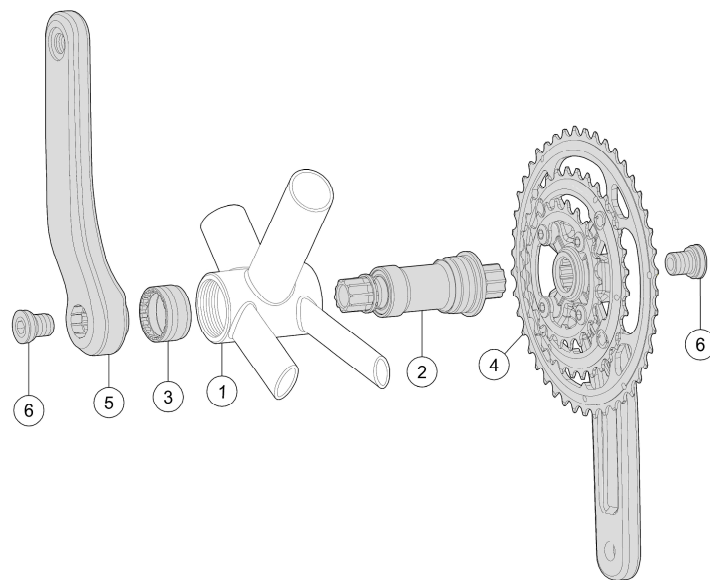


ISIS / JIS / PD Crankset Installation Instructions

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Introduction

Congratulations on your Full Speed Ahead product. Please read these instructions and follow them for correct use. Failure to follow the warnings and instructions could result in damage to product not covered under warranty, damage to bicycle; or cause an accident resulting in injury or death. Since specific tools and experience are necessary for proper installation, it is recommended that the product be installed by a qualified bicycle technician. FSA & Vision assumes no responsibility for damages or injury related to improperly installed components.

Warranty

Full Speed Ahead (FSA) warrants all FSA, Gravity, Vision, Metropolis and RPM products to be free from defects in materials or workmanship for a period of two years after original purchase unless otherwise stated in the full warranty policy. The warranty is non-transferable and valid to the original purchaser of the product only. Any attempt to modify the product in any way such as drilling, grinding, and painting will void the warranty. For more information on warranty policy and instructions for completing a warranty claim, check out the Full Warranty Policy found at our website: <http://www.fullspeedahead.com/techdoc>

Specification

ISIS, JIS, PowerDrive Bottom Brackets (68, 70, 83, including E-type).
All ISIS, JIS, PowerDrive compatible cranks.

Components

Follow the assembly order in the illustration:

- ① Bottom Bracket (BB) Shell ② Right BB Cup x1 ③ Left BB Cup x1 ④ Right Crank ⑤ Left Crank ⑥ Crank Bolts

Torque Chart

BB torque values	Bolt & Cup	kgf.cm	Nm	in.lbs
ISIS	Crank Bolt	400 - 600	40 - 60	355 - 530
	BB-Cup	400 - 500	40 - 50	355 - 445
PD	Crank Bolt	350 - 400	35 - 40	310 - 355
	BB-Cup	400 - 500	40 - 50	355 - 445
JIS (Square)	Crank Bolt	350 - 400	35 - 40	310 - 355
	BB-Cup	400 - 500	40 - 50	355 - 445

Crankset Installation

- Bottom brackets are available in different thread pitches widths: English (1.37 x 24T) are available in 68, 73, 83, and 100mm widths. Italian (M36 x 24T) are available in 70mm width only. English threaded bottom brackets have a reversed threaded non-drive cup (tightens by turning counter-clockwise). Make sure the bottom bracket is correct for the frame before attempting to install it.
- Ensure that bottom bracket shell ① is clean and free of metal chips, dirt, and excess paint.
- Apply a thin layer of grease to the threads inside the bottom bracket shell, to prevent seizing.
- Thread the Left BB cup ③ into the bottom bracket shell a few turns by hand.
- For installation of chain guides and bottom bracket mounted front derailleurs on E-type bottom brackets, refer to chain guide or derailleur manufacturer's instructions before proceeding to the next step.
- Install the Right (drive side) BB cup ② and cartridge. Tighten cup to recommended torque (see above table for specific torque value).
- Tighten down the Left cup until to recommended torque (see above table for specific torque value). Note: Due to the grease and contaminant resistant seals, there may be some excess friction on newly installed bottom brackets. The friction will be less significant while pedaling and will lessen as the bottom bracket is ridden.

Note: For ISIS and PD bottom brackets, lightly grease left and right sides of BB spindle.

- Install the right crank ④ by precisely engaging the spindle hole of crank to spindle. Tighten M8 crank bolt ⑥ to recommended torque (see above table for specific torque value).
- Install the left crank ⑤ by precisely engaging the spindle hole of crank to spindle. Tighten M8 crank bolt ⑥ to recommended torque (see above table for specific torque value). Note: For ISIS and PD bottom brackets, ensure cranks must be pressed against BB spindle stop collar without gap. If any gap exists, disassemble crankset and re-install.

Contact

If you have questions, please visit our web site technical section: <http://www.fullspeedahead.com/contact> or contact:

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