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**INSTALLATION INSTRUCTIONS
LOKAR CABLE OPERATED
AUTOMATIC TRANSMISSION SHIFTER**

(GM TH-350, TH-400, 700-R4, 200-4R, 4L60)

WARNING: *Disconnect battery before beginning installation. Make sure vehicle is in Park. Before making adjustments and taking shifter out of gear, be sure that the vehicle's parking brake is set and scotched to avoid movement of the vehicle.*

STOP! *PLEASE READ ALL INSTALLATION INSTRUCTIONS BEFORE BEGINNING INSTALLATION. CALL LOKAR FOR ANY QUESTIONS OR UNCERTAINTIES DURING THE INSTALLATION.*

**TOOLS
NEEDED:** *Small set of Standard Allen Wrenches
Standard Wrenches
Drill; 5/16 Drill Bit
Cutting Tool (die grinder, Jigsaw, Sawzall, etc.)
Scribe or Pencil*

1. If the vehicle already has a shifter (column or floor type), disconnect all shifter linkage and remove shifter and related hardware. (neutral safety switch, back up light switch, etc.)
2. Decide where to mount the shifter. Then decide whether to mount the shifter above the floor as shown in **(Fig. 1)** or whether to mount the shifter below the floor as shown in **(Fig. 2)**
Note: For cars that already have had a floor shifter, determine if the hole in the floor will be adequate for operation, mounting and comfort. For mounting below the floor, the floor may need to be cut or filled. Also, if there is no room below the floor because of transmission to floor or cross member clearance, mount it above the floor.
3. There are four mounting ears in the kit. By turning the ears over, the shifter can be mounted above or below the floor as shown in **(Fig. 1)** and **(Fig. 2)**
4. Attach the ears to the main frame as shown in **(Fig. 1)** and **(Fig. 2)** with the 5/16 x 24 x 1/2 button head bolts and 5/16 lock washers. Do not tighten the bolts too tight so that adjustments can be made later during installation.
5. Place the shifter in the desired location for the installation and make sure the shifter is standing straight up. Push the ears to the floor and mark the holes and drill four 5/16" diameter holes.
6. Determine which one of the three arms included in the kit should be used to mount to the floor mount quad lever. There are three different offsets to choose from: **straight, 1 1/4" offset** and **2 1/2" offset. (Fig. 3)**

NOTE: The farther the shifter is mounted to the left from the center of the vehicle; it is recommended to use the straight arm.

7. After the shifter is mounted to the floor, tighten the mounting bolts.

8. Install gear lever to transmission. Lever must be pointed down and must be rotated clockwise to be in the Park Position. **Note: 700-R4, 200-4R and 4L60 levers must be installed so the lever is in the furthest forward position. This is so that the cable will have full travel. The 700-R4 and 4L60 transmissions have a chamfered hole in the trans lever. The chamfered hole must face toward the transmission. This is required for clearance of the oil pan when trans is in low and second gears.**
 9. Install the lower cable mounting bracket on the driver's side pan bolts. TH-350 uses the rear pan bolts and TH-400, 700-R4, 200-4R and 4L60 use the two pan bolts directly behind the selector shaft. TH-350 and TH-400 transmissions use standard thread hardware. 700-R4 and 4L60 transmissions use metric hardware. **(Photo 1)**
 10. At this point ensure that the shifter and the transmission are both in the Park position. Install the cable onto the lower cable mounting bracket. The rubber grommets need to be removed to get the 1" nuts off the cable. Attach the cable to the trans gear lever using the spherical rod end, the ¼" x 28 button head allen and the ¼" x 28 nylock nut. **(Photo 1)**
 11. Route the cable up to the shifter and attach it to the floor mount quad arm assembly using the spherical rod end, the ¼" x 28 button head allen and the ¼" x 28 nylock nut. When routing the cable, be sure that the cable is not touching the exhaust or any moving parts. The cable should be routed as smoothly as possible. **(Photo 2)**
 12. Attach the aluminum cable clamp onto the cable, making sure that it is securely seated in the slot. Using the 5/16" x 24 x 1" button head allen and the 5/16" x 24 nylock, attach the cable clamp to the upper cable mounting bracket. Make sure that the location chosen for the cable clamp on the upper cable mounting bracket will allow the cable to go straight to the hole in the floor mount quad arm assembly without binding up or down. **(Photo 3)**
 13. Position the upper cable mounting bracket on the vehicle so that the cable will push or pull in a smooth transition. Also be sure that the cable is in a good location from side to side. The aluminum cable clamp may need to be relocated on a different hole in the upper cable mounting bracket to achieve an adequate pull on the cable. Before drilling the vehicle, be sure everything is mocked up correctly and if possible, clamp bracket and check operation. Mark the holes using a scribe or pencil and drill each hole using a 5/16" drill bit. **This step is the most important step for a quality shifter installation. (Photo 4)**
 14. Mount the upper cable mounting bracket to the floor using the 5/16" x 24 x ½" button head allens and the 5/16" x 24 nylock nuts.
 15. With the transmission and the shifter both in Park, adjust the spherical rod ends so that the ¼" x 28 button heads go straight through without resistance.
- Note: Coarse adjustment of the cable can be done with the 1" nut on the transmission end of the cable. Use the spherical rod ends for the fine adjustment.**
16. To check shifter adjustment, put the shifter in the Neutral position and be sure that the shifter locks in Neutral and Park. Also, make sure that the button works freely in Park and Neutral. If the shifter does not lock in Park and Neutral or the button does not move up and down freely, it may be necessary to readjust the shifter.
 17. To adjust the Neutral Safety Switch, refer to the Neutral Safety Switch Instructions included in this kit.

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Cable Operated Shifter Parts List

1. Shift Lever (Specify Length)
2. Lever Nut (#6805)
3. Inner Rod (Specify Length)
4. Inner Rod Spring (#6806)
5. Shifter Body (#6800)
6. 10/32 Jam Nut (#1023)
7. Lock Dog (#6802)
8. 10/32 Lock Washer (#6803)
9. 10/32 Jam Nut (#1023)
10. Teflon Washer (#68130)
11. Gear Plate (Specify Transmission)
12. Chamfered Bushing (#6814)
13. Chamfered Bushing (#6814)
14. Switch Plate (#S-6945)
15. Flat Bushing (#6813)
16. 5/16 Flat Washer (#6815)
17. 3/8 x 24 Jam Nut (#6816)
18. 3/8 x 24 Jam Nut (#6816)
19. Allen Head Set Screw (#6827)
20. Floor Mount Shift Lever (#S7054)
- 20a. Straight Shift Lever Arm (#7005)
- 20b. 1 1/4 Offset Shift Lever Arm (#7006)
- 20c. 2 1/2 Offset Shift Lever Arm (#7007)
21. N/S Switch Washer (#6818)
22. Neutral Safety Switch (#6817)
23. Floor Mount Bracket (#7003)
24. Rt. Mounting Tab (#7002)
25. Lf. Mounting Tab (#7001)
26. Mounting Bolts, Washers and Locknuts (#9032, 6831, 700016)
27. Push Pull Cable (#68180)
28. 1/4 x 28 Jam Nut (#6876)
29. Rod End (#6871)

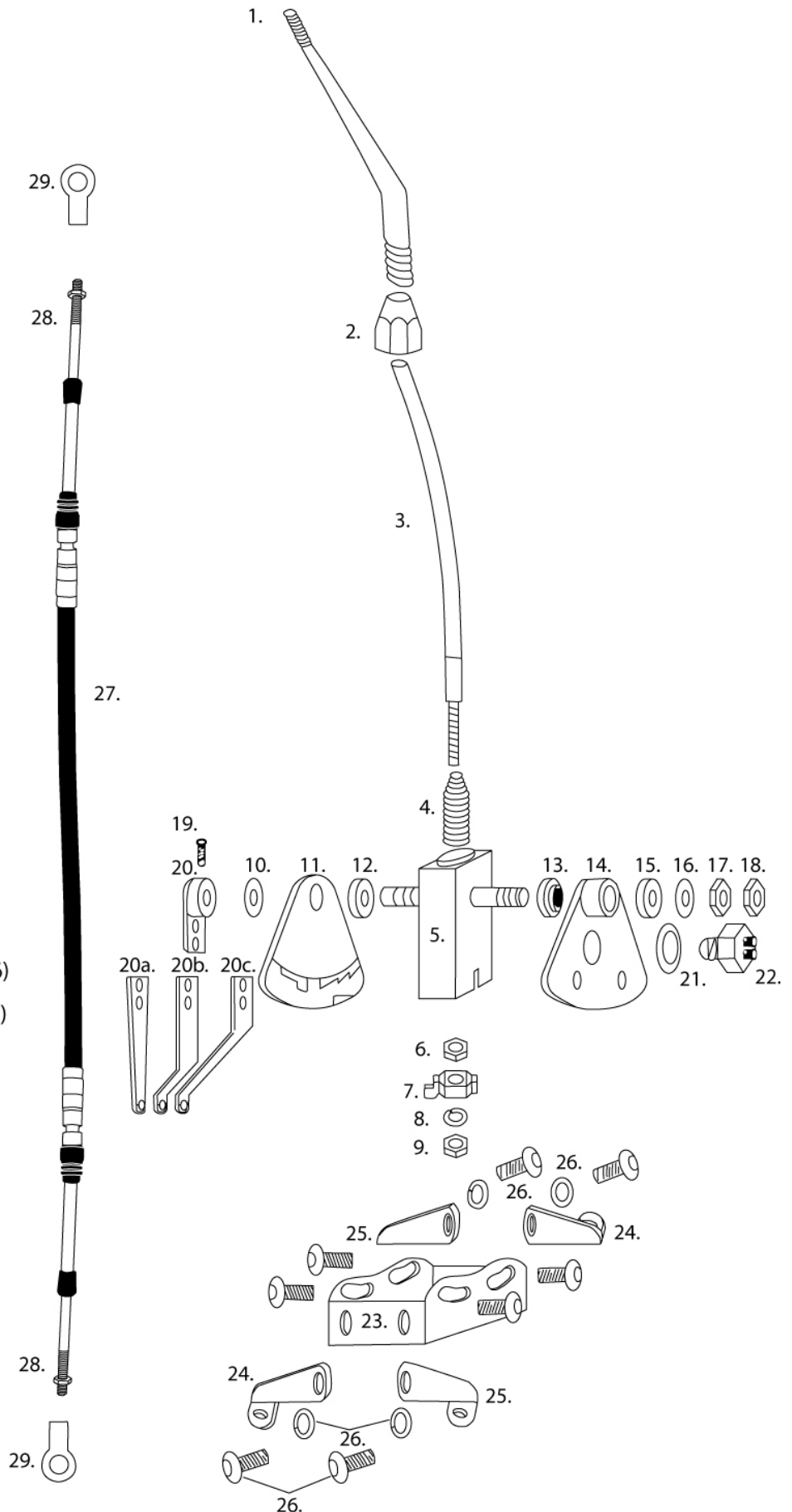


FIG. 1

ABOVE FLOOR

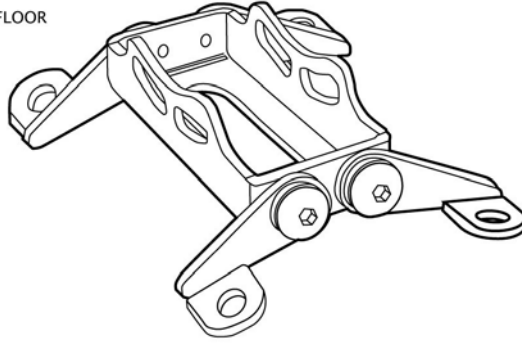


FIG. 2

BELOW FLOOR

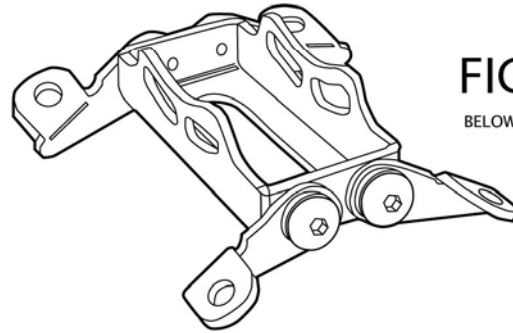
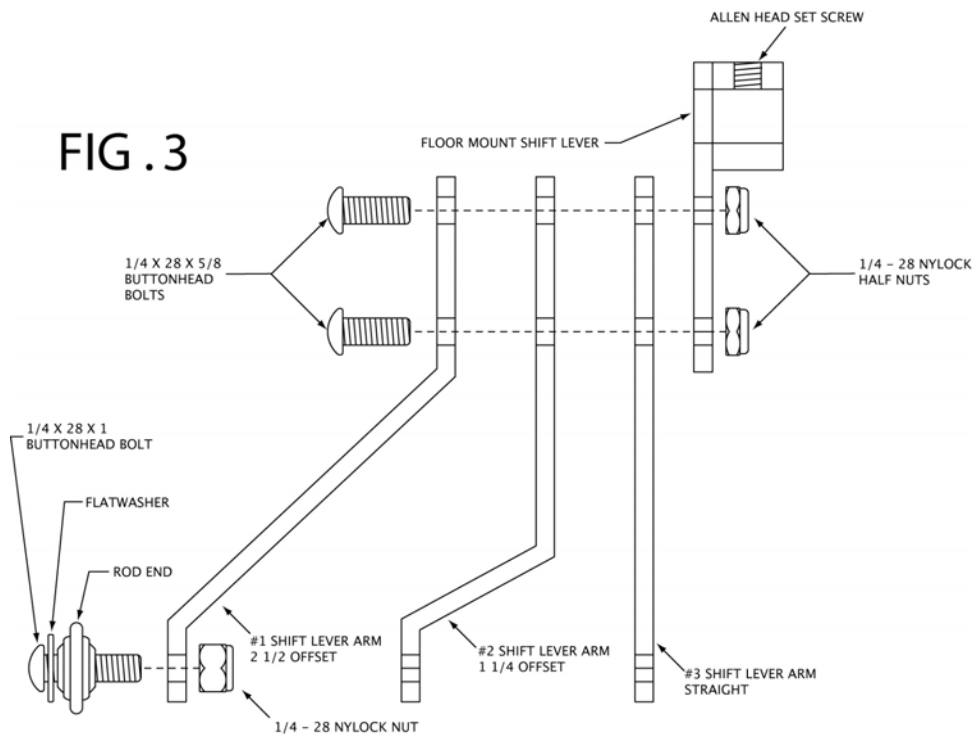


FIG. 3



Installation Photos



PHOTO 1



PHOTO 2

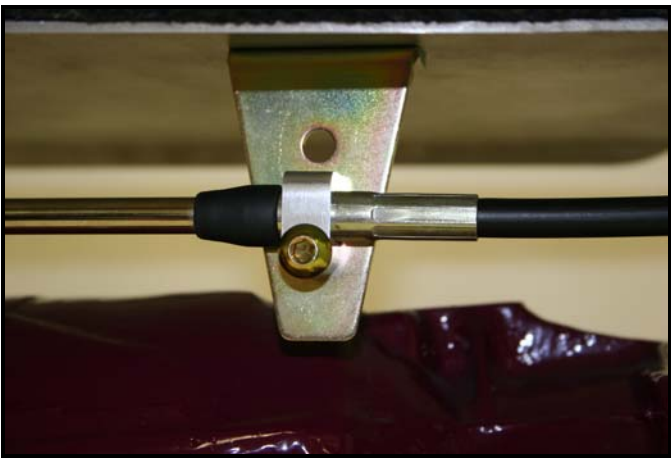


PHOTO 3



PHOTO 4

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LOKAR AUTOMATIC TRANSMISSION SHIFTER NEUTRAL SAFETY SWITCH ADJUSTMENT INSTRUCTIONS FOR USE WITH LOKAR'S ALUMINUM ADJUSTER PLUG

The following instructions are for adjusting the neutral safety switch in the Lokar Automatic Transmission Shifter using the enclosed Aluminum Adjuster Plug. If the vehicle starts in any gear other than Park and Neutral while using the Lokar Shifter, it will be necessary to adjust the neutral safety switch.

Please note that the neutral safety switch is function tested at the time of assembly. However, adjust the neutral safety switch for proper application only after installation of the shifter into the vehicle.

WARNING: Before making adjustments and taking shifter out of gear, be sure that the vehicle's tires are scotched and the parking brake is set to avoid movement of the vehicle.

TECHNICAL TIP: To avoid the vehicle starting in gear, make all adjustments with an ohmmeter clipped to each threaded stud on the side of the neutral safety switch. When using the ohmmeter, be sure that the vehicle is not running. When adjusted correctly only Park and Neutral will have a positive ohm reading. Positive reading in any other gear requires adjustment.

- Make sure that driver's side banana bracket which is bolted to the gear plate is tight **(Figure 1)**
- **IMPORTANT:** For the neutral safety switch to function properly, verify that the linkage going from shifter to the transmission is adjusted correctly. To verify this, put transmission and shifter in the Park position. Install one rod end onto one end of the threaded rod. When bolting the other end of the threaded rod and rod end onto the appropriate bracket, be sure the hole in the rod end exactly matches the hole in the lever.

The bolt should travel freely through both holes without binding. Do not force the holes to match. Adjust the rod end. If any bind is encountered on the first attempt, remove the bolt from the rod end, loosen the jam nut and screw the rod end in or out to free the bind. Do this without moving any shifter/transmission levers or arms. Use this adjustment routine until the rod ends are free of binds. **(Figure 2)**

- *The lock-out button is flush with the knob in Park and Neutral.* In the Reverse position, the lever cannot be pulled into Neutral without depressing the button.
- Remove neutral safety switch and washer **(Figure 3)**
- Loosen passenger side banana bracket bolts **(Figure 4)**
- Put shifter into the Reverse position
- Screw aluminum plug into the neutral safety switch opening. **(Figure 5)** Line up plug into center slot of shifter body
- Tighten all bolts on passenger side banana bracket
- Remove aluminum plug
- Install neutral safety switch with washer and test for continuity

The shifter is now in perfect adjustment and will not start in gear. If the car should ever start in any gear other than Park or Neutral, please readjust neutral safety switch accordingly. Tighten all brackets and bolts correctly and securely and there should be no movement or maladjustment. If there are any questions after following this procedure, please call Lokar.

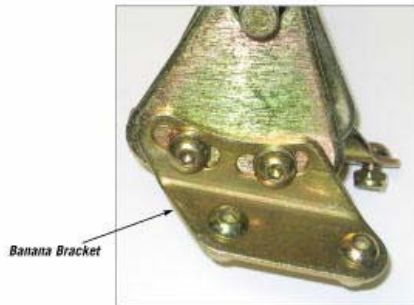


Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

Rev. 6-28-05 Neutral Safety Switch

LOKAR SHIFTER KNOB REMOVAL INSTRUCTIONS

(Post 1995 Lokar Shifters)

(Mushroom, Lokar, Black Anodized, 8-Ball and Piston Knobs)

To remove knob:

1. Make sure shifter is in Park position.
2. Do not remove setscrew.
3. Unlock nut under shifter knob.
4. Turn knob counter clockwise & remove

To install knob:

1. Turn knob clockwise until the button comes flush with the knob.
2. Do not turn knob further than flush.
3. Lock nut.

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