755/758/760/765/Q7/R7
1.8 16v. –F7P 700/704/722
2.0 – F3R 611/722/723/728/729/750/
751/752/ 768/769/791/796/797/798/
J7R 732/733/734/735/768
2.0 16v. – F7R 710/714
2.2 – J7T 760/761/762/766



With this Kit you will also need . . .

AST3398 Flywheel Holding Tool

(Crank Pulley removal)

F3P, F3R, E7J, F7P, F7R



AST3398

AST4356 Flywheel Holding Tool

(Crank Pulley removal)

D7F



AST4356

AST4364 Tensioner Tool –

Clio, Kangoo,
Twingo, D7F



AST4364

Petrol 2.0 16v. IDE – F5R (Belt)

AST4860

Models:

Megane (99-03)
Laguna II (01-05)

Engines:

F5R
700
701
740

Direct Injection
Engines



Petrol 2.0 16v. / 2.5 20v. N7Q / N7U (Belt)

AST4387

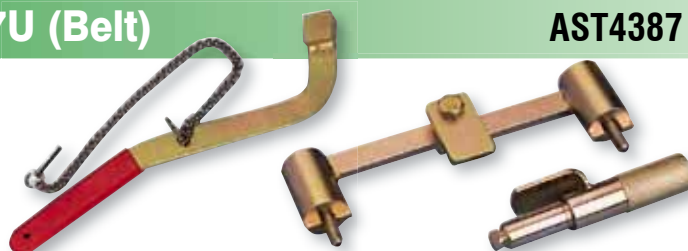
Models:

Laguna (96-99)
Safrane (96-01)

**Also for VOLVO
models**

Engines:

2.0 16v.
N7Q 704/710/711
2.5 20v.
N7U 700/701



Petrol 3.0 24v. V6 L7X (Belt)

AST4580

Models:

Laguna (97-01)
Laguna II (01-05)
Safrane (96-01)
Espace (98-02)

Engines:

L7X 700/701/727/731

Also for CITROËN/PEUGEOT and LANCIA models





Diesel 1.5dCi K9K (Belt)

AST4961

Models:

Clio II/Campus (01-09)
Clio III (05-09)
Logan (06-09)
Modus (04-08)
Megane II (02-09)
Scenic/Grand Scenic II (03-09)
Kangoo (00-09)

Engines:

1.5dCi K9K –
700/702/704/706/710/712/714/716/
718/722/724/728/729/732/750/752/
760/762/764/766/768/790/792



Diesel 1.6D / 1.9D/Turbo/dTi / 2.1D Turbo / 2.2D/Turbo (Belt) F8M / F8Q / F9Q / J8S / G8T

AST4390

Models:

Clio (90-98)
Clio II (98-03)
R19 (91-96)
Megane (95-03)
Megane Scenic (96-99)
Scenic (99-03)
Laguna (95-01)
Safrane (91-01)
Espace (91-02)
R5/Van (91-96)
Extra/Rapid/Express (92-02)
Kangoo (98-04)
Trafic (97-00)
Master II (00-03)

Engines:

1.6D – F8M 736/760
1.9D – F8Q 600/606/620/622/624/630/632/
640/644/646/648/662/672/676/
678/680/682/684/692/696/714/
730/732/742/744/764/776
1.9D Turbo – F8Q 610/720/722/740/
768/784/786/788
1.9dTi – F9Q 710/716/717/730/734/
744/770
2.1D Turbo – J8S 620/760
2.2D/Turbo – G8T 714/716/740/
752/760/790/
792/794



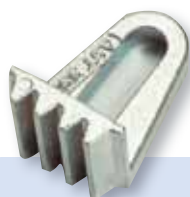
Also for CHRYSLER, MITSUBISHI,
VAUXHALL/OPEL and VOLVO models



With this Kit you will also need . . .

Flywheel Holding Tools (Crank Pulley Removal)

F8M
Early F8Q
engines



AST3398

F8Q
F9Q
engines



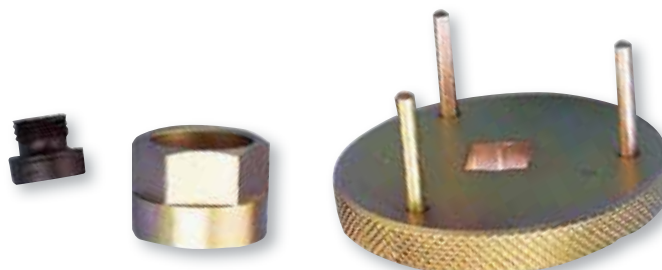
AST4356

Diesel 'RAM' System Injection Pump Timing

AST4389

"RAM" system 1.9D/dTi

F8Q
F9Q



Also for VAUXHALL/OPEL and MITSUBISHI models



Diesel 1.5 / 1.9 / 2.2 & 2.5dCi (Belt) K9K / F9Q / G9T / G9U

AST4760B

Models:

Clio II / Campus (01-09)
Clio III (05-09)
Modus (04-08)
Logan (05-09)
Megane (99-03)
Megane II (02-09)
Scenic / RX4 (99-03)
Scenic II/Grand Scenic II (03-09)
Laguna (99-01)
Laguna II (04-07)
Espace/Grande Espace (00-09)
Kangoo (00-09)
Trafic II (01-09)
Master II (00-06)

Engines:

1.5dCi – K9K

700/702/704/706/710/712/714/716/
718/722/724/728/729/732/750/752/
760/762/764/766/768/790/792

1.9dCi – F9Q

650/664/670/674/680/690/718/732/
733/740/748/751/752/754/758/760/
762/772/774/790/800/803/
804/808/812/820/826

2.2dCi – G9T

600/605/642/700/702/703/706/
707/710/720/722/742/743/750

2.5dCi – G9U

630/720/724/726/730/750/754



Updated for Clio III – 1.5dCi
+ 1.9dCi 600/800 Series

Also for VAUXHALL/OPEL and NISSAN models ...
plus 1.5dCi K9K engines in DACIA Logan

Diesel 2.0 dCi (Chain)

AST4975

Models:

Megane II (07-09)
Scenic/Grand Scenic (06-09)
Laguna II (05-07)
Laguna III (07-09)
Vel Satis (08-09)
Espace/Grande Espace (08-09)
Koleos (08-09)
Trafic II (07-09)

Engines:

2.0dCi

M9R – 700/721/722/724/740/742/746/760/
761/780/802/803/805/830/832/833



Also for NISSAN and
VAUXHALL/OPEL models



With this Kit you will also need ...

AST4939 Universal Handle for Crank Pulley Holding Tool

AST4939



Diesel 2.5D/Turbo / 2.8D/dTi/Dci (Belt) S8U / S9U / S9W

AST4865

Models:

Trafic (80-00)
Master (80-07)
Mascot (99-07)

Also for CITROËN/PEUGEOT,
FIAT and IVECO models

Engines:

2.5D – S8U 720/722/730/731/742/748/
750/752/770/772/780/782

2.5D Turbo – S9U 700/702/704/714/740

2.8dTi – S9W 700/702

2.8dCi – S9W 206/208/212



ROVER (INCLUDING MG-ROVER) TIMING TOOLS



Petrol 1.4 to 2.0 16v. (Belts)

AST4386

Models:

Rover

200/Coupe/Cabrio (92-99)
Streetwise (03-06)
400/Tourer (90-99)
600 (93-99)
800 (91-99)
25 (99-05)
45 (99-05)
75 (99-05)

MG

MG ZR (01-05)
MG ZS (01-05)
MG ZT/ZT-T (03-05)
MGF (95-02)
MG TF (02-05)
MG Express (03-05)

Engines:

Rover 16v. -1.1K16, 1.4K16,
1.6K16, 1.8K16, 1.8VVC(K16)

1.6 16v-DA16A8

1.8 – F18A3

2.0/Turbo – F20Z1, F20Z2,
20T4.

2.3 H23AZ

Also for LAND ROVER Freelander 1.8K16



With this Kit you will also need . . .

AST4844 Crankshaft Pulley Removal Tool

Sprocket Holding Tool with
Inter-changeable Pins
218/Coupe/Cabrio, 25,
MG ZR, MGF 1.8vi/VVC



AST4844



Timing Tools

Petrol 2.0 & 2.5 KV6 (Belts)

AST4600/AST4605A

Models:

Rover

45 (99-05)
75 (99-05)
825 (96-99)

MG

MG ZR (04-05)
MG ZS (01-05)
MG ZT/ZT-T (01-05)

Engines:

KV6 2.0 & 2.5

Also for LAND ROVER Freelander V6

Timing belt replacement for **all** variants of the Rover KV6 engine (except 190) in Rover, MG & LR Freelander is covered by Kit AST4600. Timing Kit AST4605A is also available for Rover 45/75 and MG models only.

For KV6 190 engines in MG ZT/ZT-T additional set AST4617 is required.

AST4605A

Rover 45 & 75, MGZS, MGZT/ZT-T
(160-180)

LR Freelander
2.0 & 2.5 V6



For MG-Rover ZT/ZT-T (190) models
you will also need . . .

AST4617
MGZT/ZT-T
2.5 V6 (190)



AST4617

For KV6-190 Engines
(use in conjunction with
AST4600 or AST4605A)



For Rover 45, 75 and MG applications
you will also need . . .

AST4614 Crankshaft Pulley Holding Tool



AST4614

ROVER (INCLUDING MG-ROVER) TIMING TOOLS



Diesel 1.5D, 1.8D/Turbo, 1.9D (Belt)

AST4386

Models:

100 (95-98)
218D (91-95)
418D (94-97)

Engines:

1.5D
TUD5 (VJY/VJZ)
1.8D/1.9D
XUD7TE(A8A)
XUD9(D9B)



With this Kit you will also need . . .

AST4359 Flywheel Holding Tool

100
1.5D



AST4359

Diesel 2.0D Turbo (Belt)

AST4406A

Models:

Rover

220D (95-99)
25 (99-05)
Streetwise (03-06)
420D (95-99)
45 (99-05)
620D (95-99)

MG

MG ZR (01-05)
MG ZS (01-05)
MG Express (03-05)

Engines:

2.0D Turbo

20T2N
20T2R
20T

Also for HONDA & LAND ROVER models



With this Set you will also need . . .

AST4844 Sprocket Holding tool with Inter-changeable Pins

AST4844



Diesel 2.0D CDTi (Chain)

AST4555A

Models:

Rover

75 (99-05)

MG

MG ZT (01-05)

Also for BMW &
LR Freelander Td4

Engines:

M47R : (BMW)



If removing the pump you will also need . . .

AST4554 Pump Remover/Sprocket Retainer

Retention of pump sprocket position,
in-situ, when removing pump.

AST4554





Petrol 1.8i (Belt)

AST4620

Models:
9-3 (03-09)

Engines:
Z18XE

Also for VAUXHALL/
OPEL models



Petrol 2.5 / 3.0 V6 (Belt)

AST4145

Models:
900 (93-98)
9000 (95-97)
9-5 (98-03)

Engines:
2.5 V6 B258i
3.0 V6 B308i/e

Also for VAUXHALL/OPEL models



With this Kit you will also need . . .

AST4558 Guide Roller Adjuster

To Pre-Set Guide Rollers prior to belt tensioning.



AST4558

Diesel 1.9D TiD (Belt)

AST4775

Models:
9-3 (04-09)
9-5 (05-09)

Engines:
Z19DT
Z19DTH

Also for
VAUXHALL/OPEL models



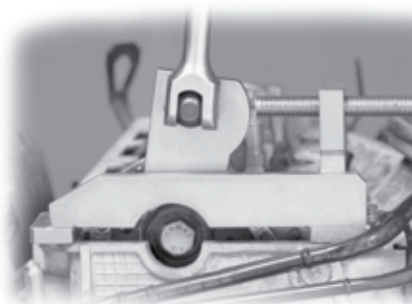
Diesel 2.2D TiD (Chain)

AST4480

Models:
9-3 (98-04)
9-5 (02-06)

Engines:
D223L

Also for
VAUXHALL/OPEL models



SEAT – see VOLKSWAGEN GROUP Timing Tools PAGES 72-80

SKODA – see VOLKSWAGEN GROUP Timing Tools PAGES 72-80

Petrol 1.0 / 1.2 (Chain)

AST4485

Models:
Wagon R+ (05-08)

Engines:
Z10XEP
Z12XEP

Also for
VAUXHALL/OPEL models



Diesel 1.3D DDiS (Chain)

AST4770

Models:
Swift (04-09)
Ignis (03-09)
Wagon R+ (03-08)

Engines:
Z13DT

Also for VAUXHALL/OPEL models



**If timing adjustment/
engine repair required you will also need . . .**
AST4882 Crankshaft Pulley Counter-hold Tool



AST4882



Diesel 1.9D DDiS (Belt)

AST4760B

Models:
Grand Vitara (05-09)

Engines:
F9QB2

Also for
RENAULT, VAUXHALL/OPEL
and NISSAN models.



Diesel 2.0D Turbo (Belt)

AST4820

Models:
Grand Vitara (00-06)

Engines:
RHW
RHZ

Also for CITROËN/PEUGEOT,
FIAT and LANCIA models





Petrol U.S. Chrysler 2.2 / 2.4 / 2.5 / 2.5V6 / 3.0V6 (Belt)

AST4645

Models:

Chrysler

Dodge

Eagle

Plymouth

Kit also covers U.S. models - Acura, Honda, Hyundai, Isuzu and Mitsubishi

These tools also included in U.S Multi-Marque Timing Kit AST4660 – see page 66.



With this Kit you will also need . . .

AST4936 Crankshaft Pulley Holding Tools Set (Acura/Honda)



AST4936

Petrol U.S. GM (Belt)

AST4653

Models:

Chevrolet

Lumina & Monte Carlo

Oldsmobile

Cutlass Supreme

Pontiac

Grand Prix, Grand AM, Lemans & Sunbird

Daewoo

Lanos

Nubira

Engines:

3.4 V6 Lumina, Monte Carlo, Supreme, Grand Prix

2.0 Grand AM, Lemans, Sunbird

1.6 Lanos, Nubira

These tools also included in U.S Multi-Marque Timing Kit AST4660 – see page 66.



Petrol U.S. Ford (Belt)

AST4654

Models:

Ford

Contour

EscortZX

Escape

Focus

Probe

Ranger

Taurus

Mercury

Mystique

Cougar

Mazda

B2300

32500

Engines:

2.0L (16v.)

2.5L (V6)

3.2L (V6)

These tools also included in U.S. Multi-Marque Timing Kit AST4660 - see page 66.





Petrol U.S. GM & Ford Combination Kit (Belt)

AST4655

Models:

Combination Kit

Comprising all tools and covering all **GM & Ford** models detailed in **AST4653 & AST4654** Kits.

Also Daewoo and Mazda applications listed for these Kits



These tools also included in U.S Multi-Marque Timing Kit **AST4660** – see below.

Petrol U.S. Twin Cams & V6 – Multi-Marque Kit for the U.S. Market AST4660

AST4660 'Multi-Marque' kit

covering Timing Belt Replacement applications on:

GM: **Chevrolet:** Lumina, Monte Carlo 3.4 V6

Oldsmobile: Cutlass Supreme 3.4 V6

Pontiac: Grand AM, LeMans, Sunbird 2.0, Grand Prix 3.4 V6

Ford: Contour, Escort ZX2, Escape, Focus, Probe 2.0, Ranger 2.5, Taurus 3.2 V6

Mercury: Mystique 2.0, Cougar 2.0

Chrysler: Cirrus, Sebring/Convertible 2.5 V6, Daytona/Shelby, Dynasty, E-Class, Laser, LeBaron, Limousine, New Yorker, Town & Country 2.2/2.5

Dodge: Avenger 2.5 V6, Colt Wagon 2.4, Stealth/AWD 3.0 V6, Stratus 2.5 V6, Colt 1.6, Aries, Caravan, Charger, Dakota, Daytona/Shelby, Dynasty, Lancer, Mini Ram Van, Omni, Rampage, Shadow, Spirit 2.2/2.5

Eagle: Summit 1.6, Talon 2.0/Turbo, Summit Wagon 2.4

Plymouth: Colt Vista 2.4, Colt 1.6/200, Laser 2.0, Reliant, Acclaim, Caravelle, Duster, Horizon, Scamp, Sundance, TC3, Turismo, Voyager 2.2/2.5

PLUS U.S. Import Models: Acura, Daewoo, Honda, Hyundai, Isuzu, Mitsubishi, Mazda.



With this Kit you will also need . . .

AST4936 Crankshaft Pulley Holding Tools Set (Acura/Honda)



AST4936

Petrol 1.0 / 1.2 / 1.4 Twin Cams (Chain)

AST4485

Models:

Agila (00-08) Tigra-B (04-09)
Corsa-B (97-00) Astra-G (98-06)
Corsa-C (00-07) Astra-H (04-09)
Corsa-D (06-09) Meriva (04-09)
Combo-C (04-07)

Engines:

1.0 12v.	1.2 16v.	1.4 16v.
X10XE	X12XE	Z14XEL
Z10XE	Z12XE	Z14XEP
Z10XEP	Z12XEP	

Also for SUZUKI models



With this Kit you will
also need . . .

AST4490 Auxiliary Belt Tensioner Tool Set

AST4490



Timing Tools

Petrol 1.4 to 2.2 16v. EcoTec Twin Cams (Belt)

AST4620

Models:

Corsa-B+C (93-07)
Combo (93-00)
Tigra (95-00)
Tigra-B (04-09)
Meriva (03-09)
Astra-F+G+H (95-09)
Speedster/VX220 (03-06)
Zafira-A+B (99-09)
Vectra-B+C (95-08)
Signum (03-07)
Omega-B (96-03)
Sintra (96-99)
Frontera-A+B (95-04)

Engines:

1.4 16v.	1.8 16v.	2.2 16v.
X14XE	C18XEL	Z20LEH
Z14XE	X18XE	Z20LEL
	X18XE1	Z20LER
	Z18XE	Z20LET
	Z18XEL	X22SE
	X22XE	Y22SE
	C20SEL	Y22XE
	C20XE	Z22XE
	X20XEV	



Petrol 1.6 / 1.8 Twinport 16v. (Belt)

AST4995

Models:

Corsa-D (07-09)
Astra-G (03-06)
Astra-H (04-09)
Meriva (06-09)
Zafira-B (03-09)
Vectra-C (06-08)
Signum (06-08)
Insignia (08-09)

Engines:

1.6 16v	1.8 16v
Z16LEL	Z18XER
Z16LER	A18XER/2HO
Z16LET	
Z16XE1	
Z16XEP	
Z16XER	
A16XER/LDE	



With this kit you will also need . . .

AST4742 Module Removal Set to remove Ignition Module
for timing adjustment applications

AST4742



Petrol Tensioner Adjusters (via Water Pump)

ASTV500A & ASTV501A

ASTV500A (46mm)

1.8 and 2.0 s.o.h.c. Petrol

Astra-F, Calibra, Frontera
C18NZ, C20NE,

1.6D and 1.7D Diesel

Astra, Cavalier, Vectra
16DA, 17D

Also for DAEWOO / CHEVROLET models

ASTV501A (41mm)

1.2, 1.4, 1.6 s.o.h.c. Petrol

Corso-B+C, Combo, Astra-F+G, Vectra-B
C12NE, X12SZ, C14NZ, X14NZ, C14SE
X14SZ, X16SZ, X16SZR Z16SE



VISCOUS FAN Wrenches

AST3050A – 32mm

AST3051A – 36mm

AST3090 – Counter-Holding Tool

Also for BMW, FORD, LAND ROVER and VAG applications



Petrol 2.0 16v. Twin Cams (Belt)

AST4963

Models:

Vivaro (01-09)

Engines:

F4R

720

722

820



With this Kit
you will also need . . .

AST4353 Flywheel Holding Tool (for crank pulley removal)

AST4353



Petrol 2.2 16v. Twin Cams (Chain)

AST4766

Models:

Astra-G (00-06)

Astra-H (06-09)

Speedster/VX220 (00-06)

Vectra-B+C (00-08)

Signum (03-08)

Zafira-A+B (00-09)

Engines:

Z22SE

Z22YH



With this Kit you will also need . . .

AST4768 Crankshaft Pulley Holding Tool

AST4766



Petrol 2.2 16v. Twin Cams (Chain) – Coolant Pump

AST4769

Models:

Astra-G+H (00-09)

Speedster/VX220 (00-06)

Vectra-B+C (00-08)

Signum (03-08)

Zafira-A+B (00-09)

Engines:

Z22SE

Z22YH

Retains coolant pump sprocket
in situ when removing pump,
therefore minimising level of
engine dis-assembly.



Petrol 2.5 to 3.2 V6 Quad Cams (Belt)

AST4145

Models:

Vectra-A+B+C (93-05) Signum (03-05)
Cavalier (93-95) Omega-B (94-03)
Calibra (93-98) Sintra (96-99)

Also for SAAB models

Engines:

2.5 V6 **3.0 V6**
C25XE X30XE
X25XE **3.2 V6**
2.6 V6 Y32SE
Y26SE Z32SE



With this Kit you will also need . . .

AST4558 Guide Roller Adjuster

To pre-set guide rollers prior to belt tensioning

AST4558



Diesel 1.3D CDTi (Chain)

AST4770

Models:

Agila (03-08) Tigra-B (04-09)
Agila-B (08-09) Meriva (04-09)
Corsa/Combo-C (03-09) Astra-H (05-09)
Corsa-D (08-09)

Also for SUZUKI models

Engines:

Z13DT
Z13DTH
Z13DTJ



If timing adjustment/engine repair required you will also need . . .

AST4882 Crankshaft Pulley Holding Tool

AST4882



Diesel 1.6D / 1.7D Opel Engines (Belt)

AST4350G

Models:

Astra (86-91)
Astra-F+G (91-00)
Ascona-C/Cavalier (86-88)
Vectra-A (89-95)

Engines:

16DA
17D
17DR
17DTL



With this Kit you will also need . . .

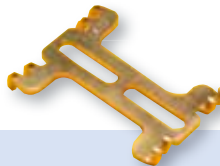
AST4171
Camshaft Locking
Tool Assembly

AST4171



AST4150
Flywheel Holding Tool
(Crank Pulley Removal)

AST4150



ASTV500A
Tensioner Adjuster
(via water pump) 16DA/17D

ASTV500A



Diesel 1.9D CDTi / 2.0D CDTi (Belt)

AST4775

Models:

Astra-H (04-09)
Vectra-C (04-08)
Signum (04-08)
Zafira-B (05-09)
Insignia (08-09)

Also for SAAB models

Engines:

1.9CDTi **2.0CDTi**
Z19DT A20DT/LBS
Z19DTH A20DT/LBX
Z19DTJ A20DT/LBY
Z19DTL A20DT/LCD





Diesel 1.9D/DTi (Belt)

AST4390

Models:

Arena (97-01) Movano (99-02)

Also for RENAULT models

Engines:

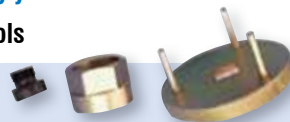
F8Q
F9Q770



For "RAM" Injection Pump Timing you will also need . . .

AST4389 "RAM" Injection Pump Tools

AST4389



Diesel 1.9Di/DTi/CDTi / 2.2 DTi / 2.5DTi/CDTi (Belt)

AST4760B

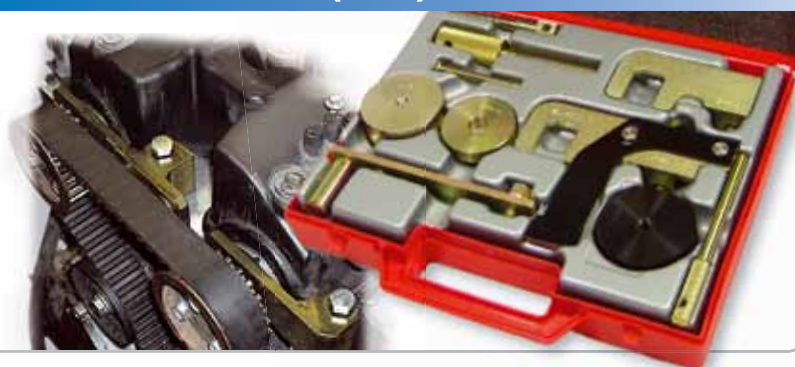
Models:

Vivaro (01-09)
Movano (00-09)

Also for RENAULT
and NISSAN models

Engines:

1.9D
F9Q 724/760/762/772/774
2.2D
G9T 720/722/750
2.5D
G9U 630/632/650/720/
724/726/730/750/754



Diesel 2.0 dCi (Chain)

AST4975

Models:

Vivaro (07-09)

Also for RENAULT and NISSAN models

Engines:

M9R
780/782/784



With this Kit you will also need . . .

AST4939 Universal Handle for Crank Pulley Holding Tool

AST4939



Diesel 2.0DTi / 2.2DTi (Chain)

AST4480

Models:

Astra-G (98-06) Zafira-A (99-05)
Vectra-B+C (97-05) Sintra (98-99)
Signum (03-05) Frontera-B (98-04)
Omega-B (98-03)

Also for SAAB models

Engines:

2.0D **2.2D**
X20DTH X22DTH
X20DTL Y22DTH
Y20DTH Y22DTR
Y20DTL



With this Kit you will also need . . .

AST4491 Fuel System Priming Device

AST4491



Diesel 2.0D (Belt)

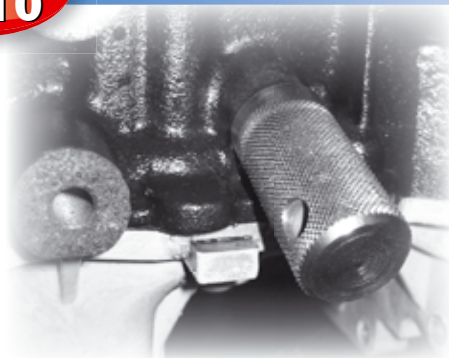
**NEW
2010**

AST5040

Models:
Antara (06-09)

Engines:
Z20DM
Z20DMH

Also for CHEVROLET models



Timing Tools

Diesel 2.5D Turbo X25DT (Chain)

AST4411

Models:
Omega-B (94-01)

Engines:
25DT
X25DT

Also for BMW and
LAND ROVER models



With this Kit you will also need . . .
AST4415 Tensioner Rail Lever

AST4415



Diesel 2.5D Turbo Y25DT (Chain)

AST4555A

Models:
Omega-B (01-03)

Engines:
Y25DT

Also for BMW and
LAND ROVER models



If removing the pump you will also need . . .
AST4553 Pump Remover/Sprocket Retainer

AST4553



Diesel 2.5D / 2.8D Turbo (Belt)

AST4865

Models:
Arena (97-01)
Movano (98-03)

Engines:
2.5D
S8U 770/772
2.8D
S9W 700/702

Also for FIAT,
CITROËN/PEUGEOT,
IVECO models





Petrol 1.2 6v./12v. (Chain)

AST4810

Models:

Seat

Ibiza/Cordoba (02-09)

Skoda

Fabia (02-07)
Fabia II (02-09)
Roomster (06-09)

V W

Polo (02-09)
Fox (05-09)

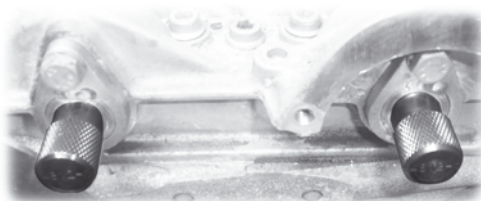
Engines:

6v.

AWY
BBM
BMD

12v.

AZQ
BME
BXV
BZG



With this Kit you will also need . . .

AST4844 Sprocket Holding Tool
with Inter-changeable Pins



AST4844

Petrol 1.4 / 1.6 16v./FSi. (Belt)

AST4635

Models:

Audi

A2 (00-06)

Seat

Arosa (99-05)
Ibiza/Cordoba (99-09)
Leon (99-09)
Toledo (99-08)
Inca (00-04)

Skoda

Fabia (99-07)
Fabia II (07-09)
Octavia (00-09)
Octavia II (04-09)
Roomster (06-09)

V W

Lupo (98-05)
Polo (98-09)
Golf/Bora (97-08)
Golf Plus (05-09)
Beetle (01-09)
Caddy (99-09)

Engines:

1.4 16v.

AFK
AHW
AKQ
APE
AQQ
AUA
AUB
AXP
BBY
BBZ
BCA
BKY
BUD
BXW

1.4 FSi

ARR

1.6 FSi

BAD

1.6 16v.

AJV
ARC
ATN
AUS
AVY
AZD
BCB



With this Set you will also need . . .

Crankshaft Pulley Holding Tools

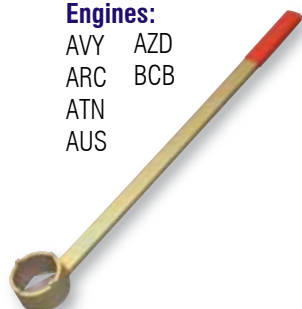
Models:

V W

Lupo
Polo
Golf
Bora

Engines:

AVY AZD
ARC BCB
ATN
AUS



AST4632

Models:

Audi

A2

Skoda

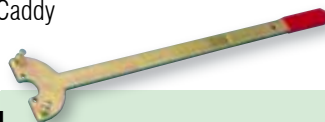
Fabia/II
Octavia/II
Roomster

V W

Lupo
Polo
Beetle
Golf/Bora
Golf Plus
Caddy

Engines:

AUA AXP AKQ
AUB BCA APE
BBY BAD AQQ
BKY AFK ARR
BUD AHW AJV



AST4634

Models:

Seat

Arosa
Ibiza/Cordoba
Leon
Toledo
Inca

Engines:

AFK AXP BCB
AQQ AUS BKY
AUB AZD BXW
APE BBY
AUA BBZ
AFH BCA
AHW



AST4642



Petrol 1.4 / 1.6FSi (Chain)

AST4845

Models:

Audi

A3 (03-07)

Skoda

Fabia II (07-09)

Octavia II (04-09)

Roomster (06-09)

V W

Polo (02-08)

Golf (03-08)

Golf Plus (05-08)

Jetta (06-08)

Passat (05-08)

Touran (03-07)

Engines:

1.4 FSi

AXU

BKG

BLN

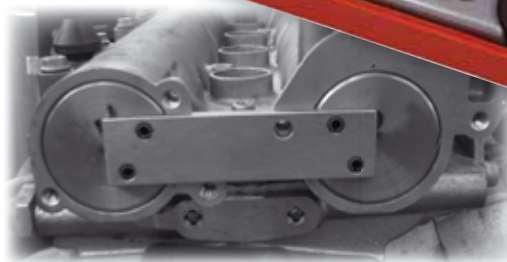
1.6 FSi

BAG

BLF

BLP

BTS



With this kit
you will also need . . .

AST3054-10

DTI (Dial Gauge)

for TDC Position Tool



AST3054-10

AST4844

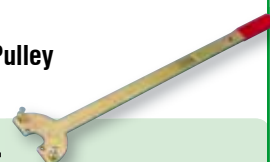
Camshaft Sprocket Holding Tool



AST4844

AST4634

Crankshaft Pulley Holding Tool



AST4634

Camshaft Sprocket Holding Tool

AST4844

Timing belt replacement and engine timing procedures on many VAG belt and chain engines require the camshaft sprockets to be 'free to turn' on camshafts. AST4844 is used to counter-hold the sprocket(s) whilst releasing and tightening the sprocket bolt.

DO NOT use timing tools for counter-holding camshafts whilst releasing / tightening sprocket bolt.



AST4844
4 x sizes Inter-changeable
Location Pins



Belt Tensioner Adjuster Set

AST4641

All VAG Group

Timing Belt Tensioners with 2 locating holes in the tensioner pulley.

Set comprises:

1x each Adjusters AST4444, AST4633 & AST4637





Front End Support Guide Set

AST4741

Front End Panel Support Guide Set

Essential to extend front end to 'Service Position' for access during belt replacement.

Audi: A4, A5, A6, A8

VW: Passat



Comprises:

3 sets Front End Panel Support Guide Pins covering above models.

Petrol 1.6 / 1.8 / 1.8T / 2.0 / 2.0 16v./ 2.0FSi (Belt)

AST4740

Models:

Audi

80 (91-96)
A3 (96-09)
S3 (99-03)
A4 (95-08)
A6 (94-02)
TT (98-06)

Skoda

Fabia (00-07)
Octavia (96-07)
Octavia II (04-09)
Superb (02-08)

V W

Polo/Classic (95-02)
Golf/Bora (94-08)
Golf Plus (05-09)
Vento (92-97)
Beetle (99-09)
Jetta (05-09)
Passat (96-09)
Touran (03-09)
Sharan (95-09)
Caddy (95-06)
Transporter (90-09)

Seat

Ibiza/Cordoba (93-06)
Leon (99-09)
Altea/XL (04-09)
Toledo (94-09)
Alhambra (96-09)
Inca (95-04)

Engines:

1.6

1F
ABM
ADA
ADP
AEH
AEK
AFT
AHL
AKL
AKS
ALZ
ANA
APF
ARM
AUR
AVU
AYD
BFQ
BFS
BFQ
BGU
BSE
BSF
1.8
ABS
ADR
ADZ
AGN
AJP
AMU
APG

1.8

APT
APX
ARG
AVV
BFV
BVP
BVR
ACE
AEB
AGU
AJH
AJL
AJQ
AMK
ANB
APP
APU
APY
AQA
AQX
ARX
ARY
ARZ
AUM
AUQ
AVC
AWC
AWT
AWU
AYP
BAM

1.8 16v.

ADL
2.0
2E
AAC
AAE
ABK
ABT
ADY
AEG
AGG
AKT
APK
AQY
ATM
ATU
AWF
AWG
AXA
AZG
AZH
AZJ
AZL
AZM
BEH
2.0 16v
ABF

2.0FSi/TFSi

AXW
BGB
BHD
BMB
BPJ
BPY



Kit AST4740 also covers specific VAG Diesel engine applications – see VAG Diesel engine section



With this Kit you will also need . . .

AST4741 Front End Panel Support Guide Set

Essential to extend front end to 'Service Position' for access during belt replacement.

Audi: A4, A5, A6, A8 **VW:** Passat



AST4741



VAG Direct Ignition Coil Remover

AST4990

Models:

Audi **Seat**
Skoda **Volkswagen**

Comprehensive Kit, with inter-changeable adaptors covering applications on a wide range of VAG engines.

Ignition Coil Removal 1.2 to 6.0 engines

- For Direct Ignition (final output stage) - Coil on Plug applications
- 4x Inter-changeable heads covering huge range of VAG engines in one kit.
- Using right tool **AVOIDS DAMAGE** to plastic coil head
- Kit includes special **LOCKING MECHANISM DEPRESSOR** Tool



Petrol 1.8 / 1.8T with Automatic Tensioner (Belt) Chain in Head

AST4808

Models:

Audi
A3 (96-03)
S3 (99-03)
A4 (95-01)
A6 (95-02)
TT (98-06)

Skoda
Octavia (96-06)

V W
Golf/Bora (97-09)
Beetle (99-09)
Passat (96-05)
Sharan (97-09)

Seat
Ibiza (99-02)
Cordoba (99-02)
Leon (99-05)
Toledo (99-05)
Alhambra (97-09)

Engines:

ADR	APP	AUQ
AEB	APT	AUX
AGN	APU	AVC
AGU	APX	AVV
AJH	APY	AWC
AJL	AQA	AWU
AJP	AQX	AYP
AJQ	ARG	BAM
AMK	ARX	BEA
AMU	ARY	BFV
ANB	ARZ	BVP
APG	AUM	BVR



For 1.8/T engines with Adjustable Tensioner Roller –use AST4841 Set (refer to engine codes)

Petrol 1.8 / 1.8T / 2.0 16v. with Adjustable Tensioner Roller (Belt) AST4841

Models:

Audi
A4 (01-08)
A6 (01-05)
Cabriolet (03-07)

Skoda
Superb (02-08)

V W
Polo (06-09)
Eos (06-07)
Passat (01-05)

Seat
Ibiza (03-08)
Cordoba (03-08)

Engines:

ALT	BEX
AMB	BFB
AVJ	BJX
AWA	BKV
AWT	BLZ
BBU	



For 1.8/T engines with Automatic Tensioner – use AST4808 Set (refer to engine codes)

VISCOUS FAN Wrenches

AST3050A – 32mm
AST3051A – 36mm
AST3090 – Counter-Holding Tool

Also for BMW, FORD and LAND ROVER applications





Petrol 2.3 / 2.8 / 2.9 (Chain)

AST4648

Models:

Seat

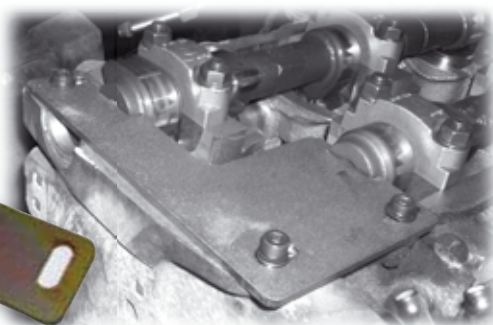
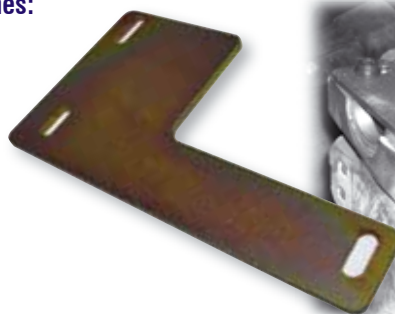
Toledo (99-05)
Alhambra (95-00)

V W

Beetle (00-09)
Golf/Bora (94-03)
Vento (94-97)
Corrado (92-95)
Passat (91-05)
Sharan (95-00)
Transporter (96-03)

Engines:

AAA
ABV
AES
AGZ
AMY
AQN



Also for FORD Galaxy (VR6)

Petrol 2.6 / 2.8 V6 (Belt)

AST4454

Models:

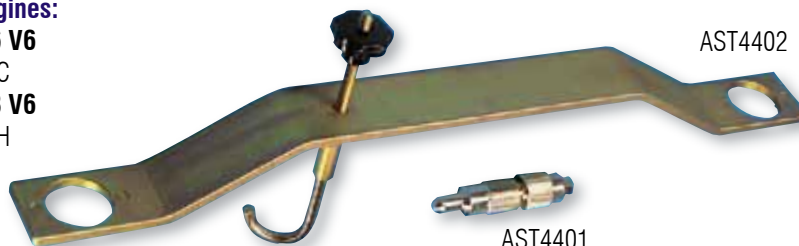
Audi

80 (91-96)
A4 (94-99)
Coupe (91-96)

Cabriolet (91-00)
A6 (94-97)
A8 (94-00)

Engines:

2.6 V6
ABC
2.8 V6
AAH



AST4402

AST4401



With this Set you will also need . . .

AST4741

Front End Support Guide Set

AST4741



AST4848

Camshaft Sprocket Remover

AST4848



Petrol 2.4 / 2.7T / 2.8 V6 30v. (Belt)

AST4455

Models:

Audi

A4 (94-08)
RS4 (00-02)
S4 (97-01)
A6 (95-05)
Allroad (00-05)
A8 (96-02)

Skoda

Superb (02-08)

V W

Passat (96-05)

Engines:

2.4 V6 30v.

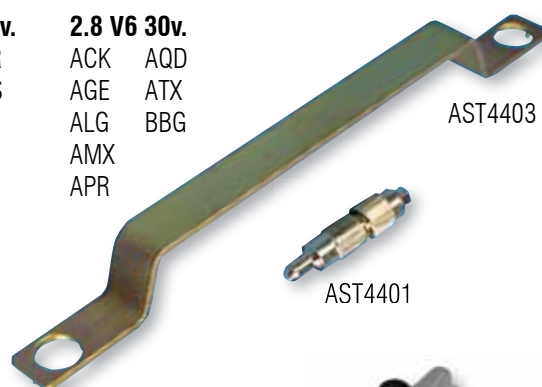
AGA APS
AJG APZ
ALF ARJ
ALW ARN
AML ASM
AMM BDV
APC

2.7T V6 30v.

AGB AZR
AJK BES
ASJ
ARE
AZA
AZB

2.8 V6 30v.

ACK AQD
AGE ATX
ALG BBG
AMX
APR



AST4403

AST4401



With this Set you will also need . . .

AST4741

Front End Support Guide Set

AST4741



AST4848

Camshaft Sprocket Remover

AST4848





Petrol 3.0 V6 30v. (Belt)

AST4940

Models:

Audi

A4 (01-08)
Cabrio (03-09)
A6 (01-08)
A8 (03-09)

Engines:

ASN
AVK
BBJ



With this Kit you will also need . . .

AST4741

Front End Support Guide Set



AST4741

Petrol 3.7 / 4.2 V8 (Belt)

AST4827

Models:

Audi

A6 Quattro (99-05)
S6 (00-04)
A8 (99-09)
S8 (99-03)
RS6 (03-05)

V W

Touareg (03-07)
Phaeton (03-04)

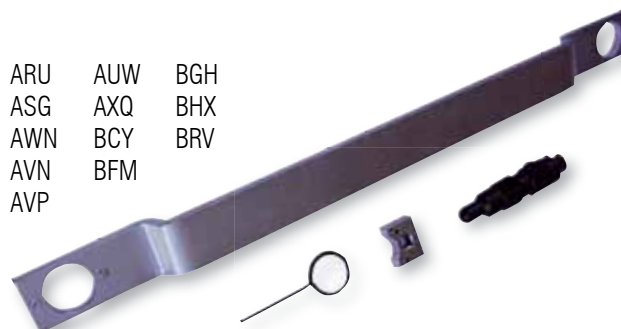
Engines:

3.7 V8

AKC
AQG
BFL

4.2 V8

ANK	ARU	AUW	BGH
AQF	ASG	AXQ	BHX
AQH	AWN	BCY	BRV
AQJ	AVN	BFM	
ARS	AVP		



With this Set you will also need . . .

AST4741

Front End Support Guide Set

AST4741



AST4848

Camshaft Sprocket Remover

AST4848



Camshaft Sprocket Remover

AST4848

Timing belt replacement procedure on VAG V6/V8 engines, requires the Camshaft sprockets to be released from end of Camshaft and "free to turn".

Special Tool AST4848 is required to remove Camshaft Sprockets.





Diesel Pumpe Duse 1.2 / 1.4 / 1.9 / 2.0 TDi PD (Belt) 1.6 / 2.0 TDi CR Common Rail (Belt)

AST4840

Models:

Audi

A2 (01-06)
A3 (01-09)
A4 (99-09)
A5 (08-09)
A6 (98-08)
TT (08-09)
Q5 (08-09)

Seat

Arosa (99-05)
Ibiza/Cordoba (02-09)
Altea/XL (04-09)
Leon (00-09)
Toledo (04-09)
Alhambra (99-09)

Skoda

Fabia (00-07)
Fabia II (07-09)
Roomster (07-09)
Octavia (00-09)
Octavia II (04-09)
Superb (02-08)

V W

Lupo (99-05)
Polo (99-09)
Fox (05-09)
Golf/Bora (98-09)
Golf Plus (05-09)
Jetta (05-09)
Eos (06-09)
Beetle (00-09)
Scirocco (08-09)
Tiguan (07-09)
Passat (98-09)
Touran (03-09)
Sharan (99-09)
Caddy (03-09)
Transporter (03-09)

Engines:

PUMP DUSE

1.2TDi PD

ANY, AYZ,

1.4TDi PD

AMF, ATL, BAY, BHC, BMS, BNM,
BNV, BWB

1.9TDi PD

AJM, AMG, ANU, ARL, ASZ, ATD,
ATJ, AUY, AVB, AVF, AVQ,
AWX, AXB, AXC, AXR, BJB,
BKC, BKE, BLS, BLT, BMT,
BPX, BRB, BRM, BRR, BRS,
BRU, BSU, BSV, BSW, BTB, BUK,
BVK, BXE, BXF

2.0TDi PD

AZV, BKD, BDJ, BDK, BGW,
BHW, BKP, BLB, BMA, BMM,
BMN, BMP, BMR, BNA, BPW,
BRC, BRE, BRF, BRT, BSS,
BUY, BUZ, BVA, BVE, BVF,
BVG, BVH, BWV.

COMMON RAIL

1.6TDi CR

CAYA, CAYB, CAYC

2.0TDi CR

CAGA, CAGB, CAGC, CAHA,
CAHB, CBAA, CBAB, CBAC,
CBBA, CBBB, CBDA, CBDB,
CBDC, CBEA, CEGA



Kit applications extended
to cover 1.6 & 2.0 Common
Rail diesels



With this Kit you will also need . . .

AST4741 Front End Panel Support Guides Set

Essential to extend front end to 'Service Position' for access during belt replacement.

Audi: A4, A5, A6, A8

VW: Passat



AST4741

**AST4844 Camshaft Sprocket
Holding Tool with
inter-changeable pins**



AST4844



Diesel 1.7 & 1.9 D/DT/SDi/TDi (Belt)

AST4740

Models:

Audi

80 (91-96)
A3 (96-03)
A4 (95-01)
A6 (94-02)

Seat

Arosa (98-05)
Ibiza/Cordoba (93-06)
Leon (99-05)
Toledo (94-05)
Alhambra (96-00)
Inca (96-04)

Skoda

Fabia (99-06)
Felicia (95-01)
Octavia (96-06)

VW

Lupo (98-05)
Polo/Classic (95-06)
Golf/Bora (94-05)
Vento (93-98)
Beetle (98-04)
Passat (96-00)
Sharan (95-00)
Caddy (96-04)
Transporter (90-03)

Engines:

1.7SDi

AHB, AHG, AKU, AKW

1.9D/Turbo

1X, 1Y, AAZ, ABL, AEF

1.9SDi

AEF, AEY, AGD, AGP,
AQM, ASX, ASY, AYQ

1.9TDi

1Z, AFF, AFN, AGR,
AHF, AHH, AHU, ALE,
ALH, ASV, AVG



Kit AST4740 also covers specific VAG Petrol engine applications 1.6 to 2.0 – see VAG Petrol engine section



With this Kit you will also need . . .

AST4741 Front End Support
Guide Set



AST4741

AST4844 Camshaft Sprocket
Holding Tool with
inter-changeable pins



AST4844

Diesel 2.5TDi V6 (Belt)

AST4450

Models:

Audi

A4 (97-08)
A6 (97-05)
Allroad (00-05)
A8 (97-02)

Skoda

Superb (02-08)

VW

Passat (98-05)

Engines:

AFB	AYM	BDG
AKE	BAU	BDH
AKN	BCZ	BFC



With this Kit you will also need . . .

AST4394
Camshaft Sprocket Holding Tool



AST4394

AST4848
Camshaft Sprocket Remover



AST4848



Diesel 2.4D / 2.5SDi/TDi (Belt)

AST5038

Models:

V W

Transporter (90-03)
LT (96-06)
Crafter (06-09)

Engines:

2.4D

AAB, AJA

2.5SDi

AGX

2.5TDi

ACV, AHD

AHY, AJT

ANJ, APA

AUF, AXG

AXL, AYC

BBE, BBF

2.5TDi Common Rail

BJJ, BJK

BJL, BJM



Covers Standard
Injection + Common Rail
2.5TDi diesels



With this Set you will also need . . .

AST4398G Injection Pump Timing Tool Kit

The Injection Pump requires timing after timing belt replacement on all 2.5TDi engines (excluding Common Rail variants).

AST4398G

Diesel Pumpe Duse (Unit Injection) 2.5TDi PD (Gears)

AST5035

Models:

V W

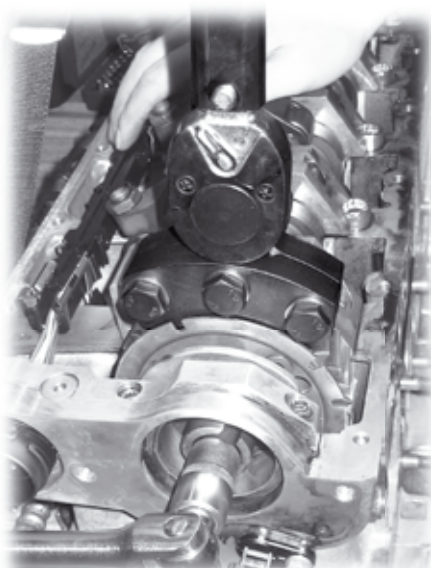
Touareg (03-09)
Transporter (03-09)

Engines:

AXD, AXE, BAC, BLJ

BLK, BNZ, BPC, BPD, BPE

**NEW
2010**





Petrol 1.6 / 1.8 / 2.0 16v. Twin Cam (Belt/Chain)

AST4404C

Models:

S40/V50 (04-09)
C30 (06-09)

Also for FORD models

Engines:

1.6 16v

B4164S3 (Belt)

1.8 16v

B4184S11 (Chain)

2.0 16v

B4204S3 (Chain)



With this Set you will also need . . .

AST4736 Crankshaft Pulley Holding Tool
for 1.8 16v B4184S11 and 2.0 16v B4204S3

AST4736

Petrol 1.6 / 1.8 / 1.9 / 2.0 / 2.3 / 2.4 / 2.5 Twin Cams (Belt)

AST4387

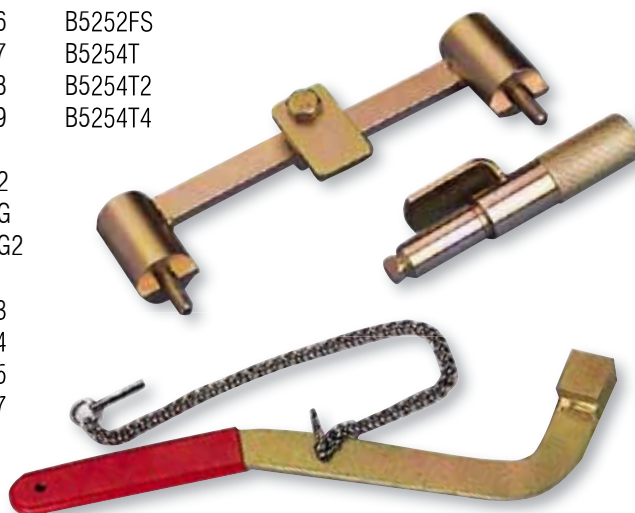
Models:

850 (92-97)
C70 (98-02)
S40 (96-04)
V40 (96-04)
S60 (01-05)
S70 (97-00)
S80 (99-05)

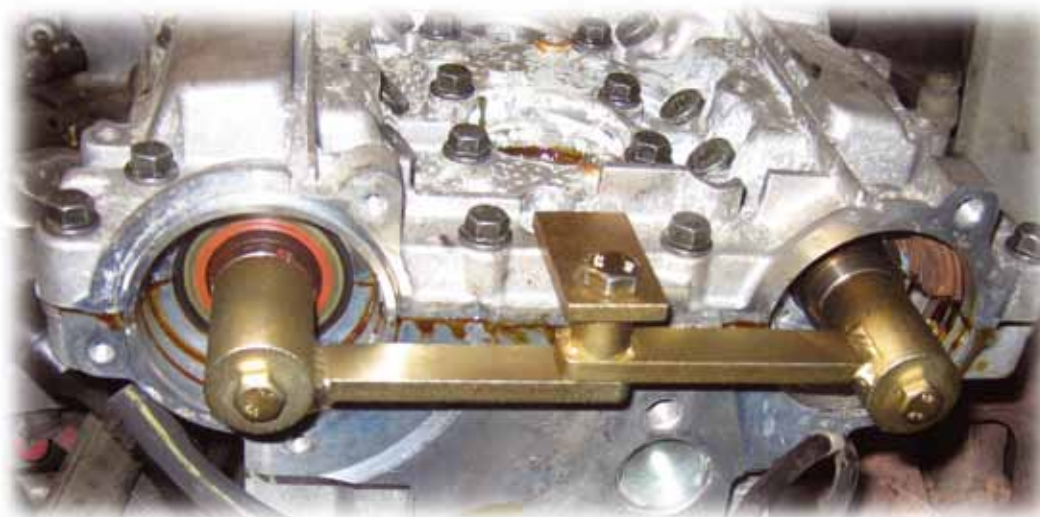
Also for RENAULT models

Engines:

B4164S	B4204T3	B5234T6	B5252FS
B4164S2	B4204T5	B5234T7	B5254T
B4184S	B5202FS	B5234T8	B5254T2
B4184S2	B5204FT	B5234T9	B5254T4
B4184S3	B5204T2	B5244S	
B4184S9	B5204T3	B5244S2	
B4184S10	B5204T4	B5244SG	
B4194T	B5204T5	B5244SG2	
B4194T2	B5234FS	B5244T	
B4204S	B5234FT	B5244T3	
B4204S2	B5234T3	B5244T4	
B4204T	B5234T4	B5244T5	
B4204T2	B5234T5	B5244T7	



NOTE: Volvo show these tools in use for setting engine timing only during engine re-assembly after overhaul.





Crankshaft Pulley Holding Tool

**NEW
2010**

AST5039

Models:

S80 (98-06)
S70/V70 (97-07)
XC70 (02-07)
S60 (00-09)
C30 (06-09)
C70 (98-09)
S40/V40 (97-09)
V50 (04-09)
XC90 (02-09)

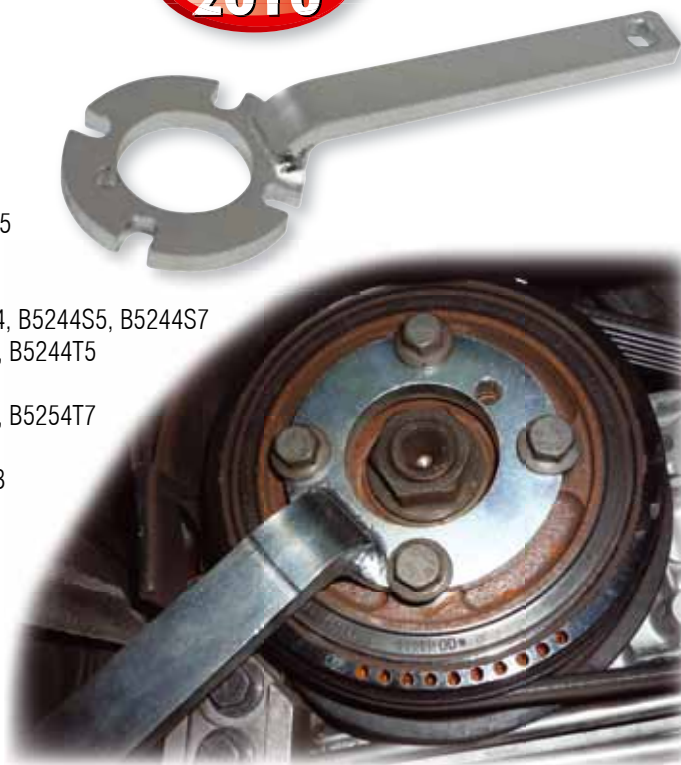
Engines:

Petrol

1.6 – B4164S
1.8 – B4184S
1.9T – B4194T
2.0 – B4204S
2.0T – B5204T3, B5204T4, B5204T5
2.3 – B5234FS
2.3T – B5234T3, B5234T7
2.4 – B5244S, B5244S2, B5244S4, B5244S5, B5244S7
2.4T – B5244T, B5244T3, B5244T4, B5244T5
2.5R – B5254FS, B5254T4
2.5T – B5254T, B5254T2, B5254T3, B5254T7
2.8T6 – B6284T/T2
2.9 – B6294S, B6294S2, B6294S3
2.9T – B6294T

Diesel

2.4D – D5244T9
2.4D5 – D5244T8, D5244T13



Diesel 1.6D (Belt)

AST4735A

Models:

S40 (04-09)
V50 (04-09)
C30 (06-09)

**Also for FORD and
PSA models**

Engines:

D4164T



Diesel 1.9TD 'RAM' Injection Timing (Belt)

AST4389

Models:

S40 (99-00)
V40 (99-00)

Engines:

1.9TD – D4192T2 (F8Q)



Diesel 2.0D (Belt)

AST5015

Models:

C30 (06-09)
S40 (03-09)
V50 (04-09)
C70 (06-09)

Engines:

D4204T
D4204T2

Also for LR Freelander 2 Td4 (2.2D)



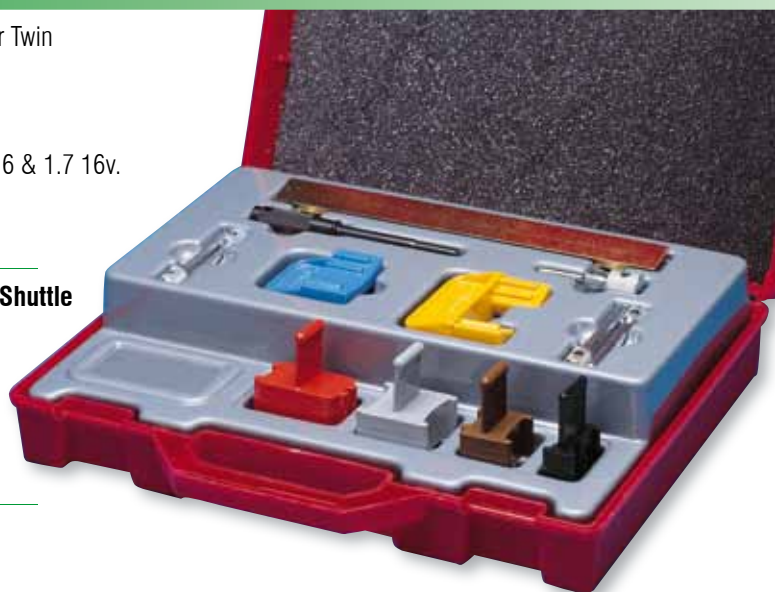


Petrol Twin Cam 16v. Engines (Belt)

AST3032A

AST3032A 'Multi-Marque' Kit covers a range of Popular Twin Cam applications - Timing Belt Replacement on

Ford	Fiesta, Puma & Focus 1.25, 1.4, 1.6 & 1.7 16v. Escort/Orion 1.6i & 1.8i Mondeo 1.6, 1.8 & 2.0 16v. (-98)
Honda	Civic, Accord, Prelude, Integra & Shuttle 1.6, 2.0, 2.2 & 2.3
Land Rover	Discovery 2.0MPI Freelander 1.8i 16v.
Mazda	121 1.25 16v.
Rover	Metro, Gta/Gti, 114, 214, 216, 218, 414, 416, 220, 420, 618, 620, 623, 820/Vitesse (92-) 25, 45, MGF



Vauxhall/Opel (EcoTec)

Corsa, Tigra, Meriva, Astra, Cavalier, Calibra, Vectra, Omega, Frontera & Sintra
1.4, 1.6, 1.8, 2.0, 2.2 (Belt) 16v.

Timing Tools

Diesel Engine & Injection Pump Timing (Belt)

AST4334

AST4334 'Multi-Marque' Kit

For crankshaft, camshaft and injection pump timing on a wide range of popular car & van diesel engines.

Audi	1.9D/TDi 1Y, 1Z, AAZ, AHU, AFN, AFF & AVG
Citroën/Peugeot	1.4D 1.7D/TD, 1.8D/TD, 1.9D/TD, 2.1 & 2.2TD TUD & XUD
Fiat	1.9D/TD (PSA Engines)
Ford	1.6D, 1.8D/TD (88-02), 1.9TDi (-00) & 2.5D/Di (-00)
LDV /Mazda:	1.8D & 1.9D (PSA & Ford Engines)
Rover:	Metro, Maestro & Montego 114D, 218/418SD, 1.4D, 1.8D & 2.0D
Seat:	1.3D, 1.4D, 1.7SDi, 1.9D Turbo, 1.9SDi/TDi MN, 1W, AAZ, AEY, AFN, AHU, AKW & AVG



Skoda:

Felicia
1.9D Code AEF

Vauxhall/Opel:

1.6D, 1.7D/DR/DTL +
Isuzu Engines **1.5D to 3.1TD**

Volkswagen:

1.6D, 1.7D, 1.9DT, 1.9SDi/TDi & 2.4D
Codes MN, 1W, 1Y, 1Z, AEY, AFN, AHB, AHU, AKW, ALE, AHH, AZZ, AVG, ACL & ACT

Volvo:

240, 740, 760, 940, 960D/Turbo, 2.4D

Includes Injection Pump Timing Tools for Bosch VE, Diesel Kiki, Nippondenso & CAV/RotoDiesel (Top Entry) Pumps.



Petrol & Diesel – French Engines (Belt)

AST4360A

AST4360A 'Multi-Marque' kit for Citroën, Peugeot & Renault Engines

Renault Models with

Diesel Engines:

1.6D & 1.9D/TD (F8M, F8Q & F9Q)

2.1TD (J8S), **2.2D/TD** (G8T)

2.5D/TD & 2.8D (S8U, S9U & S9W)

Also **"RAM System" Diesel Injection Pump Timing Tools** –

1.9D/TD (F8Q & F9Q)

Petrol Engines:

1.2 (D7F), **1.4** (E5F, E6J, E7F & E7J)

1.6 (K7M), **1.7 & 1.8** (F1N, F2N, F3N, F2R & F3P)

2.0 (F3R), **2.0 & 2.2** (J5T, J6R, J7R & J7T)

Twin Cams: **1.8 & 2.0** (F7P & F7R),

2.0 & 2.5 (N7Q & N7U)



Citroën/Peugeot Models with

Diesel Engines:

1.4D (TUD3), **1.5D** (TUD5), **1.7D/TD**,

1.8D/TD, **1.9D/TD** (XUD7 & XUD9)

2.1D/TD & 2.2D (XUD11),

2.5D/TD/TDi (DKATE, DJ5, DJ5T & DJ5TED)

Petrol Engines:

1.0, **1.1**, **1.4 & 1.6** (TU9, TU1, TU3 & TU5JP)

1.6, **1.8**, **1.9 & 2.0** (XU5, XU7, XU9 & XU10J2)

Twin Cams:

1.6 (TU5J4), **1.8** (XU7JP4), **2.0** (XU9J4 & XU10J4)

Also the above engines fitted in **Fiat, LDV, Nissan, and Rover** models.



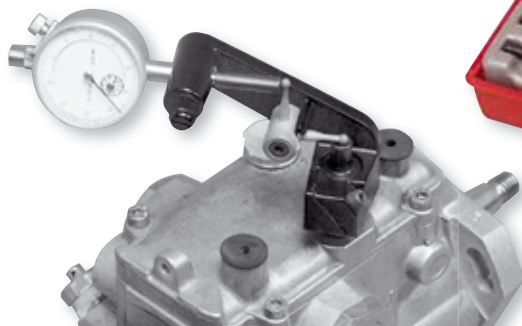
Diesel Injection Pump – Bosch & CAV/Rotodiesel

AST4400G

AST4400G 'Multi-Marque' Kit of Timing Tools covering the most popular fuel injection pumps found on car and van diesel engines. **Kit includes DTI (Dial Gauge)**

Bosch VE Rotary, Diesel Kiki, Nippondenso pumps – M8, M10 & M12 Service Ports

CAV/RotoDiesel pumps – Top Entry Service Port.



MULTI-MARQUE Kits for U.S. models – see U.S. Vehicle Timing Tools PAGE 65-66

**SPECIALIST SOCKETS
& WRENCHES**

Alternator Pulley Remover/Installer Kit ('Freewheel' Pulley) AST4955A

An **UPDATED** version of the popular AST kit for removing and installing the "**FREEWHEEL PULLEYS**" on alternators.

Comprehensive application coverage using all the existing sockets and adaptors from the original kit **PLUS NEW ADAPTORS** required for **DENSO ALTERNATORS** on **Volvo, Ford and Honda** models.

- Bosch,
- Valeo
- Magneti Marelli
- Denso etc.

Applications:

Audi	Renault
BMW	Seat
Citroën	Skoda,
Fiat	Vauxhall/Opel
Porsche	Volkswagen
Mercedes	Volvo
Peugeot	



UPDATED
DENSO Alternators VOLVO,
FORD & HONDA

Diesel Glow Plug Socket Set

AST4773

Comprises 4 Specialised Sockets - 8mm, 10mm, 12mm **PLUS 9mm** all with 3/8" drive.

Sockets have internal rubber sleeve to prevent damage to plug, together with universal joint to improve access onto the glow plug.

Set includes 9mm Socket to cover Alfa Romeo, Fiat, Saab and Vauxhall/Opel glow plugs.



Diesel Injector Socket Set

AST4934

Set comprises a range of "WINDOWED" Sockets specially designed to remove and install screw-in diesel injectors, including those with lift sensors / wiring.

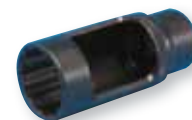
AST4894 21mm A/F

Models: Ford Duratorq 2.0/2.2/2.4 Transit & Mondeo



AST4173W 27mm A/F

Models: BMW, Fiat, Ford, VAG



AST3390W 22mm A/F

Models: VAG, Nissan, Mitsubishi, Toyota



AST3271W 28mm A/F

Models: Chrysler, Rover, Fiat, Alfa Romeo



AST4934 Socket Combination Set - Comprises 1 each of the 4 Injector Sockets detailed above. All Sockets are available separately.

Ford Diesel Injector Set

AST4888

Ford 2.0/2.2/2.4 Duratorq Diesel Injector - Removal / Installation and Compression Test Adaptor Set.

Injector Socket & Retaining Clamp

These Ford Injectors **MUST BE** held in correct orientation when being installed, **to AVOID seat damage**, and for alignment to fuel lines.

Compression Test Adaptor

Dummy Injector Adaptor for use with AST Diesel Engine Compression Test Kits.



VAG Specialist Socket Set

AST4932

A MUST for all VAG Repair Shops

VAG STEERING & SUSPENSION APPLICATIONS

Specialist Socket Set of **LARGER XZN / (Spline)** sizes for bolts found across the VAG model range in **suspension struts, brake callipers and wheel bearing areas etc.**

- Contains 6 x Sockets (3x75mm and 3x40mm lengths)
- Sizes: M14, M16 & M18 (Spline) - 1/2" Drive
- All **IMPACT QUALITY**
- Supplied in Storage Case



Specialist Sockets

VAG Hub Bolt Socket - M18 - 3/4" DRIVE

AST4918

Models:

Audi: A3

Seat: Altea, Leon, Toledo

VW: Golf, Golf Plus, Jetta, Touran, Eos, Passat

- **IMPACT QUALITY**, One Piece, **M18 XZN/Spline** Hub Bolt Socket used to remove and install **HIGH TORQUE** hub bolts on VAG models.

- **3/4" Drive** essential to accommodate torque loadings as high as **200Nm. + 180 degrees.**

- 100mm Long



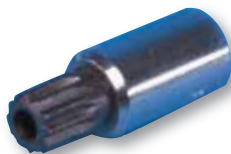
VAG Gearbox – Oil Filler Plug AST4468

Models:

Audi & Volkswagen

M16 XZN (Spline)

Tamperproof x 55mm long

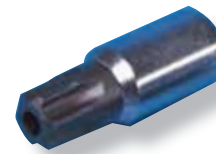


BMW Windscreen Wipers AST4469

Models:

BMW (E39 / E34)

TX80 Tamperproof x 63mm long



VAG Ball Joint AST3276

Models:

Transporter

M14XZN x 100mm Socket

for ball joint removal/Installation



AIRBAG Fasteners AST4467

Models:

**BMW
Mercedes**

**VAG
Vauxhall/Opel**

TX30 Tamperproof x 85mm long



5-point Tamperproof Socket Set

AST4750

To cover 5-point tamperproof fasteners on **ECU, AC Units, Airflow/Mass Sensors and Injection Pumps.**

Models:

**BMW
Fiat
Mercedes
Peugeot
Renault**

**Rover
Toyota
VAG
Vauxhall/Opel**

Set AST4750 Comprises 7 Bit sizes:

TS10, TS15, TS20, TS25, TS27, TS30 & TS40 sizes plus 1/4" drive bit holder.



'BUTTERFLY' Socket Set

AST6006

'Closed Ring' design, ideal for limited access applications such as:

- track rod locking nuts
- hydraulic and A/C fittings
- O² sensors

AST6006 Set comprises: 4 x sockets covering metric & imperial sizes.

17mm – 18mm – (11/16")

19mm – 20mm – (3/4")

21mm – 22mm – (13/16" – 7/8")

23mm – 24mm – (15/16")

1/2" square drive for use with torque wrench or power bar



'LAST CHANCE' Wrench Set

AST6048

Ideal for use on worn brake and fuel pipe fittings.

Unique design allows the wrench head to flex **securely gripping worn or damaged fittings.**

Easy to fit fold-out crow-foot wrench heads with additional 3/8" square drive feature to provide extra leverage.

AST6048 Set comprises: 4x Wrenches covering **10mm (3/8"), 11mm (7/16"), 12-13mm (1/2")** and **14mm (9/16")** nut sizes.



RIBE FASTENERS – Alfa Romeo, Fiat, Lancia

Sockets & Sets covering the **RIBE** Form fasteners on **ITALIAN CARS**

Cylinder head bolts, sump fasteners, cam and timing belt covers, headlight adjustment etc.
Most fasteners on Italian cars have Ribe form heads.

RIBE - LONG REACH Socket Set

AST4330A

Long Reach Sockets are ideal for applications such as **cylinder head bolts, cam cover, alternator, headlight fasteners etc.**

Set AST4330A Comprises 7 Sockets 14mm to 6mm sizes –
All Long Reach, 90/100mm.

All sockets are also available individually as -

AST4338 - 14mm x 100mm

AST4339 - 13mm x 100mm

AST4340 - 12mm x 100mm

AST4336 - 10mm x 100mm

AST4342 - 8mm x 90mm

AST4343 - 7mm x 90mm

AST4347 - 6mm x 90mm



RIBE - SHORT/EXTRA SHORT Socket Set

AST4470

Short Reach Sockets are for applications with limited space access such as **timing belt covers, sprocket bolts etc.**

Set AST4470 Comprises 7 Sockets 10mm to 6mm sizes –
All Short Reach, 45 to 63mm.

All sockets are also available individually as -

AST4471 - 10mm x 63mm

AST4472 - 9mm x 63mm

AST4473 - 8mm x 60mm

AST4474 - 8mm x 45mm

AST4475 - 7mm x 60mm

AST4476 - 6mm x 60mm

AST4477 - 6mm x 45mm



RIBE - EXTRA LONG Socket Set

AST4457

Extra Long Reach Sockets are for access to **sump cover fasteners, particularly at the gearbox end.**

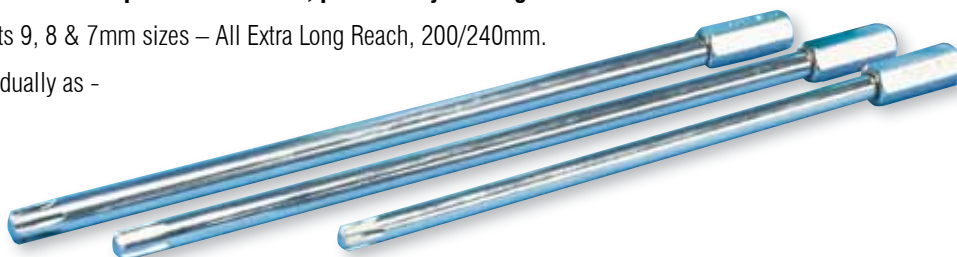
Set AST4457 Comprises 3 Sockets 9, 8 & 7mm sizes – All Extra Long Reach, 200/240mm.

All sockets are also available individually as -

AST4456 - 9mm x 240mm

AST4348 - 8mm x 240mm

AST4349 - 7mm x 200mm



CYLINDER HEAD BOLT Sockets

AST4430

A range of **LONG REACH** Specialist Sockets for the removal and installation of Cylinder Head Bolts.

Set AST4430 Comprises 1 each of:

AST4426 – M10 Ribe Form

AST4428 – M10 Spline

AST4429 – M12 Spline

AST4431 – M10 Hexagon

AST4432 – TX 60

AST4433 – E12 Socket



All the above 6 Sockets are 140mm long / ½" square drive – see below for vehicle applications.

INDIVIDUAL HEAD BOLT SOCKETS & APPLICATIONS

AST3276 – Ford, Rover, Jeep (VM engines): M14 XZN (Spline) / 100mm

AST4426 – V W Group – Audi / Volkswagen: M10 Ribe Form / 140mm

AST4427 – Toyota: M9 XZN (Spline) / 120mm

AST4428 – Mercedes vans, V W Group, Ford, Vauxhall/Opel: M10 XZN (Spline) / 140mm

AST4429 – V W Group, Ford, Vauxhall/Opel, Mercedes, Volvo: M12 XZN (Spline) / 140mm

AST4431 – Mercedes, Mazda, Nissan, Renault, Seat, Vauxhall/Opel, Toyota: M10 Hexagon / 140mm

AST4432 – Ford (1.8Di): TX60 / 140mm

AST4433 – BMW (M42/M50), Vauxhall/Opel: E12 / 140mm



VISCOUS FAN Wrenches

Models:

BMW
Ford
Land Rover
VAG
Vauxhall/Opel

AST3050A – 32mm

AST3051A – 36mm

AST3090 – Counter-Holding Tool



VISCOUS FAN Hub Holding Tool

AST4843

Models:

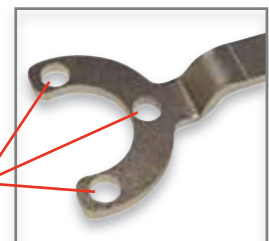
Mercedes Sprinter (906)
218, 318, 418, 518CDi (06-09)

Engines:

642, 3.0 CDi



Designed to fit onto 3 of the retaining bolts to counter hold the hub.



Limited access and space in the cooling fan area, makes this an essential tool.

Spark Plugs - Long Reach Sockets (Promotional Pack)

AST6015

Comprises 1 each:

AST6014 – 14mm A/F Long Reach (250mm) Spark Plug Socket – Bi-Hex

AST6016 – 16mm A/F Long Reach (250mm) Spark Plug Socket – Bi-Hex

Long Reach, Thin Wall, Spark Plug Sockets - for Deep-Seated plugs found on many Twin Cam 16v. and V6 engines.

14mm A/F BI-HEX Spark Plugs are found on – **BMW Mini, Citroën, Peugeot, Renault and Mercedes** engines

16mm A/F BI-HEX Spark Plugs are on many popular engines including **BMW, Vauxhall-Opel, Jaguar and Japanese marques.**

INDIVIDUAL LONG REACH SOCKETS

AST6014

14mm A/F BI-HEX - 250mm long – 3/8" Sq. Drive

AST6016

16mm A/F BI-HEX - 250mm long – 3/8" Sq. Drive



Oxygen Sensor Remover & Installer Set

AST6010

A Super Set of Specialised Sockets which provide multiple access solutions for removal and installation of oxygen sensors.

- **"SLOTTED"** Sockets to accommodate wiring on **HEATED SENSORS.**
- **OFF-SET ANGLED** Sockets – 1/2" Drive **BI-HEX**
- **EXTRA LONG** Socket (150mm) for **DEEP SEATED** sensors (Mercedes, V W, BMW, etc.)
- **SPECIALISED – MULTI-POSITION – Hex / Bi-Hex Wrench -** 30° ANGLED Swivel Handle
- **M18 THREAD CHASER** – clean, repair threads prior to installation of new sensors – 3/8" Drive / 3/4" Hex assists access for drives.



Removal and installation of Oxygen Sensors is all about access...

Sensors are often located in the most difficult to reach areas and the AST6010 Set provides the best selection of HEX and BI-HEX, OFF-SET and LONG REACH Sockets, MULTI-POSITION WRENCH and THREAD CHASER to handle the removal and installation of the sensors you will encounter in today's modern vehicles, including:

AUDI, BMW, MERCEDES, FORD, VAUXHALL/OPEL, CITROËN, PEUGEOT, RENAULT, SEAT, SKODA, VOLKSWAGEN.

Set Comprises -

AST6011 MULTI-POSITION Hex / Bi-Hex Wrench - 30° ANGLED Swivel Handle

AST6008 EXTRA LONG Socket (150mm) for DEEP SEATED sensors

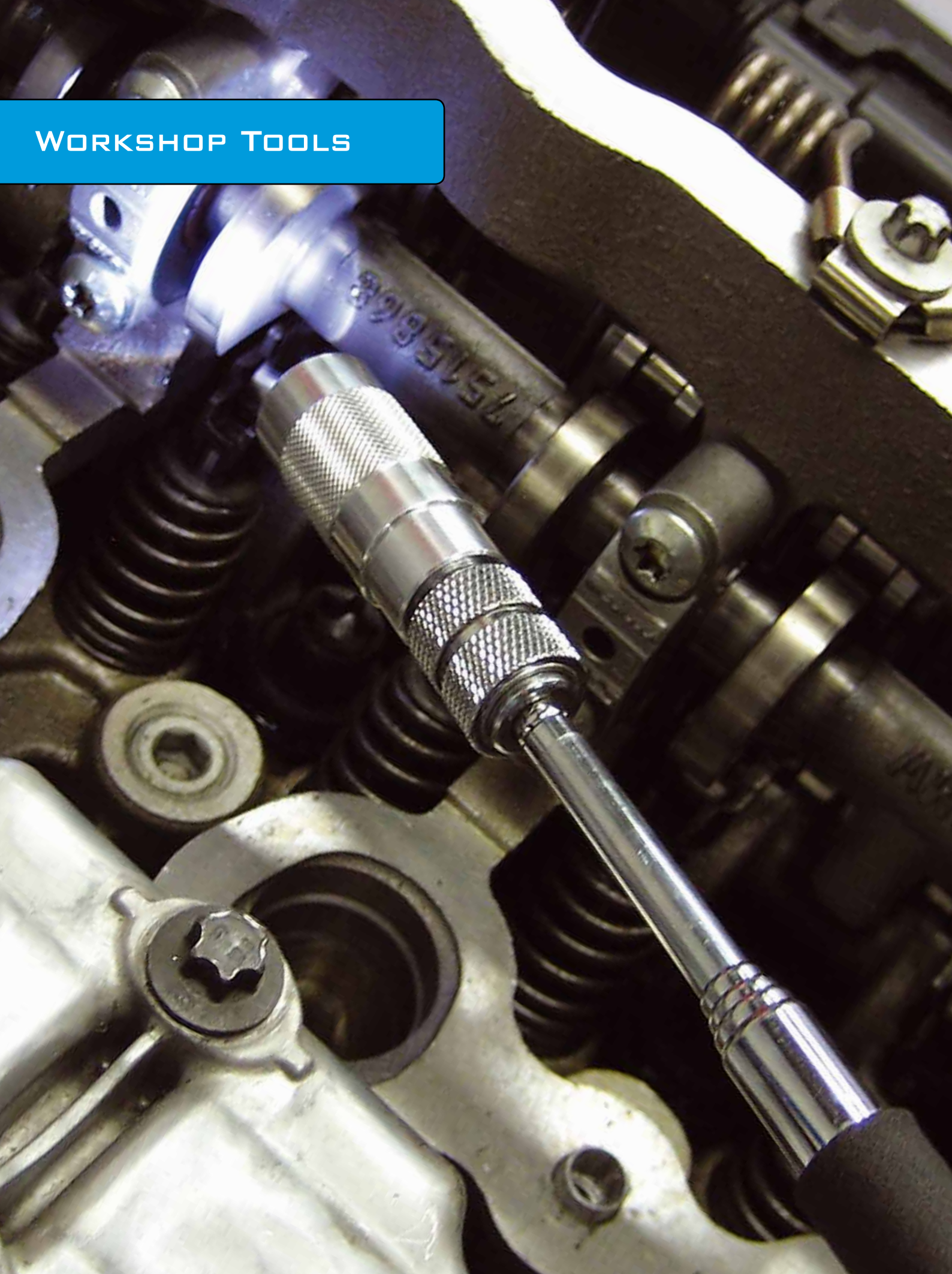
AST6012 OFF-SET ANGLED Socket 1/2" Drive BI-HEX

AST6013 OFF-SET ANGLED Socket 1/2" Drive BI-HEX

AST6009 M18 THREAD CHASER – clean, repair threads prior to installation of new sensors



WORKSHOP TOOLS





Injector Back Leakage Test Kit – Common Rail Diesel Engines **AST6070**

A comprehensive test kit which is designed to connect directly to the diesel injectors of common rail systems in order to identify poor injector performance – in situ

UP TO 6 CYLINDERS ON

- BOSCH
 - DENSO
 - DELPHI
 - SIEMENS
- } Common Rail Systems

AST6070 Kit includes –

- HANGING RACK ASSEMBLY with 6 x Graduated Measurement Bottles
- 6 x Measurement Tubes (For crank only condition)
- Range of 4 Adaptor Sets
- Blank-Off Tubes and Pinch-Off Pliers
- Full Product Instructions
- Compartmented Carry / Storage Case

Injector Performance / Evaluation on up to 6 Cylinders with

- COMPARATIVE TESTING
- VOLUME EVALUATION
- ENGINE RUNNING
- CRANK ONLY CONDITION



Fuel Measurement Hanging Rack Assembly.



Quick Coupler Adaptor System - "No leak" connections.



Fuel Measurement Tubes.

The AST6070 is a comprehensive test kit which connects directly to the diesel injectors of common rail systems in order to provide measurement of the return fuel flow (back leakage) and identify poor injector performance and worn, blocked or inoperative injectors, WHILST THEY ARE STILL INSTALLED, and with the engine running.

Injectors whose return fuel quantity has increased substantially can have the following affect on the engine:-

- Poor starting performance
- Engine no start
- Engine cut out
- Reduced power across all ranges



Diesel Glow Plug Connector Pliers

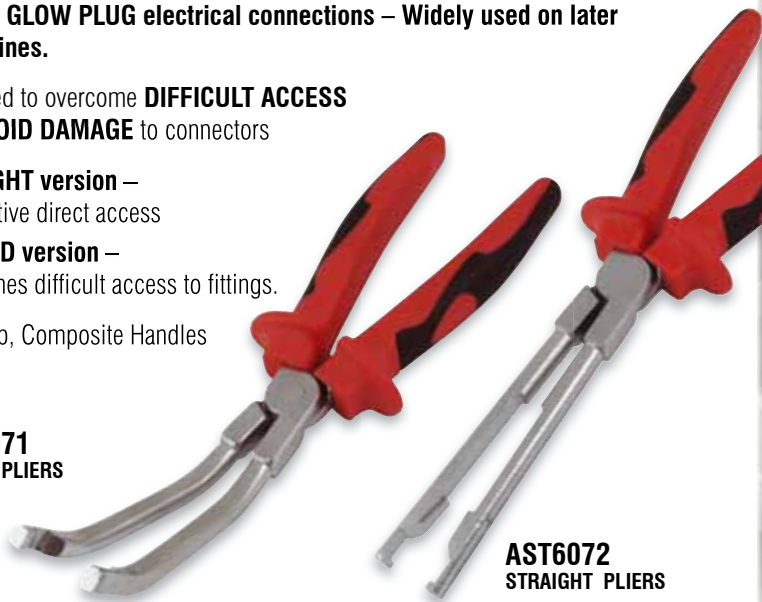
AST6071 / AST6072

AUDI – BMW – MERCEDES – VW

Specialised Disconnect Pliers required to release the **PLASTIC CONNECTORS** and remove **GLOW PLUG electrical connections** – Widely used on later diesel engines.

- Designed to overcome **DIFFICULT ACCESS** and **AVOID DAMAGE** to connectors
- **STRAIGHT version** – for positive direct access
- **ANGLED version** – overcomes difficult access to fittings.
- Soft Grip, Composite Handles

AST6071
ANGLED PLIERS



AST6072
STRAIGHT PLIERS



Diesel Glow Plug Socket Set

AST4773

Comprises 4 Specialised Sockets – 8mm, 10mm, 12mm **PLUS 9mm** all with 3/8" drive.

Sockets have internal rubber sleeve to prevent damage to plug together with universal joint to improve access onto the glow plug.

Set includes 9mm Socket to cover Alfa Romeo, Fiat, Saab and Vauxhall/Opel glow plugs.



Diesel Injector Socket Set

AST4934

Set comprises a range of "WINDOWED" Sockets specially designed to remove and install screw-in diesel injectors, including those with lift sensors / wiring.

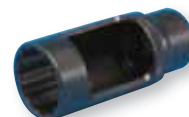
AST4894 21mm A/F

Models: Ford Duratorq 2.0/2.2/2.4 Transit & Mondeo



AST4173W 27mm A/F

Models: BMW, Fiat, Ford, VAG



AST3390W 22mm A/F

Models: VAG, Nissan, Mitsubishi, Toyota



AST3271W 28mm A/F

Models: Chrysler, Rover, Fiat, Alfa Romeo



AST4934 Socket Combination Set - Comprises 1 each of the 4 Injector Sockets detailed above. All Sockets are available separately.



Fuel Filter Cap Tool Set

AST6053

VAUXHALL – OPEL – FIAT

For replacement of Fuel Filter Element on 1.3 and 1.9 diesel engines

The “Canister Type” Filter Assembly is removed from the car for replacement of the filter element.

WITHOUT THE USE OF CORRECT TOOLS, THE FILTER HOUSING AND CAP CAN BE DAMAGED WHEN RELEASING THE CAP TO REPLACE THE FILTER ELEMENT.

The AST6053 Tool Set provides –

- **Specialised Filter Cap Wrench** which grips the “6 x notches” of the Filter Cap to release and tighten it.
- **Filter Housing Holding Tool** (vice fitting) to firmly hold the Filter Housing without causing damage, whilst releasing / tightening the Filter Cap.

Applications:

VAUXHALL/OPEL 1.3CDTi & 1.9CDTi diesel engines in

Agila	Tigra-B
Corsa-C	Vectra-C
Astra-H	Signum
Meriva	Zafira-B

FIAT 1.3JTD & 1.9JTD diesel engines in

500	New Bravo
Panda	Croma
Punto	Sedici
Grande Punto	Doblo
Idea	Ducato
Palio	Strada



Fuel Filter Cap Wrenches

AST6051 / AST6052

Modern diesel fuel systems now use Replacement Cartridges within Fuel Filters.

Increasing requirement to **remove and install the CAP of FUEL FILTER Housing** in order to access and replace filters.

- Caps can be tight and difficult to release – easy to damage without the CORRECT TOOL
- Frequent Use - Regular servicing requirement to replace fuel filters



AST6051

108mm diameter / 46 Grooves
3/8" Sq. Drive

CITROËN – PEUGEOT HDi diesels



AST6052

109mm diameter / 8 Grooves
3/8" Sq. Drive

CITROËN – PEUGEOT – RENAULT diesels



Spark Plug - Long Reach Sockets (Promotional Pack)

AST6015

Comprises 1 each:

AST6014 – 14mm A/F Long Reach (250mm) Spark Plug Socket – Bi-Hex

AST6016 – 16mm A/F Long Reach (250mm) Spark Plug Socket – Bi-Hex

Long Reach, Thin Wall, Spark Plug Sockets - for Deep-Seated plugs found on many Twin Cam 16v. and V6 engines.

14mm A/F BI-HEX Spark Plugs are found on – **BMW Mini, Citroën, Peugeot, Renault and Mercedes** engines

16mm A/F BI-HEX Spark Plugs are on many popular engines including **BMW, Vauxhall/Opel, Jaguar and Japanese** marques.



INDIVIDUAL LONG REACH SOCKETS

AST6014

14mm A/F BI-HEX - 250mm long – 3/8" Sq. Drive

AST6016

16mm A/F BI-HEX - 250mm long – 3/8" Sq. Drive



Spark Plug - Internal Thread Restorers

AST6045 / AST6046

You know the situation...cross threading **STARTS AT THE TOP OF THE THREAD.**

These **AST INTERNAL** Thread Restorers use the **GOOD THREADS** at the bottom for alignment **AND WORK UPWARDS.**

AST INTERNAL Thread Restorers pass down through the spark plug hole and then **EXPAND** into the **GOOD THREADS** at the bottom of the hole. By working the Restorer back up the threads it aligns and **RESTORES MINOR CROSS THREADING** damage as well as **CLEANING** the threads.



AST6045
THREAD RESTORER - 12MM



AST6046
THREAD RESTORER - 14MM

VAG Direct Ignition Coil Remover

AST4990

Models:

Audi

Seat

Skoda

Volkswagen

Comprehensive Kit, with inter-changeable adaptors covering applications on a wide range of VAG engines.

Ignition Coil Removal 1.2 to 6.0 engines

- For Direct Ignition (final output stage) - Coil on Plug applications
- 4x Inter-changeable heads covering huge range of VAG engines in one kit.
- Using right tool **AVOIDS DAMAGE** to plastic coil head
- Kit includes special **LOCKING MECHANISM DEPRESSOR** Tool



Oxygen Sensor Remover & Installer Set

AST6010

A Super Set of Specialised Sockets which provide multiple access solutions for removal and installation of oxygen sensors.

- **"SLOTTED"** Sockets to accommodate wiring on **HEATED SENSORS**.
- **OFF-SET ANGLED** Sockets – ½" Drive BI-HEX
- **EXTRA LONG** Socket (150mm) for **DEEP SEATED** sensors (Mercedes, V W, BMW, etc.)
- **SPECIALISED – MULTI-POSITION** – Hex / Bi-Hex Wrench 30° ANGLED Swivel Handle
- **M18 THREAD CHASER** – clean, repair threads prior to installation of new sensors – 3/8" Drive / ¾" Hex assists access for drives.



Removal and installation of Oxygen Sensors is all about access...

Sensors are often located in the most difficult to reach areas and the AST6010 Set provides the best selection of HEX and BI-HEX, OFF-SET and LONG REACH Sockets, MULTI-POSITION WRENCH and THREAD CHASER to handle the removal and installation of the sensors you will encounter in today's modern vehicles, including:

AUDI, BMW, MERCEDES, FORD, VAUXHALL/OPEL, CITROËN, PEUGEOT, RENAULT, SEAT, SKODA, VOLKSWAGEN.

Set Comprises -

AST6011 MULTI-POSITION Hex / Bi-Hex Wrench - 30° ANGLED Swivel Handle

AST6008 EXTRA LONG Socket (150mm) for DEEP SEATED sensors

AST6012 OFF-SET ANGLED Socket ½" Drive BI-HEX

AST6013 OFF-SET ANGLED Socket ½" Drive BI-HEX

AST6009 M18 THREAD CHASER – clean, repair threads prior to installation of new sensors.



OFF-SET Angled Socket



LONG REACH Socket



THREAD RESTORER



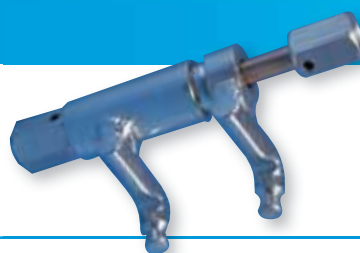
MULTI-POSITION Wrench

Exhaust Clamp Remover & Installer

AST3296

Models:
Volkswagen
Jetta
Golf
Passat

To safely remove and install heavy duty spring type exhaust clamps





Exhaust Clamp Pliers

AST6055

Models:
Citroën
Peugeot
Renault

Heavy-Duty Pliers suitable for expanding exhaust clamps on collared joints.

- Locking mechanism spreads and holds clamp in expanded condition.



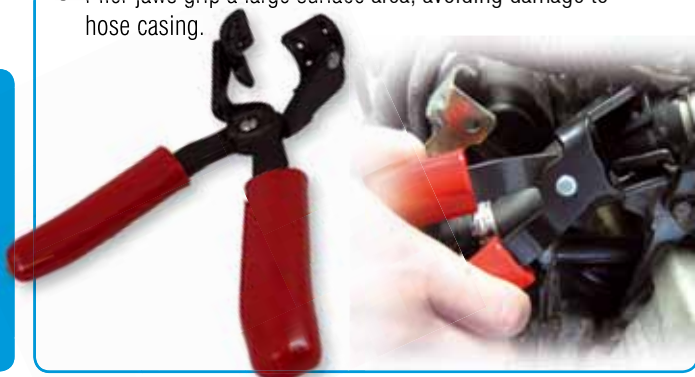
Hose Grip Pliers

AST6056

Provides a firm grip on hoses in confined areas.

These Pliers allow 'power rotation' to be applied to work the hose free from the fitting connection, even when badly corroded.

- Pliers can be rotated 90 degrees to achieve advantageous 'pull angle'
- Plier jaws grip a large surface area, avoiding damage to hose casing.



'Clic-Clic' Pliers

AST4369

Models:

Audi
Citroën
Mercedes
Vauxhall/Opel
Peugeot
Renault
VAG

'CLIC' 'CLIC' PLIERS

For removal and Installation of special 'Clic' clamps on fuel lines.



Fuel Pump Removers - IN TANK

AST4383A / AST4384A / AST4385A

High Quality Removers to release and tighten fuel pump/sender mounting collars on 'In Tank' fuel pumps

Each Remover is adjustable across a size range

AST4383A 75 – 160mm. (3-leg)

AST4384A 80- 120mm. (2-leg)

AST4385A 110- 170mm. (2-leg)



Oil Filter Wrench

AST6050

Unique Gear Drive mechanism which utilises re-cycled timing belt section to provide an excellent, versatile, strong-grip filter wrench.

- 3/8" square drive can be accessed from top or bottom
- Ratchet mechanism ensures strong grip on filter housing
- Covers filters 50mm to 450mm diameter



Timing belt section not included.

Oil Drain Plugs – Removal

AST3088A

A Set of double sided "Keys" covering square and hexagon female drive sump plugs.



Square:

8mm / 11mm / 13mm / 3/8"

Hexagon:

8mm / 10mm / 12mm / 14mm / 17mm / 5/16" / 3/8" / 1/2"

'QUICK TEST' Brake Fluid Tester

AST6049

Provides 'Quick Test' of moisture content of brake fluid via electrical resistance.

- Simple **RED / AMBER / GREEN** LED display indicates condition of fluid.
- Low Battery indication.
- Battery provided.



'LAST CHANCE' Wrench Set

AST6048

Ideal for use on worn brake and fuel pipe fittings.

Unique design allows the wrench head to flex **securely gripping worn or damaged fittings**.

Easy to fit fold-out crow-foot wrench heads with additional 3/8" square drive feature to provide extra leverage.

AST6048 set comprises:

4x Wrenches covering

10mm (3/8"), **11mm (7/16")**,

12-13mm (1/2") and **14mm (9/16")**

nut sizes.





Professional Inspection Set

AST6035

A really professional, high quality set combining telescopic handle and inter-changeable inspection mirrors and magnetic pick-up **PLUS** . . . an ultra bright white light.

All supplied in fitted case.

- Patented 'Quick Release' mechanism for all attachments
- Ultra Bright White Light (LED) – brightness up to 22,000 mcd
- Rectangular and Round mirrors
- Strong Magnet – up to 8lbs. pick up



Deluxe "Hammer Cap" - Scraper Set

AST6019

HIGH QUALITY Set of '**HAMMER CAP**' **SCRAPERS** for removal of gasket material from cylinder heads and cleaning sealing faces on other automotive applications.

Set contains 4 x Scrapers –

20mm x 1.5mm Flexible Blade - 50mm long

30mm x 1.5mm Flexible Blade - 100mm long

20mm x 2.5mm Rigid Blade - 50mm long

30mm x 2.5mm Rigid Blade - 100mm long

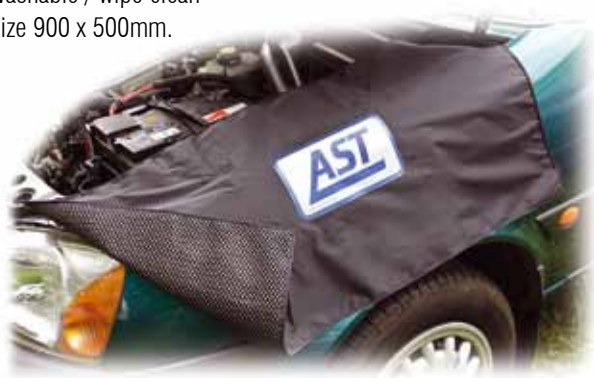
- **ALL 'HAMMER CAP' DESIGN**
- **ALL WITH SOFT GRIP HANDLES**
- **ALL WITH STAINLESS STEEL BLADES**



Wing Protection

AST6020

- Non-magnetic - revolutionary non-slip material on inside
- Protects against scratches and damage
- Non Slip front wing protection cover
- Washable / wipe clean
- Size 900 x 500mm.



Seat Protection

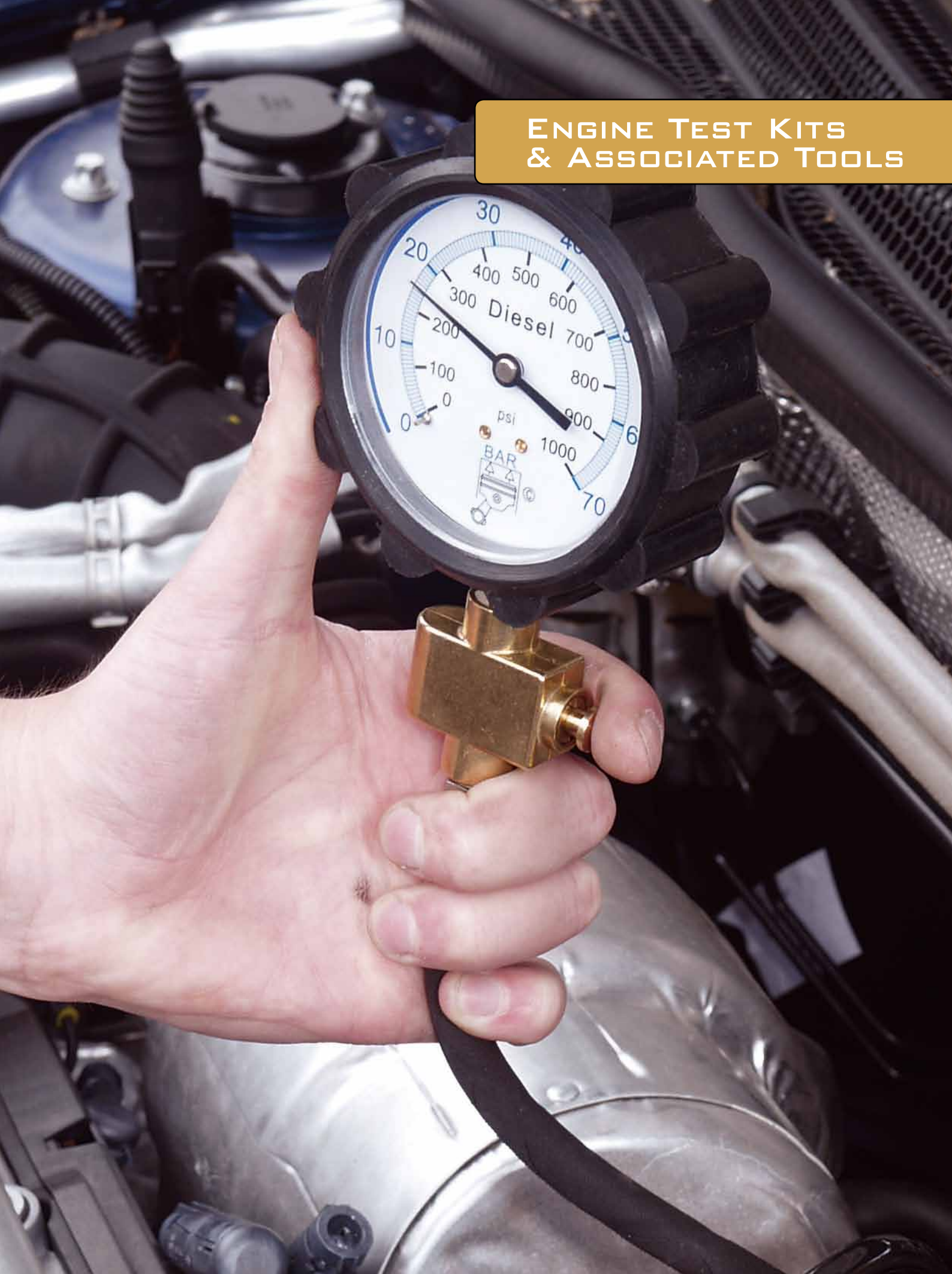
AST6021

- Reusable durable nylon front seat protection cover
- Universal fit- covers entire seat
- Oil, dirt, grease & water repellent
- Meets international automotive fire retardant standards



Vehicle Protection Products can be produced in Private Label Branding / Colours - details on request.

ENGINE TEST KITS & ASSOCIATED TOOLS



“Vehicle Specific” Diesel Engine Compression Test Kits

Starter Kits for Workshops specialising in specific vehicle marques.

Each Kit provides application coverage on the popular diesel engines from the selected vehicle manufacturer's model range. Application coverage can be subsequently extended, and other marques covered, by additional adaptors.

Alfa Romeo & Fiat Compression Test Kit

AST4781

Models:

Alfa Romeo

Alfa Romeo	Fiat	
145	500	Palio/Weekend
146	Bravo/Brava	Punto
147	Croma	Scudo
155	Doblo	Stilo
156	Ducato	Strada
164	Fiorino	Tempra
166	Grande Punto	Tipo
	Marea/Weekend	Ulysse
	Marango	Uno
	Multipla	

Engines:

1.3JTD
1.5D
1.7D/TD
1.8D/TD
1.9D/TD/JTD(8v)
2.0TD/JTD(PSA)
2.1TD
2.4TD/JTD(10v)
2.5D/TD/TDi



Kit comprises: Gauge and Hose Assembly, 90° Elbow and 5 Adaptors, in Storage Case.

Citroën / Peugeot Compression Test Kit

AST4783

Models:

Citroën

Citroën		Peugeot	
AX	Dispatch	106	406
Berlingo	Evasion/Synergie	107	407
BX	Jumper	1007	605
C2	Jumpy	205	607
C3	Relay	206	806
C4	Saxo	207	807
C5	Xantia	306	Boxer
C8	XM	307	Expert
C15	Xsara/Picasso	308	J5
C25	ZX	309	Partner
		405	Ranch

Engines:

1.4D/HDi
1.5D
1.6HDi
1.8D/TD
1.9D/TD
2.0TD/HDi
2.1D/TD
2.2HDi
2.4D/TD
2.5TD/TDi
2.8TD



Kit comprises: Gauge and Hose Assembly, 90° Elbow and 6 Adaptors, in Storage Case.

Ford Compression Test Kit

AST4782

Models:

Ford

Ford	
Courier	Scorpio
Escort	Tourneo Connect
Fiesta	Transit
Focus	Transit Connect
C-Max	
Fusion	
Galaxy	
Granada	
Mondeo	

Engines:

1.4TDCi
1.6TDCi
1.8D/Di/TD/TDi/TDdi
2.0TDdi/TDCi
2.4TDdi
2.5D



Kit comprises: Gauge and Hose Assembly, 90° Elbow and 6 Adaptors, in Storage Case.

For Specific Model, Engine code & Adaptor Application Data – see Application Guide on PAGES 119-140



“Vehicle Specific” Diesel Engine Compression Test Kits

Renault Compression Test Kit

AST4784

Models:

Renault

R5	Megane
R19	Modus
R21	Rapid
Clio	Safrane
Espace	Scenic
Express	Trafic
Extra	
Kangoo	
Laguna	
Master	

Engines:

1.5D/DCi
1.6D
1.9D/TD/DTi/DCi
2.1D/TD
2.2D/TD/DCi
2.4D
2.5D/TD
2.8DTi



Kit comprises: Gauge and Hose Assembly, 90° Elbow and 4 Adaptors, in Storage Case.

Vauxhall / Opel Compression Test Kit

AST4785

Models:

Vauxhall/Opel

Agila	Movano
Astra	Meriva
Arena	Nova
Brava	Omega
Campo	Signum
Cavalier	Sintra
Combo	Tigra
Corsa	Vectra
Frontera	Vivaro
Midi	Zafira
Monterey	

Engines:

1.3CDTi 2.2D/DTi
1.5D/TD 2.3D/TD
1.7D/TD/TDL 2.5D/DT/DTi
1.9DTi 2.8DTi
1.9DTi CDTi (8v.) 3.1TD
2.0Di/DTH
DTi/DTL



Kit comprises: Gauge and Hose Assembly, 90° Elbow and 6 Adaptors, in Storage Case.

Volkswagen Group Compression Test Kit

AST4780

Models:

Audi	Seat	Skoda	Volkswagen
80	Alhambra	Fabia	Beetle
100	Arosa	Felicia	Bora
A2	Cordoba	Octavia	Caddy
A3	Ibiza	Roomster	Golf
A4	Inca	Superb	Golf Plus
A6	Leon		LT
A8	Terra		Lupo
	Toledo		Passat
			Polo
			Sharan
			Transporter
			Touran
			Vento

Engines:

1.2TDi PD
1.3D
1.4D
1.4TDi PD
1.6D
1.7Di/SDi
1.9D/TD/SDi/TDi/PD
2.4D/TDi
2.5D/SDi/TDi
2.8TDi



Kit comprises: Gauge and Hose Assembly, 90° Elbow and 4 Adaptors, in Storage Case.

For Specific Model, Engine code & Adaptor Application Data – see Application Guide on PAGES 119-140

“Multi-Marque” Diesel Engine Compression Test Kits

A modular range of Test Kits providing application coverage at varying levels.

All Kits include AST4670 Quality Compression Tester and a selection of Adaptors. Applications include HDi, TDCi, dCi, CDTi and Pumpe Duse diesel systems ensuring coverage of wide range of modern diesels encountered in the service workshop today.

MASTER KIT

AST4690

This MASTER Kit provides the most comprehensive coverage available for car, van, truck, agricultural and marine diesel engine applications.

- Quality Compression Tester comprising:
 - Gauge 0-70 bar / 0-1000 psi
 - Pressure Relief Valve for re-test
 - Quick Coupler System for Adaptors
 - 90° Elbow for ease of access
- Range of Dummy Glow Plug Adaptors - M8, M10, M12
- Range of Dummy Injector Adaptors - M20, M22, M24
- Includes AST4687 Dummy Clamp-Type Injector Set



“Multi-Marque” Test Kit Contents

All “Multi-Marque” Test Kits are supplied in the same compartmented storage case.

The application coverage of Test Kits can be increased by the addition of adaptors, and utilising the spaces in the compartmented case. Adaptors are available in Sets or individually.

	AST4670 Gauge, Hose & Elbow	AST4666 Injector Adaptor Set	AST4671 GP Adaptor Set	AST4672 GP Adaptor Set	AST4673 GP Adaptor Set	AST4674 GP Adaptor Set	AST4687 “Clamp Type” Injector Adaptor Set
AST4690 MASTER Kit	●	●	●	●	●	●	●
AST4688 DELUXE Kit	●	●	●	●	●	●	
AST4685 POPULAR Kit	●	●	●				

For Specific Model, Engine code & Adaptor Application Data – see Application Guide on PAGES 119-140

“Multi-Marque” Diesel Engine Compression Test Kits

Popular Kit

AST4685

- A Start-Up Kit covering popular applications.



Deluxe Kit

AST4688

- Includes larger range of Adaptors covering more marques.



Contents of AST4685 & AST4688 Kits are detailed in the table on page 104

Clamp-Type Injector Adaptor Set

AST4687



Adaptor Set to make Dummy Injector Adaptors for Clamp-Type / Slide-in Injectors – cars, vans and trucks.

- Assemble parts to match the configuration of the Injector.

Adaptor Range Sets

- Dummy Glowplug and Injector Adaptors are available in Sets making it easy to increase your application coverage.
- Also, all adaptors are available individually.

AST4671 Glowplug Adaptor Set (5 Adaptors)

Provides coverage of popular Alfa Romeo, BMW, Chrysler, PSA, Daewoo, Ford, Mercedes, Mitsubishi, Nissan, Renault, L-R, Saab, VAG, Vauxhall and Volvo diesel engines

AST4672 Glowplug Adaptor Set (4 Adaptors)

Covers additional range of Alfa Romeo, Fiat, PSA and Ford engines

AST4673 Glowplug Adaptor Set (5 Adaptors)

Covers additional range of Isuzu, Mercedes, Renault and Vauxhall engines

AST4674 Glowplug Adaptor Set (6 Adaptors)

Covers additional range of Hyundai, LDV, Mazda, Mitsubishi, Nissan, Suzuki and Toyota engines

AST4666 Injector Adaptor Set (5 Adaptors)

2 x M24, 1 x M22, 1 x M20 plus Adaptor for Ford Transit Stanadyne Injectors

Full details of Adaptor applications are listed in the Application Guide included with all kits, and shown on Pages 119-140.



For Specific Model, Engine code & Adaptor Application Data – see Application Guide on PAGES 119-140

“Vehicle Specific” Diesel Engine Cylinder Leakage Test Kits

Starter Kits for workshops specialising in a specific vehicle marque.

Similar to Diesel COMPRESSION Kits but offering the diagnostic capability of **CYLINDER LEAKAGE** testing. Each Kit provides application coverage on the popular diesel engines from the selected vehicle manufacturer's model range.

Application coverage can be subsequently extended, and other marques covered, by additional adaptors.

AST4790: Volkswagen Group
including Pumpe Düse engines.

AST4793: Citroën/Peugeot
including HDi engines.

AST4791: Alfa Romeo and Fiat
including JTD engines.

AST4794: Renault including
dCi engines.

AST4792: Ford, including TDCi
Duratorq engines.

AST4795: Vauxhall/Opel
including CDTi engines.

**For Specific Model, Engine code & Adaptor
Application Data** – see Application Guide on PAGES 119-140

NOTE: Vehicle Specific Cylinder Leakage Test Kits cover the same model / engine applications as shown for Vehicle Specific Diesel Compression Test Kits – **AST4780 to AST4785** on pages 102-103.



“Multi-Marque” Diesel Engine Cylinder Leakage Test Kits

Diesel Engine Cylinder Leakage Testing

A similar modular format to the range of Diesel Engine Compression Test Kits and Adaptors but utilising the more **DIAGNOSTIC CYLINDER LEAKAGE** approach to determining cylinder/valve condition.

Adaptor range/comprehensive application coverage is the same as for Diesel Compression Test Kits.

All Diesel Engine Cylinder Leakage Test Kits include Cylinder Leakage Gauge and Regular Assembly plus connection hose and 90° Elbow.

The adaptor selection provided at each kit level is the same as the equivalent Popular, Deluxe and Master kit levels in the Diesel Compression Test Kit range on pages 104-105.

Diesel Engine Cylinder Leakage Test Kits

AST4715 - POPULAR Kit

AST4718 - DELUXE Kit

AST4720 - MASTER Kit

**For Specific Model, Engine code & Adaptor
Application Data** – see Application Guide on PAGES 119-140



AST4720
MASTER KIT

Diesel Injector Set - Ford

AST4888

Ford Diesel Injector - Removal / Installation & Compression Test Adaptor Set for FORD 2.0 / 2.2 / 2.4 TDDi / TDCi Duratorq (Chain)

Injector Socket & Retaining Clamp - AST4893 / AST4894

These Ford Injectors MUST BE held in correct orientation when being installed, to AVOID seat damage, and for alignment to fuel lines.

Compression Test Adaptor - AST4666-6

The most convenient access for engine compression testing is through the Injector hole. Adaptor AST4666-6 included in the Set covers this application - use with AST Diesel Compression Tester.

**Also these engines in
JAGUAR & LDV**



Diesel Injector Socket Set AST4934

A range of "WINDOWED" Sockets specially designed to remove and install screw-in diesel injectors, including those with lift sensors / wiring.

AST4894 21mm A/F

Models: Ford Duratorq 2.0/2.2/2.4
Transit & Mondeo.

AST3390W 22mm A/F

Models: VAG, Nissan, Mitsubishi, Toyota

AST4173W 27mm A/F

Models: BMW, Fiat, Ford, VAG

AST3271W 28mm A/F

Models: Chrysler, Rover, Fiat, Alfa Romeo

AST4934 Socket Combination Set -

Comprises 1 each of the 4 Injector Sockets detailed above.



Diesel Injector - Removal AST3246

SLIDE-IN/CLAMP TYPE Injectors

Short Reach Slide Hammer and range of Adaptors - attaches to Injectors to apply "Impact" removal.



Adaptors 22mm, 21mm, 14mm, 12mm & 8mm

Diesel Injector Back Leakage Test Kit - Common Rail Engines AST6070

A comprehensive test kit which is designed to connect directly to the diesel injectors of common rail systems in order to identify poor injector performance - in situ

UP TO 6 CYLINDERS

- BOSCH ● DENSO } Common Rail Systems
- DELPHI ● SIEMENS }

- Injector Performance / Evaluation on up to 6 Cylinders by Comparative Testing and Volume Evaluation.

- Engine Running or Crank only condition



For additional information on AST6070 Test Kit - See details on page 93

Diesel Glow Plug Connector Pliers

AST6071 / AST6072

AUDI – BMW – MERCEDES – VW

Specialised Disconnect Pliers required to release the **PLASTIC CONNECTORS** and remove **GLOW PLUG electrical connections** – Widely used on later diesel engines.

- Designed to overcome **DIFFICULT ACCESS** and **AVOID DAMAGE** to connectors
- **STRAIGHT version** – for positive direct access
ANGLED version – overcomes difficult access to fittings.
- Soft Grip, Composite Handles

AST6071
ANGLED PLIERS



AST6072
STRAIGHT PLIERS



Diesel Glow Plug Sockets Set

AST4773

Comprises 4 Specialised Sockets – 8mm, 10mm, 12mm **PLUS 9mm** all with 3/8" drive.

Sockets have internal rubber sleeve to prevent damage to plug, together with universal joint to improve access onto the glow plug.

Set includes 9mm Socket to cover Alfa Romeo, Fiat, Saab and Vauxhall/Opel glow plugs.



Fuel Pump Removers - IN TANK

AST4383A / AST4384A / AST4385A

High Quality Removers to release and tighten fuel pump/sender mounting collars on 'In Tank' fuel pumps

Each Remover is adjustable across a size range

AST4383A 75 – 160mm. (3-leg)

AST4384A 80 – 120mm. (2-leg)

AST4385A 110 – 170mm. (2-leg)



Petrol Engine Compression Test Kits

AST4675 / AST4678

Two Quality Kits covering compression testing on a wide range of petrol engines. Both Kits include Air Input Adaptor as an added feature.

AST4678 POPULAR KIT covers 10, 12, 14 & 18mm spark plug hole connections.

AST4675 DELUXE KIT offers the same application coverage as AST4678 but additionally includes the M14 Long Reach Adaptor (AST4397) for 16v. and V6 engines.



Both kits additionally feature an Air Input Adaptor to assist in valve seal/spring replacement applications



**AST4675
DELUXE KIT**



**AST4678
POPULAR KIT**

Petrol Engine Cylinder Leakage Test Kits

AST4680 / AST4682

Two Super Kits covering cylinder leakage testing on a wide range of petrol engines.

AST4682 POPULAR KIT includes adaptors for 10, 12, 14 & 18mm spark plug thread connections.

AST4680 DELUXE KIT offers the same application coverage as AST4682 but additionally includes the M14 Long Reach Adaptor (AST4397) for 16v. and V6 engines.



**AST4682
POPULAR KIT**



**AST4680
DELUXE KIT**



Petrol Engine Long Reach Compression Test Adaptor Set

AST4988

AST4988 Long Reach Adaptor Set Comprises 1 each:

AST4397 – For M14 Threads (e.g. Ford Duratec 16v.)

AST4862 – For M12 Threads (e.g. Mini, PSA, Renault 16v.)

- For access to deep seated spark plug threads on 16v./V6 engines.
- Can be used with **ALL** Standard Petrol Compression Testers
- Rigid construction to avoid cross threading.



Adaptors are available individually.



Spark Plug-Long Reach Sockets (Promotional Pack)

AST6015

Comprises 1 each:

AST6014 – 14mm A/F Long Reach (250mm) Spark Plug Socket – Bi-Hex

AST6016 – 16mm A/F Long Reach (250mm) Spark Plug Socket – Bi-Hex

Long Reach, Thin Wall, Spark Plug Sockets - for Deep-Seated plugs found on many Twin Cam 16v. and V6 engines.

14mm A/F BI-HEX Spark Plugs are found on – **BMW Mini, Citroën, Peugeot, Renault and Mercedes** engines

16mm A/F BI-HEX Spark Plugs are on many popular engines including **BMW, Vauxhall-Opel, Jaguar and Japanese** marques.

INDIVIDUAL LONG REACH SOCKETS

AST6014 - 14mm A/F BI-HEX - 250mm long – 3/8" Sq. Drive

AST6016 - 16mm A/F BI-HEX - 250mm long – 3/8" Sq. Drive



VAG Direct Ignition Coil Remover

AST4990

Models:

Audi, Seat, Skoda, Volkswagen

Comprehensive Kit, with inter-changeable adaptors covering applications on a wide range of VAG engines.

Ignition Coil Removal 1.2 to 6.0 engines

- For Direct Ignition (final output stage) - Coil on Plug applications
- 4x Inter-changeable heads covering huge range of VAG engines in one kit.
- Using right tool **AVOIDS DAMAGE** to plastic coil head
- Kit includes special **LOCKING MECHANISM DEPRESSOR** Tool



Petrol Fuel Injection Systems

Multi-point – Single Point – Electronic – Mechanical

A modular range of three Test Kits and two Workshop Combination Sets. Each kit has been constructed to cover applications by fuel system groups. This modular format allows you to progressively build up your application coverage over time, and to the level required.

Test Port Entry

AST4701

This kit forms the basis of the Fuel Injection Test Kit System

Contains:

- Quality 0-7 bar Gauge and interchangeable Hose/Vent Assembly
- Flexible Test Port Adaptors covering **ALL** schrader test port fittings.
- New Alfa/Fiat Test Port Connector
- Fitted Case / detailed Instructions



Single Point & Electronic

AST4702

Used in conjunction with Kit AST4701, to cover Single Point (TBi) and modern EFi systems

Contains:

- Quality 0-2.5 bar Gauge (TBi)
- Range of 5 In-Line Banjo Adaptors
- Tees for coupler connections **incl. Renault**
- Cone Seat Threaded Adaptors M14-M16
- Tee, Valve & Hose Assembly
- Fitted Case / detailed Instructions



Test Kits AST4701 and AST4702 can be purchased together under Ref AST4706

Mechanical Systems

AST4704

Used with AST4701 & AST4702 to provide connection onto the older Mechanical / K-jetronic type systems.

Contains:

- Complete range of In-Line Tees
- Male & Female Threaded Adaptors M8, M10, M12 & M14
- Fitted Case / detailed Instructions



Popular Workshop Set

AST4700

Test Kits **AST4701** and **AST4702** housed in lockable Steel Cabinet providing secure workshop storage.



Master Workshop Set

AST4705

All 3 Test Kits – **AST4701, AST4702 and AST4704** supplied in the Steel Workshop Storage Cabinet, and offering the most comprehensive fuel systems application coverage available today.

The Steel Workshop Cabinet is also available separately under ref. AST4703



Hose Grip Pliers

AST6056

Provides a firm grip on hoses in confined areas. These Pliers allow 'power rotation' to be applied to work the hose free from the fitting connection, even when badly corroded.

- Pliers can be rotated 90 degrees to achieve advantageous 'pull angle'
- Plier jaws grip a large surface area, avoiding damage to hose casing.



'Clic-Clic' Pliers

AST4369

Models:

Audi
Citroën
Mercedes
Vauxhall/Opel
Peugeot
Renault
VAG

'CLIC' 'CLIC' PLIERS

For removal and installation of special 'Clic' clamps on fuel lines.



Oil Pressure Test Kit

AST4494A

AST4494A is an updated kit covering engine oil pressure testing on a huge range of cars, van, trucks and now motorcycles.

Comprises:

- Quality Pressure Gauge 0-7 bar / 0-100 psi
- Long Reach Hose - 1 metre with quick coupler system
- 90° Elbow for ease of access
- Range of 9 Adaptors



Oil Filter Wrench

AST6050

Unique Gear Drive mechanism which utilises re-cycled timing belt section to provide an excellent, versatile, strong-grip filter wrench.

- 3/8" square drive can be accessed from top or bottom
- Ratchet mechanism ensures strong grip on filter housing
- Covers filters 50mm to 450mm diameter



Timing belt section not included.

Oil Drain Plugs – Removal

AST3088A

A Set of double sided "Keys" covering square and hexagon female drive sump plugs.



Square:

8mm / 11mm / 13mm / 3/8"

Hexagon:

8mm / 10mm / 12mm / 14mm / 17mm / 5/16" / 3/8" / 1/2"



UNDERCAR

Ford Rear Axle Bush – Fiesta / Puma / Ka

AST4725

Models:

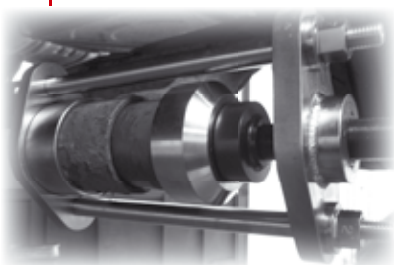
Fiesta (96-02)

Puma (97-02)

Ka (96-08)

- Rugged Frame System is required to remove and install these bushes.

- Designed for **ON CAR** applications – No need to remove axle.
- Plus, Bearing Assisted Force aids removal of stubborn bushes.
- Additional Adaptors available to extend applications – see AST4724



This Kit can also be used for . . .

Ford Focus Rear Trailing Arm
bushes using AST4724 Adaptor set



AST4724

Ford Rear Trailing Arm Bush - Focus

AST4722

Models:

Focus (98-05)

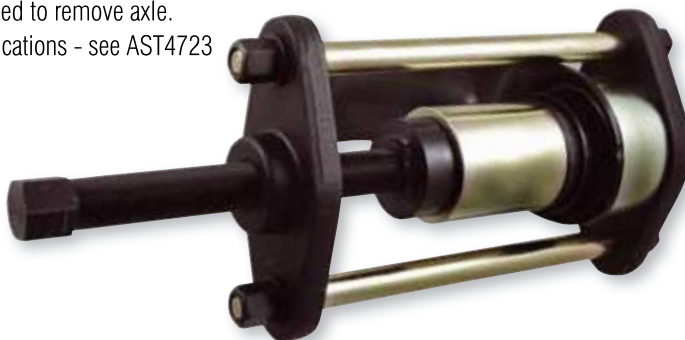
- Rugged Frame System is required to remove and install these bushes.

- Designed for **ON CAR** applications – No need to remove axle.
- Additional Adaptors available to extend applications – see AST4723



This Kit can also be used for . . .

Ford Fiesta, Puma, & Ka
Rear Axle bushes using
AST4723 Adaptor set



AST4723

Ford Axle Carrier Bushes – Mondeo

AST4944

Models:

Mondeo (01-07)

- Designed to remove and install all 4 crossmember bushes – front and rear.



With this kit you will also need . . .

AST4144 Location Pins (Pair)

Overhaul and repair of the powertrain requires removal of the axle carrier.
These Location Pins ensure accurate re-alignment and correct steering geometry.

Note: AST4144 Location Pins also used for Fiesta (-02).



AST4144

BMW Rear Axle Carrier Bush - 5 Series (E39 Saloon)

AST4971

Models:

BMW 5 Series – E39 Saloon (95-05)

520i (M52/M54)	520d (M47)	523i (M52)
525i (M54)	525d (M57)	525td (M51)
525tds (M51)	528i (M52)	530i (M54)
530d (M57)	535i (M62)	540i (M62)
M5 (S62)		

- **SAVES TIME** - Designed for **ON CAR** applications – **No need to remove rear axle.**

● **POWER & DURABILITY**

Trapezoidal Thread Force Screw - provides additional strength and durability.

Bearing Assisted Force Nut to ease withdrawal and installation of bushes.



BMW Rear Axle Carrier Bush - X5 (E53)

AST4972

Models:

BMW X5 – E53 (99-07)

- **SAVES TIME** - Designed for **ON CAR** applications – **No need to remove rear axle.**

● **POWER & DURABILITY**

Trapezoidal Thread Force Screw - provides additional strength and durability.

Bearing Assisted Force Nut to ease withdrawal and installation of bushes.



BMW Rear Ball Joint - 5 & 7 Series

UPDATED

AST4498A

Models:

5 Series E39/E60/E61

7 Series E38/E65/E66

X5 - E70

- For rear suspension ball joint
- Designed for **ON CAR** use to **minimise dis-assembly** of the suspension system
- **Bearing assisted force nut** for easy withdrawal and installation of ball joint.
- **Updated design** to cover later models





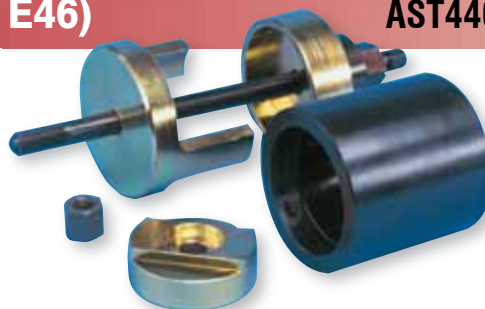
BMW Trailing Arm Bush – 3 Series (E36 / E46)

AST4464

Models:

3 Series E36 & E46/Compact

- Specifically designed for use **ON CAR**.
- Removes 'old style' bush and **pre-compress and install new 'slotted' bushes** in rear trailing arm assembly.
- **Bearing assisted force nut** for easy withdrawal and installation of bushes.



BMW Rear Axle/Subframe Bush – 3 / 5 / 6 & 7 Series

AST4465

Models:

3 Series E30, E36 Compact, Z3

6 Series E24

5 Series E28, E34

7 Series E23, E32

- Removes and installs the Axle Carrier/Subframe bush.
- Designed for **ON CAR** use.
- Adaptable Removal Bridge simplifies removal of the bush.
- **Includes all required removal and installation adaptors** for all above models.
- **Bearing assisted force nut** for easy withdrawal and installation of bushes.



BMW Control Arm Ball Joint – 3 Series (E36)

AST4321

Models:

3 Series E36

- For press-fit control arm ball joints.
- Designed for **ON CAR** working.
- Includes Frame Assembly and all required removal and installation sleeves.



Rear Wheel Bearing – 3 / 7 & 8 Series

AST4502

Models:

BMW 3 Series E30, E36 & E46

M3 & Z3

7 Series E23, E32 & E38

8 Series E31

- Removes and installs rear hub bearings
- Bearing assisted force nut for easy withdrawal and installation of bushes.

When used in conjunction with AST4503 Hub Remover the kit additionally covers installation of the drive flange and output shaft.



Hub Remover/installer

AST4503

Models:

BMW

- For removal of the output shaft and drive flange on BMW rear hubs.
- Used in conjunction with AST4502 for wheel bearing replacement
- Includes the heavy-duty slide hammer.

Also available:
AST4184 Hydraulic Ram



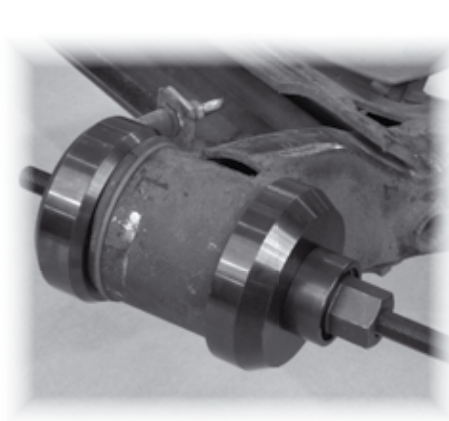
VAG Rear Axle Bush Installer - Audi / VW

AST4973

Models:

Audi A3 (01-02)
VW Golf IV (99-05)
VW Bora (99-05)

- Designed for installation of Rear Axle bonded rubber bushes **ON CAR** – **No need to remove rear axle.**
- **Bearing Assisted Force Nut** to ease installation of the bushes.



VAG Hub Bolt Socket - M18 3/4" DRIVE

AST4918

Models:

Audi: A3
Seat: Altea, Leon, Toledo
V W: Golf, Golf Plus, Jetta, Touran, Eos, Passat

- **IMPACT QUALITY**, One Piece, **M18 XZN / Spline** Hub Bolt Socket used to remove and install **HIGH TORQUE** hub bolts on VAG models.
- **3/4" drive** essential to accommodate torque loadings as high as **200Nm. + 180 degrees.**
- 100mm Long



VAG Specialist Socket Set

AST4932

A MUST for all VAG Repair Shops

VAG STEERING & SUSPENSION APPLICATIONS

Specialist Socket Set of **LARGER XZN / Spline** sizes for bolts found across the VAG model range in **suspension struts, brake calipers and wheel bearing areas etc.**

- Contains **6 x Sockets**: (3x75mm and 3x40mm lengths),
- **Sizes**: M14, M16 & M18 (Spline) - 1/2" Drive
- **All IMPACT QUALITY**
- Supplied in **Storage Case**



VAG Ball Joint Socket

AST3276

Models:

Transporter
M14XZN x 100mm Socket
for ball joint removal/Installation



VAG Exhaust

AST3296

Models:

V W:
Jetta
Golf
Passat

Exhaust Spring Clamp
Remover & Installer



Renault Rear Axle Bush - Laguna

AST4777

Models:

Laguna (01-07)

- Removes and Installs **both left hand and right hand bushes.**
- Design **incorporates depth-setting** for new bush installation.
- **Bearing assisted force nut** for easy withdrawal and installation of bushes.



Vauxhall/Opel Trailing Link Arm Bush – Vectra

AST4460

Model: Vectra-B (-02)

- Removes and installs **Upper & Lower Damping Bushes.**
- Designed for **ON CAR** application – no need to remove trailing arm assembly.
- **Extended force screw assembly** provides ease of access and operation.
- **Bearing assisted force nut** for easy withdrawal and installation of bushes.



Citroën Ball Joint Socket AST3278

Models: Peugeot 305 / 405 / 605
Citroën BX / Xantia / XM



- Special castellated socket with 4 drive lugs – 51mm dia.
- Designed to remove & install screw type lower ball joints in PSA models

Ball Joint Separator AST3080C

AST3080C

Most cars & light vans.

- Two position adjustable jaw opening – 25mm to 47mm.
- Throat width 20mm / Throat depth 33mm.
- Lever/fulcrum action to apply power where access space is limited



'Butterfly' Socket Set

AST6006

'Closed Ring' design, ideal for limited access applications such as:

- **track rod locking nuts**
- **hydraulic and A/C fittings**
- **O² sensors**



AST6006 Set comprises 4 x sockets covering metric & imperial sizes.

17mm – 18mm – 11/16"
19mm – 20mm – 3/4"
21mm – 22mm – 13/16 – 7/8"
23mm – 24mm – 15/16"

1/2" square drive for use with torque wrench or power bar.



Hub Pullers / Slide Hammer

AST4220A / AST4294A

General Hub Pullers suitable for many 4 & 5 Stud Hubs.

PCD range 97.5 to 115.5mm

2 Options available:

AST4294A Hub Puller with **Mechanical Force Screw**

AST4220A Hub Puller with **Slide Hammer**



AST4220A

AST4294A

DIESEL ENGINE ADAPTOR APPLICATION GUIDE

VM TOOL NUMBER CROSS REFERENCE

PART NUMBER / PAGE INDEX

Glowplug Adaptor No.		AST AST14792 FORD		AST AST14782 FORD		AST AST14791 FIAT - ALFA		AST AST14781 FIAT - ALFA		AST AST14790 VAG		AST AST14780 VAG	
AR32302	42												
AR67501, AR67502	1												
AR33601	1												
AR67501	1												
AR32302	42												
AR67501, AR67502	1												
AR33601	1												
AR37101	42												
937A4000, 937A5000	70												
AR67501, AR67502	1												
AR33601	1												
AR67501	40												
VM07, VM31B	42												
VM07, VM31B	70												
AR32302	42												
937A2000, 19252000	70												
937A4000, 937A5000	42												
AR32501	70												
AR32302	42												
841G000, 841M000	70												
939A2000, 939A8000	70												
939A3000	70												
937A5000	1												
VM08.0000001	40												
VM08B, VM32B	42												
336202	42												
	70												
	70												

DIESEL ENGINE ADAPTOR APPLICATION GUIDE

Diesel Engine Compression/Cylinder Leakage Adaptor Application Guide

This Application Guide provides -

- **Model / Engine application data for each Dummy Glow Plug Adaptor.**

*Adaptors are available individually, as well as in the Kits detailed below.

- **Details of which Adaptors are included in each Test Kit.**

Kit Part Numbers shown in **BLACK** are **COMPRESSION** Test Kits.

Kit Part Numbers shown in **RED** are **CYLINDER LEAKAGE** Test Kits.

REFER TO PAGES 102-106 FOR DIESEL ENGINE TEST KIT DETAILS



***When ordering individual adaptors:-** All Glowplug Adaptors are prefixed AST4686 and individual adaptors are identified as -1, -2 etc. example: GP Adaptor No.1 = AST4686-1.
When ordering adaptors always quote the full part number. If the adaptor is required for cylinder leakage applications - add suffix **NV** - example AST4686-1NV.

VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
				AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX - OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
ALFA ROMEO												
ALFA 145 1.9JTD	98-	AR32302	42		●						●	●
ALFA 145 1.9TD	94-96	AR67501, AR67502	1	●	●	●	●	●	●	●	●	●
ALFA 145 1.9TD	96-	AR33601	1	●	●	●	●	●	●	●	●	●
ALFA 145 2.0TD	94-96	AR67501	1	●	●	●	●	●	●	●	●	●
ALFA 146 1.9JTD	98-	AR32302	42		●						●	●
ALFA 146 1.9TD	94-96	AR67501, AR67502	1	●	●	●	●	●	●	●	●	●
ALFA 146 1.9TD	98-99	AR33601	1	●	●	●	●	●	●	●	●	●
ALFA 147 1.9JTD	01-	AR37101	42		●						●	●
ALFA 147 1.9JTD 16v.	04-	937A4000, 937A5000	70									
ALFA 155 1.9TD	93-97	AR67501, AR67502	1	●	●	●	●	●	●	●	●	●
ALFA 155 1.9TD	96-97	AR33601	1	●	●	●	●	●	●	●	●	●
ALFA 155 2.0TD	93-97	AR67501	1	●	●	●	●	●	●	●	●	●
ALFA 155 2.5TD	93-95	VM07, VM31B	1	●	●	●	●	●	●	●	●	●
ALFA 155 2.5TD	95-97	VM07, VM31B	40	●	●	●	●	●	●	●	●	●
ALFA 156 1.9JTD	99-	AR32302	42		●						●	●
ALFA 156 1.9JTD	04-	937A2000, 19252000	70									
ALFA 156 1.9JTD 16v.	03-06	937A4000, 937A5000	70									
ALFA 156 2.4JTD	99-	AR32501	42		●						●	●
ALFA 156 2.4JTD	99-	AR32302	42		●						●	●
ALFA 156 2.4JTD 20v.	03-06	841G000, 841M000	70									
ALFA 159 1.9JTD 16v.	05-	939A2000, 939A8000	70									
ALFA 159 2.4JTD 20v.	05-	939A3000	70									
ALFA CROSSWAGON 1.9JTD	04-08	937A5000	70									
ALFA 164 2.5TD SUPER	92-95	VM08.0000001	1	●	●	●	●	●	●	●	●	●
ALFA 164 2.5TD SUPER	95-98	VM08B, VM32B	40	●	●	●	●	●	●	●	●	●
ALFA 166 2.4JTD	00-	AR36202	42		●						●	●
ALFA 166 2.4JTD	98-00	AR34202	42		●						●	●
ALFA 166 2.4JTD	00-	AR36202	42		●						●	●
ALFA 166 2.4JTD 20v.	03-08	841G000, 841H000	70									
ALFA SPIDER 2.4JTD 20v.	06-09	939A3000	70									
ALFA BRERA 2.4JTD 20v.	05-	939A3000	70									
ALFA GT 1.9JTD 16v.	04-	937A5000	70									
ALFA 33 1.8TD	86-94	VM82A, VM96A,	1	●	●	●	●	●	●	●	●	●
ALFA 33 1.8TD	86-94	VM HR-392	1	●	●	●	●	●	●	●	●	●
AUDI												
AUDI CABRIO 1.9TDi	95-96	1Z	40	●	●	●	●	●	●	●	●	●
AUDI CABRIO 1.9TDi	96-01	AHU	40	●	●	●	●	●	●	●	●	●
AUDI 100 2.4D & AVANT	89-94	3D, AAS	1	●	●	●	●	●	●	●	●	●
AUDI 100 2.5D & AVANT	91-94	AAT, ABP 1T	40	●	●	●	●	●	●	●	●	●

DIESEL ENGINE ADAPTOR APPLICATION GUIDE

Diesel Engine Compression/Cylinder Leakage Adaptor Application Guide

***When ordering individual adaptors:-** All Glowplug Adaptors are prefixed AST4686 and individual adaptors are identified as -1, -2 etc. example: GP Adaptor No.1 = AST4686-1.
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				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
AUDI - CONTINUED												
AUDI 80 1.9TD	91-94	AAZ	1	●	●	●	●	●	●	●	●	●
AUDI 80 1.9TDi AVANT & CABRIO	91-96	1Z	40	●	●	●	●	●	●	●	●	●
AUDI 80 1.9TDi, CABRIO	96-	AHU	40	●	●	●	●	●	●	●	●	●
AUDI A2 1.2TDi	00-	ANY	40	●	●	●	●	●	●	●	●	●
AUDI A2 1.4TDi, PD	00-	AMF	40	●	●	●	●	●	●	●	●	●
AUDI A3 1.9TDi	96-	AHU, AGR, AHF, AJM, ALH	40	●	●	●	●	●	●	●	●	●
AUDI A3 1.9TDi	00-	ASZ, ATD	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9D	96-97	AFF, AHH	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi	94-	1Z, AFN	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi	98-	AJM	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi	01-	AVF	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi	96-97	AHU	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi	97-	AHU, AFF, AJM, ATJ	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi AVANT	97-	AHH, AHU, 1Z, AFN, AJM	40	●	●	●	●	●	●	●	●	●
AUDI A4 1.9TDi AVANT, QUATTRO	96-	AFN, AJM	40	●	●	●	●	●	●	●	●	●
AUDI A4 2.5TDi & AVANT V6	97-00	AFB, AKN	44	●						●	●	●
AUDI A4 2.5TDi & AVANT V6	00-	AKE, AVL	44	●						●	●	●
AUDI A4 2.5TDi QUATTRO & AVANT V6	97-00	AFB, AKN	44	●						●	●	●
AUDI A6 1.9TDi & AVANT	95-	1Z, AFN	40	●	●	●	●	●	●	●	●	●
AUDI A6 1.9TDi & AVANT	98-	AJM	40	●	●	●	●	●	●	●	●	●
AUDI A6 1.9TDi	96-98	AHU	40	●	●	●	●	●	●	●	●	●
AUDI A6 2.5TDi & AVANT V6	97-	AFB, AKN, AKE	44	●						●	●	●
AUDI A6 2.5TDi & AVANT	01-	AVF	40	●	●	●	●	●	●	●	●	●
AUDI A6 2.5TDi & AVANT	94-98	AAT, AEL	40	●	●	●	●	●	●	●	●	●
AUDI A6 2.5TDi QUATTRO	95-97	AEL	40	●	●	●	●	●	●	●	●	●
AUDI A8 2.5TDi V6	97-98	AFB	44	●						●	●	●
AUDI A8 2.5TDi V6	98-	AKN	44	●						●	●	●
AUDI A8 2.5TDi QUATTRO V6	97-98	AFB, AKN, AKE, AKF	44	●						●	●	●
BMW												
BMW 318 1.7TDS, COMPACT	94-	M41 D18	1	●	●	●	●	●	●	●	●	●
BMW 320 2.0D (E46)	98-	M47 D20	40	●	●	●	●	●	●	●	●	●
BMW 320 2.0D (E46) TOURING	99-	M47 D20	40	●	●	●	●	●	●	●	●	●
BMW 325 2.5TD, TDS, TOURING	91-99	M51 D25	1	●	●	●	●	●	●	●	●	●
BMW 330 2.9Di (E46)	99-	DDE306	40	●	●	●	●	●	●	●	●	●
BMW 330D (E46)	00-	M57 D30	40	●	●	●	●	●	●	●	●	●
BMW 520 2.0D (E39)	00-	M47 D20	40	●	●	●	●	●	●	●	●	●
BMW 525 2.5TD, TDS	93-	M51 D25	1	●	●	●	●	●	●	●	●	●
BMW 525D	00-	25 6 D1 (M57 D25)	40	●	●	●	●	●	●	●	●	●
BMW 530 2.9D (E39)	98-	M57 D30	40	●	●	●	●	●	●	●	●	●
BMW 540D	00-	25 6 D1 (M57 D25)	40	●	●	●	●	●	●	●	●	●
BMW 725 2.5TDS	96-00	M51 D25	1	●	●	●	●	●	●	●	●	●
BMW 730D, TD	98-	M57D30	40	●	●	●	●	●	●	●	●	●
BMW X5 2.9Di	99-	DDE306D1 (M57 D30)	40	●	●	●	●	●	●	●	●	●
CHRYSLER												
CHRYSLER GRAND VOYAGER 2.5TD	95-	VM	40	●	●	●	●	●	●	●	●	●
CHRYSLER VOYAGER 2.5TD	92-95	VM HR492CLI	1	●	●	●	●	●	●		●	●
CHRYSLER VOYAGER 2.5TD	95-	VM HR425 CLIEE	40	●	●	●	●	●	●	●	●	●

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			'VEHICLE SPECIFIC' TEST KITS							'MULTI-MARQUE' TEST KITS		
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
CITROEN												
CITROEN AX 1.4D	88-94	TUD3, TUD3Y, TUD3L	1	●	●	●	●	●	●	●	●	●
CITROEN AX 1.5D	94-97	TUD5 (VJY, VJZ)	40	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.8D	98-	XUD7	1	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.8D	96-98	XUD7	1	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.8D	98-	DW8	40	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.8TD	98-	DW8TD	40	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.9D	98-	XUD9	1	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.9D	96-98	XUD9A	1	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 1.9D	98-	DW8, DW8B	40	●	●	●	●	●	●	●	●	●
CITROEN BERLINGO 2.0Hdi	99-	DW10, DW10TD	45		●		●			●	●	●
CITROEN BX 1.9D/TD	83-	XUD9A, XUD9L, XUD9T	1	●	●	●	●	●	●	●	●	●
CITROEN C15 1.8D	85-96	XUD7	1	●	●	●	●	●	●	●	●	●
CITROEN C15 1.9D	98-	XUD7	1	●		●	●	●	●	●	●	●
CITROEN C15 1.9D	98-	DW8B	40	●	●	●	●	●	●	●	●	●
CITROEN C2 1.4Hdi	03-	DV4TD	60		●	●	●		●		●	●
CITROEN C25 1.9D	87-	XUD9A, CRD93L	1	●	●	●	●	●	●	●	●	●
CITROEN C25 2.5TD	87-	CRD93LS	1	●	●	●	●	●	●	●	●	●
CITROEN C3 1.4Hdi	03-	DV4TD	60		●	●	●		●		●	●
CITROEN C5 2.0Hdi	01-	DW10TD, DW10TED	45		●		●				●	●
CITROEN C5 2.2Hdi	01-	DW12TED4	45		●		●				●	●
CITROEN DISPATCH 1.9D	94-98	XUD9AU	1	●	●	●	●	●	●	●	●	●
CITROEN DISPATCH 1.9D	98-	DW8	40	●	●	●	●	●	●	●	●	●
CITROEN DISPATCH 1.9D, TD	98-	XUD9AU, XUD9TF	1	●	●	●	●	●	●	●	●	●
CITROEN DISPATCH 2.0Hdi	98-	DW10	45		●		●				●	●
CITROEN DISPATCH 2.4D	94-98	DJ5	1	●	●	●	●	●	●	●	●	●
CITROEN DISPATCH 2.4TD	94-96	DJ5T	1	●	●	●	●	●	●	●	●	●
CITROEN DISPATCH 2.5DTI	96-	DJ5TED	43				●		●	●	●	●
CITROEN EVASION 1.9TD	94-	XUD9TF, XUD9BTF	1	●	●	●	●	●	●	●	●	●
CITROEN EVASION 2.0Hdi	99-	DW10ATED	45		●		●				●	●
CITROEN EVASION 2.0TD	96-	DHX	1	●	●	●	●	●	●	●	●	●
CITROEN EVASION 2.1TD	96-	XUD11BTE	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 1.9D	98-	XUD9, XUD9AU	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 1.9D	94-98	XUD9, XUD9AU	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 1.9TD	98-	XUD9TE, XUD9TF	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 1.9TD	94-98	XUD9TF (DHX, D8C)	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 2.0Hdi	98-	DW10, DW10TD	45		●		●				●	●
CITROEN JUMPER 2.4D	94-98	DJ5	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 2.4TD	98-	DJ5, DJ5T	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 2.4TD	94-96	DJ5T	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPER 2.5DTI	96-	DJ5TED	43				●		●		●	●
CITROEN JUMPER 2.8DTI	00-		1	●	●	●	●	●	●	●	●	●
CITROEN JUMPY 1.9D	95-	XUD9A (D9B)	1	●		●	●	●	●	●	●	●
CITROEN JUMPY 1.9TD	95-	DHX, D8B	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPY 2.0Hdi	98-	DW10ATED/BTED/TED4	45		●		●				●	●
CITROEN JUMPY 2.5D	94-	DJ5	1	●	●	●	●	●	●	●	●	●
CITROEN JUMPY 2.5TD	94-	DJ5T	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 1.8D	98-	DW8	40	●	●	●	●	●	●	●	●	●
CITROEN RELAY 1.8TD	98-	DW8TD	40	●	●	●	●	●	●	●	●	●
CITROEN RELAY 1.9D	95-	XUD9A	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 1.9D	98-	DW8	40	●	●	●	●	●	●	●	●	●

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CITROEN - CONTINUED												
CITROEN RELAY 1.9TD	98-	XUD9TF	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 1.9TD	95-98	XUD9TF	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 2.0HDi	00-	DW10	45		●		●				●	●
CITROEN RELAY 2.4D	98-	DJ5	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 2.4D	94-98	DJ5	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 2.4TD	94-96	DJ5T	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 2.5D	94-	DJ5	1	●	●	●	●	●	●	●	●	●
CITROEN RELAY 2.5DTi	96-	DJ5TED	43				●		●	●	●	●
CITROEN SAXO 1.5D	96-	TUD5, TUD5B,	40	●	●	●	●	●	●	●	●	●
CITROEN SAXO 1.5D	96-	TUD5L, TUD5Y	40	●	●	●	●	●	●	●	●	●
CITROEN SYNERGIE 1.9TD	98-	XUD9TF, XUD9BTF	1	●	●	●	●	●	●	●	●	●
CITROEN SYNERGIE 1.9TD	94-98	XUD9TF, XUD9BTF	1	●	●	●	●	●	●	●	●	●
CITROEN SYNERGIE 2.0HDi	01-	DW10	45		●		●				●	●
CITROEN SYNERGIE 2.0HDi	99-	DW10ATED	45		●		●				●	●
CITROEN SYNERGIE 2.1TD	98-	XUD11BTE	1	●	●	●	●	●	●	●	●	●
CITROEN SYNERGIE 2.1TD	96-98	XUD11BTE	1	●	●	●	●	●	●	●	●	●
CITROEN XANTIA 1.9D	93-96	XUD9A, XUD9L	1	●	●	●	●	●	●	●	●	●
CITROEN XANTIA 1.9D, TD	98-	XUD9SD	1	●	●	●	●	●	●	●	●	●
CITROEN XANTIA 1.9TD	98-	XUD9BTF	1	●	●	●	●	●	●	●	●	●
CITROEN XANTIA 1.9TD	93-98	XUD9BTF	1	●	●	●	●	●	●	●	●	●
CITROEN XANTIA 2.0HDi	98-	DW10TD, DW10ATED	45		●		●				●	●
CITROEN XANTIA 2.1TD	98-	XUD11BTE	1	●	●	●	●	●	●	●	●	●
CITROEN XANTIA 2.1TD	95-98	XUD11BTE	1	●	●	●	●	●	●	●	●	●
CITROEN XM 2.1D	89-95	XUD11A, XUD11L	1	●		●	●	●	●	●	●	●
CITROEN XM 2.1TD	98-	XUD11ATE/BTE	1	●	●	●	●	●	●	●	●	●
CITROEN XM 2.1TD	89-98	XUD11ATE/L/BTE	1	●	●	●	●	●	●	●	●	●
CITROEN XM 2.5TD	98-	DK5ATE	1	●	●	●	●	●	●	●	●	●
CITROEN XM 2.5TD	94-98	DK5ATE	1	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.4HDi	03-	DV4	60		●	●	●		●		●	●
CITROEN XSARA 1.5D	97-	TUD5	40	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.8D	98-	XUD7	1	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.9D	98-	XUD9A	1	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.9D	97-98	XUD9A	1	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.9D	98-	DW8, DW8B	40	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.9TD	98-	XUD9TE, XUD9BSD	1	●	●	●	●	●	●	●	●	●
CITROEN XSARA 1.9TD	97-98	XUD9TE, XUD9TEY	1	●	●	●	●	●	●	●	●	●
CITROEN XSARA 2.0HDi	99-	DW10, DW10TD/TED	45		●		●				●	●
CITROEN XSARA PICASSO 2.0HDi	99-	DW10TD	45		●		●				●	●
CITROEN ZX 1.4D	94-97	TUD3Y (K9Y)	1	●		●	●	●	●	●	●	●
CITROEN ZX 1.5D	94-98	TUD5	40	●	●	●	●	●	●	●	●	●
CITROEN ZX 1.8D	91-97	XUD7 (TO 6778)	1	●	●	●	●	●	●	●	●	●
CITROEN ZX 1.8D	91-97	XUD7 (FROM 6779)	1	●	●	●	●	●	●	●	●	●
CITROEN ZX 1.9D	91-97	XUD9A, XUD9L	1	●	●	●	●	●	●	●	●	●
CITROEN ZX 1.9TD	98-	XUD9T, XUD9L	1	●	●	●	●	●	●	●	●	●
CITROEN ZX 1.9TD	92-98	XUD9T, XUD9L	1	●	●	●	●	●	●	●	●	●
DAEWOO												
DAEWOO KORANDO 2.3D, TD	98-	OM601.990	1	●	●	●	●	●	●	●	●	●
DAEWOO KORANDO 2.9D, TD	99-	OM662, OM601.910	1	●	●	●	●	●	●	●	●	●
DAEWOO KORANDO 2.9TD INT/COOLER	96-	OM662.D29	1	●	●	●	●	●	●	●	●	●
DAEWOO MUSSO 2.3D, TDI	99-	OM661LA, OM601.910	1	●	●	●	●	●	●	●	●	●

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DAEWOO - CONTINUED												
DAEWOO MUSSO 2.9D, TD	99-	OM622LA	1	●	●	●	●	●	●	●	●	●
DAEWOO MUSSO 2.9TD INT/COOLER	97-	OM662.D29	1	●	●	●	●	●	●	●	●	●
FIAT												
FIAT 500 1.3JTD	07-	169A1000	60		●	●	●		●		●	●
FIAT BRAVO 1.9JTD 16v	07-	937A5000	70									
FIAT BRAVA/BRAVO 1.9D	95-96	160A7000	1	●	●	●	●	●	●	●	●	●
FIAT BRAVA/BRAVO 1.9JTD	98-99	182B4000 (TO 1716459)	42		●					●	●	●
FIAT BRAVA/BRAVO 2.0TD	95-96		1	●	●	●	●	●	●	●	●	●
FIAT BRAVA/BRAVO 1.9JTD	00-	182B9000 (1716460 ON)	42		●						●	●
FIAT BRAVA/BRAVO 1.9JTD	99-	182B4000 (1716460 ON)	42		●						●	●
FIAT BRAVA/BRAVO 1.9JTD	99-	AR32302	42		●						●	●
FIAT CROMA 1.9JTD 16v	05-	939A2000	70									
FIAT CROMA 2.4JTD 20v	05-	939A3000	70									
FIAT CROMA 2.5D	90-97	8144.67	1	●	●	●	●	●	●	●	●	●
FIAT DOBLO 1.3JTD	04-	188A9, 199A2, 223A9	60		●	●	●		●		●	●
FIAT DOBLO 1.9JTD	01-		42		●						●	●
FIAT DUCATO 1.9D	88-94	230A2000	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 1.9D	94-	DJY (230A)	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 1.9TD	94-	230A3000, 230A4000	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.0D	87-94	149B1000	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5D	86-94	8144.61, 8144.67	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5TD 4x4	90-94	8140.27	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 1.9TD	90-94	280A1000, 230A3000	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 1.9TD	90-94	230A4000	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 1.9TD	98-	DHX	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5D & 4x4	86-94	8144.67.220	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5TD	94-	8140.47.2280	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5TD & 4x4	89-94	8144.21.220	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5TDI	94-	8140.47.2200	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5D (&4WD)	94-98	8140.67	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5D MAXI	90-94	8144.67	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.5TD MAXI	90-94	8140.27	1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.4D	86-94		1	●	●	●	●	●	●	●	●	●
FIAT DUCATO 2.4TD (2.5TD & 4WD)	86-94	8144.21.220	1	●	●	●	●	●	●	●	●	●
FIAT FIORINO 1.5D	93-		1	●	●	●	●	●	●	●	●	●
FIAT FIORINO 1.7D	92-	146B2000	1	●	●	●	●	●	●	●	●	●
FIAT FIORINO 1.7TDS	97-	146D7000	1	●	●	●	●	●	●	●	●	●
FIAT GRANDE PUNTO 1.3JTD	05-	199A2000, 199A3000	60		●	●	●		●		●	●
FIAT IDEA 1.3JTD	04-	188A9000	60		●	●	●		●		●	●
FIAT MAREA 1.9JTD	99-	182B4000	42		●						●	●
FIAT MAREA 1.9JTD	00-	186A6000	42		●						●	●
FIAT MAREA 1.9TD	96-99	182A7000, 182A8000	1	●	●	●	●	●	●	●	●	●
FIAT MAREA 2.4JTD	99-	185A6000	42		●						●	●
FIAT MAREA 2.4TD	96-99	185A2000	1	●	●	●	●	●	●	●	●	●
FIAT MARENGO 1.9D	90-96	160A7000	1	●	●	●	●	●	●	●	●	●
FIAT MARENGO 1.9JTD	99-	182B4000	42		●						●	●
FIAT MARENGO 1.9TD	90-96	160A6000	1	●	●	●	●	●	●	●	●	●
FIAT MARENGO 1.9TD	97-00	182A7000, 182A8000	1	●	●	●	●	●	●	●	●	●
FIAT MULTIPLA 1.9JTD	99-	182B4000	42		●						●	●
FIAT MULTIPLA 1.9JTD	00-	186A6000	42		●						●	●

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FIAT - CONTINUED												
FIAT PALIO 1.7D	97-	176B3000	1	●	●	●	●	●	●	●	●	●
FIAT PALIO 1.9JTD	01-		42		●						●	●
FIAT PALIO WEEKEND 70 1.7TD	97-	176A3000	1	●	●	●	●	●	●	●	●	●
FIAT PANDA 1.3JTD	04-	188A8000, 169A1	60		●	●	●		●		●	●
FIAT PUNTO 1.3 JTD	04-	188A9000	60		●	●	●		●		●	●
FIAT PUNTO 1.7D	93-	176A3000, 176B3000	1	●	●	●		●	●	●	●	●
FIAT PUNTO 1.7TD	93-99	176TD, 1697TT	1	●	●	●	●	●	●	●	●	●
FIAT PUNTO 1.7TD	93-96	176A3000, 176B3000	1	●	●	●	●	●	●		●	●
FIAT PUNTO 1.7TD	96-	176A5000	1	●	●	●	●	●	●	●	●	●
FIAT PUNTO II 1.9Di	99-	188A3000	1	●	●	●	●	●	●	●	●	●
FIAT PUNTO II 1.9JTD	99-	188A2000	42		●						●	●
FIAT PUNTO VAN 1.7D	94-96	176A3000, 176B3000	1	●	●	●	●	●	●	●	●	●
FIAT PUNTO VAN 1.7TDS	94-96	176A5000	1	●	●	●	●	●	●	●	●	●
FIAT PUNTO VAN 1.7TDS	97-	176A3000, 176B3000	1	●	●	●	●	●	●	●	●	●
FIAT PUNTO VAN 1.9Di	99-	188A3000	1	●	●	●	●	●	●	●	●	●
FIAT SCUDO 1.8D	98-	DW8, DW8B	40	●	●	●	●	●	●	●	●	●
FIAT SCUDO 1.8TD	98-	DW8TD	40	●	●	●	●	●	●	●	●	●
FIAT SCUDO 1.9D	95-98	D9B	1	●	●	●	●	●	●	●	●	●
FIAT SCUDO 1.9TD	95-98	DHX, D8B	1	●	●	●	●	●	●	●	●	●
FIAT SCUDO 2.0JTD	00-	DW10ATED4, DW8TED	45		●		●				●	●
FIAT SCUDO 2.0JTD	99-	DW10ATED (RHZ)	45		●		●				●	●
FIAT STILO 1.9JTD	01-		42		●						●	●
FIAT STRADA 1.7TDS	99-	176A3000	1	●	●	●	●	●	●	●	●	●
FIAT TEMPRA 1.9D, TD	90-96	160A7000	1	●	●	●	●	●	●	●	●	●
FIAT TEMPRA 1.9TD	90-96	160A6000, 160A6046	1	●	●	●	●	●	●	●	●	●
FIAT TEMPRA 1.9TD	90-96	160B6046	1	●	●	●	●	●	●	●	●	●
FIAT TEMPRA 1.9TD	93-96	160D1000	1	●	●	●	●	●	●	●	●	●
FIAT TIPO 1.7D	88-95	149B4000	1	●	●	●	●	●	●	●	●	●
FIAT TIPO 1.9TD	93-95	160D1000, 160A6000	1	●	●	●	●	●	●	●	●	●
FIAT ULYSSE 1.9TD	94-	XUD9TU	1	●	●	●	●	●	●	●	●	●
FIAT ULYSSE 2.0D	00-	DW10ATED4	45		●		●				●	●
FIAT ULYSSE 2.0JTD	99-	DW10ATED	45		●		●				●	●
FIAT ULYSSE 2.1TD	96-99	P8C, XUD11ATE	1	●	●	●	●	●	●	●	●	●
FIAT UNO 1.7D	89-94	146B2000	1	●	●	●	●	●	●	●	●	●
FIAT UNO MONDO 1.7D	96-99	146B2000	1	●	●	●	●	●	●	●	●	●
FORD												
FORD COURIER 1.8D	91-	RTC, RTD	1	●	●	●		●	●	●	●	●
FORD ECOVAN 2.0D	85-92	RF, R2	24								●	●
FORD ESCORT (MK5 ON) 1.8D/TD	95-	D18TC/TI, RFK, RVA	1	●	●	●	●	●	●	●	●	●
FORD ESCORT (MK5 ON) 1.8D, TD	88-96	RTF, RTH, RFD	1	●	●	●		●	●	●	●	●
FORD ESCORT (MK5 ON) 1.8D, TD	88-96	D18Ti, D18TC	1	●	●	●	●	●	●	●	●	●
FORD ESCORT VAN 1.8D, 1.8TD	88-96		1	●	●	●		●	●	●	●	●
FORD ESCORT VAN 1.8TDi	96-	D18TDi, RFK	1	●	●	●	●	●	●	●	●	●
FORD FIESTA (MK4 ON) 1.8D, 1.8TD	95-	D18NA, RTK, RTJ	1	●	●	●	●	●	●	●	●	●
FORD FIESTA 1.4 DURATORQ		DV4TD	60		●	●	●		●		●	●
FORD FIESTA MK3 1.8D, 1.8TD	89-95	RTC, RTD	1	●	●	●	●	●	●	●	●	●
FORD FIESTA MK4 1.8Di	98-	RTP (ENDURA)	1	●	●	●	●	●	●	●	●	●
FORD FIESTA MK4 1.8Di	00-	RTP ENDURA	41			●		●		●	●	●
FORD FOCUS 1.8Di	99-	BHDA, BHDB	41			●		●		●	●	●
FORD FOCUS 1.8TDi	98-	C9D ENDURA	41			●		●		●	●	●

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				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
FORD - CONTINUED												
FORD FUSION 1.4TDCi	03-	DV4TD	60		●	●	●		●		●	●
FORD FOCUS C-MAX 1.6TDCi	03-	DV6TED4	60		●	●	●		●		●	●
FORD GALAXY 1.9TD	95-	1Z, ANU, AHU	40	●	●	●	●	●	●	●	●	●
FORD GALAXY 1.9TDi	95-	AFN, ANU	40	●	●	●	●	●	●	●	●	●
FORD GALAXY 1.9TDi	00-	AJM	40	●	●	●	●	●	●	●	●	●
FORD GRANADA 2.5D	85-95	STP	1	●	●	●	●	●	●	●	●	●
FORD MAVERICK 2.7TD	93-96	TD27T	24								●	●
FORD MAVERICK 2.7TD	96-	TD27E	24								●	●
FORD MONDEO 1.8D, 1.8TD	93-96	RFN, RFM	1	●	●	●	●	●	●	●	●	●
FORD MONDEO 1.8TDi	96-	D18Ti	1	●	●	●	●	●	●	●	●	●
FORD MONDEO 2.0TDCi	00-	D5BA, D6BA	46			●					●	●
FORD MONDEO 2.0TDCi	00-	HJBA, HJBB, FMBA	46			●					●	●
FORD RANGER 2.5D, TD	99-		24								●	●
FORD SCORPIO 2.5D	85-94	STR	1	●	●	●	●	●	●	●	●	●
FORD SCORPIO 2.5TD	93-94	E2D30, VM 492 SLIRF	1	●	●	●	●	●	●	●	●	●
FORD SCORPIO 2.5TD	95-98	SCC, SCD (VM25-TCI)	40	●	●	●	●	●	●	●	●	●
FORD TRANSIT 2.0TDi	00-	D3FA, ABFA, F3FA, F1FA	46			●					●	●
FORD TRANSIT 2.4TDi, Di	00-	F4FA, D2FA, D4FA, DOFA	46			●					●	●
HONDA												
HONDA ACCORD 2.0TDi	96-98	20TN2 L SERIES	40	●	●	●	●	●	●	●	●	●
HONDA CIVIC 2.0D	96-	20TN2 L SERIES	40	●	●	●	●	●	●	●	●	●
HONDA CIVIC AERODECK 2.0TDi	98-	20TN2 L SERIES	40	●	●	●	●	●	●	●	●	●
HONDA CONCERTO 1.8TD	94-96	XUD7T	1	●	●	●	●	●	●	●	●	●
HYUNDAI												
HYUNDAI PORTER (H100) 2.5D	93-	4D56, D4BX, D4BA,	24								●	●
HYUNDAI PORTER (H100) 2.5D	93-	D4BB, D4BF	24								●	●
HYUNDAI SATELLITE 2.5TD (H1)	97-	D4BF	24								●	●
HYUNDAI STAREX 2.5D (H1)	97-	D4BB	24								●	●
HYUNDAI STAREX 2.5TD (H1)	97-	D4BF	24								●	●
ISUZU												
ISUZU GEMINI 1.5D	88-93	4EC1	25						●		●	●
ISUZU GEMINI 1.5TD	88-93	T4EC1	25						●		●	●
ISUZU PICKUP 2.0D	83-93	C190	25						●		●	●
ISUZU RODEO/TROOPER 3.1TD	91-		25						●		●	●
JAGUAR												
JAGUAR S TYPE 2.7	04-		61									
JAGUAR X TYPE 2.0	03-		46			●					●	●
JEEP												
JEEP CHEROKEE 2.1TD	87-95	J8S814, J8S890	1	●	●	●	●	●	●	●	●	●
JEEP CHEROKEE 2.5TD	94-	VM HR425 CLIRX	1	●	●	●	●	●	●	●	●	●
JEEP COMMANCHE 2.1TD	88-98	J8S814	1	●	●	●	●	●	●	●	●	●
JEEP GRAND CHEROKEE 2.5TD	93-99	VM	40	●	●	●	●	●	●	●	●	●
JEEP GRAND CHEROKEE 3.1TD	99-		40	●	●	●	●	●	●	●	●	●
JEEP WAGONEER 2.1TD	88-94	J8S814	1	●	●	●	●	●	●	●	●	●
JEEP WRANGLER 2.1TD	88-		1	●	●	●	●	●	●	●	●	●
JEEP WRANGLER 2.5TD	88-	VM	1	●	●	●	●	●	●	●	●	●

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KIA													
KIA BESTA 2.2D 2WD	92-02	HW SOHC	24										
KIA BESTA 2.7D 2WD	90-99	VN OHV	24										
KIA NITRAMA 2.7D	96-	JZ	24										
KIA PREGIO 2.7D	96-	JZ	24										
KIA SPORTAGE 2.0TDi	96-	RF	24										
LADA													
LADA COSSACK 1.9D 2121	94-	XUD9L	1	●	●	●	●	●	●	●	●	●	●
LADA HUSSAR 1.9D 2121	94-	XUD9L	1	●	●	●	●	●	●	●	●	●	●
LADA NIVA 1.9D 2121	94-	XUD9L	1	●	●	●	●	●	●	●	●	●	●
LADA SAMARA 1.5D (2109)	96-	TUD5L	40	●	●	●	●	●	●	●	●	●	●
LANCIA													
LANCIA DEDRA 1.9TD	89-94	835A4000	1	●	●	●	●	●	●	●	●	●	●
LANCIA DEDRA 1.9TD	94-99	160D1000	1	●	●	●	●	●	●	●	●	●	●
LANCIA DEDRA 1.9TDS	93-	160D1000	1	●	●	●	●	●	●	●	●	●	●
LANCIA DELTA 1.9TD HPE	96-99		1	●	●	●	●	●	●	●	●	●	●
LANCIA DELTA 1.9TDS	93-96	835A4000	1	●	●	●	●	●	●	●	●	●	●
LANCIA DELTA 1.9TDS	93-99	160D1000	1	●	●	●	●	●	●	●	●	●	●
LANCIA KAPPA 2.4JTD	99-00	838A8000	42		●							●	●
LANCIA KAPPA 2.4JTD	97-99	838A8000, AR34202	42		●							●	●
LANCIA KAPPA 2.4TD	95-96	838A3000	1	●	●	●	●	●	●	●	●	●	●
LANCIA KAPPA 2.4TD	96-98	838A7000	1	●	●	●	●	●	●	●	●	●	●
LANCIA LYBRA 1.9JTD	99-	AR32302, AR37101	42		●							●	●
LANCIA LYBRA 1.9JTD	98-	932	42		●							●	●
LANCIA LYBRA 2.4JTD	99-	932	42		●							●	●
LANCIA LYBRA 2.4JTD	99-	839A5000, 839A6000	42		●							●	●
LANCIA MUSA 1.3JTD	04-	188A9000	60		●	●	●			●		●	●
LANCIA THEMA 2.4TD	93-94	8144	1	●	●	●	●	●	●	●	●	●	●
LANCIA THEMA 2.5TD	88-94	8144.97, Y EDC BOSCH	1	●	●	●	●	●	●	●	●	●	●
LANCIA THESIS 2.4JTD 20v.	03-07	841G000, 841H000	70										
LANCIA YPSILON 1.3JTD	03-06	188A9000	60		●	●	●			●		●	●
LAND ROVER													
LAND ROVER DEFENDER 2.5D	90-		1	●	●	●	●	●	●	●	●	●	●
LAND ROVER DEFENDER 2.5TDi (130)	90-	GEMINI TCI 23L, 11L	43				●		●	●	●	●	●
LAND ROVER DISCOVERY 2.5TDi	89-94	GEMINI 12L, 21L	43				●		●	●	●	●	●
LAND ROVER DISCOVERY 2.5TDi	93-99	GEMINI 19L	43				●		●	●	●	●	●
LAND ROVER DISCOVERY 2.7TDV6	04-	276DT	61										
LAND ROVER FREELANDER 2.0DTI	97-00	20TCI-E	40	●	●	●	●	●	●	●	●	●	●
LANDROVER FREELANDER 2.0TDi	00-	M47R (BMW ENGINE)	40	●	●	●	●	●	●	●	●	●	●
LDV													
LDV 200 1.9D	94-96	XUD9	1	●	●	●	●	●	●	●	●	●	●
LDV 200 2.0D	89-96	O SERIES	1	●	●	●	●	●	●	●	●	●	●
LDV 400 2.5D	89-96	PEUGEOT	1	●	●	●	●	●	●	●	●	●	●
LDV 400 2.5D	83-96	PERKINS	1	●	●	●	●	●	●	●	●	●	●
LDV 400 2.5TD	89-96	PEUGEOT	1	●	●	●	●	●	●	●	●	●	●
LDV CUB 2.3D	98-	LD23	24									●	●
LDV PILOT 1.9D	96-	XUD9A	1	●	●	●	●	●	●	●	●	●	●

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MAZDA												
MAZDA 121 1.8D	96-	RTJ	1	●	●	●	●	●	●	●	●	●
MAZDA 323 1.7D	89-96	12 VOLT	24								●	●
MAZDA 323 1.7D	91-94	PN2, 26, 54, 62	24								●	●
MAZDA 323 2.0D	97-98	RF1G	24								●	●
MAZDA 626 2.0D	92-95	RF	24								●	●
MAZDA 626 2.0D	92-97	RFH7	24								●	●
MAZDA 626 2.0D	92-97	RFH5	24								●	●
MAZDA B2200 2.2D	84-96	F2, R2, S2	24								●	●
MAZDA E2200 2.2D, 4WD	84-96	F2, R2, R281, R284	24								●	●
MAZDA E2200 2.2D, 4WD	84-96	R293, R296	24								●	●
MERCEDES-BENZ												
MERCEDES 200 2.0CDI	98-	OM611.961	43				●		●	●	●	●
MERCEDES 208 2.3D	91-95	OM601.940	1	●	●	●	●	●	●	●	●	●
MERCEDES 210 2.9D	88-95	OM602.940	1	●	●	●	●	●	●	●	●	●
MERCEDES 220 2.2CDI	98-	OM611.961	43				●		●	●	●	●
MERCEDES 290 2.9D GD	93-96	OM602.946	1	●	●	●	●	●	●	●	●	●
MERCEDES 290 2.9TD GD	92-96	OM602.942	1	●	●	●	●	●	●	●	●	●
MERCEDES 290 2.9TDI GD	96-	OM602.983	2								●	●
MERCEDES 308 2.3D	91-95	OM601.940	1	●	●	●	●	●	●	●	●	●
MERCEDES 310 2.9D	88-95	OM602.940	1	●	●	●	●	●	●	●	●	●
MERCEDES 350 3.4TD GD	93-96	OM603.972	1	●	●	●	●	●	●	●	●	●
MERCEDES 350 3.5TD GD	91-96	OM603.972	1	●	●	●	●	●	●	●	●	●
MERCEDES 408 2.3D	88-94	OM601.940	1	●	●	●	●	●	●	●	●	●
MERCEDES 508 2.3D	89-96	OM601.941	1	●	●	●	●	●	●	●	●	●
MERCEDES 511 4.0D	95-	OM364 LA	2								●	●
MERCEDES 611 4.0D	95-96	OM364 LA	2								●	●
MERCEDES 711 4.0D	95-96	OM364 LA	2								●	●
MERCEDES 714 4.3D	95-96	OM364 LA	2								●	●
MERCEDES 811 4.0D	95-96	OM364 LA	2								●	●
MERCEDES 814 4.0D	95-	OM364 LA	2								●	●
MERCEDES A160 1.7CDi	98-	OM688.940	43				●		●	●	●	●
MERCEDES C200 2.0D	96-	OM604.915	3								●	●
MERCEDES C200 2.0D	93-95	OM601.913	1	●	●	●	●	●	●	●	●	●
MERCEDES C200 2.1CDi	00-	OM611.962	43				●		●	●	●	●
MERCEDES C200 2.2D	98-	OM611.962	43				●		●	●	●	●
MERCEDES C200 2.2TD	98-	OM611.960	43				●		●	●	●	●
MERCEDES C220 2.2D	93-98	OM604.910	3								●	●
MERCEDES C250 2.5D	93-95	OM605.910	2								●	●
MERCEDES C250 2.5D	94-95	OM605.910	3								●	●
MERCEDES C250 2.5TD KOMBI	96-00	OM605.960	3								●	●
MERCEDES C270 2.7CDi	00-	OM612.962	43				●		●	●	●	●
MERCEDES E200 2.0D	82-95	OM601.913	1	●	●	●	●	●	●	●	●	●
MERCEDES E200 2.0D	93-95	OM601.912	1	●	●	●	●	●	●	●	●	●
MERCEDES E200 2.0D	95-	OM604.917	3								●	●
MERCEDES E200 2.1DCDi	95-	OM611.961	43				●		●	●	●	●
MERCEDES E220 2.2D	95-98	OM604.912	3								●	●
MERCEDES E220 2.2TD KOMBI	98-	OM611.961	43				●		●	●	●	●
MERCEDES E250 2.5CDI	97-	OM605.962	43				●		●	●	●	●
MERCEDES E250 2.5D	93-	OM605.911	3								●	●

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MERCEDES - CONTINUED												
MERCEDES E250 2.5TD	92-95	OM602.962	1	●	●	●	●	●	●	●	●	●
MERCEDES E250 2.5TD	95-97	OM605.912	3								●	●
MERCEDES E270 2.7CDI	99-	OM612.960	43				●		●	●	●	●
MERCEDES E270 2.7CDI	02-	OM646.961	43				●		●	●	●	●
MERCEDES E290 2.9CDi	96-	OM602.982	43				●		●	●	●	●
MERCEDES E290 2.9TD	95-	OM602.982	2								●	●
MERCEDES E300 3.0D	93-97	OM606	3								●	●
MERCEDES E300 3.0D	95-	OM606.912	3								●	●
MERCEDES E300 3.0D TE KOMBI	92-96	OM606.910	3								●	●
MERCEDES E300 3.0TD	96-	OM606.962	3								●	●
MERCEDES E320 3.2CDi	99-	OM613.961	43				●		●	●	●	●
MERCEDES G240 2.5D	90-	OM602	1	●	●	●	●	●	●	●	●	●
MERCEDES G270 2.7CDi	99-	OM612	43				●		●	●	●	●
MERCEDES G290 2.9D	93-	OM602.942, OM602.947	1	●	●	●	●	●	●	●	●	●
MERCEDES G290 2.9D	93-	OM602.983	1	●	●	●	●	●	●	●	●	●
MERCEDES G300 3.0D	93-	OM603.931	1	●	●	●	●	●	●	●	●	●
MERCEDES G300 3.0TD	96-	OM606.964	3								●	●
MERCEDES G350 3.5TD	93-	OM603.972	1	●	●	●	●	●	●	●	●	●
MERCEDES MB100 2.4D	91-95	OM616.963	1	●	●	●	●	●	●	●	●	●
MERCEDES MB100 2.4D	96-	OM661.911	1	●	●	●	●	●		●	●	●
MERCEDES MB140 2.4D	88-95	OM616.963	1	●	●	●	●	●	●	●	●	●
MERCEDES MB180 2.4D	88-95	OM616.963	1	●	●	●	●	●	●	●	●	●
MERCEDES MB80 2.4D	93-95	OM616.963	1	●	●	●	●	●	●	●	●	●
MERCEDES ML270 2.7CDi	99-	OM612.960	43				●		●	●	●	●
MERCEDES ML400 4.0CDi	01-	OM628	43				●		●	●	●	●
MERCEDES S300 3.0TD	96-	OM606.961	3								●	●
MERCEDES S320 CDI	99-	OM613.960	43				●		●	●	●	●
MERCEDES S350 3.5TD	93-95	OM603.971	1	●	●	●	●	●	●	●	●	●
MERCEDES S350 3.5TD	95-96	OM603.971	1	●	●	●	●	●	●	●	●	●
MERCEDES S400 4.0CDi	00-	OM628.960	43				●		●	●	●	●
MERCEDES SPRINTER 2.2CDi	03-	OM611.960	43				●		●	●	●	●
MERCEDES SPRINTER 2.3D 208, 308, 408	94-	OM601.943	1	●	●	●	●	●	●	●	●	●
MERCEDES SPRINTER 2.9D 212	95-	OM602.986	2								●	●
MERCEDES SPRINTER 2.9TD 312, 412	95-	OM602.980	2								●	●
MERCEDES SPRINTER 210, 310, 410D	97-00	OM602.986	2								●	●
MERCEDES SPRINTER CDI 208,308,408	00-	OM611.987	43				●		●	●	●	●
MERCEDES SPRINTER CDI 211,213, 311,313, 411,413	00-	OM611.981	43				●		●	●	●	●
MERCEDES SPRINTER CDI 216,316,416,616	00-	OM612.981	43				●		●	●	●	●
MERCEDES SPRINTER 2.7CDI	00-	OM612.	43				●		●	●	●	●
MERCEDES UNIMOG U100	92-	OM602.941, OM602.948	1	●	●	●	●	●	●	●	●	●
MERCEDES UNIMOG U100	96-	OM602.981	2								●	●
MERCEDES UNIMOG U90	92-	OM602.941	1	●	●	●	●	●	●	●	●	●
MERCEDES UNIMOG U90	96-	OM602.981	2								●	●
MERCEDES V200 CDI	99-	OM611.980	43				●		●	●	●	●
MERCEDES V220 CDI	99-	OM611.980	43				●		●	●	●	●
MERCEDES V230 2.3TD	96-99	OM601.970	1	●	●	●	●	●	●	●	●	●
MERCEDES Vaneo 1.7CDi	02-	OM688	43				●		●	●	●	●
MERCEDES VARIO 2.9TD 512, 612, 812	96-	OM602.984, OM602.985	2								●	●
MERCEDES VITO 2.2CDI 108, 110, 112	99-	OM611.980	43				●		●	●	●	●

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Diesel Engine Compression/Cylinder Leakage Adaptor Application Guide

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			'VEHICLE SPECIFIC' TEST KITS							'MULTI-MARQUE' TEST KITS		
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MERCEDES - CONTINUED												
MERCEDES VITO 2.3TD 110	96-98	OM601.970	1	●	●	●	●	●	●	●	●	●
MERCEDES VITO 2.3D 108	95-	OM601.942	1	●	●	●	●	●	●	●	●	●
MITSUBISHI												
MITSUBISHI CHALLENGER 2.5D	98-	4D56T	24								●	●
MITSUBISHI GALANT 2.0TDi	92-97	4D68	24								●	●
MITSUBISHI SPACEWAGON 1.8D/TD	83-98	4D65	24								●	●
MITSUBISHI CANTER 2.5D	86-96	4D56	24								●	●
MITSUBISHI CARISMA 1.9TD	96-	F8QT	1	●	●	●	●	●	●	●	●	●
MITSUBISHI GALANT 1.8D, TD	88-92	4D65	24								●	●
MITSUBISHI GALANT 2.0TD	96-	4D68	24								●	●
MITSUBISHI L200 2.5D	94-96	4D56 SOHC	24								●	●
MITSUBISHI L200 2.5D	93-94	4D56 SOHC	24								●	●
MITSUBISHI L200 2.5TD	92-	4D56	24								●	●
MITSUBISHI L300 2.5D	86-96	4D56	24								●	●
MITSUBISHI L300 2.5D, TD	87-96	4D56 SOHC	24								●	●
MITSUBISHI L400 2.5TD	94-	4D56	24								●	●
MITSUBISHI LANCER 2.0D	88-97	4D68	24								●	●
MITSUBISHI PAJERO 2.5TDi/COOL	93-98	4D56	24								●	●
MITSUBISHI PAJERO 2.5TD I/COOL	93-99	4D56	24								●	●
MITSUBISHI PAJERO 3.2DTi/COOL	00-	4M41	26								●	●
MITSUBISHI SPACEGEAR 2.5TDi 4WD	94-	4D56	24								●	●
MITSUBISHI SPACERUNNER 2.0TD	91-99	4D68	24								●	●
MITSUBISHI SPACESTAR 1.9D	00-	F9Q1	40	●	●	●	●	●	●	●	●	●
MITSUBISHI SPACEWAGON 2.0TD	91-98	4D68	24								●	●
NISSAN												
NISSAN ALMERA 2.0D	95-96	CD20	23								●	●
NISSAN ALMERA 2.2DT	00	YD22T	26								●	●
NISSAN CABSTAR 2.3TD	82	TD23	24								●	●
NISSAN CRABSTAR 2.5TD	82-97		24								●	●
NISSAN CABSTAR 2.7TD	82		24								●	●
NISSAN KING CAB 2.5D	93	TD25	24								●	●
NISSAN KING CAB 2.5TD	98	TD25	24								●	●
NISSAN KING CAB 2.5TDi	98	TD25Ti	24								●	●
NISSAN MICRA 1.5D	98	TUD5, TUD15	43				●		●	●	●	●
NISSAN MICRA 1.5TD	02	K9K	40	●	●	●	●	●	●	●	●	●
NISSAN PATHFINDER 2.7D	93	TD27	24								●	●
NISSAN PATHFINDER 2.7TD	93	TD27ET	24								●	●
NISSAN PATROL 2.7TD	93	TD27	24								●	●
NISSAN PATROL 2.8D	89-97	RD28	1	●	●	●	●	●	●	●	●	●
NISSAN PATROL 4.2D	93-	TD42 VIZ	24								●	●
NISSAN PICKUP 2.5D	93-98	TD25	24									●
NISSAN PICKUP 2.5TD	87-98	TD25	24								●	●
NISSAN PRIMERA 2.0D	91-96	CD20	23								●	●
NISSAN PRIMERA 2.2DT	00-	YD22T	26								●	●
NISSAN PRIMASTAR 2.0DCi	06-	M9R	48									
NISSAN QASHQAI 2.0DCi	07-	M9R	48									
NISSAN SERENA 2.0D	92-94	LD20	24								●	●
NISSAN SERENA 2.3D	94-	LD23 OHC	24								●	●
NISSAN TERRANO II 2.7D	93-96	TD25, TD27	24								●	●

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NISSAN - CONTINUED													
NISSAN TERRANO II 2.7TD	93-96	TD27T OHV	24								●	●	
NISSAN TRADE 2.3D	97-	LD23	24								●	●	
NISSAN TRADE 2.5D	97-	LD23	24								●	●	
NISSAN URVAN 2.0D	82-94	(E20,E23,E24) LD20T	24								●	●	
NISSAN URVAN 2.5D	93-96	TD25 OHV	24								●	●	
NISSAN URVAN 2.7TD	82-	TD27	24								●	●	
NISSAN VANETTE 2.3D	94-	LD23	24								●	●	
NISSAN X-TRAIL 2.0DCi	07-	M9R	48										
OPEL - SEE VAUXHALL													
PEUGEOT													
PEUGEOT 106 1.4D, 1.4TD	92-96	TUD3 (K9Y)	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 106 1.5D	94-	TUD5, TUD5B	40	●	●	●	●	●	●	●	●	●	
PEUGEOT 205 1.8D	83-97	XUD7, A9A, 161A, R171	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 205 1.8TD	85-97	XUD7T	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 205 1.9D	87-94	1.9D	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 206 1.4Hdi	03-	DV4TD	60		●	●	●		●		●	●	
PEUGEOT 206 1.9D	98-	DW8, DW8B	40	●	●	●	●	●	●	●	●	●	
PEUGEOT 206 2.0Hdi	99-	DW10, DW10TD	45		●		●				●	●	
PEUGEOT 306 1.8D	98-	XUD7	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.8D	98-	XUD7 (A9A)	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.8D	94-98	XUD7, A9A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.8D	92-95	XUD9	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9D	98-	XUD9	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9D	92-94	XUD9	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9D	94-98	XUD9	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9D	93-01	XUD9A, XUD9L	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9D	98-01	DW8, DW8B	40	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9TD	98-	XUD9TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 1.9TD	93-98	XUD9TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 306 2.0Hdi	98-01	DW10, DW10TD	45		●		●				●	●	
PEUGEOT 307 1.4Hdi	03-	DV4TD	60		●	●	●		●		●	●	
PEUGEOT 307 1.6Hdi	03-	DV6TED4	60		●	●	●		●		●	●	
PEUGEOT 307 2.0Hdi	01-	DW10, DW10TD	45		●		●				●	●	
PEUGEOT 309 1.5D	94-	TUD5	40	●	●	●	●	●	●	●	●	●	
PEUGEOT 309 1.7D	86-93	XUD7, A9A, 161A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 309 1.7TD	89-93	XUD7DT, A8A, A8B	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 309 1.9D	86-93	XUD9Y, XUD9, DJZ, D9A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 405 1.8D	88-95	XUD7, A9A, 161A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 405 1.9D	93-97	XUD9	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 405 1.9TD	92-97	XUD9TE, XUD9TF	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 1.9D	96-99	XUD9SD	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 1.9TD	95-98	XUD9BTF, XUD9BSD	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 1.9TD	95-98	XUD9BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 1.9TD	98-	XUD9BTF/SD/TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 2.0Hdi	98-	DW10, DW10ATED	45		●		●				●	●	
PEUGEOT 406 2.0Hdi	99-	DW10TD	45		●		●				●	●	
PEUGEOT 406 2.1TD	98-99	XUD11BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 2.1TD	95-98	XUD11BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 406 2.2Hdi	00-	DW12TED, DW12TED4	45		●		●				●	●	

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PEUGEOT - CONTINUED													
PEUGEOT 605 2.1TD	98-	XUD11BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 605 2.1TD	89-94	XUD11/A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 605 2.1TD	89-94	XUD11BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 605 2.1TD	89-94	XUD11ATE	1	●	●	●	XUD11ATE	●	●	●	●	●	
PEUGEOT 605 2.5TD	98-	DK5ATE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 605 2.5TD	94-98	DK5ATE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 607 2.0Hdi	00-	DW10ATED	45		●		●				●	●	
PEUGEOT 607 2.2Hdi	00-	DW12TED4	45		●		●				●	●	
PEUGEOT 806 1.9TD	98-	XUD9TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 806 1.9TD	94-98	XUD9TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 806 2.0Hdi	98-	DW10TED/4	45		●		●				●	●	
PEUGEOT 806 2.1TD	98-	XUD11ATE, BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 806 2.1TD	95-98	XUD11ATE, XUD11BTE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT 807 2.0Hdi	02-	DW10TED	45		●		●				●	●	
PEUGEOT 807 2.2Hdi	02-	DW12TED4	45		●		●				●	●	
PEUGEOT BOXER 1.8D	98-	XUD7	1	●	●	●	●	●	●	●	●	●	
PEUGEOT BOXER 1.8D	95-98	XUD7	1	●	●	●	●	●	●	●	●	●	
PEUGEOT BOXER 1.9D	98-	XUD9, XUD9AU	1	●	●	●	XUD9	●	●	●	●	●	
PEUGEOT BOXER 1.9D	94-95	XUD9, DJY, D9B	1	●	●	●	XUD9	●	●	●	●	●	
PEUGEOT BOXER 1.9D	95-98	XUD9, DJY, D9B	1	●	●	●	XUD9	●	●	●	●	●	
PEUGEOT BOXER 1.9TD	98-	XUD9TE, XUD9UTF	1	●	●	●	XUD9TE	●	●	●	●	●	
PEUGEOT BOXER 1.9TD	94-98	XUD9TE, XUD9TFU	1	●	●	●	XUD9TE	●	●	●	●	●	
PEUGEOT BOXER 2.0Hdi	98-	DW10TD	45		●		●				●	●	
PEUGEOT BOXER 2.5D	98-	DJ5	1	●	●	●	●	●	●	●	●	●	
PEUGEOT BOXER 2.5D	94-98	DJ5	1	●	●	●	●	●	●	●	●	●	
PEUGEOT BOXER 2.5DTI	98-	DJ5T	1	●	●	●	●	●	●	●	●	●	
PEUGEOT BOXER 2.5DTI	96-	DJ5TED	43				●		●	●	●	●	
PEUGEOT BOXER 2.5TDI	94-98	DJ5T	1	●	●	●	●	●	●	●	●	●	
PEUGEOT BOXER 2.8JTD	97-		1	●	●	●	●	●	●	●	●	●	
PEUGEOT EXPERT 1.8D	98-	DW8	40	●	●	●	●	●	●	●	●	●	
PEUGEOT EXPERT 1.9D	98-	XUD9A, XUD9L	1	●	●	●	●	●	●	●	●	●	
PEUGEOT EXPERT 1.9D	95-98	XUD9A, XUD9L	1	●	●	●	●	●	●	●	●	●	
PEUGEOT EXPERT 1.9TD	98-	XUD9TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT EXPERT 1.9TD	95-98	XUD9TE	1	●	●	●	●	●	●	●	●	●	
PEUGEOT EXPERT 2.0Hdi	99-	DW10TD, DW10BTED	45		●		●				●	●	
PEUGEOT EXPERT 2.0Hdi	00-	DW10ATED (RH, RHZ)	45		●		●				●	●	
PEUGEOT EXPRESS 1.9D	87-94	XUD9	1	●	●	●	●	●	●	●	●	●	
PEUGEOT J5 1.9D	87-94	XUD9A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT J5 2.5D	91-94	CRD93	1	●	●	●	●	●	●	●	●	●	
PEUGEOT J5 2.5D	94-	DJ5	1	●	●	●	●	●	●	●	●	●	
PEUGEOT J5 2.5TD	94-	DJ5T	1	●	●	●	●	●	●	●	●	●	
PEUGEOT J5 2.5TD	87-94	CRD93LS	1	●	●	●	●	●	●	●	●	●	
PEUGEOT PARTNER 1.8D	98-	XUD7	1	●	●	●	●	●	●	●	●	●	
PEUGEOT PARTNER 1.8D	96-98	XUD7	1	●	●	●	●	●	●	●	●	●	
PEUGEOT PARTNER 1.9D	98-	XUD9A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT PARTNER 1.9D	96-98	XUD9A, XUD9Y	1	●	●	●	●	●	●	●	●	●	
PEUGEOT PARTNER 1.9D	98-	DW8, DW8B	40	●	●	●	●	●	●	●	●	●	
PEUGEOT PARTNER 2.0Hdi	99-	DW10TD	45		●		●				●	●	
PEUGEOT RANCH 1.9D	97-98	XUD9A	1	●	●	●	●	●	●	●	●	●	
PEUGEOT RANCH 1.9D	98-	DW8	40	●	●	●	●	●	●	●	●	●	

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RANGE ROVER												
RANGE ROVER 2.5 TDS	94-	M51 D25	1	●	●	●	●	●	●	●	●	●
RANGE ROVER 2.5D	89-	GEMINI	43				●		●	●	●	●
RANGE ROVER 2.5TD	89-94	VM	1	●	●	●	●	●	●	●	●	●
RANGE ROVER 2.5TDi	94-97	GEMINI 200, 300 Tdi	43				●		●	●	●	●
RANGE ROVER 2.5TDi	94-97	ETC9091N	43				●		●		●	●
RANGE ROVER SPORT 2.7TDV6	05-	276DT	61									
RANGE ROVER 3.0TDi	02-	M57 D30	43				●		●	●	●	●
RENAULT												
RENAULT 19 1.9D	91-96	F8Q-706/742	1	●	●	●	●	●	●	●	●	●
RENAULT 19 1.9TD	90-96	F8Q-740/744	1	●	●	●	●	●	●	●	●	●
RENAULT 21 2.1D	92-	J8S-704/714	1	●	●	●	●	●	●	●	●	●
RENAULT 5 1.6D	84-94	F8M-720/730	1	●	●		●	●	●		●	●
RENAULT CLIO 1.9D	91-98	F8Q-672/676/678	1	●	●	●	●	●	●	●	●	●
RENAULT CLIO 1.9D	91-98	F8Q-692/696	1	●	●	●	●	●	●	●	●	●
RENAULT CLIO II 1.5D	01-	K9K-70	40	●	●	●	●	●	●	●	●	●
RENAULT CLIO II 1.5DCi	01-	K9K65, K9K80	40	●	●	●	●	●	●	●	●	●
RENAULT CLIO II 1.9D	98-	F8Q-630/662	41			●		●			●	●
RENAULT CLIO II 1.9DTi	99-	F9Q-780	40	●	●	●	●	●	●	●	●	●
RENAULT CLIO VAN 1.9D	91-96	F8Q-732	1	●	●	●	●	●	●	●	●	●
RENAULT CLIO VAN 1.9D	90-96	F8Q-730	1	●	●	●	●	●	●	●	●	●
RENAULT ESPACE II 2.1TD	91-96	J8S	1	●	●	●	●	●	●	●	●	●
RENAULT ESPACE III 1.9DTi	99-	F9Q-722/716/720	40	●	●	●	●	●	●	●	●	●
RENAULT ESPACE 2.0DCi	08-	M9R	48									
RENAULT ESPACE III 2.2DCi	00-	G9T-710	47					●			●	●
RENAULT ESPACE III 2.2TD	96-00	G8T-714/716	40	●	●	●	●	●	●	●	●	●
RENAULT EXPRESS 1.9D	91-	F8Q-684/722/724	1	●	●	●	●	●	●	●	●	●
RENAULT EXPRESS 1.9D	91-	F8Q-774/776	1	●	●	●	●	●	●	●	●	●
RENAULT EXPRESS 1.9D	96-	F8Q-640/644/646	1	●	●	●	●	●	●	●	●	●
RENAULT EXPRESS 1.9D	96-	F8Q-648/682	1	●	●	●	●	●	●	●	●	●
RENAULT EXTRA 1.6D	86-94	F8M-720	1	●	●	●	●	●	●	●	●	●
RENAULT EXTRA 1.9D	91-95	F8Q-640/644/646/678	1	●	●	●	●	●	●	●	●	●
RENAULT EXTRA 1.9D	96-98	F8Q-722/724/774/776	1	●	●	●	●	●	●	●	●	●
RENAULT EXTRA 1.9D	94-	F8Q-640	1	●	●	●	●	●	●	●	●	●
RENAULT KANGOO 1.5DCi	01-	K9K65, K9K80	40	●	●	●	●	●	●	●	●	●
RENAULT KANGOO 1.9D	98-	F8Q-662, F8Q-630	41			●		●			●	●
RENAULT KANGOO 1.9D	99-	F8Q-632	41			●		●			●	●
RENAULT KANGOO 1.9DTi	99-	F9Q-780	40	●	●	●	●	●	●	●	●	●
RENAULT KOLEOS 2.0DCi	08-	M9R	48									
RENAULT LAGUNA 1.9DCi	99-	F9Q-718	40	●	●	●	●	●	●	●	●	●
RENAULT LAGUNA 1.9DTi	96-98	F9Q-716	40	●	●	●	●	●	●	●	●	●
RENAULT LAGUNA 1.9DTi	99-	F9Q-710/717/718	40	●		●	●	●	●	●	●	●
RENAULT LAGUNA 2.2D	96-98	G8T-706/752/790	40	●	●	●	●	●	●	●	●	●
RENAULT LAGUNA 2.2D	96-98	G8T-792/794	40	●	●	●	●	●	●	●	●	●
RENAULT LAGUNA 2.2TD	96-98	G8T-760	40	●	●	●	●	●	●	●	●	●
RENAULT LAGUNA II 1.9DCi	01-	F9Q-750/751/752/754	40	●	●	●	●	●	●	●	●	●
RENAULT LAGUNA II 2.0DCi	05-	M9R	48									
RENAULT LAGUNA II 2.2DCi	01-	G9T	47					●			●	●
RENAULT MASTER 1.9DTi	99-	F9Q-770	40	●	●	●	●	●	●	●	●	●
RENAULT MASTER 2.1D	80-95	J8S-330	1	●	●	●	●	●	●	●	●	●

DIESEL ENGINE ADAPTOR APPLICATION GUIDE

Diesel Engine Compression/Cylinder Leakage Adaptor Application Guide

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			'VEHICLE SPECIFIC' TEST KITS							'MULTI-MARQUE' TEST KITS		
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
RENAULT - CONTINUED												
RENAULT MASTER 2.1D	95-98	J8S	1	●	●	●	●	●	●	●	●	●
RENAULT MASTER 2.2DCi	00-	G9T-720	47					●			●	●
RENAULT MASTER 2.4D	85-98	T35D, S8U-748	1	●	●	●	●	●	●	●	●	●
RENAULT MASTER 2.5TD	85-98	T35D, S8U-748	1	●	●	●	●	●	●	●	●	●
RENAULT MASTER 2.8DTi	97-	S9W-700/702/714/740	1	●	●	●	●	●	●	●	●	●
RENAULT MEGANE 1.5DCi	02-	K9K	40	●	●	●	●	●	●	●	●	●
RENAULT MEGANE 1.9D	98-	F8Q-788	41			●		●			●	●
RENAULT MEGANE 1.9D	96-99	F8Q-620/624	1	●	●	●	●	●	●	●	●	●
RENAULT MEGANE 1.9DTi	96-98	F9Q-734, F8Q-784	40	●	●	●	●	●	●	●	●	●
RENAULT MEGANE 1.9DTi	99-	F9Q-731/732/736/740	40	●	●	●	●	●	●	●	●	●
RENAULT MEGANE 2.0DCi	07-	M9R	48									
RENAULT MEGANE SCENIC 1.9D	96-99	F8Q-620/624	1	●	●	●	●	●	●	●	●	●
RENAULT MEGANE SCENIC 1.9D	96-	F8Q-788	41			●		●			●	●
RENAULT MEGANE SCENIC 1.9DCi	99-	F9Q-731/732/736/740	40	●	●	●	●	●	●	●	●	●
RENAULT MEGANE SCENIC 1.9DTi	99-	F9Q-731/732/736/740	40	●	●	●	●	●	●	●	●	●
RENAULT MEGANE SCENIC 2.0DCi	06-	M9R	48									
RENAULT GRAND SCENIC 2.0DCi	06-	M9R	48									
RENAULT RAPID 1.9D	91-95	F8Q-640/644/646/678	1	●	●	●	●	●	●	●	●	●
RENAULT RAPID 1.9D	96-	F8Q-722/724/774/776	1	●	●	●	●	●	●	●	●	●
RENAULT RAPID 1.9D	94-	F8Q-640	1	●	●	●		●	●	●	●	●
RENAULT SAFRANE 2.1TD	92-96	J8S-760	1	●	●	●	●	●	●	●	●	●
RENAULT SAFRANE 2.2TD	96-	G8T-740 (RTE, RXE, RXT)	40	●	●	●	●	●	●	●	●	●
RENAULT SAFRANE 2.5TD	93-96	S8U-762, 763	1	●	●	●	●	●	●	●	●	●
RENAULT TRAFIC 1.9D	98-	F8Q-600, F8Q-606	41			●		●			●	●
RENAULT TRAFIC 2.0DCi	07-	M9R	48									
RENAULT TRAFIC 2.1D	80-97	J8S-620/622/758	1	●	●	●	●	●	●	●	●	●
RENAULT TRAFIC 2.5D	89-99	S8U-758/780/782	1	●	●	●	●	●	●	●	●	●
RENAULT TRAFIC 2.5D	90-97	8140.67.2500	1	●	●	●	●	●	●	●	●	●
RENAULT VEL SATIS 2.0DCi	08-	M9R	48									
ROVER												
ROVER 114 1.4D	92-	TUD3	1	●	●	●	●	●	●	●	●	●
ROVER 115 1.5D	95-97	TUD5	40	●	●	●	●	●	●	●	●	●
ROVER 218 1.8TD	91-95	XUD7TE	1	●	●	●	●	●	●	●	●	●
ROVER 218 1.9D	91-	XUD9A	1	●	●	●	●	●	●	●	●	●
ROVER 218 1.9D SD	91-	XUD9	1	●	●	●	●	●	●	●	●	●
ROVER 220 2.0D, SD	96-	20T2RN	40	●	●	●	●	●	●	●	●	●
ROVER 220 2.0TDi	96-	20T2N	40	●	●	●	●	●	●	●	●	●
ROVER 25 2.0TD	00-	20T2R	40	●	●	●	●	●	●	●	●	●
ROVER 418 1.8TD	91-	XUD7TE	1	●	●	●	●	●	●	●	●	●
ROVER 418 1.9D	91-	XUD9A	1	●	●	●	●	●	●	●	●	●
ROVER 420 2.0TD/Sdi	95-	20T2N	40	●	●	●	●	●	●	●	●	●
ROVER 420 2.0TDi	96-	20T2R	40	●	●	●	●	●	●	●	●	●
ROVER 45 2.0TD	00-	20T2R	40	●	●	●	●	●	●	●	●	●
ROVER 620 2.0D	95-99	20T2R	40	●	●	●	●	●	●	●	●	●
ROVER 75 2.0CDT	99-	M47 BMW	40	●	●	●	●	●	●	●	●	●
ROVER 825 2.5D	91-95	HR492, 425	1	●	●	●	●	●	●	●	●	●
ROVER 825 2.5TD	91-96	VM425 SLIRA	1	●	●	●	●	●	●	●	●	●
ROVER 825 2.5TD	96-99	VM425	40	●	●	●	●	●	●	●	●	●
ROVER METRO 1.4D	92-95	TUD3	1	●	●	●	●	●	●	●	●	●

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				'VEHICLE SPECIFIC' TEST KITS								'MULTI-MARQUE' TEST KITS			
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720			
SAAB															
SAAB 9-3 1.9TiD	04-	Z19DTH	70												
SAAB 9-3 2.2DTi	98-	D223L, X22DTH	43				●		●	●	●	●			
SAAB 9-5 1.9TiD	05-	Z19DTH	70												
SEAT															
SEAT ALHAMBRA 1.9TDi	96-01	1Z, AFN, AHU	40	●	●	●	●	●	●	●	●	●			
SEAT ALHAMBRA 1.9TDi PD	02-	ASZ	40	●	●	●	●	●	●	●	●	●			
SEAT ALHAMBRA 1.9TDi 4-MOTION	00-	AUY	40	●	●	●	●	●	●		●	●			
SEAT AROSA 1.4TDi	99-	AMF	40	●	●	●	●	●	●		●	●			
SEAT AROSA 1.7Di	97-	AKU	40	●	●	●	●	●	●		●	●			
SEAT CORDOBA 1.7SDi	97-99		40	●	●	●	●	●	●		●	●			
SEAT CORDOBA 1.9D	93-	1Y, AEF	1	●	●	●	●	●	●		●	●			
SEAT CORDOBA 1.9SDi	93-99	AEY	40	●	●	●	●	●	●		●	●			
SEAT CORDOBA 1.9TD	94-	AAZ	1	●	●	●	●	●	●		●	●			
SEAT CORDOBA 1.9TDi	96-00	1Z, AHU, AFN	40	●	●	●	●	●	●		●	●			
SEAT CORDOBA VARIO 1.9SDi	97-	AEY	40	●	●	●	●	●	●		●	●			
SEAT CORDOBA VARIO 1.9SDi	99-	AGP, AQM	40	●	●	●	●	●	●		●	●			
SEAT CORDOBA VARIO 1.9TDi	97-	AHU, AGR, ALH	40	●	●	●	●	●	●		●	●			
SEAT CORDOBA VARIO 1.9TDi	99-	ASV	40	●	●	●	●	●	●		●	●			
SEAT IBIZA 1.9D	93-96	1Y	1	●	●	●	●	●	●		●	●			
SEAT IBIZA 1.9SDi	93-99	AEY	40	●	●	●	●	●	●		●	●			
SEAT IBIZA 1.9TD	93-	AAZ	1	●	●	●	●	●	●		●	●			
SEAT IBIZA 1.9TDi	96-	1Z, AHU, AFN, AGR, ALH	40	●	●	●	●	●	●		●	●			
SEAT INCA 1.9D	95-	1Y	1	●	●	●	●	●	●		●	●			
SEAT INCA 1.9SDi	95-	AEY	40	●	●	●	●	●	●		●	●			
SEAT INCA 1.9TDi	96-	AHU	40	●	●	●	●	●	●		●	●			
SEAT INCA VAN 1.9D	96-	1Y, AEY	1	●	●	●	●	●	●		●	●			
SEAT LEON 1.9SDi	99-	AQM	40	●	●	●	●	●	●		●	●			
SEAT LEON 1.9TDi	01-	ARL	40	●	●	●	●	●	●		●	●			
SEAT LEON 1.9TDi	99-	AGR, ALH, AHF	40	●	●	●	●	●	●		●	●			
SEAT TERRA 1.3D	90-		1	●	●	●	●	●	●		●	●			
SEAT TERRA 1.4D	90-	1W	1	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9D	91-98	1Y	1	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9SDi	95-98	AEY	40	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9TD	91-97	AAZ	1	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9TDi	96-98	1Z, AFN	40	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9TDi	97-	AGR, AHU, ALH	40	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9TDi	98-	AHF, ASV	40	●	●	●	●	●	●		●	●			
SEAT TOLEDO 1.9TDi	01-	ARL	40	●	●	●	●	●	●		●	●			
SKODA															
SKODA FABIA 1.9Di	99-	AGP	40	●	●	●	●	●	●		●	●			
SKODA FABIA 1.9SDi	99-	ASY	40	●	●	●	●	●	●		●	●			
SKODA FABIA 1.9TDi	99-	ATD	40	●	●	●	●	●	●		●	●			
SKODA FELICIA 1.9D	96-	AEF, EHH, 1Y	1	●	●	●	●	●	●		●	●			
SKODA FELICIA VAN 1.9D	98-	AEF, EHH	1	●	●	●	●	●	●		●	●			
SKODA OCTAVIA 1.9D	96-		1	●	●	●	●	●	●		●	●			
SKODA OCTAVIA 1.9SDi	97-	AGP, AQM	40	●	●	●	●	●	●		●	●			
SKODA OCTAVIA 1.9TDi	00-	AGR, AHF, ALH, ASV, ATD	40	●	●	●	●	●	●		●	●			
SKODA OCTAVIA 1.9TDi	96-00	1Z	40	●	●	●	●	●	●		●	●			
SKODA OCTAVIA 1.9PD	00-	ATD	40	●	●	●	●	●	●		●	●			

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VEHICLE SPECIFIC TEST KITS										MULTI-MARQUE TEST KITS		
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SUZUKI												
SUZUKI BALENO 1.9TD	99-	XUD9	1	●	●	●	●	●	●	●	●	●
SUZUKI GRAND VITARA 2.0TDi (HDi)	00-	DW10	45		●		●				●	●
SUZUKI IGNIS 1.3D DDiS	03-	1.3D	60		●	●	●		●		●	●
SUZUKI SWIFT 1.3D DDiS	04-	1.3D	60		●	●	●		●		●	●
SUZUKI VITARA 1.9TD	93-	XUD9	1	●	●	●	●	●	●	●	●	●
SUZUKI VITARA 2.0TD	95-	ET, FT, GT, TA, RF	24								●	●
SUZUKI WAGON R+ 1.3D DDiS	03-	1.3D	60		●	●	●		●		●	●
TOYOTA												
TOYOTA 4RUNNER 2.4TD	90-95	2LT	21								●	●
TOYOTA 4RUNNER 2.5D	93-95	2LT	21								●	●
TOYOTA 4RUNNER 2.8D	93-	3L	21								●	●
TOYOTA AVENSIS 2.0TDi	97-00	2CT, 2CTE	20								●	●
TOYOTA AVENSIS 2.0TDi	99-	1CDFTV (D-4D)	22								●	●
TOYOTA CARINA E 2.0D	92-97	2C	20								●	●
TOYOTA CARINA E 2.0TD	96-97	2CT	20								●	●
TOYOTA COROLLA 1.8D	87-	1C	20								●	●
TOYOTA COROLLA 2.0D	92-97	2C, 2CU	20								●	●
TOYOTA COROLLA 2.0D	97-	2CES	20								●	●
TOYOTA COROLLA 2.0TD	00-	1CDFTV (D-4D)	22								●	●
TOYOTA DYNA 100 2.5D	88-95	2L OHC	21								●	●
TOYOTA DYNA 150 2.8D	88-	3L OHC	21								●	●
TOYOTA DYNA 3.0D (24v)	93-	B, 11B	20								●	●
TOYOTA DYNA 3.0D 12V	93-	B, 11B	20								●	●
TOYOTA DYNA 3.7D (24V)	93-	14B	20								●	●
TOYOTA DYNA 3.7D 12V	93-	14B	20								●	●
TOYOTA HI-ACE 2.4D	89-95	2L	21								●	●
TOYOTA HI-ACE 2.5D	84-95	2L	21								●	●
TOYOTA HI-ACE 2.5TD	95-	2LT	21								●	●
TOYOTA HI-ACE 3.0D (24v)	93-	B, 11B	20								●	●
TOYOTA HI-ACE 3.0D 12V	93-	B, 11B	20								●	●
TOYOTA HI-ACE 3.7D (24V)	93-	14B	20								●	●
TOYOTA HI-ACE 3.7D 12V	93-	14B	20								●	●
TOYOTA HI-LUX 2.4D	88-97	2L	21								●	●
TOYOTA HI-LUX 2.4TD	90-95	2LT	21								●	●
TOYOTA HI-LUX 2.4TD	90-95	2LT	21								●	●
TOYOTA HI-LUX 2.4TD TARO	89-97	2L	21								●	●
TOYOTA HI-LUX 2.4TD TARO	89-97	2L	21								●	●
TOYOTA LAND CRUISER 2.5D	90-	2L-TE	21								●	●
TOYOTA LAND CRUISER 2.5TD	88-93	2LT	21								●	●
TOYOTA LAND CRUISER 2.8D	93-	3L	21								●	●
TOYOTA LAND CRUISER 4.2D	90-99	1HZ OHC	20								●	●
TOYOTA LAND CRUISER 4.2D	90-98	1HZ OHC	20								●	●
TOYOTA LAND CRUISER 4.2TD	90-95	1HDT OHC	20								●	●
TOYOTA LITE ACE 2.0D 12v	85-95	2C-II	20								●	●
TOYOTA PREVIA 2.0TD	99-	1CDFTV (D-4D)	22								●	●
TOYOTA RAV-4 2.0TD	99-	1CDFTV (D-4D)	22								●	●
TOYOTA STARLET 1.5D	89-	1N	21								●	●

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VAUXHALL/OPEL												
VAUX./OPEL AGILA 1.3CDTi	03-09	Z13DT/DTH/DTJ	60		●	●	●		●		●	●
VAUX./OPEL ARENA 1.9D	98-99	F8Q-600, F8Q-606	41			●		●		●	●	●
VAUX./OPEL ARENA 2.5D/DT	98-99	S8U-758, S8U-782	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL ARENA 2.5TD	98-	S8U-780	1	●	●	●	●	●	●	●	●	●
VAUX./OPELL ASTRA 1.3CDTi	04-	Z13DT/DTH/DTJ	60		●	●	●		●		●	●
VAUX./OPELL ASTRA 1.7D	91-	17D, 17DR	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL ASTRA 1.7DTL	91-98	X17 DTL	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL ASTRA 1.7TD	98-	X17DTL	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL ASTRA 1.7TD	90-91	17DT, TC4EE1 (ISUZU)	25						●		●	●
VAUX./OPEL ASTRA 1.7TD	91-96	TC4EE1	25						●		●	●
VAUX./OPEL ASTRA 1.7TD	96-98	X17 DT (TC4EE1)	25						●		●	●
VAUX./OPEL ASTRA 1.7TD	91-98	17DT	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL ASTRA 1.7TD	00-	Y17	27						●		●	●
VAUX./OPEL ASTRA 1.9CDTi 16v.	04-	Z19DTH/Z19DTL	70									
VAUX./OPEL ASTRA 2.0Di	98-	X20DILC	43				●		●	●	●	●
VAUX./OPEL ASTRA 2.0DTi	99-00	Y20DTH	43				●		●	●	●	●
VAUX./OPEL ASTRA 2.0DTL	99-	Y20DTL	43				●		●	●	●	●
VAUX./OPEL ASTRA 2.0TDi	97-98	X20D	43				●		●	●	●	●
VAUX./OPEL ASTRA 2.0TDi	98-	X20DTL	43				●		●	●	●	●
VAUX./OPEL ASTRA 2.0TDi	97-98	X20D, Y20DTL, Y20DTH	43				●		●	●	●	●
VAUX./OPEL ASTRA 2.2DTi	00-	Y22DTR	43				●		●	●	●	●
VAUX./OPEL ASTRA VAN 1.7D	88-94	17D, 17DR	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL ASTRA VAN 1.7TD	94-	X17DTL	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL BRAVA 2.2D	90-96	4FD1	25						●		●	●
VAUX./OPEL BRAVA 2.3D	88-96		25						●		●	●
VAUX./OPEL BRAVA 3.1TD	95-	4JG2T	25						●		●	●
VAUX./OPEL CAMPO 2.2D PICK-UP	91-97	4FD1	25						●		●	●
VAUX./OPEL CAMPO 3.1D PICK-UP	97-	4JG2	25						●		●	●
VAUX./OPEL CAMPO 3.1TD PICK-UP	95-97	4JG2T	25						●		●	●
VAUX./OPEL CAVALIER 1.7D	88-95	17D	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL CAVALIER 1.7TD	90-95	17DT, TC4EE1	25						●		●	●
VAUX./OPEL COMBO 1.7D	94-	17D, X17D	25						●		●	●
VAUX./OPEL COMBO 1.7D	94-	17D	25						●		●	●
VAUX./OPEL COMBO 1.7D	96-	X17D	25						●		●	●
VAUX./OPEL CORSA 1.3CDTi	04-	Z13DT/DTH/DTJ	60		●	●	●		●		●	●
VAUX./OPEL CORSA 1.5D	93-	15D, 4EC1	25						●		●	●
VAUX./OPEL CORSA 1.5TD	88-93	15TD, T4EC1 OHC	25						●		●	●
VAUX./OPEL CORSA 1.5XD	96-00	X15D, 4EC1 OHC	25						●		●	●
VAUX./OPEL CORSA 1.5XTD	96-00	X15TD, 4EE1 OHC	25						●		●	●
VAUX./OPEL CORSA 1.7D	93-00	X17D 4EE1 OHC	25						●		●	●
VAUX./OPEL CORSA B 1.5D VAN	93-00	15D 4EC1	25						●		●	●
VAUX./OPEL CORSA B 1.5TD	93-00	15TD	25						●		●	●
VAUX./OPEL CORSA VAN 1.7D	93-	17D, X17D	25						●		●	●
VAUX./OPEL FRONTERA 2.2DTi	98-	X22DTH	43				●		●	●	●	●
VAUX./OPEL FRONTERA 2.3D	91-95	23DTR	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL FRONTERA A 2.3TD	92-95	DTR OHC	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL FRONTERA 2.5TD	96-98	25TD	40	●	●	●	●	●	●	●	●	●
VAUX./OPEL FRONTERA 2.5TD	96-98	VENTURI-25TD, TDS	40	●	●	●	●	●	●	●	●	●
VAUX./OPEL FRONTERA A 2.5TDi	96-98	TDS OHC	40	●	●	●	●	●	●	●	●	●
VAUX./OPEL FRONTERA B 2.0DTi	97-00	X20DTH	43				●		●	●	●	●

DIESEL ENGINE ADAPTOR APPLICATION GUIDE

Diesel Engine Compression/Cylinder Leakage Adaptor Application Guide

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VEHICLE SPECIFIC TEST KITS										MULTI-MARQUE TEST KITS		
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
VAUXHALL/OPEL - CONTINUED												
VAUX./OPEL FRONTERA B 2.2DTi	97-	X22DTH	43				●		●	●	●	●
VAUX./OPEL FRONTERA B 2.2DTi	00-	Y22DTH	43				●		●	●	●	●
VAUX./OPEL MERIVA 1.3CDTi	04-	Z13DT/DTH/DTJ	60		●	●	●		●		●	●
VAUX./OPEL MIDI 2.0TD	84-94		25						●		●	●
VAUX./OPEL MIDI 2.2D	88-94		25						●		●	●
VAUX./OPEL MONTEREY 3.0DTi	97-	30TD (4JX1)	25						●		●	●
VAUX./OPEL MONTEREY 3.1TD	94-	4JG2TC	25						●		●	●
VAUX./OPEL MONTEREY 3.1TD	91-	4JG2T	25						●		●	●
VAUX./OPEL MOVANO 1.9DTi	99-	F9Q-770	40	●	●	●	●	●	●	●	●	●
VAUX./OPEL MOVANO 2.5D/DTi	98-	S8U-772	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL MOVANO 2.8DTi	98-	S9W	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL NOVA 1.5D	87-93	4EC1 (15D)	25						●	●	●	●
VAUX./OPEL NOVA 1.5TD	88-93	T4EC1 (15DT)	25						●	●	●	●
VAUX./OPEL OMEGA 2.0TDi (DTH)	98-	X20DTH	43				●		●	●	●	●
VAUX./OPEL OMEGA 2.2TDi	00-	Y22DTH	43				●		●	●	●	●
VAUX./OPEL OMEGA B 2.0Di	97-	X20DILC	43				●		●	●	●	●
VAUX./OPEL OMEGA B 2.2DTi	00-	Y22DTH	43				●		●	●	●	●
VAUX./OPEL OMEGA B 2.5TD	94-	U25TD (BMW)	1	●	●	●	●	●	●	●	●	●
VAUX./OPEL OMEGA C 2.2DTi	00-	Y22DTH	43				●		●	●	●	●
VAUX./OPEL SIGNUM 1.9CDTi 16v.	04-	Z19DTH/DTL	70									
VAUX./OPEL SINTRA 2.2DTi	98-99	X22DTH	43				●		●	●	●	●
VAUX./OPEL TIGRA 1.3CDTi	04-	Z13DT/DTH/DTJ	60		●	●	●		●		●	●
VAUX./OPEL VECTRA 2.0DTi	98-	X20DTH	43				●		●	●	●	●
VAUX./OPEL VECTRA 2.0DTi	99-	Y20DTH	43				●		●	●	●	●
VAUX./OPEL VECTRA 2.0DTi	96-00	X20DTL	43				●		●	●	●	●
VAUX./OPEL VECTRA 2.0DTi	00-	Y20DTH	43				●		●	●	●	●
VAUX./OPEL VECTRA 2.0DTL, Di	97-00	X20DILC	43				●		●	●	●	●
VAUX./OPEL VECTRA 2.2DTi	00-	Y22DTR	43				●		●	●	●	●
VAUX./OPEL VECTRA 2.2DTi	00-	Y22DTR	43				●		●	●	●	●
VAUX./OPEL VECTRA A 1.7TD	90-95	TC4EC1	25						●		●	●
VAUX./OPEL VECTRA B 1.7TD	95-	X17TD (TC4EE1)	25						●		●	●
VAUX./OPEL VECTRA 1.9 CDTi	04-		70									
VAUX./OPEL VECTRA B 2.0DTH	96-00	X20DTH	43				●		●	●	●	●
VAUX./OPEL VIVARO 1.9DTi	99-	F9Q-770	40	●	●	●	●	●	●	●	●	●
VAUX./OPEL VIVARO 2.0CDTi	07-	M9R	48									
VAUX./OPEL ZAFIRA-B 1.9CDTi 16v.	05-	Z19DTH, Z19DTL	70									
VAUX./OPEL ZAFIRA 2.0Di	99-	X20DILC	43				●		●	●	●	●
VAUX./OPEL ZAFIRA 2.0DTH	00-	Y20DTH	43				●		●	●	●	●
VAUX./OPEL ZAFIRA 2.0DTi	99-	X20DTL, Y20 DTH	43				●		●	●	●	●
VAUX./OPEL ZAFIRA 2.0DTL	99-00	X20DTL	43				●		●	●	●	●
VAUX./OPEL ZAFIRA 2.2DTi	99-	X22DTL	43				●		●	●	●	●
VOLKSWAGEN												
VW BEETLE 1.9TDi	98-00	ALH, AGR	40	●	●	●	●	●	●	●	●	●
VW BEETLE 1.9TDi	00-	ATD	40	●	●	●	●	●	●	●	●	●
VW BORA 1.9SDi	98-	AGP, AQM	40	●	●	●	●	●	●	●	●	●
VW BORA 1.9TDi	98-	AHF, AHL, AJM	40	●	●	●	●	●	●	●	●	●
VW BORA 1.9TDi, PD	00-	ATD, ARL, ANU	40	●	●	●	●	●	●	●	●	●
VW CADDY 1.6D	90-	ME, JK	1	●	●	●	●	●	●	●	●	●
VW CADDY 1.7SDi	96-	AHB	40	●	●	●	●	●	●	●	●	●
VW CADDY 1.9D	96-	1X, 1Y, AEF	1	●	●	●	●	●	●	●	●	●

DIESEL ENGINE ADAPTOR APPLICATION GUIDE

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				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE	YEAR	ENGINE	Glowplug Adaptor No.	AST4780 VAG AST4790	AST4781 FIAT - ALFA AST4791	AST4782 FORD AST4792	AST4783 PSA AST4793	AST4784 RENAULT AST4794	AST4785 VAUX- OPEL AST4795	AST4685 POPULAR AST4710	AST4688 DELUXE AST4715	AST4690 MASTER AST4720
VOLKSWAGEN - CONTINUED												
VW CADDY 1.9SDi	96-	AEY	40	●	●	●	●	●	●	●	●	●
VW CADDY 1.9TDi	96-	AHU, ALE	40	●	●	●	●	●	●	●	●	●
VW CARAVELLE 1.9D	90-96	1X	1	●	●	●	●	●	●	●	●	●
VW CARAVELLE 2.4D	90-95	AAB, AJA	1	●	●		●				●	●
VW CARAVELLE 2.5TDi	95-	ACV	40	●	●	●	●	●	●		●	●
VW GOLF MK3 1.9D	91-97	1Y	1	●	●	●	●	●	●	●	●	●
VW GOLF MK3 1.9SDi	93-99	AEY	40	●	●	●	●	●	●	●	●	●
VW GOLF MK3 1.9TD	91-97	AAZ	1	●	●	●	●	●	●		●	●
VW GOLF MK3 1.9TDi	91-96	1Z, ALE	40	●	●	●	●	●	●	●	●	●
VW GOLF MK3 1.9TDi	93-99	AFN	40	●	●		●	●	●		●	●
VW GOLF MK4 1.9D	97-99	1Y	1	●	●	●	●	●	●	●	●	●
VW GOLF MK4 1.9SDi	98-	AGP, AEY	40	●	●	●	●	●	●		●	●
VW GOLF MK4 1.9TD	97-99	AAZ	1	●	●	●	●	●	●	●	●	●
VW GOLF MK4 1.9TDi	97-99	AFN	40	●	●	●	●	●	●		●	●
VW GOLF MK4 1.9TDi	97-	AGR, AHF	40	●	●	●	●	●	●	●	●	●
VW GOLF MK4 1.9TDi CABRIO	98-	AHU, ALH	40	●	●	●		●	●	●	●	●
VW GOLF MK4 1.9TDi, PD	98-01	AJM	40	●	●	●	●	●	●	●	●	●
VW GOLF MK4 1.9TDi, PD	00-	ATD, ARL, ASZ	40	●	●	●	●	●	●	●	●	●
VW LT28 2.4TDi	92-96	ACL	1	●	●	●	●	●	●	●	●	●
VW LT28 2.5SDi	96-	AGX	40	●	●	●	●	●	●	●	●	●
VW LT28 2.5TDi	96-	AHD	40	●	●	●	●	●	●	●	●	●
VW LT28 2.5TDi	99-	APA	40	●	●	●	●	●	●	●	●	●
VW LT28 2.5TDi	99-	ANJ	40	●	●	●	●	●	●	●	●	●
VW LT28 2.8TDi	96-	AGK	40	●	●	●	●	●	●	●	●	●
VW LT31 2.4TDi	92-96	ACL	1	●	●	●	●	●	●	●	●	●
VW LT35 2.4D	80-94	DW	1	●	●	●	●	●	●	●	●	●
VW LT35 2.4TDi	92-96	ACL	1	●	●	●	●	●	●	●	●	●
VW LT35 2.5SDi	96-	AGX	40	●	●	●	●	●	●	●	●	●
VW LT35 2.5TDi	96-	AHD	40	●	●	●	●	●	●	●	●	●
VW LT35 2.5TDi	99-	APA	40	●	●	●	●	●	●	●	●	●
VW LT35 2.5TDi	99-	ANJ	40	●	●		●	●	●	●	●	●
VW LT35 2.8TDi	96-	AGK	40	●	●	●	●	●	●	●	●	●
VW LT40 2.4D	89-96	1S, ACT	1	●	●	●	●	●	●	●	●	●
VW LT40 2.4TD	83-96	1G, ACL	1	●	●	●	●	●	●	●	●	●
VW LT45 2.4D	92-96	ACT	1	●	●	●	●	●	●	●	●	●
VW LT45 2.4TDi	92-96	ACL	1	●	●	●	●	●	●	●	●	●
VW LT46 2.5SDi	96-	AGX	40	●	●	●	●	●	●	●	●	●
VW LT46 2.5TD	96-	AHD	40	●	●	●	●	●	●	●	●	●
VW LT46 2.5TDi	99-	APA	40	●	●	●	●	●	●	●	●	●
VW LT46 2.5TDi	99-	ANJ	40	●	●	●	●	●	●	●	●	●
VW LT50 2.4D	92-96	ACT	1	●	●	●	●	●	●	●	●	●
VW LT50 2.4TDi	92-96	ACL	1	●	●	●	●	●	●	●	●	●
VW LT55 2.4D	92-96	ACT	1	●	●	●	●	●	●		●	●
VW LT55 2.4TDi	92-96	ACL	1	●	●	●	●	●	●	●	●	●
VW LUPO 1.2TDi (CAT)	99-	ANY, AYZ	40	●	●	●		●	●	●	●	●
VW LUPO 1.4TDi	99-	AMF	40	●	●	●		●	●	●		●
VW LUPO 1.7SDi	98-	AKU	40		●	●	●		●	●	●	●
VW MULTIVAN 1.9D	90-95	1X	1	●	●	●	●	●	●		●	●
VW MULTIVAN 1.9D	92-94	ABL	1	●	●	●	●	●	●	●	●	●
VW MULTIVAN 1.9TD	94-	ABL	1	●	●	●	●		●		●	●
VW MULTIVAN 2.4D	90-98	AAB	1	●	●	●	●	●	●	●	●	●

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VOLKSWAGEN - CONTINUED												
VW MULTIVAN 2.4D	98-	AJA	1	●	●	●	●	●	●	●	●	●
VW MULTIVAN 2.5TDi	03-	AJT	40	●	●	●	●	●	●	●	●	●
VW MULTIVAN 2.5TDi	03-	ACV	40	●	●	●	●	●	●	●	●	●
VW PASSAT 1.9TD	90-96	AAZ	1	●	●	●	●	●	●	●	●	●
VW PASSAT 1.9TDi	90-00	1Z, AFN, AHU, AHH	40	●	●	●	●	●	●	●	●	●
VW PASSAT 1.9TDi	01-	AVB, ATJ	40	●	●	●	●	●	●	●	●	●
VW PASSAT 1.9TDi	01-	AJM, AVF, AVG	40	●	●	●	●	●	●	●	●	●
VW PASSAT 2.5TDi V6	98-	AFB, AKN	44	●	●	●	●	●	●	●	●	●
VW POLO 1.3D	90-94	1W, MN	1	●	●	●	●	●	●	●	●	●
VW POLO 1.4D	90-94	1W	1	●	●	●	●	●	●	●	●	●
VW POLO 1.4TDi	99-	AMF	40	●	●	●	●	●	●	●	●	●
VW POLO 1.7SDi	97-	AHG, AKU, AKW	40	●	●	●	●	●	●	●	●	●
VW POLO/CLASSIC 1.9D	95-	AEF	1	●	●	●	●	●	●	●	●	●
VW POLO 1.9SDi	99-	AQM	40	●	●	●	●	●	●	●	●	●
VW POLO/CLASSIC 1.9SDi	96-	AGD	40	●	●	●	●	●	●	●	●	●
VW POLO 1.9TDi	98-	AFN	40	●	●	●	●	●	●	●	●	●
VW POLO/CLASSIC 1.9TDi	96-	AHU, AFN, ALE	40	●	●	●	●	●	●	●	●	●
VW POLO 1.9TDi	99-	ALH, AGR	40	●	●	●	●	●	●	●	●	●
VW POLO VAN 1.4D	92-94	1W	1	●	●	●	●	●	●	●	●	●
VW POLO VAN 1.9D	94-99	AEF	1	●	●	●	●	●	●	●	●	●
VW SHARAN 1.9TDi	95-	1Z, AHU, AFN, ANU	40	●	●	●	●	●	●	●	●	●
VW TRANSPORTER 1.9D	90-95	1X	1	●	●	●	●	●	●	●	●	●
VW TRANSPORTER 1.9TD	92-	ABL	1	●	●	●	●	●	●	●	●	●
VW TRANSPORTER 2.4D	97-	AJA	1	●	●	●	●	●	●	●	●	●
VW TRANSPORTER 2.4D	90-	AAB, ACT	1	●	●	●	●	●	●	●	●	●
VW TRANSPORTER 2.5TDi	95-	ACV	40	●	●	●	●	●	●	●	●	●
VW TOURAEG 5.0TDi	03-	AYH	40	●	●	●	●	●	●	●	●	●
VW TOURAN 1.9TDi	03-		40	●	●	●	●	●	●	●	●	●
VW VENTO 1.9D	91-98	1Y	1	●	●	●	●	●	●	●	●	●
VW VENTO 1.9SDi	95-97	AEY	40	●	●	●	●	●	●	●	●	●
VW VENTO 1.9TD	91-98	AAZ	1	●	●	●	●	●	●	●	●	●
VW VENTO 1.9TDi	93-96	1Z	40	●	●	●	●	●	●	●	●	●
VW VENTO 1.9TDi	96-98	AHU, AFN	40	●	●	●	●	●	●	●	●	●
VOLVO												
VOLVO 440, 460 1.9TD	93-96	F8Q	1	●	●	●	●	●	●	●	●	●
VOLVO 850 2.5TDi	95-98	D5252T (D24TIC)	40	●	●	●	●	●	●	●	●	●
VOLVO 940, 960 2.4TDi	94-97	D24TIC	1	●	●	●	●	●	●	●	●	●
VOLVO S40 1.9TD, 1.9TDi	96-	D4192T (F8QT)	1	●	●	●	●	●	●	●	●	●
VOLVO S40 1.9DCi	00-	F9Q	40	●	●	●	●	●	●	●	●	●
VOLVO S60 2.5TDi	01-	D5252T	40	●	●	●	●	●	●	●	●	●
VOLVO S70 2.5TDi	96-00	D5252T	40	●	●	●	●	●	●	●	●	●
VOLVO S80 2.5TDi	98-	D5252T	40	●	●	●	●	●	●	●	●	●
VOLVO V40 1.9TD	96-	F8Q (D4192T)	1	●	●	●	●	●	●	●	●	●
VOLVO V40 1.9DCi	00-	F9Q	40	●	●	●	●	●	●	●	●	●
VOLVO V70 2.5TDi	96-	D5252T	40	●	●	●	●	●	●	●	●	●

AST CROSS REFERENCE TO VEHICLE MANUFACTURERS' SPECIALISED SERVICE TOOL NUMBERS

Vehicle Manufacturer + VM Tool Reference to AST Tool Number

This cross reference provides the Vehicle Manufacturers' Specialised Service Tool reference and the AST tool number covering the relevant service application

VM/Tool Ref	AST Tool Number	In Kit/Section	Page Number	VM/Tool Ref	AST Tool Number	In Kit/Section	Page Number	VM/Tool Ref	AST Tool Number	In Kit/Section	Page Number
Acura (Timing Kits - US Market)				11.4.290	AST5003	AST5000	15	33.3.111 with 101	AST4465	Undercar	116
07LAG-PT20100	AST4643	AST4645/AST4660	65,66	11.4.360	AST5019	AST5045	12,13	103/104/107/115/			
07MAB-PY3010A	AST4936		65,66	11.5.030	AST3090	Viscous Fan	16	112/121/122/123/			
07NAB-001040A	AST4936		65,66	11.5.040	AST3050A	Viscous Fan	16	+00.8.550			
14540-P8A-A01	AST4571	AST4645/AST4660	65,66	11.5.120	AST4801	AST4800/AST4870	12,13	33.4.140/151/152	AST4971	Undercar	115
Alfa Romeo				11.5.140	AST5017	AST5045	12,13	153/154/155			
A7.0333	AST4398G	Diesel Pumps	25	11.5.180	AST4886	AST4555A	17	33.4.140/155/156	AST4972	Undercar	115
1.822.146.000	AST4394	Universal Timing	5	11.5.320	AST5011	AST5010	17	157/158/159			
1.822.147.000	AST4774		9	11.5.490	AST4312		14	Chevrolet (Daewoo)			
1.822.149.000	AST4529	AST4910/AST4970	9,11	11.6.080	AST4887	AST4555A	14	EN-852	AST3032-17	AST4620	18
1.822.154.000	AST4549	AST4910/AST4970	9,11	11.6.150	AST4897	AST4895	14	EN6333	AST4593-1F	AST4995	18
1.825.013.000	AST4519		9	11.6.180	AST4898	AST4895	14	EN-6340	AST4997	AST4995	18
1.825.040.000	AST4591	AST4590	10	11.6.320	AST4551	AST4555A	17	EN-6625	AST4996	AST4995	18
1.825.041.000	AST4905	AST4910/AST4970	9,11		AST4552			EN-42492	ASTV501A		18
1.825.042.000	AST4905	AST4910/AST4970	9,11	11.6.321	AST4551	AST4555A	17	EN-48245	AST5042	AST5040	18
1.860.898.000	AST4528	AST4910/AST4970	9,11	11.6.322	AST4552	AST4555A	17	EN-48246	AST5041	AST5040	18
1.860.905.000+				11.6.480	AST5013	AST5010	17	J-424492	ASTV501A		18
1.860.905.010	AST4543A	AST4850/AST4970	11	11.7.251	AST4868-2	AST4870	12	KM-421A	ASTV501A		18
1.860.950.000	AST4592	AST4590/AST4890	10	11.7.252	AST4868-1	AST4870	12	Chevrolet (Timing Kits - US Market)			
1.870.646.000	AST4892		10	11.7.253	AST4805-3	AST4870	12	J38613-A	AST4573	AST4653/AST4660	65,66
1.870.684.000	AST4622	AST4701 Engine Test	111	11.7.260	AST4869	AST4870	12	Chrysler (Timing Kits-US Market)			
1.870.734.000	AST4905	AST4910/AST4970	9,11	11.8.520	AST5004	AST5000	15	C-4703	AST4579	AST4645/AST4660	65,66
1.870.797.000	AST4905	AST4910/AST4970	9,11	11.8.740	AST5014		17	MB998767	AST4577	AST4645/AST4660	65,66
1.870.849.000	AST4891	AST4890	10	11.8.760	AST5012	AST5010	17	Chrysler-Jeep			
1.870.859.000	AST4905	AST4910/AST4970	9,11	11.9.110	AST4424	AST4425	14	1026	AST4842		19
1.870.896.900	AST4776	AST4850	11	11.9.190	AST4801	AST4800/AST4870	12,13	6721	AST4746	AST4745	19
2.00000.3000	AST4543A	AST4850/AST4970	11	11.9.270	AST4802	AST4800	13	6827	AST4744	AST4745	19
2.000012000	AST4998	AST4995	10	11.9.280	AST5018	AST5045	12,13	Mot854	AST4365	AST4390	19
2.000012100	AST4997	AST4995	10	11.9.290	AST4805	AST4800	13	Mot861	AST4360R1	AST4390	19
2.000012800	AST4996	AST4995	10	11.9.291	AST4805-2	AST4800	13	VM1011	AST4399	Diesel Pumps	19
Audi - see Volkswagen Group				11.9.292	AST4805-1	AST4800	13	VM1013	AST3054-10	Diesel Pumps	19
BMW				11.9.293	AST4805-3	AST4800	13	VM1051	AST4948	AST4945A	19
11.0.300	AST5001	AST5000	15	11.9.300	AST4816+			VM1052	AST4946CH2	AST4945A	19
11.2.300	AST4146-2	AST4146/AST4411/ AST4425/AST4555A	12,14,17		AST4817	AST4815	13	VM1053	AST4946CH1	AST4945A	19
11.3.190	AST4146-1	AST4146	12	11.9.301	AST4817	AST4815	13	VM1056	AST4949	AST4945A	19
11.3.240	AST4309	AST4425	14	11.9.302+				VM1068	AST4947	AST4945A	19
11.3.290	AST4311	AST4425	14	11.9.303	AST4816	AST4815	13	VM1080	AST4929	AST4945A	19
11.3.292	AST4311	AST4425	14	11.9.310	AST4818	AST4815	13	VM8873	AST4928	AST4945A	19
11.3.320	AST4412	AST4411	16	11.9.320	AST4819	AST4815	13	Citroen - see PSA			
11.3.340	AST4413	AST4411/AST4555A	16,17	11.9.330	AST5016	AST5045	12	Daihatsu (Bosch Pump Timing)			
11.3.360	AST4415		16	11.9.340	AST4803	AST4800/AST5020/ AST5025/AST5030	13	09275-54010	AST4398G	Diesel Pumps	25
11.3.390	AST4323	AST4425	14					Dodge			
11.3.450	AST4896	AST4895	14	11.9.350	AST4804	AST4800	13	9880	AST4844		27
11.4.220	AST4323	AST4425	14	11.9.390	AST4814	AST4815	13	9882	AST4440V2	AST4840	27
11.4.280	AST5002	AST5000	15	13.5.120	AST4414	AST4411	16	9883	AST4636	AST4840	27
11.4.281	AST5002	AST5000	15	13.5.190	AST4553		17				
11.4.282	AST5002	AST5000	15	13.5.330	AST4398G	Diesel Pumps	25				
11.4.283	AST5002	AST5000	15	31.1.441 to							
				31.1.448	AST4321	Undercar	116				
				33.3.340 with 324	AST4464	Undercar	116				
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C-4703	AST4579	AST4645/AST4660	65,66	1895879000	AST4519		29,30	23-029	AST3054F4	AST4331	35	
MD998738	AST4578	AST4645/AST4660	65,66	2000012000	AST4998	AST4995	29	23-034	AST4173W	Sockets	86	
MD998752(-01)	AST4577	AST4645/AST4660	65,66	2000012100	AST4997	AST4995	29	23-047	AST3054V3	AST4331	35	
MD998767	AST4577	AST4645/AST4660	65,66	2000012800	AST4996	AST4995	29	23-058	AST4638	AST4840	35	
				2000015800	AST4911	AST4510A	28	23-059	AST4636	AST4840	35	
Eagle (Timing Kits - US Market)				2000022500	AST4735P16	AST4735A	32	24-002	AST3050A+	Viscous Fan	38	
MD998738	AST4578	AST4645/AST4660	65,66	2000023000	AST4735P15	AST4735A	32		AST3051A	Viscous Fan	38	
MD998752(-01)	AST4577	AST4645/AST4660	65,66	2000023100	AST4735P15	AST4735A	32	205-072	AST4394	Universal Timing	5	
				2000023200	AST4735P17	AST4735A	32	205-047-07	}	AST4944	Undercar	114
Fiat				2000000900	AST4767	AST4766	31	205-064				
1860161000	AST3398		29	2000001000	AST4768		31	205-342-02				
1860617000	AST4360C4	AST4865	33	2000003000	AST4543A	AST4850	32	303-439				
1860638000	AST4866	AST4865	33	2000004200	AST4953	AST4950	28	303-458	}	AST4725	Undercar	114
1860680000	AST4523		29	2000004300	AST4954	AST4950	28	205-342				
1860703000	AST3398		29	2000004400	AST4952	AST4950	28	205-342-01				
1860766000	AST4542	AST4545	33	2000004500	AST4951	AST4510A/AST4950	28	205-342-02				
1860771000	AST4523		29	99360614	AST4926	AST4925	33	303-097	AST4588	AST4654/AST4655	65,66	
1860831000	AST4394	Universal Timing	5	99360615	AST4927	AST4925	33	303-098	AST4394	Universal Timing	5	
1860831001	AST4394	Universal Timing	5	Ford				303-193	AST3026	AST4331/AST4830	34,35	
1860845000	AST4529	AST4915/AST4920	30	13-006	AST3080C	Undercar	118	303-194	AST4115A-1	AST4331	35	
1860847000	AST4906	AST4915/AST4920/ AST4970	30,31	15-030	AST4394	Universal Timing	5	303-376	AST4933	AST4404C/AST4830/ AST4930	34,37,38	
1860848000	AST4394	Universal Timing	5	15-030A	AST4628	AST4629	37	303-376B	AST4933	AST4404C/AST4830/ AST4930	34,37,38	
1860863000	AST4360C6	AST4545	33	15-046	AST3054-10	Diesel Pumps	25	303-378	AST3050A/ AST3051A	Viscous Fan	38	
1860874000	AST4521	AST4520A	29	15-097A	AST4144	Undercar	114	303-393	AST4407	AST4834/AST4830	34,37	
1860875000	AST4906	AST4915/AST4920/ AST4970	30,31	21-104	AST3026	AST4331/AST4830	34,35	303-393-01	AST4834-1	AST4834/AST4830	34,37	
1860876000	AST4522A	AST4520A	29	21-105	AST4115A-1	AST4331	35	303-393-02	AST4834-2	AST4834/AST4930	37,38	
1860885000	AST4394	Universal Timing	5	21-123	AST3054F3	AST4331	35	303-398	AST4587	AST4654/AST4655	65,66	
1860892000	AST4907	AST4920	30	21-162B	AST4933	AST4331/AST4404C/ AST4830	34,35,37	303-424	AST3276	Sockets	90	
1860895000	AST4519		29	21-163	AST3032-19	AST4404C	37	303-443	AST4577	AST4654/AST4655	65,66	
1860898000	AST4528	AST4915/AST4920	30	21-168	AST4407	AST4830/AST4834	34,38	303-444	AST4589	AST4654/AST4655	65,66	
1860899000	AST4517	AST4515	28	21-175	AST3276	Sockets	90	303-465	AST4486	AST4654/AST4655	65,66	
1860901000	AST4516	AST4515	28	21-203	AST4648		38	303-507	AST3032-18	AST4404C	37	
1860905000+				21-210	AST3032-18	AST4404C	37	303-510	AST4627	AST4629	37	
1860905010	AST4543A	AST4545/AST4850	32	21-214	AST4627	AST4629	37	303-511	AST4626 + AST4628	AST4629	37	
1860962000	AST4907	AST4920	30	21-215	AST4626 + AST4628	AST4629	37	303-574	AST4646	AST4654/AST4655	65,66	
1860965000	AST4360C2	AST4545	33	21-229	AST4408	AST4830	34	303-620	AST3032-19	AST4404C	37	
1860985000	AST4512	AST4510A	28	21-234	AST4727	AST4730/AST4731	36	303-651	AST4408	AST4830	34	
1860987000	AST4513	AST4510A	28	21-236	AST4894	Sockets	87	303-675	AST4727	AST4730/AST4731	36	
1860992000	AST4511	AST4510A	28	21-238	AST4726	AST4730	36	303-676	AST4833		36	
1865090000	AST4398G	Diesel Pumps	25	21-240/ 21-240-01	AST4729	AST4730	36	303-677	AST4894	Sockets	87	
1865091000	AST3168G	Diesel Pumps	25	21-251	AST4728	AST4730/AST4731	36	303-679	AST4726	AST4730	36	
1865584000	AST3054-10	Diesel Pumps	25	21-258	AST4893	Sockets	87	303-681/ 303-681-01	AST4729	AST4730	36	
1870684000	AST4622	AST4701Test Kits	111	21-259	AST3032-21	AST4404C	37	303-698	AST4728	AST4730/AST4731	36	
1870697000	AST4907	AST4915/AST4920/ AST4970	30,31	21-260	AST4735P15	AST4735A	35	303-711	AST4893	Sockets	87	
1870828000	AST4907	AST4915/AST4920/ AST4970	30,31	21-262	AST4735P16	AST4735A	35	303-732	AST4735P15	AST4735A	35	
1870896900	AST4776	AST4850	32	21-263	AST4735P17	AST4735A	35	303-734	AST4735P16	AST4735A	35	
1870900300	AST4884	AST4880	32	23-018	AST4398G	Diesel Pumps	25	303-735	AST4735P17	AST4735A	35	
1870900400	AST4883	AST4880	32	23-019	AST3054F2	AST4331	35	303-748	AST3032-21	AST4404C	37	
1871000100	AST6053	Workshop Tools	95	23-020	AST3054F5	AST4331	35	303-1053	AST4637	AST4840	35	
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303-1478	AST4954	AST4950	36	303-532	AST4984	AST4980	41	303-1117	AST4966	AST4965	46
303-1479	AST4952	AST4950	36	303-533	AST4986	AST4980	41	303-1126	AST4965L1	AST4965	46
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310-017	AST4398G	Diesel Pumps	25	303-645	AST4982	AST4980	41	303-1270	AST4830F6	AST5015	44
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310-019	AST3054F5	AST4625	36	303-711	AST4893	AST4888	87	303-1277	AST4735P17	AST5015	44
310-033	AST3054F4	AST4625	36	303-893	AST4921	AST4985	41	LRT-12-003	AST3243-7	AST3243	45
310-046	AST4173W	Sockets	86	303-1116	AST4967	AST4965	41	LRT-12-004	AST4398G	Diesel Pumps	25
310-055	AST3054V3	AST4333	35	303-1117	AST4966	AST4965	41	LRT-12-030	AST3243-6	AST3243	45
310-084	AST4638	AST4840	35	303-1126	AST4965L1	AST4965	41	LRT-12-044	AST3243-5	AST3243	45
310-085	AST4636	AST4840	35	303-1132	AST4965L2	AST4965	41	LRT-12-045	AST3243-2+	AST3243	45
T74P-6254-A	AST4588	AST4654/AST4655	65,66	JD215	AST4983	AST4980	41		AST3243-4		
T74P-6256-B	AST4394	Universal Timing	5	JD216	AST4981	AST4980	41	LRT-12-049+			
T92C-6256-AH	AST4587	AST4654/AST4655	65,66	JD217	AST4984	AST4980	41	-031 Button	AST3243-1	AST3243	45
T93P-6254-A	AST4577	AST4654/AST4655	65,66	JD218	AST4987	AST4980	41	LRT-12-058	AST3032-1	AST4386/AST4875	46
T93P-6254-B	AST4589	AST4654/AST4655	65,66	Lancia				LRT-12-060	AST3032-5	AST4386	46
T94P-6256-CH	AST4486	AST4654/AST4655	65,66	1860771000	AST4523		43	LRT-12-080	AST4921	AST4985	45
T97P-6000-A	AST4646	AST4654/AST4655	65,66	1860831000	AST4394	Universal Timing	5	LRT-12-108	AST4146-2	AST4411/AST4555A	44,45
Honda				1860874000	AST4521	AST4520A	43	LRT-12-112	AST4412	AST4411	45
07LAG-PT20100	AST3032-10	AST4656	39	1860876000	AST4522A	AST4520A	43	LRT-12-114	AST4413	AST4411	45
07MAB-PY3010A	AST4937	AST4936	39	1860885000	AST4844	Universal Timing	5	LRT-12-115	AST4415		45
07JAB-0010200	AST4939	AST4936	39	1860895000	AST4519		43	LRT-12-119	AST4414	AST4411	45
07JAB-0010400	AST4938	AST4936	39	1860899000	AST4517	AST4515	43	LRT-12-132	AST4394	Universal Timing	5
07744-0010400	AST3032-2	AST4656	39	1860901000	AST4516	AST4515	43	LRT-12-134	AST3032-6	AST4386	46
14540-P13-003	AST4571	AST4656	39	1860905000+				LRT-12-141	AST3054-14	AST4386/AST4406A	44
14540-P8A-A01	AST4571	AST4645/AST4660	65,66	1860905010	AST4543A	AST4850	42	LRT-12-143	AST4393	AST4386/AST4406A	44
18G 1521	AST4844	Universal Timing	5,39	1860985000	AST4512	AST4510A	42	LRT-12-158	AST4876	AST4875	46
18G 1523	AST3032-1	AST4406A	39	1860987000	AST4513	AST4510A	42	LRT-12-161	AST4614		47
18G 1717	AST3054-14	AST4406A	39	1860992000	AST4511	AST4510A	42	LRT-12-172	AST4413	AST4411/AST4555A	44,45
18G 1719	AST4393	AST4406A	39	1870893000	AST4580R5	AST4580	43	LRT-12-173	AST4551	AST4555A	44
Hyundai				1870900100	AST4583	AST4580	43	LRT-12-174	AST4552	AST4555A	44
09244-28000	AST4578	AST4657/AST4645	40,65	1870900300	AST4884	AST4880	42	LRT-12-175	AST4606	AST4605A	47
09244-28100	AST4577	AST4657/AST4645	40,65	1870986900	AST4776	AST4850	42	LRT-12-178	AST4554		44
Isuzu (Timing Kits - US Market)				1871000200	AST4882	AST4880	42	LRT-12-195	AST4608	AST4605A	47
07LAG-PT20100	AST4643	AST4645/AST4660	65,66	1871000900	AST4771	AST4880	42	LRT-12-196 } AST4601	AST4605A	47	
5-8840-0145-0	AST4398G	Diesel Pumps	25	2000015800	AST4911	AST4510A	42	LRT-12-197 } AST4602			
J43037	AST4644	AST4645/AST4660	65,66	200004500	AST4951	AST4510A	42	LRT-12-198	AST4609	AST4605A	47
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99360608	AST4360C4+			18G 1437-2	AST4921	AST4985	47	LRT-57-018	AST3080C	Undercar	118
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99360614	AST4926	AST4925	40	303-191	AST4921	AST4985	45,47	LST128	AST3243-5	AST3243	45
99360615	AST4927	AST4925	40	303-191-03	AST4921	AST4985	45,47	LST129	AST3243-2+	AST3243	45
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18G 1523	AST3032-1	AST3032A	83	12-187	AST4603	AST4600	61	KV112293352	AST4398G	Diesel Pumps	25
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LDV104	AST4360C6	AST4388A	48	18G 1524	AST3032-5	AST4386	61,62	Mot1489	AST4562A	AST4961/AST4760B/ AST4962	53
LDV0480054	AST4394	Universal Timing	5	18G 1549	AST3054-6.6	AST4386	61,62	Mot1490-01	AST4623	AST4962	53
LDV0480066	AST3168G	Diesel Pumps	25	18G 1552	AST4398G	Diesel Pumps	25	Mot1496	AST4561A	AST4962/AST4961	53
LDV167	AST4730F1	AST4730/AST4731	49	18G 1570	AST3032-6	AST4386	61,62	Mot1534/Mot1537	AST4764	AST4760B	53
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49 JE01 050	AST3026	AST4331	50	18G 1747-2 } 18G 1747-4 }	AST4601 } AST4602 }	AST4600	61	PSA (Citroen/Peugeot)			
49 JE01 054	AST4933	AST4331/AST4404C	50	18G 1747-5	AST4609	AST4600	61	0117AK/F	AST4398G	Diesel Pumps	25
49 JE01 061	AST3032-18	AST4404C	50	4507-TA	AST4360P8	AST4386	61,62	0117AM	AST3168G	Diesel Pumps	25
49 JE01 063	AST3054F2	AST4331	50	4507-TJ	AST4363	AST4386	61,62	0117AR	AST4360T1	AST4388A	21,24
49 JE01 602	AST4626+ AST4628	AST4629	50	4507-TL	AST4359		62	0132AA	AST4394	Universal Timing	5
49 JE01 062	AST4627	AST4629	50	RV.4093T	AST3168G	Diesel Pumps	25	0132AB	AST4360C5	AST4388A	21,24
49 JE02 018	AST4735P15	AST4735A	50	MINI (BMW)				0132AJ1	AST4360P4	AST4388A/AST4820	20,24
49 JE02 020	AST4735P16	AST4735A	50	00.2.271	AST5043	AST5044	51	0132AJ2	AST4360P3	AST4388A	21,24
49 JE02 021	AST4735P17	AST4735A	50	00.2.272	AST5043	AST5044	51	0132AK	AST4569	AST4820/AST4825	20,24
49 JE02 061	AST3032-21	AST4404C	50	11.0.300	AST4735P17	AST5044	51	0132P	AST4359		21
49 UN01-67	AST4588	AST4654/AST4655	65	11.4.360	AST5019	AST5045	51	0132Q	AST4360P8	AST4388A	21,24
49 UN20 5072 } 49 B011 105 }	AST4736		50	11.5.140	AST5017	AST5045	51	0132QY	AST4935P20	AST4935	23
49 9140 074	AST4398G	Diesel Pumps	25	11.9.330	AST5016	AST5045	51	0132QZ	AST4360P8	AST4388A	21,24
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