**SHIMANO FC-M311**

# Shimano Altus FC-M311 Crankset Instruction Manual

Model: FC-M311

## 1. Product Overview

The Shimano Altus FC-M311 Crankset is engineered for reliable performance and durability in bicycle drivetrains. Designed for 7/8-speed systems, this crankset features Hyperdrive SG-X chainrings, which are optimized for smooth and dependable shifting. It utilizes a square taper JIS spindle type for secure attachment to your bicycle's bottom bracket. This crankset is a crucial component for transmitting power from the rider to the rear wheel, ensuring efficient pedaling and gear changes.

## 2. Installation Guide

Proper installation is essential for the safe and efficient operation of your Shimano Altus FC-M311 Crankset. If you are unfamiliar with bicycle component installation, it is recommended to seek assistance from a qualified bicycle mechanic.

### 2.1 Required Tools

- Crank arm puller
- Bottom bracket tool (if replacing bottom bracket)
- Hex keys (various sizes)
- Torque wrench (recommended for precise tightening)
- Grease (for spindle and pedal threads)

### 2.2 Installation Steps

1. **Preparation:** Ensure your bicycle is stable, preferably on a repair stand. Remove the existing crankset and bottom bracket if necessary, following the manufacturer's instructions for those components. Clean the bottom bracket shell threads thoroughly.
2. **Bottom Bracket Installation (if applicable):** Apply a thin layer of grease to the bottom bracket threads. Install the new square taper JIS bottom bracket, ensuring it is tightened to the manufacturer's specified torque.
3. **Crankset Installation:** Apply a thin layer of grease to the square taper spindle of the bottom bracket. Align the square hole on the crank arm with the spindle and slide the crank arm onto the spindle.
4. **Securing the Crank Arm:** Insert the crank fixing bolt into the crank arm and tighten it securely. Refer to Shimano's official documentation for the precise torque specifications. Over-tightening or under-tightening can lead to damage or unsafe operation.

5. **Pedal Installation:** Apply a small amount of grease to the pedal threads. Identify the left (L) and right (R) pedals. The right pedal tightens clockwise, and the left pedal tightens counter-clockwise. Thread the pedals into the crank arms by hand to avoid cross-threading, then tighten them with a pedal wrench.
6. **Derailleur Adjustment:** After installing the crankset, it may be necessary to adjust your front derailleur to ensure smooth and accurate shifting across all chainrings. Consult your front derailleur's instruction manual for adjustment procedures.




**Figure 1:** A close-up view of the black Shimano Altus FC-M311 crankset, showing the chainrings, crank arm with 'SHIMANO' logo, and the square taper spindle interface. The chainrings feature 'SPECIAL TEETH PROFILES SHIFTING' text, indicating optimized tooth profiles for improved shifting performance. This image illustrates the complete crankset assembly.

## 3. Operating Instructions

The Shimano Altus FC-M311 Crankset is designed to work seamlessly with 7-speed or 8-speed bicycle drivetrains. Proper operation involves understanding how to shift gears effectively and maintain a consistent pedaling cadence.

- **Shifting Gears:** Use your front derailleur shifter to move the chain between the three chainrings (small, middle,

large). Shift to a smaller chainring for easier pedaling on inclines and a larger chainring for higher speeds on flat terrain or descents.

- **Smooth Shifting:** Always ease pressure on the pedals slightly when shifting the front derailleur to allow the chain to move smoothly between chainrings. Avoid shifting under heavy load.
- **Chain Line:** Try to maintain a relatively straight chain line to minimize wear on the chain and chainrings. Avoid extreme cross-chaining (e.g., large front chainring with largest rear cog, or small front chainring with smallest rear cog).

## 4. Maintenance

Regular maintenance will extend the life of your crankset and ensure optimal performance.

- **Cleaning:** Keep the chainrings and crank arms clean from dirt, mud, and grime. Use a degreaser specifically designed for bicycle components and rinse thoroughly.
- **Lubrication:** Regularly lubricate your bicycle chain. A well-lubricated chain reduces wear on the chainrings and improves shifting performance.
- **Inspection:** Periodically inspect the chainrings for signs of wear (e.g., "shark fin" teeth). Check crank arm fixing bolts and pedal threads for tightness. Ensure the crank arms are securely seated on the bottom bracket spindle.
- **Torque Checks:** Re-check the torque of the crank fixing bolt and pedal bolts periodically, especially after the first few rides, to ensure they remain at the manufacturer's specified settings.

## 5. Troubleshooting

Here are some common issues and their potential solutions:

| Problem | Possible Cause | Solution |
|---|---|---|
| Chain slips off chainrings | Worn chainrings or chain, improperly adjusted front derailleur, loose crankset. | Inspect chainrings and chain for wear and replace if necessary. Adjust front derailleur limits and cable tension. Check crank fixing bolt tightness. |
| Clicking or creaking noise from crank area | Loose crank arm bolts, loose pedals, worn bottom bracket, insufficient grease. | Check and tighten crank arm bolts and pedals to specified torque. Inspect bottom bracket for wear and replace if needed. Ensure adequate grease on spindle and pedal threads. |
| Difficulty shifting front gears | Misaligned front derailleur, incorrect cable tension, dirty or worn chainrings. | Adjust front derailleur position and limit screws. Check and adjust shifter cable tension. Clean chainrings and chain. |

If you encounter persistent issues or are unsure about any repair, consult a professional bicycle mechanic.

## 6. Specifications

**Brand:** SHIMANO

**Model Name:** Altus FC-M311 Crankset

**Part Number:** EFCM311C222CL

**Material:** Aluminium

**Spindle Type:** Square Taper JIS

**Chainrings:** Hyperdrive SG-X

**Compatibility:** 7/8-speed drivetrains

**Crank Arm Length:** 170mm (as per product specifications, may vary by specific variant)

**Item Weight:** Approximately 2.67 Pounds (1.21 kg)

**Color:** Black

**Included Components:** Crankset

## 7. Warranty and Support

This Shimano Altus FC-M311 Crankset comes with a**Limited Warranty**. For specific details regarding warranty coverage, duration, and terms, please refer to the official warranty documentation provided with your product or visit the official Shimano website.

For technical support, replacement parts, or further assistance, please contact Shimano customer service or your authorized Shimano dealer. You can find contact information on the official Shimano website: bike.shimano.com

© 2024 SHIMANO. All rights reserved. This manual is for informational purposes only.


### 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.

**Name**

Anonymous

**Email**

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

**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