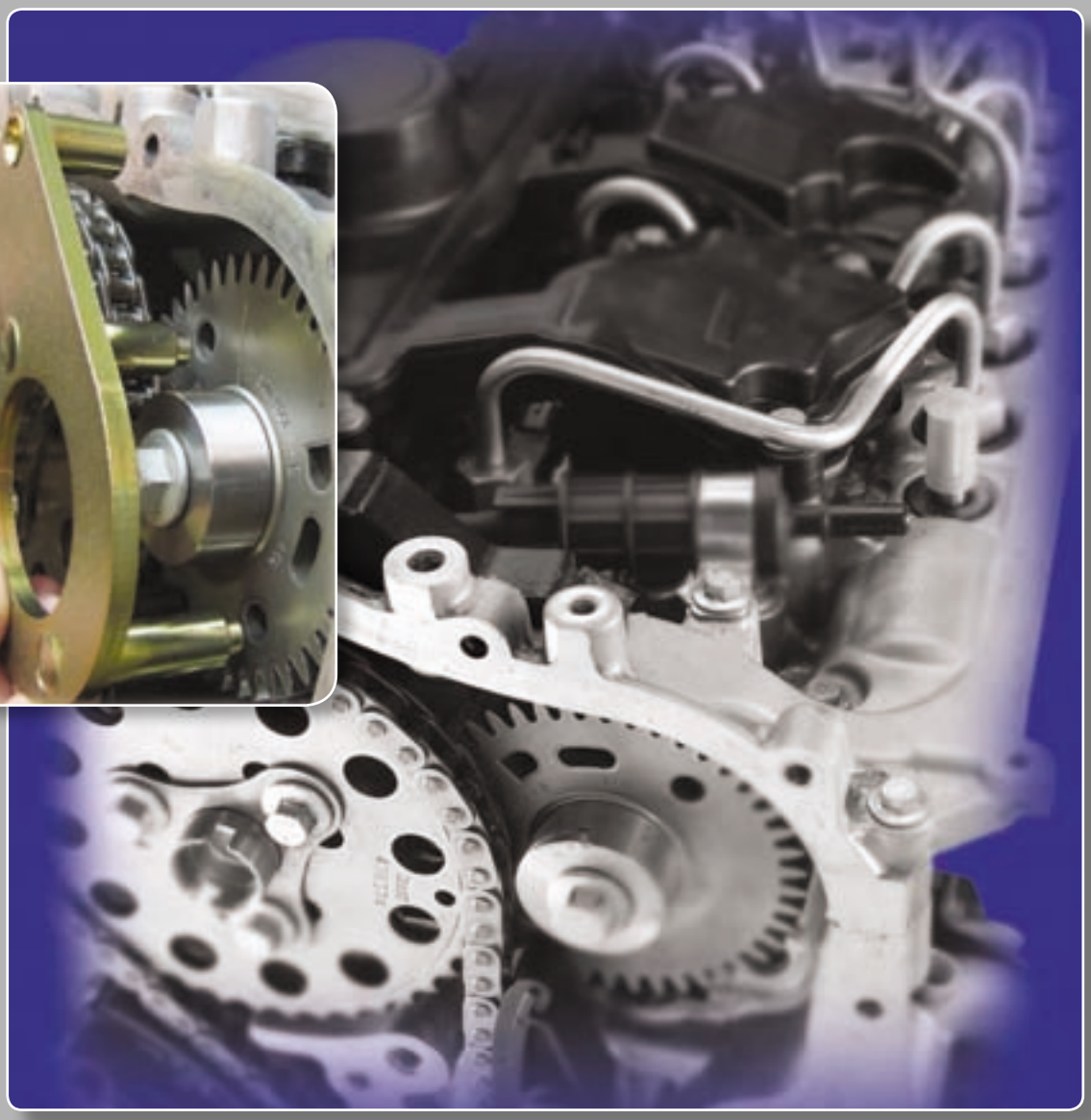
PRODUCT FINDER







Engine Timing Tools



Engine Test Kits



Specialist Sockets & Wrenches



Undercar



Workshop Tools

Automotive Specialised Service Tools PF5

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

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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.

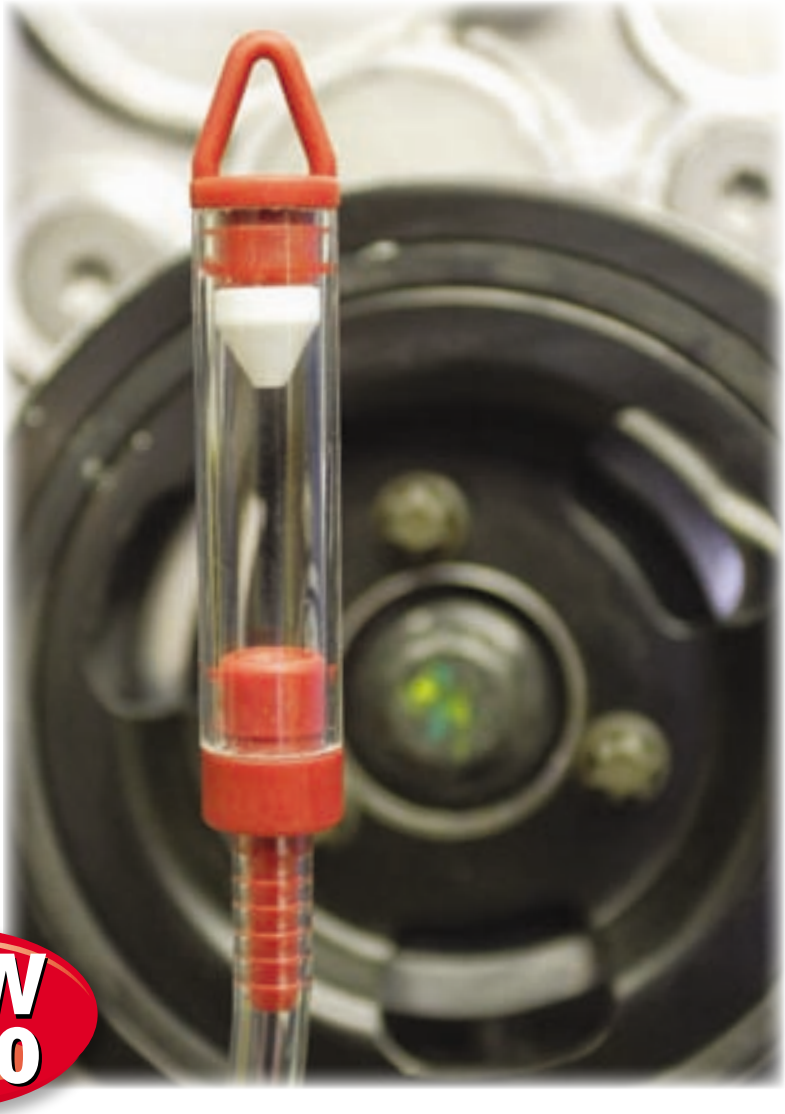
- **UNIVERSAL APPLICATION -**
  For Petrol and Diesel engines in cars & vans.

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.

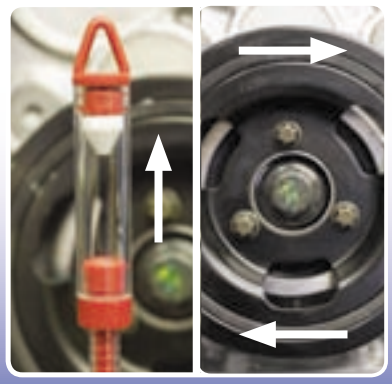
  Replacement Adaptors - 8/10/12/14/18mm + Extension Piece are available as Spares Set - AST5006.





NEW 2010









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

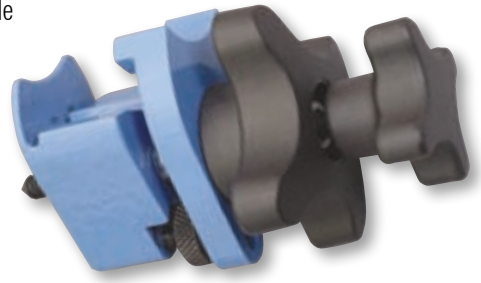
UNI-LOCK – Single Cams

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.

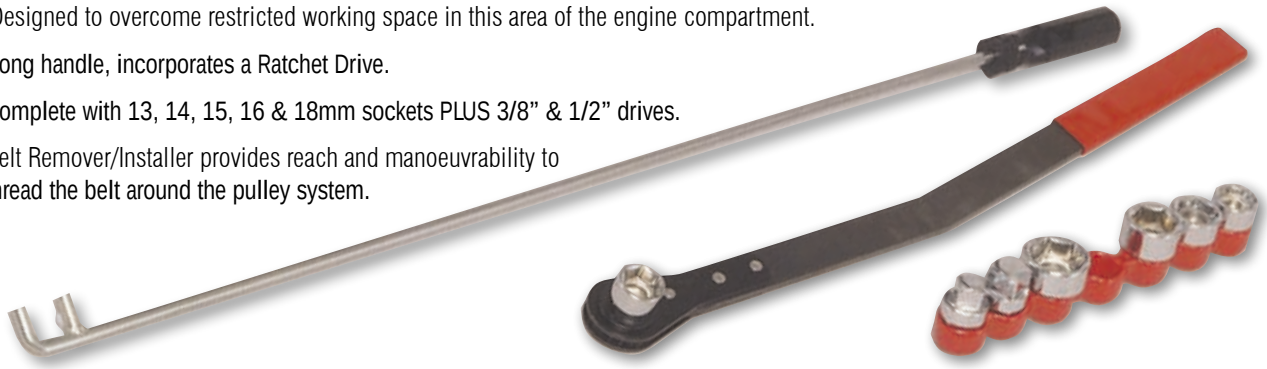






Auxiliary/Serpentine Belt Tool Set — AST4765

- 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

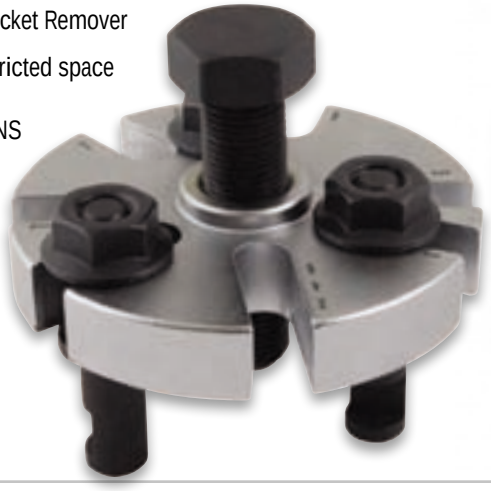




Multi-Position Camshaft Sprocket Remover — AST4989

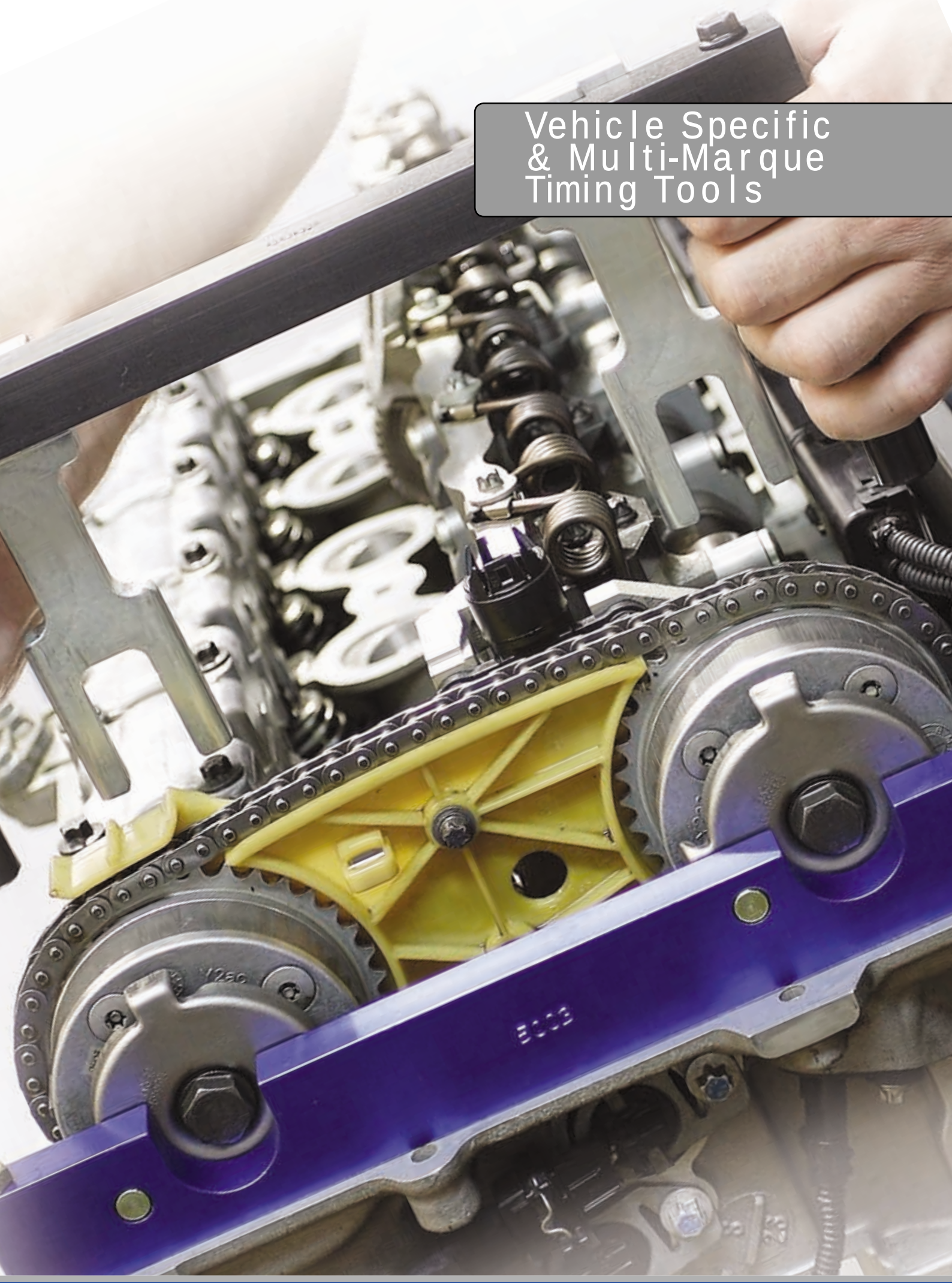
A quality, Universal Sprocket Remover, designed to provide numerous fixing positions and diameter configurations to fix into the sprocket spokes or holes.

- 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)

2 Engine Fuel
Petrol (Green)
Diesel (Blue)

3 Main Heading
Engine Size or Group

4 Models
(Year covered by tools)

5 Engine Code

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

7 Product Reference



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

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)

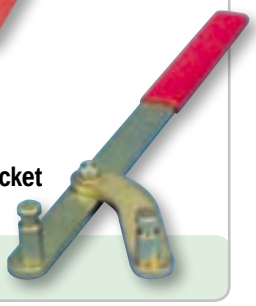
AST4519

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)

Also for FIAT and LANCIA models

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			



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

AUDI – see VOLKSWAGEN Timing Tools PAGE 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

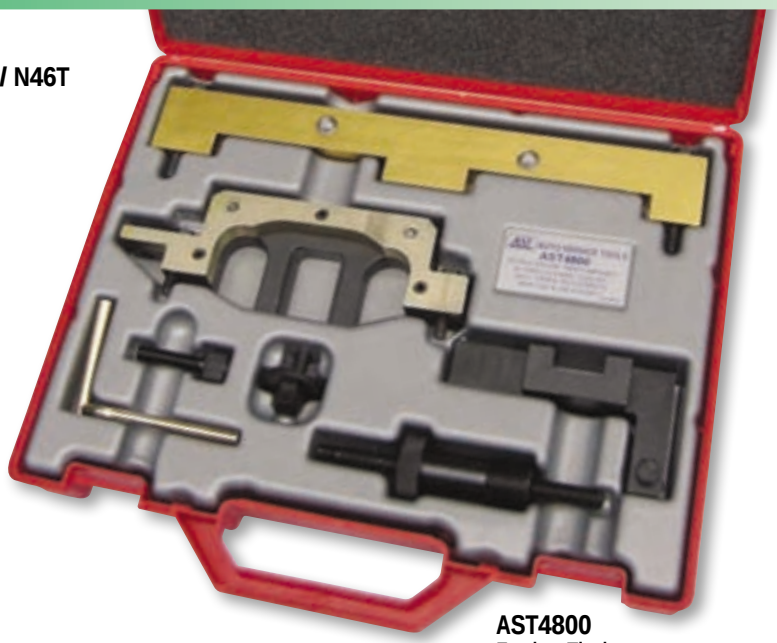
Kit also covers BMW M40 (Belt) engines (-93)



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



AST4815
Camshaft/Carrier Bracket Removal and Installation

Overhaul of VALVETRONIC SYSTEM





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

AST4425 must be used with AST4312 Wrench

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

With this kit you will also need . . .

For engines with Twin VANOS (VVT) Units

AST4895 Twin VANOS Timing Tool Set

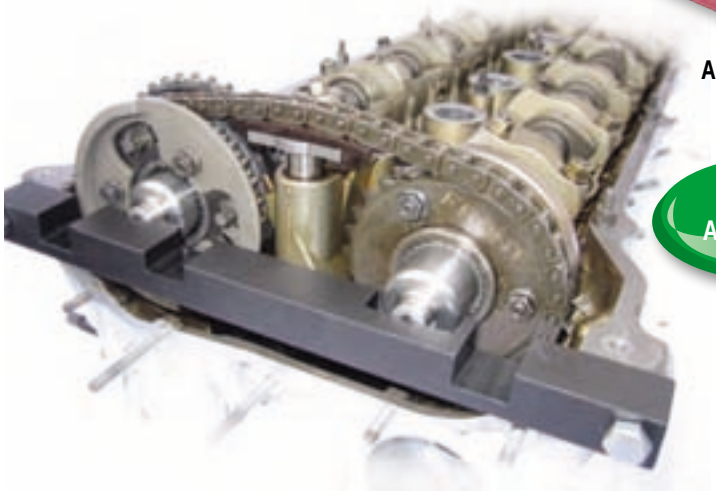
For BMW M52(TU) / M54 / M56 engines.

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)

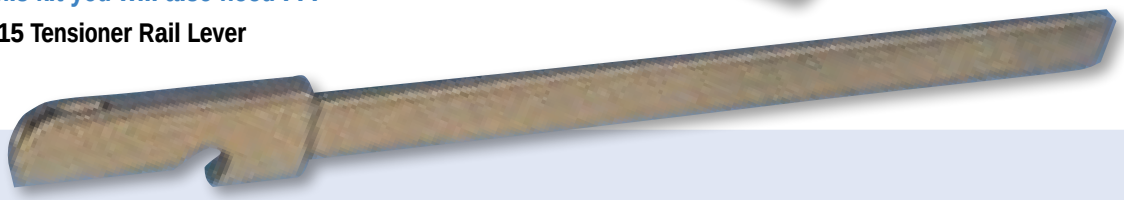
Engines:
M41 / M51

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



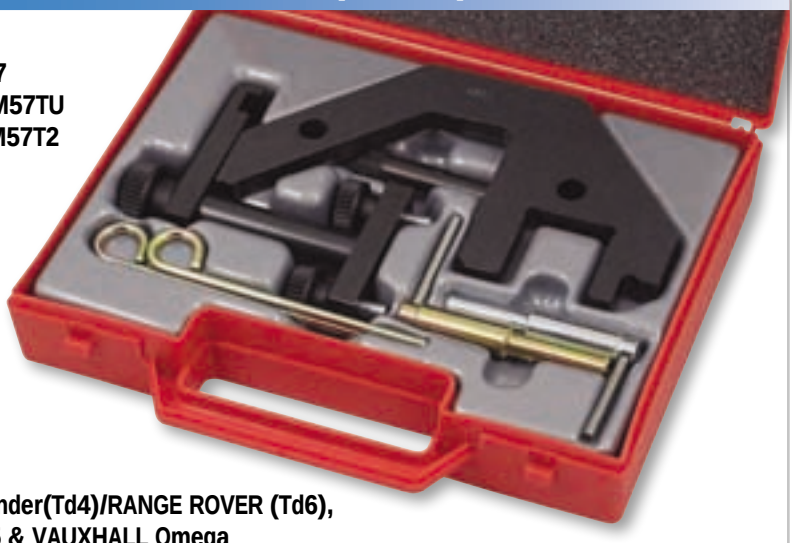
AST4415

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

1.4 16v.
F14D3

1.5
G15MF

1.5 16v.
A15DM
A15SMS
A15MF

1.6 16v.
A16DM
A16DMS
F16D3
LXT



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

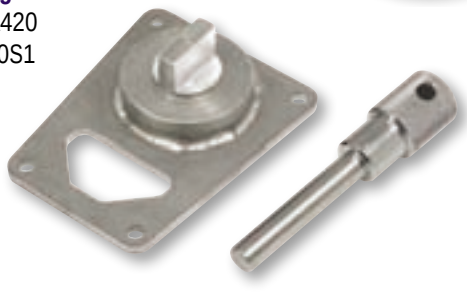
1.8 16v.
2HO

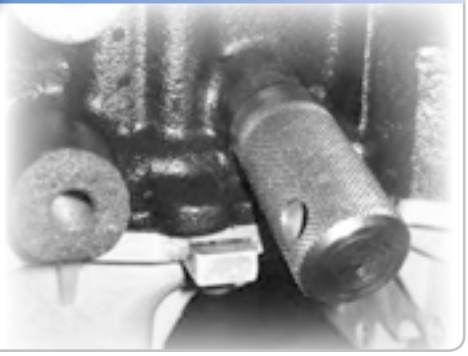


Diesel 2.0d VCDi (Belt) — NEW 2010 — AST5040

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 Cheroke (01-08)

Also for
LDV Maxus (2.5CRD)

Engines:
2.5CRD
R2516C
R2516K

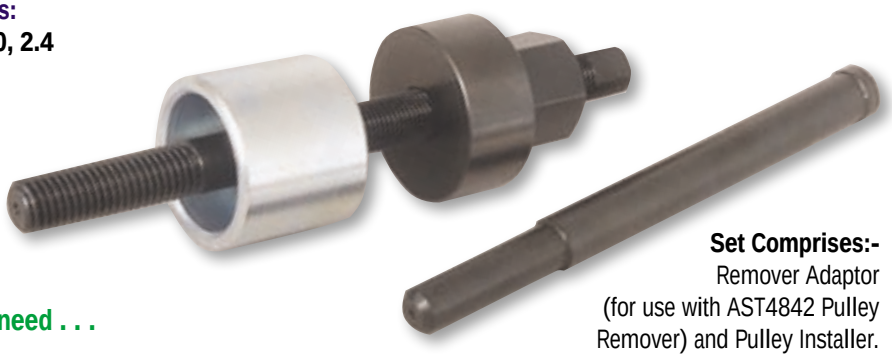
2.8CRD
R2816C5
R2816K4



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 PAGE 65-66

Diesel 1.4 / 1.6 / 2.0 / 2.2 HDi: DV4/DV6/DW10/DW12 (Belt) AST4820

Models:

Citroën	Peugeot
C1 (05-09)	107 (05-09)
C2 (03-09)	1007 (05-09)
C3/Pluriel (02-09)	206/CC (99-09)
C4 (04-09)	207 (06-09)
C4 Picasso (06-09)	306 (99-02)
C5/II/III (04-09)	307/CC (01-09)
C6 (06-09)	308 (07-09)
C8 (02-07)	406 (98-04)
Xantia (98-01)	406 Coupe (00-06)
Xsara (99-06)	407 (04-09)
Xsara Picasso (99-09)	607 (00-09)
Evasion/Synergie (99-02)	806 (99-02)
Berlingo (99-09)	807 (02-07)
Dispatch/Jumpy (99-09)	Partner 2.0HDi (99-08)
Relay/Jumper I/II (01-06)	Expert I/II (99-07)
	Boxer I/II (02-06)

Also for FIAT, LANCIA models

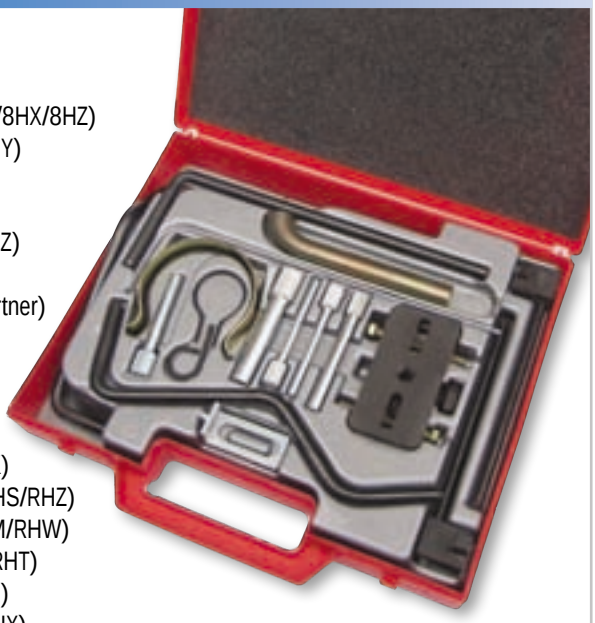
Engines:

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)



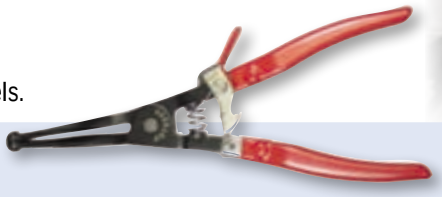
For TUD/XUD diesels – see Kit AST4388A
For DW8 diesels – see Kit AST4822

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	Peugeot
C1 (05-09)	107 (05-09)
C2 (03-09)	1007 (05-09)
C3/Pluriel (02-09)	206/CC (01-09)
C4 (04-09)	207 (06-09)
C4 Picasso (06-09)	307/CC (01-08)
C5/II/III (04-09)	308 (07-09)
Xsara (02-04)	407 (04-09)
Xsara Picasso (04-09)	
Berlingo (05-09)	

Also for FORD (1.4 / 1.6TDCi) / VOLVO models

Engines:

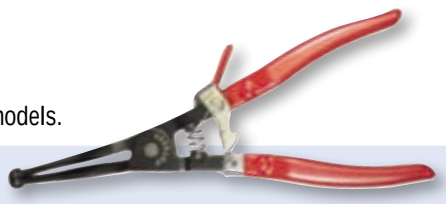
1.4HDi
DV4TD
(8HT/8HW/8HX/8HZ)
DV4TED4
(8HV/8HY)

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

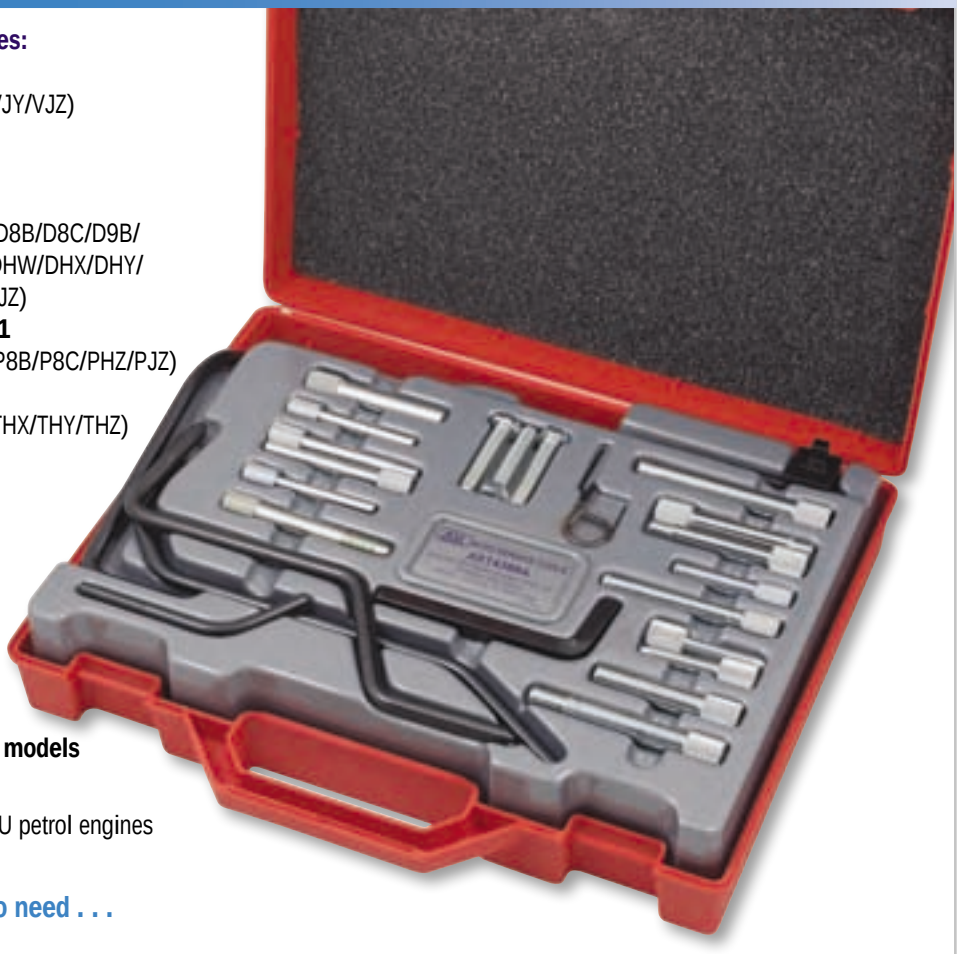
Diesel 1.5D to 2.5D: TUD / XUD (Belt) — AST4388A

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)

Also for LDV Pilot

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



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)

Also for FIAT, IVECO and RENAULT models

Engines:
8140.63
8140.43
8140.43S





Diesel 3.0HDi (Chain) — AST4925

Models:
Citroën
Relay/Jumper III (06-09)

Peugeot
Boxer III (06-09)

Also for FIAT, IVECO models

Engines:
F1C (F30DT)





Diesel 2.7 TDV6 (Belt) — AST4965

Models:
Citroën
C5 III (07-09)
C6 (06-09)

Peugeot
407/Coupe (04-09)
607 (04-09)

Also for JAGUAR and LAND ROVER models

Engines:
DT17TED4 (UHZ)
DT17BTED4 (UHZ)

Covers Automatic & Manual Transmission models





Petrol 1.4 / 1.6 16v. EP3 / EP6 / EP6DT / EP6DTS (Chain) — AST5020

Models:
Citroën
C4 (08-09)
C4 Picasso (08-09)

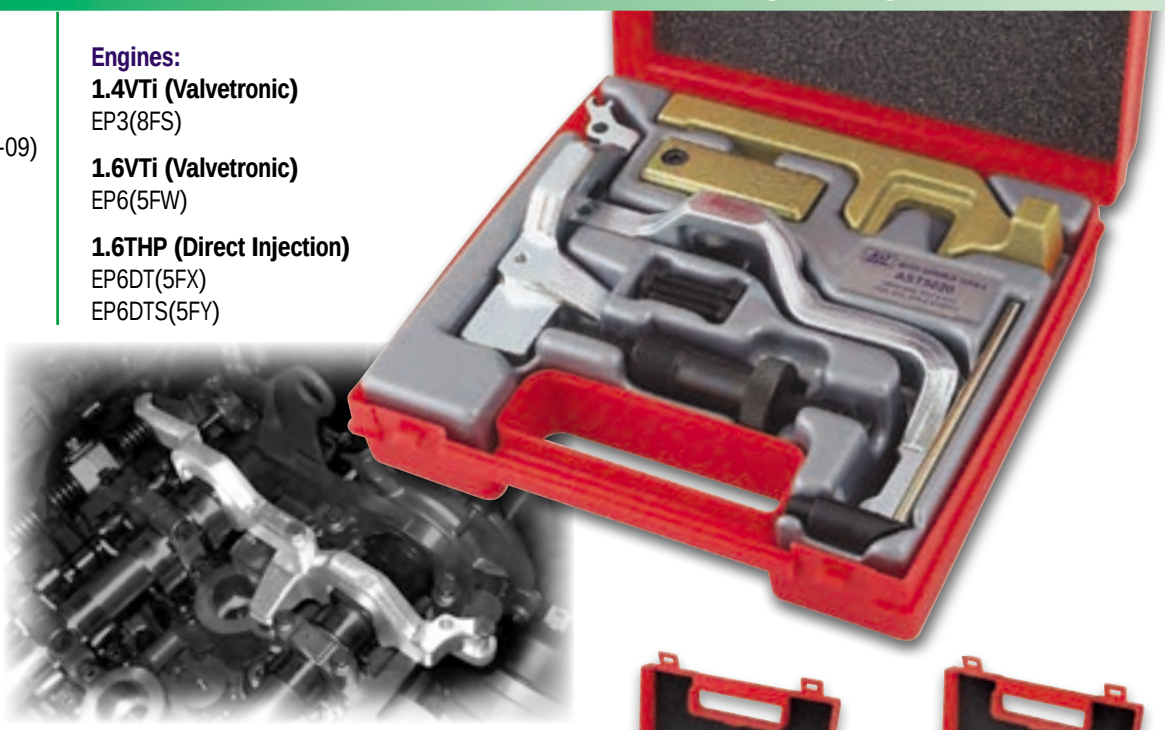
Peugeot
207 (06-09)
207CC (07-09)
308 (07-09)

Also for MINI models

Engines:
1.4VTi (Valvetronic)
EP3(8FS)

1.6VTi (Valvetronic)
EP6(5FW)

1.6THP (Direct Injection)
EP6DT(5FX)
EP6DTS(5FY)



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.



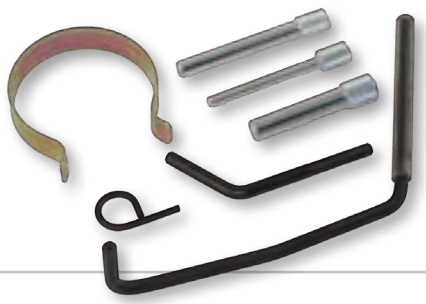
AST5045

Petrol 1.4 16v. ET+ KFV-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)
1007 (05-09)
206/CC (00-09)
207 (06-09)
306 (00-02)
307 (01-08)
Partner (00-09)

Engines:
ET3J4(KFU)
TU3A/JP
(KFV/KFW)



Petrol 1.8 / 2.0 / 2.2 16v. EW7 / EW10 / EW12 (Belt) — AST4825

Models:

Citroën	Peugeot
Xsara (00-05)	206/CC (98-07)
Xsara Picasso (99-07)	307/CC (01-09)
C4 (04-09)	406/Coupe (99-06)
C4 Picasso (06-09)	407/Coupe (04-09)
C5 II/III (00-09)	607 (00-09)
C8 (02-09)	806 (00-02)
Evasion/Synergie (00-02)	807 (02-09)
Dispatch/Jumpy (00-09)	Expert I/II/III (00-09)

Engines:

1.8 16v.	**2.0 HPi**
EW7J4(6FZ)	EW10D(RLZ)
EW7A(6FY)	**2.2 16v.**
2.0 16v.	EW12J4/L5(3FZ)
EW10A(RFJ)	EW12J4(3FY)
EW10J4S(RFK)	
EW10J4	
EW10J4/L5	
EW10J4R/L5	
EW10J4/L4/5(RFN/RFR)	



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

With this kit you will also need . . .

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



AST4576

Petrol 3.0 24v. V6 (Belt) — AST4580

Models:

Citroën	Peugeot
Xantia (97-01)	406/Coupe (97-06)
XM (97-00)	605 (97-00)
C5 (00-08)	
C6 (05-09)	

Also for RENAULT Laguna, Safrane & Espace models

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



Petrol 1.0 to 2.0 TU / XU (Belt) — AST4388A

Models:

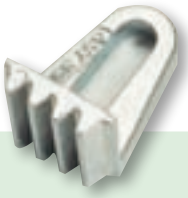
Citroën	Peugeot
C2 (03-09)	106 (93-03)
C3/Pluriel (02-09)	1007 (05-09)
C4 (04-08)	205 (89-96)
AX (91-97)	206/CC (98-09)
Saxo (96-03)	207 (06-08)
ZX (91-98)	306 (93-03)
Xsara (97-06)	307/CC (01-09)
Xsara Picasso (99-06)	405 (92-97)
Xantia (93-01)	406 (95-02)
XM (93-00)	406 Coupe (97-02)
Evasion/Synergie (94-01)	605 (93-00)
C15 (92-98)	806 (94-01)
Berlingo (97-09)	Partner I/II (96-07)
Relay/Jumper (94-06)	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)
2.0Turbo 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

DACIA – see RENAULT Timing Tools PAGE 54-60 **DAEWOO** – see CHEVROLET Tools PAGE 18

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)



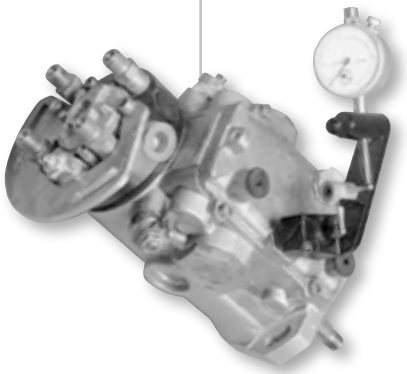


Diesel CAV/ROTODIESEL/LUCAS - Injection Pumps (Timing) AST3168G

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**











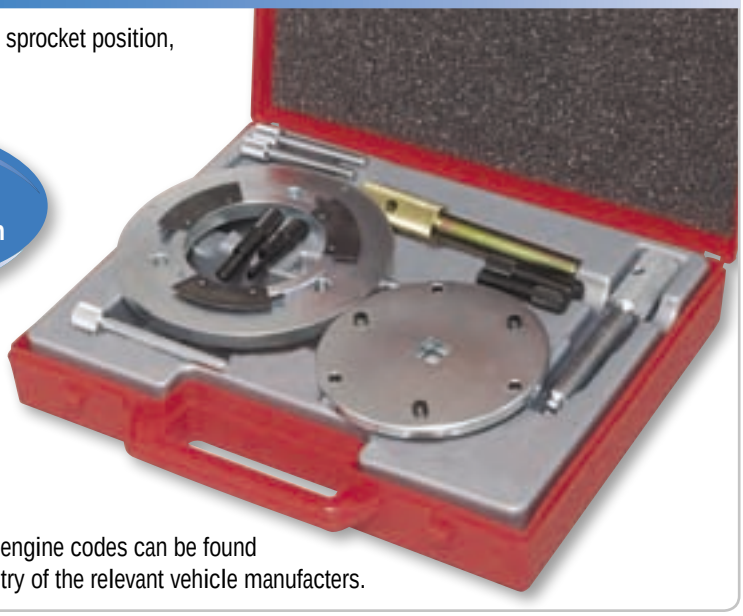
Diesel FORD – 2.0/2.2/2.4 DURATORQ Timing/Pump Sprocket Retainer

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.





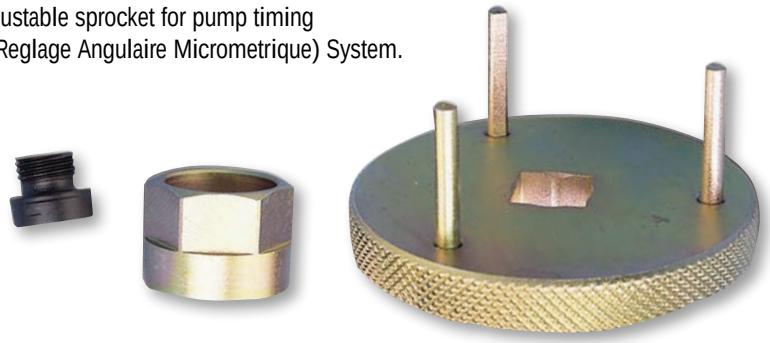
Details of specific engine codes can be found in the AST4730 entry of the relevant vehicle manufacters.

Diesel Injection Pump Timing & Removal 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/ Astravan (98-06)	Omega (98-03)
Zafira (99-05)	Sintra (98-99)
Vectra (97-05)	Frontera (98-04)
	Signum (03-05)

Engines:
2.0 & 2.2 DTi diesels

2.0D	2.2D
X20DTH	X22DTH
X20DTL	Y22DTH
Y20DTH	Y22DTR
Y20DTL	

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)

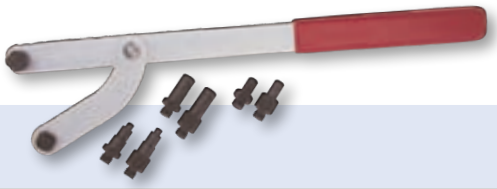
Engines:
ECD





With this kit you will also need . . .

AST4844 Sprocket Holding Tool with Inter-changeable Pins



AST4844

Petrol 1.2 / 1.4 8v. (Belt) — AST4950

Models:
New 500 (07-09)
Idea (04-09)
Linea (07-09)
Grande Punto (07-09)
Doblo / Cargo (05-09)
Panda EVO2 (05-09)

Also for FORD models

Engines:
1.2
169A4.000
199A4.000

1.2
188A4.000-**EVO2 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)
Siena (97-03)
Brava/Bravo (95-02)
Marea/Weekend (96-03)
Stilo (01-08)
Multipla (99-09)
Doblo/Cargo (02-06)

Also for LANCIA Delta, Lybra

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





With this kit you will also need . . .



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

AST4519

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



AST3398

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

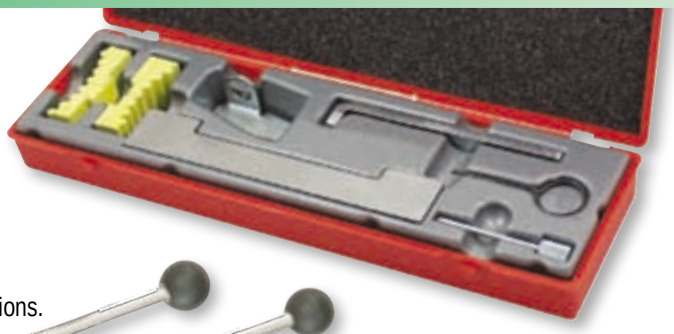


AST4523

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.

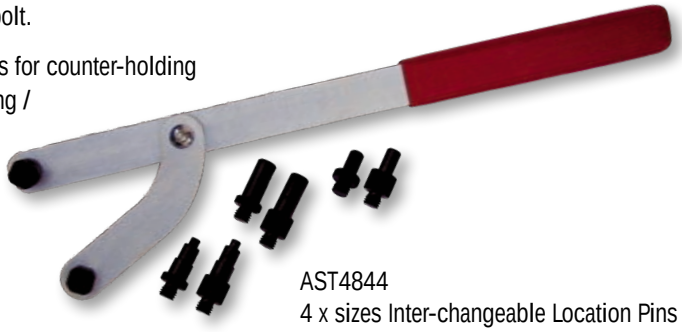


AST4742

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

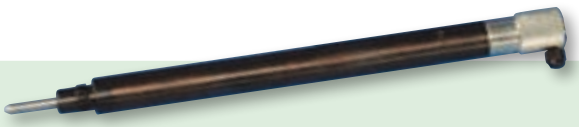




PATENT APPLIED

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



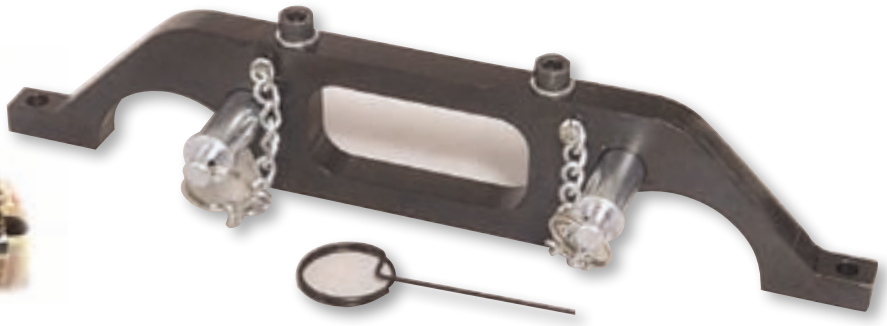
AST3054-10

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

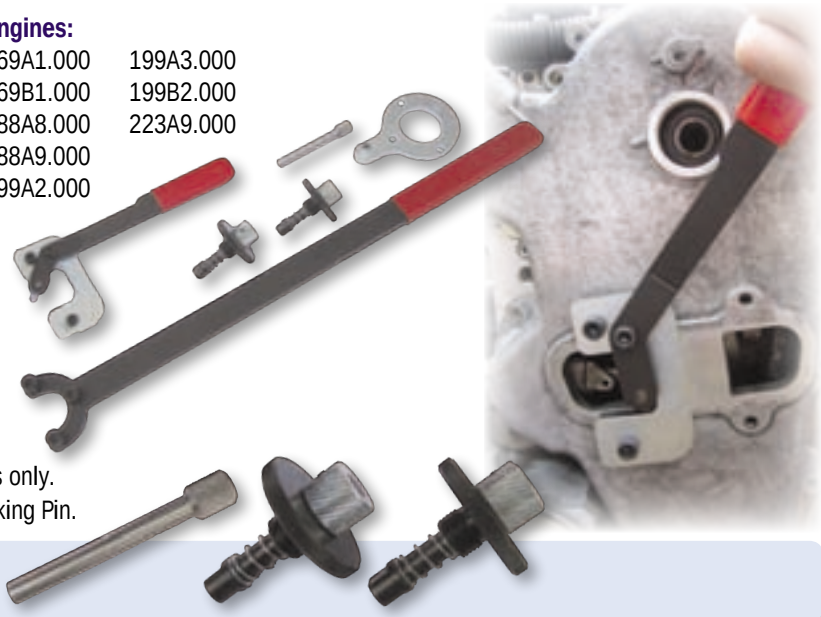


AST4768

Diesel 1.3JTD Multijet 16v. (Chain) Engine Overhaul Timing — AST4880

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

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



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.
198A2.000
198A3.000
198A6.000
350A2.000

1.9JTD 8v.
182B4.000
182B9.000
186A6.000
186A8.000
186A9.000
188A2.000
188A7.000
188B2.000
192A1.000
192A3.000
192A8.000

1.9JTD 8v.
192A9.000
192B4.000
192B5.000
199A5.000
939A1.000
939A5.000
939A7.000
223A7.000

1.9JTD 16v.
192A5.000
937A5.000
939A2.000
939A8.000

2.0JTD 16v.
198A5.000

2.4JTD 10v.
185A6.000

2.4JTD 20v.
939A3.000



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.



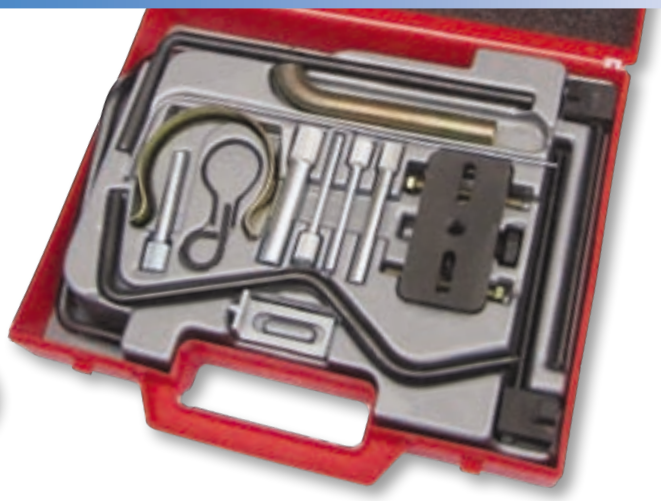
Diesel 2.0JTD / 2.2JTD (Belt) — AST4820

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

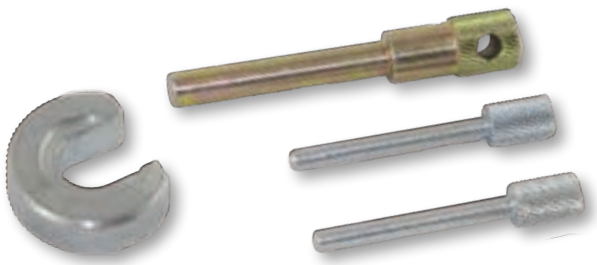
Diesel 2.5D / 2.5DT / 2.8D / 2.8JTD (Belt) — AST4865

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

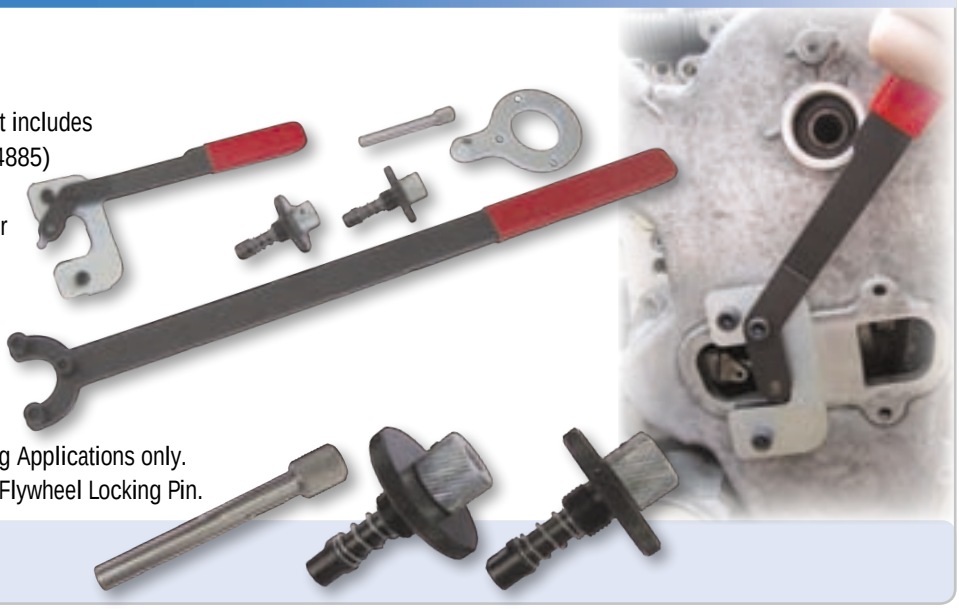


Diesel 1.3 16v. DURATORQ (Chain) Engine Overhaul Timing AST4880

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

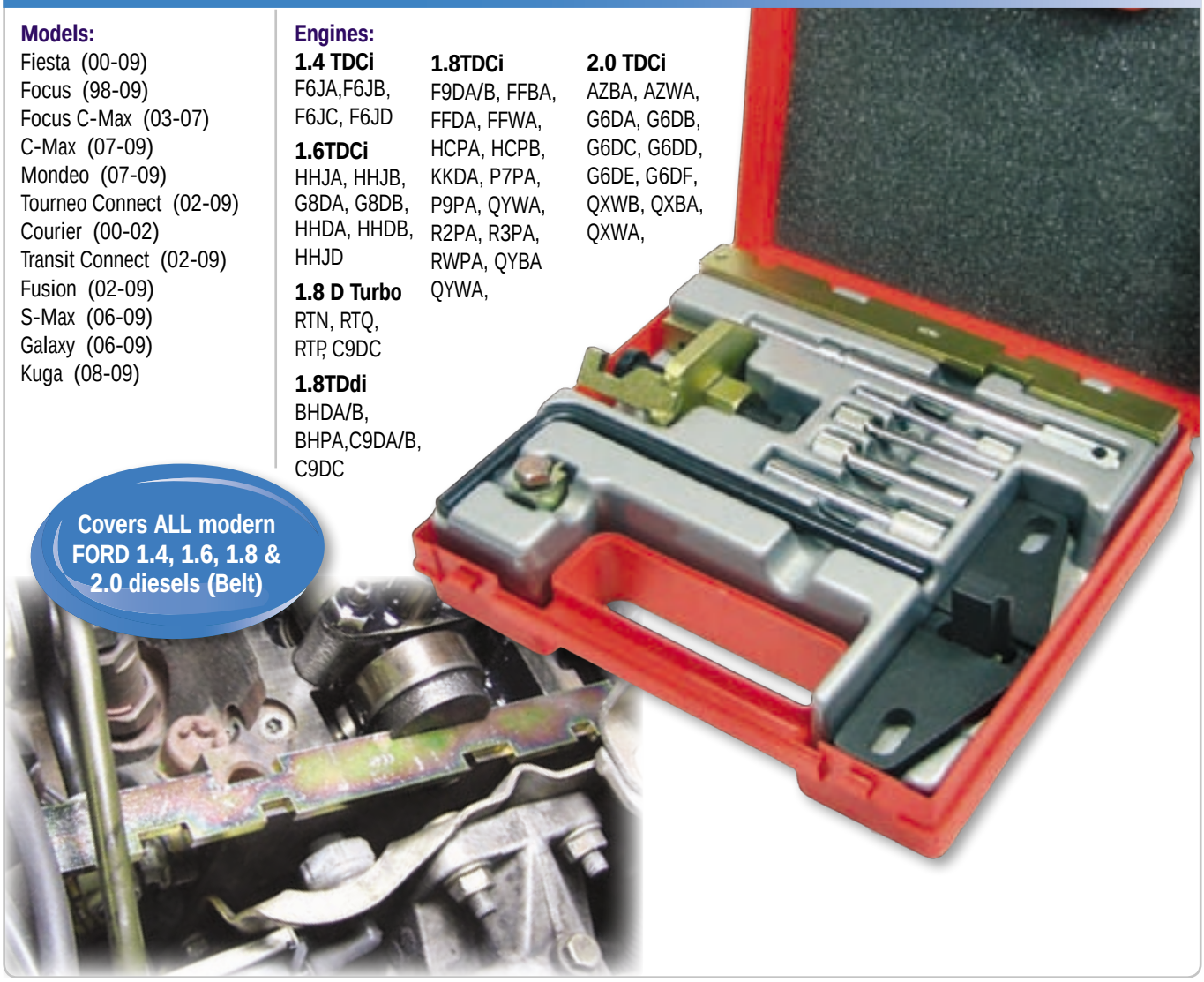
1.6TDCi
HHJA, HHJB, G8DA, G8DB, HHDA, HHDB, HHJD

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	1.6TDCi
F6JA	G8DA
F6JB	G8DB
F6JC	HHDA
F6JD	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	1.8D/TD		1.9D	2.5D/T/TCi			
LTA	RTA	RTH	IZ	4FA	4HB	4GA	4GE
LTB	RTB	RTJ	AFN	4FB	4HC	4GB	4GF
LTC	RTC	RTK	AHN	4FC	4EB	4GC	4HA
	RTD	RVA	AVG	4FD	4EC	4GD	4HD
	RTE	RFA					4ED
	RTF	RFM					
	RTG	RFN					

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)

Also for VAG models

Engines:
ANU
ASZ
AUY

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)

Also for JAGUAR, LAND ROVER & LDV models

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





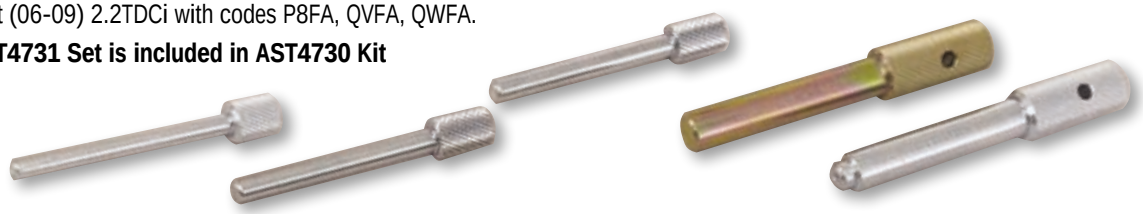
AST4730 covers Engine Timing and Pump Removal/Installation (retention of pump sprocket position with pump removed).

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

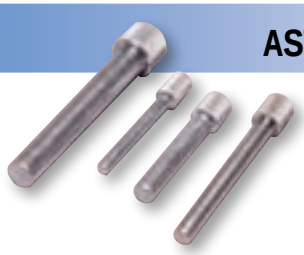
Diesel 2.5D/D Turbo, 2.5TCi – Transit (Belt)

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, EDDB
EDDC, EDDD
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

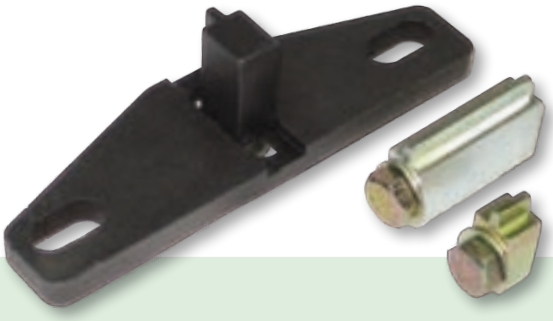


AST4736

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





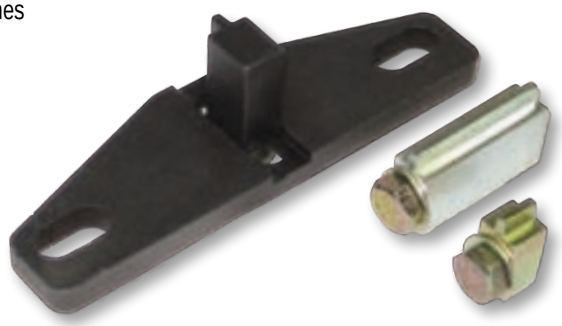
Flywheel Holding Tool Set — AST4834

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



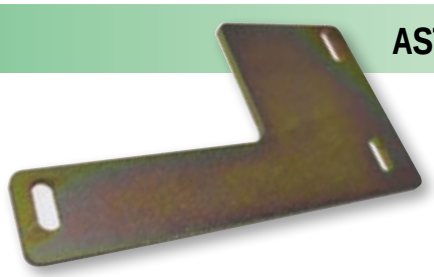
Petrol 2.8 (Chain) — AST4648

Models:
Galaxy (95-00)

Also for SEAT & VW models

Engines:
AAA
AMY

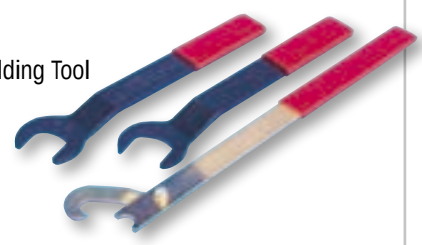




VISCOUS FAN Wrenches

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 PAGE 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



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 / 2.4 / 3.0 / 2.2CDTi	FR-V 1.7	CR-V 2.2CDTi
	FR-V 2.2CDTi	





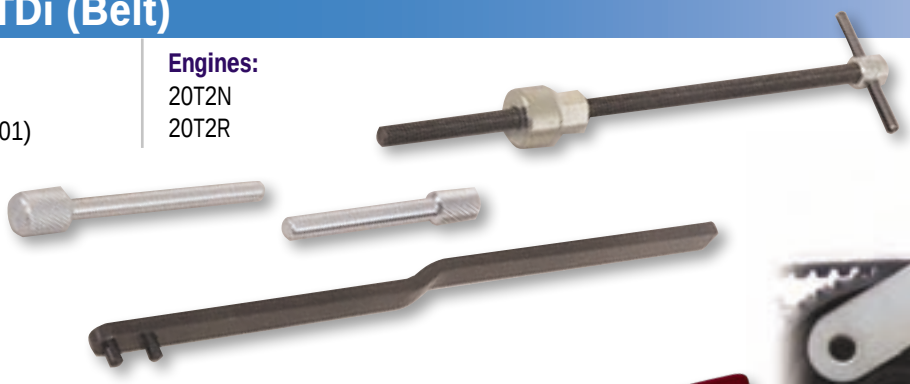
AST4936 Crankshaft Holding Tool Set (Belt/Chain)

Diesel 2.0TDi (Belt) — AST4406A

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

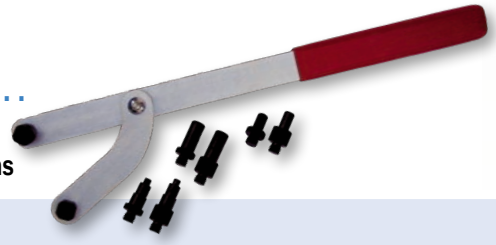
Engines:
20T2N
20T2R

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 PAGE 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)

Also for FIAT Ducato

Engines:

2.3JTD	3.0JTD
F1AE0481A	F1CE0481A(HPI)
F1AE0481B	F1CE0481B(HPT)
F1AE0481F	F1CE0481F(HPI)
F1AE0481G	F1CE0481H(HPT)
F1AE0481H	





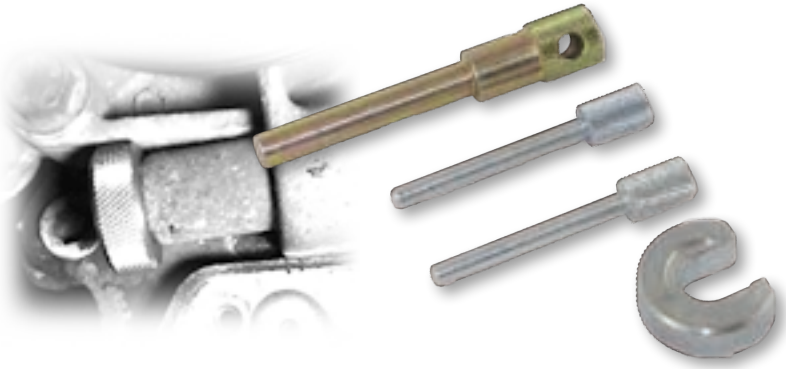
Diesel 2.5D / 2.8D (Belt) — AST4865

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

Also for FIAT, PSA, RENAULT models

Engines:

2.5D	2.8D
8140.07	8140.23
8140.21	8140.43B
8140.27S	8140.43C
8140.47	8140.43N
8140.47R	8140.43R
8140.67F	8140.43S
8140.97	8140.63
	8140.23.27
	8140.43.37



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
FMBA
FMBB

2.2D
QJBA

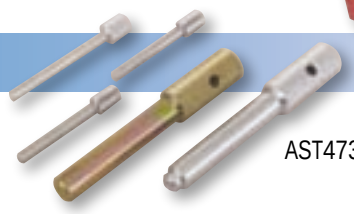


AST4730

AST4731

Covers Engine Timing Applications only for same applications as AST4730 Kit

NOTE: AST4731 Set is included in AST4730 Kit



AST4731

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



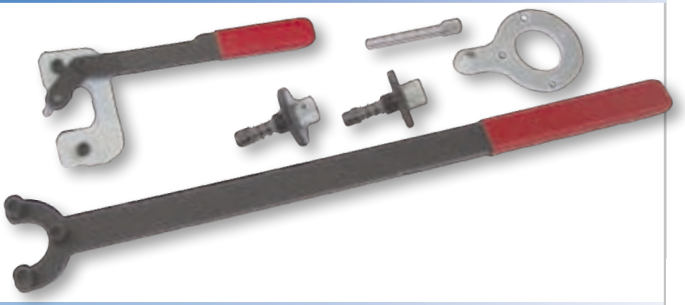
Diesel 1.3JTD Mutijet 16v. (Chain) Engine Overhaul Timing — AST4880

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)

Also for ALFA ROMEO and FIAT models

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

Kit Covers latest 2.4 20v. engines



Diesel 2.0JTD / 2.2JTD (Belt) — AST4820

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

Also for CITROËN/ PEUGEOT and FIAT models

Engines:

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



Petrol 1.2 /1.4 16v. Twin Cams (Belt) — AST4510A

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

Also for FIAT models

Engines:

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

Kit includes latest VVT and Crank Locking Tools





Petrol 1.4 12v. s.o.h.c (Belt) — AST4515

Models:
Ypsilon (96-00)

Also for
FIAT models

Engines:
840A2.000
840A4.000



Petrol 1.6 16v. Twin Cams (Belt) — AST4520A

Models:
Delta (96-99)
Lybra (99-06)

Also for FIAT models

Engines:
182A4.000
182A6.000
182B6.000





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)

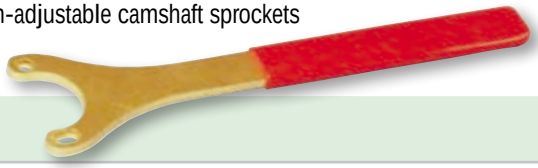
Engines:
EW10
(RFN)

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)

Also for
CITROËN /
PEUGEOT &
RENAULT models

Engines:
XFW



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)

Also for BMW & ROVER models

Engines:
204D3/Td4 (2.0 M47:BMW)
306D1/Td6 (3.0 M57:BMW)



If removing Pump you will also need . . .

M47 / M57 Pump Remover / Sprocket Retainers

AST4553
for In Line engines



AST4553

AST4554
for Transverse mounted engines



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)

Also for BMW, ROVER & VAUXHALL/OPEL models

Engines:
256T (M51:BMW)



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)

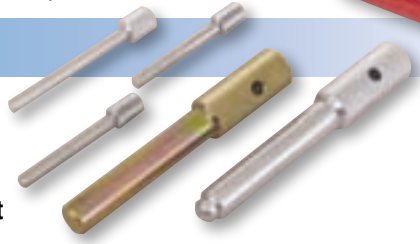
Also for FORD and JAGUAR models

Engines:
244DT



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

AST4731



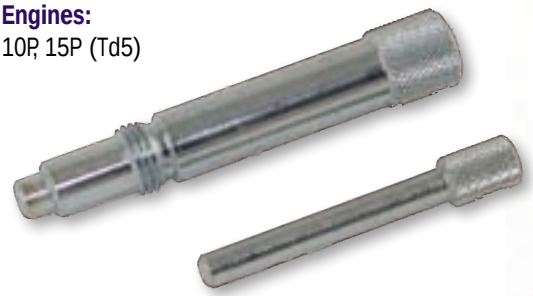
AST4731 covers Engine Timing Applications only for same applications as AST4730 Kit

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)

Also for CITROËN/ PEUGEOT models

Engines:
XUD9A
XUD9A/L3



Diesel DW8 1.9D (Belt) — AST4822

Models:
Pilot (02-05)

Also for CITROËN/ PEUGEOT models

Engines:
DW8B/L4

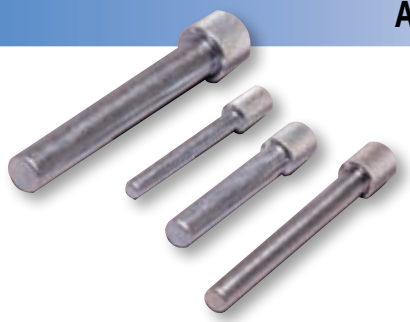


Diesel 2.5D/Di (Belt) — AST4625

Models:
Convoy (97-02)

Also for FORD Transit

Engines:
4EB
4HB





Diesel 2.4 TD/TDi (Chain) Engine Timing and Pump R & I — AST4730

Models:
Convoy (02-06)

Also for FORD & JAGUAR models

Engines:
ZSD424

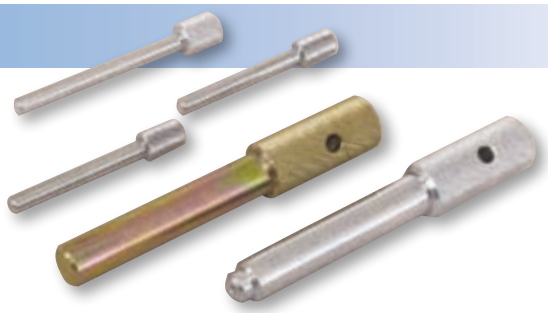
AST4730 Kit covers Engine Timing and Pump Removal/Installation (retention of pump sprocket position with pump removed).



AST4731

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

NOTE: AST4731 Set is included in AST4730 Kit



Diesel 2.5CRD (Belt) — UPDATED — AST4945A

Models:
Maxus (05-09)

Also for CHRYSLER-JEEP models

Engines:
VM2516L
VM2516L09



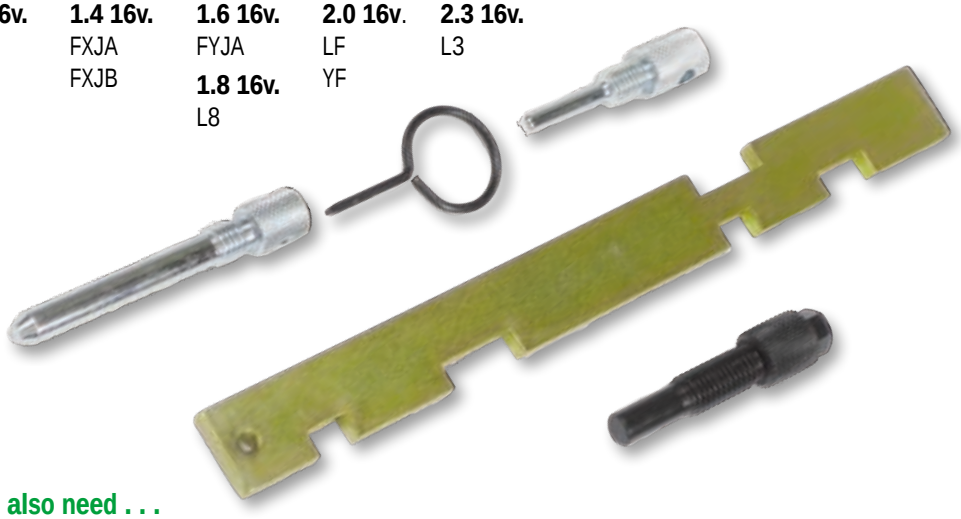
Petrol 1.25 to 2.3 16v. (Belt/Chain) — AST4404C

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)

Also for FORD models

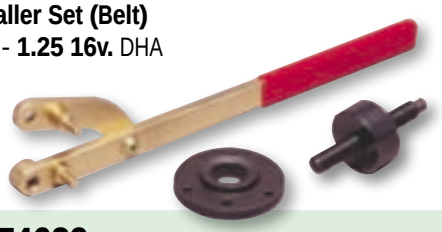
Engines:

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		



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



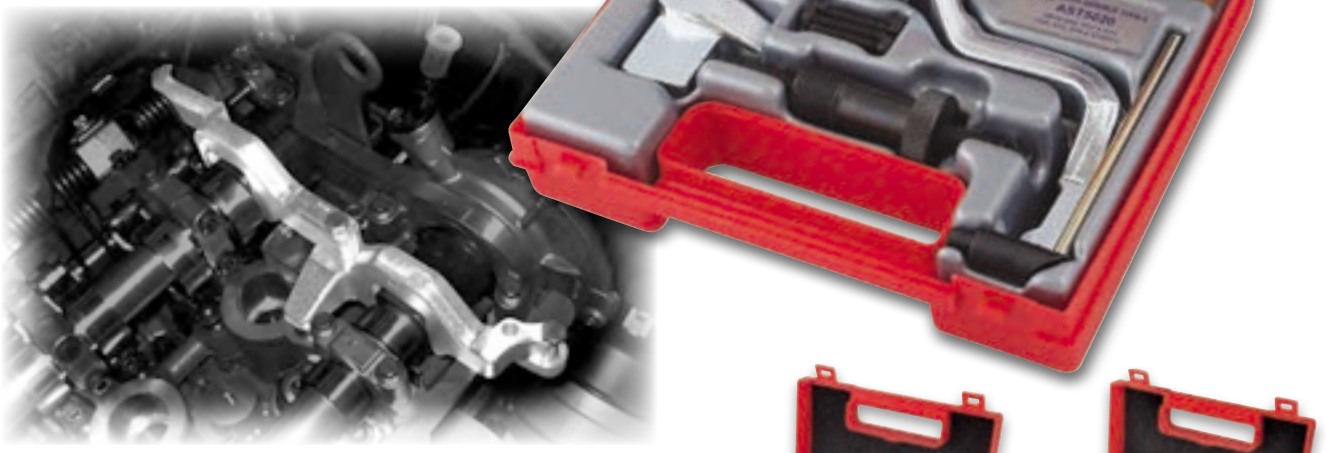
MG-ROVER – see ROVER Timing Tools PAGE 61-62

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)

Also for CITROËN/PEUGEOT models

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



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

Also for HYUNDAI models

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



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)

Also for RENAULT models

Engines:
K9K - 260/270/
272/274/
276/702/
704/710

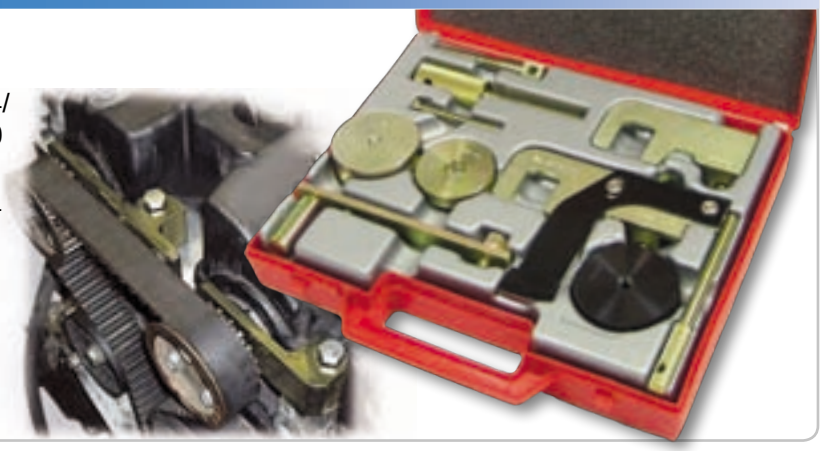


Diesel 1.5 / 1.9 / 2.2 / 2.5 dCi (Belt) — AST4760B

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)

Also for RENAULT and VAUXHALL/OPEL models

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



Diesel 2.0 dCi (Chain) — AST4975

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

Also for RENAULT and VAUXHALL/OPEL models

Engines:
2.0dCi
M9R – 780/830/832/833



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)

Also for RENAULT models

Engines:
K4M – 752/753





OPEL – see VAUXHALL/OPEL Timing Tools PAGE 67-71 **PEUGEOT** – see CITROËN-PEUGEOT PAGE 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



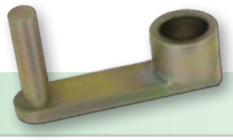
AST3398

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)

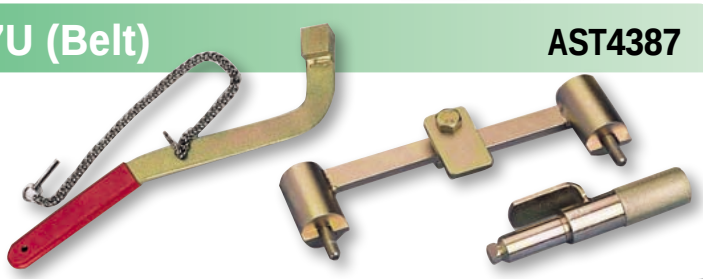
AST4387

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
2.2D/Turbo – G8T 714/716/740/752/760/790/792/794
2.1D Turbo – J8S 620/760



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

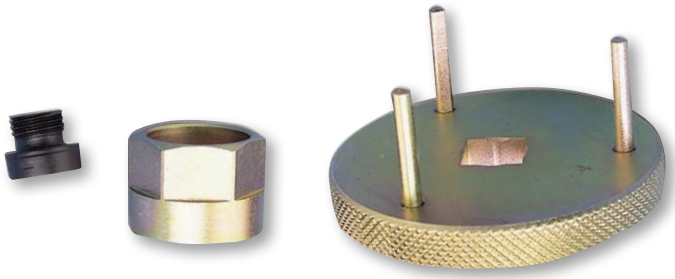
F8Q
F9Q
engines



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)

Also for NISSAN and VAUXHALL/OPEL models

Engines:
2.0dCi
M9R – 700/721/722/724/740/742/746/760/
761/780/802/803/805/830/832/833

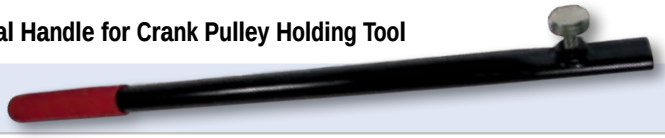




With this Kit you will also need . . .

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





Petrol 1.4 to 2.0 16v. (Belts) — AST4386

Models:

Rover	MG
200/Coupe/Cabrio (92-99)	MG ZR (01-05)
Streetwise (03-06)	MG ZS (01-05)
400/Tourer (90-99)	MG ZT/ZT-T (03-05)
600 (93-99)	MGF (95-02)
800 (91-99)	MG TF (02-05)
25 (99-05)	MG Express (03-05)
45 (99-05)	
75 (99-05)	

Also for LAND ROVER Freelander 1.8K16

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



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

Petrol 2.0 & 2.5 KV6 (Belts) — AST4600/AST4605A

Models:

Rover	MG
45 (99-05)	MG ZR (04-05)
75 (99-05)	MG ZS (01-05)
825 (96-99)	MG ZT/ZT-T (01-05)

Also for LAND ROVER Freelander V6

Engines:

KV6 2.0 & 2.5

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)



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

AST4617

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

AST4614 Crankshaft Pulley Holding Tool



AST4614



Diesel 1.5D, 1.8D/Turbo, 1.9D (Belt) — AST4386

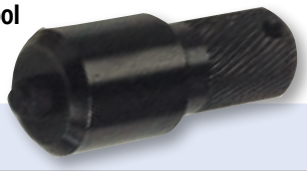
Models:
100 (95-98)
218D (91-95)
418D (94-97)

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)

Also for HONDA & LAND ROVER models

Engines:
2.0D Turbo
20T2N
20T2R
20T



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)

Also for VAUXHALL/ OPEL models

Engines:
Z18XE





Petrol 2.5 / 3.0 V6 (Belt) — AST4145

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

Engines:

2.5 V6	3.0 V6
B258i	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





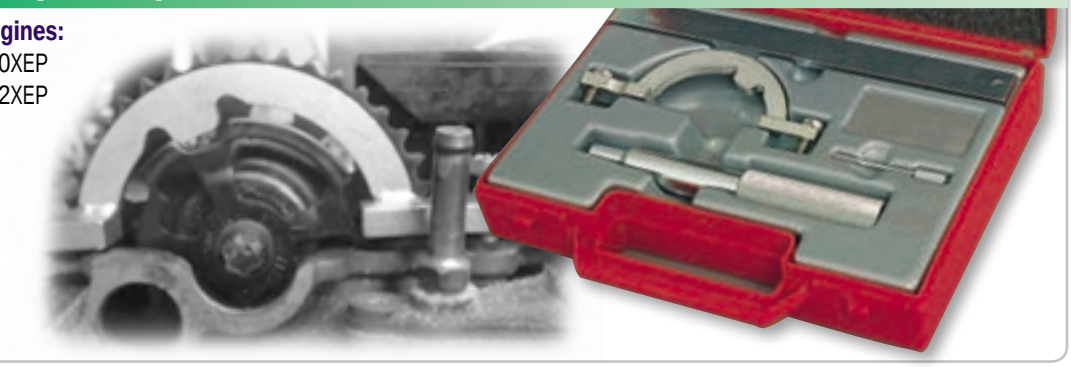
Also for VAUXHALL/OPEL models

SEAT – see VOLKSWAGEN GROUP Timing Tools PAGE 72-80
SKODA – see VOLKSWAGEN GROUP Timing Tools PAGE 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

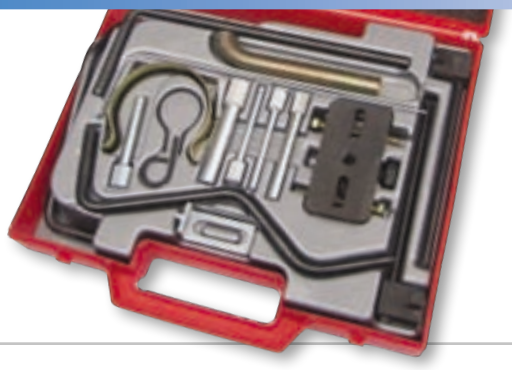


Also for RENAULT, VAUXHALL/OPEL and NISSAN models.

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

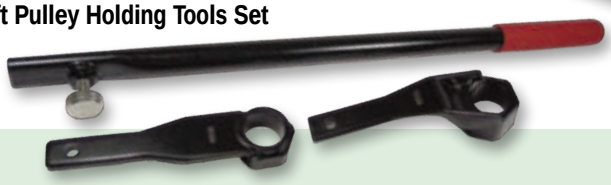
Kit also covers U.S. models - Acura, Honda, Hyundai, Isuzu and Mitsubishi

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:
Chevlolet
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

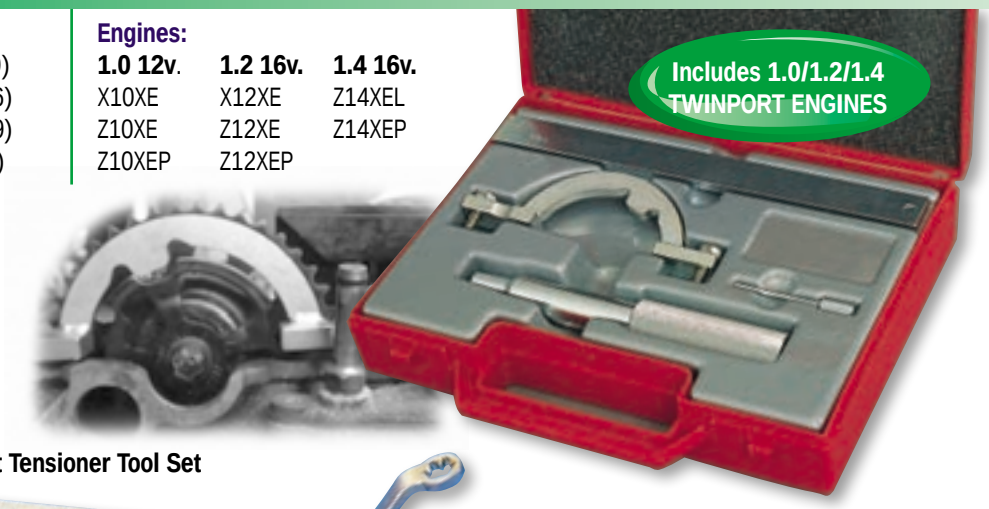
Petrol 1.0 / 1.2 / 1.4 Twin Cams (Chain) — AST4485

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

Also for SUZUKI models

Engines:

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



With this Kit you will also need . . .
AST4490 Auxiliary Belt Tensioner Tool Set



AST4490

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.	Z20LEH
X14XE	C18XEL	Z20LEL
Z14XE	X18XE	Z20LER
	X18XE1	Z20LET
1.6 16v.	Z18XE	**2.2 16v.**
X16SEJ	Z18XEL	X22SE
X16XE	**2.0 16v.**	X22XE
X16XEL	C20SEL	Y22SE
Y16XE	C20XE	Y22XE
Z16XE	X20XEV	Z22XE
Z16YNG		

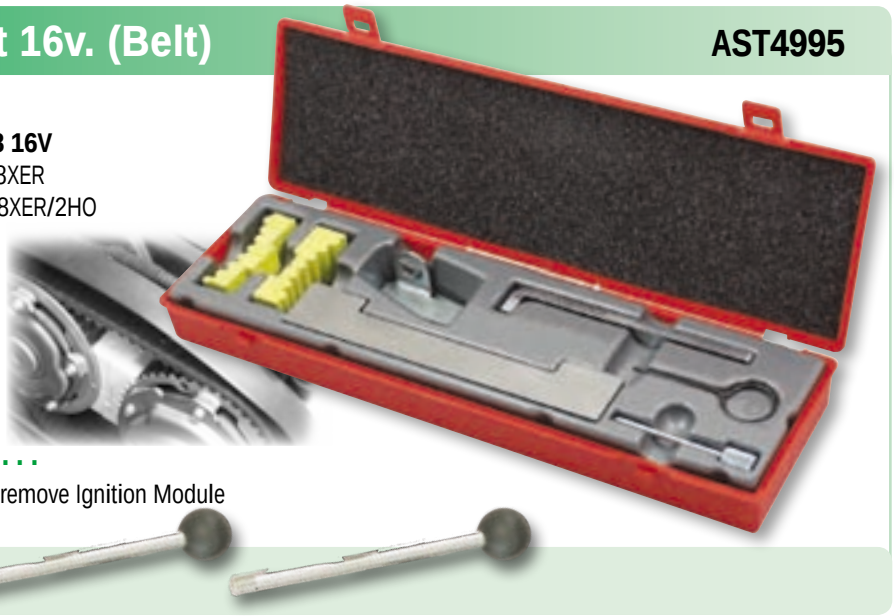


Petrol 1.6 / 1.8 Twinport 16v. (Belt) — AST4995

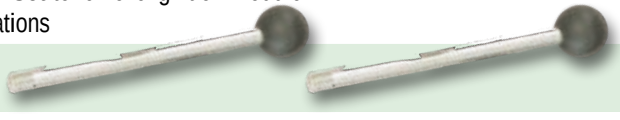
Models:
Corsa-D (07-09)
Astra-G (03-06)
Astra-H (04-09)
Meriva (06-09)
Zafira-B (03-09)
Vectra-C (06-08)
Signum (06-08)
Insignia (08-09)

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

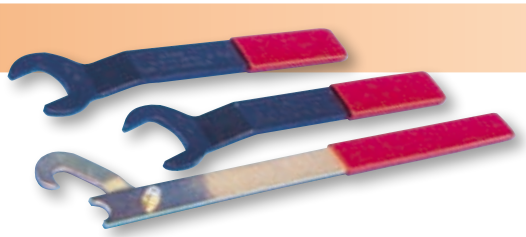
ASTV501A (41mm)
1.2, 1.4, 1.6 s.o.h.c. Petrol
Corsa-B + C, Combo, Astra-F + G, Vectra-B
C12NE, X12SZ, C14NZ, X14NZ, C14SE
X14SZ, X16SZ, X16SZR Z16SE



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)

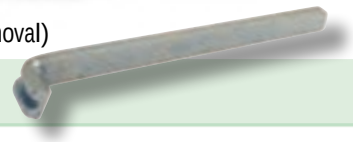
Engines:
F4R
720
722
820





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



AST4768

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)
Cavalier (93-95)
Calibra (93-98)
Signum (03-05)
Omega-B (94-03)
Sintra (96-99)
Also for SAAB models

Engines:
2.5 V6
C25XE
X25XE
2.6 V6
Y26SE
3.0 V6
X30XE
3.2 V6
Y32SE
Z32SE



With this Kit you will also need . . .
AST4558 Guide Roller Adjuster
To pre-set guide rollers prior to belt tensioning

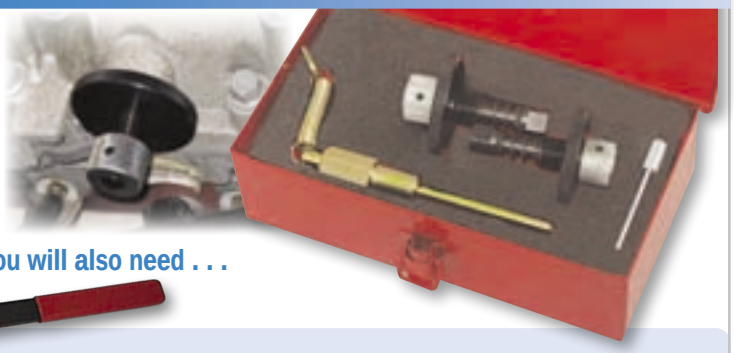


AST4558

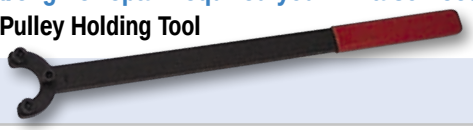
Diesel 1.3D CDTi (Chain) — AST4770

Models:
Agila (03-08)
Agila-B (08-09)
Corsa/Combo-C (03-09)
Corsa-D (08-09)
Tigra-B (04-09)
Meriva (04-09)
Astra-H (05-09)
Also for SUKUKI 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



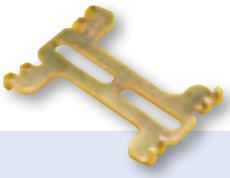
With this Kit you will also need . . .

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
Z19DT
Z19DTH
Z19DTJ
Z19DTL
2.0CDTi
A20DT/LBS
A20DT/LBX
A20DT/LBY
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



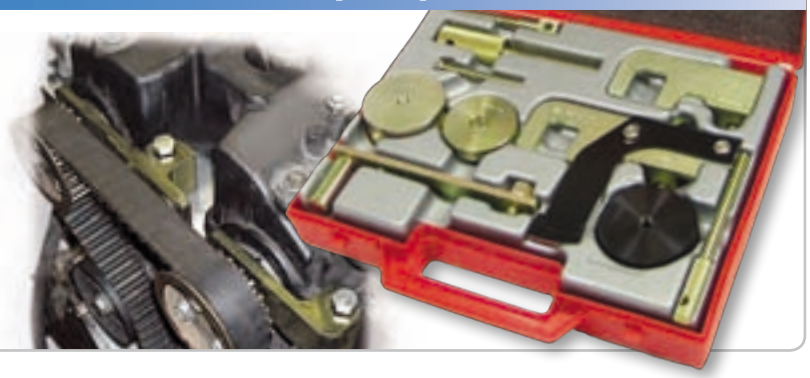
AST4389

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

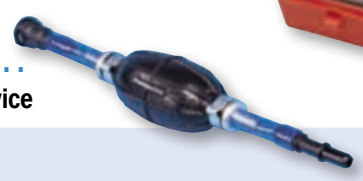
Diesel 2.0DTi / 2.2DTi (Chain) — AST4480

Models:
Astra-G (98-06)
Vectra-B + C (97-05)
Signum (03-05)
Omega-B (98-03)
Zafria-A (99-05)
Sintra (98-99)
Frontera-B (98-04)
Also for SAAB models

Engines:
2.0D
X20DTH
X20DTL
Y20DTH
Y20DTL
2.2D
X22DTH
Y22DTH
Y22DTR



With this Kit you will also need . . .
AST4491 Fuel System Priming Device



AST4491

Diesel 2.0D (Belt)

NEW 2010

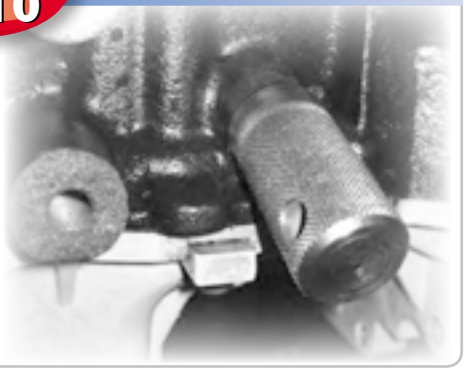
AST5040

Models:
Antara (06-09)

Engines:
Z20DM
Z20DMH

Also for CHEVROLET models





Diesel 2.5D Turbo X25DT (Chain)

AST4411

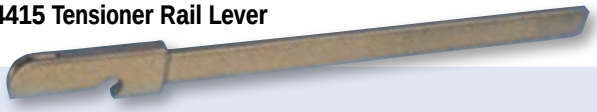
Models:
Omega-B (94-01)

Also for BMW and LAND ROVER models

Engines:
25DT
X25DT



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



AST4415

Diesel 2.5D Turbo Y25DT (Chain)

AST4555A

Models:
Omega-B (01-03)

Also for BMW and LAND ROVER models

Engines:
Y25DT





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)

Also for FIAT, CITROËN/PEUGEOT, IVECO models

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





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



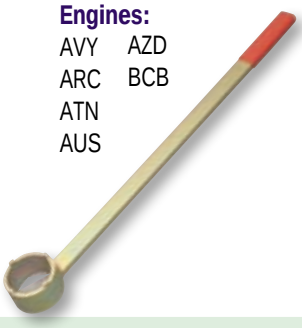


With this Set you will also need . . .
Crankshaft Pulley Holding Tools

Models:

V W
Lupo
Polo
Golf
Bora

Engines:
AVY
ARC
ATN
AUS
AZD
BCB



AST4632

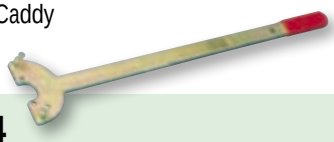
Models:

Audi
A2

Skoda
Fabia/II
Octavia/II
Roomster

V W
Lupo
Polo
Beetle
Golf/Bora
Golf Plus
Caddy

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

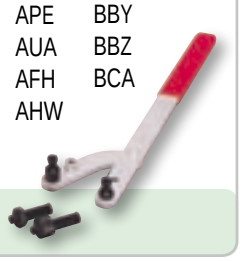


AST4634

Models:

Seat
Arosa
Ibiza/Cordoba
Leon
Toledo
Inca

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



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



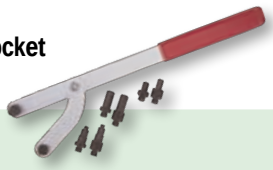
With this kit you will also need . . .

AST3054-10
DTI (Dial Gauge)
for TDC Position Tool



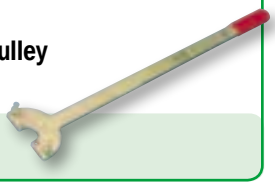
AST3054-10

AST4844
Camshaft Sprocket Holding Tool



AST4844

AST4634
Crankshaft Pulley Holding Tool

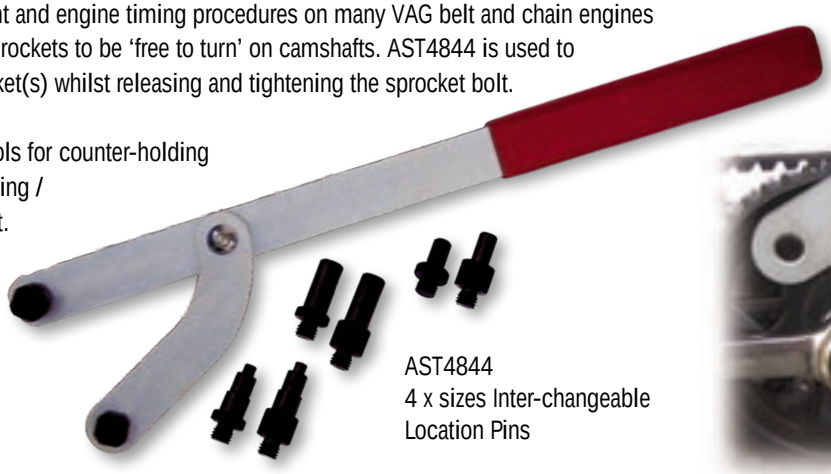


AST4634

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)

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

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)

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

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

1.8T
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
ACE
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





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)

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

Skoda
Octavia (96-06)

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

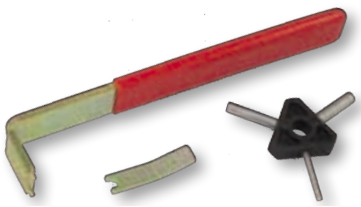
Seat
Ibiza (03-08)
Cordoba (03-08)

Skoda
Superb (02-08)

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

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

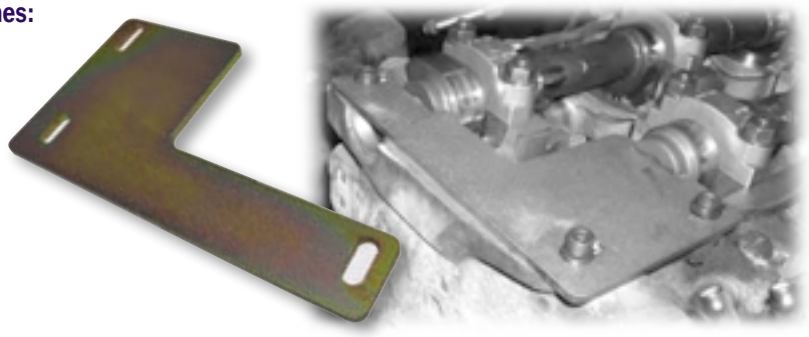
Models:

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)

Also for FORD Galaxy (VR6)

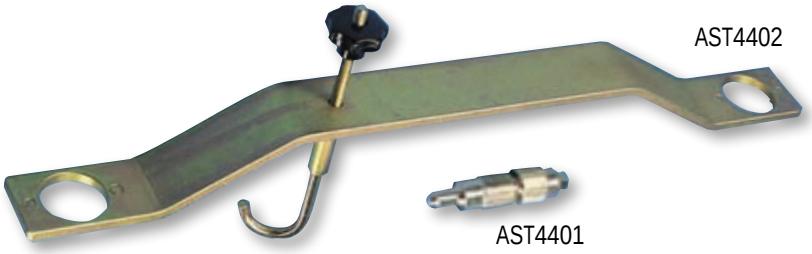
Engines:
AAA
ABV
AES
AGZ
AMY
AQN



Petrol 2.6 / 2.8 V6 (Belt) — AST4454

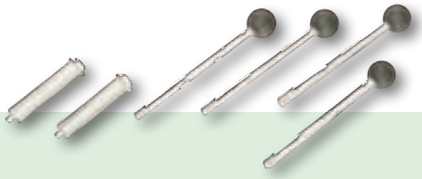
TOOL

Engines:
2.6 V6
ABC
2.8 V6
AAH



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)

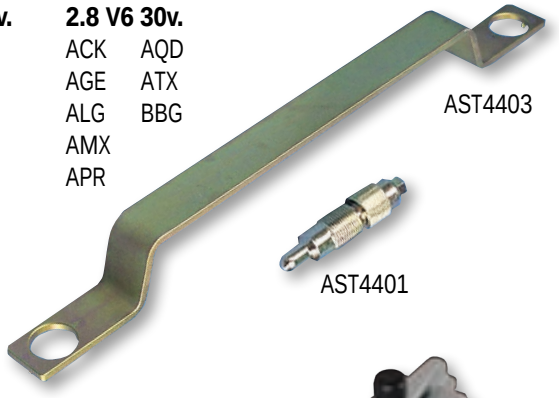
V W
Passat (96-05)

Engines:

2.4 V6 30v.
AGA
AJG
ALF
ALW
AML
AMM
APC
APS
APZ
ARJ
ARN
ASM
BDV

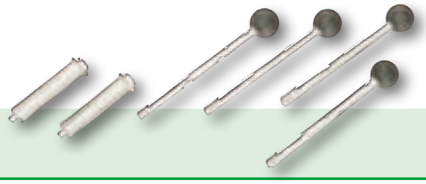
2.7T V6 30v.
AGB
AJK
ASJ
ARE
AZA
AZB
AZR
BES

2.8 V6 30v.
ACK
AGE
ALG
AMX
APR
AQD
ATX
BBG



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

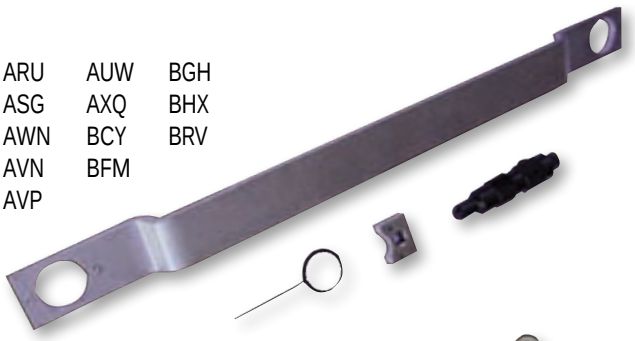
Petrol 3.7 / 4.2 V8 (Belt) — AST4827

Models:

Audi	**V W**
A6 Quattro (99-05)	Touareg (03-07)
S6 (00-04)	Phaeton (03-04)
A8 (99-09)	
S8 (99-03)	
RS6 (03-05)	

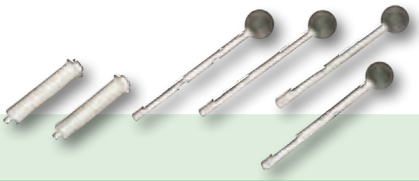
Engines:

3.7 V8	**4.2 V8**			
AKC	ANK	ARU	AUW	BGH
AQG	AQF	ASG	AXQ	BHX
BFL	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

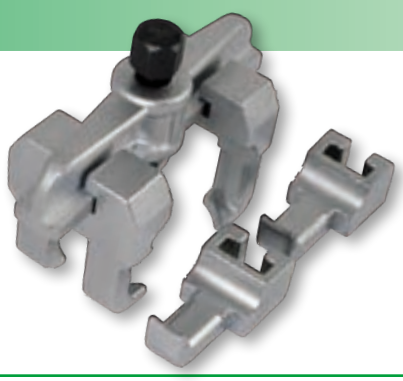


AST4848

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

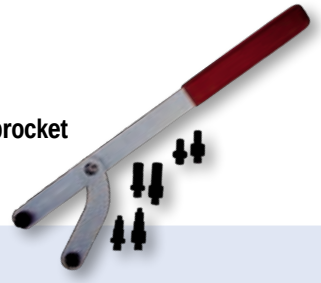
Essential to extend front end to 'Service Position' for access during belt replacement.

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)

V W
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

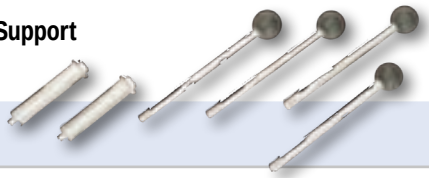
1.9TDi
1Z, AFF, AFN, AGR, AHF, AHH, AHU, ALE, ALH, ASV, AVG



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

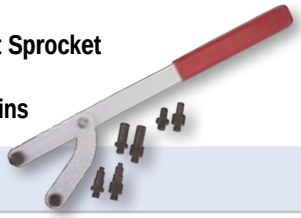
With this Kit you will also need . . .

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)

V W
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

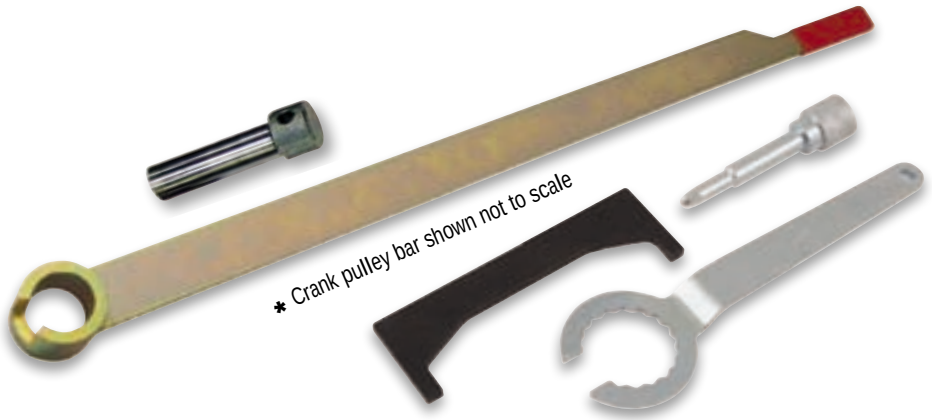
Models:
V W
Transporter (90-03)
LT (96-06)
Crafter (06-09)

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)

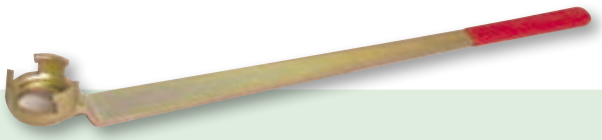
Also for FORD models

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

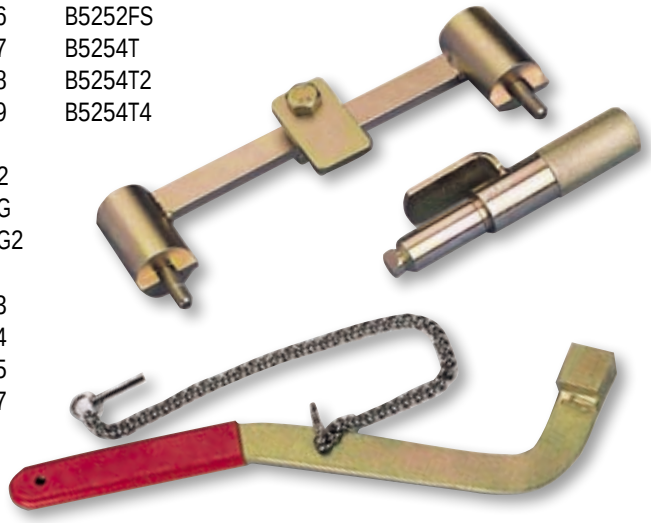
Petrol 1.6 / 1.8 / 1.9 / 2.0 / 2.3 / 2.4 / 2.5 Twin Cams (Belt) — AST4387

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

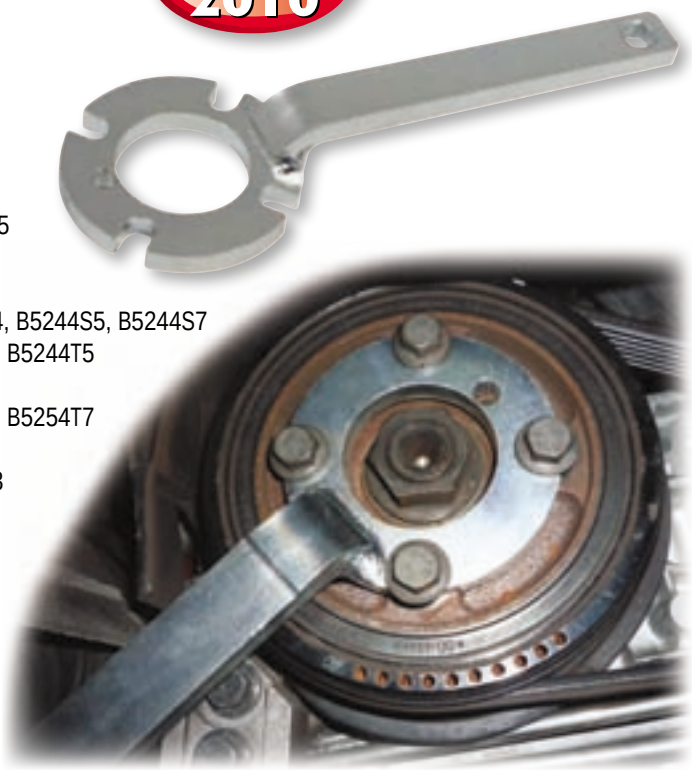
NEW 2010

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

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)

Also for LR Freelander 2 Td4 (2.2D)

Engines:
D4204T
D4204T2

NEW 2010





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.

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.**

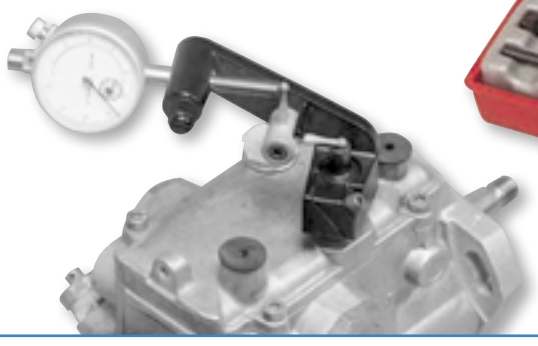
Diesel Injection Pump – Bosch & CAV/Rotodiesel AST4400G



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)**

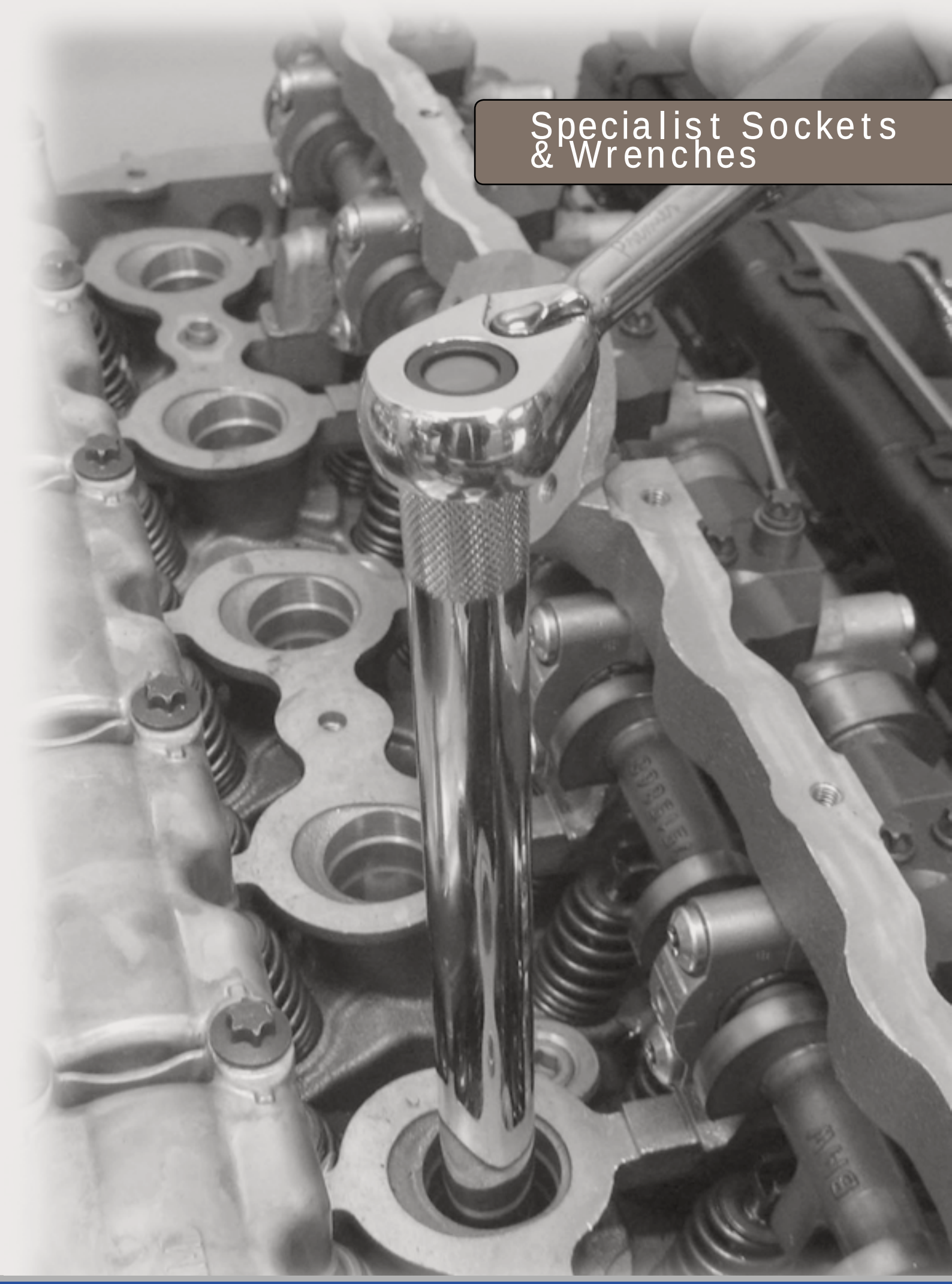
Bosch VE Rotary, Diesel Kiki, Nippondenso pumps – M8, M10 & M12 Service Ports

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	



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



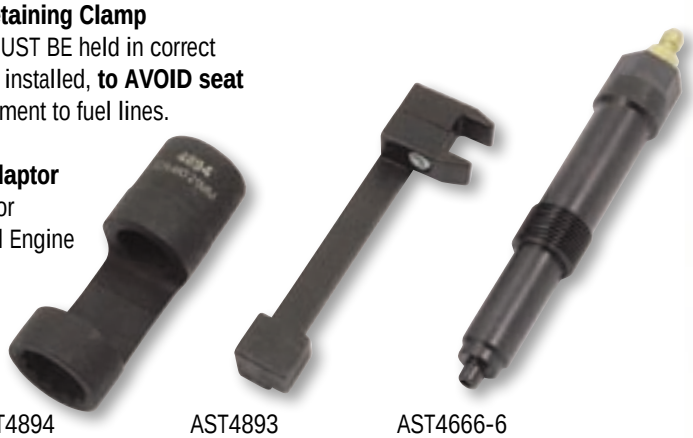
AST4934 Socket Combination Set - Comprises 1 each of the 4 Injector Sockets detailed above.
All Sockets are available separately.

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.



AST4894 AST4893 AST4666-6



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**



VAG Hub Bolt Socket - M18 - ¾" 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.
- **¾" Drive** essential to accommodate torque loadings as high as **200Nm. + 180 degrees.**
- 100mm Long

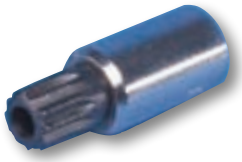






VAG Gearbox – Oil Filler Plug AST4468

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 ¼" drive bit holder.



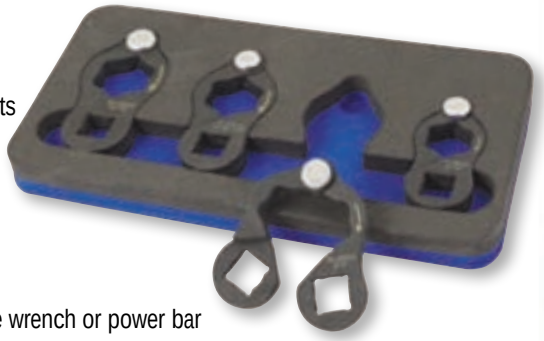
'BUTTERFLY' Socket Set AST6006

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

- **track rod locking nuts**
- **hydraulic and A/C fittings**
- **O^2 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 -

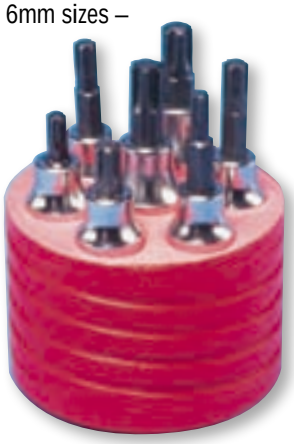
AST4338 - 14mm x 100mm
AST4339 - 13mm x 100mm
AST4340 - 12mm x 100mm
AST4336 - 10mm x 100mm
AST4342 - 8mm x 90mm
AST4343 - 7mm x 90mm
AST4347 - 6mm x 90mm



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.



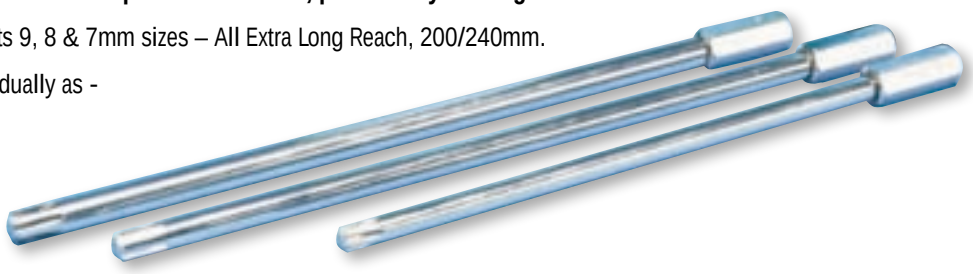
All sockets are also available individually as -

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

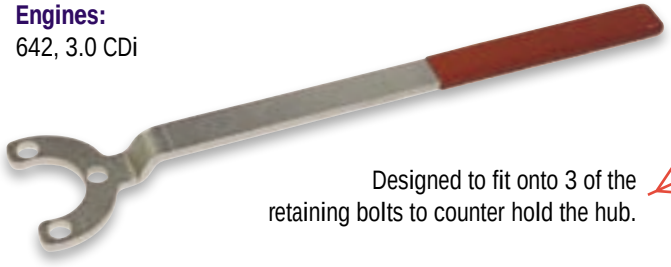
AST3050A – 32mm
AST3051A – 36mm
AST3090 – Counter-Holding Tool



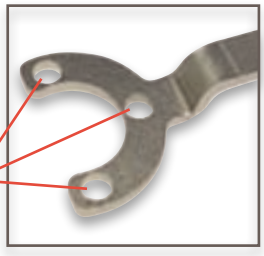
VISCOUS FAN Hub Holding Tool — AST4843

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 – **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 todays 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

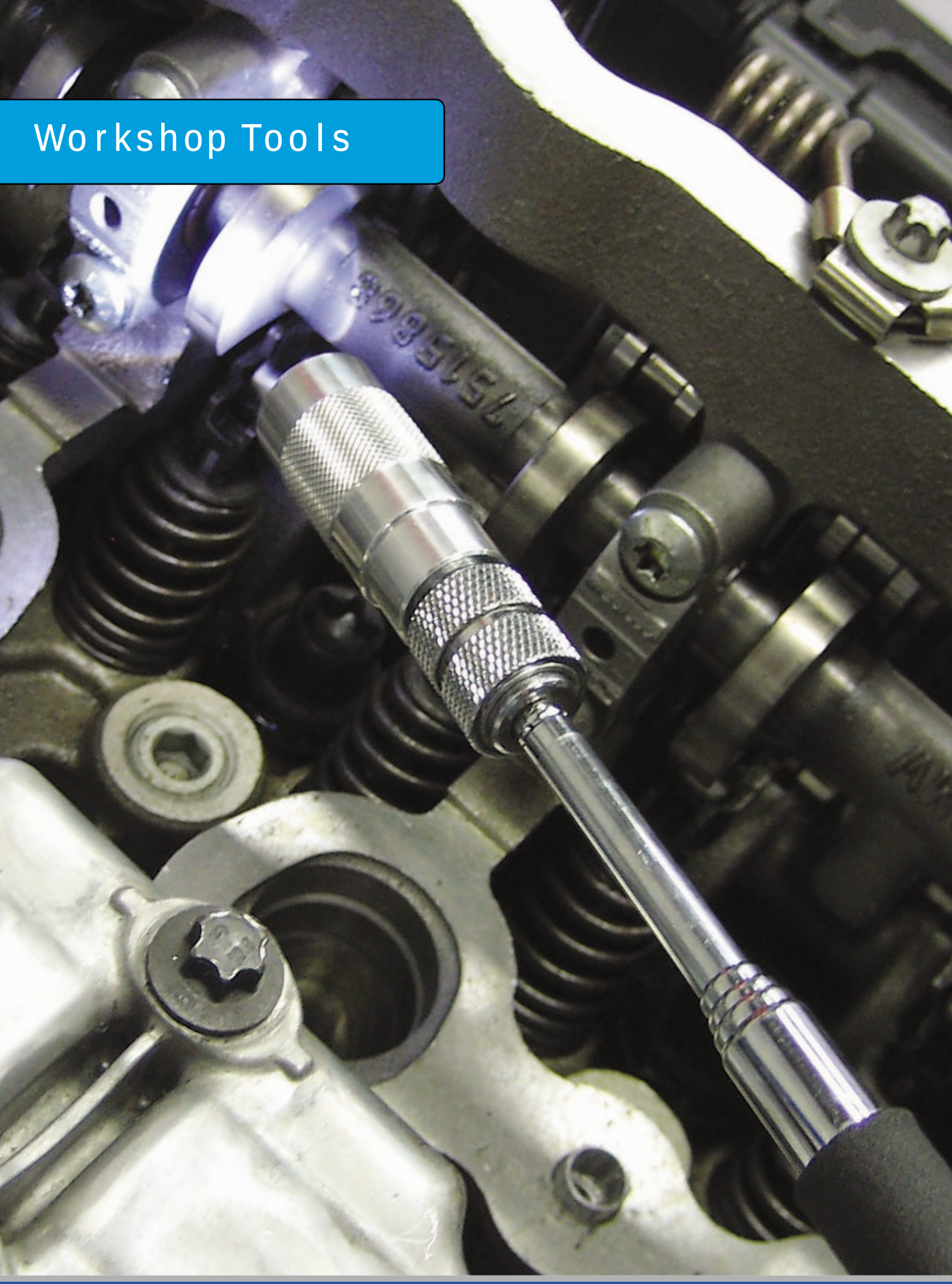
AST6008 EXTRA LONG Socket (150mm) for DEEP SEATED sensors

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

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
- DELPHI
- DENSO
- SIEMENS

} Common Rail Systems



AST6070 Kit includes –

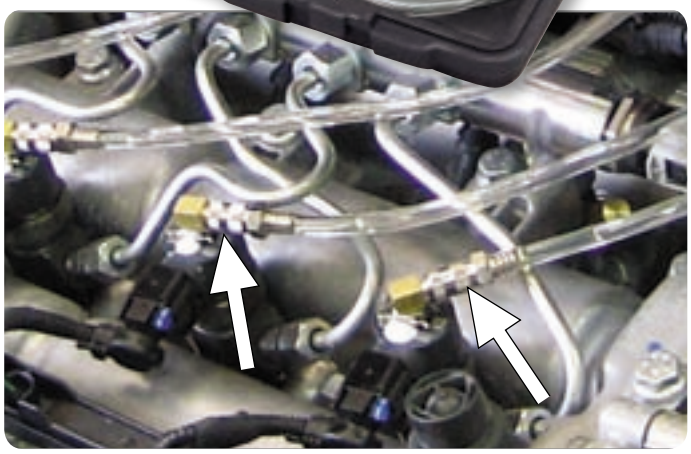
- **HANGING RACK ASSEMBLY with 6 x Graduated Measurement Bottles**
- **6 x Measurement Tubes** (For crank only condition)
- **Range of 4 Adaptor Sets**
- **Blank-Off Tubes and Pinch-Off Pliers**
- **Full Product Instructions**
- **Compartmented Carry / Storage Case**

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 todays 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

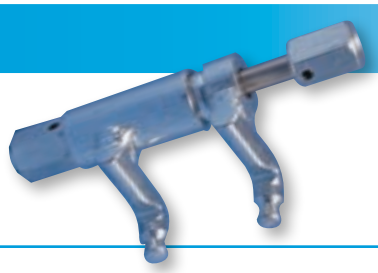


MULTI-POSITION Wrench

Exhaust Clamp Remover & Installer — AST3296

Models:
Volkswagen
Jetta
Golf
Passat

To safely remove and install heavy duty spring type exhaust clamps

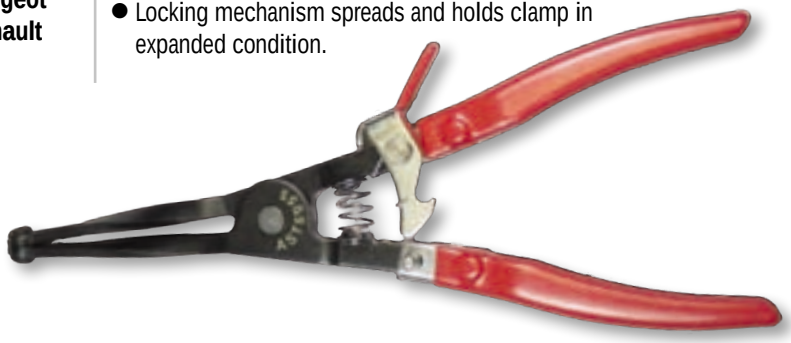


Exhaust Clamp Pliers — AST6055

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.



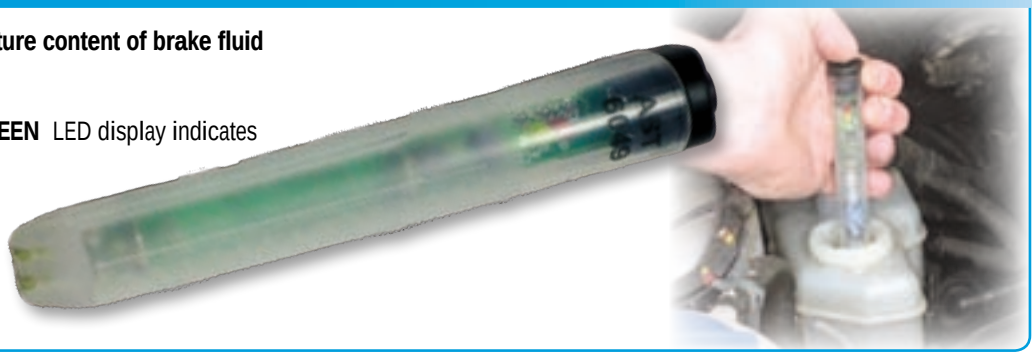
Square:
8mm / 11mm / 13mm / 3/8"

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	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, 90⁰ Elbow and 5 Adaptors, in Storage Case.

Citroën / Peugeot Compression Test Kit — AST4783



Models:

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, 90⁰ Elbow and 6 Adaptors, in Storage Case.

Ford Compression Test Kit — AST4782



Models:

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, 90⁰ Elbow and 6 Adaptors, in Storage Case.

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

"Vehicle Specific" Diesel Engine Compression Test Kits

Renault Compression Test Kit — AST4784

Models:

Renault

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

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, 90⁰ Elbow and 4 Adaptors, in Storage Case.

Vauxhall / Opel Compression Test Kit — AST4785

Models:

Vauxhall/Opel

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

Engines:

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



Kit comprises: Gauge and Hose Assembly, 90⁰ 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, 90⁰ Elbow and 4 Adaptors, in Storage Case.

For Specific Model, Engine code & Adaptor Application Data – see Application Guide on PAGE 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 encounted 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 Compresion Tester comprising:
  - Gauge 0-70 bar / 0-1000 psi
  - Pressure Relief Valve for re-test
  - Quick Coupler System for Adaptors
  - 90^0 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 PAGE 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 Adptors)
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 PAGE 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.

AST4791: Alfa Romeo and Fiat including JTD engines.

AST4792: Ford, including TDCi Duratorq engines.

AST4793: Citroën/Peugeot including HDi engines.

AST4794: Renault including dCi engines.

AST4795: Vauxhall/Opel including CDTi engines.



For Specific Model, Engine code & Adaptor Application Data – see Application Guide on PAGE 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^{0} 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



AST4720
MASTER KIT

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

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**
- **DELPHI**
- **DENSO**
- **SIEMENS**

} **Common Rail Systems**

- **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

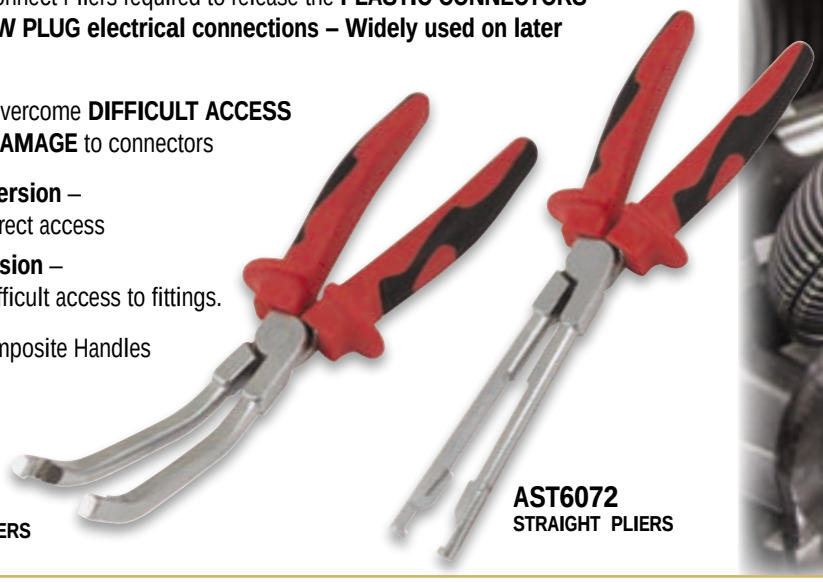
Diesel Glow Plug Connector Pliers

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

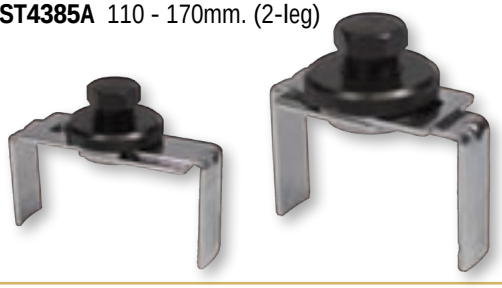
High Quality Removers to release and tighten fuel pump/sender mounting collars on 'In Tank' fuel pumps

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.



AST4680
DELUXE KIT



AST4682
POPULAR KIT

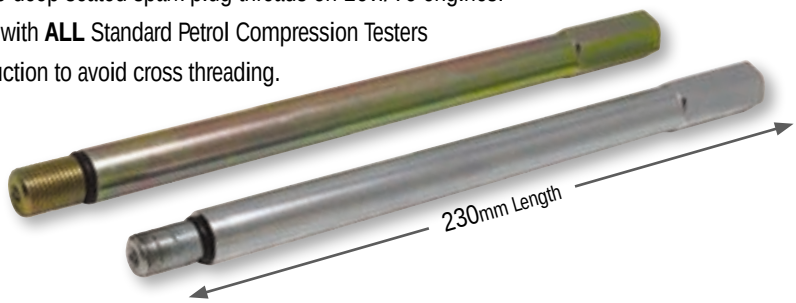


Petrol Engine Long Reach Compression Test Adaptor Set — AST4988

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

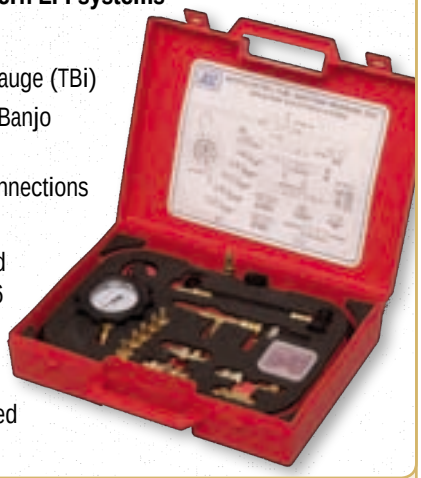


Single Point & Electronic AST4702

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 Guage 0-7 bar / 0-100 psi
- Long Reach Hose - 1 metre with quick coupler system
- 90^0 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"

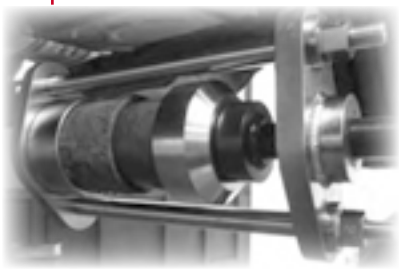
Undercar

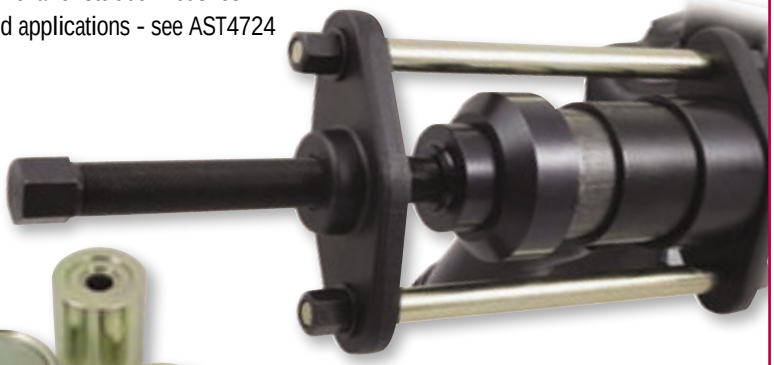


Ford Rear Axle Bush – Fiesta / Puma / Ka — AST4725

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







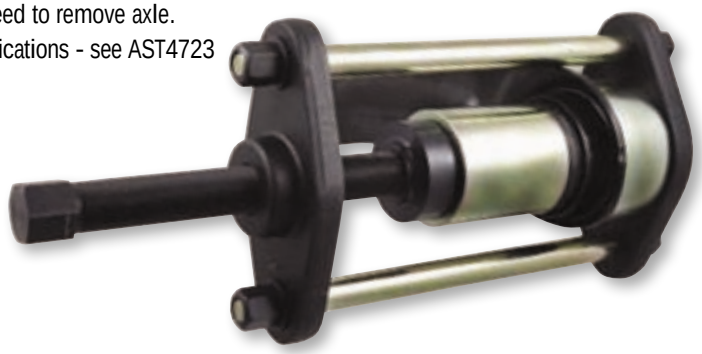
This Kit can also be used for . . .
Ford Focus Rear Trailing Arm bushes using **AST4724** Adaptor set

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).

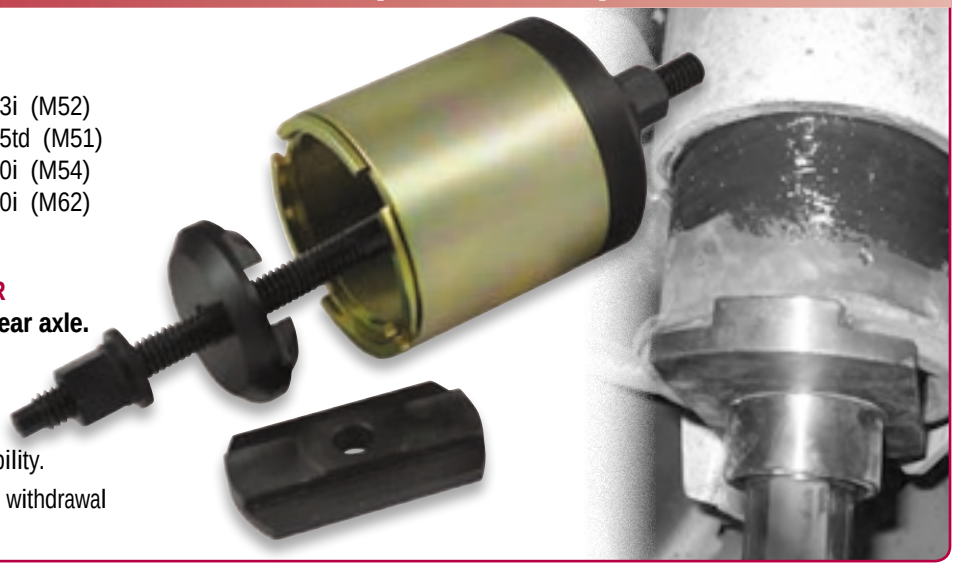
AST4144

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.



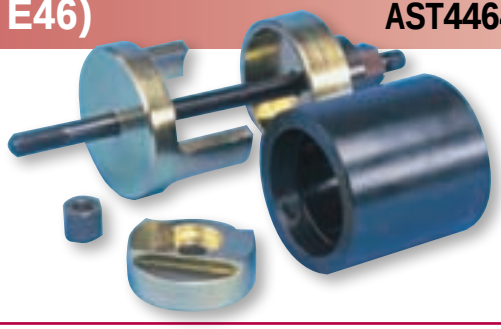
BMW Rear Ball Joint - 5 & 7 Series UPDATED AST4498A

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

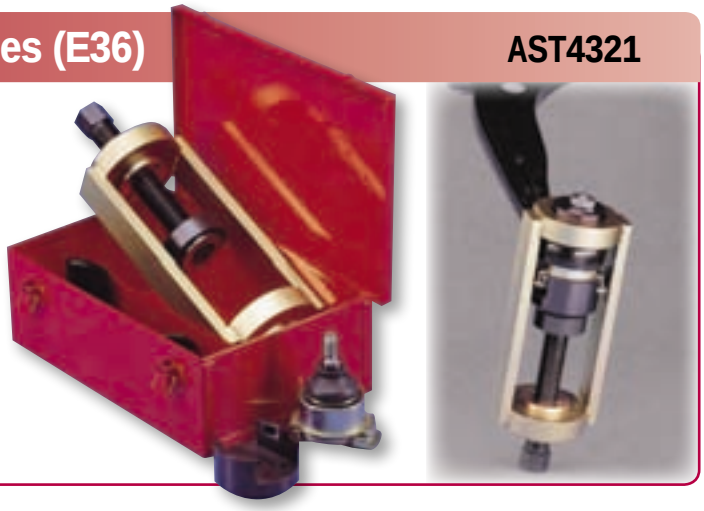


Models:

3 Series E30, E36 Compact, Z3
5 Series E28, E34
6 Series E24
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.

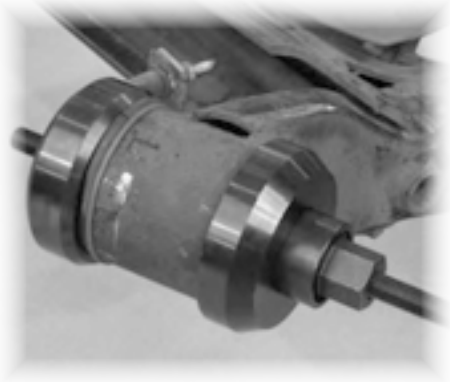
Also available:

AST4184 Hydralic 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 ¾" 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

Most cars & light vans.

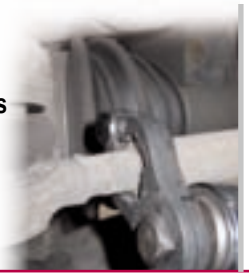


- Two position adjustable jaw opening - 25mm to 47mm.
- Throat width 20mm / Throat depth 33mm.
- Lever/fulcrum action to apply power where access space is limited

'Butterfly' Socket Set — AST6006

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

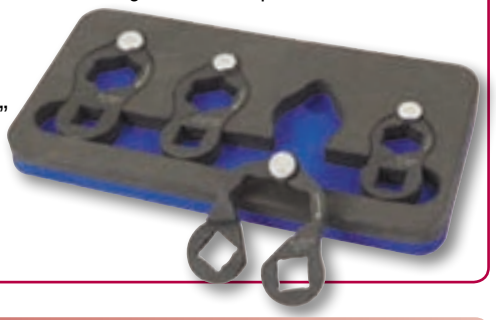
- **track rod locking nuts**
- **hydraulic and A/C fittings**
- **O² sensors**



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"

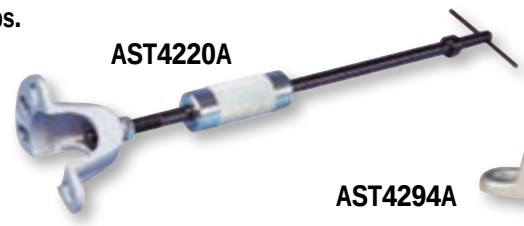
1/2" square drive for use with torque wrench or power bar.



Hub Pullers / Slide Hammer — AST4220A / AST4294A

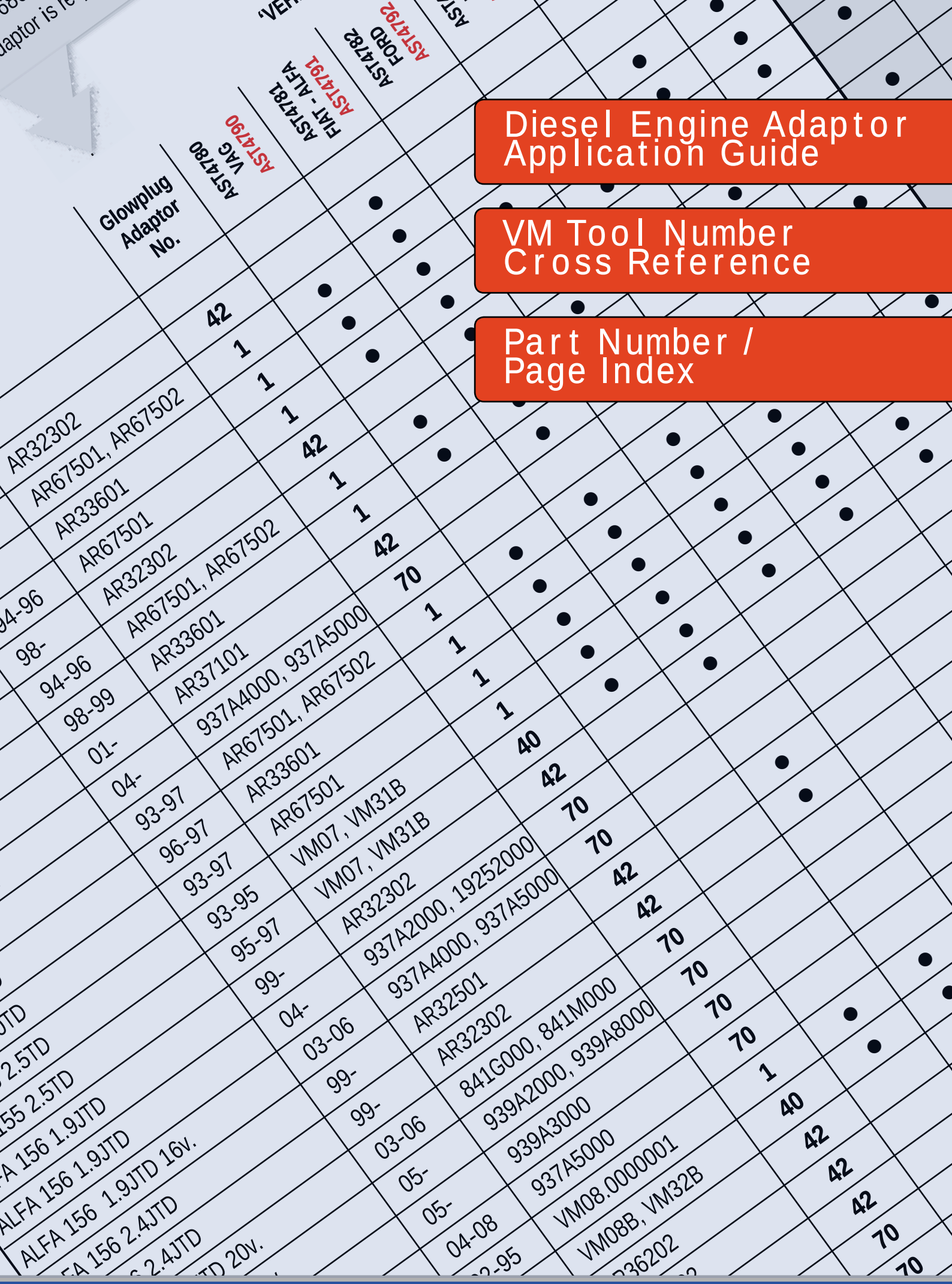
General Hub Pullers suitable for many 4 & 5 Stud Hubs.
PCD range 97.5 to 115.5mm
2 Options available:
AST4294A Hub Puller with **Mechanical Force Screw**
AST4220A Hub Puller with **Slide Hammer**

AST4220A



AST4294A




Diesel Engine Adaptor Application Guide
VM Tool Number Cross Reference
Part Number / Page Index
Glowplug Adaptor No.
AST4780 VAG
AST4790
AST4781 FIAT - ALFA
AST4791
AST4782 FORD
AST4792
42
1
1
1
42
1
1
42
70
1
1
1
40
42
70
70
42
42
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70
70
70
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42
42
42
70
70
AR32302
AR67501, AR67502
AR33601
AR67501
AR32302
AR67501, AR67502
AR33601
AR37101
937A4000, 937A5000
AR67501, AR67502
AR33601
AR67501
VM07, VM31B
VM07, VM31B
AR32302
937A2000, 19252000
937A4000, 937A5000
AR32501
AR32302
841G000, 841M000
939A2000, 939A8000
939A3000
937A5000
VM08.0000001
VM08B, VM32B
94-96
98-
94-96
98-99
01-
04-
93-97
96-97
93-97
93-95
95-97
99-
04-
03-06
99-
99-
03-06
05-
05-
04-08
TD
2.5TD
155 2.5TD
A 156 1.9JTD
ALFA 156 1.9JTD
ALFA 156 1.9JTD 16v.
FA 156 2.4JTD
2.4JTD
TD 20v.

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 AST4686–1**NV**.

				'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
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 Compression/Cylinder Leakage Adaptor Application Guide

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When ordering adaptors always quote the full part number. If the adaptor is required for cylinder leakage applications - add suffix **NV** – example AST4686–1**NV**.

				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE **AUDI - CONTINUED**	**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 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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				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE **CITROEN - CONTINUED**	**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 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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				'VEHICLE SPECIFIC' TEST KITS							'MULTI-MARQUE' TEST KITS		
VEHICLE **DAEWOO - CONTINUED**	**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
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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				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE **FIAT - CONTINUED**	**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
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 **FORD - CONTINUED**	**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 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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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**
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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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
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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				'VEHICLE SPECIFIC' TEST KITS						'MULTI-MARQUE' TEST KITS		
VEHICLE **MERCEDES - CONTINUED**	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
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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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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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
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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VEHICLE PEUGEOT - CONTINUED	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
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	●	●	●	●	●	●		●	●	●
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	●	●	●	●	●	●		●	●	●
PEUGEOT BOXER 1.9D	94-95	XUD9, DJY, D9B	1	●	●	●	●	●	●		●	●	●
PEUGEOT BOXER 1.9D	95-98	XUD9, DJY, D9B	1	●	●	●	●	●	●		●	●	●
PEUGEOT BOXER 1.9TD	98-	XUD9TE, XUD9UTF	1	●	●	●	●	●	●		●	●	●
PEUGEOT BOXER 1.9TD	94-98	XUD9TE, XUD9TFU	1	●	●	●	●	●	●		●	●	●
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 (RHX, 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	●	●	●	●	●	●		●	●	●

Diesel Engine Compression/Cylinder Leakage Adaptor Application Guide

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When ordering adaptors always quote the full part number. If the adaptor is required for cylinder leakage applications - add suffix **NV** – example AST4686–1**NV**.

				'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**
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**	●	●	●	●	●	●	●	●	●

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				'VEHICLE SPECIFIC' TEST KITS							'MULTI-MARQUE' TEST KITS		
VEHICLE **RENAULT - CONTINUED**	**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 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**	●	●	●	●	●	●	●	●	●

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
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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				'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												
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**				●		●	●	●	●

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VEHICLE **VAUXHALL/OPEL - CONTINUED**	**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
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**	●	●	●	●	●	●	●	●	●

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VEHICLE **VOLKSWAGEN - CONTINUED**	**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**
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	●	●	●	●	●	●	●	●	●

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**. When ordering adaptors always quote the full part number. If the adaptor is required for cylinder leakage applications - add suffix **NV** – example AST4686–1**NV**.

				'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 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
Acura (Timing Kits - US Market)			
07LAG-PT20100	AST4643	AST4645/AST4660	65,66
07MAB-PY3010A	AST4936		65,66
07NAB-001040A	AST4936		65,66
14540-P8A-A01	AST4571	AST4645/AST4660	65,66
Alfa Romeo			
A7.0333	AST4398G	Diesel Pumps	25
1.822.146.000	AST4394	Universal Timing	5
1.822.147.000	AST4774		9
1.822.149.000	AST4529	AST4910/AST4970	9,11
1.822.154.000	AST4549	AST4910/AST4970	9,11
1.825.013.000	AST4519		9
1.825.040.000	AST4591	AST4590	10
1.825.041.000	AST4905	AST4910/AST4970	9,11
1.825.042.000	AST4905	AST4910/AST4970	9,11
1.860.898.000	AST4528	AST4910/AST4970	9,11
1.860.905.000 +			
1.860.905.010	AST4543A	AST4850/AST4970	11
1.860.950.000	AST4592	AST4590/AST4890	10
1.870.646.000	AST4892		10
1.870.684.000	AST4622	AST4701 Engine Test	111
1.870.734.000	AST4905	AST4910/AST4970	9,11
1.870.797.000	AST4905	AST4910/AST4970	9,11
1.870.849.000	AST4891	AST4890	10
1.870.859.000	AST4905	AST4910/AST4970	9,11
1.870.896.900	AST4776	AST4850	11
2.00000.3000	AST4543A	AST4850/AST4970	11
2.000012000	AST4998	AST4995	10
2.000012100	AST4997	AST4995	10
2.000012800	AST4996	AST4995	10
Audi - see Volkswagen Group			
BMW			
11.0.300	AST5001	AST5000	15
11.2.300	AST4146-2	AST4146/AST4411/ AST4425/AST4555A	12,14,17
11.3.190	AST4146-1	AST4146	12
11.3.240	AST4309	AST4425	14
11.3.290	AST4311	AST4425	14
11.3.292	AST4311	AST4425	14
11.3.320	AST4412	AST4411	16
11.3.340	AST4413	AST4411/AST4555A	16,17
11.3.360	AST4415		16
11.3.390	AST4323	AST4425	14
11.3.450	AST4896	AST4895	14
11.4.220	AST4323	AST4425	14
11.4.280	AST5002	AST5000	15
11.4.281	AST5002	AST5000	15
11.4.282	AST5002	AST5000	15
11.4.283	AST5002	AST5000	15
11.4.290	AST5003	AST5000	15
11.4.360	AST5019	AST5045	12,13
11.5.030	AST3090	Viscous Fan	16
11.5.040	AST3050A	Viscous Fan	16
11.5.120	AST4801	AST4800/AST4870	12,13
11.5.140	AST5017	AST5045	12,13
11.5.180	AST4886	AST4555A	17
11.5.320	AST5011	AST5010	17
11.5.490	AST4312		14
11.6.080	AST4887	AST4555A	14
11.6.150	AST4897	AST4895	14
11.6.180	AST4898	AST4895	14
11.6.320	AST4551 AST4552	AST4555A	17
11.6.321	AST4551	AST4555A	17
11.6.322	AST4552	AST4555A	17
11.6.480	AST5013	AST5010	17
11.7.251	AST4868-2	AST4870	12
11.7.252	AST4868-1	AST4870	12
11.7.253	AST4805-3	AST4870	12
11.7.260	AST4869	AST4870	12
11.8.520	AST5004	AST5000	15
11.8.740	AST5014		17
11.8.760	AST5012	AST5010	17
11.9.110	AST4424	AST4425	14
11.9.190	AST4801	AST4800/AST4870	12,13
11.9.270	AST4802	AST4800	13
11.9.280	AST5018	AST5045	12,13
11.9.290	AST4805	AST4800	13
11.9.291	AST4805-2	AST4800	13
11.9.292	AST4805-1	AST4800	13
11.9.293	AST4805-3	AST4800	13
11.9.300	AST4816 + AST4817	AST4815	13
11.9.301	AST4817	AST4815	13
11.9.302 + 11.9.303	AST4816	AST4815	13
11.9.310	AST4818	AST4815	13
11.9.320	AST4819	AST4815	13
11.9.330	AST5016	AST5045	12
11.9.340	AST4803	AST4800/AST5020/ AST5025/AST5030	13
11.9.350	AST4804	AST4800	13
11.9.390	AST4814	AST4815	13
13.5.120	AST4414	AST4411	16
13.5.190	AST4553		17
13.5.330	AST4398G	Diesel Pumps	25
31.1.441 to 31.1.448	AST4321	Undercar	116
33.3.340 with 324 222/223/145/314/ 228/227/144/ + 00.8.550	AST4464	Undercar	116
33.3.111 with 101 103/104/107/115/ 112/121/122/123/ + 00.8.550	AST4465	Undercar	116
33.4.140/151/152 153/154/155	AST4971	Undercar	115
33.4.140/155/156 157/158/159	AST4972	Undercar	115
Chevrolet (Daewoo)			
EN-852	AST3032-17	AST4620	18
EN6333	AST4593-1F	AST4995	18
EN-6340	AST4997	AST4995	18
EN-6625	AST4996	AST4995	18
EN-42492	ASTV501A		18
EN-48245	AST5042	AST5040	18
EN-48246	AST5041	AST5040	18
J-424492	ASTV501A		18
KM-421A	ASTV501A		18
Chevrolet (Timing Kits - US Market)			
J38613-A	AST4573	AST4653/AST4660	65,66
Chrysler (Timing Kits-US Market)			
C-4703	AST4579	AST4645/AST4660	65,66
MB998767	AST4577	AST4645/AST4660	65,66
Chrysler-Jeep			
1026	AST4842		
6721	AST4746	AST4745A	19
6827	AST4744	AST4745A	19
Mot854	AST4365	AST4390	19
Mot861	AST4360R1	AST4390	19
VM1011	AST4399	Diesel Pumps	19
VM1013	AST3054-10	Diesel Pumps	19
VM1051	AST4948	AST4945A	19
VM1052	AST4946CH2	AST4945A	19
VM1053	AST4946CH1	AST4945A	19
VM1056	AST4949	AST4945A	19
VM1068	AST4947	AST4945A	19
VM1080	AST4929	AST4945A	19
VM8873	AST4928	AST4945A	19
Citroen - see PSA			
Daihatsu (Bosch Pump Timing)			
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Dodge (Timing Kits - US Market)			
C-4703	AST4579	AST4645/AST4660	65,66
MD998738	AST4578	AST4645/AST4660	65,66
MD998752(-01)	AST4577	AST4645/AST4660	65,66
MD998767	AST4577	AST4645/AST4660	65,66
Eagle (Timing Kits - US Market)			
MD998738	AST4578	AST4645/AST4660	65,66
MD998752(-01)	AST4577	AST4645/AST4660	65,66
Fiat			
1860161000	AST3398		29
1860617000	AST4360C4	AST4865	33
1860638000	AST4866	AST4865	33
1860680000	AST4523		29
1860703000	AST3398		29
1860766000	AST4542	AST4545	33
1860771000	AST4523		29
1860831000	AST4394	Universal Timing	5
1860831001	AST4394	Universal Timing	5
1860845000	AST4529	AST4915/AST4920	30
1860847000	AST4906	AST4915/AST4920/ AST4970	30,31
1860848000	AST4394	Universal Timing	5
1860863000	AST4360C6	AST4545	33
1860874000	AST4521	AST4520A	29
1860875000	AST4906	AST4915/AST4920/ AST4970	30,31
1860876000	AST4522A	AST4520A	29
1860885000	AST4394	Universal Timing	5
1860892000	AST4907	AST4920	30
1860895000	AST4519		29
1860898000	AST4528	AST4915/AST4920	30
1860899000	AST4517	AST4515	28
1860901000	AST4516	AST4515	28
1860905000 + 1860905010	AST4543A	AST4545/AST4850	32
1860962000	AST4907	AST4920	30
1860965000	AST4360C2	AST4545	33
1860985000	AST4512	AST4510A	28
1860987000	AST4513	AST4510A	28
1860992000	AST4511	AST4510A	28
1865090000	AST4398G	Diesel Pumps	25
1865091000	AST3168G	Diesel Pumps	25
1865584000	AST3054-10	Diesel Pumps	25
1870684000	AST4622	AST4701Test Kits	111
1870697000	AST4907	AST4915/AST4920/ AST4970	30,31
1870828000	AST4907	AST4915/AST4920/ AST4970	30,31
1870896900	AST4776	AST4850	32
1870900300	AST4884	AST4880	32
1870900400	AST4883	AST4880	32
1871000100	AST6053	Workshop Tools	95
1871000200	AST4882	AST4880/AST4885	32
1871000900	AST4771	AST4880/AST4885	32
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2000012800	AST4996	AST4995	29
2000015800	AST4911	AST4510A	28
2000022500	AST4735P16	AST4735A	32
2000023000	AST4735P15	AST4735A	32
2000023100	AST4735P15	AST4735A	32
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2000004500	AST4951	AST4510A/AST4950	28
99360614	AST4926	AST4925	33
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13-006	AST3080C	Undercar	118
15-030	AST4394	Universal Timing	5
15-030A	AST4628	AST4629	37
15-046	AST3054-10	Diesel Pumps	25
15-097A	AST4144	Undercar	114
21-104	AST3026	AST4331/AST4830	34,35
21-105	AST4115A-1	AST4331	35
21-123	AST3054F3	AST4331	35
21-162B	AST4933	AST4331/AST4404C/ AST4830	34,35,37
21-163	AST3032-19	AST4404C	37
21-168	AST4407	AST4830/AST4834	34,38
21-175	AST3276	Sockets	90
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21-210	AST3032-18	AST4404C	37
21-214	AST4627	AST4629	37
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21-229	AST4408	AST4830	34
21-234	AST4727	AST4730/AST4731	36
21-236	AST4894	Sockets	87
21-238	AST4726	AST4730	36
21-240/ 21-240-01	AST4729	AST4730	36
21-251	AST4728	AST4730/AST4731	36
21-258	AST4893	Sockets	87
21-259	AST3032-21	AST4404C	37
21-260	AST4735P15	AST4735A	35
21-262	AST4735P16	AST4735A	35
21-263	AST4735P17	AST4735A	35
23-018	AST4398G	Diesel Pumps	25
23-019	AST3054F2	AST4331	35
23-020	AST3054F5	AST4331	35
23-028	AST3168G	Diesel Pumps	25
23-029	AST3054F4	AST4331	35
23-034	AST4173W	Sockets	86
23-047	AST3054V3	AST4331	35
23-058	AST4638	AST4840	35
23-059	AST4636	AST4840	35
24-002	AST3050A + AST3051A	Viscous Fan Viscous Fan	38 38
205-072	AST4394	Universal Timing	5
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205-342 205-342-01 205-342-02	AST4725	Undercar	114
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303-098	AST4394	Universal Timing	5
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303-376	AST4933	AST4404C/AST4830/ AST4930	34,37,38
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303-393	AST4407	AST4834/AST4830	34,37
303-393-01	AST4834-1	AST4834/AST4830	34,37
303-393-02	AST4834-2	AST4834/AST4930	37,38
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