

## CHRYSLER CORP. TILT-A-SCOPE

### DESCRIPTION

Tilt-A-Scope option allows the steering wheel to be tilted to a suitable angle and then locked into position, and in addition, permits the steering wheel to be depressed or extended in its distance from the vehicle operator.

**CAUTION** — Components and fasteners used in steering column design are important in that they can affect vehicle safety and the performance of vital systems if not serviced properly. All replacement parts must be of equal part number or equivalent quality. DO NOT use a part of lesser quality or substitute design.

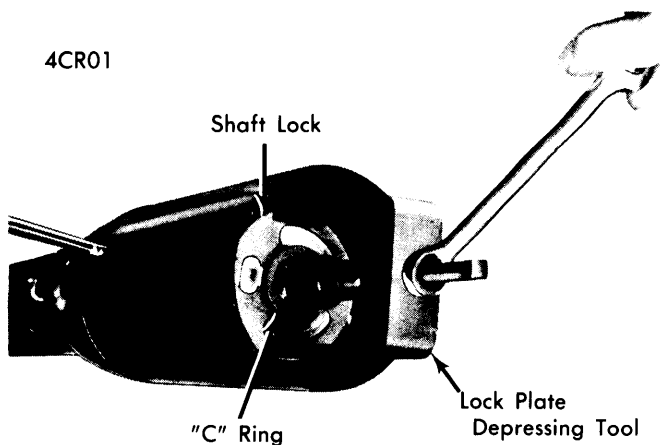
### REMOVAL & INSTALLATION

The removal and installation of the Tilt-A-Scope steering column is the same procedure used to remove and install the Collapsible Steering Column. See *Chrysler Corp. Collapsible Steering Column* in this section.

### DISASSEMBLY

#### STEERING COLUMN

1) Remove steering wheel from column and remove steering column from vehicle; attach suitable column holding fixture (C-4132) to jacket pads and clamp assembly in a vise. Remove tilt lever and turn signal lever. Push hazard warning knob in and unscrew knob. Remove ignition key lamp assembly.

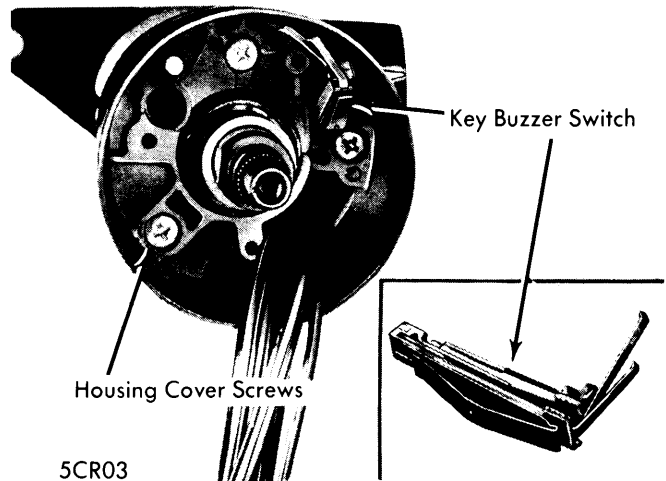


#### REMOVING OR INSTALLING LOCK PLATE "C" RING

2) Lock telescoping shaft with a set screw and install suitable lock plate compressing tool (C-4118). Depress lock and carrier to remove "C" ring. Remove tool, lock plate, carrier and spring. Remove turn signal switch screws, place shift lever in "LOW" and remove switch and wiring. Buzzer switch can be pulled straight out of housing. A flat spring wedges switch toward lock cylinder. **NOTE** — Switch may be removed without removing lock cylinder. If lock cylinder is in housing, it must be in the "ON" position.

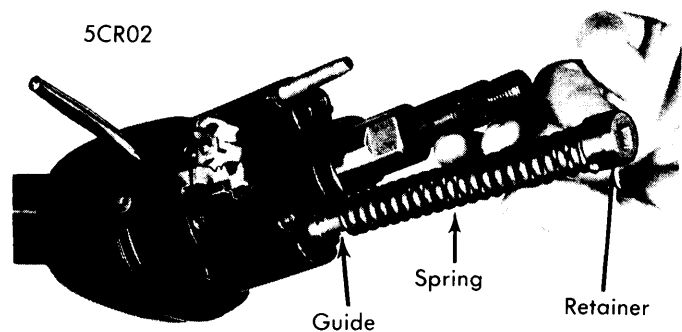
3) If removing lock cylinder, it should be in "LOCK" position. Insert a thin tool into slot next to switch mounting screw boss

(right hand slot), and depress spring latch at bottom of slot to remove lock. Remove housing cover, install tilt release lever and place column in full-up position. Remove tilt spring retainer using a large Phillips head screwdriver that just fits into opening. Insert screwdriver into opening and press in about  $\frac{3}{16}$ " , turn  $\frac{1}{8}$  turn counterclockwise until ears align with grooves in housing and remove spring with guide.



#### KEY BUZZER SWITCH

4) Remove seat and upper bearing race. With ignition switch in "LOCK", remove switch screws and switch. Use suitable pivot pin remover tool (C-4016) to remove both pivot pins. Use tilt release lever to disengage lock shoes. Remove bearing housing assembly by pulling upward to extend rack full down and moving housing assembly to the left to disengage rack from actuator. Remove actuator rod assembly.



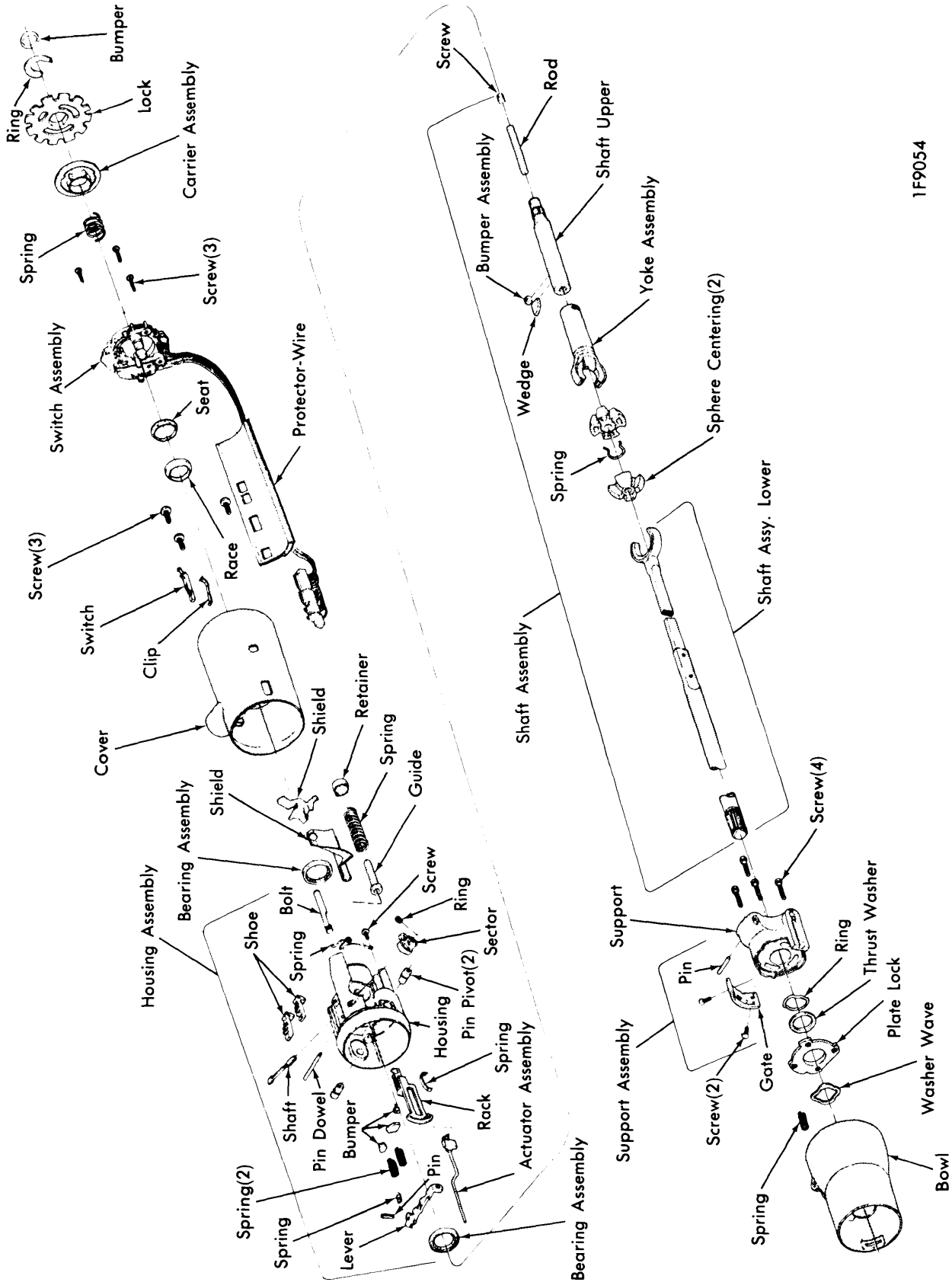
#### TILT SPRING, RETAINER & GUIDE

5) Remove roll pin and coupling assembly from lower end of steering shaft. Remove shaft assembly from upper end of column. Disassemble steering shaft assembly by removing centering spheres and anti-lash spring. Disassemble upper steering shaft, locking wedge, and locking rod from upper yoke.

6) Remove bolts securing support to lock plate and remove support from end of column jacket. If necessary, remove attaching screws and shift gate from support. Remove shift tube retaining ring and thrust washer. Bearing can be removed

# Movable Steering Columns

## CHRYSLER CORP. TILT-A-SCOPE (Cont.)

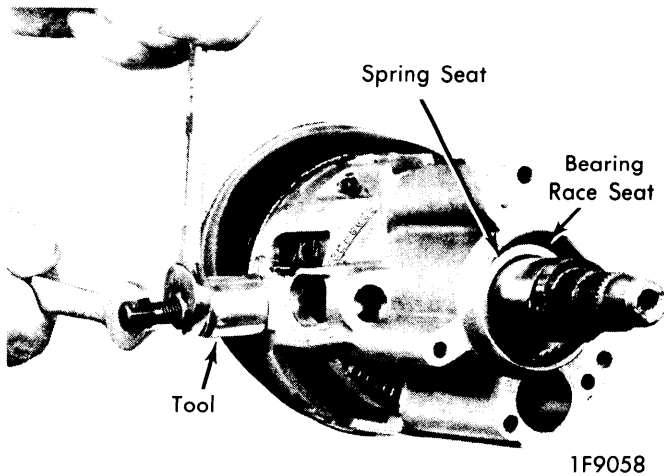


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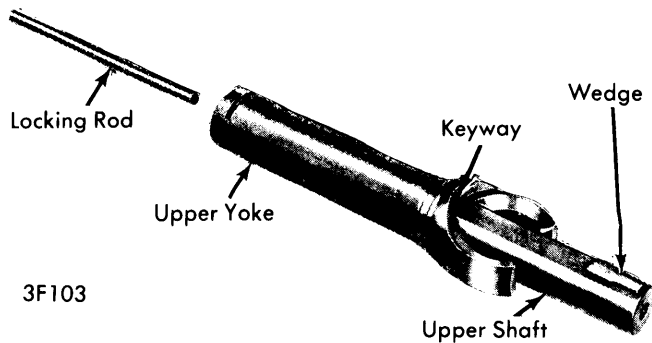
CHRYSLER CORP. TILT-A-SCOPE STEERING COLUMN

## CHRYSLER CORP. TILT-A-SCOPE (Cont.)

from end of shift tube by gently prying. The column jacket with shift tube and bowl are serviced only as an assembly.



**REMOVING PIVOT PIN**



**UPPER SHAFT & YOKE**

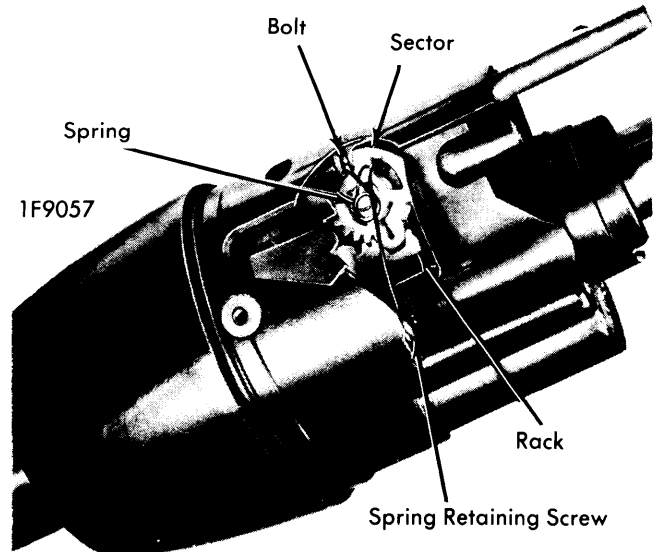
### BEARING HOUSING

**Disassembly** — 1) Remove tilt lever opening shield and remove turn signal lever opening shield from housing. Remove lock bolt spring by removing spring retaining screw and moving spring clockwise. Remove snap ring from sector drive shaft. Use a small punch to tap drive shaft from sector. Remove drive shaft, sector and bolt. Remove rack and rack spring.

2) Remove tilt release lever pin with a punch. Remove lever and release lever spring (to relieve load on release lever, hold shoes inward and wedge block between top of shoes and bearing housing). Remove lock shoe pin, remove lock shoes and springs (with tilt lever opening on left side, shoes facing up, the four-slot shoe is on the left). Remove bearings from housing only if they are to be replaced. Remove separator and balls from bearing. With a pointed punch against back surface of race, carefully hammer race from housing until bearing puller can be used.

**Reassembly** — 1) Install bearings in housing if removed. Install lock shoe springs, lock shoes and shoe pin (use a rod about .180" diameter to line up shoes). Install spring, release lever and pin. Relieve load on release lever as outlined in disassembly.

2) Install drive shaft. Tap sector on shaft far enough to install snap ring. Install lock bolt and engage with sector cam surface. Install rack and spring. Block tooth on rack must engage block tooth on sector. Install external tilt release lever. Install bolt spring and retaining screw, tighten screw as required.

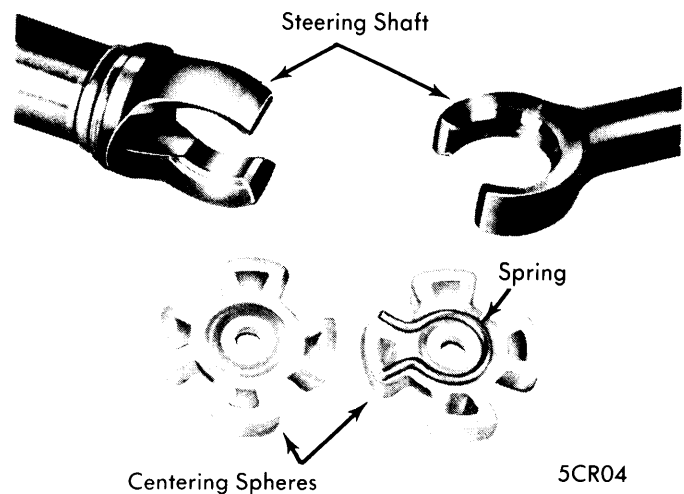


**SECTOR & BOLT SPRING**

### REASSEMBLY

### STEERING COLUMN

1) Install thrust washer and retaining ring by pulling bowl up to compress wave washer. Install support by aligning "V" notches in support and jacket. Insert screws through support into lock plate and tighten as required. Install lower bearing, if removed, in lower end of shift tube. Locate about  $\frac{3}{16}$ " inside of tube. Install centering spheres and anti-lash spring in upper steering yoke. Install lower steering shaft from same side of spheres that spring ends protrude (see illustration). Install upper steering shaft, locking wedge and locking rod in yoke (see illustration).



**SHAFT CENTERING SPHERES**

## CHRYSLER CORP. TILT-A-SCOPE (Cont.)

2) Install shaft assembly in shift tube from upper end. Carefully guide shaft through tube and bearing. Install ignition switch actuator rod through bowl from bottom and insert in slot, in support. Extend rack down from bearing housing. Install bearing housing over steering shaft and engage rack over end of actuator rod. Install external tilt release lever and, holding lock shoes in disengaged position, assemble bearing housing over steering shaft until pivot pin holes line up. Install pivot pins.

3) Place housing in full up position and install guides, tilt spring and retainer, using a Phillips screwdriver. Turn retainer clockwise to engage. Install tilt lever opening shield and turn signal lever opening shield in housing. Remove tilt release lever, install housing cover and tighten screws as required. Position buzzer switch to spring clip with formed end of clip under switch end and spring bowed away from switch on side opposite contact. Push switch into hole in cover to step with contacts toward lock bore.

4) Install signal switch wires and connector through cover, bearing housing and bowl. Install switch and tighten screws as required. Install over upper steering yoke, upper bearing race, seat, spring, carrier assembly and lock plate. Install lock plate "C" ring by reversing removal procedure. Install tilt release lever and turn signal switch lever. To install lock cylinder, turn key to "LOCK" position and remove key. Insert cylinder into housing until it contacts switch actuator. Press inward and move actuator rod up and down to align parts. When parts align, cylinder will move in and the spring loaded retainer will snap into place locking cylinder within housing.

5) Place ignition key in "LOCK" position and set ignition switch in lock as follows: Move switch slider toward steering gear end, then move back one position toward steering wheel, to lock position. Fit actuator rod into slider hole and assemble to column with correct length screws. Push switch lightly toward steering gear end to remove actuator rod lash, and tighten switch screws. **CAUTION** — *Ensure that switch does not move out of lock position.* Install wire cover on column and remove column from vise and holding fixture. Install bracket on column and tighten screws as required. Align master splines and install coupling on steering shaft, then drive in roll pin.

### TIGHTENING SPECIFICATIONS

| Application                                     | INCH Lbs.   |
|---|-------------|
| Sector & Lock Bolt Retaining Spring Screw ..... | 35          |
| Lock Plate Screws .....                         | 60          |
| Housing Cover Screws .....                      | 45          |
| Signal Switch Screws .....                      | 35          |
| Lock Cylinder Screws .....                      | 35          |
| Column Bracket Screws .....                     | 120         |
| Column Clamp Stud .....                         | 20          |
| Column Clamp Nut .....                          | 110         |
| Flexible Coupling Bolts .....                   | 200         |
| Support Plate Bolts .....                       | 200         |
| Steering Wheel Nut .....                        | 60 Ft. Lbs. |