

LONG

SHIFTERS



LONG HR-6000 6-SPEED SHIFTER FOR RICHMOND ROD TRANSMISSION

Features

- The Long Shifter for the Richmond gear 6-Speed has a patented rail slide design, used widely on road race and street applications.
- The Long H-Pattern 6-Speed is the only one of its kind to use a reverse lock-out. To engage reverse from neutral position; pull handle to extreme right, push down and pull back handle.
- Long Shifters use 7/16" diameter heavy duty rods for more rigidity and less deflection, for a more positive shift. The HR series rods use aircraft type hymen rod ends.
- The Shifter Handle is spring loaded for a better feel of the gear position.
- Also available for corvette and camaro applications.



**HR-6000 Shifter shown with the
Richmond ROD Transmission**

RICHMOND ROD STREET TRANSMISSION SIX SPEED APPLICATION

FOR RACE TRACK USE ONLY

INSTALLATION INSTRUCTIONS

1. Install mounting plate (2) on transmission as shown in exploded assembly drawing.
2. Install shifter using mounting bolts shown in assembly drawing. Tighten Bolts to the specified torque and then install locknuts on the back of mounting plate.

*****IMPORTANT*****

**TIGHTEN BOLTS TO THE SPECIFIC TORQUES.
DO NOT OVER TIGHTEN**

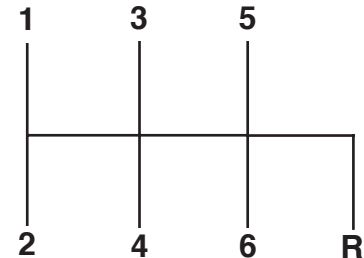
3. Swing all shifters levers together to center of shifter so that the holes in the levers line up with hole "A" in the shifter frame (see drawing). Insert the neutral Alignment pin place (4) through the shifter and all levers This locks all the levers precisely at neutral.
4. Assemble transmission arms with their respective rods using nuts and washers Refer to the exploded assembly drawing for correct part relationships.
5. Install Arm/Rod assemblies on proper transmission shafts. Begin with 1st/2nd assembly, then install 3rd/4th, then 5th/6th, and finish with reverse Fasten arms to shafts with nuts and lock washers that were removed from the shafts. All arms must be in their neutral positions while alignment is established Neutral is the detent at the middle between limits of travel (rotation) of transmissions arms.
6. Start rod adjusting buttons onto threaded ends of rods and adjust position of buttons to allow easy slip fit of button point into hole in its respective shifter lever. Fasten buttons in levers with spring clips.
7. Remove neutral alignment pin. Test shifter. Pull the stick over toward driver, then push it forward into 1st gear. Shift through the pattern 1 2 3 4 5 6 (refer to the following drawing of the shifter pattern on the sheet) The stick will normally rest in the 3-4 track when stick is moved to neutral and released Check reverse engagement If any difficulty is encountered during test shifting, return stick to neutral, re-inset neutral alignment pin and check by removing spring clips from buttons one at a time. Buttons must withdraw from and re-enter holes in shifter levers freely. Adjust the buttons, as necessary, to gain free entry of the buttons into the holes in levers.
8. Adjust stop bolt for 1st-3rd-5th gears by pushing handle to extreme front, tighten rear stop bolt finger-tight and lock locknut. For 2nd-4th-6th gears push handle to extreme rear, tighten front stop bolt finger-tight and lock locknut.

*****CAUTION*****

**DO NOT ALLOW STICK TO BE PULLED INTO REVERSE WHILE
VEHICLE IS IN FORWARD MOTION**

9. After installation has been completed, check for possible interference due to excess length of rods protruding behind shifter levers Excess length of rods protruding behind shifter levers. Excess length may be cut off with a hacksaw. A minimum length of 1/2 inch of threaded rod must extend beyond rod buttons.
10. Lubricate ends of rods at arms and buttons with light oil or grease

SHIFTING PATTERN



(PUSH DOWN HANDLE FOR REVERSE)

ATTENTION

Due to variations in auto manufacturing tolerances the transmission rods supplied with this kit may require slight bending to clear obstructions etc. Protect threads while bending rods.

HEAT MUST BE APPLIED TO BEND RODS.

CONTENTS OF KIT

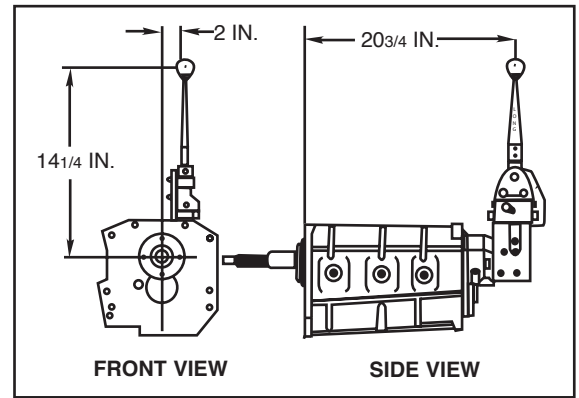
- | | |
|------------|--|
| 1. HR02 | SHIFTBASSMBY |
| 2. HR01 | MOUNTING PLATE |
| 3. HR1075 | SHIFTB HANDLE |
| 4. HR04 | NEUTRALALIGNMENT PIN |
| 5. HR6028 | REVERSEBUTTON |
| 6. HR06 | SPRING CLP (4) |
| 7. HR07 | 1ST 2ND AND 3RD/4TH ARM (2) |
| 8. HR08 | REVERSEARM |
| 9. HR09 | ROD 1ST/2ND |
| 10. HR10 | ROD 3RD/4TH |
| 11. HR11 | ROD 5TH/6TH |
| 12. HR12 | ROD REVERSE |
| 13. HP2125 | HANDLE SPACER |
| 14. | 1/2-13 X 2 1/2 HEX HEAD CAP SCREW |
| 15. | 3/8-16 X 2 1/2 FLAT HEAD CAP SCREW (2) |
| 16. | 3/8-16 X 1 FLAT HEAD SOCK SCREW (3) |
| 17. | 1/2-13 LOCKNUT |
| 18. | 3/8-16 LOCKNUT (2) |
| 19. | 3/8 LOCKWASHER (6) |
| 20. | 3/8-24 HEX HEAD NUT (NOT SUPPLIED) |
| 21. | 3/8-16 LOCKNUT (4) |
| 22. | 3/8-24 X 1-1/4 STOP BOLT |
| 23. | 2 3/8-24 X 1-1/4 JAM NUT (2) |
| 24. | BB6 SHIF BALL |
| 25. | 3/8-24 X 1-1/4 HEX HEAD CAP SCREW (3) |
| 26. | HR208 ROD 3RD/4TH HYMEN |
| 27. | 3/8-24 HEX NUT (3) |
| 28. | 3/8-24 X HEX HEAD CAP SCREW (2) |
| 29. | 3/8 LOCKWASHER (2) |
| 30. | HR28 HYMEN (2) |
| 31. | HR602 5TH/6TH ARM |
| 32. | HP2115 ROD ADJUSTING BUTTON (3) |

LONGS MACHINE AND TOOL
150 N. GRANT STREET
CLEONA, PA 17042
717-202-8360

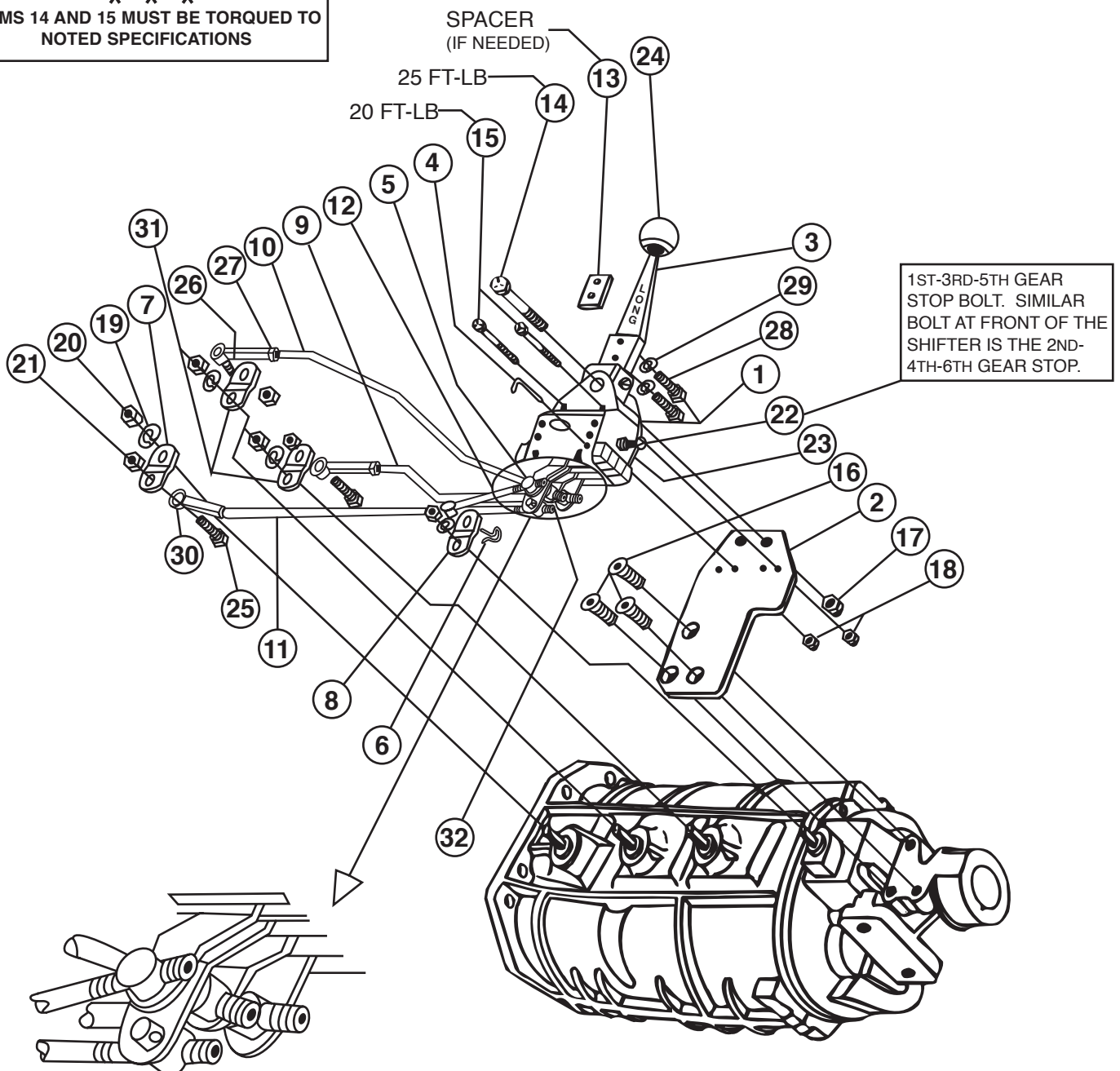
HR-6000

FITS MOST APPLICATIONS

PATENT NUMBER 4,781,074



* * *
ITEMS 14 AND 15 MUST BE TORQUED TO
NOTED SPECIFICATIONS

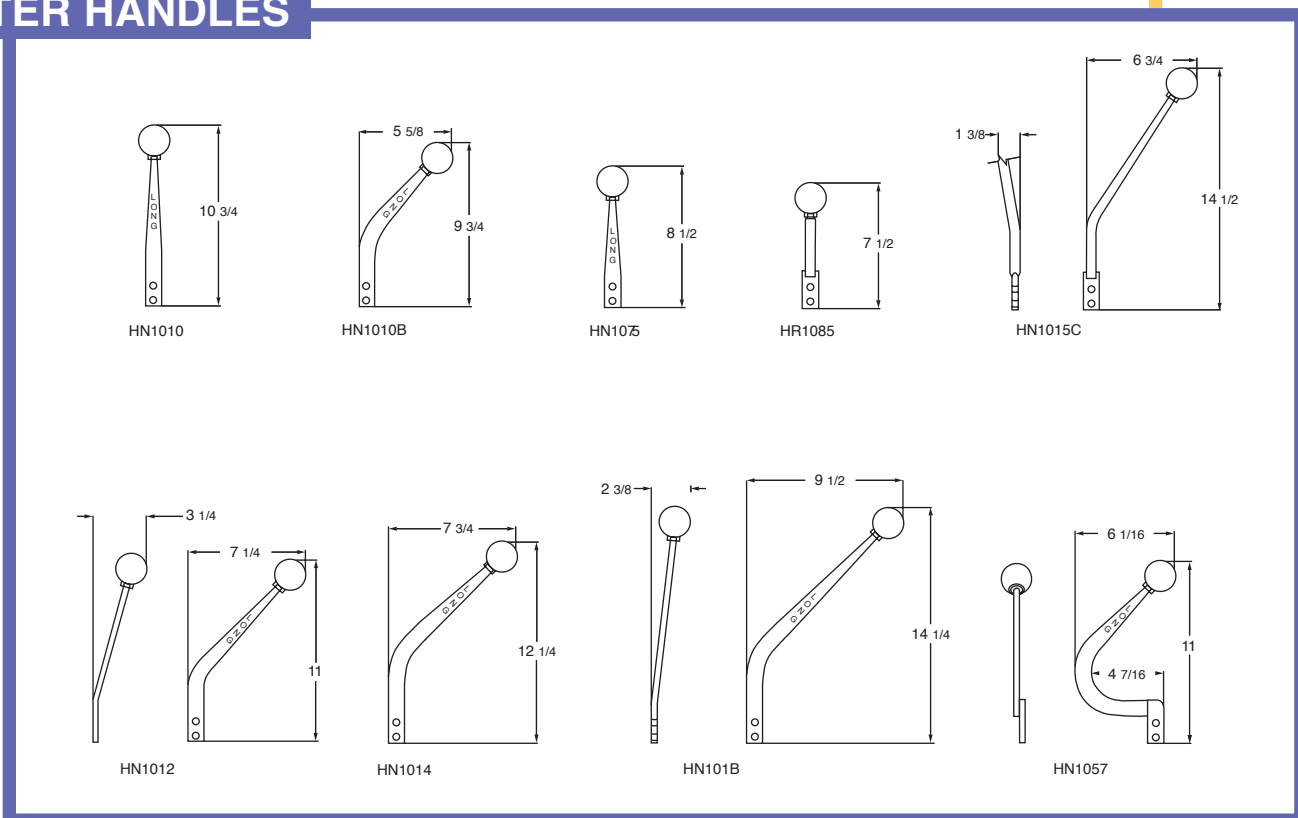


ACCESSORIES

SHIFTER KNOBS



SHIFTER HANDLES



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