



SILVER SPORT Transmissions

SUPPLEMENT: **AUTOMATIC TO MANUAL CONVERSION** **GENERAL GUIDELINES**

FOLLOW FACTORY SERVICE MANUAL (FSM) RECOMMENDED SAFETY PRECAUTIONS. TRANSMISSION REMOVAL AND INSTALLATION IS A LABOR INTENSIVE JOB, WHICH CAN RESULT IN SERIOUS INJURY OR DEATH IF CAUTION IS NOT TAKEN. PLEASE BE CAREFUL PERFORMING THIS JOB, OR HAVE A PROFESSIONAL PERFORM THE JOB FOR YOU. REFER TO FSM FOR ADDITIONAL DETAILS OF THE PROCEDURES BELOW, AS REQUIRED.

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REMOVAL OF EXISTING COMPONENTS

1. Disconnect negative (-) battery cable.
2. If equipped with console, remove to permit disconnecting and removing floor shift components. If equipped with key/steering wheel lock, the linkage must be locked in position to permit key removal and turning steering wheel at all times. If column shift, remove linkage at steering column. Remove linkage from transmission.

3. Remove engine breather assembly, throttle linkage, ignition cap and components and any other items that would restrict lowering the back of the engine for transmission removal.
4. Remove the automatic dipstick tube bracket from its attachment at the engine. Some vehicles will permit removal of the dipstick tube from the transmission while others are removed with the transmission. Fluid may drain from the transmission at this point if the dipstick tube is removed.
5. Remove the transmission kickdown cable/linkage and brackets from the engine and vehicle. If a column shift, remove linkage between steering column and transmission and any associated brackets.
6. If equipped, remove vacuum modulator vacuum line from its connection at the engine and plug the engine vacuum source.
7. Remove fluid cooling lines at radiator and transmission. Fluid may drain. Plug the radiator connections.
8. Locate and disconnect the neutral safety switch wiring and backup light wiring, if equipped. Tag for future reuse during manual transmission installation.
9. Remove the automatic brake pedal. Depending on the vehicle and the under dash access, pedal removal may require removal of the front seat, underdash fascia and or dropping the steering column. If the new pedal kit includes a new pedal support bracket, the original pedal bracket will also need to be removed. Retain all parts until the new pedals are installed.
10. Locate the factory clutch rod hole used for standard transmission vehicles. The hole generally has a factory rubber plug sealing it and is located behind the factory insulating/carpeting material.
11. Raise car securely on lift or jack stands (Sears 6-Ton recommended).
12. Loosen exhaust at manifold and remove as required for working clearance and to allow the engine to drop during transmission removal.
13. The emergency brake cable may need to be disconnected for working clearance.
14. Remove the driveshaft at the differential and transmission, if necessary, and remove driveshaft from vehicle.
15. Unbolt starter and set aside.
16. Remove speedometer cable.
17. Remove torque converter dust cover.
18. Remove the torque converter to flex plate fasteners. The engine will need to be rotated manually to access all the fasteners. (**NOTE:** The battery should have already been disconnected as directed in step number 1 to prevent accidental startup)
19. Secure rear of engine with hydraulic jack.
20. Remove bolts from transmission isolator at the crossmember and raise engine slightly to remove weight from crossmember.
21. Secure and support transmission (transmission jack recommended) and remove the crossmember.
22. Remove the bellhousing bolts holding transmission to the engine, lowering back of engine and transmission, as required, permitting access to all bolts.
23. Move transmission and torque converter rearward as a unit and disengage the transmission bellhousing from dowel pins. Continue moving rearward until the transmission unit can be lowered and removed from the car.
24. Remove the flex plate from the crankshaft.

INSTALL NEW EQUIPMENT

The vehicle is now ready for installation of the components to convert it to a manual style vehicle.

1. For all vehicles, install new pedals and pedal supports bracket and components.
2. If a Silver Sport hydraulic system is to be installed, refer to the appropriate portions on the installation manual for mounting of the hydraulic mastercylinder.
3. If the original style mechanical linkage (clutch rod, Z bar, Z bar mounts, fork rod) is to be used, install the components per the Factory Service Manual for the particular vehicle. Note: On some vehicles, the frame side Z bar support is not bolted in but must be welded in.
4. To locate the shifter hole for vehicles whose kit did not include a shifter hole location on the template or in the sheet metal, the following procedure can be used to locate the shifter hole.

Temporarily install the bellhousing to the engine and raise the engine to approximate final elevation.

Measure from the bellhousing mounting face of the transmission to the center of the shift lever location, including offset from the centerline of the transmission. Transfer this dimension to the underside of the floor pan by measuring from the transmission mounting face of bellhousing down the underside of the floor pan and mark the shift lever location, including offset.

Measure the square section of the shift tower and transfer this to the underside of the floor pan. Drill pilot holes and cut out the required area. It would be good to temporarily install the transmission to verify the accuracy of the work. **NOTE: Confirm nothing is in the way inside or under the vehicle during cutting.**

Remove the bellhousing from the engine and lower the engine.

5. Complete the remaining installation per the instruction manuals provided with the transmission kit.