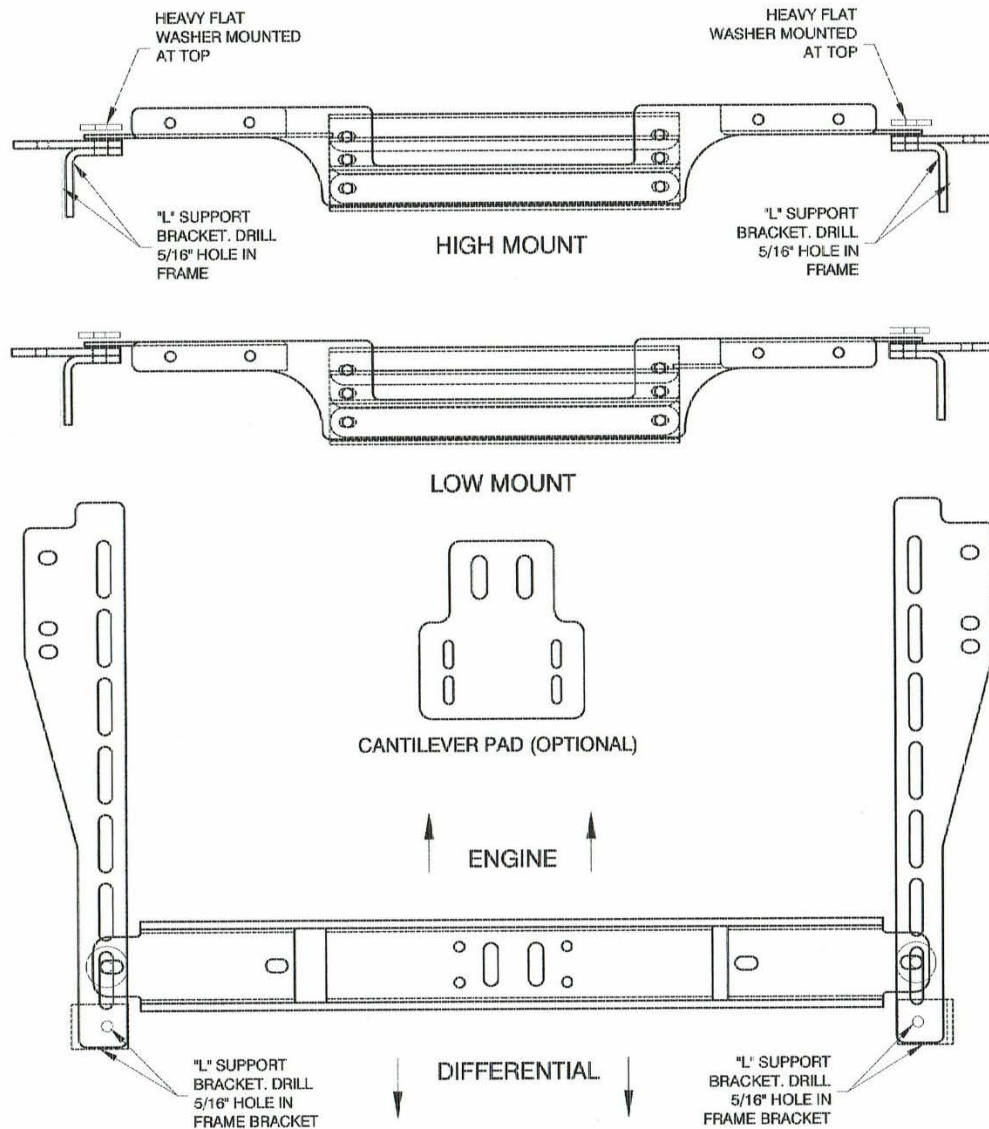




INSTRUCTIONS

Steel Cross Member for 1967-69 GM F-body and 1968-74 GM X-body for TCI® 6x Six Speed™, 4x Four-Speed™ and 4L80E Transmissions (Part# 953000)

Thank you for choosing TCI® products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information. Contact us toll free at 1.888.776.9824 or at www.tciauto.com under Tech Support with any questions.



NOTE: The optional cantilever pad shown in many instructions is used for a 1970-74 Camaro with a TKOS00/600 and a 4L60/ 4L60E. It may be purchased separately for positioning the cross member to avoid X pipes, speedo cables and E-brake cables. Your frame brackets will bolt directly to the factory mounting holes for installation of a 4L80E. You will need to drill two 5/16 holes in the very rear of your frame for the installation of the "L" support bracket, which bolts directly to the 3/8 hole at the end of the frame bracket. Depending on floor pan clearance, it may be necessary to use the low mount position with the center pad in the top two holes. Since this is a custom application with a very long transmission, you may need to change the configuration of your cross member to suit your specific car. The unique modular design of this cross member means it can be reconfigured to fit your exact needs.

Installation easy, but there are some key measurements and values you should be aware of before starting. Your transmission cross member has three functions:

SUPPORT

These cross members are designed to withstand the weight of your transmission, as well as ensure the transmission is stable under load. You can use a variety of isolator mounts with this cross member, including polyurethane or rubber. **Solid mounts are not recommended unless your engine is also solid mounted.**

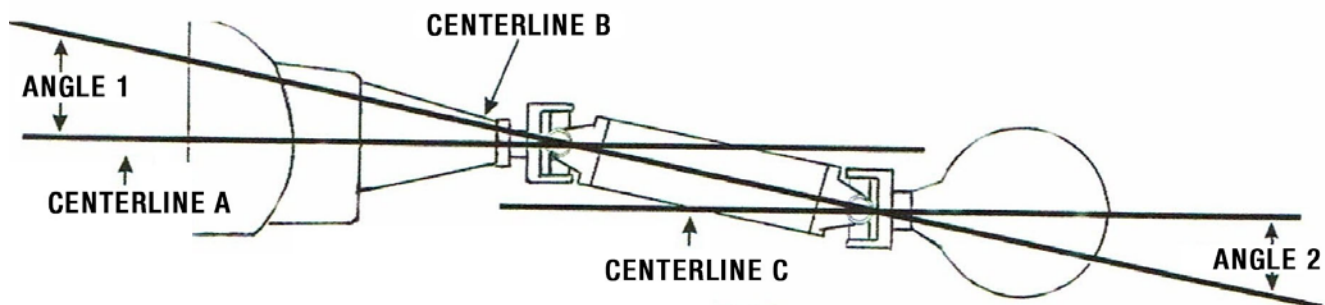
POWERTRAIN ANGLE

Your car, no matter the make or model, was designed to have a -3° angle on the transmission. That is, the back of the transmission should be lower than the bell housing. You can measure this with a simple angle finder set on your output shaft or flange (image right). Your intake deck is machined at $+3^\circ$ so that when you lean your engine back at negative three degrees, the carb will be level. Adjust your cross member to achieve the correct powertrain angle. If your body height, ride height or engine position has been modified, you may need to shim the mount to achieve the desired angle.

NOTE: EFI makes it possible to set more radical angles for your powertrain because it does not rely on level float bowls like a carburetor. However, the driveline angles at your U-joints are important for a smooth, steady driveshaft rotation. Even with EFI, you should try to maintain the -3° powertrain angle.

DRIVELINE ANGLES

The down angle of your transmission has a direct effect on the driveline angles. You should not use the height of your transmission to determine the accuracy of these angles. Your rear end should be adjustable to allow for fine tuning of the driveline angle. The diagram below is a good illustration of ideal driveline angles.



In the diagram, Angle 1 is defined as the intersecting angle between the centerline of your transmission output shaft and the centerline of the driveshaft. Angle 2 is defined as the intersecting angle between the centerline of the driveshaft and the center line of your pinion.

The ideal angles are dictated by the optimum operating range of au-joint, which is generally accepted to be between 1.5 and 3°. Referring to the diagram, Angle 1 and Angle 2 should be equal and opposite, that is if Angle 1 is 2.5° then Angle 2 should be -2.5°.

Setting your driveline angles properly will eliminate noise, harmonic vibration, and u-joint wear and tear.

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Limited Warranty

TCI® Automotive warrants that all of its products are free from defects in material and workmanship for a period of (1) one year from the date of purchase. This limited warranty shall cover the original purchaser.

TCI® Automotive's obligation under this warranty is limited to the repair or replacement of its product. To make a warranty claim, the part must be returned within (1) one year of purchase to the address listed below, freight prepaid. Items covered under warranty will be returned to you freight collect. It is the responsibility of the installer to ensure that all of the components are correct before installation. We assume no liability for any errors made in tolerances, component selection or installation.

There is absolutely no warranty on the following:

- Any parts used in racing applications.
- Any product that has been physically altered, improperly installed or maintained.
- Any product used in improper applications, abused or not used in conjunction with the proper parts.
- Damage due to excessive manifold pressure, e.g. nitrous backfires, engine misfire, etc.

There are no implied warranties of merchantability or fitness for a particular purpose. There are no warranties which extend beyond the description of the face hereof. TCI® Automotive will not be responsible for incidental and consequential damages, property damage or personal injury damages to the extent permitted by law. Where required by law, implied warranties or merchantability and fitness are limited to a term of 1 year from the date of original purchase.

This warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state.

CALIFORNIA PROPOSITION 65 WARNING

This product may contain one or more substances or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.