

NEO TOOLS 11-326

NEO TOOLS Engine Timing Tool Kit 11-326 Instruction Manual

Model: 11-326

1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of the NEO TOOLS Engine Timing Tool Kit, model 11-326. This kit is specifically designed for setting and locking the camshaft and crankshaft on various Fiat gasoline and diesel engines during timing belt or chain replacement, engine repair, or other maintenance procedures requiring precise engine timing.

Proper use of these tools is crucial for preventing engine damage. Always refer to the vehicle manufacturer's service manual for specific timing procedures and torque specifications for the vehicle being serviced.

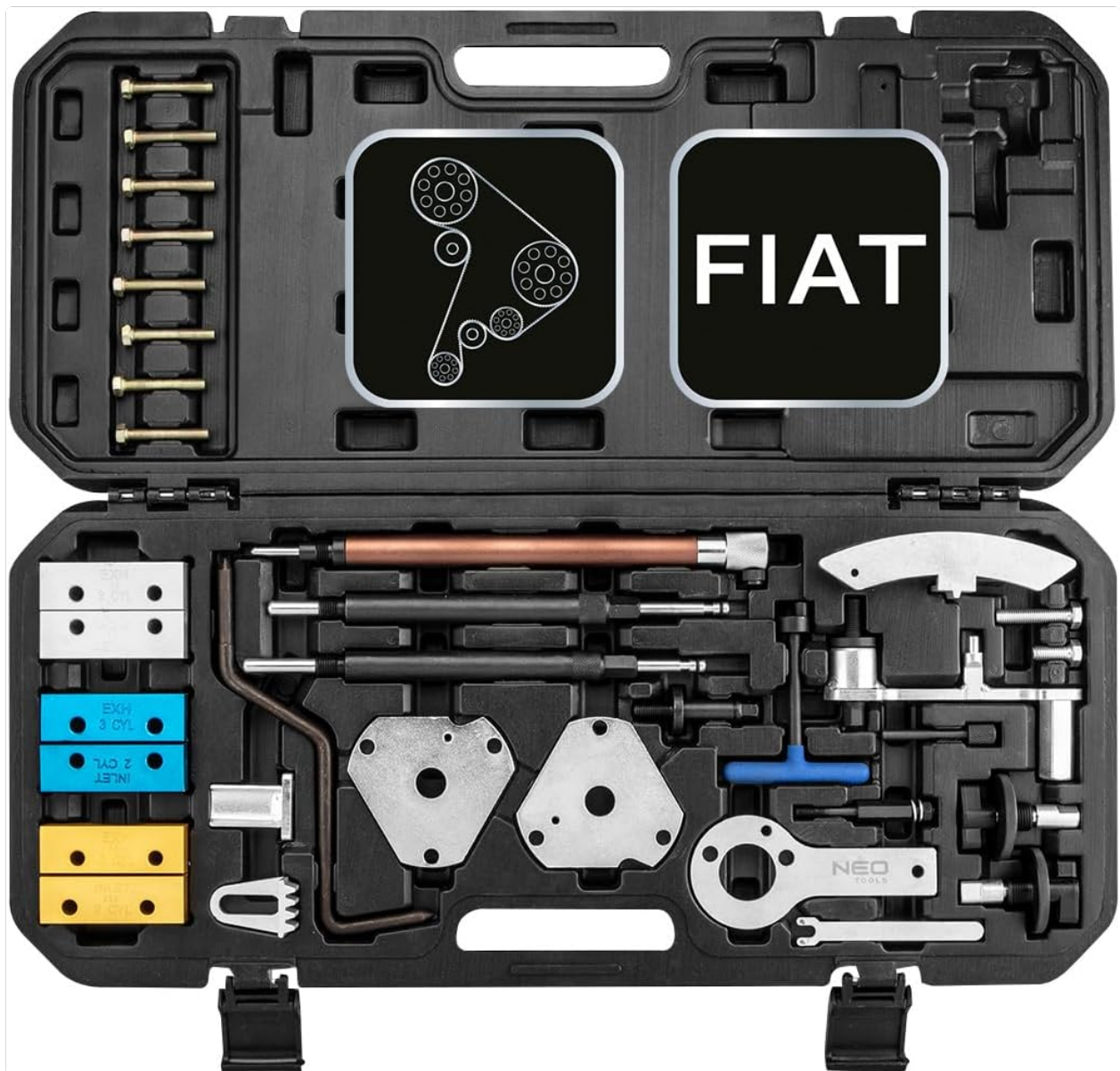


Figure 1: The complete NEO TOOLS Engine Timing Tool Kit 11-326, neatly organized within its durable storage case.

2. SAFETY INFORMATION

Always wear appropriate personal protective equipment (PPE) including safety glasses and gloves when working on engines. Ensure the vehicle is securely supported on jack stands and the battery is disconnected before beginning any work. Engine timing procedures require precision; incorrect timing can lead to severe engine damage. If you are unsure about any step, consult a qualified mechanic.

3. KIT CONTENTS AND COMPATIBILITY

The NEO TOOLS 11-326 kit includes various specialized tools for engine timing. Familiarize yourself with each component before use.

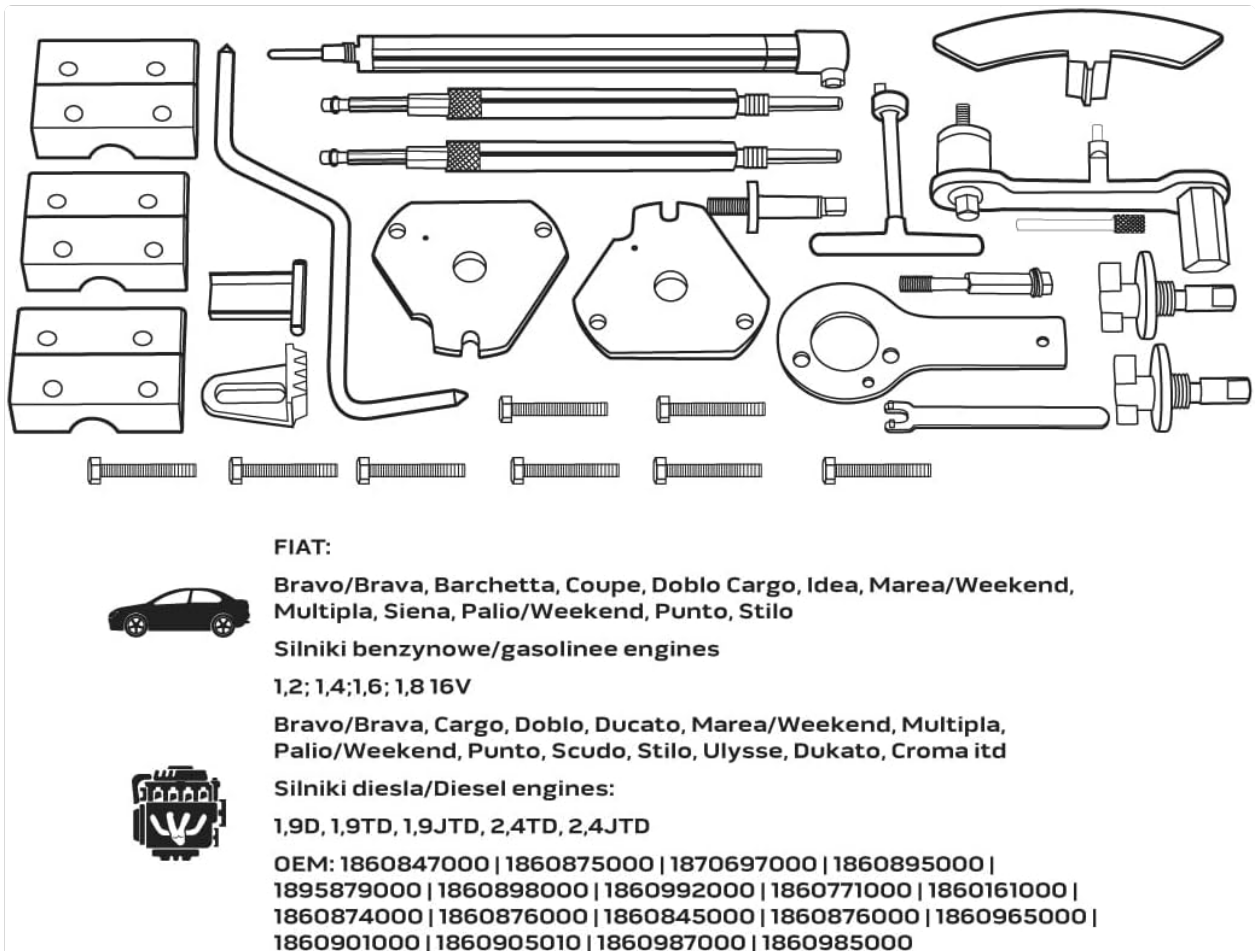


Figure 2: An illustration detailing the individual components of the timing tool kit and a list of compatible Fiat engine models and types.

Compatible Fiat Vehicles and Engines:

- **Gasoline Engines (1.2, 1.4, 1.6, 1.8 16V):** Fiat 500 (312), Fiat Panda II (169), Fiat Punto II (188), Fiat 500X (334), Fiat 500 C Cabriolet (312), Bravo/Brava, Barchetta, Coupe, Doblo Cargo, Idea, Marea/Weekend, Multipla, Siena, Palio/Weekend, Punto, Stilo.
- **Diesel Engines (1.9D, 1.9JTD, 2.4JTD):** Fiat Ducato III Van (250, 290), Fiat Ducato III Platform/Chassis (250, 290), Fiat Doblo II Van / Break (263), Bravo/Brava, Cargo, Doblo, Ducato, Marea/Weekend, Multipla, Palio/Weekend, Punto, Scudo, Stilo, Ulysse, Dukato, Croma.

OEM Reference Numbers: 1860161000, 1860771000, 1860845000, 1860847000, 1860874000, 1860875000, 1860876000, 1860895000, 1860898000, 1860901000, 1860905010, 1860965000, 1860985000, 1860987000, 1860992000, 1870697000, 1895879000.

4. SETUP AND PREPARATION

Before using the timing tools, ensure the engine is at Top Dead Center (TDC) on the compression stroke for cylinder 1, as specified by the vehicle manufacturer. Remove any components obstructing access to the timing belt/chain, camshafts, and crankshaft.

1. **Identify Components:** Lay out all tools from the kit and identify them according to the vehicle's service manual.
2. **Cleanliness:** Ensure all tools and engine components are clean and free from debris.
3. **Vehicle Specifics:** Consult the specific vehicle's repair manual for exact procedures, as variations exist between models and engine types.



Figure 3: The timing tool kit opened, displaying the various locking pins, plates, and wrenches.

5. OPERATING INSTRUCTIONS

The primary function of this kit is to accurately lock the engine's camshafts and crankshaft in their correct timed positions. This is essential when replacing timing belts/chains, cylinder head gaskets, or performing other engine work that disturbs the timing.

1. **Crankshaft Locking:** Insert the appropriate crankshaft locking pin into the designated hole in the engine block, engaging with the crankshaft. This prevents the crankshaft from rotating.
2. **Camshaft Locking:** Position the camshafts to align with the locking slots or holes. Insert the correct camshaft locking plates or pins into the camshaft sprockets or cylinder head. Some engines may require specific colored blocks for inlet and exhaust camshafts, as shown in Figure 4.
3. **Tensioner Adjustment:** If replacing a timing belt, use the tensioner adjustment tool (if included and applicable) to release or apply tension as required.
4. **Component Replacement:** With the engine locked, proceed with the timing belt/chain replacement or other necessary repairs.
5. **Reassembly and Verification:** After replacing components, ensure all timing marks are aligned and the locking tools are correctly seated. Remove the locking tools before rotating the engine. Manually rotate the engine two full revolutions by hand (using the crankshaft bolt) and re-check timing marks to confirm correct installation.



Figure 4: Detailed view of the colored timing blocks, used for precise camshaft positioning for different cylinder configurations (e.g., 2-cylinder inlet, 3-cylinder exhaust).



Figure 5: A close-up showing the various crankshaft and camshaft locking pins, designed to fit specific engine points.



Figure 6: A close-up of the NEO TOOLS branded wrench and other smaller specialized tools included in the kit.

6. MAINTENANCE

To ensure the longevity and accuracy of your NEO TOOLS timing kit, follow these maintenance guidelines:

- **Cleaning:** After each use, clean all tools thoroughly to remove oil, grease, and dirt.
- **Storage:** Store the tools in their original case in a dry, clean environment to prevent corrosion and damage.
- **Inspection:** Periodically inspect tools for any signs of wear, damage, or deformation. Do not use damaged tools.
- **Lubrication:** Lightly oil any threaded components or moving parts to prevent seizing.



Figure 7: The durable, closed storage case for the NEO TOOLS timing tool kit, designed for protection and organization.

7. TROUBLESHOOTING

If you encounter issues during the timing procedure, consider the following:


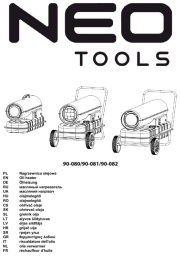




- **Tools Not Fitting:** Double-check the vehicle's engine code and compare it with the kit's compatibility list. Ensure the engine is at the correct position (e.g., TDC for cylinder 1).
- **Timing Marks Not Aligning:** This often indicates the engine was not correctly positioned before attempting to insert the locking tools, or a component shifted during disassembly. Re-verify engine position and try again.
- **Difficulty Inserting Pins/Plates:** Do not force tools into place. If a tool does not fit easily, re-check engine alignment and ensure you are using the correct tool for that specific application. Forcing tools can damage both the tools and engine components.

8. SPECIFICATIONS

Feature	Detail
Brand	NEO TOOLS
Model Number	11-326 (TOP-11-326)
Product Type	Engine Timing Tool Kit
Compatibility	Fiat Gasoline and Diesel Engines (refer to Section 3 for full list)
Item Weight	5.1 Kilograms
Product Dimensions (L x W x H)	47.1 x 30.7 x 9.4 cm
OEM Part Numbers	1860161000, 1860771000, 1860845000, 1860847000, 1860874000, etc.

9. WARRANTY AND SUPPORT

For warranty information or technical support regarding your NEO TOOLS Engine Timing Tool Kit 11-326, please refer to the documentation included with your purchase or contact NEO TOOLS customer service directly. Keep your proof of purchase for warranty claims.

	<p>NEO TOOLS 04-730 Portable Generator User Manual</p> <p>User manual for the NEO TOOLS 04-730 portable generator. Covers safe operation, starting, maintenance, troubleshooting, and technical specifications for reliable power generation.</p>
	<p>NEO TOOLS Nagrzewnica olejowa Instrukcja Obsługi 90-080 90-081 90-082</p> <p>Oficjalna instrukcja obsługi dla nagrzewnic olejowych NEO TOOLS modeli 90-080, 90-081, 90-082. Zawiera kluczowe informacje dotyczące bezpieczeństwa, montażu, instalacji i prawidłowego użytkowania.</p>
	<p>NEO TOOLS Kompresor Olejowy 12K030-1 / 12K031-1 Instrukcja Obsługi</p> <p>Szczegółowa instrukcja obsługi dla kompresorów olejowych NEO TOOLS modeli 12K030-1 i 12K031-1. Zawiera informacje o bezpieczeństwie, użytkowaniu, konserwacji i rozwiązywaniu problemów.</p>
	<p>NEO TOOLS 97-350 Half Mask Respirator - Original Instruction Manual</p> <p>This manual provides essential instructions for the NEO TOOLS 97-350 half mask respirator, detailing its preparation, safe usage, maintenance, and storage. Available in multiple languages for user convenience.</p>
	<p>NEO TOOLS Kompresor Olejowy Instrukcja Obsługi</p> <p>Instrukcja obsługi dla kompresorów olejowych NEO TOOLS modeli 12K030-1 i 12K031-1. Zawiera szczegółowe informacje o bezpieczeństwie, użytkowaniu, konserwacji i specyfikacjach technicznych.</p>
	<p>NEO TOOLS 63-152 Mini Thermoelectric Cooler and Warmer User Manual</p> <p>User manual for the NEO TOOLS 63-152 Mini Thermoelectric Cooler and Warmer. Provides operating instructions, technical specifications, safety warnings, and maintenance guidelines for home and car use.</p>

