

STREET ROD SHIFTER - REAR MOUNT

CATALOG #383 5681

FITS GM TH700-R4 OVERDRIVE TRANSMISSION

Installation Instructions

Congratulations on the purchase of this quality crafted Street Rod Shifter designed and built by Hurst-"America's Number One Shifter".

WORK SAFELY

Perform this installation on a good clean level surface for maximum safety and with the engine turned "Off".

Installation of this shifter requires working underneath vehicle. Raise front of vehicle by lifting at points specified by the vehicle manufacturer. Place blocks or wedges in front of and behind both rear wheels to prevent movement in either direction. Support the vehicle with approved automotive support stands or wheel ramps.

- 1). Disconnect negative (-) battery cable.

Caution: When removing or connecting the battery cable terminal, use care to avoid intermittent contact (arcing or sparking) between battery post and terminal end. This generates voltage spikes that can damage sensitive ECM (Electronic Control Module) components or memory circuits if equipped.

- 2). Remove the top two tailshaft housing extension bolts from rear of transmission. Using the outer holes in mounting bracket, attach to transmission with mounting pad facing forward. Insert two new 10mm hex head bolts and 3/8" flat washers into tailshaft housing. Using a 17mm socket, torque bolts to 25-30 ft. lbs.
- 3). Use mounting bracket as a guide to determine correct location for cutting hole in floorboard.

Note: A 4" diameter hole is required in the floorboard if the lower pivot shaft of shifter (Figure #2) is even with or above floor. If pivot shaft is below floorboard a 3-1/4" diameter hole will be sufficient.

- 4). Attach gear shift arm to pivot shaft on left side of shifter assembly (Figure #2) with bend away from shifter using 1/4"-20 X 1/2" flange head self-locking bolt and 1/4" flat washer. Use a small amount of loctite (supplied) on bolt threads and tighten securely.

Note: Shifter assembly contains a Neutral/Park start safety switch that is non-adjustable and when properly connected into starter system wiring, will only allow engine to start in Neutral or Park position. It may be easier at this time to connect wire leads to Neutral switch before mounting shifter assembly to bracket.

If Rodware shifter is used in an application without an original Neutral/Park start switch, locate wire connecting "S" terminal on starter solenoid to "Solenoid" terminal of ignition switch. Cut this wire and splice in the Rodware Neutral/Park start switch using two suitable lengths of 16 gauge automotive grade wire.

CAUTION: BE SURE THAT ENGINE WILL START ONLY WHEN SHIFTER IS IN NEUTRAL OR PARK POSITION.

- 5). Position shifter over front pattern holes on mounting pad bracket (Figure #1). Fasten shifter to mounting pad using three 1/4"-20 X 1/2" flange head self-locking bolts. It will be easier to thread and tighten the rear bolt if you loosen and back out the lower rear lock plate socket head bolt. Be sure to re-tighten this bolt afterwards. Apply a small amount of loctite onto threads and tighten bolts securely.

Note: On some transmission cases the front mounting bolt may require 1/4" flat washers as spacers between the bolt head and mounting pad so threads do not hit case.

- 6). Remove stock transmission arm from gear selector shaft and replace with new arm making sure arm is positioned with linkage rod attaching holes upward (Figure #3). Use new 3/8"-16 flange lock nut and torque to 20 ft./lbs.
- 7). Place transmission arm and shifter in Neutral position (Figure #4). Thread one 1/4"-28 jam nut and ball rod end onto each end of linkage rod. Attach one end of linkage rod assembly to lower hole of transmission arm using 1/4"-28 X 1" socket head bolt, 1/4" flat washer and 1/4"-28 flange lock nut (Figure #3).

Place shifter stick in Neutral position. Be sure selector pin on shifter is forward against neutral stop (see shift pattern illustration Figure #4A), adjust linkage rod as necessary to align hole in gear shift arm with ball rod end. Attach using hardware and check adjustment by shifting through entire gear pattern. Tighten linkage rod, attaching bolts, nuts, and ball rod end jam nuts securely.

REVERSE GEAR BACK-UP LIGHT OPERATION

Note: Reverse gear back-up lights will not work with installation of the Rodware Shifter. A separate hand operated back-up light switch is recommended if back-up lights are necessary.

- 8). Check to see if stick position needs to be adjusted (ie: shift knob too close to dash in Park or too close to seat in Low). Adjustment is made by loosening lower stick mounting bolt and per selector pin hex, then moving stick to desired position (Figure #5). After adjustment is made, re-tighten stick mounting bolt and selector pin securely.

Note: Use two 9/16" open end wrenches when loosening or tightening selector pin hex.

- 9). Thread shifter knob onto stick and tighten jam nut using small spanner wrench supplied.

An optional black vinyl boot with a polished stainless steel trim plate is available to fit your Rodware shifter. This will give the installation a clean, rich, finished look. Order catalog #5671 from your local Rodware retailer.

SHIFTER OPERATION

Your new Rodware Shifter maintains a high standard of quality and will give you many years of trouble-free performance when used in accordance to instructions. It is not a competition and selector pin hex securely. Shifter and is designed for street use only. When changing gear selection, only light pressure is required to move the shifter stick back and forth.

Caution: Before testing shifter operation, it is recommended vehicle be placed back on the ground, parking brake applied and wheels blocked. Vehicle should be parked in a safe location for testing. Be sure no one is in front of or behind vehicle during testing.

- 1). Apply brake pedal pressure while testing. Familiarize yourself with the operation of this shifter by moving shifter stick backward and forward through entire shift pattern (Figure #4A).
- 2). We recommend disconnecting the "batt" wire from distributor so engine will crank but not start. Re-connect negative (-) battery cable. Test starter motor operation in every gear position of the shift pattern. The starter must operate in Park and Neutral gear position only. If starter operates in any other gear position, re-check wiring to be sure connections are correct. Re-connect "batt" wire to distributor so engine can start.

DOWN SHIFTING

- Park to Reverse** - Depress shifter stick and pull back to first stop position for Reverse and release.
- Reverse to Neutral** - Pull back to next detent for Neutral.
- Neutral to Drive 4** - Pull straight back to next stop position for Drive 4.
- Drive 4 to Drive 3** - Depress shifter stick and pull back to next detent for Drive 3.
- Drive 3 to Drive 2** - Depress shifter stick and pull back to next detent for Drive 2.
- Drive 2 to Drive 1** - Depress shifter stick and pull back to stop position for Drive 1.

UP SHIFTING

- Drive 1 to Drive 2** - Push forward to detent for Drive 2.
- Drive 2 to Drive 3** - Push forward to next detent for Drive 3.
- Drive 3 to Drive 4** - Push forward to next detent for Drive 4.
- Drive 4 to Neutral** - Push straight forward to stop position for Neutral.
- Neutral to Reverse** - Depress shifter stick and push forward to stop position for Reverse.
- Reverse to Park** - Depress shifter stick and push forward to stop position for Park.

FIG. 1

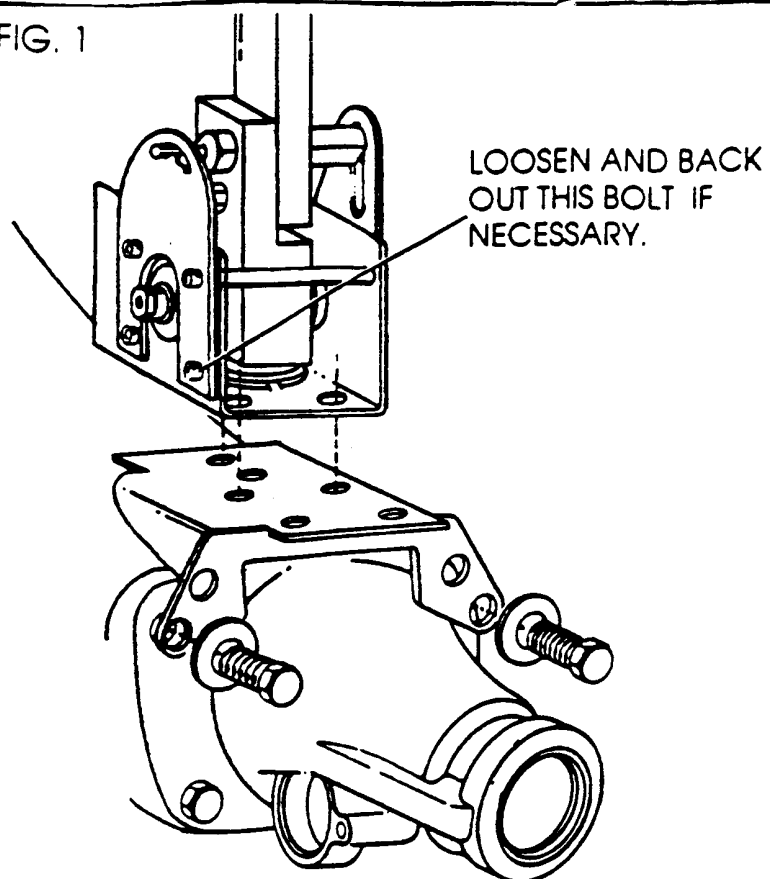


FIG. 5

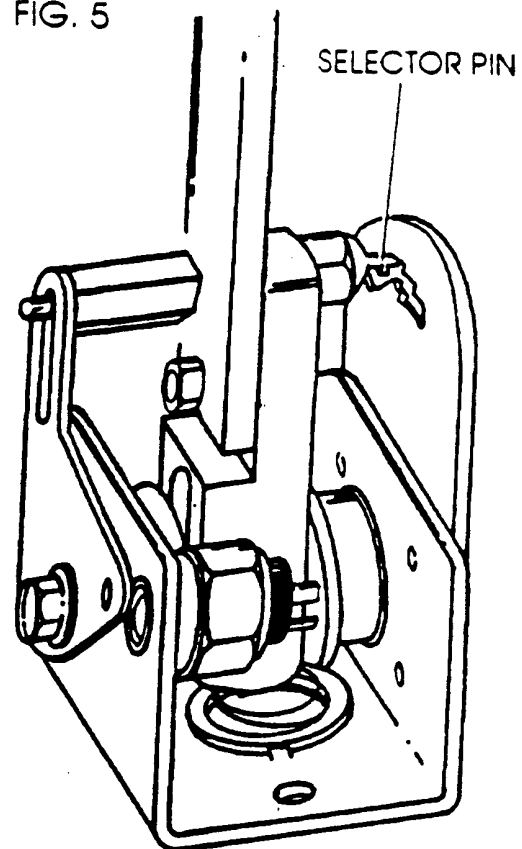


FIG. 2

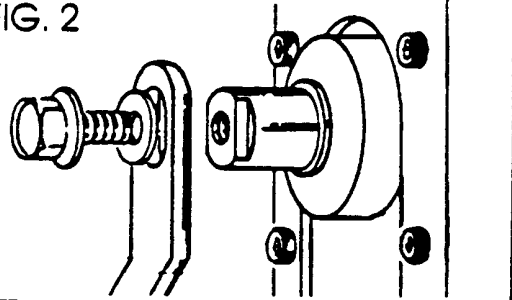


FIG. 4

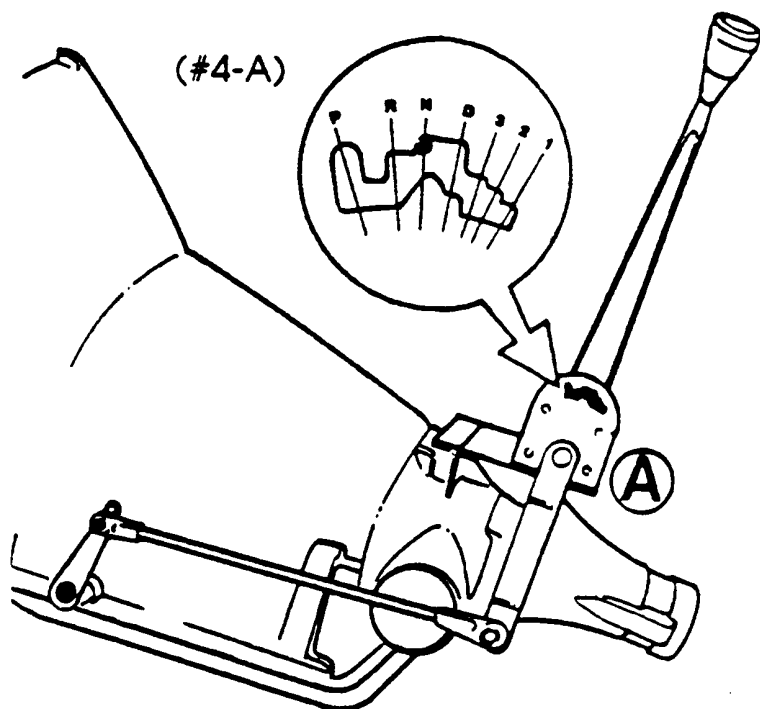
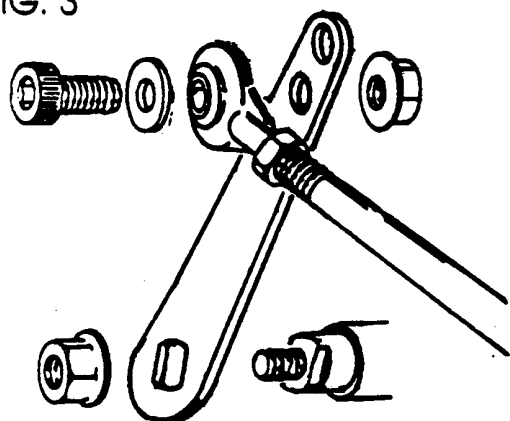


FIG. 3



TECHNICAL SERVICE

A highly trained Technical Service Department is maintained by Hurst Performance to answer your technical questions, provide additional product information and offer various recommendations. See your local retailer of Rodware products for specific prices.

For best results, Technical Service calls, correspondence and warranty questions should be directed to the following address:

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Phone: (216) 398-8300
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