

# SHORT THROW BRACKET 03-09 5speed S60's

## Directions for installation

Please note: installation of this aftermarket part is at your own risk and is for off road use only!

### **Equipment you will need:**

Electric drill with decent torque "F" drill bit (0.2570") / .25" drill will work too. Several smaller drill bits (up to the "F" bit) Center punch Cutting oil (or any kind of lightweight oil) Loc-tite Vice-grips/C-clamp (optional) Metric hex wrenches Socket set, ratchet, pliers, etc.

### Included in kit:

6061 aluminum bracket 5/16" – 10mm ball end 5/16" – 18 nut 5/16" split ring lock washer

1/4"-20 x 1.5" SS bolt 1/4" - 20 nut 1/4" split ring lock washer

M8-1.25 25mm bolt

Expected time to complete: 1 hour

#### **Instructions:**

- 1. Remove air box and any other obstructions.
- 2. Using a box wrench or large screwdriver gently pry the cable off the factory shifter bracket. The cable end is a press fitted plastic socket that mounts onto a ball.
- 3. Using a 12mm socket remove the factory ball from the factory shifter bracket. Save this for if you ever decide to return your car to stock.
- 4. **Place new bracket onto existing bracket, with the edges lined up.** Use the M8 hex head bolt of the correct length to temporarilly mount the aluminum bracket to the factory bracket.
- 5. The radii of the arcs on the two brackets are very similar. Use this to line them up so that the new bracket is oriented the same way was the old one (using your fingers is fine no need to break out the calipers). The bracket is not too sensitive to this adjustment, and a couple degrees of error are fine.
- 6. You can choose to clamp the bracket in place at this point if you're not comfortable center-punching without it rigidly mounted. You can use vice-grips or a small c-clamp for this purpose (vice-grips may scratch the aluminum).
- 7. Note: there are three ¼" holes that you can use to adjust the center location of your stick-shift. People with shorter arms may prefer to use the bottom of the three holes to move the shifter closer to the center console. The center hole should locate the shifter where it is from the factory. Use this center hole for the initial location and

- drilling of the hole into the original bracket. You can choose which of the three holes to use when you do the final install.
- 8. Choose whichever method you prefer to **mark and transfer center-punch the location of the hole**. Then remove the bracket so you do not damage it in the process of drilling.
- 9. You will be drilling into steel, and it will take a good deal of pressure from the drill and a fairly *slow speed. Use lots of oil* and try to *step the drill bit up* several sizes before finally *using the "F" drill bit.* I started with approximately a #35 drill bit.
- 10. **Drill the hole all the way through, finishing with "F" drill bit.** The F drill bit is 0.257" and will allow a 0.25" bolt to go through easily. The drill doesn't have to be exactly F, but it is recommended to use as close to 0.257" as possible. You should be putting a lot of pressure on the drill, and it may punch through the other side unexpectedly. Deburr the hole and wipe off the excess oil.
- 11. Place the bracket down and temporarilly mount it using the 1/4-20 bolt and the M8 hex head bolt, then check the position of the shifter. Select which of the three holes you would like to use to locate the center point of the shifter. When you are happy with the position of the shifter mount it to the factory bracket using red (permanent) loc-tite on the threads of both bolts to keep them from turning out by themselves. (if your tapped hole is not centered on the bracket hole it is possible you will not be able to get the bolt through both. This is ok, and you can just widen the hole on the aluminum bracket a bit with a larger drill so that you can get the bolt mounted).
- 12. Push the cable onto the prepositioned ball on the short shifter bracket. Default position is use the hole that is closest to the original cable mounting position. The second 5/16" tapped hole can be used to reposition the ball and will make the shifting throws even shorter. This will increase effort significantly however. If you remove the ball to reposition it keep in mind that it was installed at Snabb with Red Thread-locker on the threads.
- 13. Place the new bracket down as before (onto the original bushing mounting post), and put the ¼-20 bolt provided through the center hole in the bracket and through the hole you just drilled.
- 14. Confirm that the shifter works at this point and that none of the bolts are loose.
- 15. Reinstall air box, hoses, etc.