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> Shimano FD-M310 Altus Front Derailleur Instruction Manual

SHIMANO FD-M310

Shimano FD-M310 Altus Front Derailleur Instruction Manual

Model: FD-M310 | Manufacturer Part Number: EFDM310X6

INTRODUCTION

This manual provides essential instructions for the installation, operation, and maintenance of your Shimano FD-M310 Altus Front Derailleur. The FD-M310 is designed to accommodate double or triple drive trains, with compatibility for both top and bottom cable routing, and seat tube diameters ranging from 28.6mm to 34.9mm. Proper installation and adjustment are crucial for optimal shifting performance and product longevity.



Image: Shimano FD-M310 Altus Front Derailleur. This component is designed for precise front gear shifting on bicycles.

PACKAGE CONTENTS

- 1 x Shimano FD-M310 Altus Front Derailleur

- Installation Shims (for 28.6mm and 31.8mm seat tube diameters, if applicable)
- Instruction Leaflet (refer to this manual for detailed guidance)

SETUP AND INSTALLATION

Before beginning installation, ensure you have the necessary tools, including a hex key set, cable cutters, and a chain tool. Refer to the video below for a visual guide on installation.



Video: Product Overview and Installation Guide for Shimano Front Derailleurs. This video demonstrates the general installation process for a Shimano front derailleur, including mounting and cable routing. Duration: 0:56.

1. Prepare the Bicycle

1. Shift the chain to the smallest chainring at the front and the smallest cog at the rear.
2. If replacing an existing derailleur, disconnect the shift cable and remove the old derailleur. You may need a chain tool to open the chain if the derailleur cage does not open.

2. Mount the Derailleur

1. Select the appropriate shims for your seat tube diameter (28.6mm, 31.8mm, or 34.9mm).
2. Position the derailleur clamp on the seat tube. The outer cage plate should be parallel to the largest chainring.
3. Adjust the height so that there is a 1-3mm gap between the bottom of the outer cage plate and the top of the largest chainring teeth.
4. Tighten the clamp bolt securely.

3. Connect the Shift Cable

1. Route the shift cable through the appropriate guide on your frame and attach it to the derailleur's cable fixing bolt.
2. Ensure the cable is taut before tightening the fixing bolt. The FD-M310 supports both top-pull and bottom-pull cable routing.

4. Adjust Limit Screws

The derailleur has two limit screws, typically marked 'H' (High) and 'L' (Low).

1. **Low Limit (L):** Shift to the smallest chainring. Adjust the 'L' screw so that the inner cage plate is as close as possible to the chain without rubbing.
2. **High Limit (H):** Shift to the largest chainring. Adjust the 'H' screw so that the outer cage plate is as close as possible to the chain without rubbing.

Fine-tune adjustments may be needed after initial setup to eliminate chain rub in all gear combinations.

OPERATING INSTRUCTIONS

The Shimano FD-M310 Altus Front Derailleur is designed for smooth and reliable shifting across your front chainrings. Operate your front shifter to move the chain between the small, middle (if applicable), and large chainrings.

- **Shifting Up (to larger chainring):** Apply steady pressure to your shifter lever. Ease off pedal pressure slightly during the shift for smoother engagement.
- **Shifting Down (to smaller chainring):** Apply steady pressure to your shifter lever.
- Avoid shifting the front derailleur under heavy load (e.g., climbing a steep hill) to prevent excessive wear and potential chain drops.

- Minimize "cross-chaining" (e.g., large front chainring with largest rear cog, or small front chainring with smallest rear cog) to reduce chain wear and noise.

MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your front derailleur.

- **Cleaning:** Periodically clean the derailleur cage and pivots with a degreaser and brush. Rinse thoroughly and dry.
- **Lubrication:** Apply a small amount of bicycle-specific lubricant to the pivot points of the derailleur after cleaning, or every few rides depending on conditions. Avoid over-lubrication, which can attract dirt.
- **Cable Inspection:** Check the shift cable and housing for fraying, kinks, or corrosion. Replace if any damage is observed.
- **Adjustment Check:** Regularly check limit screw settings and cable tension. Adjust as needed to maintain smooth shifting and prevent chain rub.
- **Bolt Torque:** Ensure all mounting bolts are tightened to the manufacturer's recommended torque specifications.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Chain rubs on derailleur cage	Incorrect limit screw adjustment, insufficient cable tension, or cross-chaining.	Adjust 'H' or 'L' limit screws. Check cable tension and adjust using the barrel adjuster on the shifter or derailleur. Avoid extreme gear combinations.
Difficulty shifting to larger chainring	Insufficient cable tension, 'H' limit screw too tight, or worn cable/housing.	Increase cable tension using the barrel adjuster. Loosen 'H' limit screw slightly. Inspect and replace cable/housing if worn.
Difficulty shifting to smaller chainring	Excessive cable tension, 'L' limit screw too tight, or dirty/sticky pivots.	Decrease cable tension using the barrel adjuster. Loosen 'L' limit screw slightly. Clean and lubricate derailleur pivots.
Chain drops off chainrings	Incorrect limit screw adjustment ('H' too loose, 'L' too loose).	Tighten 'H' limit screw (if dropping off outside) or 'L' limit screw (if dropping off inside).

SPECIFICATIONS

Brand	SHIMANO
Model Name	Altus FD-M310
Manufacturer Part Number	EFDM310X6
Color	Black/Silver
Material	Alloy Steel
Item Weight	0.55 Pounds (approx. 250g)
Mounting Type	Clamp-On Mount

Seat Tube Diameter Compatibility	28.6mm, 31.8mm, 34.9mm (with included shims)
Drive Train Compatibility	3x7 Speed, 3x8 Speed (Triple chainring) or Double chainring
Cable Routing	Dual Pull (Top or Bottom)
Largest Chainring Capacity	48 Teeth
Dimensions (L x W x H)	10"L x 8"W x 2"H (approximate packaging dimensions)
UPC	689228222427

WARRANTY INFORMATION

This Shimano FD-M310 Altus Front Derailleur comes with a **Limited Warranty**. For specific terms, conditions, and duration of the warranty, please refer to the official Shimano warranty policy documentation provided with your purchase or visit the official Shimano website. The warranty typically covers manufacturing defects under normal use.

SUPPORT AND CONTACT

For further assistance, technical support, or to view other Shimano products, please visit the official Shimano website or contact their customer service.

- **Official Shimano Store:** [Visit the SHIMANO Store on Amazon](#)
- **General Support:** Refer to the official Shimano global website for comprehensive support resources and contact information.