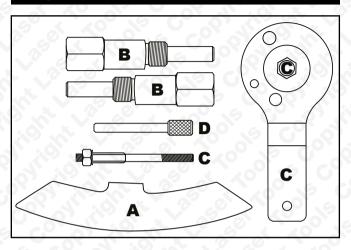
# **LASER**®

### **Instructions**

# **Timing Tool Set** MADE IN Fiat | Alfa Romeo | Vauxhall | Saab JTD Multijet 1.6 | 1.9 | 2.4 SOHC | DOHC

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# Components



Ref.	Code	OEM Ref.	Description
A	C148	1.860.898.000	Flywheel Holding Tool
В	C278	1.870.896.900 EN-46789 32 025 008	Camshaft Alignment Pins (2)
000	C277	1.860.905.000 1.860.905.010 2.000.003.000 EN-46788 32 025 009	Crankshaft Alignment Tool plus pins
D	C091	1.860.965.000	Fuel Pump Pulley Timing Pin

# **Applications**

Make, N	lodel, Year		Engine Codes		
Alfa	147	2002 - 2011	1,6 JTDM 16V	263A8.000	841H.000
Romeo	156	2002 - 2008	002 - 2008 198A2.000		841M.000
	159	2005 - 2012 2003 - 2008 2005 - 2011	1,6 MultiJet 198A3.000 1,6 MultiJet II 198A6.000	2,0 JTDM 16V	841N.000 841P.000 936B.000 939A3.000 939A9.000
	166			198A5.000	
	Brera			2,0 MultiJet	
				198A8.000	
		Crosswagon 2004 - 2008 <b>1,6 M-J</b>			
	Giulietta	2010 - on	199B5.000 263A3.000 263A4.000 263A5.000 263A7.000	250A1.000 250A2.000	
	GT	2004 - 2010		263A1.000 2,4 JTD/M 20V	
	MiTo	2008 - 2016			
	Spider	2006 - 2011		841G.000	
Chrysler	Delta	2011 - 2014	1,6 M-Jet	350A2.000	19
Fiat	500L/500L Living/500L MPW	2013 - on	330A3.000	<b>2,0 MultiJet II</b> 844A2.000	D20AA 55263087
	500X	2014 - on	844A3.000	939A3.000	55263088
	Bravo	2007 - 2015	940A3.000 940C1.000	939A9.000 939B3.000	55263099 55283099
	Croma	2005 - 2011	940C5.000	939B4.000	55284064
	Doblo/ Cargo/ Work Up	2010 - on	955A3.000 955A4.000 55260384 55280444 EJK (55263113) 1,6 JTDM 16V	939B5.000 940A4.000	00204004
	Ducato	2011 - 2019		940A5.000	
	Freemont	2011 - 2016		940A7.000	
	Idea	2008 - 2012		940A8.000	
	Linea	2008 - 2012		940B4.000	
	Punto/ Grande	160	192A5.000	940B5.000	
	Punto Grande	2008 - 2013	1,6 MultiJet	940B6.000	
	Sedici	2009 - 2012	192B1.000 199A5.000	940B9.000 940C3.000	
	Stilo	2004 - 2008	55284064	940C4.000	
	Tipo	2015 - on	1.6 6		

Always refer to the website for most up to date applications: www.lasertools.co.uk/product/5179

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# Applications (cont.)

Make, Model, Year			Engine Codes		
Jeep	Compass	2017 - on	1,6 MultiJet	937A4.000	
	Renegade	2014 - on	844A1.000	937A5.000	
Lancia	Delta	2008 - 2015	1,6 MultiJet 937A6.000 939A1.000 939A2.000	939A7.000	2,0 MultiJet II
	Musa	2008 - 2012		939A8.000	EBT (55263087)
	Thesis	2003 - 2009		D19AA	EBT (55263088)
Vauxhall/	Astra-H	2004 - 2011	1,6 CDTi A16DT/LJ5 A16DTH/LJ5 B16DT/LJ5 B16DTH/LJ5 1,9 CDTi Z19DTH Z19DTJ	2,0 CDTi	207
Opel	Astra-J	2009 - 2015		A20DT/LBR	
	Cascada	2013 - 2015		A20DT/LHZ	
	Combo-D	2012 - 2018		A20DTC/ LCD	
	Insignia-A	2008 - 2017		A20DTE/	
	Signum	2004 - 2008		LHV	
	Vectra-C	2004 - 2008		A20DTH/ LBS	
	Zafira-B	2005 - 2012		A20DTJ/LBX	
	Zafira-C Tourer	2011 - 2015		A20DTL/ LBQ	
	Co 63 14			A20DTR/ LBY	

# Instructions

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicle manufacturers' own data or Autodata.

The use of this engine timing tool kit is purely down to the user's discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused whatsoever.



#### Instructions

#### Preparation

- Remove the right hand front wheel, engine cover, engine under tray and inner wheel arch.
- Depending on the vehicle model it may be necessary to remove the front bumper, auxiliary drive belt tensioner and radiator to gain adequate access to the cam belt area.

#### **Component Descriptions**

#### Component A - Flywheel Holding Tool

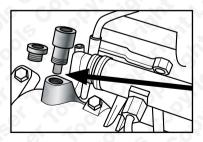
Use to flywheel still whilst releasing the crankshaft pulley centre bolt. Component (A) fits in place of the flywheel access plate that is fitted on the engine side of the flywheel housing.

#### Components B - Camshaft Alignment Pins (2)

These pins are only required on the DOHC engines. For replacement of the timing belt only one pin is required (to lock the exhaust camshaft).

When head removal or rebuild is required both pins must be used to lock both camshafts.

The camshaft alignment pins are designed to screw in and locate in a slot in the camshafts. If the slot is not properly aligned the pins will not screw in fully. Rotate the crankshaft in the normal direction of rotation until the locking pin can be screwed in.



Adjusts the camshaft timing, removes and replaces the cam belt and performs complete cylinder head rebuilds whilst maintaining the correct valve timing.

#### Instructions

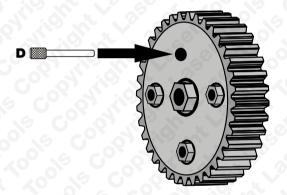
#### Component C - Crankshaft Alignment Tool

Using the fixings supplied (C) is used to hold the crankshaft in a set position once the crankshaft pulley has been removed.

#### Component D - Fuel Pump Pulley Timing Pin

Used to lock the High Pressure Fuel Pump Sprocket in its timed position. Component D is not required on all the engines listed. Only engines equipped with timing holes in the pump sprocket require component D.

See image below.



Note: These engines are available in both SOHC and DOHC configuration. The process is very similar however, the following points should be noted:

For SOHC engines use components A and C only (timing marks are provided on the cam shaft pulley).

For DOHC engines use components A, B and C. For belt replacement, it is necessary to lock only the exhaust camshaft as the drive for the inlet camshaft is transferred in the head via transfer gears. For DOHC head rebuild use all components.

#### Safety Warnings - please read

- If the engine has been identified as an Interference engine, damage to the engine will occur if the timing belt has been damaged.
   A compression check of all the cylinders should be taken before the cylinder head (s) are removed.
- Do not turn crankshaft or camshaft when the timing belt/chain has been removed.
- To make turning the engine easier, remove the spark plugs/glow plugs or injectors.
- Observe all tightening torques.
- Do not turn the engine using the camshaft or any other sprocket.
- Disconnect the battery earth lead (check Radio code is available).

- Do not use cleaning fluids on belts, sprockets or rollers.
- Some toothed timing belts are not interchangeable. Check the replacement belt has the correct tooth profile.
- Always mark the belt with the direction of running before removal.
- Do not lever or force the belt onto its sprockets.
  - Do not use timing pins to lock the engine when slackening or tightening the crankshaft pulley bolts.
- ALWAYS REFER TO A REPUTABLE MANUFACTURERS WORKSHOP MANUAL.

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by the Tool Connection for incorrect use of any of our products, and the Tool Connection cannot be held responsible for any damage to personnel, property or equipment when using the tools. Incorrect use will also invalidate the warranty.

If applicable, the applications database and any instructional information provided has been designed to offer general guidance for a particular tool's use and while all attention is given to the accuracy of the data no project should be attempted without referring first to the manufacturer's technical documentation (workshop or instruction manual) or the use of a recognised authority such as Autodata.

It is our policy to continually improve our products and thus we reserve the right to alter specifications and components without prior notice. It is the responsibility of the user to ensure the suitability of the tools and information prior to their use.

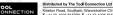


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ineton Road, Southam, Warwickshire CV47 ( +44 (0) 1926 815000 F +44 (0) 1926 815888

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