

Steering Columns

FORD MOTOR CO.

All Models

DESCRIPTION

All models use steering columns with shift control rod within column tube. Directional signal switch and lever are only controls found on or in column tube. There are no ignition switches or steering column locking devices. Columns are not collapsible.

REMOVAL & INSTALLATION

"F" MODELS

Removal - 1) Position front wheels in straight ahead position and mark steering shaft flange-to-flexible coupling with chalk for reinstallation alignment. Remove steering wheel, then remove cover from instrument panel pad. Disconnect turn signal and back-up switch wires. Remove seal and toe-plate attaching screws from inner side of dash panel.

2) Disconnect shift rods at column shift levers. Remove steering column-to-lower bracket clamp, then remove lower bracket from outer side of dash panel by removing three attaching screws. Remove steering shaft flange-to-flexible coupling nuts. Remove column upper bracket-to-instrument panel screws, then remove steering column through dash panel opening toward inside of vehicle.

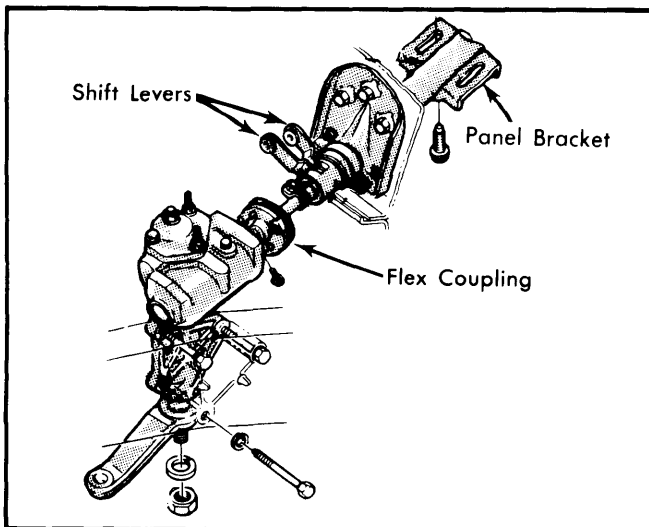


Fig. 1 "F" Models Steering Column Installation

Installation - 1) Position column in vehicle and loosely install two attaching screws retaining upper bracket to instrument panel. Align flexible coupling to steering shaft flange using chalk mark made upon removal and install attaching nuts.

NOTE - Before tightening nuts make sure coupling pins are centrally located in steering shaft slots.

2) Move steering column up and down until flexible coupling and steering shaft axial planes are in alignment, then tighten upper bracket-to-instrument panel screws. Connect column shift levers to shift rods and wires to back-up switch and turn signal. Install toe-plate and seal to dash panel, then install cover to instrument panel.

3) Install steering wheel on shaft. Position lower support bracket on steering column and against dash panel, then install and tighten attaching screws. Install bracket clamp and tighten. Road test vehicle and recheck to ensure flexible coupling and steering shaft are in alignment with coupling pins centrally located in slots.

BRONCO

Removal - 1) Disconnect horn, turn signal and back-up light wires. Remove safety pad, horn ring, and their attaching screws. Remove steering wheel, then steering shaft-to-gear clamp retaining bolt and nut. Disconnect shift rods at column shift levers. Remove clamp retaining the column to support bracket on dash panel.

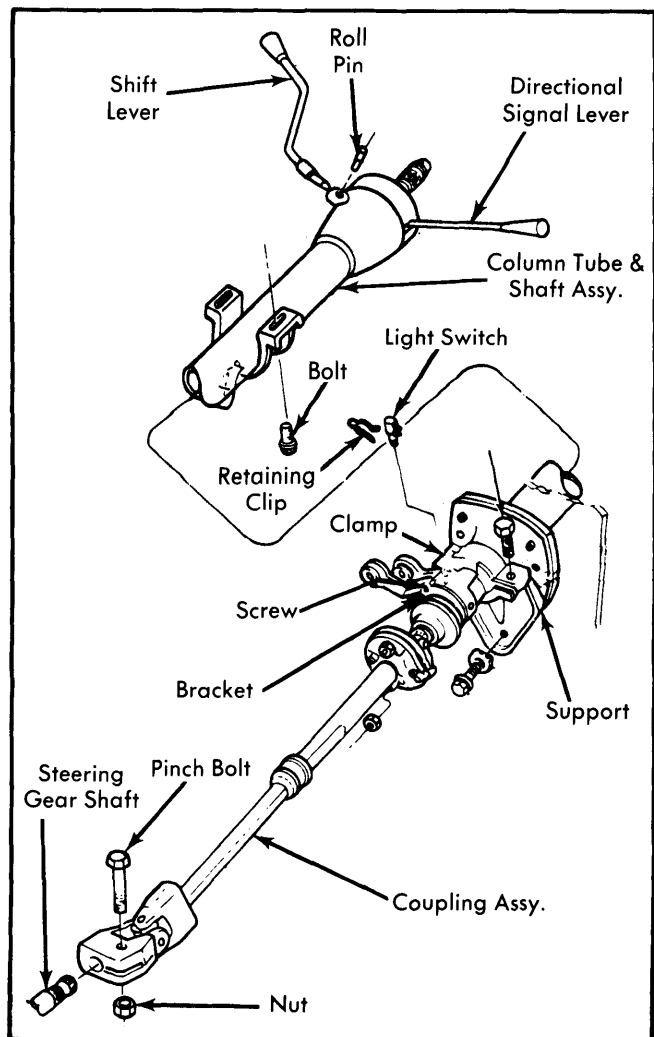


Fig. 2 Bronco Steering Column Installation

2) Remove trim cover attaching screws and trim cover. Remove column-to-upper support bracket attaching bolts, then remove bolts securing upper support bracket to gain clearance for column removal. Remove plate and dust seal assembly, and remove steering column from vehicle.

FORD MOTOR CO. (Cont.)

Installation — 1) Install column through opening in instrument and dash panels and align flex coupling to gear. Position column to upper support bracket and tighten attaching bolts. Install clamp retaining bolt and tighten. Install plate and dust seal assembly to dash panel.

2) Position column support bracket against dash panel and on column, then install and tighten bolts. Install and tighten support bracket clamp. Slide telescoping intermediate steering shaft up or down until flexible coupling and steering shaft axial planes are in alignment. Connect shift rods to shift levers and install new retainer clips.

3) Install trim cover on instrument panel and steering wheel on steering shaft. Install horn pad and connect turn signal wire and back-up switch wire. Road test vehicle and recheck alignment of flexible coupling and steering shaft.

"E" MODELS

Removal — 1) Position front wheels in straight ahead position and mark steering shaft flange-to-flexible coupling with chalk for reinstallation alignment. Remove steering wheel, then remove cover from instrument panel pad. Disconnect shift rods at column shift levers, back-up switch wire and ignition switch wire connector.

2) Remove steering shaft flange-to-flexible coupling nuts. Remove three attaching bolts for column opening cover plate and seal assembly-to-inner side of dash panel. Loosen lower clamp bolt for steering column. Remove upper bracket-to-

brake support bracket attaching bolts, then remove column through dash panel and into vehicle.

Installation — 1) Position column in vehicle and loosely install two bolts securing column upper bracket to brake support bracket. Align flexible coupling to steering shaft flange using chalk mark made upon removal and install attaching nuts.

NOTE — Before tightening nuts make sure coupling pins are centrally located in steering shaft slots.

2) Pull steering column upward until flexible coupling is in a position between flat and concaved upward $\frac{3}{32}$ " , then tighten upper bracket-to-brake support bracket bolts. Connect shift levers to shift rods. Position cover plate and seal assembly against dash panel and tighten bolts so seal is not distorted. Position clamp against cover plate so window in clamp engages tab on column and tighten clamp bolt. Connect ignition wire connector wire and back-up switch wire. Install instrument panel cover and steering wheel. Road test vehicle and recheck to ensure coupling pins are centrally located in slots of flexible coupling.

OVERHAUL

ALL MODELS

Disassembly — 1) With steering column removed from vehicle, remove shift lever roll pin with a small drift punch. Remove the shift lever and directional signal lever. Remove directional signal unit screws and remove unit from column.

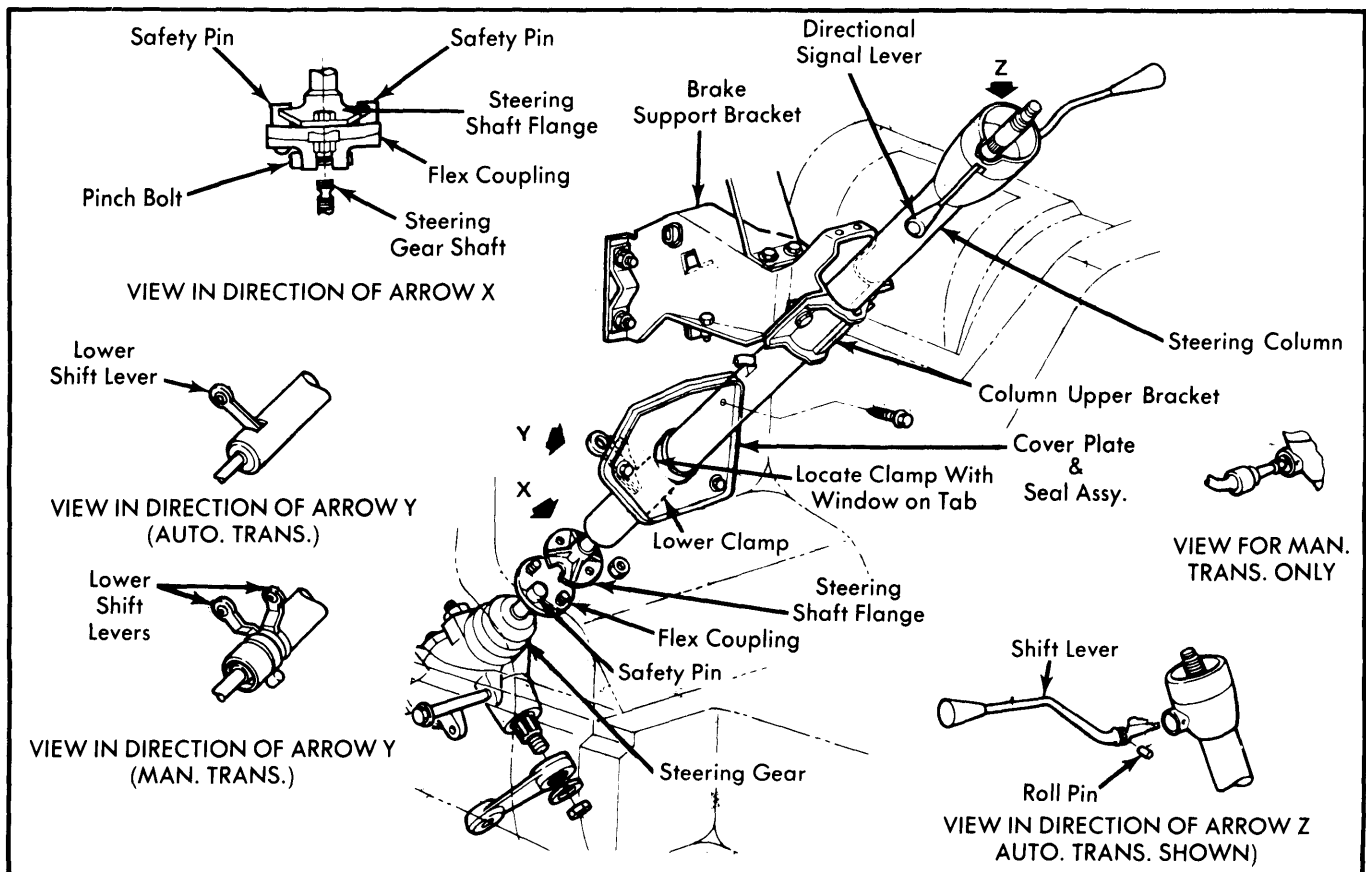


Fig. 3 "E" Models Steering Column Installation

Steering Columns

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2) Remove the upper bearing snap ring. Push down on steering shaft and remove from lower end of column. Care must be taken not to loose any of the bearing retaining components.

3) Loosen the upper column flange retaining screws and remove flange from column tube. Remove shift socket from shift tube. Remove shift tube from upper end of column. Care must be taken not to damage or loose lower shift levers or plastic spacers.

Reassembly — 1) Insert shift tube in upper end of steering column. Make sure lower end of tube engages lower shift levers. Install shift socket to upper end of shift tube.

2) Insert column upper flange into upper end of steering column and tighten flange screws. Insert steering shaft from bottom of steering column. Push it up through lower bearing.

3) Install upper bearing snap ring. Install directional signal unit in column. Install directional signal lever. Install gear shift lever, making sure roll pin is correctly seated. Install steering column in vehicle.

ADJUSTMENT

STEERING COLUMN ALIGNMENT

"F" Models & Bronco — 1) Check the flexible coupling for clearance between slots and coupling safety pins. Pins must be centered in slots.

NOTE — If it is determined that the coupling has been driven in a non-flat position for more than 12,000 miles, coupling should be replaced.

2) Loosen the three lower steering column support bracket bolts and bracket clamp. Remove two screws securing trim cover to instrument panel. Remove trim cover. Loosen two screws attaching steering column to instrument panel and allow column to drop $\frac{1}{8}$ ".

3) Grab steering wheel and shake column to remove any stress or misalignment. Check coupling slot and safety pin clearance with front wheels in straight ahead position.

4) Move column up or down until flexible coupling is in flat plane. Tighten two screws securing steering column to dash. Install trim panel. Install and tighten lower steering column mount bolts. Check pin and slot clearance in flexible coupling.

"E" Models — 1) Remove steering column trim panel. Loosen bolts securing steering column to brake and clutch pedal support. Loosen steering column opening cover plate to dash panel screws. Loosen lower column clamp.

2) Make sure flexible coupling nuts are tight. With front wheels in straight ahead position, pull up on steering column until the flex coupling is in a flat to a $\frac{3}{32}$ " concaved position, pointing toward steering wheel.

3) Tighten steering column to support bracket bolts. Tighten steering column opening cover screws. Insert a .010" shim between right flex coupling safety pin and slot. Now turn steering wheel one revolution clockwise.

4) Check to see if shim is tight. If shim cannot be removed, loosen cover plate clamp and plate attaching bolts. Realign column until shim remains loose enough to be removed when rotating steering wheel.

5) Insert a .010" shim between left flex coupling safety pin and slot. Now turn steering wheel one revolution counterclockwise. Check shim tightness and adjust as described in step 4).

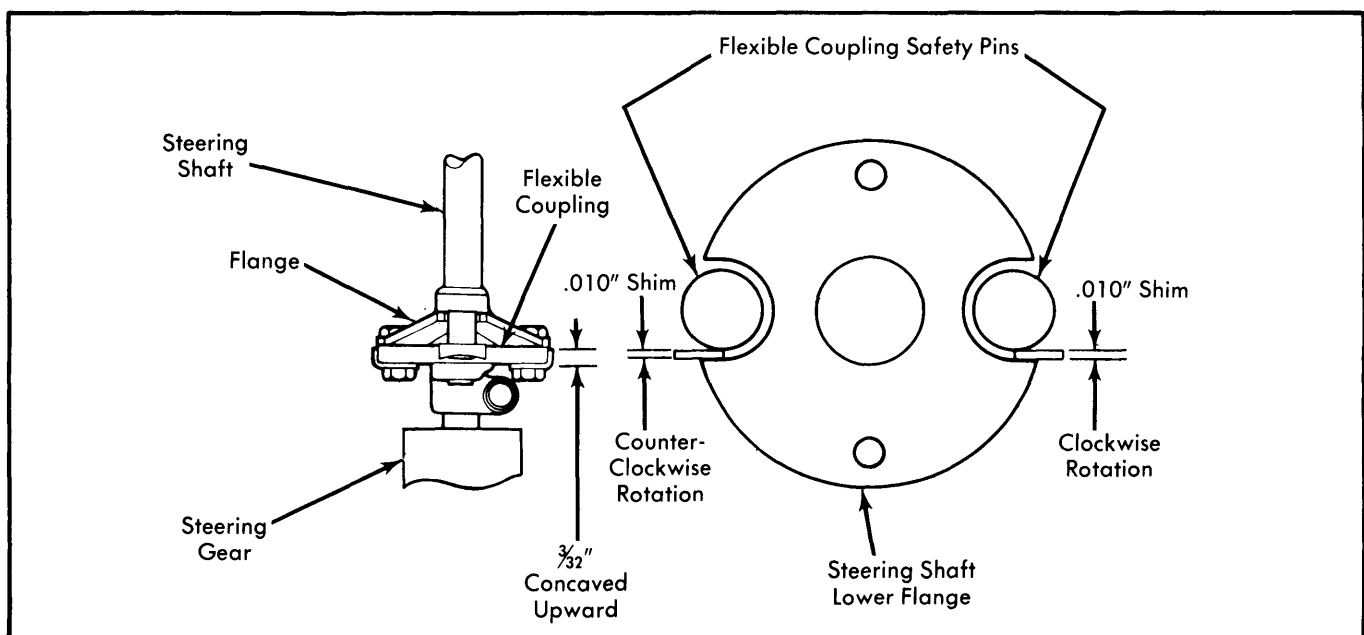


Fig. 4 Aligning Steering Column on "E" Models