

# TORQUE SOLUTION

## Installation Manual Torque Solution Short Shifter 2008 and up Mitsubishi Lancer Evolution X

Please Note: It is preferable to park on a flat surface, as you will have to engage and disengage the hand brake and shift from gears to neutral. If you cannot do so and are obliged to install the short shifter on a slightly inclined surface, place wooden blocks in front and behind the wheels to prevent the car from moving while you're working. Please read this manual completely before beginning to work on your car.

**Estimated Installation Time:** 60 minutes shifter only, 75 minutes with base bushings

### Tools required:

- Flat head screw drivers (small and large)
- Philips head screw driver
- Hammer
- Flash light or shop light
- Needle nose pliers
- Rotary cutting tool (Dremel Tool) \*\*Recommended
- Shop towels or rags
- Metric socket set (with 8mm, 10mm, 12mm, 14mm sockets) and a ratchet with extension
- Punch set (screwdrivers may be substituted)
- Bench Vise
- All purpose automotive grease (white Lithium based grease preferred)

### What you get in this kit:





1. Unscrew the shift knob by rotating it counter-clockwise and put it in a safe place.



2. Remove the ashtray in front of the shifter.



**3.** Remove the small storage compartment in front of the handbrake by pulling up on it as pictured to the left.

Disconnect the white wire under this compartment as shown to the left.



**4.** Begin removal of the center console by lifting the rear portion that surrounds the handbrake. Be sure the storage compartment lid is open to allow the back half of the rear portion to move freely.



**5.** The front portion of the rear half of the console can now be lifted and separated from the rest of the console. It is held in place by clips from underneath so it will pop free by lifting upward.



**6.** Use a Philips head screwdriver to remove the 2 screws directly behind the shifter.



7. The front portion of the console with the shift boot attached can now be lifted, however it cannot be removed from the car yet as there is a clip holding a wire at the front which must be removed as shown in the next step.



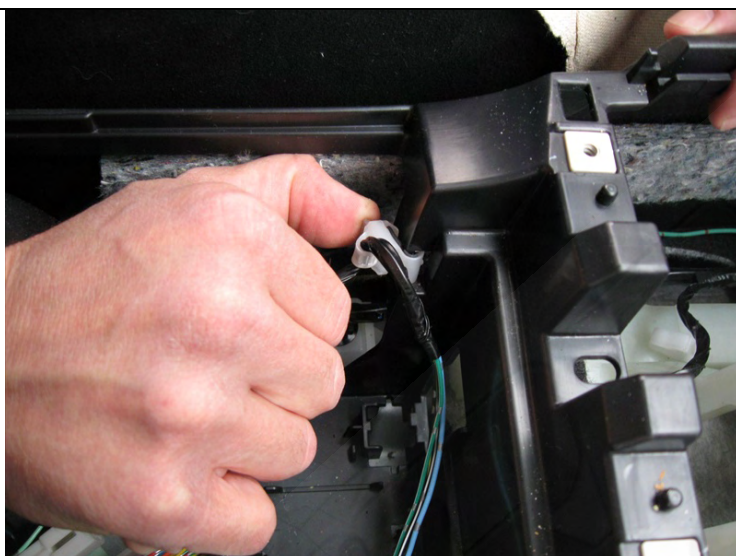
8. Use needle nose pliers to compress the tabs on the clip at the front part of this section. With the tabs depressed, the clip can be pushed through and out from the under side.



9. Turn this portion of the console over and disconnect the plastic plug for the lighter by pulling on the plastic portion. Do not pull on the wires. There are no tabs to depress on this clip, the connector simply slides off. The front portion of the console can now be removed from the car and put in a safe place.

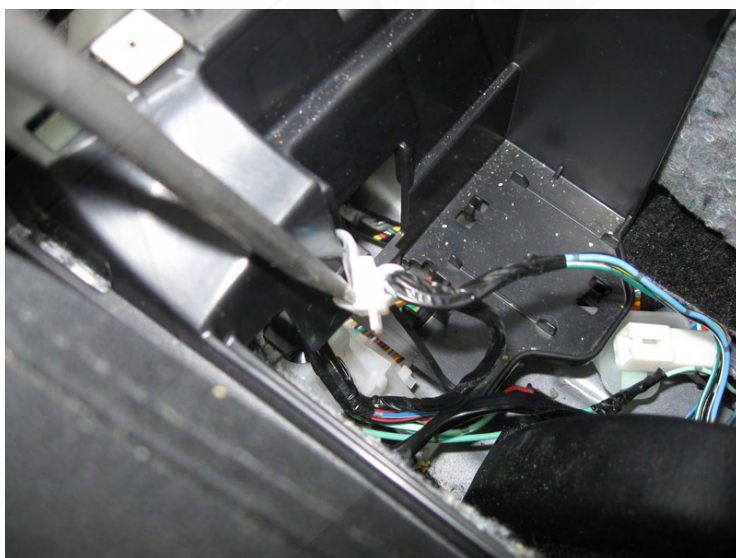


**10.** Use a Phillips head screwdriver to remove the 2 screws in front of the shifter that have been exposed by removing the front portion of the console in the previous step.



**11.** In order to remove the center console, you need to disconnect the white tab holding wires to the console as shown to the left. You can pry off the white tab from the black tab by using a flat head screwdriver.

Begin by prying off the accessible part of the white tab as shown to the left. You can then access the opposite side of the tab hidden underneath the console. Use your finger tips to remove the other side of the tab from under the center console.





11. ...continued.



12. Open the storage compartment on the rear center console. Use a 10mm socket and a ratchet with a long extension to remove the 2 bolts in the bottom of the storage compartment.

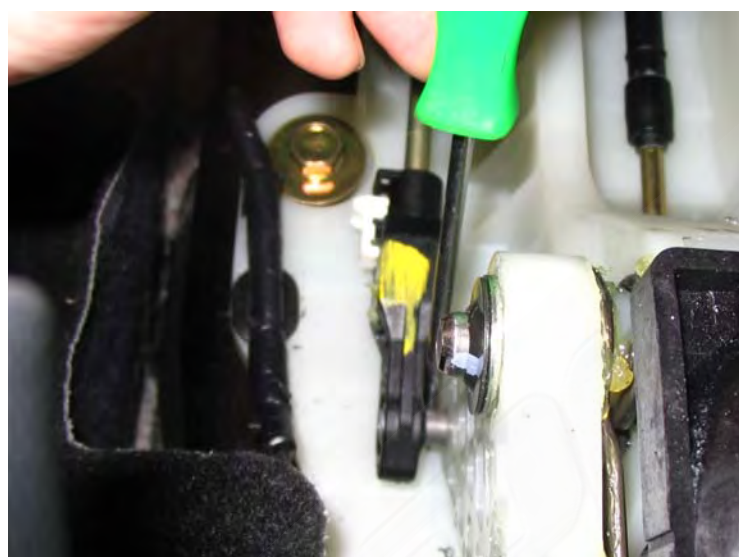


13. The center console is now free and can be removed from the car. Put the console in a safe place for re-installation later.



**14.** Working at the bottom of the shifter itself, spread the steel wire clip apart with your fingers or needle nose pliers and push the cable down. This will separate the shifter from the shifter cable. Be sure not to lose the steel wire clip as it needs to be used for re-installation.

Once the shifter and plastic cup are slid out of the shifter cable housing, the steel wire clip can be left in place on the shifter cable to be certain not to misplace it.



**15.** Disconnect the shifter cable that controls side to side motion from the triangular plastic side arm. This can be achieved simply by prying with a flat head screwdriver to slide it off the pin on the triangular plastic side arm.



**16.** In order to remove the shifter, the 2 push clips on the passenger side of the shifter assembly holding the two pins must be removed or cut with a rotary tool or Dremel. If you do not have access to rotary tool, use a sharp flat head screwdriver and a hammer and work your way around the push nut to remove it. New push nuts are provided in the kit if they are broken or cut during removal.

The easiest way to remove the clips is to slice them with a rotary cutting tool, then to slide them off with a flat head screwdriver.

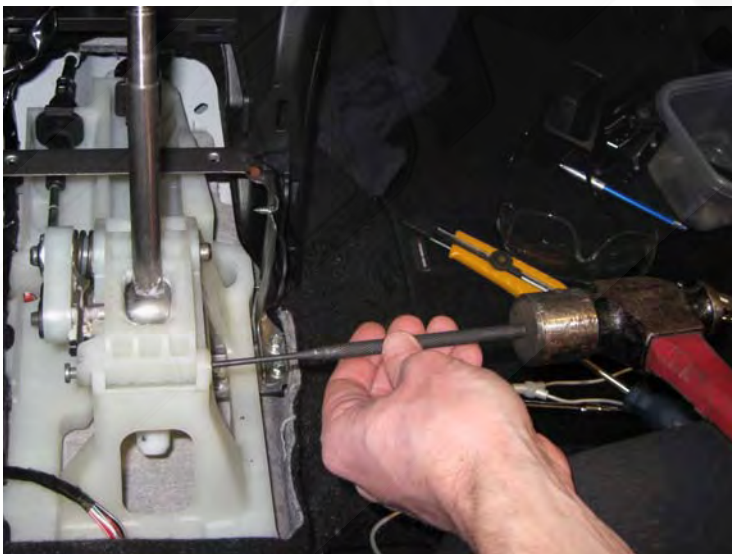
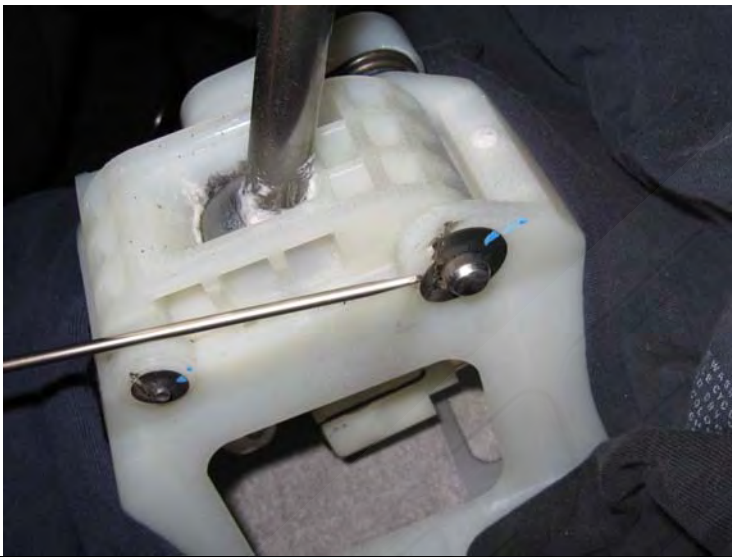
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### 16. Continued.

Both methods are pictured to the left and on the previous page. The first image shows removal with a hammer and sharp flat head screwdriver, while the next two images show removal with a Dremel tool by slicing the clips and sliding them off with a screwdriver. Be sure to wrap shop towels or rags around the shift assembly to protect the interior from any debris while cutting.

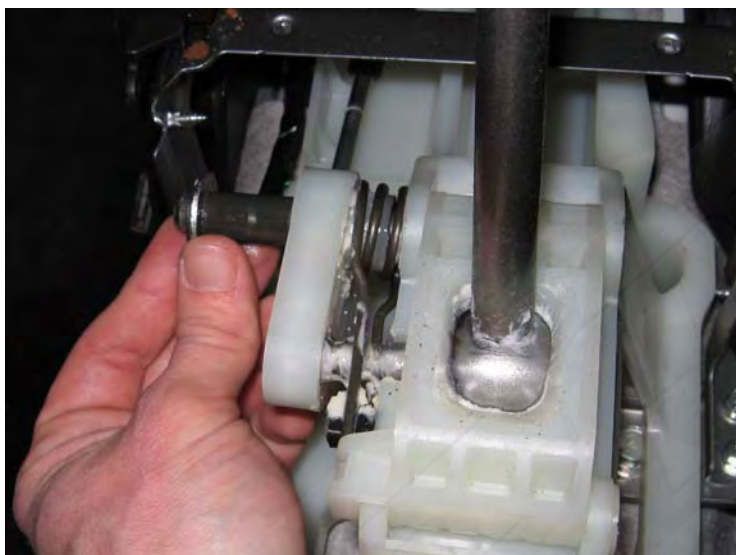


17. With the 2 clips removed and side shifter cable disconnected, push the two pins out of the assembly using a hammer and a small punch. Use a screwdriver if a punch is not available.

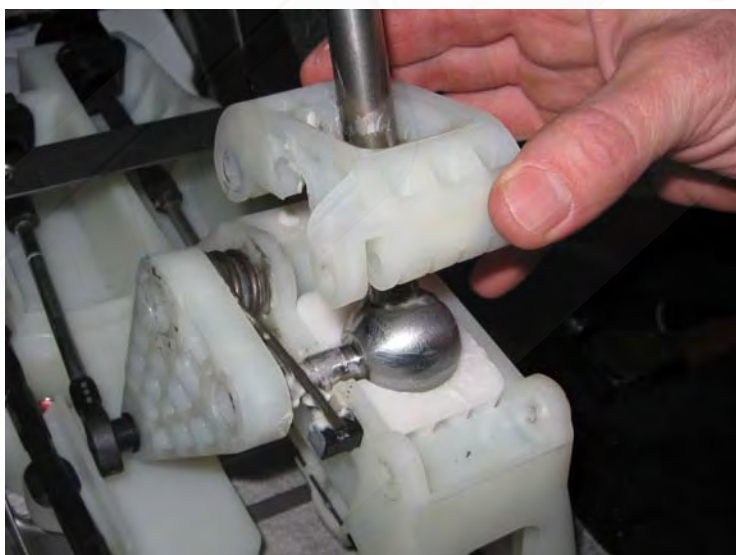
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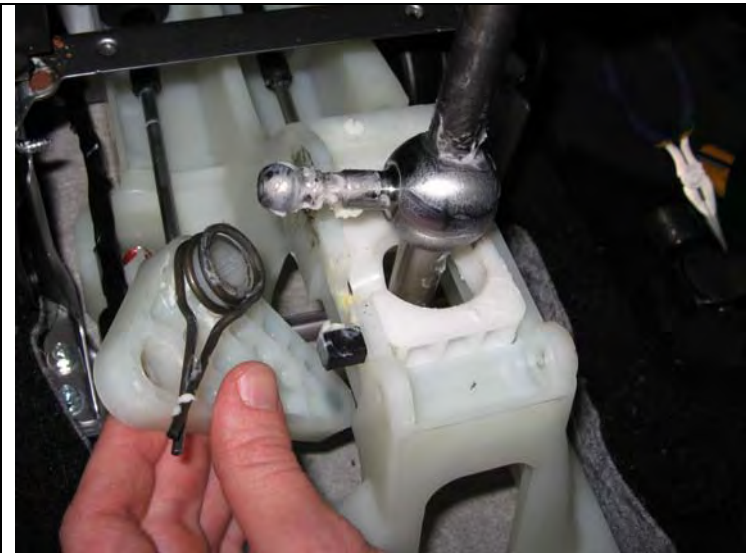
**17. Continued.**



**18.** Take note of the orientation of the spring on the side of the shifter for re-installation later. Both pins that go through the shifter can now be completely removed from the assembly.



**19.** The white plastic cap can now be removed from the shift assembly. Put it in a safe place for re-installation later.



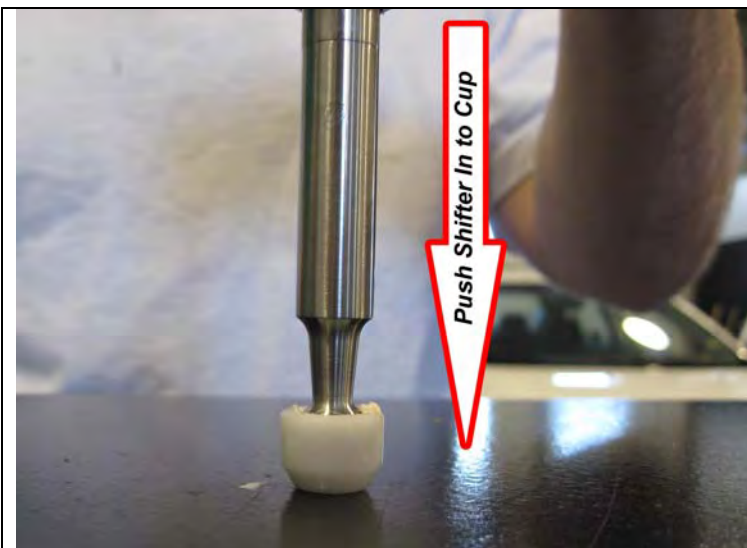
**20.** The plastic triangular side arm and spring can now be removed from the shift assembly. The shifter can now be pulled up and out of the shift assembly. Pay close attention to how the spring is installed on the side arm as you will have to re-install it later.



**21.** Remove the small plastic cup from the bottom of the stock shifter. To do so, hang the stock shifter on the Cup Remover Tool supplied with the kit on a vice with the jaws open about 1 inch as pictured to the left. Be sure the stock shifter is inserted completely into the slot in the cup remover tool. Ask an assistant to hold the stock shifter to avoid it falling to the ground when the cup is separated from it. Use a punch or screwdriver and a hammer to punch the stock shifter out of the plastic cup.



**22.** Grease the small ball on the bottom of the short shifter as shown at left. Torque Solution recommends using white lithium based grease, however any automotive grade grease will suffice.



**23.** Press the small white cup you removed in the previous step on to the short shifter. Place the cup on a flat surface and push the shifter down in to it.



**24.** Grease the main pivot ball on the short shifter, as well as the small pivot ball on the side arm.



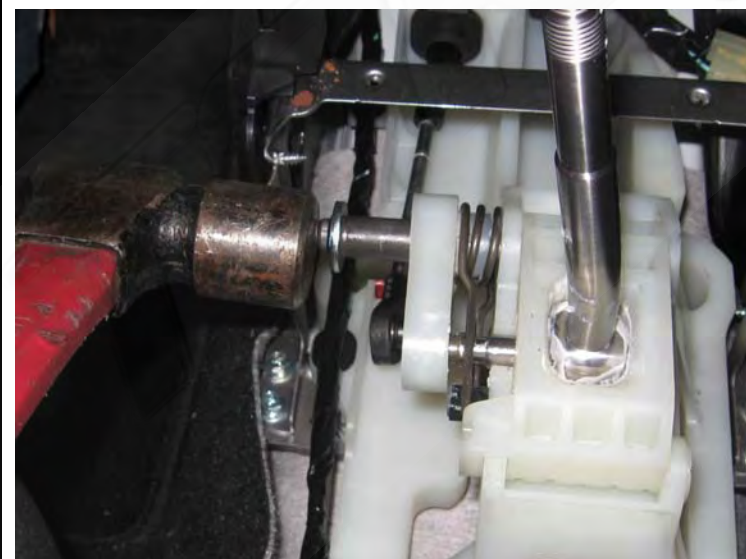
**25.** Install the greased short shifter in to the shift assembly.



**26.** Re-connect the lower shifter cable to the shifter. If you left the steel clip in place on the shift cable, the cable can simply be pressed on to the plastic pivot cup until the steel clip snaps in to place. Lower the short shifter in to place making sure the bottom rectangular pivot cup with the o-ring is seated properly in the shift assembly.



**27.** Re-install the spring for the triangular shaped side arm ensuring it's orientation is correct as pictured to the left.



**28.** Re-install the top white plastic cap and the triangular shaped side arm. Be sure the shifter is properly seated in the bottom pivot cup, and that the side arm spring pivot is inserted in to the spring. Now re-insert both of the pins which secure the top white plastic cap. It may be necessary to lightly tap them through the assembly with a hammer to be sure they are fully inserted through the assembly.



**29.** Re-connect the shifter cable that controls side to side movement to the pin on the triangular shaped side arm. It can be pressed on by hand.



**30.** Secure the pins in the assembly with the supplied push clips. Use a 14mm socket to install the 10mm push clip on the larger pin at the front of the assembly by driving it on with a ratchet extension.

Use an 8mm socket to install the 4mm push clip on the smaller pin at the rear by driving it on with a ratchet extension.

You should be able to install these clips by hand, make sure they are pushed all the way on to prevent the pins from sliding out over time. It may be necessary to hold the pins from the driver's side to keep them from moving while pushing the clips on from the passenger side.



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**30. Continued.**



**31. PLEASE NOTE:** The following steps are only required if you have purchased the optional shift assembly bushings with your short shifter. If you do not have the base bushings, proceed to step 36.

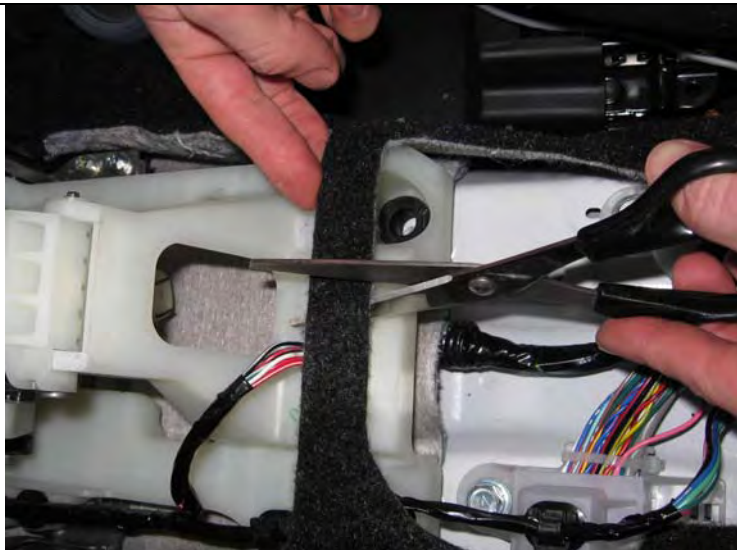
Using a ratchet with an extension and a 12 mm socket, unbolt the four bolts securing the assembly to the floor pan and remove the bolts.



**32.** Lift the shift assembly slightly and use a flat head screwdriver to push the steel sleeves in the rubber bushings out through the bottom of the bushing. Repeat for all four corners.

It may be helpful to cut the strip of carpet which passes over the rear of the shift assembly to free up some room to lift the assembly.

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**32. Continued.**



**33.** Remove the rubber bushings from the base of the assembly by pushing them down through the assembly with a flat head screwdriver or with your fingers. It is helpful to pull on the bushings from beneath the assembly with your fingers while pushing them down through the top with your other hand. Repeat for all four corners of the shift assembly.

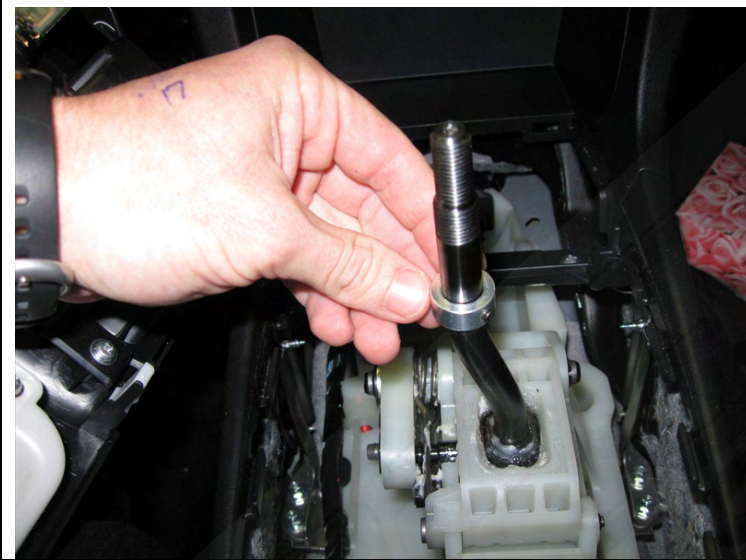


**34.** Install the base bushings beneath the shift assembly with the smaller diameter step facing up. This step fits in to the holes in the plastic assembly to replace the rubber bushings you removed in the previous step. Install a bushing at each corner of the shift assembly and ensure that the assembly is seated properly with each smaller diameter step on each bushing fully inserted in the holes at each corner of the assembly.





**35.** Secure the shift assembly back in place with the stock bolts and a 12mm socket and ratchet. Be sure the step on the bushings at each corner of the assembly are in the holes in the assembly properly before tightening it down.



**36.** Re-install the center console and re-connect all wires and connectors by reversing steps 10 to 13. Install the special shift boot retainer on the shifter as pictured to the left. Do not tighten the set screw yet.



**37.** Install the front part of the console with the shift boot over the short shifter. Do not clip the console in place or re-connect the wire beneath it yet just slide the shift boot on to the shifter at this time.

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**37.** ...continued.

Install the stock shift knob by rotating clockwise until you experience resistance and the shift pattern is correctly aligned.



**38.** Lift the shift boot and front part of the console as pictured to the left. Move the shift boot retainer up the shifter shaft so it holds the top of the shift boot pressed up against the bottom of the shift knob. You can now tighten the set screw to secure the shift boot retainer on the shifter with the supplied allen key.

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**38.** ...continued. Pictured to the left is the special shift boot retainer secured to the shifter.



**39.** You can now reverse steps 2 to 9 to re-install the front part of the console and connect the wire beneath it.

You are done, enjoy the drive and thank you for choosing Torque Solution!

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