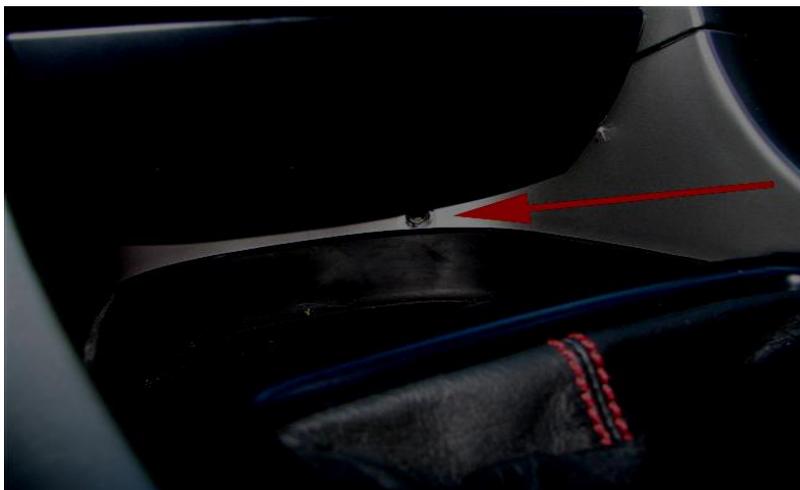


Hinson Motorsports 2004-2006 GTO Short Throw Shifter Installation Instructions

Thank you for purchasing the Hinson Motorsports short throw shifter for your GTO. This shifter is designed to reduce the throw for shorter and quicker shifts that are significantly more positive compared to the stock factory unit. It is constructed of a solid billet steel stick and billet aluminum base for increased strength over the stock factory shifter. You will also notice an increase in effort while shifting due to the shorter throw. This is temporary and will be reduced after using the shifter for a short time. It should be noted that this shifter has been primarily designed as a “race” shifter for competition use and while every effort to reduce transmission vibration and noise has been made; unlike the stock shifter, our primary goal in design was not noise and vibration control. **IN SOME INSTANCES AND IN SOME VEHICLES, TRANSMISSION AND DRIVETRAIN NOISE AND VIBRATION MAY BE CHANGED AND/OR AMPLIFIED!** If this possibility is objectionable in your goals and end purpose of modifying your vehicle, please return this product for a refund before proceeding any further with installation. **IMPORTANT!** Installing the Hinson Motorsports GTO shifter does require some mechanical ability, but is something that can be installed at home in your driveway or garage in a few short hours. It will require basic hand tools, a floor jack and jack stands, or a lift. Installation of this shifter requires working underneath the vehicle. **WORK SAFELY! USE EXTREME CARE AND CAUTION WHEN WORKING UNDERNEATH VEHICLE.** Never get near or under the vehicle until you are confident that it is safely supported and will not fall from its raised position. **DO NOT USE A JACK ALONE TO SUPPORT THE VEHICLE!** Perform this installation on a good clean level surface for maximum safety. Before you start, allow the vehicle to cool down sufficiently so that you will avoid injury due to hot engine or exhaust pipes. Read this instruction sheet completely so that you thoroughly understand it and can become familiar with the procedure before attempting installation.

Factory Shifter Removal

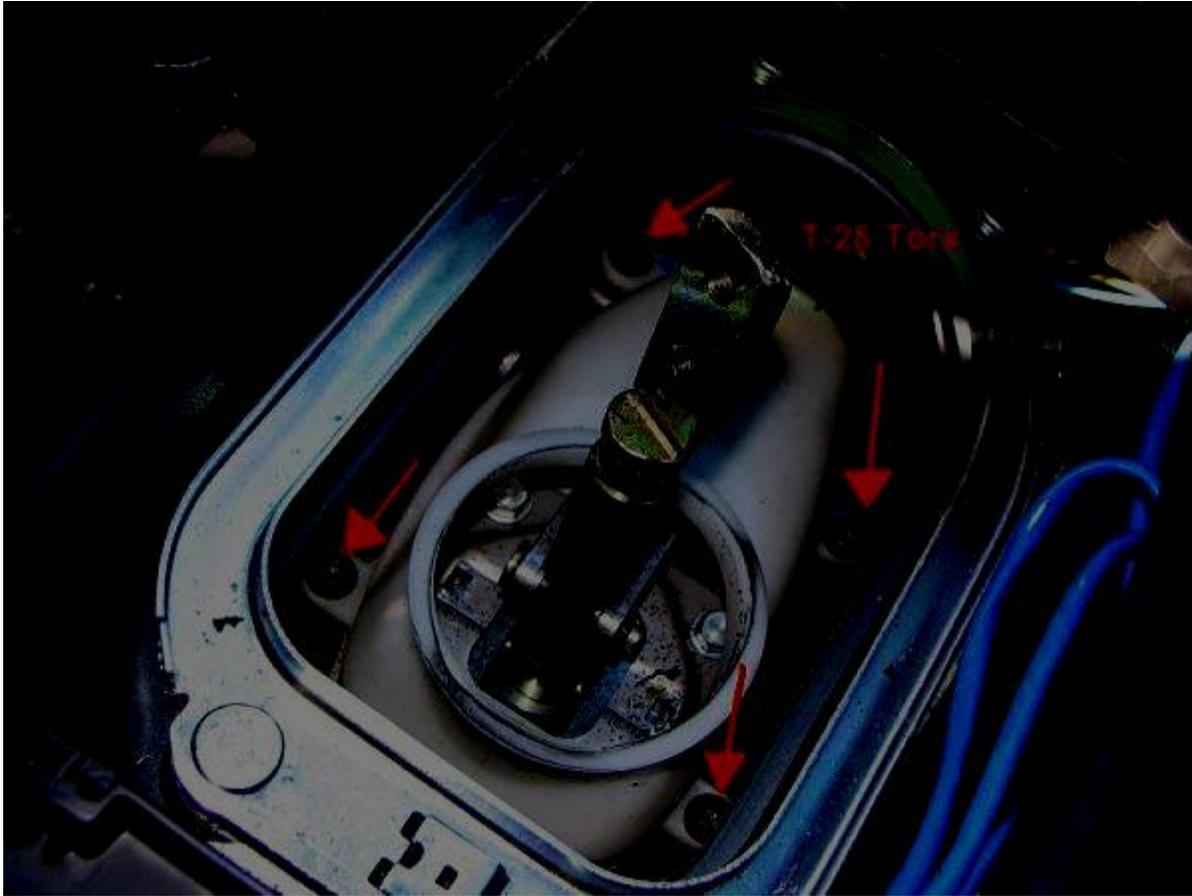
1. Use a Phillips head screw driver to remove the screw located under the ashtray accessory door (on the passenger side of the car).



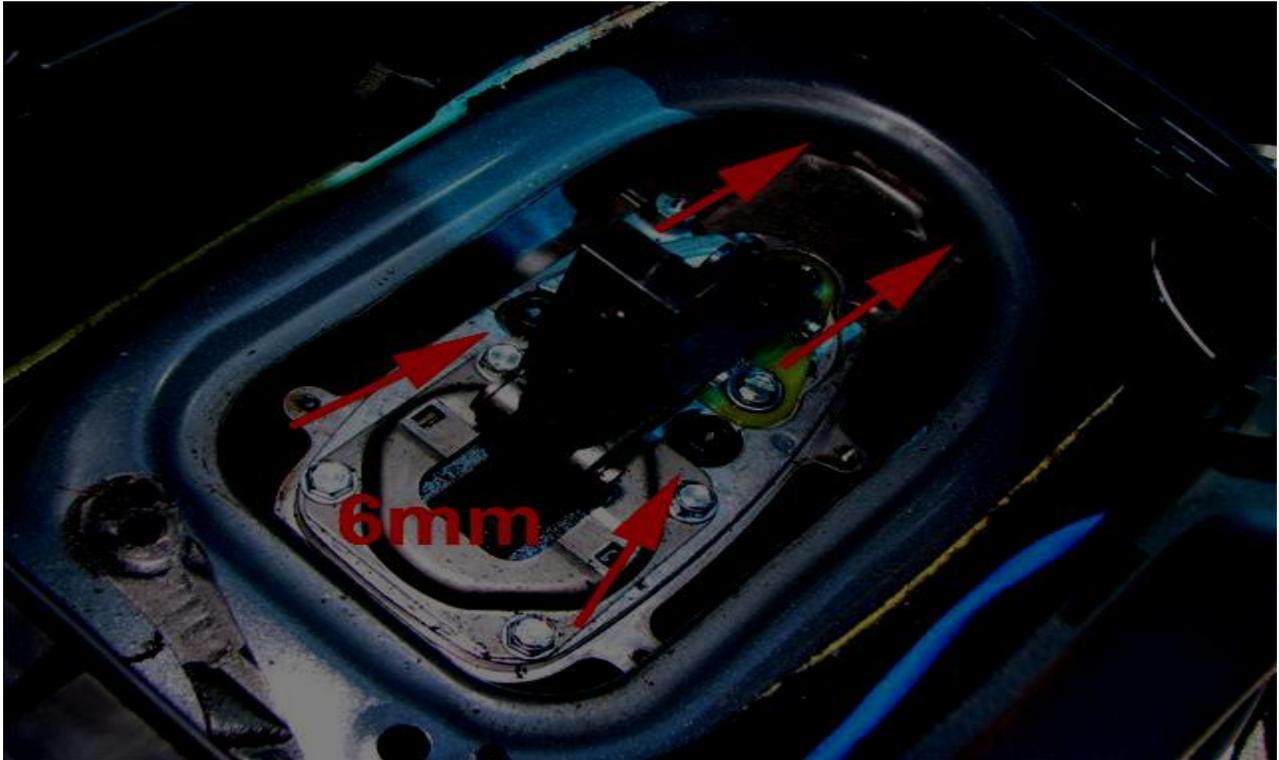
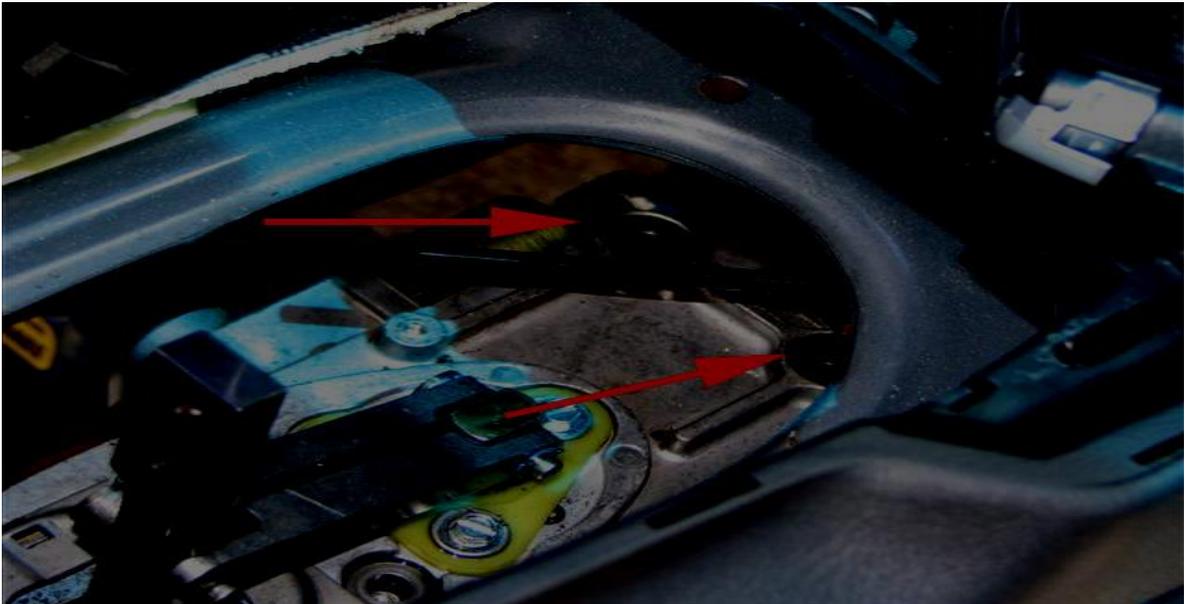
2. Open the center console and using your fingers or a wide flat head screwdriver, carefully pry up

on the back of the center console cover plate. Be careful to pull up smoothly using moderate force.

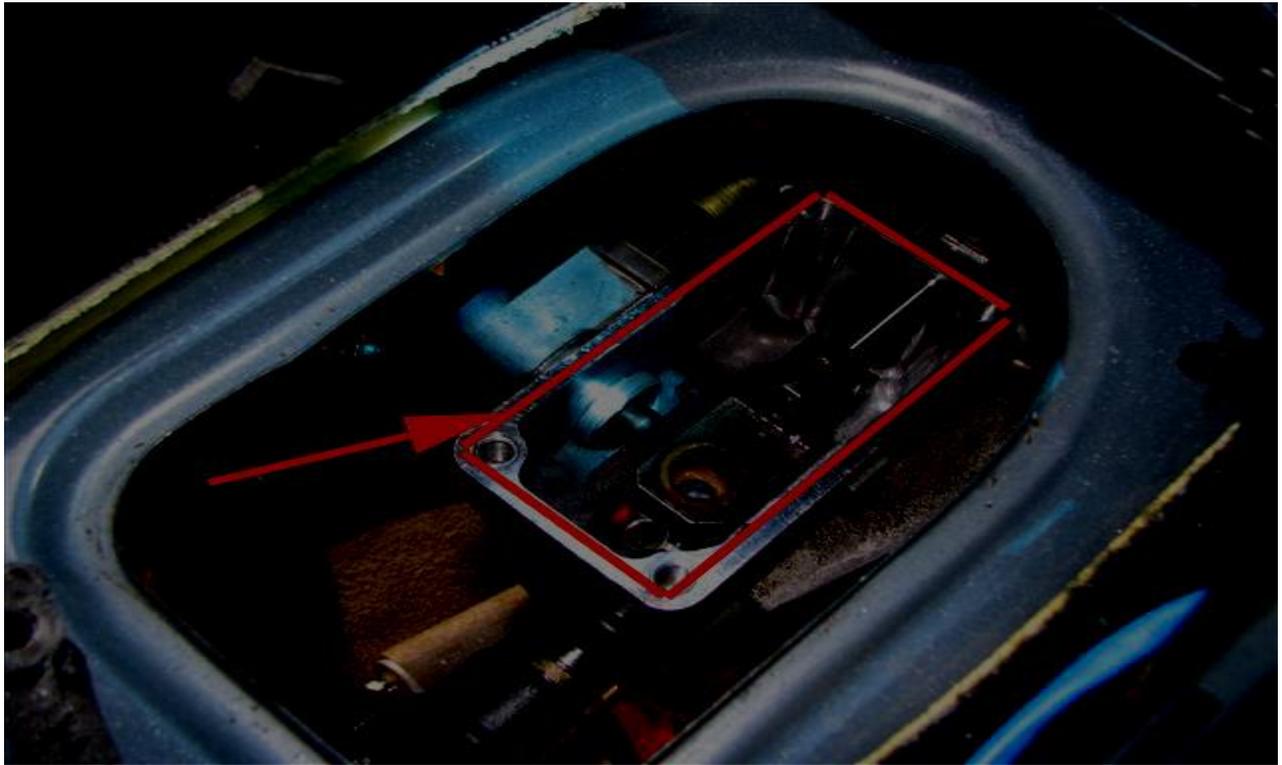
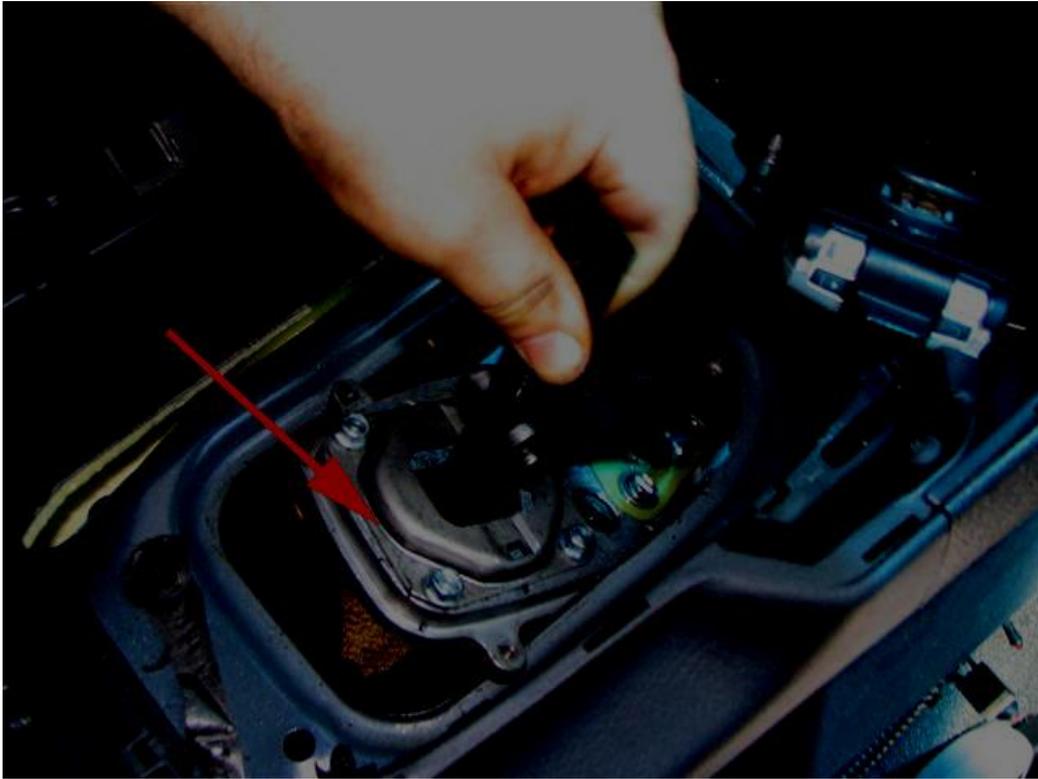
3. Grab each side of the center console cover plate and slowly work your fingers down each side popping the clips up. Be sure to support the cover plate all the way down each side, so that you do not break the cover plate from over-flexing it. There are 6 total attachment clips. Be careful to only pry up enough to release the clips and not damage the wires that attach the window, door lock, and traction control switches.
4. Carefully lift the cover plate just enough to slide your hand under it to disconnect the wiring harnesses for the door lock, window, and traction control switches. These are simple "pinch" style clips that do not require any tools to release. Once these are disconnected remove the console.
5. Grab the edges of shift boot plastic trim and pull up and out of console. There are 7 attachment points securing this boot. **Important:** Be mindful of their position when removing, you will need to reinstall the boot later in the same location. Pull boot up onto shift knob (carefully turning it inside out) exposing the 2-bolts that fasten the shifter handle and knob assembly to the shifter itself.
6. Using a 10mm ratchet and socket, remove the 2 shifter handle bolts, and set aside the entire boot, handle, and knob assembly for now.
7. From underneath the vehicle, loosen the 4 transmission crossmember bolts with a 16mm socket and ratchet. Do not fully remove the bolts or the crossmember, you just want to lower the transmission out of the tunnel for extra clearance to work up top.
8. Proceed to find and remove the 4 13mm hex nuts located directly above the rear of the transmission tail shaft, which secure the factory white rubber inner boot and retainer to the floor pan tunnel. Access to this area is very tight and limited. You will need to use a 13mm open end wrench, socket, extension, universal swivel and ratchet for this procedure. If you have ratchet wrenches or short wrenches, this will remind you why you bought them.
9. From inside vehicle, remove the steel boot retainer and white rubber boot by pulling up and off of stock factory shifter.
10. Using a T25 Torx head driver, remove 4-screws that fasten the plastic cover to the transmission plate. The screws on the passenger side may be difficult to access. In this case, use a series of 1/4" drive extensions and a swivel. If that is not an option, very carefully use a pry bar between the transmission and edge of the opening in the floor tunnel and gently pry the transmission slightly over to the driver's side to allow access to the screws. Be careful not to drop the screws as they are removed. Lift plastic cover off of the factory shifter.



11. Using a 6mm allen head wrench, remove the 4 black oxide coated bolts that hold the shifter assembly to the top of the transmission. Two of these bolts are under the front lip of the transmission tunnel. We lowered the transmission in earlier instructions to make extra clearance in this area. Put these bolts aside, they will be reused in the installation of the new shifter. If you are having difficulty getting to these bolts you can remove the shift linkage from the shifter base with the 4 3/8" bolts next to where the handle is bolted to the base, and the 3 3/8" bolts on the front of the shift linkage.



12. Remove rubber gasket and shifter assembly through the top of the transmission tunnel opening. Put the rubber gasket aside to use it with the new shifter. If yours is damaged, these can be purchased at various online retailers.



Installing Your Hinson Motorsports Short Throw Shifter

1. The first thing you will need to do is separate the base plate from the body of the shifter. Using a 4mm allen wrench, remove the 4 screws that hold the body to the base plate of the shifter. Set the body (rectangular part of shifter that the stub and linkage go through) on its side somewhere where it will not get bumped. **IMPORTANT: DO NOT PUSH, HIT, OR SHIFT THE STUB IN ANY WAY. This will cause a misalignment of the internal washers and cause poor shifting performance.**
2. Install the new base plate only by using the 4 black oxide coated bolts that we removed out of the stock base plate. If you have had or are concerned about these bolts coming loose, use a drop of blue Loctite on each of the bolts prior to installation.
3. Take the body of the shifter, apply a liberal amount of grease to the stub, and carefully position the stub down into the socket of the shift linkage inside the top of the transmission. Once the stub is properly located in the socket, carefully line up the 4 holes in the body with the holes in the base plate. Reinstall the body bolts with a drop of blue Loctite and tighten them down "snug" (25ft/lbs-30ft/lbs) with your 4mm allen wrench.
4. Once your shifter base is mounted to the transmission, reinstall the white rubber boot and foam shift handle insulator in the reverse order of disassembly. You will reuse all of the original boots and insulators with the exception of the white hard plastic dust cover that used the T45 Torx bolts. This white hard plastic dust cover will not be used with the new shifter.
5. When installing the Hinson shifter handle to the shifter, locate the handle to the driver's side of the vehicle and install the included handle bolts with your 7/32" allen wrench. Torque specs are "snug" or 25ft/lbs-30ft/lbs. Due to the handles being powder coated, you may have to thread the bolts through the holes in the handle. This is normal. Just be sure to properly line up the handle to the shifter base before threading the handle to the shifter base. This is a good time to make sure the shifter engages and disengages correctly before you put the entire care back together. If

Preparing Your Factory Shift Knob For Your New Shifter

1. Take your stock shift knob and boot we removed earlier and turn the boot inside out over the shift knob exposing the portion where they attach to the factory handle.
2. Where the handle and the knob join, there are 4 pinch clips inside the bottom of the knob that clip into a groove made into the stock handle.
3. Take a small flat head screwdriver, work it under each of the clips and maneuver the clips over the lip of the groove made into the handle. This will take some patience and work with the shift knob to get it to release. The knob is both clipped and glued onto the handle from the factory with black RTV. It would be helpful to attach the handle to something where pulling up while working with the clips is possible. **DO NOT TWIST THE SHIFT KNOB.** Twisting the knob will result in damaging the internal plastic key way that keeps the knob from turning on the handle.

4. Once you release the knob from the factory handle, it installs on the new handle by just sliding it over the handle and aligning the key way. Then press down until the handle clips into the new groove.

Installing Your Hinson Motorsports Logo Shift Knob

1. First is the removal of the stock knob from the boot.
2. To do this you will need to turn the boot inside out over the knob and remove the tie from the factory. Be careful not to tear the boot.
3. Once the tie is removed carefully work the boot over the lip on the shift knob. There are relief cuts to help, but you don't want to rip them.
4. To install it on your new handle take the rubber grommet and slip it onto the new handle sliding it down to the groove cut into the handle.
5. Holding the grommet in place on the handle, slide the handle through the hole in the boot and carefully work the boot over the grommet.
6. Once you have the boot positioned in a place where it looks good, hold it in place and turn the boot inside out again so that you can see the underside of the boot where the grommet and boot meet.
7. Carefully wrap a zip tie around the boot and grommet, make sure the grommet is in place over the groove, and pull the zip tie down tight.
8. Clip off the extra length of the zip tie and then turn the boot back right side in.
9. Now you're ready to install the handle and boot together.
10. Once console is back together with new handle installed, thread on the small nut on all the way to the bottom of the threads.
11. Now thread the shift ball on.
12. Orient the ball so that the pattern is correct. This will require you to thread the ball on or off the handle a small amount. This is normal.
13. Once the ball is in the correct orientation tighten the jam nut up to the bottom of the ball keeping the shift ball from moving out of that position.