



PART NO.
#383 8515

V-MATIC 2TM

Automatic Transmission Shifter

CAMARO '73 - '81
FIREBIRD '70 - '81

383-8515 MG637

Congratulations on your purchase of the . . . **V-MATIC2TM** . . . the ultimate shifter.

The finest dual action shifter on the market today, with the look of a 4-speed.

V-MATIC2TM operates as a stock unit, or when you need precise transmission control push down into neutral and pull back to enter the ratched mode, for a true racing shifter.

Consider these features:

- Top choice for street or strip.
- Brushed aluminum Hurst "T" Handle.
- Progressively illuminated gear indicator.
- Trigger operated reverse lock-out built for racing.
- All necessary installation hardware is included with every **V-MATIC2TM**.

Before you begin installation of the **V-MATIC2TM** please take a few minutes to read this instruction booklet . . . it will make your installation of the **V-MATIC2TM** much easier.

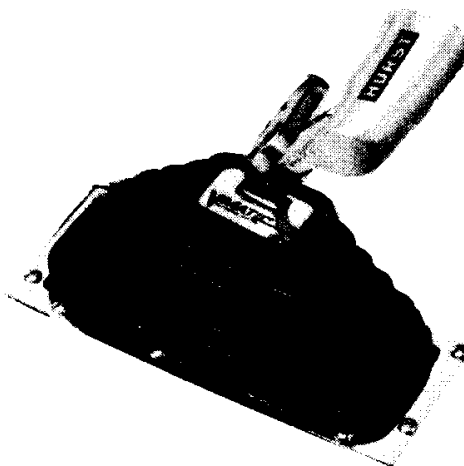
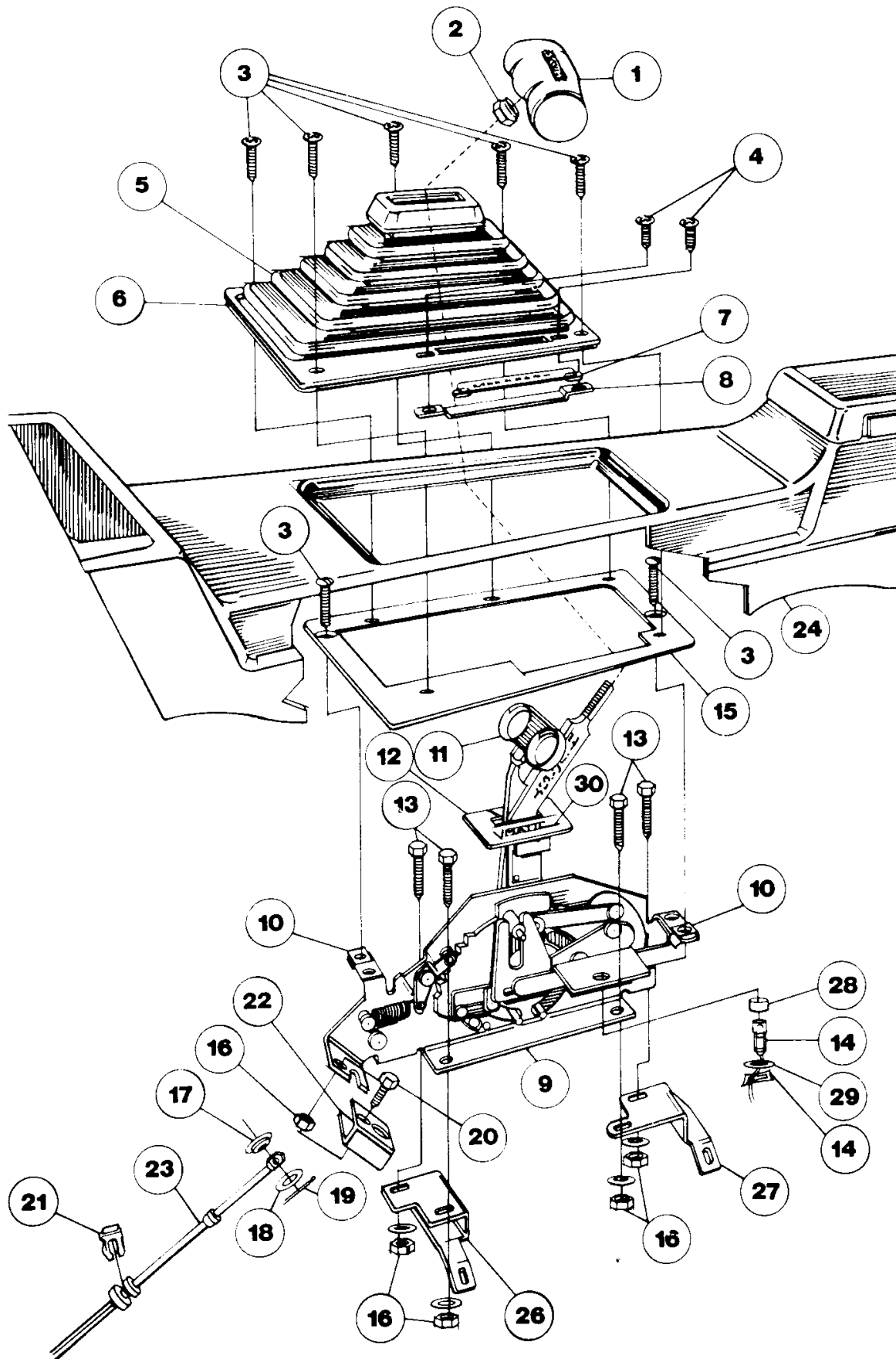


FIG. 1



PARTS LIST

ORDER NO.

1. T-Handle	1534810
2. Chrome Jam Nut	1794719
3. Self-Tapping Screw, #8 x 3/4	97093105
4. Machine Screws #10-32 x 3/8	97093235
5. Rubber Boot	1148572
6. Chrome Retainer Plate	1958573
7. Indicator Lens—3 spd	2418570
8. Lens Clamp	97X93213
9. Shifter Mechanism	3830506
10. Speed Nut	97093081
11. Trigger	3078576
12. Boot Top Plate Assy	97093204
13. Hex Bolt 1/4" x 1	97080969
14. Indicator Light Assy. w/speed nut	1578575
15. Console Plate	97X93211
16. Hex Nut 1/4	97000910
17. Cable Bushing	97X93224
18. 3/16" Washer	97000905
19. Cotter Pin	97093086
20. Hex Bolt 1/4" x 1/2"	97000092
21. Factory GM Cable Retaining Clip GM part no.	334961
22. Cable Adapter Bracket	97X93209
23. Factory GM Cable	
24. Factory GM Console	
25. Steel Plate (Cable Hole Cover) 4-1/4" x 5-1/2"	97093069
26. Floor Mounting Bracket — Front	97X93207
27. Floor Mounting Bracket—Rear	97X93208
28. Lens Sleeve	97093246
29. Flat Washer	97000729
30. V-Matic Decal	97093234

TOOLS REQUIRED FOR INSTALLATION

2 or 4 Jack Stands	Electrical Tape
Drill Motor	Pliers
1-1/4" Hole Saw	Phillips Screwdriver
3/16" Drill Bit	3/8" Ratchet
Hammer	5/16" Allen Wrench
Round File	3/8" Extensions
Center Punch	7/16" Socket
Wire Strippers	1/2" Socket
Wire Crimping Tool	5/16" Socket
Wheel Ramps, or a lift	5/16" End Wrench
Sheet Metal Cutters	3/8 End Wrench
Scissors or Single Edge Razor Blade	7/16" End Wrench
1/8" Drill Bit	1/2" End Wrench
Tape Rule	9/16" End Wrench

INSTALLATION INSTRUCTIONS

1. Perform this installation on a good level surface for maximum safety.
2. Place wheel chocks or wood 2 x 4's in front and rear of one tire.
3. Disconnect battery ground cable and place shifter in neutral.
4. Remove two screws in bottom of console glove box. Lift glove box out of console.
5. Remove console mounting screws. There is one on each side of front, under dash, and two at the rear under the glove box.
6. Remove four allen socket screws on the shifter console plate.
7. Lift console at rear and carefully place console plate through opening. While lifting console up, slide it back and out.
8. Remove the two cable clips #21 and #19 located at front of shifter and at cable end pivot. Save them as they must be used again (See Figure 1). Cut factory console light wire close to shifter with wire cutters.
9. Remove the four shifter floor mounting bolts and again keep screws.
10. Shifter can now be lifted back and out. Be sure cable is free as shifter is removed.
11. Remove the two cable boot retainer screws from floor. Keep these screws also as they must be used again.
12. A hole must be cut in the floor with a hole saw or sheet metal cutters to relocate the cable. (See Figure 2) for proper location and hole size.
13. After hole is cut in floor, place boot retainer plate over new hole. Center it over hole and center punch floor through the two small holes. Using an electric drill, carefully drill two 1/8" holes. (See Figure 2.)
14. Carpet must be trimmed to clear new cable boot location. (See Figure 2.)

FIG. 2 Notch carpeting around top of hole to clear factory rubber cable boot.

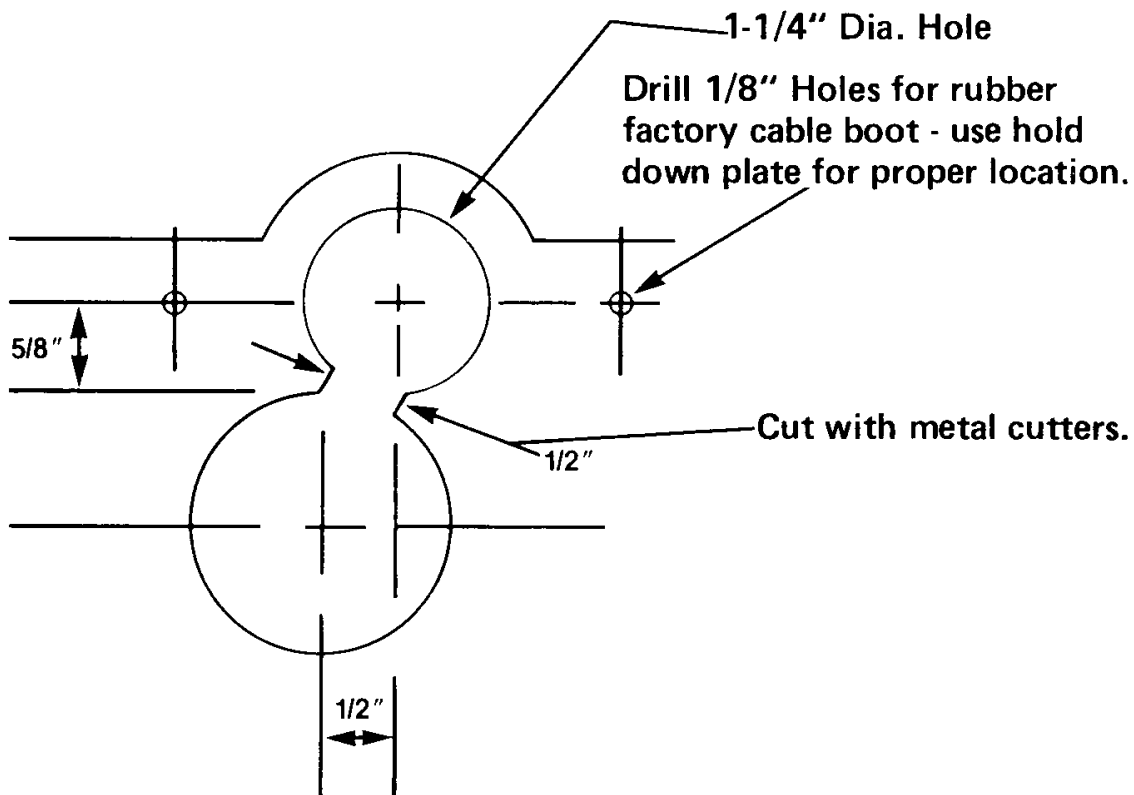
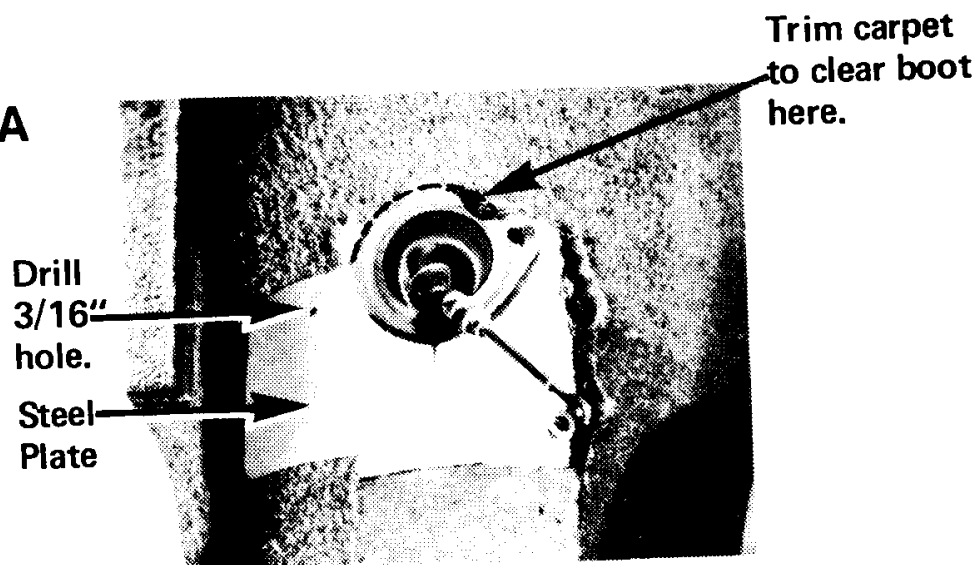
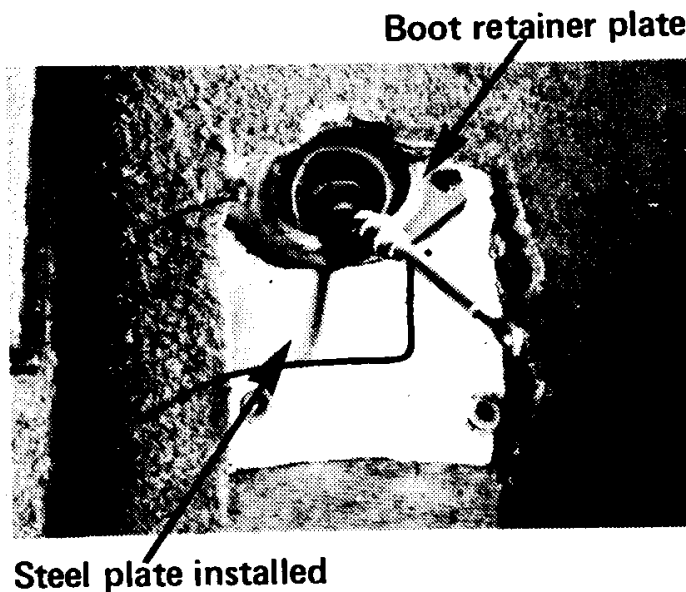


FIG. 2A

15. Supplied in this kit is a steel plate approximately 4-1/4" x 5-1/4" for covering the factory cable hole. This plate must be bent to the contour of the floor and trimmed to clear the cable boot. A 3/16" hole must be drilled in this plate in line with the boot plate (left side) hole. (See Figure 2A).
16. Slip steel plate under rubber boot and align the 3/16" hole. Place boot retainer plate over boot and install screws. The cable must be held in position until screws are tightened down. (See Figure 2B).

FIG. 2B

17. Attach to shifter mechanism #9 the front and rear floor mounting brackets #26 and #27 (See Figure 1). Attach these loosely with 1/4" bolts #13, nuts #16 and lock-washers.
18. Attach the cable adapter bracket #22 to shifter mechanism with 1/4" x 1/2 self locking bolt #20, and nut #16 (See Figure1).
19. Place **V-MATIC 2™** shifter over the factory shifter floor mounting nuts. The cable must be carefully inserted through the cable adapter holes as shifter is installed.
20. Align the shifter mounting bracket slots with the floor mounting nuts and screw in factory bolts loosely. At this point, tighten the 1/4" bolts #13 and nuts #16 securely.

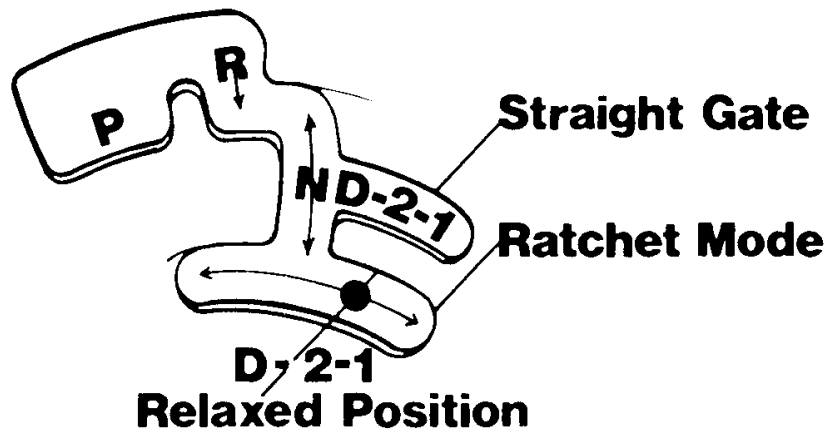
21. Align shifter vertically on floor. If necessary, move it left or right then tighten floor mounting bolts down.
22. Attach factory cable #23 to shifter mechanism. The cable bushing #17 must first be placed over the drive pin. Position the cable end over the bushing, then the flatwasher #18 and factory hair pin, or the cotter pin #19 supplied. Install the factory cable retaining clip #21 (See Figure 1).
23. Slip two speed nuts #10 onto shifter mechanism as shown (See Figure 1).
24. Attach the console plate #15 with two screws #3.
25. Splice factory console light wire into the **V-MATIC 2™** light wire using a butt splice wire terminal or desired connector. Be sure to properly insulate the terminal with electrical tape. This light will only operate when the instrument lights are turned on. If desired, this wire can be connected to an accessory terminal at the fuse block that would switch the indicator light on when the ignition key is in the **on** position. **This is the best method which allows you in daylight to see the gear indicator. Connect battery ground cable.**
26. **Carefully install factory console #24 over V-MATIC 2™ shifter.** Align console mounting holes under the console glove box and attach two GM factory screws. Attach front dash console mounting screws.
27. Check alignment of shifter with console opening. It may be necessary to loosen the shifter mounting bolts and re-position it at this point.
28. Before installing the rubber boot, the bottom flange must be trimmed. To do this place chrome boot retainer plate over rubber boot on a workbench or flat surface. Align plate holes with boot holes and mark boot with a pencil along both sides. Trim rubber boot flange on pencil lines with a razor blade or scissors.
29. Install the indicator lens #7 into the chrome boot retainer plate #6 from the bottom side, use lens plate #8 and screws #4 (See Figure 1). The indicator lens supplied with the shifter is designed for a standard shift pattern automatic valve body. If your transmission has a reverse pattern manual valve body, an indicator lens part no. 241-8569 will be needed. This can be purchased from your Hurst Dealer.
30. With the T-Handle removed, install the rubber boot. Carefully stretch it over the trigger and onto the chrome boot top plate #12.
31. Place chrome boot retainer plate #6 over boot and align the holes with the boot and the console plate #15.
32. Install five screws #3 through chrome boot retainer plate #6 rubber boot and console plate. Snug them down.
33. Thread jam nut #2 and T-Handle #1 onto shifter lever.
34. The cable and adjustment must now be checked at the transmission arm. To do this, raise the vehicle and place it on jack stands, ramps, or a lift. Be sure that the vehicle is safely supported. Place the shifter in first gear position or (third gear in reverse valve bodies). Remove the cable clip and slide the cable eyelid off of the pin. It must slide on and off without binding. Adjust the cable pin if necessary and reassemble using factory GM cable clip. Check Park position. Lower the vehicle and set the parking brake. **CAUTION: The engine must start only in Park or Neutral. The back up lights should only work in reverse. Turn lights on and check gear indicator light. The shifter operation can now be checked. Without the engine running shift it through the pattern. (See Step 35) Then place the shifter in park and start the engine. Check through the pattern again.**

SHIFTER OPERATION STRAIGHT GATE MODE

35. The upper position of the shifter operates the straight gate mode of Park, Reverse, Neutral, Drive, 2nd and 1st. The handle moves straight backward from Park to Neutral but must be lifted to clear the safety stop between Park and Reverse. Once in Reverse the handle drops and the shifter is ready for a straight pull back to Neutral.

After Neutral is engaged, you have the choice of either pulling straight back to D, 2, or 1 positions or instead pushing straight down on the T-Handle then back into the ratchet mode of D, 2, or 1. In the ratchet mode, the first pull back will be Drive position. Release the T-Handle and the shifter will return to a relaxed position. Another pull back will engage 2nd gear. Release and another pull back will engage 1st gear. To upshift, push the T-Handle forward until it stops and release. This procedure must be done for each gear until Neutral is reached. At this time, the T-Handle will spring upward. To engage Reverse, the trigger must be lifted with two fingers and the T-Handle pushed forward. To shift into Park, lift trigger and push T-Handle forward to stop. Release trigger and T-Handle and Park is secured.

V-Matic Shift Pattern



383-8515 M6637

36. After shifter is operational, indicator lens can be positioned for proper gear engagement over indicator light. To do this, loosen two screws #4 and slide lens to desired position by moving either of the screws with a phillips screwdriver forward or back.
37. If the indicator light is not up close enough to the indicator lens, it can be raised. If this is desirable, remove the bulb by pulling it out through the bottom. Hold speed nut with your fingers or a pair of pliers. Turn the plastic lens with your fingers until it threads itself off of speed nut. Place extra washer under #29 washer and re-assemble the unit. The speed nut can be pushed straight up going back on. With chrome retainer plate #6 in place check for indicator lens sleeve interference with lens clamp #8. Throughout the shift pattern the lens sleeve #28 should not come in contact with any other part.
38. To complete the installation, pull the rubber boot downward below the chrome top boot plate #12. Attach **V-MATIC2™** decal as in Fig. 1. Pull boot up onto the plate and the installation is complete.

LIMITED WARRANTY

Hurst Shifter warrants the products in this booklet only to the original purchaser at retail to be free from defective materials and workmanship for a period of 12 months from the date of original retail purchase.

WHAT IS COVERED: All parts which are defective in materials or workmanship, subject to the following:

WHAT IS NOT COVERED: (1) Products which have been subjected to abuse, accident, alteration, modification, improper installation, tampering, negligence, misuse, or if repaired or serviced by anyone other than a service facility authorized by Hurst Shifter to render such service; (2) Operational adjustments or procedures covered in the instruction/installation material, if any; (3) Actual or alleged labor, transportation, or other incidental charges; (4) Actual or alleged consequential damages incurred by use of this product.

WHO IS COVERED: The original purchaser, at retail.

WHAT WE WILL DO: Hurst Shifter, at its election, will for a period of 12 months from the date of original retail purchase, either repair or replace all defective parts free of charge or refund the purchase price for the defective product.

WHAT YOU MUST DO FOR WARRANTY SERVICE: In the event that the original retail purchaser detects a defect in the material or workmanship, the product(s) in question must be returned by the original retail purchaser to the place of original purchase for warranty determination. In the event that the purchaser does not receive satisfaction from the place of original purchase or in the event there are any questions with regard to this limited warranty, please write the Customer Service Department, Hurst Shifter, 8700 Brookpark Road, Cleveland, Ohio 44129, or call (216) 398-8300 and ask for Customer Service. Do not send alleged defective parts to Hurst Shifter without prior receipt of authorization from Hurst Shifter to do so. Upon receipt of such authorization, the original retail purchaser should send such part and proof of purchase, postage prepaid, to Hurst Shifter at the above address.

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Manufacturers' brand names, trademarks and registered trademarks are used for reference only, and are not to imply that any product is of their manufacture or any association therewith.

Hurst Shifter makes no representation or warranty that its products comply with local, State or Federal emission levels, noise levels or safety standards. The purchaser assumes all responsibility for such use and compliance.

CONSUMER SERVICE

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

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For best results, Consumer Service calls, correspondence and warranty questions should be directed to the following address: Hurst Shifter
8700 Brookpark Rd.
Cleveland, Ohio 44129-6899
Phone: (216) 398-8300 • 9:30 a.m. - 5:00 p.m. FST

IMPORTANT NOTICE

Hurst Shifters Company strongly urges you to observe the following safety precautions. If these are followed, the V-MATIC 2™ Shifter will have a long life and give trouble free, safe service.

1. The gearshift linkage holds the transmission in the park position. Always keep the vehicle's gearshift linkage in proper maintenance and adjustment. This includes lubrication when necessary.
2. Never leave a vehicle unattended without first turning off the engine and securing the parking brake fully.
3. Always check whether the vehicle is in the "P" (Park) position after you have shifted it. To determine if the gearshift lever is fully engaged in the park position, you should not be able to pull it back toward reverse unless you pick up on the trigger.