

Adjusting GTI-VR6 cable shift linkage for perfect shift alignment.

This whole procedure only requires 1 or 2 end wrenches and some time. You can't really do any damage so don't worry about that, but also don't feel like you have to settle for "barely good enough", when "just right" may be achievable.

Let me make the terms I'll use clear first.

shift lever = lever inside the car with shift knob

tranny lever = the *actual* shift lever directly attached to the top of the transmission

left = counter clockwise - when I'm talking about tranny lever

right = clockwise

First warm the car up with a drive so that it slips in and out of gear smoothly or as smoothly as you can get it given whatever shifting annoyance you're having.

Now the best way to sort all this out is to get a good feel (literally) for how the tranny lever works.

To do this, first pop the cover off the shift lever opening inside the car, and loosen the bolt that hold the side to side centering spring. We'll get back to this later.

Put the car in 3rd gear. This is done first so that the centering spring doesn't have ANY influence on the natural positions of the tranny lever under the hood. Ultimately the goal is to make it so that the natural position of the tranny lever is the same as the centering position of this spring, and there's enough clearance that reverse and 5th engage without hitting the stops in the shift lever box.

Set the ebrake because you'll be taking the car in and out of gear.

Now go back under the hood and reach down and grab the tranny lever and wiggle it until it pops out of gear. It should now be sitting in the neutral position between 3rd and 4th gear. Here's the gear positions. From this neutral spot they are as follows.

pull up and left - 5th

straight left - 3rd

straight right - 4th

push down (just a little) and left - 1st

push down (just a little) and right - 2nd

push down a lot (all the way) and left - reverse

You should be able to sit there and move the lever up and down and left and right and get it into every gear, sometimes requiring

a little wiggling to coerce the gears to mesh. It's easier if the tranny oil's warmed up. Go through all the gears so that you understand where they are all the time. Shift it into a gear, and then go look at the shift lever in the car and see if you got the right spot.

Finding 1st is the trickiest because it's between 3rd and reverse and you'll notice that there's no real resistance to getting into reverse, unlike at the shift lever where it blocks you out.. You'll also notice an arm just underneath the tranny lever that swings forward and back when you pull or push the lever up or down. You'll notice a bolt attaching that arm to a cable. That's the first adjustment bolt of interest. Loosen it.

With that loose, when you move the tranny lever up and down, you'll find that the shift lever in the car no longer moves side to side, or only does so at the ends of the throw.. Be prepared to tighten and loosen this bolt a couple times.

Ok, here starts the fun. Put the tranny lever into 3rd gear again. neutral -> left

Now go into the car, and you'll find the shift lever is forward but freely swings back and forth. Put it so it's basically straight up side to side, but still forward in 3rd gear. Go tighten the bolt under the hood, and move the tranny lever to 5th gear. Back inside look, not at the position of the lever itself, but at the nylon stop on the bottom end of the lever. The problem I'd been having was that when I went for 5th gear, sometimes it hit the stop a bit early so I'd occasionally hit 3rd instead. What you want to see is a little gap between the bottom of the lever and the stop on the left. (top of the lever goes right, bottom goes left) Gently push the lever further to the right and make sure that gap doesn't completely close, or it does only with more pressure.

If there's no gap, or it closes with light pressure then it means your shift lever is starting a bit too far to the right. Go put the car back in 3rd from the tranny lever, loosen the adjustment bolt and then move your 3rd gear shift lever position a bit further to the left than before. Tighten the bolt, put the car in 5th and check your clearances again. When it looks decent, now go back and put it in reverse using the tranny lever. (I say to use the tranny lever so that you don't have to fully tighten down the adjustment bolt each time) Now the shift lever should be full to the left, but again, it should not be touching anything on the left or right (bottom of the lever). Again push it to the left a little and make sure it doesn't hit anything right away. If it does, then you may have a problem finding reverse, and it means the shift lever is a bit too far to the left. Repeat the steps for finding your 5th gear clearance but reversed. When it feels right, try 5th again, reverse again and so on. When there appears to be adequate clearance on both sides, and the 3rd gear shift lever position feels natural (straight forward) go tighten the adjustment bolt under the hood all the way.

It sounds complicated but it's not. You should get it in no more than about two adjustments.

Now put the car back into 3rd. You may have noticed that the little bracket that the shift lever centering spring is on has been sliding back and forth since you loosened that bolt. Jiggle the lever side to side while you're still in 3rd and try to get the bracket centered in the middle of the slop (there's always a little slop). Tighten the bolt holding the centering spring bracket. Now you should find that the lever moves very smoothly into 3rd and 4th with no side to side motion of the shift lever at all. If it moves a little as it goes into gear, loosen the centering spring again and edge the bracket a little so that it lines up with the in-gear position. Try to make it so that the throw into 3rd and 4th is perfectly straight.

Now try all the gears.. 3rd and 4th should go in straight, 1st and 2nd some resistance from the spring, and there should be a clear resistance and easy movement to the side for 5th (originally 3rd and 5th were sorta hard to tell apart). If you feel that two gears seem to be confused with each other, move the center spring a little away from that side.

Now go drive the car.

You may find that things shift a little bit as soon as you drive it. Make sure reverse, and 5th are both reachable and engage positively with no argument, but with some spring resistance. I just took my wrench along and stopped once to adjust the centering spring and then it was perfect. If you can't get it into reverse or 5th, then start over, but I promise it'll go **very** fast the next time around.

All told this shouldn't take more than about 20 minutes, and we're talking a grand total of 2 bolts, so this is definitely a DIY job.

When you're all done double check to make sure that both bolts are tight, especially the one under the tranny lever.

Stay away from the forward and back adjustment bolts unless you're having a serious problem with them, like popping out of gear or something.

There it is.

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