



1994-98 Ford Mustang LS Swap Transmission Crossmember 71222013HKR

Installation Instructions – T56/T56 Magnum, TH400*, 2004R* or 4L80-4L85* transmission

* Installation also requires the use of a separately available, transmission-specific Hooker spacer/adaptor.



Thank you for choosing to use this Hooker™ transmission crossmember as part of your LS swap project. This crossmember is part of the most comprehensively engineered system of mounting components, headers and exhaust systems available for this vehicle 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. Please read these instructions in their entirety before attempting installation.

PRE-INSTALLATION CONSIDERATIONS:

This crossmember is designed as part of a fully-engineered LS swap mounting system for 1994-98 Ford Mustang vehicles. It has been CAD designed to provide an optimized balance of weight, stiffness and strength. The dual-arch exhaust passages are provided for installation of available Hooker 2.5" and 3" exhaust systems for this application, or any custom system of your choice.

Installation of this crossmember with any of the applicable transmissions also requires the use of a specific spacer block or adapter kit as follows:

- **TH400** or **2004R** transmissions - **12650HKR**
- **4L80/4L85** transmissions - **71223013HKR**

This crossmember can be installed with an Energy Suspension 3-1108 poly mount, a Prothane™ 7-1604 poly mount, or the stock OE rubber transmission mount they are designed to replace.

Due to the unique design geometry of this transmission crossmember, attempts to install it with headers and/or engine mounting plates/brackets other than those developed by HOOKER™ for this LS swap application will be unsuccessful. When used with the related Hooker™ **71221011HKR** engine mounting bracket kit and Holley 302-2 oil pan, this CAD designed transmission crossmember will provide desirable component clearances and U-joint operation angles.

A suitable lifting jack will be required to install this crossmember with the appropriate transmissions for which it is intended. An automotive lift or a jack and jack stands will be required to safely raise and support the vehicle.

CAUTION! WORK ONLY ON A LEVEL SURFACE. USE JACKS /JACK STANDS OF SUFFICIENT CAPACITY TO LIFT AND SUPPORT YOUR VEHICLE. NEVER WORK UNDER A VEHICLE SUPPORTED BY A FLOOR OR BUMPER JACK.

Check that the hardware package includes the following:

Qty.	Description	Qty.	Description	Qty.	Description
1	Crossmember Assembly	1	Passenger's Side Frame Angle Bracket	2	3/8" Nuts
1	Transmission Spacer (5/16" thick)	2	Outer Frame Backing Plates	4	M10 Nuts
1	Transmission Spacer (3/16" thick)	2	3/8" Bolts	4	M10 Bolts

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

INSTALLATION:

NOTE: These instructions have been written with the assumption that you have already installed an LS engine into your vehicle using the Hooker **71221011HKR** engine mounting bracket kit per its instructions.

NOTE: Some hammer clearancing to the trans tunnel should be expected in the following areas:

- **T56/T56 Magnum** - around and just forward of the shifter area
- **TH400** - around the transmission cooler lines
- **2004R** - around the servo cover on the right side of the case
- **4L80/4L85** - around the transmission cooler lines, low-reverse band case lugs, and the electrical connector on the left side of the case.

1. Raise the vehicle to a comfortable working height and support it by proper means.
2. If in place, remove the factory transmission crossmember from the vehicle.
3. Attach the transmission to the engine and then raise the tailshaft of the transmission as high as possible with a floor jack or screw jack.
4. Attach your chosen mount to the rear of the transmission (bolts for this purpose are user supplied) for all transmissions other than 4L80/4L85. The mount for 4L80/4L85 transmissions will be attached later in step 7.
5. Using the supplied fasteners and backing plates, install the Hooker crossmember into the car using the four holes located in the frame rails just behind the factory crossmember pockets. Begin by attaching the supplied angle bracket to the inside of the right side frame rail with the angle pointing towards the center of the vehicle. Feed two of the supplied M10 bolts through one of the supplied backing plates and then all the way through the frame rail starting from the outside of the frame rail. Feed the bolts through the angle bracket and install two of the supplied nylon lock nuts onto the bolts. Do not fully tighten the bolts/nuts at this time.
6. Set the flat foot of the crossmember onto the angle bracket then lift up the left side of the crossmember and attach it to the left side frame rail using the remaining M10 bolts/nuts (2 each). Using the supplied 3/8" bolts and nuts (2 each), attach the right side of the crossmember to the angle bracket.
7. Attach the transmission mount to the crossmember in the following fashion:

4th-gen F-body T56 transmission - lower the transmission tail down onto the crossmember. Before attaching the crossmember/mount together with the bolts supplied with the mount, place the supplied 3/16" thick spacer between the crossmember beam and the mount if using a stock OE rubber or Prothane 7-1604 mount; the Energy Suspension 3-1108 mount is 3/16" taller and therefore does not require the use of the 3/16" spacer.

Aftermarket T56 Magnum transmission - follow step above for 4th-gen F-body T56 above and install supplied 5/16" spacer between the crossmember and mount along with the 3/16" spacer where required; the 3/16" is required when using a Prothane 7-1604 poly mount or OE rubber mount, but not with a Energy Suspension 3-1108 poly mount.

TH400 or 2004R transmissions - place the available **12650HKR** spacer block onto the beam of the crossmember then lower the transmission tail down onto the spacer block. Before fastening the crossmember/spacer/transmission together using the 7/16" bolts supplied with the spacer block, place the supplied 3/16" thick spacer between the spacer block and the crossmember if using a stock OE rubber or Prothane 7-1604 mount; the Energy Suspension 3-1108 mount is 3/16" taller and therefore does not require the use of the 3/16" spacer.

4L80 or 4L85 transmissions - attach available **71223013HKR** adapter bracket and your chosen transmission mount to the extension housing of the transmission per the instructions included with the 71223013HKR adapter bracket. Before fastening the crossmember/mount/ together with the fasteners supplied with the your mount, place the supplied 3/16" thick spacer between the mount and the crossmember if using a stock OE rubber or Prothane 7-1604 mount; the Energy Suspension 3-1108 mount is 3/16" taller and therefore does not require the use of the 3/16" spacer.

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

COMPATIBILITY INFORMATION:

This transmission crossmember was specifically designed for bolt-in compatibility with the HOOKER™ LS swap engine mounting bracket kits, cast iron LS exhaust manifolds, headers and exhaust systems also developed for this application. Various other Holley® and OE LS components have been designed and/or validated for use with this system of components, as follows:

The engine/transmission positioning provided by this crossmember was designed specifically for compatibility with the Holley® **302-2** LS oil pan; compatibility with other aftermarket/OE engine oil pans is unknown. The Holley 302-1 LS engine oil pan is **NOT** bolt-in compatible with this transmission crossmember.

More LS swap/engine performance components, such as EFI fuel control systems, fuel filters, fuel pumps, plumbing hose/fittings and valve covers can be found at www.holley.com.

LIMITATION OF LIABILITY – DISCLAIMER:

HOOKER™ makes no warranties of merchantability, of fitness for particular purpose, or that its products are approved for general use, or that its products comply with laws, regulations, or ordinances in the state where they may be sold to the ultimate purchaser, the consumer.

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.

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