

ALL MANUFACTURERS

All Models

DESCRIPTION

Ignition switches are typically mounted on steering columns and are actuated by ignition key locking cylinders. Neutral safety switches are typically mounted on lower end of steering columns.

SERVICING

Chrysler Corp. and International Harvester Corp. vehicles with column mounted ignition switches and lock cylinders require that steering wheel and turn signal switch be removed before ignition components are accessible.

On General Motors and Jeep Corp. vehicles, steering column must be removed or lowered. Steering wheel and turn signal switch must be removed before ignition components are accessible.

CAUTION — Lock plate is under strong spring pressure. Do not remove snap ring without using compressor tool. If steering shaft has American threads, use compressor tool J-23653; if shaft has metric threads use Metric Forcing Screw J-23653-4.

Ford Motor Co. vehicles require that the steering column be lowered before servicing the ignition switch or lock cylinder.

CAUTION — Some steering columns are collapsible and special care must be taken to avoid bumping, jolting or hammering on steering shaft and gearshift tube.

REMOVAL & INSTALLATION

LOCK CYLINDER REMOVAL

Chrysler Corp. — Place lock in "LOCK" position and remove key. Insert thin tool (machinist's scale or knife blade) into lock cylinder slot. Push in to release spring loaded lock retainer. Remove lock cylinder from housing.

Ford Motor Co. — On non-tilt models, remove steering wheel and trim pad. Place gear selector in "P" on automatic transmission models, or any position on manual transmission models. Insert key and turn cylinder to "ON" position. Insert an $\frac{1}{8}$ " diameter pin in hole on outside of steering column casting near hazard warning button on tilt models, or in hole near base of lock cylinder on non-tilt models. Depress pin while pulling out on lock cylinder to remove.

General Motors — Place lock in "RUN" position. Remove lock plate, turn signal switch and buzzer switch. Remove lock retaining screws and lock cylinder.

International Harvester — Place lock in "LOCK" position on standard column and in "RUN" position on tilt column. Insert thin tool (machinist's scale or knife blade) into lock cylinder slot. Push in to release spring loaded lock retainer. Remove lock cylinder from housing.

Jeep — Place lock in "ON" position (manual transmission) or in "OFF-LOCK" position (automatic transmission). Insert thin tool (machinist's scale or knife blade) into lock cylinder slot. Push in to release spring loaded lock retainer. Remove lock cylinder from housing.

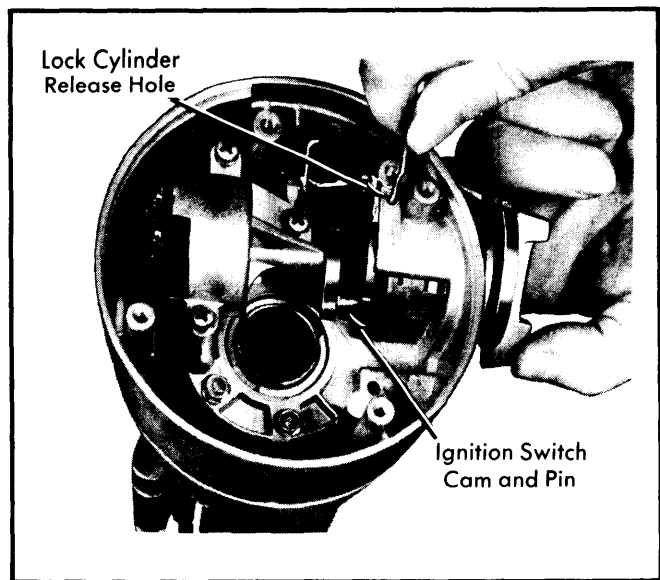


Fig. 1 Typical Column Type Ignition Switch Lock Cylinder Removal

LOCK CYLINDER INSTALLATION

Chrysler Corp. — Place lock in "LOCK" position and remove key. Insert cylinder into housing. Press cylinder in until contact is made with pin on ignition switch cam. Insert key into lock and rotate until slot in cylinder plate aligns with pin. Push cylinder in and lock retainer will snap into slot in lock housing.

Ford Motor Co. — Turn lock cylinder to "ON" position. Depress retaining pin and insert cylinder into housing. Ensure that cylinder is fully seated and aligned with interlocking washer. Turn key and check operation of lock cylinder.

General Motors — Place lock in housing. Turn key to "RUN" position while holding cylinder. Align cylinder with keyway in housing. Push lock in and install retaining screw.

International Harvester, Tilt Column — Hold lock cylinder sleeve and rotate knob clockwise against stop. Insert cylinder into housing with key on lock cylinder sleeve aligned with keyway in housing. Push cylinder into abutment of housing and sector. Rotate cylinder counterclockwise while maintaining slight pressure until drive section of cylinder pops into grooves and secures lock cylinder to housing. Check lock cylinder for freedom of rotation.

International Harvester, Non-Tilt Column — Place lock in "LOCK" position and insert cylinder into housing. While pushing in, cylinder will snap into position.

Jeep — 1) Insert key in lock. Hold cylinder sleeve and turn key clockwise until key stops.

2) Align lock cylinder retaining tab with keyway in housing and insert cylinder into column.

ALL MANUFACTURERS (Cont.)

3) Push cylinder in until it contacts lock sector. Rotate cylinder to engage lock sector and push in until cylinder retaining tab engages in housing groove.

IGNITION SWITCH REMOVAL

Chrysler Corp. — Ignition switch is in upper end of steering column. With lock cylinder removed, remove 3 retaining screws and switch.

Ford Motor Co. — Disconnect negative battery cable. Remove steering column shroud and lower column. Disconnect switch wiring at multiple plug. Remove nut securing switch to steering column. Lift switch vertically to disengage actuator and remove switch.

General Motors — Lower steering column and support column to avoid causing damage. Remove lock cylinder, pull switch actuating rod up until there is a definite stop, then move rod down one detent to place lock in "LOCK" position. Remove two switch screws and switch assembly from vehicle.

International Harvester — Place lock in "ACC" position on tilt column, "LOCK" position on non-tilt column. Remove 2 mounting screws and remove switch.

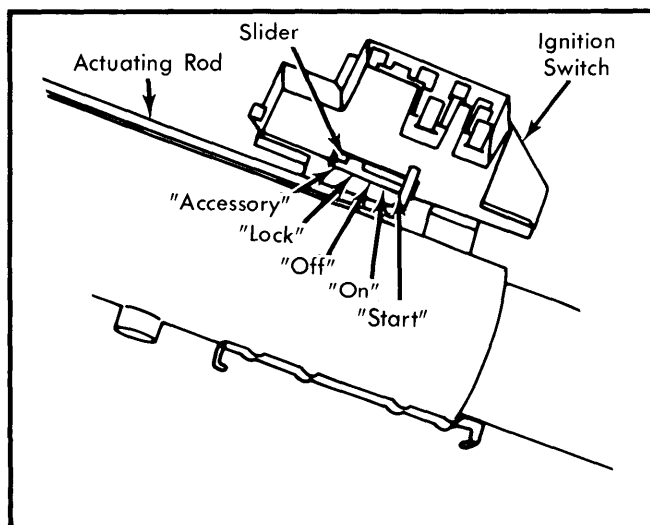


Fig. 2 Rod Actuated Ignition Switch
(Common to All Models)

Jeep — Place lock in "OFF-LOCK" position and remove 2 mounting screws. Disconnect switch from remote rod, harness connector and remove switch.

IGNITION SWITCH INSTALLATION

Chrysler Corp. — Install ignition switch to column ensuring that key in housing is indexed with slot in steering jacket. Install retaining screws and tighten, making sure not to change switch position.

Ford Motor Co. — With lock cylinder and switch in "LOCK" position, engage the actuator rod in the switch. Position the switch on the column and install the retaining nuts, but do not tighten. Move the switch up and down along the column to locate the mid-position of rod lash and then tighten retaining nuts.

General Motors — Place lock and switch in "LOCK" position. Install actuating rod into switch and install switch using mounting screws. Tighten, making sure not to change switch position.

International Harvester, Tilt Column — 1) Place lock in "ACC" position. Move slider on ignition switch to extreme right ("ACC" position).

2) Fit actuator rod in slider slot and mount switch to column with 2 screws. Move switch down column (away from steering wheel), tighten mounting screws, making sure not to change switch position.

International Harvester, Non-Tilt Column — 1) Place lock in "LOCK" position. Move slider on ignition switch to extreme left position and then move it back 1 click.

2) Fit actuator rod in slider slot and mount switch to column with 2 screws, making sure not to change switch position.

CAUTION — Do not allow switch to change detent position during tightening.

Jeep — Move switch slider to "ACC" position. Move switch slider back two clicks to "OFF-UNLOCK" position. Engage remote rod in switch slider and position switch on column. Do not move slider. Install and tighten screws.

NEUTRAL SAFETY SWITCH REMOVAL

NOTE — Chrysler Corp. vehicles, Ford, International Harvester and General Motors "G" & "P" models have the neutral safety switch located on the transmission. See Section 14, Automatic Transmissions for servicing these vehicles.

General Motors "C" & "K" Models — Disconnect negative battery cable and electrical harness at neutral switch. Remove mounting screws and remove switch.

Jeep — With parking brake on, disconnect wire connector from safety switch. Remove attaching screws and remove switch.

NEUTRAL SAFETY SWITCH INSTALLATION

General Motors "C" & "K" Models — Place switch shift lever in neutral gate notch. Insert a .096" gauge pin to a depth of $\frac{3}{8}$ " into switch gauge hole. Place switch in position on column and install mounting screws. Remove gauge pin and move switch lever out of neutral gate notch and into park gate position to shear off switch internal plastic pin. Return shift lever to neutral gate notch. Rotate switch on column and insert a .096" gauge pin to a depth of $\frac{3}{8}$ ". Tighten attaching screws and remove pin.

Jeep — Place gearshift lever in "P" position to lock steering column. Move switch actuating lever to align with letter "P" stamped on back of switch. Insert a $\frac{3}{32}$ " drill bit into hole located below letter "N" stamped on back of switch. Move switch actuating lever against drill bit. Position switch on column and remove drill bit. Connect wire connector. Check switch operation.