Revision Date 08/2004

Service Instructions:

Read these instructions and follow them for correct use. These instructions and instructions for other FSA products are available for download at www.fullspeedahead.com

Contact

Full Speed Ahead – USA, 12810 NE 178th St. #102, Woodinville, WA 98072, U.S.A.

www.fullspeedahead.com 1-425-488-8653

Full Speed Ahead - Europe, Via Dei Chiosi 11, 20040 Cavenago, Brianza, Milano Italy

www.fullspeedahead.com 0039 02 9533 5308

Specification

Model No. / Model Name
 BB Shell
 BB-8000 / MegaExo Bottom Bracket for 8000-Series road cranks
 68mm English (BC1.37") or 70mm Italian (36mm)

Model No. / Model Name
 BB Shell
 BB-6000 / MegaExo Bottom Bracket for 6000-Series road cranks
 68mm English (BC1.37") or 70mm Italian (36mm)

Model No. / Model Name

BB-9000 / MegaExo Bottom Bracket for 9000-Series ATB cranks

BB Shell

BB-9000 / MegaExo Bottom Bracket for 9000-Series ATB cranks

68mm / 73mm English (BC1.37"), including E-type

Model No. / Model Name BB-7000 / MegaExo Bottom Bracket for 7000-Series ATB cranks

BB Shell 68mm / 73mm English (BC1.37"), including E-type
 Model No. / Model Name BB-1000 / MegaExo Bottom Bracket for 1000-Series ATB/Trekking cranks

BB Shell 68mm / 73mm English (BC1.37"), including E-type

Compatibility

FSA MegaExo bottom brackets are only compatible with FSA MegaExo cranksets.

Warning: MegaExo BB's are not compatible with non-FSA cranksets.

Check the compatibility chart for MegaExo BB's.

Warning: Specific models of FSA MegaExo cranks require specific models of FSA MegaExo BB's.

FSA 2004 Compatibility Chart for MegaExo Cranks and BB		Chain Line	Road Double C.L.43.5mm Road Triple C.L.46mm		ATB Triple C.L.50mm		Triple C.L.49mm
		BB Model	MegaExo 8000	MegaExo 6000	MegaExo 9000	MegaExo 7000	MegaExo 1000
BCD	Crank Model	Model No.	BB-8000	BB-6000	BB-9000	BB-7000	BB-1000
Road	K-Force MegaExo	CK-8000E	OK	Х	Х	Х	х
Double	SLK MegaExo	CK-8680E / F	OK	X	Х	х	х
130mm	G2 MegaExo	CK-8160E / F	OK	Х	х	х	х
	Gossamer MegaExo	CK-6020E / F /G	Х	OK	Х	Х	Х
Road Compact Double 110mm	K-Force Compact	CK-888EC	(i)			
	SLK MegaExo	CK-8680EC / FC	OK	Х	х	х	х
	Gosammer	CK-6020EC / FC / GC	Х	OK	Х	х	х
Road	K-Force MegaExo	CK-8000A	OK	Х	Х	Х	х
Triple 130/74mm	SLK MegaExo	CK-8680A / B	OK	Х	х	х	х
	G2 MegaExo	CK-8160A / B	OK	Х	Х	Х	х
	Gossamer	CK-6020A / B / C	Х	OK	х	х	х
ATB Triple 130/74mm	K-Force MegaExo	CK-9000A	X	X	OK	Х	Х
	V-Drive MegaExo	CK-7050A / B	Х	Х	х	OK	Х
	Gamma MegaExo	CD-1050	х	х	х	х	OK

Notes	Comment
OK	Use this BB
(i)	Special Model - see ISIS-Drive info
Х	Do not use

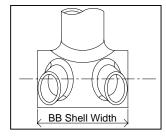
BB Shell Prep

- Ensure that the BB shell ends are faced and square and clean from paint.
 It may be necessary for the BB shell to be "faced and chased" by a professional mechanic.
- Ensure that the BB shell threads are clean from machining chips, dirt, dust, etc.
- Grease the BB shell threads before installing BB cups.

BB Shell Width and Thread Direction

• BB shell width should be within +/-1mm of the nominal dimension:

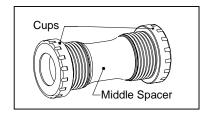
BB Shell Nominal Width	Min. Width Dimension	Max. Width Dimension	BB Shell Thread	Right-Cup Thread	Left-Cup Thread
Nominal Width	Dimension	Diffiension	Tilleau	Tilleau	inread
68mm	67mm	69mm	English	counter-clockwise	clockwise
			BC1.37" x 24tpi	to tighten	to tighten
73mm	72mm	74mm	English	counter-clockwise	clockwise
			BC1.37" x 24tpi	to tighten	to tighten
70mm	69mm	71mm	Italian	clockwise	clockwise
			36mm x 24tpi	to tighten	to tighten



MegaExo Cup Identification

• Check the BB shell width and threading dimensions to choose the correct MegaExo BB cups:

Туре	BB Shell Type	BB Cup	Middle	Crank Arm	
·ypc	DD Officit Type	Color	Spacer	Series	
	68mm x BC1.37"	Titanium	Alloy	8000 Series	
Road	OOMINI X DC 1.37	Anodize	Plastic	6000 Series	
	70mm x 36mm	Silver	Alloy	8000 Series	
	7 OHIIII X SOHIIII	Anodize	Plastic	6000 Series	
ATB	68mm x BC1.37"	Brown	Alloy	9000 Series	
AID	73mm x BC1.37"	Anodize	Plastic	7000 Series	
ATB / 68mm x BC1.37"		Grey	Plastic	1000 Series	
Trekking	73mm x BC1.37"	Phosphate	riastic	1000 Selles	

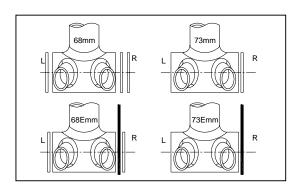


Spacers for ATB cranks

• For ATB cranks check the number of 2.5mm alloy shell spacers required:

ATB BB Size	BB mount derailleur or chain-guide	L. Spacers	R. Spacers
68	no	x1	x2
68E	yes	x1	x1
73	no	x0	x1
73E	yes	x0	x0

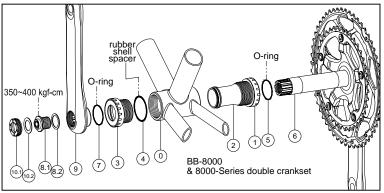
- For installation of "E-Type" BB-mounted front derailleurs, refer to the manufacturer's instructions
- For installation of BB-mounted chain-guides, refer to the manufacturer's instructions



BB-8000 / MegaExo Bottom Bracket for use with double chainring 8000-Series road cranks

BB-8000 is designed to work with FSA MegaExo 8000-Series road cranks. Follow the assembly order in the following illustration:

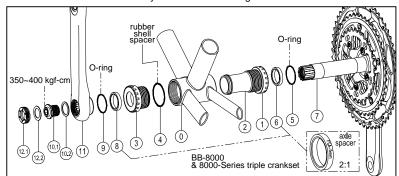
- Check the BB Shell as described above.
- (1), (2) Install the R. bearing cup and alloy middle spacer. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ftlbs. (Use FSA cup tool part no. E0102 or Park Tool part no. BBT-9)
- (3), (4) Install the L. bearing cups and rubber shell spacer. Tighten to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs.
- (5), (6) Install O-ring fully onto the axle of the R. crank. Gently and completely insert the R. crank through the BB cups
- Install O-Ring on L. side of axle.
- (8), (9) Grease the threads and washers of the M18 fixing screw. Install the L. crank onto the axle. Tighten the fixing screw to 350~400 kgf-cm.
- (10)Note: The M27 QR nut is pre-assembled at the factory. It is not necessary to disassemble. To remove L. arm, simply unscrew the M18 fixing screw.



BB-8000 / MegaExo Bottom Bracket for use with triple chainring 8000-Series road cranks

BB-8000 is designed to work with FSA MegaExo 8000-Series road cranks. Follow the assembly order in the following illustration:

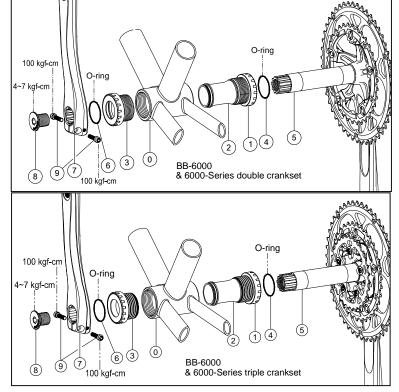
- Check the BB Shell as described above.
- (1), (2)Install the R. bearing cup and alloy middle spacer. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs / 39~49 N-m / 29~36 ft-lbs. (Use FSA cup tool part no. E0102 or Park Tool part no. BBT-9)
- (3), (4)Install the L. bearing cups and rubber shell spacer. Tighten to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs.
- (5), (6), Install O-ring fully onto the axle of the R. crank. Install one triple spacer.
- (7) Gently and completely insert the R. crank through the BB cups.
- Install O-Ring and triple spacer on L. side of axle. (8), (9)
- (10), (11) Grease the threads and washers of the M18 fixing screw. Install the L. crank onto the axle. Tighten the fixing screw to 350~400 kgf-cm.
- Note: The M27 QR nut is pre-assembled at the factory. It is not necessary to disassemble. To remove L. arm, simply unscrew the M18 (12)fixing screw.

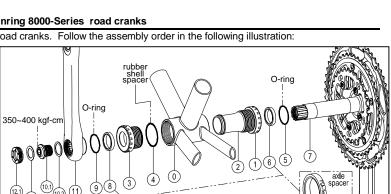


BB-6000 / MegaExo Bottom Bracket for use double or triple chainring 6000-Series road cranks

BB-6000 is designed to work with FSA MegaExo 6000-Series road cranks. Follow the assembly order in the following illustration:

- Check the BB Shell as described above.
- (1), (2) Install the R. bearing cup and plastic middle spacer. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs. (Use FSA cup tool part no. E0102 or Park Tool part no. BBT-9)
- (3)Install the L. bearing cup. Tighten to 400~500 kgfcm / 39~49 N-m / 29~36 ft-lbs.
- Install the O-ring fully onto the axle of the R. crank.
- (5) Gently and completely insert the R. crank through the BB cups
- Install O-Ring on L. side of axle.
- Install the L. crank onto the axle. (7)
- Grease the threads of the adjusting cap and adjust to (8)4~7 kgf-cm / 0.4~0.7 N-m / 3.5~6 in-lbs
- Grease the threads and washers of the M5 fixing screws and tighten to 100~115 kgf-cm / 9.8~11.2N-m / 87~100 in-lbs.

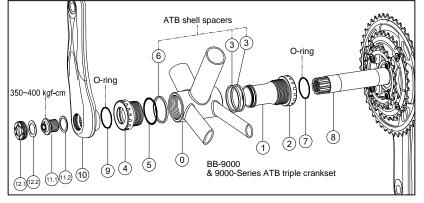




BB-9000 / MegaExo Bottom Bracket for use with triple chainring 9000-Series ATB cranks

BB-9000 is designed to work with FSA MegaExo 9000-Series ATB cranks. Follow the assembly order in the following illustration:

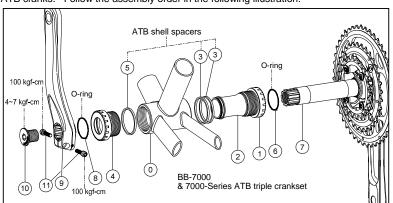
- Check the BB Shell as described above.
- (1), (2), (3) Install the R. bearing cup, alloy middle spacer and any shell spacers required.
 Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs. (Use FSA cup tool part no. E0102 or Park Tool part no. BBT-9)
- (4), (5), (6) Install the L. bearing cups, rubber shell spacer and any shell spacer. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs.
- (7), (8) Install O-ring fully onto the axle of the R. crank. Gently and completely insert the R. crank through the BB cups.
- (9) Install O-Ring on L. side of axle.
- (10), (11) Grease the threads and washers of the M18 fixing screw. Install the L. crank onto the axle. Tighten the fixing screw to 350~400 kgf-cm.
- (12) Note: The M27 QR nut is pre-assembled at the factory. It is not necessary to disassemble. To remove L. arm, simply unscrew the M18 fixing screw.



BB-7000 / MegaExo Bottom Bracket for use with triple chainring 7000-Series ATB cranks

BB-7000 is designed to work with FSA MegaExo 7000-Series ATB cranks. Follow the assembly order in the following illustration:

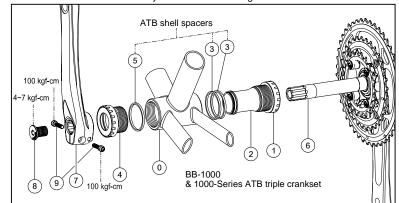
- Check the BB Shell as described above.
- (1), (2), (3) Install the R. bearing cups and plastic middle spacer, and any shell spacers required. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs. (Use FSA cup tool part no. E0102 or Park Tool part no. BBT-9)
- (4), (5) Install the L. bearing cup and any shell spacer. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs.
- (6) Install the O-ring fully onto the axle of the R. crank.
- (7) Gently and completely insert the R. crank through the BB cups.
- (8) Install O-Ring on L. side of axle.
- 9) Install the L. crank onto the axle.
- (10) Grease the threads of the adjusting cap and adjust to 4~7 kgf-cm / 0.4~0.7 N-m / 3.5~6 in-lbs
- (11) Grease the threads and washers of the M5 fixing screws and tighten to 100~115 kgf-cm / 9.8~11.2Nm / 87~100 in-lbs.



BB-1000 / MegaExo Bottom Bracket for use with triple chainring 1000-Series ATB cranks

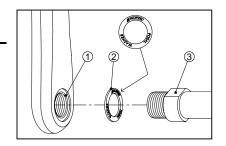
BB-1000 is designed to work with FSA MegaExo 1000-Series ATB cranks. Follow the assembly order in the following illustration:

- (0) Check the BB Shell as described above.
- (1), (2), (3) Install the R. bearing cups and plastic middle spacer, and any shell spacers required. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs. (Use FSA cup tool part no. E0102 or Park Tool part no. BBT-9)
- (4), (5) Install the L. bearing cup and any shell spacer. Tighten cup to 400~500 kgf-cm / 39~49 N-m / 29~36 ft-lbs.
- (6) Gently and completely insert the R. crank through the BB cups.
- (7) Install the L. crank onto the axle.
- (8) Grease the threads of the adjusting cap and adjust to 4~7 kgf-cm / 0.4~0.7 N-m / 3.5~6 in-lbs
- (9) Grease the threads and washers of the M5 fixing screws and tighten to 100~115 kgf-cm / 9.8~11.2N-m / 87~100 in-lbs



Pedal Installation

- (1) Grease pedal threads.
- (2) Install the pedal washer between the pedal and the crankarm.
- (3) Torque pedals to 300~350kgf-cm / 29~34 N-m / 22~25 ft-lbs.



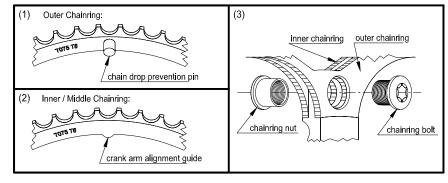
Chainring Notes

Chainring Check

- · FSA offers many chainring sizes and combinations.
- FSA chainrings must be used in specific combinations to realize proper shifting function. The combination is marked on the outer (and middle) chainring. Do not use FSA chainrings in any other combinations. Do not combine FSA chainrings with non-FSA chainrings.
- Check with the manufacturer of your derailleurs to determine if your derailleur-capacity is sufficient.

Chainring Assembly

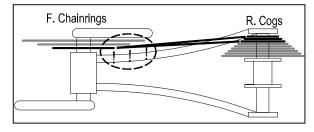
- (1) With the FSA Logos and printed surface facing out, position the larger chainring so that the chain drop prevention pin is located behind the crank arm. For cranks with bashguards instead of outer chainrings, assemble with FSA Logos facing out.
- (2) With the FSA Logos and printed surface facing out, position the inner chainring so that the alignment guide is located behind the crank arm. Use the same installation procedure for the third chainring on a triple crankset.
- (3) . Apply grease to the chainring bolt threads and surfaces where they contact the crank



arm and chainrings. Fasten the chainrings to the crankarm using the T-30 chainring bolts to a torque of 120 kgf-cm / 12 N-m / 104 in-lbs.

Inner Chainring - Small-Cog Chain Angle

- When the chain is on the inner chainring and the small cogs of the rear cassette, it may contact the larger ring(s) and make noise.
- It is not recommended to use the chain at this extreme combination of chainring and cog.



Maintenance

Inspect your FSA cranks and bottom brackets for straightness, cracks, deep scratches and gouges, loosness or damage before each ride. If any of the preceding conditions are present, do not use your FSA cranks or bottom bracket until they have been replaced.

It is the product users responsibility to examine the product on a regular basis to determine the need for service or replacement. Cyclist should inspect their bicycle and parts on a regular basis in order to detect damage that may have occurred from normal use and abuse. Check all parts for damage and wear before every use. Check all screws periodically for tightness. Do not over-tighten. Periodically re-grease all screws.

WARNING: In the event of a bicycle accident, all parts should be thoroughly examined by a qualified bicycle mechanic, and any damaged FSA parts replaced. Do not attempt to straighten bent cranks, they must be replaced.

All damaged parts should be repaired or replaced by a qualified bicycle mechanic before the bicycle is used again. Continuing to use damaged parts may lead to loss of control of the bicycle and cause injury or death.

Warranty

Bottom Brackets: Full Speed Ahead Isis Drive and square taper bottom brackets are guaranteed against defects in materials and workmanship or bearing failure for two years from date of purchase.

Cranksets: All Full Speed Ahead alloy and carbon fiber crank arms are guaranteed against defects in materials and workmanship or breakage for ten years from date of purchase.

Chainrings, spiders and bolts are guaranteed against defects in materials and workmanship for two years from date of purchase LIMITS OF WARRANTY: At its sole discretion, FSA agrees to repair or replace products deemed by FSA to be defective.

- NOT COVERED UNDER WARRANTY:

 1. Products that have been modified neglected or poorly maintained.
 - 2. Products that have been used in competition, stunt riding, or for commercial use.
 - 3. Products that have been improperly installed, maintained, or repaired.
 - 4. Damage from causes other than defects in materials and workmanship such as a user's lack of skill, competence or experience.
 - The finish or aesthetics of the product.
 - 6. Normal wear to the product.
- 7. Any labor cost associated with the removal, replacement or reassembly of the product.

WARRANTY SERVICE:

To obtain service under this warranty, original purchaser must send their FSA product with (i) the proper RETURN AUTHORIZATION, and (ii) the retailer's original bill, your charge or credit card receipt or other satisfactory proof of date of purchase of the product to:

- -In the U.S.A.: Full Speed Ahead Headquarters
- -In European Countries: Full Speed Ahead Europe
- -Outside of Europe or the U.S.A.: the FSA distributor in your country of residence.

Any postage, insurance, shipping costs incurred in sending your product for service are the product owner's responsibility.

Visit www.fullspeedahead.com for specific warranty return instructions.