

Manuals.plus /

› SHIMANO /

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SHIMANO IFCM820EBX

SHIMANO FC-M820 Chainset MTB User Manual

Brand: SHIMANO | Model: FC-M820 (IFCM820EBX)

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your SHIMANO FC-M820 Chainset MTB. The FC-M820 is a high-performance crankset designed for mountain biking, featuring a durable construction suitable for demanding off-road conditions. This model is specified for 68/73 mm bottom bracket shells and has a crank arm length of 175 mm.



Figure 1: SHIMANO FC-M820 Chainset MTB, showing the complete crankset assembly.

2. PRODUCT COMPONENTS

The SHIMANO FC-M820 Chainset typically includes the following main components:

- **Crank Arms:** Left and right crank arms, with the right arm integrated with the spindle.
- **Chainring(s):** One or more chainrings attached to the right crank arm.
- **Bottom Bracket (Sold Separately):** The bearing assembly that allows the crankset to rotate smoothly within

the bicycle frame.



Figure 2: Close-up view of the SHIMANO FC-M820 left crank arm, featuring the "SAINT" branding.



Figure 3: The SHIMANO FC-M820 right crank arm with an attached chainring, ready for installation.



Figure 4: A compatible SHIMANO SM-BB80 bottom bracket, typically used with the FC-M820 crankset. Note the gold-colored cups and central sleeve.

3. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your crankset. If you are unsure about any step, consult a professional bicycle mechanic.

3.1 Required Tools

- Bottom bracket tool (compatible with Hollowtech II)
- Torque wrench
- Hex keys (various sizes, typically 5mm, 8mm)
- Grease

3.2 Installation Steps

1. **Prepare the Bottom Bracket Shell:** Ensure the bottom bracket shell on your bicycle frame is clean and faced correctly. Apply a thin layer of grease to the threads.
2. **Install Bottom Bracket Cups:** Thread the left and right bottom bracket cups into the frame. Tighten them to the manufacturer's specified torque using a bottom bracket tool. Ensure the correct spacers are used for your frame's bottom bracket width (68mm or 73mm).
3. **Install Right Crank Arm Assembly:** Insert the spindle of the right crank arm assembly (with chainring attached) through the bottom bracket from the drive side.
4. **Install Left Crank Arm:** Slide the left crank arm onto the spindle. Align the splines correctly.
5. **Secure Crank Arms:** Tighten the two pinch bolts on the left crank arm alternately and incrementally to the specified torque. Then, install and tighten the crank arm fixing bolt (if applicable for your model) to remove any play.
6. **Check for Play:** Verify that the crankset rotates smoothly without any lateral play.

Important: Always refer to the detailed technical service instructions provided by SHIMANO for precise torque specifications and installation procedures. Incorrect installation can lead to component damage or injury.

4. OPERATING GUIDELINES

The SHIMANO FC-M820 Chainset is designed for robust performance in mountain biking. To ensure optimal operation:

- **Shifting:** When shifting gears, ease off pedaling pressure slightly to allow the chain to move smoothly between chainrings. Avoid shifting under heavy load.
- **Chain Line:** Ensure your drivetrain components (rear cassette, derailleur) are compatible and properly adjusted to maintain an optimal chain line, reducing wear on the chainring and chain.
- **Riding Conditions:** While durable, extreme impacts or misuse can damage the crankset. Ride within the intended limits of the product.

5. MAINTENANCE

Regular maintenance extends the life of your crankset and ensures safe operation.

- **Cleaning:** After each ride, especially in wet or muddy conditions, clean the chainrings and crank arms to remove dirt and debris. Use a mild detergent and water, then rinse thoroughly.
- **Lubrication:** Keep your chain properly lubricated. While the crankset itself does not require frequent lubrication, a well-lubricated chain reduces wear on the chainrings.
- **Inspection:** Periodically inspect the crank arms, chainrings, and bottom bracket for signs of wear, cracks, or damage. Check that all bolts are tightened to their specified torque. Pay attention to any creaking noises,

which may indicate loose components or worn bearings.

- **Bottom Bracket Service:** The bottom bracket bearings are sealed units. If they develop play or roughness, they typically need to be replaced. Consult a mechanic for bottom bracket service.

6. TROUBLESHOOTING

Common issues and their potential solutions:

Problem	Possible Cause	Solution
Creaking noise from crank area	Loose crank bolts, dry bottom bracket threads, worn bottom bracket bearings, loose chainring bolts.	Check and re-torque all bolts (crank, chainring). Remove, clean, grease, and re-install bottom bracket. Replace worn bottom bracket.
Crank arm feels loose or has play	Loose pinch bolts on left crank arm, loose crank arm fixing bolt, worn spindle/crank interface.	Re-torque pinch bolts and fixing bolt. If play persists, inspect spindle and crank arm for damage; replacement may be necessary.
Poor shifting performance (front)	Worn chainrings, bent chainring teeth, incorrect front derailleur adjustment, worn chain.	Inspect chainrings for wear or damage; replace if necessary. Adjust front derailleur. Replace worn chain.

If issues persist after attempting these solutions, it is recommended to consult a qualified bicycle mechanic.

7. SPECIFICATIONS

Attribute	Value
Brand Name	SHIMANO
Model Number	IFCM820EBX
Crank Length	175 mm
Bottom Bracket Compatibility	68/73 mm (Hollowtech II)
Item Weight	2026.1 Pounds <i>(Note: This value appears unusually high for a bicycle crankset and may represent a shipping weight or data anomaly. Actual product weight is significantly less.)</i>
Package Weight	1462 Grams
Date First Available	September 25, 2012

8. WARRANTY AND SUPPORT

For information regarding product warranty, please refer to the official SHIMANO website or contact SHIMANO customer support directly. Warranty terms and conditions may vary by region and purchase date.

For additional support, technical documents, or to find authorized service centers, please visit the official SHIMANO brand store or website:

Visit the SHIMANO Store on Amazon