

FSA Orbit X

FSA Orbit X 1-Inch Threadless Headset Manual

Model: Orbit X

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the FSA Orbit X 1-inch threadless headset. Designed for older bicycles, this headset features sealed cartridge angular bearings and durable aluminum cups, ensuring reliable steering performance.

PRODUCT OVERVIEW

The FSA Orbit X headset is engineered for 1-inch threadless steerer tubes, offering a robust and smooth steering solution. Key features include:

- 1-inch size with 36 degrees/36 degrees Angular Contact Bearings (ACB)
- Stack Height: 18.4mm (upper) + 13.1mm (lower) = 31.5mm total
- Forged and CNC machined 6061/T6 alloy cups
- Alloy top cap
- ISO 26.4mm crown race

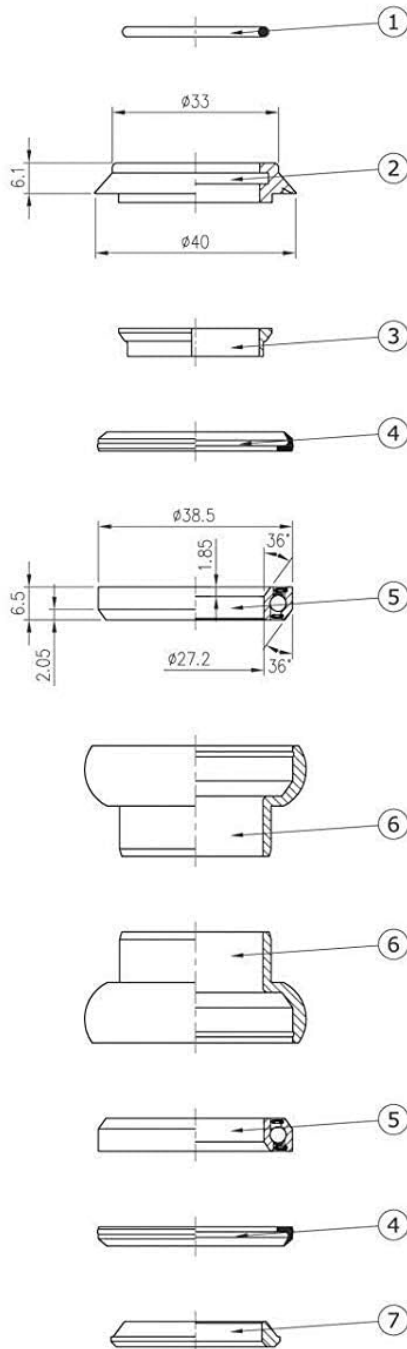
Components and Technical Diagram

Refer to the following diagrams for an understanding of the headset's individual components and their technical specifications.

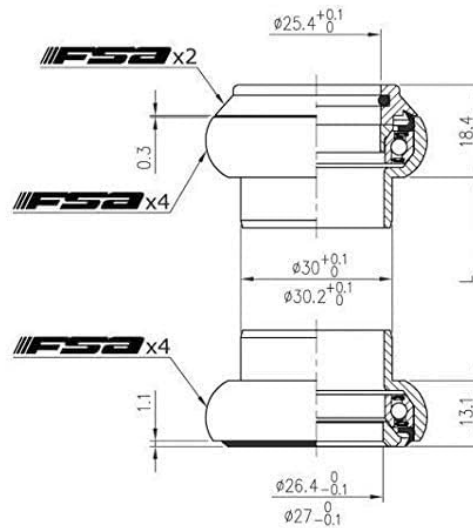
Threadless Headset

Orbit X (1")

1", 36°/ 36° ACB



- 1" steerer
- Alloy top cover
- Forged and CNC machined alloy cups
- Angular Contact Bearing (Black seal)



Stack Height 18.4+13.1=31.5



No	Item No	Material	Qty
⑦	H6035{Orbit X-6}	Alloy	1PCS
⑥	H4071{Orbit X-4-5}	Alloy	2PCS
⑤	MR050{372-2RS}	Chrome steel	2SETS
④	MS091{Duron X}	Steel w/ rubber sealed	2PCS
③	H2047{WCS-1"-2}	Alloy	1PCS
②	H2086{Orbit X-2}	Alloy	1PCS
①	MS034{800-1}	Rubber	1PCS

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Image Description: This image displays an exploded view of the FSA Orbit X headset, showing all individual components such as the top cap, compression ring, upper bearing, upper cup, lower bearing, lower cup, and crown race. A technical drawing with dimensions and stack height details is also included, illustrating the precise measurements and assembly order.



Image Description: This image shows the fully assembled FSA Orbit X 1-inch threadless headset in black. It highlights the sleek design of the alloy cups and top cap, with the FSA logo visible on the components.

SETUP AND INSTALLATION

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

Tools Required:

- Headset press
- Crown race setting tool
- Rubber mallet
- Hex keys (Allen wrenches)
- Grease
- Digital calipers (recommended for crown race measurement)

Installation Steps:

1. **Prepare the Frame and Fork:** Ensure the head tube of your bicycle frame is properly faced and reamed. The fork steerer tube should be cut to the correct length for a threadless setup, allowing for the headset stack height and stem.
2. **Verify Crown Race Diameter:** The FSA Orbit X uses an ISO 26.4mm crown race. **It is critical to measure the base of your fork steerer tube with digital calipers to confirm compatibility.** Some older forks may have a 27.0mm JIS standard, which is incompatible with this headset's crown race. Attempting to force an incorrect crown race can damage the fork.
3. **Install Crown Race:** Apply a thin layer of grease to the fork crown race seat. Using a crown race setting tool and a rubber mallet, gently tap the crown race onto the fork steerer tube until it is fully seated against the fork crown.
4. **Press Headset Cups:** Apply a thin layer of grease to the inside of the head tube and the outside of the headset cups. Using a headset press, carefully press the lower cup into the bottom of the head tube and the upper cup into the top of the head tube. Ensure they are pressed in straight and fully seated.
5. **Install Bearings:** Place the lower angular contact bearing onto the crown race on the fork. Insert the fork through the head tube. Place the upper angular contact bearing into the upper headset cup.
6. **Assemble Remaining Components:** Place the compression ring over the top bearing, followed by any required spacers (not included with headset, determined by stem height). Finally, place the top cap over the steerer tube.
7. **Install Stem and Adjust:** Slide your stem onto the steerer tube. Install the top cap bolt and tighten it until there is no play in the headset, but the steering remains smooth. Do not overtighten. Once adjusted, tighten the stem's pinch bolts to secure it to the steerer tube.

OPERATION

Once properly installed, the FSA Orbit X headset should provide smooth, precise, and play-free steering. The angular contact bearings are designed to handle both axial and radial loads, contributing to stable handling.

- **Smooth Steering:** The handlebars should turn freely and smoothly without any binding or resistance.
- **No Play:** There should be no discernible movement or 'play' when rocking the front wheel back and forth while holding the front brake.
- **Consistent Performance:** The headset should maintain its smooth operation under various riding conditions.

MAINTENANCE

Regular maintenance will extend the life of your FSA Orbit X headset and ensure optimal performance.

- **Regular Inspection:** Periodically check for any play in the headset. To do this, hold the front brake and rock the bike back and forth. If you feel a clunking sensation, the headset may need adjustment or inspection.
- **Cleaning:** Keep the area around the headset clean from dirt and debris. Wipe down the top cap and exposed parts of the cups.
- **Lubrication:** While the angular contact bearings are sealed, it is good practice to disassemble the headset annually (or more frequently if riding in wet/dirty conditions) to clean and re-grease the bearing seats and contact surfaces. Inspect the bearings for any signs of wear or corrosion.
- **Torque Check:** Ensure the top cap bolt and stem pinch bolts are tightened to the manufacturer's recommended torque specifications (refer to your stem manufacturer's guidelines for pinch bolts).

TROUBLESHOOTING

Common issues and their potential solutions:

- **Headset Play/Looseness:**
 - **Cause:** Insufficient preload on bearings, loose top cap bolt, or loose stem pinch bolts.
 - **Solution:** Loosen stem pinch bolts. Tighten top cap bolt gradually until play is eliminated but steering remains smooth. Re-tighten stem pinch bolts. If play persists, disassemble and inspect bearings and cups for wear or damage.
- **Stiff/Notchy Steering:**
 - **Cause:** Overtightened top cap bolt, damaged or worn bearings, insufficient grease, or improperly seated cups.
 - **Solution:** Loosen top cap bolt slightly. If still stiff, disassemble, clean, inspect, and re-grease bearings. Check for proper cup seating. Replace bearings if damaged.
- **Creaking Noises:**
 - **Cause:** Dry interfaces between components (cups and frame, crown race and fork), loose components, or worn bearings.
 - **Solution:** Disassemble, clean all contact surfaces, apply fresh grease, and reassemble. Ensure all components are properly seated and tightened.

SPECIFICATIONS

Feature	Specification
Model	Orbit X
Steerer Tube Diameter	1 inch (Threadless)
Bearings	36°/36° Angular Contact Bearings (ACB)
Crown Race Diameter	ISO 26.4mm
Cups Material	Forged and CNC machined 6061/T6 alloy
Top Cap Material	Alloy

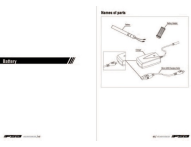

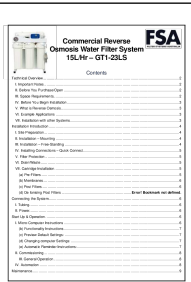
Feature	Specification
Stack Height	31.5mm (18.4mm upper + 13.1mm lower)
Weight	Approximately 109g (with top cap and starnut)
Color	Black

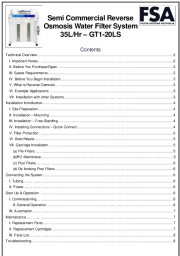
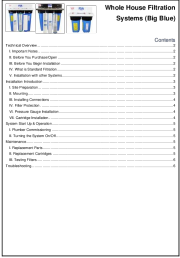
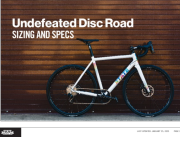
WARRANTY AND SUPPORT

For specific warranty information regarding your FSA Orbit X headset, please refer to the official FSA website or contact your point of purchase. FSA provides support for their products, and their official channels are the best resource for technical assistance or warranty claims.

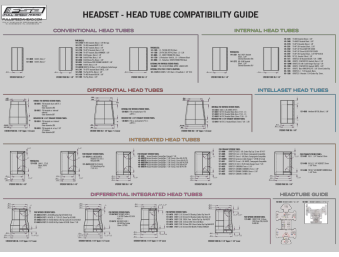
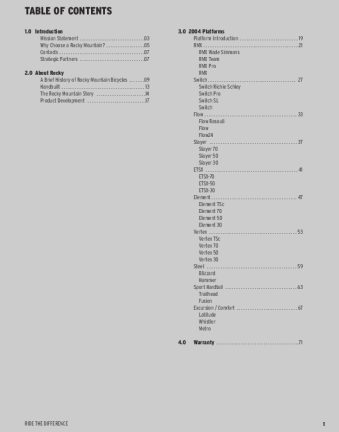
FSA Official Website: www.fullspeedahead.com

Related Documents - Orbit X

	<p>FSA K-Force WE: Battery and Disc Brake Installation Guide</p> <p>Comprehensive guide detailing the installation, battery management, and bleeding procedures for FSA K-Force WE electronic shifting systems, including disc brake setup.</p>
	<p>FSA Undersink RO System – 4 Stage Installation and Maintenance Guide</p> <p>Comprehensive guide for the FSA Undersink RO System – 4 Stage (Model ID: GT1-26-4), covering installation, operation, maintenance, and troubleshooting.</p>
	<p>FSA GT1-23LS Commercial Reverse Osmosis Water Filter System User Manual and Installation Guide</p> <p>This document provides comprehensive instructions for the FSA GT1-23LS Commercial Reverse Osmosis Water Filter System, covering technical specifications, installation procedures, operation, maintenance, troubleshooting, and warranty information.</p>

	<p>FSA Semi Commercial Reverse Osmosis Water Filter System GT1-20LS User Manual and Technical Guide</p> <p>Comprehensive user manual for the FSA Semi Commercial Reverse Osmosis Water Filter System (GT1-20LS), detailing installation, operation, maintenance, troubleshooting, and warranty information. Covers technical specifications, feed water requirements, and system setup.</p>
	<p>FSA Whole House Filtration Systems (Big Blue) - Installation and User Manual</p> <p>Comprehensive guide to installing, operating, and maintaining FSA Whole House Filtration Systems (Big Blue). Covers technical specifications, troubleshooting, and warranty information for optimal water purification.</p>
	<p>State Bicycle Co. Undeclared Disc Road: Sizing and Specifications</p> <p>Comprehensive sizing and specification guide for the State Bicycle Co. Undeclared Disc Road bicycle, including detailed geometry charts, component lists, and measurements for various frame sizes.</p>

Documents - FSA – Orbit X

	<p>[pdf] Guide</p> <p>Headsets Poster HEADSET HEAD TUBE COMPATIBILITY GUIDE conventional head tubes internal differential integrated 121 0020 orbit x silver 1 39 0025 black 30 steerer tube od Poster2015 bikersbest dk resources files FSA HS katalog 80</p> <p>F.S.A. srl Via del Lavoro, 56 - 20874, Busnago MB Italy Tel. 39 039 688 52 65 Fax. 39 039 682 33 36 121-0020 Orbit X, Silver, 1 121-0025 Orbit X, Black, 1 30 STEERER TUBE OD: 1 HEADSET - HEAD TUBE COMPATIBILITY GUIDE CONVENTIONAL HEAD TUBES THREADLESS: 141-2210X TH-855 headset, Black, ...</p> <p>lang:nl score:31 filesize: 936.02 K page_count: 1 document date: 2015-05-27</p>
	<p>[pdf] User Manual</p> <p>2004 TECH MANUAL EN qx Cober Technical Manual Rocky Mountain Bikes using manual skill 3 a custom process requiring special and attention to detail 4 see Bicycles It s why we miter tubes individually 10 TECHNICAL 2002 launches the new ETSX bike platform revolutionary suspension design built be most efficient pedaling RMB bikes sites default files</p> <p>TABLE OF CONTENTS 1.0 Introduction Mission Statement m Bracket Pedals 4.31 kg / 9.5 lb Manitou Sherman Breakout w/ SPV 170mm Manitou SPV Coil 4-way FSA Orbit X Pro 1.5 Race Face Diabolus 1.5 Race Face Evolve DH Shimano Saint Shimano XT Dual Shimano XT...</p> <p>lang:de score:17 filesize: 1.04 M page_count: 59 document date: 2003-11-28</p>

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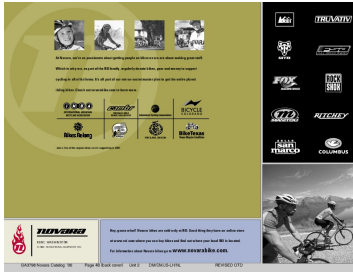




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At Novara, we re as passionate about getting people on bikes as we are about making great stuff. Whi ... 1 Shimano Deore Octalink Shimano HG73 Shimano Deore Octalink Shimano HG73 Pedals Headset -- FSA **Orbit X** -- FSA Orbit MX Ritchey MTB V4 FSA Orbit MX Crank Bros Candy-C WTB Race Ritchey MTB V4 W...
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Compact 46/36 FSA Mega Exo Shimano HG93 -- FPD **Orbit X** Ritchey Logic Comp
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