



**P/N 71222017HKR  
1967-69 GM F-Body Camaro with DSE Subframe and Suspension  
LT1/LT4 Swap  
T56 Magnum Manual Transmission Crossmember**

**Installation Instructions**



Thank you for choosing to use this Hooker™ transmission crossmember as part of your engine/transmission swap project. This crossmember is part of the most comprehensively engineered system of mounting components, headers and exhaust systems available for this application. The entire Hooker™ swap system is designed to decrease your total swap installation effort and cost while increasing the engineered quality of your vehicle and compatibility of these components with other popular aftermarket components.

**IMPORTANT DESIGN AND INSTALLATION INFORMATION:**

This crossmember is designed as part of a fully-engineered fifth generation LT Engine swap mounting system for GM 1st-gen Camaro using Detroit Speed and Engineering front Subframe and suspension components. It has been CAD designed and FEA validated to provide excellent structural strength and stiffness from its high-strength low-alloy steel construction. As a further benefit to the user, a maximized ground clearance pathway for routing up to 3" exhaust system tubing is included as a main design feature.

The design geometry of this crossmember provides direct installation of a GM T56 or Tremec™ aftermarket T56 Magnum manual transmission into your vehicle.

**COMPATIBILITY:**

This crossmember was specifically designed for compatibility with Hooker™ engine swap mounts and Hooker Blackheart headers and exhaust systems.

**Engine mount bracket kit** – Hooker Blackheart P/N 71221024HKR

**Engine mounts** – Hooker Blackheart P/N 71221004HKR clamshell with 71221014HKR Black or 71221015HKR Red (Poly bushing) or GM P/N 22188497 Mount assembly

**Transmission Mount** – Anchor P/N 2379 or Prothane™ 7-1604 polyurethane

**Headers** – Hooker Blackheart P/N 70101356-RHKR, 70101358-RHKR, 70101359-RHKR, 70101360-RHKR, 70201318-RHKR, & 70201319-RHKR

**Exhaust systems** – Hooker Blackheart P/N 705013156RHKR, 705013157RHKR, 705013161RHKR, & 705013162RHKR

Visit the Holley website at [www.holley.com](http://www.holley.com) for a complete line of swap parts for your project

## **INSTALLATION:**

### **PRE-INSTALLATION NOTES:**

This crossmember is designed to provide an exhaust routing path with maximized ground clearance. Worn or collapsed body bushings will further diminish the available installation space and may require increased force or leverage to be applied to the crossmember to persuade it into proper position. It is highly recommended that new body bushings be installed prior to performing your engine/trans swap. Half height body bushings will require floor pan modifications.

These instructions were formatted with the assumption that you have already loaded your LS swap engine and attached transmission into position in your vehicle using the specific Hooker™ LS swap engine bracket kit for this application per the instructions included in its packaging.

1. Check that the hardware package includes the following:

<b>Parts List:</b>		
<b>Qty.</b>	<b>P/N</b>	<b>Description</b>
1	509R371A	Crossmember
1	517R98	Bracket

<b>Hardware Package:</b>			
<b>Qty.</b>	<b>Description</b>	<b>Qty.</b>	<b>Description</b>
1	Left Side Anchor Bracket	6	3/8-16 Flanged Nuts
1	3/8-16 x 3/4" Flanged Head Bolt	1	Spacer Plate
6	3/8-16 x 1" Flanged Head Bolts	2	3/8 SAE Flat Washers

If any are missing, please contact Technical Service at 1-866-464-6553 or 270-781-9741.

2. Raise the tail shaft of the transmission to its highest possible point of lift using a transmission jack, floor jack, or screw type pole jack.
3. Feed the fixed right attachment foot of the welded crossmember assembly onto the top of the right side rail of the vehicle subframe.
4. Push the left side of the crossmember up until you can insert the included left side anchor bracket under it and be able to rest its frame mating surface on the top of the left side rail of the vehicle subframe. Install the included short flanged head bolt through the center hole in the bracket and into the corresponding threaded hole in the crossmember. Do not fully tighten the bolt at this point.

**NOTE:** Check clearance between bolt and floor pan for interference. Adding washers under bolt head may be necessary to prevent floor pan damage.

5. Install two sets of included flanged head bolts and nuts into the two remaining holes in the anchor bracket and crossmember and tighten all three bolts and/or nuts at this connection point.
6. Attach the transmission isolator of your choice to the mounting pad on your transmission.
7. Attach the crossmember to the subframe with the remaining included flanged head bolts and nuts; do not fully tighten the fasteners at this time.
8. Lower the transmission onto the crossmember and attach the transmission isolator to the crossmember using the fasteners included with the isolator.

**NOTE:** Every attempt has been made to make this a bolt-in solution to your LT swap project but due to the inherent nature of custom-built vehicles, some slight modifications may be necessary to achieve proper fitment of this Crossmember into your vehicle. Always check for proper driveline angle after installation.

**Any questions? Please contact Technical Service: 1-866-464-6553 or 270-781-9741. For online help, please refer to: [www.holley.com](http://www.holley.com).**

#### **LIMITATION OF LIABILITY – DISCLAIMER:**

The regulation of emissions production, noise levels, and safety standards is undertaken by the federal government, each of the fifty state legislatures, and by many local municipalities, towns, and counties.

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Unless expressly stated to the contrary in the catalog, instruction sheet; or price list, the entire risk as to the conformity of any company product in any such state and as to repair should the product prove to be defective or non-conforming, is on the retail purchaser, the buyer, the ultimate consumer, of such product and it is not upon the seller, distributor, or manufacturer.

In this connection, the retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, or repair.

#### **THE FOREGOING STATEMENT LIMITS THE LIABILITY OF THE MANUFACTURER.**

California vehicle code, sections 27156 and 38391, prohibits the advertising, offering for sale, or installation of any device, which modifies a vehicle's emission control system, unless exempted, unless otherwise noted. HOKKER™ Headers that have not received an Executive Order (E.O.) exemption from these code sections are not legal for sale or use in California on vehicles originally equipped with catalytic converters, except for racing vehicles, which may never be driven upon a highway. Check with your local authorities to determine if these headers are legal for use in your particular area.

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