



Installation Instructions for 93048

Ingalls Engineering Stiffy™ Engine Torque Damper for 2000-08 Honda S2000

The **Stiffy™ Adjustable Engine Torque Damper** is engineered to reduce deflection under hard acceleration and cornering for improved performance and power to weight transfer. Deflection in the motor mounts, as with the chassis and suspension, is a formidable enemy in power and weight transfer, robbing valuable horsepower and control. The innovative, built-in damper eliminates the huge amounts of “torque shock” that result from wheel-hop and once installed; transfers more power to the road and improves acceleration, shifting, and overall control and balance. The adjustable feature allows the assembly to be tuned and pre-loaded for racing and street applications.

CAUTION: Observe proper safety and repair procedures for installation of all chassis parts. Some chassis parts require specialized tools and experience and therefore **MUST** be installed by a qualified technician; otherwise and unsafe vehicle and/or personal injury could result. Wear safety glasses and other protection.

WARNING: Before beginning, check for any damaged or loose suspension connections. Loose connections here indicate worn or broken parts which **MUST BE REPLACED**. Failure to replace a damaged or worn spindle and/or link may cause the wheel to separate from the vehicle, possibly resulting in serious personal injury. Installer **MUST** check for proper clearance. Modification(s) may be required. Please proceed **ONLY** if the vehicle owner is completely aware of these potential suspension modifications.

Estimated Installation Time: One Hour

Technical Rating: Easy

Included Parts List:

- 1 - Stiffy™ Engine Torque Damper
- 1 - Engine Bracket
- 1 - Chassis Bracket
- 1 - Cable Tie
- 1 - Hardware Kit

Required Tools for Installation:

- Metric Sockets
- Metric Box Wrenches
- Crescent Wrench (up to 27mm)
- 3/8" Torque Wrench
- 3/8" Socket Driver (Wrench)

Step 1: Under the hood, locate the passenger's side upper strut mount and remove the two M10 nuts (14mm HEX) (Arrows "A", Illustration 1) that secure the strut to the strut tower. Fit Chassis Mounting Bracket over the strut studs as shown in Illustration 2, (ensure that the bent tab portion of the bracket is angling up). Secure Chassis Mounting Bracket using the OEM M10 nuts.



Illustration 1



Illustration 2

Step 2: On the front of the engine, locate the 10 mm bolt (Arrow "B", Illustration 3) and remove. Next, locate the two 8 mm socket head cap screws (Arrows "C", Illustration 3) and remove. Fit Engine Mounting Bracket onto the front of the engine and secure using the provided M10 bolt, spacer and 8mm socket head cap screws (the spacer goes between the bracket and engine with the 10 mm bolt). Tighten the 8mm bolts prior to fully tightening the 10mm bolt.

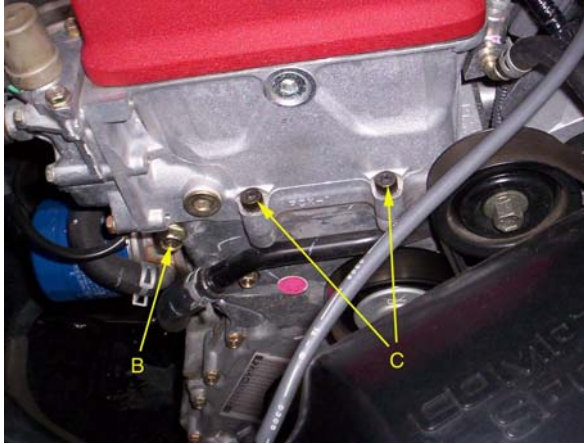


Illustration 3



Illustration 4

Step 3: The sensor on the front, passenger side of the motor (Arrow "E", Illustration 5) will need to be moved to the position shown (Arrow "G", Illustration 6). Remove the 6mm bolt holding the sensor (Arrow "D", Illustration 5) then reinstall the bolt without the sensor in place. Move the sensor as shown using care not to damage any of the wiring and retain with the OEM 6mm bolt (Arrow "F", Illustration 6).

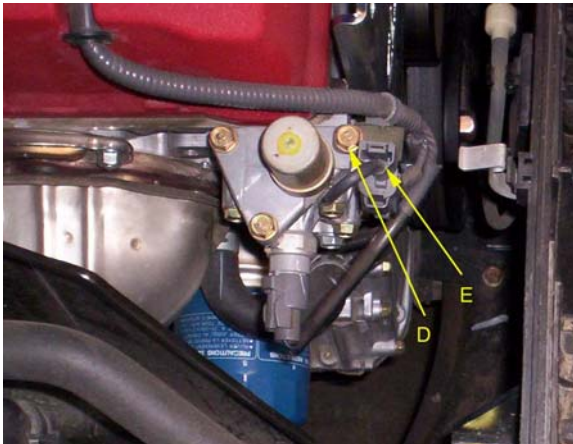


Illustration 5

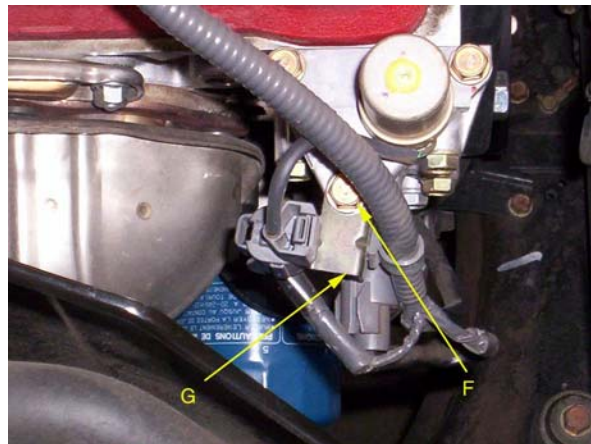
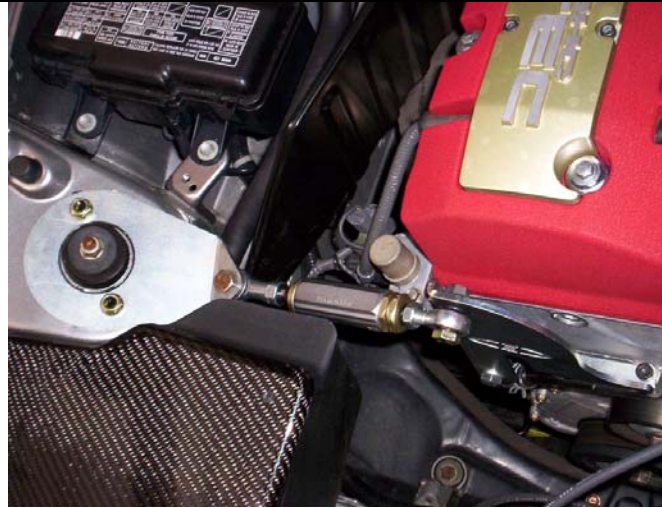


Illustration 6

Step 4: Install Stiffy™ onto the Chassis Mount Bracket and Engine Mount Bracket using the supplied hardware. Begin with the Chassis bracket by placing the rod end underneath the bracket. The supplied 10 mm bolt should go down through the bracket then rod end. The supplied rubber o-ring is placed between the Stiffy™ rod end and the bracket. The Stiffy™ nuts (15mm HEX) are black in color. You may need to loosen the jam nut with an open-end wrench (17mm) and adjustable wrench to increase the assembly length depending upon application. The supplied M10 (17mm HEX) bolt should go through the rod end and into the engine bracket, and the Stiffy™ should mount forward of the bracket. The supplied rubber o-ring is placed between the Stiffy™ rod end and the bracket. The Stiffy™ adjustment dials should be facing toward the Chassis Mounting Bracket. **Note:** Refer to illustration 7 for proper assembly of the mounting hardware. The nut and bolt can be swapped with the nut against the bracket or rod-end depending upon application, but the washer and o-ring placement should not be changed.



This image shows how the Stiffy™ should look after installation. The brackets should be aligned so that the Stiffy™ is parallel to the front of the valve cover. If need be, you can use spacers or washers to ensure that the Stiffy™ will be properly aligned. Make sure however that the rubber o-ring is against the heim joint for noise suppression.

Illustration 7

Notes:

Proper use and fitment of the rubber O-ring helps dampen additional road noise or “feel” that can be transferred through the damper assembly. The O-ring should be used between the Stiffy™ heim joint and bracket for optimal noise suppression. Dynamat or other damping materials, as used in aftermarket audio and in-car electronics industries, can also be used to provide further noise and vibration damping when used between the chassis bracket and the surface on which it mounts.

DO NOT attempt to adjust Stiffy™ from its pre-set stiffness without consulting the Ingalls website. Large open-end wrenches are required to adjust stiffness (27mm). Most standard and mechanics tool kits do not include these types of wrenches.

Limited Warranty

Subject to Disclaimer. All Ingalls Engineering Co., Inc. products are warranted against defects in materials and workmanship for ninety (90) days from date of purchase. During the warranty period Ingalls will repair, or at its option replace, at no charge components that prove to be defective. The product must be returned, shipping prepaid, to Ingalls facility. This limited warranty does not apply if the product is damaged by accident of misuse. The foregoing warranty is in lieu of all other warranties expressed or implied; including but not limited to any implied warranty of merchantability, fitness, or adequacy for any other particular purpose or use. Ingalls shall not be liable for any special, incidental, or consequential damages whether in contract, tort, or otherwise resulting from the use or the inability to use the product.

Warranty Disclaimer

Use of this product in competition, or use on vehicles altered from original manufacturer's specifications or settings, EXPRESSLY VOIDS WARRANTY. The user is urged to inspect for suspension binding or interference when the product is used in these manners. However, due to the varying conditions and manner of which the product will be subjected to in such uses, Ingalls Engineering Co., Inc. makes no warranties, either express or implied, including any warranty of merchantability or fitness for a particular purpose for use in competition or with specification or settings other than those specified by the original manufacturer's specifications.