

SHIFT SELECTOR AND STEERING WHEEL

SECTION I. TROUBLE SHOOTING

See Groups 12a, 12b, and 12c, Transmission, Standard, Overdrive, and Automatic, for systematic trouble shooting guides relating to gear shifting. See Group 7, Steering, for a similar guide relating to

steering. See Group 16, Electrical-Chassis, for horn circuit checks. See Group 30, Electrical-Body, for directional lamp checks.

SECTION II. SHIFT ADJUSTMENT

2-1. Manual and Overdrive Transmissions.

a. Disconnect both shift rods from shift arms at bottom of steering post. Inspect for:

(1) Excessive wear at shift rod ends.

(2) Worn or damaged bushings in transmission shift levers.

b. Align both shift arms so that they are parallel, one above the other, and move lever up and down to ascertain free movement through the steering column.

c. Holding both shift arms in straight position, adjust one shift rod between the shift arm and lever at transmission.

d. Insert wedge between intermediate and high selector lever and selector gate to check cross-over. Adjust lower steering column bearing if necessary by loosening attaching screws, forcing bearing upward,

adding spacers if necessary, and tightening screws. Levers must rotate freely and have a minimum of end play.

e. Test the vehicle to check for proper cross-over and gear engagement.

2-2. Automatic Transmission.

a. Disconnect the manual shift rod from the selector lever at the steering column and at the transmission lever. Inspect for excessive wear at shift rod ends and replace shift rod if necessary.

b. Position the selector lever so the indicator is down against the lowest stop. Place the transmission manual lever in the "L" position (limited kickdown transmission) or "D₁" position (dual range transmission).

c. Position the manual shift rod into the lever at the steering column. Install the opposite end of the rod in the transmission shift lever and adjust.

SECTION III. STEERING WHEEL ASSEMBLY

3-1. Removal.

The steering wheels of all A-11 models have a standard horn button retaining ring. All A-12 models have a spoked ring. Overhaul instructions are the same for both models.

a. Pry off the horn ring hub cover (1-17) and remove the retaining ring (1-15).

b. Remove the steering wheel nut (1-16).

c. Using a special steering wheel puller, remove the steering wheel assembly (1-7).

3-2. Disassembly.

a. Remove the steering wheel to lock plate mounting screws (1-4). Discard the screws.

b. Remove the horn ring assembly (1-14), spring (1-9), insulator (1-8), and horn contact plate (1-6) from the steering wheel assembly.

c. Remove the button retaining ring screws (1-10). Remove the horn ring upper seat (1-11) and retainer (1-12) from the horn ring. Discard the horn contact plate lock ring (1-13).

d. Remove the steering column upper bearing spring (1-2) and bearing sleeve (1-1). Remove the directional signal cancelling cam (1-3).

e. Inspect all parts for excessive wear or damage and replace as necessary.

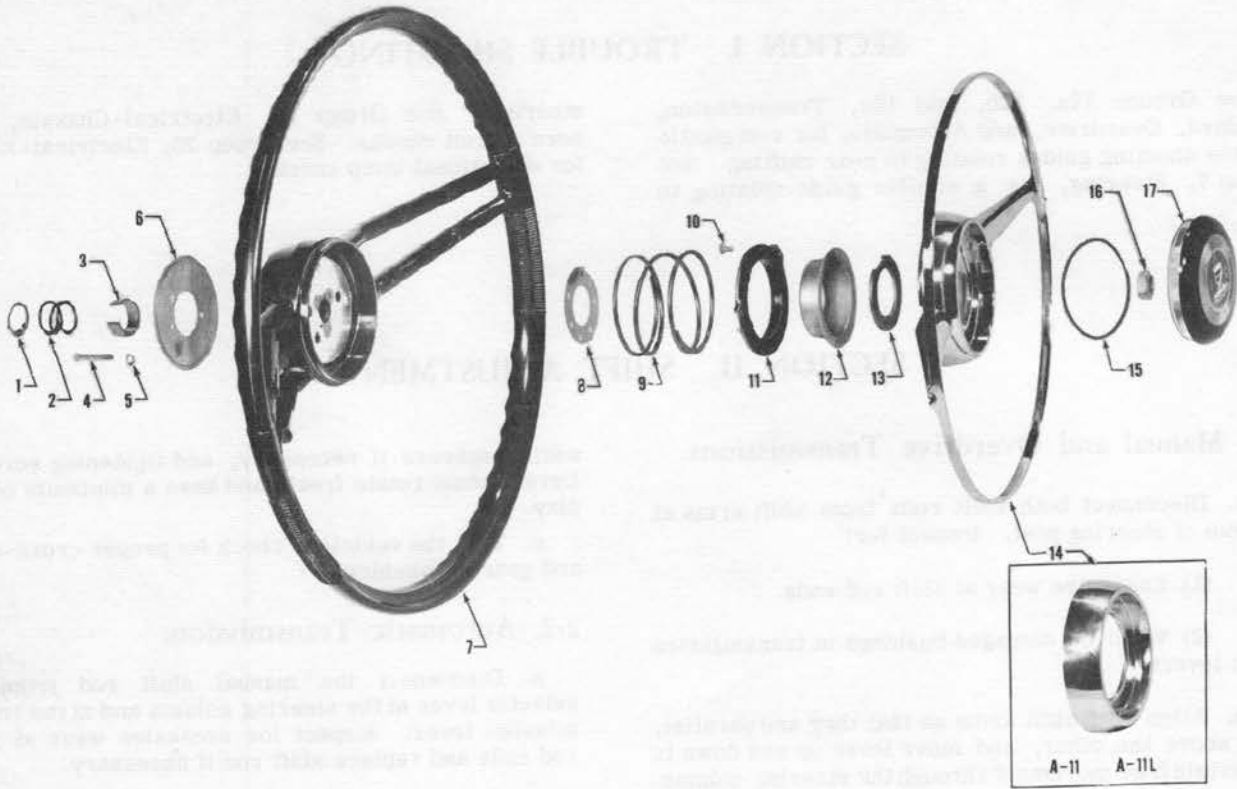


Fig. 1 - Steering Wheel Assembly

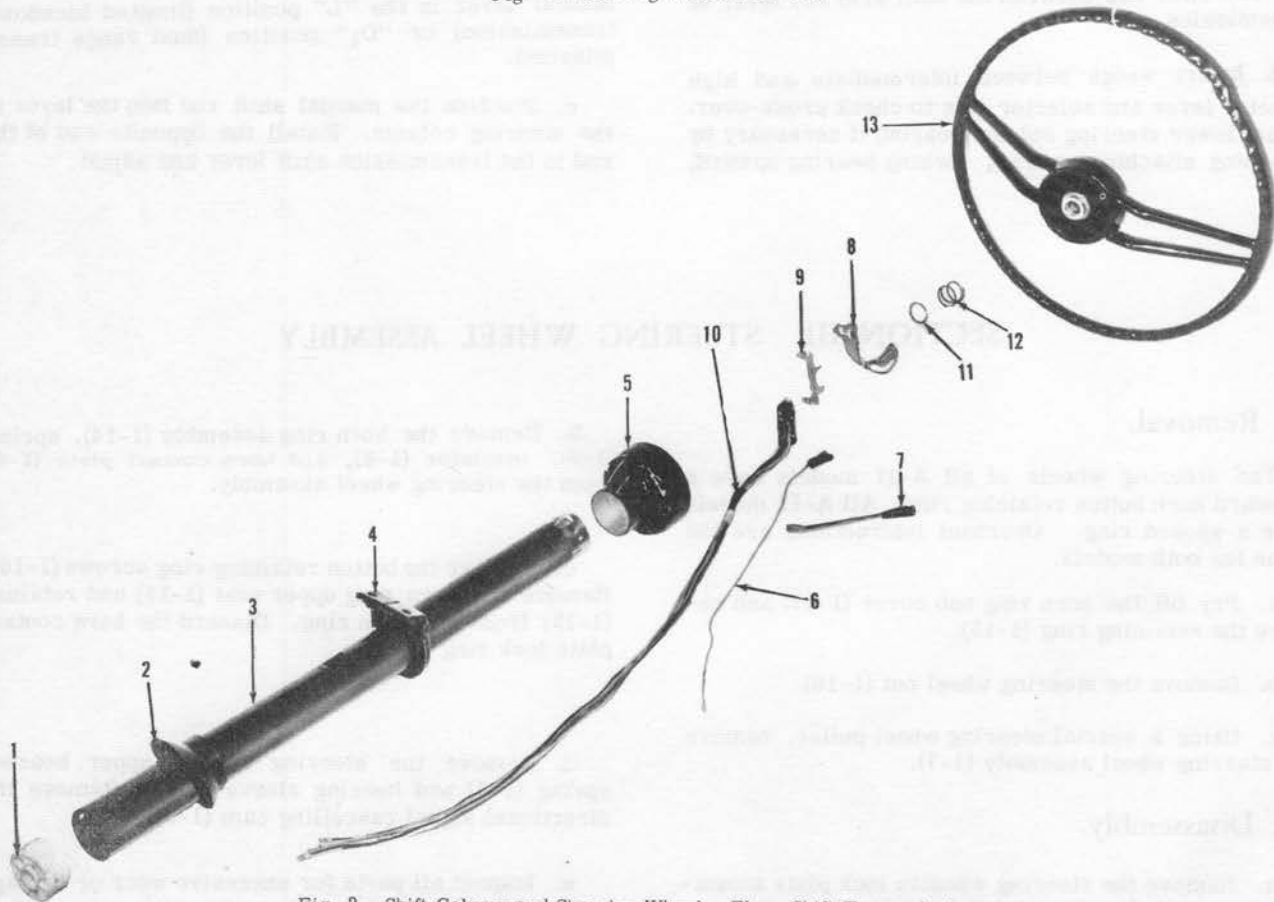


Fig. 2 - Shift Column and Steering Wheel - Floor Shift Transmission

3-3. Reassembly and Installation.

a. Assemble horn ring retainer (1-12) and upper seat (1-11) to the horn ring, using button retaining screws (1-10).

b. Insert a new lock plate (1-13) in the horn ring retainer (1-12). Assemble the horn ring spring (1-9), contact insulator (1-8), and contact plate (1-6) to the steering wheel (1-7), using new mounting screws (1-4) and lockwashers (1-5).

c. Replace upper bearing sleeve (1-1) and spring

(1-2). Replace directional signal cancelling cam (1-3).

d. Center the front wheels of the vehicle. Install the steering wheel assembly in centered position and tighten the steering nut (1-16).

e. Check for proper horn operation. If satisfactory, prick punch lock ring (1-13) at inner diameter, 1/8" inside screw hole centers. Punch approximately 1/32" deep to tighten lock ring thread at each screw.

f. Replace retaining ring (1-15) and press on horn ring hub cover (1-17).

SECTION IV. FLANGE AND BEARING ASSEMBLY

4-1. Removal.

a. Floor Shift Transmission.

(1) Disconnect horn and signal light leads.

(2) Remove steering wheel (2-13). (See Section 3-1.)

(3) Remove upper bearing spring (2-12) and sleeve (2-11).

(4) Remove three flange to steering column screws and remove flange and bearing assembly (2-5).

(5) Remove turn signal plate assembly (2-8) from flange and bearing assembly (2-5).

b. Standard, Overdrive, and Automatic Transmissions.

(1) Disconnect horn (3-6) and signal lamp (3-10) leads.

(2) Remove steering wheel (3-13). (See Section 3-1.)

(3) Remove turn signal plate assembly (3-8) from flange and bearing assembly (3-5).

(4) Remove two mounting nuts from flange (3-5) and pull flange from steering column (3-3).

NOTE

Be sure to catch anchor bolts, which may fall within column socket.

4-2. Disassembly.

a. Remove directional signal lever (3-7) from flange (3-5).

b. Remove screws and remove turn signal cam

bracket (3-9) and switch and wire assembly (3-10) from flange.

c. Unfasten mounting screw and remove horn brush and insulator assembly (3-6).

d. Inspect the upper steering shaft bearing in flange (3-5) for looseness or binding. Replace if necessary.

e. Wipe all parts clean. Inspect wires for worn insulation. Check switch operation, using a test lamp. Replace worn or damaged parts.

4-3. Reassembly and Replacement.

a. Press upper bearing into flange (3-5), if removed. Seat the shoulder of the bearing against the flange collar.

b. Run the wire through flange (3-5) and install the horn brush and insulator assembly (3-6).

c. Install the flange (3-5) on the steering column (3-3).

(1) With floor shift transmission, replace three mounting screws.

(2) With standard, overdrive, and automatic transmissions, seat anchor bolt heads in slots in steering column. Install flange and tighten anchor bolt nuts. Torque to 45-55 inch-pounds.

d. Run switch wires through flange (3-5) and column (3-3) and install switch assembly (3-10) and turn signal cam bracket (3-9).

e. Install turn signal plate (3-8) with detent spring and retaining washer. Place small amount of grease between pawl and cam bracket.

f. Install directional signal lever assembly (3-7).

g. Reinstall steering wheel assembly (3-13) and connect steering column wires.

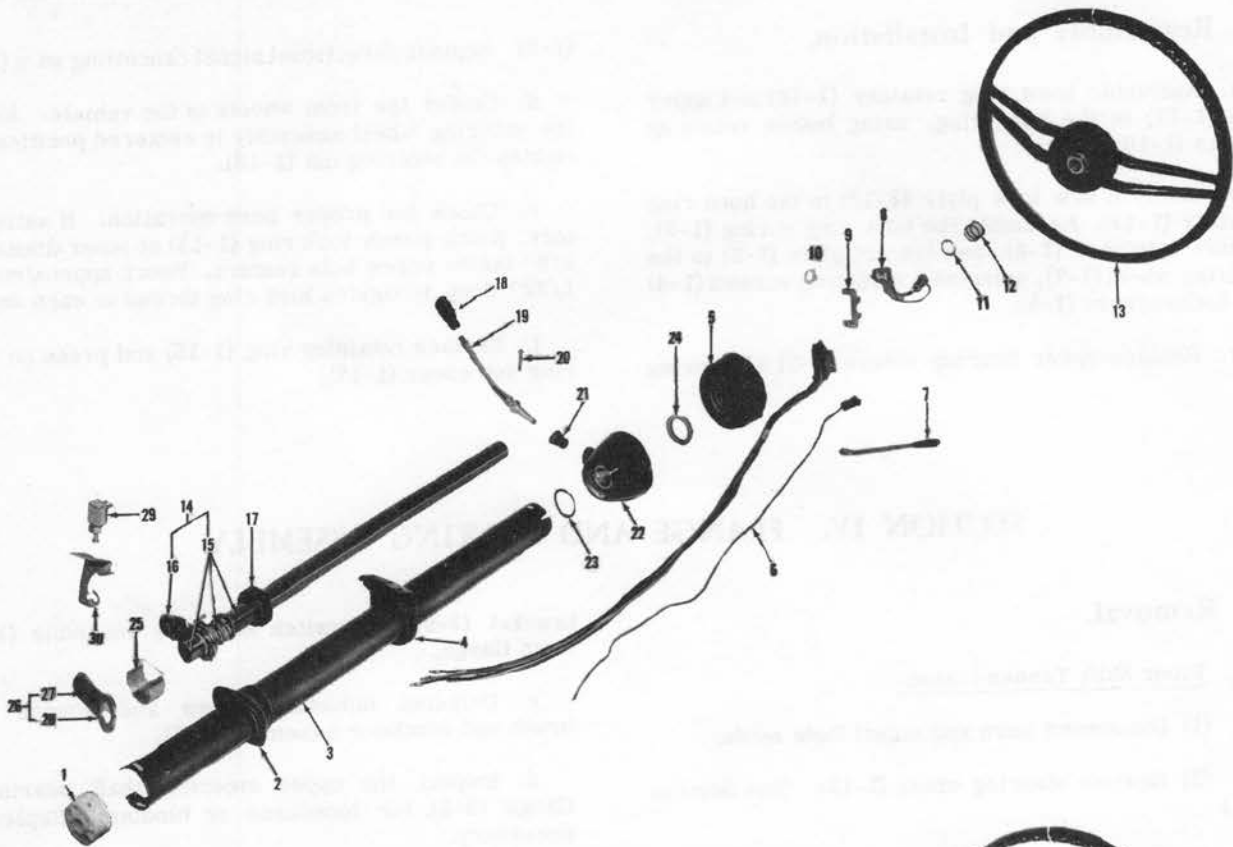


Fig. 3 - Shift Selector and Steering Wheel - Manual and Overdrive Transmission

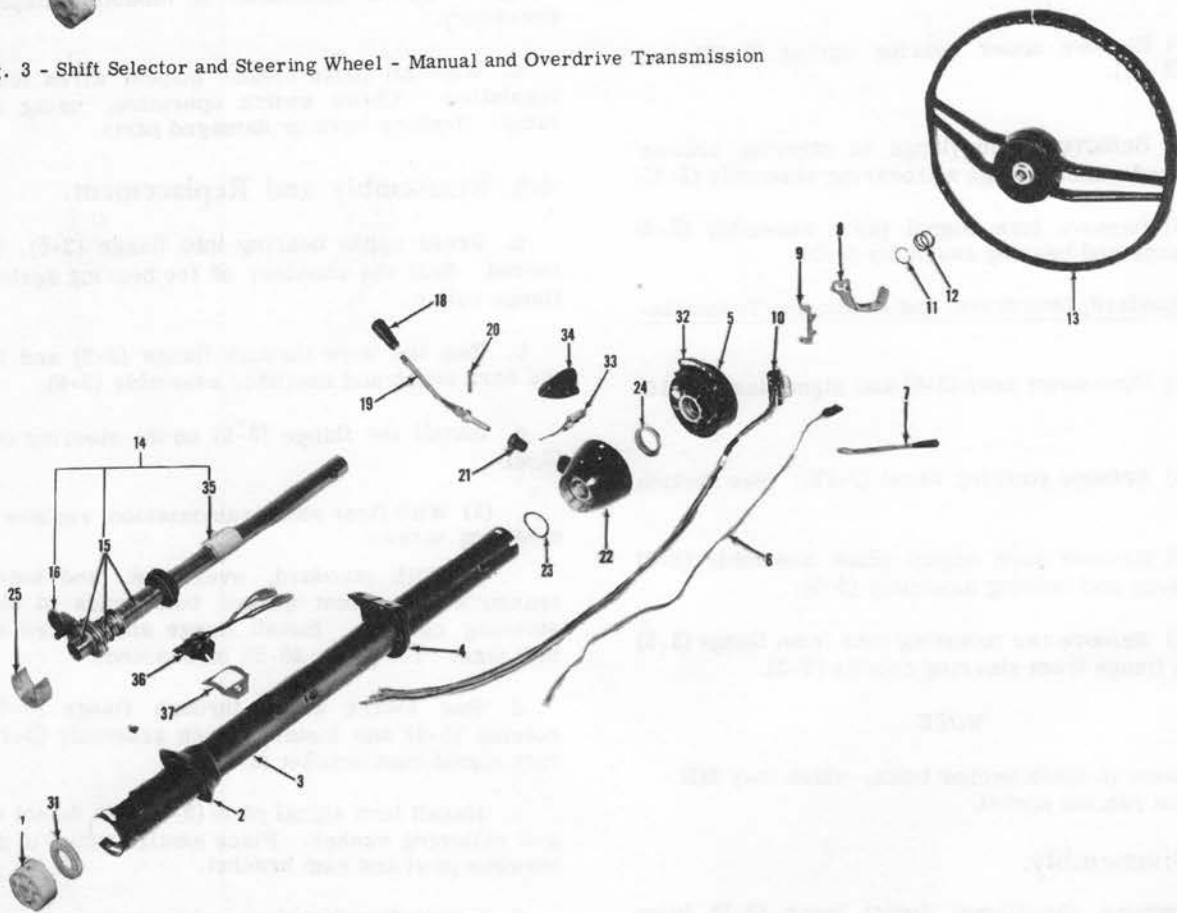


Fig. 4 - Shift Selector and Steering Wheel - Automatic Transmission

SECTION V. STEERING COLUMN AND SELECTOR SOCKET

5-1. Floor Shift Transmissions.

a. Removal and Disassembly.

- (1) Disconnect switch and horn wires.
- (2) Remove steering wheel (2-13) and flange and bearing assembly (2-5).
- (3) Remove screws and lockwashers holding lower plastic bearing (2-1) at bottom of steering column (2-3).
- (4) Mark steering column (2-3), bezel (all A-12 models only), and mounting bracket (2-4) for later reassembly. Remove lower bezel (all A-12 models) from instrument panel. Loosen column mounting bracket (2-4).

b. Installation and Reassembly.

- (1) Inspect steering column (2-3), steering shaft bearing surfaces, and steering shaft bearings for wear or damage. Replace if necessary.
- (2) Slide lower plastic bearing (2-1) over steering shaft. Install steering column (2-3), replacing grommet (2-2).
- (3) Replace mounting bracket (2-4) and lower bezel (all A-12 models), but do not tighten bolts or screws.
- (4) Install lower plastic bearing (2-1) mounting screws, and tighten screws firmly.
- (5) Tighten mounting bracket (2-4) bolts and bezel screws (all A-12 models).
- (6) Run wires through steering column. Install flange and bearing assembly (2-5) and steering wheel assembly (2-13).

5-2. Standard, Overdrive, and Automatic Transmissions.

a. Removal and Disassembly.

- (1) Disconnect lead wires from directional signal switch (3-10), horn contact (3-6), transmission terminal block (4-36; automatic transmission), and back-up light switch (3-29; standard and overdrive transmissions).
- (2) Remove steering wheel assembly (3-13) and flange and bearing assembly (3-5).
- (3) Remove the pin (3-20) from the gearshift selector hand lever (3-19). Remove the hand lever assembly (3-18, 19) and grommet (3-21). Inspect grommet for cracks or hardening and replace if necessary.
- (4) Remove selector lever socket (3-22) and

bushing (3-24) and anti-vibrator spring (3-23).

(5) In the case of automatic transmissions, remove selector dial lamp housing (4-34). Inspect housing and lamp and wire assembly (4-33) and replace parts as necessary.

(6) Remove screws and lockwashers which retain selector column lower plastic bearing (3-1).

(7) Mark mounting bracket (3-4), bezel (all A-12 models only), and steering column (3-3) for later reassembly. Uncouple lower bezel (all A-12 models) and mounting bracket (3-4).

(8) Slide steering column (3-3) off steering shaft and shift tube (3-14); remove grommet (3-2) and mounting bracket (3-4).

(9) Inspect back-up light switch (3-29) and bracket (3-30), if installed (manual and overdrive transmissions). With automatic transmissions, remove terminal block (4-36) and gasket (4-37) from column. Inspect contacts. Replace defective parts.

(10) Remove shift tube assembly (3-14).

(a) With standard and overdrive transmissions, disconnect transmission shift rods from selector shift lever grommets (3-16, 27). Remove shift tube assembly (3-14). Remove lower bearing (3-1) and lever assembly (3-26) from steering shaft.

(b) With automatic transmissions, disconnect transmission shift rod from shift lever grommet (4-16). Remove shift tube assembly (4-14). Remove lower bearing (4-1) and spacer (4-31) from steering shaft.

(11) Inspect selector tube (3-14) and lever, grommet (3-16), spring, and washer for wear or damage. Replace selector tube assembly (3-14) if necessary. Inspect felt seal washer (3-17), plastic bearing (3-1), and spacer (3-25).

(a) With standard and overdrive transmissions, inspect low and reverse lever (3-28) and grommet (3-27).

(b) With automatic transmissions, inspect spacer washer (4-31) and neutral contact assembly (4-35). Replace parts as necessary.

b. Reassembly and Replacement.

(1) Slide lower plastic bearing (3-1) and spacer (4-31; automatic transmission) or low and reverse lever assembly (3-26; standard and overdrive transmissions) over steering shaft. Slide selector tube assembly (3-14) over steering shaft.

(2) Slide felt seal washer (3-17) over selector tube. Replace selector lever spacer (3-25). Replace neutral contact assembly (4-35; automatic transmission).

Group 8 - Shift Selector and Steering Wheel

(3) Install selector column grommet (3-2). Slide selector column (3-3) over selector tube (3-14) and install bracket assembly (3-4) and bezel (all A-12 models).

(4) With automatic transmissions, install terminal block (4-36) and gasket (4-37) on selector column (4-3). Assemble selector dial lamp (4-33) and housing (4-34) on selector lever socket (4-22).

(5) Install anti-vibrator spring (3-23) in selector lever socket (3-22). Fish lead wires through selector column and install selector lever socket on column (3-3).

(6) Install selector lever grommet (3-21), lever (3-19), and pin (3-20).

(7) Install lower plastic bearing screws and lockwashers finger tight.

(8) Install flange and bearing assembly (3-5) and steering wheel assembly (3-13). Adjust lower plastic bearing (3-1) for free lever rotation with minimum end play and tighten screws securely.

(9) Connect shift rod (or rods) to lever (or levers) and adjust (see Sections 2-1, 2-2).