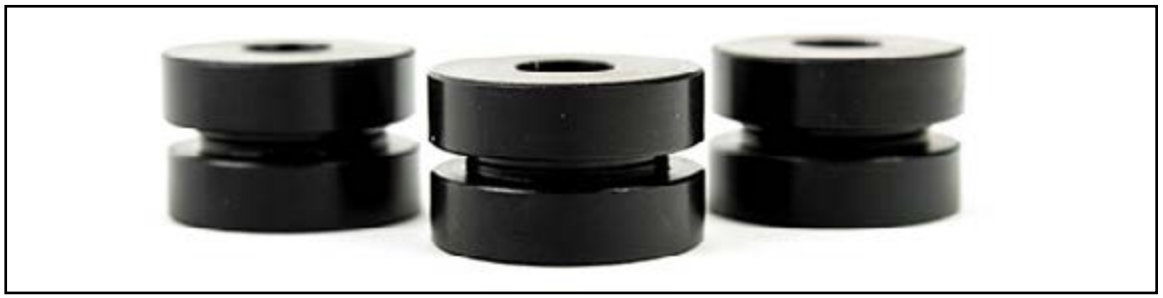
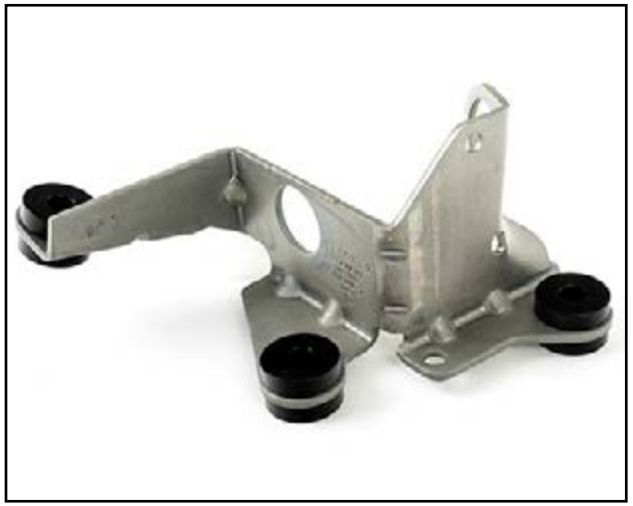
Volkswagen
Transverse 5 & 6 Speed Transmission
Shifter Bracket Bushing Installation



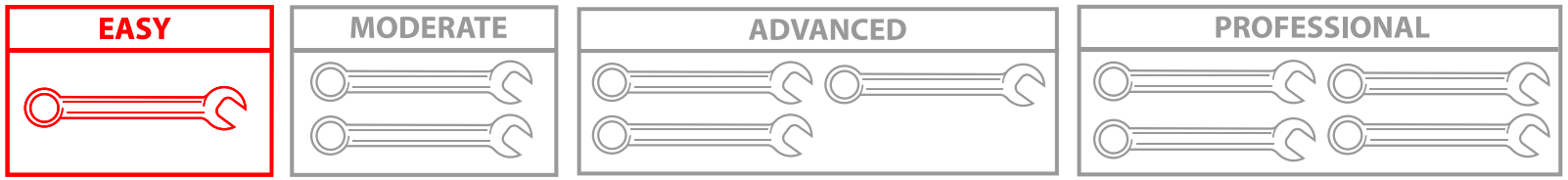


INTRODUCTION

Volkswagen Transverse 5 & 6 Speed Transmission Shifter Bracket Bushings ES#2840859

ECS Tuning Solid Shifter Cable Bracket Bushings offer the following features:
- Constructed of 6061 T-6 Billet Aluminum
- Machined to exacting specifications for a precise fit
- In house designed by ECS Tuning Engineers
- Easy Installation - no drilling or modifications required

Looking to get rid of the rubbery feeling from your shifter? Installing our Transverse 5 & 6 Speed Transmission Shifter Bracket Bushings will get you headed in the right direction. As a performance upgrade or just replacing worn out original bushings, this is a short afternoon project that can be completed in a couple of hours or less. Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for purchasing our ECS Tuning Transverse 5 & 6 Speed Transmission Shifter Bracket Bushings. We appreciate your business!



These installation instructions will cover all Transverse Mounted 5 & 6 Speed Manual Transmission Volkswagens. There are too many differences between model years, production date, and transmission to be able to show the installation on each different vehicle, however all of the base procedures for shifter bracket bushing replacement and shifter adjustment are exactly the same.

TABLE OF CONTENTS

VOLKSWAGEN SOLID SHIFTER CABLE BRACKET BUSHINGS

Six of our Solid Bushings are required for replacing the original rubber units. All six bushings are the same for both 5-speed and 6-speed vehicles.

Table of Contents

REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

We recommend that you have a complete selection of tools and equipment necessary for automotive repair. Below is a list of the tools you will need to install our Volkswagen Solid Shifter Cable Bracket Bushings. Additional tools may be required for airbox removal or for any issues that arise during installation such as rust, corrosion, or broken and stripped fasteners.

- 3/8" Drive Torque Wrench ..... Available at ecstuning.com ..... ES#2221245
- Flat Blade Screwdriver(s) ..... Available at ecstuning.com ..... ES#2225921
- Non-Marring Trim Tool ..... Available at ecstuning.com ..... ES#517779
- 3/8" Drive Ratchet ..... Available at ecstuning.com ..... ES#2765896
- Volkswagen Shifter Alignment Pin ..... Available at ecstuning.com ..... ES#2848851
- 3/8" Drive Sockets: 13mm Deep
- Needle Nose Pliers

SHOP SUPPLIES AND MATERIALS

- Hand Cleaner/Degreaser ..... Available at ecstuning.com ..... ES#2167336
- Shop Rags ..... Available at your local auto parts store

Table of Contents

INSTALLATION NOTES

- RH refers to the passenger side of the vehicle.
- LH refers to the driver side of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process before you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

ECS Tuning cares about your health and safety. Please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

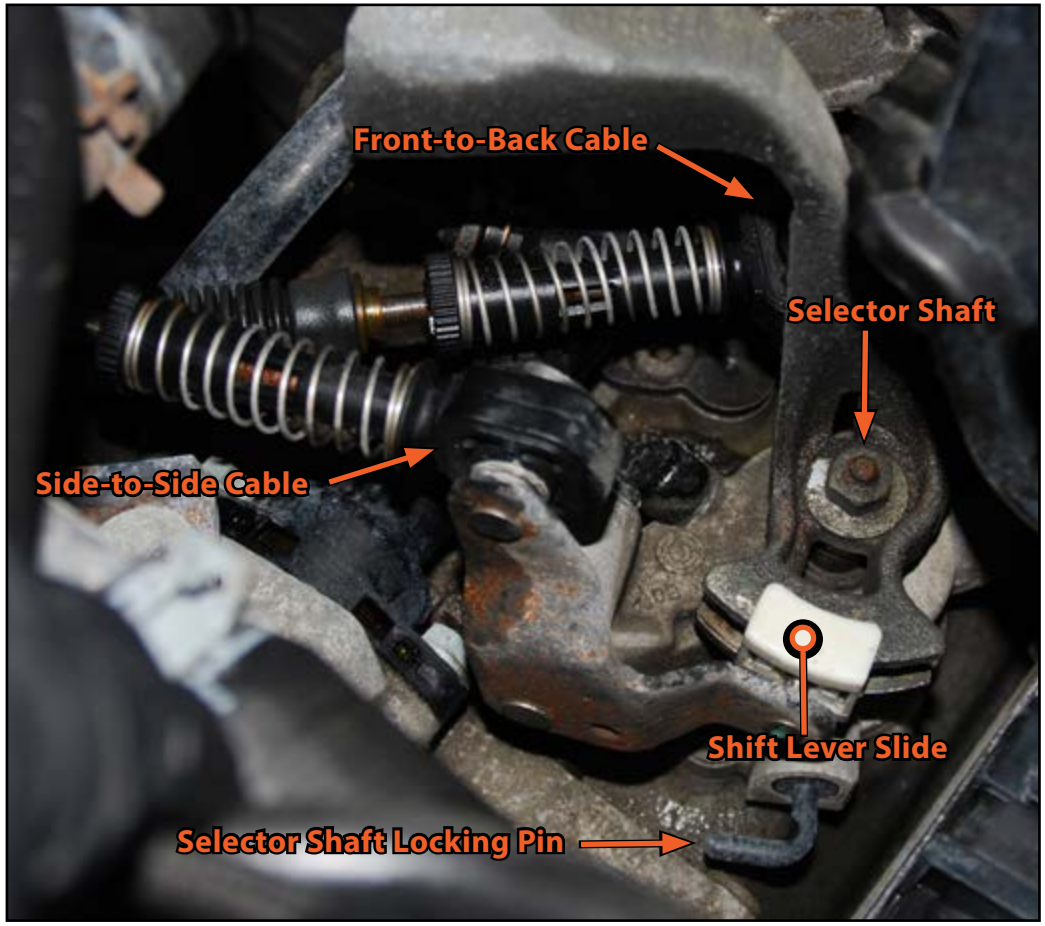
- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- Always wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- If using an automotive lift, be sure and utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- When lifting a vehicle using a jack, always utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear. Always support the vehicle with jack stands.
- Always read and follow all safety information and warnings for the equipment you are using.

Never get underneath a vehicle that is supported only by a jack. Always make sure that the vehicle is securely supported on jack stands.

Table of Contents

5 SPEED SHIFTER CABLE IDENTIFICATION

Study the pictures on this page to familiarize yourself with 5-speed shifter cable identification. This will allow you to understand the terminology that we use throughout this installation.



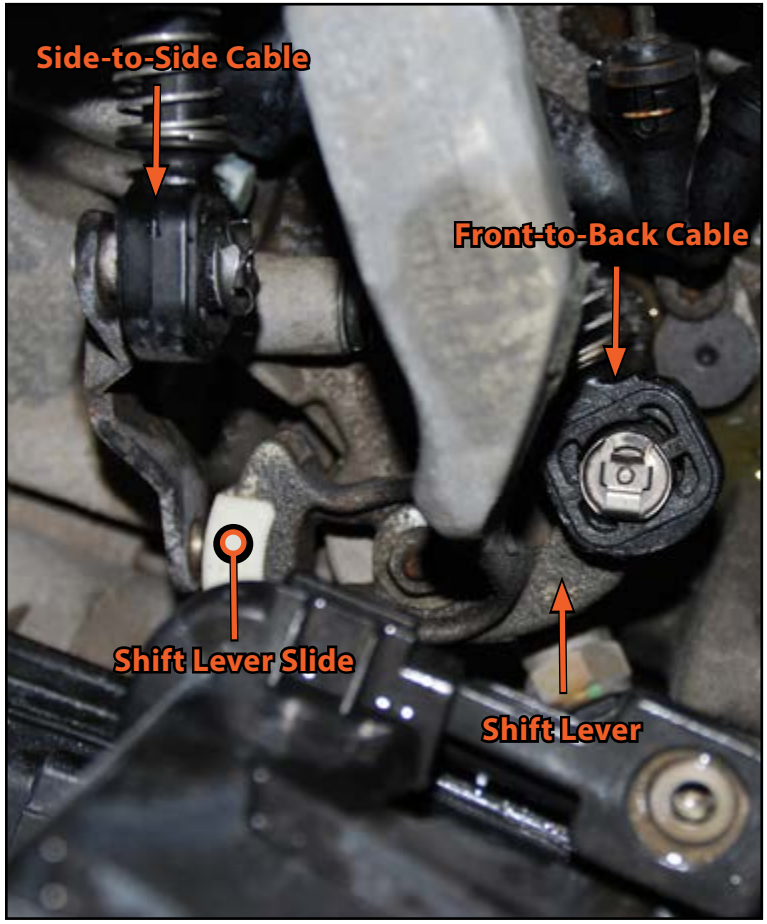


Table of Contents

6 SPEED SHIFTER CABLE IDENTIFICATION

Study the picture on this page to familiarize yourself with 6-speed shifter cable identification. This will allow you to understand the terminology that we use throughout this installation. Depending on the model of your Volkswagen you will either have both shifter cable ends held on by a spring retaining clip (as shown on the front-to-back cable here), or the front-to-back cable held on by a spring retaining clip and the side-to-side cable held on by a plastic retaining nub as shown in this picture.

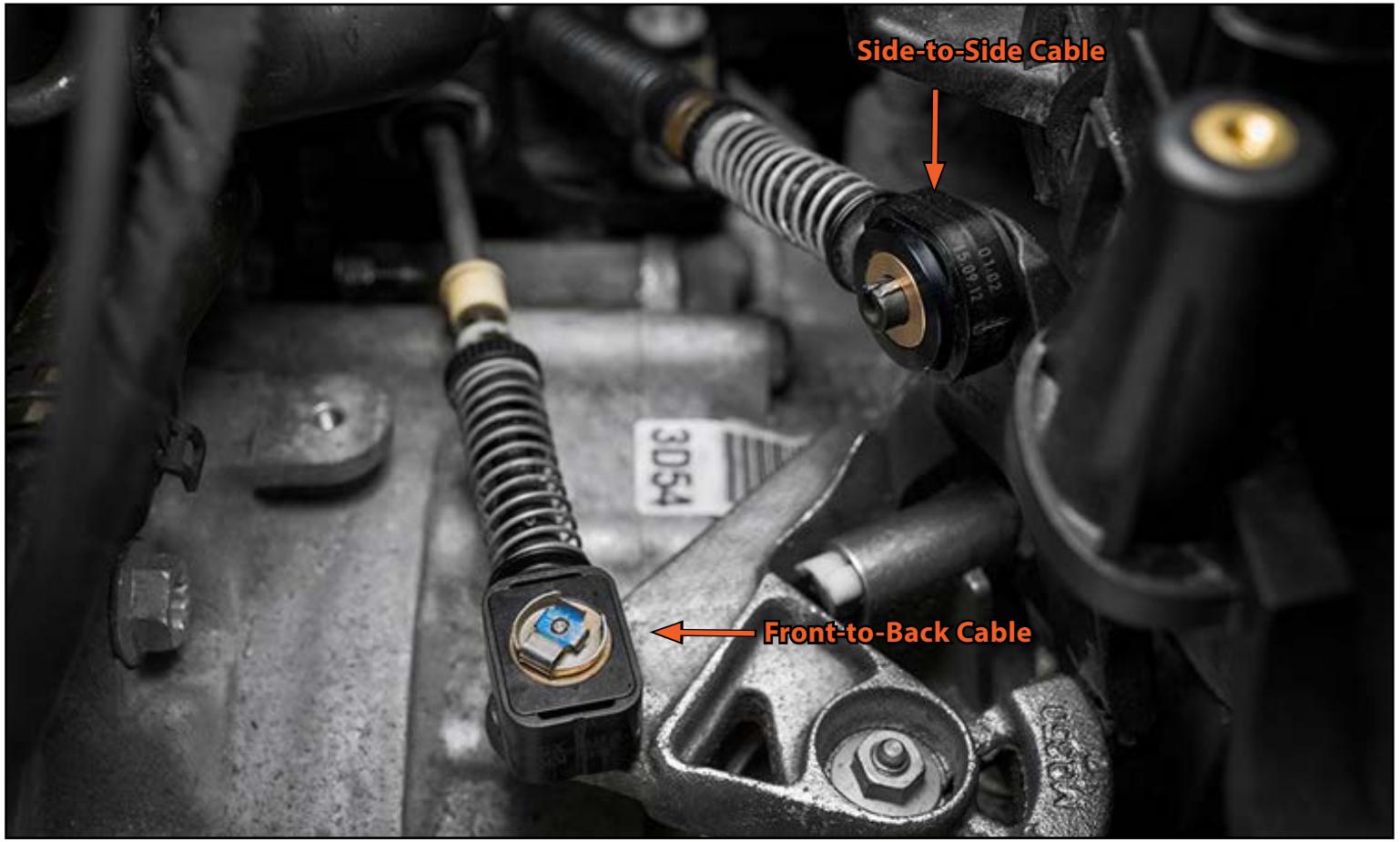


Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Step 1:

In order to gain access to the shifter cables and the cable bracket, you will need to remove the original airbox. If you have an aftermarket intake, such as the one shown here on a MKIV, you may already have enough access to perform the installation.

Step 2:

Both shifter cable ends must be removed before installing the bracket bushings. For cable ends held on by a retaining clip, pull up lightly on the retaining clip spring tab, then slide the clip off. Pull the cable off of the shift lever pin.

Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Step 3: Needle Nose Pliers

If one of your cable ends is held in place by the small plastic nub on the end of the shift lever pin, there are two possible methods for removal:

1. Pull it off by hand.

2. If it is too tight to remove by hand, insert a small pair of needle nose pliers between the cable end and shift lever and gently pry it off.

Step 4:

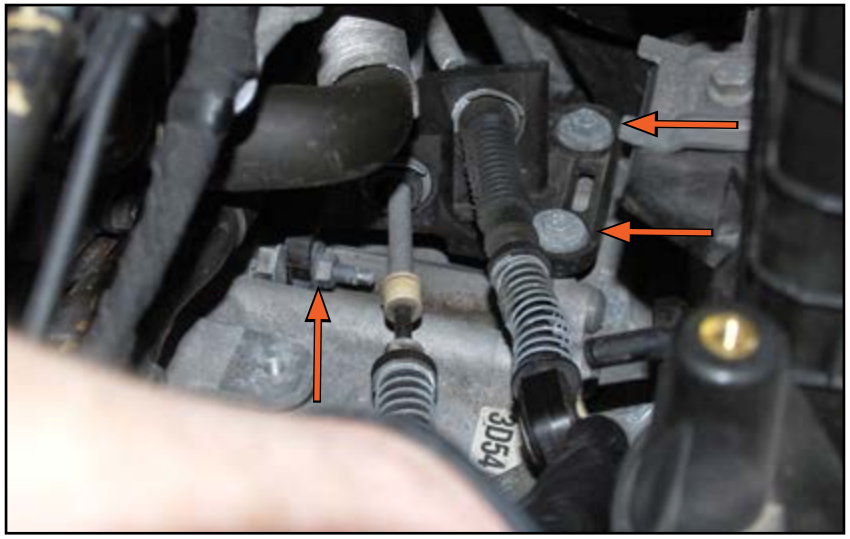
At this stage, both cables should now be removed from the transmission shifter linkage.

Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Step 5:

The Solid Shifter Cable Bracket Bushings can be easily installed without removing the cables from the bracket or the bracket from the car. The bracket on this car is held in place by two vertical bolts and one horizontal stud and nut (the bracket on this car is plastic, some may be metal but the procedure is exactly the same).



NOTE

Some brackets are held in place by three vertical bolts. This style of bracket is shown on page 12.

Step 6: 13mm Deep Socket, 3/8 Ratchet

Remove both bolts and the nut holding the bracket in place, then pull the bracket off of the horizontal stud.

Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Vertical Bracket

If the shifter cable support bracket on your car is held in place by three vertical bolts, first unclip the clutch hydraulic line (1), then pull out the wiring harness support (2), then remove all three bolts (3) and proceed with the bushing replacement as described on the next page.

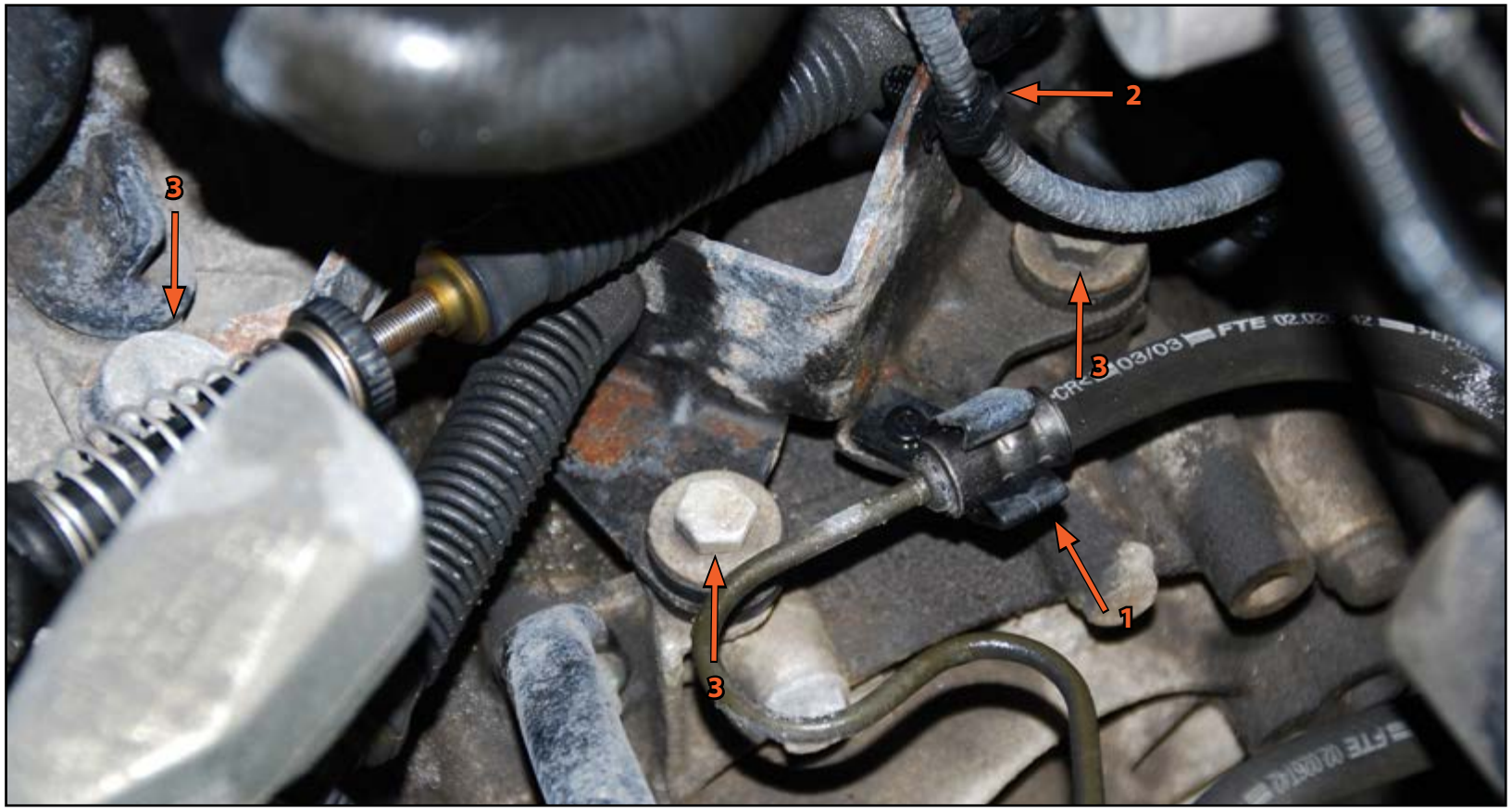
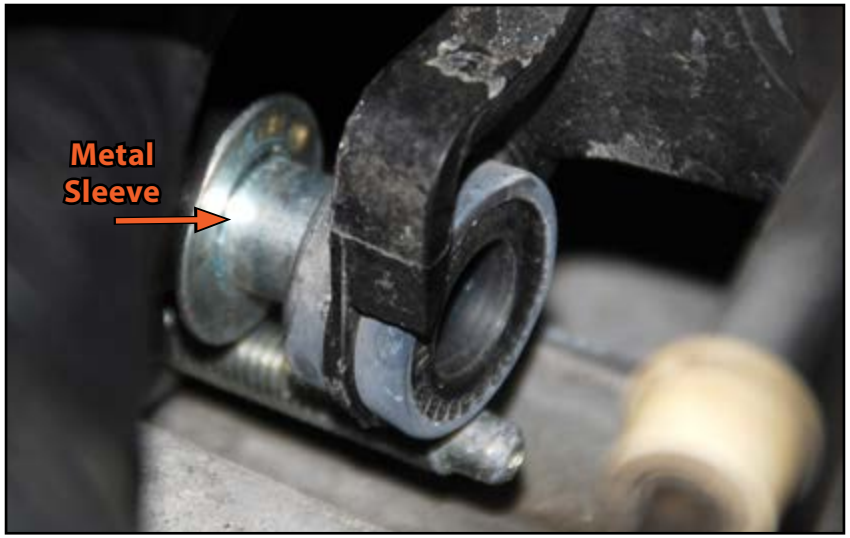


Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Step 7:

Pull the metal sleeve out of each original bracket mount bushing. They will easily come out by hand, but if you like you can use a small flat blade screwdriver to get them started.



Step 8: Small Flat Blade Screwdriver

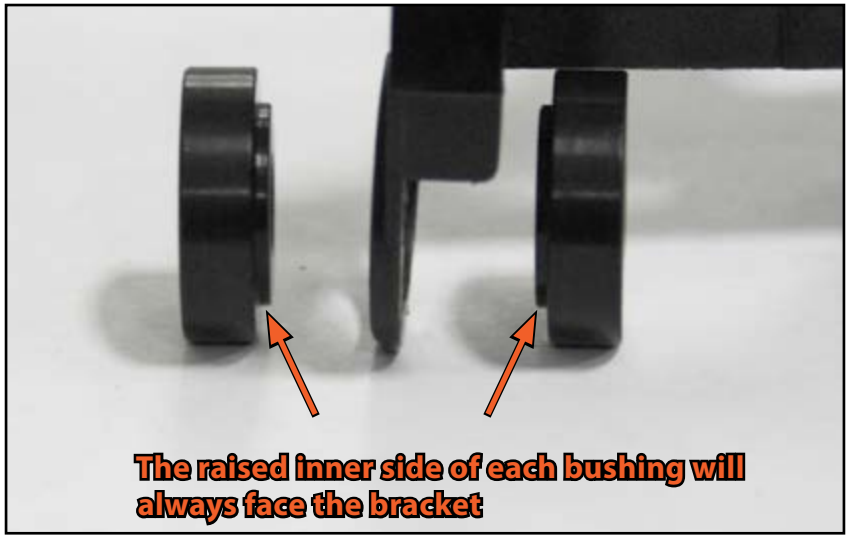
Remove each of the original mount bushings by prying them out of the bracket. The bushings are fairly soft and you can usually pull on one edge with your finger and draw them out of the bracket. (Shown here with the bracket out of the car for clarity). You can also use a small flat blade screwdriver to pry one side out and then the whole bushing will come out with ease.

Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Step 9:

All six of the new Solid Bracket Bushings are the same and are installed into the bracket with the raised inner side always facing the bracket as shown in the picture.



Step 10:

Slide one of the new Solid Bracket Bushings onto the stud as shown in the picture, making sure the raised inner side of the bushing is facing toward the bracket.

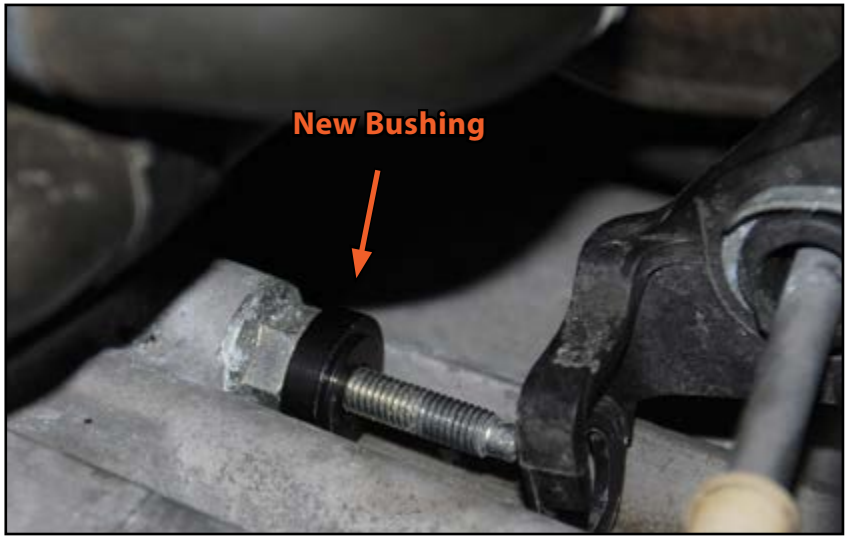


Table of Contents

SOLID SHIFTER CABLE BRACKET BUSHING INSTALLATION

Step 11: 13mm Deep Socket, Ratchet

Position the bracket over the stud, slide a solid bushing into place, then thread the nut onto the stud. Thread the nut on until it is almost completely seated, but leave it just slightly loose.

Step 12: 13mm Deep Socket, Ratchet

Installing the bushings and bracket on the stud and threading the nut on as described in step 11 will draw the bracket in place so the other two mounting holes are lined up as seen here. Be sure to leave the nut slightly loose on the stud.

Table of Contents

Begin with one of the two remaining mounting locations and slip one of the solid bushings underneath the bracket, then place another bushing on top, insert the mounting bolt, thread it in a few turns, but do not completely tighten it. Repeat the procedure with the remaining mounting location.

13mm Deep Socket, Torque Wrench

Torque all three bracket mounts to 25 Nm (18 Ft-lbs).

☐ Re install both shifter cable ends.

Shifter adjustment should not be necessary, but we have included on the following pages in the event that you need it.

Table of Contents

SHIFTER ADJUSTMENT

Step 1:

Begin by inspecting the picture on the right. Note the top of the selector shaft where it enters the transmission (red circle). This will be relevant in step 4 on page 18.

NOTE

We are performing this adjustment on a MKVI 6-speed transmission. Different model years and 5-speed transmissions will appear different but the procedure is the same. Refer to page 7 to reference the shifter on a 5-speed transmission.

Step 2:

First place the transmission in neutral, then unlock both shifter cables using the following procedure: Grasp the round, knurled end of the cable release mechanism and pull it forward until the spring is completely compressed. Then, simply turn it about 1/4 turn to the left and it will lock in place, holding the spring compressed.

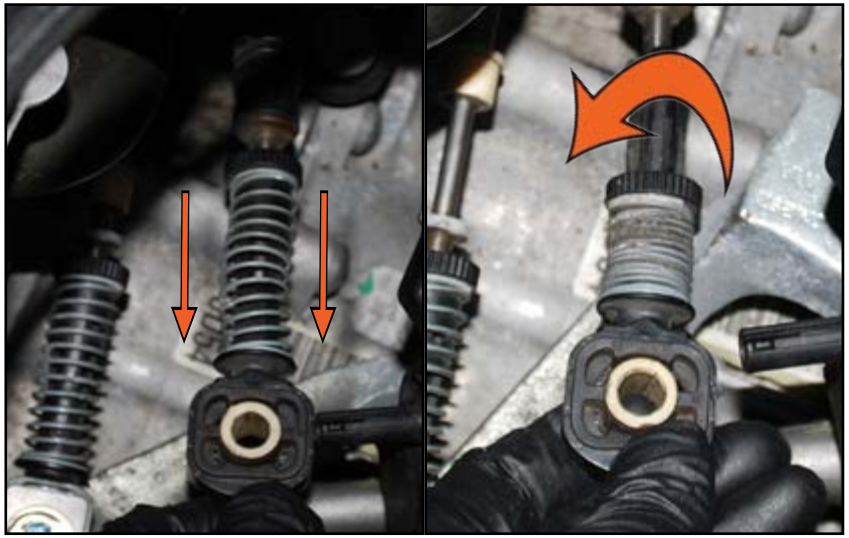
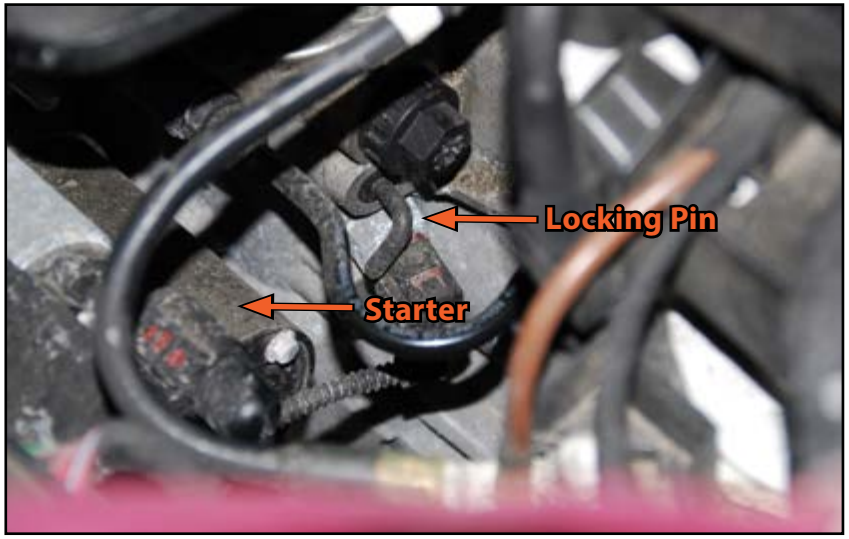


Table of Contents

SHIFTER ADJUSTMENT

Step 3:

Locate the selector shaft locking pin in the transmission housing. It is located on the LH (Driver's) side, just behind the starter.



NOTE

Reference page 7 for 5-speed transmission locking pin location.

Step 4:

The transmission should be in neutral and you should be able to move the selector shaft up and down with ease. Push down on the selector shaft (see page 17, step 1) until it is approximately in the middle of it's travel. Push in on the locking pin (identified in step 3) and gently move the selector shaft up and down until the pin engages the alignment hole in the selector shaft and pushes into the transmission. Turn the locking pin upward slightly and release the pressure on the selector shaft. When properly engaged, the pin will stay in place and you will not be able to move the selector shaft.

Table of Contents

SHIFTER ADJUSTMENT

Step 5: Non Marring Trim Tool

Inside the car, gently pry up the shifter boot, then lift it over the shift knob.

Step 6:

Lift up the insulator underneath the shift boot.

Table of Contents

SHIFTER ADJUSTMENT

Step 7: Shifter Alignment Pin

Insert the Volkswagen shifter alignment pin or similar tool through the alignment hole in the shifter stick and into the alignment hole in the base of the shifter.

NOTE

Any round tool such as a drill bit or punch can be used, but the fit must be very snug or the shifter adjustment will not be successful.

Step 8:

Back under the hood, lock both cable ends by turning the knurled ends to the right until they release and the springs are expanded.

Table of Contents

- [ ] Pull the locking pin in the transmission housing out of the selector shaft.
- [ ] Pull the alignment pin out of the shifter.
- [ ] Re install the shifter insulator and boot.

Table of Contents

Your Volkswagen Solid Shifter Bracket Bushing installation is complete!

These instructions are provided as a courtesy by ECS Tuning.

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

Although this material has been prepared with the intent to provide reliable information, no warranty (express or implied) is made as to its accuracy or completeness. Neither is any liability assumed for loss or damage resulting from reliance on this material. SPECIFICALLY, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY IS MADE OR TO BE IMPLIED WITH RESPECT TO THIS MATERIAL. In no event will ECS Tuning, Incorporated or its affiliates be liable for any damages, direct or indirect, consequential or compensatory, arising out of the use of this material.