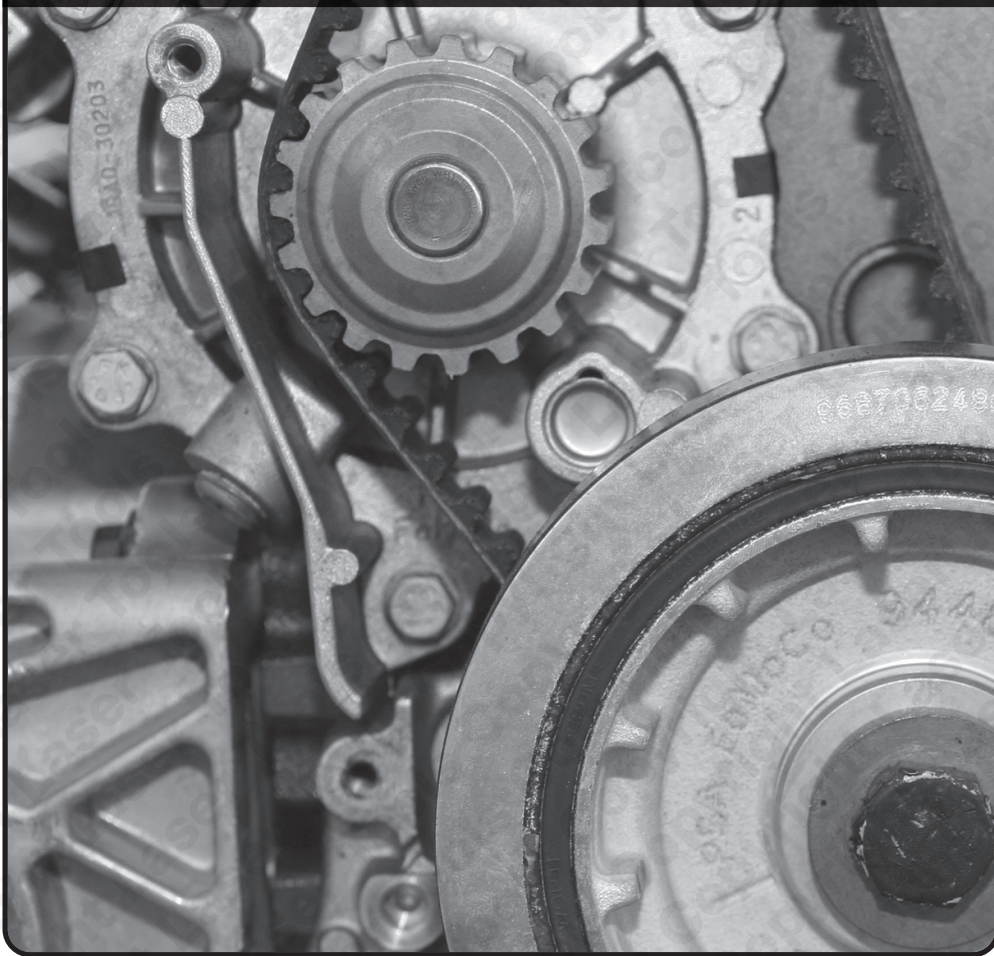


LASER[®]

Part No. 6997

Instructions

Timing Chain Tool Kit BMW



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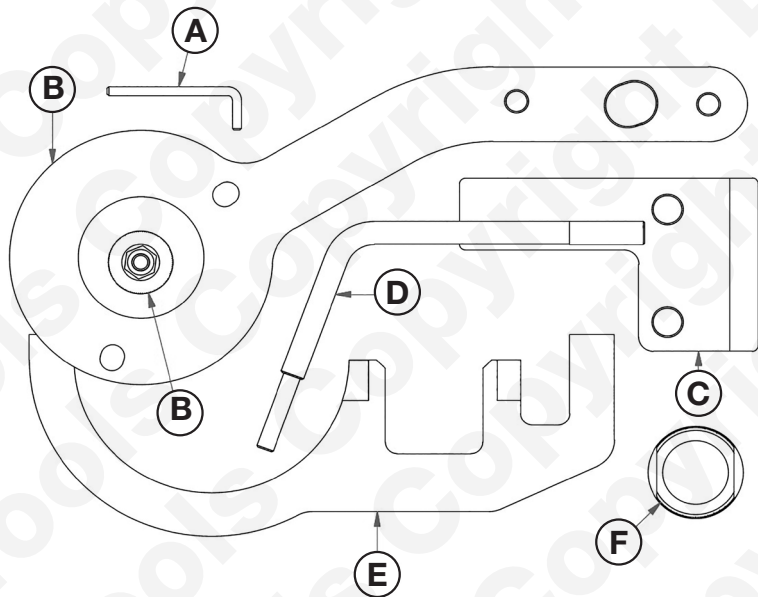
Introduction

This kit provides the essential tools required to check and set the camshaft and crankshaft timing on the post 2014 BMW MINI 1.5L 3 cylinder (B37) and 2.0L 4 cylinder (B47) diesel engines.

- BMW Applications include: 1, 2, 3, 4, 5 series and X1, 3, 4, 5 models (from 2014).
- MINI Applications include: Clubman (F54), Convertible (F57), Mini Hatch (F55/56) from 2014.
- Equivalent to OEM refs. 11 4 120, 2 347 904, 2 365 488, 2 288 380, 11 8 760, 11 8 740, 11 8 030.

Designed to be use as per OEM instructions.

Components



Ref.	Code	OEM Ref.	Description
A	C282	11 4 120	Tensioner Locking Pin
B	C819	2 357 904	Crankshaft Holding Tool
C	C820	2 365 488	Auto Transmission Driveplate Timing Plate
D	C821	2 288 380	Manual Transmission Timing Pin
E	C530	11 8 760	Camshaft Alignment Tool
F	C532	11 8 740, 11 8 030	Fuel Pump Sprocket Removal Tool

Applications

Manufacturer	Model	Chassis Code	Type	Year	Engine Codes
BMW	1 Series	(F20/F21)	xDrive / EfficientDynamics	2015 - 19	1.5L d B37 C15A B37 D15A
		(F40)		2019 - on	
	2 Series	(F22/F23)	xDrive	2014 - 20	
		(F44/F45/F46)		2014 - on	
	3 Series	(F30/F31/F34)	xDrive / EfficientDynamics	2015 - 20	
		(G20/21)	xDrive / mhev	2018 - on	
	4 Series	(F32/F33/F36)	xDrive	2015 - 21	2.0L d B47 C20A B47 C20B B47 D20A B47 D20B
		(G22/G23)	xDrive / mhev	2020 - on	
	5 Series	(F10/F11)	xDrive	2014 - 17	
		(G30/31)	xDrive / mhev	2017 - on	
	6 Series	(G32)		2018 - on	
	7 Series	(G11/12)		2016 - 19	
	X1	(F48)		2015 - 22	
	X2	(F39)	sDrive / xDrive	2018 - on	
		(F25)		2014 - 17	
	X3	(G01)	sDrive / xDrive / mhev	2017 - on	
		(F26)	xDrive	2014 - 18	
	X4	(G02)	xDrive / mhev	2018 - on	
		(F15)	sDrive / xDrive	2015 - 18	
	X5	(G05)	xDrive	2018 - on	
MINI	Clubman	(F54)	One D, Cooper D, Cooper SD	2015 - on	1.5L d B37 C15A
	Mini Hatch	(F55/F56)		2014 - 20	
	Convertible	(F57)	Cooper D, Cooper SD	2014 - 20	2.0L d B47 C20A B47 C20B
	Countryman	(F60)	One D, Cooper D, Cooper SD	2017 - on	

Always refer to the website for most up to date applications:
www.lasertools.co.uk/product/6997

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

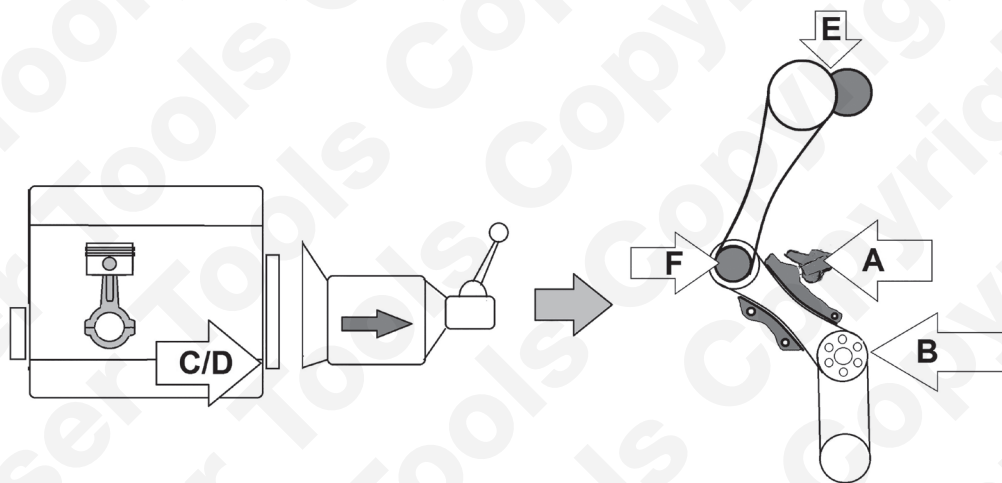


Warning: Hybrid drive vehicles (including PHEV & MHEV):

Where the vehicle is a hybrid electric vehicle there may be a risk of injury due to electric shock. Please ensure all manufacturers' safety recommendations are followed at all times including any relevant HV disconnection processes and the use of appropriate PPE as specified by the vehicle manufacturer. No liability is accepted by the Tool Connection for injury or shock to personnel, property or equipment, however caused.

NOTE:

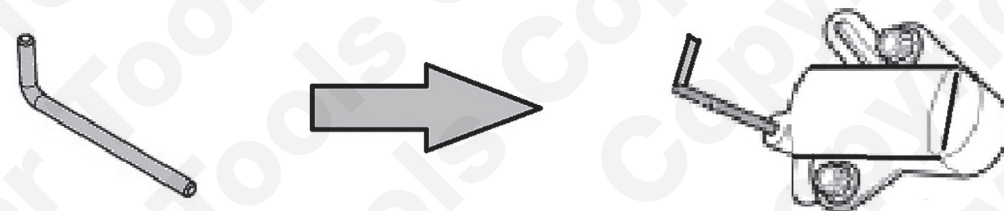
- The timing chains are located at the rear of the engine.
- To use 6997 the engine must be removed from the vehicle and the flywheel removed.
- Ensure the engine timing marks are aligned.



Instructions

Component A

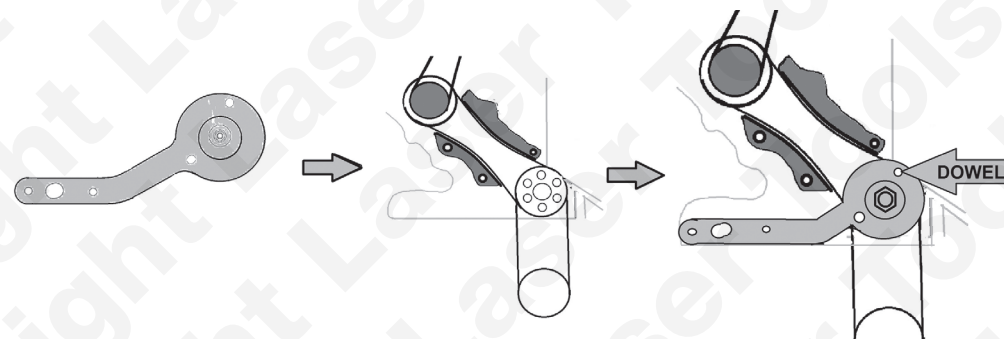
Used to lock the crankshaft to fuel pump drive chain tensioner in its retracted position as shown.



Component B

Used to lock the crankshaft in its timed position as shown. The transmission and flywheel must first be removed from the engine.

ENSURE THE CRANKSHAFT DOWEL PIN IS POSITIONED AS SHOWN



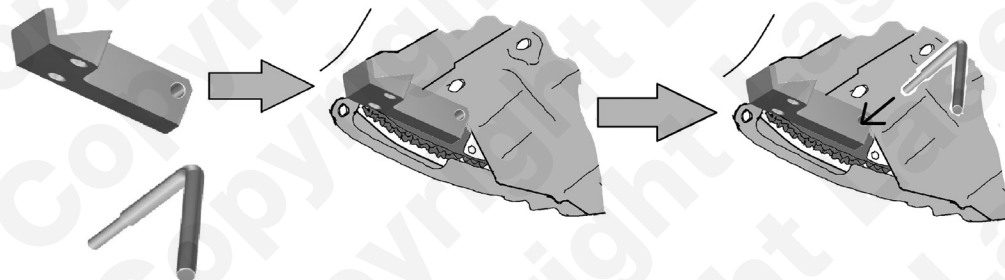
Instructions

Components C and D

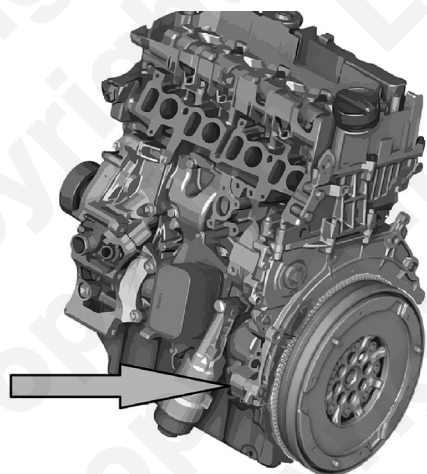
Used together for 2.0 B47 engines equipped with automatic transmission as shown. Use **D** on its own for vehicles with manual transmission.

C AND D CAN ONLY BE USED WITH THE FLYWHEEL/DRIVE PLATE IN PLACE.

Automatic Transmission: Remove starter motor and fit **C** and **D** as shown.

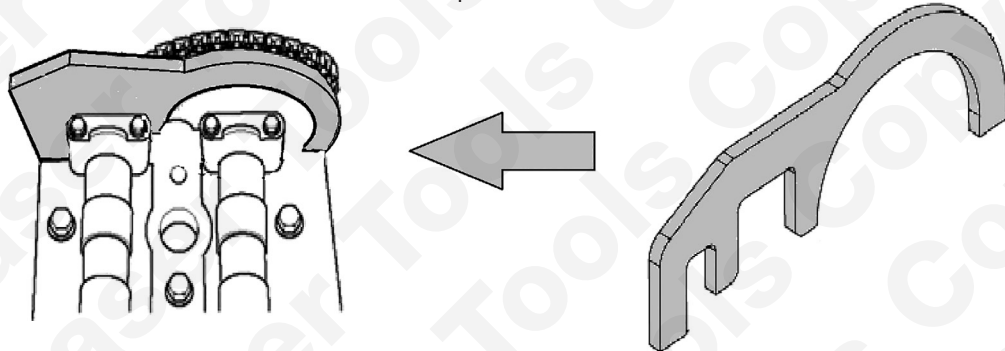


Manual Transmission



Component E

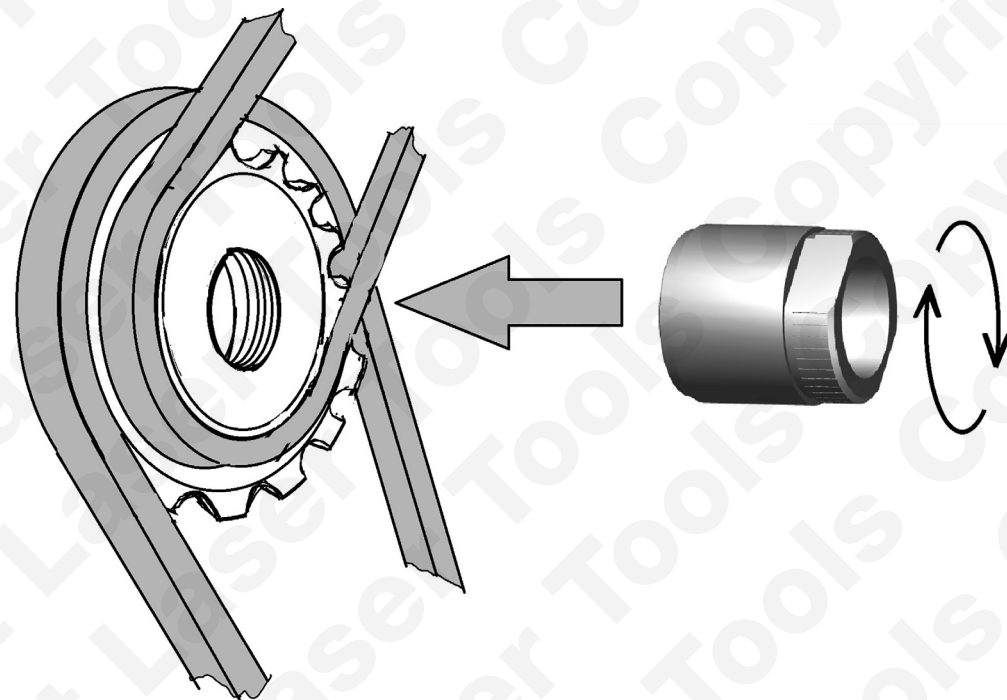
Used to lock the camshafts in their timed position as shown.



Instructions

Component F

Used to pull the diesel high pressure pump sprocket off the pump to allow replacement of the chains. Remove the sprocket fixing bolt and screw **F** into the sprocket.



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.



Safety First. Be Protected.

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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Guarantee

If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186**. Normal wear and tear are excluded as are consumable items and abuse.

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