

## SHIMANO ST-EF500

# Shimano ST-EF500 7-Speed Right Brake/Shift Lever Instruction Manual

Model: ST-EF500 | Part Number: 586259

## INTRODUCTION

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This manual provides instructions for the proper installation, operation, and maintenance of your Shimano ST-EF500 7-Speed Right Brake/Shift Lever. The ST-EF500 is a dual brake/shift lever designed for bicycles, featuring a 4-finger lever, reach adjust technology, and an optical gear display. It is compatible with cantilever, roller, linear-pull, and mechanical disc brakes. Please read this manual thoroughly before use to ensure safe and correct operation.

## SAFETY INFORMATION

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- Always wear appropriate safety gear, including a helmet, when riding a bicycle.
- Ensure all components are securely fastened and correctly adjusted before each ride. Loose components can lead to loss of control.
- Incorrect installation or adjustment of brake and shift levers can result in loss of control or accidents. If you are unsure about installation, consult a professional bicycle mechanic.
- Regularly inspect brake and shift cables for wear, fraying, or damage. Replace damaged cables immediately.
- Brake performance can be affected by weather conditions. Ride cautiously in wet or icy conditions.
- Do not modify the brake/shift lever. Unauthorized modifications can compromise safety and performance.

## SETUP AND INSTALLATION

The Shimano ST-EF500 is designed for right-hand handlebar mounting. It includes a pre-installed shift cable. A brake cable is not included and must be sourced separately if needed.

1. **Mounting the Lever:** Position the right brake/shift lever on the right side of your bicycle handlebar. Ensure it is placed comfortably for easy access to both the brake and shift functions. Secure the lever to the handlebar using the appropriate clamp bolt. Do not overtighten.
2. **Brake Cable Installation:** Insert the brake cable into the brake lever housing. Route the cable through the appropriate guides on your bicycle frame to the brake caliper or mechanism. Adjust the cable tension to achieve proper brake engagement and lever feel. Ensure the brake pads are correctly aligned and make full contact with the rim or rotor.
3. **Shift Cable Connection:** The shift cable is pre-installed in the lever. Route this cable through the frame guides to your rear derailleur. Connect the cable to the rear derailleur and secure it.
4. **Reach Adjustment:** The lever features a reach adjust mechanism. Use a suitable tool (e.g., an Allen key) to adjust the distance from the handlebar to the lever. This allows customization for different hand sizes and riding preferences. Adjust both the brake and shift levers for optimal comfort and control.
5. **Initial Shifting Adjustment:** With the shift cable connected, perform initial adjustments to the rear derailleur to ensure smooth and accurate shifting across all 7 speeds. Refer to your derailleur's specific instructions for detailed adjustment procedures.
6. **Final Checks:** Before riding, verify that both the brake and shift functions operate smoothly and reliably. Check for any cable binding or excessive slack. Ensure the lever is securely mounted and does not rotate on the handlebar.



Image: The Shimano ST-EF500 7-Speed Right Brake/Shift Lever. This image shows the lever assembly, including the brake lever, shift paddles, and the optical gear display indicating '7 SPEED'.

## OPERATING INSTRUCTIONS

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The Shimano ST-EF500 features an EZ Fire Plus design for intuitive shifting and a 4-finger brake lever for effective braking.

### Shifting Gears (7-Speed Rear Derailleur)

- **Upshifting (to a higher gear/smaller cog):** Use the smaller, upper shift lever (often operated by the thumb). Press this lever to shift the chain to a smaller cog on the rear cassette, making pedaling harder and increasing speed. The optical gear display will show the current gear position.
- **Downshifting (to a lower gear/larger cog):** Use the larger, lower shift lever (often operated by the index finger). Pull this lever to shift the chain to a larger cog on the rear cassette, making pedaling easier and decreasing speed. The optical gear display will update to reflect the new gear.
- **Optical Gear Display:** The clear window on the lever body indicates the currently selected gear position (1 through 7). This allows you to quickly see your gear without looking down at the cassette.

### Braking

- The ST-EF500 features a 4-finger brake lever. To apply the brake, gently squeeze the lever towards the handlebar.
- Apply brakes smoothly and progressively. Sudden or excessive braking, especially with the front brake, can cause loss of control.
- Brake performance may vary depending on road conditions, weather, and brake type (cantilever, V-brake, mechanical disc).

## MAINTENANCE

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Regular maintenance ensures optimal performance and extends the lifespan of your Shimano ST-EF500 brake/shift lever.

- **Cleaning:** Keep the lever body and surrounding areas clean. Use a soft cloth and mild detergent if necessary. Avoid harsh chemicals that could damage plastic or painted surfaces.
- **Cable Inspection:** Periodically inspect both brake and shift cables for signs of wear, fraying, rust, or kinks. Damaged cables should be replaced immediately. Ensure cables move freely within their housings.
- **Lubrication:** Apply a small amount of bicycle-specific lubricant to the pivot points of the brake lever and the internal mechanism of the shifter where cables enter. Avoid over-lubrication, which can attract dirt.
- **Lever Security:** Check that the lever is securely clamped to the handlebar. If it moves, loosen the clamp bolt slightly, reposition, and retighten to the recommended torque (consult a bicycle mechanic or component specifications if unsure).
- **Brake Pad Wear:** For brake systems connected to this lever, regularly check the wear of your

brake pads. Replace worn pads to maintain effective braking.

- **Professional Service:** For complex adjustments or repairs, it is recommended to consult a qualified bicycle mechanic.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
Shifting is slow or inaccurate.	<ul style="list-style-type: none"><li>• Cable tension incorrect.</li><li>• Worn or dirty shift cable/housing.</li><li>• Derailleur out of adjustment.</li><li>• Bent derailleur hanger.</li></ul>	<ul style="list-style-type: none"><li>• Adjust shift cable tension using the barrel adjuster on the lever or derailleur.</li><li>• Inspect and clean/replace shift cable and housing.</li><li>• Adjust rear derailleur limit screws and B-tension screw.</li><li>• Check and straighten/replace derailleur hanger.</li></ul>
Brake lever feels spongy or has too much travel.	<ul style="list-style-type: none"><li>• Brake cable slack.</li><li>• Worn brake pads.</li><li>• Brake caliper/mechanism out of adjustment.</li></ul>	<ul style="list-style-type: none"><li>• Adjust brake cable tension using the barrel adjuster on the lever or caliper.</li><li>• Inspect and replace worn brake pads.</li><li>• Adjust brake caliper or mechanism according to its specific instructions.</li></ul>
Brake lever does not return fully.	<ul style="list-style-type: none"><li>• Cable binding in housing.</li><li>• Lever pivot points are dirty or lack lubrication.</li></ul>	<ul style="list-style-type: none"><li>• Inspect and clean/replace brake cable and housing.</li><li>• Clean and lubricate lever pivot points.</li></ul>

## SPECIFICATIONS

Feature	Detail
Model Name	ST-EF500

Feature	Detail
Part Number	586259
Speed Compatibility	7-Speed (Rear)
Hand Orientation	Right
Brake Type Compatibility	Cantilever, Roller, Linear-Pull, Mechanical Disc
Lever Design	4-finger lever with Reach Adjust
Shifter Type	EZ Fire Plus (Trigger Shifter)
Features	Optical Gear Display
Material	Aluminum
Color	Black
Item Weight	4.96 ounces (approx. 0.14 kg)
Product Dimensions	7.91"L x 5.03"W (approx. 20.09 cm L x 12.78 cm W)
Included Components	Shift/Brake Lever (with pre-installed shift cable)

## WARRANTY INFORMATION

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This Shimano ST-EF500 Brake/Shift Lever comes with a **90 Day Limited Warranty**. This warranty covers manufacturing defects and material flaws under normal use. For specific terms, conditions, and claim procedures, please refer to the official Shimano warranty documentation or contact Shimano customer support.

## CUSTOMER SUPPORT

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For further assistance, technical questions, or to locate authorized service centers, please visit the official SHIMANO website or contact their customer service department.

You can also visit the [SHIMANO Store on Amazon](#) for more product information and resources.