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## Delta TD9100

# Delta Axlerodz Bolt-On Bicycle Skewers Instruction Manual

Model: TD9100

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## 1. PRODUCT OVERVIEW

The Delta Axlerodz Bolt-On Bicycle Skewers are designed to enhance the security of your bicycle wheels by replacing standard quick-release skewers. This system utilizes a 5mm Allen key for installation and removal, providing a deterrent against wheel theft. The skewers are constructed from durable materials, including stainless springs and chromoly axle material, ensuring long-lasting performance.



**Frame dropout outside dimensions:**  
Front: 95mm MIN - 115mm MAX  
Rear: 132mm MIN - 154mm MAX  
**Tighten to Max 8.5nm Torque**



**WARNING**  
Incorrect installation can result in  
serious injury. Installation should  
be performed only by a trained  
bicycle technician.

T09100 AXLERODZ ANTI-THEFT SKEWERS



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**Delta Cycle Corp.**  
Randolph, MA USA

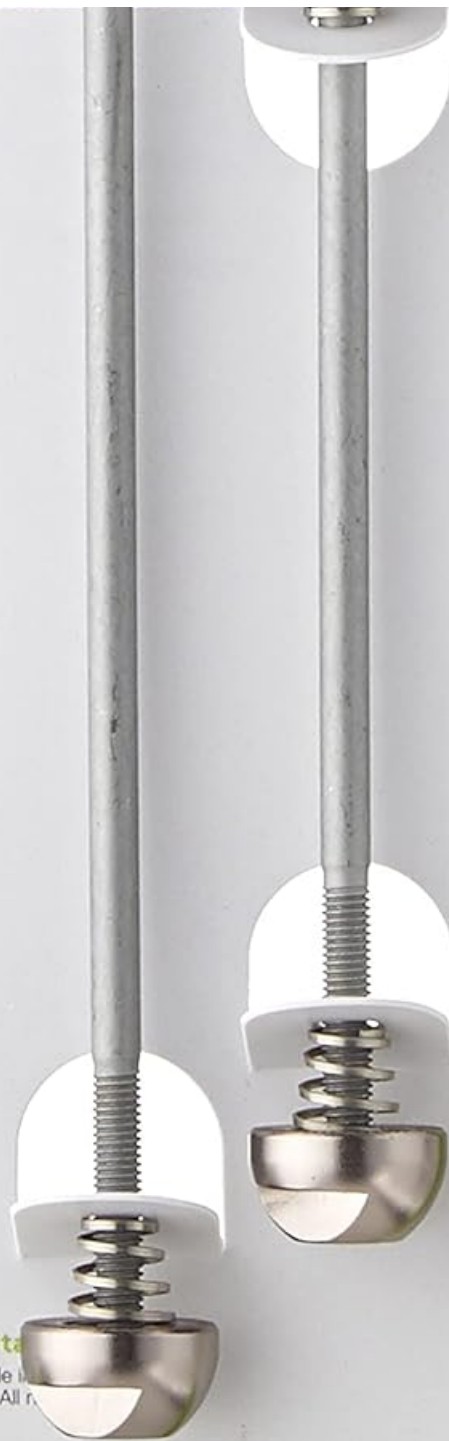


Figure 1.1: Delta Axlerodz Bolt-On Bicycle Skewers in their retail packaging, highlighting key features and specifications.



# AxleRodz Security Skewers

Prevent bike wheel theft these bolt-on bicycle skewers.



Figure 1.2: A detailed view of the Delta Axlerodz Security Skewers, designed to prevent bicycle wheel theft.

## 2. SAFETY INFORMATION

**WARNING:** Incorrect installation can result in serious injury. Installation should be performed only by a trained bicycle technician or an individual with sufficient mechanical aptitude and experience in bicycle maintenance.

- Always ensure the skewers are tightened to the specified torque of **MAX 8.5 Nm**. Overtightening or undertightening can compromise safety.
- Regularly inspect the skewers for any signs of wear, damage, or corrosion. Replace immediately if any issues are detected.
- Ensure compatibility with your bicycle's frame dropouts. These skewers are designed for most standard 9mm dropouts.
- After installation, perform a thorough check of the wheels to ensure they are securely fastened and spin freely without obstruction.

## 3. SETUP & INSTALLATION

This section provides instructions for installing the Delta Axlerodz Bolt-On Bicycle Skewers. A 5mm Allen key is required for this procedure.

### 3.1. Compatibility Check

Before installation, verify that your bicycle's frame dropouts are compatible with the Axlerodz skewers. These skewers are designed for standard 9mm quick-release wheel hubs.

- **Front Dropout Dimensions:** 95mm MIN – 115mm MAX
- **Rear Dropout Dimensions:** 132mm MIN – 154mm MAX



### Frame dropout outside dimensions:

Front: 95mm MIN – 115mm MAX

Rear: 132mm MIN – 154mm MAX

Tighten to MAX 8.5nm Torque

Figure 3.1: Diagram illustrating the compatible frame dropout dimensions for the Axlerodz skewers.



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**COMPATIBLE WITH  
STANDARD 9MM DROPOUTS**

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Figure 3.2: The Axlerodz skewer head, demonstrating compatibility with standard 9mm dropouts.

## 3.2. Installation Steps

1. **Remove Existing Skewers:** If your bicycle has quick-release skewers, open the quick-release lever and remove the wheel from the frame/fork. Carefully remove the existing skewer from the wheel hub.
2. **Prepare Axlerodz Skewer:** Disassemble the Axlerodz skewer by removing the end nut and spring. Ensure the springs are oriented correctly (narrow end towards the hub).
3. **Insert Skewer:** Insert the Axlerodz skewer through the hollow axle of your wheel hub. Place one spring on each side of the hub, followed by the conical nuts.
4. **Position Wheel:** Place the wheel back into the bicycle's frame (for the rear wheel) or fork (for the front wheel), ensuring the axle sits correctly in the dropouts.
5. **Tighten Skewer:** Using a 5mm Allen key, tighten the conical nut on the skewer. Alternate tightening each side if necessary to ensure even pressure.
6. **Torque Specification:** Tighten the skewer to a maximum torque of **8.5 Nm**. Do not overtighten.
7. **Verify Security:** After tightening, attempt to move the wheel side-to-side to ensure it is firmly secured within the dropouts and does not wobble. The wheel should spin freely without rubbing against the brake pads or frame.

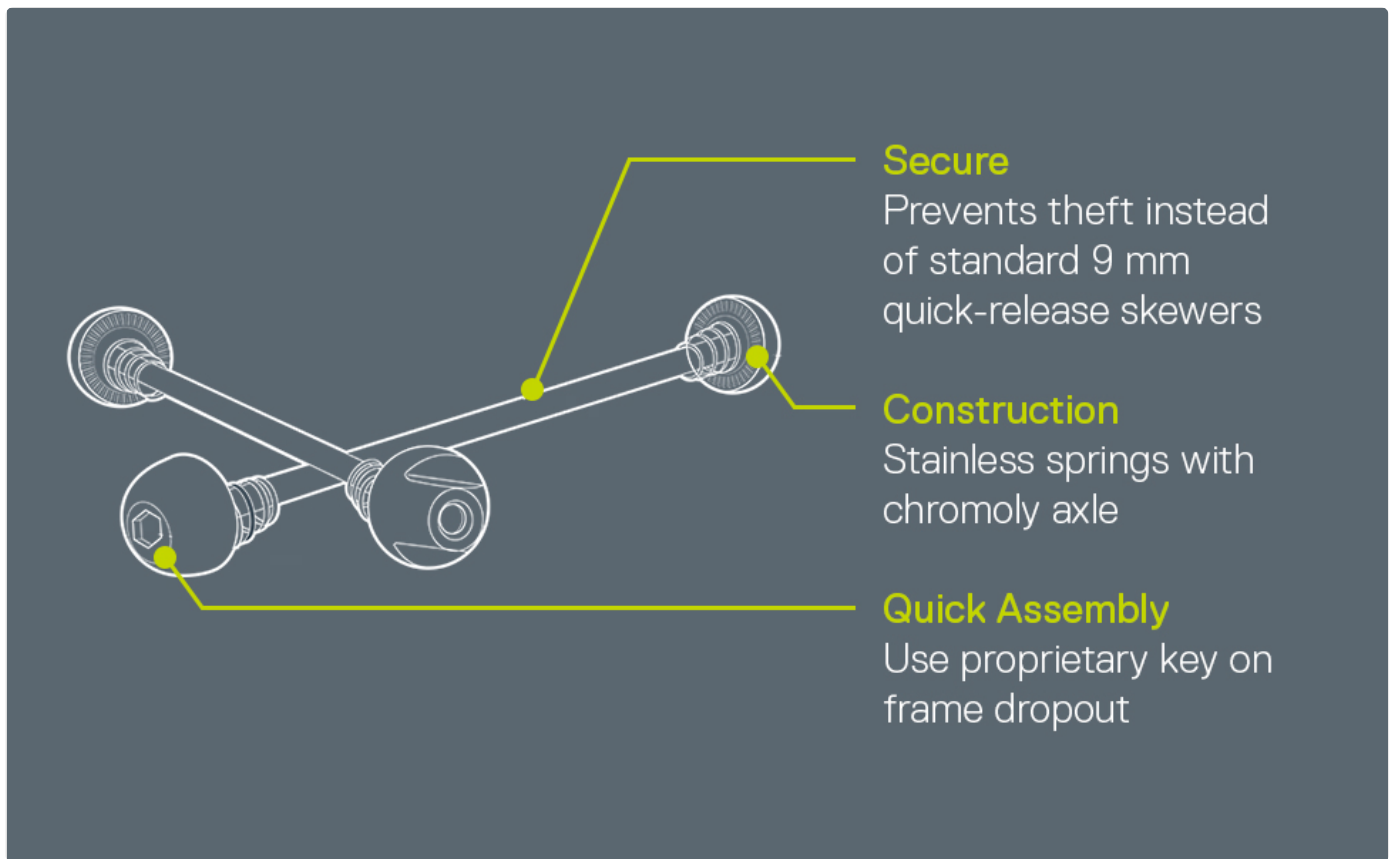


Figure 3.3: Visual representation of the secure design, durable construction, and quick assembly method using a 5mm Allen key.

## 4. OPERATION

The Delta Axlerodz skewers are designed for a "set and forget" operation, providing enhanced security. Unlike quick-release skewers, they require a tool for removal, which deters opportunistic theft.

- To remove a wheel, simply use a 5mm Allen key to loosen the skewer nut until the wheel can be disengaged from the dropouts.
- To re-install, follow the "Installation Steps" in Section 3.2, paying close attention to the torque specification.

## 5. MAINTENANCE

Proper maintenance ensures the longevity and continued security of your Axlerodz skewers.

- **Regular Inspection:** Periodically check the skewers for any signs of bending, cracking, rust, or stripped threads. Inspect the springs for deformation.
- **Cleaning:** Clean the skewers with a damp cloth to remove dirt and grime. Avoid harsh chemicals that could damage the material.
- **Lubrication:** A light application of grease on the skewer threads can facilitate smoother tightening and prevent corrosion.
- **Torque Check:** After initial rides and periodically thereafter, re-check the skewer torque with a torque wrench to ensure it remains at 8.5 Nm. Vibrations from riding can sometimes cause components to loosen.
- **Storage:** If removing wheels for storage or transport, store the skewers and springs together to prevent loss.

## 6. TROUBLESHOOTING



Problem	Possible Cause	Solution
Wheel feels loose or wobbles after installation.	Skewer not tightened sufficiently.	Tighten the skewer to the specified torque of 8.5 Nm using a 5mm Allen key. Ensure the wheel is seated correctly in the dropouts.
Difficulty inserting or removing skewer.	Threads are dirty or corroded; skewer is bent.	Clean and lightly lubricate the threads. If the skewer is bent, it must be replaced.
Skewer nut spins freely without tightening.	Threads are stripped on the skewer or nut.	Inspect threads. If stripped, the affected component (skewer or nut) must be replaced.
Wheel rubs against brake pads or frame.	Wheel not centered in dropouts; skewer not fully tightened.	Loosen skewer, ensure wheel is centered, then re-tighten to 8.5 Nm. Adjust brake calipers if necessary.

## 7. PRODUCT SPECIFICATIONS

Feature	Detail
Model Name	AxleRodz Security Skewers
Part Number	TD9100
Material	Chromoly Axle, Stainless Springs, Aluminum Nuts
Color	Silver
Weight	0.15 lbs / 69 grams (per pair)
Required Tool	5mm Allen Key
Recommended Torque	MAX 8.5 Nm
Front Dropout Compatibility	95mm MIN – 115mm MAX
Rear Dropout Compatibility	132mm MIN – 154mm MAX
UPC	799403206606

## 8. WARRANTY INFORMATION

Delta products are designed and engineered in the US. While specific warranty details are not provided in the immediate product information, Delta Cycle typically offers a warranty against defects in materials and workmanship. Please refer to the official Delta Cycle website or contact their customer support for detailed warranty terms and conditions. The product specifications mention a "Warranty Description: 2". This typically refers to a 2-year warranty period. Please confirm with the manufacturer for precise details.

## 9. CUSTOMER SUPPORT

For further assistance, technical support, or to inquire about replacement parts, please contact Delta Cycle customer service. You can often find contact information on the product packaging or the official Delta Cycle website.

Visit the [Delta Store on Amazon](#) for more information and products.

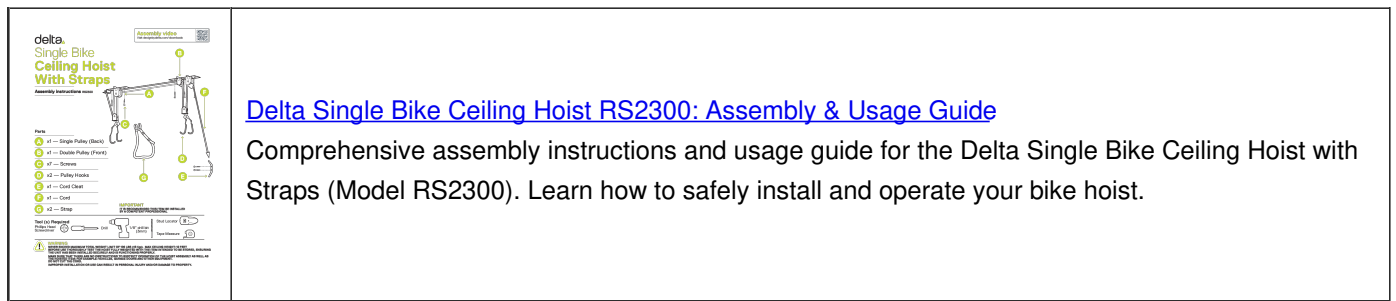
For over 35 years, Delta has been a trusted brand in bicycle accessories, known for US-based design and engineering.

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Related Documents - TD9100

	<p><a href="#">Delta HDRS6200 Two Bike Rugged Upright Stand Assembly Instructions</a></p> <p>Step-by-step assembly instructions and adjustment guide for the Delta HDRS6200 Two Bike Rugged Upright Stand. Learn how to safely assemble and use your bike stand.</p>
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Documents - Delta – TD9100

no relevant documents