

SHIMANO TZ500 (586414)

Shimano Tourney TZ500 6/7-Speed Rear Derailleur Instruction Manual

Model: TZ500 (586414)

1. INTRODUCTION

This manual provides detailed instructions for the proper installation, operation, and maintenance of your Shimano Tourney TZ500 6/7-Speed Long Cage Rear Derailleur. To ensure optimal performance and longevity of your component, please read these instructions thoroughly before use. Keep this manual for future reference.

2. PRODUCT OVERVIEW

The Shimano RD-TZ500 is a reliable rear derailleur designed for 6 or 7-speed bicycle drivetrains. It features a long cage design, an integrated frame hanger, and the Shimano Index System (SIS) for precise gear changes. This component is engineered for durability and smooth operation.

Key Features:

- **6/7-Speed Compatibility:** Designed for versatile use with common bicycle drivetrains.
- **Long Cage Design:** Accommodates a wide range of gear ratios, including larger rear cogs.
- **Built-in Frame Hanger:** Simplifies installation on compatible frames.
- **11-Tooth Pulleys:** Contributes to long service life and reduced noise during operation.
- **Wheel Type Cable Guide:** Ensures super light shifting action and clean cable routing.
- **SIS Index System:** Provides accurate and consistent gear indexing.



An image showing the Shimano Tourney TZ500 rear derailleur, highlighting its long cage design and integrated frame hanger.

3. SETUP AND INSTALLATION

Proper installation is crucial for the derailleur's performance. If you are unsure about any step, it is recommended to seek assistance from a qualified bicycle mechanic.

Tools Required:

- Hex Key Set (typically 5mm)
- Cable Cutters
- Phillips Head Screwdriver
- Chain Tool (if replacing chain)

Installation Steps:

1. Mounting the Derailleur:

Align the derailleur's integrated hanger with the derailleur hanger on your bicycle frame. Insert the mounting bolt and tighten it securely with a 5mm hex key. Ensure the derailleur is properly seated and does not rotate freely.

2. Installing the Chain:

Route the bicycle chain through the derailleur pulleys. Ensure the chain passes correctly over the guide pulley and tension pulley. If installing a new chain, use a chain tool to connect the chain, ensuring the correct length for your drivetrain.

3. Cable Routing and Attachment:

Route the shift cable from your shifter through the frame's cable guides to the derailleur. Pass the cable through the cable guide on the derailleur and secure it to the cable fixing bolt. Pull the cable taut by hand and tighten the fixing bolt. Trim any excess cable with cable cutters and crimp an end cap onto the cable end.

4. Limit Screw Adjustment (H and L):

The **H (High) limit screw** controls the derailleur's outermost position, preventing the chain from shifting beyond the smallest cog. Adjust it so the guide pulley aligns directly under the smallest cog when the chain is on the smallest cog. The **L (Low) limit screw** controls the derailleur's innermost position, preventing the chain from shifting beyond the largest cog. Adjust it so the guide pulley aligns directly under the largest cog when the chain is on the largest cog.

5. B-Tension Adjustment:

Shift the chain to the largest cog on the cassette and the smallest chainring on the crankset. Adjust the B-tension screw (located on the derailleur body) so that the guide pulley is as close as possible to the largest cog without touching it. This ensures proper chain wrap and smooth shifting across all cogs.

6. Indexing Adjustment:

With the chain on the smallest cog, shift up one gear. If the chain does not move smoothly or makes noise, adjust the barrel adjuster (usually located on the shifter or near the derailleur) in small increments. Turn clockwise to move the derailleur inward (towards larger cogs) and counter-clockwise to move it outward (towards smaller cogs). Repeat this process, shifting through all gears, until shifting is smooth and precise in both directions.

4. OPERATING THE DERAILLEUR

The Shimano Tourney TZ500 derailleur operates with a compatible 6 or 7-speed shifter. To change gears, actuate your shifter according to its specific instructions. The Shimano Index System (SIS) ensures that each click of the shifter corresponds to a precise movement of the derailleur, moving the chain to the next cog.

- **Shifting Up (to smaller cogs):** Typically achieved by pressing a lever or button that releases cable tension.
- **Shifting Down (to larger cogs):** Typically achieved by pressing a lever or button that pulls cable tension.

Always shift gears while pedaling forward with moderate pressure. Avoid shifting under heavy load or while stationary, as this can damage the drivetrain components.

5. MAINTENANCE

Regular maintenance will extend the life and performance of your derailleur.

- **Cleaning:**

Periodically clean the derailleur body and pulleys to remove dirt, grime, and old lubricant. Use a degreaser and a brush, then rinse thoroughly and dry. Avoid high-pressure washing directly on the derailleur pivots.

- **Lubrication:**

After cleaning, apply a small amount of bicycle-specific lubricant to the pivot points of the derailleur and the pulley bearings. Wipe off any excess lubricant.

- **Cable and Housing Inspection:**

Inspect the shift cable and housing for fraying, kinks, or corrosion. Replace them if any damage is found, as this can significantly impact shifting performance.

- **Pulley Inspection:**

Check the derailleur pulleys for wear, cracks, or excessive play. Worn pulleys can lead to poor shifting and increased noise. Replace pulleys if necessary.

- **Alignment Check:**

Periodically check the derailleur hanger and the derailleur itself for straightness. A bent hanger is a common cause of poor shifting and can be straightened by a bicycle mechanic.

6. TROUBLESHOOTING

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
Poor or slow shifting	Incorrect cable tension, bent derailleur hanger, worn cable/housing, dirty derailleur.	Adjust barrel adjuster, check hanger alignment, replace cable/housing, clean and lubricate derailleur.
Chain skips gears	Incorrect limit screw adjustment, worn chain/cassette, bent derailleur hanger.	Re-adjust limit screws, inspect and replace worn drivetrain components, check hanger alignment.
Derailleur makes excessive noise	Lack of lubrication, dirty pulleys, bent hanger, incorrect B-tension.	Clean and lubricate, inspect pulleys, check hanger, adjust B-tension.
Chain falls off smallest/largest cog	Incorrect H or L limit screw adjustment.	Carefully re-adjust the H (High) or L (Low) limit screw.

7. SPECIFICATIONS

Brand	SHIMANO
Model Number	TZ500 (586414)
Speed Compatibility	6-Speed, 7-Speed
Cage Type	Long Cage
Mounting Type	Built-in Frame Hanger
Maximum Cog Teeth	28T
Pulley Teeth	11T
Material	Alloy Steel
Item Weight	9.6 ounces
Dimensions (L x W x H)	10" x 8" x 2"
UPC	689228689411

8. WARRANTY AND SUPPORT

Warranty Information:

This Shimano Tourney TZ500 Rear Derailleur comes with a **90 Day Limited Warranty**. This warranty covers manufacturing defects and material flaws under normal use. Please retain your proof of purchase for any warranty claims. The warranty does not cover damage resulting from improper installation, misuse, neglect, accidents, or normal wear and tear.

Customer Support:

For technical assistance, warranty claims, or further inquiries, please contact your retailer or the official Shimano customer support channels. Refer to the Shimano website for the most up-to-date contact information and support resources.