

Engine Management

Diesel Timing Adaptor

303070

Diesel Timing Adaptor

Simple to use Diesel Timing Adaptor, suitable for use on a wide range of car and commercial diesel engines. Provides the user with the ability to measure RPM directly, and when connected via a Digital Timing Light, the ability to check and adjust dynamic timing.

- Connects to the vehicle via piezo electric transducers.
- Measures engine speed (0 - 6000RPM).
- Checks and adjusts dynamic timing.
- Features unique 'Trigger Stabilisation System' to ensure stability of readings.
- Supplied with 6mm piezo electronic transducer (other sizes also available)
- To be used in conjunction with a Timing Light (not supplied).

Optional Transducers

300543 6mm Popular Car / LCV Diesel applications (supplied with unit)

300542 4.5mm for Mercedes Vehicles

300544 6.35mm (1/4") for SAE applications

300546 8mm for HGV / PSV / Plant applications



Engine Management

Brake Service & Service Light Reset Tools

303690

Fiat, Alfa, Lancia Service Light Reset Tool

- Compatible with latest Fault Tolerant CAN vehicles.
- Also compatible with Alfa 159/Brera and Lancia Musa.
- CAN BUS Fault indicator.
- In addition to service reset, the tool has been designed to display a warning lamp when a fault on the CAN bus is present, thus serving as a useful diagnostic aid for all vehicle systems.
- Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within the vehicle without a host computer.

Application List

Vehicle	Model	Year	Fuel	Engine
Alfa Romeo Service Reset				
159	All variants	05-07	P/D	All
Brera	All variants	05-07	P/D	All
Fiat Service Reset				
Bravo	All variants	05-07	P/D	All
Croma	All variants	05-07	P/D	All
Ideal	All variants	05-07	P/D	All
Linea	All variants	05-07	P/D	All
Panda	All variants	06-07	P/D	All
Stilo	All variants	01-07	P/D	All
Lancia Service Reset				
Musa	All variants		P/D	All



Brake Service & Service Light Reset Tools

303694

Mercedes SBC Brake Service Tool

- Compatible with latest CAN vehicles.
- Enable and Disable SBC systems for safe working practices.
- Clears errors from the SBC system after carrying out service and repairs.
- This SBC tool has been created to allow our users to service and replace brake pads and components used in the SBC systems which have been fitted on a number of Mercedes vehicles (W211 and R230) since MY2003.
- The SBC system incorporates various systems which have previously been separate, ABS, ASR, BAS, ESP and ETS.
- The SBC system can be "woken up" by opening a door, operating the central locking, depressing the brakes, turning on the ignition or operating the park brake. When this occurs the system runs pre-checks which include a pressurisation of the braking system. If the brakes are either being worked on or are dismantled when these pre-checks occur it can lead to personal injury or damage to parts of the calliper and pad assembly. The SBC tool allows you to disable the system during service and repair work, thus allowing a safe working environment for the user.
- Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within the vehicle without a host computer.



Mercedes SBC – Mercedes Benz were one of the first vehicle manufacturers to employ a brake-by-wire system on a car. Called sensotronic (SBC), the system no longer relies on the driver to produce hydraulic pressure. The brake pedal is connected to the computer (ECU) by wire (brake-by-wire). The sensors on the brake pedal will inform the computer how the pedal is pressed, eg how far, how fast etc. The computer will then dissipate the required force to each wheel via modulators. Fitted to higher end Mercedes (E Class, SL & CL Class, CLS etc) problems can occur with the ECU.

Application List

Vehicle	Model	Year	Fuel	Engine	Engine Management Systems
Mercedes SBC					
SL (230)	All	03-06	P/D	All	All supported SBC
E-Class (211)	All	03-06	P/D	All	All supported SBC

303692

Volvo Service Light Reset Tool

- Compatible with the latest CAN enabled systems.
- Special Uniplex adaptor supplied for CAN.
- Covers all models with 16 pin EOBD socket.
- Automatic model selection.
- Resets Dashboard Service Indicators.
- Resets Driver Information.
- Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within the vehicle without a host computer.



Application List - Volvo

Model	Year	Engine Management Systems
850	96-98	Instruments
S40, V40	96-04	Instruments
S40, V40, V50	04-05	Driver Information Module
S60	01-05	Driver Information Module
S70, V70	97-98	Instruments
S70, V70	98-00	Combi
S70, V70, S80, XC70	01-05	Driver Information Module
XC90	03-05	Driver Information Module

Brake Service & Service Light Reset Tools

303691

VAG Service Light Reset Tool

- Compatible with latest CAN vehicles.
- Resets service lights on all VW/Audi/Seat Skoda vehicles.
- Long life/Standard Life servicing.
- Airbag warning light reset function.
- The reset tool has been developed with "long life Oil" service interval functionality.
- In addition to service reset, the tool has been designed to extinguish the SRS warning lamp across the complete VAG range.
- Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within the vehicle without a host computer.



Application List

Vehicle	Model	Year	Fuel	Engine	Engine Management System
Audi Service Reset					
A2	All variants	00-07	P/D	All	All codes
A3, A4	All variants	95-07	P/D	All	All codes
A6	All variants	94-96	P/D	All	All codes
A6, A8	All variants	96-07	P/D	All	All codes
Cabriolet	All variants	95-08	P/D	All	All codes
S3	All variants	95-07	P/D	All	All codes
S4	All variants	97-07	P/D	All	All codes
TT	All variants	98-07	P/D	All	All codes
Seat Service Reset					
Alhambra	All variants	95-04	P/D	All	All codes
Arosa	All variants	97-03	P/D	All	All codes
Cordoba	All variants	95-01	P/D	All	All codes
Ibiza	All variants	95-03	P/D	All	All codes
Leon	All variants	95-03	P/D	All	All codes
Toledo	All variants	95-02	P/D	All	All codes

Vehicle	Model	Year	Fuel	Engine	Engine Management System
Skoda Service Reset					
Fabia	All variants	99-07	P/D	All	All codes
Felicia	All variants	95-01	P/D	All	All codes
Octavia	All variants	96-07	P/D	All	All codes
Volkswagen Service Reset					
Beetle	All variants	98-07	P/D	All	All codes
Bora	All variants	97-07	P/D	All	All codes
Caddy	All variants	94-07	P/D	All	All codes
Corrado	All variants	95-95	P/D	All	All codes
Golf, Polo, Sharan	All variants	95-07	P/D	All	All codes
Lupo	All variants	98-03	P/D	All	All codes
Passat	All variants	95-07	P/D	All	All codes
Phaeton	All variants	02-07	P/D	All	All codes
Touran	All variants	03-07	P/D	All	All codes
Touran	All variants	04-07	P/D	All	All codes
Vento	All variants	95-98	P/D	All	All codes

303696

VAG Electronic Park Brake Tool

- Compatible with latest CAN vehicles.
- Enable service and repair functions to be carried out on EPB systems.
- Passat, A6 and A8 including Tilt Angle Calibration.
- The new EPB tool has been created to allow users to service and replace brake pads and components used in the new Electronic Parking Brake systems which have been introduced over a range of VAG vehicles.
- Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within the vehicle without a host computer.

Application List

Vehicle	Model	Year	Fuel	Engine	Engine Management System
Audi Parking					
A6 (4F Chassis)	all	06-07	P/D	All	All Codes ELECTRONIC PARKING BRAKE
A8 (4C Chassis)	all	06-07	P/D	All	All Codes ELECTRONIC PARKING BRAKE
Volkswagen Parking					
Passat (3C Chassis)	all	06-07	P/D	All	All Codes ELECTRONIC PARKING BRAKE



Engine Management

Exhaust Gas Analysers

324200 & 324232

Portable 4 & 5 Gas Analyser Kits

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

Diagnostic Applications
 Using the gas analyser as a diagnostic tool enhances its use. Some key faults that have an effect on gas analysis are:

- 1 - Rich Mixture
- 2 - Weak Mixture
- 3 - Ignition Misfire
- 4 - Fuel Misfire
- 5 - Tight Valve Clearance
- 6 - Incorrect Ignition Timing
- 7 - Incorrect Valve Timing
- 8 - Faulty Catalytic Converter

Description	Kit Part No.	
	324200	324232
Type	4 Gas Analyser	5 Gas Analyser
Gases Measured	CO/CO ² /O ² /HC	CO/CO ² /O ² /HC/NOX
OIML Class 1 Certificate	Class 1 accuracy	Class 1 accuracy
Corrected CO	yes	yes
Fuel Types: Petrol/LPG/CNG	yes	yes
Exhaust Probe – Standard	yes	-
Exhaust Probe – Stainless Steel	-	yes
Carrying Case	yes	yes

Spare Parts

Part No.	Description
324201	Water Trap End Cap
324202	Water Trap and Filter
324204	Battery Charger & Mains Power Lead
324206	Standard Exhaust Probe (Rubber) 5m Hose, Hand Grip & In-line Water Trap
324207	12v Car Adaptor Power Lead
324208	Spare Filter Set (10)



324200



4 Gas Analyser



5 Gas Analyser



Exhaust Gas Analyser - Optional Accessories

324250

Infra-Red Printer

- Compatible with the full range of hand held gas analysers.
- The Gas Analyser sends results via an integral IR transmitter to the remote printer.



324270

High Temp Exhaust Probe – Stainless Steel

- For use during extended tests or with high temperature exhausts.
- Supplied as standard with 5 Gas models.



324280

RPM Clamp

- For direct RPM measurement.
- Supplied as standard with OIML Class 1 models.



324290

Oil Temperature Probe

- For direct oil temperature measurement
- Supplied as standard with OIML Class 1 models.



324300

PC Software

- Links Gas Analyser to a PC allowing display of results on PC screen and printing of results via the PC printer.



Emission Tester

300745

Digital CO Meter

Measures the carbon monoxide content of petrol engine exhaust emissions. Ideal, low cost option for engine tuning, fault diagnosis and pre-MOT emissions testing. 12v powered for workshop or mobile use.

- Large, easy to read 3 digit LCD measures 0-9.9% for accurate readings.
- 3 way filtration system includes coarse and fine filters plus automatic water separator.
- Fast, 60 second warm-up saves valuable workshop time.
- Light weight and fully portable, with built-in carrying handle.
- Complete with hose, probe and clamp, power lead and spare filters.



Spare Parts

Part No.	Description
MT9000/F	Filters
300742	CO Meter Front Filter Kit
300744	Exhaust Probe
300746	7.5m Hose

Specifications

Display	LCD, 3 digit
Reading	Carbon monoxide (0-9.9% +/- 5% full scale)
Dimensions	145 x 200 x 200mm
Filtration	3 filters, water separation
Warm-up	60 seconds
Zero	Manual
Battery	Cable for battery 12v DC nominal, 10-16v DC
Weight	4.05kg

Transmission

Flywheel Pullers

Enable removal of flywheel or clutch without removing the engine.

085101

Flywheel Puller

- Removes flywheels with threaded holes that have a pitch circle diameter of 42-108mm.
- **Applications:**
Austin/Leyland 'A' Series transverse engine Verto flywheel.



660300

Flywheel Puller

- This model has the same applications as the 085101, however it's a lower specification product designed for Mini/Metro flywheel pulling only.



Transmission

Gearbox Bush Remover

185200

Gearbox Bush Remover for Land Rover

- Specially designed tool for the removal of the gearbox bush without risk of damage.
- Can be used on Land Rover vehicles with LT77 gearbox
 - Discovery, Defender, Range Rover, also LDV Freight Rover range.
- Uses hydraulic power from the 1500 series hydraulic puller ram.
- Replacement **150000** hydraulic ram available.



Automotive Flaring Tools

027250

Flaremaster 2 - Automotive Flaring Tool

Saves time and money!

- The ultimate power flaring tool designed for use on the car.
- Suitable for brake pipe sizes: SAE Single and Double flares - 3/16" and 4.75mm, DIN Single flares - 4.75mm.
- Revolutionary patented design, developed to overcome the difficulties of creating flares on the vehicle without sacrificing quality.
- Creates SAE or DIN single or double lap flare forms in an instant.
- Comfortable to use, light weight and stylish.
- Extremely powerful - the design incorporates a unique hydraulic powerpack.
- Enables corroded pipework to be replaced or pipes renewed following accident damage.
- Full sections can be fitted following the original route, or part sections can be spliced in at a convenient point.
- Pipe lengths can be trimmed at each end and the flare created. The result is a perfect run and perfect length.
- Quick-release chuck for positive engagement of the punch .
- Fast-turn coarse thread on hydraulic ram, for quick assembly.
- Locking bolt with swivel pin, for fast tightening.
- Inter-changeable dies, held in place by magnets .
- Enhanced bridge unit for greater strength.
- Re-designed, ergonomic, handle moulding, for greater comfort
- Available in kit form **027295** with complementary tools below.
- Replaces model 027200, component parts are NOT interchangeable with 027200 Flaremaster.



Spare Parts

Part No.	Description
027251	Punch 3/16" & 4.75mm SAE Op1
027261	Punch 4.75mm DIN
027271	Punch 3/16" & 4.75mm SAE Op2
027204	Die Set 3/16" & 4.75mm DIN



Step1 Place the pipe in the die.



Step2 Tighten the clamping nut.



Step3 Insert the punch and ram.



Step4 Turn T-Bar to create the flare.



027295

Flaremaster 2 - Brake Pipe Kit

- Includes all the parts to perform repair work on brakes, including: tube cutting; bending and in-situ pipe flaring.
- Supplied in storage case.

Part No.	Description
027250	Flaremaster 2
021600	Brake Pipe Aid Pliers
022100	Tube Cutter (3 - 32mm)
027300	Pipe Deburring Tool



270 Series Flaring Tools

- This popular flaring tool has become the industry standard due to its speed, accuracy and reliability. Produces convex and double lap flares to SAE and DIN standards on automotive brake and clutch pipes.
- 'Dial a size' punch turret with Op1 and Op2 punches positioned next to each other.
- Lever cam operated for quick and easy flaring.
- Automatic punch extraction.
- Screw clamp for accurate die alignment.
- 5 kits are available and all components, punches and dies can be purchased separately.

027000

Flaring Tool Kit

- **Pipe sizes:** SAE Single and Double: 3/16", 1/4", 5/16", 3/8", 4.75mm.
- **DIN Single:** 4.75mm.
- See page 109 for specifications.



027000

027001

Flaring Tool Kit

- **Pipe sizes:** SAE Single and Double: 3/16" and 4.75mm.
- See page 109 for specifications.



027001

027002

Flaring Tool Kit

- **Pipe sizes:** SAE Single and Double: 3/16", 4.75mm, 6mm, 8mm, 10mm.
- **DIN Single:** 4.75mm.
- See page 109 for specifications.



027002

027008

Flaring Tool Kit

- **Pipe sizes:** SAE Single and Double: 3/16", 1/4", 5/16", 3/8", 1/2", 4.75mm, 6mm, 8mm, 10mm, 12mm.
- **DIN Single:** 4.75mm.
- See page 109 for specifications.

027009

Flaring Tool Kit

- **Pipe sizes:** SAE Single and Double: 3/16", 1/4", 4.75mm, 6mm.
- **DIN Single:** 4.75mm.
- See page 109 for specifications.

Brake Tools

270 Series Flaring Tools

Spare Parts

Part No.	Description
027011	Body Assembly c/w 027014 Turret Assembly
027012	Body Assembly c/w 027015 Turret Assembly
027014	Turret Assembly c/w 3/16", 1/4" & 6mm, 5/16" & 8mm, 3/8" & 10mm, 4.75mm Op1 & Op2 Punches
027015	Turret Assembly c/w 3/16" & 4.75mm Op1 & Op2 Punches
027016	Turret Assembly c/w 1/2" & 12mm Op1 & Op2 Punches
027018	Turret Assembly c/w 4.75, 6, 8, 10 & 12mm Op1 DIN Punches
027025	Die Clamp Screw c/w 'T' Bar
027027	Handle

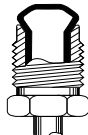


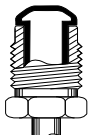
Turret Assembly

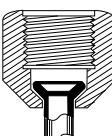
270 Series Flaring Tool Kit Specifications

Kit Part No.	Flare Pattern	Tube Outside Diameter									
		3/16"	1/4"	5/16"	3/8"	1/2"	4.75mm	6mm	8mm	10mm	12mm
027000	SAE Convex Single	X	X	X	X		X				
	DIN Convex Single						X				
	SAE / DIN Double	X	X	X	X		X				
027001	SAE Convex Single	X					X				
	DIN Convex Single										
	SAE / DIN Double	X					X				
027002	SAE Convex Single	X					X	X	X	X	
	DIN Convex Single						X				
	SAE / DIN Double	X					X	X	X	X	
027008	SAE Convex Single	X	X	X	X	X	X	X	X	X	X
	DIN Convex Single						X				
	SAE / DIN Double	X	X	X	X	X	X	X	X	X	X
027009	SAE Convex Single	X	X				X	X			
	DIN Convex Single						X				
	SAE / DIN Double	X	X				X	X			

270 Series Individual Punch and Die Selection Chart

Flare Pattern	Tube o.d	Punch Part No.	Die Set Part No.
 SAE convex (single)	3/16"	027051	027031
	1/4"	027052	027032
	5/16"	027053	027033
	3/8"	027054	027034
	1/2"	027055	027035
	6mm	027052	027042
	8mm	027053	027043
	10mm	027054	027044
	12mm	027055	027045

Flare Pattern	Tube o.d	Punch Part No.	Die Set Part No.
 DIN convex (single)	4.75mm	027061	027041
	6mm	027062	027047
	8mm	027063	027048
	10mm	027064	027049
	12mm	027065	027050

Flare Pattern	Tube o.d	Punch Part No.	Die Set Part No.
 SAE concave (double)	3/16"	027051	027031
		027071	
	1/4"	027052	027032
		027071	
	5/16"	027053	027033
		027072	
	3/8"	027054	027034
		027072	
	1/2"	027055	027035
		027073	
	4.75mm	027051	027031
		027071	
	6mm	027052	027042
		027071	
	8mm	027053	027043
		027072	
	10mm	027054	027044
		027072	
	12mm	027055	027045
		027073	

Brake Tools

Brake Service Tools

035110

Pentagon Socket for Bendix® Brake Systems

- A specialist 5 sided socket specifically designed for use on Bendix® brake calipers.
- Impact standard chrome vanadium.
- ½" square drive.
- **Applications:** Peugeot, Citroen, Ford.



Brake Pipe Nut Wrenches - Metric

- Flanged Flare Nut Wrenches (forged steel).
- 6 point split ring design, with flange for added strength.
- Ideal for brake pipe nuts and unions.

Part No.	Description
660672	8mm x 10mm hex
660673	11mm x 13mm hex
660676	10mm x 11mm hex



660672



660673



Brake Bleeding Wrenches for VAG

- For the actuation of bleeder screws.
- Saves time in difficult access situations – no need to remove wheels.
 - Silicone hose, which can be used with any fluid container, ensures no leakage and maintains cleanliness.
 - Includes silicone hose and adaptor nipple.

Part No.	Description	Application
035201	Long Reach model	VW Golf 5, Audi A3, Seat, Skoda
035202	Short Reach model	VW Passat 3, Audi A4



035201



035202

Brake Tools

Brake Service Tools

Pipe Aid Pliers

- For forming brake and clutch pipe. Can also be used for quick tube nut thread alignment and as a guide when cutting tube.
- Slim, compact shape allows tight bends to be made in restricted areas.

Part No.	Type	Suits
021600	Single	4.75mm or 3/16" o.d.
021650	Dual	4.75mm or 3/16" o.d. 6.00mm or 1/4" o.d.

021600



021650



025600

Pipe Bender

- Unique rolling action forms bends up to 180° without causing abrasion damage to plastic or epoxy coated pipes.
- Fitted with lug on handle for bench use with a vice.
- **Pipe sizes:** 3/16" to 1/4", 4.75mm to 6mm.

025600



Brake Spring Pliers

- For the safe and easy removal of brake shoe springs.
- Can be used in either RH or LH brake assembly situations.
- Cross cut floating swivel head minimises risk of damage to components.
- Provides controlled compression of the brake spring for easy removal.

Part No.	Description	Spring Wire Diameter	Length	Depth	Weight
037011	Standard Model for Car/Van applications	3mm	230mm	32mm	0.230kg
037012	Large Model for Van /HGV applications	3mm	350mm	83mm	0.580kg

037011



037012



027300

Pipe Deburring Tool

- Essential tool when preparing to flare brake pipe, to avoid the risk of swarf in the pipe.
- Double ended tool for the deburring of brake & fuel pipes when preparing ends for use.
- Works on all types of copper, steel and brass pipes.
- Pipe diameter capacity from 1/8" to 5/8".



Brake Tools

Brake Fluid Tester

335300

Brake Fluid Tester

- 12v operation from vehicles own supply.
- Works on all brake fluids with boiling points up to 320°C.
- DOT 3, DOT 4 and DOT 5.1.
- Displays battery voltage and boiling point of fluid.
- Simple pass or fail indicator.

This kit tests brake fluid types Dot 3, Dot 4 and Dot 5.1. It works by comparing the boiling point of a sample of brake fluid taken from the vehicle, against expected values selected from the internal menu.

Brake fluid is hygroscopic – increased absorption of water reduces the anti-corrosive effectiveness of the fluid and can cause brake fluid to boil with potential for complete brake failure. The tester simply indicates the boiling point of the sample and tells you the acceptable lower limit for each fluid specification (Dot 3, 4, 5.1). The tester is powered by the vehicles 12 volt battery.



Brake Tools

Brake Bleeders

034800

Vacuum Brake Bleeder

- A vacuum bleeder offers a number of advantages over a pressure bleeder.
- An ability to remove the brake fluid from the master cylinder by sucking it out of the filler. This means that fluid changes are far quicker as not all the fluid needs to be bled via a nipple.
 - No need to have a pressure tight seal on those difficult to get to master cylinder reservoirs.
 - By “sucking” the fluid away, risk of sudden spillage is significantly reduced.
 - Speed of operation.
 - Light, portable and single handed operation.
 - Works from a standard workshop air supply.



034811

Auto Filler Unit

- This handy unit attaches directly to the top of the reservoir (space permitting) ensuring the reservoir does not run dry during the bleeding process.
- This turns the whole process into a genuine one man operation.



Brake Tools

Brake Bleeders

660500 Brake Bleeder

- For one-man operation.
- Non-return valve ensures air does not return back into the system.



660501 Dual Circuit Brake Bleeder

- For dual circuit brake systems.
- For one-man operation. Non-return valve ensures air does not return back into the system.



035500 Pressure Brake Bleeder

The straightforward, professional approach to complete fluid renewal and bleeding of brake and clutch systems.

- Simple one man operation.
- Special reservoir separates brake fluid from air, preventing moisture absorption, aeration or other contamination of fluid.
- Includes cap adapters, in-line water separator filter assembly, PCL air coupler and 3m connection pipe.
- Air or fluid purge capability.

• Applications

Most modern braking systems which may incorporate one or more of these features:

- Tandem master cylinder with servo assistance.
- Front/rear, diagonal and 'L' type split systems.
- Pressure reducing valves.
- Pressure differential valves.
- Load proportioning valves.
- Applicable ABS systems.

Audi	Citroen	GM	Honda	Mazda
Mitsubishi	Nissan	Peugeot	Proton	Renault
Rover	Vauxhall/Opel		VW	Volvo

Specifications

Air Input	5-8 bar
Air Output	2 bar (regulated)
Capacity	1.4 litres



034900 Brake Bleeder

- As above, but fluid only purging system without universal cap, in-line water separator, and filter and bottle/pipe set.
- **Applications:** Audi, Citroen, GM, Vauxhall/Opel, Peugeot, Renault, VW, Volvo.
- **Optional: 035554** Bottle/pipe set



Brake Tools

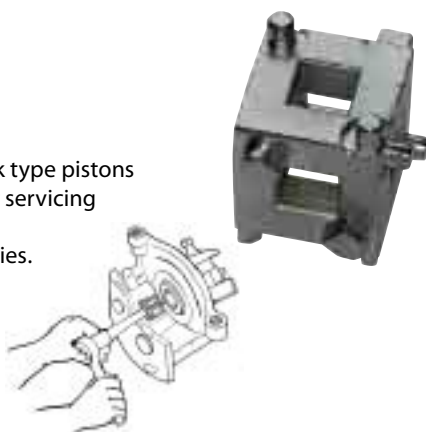
Brake Caliper Tools

036500

Disc Brake Cube

A new tool designed for rotating windback type pistons back into brake calipers when replacing or servicing brake pads.

- Suitable for use with 3/8" drive accessories.
- Chrome vanadium steel.
- Supplied in wallet.



660660

Caliper Hex Wrench for 7mm Caliper Bolts

- For tightening / untightening brake caliper bolts on Ford Escort, Fiesta and Orion and for setting valves on VW Golf and Polo 1.05, 1.1 and 1.3 litre engines.



036123

Drive Adaptor

- Designed for Iveco Daily Vans.
- Suits all SP Piston Windback Tools.



Brake Caliper Cleaning Files

- Specially designed scraping file, for the removal of coarse residues on brake calipers.
- Scraping surface saves time and is more effective than standard files because of the coarse tooth design, which does not clog with residue.
- Plastic handle – 200mm file length.



Part No	Description
036201	Standard Caliper Cleaning File
036202	Extra Thin Caliper Cleaning File (for Japanese models)

036199

Caliper Piston Windback Tool - Restricted Access Applications

- Piston Wind Back Tool with special shortened slimline body.
- For applications where standard wind back tools are too large to allow access.
- Specially designed reaction strap to allow for 'perfect fit' location into the caliper.
- Supplied with special adaptor for MINI & BMW 1 Series models.
- Can be used with conventional adaptors in restricted access situations.



Brake Tools

Brake Caliper Tools

- A range of kits covering a wide variety of both RH & LH **Wind Back** and **Push Back** applications.
- Essential tools for brake pad replacement, and caliper servicing.
- Allows for the correct amount of pressure to be applied to the piston within the caliper without risk of damage.



660665

Caliper Piston Windback Tool

- Basic model c/w 036105 adaptor no. 1 only.
- Refer to table on page 117, 118 for full application details.



036100

Caliper Piston Windback Tool - RH Starter Set

- 5 individual adaptors for right hand applications.
- Supplied in moulded storage tray.
- Refer to table on page 117, 118 for full application details.

036190	RH Caliper Wind Back Body.
036103	Reaction Strap.

036100



036195

Caliper Piston Windback Tool - RH Set

- 7 individual adaptors for right hand applications.
- Supplied in moulded storage tray.
- Refer to table on page 117, 118 for full application details.

036190	RH Caliper Wind Back Body.
036103	Reaction Strap.



036195

036196

Caliper Piston Windback Tool - LH Starter Set

- 4 individual adaptors for left hand applications.
- Supplied in moulded storage tray.
- Refer to table on page 117, 118 for full application details.

036191	LH Caliper Wind Back Body.
036103	Reaction Strap.



036196

036197

Caliper Piston Windback Tool - RH & LH Combined Master Set

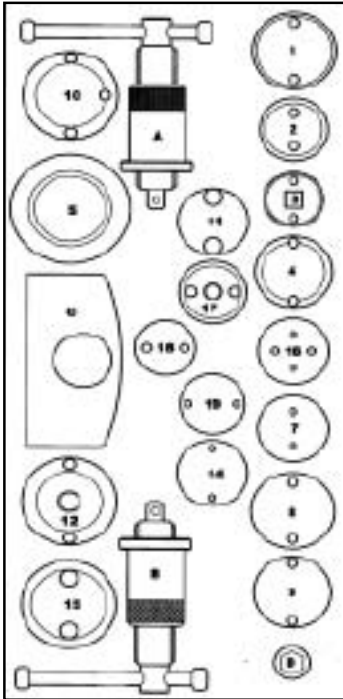
- Comprehensive master set.
- 18 individual adaptors for right & left hand applications.
- Supplied in moulded storage tray.
- Refer to table on page 117, 118 for full application details.
- Full contents on page 116.

036197



Brake Tools

Brake Caliper Tools



036197 Components & Spare Parts

036190	RH Caliper Wind Back Body (A)
036191	LH Caliper Wind Back Body (B)
036103	Reaction Strap (C)
036105	Drive Adaptor No. 1
036108	Drive Adaptor No. 2
036110	Drive Adaptor No. 3
036118	Drive Adaptor No. 4
036107	Drive Adaptor No. 5
036114	Drive Adaptor No. 7
036120	Drive Adaptor No. 8
036121	Drive Adaptor No. 9
036109	Drive Adaptor No. 10
036111	Drive Adaptor No. 11
036112	Drive Adaptor No. 12
036122	Drive Adaptor No. 14
036115	Drive Adaptor No. 15
036116	Drive Adaptor No. 16
036117	Drive Adaptor No. 17
036106	Drive Adaptor No. 18
036119	Drive Adaptor No. 19
036113	Drive Key Adaptor 12mm hex (D)



036198

Air Assisted Caliper Piston Windback Tool

- Air operated ram applies pressure to the caliper piston, while the handle is rotated by hand.
- Easy to use – works on standard workshop air supply.
- Reversible – works on both RH and LH applications.
- Can be used on Wind back and Push back pistons.
- Supplied with adaptor ref 036108 which covers a wide range of popular vehicles (applications list included).
- Full range of additional specialist adaptors available (refer to 036194 below).
- 3/8" sq drive.



036194

Slimline Adaptor Set

- Set of 7 special slimline adaptors for use with Air Assisted Windback Tool.
- Special slimline design allows access where conventional wind back adaptors cannot fit.
- Provide full vehicle range coverage – applications list included.
- Can also be used with conventional wind back tools.
- Refer to table on page 117, 118 for full application details.



General Brake Tools

076101

Brake Disc Run Out Set (Magnetic Base & DTI Gauge)

- Used for measuring disc run-out.
- Powerful magnetic clamp with on/off lever for easy removal from surfaces.
- Flat and 'V' shaped base can be used on both flat and round surfaces.
- Simple and accessible fine adjuster for easy and precise settings.

Contents

Part No.	Description
077120	High Quality DTI Gauge with floating scale
076100	Universal magnetic Clamp for DTI with fine adjustment



035900

Brake Spring Tool

- For removing and replacing brake shoe 'pull-off' springs.
- Cranked for easy access with a grooved tip which hooks into the end of the spring, enabling it to be stretched and removed.
- Suitable for retaining the spring loaded ball when refitting gear chain linkage on Renault vehicles.
- Can also be used for aligning deep recessed circlips.



022100

Tube Cutter 3-32mm

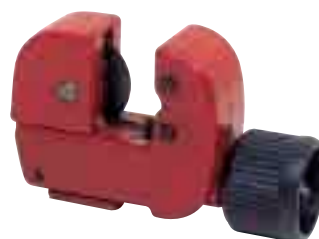
- Telescopic action cutter, ideal for brake and clutch pipework.
- Can also be used on aluminium, brass, copper and thin wall stainless steel.
- Grooved rollers allow cutting very close to flared pipe ends.
- Fold away deburrer.
- Spare cutting wheel in handle.
- **Spares: 022101** Cutter Wheel x 2



660925

Mini Tube Cutter 3-22mm

- Ideal for cutting brake pipes.
- Suitable for aluminium, brass, copper, steel etc.



023400

Brake Pipe Corrosion Tool

- Ideal tool for brake pipe inspection.
- Features two scraper areas for removal of dirt and corrosion.
- Examine brake pipes easily without risk of damage.



General Brake Tools

021500

Flexible Hose Clamps

- Light weight clamps for fuel system or coolant hoses up to 30mm diameter.
- Ideal where access is restricted.
- Supplied as a set of 2.
- **Also available: 021505** Set of 10



035700

Brake and Fuel Line Clamp

- Particularly useful in body repair shops where clamps need to be left on brake lines for an extended period.
- Light weight, non-conductive, glass reinforced nylon.



660650

Hydraulic Hose Clamp

- Clamps brake and fuel hoses to allow brake/clutch slave cylinders to be disconnected or removed with minimum fluid loss.



035600

Brake Pin Punch Set

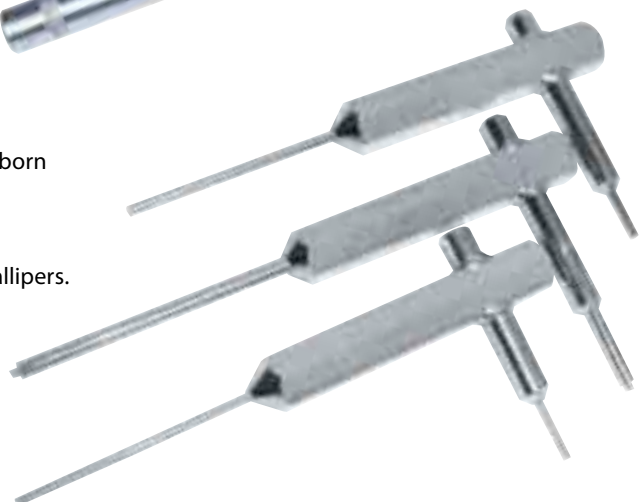
- For removing and replacing caliper brake pad retaining pins.
- Set contains 2 punches.
- **Applications**
7/32" Pin General Use
6mm Pin GM vehicles with hollow spring pins



035620

Duo Brake Pin Punch Set

- Specially designed punches for removing and installing stubborn brake pins.
- Short side for loosening the pin.
- Long side for pushing the pin out completely.
- Duo design minimises the risk of damage to both pins and callipers.



Contents

Part No.	Description
035613	Duo Brake Pin Punch 3mm – Universal Applications & Mercedes
035614	Duo Brake Pin Punch 4mm – Universal Applications
035616	Duo Brake Pin Punch 5.8mm – GM Vauxhall / Opel Stepped Punch

Steering & Suspension

Suspension Removal

089200

Macpherson Strut Tool Set

- Set of special top nut sockets for the popular VW/Audi and Rover front and rear struts.
- Designed to hold the damper shaft during removal and refitting.
- Chrome plated.
- 24mm hex dr.
- Spare Parts: 089201 10mm No.1 Socket
089202 12mm No.2 Socket
089203 14.5mm No.3 Socket
089204 14.5mm No.4 Socket



660330

Suspension Compressor for Minis

- Easy to use tool on Mini's fitted with rubber cone spring units.
- Complete with metric and imperial extension screws.
- Spare Parts: 085916 Extension Screw UNF
085917 Extension Screw Metric



Steering & Suspension

Coil Spring Compressors

660320

Coil Spring Compressor

- General purpose compressor for Macpherson strut systems.
- Retaining hooks have a helical profile to ensure positive location.
- 170mm max. Jaw capacity.
- **Applications:** Vehicles fitted with Macpherson struts: Audi, BMW, Datsun, Fiat, Ford, Lancia, Mazda, Opel, Nissan, Peugeot, Renault, Toyota, Vauxhall, Volvo



083800

Coil Spring Compressor - Screw Type

- Set of two threaded screws with hook-type jaws for removal of coil springs.
- Acme threaded screws for fast tightening, releasing and safety.
- Locking screw secures jaws in place to prevent slippage under load.
- Safe working load - 9000N (using both screw assemblies).
- 270mm max. jaw capacity.
- 24mm drive nut size (Not designed for use with air powered impact wrenches).



083805

Coil Spring Compressor - Screw Type

- As per 083800 but set of three threaded screws and hook-type jaws.
- For additional safety when working on modern high-tension springs.
- Sykes-Pickavant recommends the use of '838' type spring compressors in sets of three (3) on all occasions, for added safety.



Coil Spring Compressors - Heavy Duty

089400

Heavy Duty Coil Spring Compressor

- Safe working load – 15000N.
- 24mm hex drive for use with low impact torque air wrenches, or ratchet & socket.
- Hex drive incorporates a shear pin for safety overload protection.
- Replacement shear pins available (Part No. **089424** Pack of 5).
- Can be used in-situ, or bench mounted in a vice.
- Supplied with 2 sets of colour coded jaws (red / yellow).



089600

Heavy Duty Coil Spring Compressor

- As per 089400 but c/w 4 sets of colour coded jaws.
- Supplied in steel storage case.



Spare Parts

089424 Shear Pin - pack of 5

089015 Hex Key / Bolt & Spacers Kit

089405 Replacement Body Assembly

089100

Suspension Service Centre

- A complete set of tools for safe and efficient compression of coil springs and McPherson strut service work.
- Supplied on wall mounting steel storage/display panel.

Part No.	Description
089400	Heavy Duty Coil Spring Compressor, C/W 2 Pairs Medium & Large (Yellow & Red) Jaws
089040	Small (Green) Jaws - Pair
089030	X-Large (Blue) Jaws – Pair
080500	4-Way Ball Joint Separator
080600	Long Fork Type Separator
083805	Screw Type Coil Spring Compressor – 3 Legs
089125	Storage Panel & Clips

Coil Spring Compressor Jaws – Specifications

Jaw Part No.	Description	Jaw Colour	Spring Diameter mm	089400 Contents	089600 Contents	089100 Contents
089040	Small	Green	66 – 108	-	2	2
089020	Medium	Yellow	80 – 140	2	2	2
089010	Large	Red	100 – 180	2	2	2
089030	X Large	Blue	150 – 236	-	2	2

NB. All jaws are supplied as singles when sold individually.



Coil Spring Compressors - Heavy Duty

084500

Internal Coil Spring Compressor For Wishbone / Multi-Link Suspension

- Specially designed for vehicles fitted with front and rear wishbone suspension.
- Designed to fit applications where the access hole in the lower wishbone is as small as 30mm diameter.
- Supplied with two pairs of specialist jaws
 - Small jaws 90 – 120mm
 - Large jaws 120 – 140mm
- Unique Torque Stick extends functionality and adds safety.
 - 100 Nm max torque
 - 1/2" sq dr.
 - Suitable for impact wrench usage
- TUV approved.
- Supplied in storage case with full instructions and vehicle applications.
- **Applications** The Internal Coil Spring Compressor fits a wide variety of vehicles with wishbone suspension including:
BMW / Citroen / Chrysler / Ford / Honda / Hyundai / Kia / Mazda / Mercedes / Mitsubishi / Peugeot / Renault / Seat / Skoda / Suzuki / Toyota / Volvo / VW



Specifications

Maximum Load	2,500 kg (25,000 Nm)
Minimum Distance	96mm
Maximum Distance	220mm
Maximum Travel	124mm
Torque Stick Limit	10 kg (100 Nm)
Dimension Body (D x L)	Ø 29 x 225-280mm
Dimension Torque Stick (D x L)	Ø 27 x 180mm
Body Weight	0.64 kg
Torque Stick Weight	0.26 kg

Spare Parts

Part No.	Description
084505	Torque Stick (Safety Key) 100Nm
084515	Jaws 90 – 120mm (Set of 2)
084519	Jaws 120 – 140mm (Set of 2)
084501	Body Assembly

Application List

Vehicle Make & Model		Year	Jaw Part No.	
			Front	Rear
BMW	1-series E87	07 -	-	084515
	2-series E90	07 -	-	084515
	3-series E91	07 -	-	084515
Citroen	C1	06 -	-	084515
	C3	03 -	-	084515
	C4	06 -	-	084515
	C8	03 -	-	084519
Chevrolet	Kalos	07 -	-	084515
Chrysler	300C	07 -	-	084515
Ford	Fiesta	02 -	-	084515
	Focus C-Max	03 -	-	084515
	Focus	07 -	-	084515
	Fusion	03 -	-	084519
Honda	Civic/Stream	07 -	-	084519
Hyundai	Getz	02 -	-	084515
	i 30	07 -	-	084515
	Sonata	01 -	-	084515
Kia	Carens, Ceed	07 -	-	084515
	Picanto	07 -	-	084515
	Rio	07 -	-	084519
Mercedes	C-CLASS W202	93 -00	084515	-
	CL W140	93 -99	084515	-
	CLK W209	03 -	-	084515
	E-CLASS W124	93 -95	084515	-
	E-CLASS W211	02 -	-	084519
	M-CLASS	06 -	084515	-
	S-CLASS W116	73 -80	084519	-
	S-CLASS W126	80 -91	084515	-
	S-CLASS W140	91 -98	084515	-
	W107, W114, W115, W123, W129, W201		084519	-
Mazda	Mazda 2, 5	07 -	-	084515
	Mazda 3	03 -	-	084515
	CX 7	08 -	-	084515
Mitsubishi	Colt	07 -	-	084515
	Pajero	07 -	-	084515
Peugeot	107	07 -	-	084515
	207	07 -	-	084519
	307	07 -	-	084515
	807	08 -	-	084519
	1007	07 -	-	084515
	308, 4007	08 -	-	084515
Renault	Traffic	07 -	-	084515
Seat	Cordoba	93 -	-	084515
	Ibiza	96 -	-	084515
Skoda	Fabia, Roomster, Octavia Scout	07 -	-	084515
	Octavia	01 -	-	084515
	Roomster Scout	08 -	-	084515
Suzuki	Swift, SX 4	07 -	-	084515
	Vitara	07 -	-	084515
Toyota	Auris	08 -	-	084519
	Aygo	07 -	-	084515
Volvo	Yaris	07 -	-	084519
	C 30, C 70, S 40	07 -	-	084515
	S 60	03 -	-	084519
	V 50	07 -	-	084515
VW	V 70, XC 90	07 -	-	084519
	Beetle, Fox, Polo	07 -	-	084515
	Touran	03 -	-	084515

Red Mark: Must be used to compress spring as conventional coil spring compressors cannot be used.

Coil Spring Compressors - Heavy Duty

084000

Heavy Duty Coil Spring Compressor c/w Universal Multipurpose Jaws









- Safe working load 2250Kg (22500Nm).
- Supplied with 1 x pair of Universal MULTIPURPOSE Jaws.
- Patented innovative shape of jaw design fits most types and sizes of springs.
- Protective high-tech inserts in jaws for added safety.
- Jaw diameter 80 – 200mm covers 90% of applications.
- Built-in protective accessory for vice-clamping.
- Large user-friendly adjusting handle for fast jaw positioning.
- Overload shear-pin for safe operator use.
- Range of specialist jaw options available – see below.
- TUV approved.
- Supplied with full instructions and vehicle applications .



Spare Parts

Part No.	Description
084001	Pair of replacement MULTIPURPOSE Jaws
084024	Safety Shear Pin

Optional Specialist Jaws (supplied as singles)

Part No.	Description		Part No.	Description	
084004	Extra Large Jaw 180 – 230mm		084008	Jaw for Mercedes C Class	
084005	Extra Small Jaw 80 – 120mm		084009	Jaw for Mercedes E Class, Renault Megane 2	
084006	Jaw for Conical Springs 80 – 145mm		084010	Jaws for Citroen C 15, Peugeot Break (supplied as a pair)	
084007	Jaw for BMW E46, E39, Renault Megane 2, Toyota Avensis		084011	Jaw for Chrysler Grand Voyager ("counter clock" spring)	

Universal Suspension Arm Lever

080800

Universal Suspension Arm Lever

- For lowering of the suspension arms and separation of suspension components.
- Reduced effort required, due to unique design using leverage and body weight.
- Adjustable swing point allows for variable LH & RH applications.



Ball Joint Separators - Offset Lever

080300

Automotive Ball Joint Splitter

- Designed to enable the removal of suspension and steering ball joints without causing damage.
- Innovative design incorporates a significant improvement over the conventional design, with the addition of a handle to enable leverage to be applied after the joint has been "broken" so that it may be more easily lifted out of place without damage.
- 17mm diameter throat.



080500

Ball Joint Separator

- The opening can be adjusted to suit most car and light commercial ball joints: simply release the pin and select any of the 4 lever positions.
- Taper, slim fork.
- 4 position, reversible lever.
- Tough black epoxy coating.

Jaw Opening	24, 30, 40, 45mm
Throat Depth	30mm
Overall Length	158mm



080700

Ball Joint Separator

- With a strong, large body and strengthened fork and lever.
- The heavy duty force screw allows greater force to be applied to the ball joint.
- For use on heavy commercial vehicles.

Jaw Opening	70mm
Throat Width	36mm
Throat Depth	50mm



660550

Ball Joint Separator

- For cars and some light vans.

Jaw Opening	45mm
Throat Width	19mm
Throat Depth	30mm



Steering & Suspension

Ball Joint Separators - Offset Lever

080750

Hydraulic Upgrade Kit

- To upgrade **080700** Ball Joint Separator for hydraulic use.

Spares

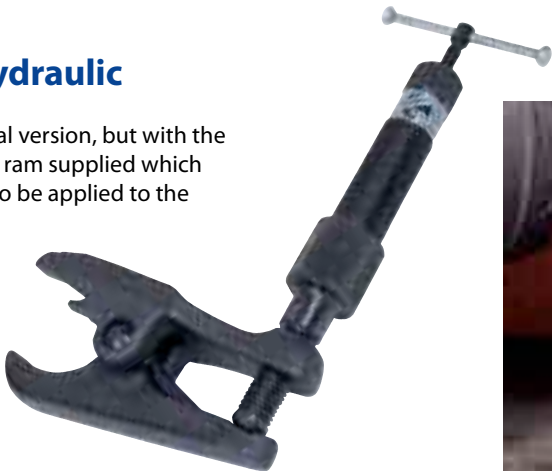
Part No.	Description
150000	Ram
180711	Adjusting Screw
180712	Adjusting Plunger

180700

Ball Joint Separator - Hydraulic

- Same specification as the mechanical version, but with the benefit of the '1500' series hydraulic ram supplied which allows a pressure of up to 8 tonnes to be applied to the ball joint.
- For heavy commercial vehicles.

Jaw Opening	70mm
Throat Width	36mm
Throat Depth	50mm



660552

Ball Joint Separator – Car / LCV applications

- Adjustable screw c/w shear pin, allows for greater flexibility, providing a wider range of applications coverage.
- Shear pin prevents accidental overload – for safety.

Jaw Opening	45mm
Throat Width	22mm



Steering & Suspension

Ball Joint Separator - Direct Action

660310

Ball Joint Separator

- Suitable for most cars.

Jaw Opening	50mm
Throat Width	19mm
Throat Depth	20mm



Steering & Suspension

Ball Joint Separators - Fork Type

660490

Ball Joint Remover

- Quick and easy to use wedge type remover to fit most makes of cars and light vans.

Length	195mm
Throat Width	19mm
Throat Depth	69mm



081600

Ball Joint Separator

- Extremely quick and easy to use on most cars and light vans.

Length	254mm
Throat Width	19mm
Throat Depth	72mm



080600

Ball Joint Separator - Long Reach

- Long reach allows the tool to be used from outside the vehicle, not under the wing.

Length	420mm
Throat Width	18mm
Throat Depth	88mm



Steering & Suspension

Drop Arm Puller - Hydraulic

150500

Hydraulic Drop Arm Puller

- Hydraulic puller for removing steering box drop arms.
- Uses power from the 1500 series hydraulic ram.
- Ideal for Ford Transit and Land Rover applications.

Spread	60mm
Reach	80mm

Spares

Part No.	Description
150501	Top Plate
150502	Bottom 'C' Plate
150503	Pillar
150504	M14 x 2 Cap Screw
150000	Hydraulic Ram c/w Nose Piece
150027	Nose Piece



Hub Pullers - Car & Light Commercial

- 1500 Series ram allows smooth, progressive application of up to 8 tonnes of pulling power.
- Free moving legs mounted on a floating plunger enables quick and easy attachment to vehicle hubs.
- Fine pitch outer ram thread for easy adjustment.
- Variable stud, hydraulic type hub pullers for removing car and light commercial vehicle hubs with a pitch circle diameter of up to 203mm and a stud diameter of up to 15.8mm.
- Refer to page 183 for kit contents.

127303

Hydraulic Hub Puller - 3 Leg

127305

Hydraulic Hub Puller - 5 Leg

Specifications and Spares

Part No.	Description	Length mm	Spread Capacity	Stud Hole Diameter	Thread	Diameter
082514	Leg	158mm	203mm	15.8mm		
150000	Hydraulic Ram with Nose Piece				1.1/2" x 16 BSW	
152422	Ram Extension	50mm				
127312	Plunger Body					100mm

To upgrade with additional legs:

082514 Leg x 1

To change to mechanical pulling:

127311 Force Screw

082519 Shock Handle



127303



127306

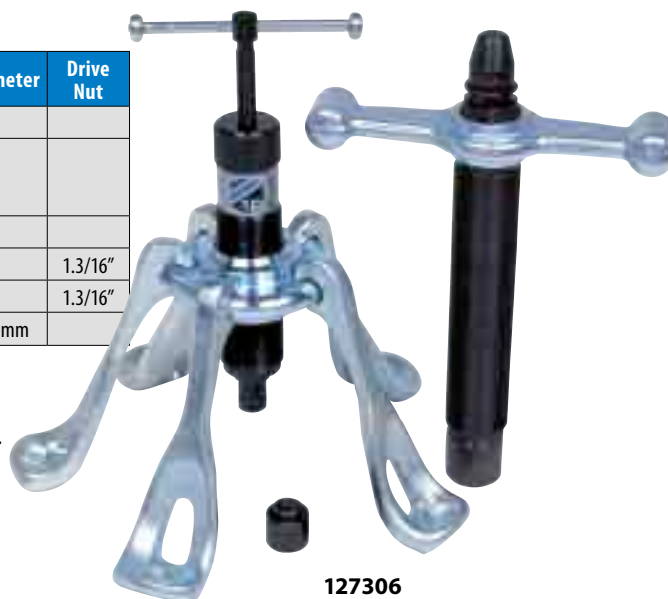
Hydraulic and Mechanical Hub Puller Kit

- A versatile kit containing the 5 leg hydraulic puller set and heavy duty force screw with hammer type handle.
- Supplied in metal storage case.
- Refer to page 183 for kit contents.

Specifications and Spares

Part No.	Description	Length	Spread Capacity	Stud Hole Diameter	Thread	Diameter	Drive Nut
082514	Leg	158mm	203mm	15.8mm			
150000	Hydraulic Ram with Nose Piece				1.1/2" x 16 BSW		
152422	Ram Extension	50mm					
127311	Force Screw	285mm			1.1/2" x 16 BSW		1.3/16"
082519	Shock Handle	203mm			1.1/2" x 16 BSW		1.3/16"
127312	Plunger Body					100mm	

- Can be used in 3, 4 or 5 leg combinations.
- Can be used on a variety of wheel stud pattern applications - 4, 5, 6 stud hubs with a pitch circle diameter of up to 203mm.



127306

Steering & Suspension

Hub Pullers Mechanical - Car & Light Commercial

- Free moving legs mounted on a floating plunger enables quick and easy attachment to vehicle hubs.
- Heavy duty hammer type handle allows the application of shock force for rapid removal of sticking hubs.
- Fine pitch force screw for smooth application of pulling power.
- Plunger, legs and handle drop forged from high quality steel, heat treated for strength and durability.
- Pitch circle diameter of up to 203mm; stud diameter of up to 15.8mm.
- Refer to page 183 for kit contents.

082503

Mechanical Hub Puller - 3 Leg

082505

Mechanical Hub Puller - 5 Leg



082505

Specifications and Spares

Part No.	Description	Length	Spread Capacity	Stud Hole Diameter	Thread	Diameter	Drive Nut
082514	Leg	158mm	203mm	15.8mm			
127311	Force Screw	285mm			1.1/2" x 16 BSW		1.3/16"
082519	Shock Handle	203mm			1.1/2" x 16 BSW		1.3/16"
127312	Plunger Body					100mm	

To upgrade with additional legs:

082514 Leg x 1

To upgrade to hydraulic pulling:

150000 1500 Series Hydraulic Ram

152422 Ram Extension

Steering & Suspension

Hub Pullers Mechanical - Commercial Vehicles

- Pitch circle diameter of up to 305mm; stud diameter of up to 22mm.
- Refer to page 183 for kit contents.

082203

Mechanical Hub Puller - 3 Leg

082206

Mechanical Hub Puller - 6 Leg



082203

Specifications and Spares

Part No.	Description	Length	Spread Capacity	Stud Hole Diameter	Thread	Diameter	Drive Nut
082214	Leg	211mm	305mm	23			
127311	Force Screw	285mm			1.1/2" x 16 BSW		1.3/16"
082519	Shock Handle	203mm			1.1/2" x 16 BSW		1.3/16"
082212	Plunger Body					152mm	

To upgrade with additional legs:

082214 Leg x 1

To upgrade to hydraulic pulling:

150000 1500 Series Hydraulic Ram

152422 Ram Extension

Steering & Suspension

Hub Pullers

185000

Hydraulic Hub Puller Kit

- Universal hydraulic hub puller, uses power from the 1500 Series ram (8 tonnes).
- Compatible with 3, 4, 5 and 6 stud wheel hubs.
- Supplied with threaded studs/extended nuts to cover 5 popular thread patterns.
 - 3 x stud pattern threads
 - 2 x extended nut pattern threads
- Colour coding of studs/extended nuts makes for easy identification and component selection.
- Vehicle model/stud pattern applications chart provided
- **Applications** Can be used with the following thread forms:
 - M12 x 1.25 studs
 - M12 x 1.5 studs
 - M14 x 1.5 studs
 - M12 x 1.25 extended nuts
 - M12 x 1.5 extended nuts
- Full vehicle applications list supplied.



Contents

Part No.	Description
150000	Hydraulic Ram c/w Nose Piece
185001	Hub Puller Plate
185002	Ram Converter c/w locking nut
185004	Shoulder nuts
185005	M12 x 1.25 Stud – Brown
185006	M12 x 1.5 Stud – Red
185007	M14 x 1.5 Stud – Green
185008	M12 x 1.25 Extended Nut – Yellow
185009	M12 x 1.5 Extended Nut – Blue

Note: Can also be used with Heavy Duty Slide Hammer (085309) where shock action is required.



185500

Impact Hub Puller Kit for Light Commercial Vehicles

- To fit 5 and 6 stud hubs on LCV hubs with a pitch circle of 90 – 170mm.
- Six sets of Male and Female connector rods.
 - M12 x 1.25 / M14 x 1.5 / M16 x 1.5 Male Rods.
 - M12 x 1.5 / M14 x 2.0 / M18 x 1.5 Female Rods.
- Supplied with Heavy Duty 4.5kg Slide Hammer.
- Full LCV vehicle applications list provided.
- Note: can be upgraded with the 1500 Series Hydraulic Ram where controlled application of force is required.

Contents

Part No.	Description
085309	Heavy Duty Slide Hammer
185001	Hub Puller Plate
185002	Ram Converter c/w lock nut
185004	Shoulder Nut
185005	M12 x 1.25 Stud
185007	M14 x 1.5 Stud
185009	M12 x 1.5 Extended Nut
185010	M16 x 1.5 Extended Nut
185011	M18 x 1.5 Stud
185019	M14 x 2.0 Stud

Applications

- Citroen: Jumpy, Dispatch, Jumper, Relay
- Ford: Transit
- Fiat: Ducato
- Iveco: Daily 11, 111
- LDV: Maxus
- Mercedes: Sprinter, Vito
- Nissan: Primastar
- Opel: Movano, Vivaro
- Peugeot: Boxer, Expert
- Renault: Master, Trafic
- VW: LT, Transporter



Hub Pullers for Late Model Vehicles

Hub Pullers for Cars and Light Commercials, featuring **085308** Hub Puller Plate which has been specially designed to meet the application requirements of modern vehicles.

- Features a specially enlarged central dome to accommodate larger wheel hub caps (eg Ford Focus) as found on many modern vehicles.
- Designed with an extended spread pattern, to accommodate up to 160mm stud circle diameters.
- An interchangeable adaptor which allows it to be used in three different formats (Mechanical, Slide Hammer or Hydraulic) depending on the user's requirements.
- Available in the following 4 combinations.

Specifications

Part No.	Description	Hub Centre Diameter	Hub Centre Depth	Min. Pitch Circle Dia.	Max. Pitch Circle Dia.	Centre Hole Screw Thread
085308	Hub Puller Plate	70mm	65mm	100mm	160mm	1 1/2" x 16 Tpi

Part No.	Description	Specification
085300	Mechanical Hub Puller	1 1/2" x 16 Tpi (ext. thread), 5/8" UNF (int. thread)
085316	Hydraulic Hub Puller	c/w Hydraulic Ram
085306	Slide Hammer Hub Puller	5/8" UNF (int. thread)

Spare Parts

Part No.	Description	Specification
085308	Hub Puller Plate	
085312	Hub Puller Plate Mechanical Convertor	1 1/2" x 16 Tpi (ext. thread), 5/8" UNF (int. thread)
085311	Mechanical Forcing Screw	5/8" UNF x 4" x 24mm Hex
085307	Slide Hammer	5/8" UNF, 1.6kg
150000	Hydraulic Ram c/w Nose Piece	8 tonnes force

085308



**085300
Mechanical
Hub Puller**



**085316
Hydraulic
Hub Puller**



**085306
Slide Hammer Hub Puller**



085309

Slide Hammer Assembly - 4.5kg

- Can be used with the full range of Sykes-Pickavant hub pullers to remove hubs and half shafts quickly and efficiently.

Specifications

Description	Length	Stud Hole Diameter	Thread	Hammer Weight
Hammer	165	100		4.5kg
Shaft	838		M20 x 2.5	
Adaptor	40		M20 (int.), 1 1/2 whit (ext.)	



085309

Steering & Suspension

Bush & Bearing Tools

Suspension Removal and Installation

- Range of individual suspension bush removal and installation tools.
- Designed for use in-situ – on the vehicle.
- Each tool is supplied with comprehensive fitting instructions.
- Spare parts and consumable parts readily available.

Part No.	Description	Features	
087100	GM Vectra Bush Remover	<ul style="list-style-type: none"> • Simple and cost effective tool for quick removal and replacement of upper and lower trailing arm bushes on GM Vectra • Spare parts: 087101 Spacer, 087102 Rod, 087103 Shoulder Nut, 087104 Collar, 087105 Threaded Adaptor No. 1, 087106 Threaded Adaptor No. 2, 087107 Adaptor No. 3 	
087201	BMW 3 Series (E36 / E46) Rear Trailing Arm Bush Tool	<ul style="list-style-type: none"> • For removal and installation of rear trailing arm bushes on BMW 3 series (E36/E46) • Suitable for both 'original' bushes and new style 'slotted' bushes • Consumable spares kit: 08720111 	
087202	BMW 5 & 7 Series (E39 / E38) Rear Ball Joint Tool	<ul style="list-style-type: none"> • For removal and installation of rear suspension ball joints on BMW 5 series and 7 series (E39 / E38) • Consumable spares kit: 08720211 	
087203	BMW 5 Series Saloon (E39) Rear Axle Carrier Bush Tool	<ul style="list-style-type: none"> • For removal and installation of rear axle carrier bushes on BMW 5 series saloons 1996 onwards • Consumable spares kit: 08720311 	
087204	BMW X5 Series (E53) Rear Axle Carrier Bush Tool	<ul style="list-style-type: none"> • For removal and installation of rear axle carrier mounting bushes BMW X5 (E53) models • Consumable spares kit: 08720411 	
087205	BMW 5 Series Touring (E39) Rear Subframe Bush Tool	<ul style="list-style-type: none"> • For removal and installation of rear subframe bushes on BMW 5 Series Touring (E39) models • Consumable spares kit: 08720511 	

Note:

- These tools are NOT designed for use with air or electrically operated impact wrenches.
- The threaded drive stud should always be lubricated before use. Over time the threads may stretch thus making the stud unusable – this occurs due to over-tightening by the user. Replacement studs are therefore available as spare parts kits. NB – studs are classed as consumables – this is not a 'warranty' issue.
- These tools are designed as stand-alone tools for the application described – they are NOT compatible or inter-changeable with Sykes-Pickavant 087800 / 187000.

Steering & Suspension

Bush & Bearing Tools

Part No.	Description	Features	
087301	Ford Mondeo Rear Subframe Bush Tool	<ul style="list-style-type: none"> For removal and installation of rear subframe bushes on Ford Mondeo MY01 - on, (10/2000 on) Consumable spares kit: 08730111 	
087302	Ford Focus Rear Wishbone Bush Tool	<ul style="list-style-type: none"> For removal and installation of rear wishbone / trailing arm bush on all Ford Focus Models 1998 onwards Consumable spares kit: 08730211 	
087303	Ford Fiesta, Puma, Ka 1996 onwards Rear Bush Tool	<ul style="list-style-type: none"> For removal and installation of rear bushes on Ford Fiesta, Puma, Ka 1996 onwards Consumable spares kit: 08730311 	
087501	Renault Laguna Rear Suspension Bush Tool	<ul style="list-style-type: none"> For removal and installation of rear axle bushes on Renault Laguna 2 (2001 onwards) 	
087601	VW /Audi Rear Axle Bush Insertion Tool	<ul style="list-style-type: none"> For the installation of bonded rubber / plastic type rear axle mounting bushes on Audi A3 / VW Golf 4 / VW Bora – all models 2001 – 2004 Consumable spares kit: 0860111 NB – most models were originally fitted with hydraulic type rubber bushes when new – these can be knocked out manually. This tool is required for fitting the new bonded rubber / plastic type replacement bushes. Always replace in pairs. 	
087602	VW Polo Front Control Arm Bush Tool	<ul style="list-style-type: none"> For removal and installation of the rear bush on the front control arm, as fitted on VW Polo 11/2001 onwards /Seat Cordoba 11/2002 onwards / Skoda Fabia 12/1999 onwards – all models Consumable spares kit: 08760211 	

Note:

- These tools are NOT designed for use with air or electrically operated impact wrenches.
- The threaded drive stud should always be lubricated before use. Over time the threads may stretch thus making the stud unusable – this occurs due to over-tightening by the user. Replacement studs are therefore available as spare parts kits. NB – studs are classed as consumables – this is not a 'warranty' issue.
- These tools are designed as stand-alone tools for the application described – they are NOT compatible or inter-changeable with Sykes-Pickavant 087800 / 187000.

Steering & Suspension

Bush & Bearing Tools

087800

Universal Press & Pull Sleeve Kit

- Universal tool set for extracting and drawing in bushes, bearings, seals etc.
- Fully universal applications for Car, LCV & HGV.
- Contains 20 x Press Sleeves.
- Inside diameter range: 34 – 72mm.
- Outside diameter range: 44 – 82mm.
- 4 x step plates.
- 4 x pulling spindles with thrust bearings.
- Set 087800 can be used on its own, or with workshop press, or with Universal Press Frame 187000.
- Can also be used in conjunction with model specific Press Piece sets.



087900

Universal Press & Pull Sleeve Kit – SUV / LCV Kit

- For use as an add-on to Standard Press & Pull Sleeve Kit (087800).
- Contains 8 x Press Sleeves.
- Inside diameter range: 82 – 88mm & 98 – 104mm.
- Outside diameter range: 92 – 98mm & 108 – 114mm.
- 4 x step plates.
- 2 x 20mm pulling spindle adaptors with thrust bearings.



087950

Universal Press & Pull Sleeve Upgrade Kit

- An upgrade kit for 087900 to complete 087975.
- For the owner of SUV / LCV kit (087900) who wish to upgrade to full contents of the HGV kit (087975).

087975

Press & Pull Sleeve Kit – Commercial Kit

- Complete kit for SUV/LCV/HGV.
- Contains 20 x Press Sleeves.
- Inside diameter range: 74 – 112mm.
- Outside diameter range: 84 – 122mm.
- 4 x step plates.
- 4 x heavy duty pulling spindles with thrust bearings.
- 2 x 20mm heavy duty pulling spindles and adaptors.
- Set 087975 can be used on its own, with a Workshop Press, the Universal Press Frame (187000 or 187802) Universal C clamp.



Steering & Suspension

Bush & Bearing Tools

113000

Bush and Bearing Installer Kit

- A simple, easy to use tool for the installation of bearings, bushes nylon seals etc.
- Features a range of nylon adaptors which allow full face support, preventing damage and premature failure.
- Supplied with a dead blow hammer and bearing cross-reference chart.
- **Adaptor Range:** Internal diameter: 10 – 50mm
External diameter: 26 – 110mm



082525

Bearing & Removal Kit - Ford Transit

Features

- Powered by your own air gun with an 80 p.s.i. constant pressure.
- Contains bearing separator – capacity 20 to 105mm.
- Contains reaction plate with 5 shouldered pillars to give a ridged frame to pull against.
- Special Transit adaptor to allow pulling force to be applied to the centre of the hub.
- Contains a second special transit adaptor to aid removal of hub assembly from leg.

Applications

- For the removal of front wheel bearings from Ford Transit hubs.
- For removal of hub assembly from leg when seized.
- With the special Ford Transit adaptor in place it is also possible to remove stubborn brake discs with the aid of larger Sykes-Pickavant pullers.

Spare Parts

Part No	Description	Qty
082526	Reaction Plate Assembly	1
093115	Separator Rod Assembly	2
082527	Support Pillar Assembly	5
127311	Forcing Screw	1
082519	Shock Handle	1
082528	Special Ford Transit Adaptor - small	1
082529	Special Ford Transit Adaptor - large	1
095100	Bearing Separator Assembly	1
015405	30mm A/F Hex Socket	1



082519 Shock Handle

Steering & Suspension

Bush & Bearing Tools

083410

Brake Disc Puller – Ford Transit

- For the removal of front wheel discs on Ford Transit front hubs.
- Also suitable for the removal of rear brake drums on Ford Transit.
- Heavy Duty 3 leg puller with a 4 tonne capacity.
- Legs have three height adjustment positions for ease of access.
- Large 24mm heavy duty force screw fitted with ball bearing tip and hex drive.
- Special Ford Transit adaptor allows pulling force to be applied to the centre of the hub.
- Can be used as a general purpose three leg mechanical puller.
- Spread – 350mm.
- Reach – 380mm.

Spare Parts

Part No.	Description
082911	Force Screw
082913	Triple Beam
083314	Leg Assembly
154041	Ford Transit Adaptor



081000

Universal Bearing Ring Puller

- For the removal of bearings, races, sleeves etc.
- Removes the need for cutting tools – greatly reduces time required.
- Unique patented design – specially designed cutting edges.
- Legs 'cut' and are pressed into the radius behind the ring.
- 'Loose/Tight' pulling principle – force is applied evenly around the ring.
- Suitable for all kinds of bearings / rings – 40-60mm.

187000

Universal Press Frame

- Universal tool for the dismantling and installation of suspension parts on the vehicle.
- Suitable for ball joints, suspension bushes and other suspension components.
- Powered by the 1500 Series Hydraulic Ram.
- Open frame design, allows parts to be pressed through the base.
- Use with individual press piece sets, or with universal press & pull sleeve set.



Steering & Suspension

Bush & Bearing Tools

Bush Press Piece Sets

- Model specific sets of Press Pieces are required due to the specific design of the vehicle components.
- Individual Press Piece sets have been developed for such circumstances, and should be used in conjunction with the **187000** Universal Press Frame , **187802** Universal C Clamp or **087800** Universal Press & Pull Sleeve set (refer to pages 134-137).

Part No.	Description		Part No.	Description	
187201	BMW E36 / E46 Rear Suspension Bushes		187601	VW Golf 3 Rear Suspension Bushes	
187501	Renault Laguna Rear Suspension Bushes *		187602	VW Golf 4 / Audi A2 & A3 Rear Suspension Bushes	
187502	Renault Master / Opel Movano Upper Ball Joint		187603	VW LT & Mercedes Sprinter Ball Joints	
187503	Renault Master / Opel Movano Lower Ball Joint		187604	VW T4 Ball Joints	

* NB 187501 Renault Laguna is supplied with a threaded spindle, nut and bearing.

187801 Press Frame Extension

- Set of Extension Rods and adaptors to extend the capabilities of the 187000 Universal Press Frame.



187802 Universal C Clamp

- Complimentary tool for use with Individual Press Piece Sets.
- Can also be used with Press & Pull Sleeve Set.
- Ideal for restricted access situations.
- Can also be used with 1500 Series Hydraulic Ram.
- Power – gun safe – allows for greater application of force.



Steering & Suspension

Hub Nut Sockets

615415

Hub Nut Socket 32mm

- Suits Fiat, Ford, Austin, Rover, Peugeot, Citroen (PSA Group).
- 32mm hex – 1/2" sq dr.



615435

Hub Nut Socket 36mm

- Suits Volkswagen, GM Clutch, Subaru.
- 36mm hex – 1/2" sq dr.



615455

Hub Nut Socket 40mm

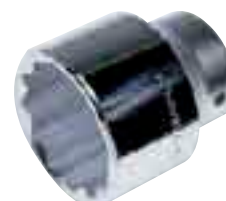
- Suits Austin Rover, Peugeot, Citroen (PSA Group).
- 40mm hex – 1/2" sq dr.



615485

Hub Nut Socket 50mm

- Ford Transit 34 – H Axle.
- 50mm bi-hex – 3/4" sq dr.



615495

Hub Nut Socket 65mm

- Suits Ford Transit 5/A-G, 53G Axle.
- 65mm hex – 3/4" sq dr.



690500

Alloy Wheel Nut Socket Set

Designed for the safe removal of wheel nuts used on alloy wheels. Alloy wheel design has become more intricate leading to the fixing nuts being heavily recessed into the wheel, this feature makes it very easy to damage the wheel paint / finish. To minimise the risk of marking / scratching, these impact standards are fitted with protective plastic coatings.

- 5 piece set of slim deep single hex 1/2" drive sockets.
- Supplied in an attractive black finish and fitted with protective plastic sleeves.
- Designed to protect high end aluminium and chrome steel wheels.
- Contains: 17mm, 19mm (3/4"), 21mm, 22mm, 24mm.

