CURT 13603

CURT 13603 Class 3 Trailer Hitch Instruction Manual

Model: 13603

Introduction Features & Benefits Installation Operation Maintenance Troubleshooting Specifications Warranty Support

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your CURT 13603 Class 3 Trailer Hitch. Designed for select Kia EV6 models, this hitch offers reliable towing capabilities for various trailers. Please read these instructions thoroughly before proceeding with installation or use.

The CURT Class 3 Trailer Hitch is engineered for serious towing, providing a vehicle-specific fit and the necessary weight capacity for utility trailers, boat trailers, campers, snowmobile or ATV haulers, and more. It features a 2-inch receiver tube and is constructed from high-strength steel with precise welding, protected by a co-cured finish of liquid A-coat and black powder coat for enhanced durability against rust, chipping, and UV damage. All CURT Class 3 hitches are tested in accordance with SAE J684 standards to ensure safety and performance.



Figure 1.1: CURT 13603 Class 3 Trailer Hitch. This image displays the overall design of the hitch, highlighting its robust construction and black powder-coat finish.

2. Features & Benefits

The CURT 13603 Class 3 Trailer Hitch incorporates several key features designed for performance and durability:

- **Dependable Strength:** Rated for 3,000 lbs. Gross Trailer Weight (GTW) and 300 lbs. Tongue Weight (TW). Always adhere to the lowest-rated towing component's capacity.
- **Versatile Design:** Equipped with a standard 2-inch x 2-inch hitch receiver, compatible with various towing accessories such as ball mounts, cargo carriers, bike racks, and tow hooks.
- **Fully Tested:** Each design undergoes rigorous real-world, on-vehicle testing at CURT's Detroit engineering facility, meeting SAE J684 standards for safety.
- **Rust, Chip, UV-Resistant Finish:** Protected by a dual-coat finish combining rust-resistant liquid A-coat and durable black powder coat, co-cured for superior protection.
- **Easy Installation:** Designed for a custom, factory fit on specific Kia EV6 model years.



Figure 2.1: Overview of CURT Trailer Hitch Features. This diagram highlights the key design elements such as the vehicle-specific fit, the standard 2-inch receiver, the rigorous testing process, and the protective dual-coat finish.



Figure 2.2: Standard Hitch Receiver. This image shows a detailed view of the 2-inch x 2-inch receiver tube, ready to accept various towing accessories.



Figure 2.3: Fully Tested Design. This image illustrates a CURT hitch being subjected to rigorous testing to ensure it meets SAE J684 safety standards under real-world conditions.



Figure 2.4: Industry-Leading Dual-Coat Finish. This image shows the application of the rust-resistant liquid A-coat, part of the dual-coat process that provides superior protection against corrosion and environmental damage.

3. Installation

The CURT 13603 trailer hitch is designed for a custom, vehicle-specific fit on select Kia EV6 models. While installation is generally straightforward, it requires proper tools and adherence to safety guidelines. It is recommended to consult the detailed, vehicle-specific instructions provided on the official CURT website for your exact vehicle model year.

3.1 General Installation Guidelines

1. **Safety First:** Always wear appropriate safety gear, including eye protection. Ensure the vehicle is on a level surface and properly supported with jack stands or a lift.
2. **Prepare Vehicle:** Depending on your vehicle, minor modifications such as temporary removal of exhaust hangers or underbody panels may be required. Refer to the specific instructions for your EV6 model.
3. **Position Hitch:** Carefully lift the hitch into position, aligning the mounting holes with the vehicle's frame. Assistance from another person is recommended due to the weight of the hitch.
4. **Secure Hardware:** Install all bolts, washers, and nuts as specified in the detailed instructions. It is often beneficial to hand-tighten all fasteners before fully tightening any one bolt, allowing for minor adjustments.
5. **Torque Fasteners:** Once all hardware is in place, torque all fasteners to the specifications provided in the official CURT installation guide. Proper torque is critical for safety and performance.

6. **Final Inspection:** Double-check all connections and ensure the hitch is securely mounted and all removed components are reinstalled.



Figure 3.1: CURT Hitch Installed on Kia EV6 (Rear View). This image shows the CURT 13603 hitch properly installed on the rear of a Kia EV6, with the 2-inch receiver visible.



Figure 3.2: CURT Hitch Installed on Kia EV6 (Side View). This perspective illustrates how the hitch integrates with the vehicle's design.

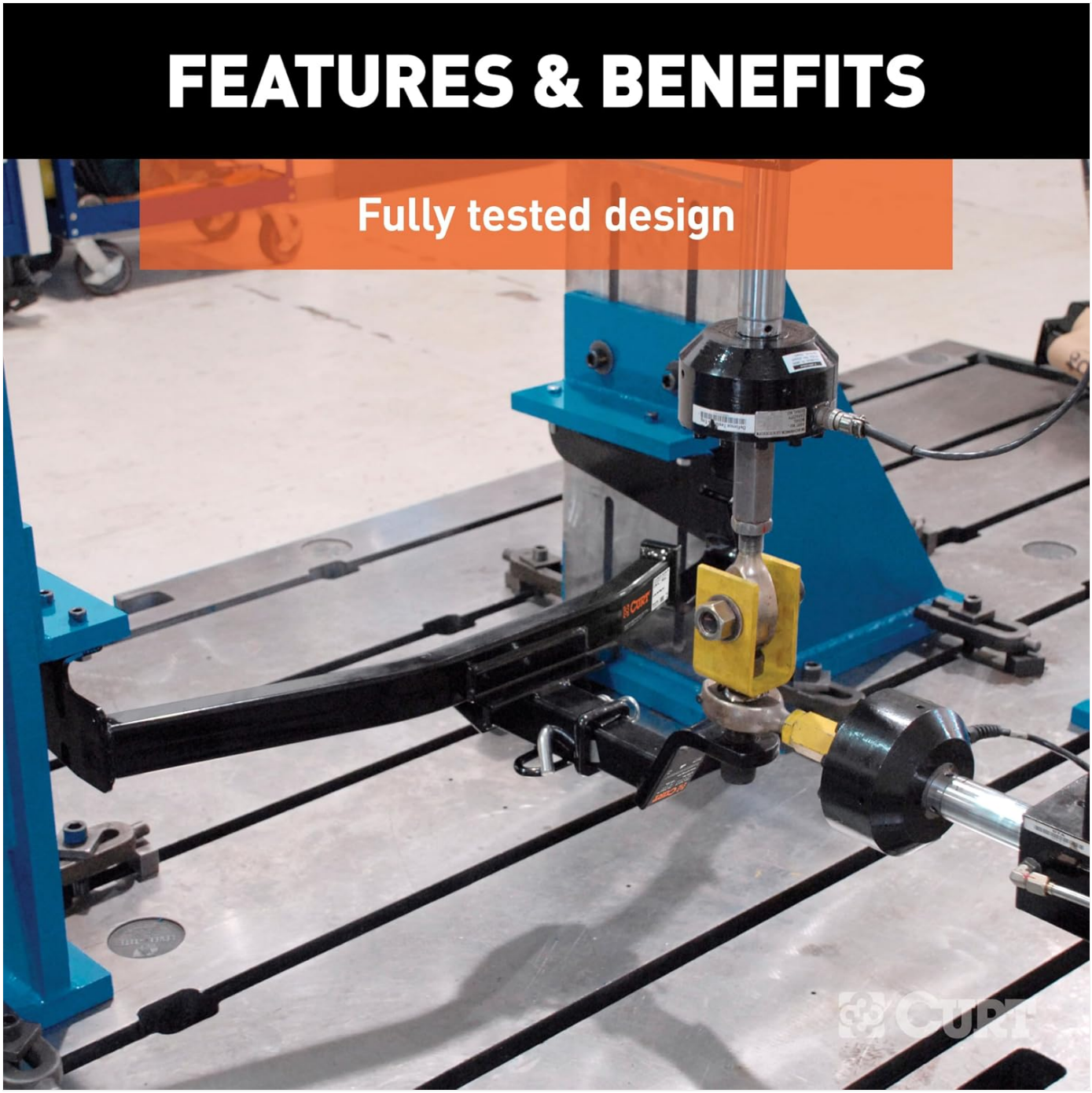


Figure 3.3: Hitch Receiver Detail on Kia EV6. A closer look at the installed hitch receiver, showing its position relative to the vehicle's undercarriage.

4. Operation

Once the CURT 13603 trailer hitch is correctly installed, it provides a secure attachment point for various towing applications. Proper operation involves understanding towing capacities and safe towing practices.

4.1 Towing Capacity

- **Gross Trailer Weight (GTW):** The maximum weight of the trailer and its cargo. For this hitch, the GTW is 3,000 lbs.
- **Tongue Weight (TW):** The downward force exerted by the trailer's coupler onto the hitch ball. For this hitch, the TW is 300 lbs.
- **Important Note:** Always ensure that the towing capacity of your vehicle, the hitch, and any other towing components (e.g., ball mount, hitch ball) are not exceeded. The lowest-rated component determines the overall maximum towing capacity.

4.2 Safe Towing Practices

- **Proper Connection:** Ensure the trailer coupler is securely attached to the hitch ball and the safety chains are crossed and connected to the vehicle.
- **Lighting:** Verify that all trailer lights (brake, turn signals, running lights) are functioning correctly before each trip.
- **Load Distribution:** Distribute the trailer load evenly, with approximately 10-15% of the GTW as tongue weight for conventional trailers.
- **Driving Adjustments:** Drive at reduced speeds, allow for increased braking distances, and make wider turns when towing.
- **Regular Checks:** Periodically check the hitch connection, tire pressure (vehicle and trailer), and load security during long trips.

5. Maintenance

Regular maintenance ensures the longevity and safe operation of your CURT trailer hitch.

- **Visual Inspection:** Before each use, visually inspect the hitch for any signs of damage, cracks, excessive rust, or loose fasteners.
- **Cleanliness:** Keep the hitch receiver free of dirt, debris, and moisture. Clean with mild soap and water, then dry thoroughly.
- **Finish Protection:** The dual-coat finish provides excellent protection. Avoid using abrasive cleaners or tools that could damage the coating. Touch up any chips or scratches with appropriate paint to prevent rust.
- **Lubrication:** Apply a thin layer of grease to the inside of the receiver tube and to the hitch ball shank (if applicable) to prevent rust and facilitate easier connection/disconnection.
- **Fastener Torque:** Periodically re-check the torque of all mounting fasteners, especially after the first few uses and after long trips. Re-torque to the manufacturer's specifications if necessary.

6. Troubleshooting

This section addresses common issues you might encounter with your trailer hitch.

Problem	Possible Cause	Solution
Hitch appears loose after installation.	Fasteners not torqued correctly or have loosened over time.	Re-torque all mounting fasteners to the specified values. If problem persists, inspect for damaged hardware or frame.
Difficulty inserting/removing accessories from receiver.	Rust or debris inside receiver tube; bent receiver tube.	Clean inside of receiver tube and apply lubricant. Inspect for damage; if bent, the hitch may need replacement.
Excessive trailer sway during towing.	Improper load distribution on trailer; incorrect tongue weight; worn suspension components.	Adjust trailer load to achieve proper tongue weight (10-15% of GTW). Consider a weight distribution hitch or sway control device if appropriate for your setup. Inspect vehicle and trailer suspension.
Visible rust or paint chipping.	Surface damage to the protective coating.	Clean the affected area and apply rust-inhibiting paint to prevent further corrosion.

7. Specifications

Key technical specifications for the CURT 13603 Class 3 Trailer Hitch:

Specification	Value
Model Number	13603
Receiver Tube Size	2 inches x 2 inches
Gross Trailer Weight (GTW)	3,000 lbs.
Tongue Weight (TW)	300 lbs.
Material	Carbon Steel
Finish Type	Powder Coated (Liquid A-coat and Black Powder Coat)
Item Weight	41 pounds
Compatible Vehicle	Select Kia EV6 models
Testing Standard	SAE J684



Figure 7.1: Receiver Tube Size. This image confirms the standard 2-inch receiver tube size for the CURT 13603 hitch.

8. Warranty Information

CURT Manufacturing provides the following warranty for this product:

- **Limited Lifetime Warranty:** Applies to the structural components of the hitch.
- **1 Year Warranty:** Applies to the finish (powder coat).

For full details regarding warranty coverage, terms, and conditions, please refer to the official CURT warranty documentation or visit the CURT website.

9. Customer Support

If you have any questions regarding the installation, operation, or maintenance of your CURT 13603 Class 3 Trailer Hitch, please contact CURT customer support directly. You can find contact information and additional resources, including detailed installation videos and guides, on the official CURT website.

Official Website: www.curtmfg.com

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