

## Applications

Make	Model	Type	Year
BMW	1 Series	116i	2004-2009
	3 Series	316i	2002-2010
		316ti Compact	
		316ti Compact	
		320si	

## Engine Code

1.6	N45 B16A, N45T B16AC, N40 B16A
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Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by Sonic for incorrect use of any of our products, and Sonic 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.

# SONIC

equipment

## Instructions

### Engine Timing Kit BMW Petrol N40, 45, 45T - 1.6

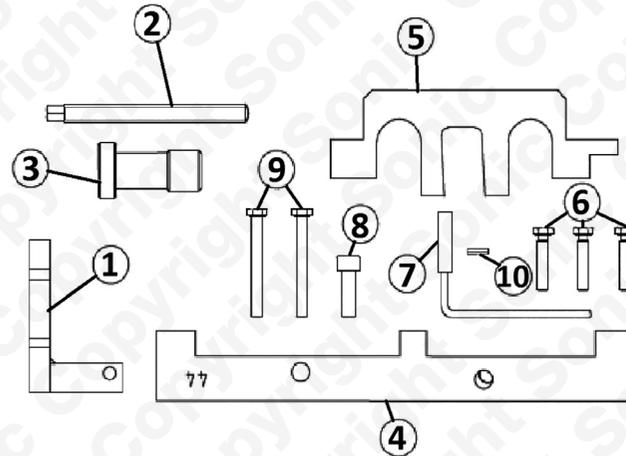


## 829032 - Engine Timing Kit

**Description:**  
The 829032 has been Developed to allow the user to check and adjust the Camshaft timing and remove/replace the Cam chain. The 829032 also includes the VANOS plate which is required to lock the Variable Valve timing system in the correct position.

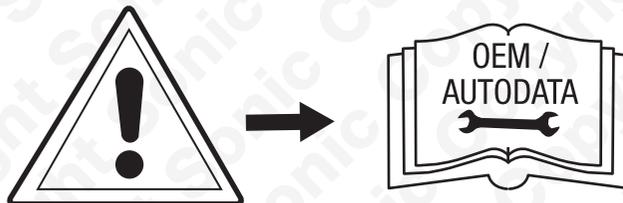
### Components

Ref	Comp	OEM	Description
1	4880042	11 7 252	Camshaft Locking Tool - Inlet
2	4880019		Screw For 3
3	4880020	11 9 340, 11 9 341	Tensioner Pre-Load Tool
4	4880040	11 7 260	Vanos Sensor Alignment Tool
5	4880041	11 7 251	Camshaft Locking Tool - Exhaust
6	4880028		M6 x 30 Set Screws x3
7	4880025	11 9 190	Flywheel Setting Pin
8	4880165		M8 x 25mm Cap Screws x1
9	4880114		M6 x 55 H.T. Setscrew x2
10	4880010		Washers M6 x 2.



### Instructions

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicles manufactures own data or Autodata. The use of these engine timing tools is purely down to the user's discretion and Sonic cannot be held responsible for any damage caused what so ever.

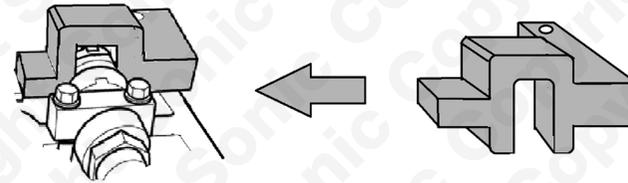


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#### Components 1 - Camshaft Locking Tool - Inlet

Component 1 is used to lock the inlet camshaft in its timed position. With the engine set at TDC NO.1, fit component 1 at the end of the Camshaft opposite the Cam Chain sprockets. When correctly fitted with the inlet cam correctly timed component 1 should sit squarely on the cylinder head top face.



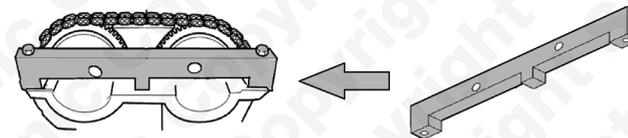
#### Components 2 & 3 - Chain Tensioner Pre-Load Tool

Component 2 & 3 are provided to allow the user to release the tension on the camshaft chain tensioner which is particularly required when

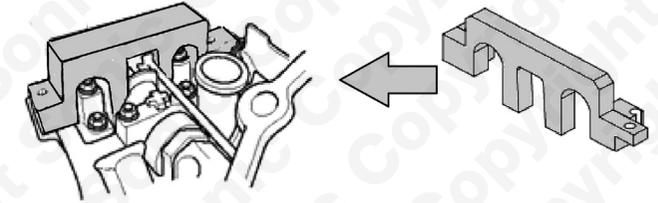
- Removing or replacing the Cam chain
- Setting/removing/replacing the VANOS unit(s)

#### Component 4 - Vanos Sensor Alignment Tool

Component 4 is designed to allow the user to set the start position of the VANOS units on the camshafts to ensure the Variable Valve Timing will function correctly.



Component 5 locates on the exhaust Cam. When correctly fitted and the exhaust cam correctly timed component 5 should sit squarely on the cylinder head with less than 1mm gap between component 5 and the cylinder head. Component 5 also holds down component 1



#### Components 7 - Flywheel Locking Pin

Component 7 is used to lock the crankshaft in it timed position (No1 at TDC). 7 locates through the engine block into the flywheel just below the starter motor.

