SHIMANO RD-TY500

Shimano RD-TY500 Tourney Rear Derailleur Instruction Manual

Model: RD-TY500 | Brand: SHIMANO

1. Introduction

Welcome to the instruction manual for your Shimano RD-TY500 Tourney Rear Derailleur. This manual provides essential information for the proper installation, operation, maintenance, and troubleshooting of your new derailleur. Please read this manual thoroughly before use to ensure optimal performance and longevity of your product.

Product Features

- Compatible with all Shimano 6 and 7-speed shifters.
- Advanced light action design for smooth shifting.
- SGS cage designed for wide-range gearing.
- Direct fit installation, screwing directly into the frame.
- SIS Rear Index Shifting for precise gear changes.
- Equipped with 13-tooth pulleys for extended service life and reduced noise.

2. Setup and Installation

Unpacking

Carefully remove the Shimano RD-TY500 Tourney Rear Derailleur from its packaging. Verify that all components are present. The package should include:

- 1 x Shimano RD-TY500 Tourney Rear Derailleur

Tools Required

- Hex wrenches (sizes may vary, typically 5mm or 6mm for mounting bolt, smaller for limit screws)
- Cable cutters
- Grease
- Torque wrench (recommended for precise installation)

Installation Steps

1. **Mounting the Derailleur:** Ensure your bike frame has a direct mount hanger. Apply a small amount of grease to the derailleur hanger threads. Screw the RD-TY500 derailleur directly into the frame's hanger. Tighten to the manufacturer's specified torque (refer to your bike frame manual or a general bicycle repair guide for torque specifications).
2. **Connecting the Cable:** Route the derailleur cable from your shifter to the derailleur. Secure the cable to the derailleur's cable fixing bolt. Ensure the cable is taut but not overly tight before securing.
3. **Adjusting Limit Screws (H and L):**
    - **High Limit (H) Screw:** This screw prevents the chain from shifting beyond the smallest cog and into the frame. With the chain on the smallest cog, adjust the H-screw so that the upper guide pulley is directly aligned with the center of the smallest cog.
    - **Low Limit (L) Screw:** This screw prevents the chain from shifting beyond the largest cog and into the spokes. With the chain on the largest cog, adjust the L-screw so that the upper guide pulley is directly aligned with the center of the largest cog.
4. **B-Tension Adjustment:** The B-tension screw adjusts the distance between the upper guide pulley and the cogs. With the chain on the largest cog and largest chainring, adjust the B-tension screw to achieve a small gap (approximately 5-6mm) between the upper guide pulley and the largest cog. This ensures smooth shifting across all gears.
5. **Fine-Tuning (Barrel Adjuster):** Use the barrel adjuster on the shifter or derailleur to fine-tune shifting. If shifting to a larger cog is slow or hesitant, turn the barrel adjuster counter-clockwise. If shifting to a smaller cog is slow or hesitant, turn the barrel adjuster clockwise.

Visual Aid: Product Overview



This video provides a visual overview of the Shimano RD-TY500 Tourney Rear Derailleur, demonstrating its features and general appearance.

3. Operation

The Shimano RD-TY500 Tourney Rear Derailleur is designed for smooth and reliable gear changes on 6 and 7-speed bicycle drivetrains.

Shifting Gears

To shift gears, use your bicycle's compatible Shimano 6 or 7-speed shifters.

- **Shifting to a Larger Cog (Easier Gear):** Press the appropriate shifter lever to move the chain onto a larger rear cog. This will make pedaling easier, especially on inclines.
- **Shifting to a Smaller Cog (Harder Gear):** Press the appropriate shifter lever to move the chain onto a smaller rear cog. This will make pedaling harder but allow for higher speeds on flat terrain or descents.

Best Practices

- Always shift while pedaling forward with moderate pressure. Avoid shifting under heavy load or when stationary.
- Anticipate terrain changes and shift proactively to maintain a smooth cadence.
- Avoid cross-chaining (e.g., largest front chainring with largest rear cog, or smallest front chainring with smallest rear cog) as this can cause excessive wear and inefficient power transfer.

4. Maintenance

Regular maintenance will ensure the longevity and optimal performance of your Shimano RD-TY500 Tourney Rear Derailleur.

Cleaning

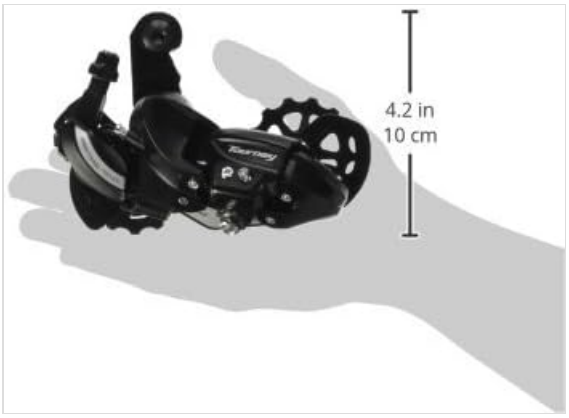
- Periodically clean the derailleur, especially the pulleys, to remove dirt, grime, and old lubricant. Use a degreaser and a brush, then rinse thoroughly.
- Ensure the chain is also clean and lubricated.

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.

Inspection

- Regularly check the derailleur for any signs of damage, bending, or loose bolts.
- Inspect the derailleur hanger for alignment. A bent hanger can cause poor shifting performance.
- Check the tension and condition of the shifter cable. Replace frayed or corroded cables.



A close-up view of the Shimano RD-TY500 Tourney Rear Derailleur, highlighting the pulley system and adjustment screws. Regular cleaning and lubrication of these components are crucial for smooth operation.

5. Troubleshooting

This section addresses common issues you might encounter with your rear derailleur.

Problem	Possible Cause	Solution
Slow or hesitant shifting to larger cogs	Insufficient cable tension	Turn the barrel adjuster counter-clockwise to increase cable tension.
Slow or hesitant shifting to smaller cogs	Excessive cable tension	Turn the barrel adjuster clockwise to decrease cable tension.
Chain falls off the smallest cog (into the frame)	H-limit screw set too far out	Turn the H-limit screw clockwise in small increments until the chain no longer falls off.

Problem	Possible Cause	Solution
Chain falls off the largest cog (into the spokes)	L-limit screw set too far out	Turn the L-limit screw clockwise in small increments until the chain no longer falls off.
Noisy shifting or chain rubbing	Derailleur hanger bent, B-tension incorrect, or dirty/dry chain	Check derailleur hanger alignment. Adjust B-tension. Clean and lubricate chain.
Derailleur does not move	Seized pivots, broken cable, or shifter issue	Clean and lubricate pivots. Check cable for breaks or fraying. Inspect shifter.

Visual Aid: Product Image



The Shimano RD-TY500 Tourney Rear Derailleur held in hand, illustrating its compact size and design. Proper installation and adjustment are key to preventing many common shifting problems.

6. Specifications

Feature	Detail
Model	RD-TY500
Brand	SHIMANO
Color	Black
Material	Aluminum
Item Weight	0.3 Kilograms
Compatible Speeds	6-speed, 7-speed
Pulley Teeth	13-tooth
Cage Type	SGS (Long Cage)
Shifting Type	SIS Rear Index Shifting
Mount Type	Direct Mount (screws into frame)
Max Cog Size	34T (as per user reviews, for optimal performance)
Dimensions (L x W x H)	6"L x 4"W x 2"H
UPC	689228393691
Manufacturer Part Number	FBA_ERDTY500D

7. Warranty and Support

Warranty Information

This Shimano RD-TY500 Tourney Rear Derailleur comes with a**Limited Warranty**. For specific details regarding warranty coverage, duration, and claims process, please refer to the official Shimano warranty documentation included with your purchase or visit the official Shimano website.

Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Shimano customer support. Contact information can typically be found on the official Shimano website or on the product packaging.
You can also visit the SHIMANO Store on Amazon for additional product information and resources.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question