SHIMANO ERDTY500MB

Shimano Tourney TY500 Rear Derailleur ERDTY500MB Instruction Manual

Model: ERDTY500MB

1. Introduction

This manual provides essential information for the proper installation, operation, maintenance, and troubleshooting of your Shimano Tourney TY500 6/7-Speed Long Cage Rear Derailleur. Designed for BMX and track bicycles, this component ensures reliable gear shifting and smooth chain transitions. Please read this manual thoroughly before installation and use to ensure safe and optimal performance.

2. Safety Information

Always observe the following safety precautions to prevent injury and damage to your bicycle components:

- Wear appropriate safety gear, including eye protection and gloves, during installation and maintenance.
- If you are unsure about any installation or adjustment procedures, consult a qualified bicycle mechanic.
- Ensure all bolts and fasteners are tightened to the manufacturer's recommended torque specifications. Overtightening or undertightening can lead to component failure.
- Regularly inspect the derailleur and surrounding components for signs of wear, damage, or loose connections. Replace worn or damaged parts immediately.
- Keep hands and clothing clear of moving parts, especially the chain and gears, during operation and adjustment.

3. Package Contents

Verify that all items are present in the package:

- 1 x Shimano Tourney TY500 Rear Derailleur (Model: ERDTY500MB)



Figure 1: Shimano Tourney TY500 Rear Derailleur. This image shows the black derailleur with its long cage and pulley wheels, designed for bicycle gear shifting.

4. Setup and Installation

The Shimano Tourney TY500 Rear Derailleur is designed for mounting via a dropout claw hanger. Follow these general steps for installation:

1. **Attach Derailleur to Hanger:** Secure the derailleur to the bicycle's dropout claw hanger. Ensure the hanger is correctly aligned and the derailleur is seated properly. Tighten the mounting bolt to the manufacturer's specified torque.
2. **Install Chain:** Route the bicycle chain through the derailleur's cage and over the cassette cogs. Ensure the chain length is

appropriate for your drivetrain setup.

3. **Connect Shift Cable:** Route the shift cable from the shifter to the derailleur. Secure the cable to the derailleur's cable fixing bolt, ensuring there is no slack.
4. **Adjust High Limit Screw (H):** With the chain on the smallest cog, turn the H-screw until the upper guide pulley is directly aligned with the outer edge of the smallest cog. This prevents the chain from shifting beyond the smallest cog.
5. **Adjust Low Limit Screw (L):** Shift the chain to the largest cog. Turn the L-screw until the upper guide pulley is directly aligned with the inner edge of the largest cog. This prevents the chain from shifting into the spokes.
6. **Adjust B-Tension Screw:** With the chain on the largest cog, adjust the B-tension screw to set the gap between the upper guide pulley and the largest cog. A small gap (typically 5-6mm) is usually optimal for smooth shifting and chain wrap.
7. **Fine-Tune Cable Tension:** Use the barrel adjuster on the shifter or derailleur to fine-tune cable tension. Turn clockwise to move the derailleur inward (towards larger cogs) and counter-clockwise to move it outward (towards smaller cogs) until shifting is smooth and precise across all gears.

Note: The zinc-plated adjustment screws are designed for enhanced corrosion resistance, contributing to the component's longevity.

5. Operating the Derailleur

The Shimano Tourney TY500 derailleur operates in conjunction with your bicycle's rear shifter to change gears. To shift, actuate your rear shifter. The derailleur will move the chain between the different cogs on your cassette. For optimal performance, shift gears smoothly and avoid excessive force. It is generally recommended to ease off pedaling pressure slightly during a shift to allow the chain to move more freely between cogs.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your derailleur:

- **Cleaning:** Keep the derailleur clean, especially the pulley wheels and cage. Use a degreaser and brush to remove dirt and grime, then rinse with water and dry thoroughly.
- **Lubrication:** Apply a small amount of bicycle-specific lubricant to the pivot points of the derailleur and the pulley wheel bearings. Avoid over-lubrication, which can attract dirt.
- **Cable Inspection:** Periodically check the shift cable for fraying, rust, or kinks. Replace the cable if any damage is observed.
- **Limit Screw Check:** Verify that the H and L limit screws are still correctly set to prevent over-shifting.
- **B-Tension Check:** Ensure the B-tension screw maintains the correct gap between the upper pulley and the cassette cogs.
- **Fastener Torque:** Check all mounting bolts and cable fixing bolts for proper torque.

7. Troubleshooting

Problem	Possible Cause	Solution
Difficulty shifting to larger cogs (inward)	Insufficient cable tension; L-screw too tight	Increase cable tension using barrel adjuster (counter-clockwise); loosen L-screw slightly.
Difficulty shifting to smaller cogs (outward)	Excessive cable tension; H-screw too tight	Decrease cable tension using barrel adjuster (clockwise); loosen H-screw slightly.
Chain rubs against derailleur cage	Incorrect limit screw adjustment; bent derailleur hanger	Re-adjust H or L screws; inspect and straighten/replace derailleur hanger.

Problem	Possible Cause	Solution
Noisy shifting or poor chain wrap	Incorrect B-tension adjustment; worn pulley wheels	Adjust B-tension screw; inspect and replace worn pulley wheels.
Derailleur feels stiff or sluggish	Lack of lubrication; dirt/grime buildup; damaged cable/housing	Clean and lubricate pivot points; replace cable and housing if damaged.

8. Specifications

Brand	SHIMANO
Model Number	ERDTY500MB
Speed Compatibility	6/7-Speed
Cage Type	Long Cage
Mounting Type	Dropout Claw Hanger
Maximum Cog Size	34 Teeth (MegaRange compatible)
Chain Wrap Capacity	43 Teeth
Material	Multi (Resin bracket/plate body, Zinc-plated adjustment screws)
Product Dimensions (L x W x H)	10" x 7" x 3"
UPC	689228393707

9. Warranty and Support

This Shimano Tourney TY500 Rear Derailleur is covered by a **Limited Warranty**. For specific terms and conditions of the warranty, please refer to the documentation provided with your purchase or visit the official Shimano website.
For technical support, service, or warranty claims, please contact your authorized Shimano dealer or the Shimano customer service department in your region. Keep your proof of purchase for warranty validation.

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