

Competition Engineering C3122

Competition Engineering C3122 Main Roll Bar Hoop

INSTRUCTION MANUAL

Model: C3122

Introduction

This manual provides essential information for the installation, maintenance, and specifications of the Competition Engineering C3122 Main Roll Bar Hoop. This product is engineered to enhance chassis strength and safety in performance vehicles, meeting stringent racing standards such as NHRA and IHRA approvals. Please read all instructions carefully before proceeding with installation or use.

Safety Information

- **Professional Installation Recommended:** Due to the critical safety function of this component, professional installation by qualified personnel is highly recommended.
- **Vehicle Compatibility:** Ensure this roll bar hoop is compatible with your specific vehicle model and year. Refer to the product specifications and your vehicle's manual.
- **Personal Protective Equipment:** Always wear appropriate personal protective equipment (PPE) including safety glasses, gloves, and hearing protection during installation.
- **Secure Fasteners:** All fasteners must be tightened to the manufacturer's specified torque settings. Regularly inspect for loose connections.
- **Welding Safety:** If welding is required for installation, ensure proper ventilation, fire prevention measures, and use of appropriate welding safety gear.

Setup and Installation

The Competition Engineering C3122 Main Roll Bar Hoop is designed for integration into a vehicle's chassis to provide structural reinforcement and occupant protection. The main hoop is constructed from 1-3/4 inch outer diameter, 0.134 inch wall mild steel tubing. The kit includes additional safety strut kit mount plates, which are 6x6x1/8 inch steel, featuring notched tube ends for a precise fit and simplified installation.

process.

General Installation Steps (Consult specific vehicle instructions for detailed guidance):

1. **Preparation:** Safely lift and support the vehicle. Remove any interior components that obstruct access to the installation area.
2. **Positioning:** Carefully position the main roll bar hoop within the vehicle's interior, ensuring proper clearance and alignment with the chassis.
3. **Mounting Plate Placement:** Identify the optimal locations for the 6x6x1/8 inch steel mounting plates. These plates are crucial for distributing load and securing the roll bar.
4. **Notched Tube Ends:** The pre-notched tube ends are designed to facilitate a flush and strong connection to the mounting plates or other chassis points. Ensure these connections are tight and free of gaps.
5. **Welding/Bolting:** Depending on the specific installation method and racing regulations, the roll bar may need to be welded directly to the chassis or bolted using high-strength hardware. Follow all applicable racing sanctioning body rules (e.g., NHRA, IHRA).
6. **Strut Kit Integration:** Install any additional safety strut kits as per their specific instructions, connecting them to the main hoop and chassis for enhanced rigidity.
7. **Final Inspection:** After installation, thoroughly inspect all welds, bolts, and connections to ensure they are secure and meet all safety standards.



Figure 1: Competition Engineering C3122 Main Roll Bar Hoop. This image displays the primary black-colored hoop, designed to provide structural integrity. Faint outlines of additional support bars and mounting plates are also shown, indicating the complete roll bar system.

Operating

The Competition Engineering C3122 Main Roll Bar Hoop is a passive safety and chassis reinforcement component. It does not require active operation. Its function is to provide structural integrity and occupant

protection in the event of a rollover or impact. Once correctly installed, its protective benefits are continuously active.

Maintenance

Regular inspection and maintenance are crucial to ensure the continued safety and effectiveness of your roll bar hoop.

- **Visual Inspection:** Periodically inspect the entire roll bar structure for any signs of damage, cracks, bends, or corrosion.
- **Connection Points:** Check all welded joints and bolted connections for integrity. Ensure bolts are tight and welds show no signs of fatigue or cracking.
- **Paint/Coating:** Maintain the protective coating to prevent rust and corrosion, especially in areas exposed to moisture or road debris.
- **Post-Incident Inspection:** Following any significant impact or incident, the roll bar system must be thoroughly inspected by a qualified professional for structural integrity. Any damaged components must be replaced immediately.

Troubleshooting

Most issues related to a roll bar hoop are associated with installation or damage.

- **Loose Connections:** If you notice any rattling or movement from the roll bar, immediately check all mounting bolts and welded joints. Re-tighten bolts to specification or consult a professional for weld inspection.
- **Visible Damage:** Any visible cracks, bends, or deformation in the tubing or mounting plates indicate a compromised structure. The roll bar must be inspected and potentially replaced by a professional. Do not attempt to repair structural damage yourself.
- **Corrosion:** Surface rust can be treated and repainted. However, deep or penetrating rust that compromises the material thickness requires professional assessment and potential replacement of the affected section or entire unit.

Specifications

Feature	Specification
Brand	Competition Engineering
Model Number	C3122
Outer Diameter	1-3/4 inches
Wall Thickness	0.134 inches
Material	Mild Steel Tubing
Mounting Plate Dimensions	6 x 6 x 1/8 inches (Steel)

Feature	Specification
Product Dimensions (L x W x H)	134.62 x 101.6 x 5.08 cm
Product Weight	0.28 g (Note: This weight appears unusually low for a roll bar. Please verify with manufacturer if concerned.)
Approvals	NHRA, IHRA

Warranty Information

Specific warranty details for the Competition Engineering C3122 Main Roll Bar Hoop are not provided in this manual. For information regarding product warranty, including coverage, duration, and claims process, please contact Competition Engineering directly or the authorized retailer from whom the product was purchased.

Support

If you require further assistance, have questions regarding installation, or need to report a product issue, please contact:

- **Competition Engineering Customer Service:** Refer to the official Competition Engineering website for contact details.
- **Authorized Retailer:** Contact the seller or retailer where you purchased the product.