

GENE BERG INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

GB 6748; 6750: BUS 4-SPEED SHIFTER

Remove the original shifter and gate, saving the washers. **Before you proceed**, check the length from the bottom of the shift gate plate to the end ball center of your old shifter compared to ours. This can be done by turning both shifters upside down, holding them by the base, and making sure the pivot ball is all the way down into the stock housing tight. Don't let the spring hold it out. Be sure they are close to the same distance from the gate to the center of the ball. If there is about a 1/2" to 5/8" difference, you have the wrong shifter and need to contact the seller immediately to get the proper one. Inspect and make sure that your shift rod bushings along the tunnel is not worn out **at all**, or it will allow the rod to move up and down or from left to right excessively. Next, check the shift rod coupler and set screws for tightness. Worn bushing(s) or shifter coupler **must be replaced** for a Berg shifter to work properly and deliver trouble free operation. Some of these parts we can supply or you may contact your VW dealer. Remember to check the set screws for tightness at both of the couplers.

Check the special hard chromed shifter gate that comes with the Berg shifter and be sure it is still installed with the stamped lips up into the shifter base and with the curved side toward the passenger side. **WARNING:** If the shift gate plate is in with the curved part on the driver's side, the shifter will go into reverse regardless of whether the button is pushed or not. Be sure the gate is in correctly.

Lube the ball and shift socket in the shift rod with a quality grease. Also oil all the shift rod bushings along the tunnel. If you don't lube these, don't bitch if yours shifts hard or squeaks, and I assure you it will prematurely wear out and could cause the shifter shaft to break if not properly lubed. Mount the Berg shifter and start the new bolts and original washers. Snug down by hand. Slide the complete base and shifter back and forth to be sure the shift adapter and plate seats into the base properly and directly onto the floor. Mount in the center as a starting place and tighten snugly. I snug mine down so that it does not move when I shift it, yet it can be moved with the tap of a hammer (2 pound size) to drive the base the direction needed to adjust it. If you tighten it too tight, it takes too much to move it. This takes some care on your part to get it tight enough to not move when testing, yet loose enough so as not to break the base. The shifter should work correctly at that position with reverse only achieved when the button is pushed.

If it does not pick up 1st and 2nd and you must push the button to move the handle more to the left, the shifter base needs to be moved toward the passenger side (right). Either loosen and move or hit as I described above. Should the shifter go into reverse without pushing the button, move it toward the driver's side. If it does not go all the way into reverse, move it forward as far as it will go. This pulls it into reverse farther. Sometimes the stock washers will be too large to allow moving the base over enough. If this occurs, then either use a smaller washer or clearance the base appropriately. If these simple adjustments do not do the job and the shift bushings/coupler are in good condition, and the shift rod or hockey stick has not been altered from stock, please call us for advice. Do not modify the shifter in any way as it has been tested for proper fit and operation before shipment.

Since the shifter shortens the throw above the base, it travels farther under the base. For this reason, **you must make sure it does not hit where the base bolts to the floor pan.**

Continued

Many busses are worn out in the transaxle intermediate housings or bushings. Specifically the 1968 IRS and later with about 75,000 miles or more. These require much more travel to make up for the transmission intermediate housing wear and often hits at the shift gate plate location in the floor. When this wear is present, you may find difficulty in either the installation adjustment or an inconsistency in shifting as you drive the vehicle. Example: You have it properly adjusted but when you go from 3rd back to 2nd, it won't go in without pushing the button, yet it shifted before and still works correct from 1st to 2nd. Here's what I do. With the shifter in the neutral position, move the handle to the right and then flick it back to the left against the stop and then into 2nd. What you are doing is throwing the rod hard enough to make it rotate by force, throwing it to the end of the wear. If it now goes right in, it means the trans housing is probably worn badly. This symptom is often accompanied with the Berg shifter shaft hitting the floor under the base. If you don't keep the shifter shaft from bottoming at the end of the forward and backward travel, (over-shifting or bending beyond required travel), **you will break the shifter at or just above the weld.** Some will require you to grind clearance in the floor so the shifter won't hit. The shifter should work with easy using only two fingers to move from one gear to another even cold. If hard when cold, install synthetic gear oil and this should stop. I recommend saving and putting the old shifter and its parts under the rear seat should it ever be needed again or you sell the vehicle.

I do warranty my shifters from defects for one year from the time I sell it. However, above conditions would not be considered a defect in the shifter and will require a fee to replace any broken parts.

NEVER SPEED (POWER) SHIFT THIS SHIFTER as it causes bending and eventually breakage.

THE TEE HANDLE may be located in any position you wish. Simply loosen the two allen set screws, turn to the position you desire, and retighten the set screws. Don't over-tighten as that will strip the handle. Also see (3) for proper height.

MAINTENANCE

As you use the Berg shifter, there are a few things **you must do** to help keep it operating like new.

- (1) The button and shift rod bushings should be lubed every few months.
- (2) The shifter should be removed and lubed (grease) on the ball and into the axis point once a year. (NOTE: It is not unusual for the decorative chrome to come off of the ball.) By not lubing the ball, it could cause unnecessary friction and drag that may cause breakage at the shaft weld. Push the center rod up with a punch to release the button. Wiggle the button and pull it out carefully. Now you can lube the cable and lower pin mechanism. Push the center rod in again and reinstall the button. Wiggle it in (the flat goes up). When the cable hooks to the button, release the pin at the bottom and it should drop the cable eye into the button eyelet.
- (3) If your shifter gets too loose to suit you, remove the shifter, button, tee handle (pay close attention to the height of the handle as some are moved up away from the steel shank to get the release pin in the proper location on the shift gate), the rubber boot, and then the four allen screws. The top plate can then be removed and the bottom of the top plate (mating surface) may be sanded or filed off .005" to .010" to close the space between the upper and lower teflon bushings. This tightens them on the pivot ball. Sometimes you may need to do this a couple of times until you get the fit you want. If you get it too tight, or it is too tight for you when you get it, simply sand the top teflon bushing a little. Relube and reassemble. **Never modify the lower base** height as this changes the release pin location and the location of the pivot point.
- (4) If you should ever break a cable, return the **complete shifter** (complete includes the spacer and shift gate) with instructions to replace the cable. This can be done and returned within a couple of days for a small charge. This is a rare problem, however, I recommend keeping your old shifter under the back seat should this occur so that you can temporarily reinstall it if you should have a problem.

Copyright 1/79, 10/83, 9/85, 4/88, 9/91