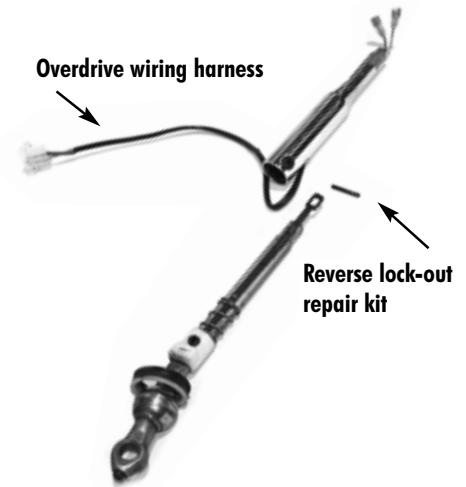


Dedicated to improving vehicle fun, safety & performance

## Installation Instructions

# Reverse Lock-out and Overdrive Shifter Repair

*ipd* #22565 and #4170

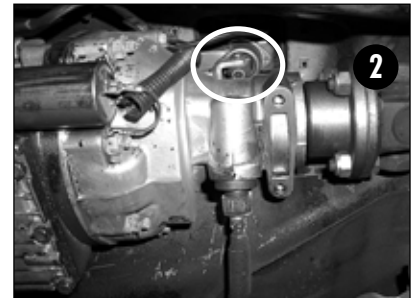


## SUGGESTED TOOLS

- Metric wrenches and sockets
- Screwdrivers
- Wire crimper
- Allen wrench

## INSTALLATION

- 1 Securely place the front of car on ramps or jack stands according to your shop manual. From under the car, remove foam insulation around linkage.
- 2 Unscrew allen set screw (4mm) at the base of shift lever where it connects to shift linkage.  
Slide pivot pin out. Usually access is best sliding it to the driver's side. Remove the pin and set it aside.
- 3 Remove the two plastic pivot pin bushings from the linkage.
- 4 Inside the car, use a small flat blade screwdriver to remove shift knob cap, overdrive button switch and shift knob (pull upwards on the knob).
- 5 Lift edge of shift boot and carpet and insert upholstery tool or thin wide blade screw driver and lever out the 4 plastic shift boot retaining pins. Be careful not to tear boot or carpet. If you are unable to reach them you can pull the front carpet up away from the floor for more room.
- 6 Lift boot and slide it off shift lever.



# INSTALLATION

**7** Follow the overdrive wires under the carpet to the passenger side foot well.

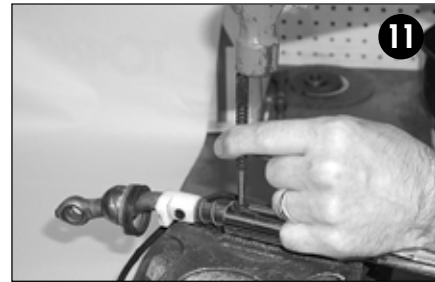


**8** Disconnect pigtail. On some cars this requires removal of one of the bullet pins from the pigtail. To dis-engage the bullet pin, look into the front side of the connector and you will see two small tabs at the base of the metal pin. They are set 180 degrees apart and are bent slightly outwards, locking the pin onto the plastic housing. Use a small flat blade screwdriver to bend the tabs inwards flush with the pin and then you should be able to pull the wire out the back side of the connector.

**9** Carefully pull the wire and pigtail back through and under carpet to shift lever opening.



**10** Using snap ring pliers remove snap ring at the base of the shift lever that retains the shifter. Depending on orientation of snap ring you may need to unbolt reverse lock out plate. Be sure to scribe a mark to aid in reinstallation and adjustment of the reverse lockout plate.



**11** Remove shifter and wires from car. On clean workbench use a small punch or drift drive out roll pin located at base of chrome outer shift lever. This will allow you to separate the upper and lower halves of the shifter.

**12** Working with the inner/lower half take off spring and set it aside as you'll need to reuse it. Unsnap reverse lock out actuating flat rod from plastic dog ( that white plastic block at the base)

**13** Attach new rod to the dog by snapping square loop over inner nub.

**14** If you're replacing the overdrive shift lever wires at this time (highly recommended) cut off the two overdrive female blade connectors at the top of the chrome shift lever.

**15** Remove lower rubber grommet that the roll pin goes through (there is another rubber grommet further up the lever which is removed in Step 17).



**16** Pull the wires out of shifter from the bottom hole.

**17** Hold chrome shift lever up to a light source. Look inside from the bottom and you will see second rubber grommet about half way up the tube. Using a long thin screw driver push grommet out working from the small end of tube. Note which side the notch in the grommet is on as this will help in reassembly process.

**18** If you haven't already, remove reverse lever ring from the shift lever. Install new one.

**19** The new wires have a holder for the two female blade connectors that the overdrive push button switch plugs into.

# INSTALLATION

- 20 Feed new wire in from the top through the knob and shift lever and out the hole on the side at the base of the shifter. Leave enough slack at the top for final assembly.
- 21 Orient upper rubber grommet so that the notch in the side is on the same side as the bottom wire outlet hole. Push grommet about half way up the tube. This holds the wires to the side so that the reverse actuating slide rod will not chafe on the overdrive wires.
- 22 Insert lower grommet into shift lever with roll pin ears protruding from the holes in shift lever.
- 23 Reassemble the two halves of the shift lever while feeding reverse actuating rod and spring through the rubber grommets in upper half of shift lever. If needed, lube with soapy water to easy assembly.
- 24 Connect square loop of the actuating rod to inner nub on the upper black reverse collar. A small flat blade screwdriver works well.
- 25 Crimp new bullet connectors (included with the OD harness kit) to the bare wires and reinstall them in the pig tail connector. If you had to remove one of the wires in Step 8, be sure to bend out the retaining tabs a bit so it will lock into the plastic connector.
- 26 Reassemble lever in car.
- 27 Route new wires under the carpet and connect pigtail.
- 28 Install pivot pin bushings and pivot pin.
- 29 Tighten allen set screw.  
**WARNING: If this comes loose and pin falls out transmission will not be shiftable. You may want to use thread lock.**
- 30 Reinstall foam insulation.
- 31 Reinstall shift boot retaining pins.
- 32 Reinstall the overdrive push button and cap.

# WARRANTY INFORMATION

## ***One Year Limited Warranty***

**ipd** warrants to the original purchaser that the parts manufactured and/or sold by **ipd** (the Product) is free from defects in material and workmanship under normal use. **ipd** warrants that the Product will perform substantially in accordance with the specifications set forth in the documentation provided with it. The above express warranties are made for a period of the lesser of 12,000 miles or 12 months from the date the Product is installed in your vehicle.

Any improper use, operation beyond capacity, substitution of parts not approved by **ipd** in writing, any alteration or repair by others, or any removal, defacing or altering of the identification shall void this warranty. There is no warranty on high-performance or race related parts due to the nature of usage.

The purchaser shall notify **ipd** at 1-800-444-6473 of any defect within the warranty period no later than thirty (30) days after purchaser discovers the defect. Should any failure to conform to this warranty appear within the warranty period, **ipd** shall, on notification, correct the nonconformity at its option, either by repairing any defective part, or by making available, FOB **ipd's** plant, a repaired or replacement part. The purchaser must insure any defective item being returned because **ipd** does not assume risk of loss or damage while in transit. No payment or reimbursement shall be made for installation, removal, transportation or other charges. The remedies set forth in this instrument are exclusive, and the liability of **ipd** with respect to any sale shall not exceed the price of the product on which the liability is based.

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