SECTION E

INSTRUMENT PANEL— LE SABRE, WILDCAT AND ELECTRA

CONTENTS

DIVISION II

DESCRIPTION AND OPERATION

120-21 DESCRIPTION OF INSTRUMENT PANEL—LE SABRE, WILDCAT & ELECTRA

CAUTION: Disconnect battery ground cable before removing any instrument panel unit or wiring.

a. Description of Instrument Cluster Assembly

The instrument cluster assembly shown in Figure 120-26 or 27 contains the speedometer, fuel gauge, indicator lights and clock.

A printed circuit is used to complete the circuits for all the lights and instruments in the cluster assembly. see Figure 120-28. A rectangular disconnect plug which is part of the instrument panel wiring harness attaches to the printed circuit connector tabs. The disconnect plug has two retaining fingers of different widths to insure correct assembly of the plug in the printed circuit. If the printed circuit should become defective, it should be replaced as it is not practical to repair it.

An accessory block is an integral part of the instrument panel wiring harness. If the car has a

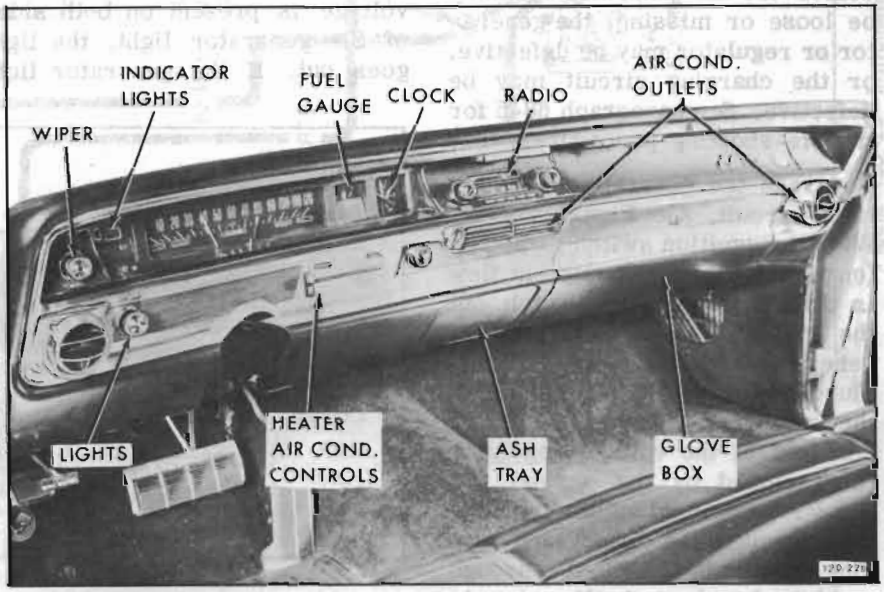

Figure 120-25—Instrument Panel - LeSabre, Wildcat and Electra

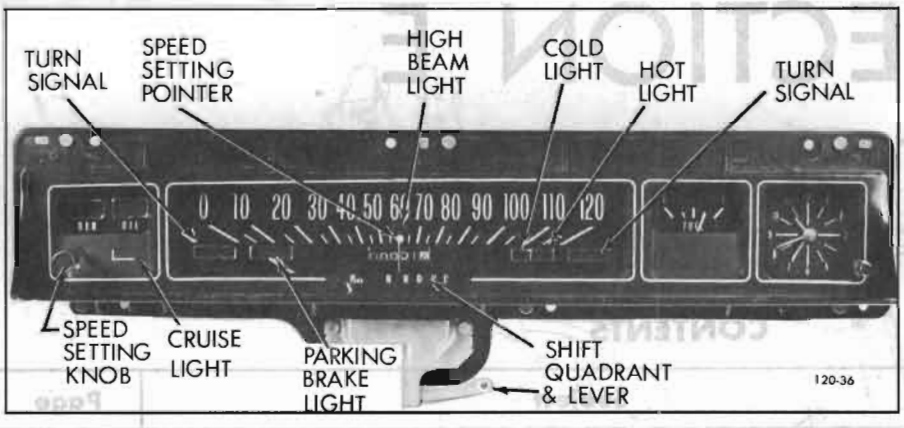

Figure 120-26—Instrument Cluster Assembly - LeSabre, Wildcat and Electra

composite wiring harness, this block makes it possible to connect the wiring for the following options quickly and easily: Electro-Cruise, speedometer buzzer and rear window defroster.

b. Generator Charge Indicator

The red "GEN" warning light should light when the ignition is turned "ON" and before the engine is started; if not lighted, either the bulb is burned out or the indicator light wiring has an open circuit. After the engine is started, the "GEN" light should be out at all times; if the light comes on, the generator belt may be loose or missing, the generator or regulator may be defective, or the charging circuit may be defective. See paragraph 68-6 for trouble-shooting procedures.

To trace the generator indicator light circuit, see Figure 120-28. With the ignition switch turned on (engine not running), current flow is through the ignition switch, out the "IGN" terminal, through the generator light in the instrument cluster, to the "4" terminal of the regulator, through the lower contacts of the voltage regulator (held closed by the spring), out the "F" terminal of the generator, through the brush and slip ring, through the field, through another brush and slip ring to ground.

Before the engine is started, the generator light should glow at about 1/2 brightness. This is because the voltage in the circuit before the light is about 12 volts, but the voltage at the "4" terminal after the light is about 5 volts. This makes the effective voltage across the generator light approximately 7 volts for about 1/2 brightness.

After the engine is started, the voltage put-out by the generator immediately closes the field relay. This causes battery voltage from the "3" terminal to be present at the "4" terminal. See Figure 120-28. Since battery voltage is present on both sides of the generator light, the light goes out. If the generator light comes with the engine running, the charging circuit should be tested at the first opportunity to determine the cause of the trouble. See paragraph 68-6.

c. Oil Pressure Indicator

The engine oil pressure indicator light is controlled by a pressure operated switch located in the main oil gallery at the right rear of the engine.

This light should come on when the ignition is turned "On" and the engine is not running. If not lit, either the bulb is burned out, the wiring has an open or the oil switch is defective.

If the engine oil pressure drops below a safe level during operation, the circuit is completed through the pressure switch to ground, and the "Oil" indicator light in the cluster will be turned on.

If the "Oil" indicator stays on or comes on when the engine is running at speeds above idle, the following may be the cause, rather than low oil pressure:

1. Wiring circuit between oil pressure switch and light grounded. Remove connector from pressure switch, if light stays on trouble is in wiring.

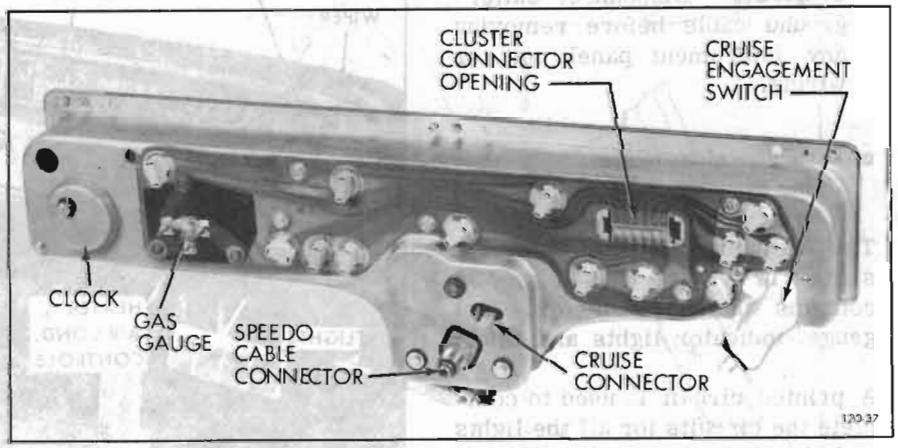

Figure 120-27—Back of Instrument Cluster Assembly - LeSabre, Wildcat and Electra

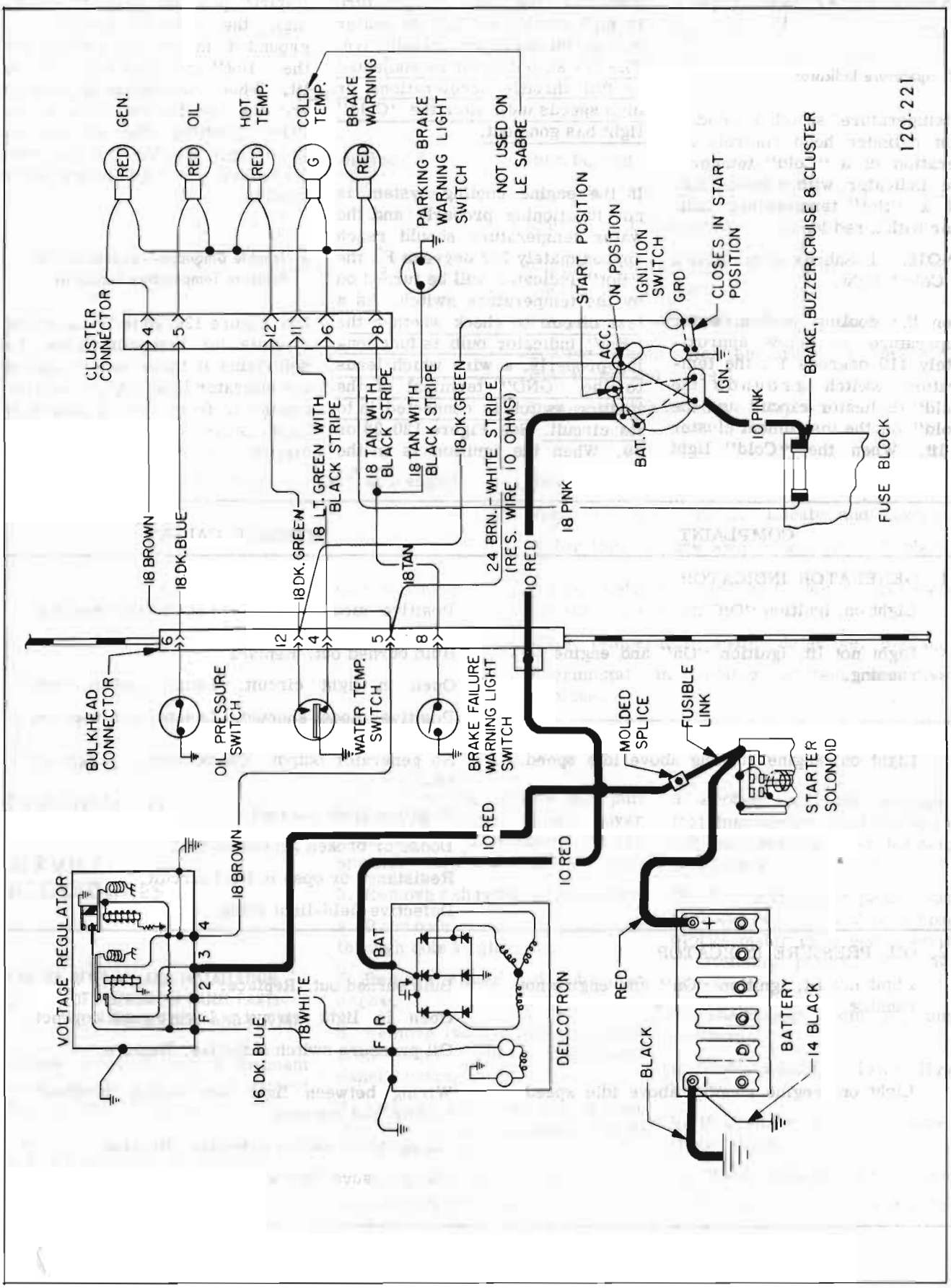

Figure 120-28—Instrument Warning Light Wiring Diagram - LeSabre, Wildcat & Electra

2. Switch defective. Replace switch.

d. Temperature Indicator

A temperature switch located in right cylinder head controls the operation of a "Cold" temperature indicator with a green lens and a "Hot" temperature indicator with a red lens.

NOTE: LeSabres do not have a "Cold" light.

When the cooling system water temperature is below approximately 110 degrees F., the temperature switch grounds the "Cold" indicator circuit and the "Cold" on the instrument cluster is lit. When the "Cold" light goes out, the water temperature is high enough so that the heater can be turned on and be effective. The car should never be subjected to full throttle accelerations or high speeds until after the "Cold" light has gone out.

If the engine cooling system is not functioning properly and the water temperature should reach approximately 248 degrees F., the "Hot" indicator will be turned on by the temperature switch. As a test circuit to check whether the "Hot" indicator bulb is functioning properly, a wire which leads to the "GND" terminal of the ignition switch is connected in to its circuit. See Figure 120-38 or 39. When the ignition is in the "Start" position (engine cranking), the "GND" terminal is grounded inside the switch and the "Hot" indicator bulb will be lit. When the engine is started and the ignition switch is in the "On" position, the test circuit is opened and the bulb is then controlled by the temperature switch.

e. Trouble Diagnosis—Generator, Oil Pressure Temperature Indicators

Use Figure 120-28 to trace wiring circuits for indicator lights. To determine if there is a ground in the indicator light circuit, remove connector from control switch, if light stays on, trouble is in circuit.

COMPLAINT	POSSIBLE CAUSE
1. GENERATOR INDICATOR	
Light on, ignition "Off".	Positive diode shorted. Locate and replace.
Light not lit, ignition "On" and engine not running.	Bulb burned out. Replace Open in light circuit. Locate and correct. Positive diode shorted. Locate and replace.
Light on, engine running above idle speed.	No generator output. Check output, paragraph 68-9. Negative diode shorted. Loose or broken generator belt. Resistance or open in field circuit. Defective field-light relay.
2. OIL PRESSURE INDICATOR	
Light not lit, ignition "On" and engine not running.	Bulb burned out. Replace. Open in light circuit. Locate and correct. Oil pressure switch defective. Replace.
Light on, engine running above idle speed.	Wiring between light and switch grounded. Locate and correct. Oil pressure switch defective. Replace. Oil pressure below 2 lbs. Locate cause and correct.

COMPLAINT	POSSIBLE CAUSE
3. TEMPERATURE INDICATORS	
(a) Hot Indicator	
Light not lit when cranking engine.	Bulb burned out. Replace.
	Open in light circuit. Locate and correct.
	Ignition switch defective. Replace.
Light on, engine running.	Wiring between light and switch grounded. Locate and correct.
	Temperature switch defective. Replace.
	Cooling system water temperature above 248°F. Find cause and correct.
	Ignition switch defective. Replace.
(b) Cold Indicator	
Light not lit, ignition "On" and engine cold.	Bulb burned out. Replace.
	Open in light circuit. Locate and correct.
	Water temperature switch defective. Replace.
Light on, after normal engine warm-up period.	Wiring between light and switch grounded. Locate and correct.
	Water temperature switch defective. Replace.
	Thermostat in cooling system defective. Replace.

DIVISION III

SERVICE PROCEDURES

120-22 REMOVAL AND INSTALLATION OF INSTRUMENT PANEL PARTS—LE SABRE, WILDCAT AND ELECTRA

Before starting any instrument panel repair, always disconnect battery ground strap.

a. R. & I. Instrument Cluster Assembly

1. Remove two windshield side garnish moldings.

2. Remove six screws and pull instrument panel upper cover rearward. Disconnect radio speaker wire and remove cover.

3. Remove ash receiver assembly.

4. Remove one 3/8 hex nut through hole in glove box.

5. Remove either radio bracket screw.

6. Remove two 3/8 hex head bolts from outer ends of instrument panel housing.

7. Remove A/C hose from center distribution duct and push hose to left of steering column.

8. Remove light switch from instrument panel housing; do not unplug connector.

9. Protect steering column so that instrument panel housing will not mar column when housing is tilted back.

10. Tilt instrument panel housing back and place 1-1/2 inch spacer blocks under each end of housing at attaching points. See Figure 120-29.

11. Disconnect from instrument cluster:

a. Shift indicator link (from below).

b. Printed circuit connector (from above).

c. Clock connector (from above).

d. Cruise switch connector (from above).

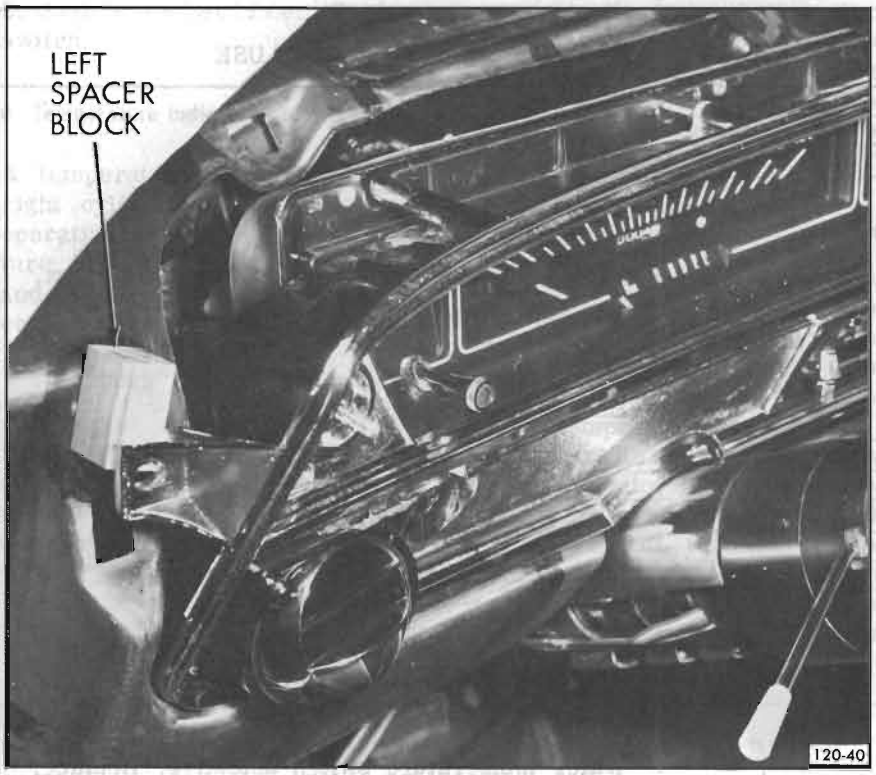

Figure 120-29—Tilting Housing Back

e. Cruise speedometer connector (from below).

f. Speedometer cable (from below).

12. From below, remove two 1/4 hex head screws from bottom edge of instrument cluster.

13. From above, remove three 1/4 hex head screws from upper edge of cluster. Be careful not to lose two spacers.

14. Disconnect ground wire from upper edge of cluster.

15. Shift instrument cluster to right and lift out. It may be necessary to depress cruise engage knob for clearance. See Figure 120-30.

16. Install instrument cluster by reversing above steps.

b. R. & I. Speedometer or Printed Circuit

To remove a speedometer or a printed circuit, first remove instrument cluster. See subparagraph a above for instrument cluster removal and installation.

c. R. & I. Gas Gauge Dash Unit

1. Remove two windshield side garnish moldings.

2. Remove six screws and pull instrument panel upper cover rearward. Disconnect radio speaker wire and remove cover.

3. Remove three 1/4 hex head retaining screws and remove gas gauge.

d. R. & I. Cruise Engagement Switch

1. Remove light switch from instrument panel housing; do not unplug connector.

2. From below, remove two 1/4 hex head screws from cruise switch. Switch will slide from switch rod.

3. Pull switch down and unplug connector from below.

e. R. & I. Clock

1. Remove two windshield side garnish moldings.

2. Remove six screws and pull instrument panel upper cover rearward. Disconnect radio speaker wire and remove cover.

3. Remove clock reset knob with allen wrench.

4. Unplug clock connector.

5. Remove two 1/4 hex head screws and pull clock out carefully until reset shaft clears.

6. Install clock by reversing above steps.

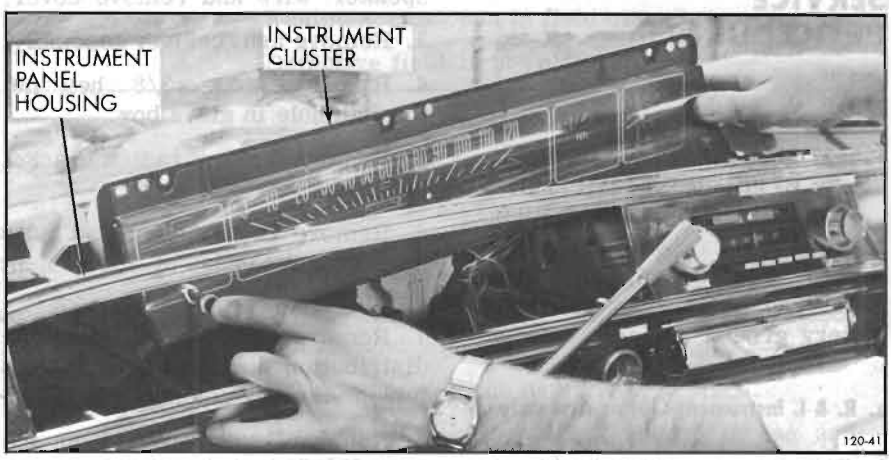

Figure 120-30—Removing Instrument Cluster

f. R. & I. Radio

1. Remove ash receiver assembly.
2. Remove air conditioner center outlet and duct.
3. Remove radio bracket to radio screw.
4. Unplug antenna lead from radio receiver.
5. Unplug three wire connector from radio receiver.
6. Remove radio knobs and escutcheons. Remove two 5/8 hex nuts.
7. Remove radio downward.

NOTE: If car is equipped with an air conditioner, center distributor duct must be removed.

8. Install radio by reversing above steps.

g. R. & I. Front Radio Speaker

1. Remove two windshield side garnish moldings.
2. Remove six screws and pull instrument panel upper cover rearward. Disconnect radio speaker wire and remove cover to bench.
3. Remove four nuts and remove radio speaker.
4. Install light switch by reversing above steps.

h. R. & I. Ignition Switch

1. Remove ash receiver assembly.
2. Remove ignition switch lock cylinder (in accessory position).
3. Remove switch retaining nut.
4. Lower switch into ash receiver hole and unplug from connector.
5. Install ignition switch by reversing above steps.

i. R. & I. Light Switch

1. Pull switch knob out to last notch, then depress latch button and pull knob and rod assembly out of switch.
2. Remove switch escutcheon.
3. Pull switch down and unplug from connector.
4. Install light switch by reversing above steps.

j. R. & I. Windshield Wiper Switch

1. Pull windshield wiper switch knob off.
2. Remove switch escutcheon.
3. Pull switch down and unplug from connector.

k. R. & I. Rear Window Defroster or Power Antenna Switch

1. Remove two windshield side garnish moldings.
2. Remove six screws and pull instrument panel upper cover rearward. Disconnect radio speaker wire and remove cover.
3. Remove switch retaining screws and unplug switch from connector.

l. R. & I. Instrument Cluster Light Bulbs

Any light bulb in the instrument cluster is accessible from below without removing any other part.

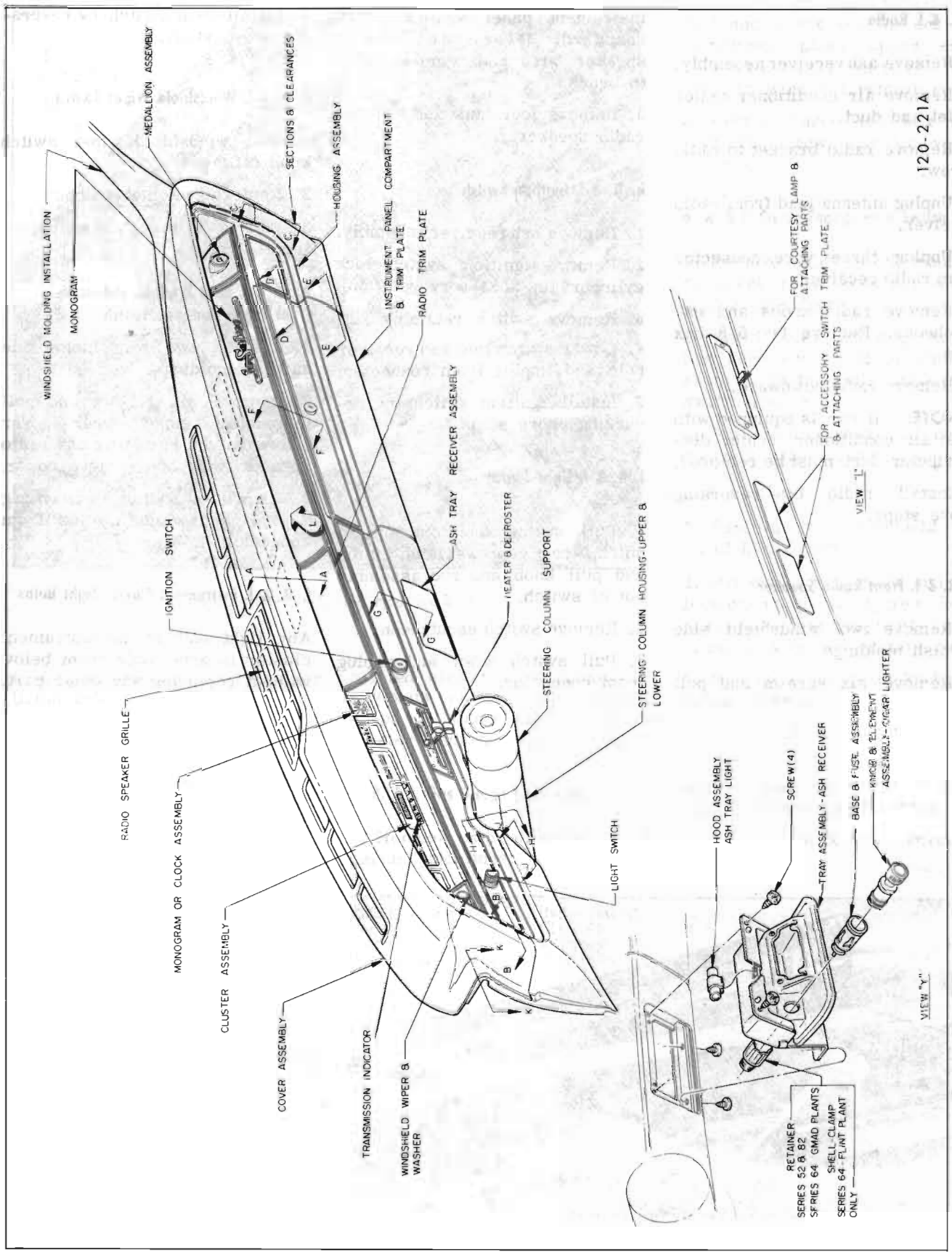

Figure 120-31—Instrument Panel Installation - LeSabre, Wildcat & Electra

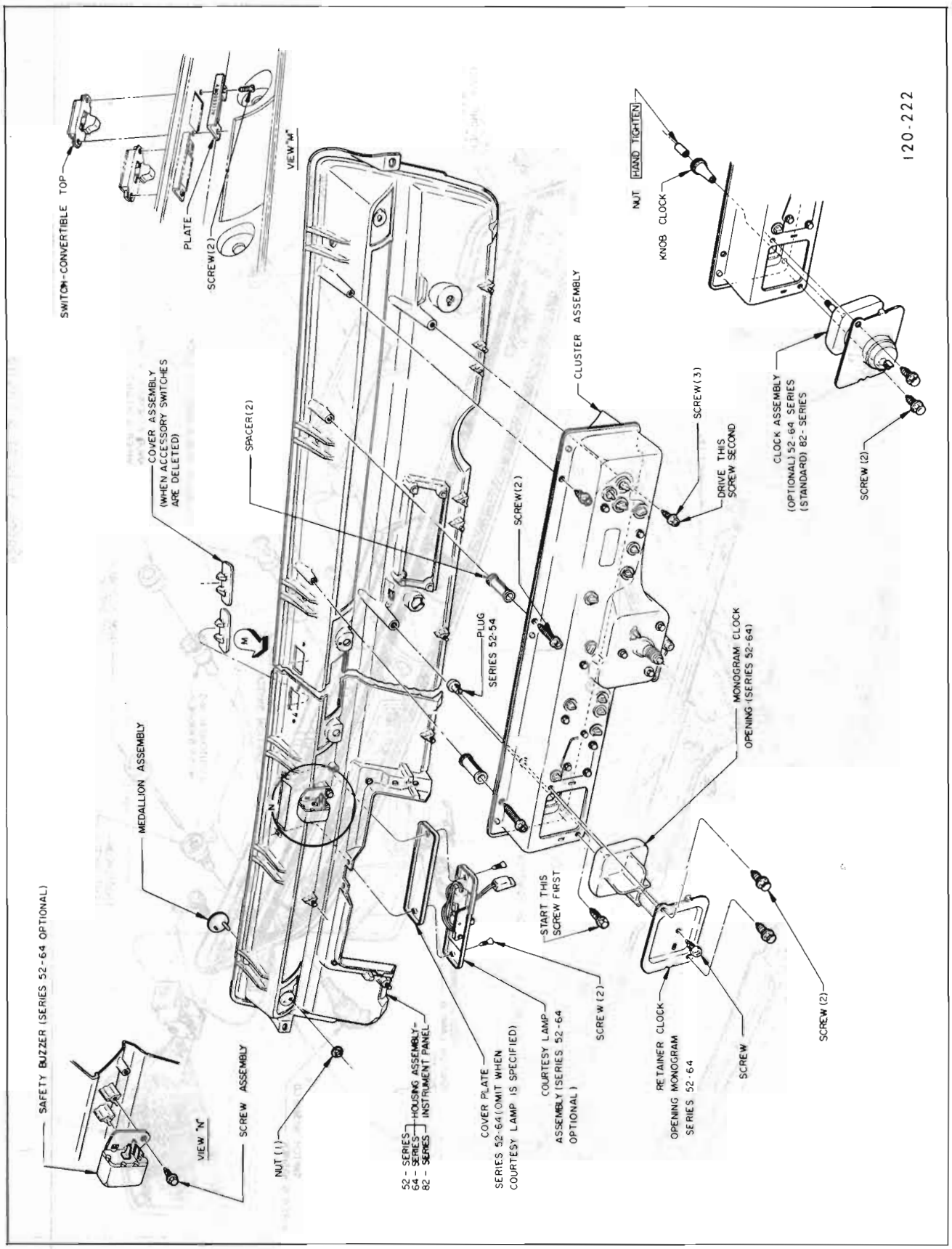

Figure 120-32—Clock and Cluster Installation - LeSabre, Wildcat & Electra

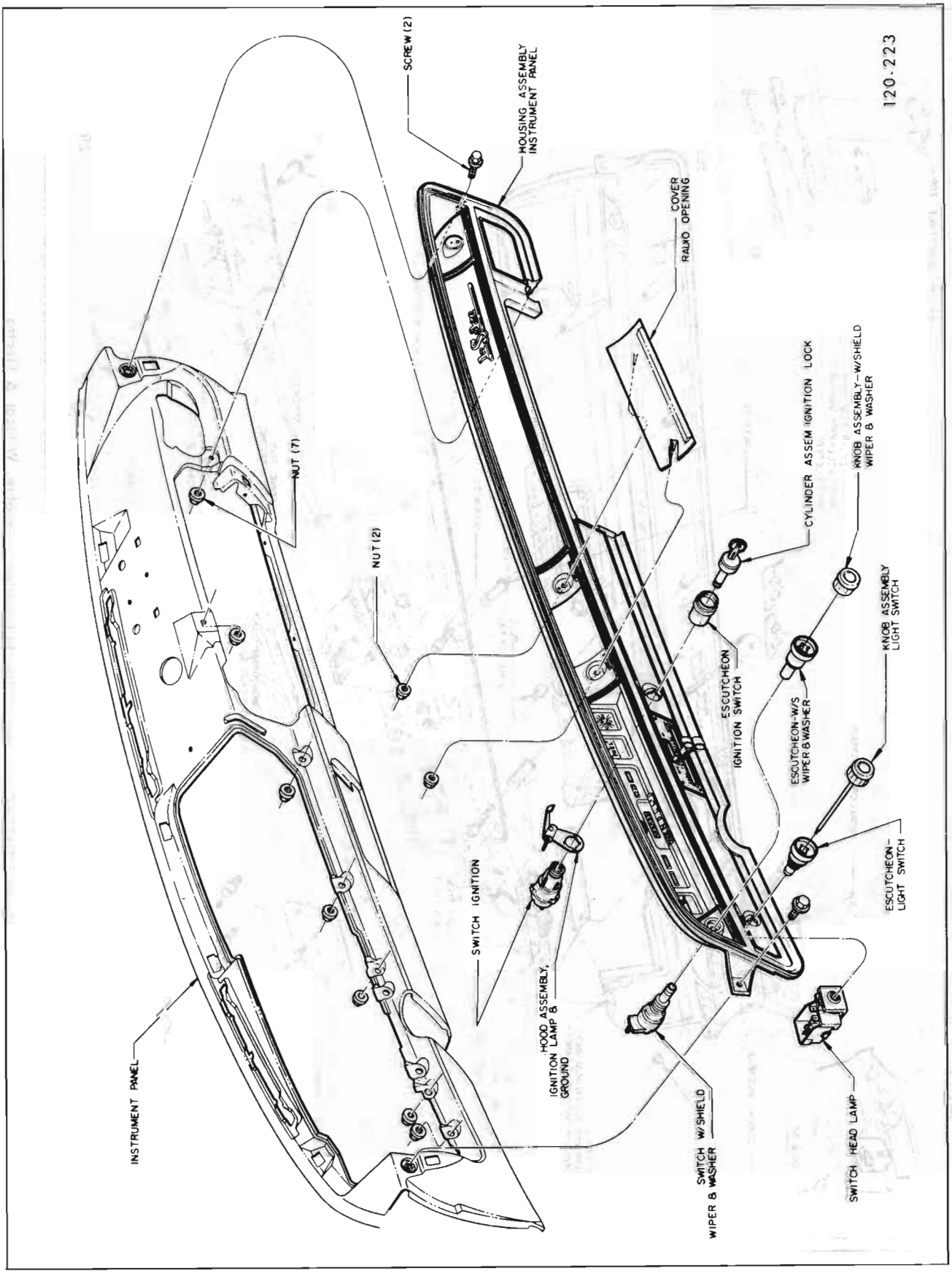

Figure 120-33—Housing Installation - LeSabre, Wildcat & Electra

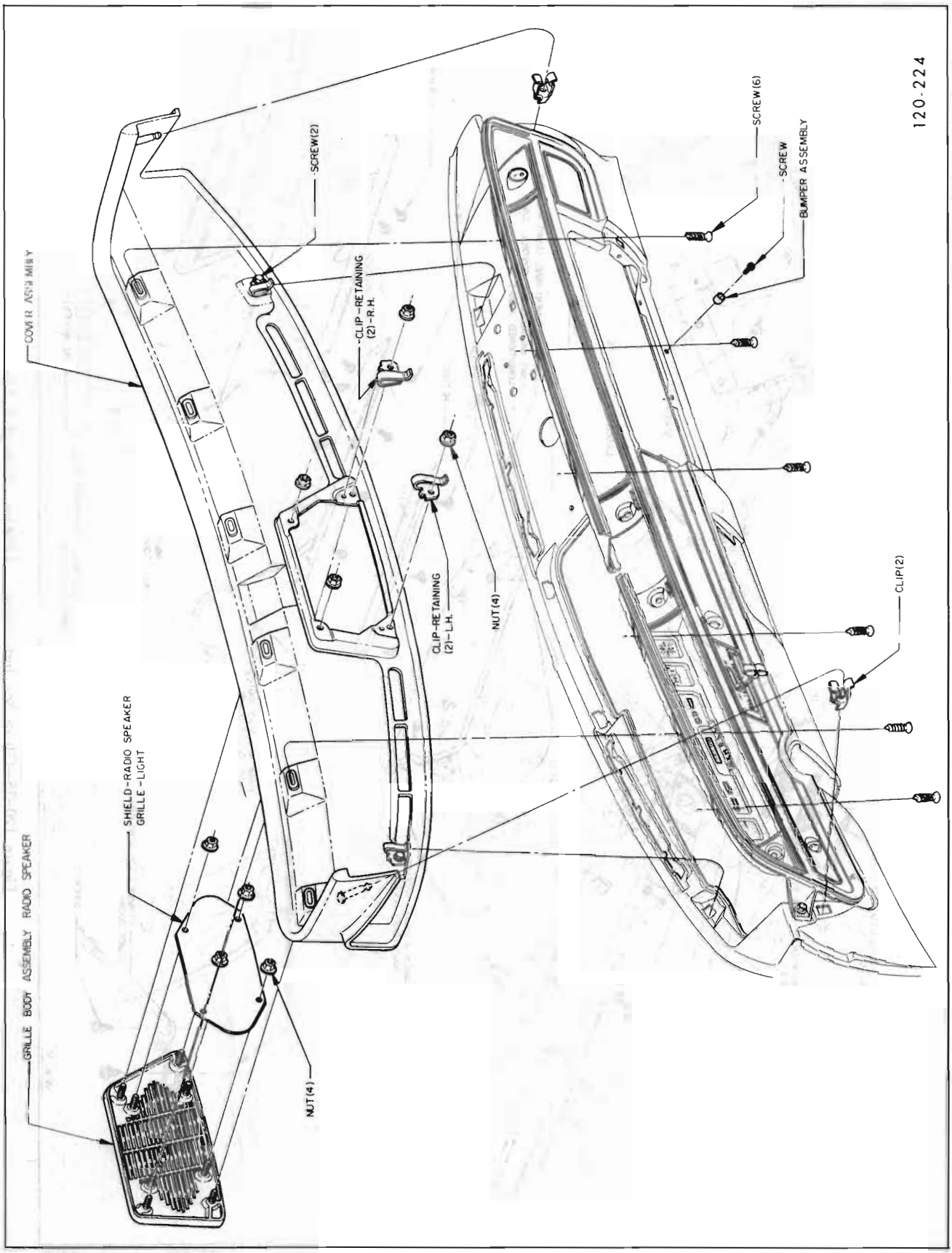

Figure 120-34—Upper Cover Installation - LeSabre, Wildcat & Electra

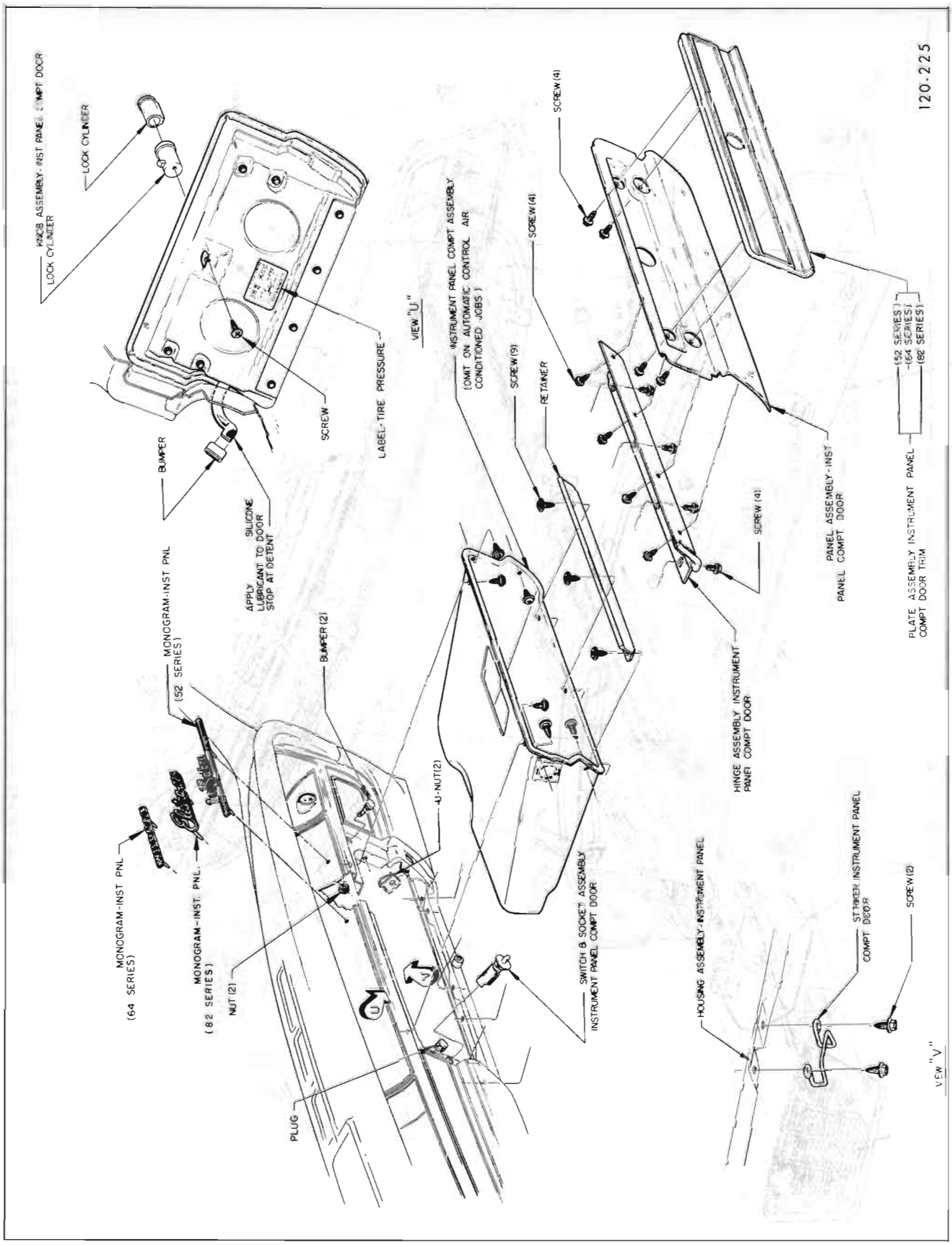

Figure 120-35—Glove Box Installation - LeSabre, Wildcat & Electra

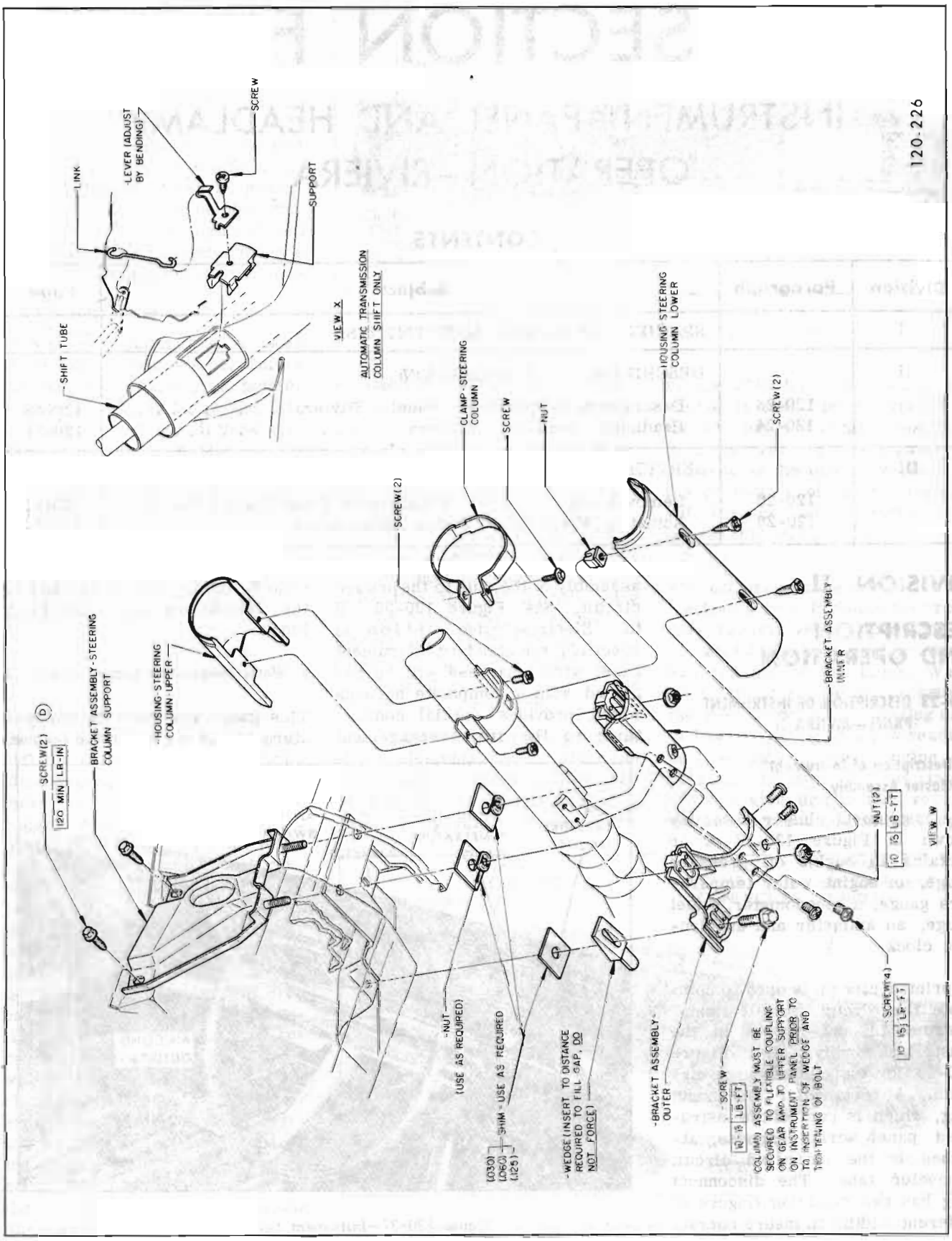

Figure 120-36—Steering Column Installation - LeSabre, Wildcat & Electra