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› [SPI SM-12604 Clutch Alignment Tool User Manual](#)

SPI SM-12604

SPI SM-12604 Clutch Alignment Tool User Manual

Model: SM-12604 | Brand: SPI

1. PRODUCT OVERVIEW

The SPI SM-12604 is a specialized clutch alignment tool designed for powersports vehicles. This tool is essential for accurately aligning the clutch disc during transmission installation, ensuring proper engagement and preventing damage to the clutch or transmission components.



Image 1.1: The SPI SM-12604 Clutch Alignment Tool. This image displays the tool's overall shape and construction, which is typically a durable metal with specific contours designed to fit into the clutch disc and pilot bearing for precise alignment.

Key Features:

- **Product Type:** Powersports Vehicle Part
- **Purpose:** Facilitates accurate clutch disc alignment
- **Package Quantity:** 1 tool
- **Weight:** Approximately 2.9 lbs
- **Origin:** Manufactured in the United States

2. SETUP AND PREPARATION

Before using the SPI SM-12604 clutch alignment tool, ensure the work area is clean, well-lit, and safe. Always wear appropriate personal protective equipment (PPE), such as safety glasses and gloves.

2.1. Required Components

- Clutch pressure plate assembly
- Clutch disc

- Pilot bearing (if applicable and installed in crankshaft)
- Flywheel (installed on crankshaft)
- Transmission

2.2. Pre-Installation Steps

1. Ensure the flywheel surface is clean and free of oil or grease.
2. Verify the pilot bearing (if used) is correctly installed in the crankshaft. The alignment tool's tip will engage with this bearing.
3. Position the clutch disc against the flywheel, ensuring the correct side faces the pressure plate. Typically, the side with the longer hub protrusion faces away from the flywheel.
4. Place the pressure plate assembly over the clutch disc, aligning the mounting holes with those on the flywheel.

3. OPERATING INSTRUCTIONS

The SPI SM-12604 clutch alignment tool is designed for straightforward use to ensure precise clutch disc centering.

3.1. Clutch Disc Alignment Procedure

1. Carefully insert the SPI SM-12604 alignment tool through the center of the clutch disc and into the pilot bearing (or pilot hole in the crankshaft).
2. Gently wiggle the tool to ensure the clutch disc is perfectly centered on the flywheel. The tool should slide in smoothly and hold the disc in place without excessive play.
3. Once the clutch disc is centered by the tool, begin installing the pressure plate bolts. Tighten these bolts gradually and evenly in a star pattern, following the torque specifications provided by the vehicle manufacturer. This prevents warping of the pressure plate.
4. After all pressure plate bolts are tightened to specification, carefully remove the SPI SM-12604 alignment tool. The clutch disc should now be perfectly aligned and held firmly by the pressure plate.
5. Proceed with the transmission installation, ensuring the input shaft slides smoothly into the aligned clutch disc splines and pilot bearing.

Note: If the transmission input shaft does not slide in easily, do not force it. Re-check the clutch disc alignment and ensure no obstructions are present.

4. MAINTENANCE

Proper maintenance will extend the life and ensure the continued accuracy of your SPI SM-12604 clutch alignment tool.

- **Cleaning:** After each use, wipe the tool clean with a dry cloth to remove any grease, oil, or debris. For stubborn grime, a mild degreaser can be used, followed by thorough drying.
- **Storage:** Store the tool in a dry environment to prevent rust. A tool box or drawer is ideal.
- **Inspection:** Periodically inspect the tool for any signs of damage, bending, or wear that could affect its accuracy. If the tool appears damaged or bent, it should be replaced to ensure proper clutch alignment.

5. TROUBLESHOOTING

This section addresses common issues that may arise during the use of the clutch alignment tool.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Tool does not fit into clutch disc/pilot bearing.	Incorrect tool size for the application; pilot bearing damaged or incorrect; clutch disc hub damaged.	Verify the tool is the correct model for your vehicle's clutch system. Inspect pilot bearing and clutch disc for damage or incorrect specifications.
Clutch disc does not center properly.	Tool not fully inserted; clutch disc or pressure plate warped; pilot bearing issue.	Ensure the tool is fully seated. Inspect clutch disc and pressure plate for warpage. Check pilot bearing condition.
Transmission input shaft will not slide into clutch.	Clutch disc not aligned; pilot bearing issue; transmission input shaft damaged.	Re-insert the alignment tool to re-center the clutch disc. Inspect pilot bearing and transmission input shaft for damage. Do not force the transmission.

6. PRODUCT SPECIFICATIONS

Detailed specifications for the SPI SM-12604 Clutch Alignment Tool:

Manufacturer	SPI
Brand	SPI
Model Number	SM-12604
Manufacturer Part Number	11-21252
Item Weight	2.91 pounds (approx. 1.32 kg)
Product Dimensions	5 x 1 x 1 inches (approx. 12.7 x 2.54 x 2.54 cm)
Exterior Finish	Painted
Country of Origin	United States
First Available Date	July 25, 2019

7. WARRANTY AND SUPPORT

Specific warranty details for the SPI SM-12604 Clutch Alignment Tool are typically provided with the product packaging or can be obtained directly from the manufacturer.

For technical support, warranty claims, or further inquiries, please contact SPI directly through their official channels. Refer to the product packaging or the SPI official website for the most current contact information.

Important: Always retain your proof of purchase for warranty purposes.

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