

Cable-SHIFT
Instructions
094

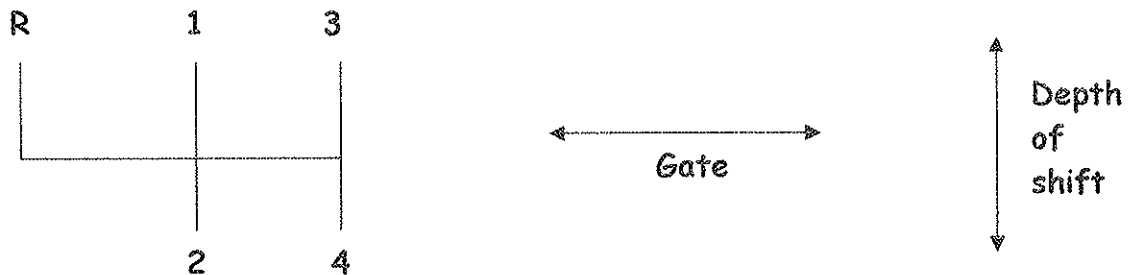
1. Fabricate the mount for the Cable-SHIFT box. The shifter box is normally secured by the pre-punched $\frac{1}{4}$ " diameter holes at the base of the sides. Two through tubes 2-7/8" long are used on chassis with a single center tube. On chassis with two center tubes, 1/8" brackets are drilled to match the holes in the shifter box, then welded to the center tubes.
2. Remove the "arm and ball" lever from the shift rod at the side of the transaxle gear carrier. Retain the 8mm nut and heavy washer.
3. Disassemble the Cable-SHIFT gate (and main) cable bracket and linkage by removing the two cotter pins at the top of the 'link'.
4. Install the gate (and main) cable bracket to the gear carrier and nose cone, (on the same side of the transaxle as the shift rod), with the three 8mm X 80mm hex bolts and two 8mm X 40 mm hex bolts provided.
5. The shift cables may now be installed along the route defined during the cable measurement and the shift box is bolted to the shifter mount.
6. The main cable is passed through the upper 5/8" hole in the gate (and main) cable bracket and is secured by jam nuts on either side of the bracket. The $\frac{1}{4}$ " spherical rod end (with stud) is installed on the main cable to a point where approximately 3/8" of threads are showing with jam nut in place.
7. The gate cable will pass through the 5/8" hole below the main cable, and is secured by the jam nuts provided. Do not tighten jam nuts at this time. The $\frac{1}{4}$ " rod end with the bellcrank and shift rod arm are screwed on to the gate cable end as an assembly until 3/8" of thread remains showing on the cable with $\frac{1}{4}$ " jam nut in place. The 'link' may now be re-assembled and held in place with cotter pins.

8. Install the shift rod lever, note the splines on the shift rod are indexed at 12 and 6 o'clock. The lever supplied is indexed to match. Secure shift rod lever to shift rod with 8mm nut and heavy washer removed at disassembly. Attach the main cable spherical rod end to the shift rod lever.

9. When all the fasteners are secure, adjustment of the shifter can begin. Initial adjustment to 'run through the gears' can be made in the shop before the engine is running; final adjustment and "fine tuning" should be made under driving conditions.

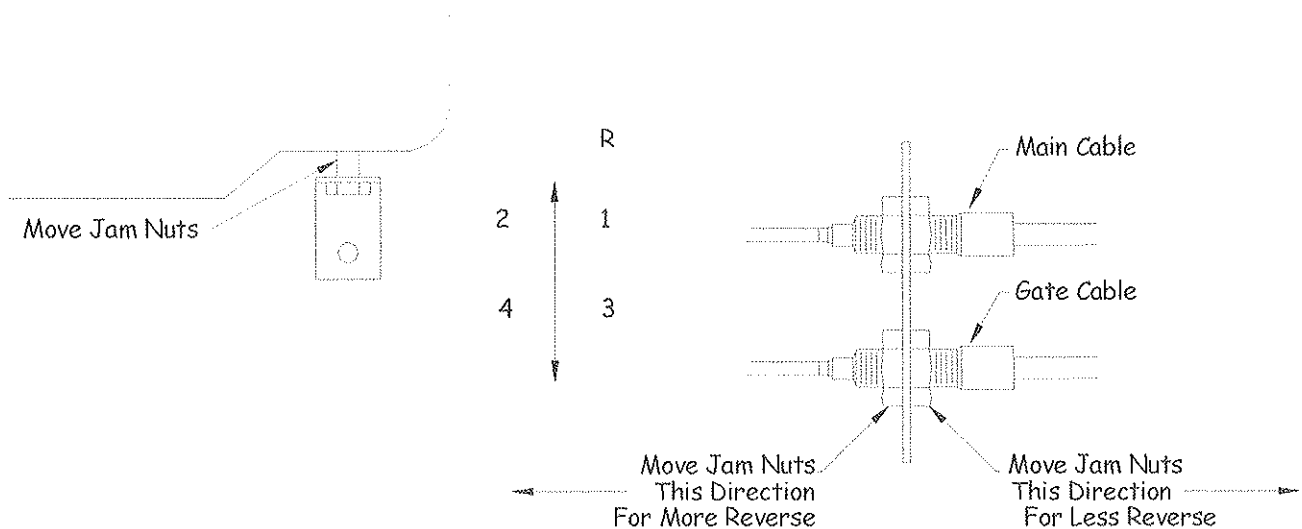
Cable-SHIFT Adjustment 094

1. **Set the depth of shift.** Back the 5/8" jam nuts on the main (upper) cable, away from the bracket as far as possible on the threads, manually rotate the shift rod (and attached lever) clockwise (top forward) in any gear. Position the Cable-SHiFT shift handle to within $\frac{1}{4}$ " of the forward edge of the opening in the top of the Cable-SHiFT box. At the transaxle rotate the rear most 5/8" jam nut to rest against the cable bracket, 'finger tight'. Do the same, rotating the shift rod and arm in a counter clockwise direction (top backward) and position the shift handle to within $\frac{1}{4}$ " of the rear most edge of the opening in the box. Repeat this sequence until the shift handle range is centered in the top of the Cable-SHiFT box and secure the 5/8" jam nuts on the main cable at the transaxle.
2. **Set the gate position.** There are three gates in a 4-speed 094 transaxle. A gate and depth of shift diagram for an 094 transaxle is shown below:



Loosen the jam nuts on the gate (bottom) cable. Rotate the shift rod into 1st gear (middle position laterally, clockwise rotation) gently slap the shift handle up against the Cable-SHiFT reverse lock out bar. Screw the 5/8" gate cable jam nuts to the cable bracket and finger tighten. The Cable-SHiFT shifter should be close enough to 'run through the gears'. Shifting will improve when the engine is running and the clutch is depressed. Shifting further improves as the synchronizers are worn in.

3. **Fine adjustment of the gate cable.** Fine adjustment of the gate cable is usually necessary after initial test drive. A diagram is provided to show this adjustment.



Small adjustments (1/6 of a turn) made with both jam nuts, make a noticeable difference. A smooth shift sequence is therefore attainable first through fourth gears and reverse.

4. When the Cable-SHiFT shifter has been adjusted to the drivers 'driving style' under driving conditions, tighten all jam nuts, re-tighten bracket fasteners and recheck shifting sequence.