

INTERNATIONAL HARVESTER

150 & 200 Models
Scout II, Terra & Traveler
1310 & 1510 Motor Home Chassis

REMOVAL & INSTALLATION

NOTE — Disconnect battery before servicing any electrical components.

NOTE — Scribe mark on steering wheel and shaft to aid reassembly.

HORN BUTTON & STEERING WHEEL

150 & 200 Models — Remove horn button, spring, and steering wheel retaining nut. Using a suitable puller (SE-1821), remove steering wheel from steering shaft. To install, reverse removal procedure.

Scout II, Terra & Traveler — Rotate horn button counterclockwise and remove. Disconnect horn wire. Remove retaining screws and horn contact ring. Remove nut and washer securing steering wheel to shaft, and using a wheel puller (SE-1820), remove steering wheel. To install, reverse removal procedure.

Motor Home Chassis — Remove horn pad and pad mounting plate. Remove steering wheel retaining nut and washer. Using a suitable wheel puller, remove steering wheel from steering shaft. To install, reverse removal procedure.

DIRECTIONAL SIGNAL SWITCH

150 & 200 Models (Exc. W/Tilt Wheel) — 1) Remove horn button, steering wheel, and the three cover screws. Depress lock plate downward as far as possible using suitable tool (SE-2500). Pry retaining ring out of column shaft groove, then remove tool retaining ring and lock plate. *CAUTION* — If steering column is removed from vehicle, shaft can slide out of column when retaining ring is removed.

2) Slide upper bearing preload spring and turn signal canceling cam off upper steering shaft. Slide thrust washer off upper steering shaft. Remove turn signal lever screw and lever. Push hazard warning switch in and unscrew knob. Remove the three signal switch mounting screws. Remove the four mounting bracket screws, then remove bracket from column jacket. Pull connector out of bracket on jacket. Remove protector from jacket and strip wires from it. Pull signal switch straight up with wire protector. To reassemble, reverse removal procedure.

150 & 200 W/Tilt Wheel — 1) Remove horn button and steering wheel. Remove signal switch wire protector from inside steering column. Wrap a piece of tape around upper connector and wires to prevent snagging when removing switch. Remove tilt release lever and signal switch lever. Push hazard warning plunger in and remove hazard warning knob. Remove upper shift lever from bowl. Remove indicator wire and neutral start switch if automatic transmission column.

2) Depress lock plate with finger and pry retaining ring out of groove with screwdriver. Remove lock plate, canceling cam, and upper bearing spring. Remove the three signal switch mounting screws and lift switch up. To install, reverse removal procedure.

Scout II, Terra & Traveler — 1) Remove horn button and steering wheel. Remove horn contact spring. Depress lock

plate by installing a suitable tool and tightening down with steering wheel retaining nut. Remove lock plate snap ring with a screwdriver. Remove depressor tool, snap ring, and lock plate from column. *NOTE* — If steering column is removed from vehicle, shaft can slide out of column when retaining ring is removed.

2) Remove turn signal canceling cam, upper bearing preload spring and thrust washer. Remove screw securing turn signal lever to signal switch and remove lever. Push hazard warning switch in and unscrew knob. Remove three screws securing signal switch assembly. Pull connector out of bracket on jacket tube. Wrap a piece of tape around upper part of connector and wires to prevent snagging when removing switch. Pull switch straight out with wire protector. To install, reverse removal procedure.

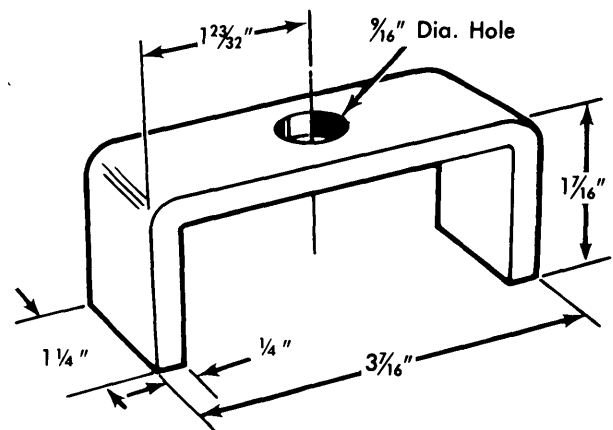


Fig. 12 Dimensions for Making a Lock Plate Depressor Tool

Motor Home Chassis — 1) Remove horn pad and steering wheel. Remove horn contact spring, turn signal switch canceling cam, and jacket tube upper bearing spring. Pry wiring harness cable cover out of column retaining slots. Mark location of each wire in halfmoon connector and then remove each individual wire from connector using a suitable terminal removal tool (SE-2406). Insert tool into lower end of connector and push in until tool bottoms on connector. Remove tool and pull wire from connector.

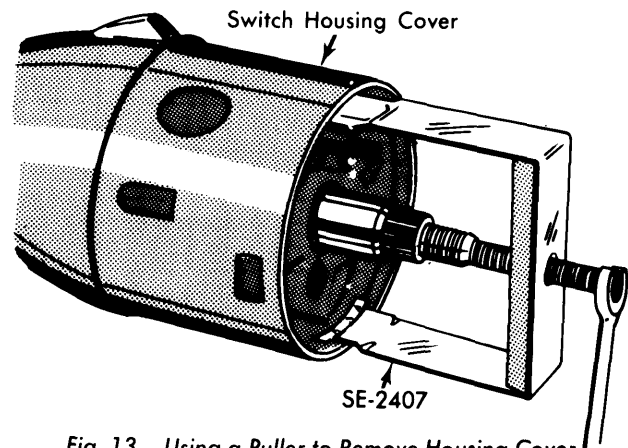


Fig. 13 Using a Puller to Remove Housing Cover

2) Remove directional signal lever retaining screw and remove lever. Push in on hazard warning light knob and then unscrew and remove knob. Remove shift selector indicator

INTERNATIONAL HARVESTER (Cont.)

retaining screws, then remove dial, illumination bulb shield, and bulb from housing cover. Unscrew and remove tilt release lever. Assemble suitable remover tool (SE-2407) inside directional signal switch housing cover. Push in until tangs lock inside cover flange. Turn tool center screw clockwise to pull cover from housing.

3) Remove the three turn signal switch mounting screws. Carefully remove switch assembly from column while guiding wiring harness through opening in shift lever housing. To install, reverse removal procedure.

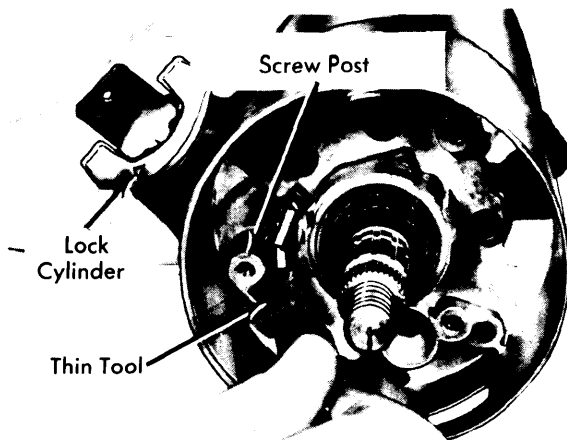


Fig. 14 Depressing Tab for Lock Cylinder Removal

STEERING COLUMN LOCK

All Models — Remove horn button, steering wheel, and directional signal indicator switch. Insert thin tool, small screwdriver, or knife blade into slot next to directional signal indicator switch retaining screw post and depress retainer at bottom of slot. Remove switch. To install, place cylinder in "Lock" position and press into hole. Cylinder will snap into place.

IGNITION SWITCH

NOTE — To remove ignition switch, steering column must be removed from vehicle. See *Steering Columns* in this Section.

All Models (Exc. W/Tilt Wheel) — Remove horn button or pad, steering wheel, directional signal indicator switch, and lock cylinder. Pull up on lock cylinder-to-ignition switch connecting rod until a definite stop is reached. Move rod down two detents (one detent on Scout II) which is the "OFF UNLOCKED" position ("LOCK" position on Scout II). Remove two retaining screws, then remove switch. To install, reverse removal procedure.

All Models W/Tilt Wheel — Remove horn button or pad, steering wheel, directional signal indicator switch, and lock cylinder. Remove three housing cover screws and remove housing cover. Reinstall tilt release lever and place column in full tilt, "UP" position. Remove tilt spring retainer using screwdriver that just fits into slot opening. Insert screwdriver in slot, press in approximately $\frac{3}{16}$ ", and turn $\frac{1}{8}$ turn counterclockwise until ears align with grooves in housing. Remove spring and guide.

2) With ignition switch in "ACC" position, remove two ignition switch mounting screws and ignition switch. Remove two neutral start switch screws and neutral start switch. To install, reverse removal procedure.

JEEP

"J" Models
"CJ" Models
Wagoneer
Cherokee

REMOVAL & INSTALLATION

HORN BUTTON & STEERING WHEEL

"CJ" Models — Disconnect negative battery cable. Position front wheels in straight-ahead position. Remove rubber boot and horn button by rotating button until lock tabs line up with notches in contact cup, then pull up and remove. Remove steering wheel nut and washer. **NOTE** — If equipped with sport wheel, remove button, nut and washer, button retaining ring, and horn contact ring. Remove contact cup retainer, contact cup, and contact plate. Remove contact pin and bushing from steering wheel. Scribe a mark on steering wheel and steering shaft to aid in reassembly. Remove steering wheel using a wheel puller (J-21232). To install, reverse removal procedure while ensuring bushing is fully seated.

All Models (Exc. "CJ" Models) — Disconnect negative battery cable and place front wheels in straight-ahead position. Remove steering wheel spoke horn cover attaching screws from underside of steering wheel spoke, then remove cover.

On sport style wheels, remove button, nut, washer, button retaining ring, and horn contact ring. Disconnect horn wire from switch in steering wheel cavity. Remove steering wheel nut and connector. Scribe a mark on steering wheel and steering shaft for reassembly reference. Install suitable wheel puller (J-25115) and remove wheel. To install, reverse removal procedure.

DIRECTIONAL SIGNAL SWITCH & HAZARD FLASHER

All Models — 1) Disconnect negative battery cable. Remove horn contact trim cover by loosening bottom attaching screws. Disconnect horn wire from switch in steering wheel cavity by pulling quick disconnect connector. Remove steering wheel nut and note alignment of steering wheel to steering shaft index marks for reinstallation.

2) Remove steering wheel using a suitable puller (J-21232-01). Loosen anti-theft cover retaining screws and lift cover from column. **NOTE** — Screws do not need to be completely removed as they are held in the cover by plastic retainers. Use a suitable lock plate compressor tool (J-23653) to depress lock plate and pry small round wire snap ring from steering shaft groove.

3) Remove compressor tool, snap ring, lock plate, directional signal canceling cam, upper bearing preload spring and thrust washer from steering shaft. Place directional signal ac-

JEEP (Cont.)

tuating lever in right turn position and remove lever. Depress hazard warning light switch and remove button by turning in a counterclockwise direction.

4) Remove directional signal wire harness connector block from mounting bracket on right side of lower column. On vehicles equipped with automatic transmission, use a stiff wire to depress lock tab retaining shift quadrant light wire in connector block. Remove directional signal switch retaining screws and pull signal switch and wire harness from column.

5) To install, guide wire harness into position and align signal switch assembly. *NOTE* — *Actuating lever pivot must be correctly aligned and seated in upper housing pivot boss before retaining screws are installed.* Install retaining screws to switch assembly. Install lever and check for correct operation. Position thrust washer, spring and canceling cam on upper end of steering shaft.

6) Align steering shaft and lock plate splines, then install lock plate while ensuring that canceling cam shaft protrudes through dogleg opening in lock plate. Install snap ring and anti-theft cover. Install hazard warning light button, steering wheel (aligning index marks) and steering wheel nut. Connect horn wire and battery cable. Install horn contact trim cover.

STEERING COLUMN LOCK

All Models — Remove horn button, steering wheel and directional signal switch as previously described. Position key in "ON" position, then depress key cylinder retaining tab and remove lock cylinder from housing. The retaining tab is accessible through slot adjacent to turn signal switch mounting boss. To install, position lock cylinder into housing until retaining tab snaps into position and secures lock cylinder to housing. Reverse removal procedure for installation of remaining components.

IGNITION SWITCH

All Models — 1) Remove horn button, steering wheel and directional signal switch as previously described. Position key in "OFF-UNLOCK" position and remove two switch mounting screws. Disconnect switch from remote rod, remove harness connector and remove switch from vehicle.

2) To install, position ignition switch next to column and move slider to extreme left position (toward steering wheel) on models with standard column and move slider to extreme right position (away from steering wheel) on models with tilt column.

3) Position actuator rod in slider hole and install switch to column. On tilt columns, move switch down column (away from steering wheel). On all models, install attaching screws taking care not to allow detent position to change. Install remaining components in reverse of removal procedure.