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PONTIAC NO.

2

1955 MODEL

1955 PONTIAC BODY INFORMATION

This Service News has been prepared to cover late changes and to furnish additional information not covered in 1955 Fisher Body Service News No. 1. A complete new section is also included dealing with the new Hydro-Lectric system for operating the convertible top. Items listed on the following pages which have been changed are referenced to Service News No. 1 by page numbers. Changes outlined in this Service News should be suitably marked in Service News No. 1 to maintain an accurate reference.

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HYDRO-LECTRIC SYSTEM FOR OPERATING CONVERTIBLE TOP

(NEW ROTOR-TYPE MOTOR AND PUMP ASSEMBLY)

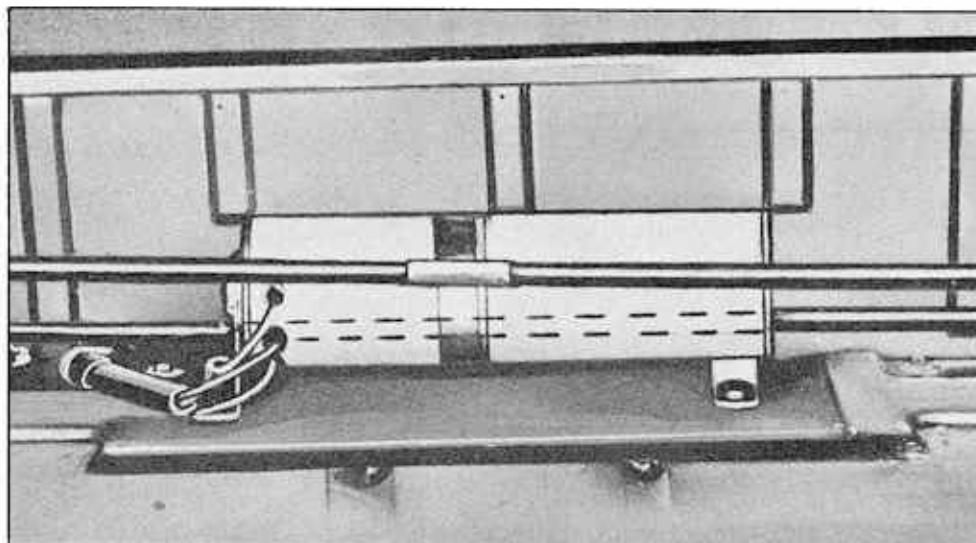
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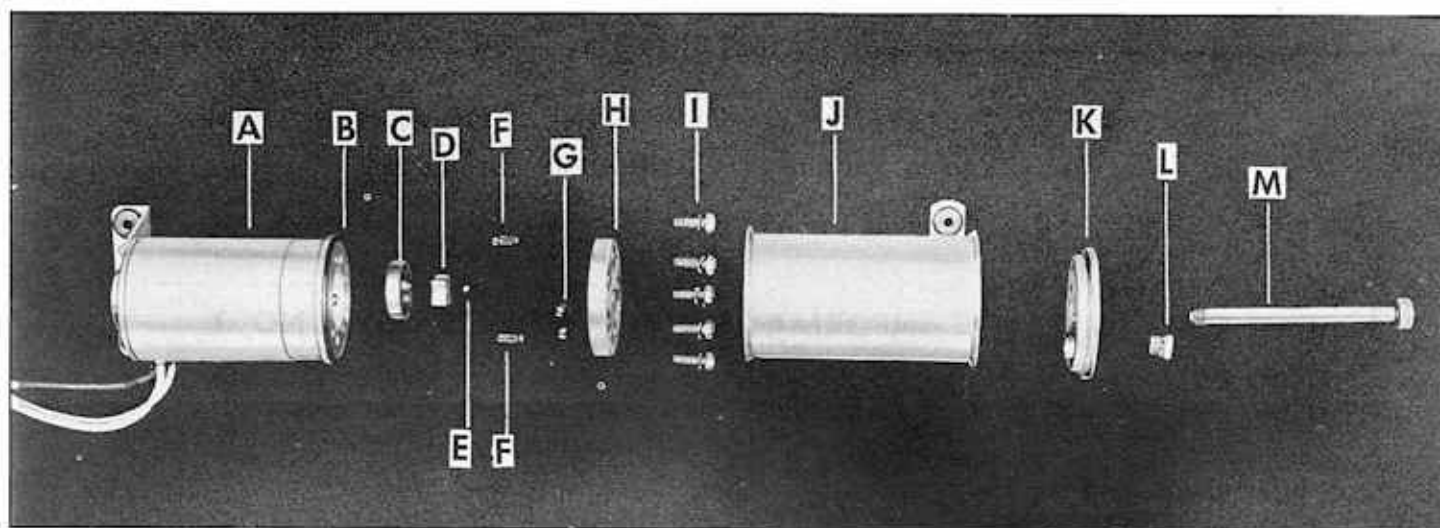
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HYDRO-LECTRIC PACKAGE UNIT FOR OPERATING THE CONVERTIBLE TOP

A newly designed hydraulic package unit has been incorporated in the Convertible bodies. The new unit consists of a twelve (12) volt reversible type motor, a rotor-type pump with a non-adjustable pressure relief valve, two (2) hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. The new unit can easily be distinguished from the gear-type unit by the design of the fluid reservoir, and the hydraulic hose connections at the sides of the pump. It is important to note that the folding top cannot be operated manually on bodies having the new rotor-type pump. The illustration below shows the new unit installed in the body directly behind the rear seat back.



The illustration below shows an exploded view of the motor and pump assembly. The parts indicated by letters may be identified in the description directly below the illustration.



- A. Motor & Pump End Plate Assembly
- B. Sealing Ring
- C. Outer Pump Rotor
- D. Inner Pump Rotor
- E. Rotor Drive Ball
- F. Pressure Relief Valve Balls & Springs
- G. Fluid Control Valve Balls

- H. Pump Cover Plate Assembly
- I. Pump Cover Plate Attaching Screws & Washers
- J. Reservoir Tube & Bracket Assembly
- K. Reservoir Tube End Plate & Sealing Ring
- L. Filler Plug & Sealing Ring
- M. Reservoir Bolt, Washer & Sealing Ring Assembly

ROTOR-TYPE MOTOR AND PUMP ASSEMBLY

REMOVAL

1. Operate the folding top to the full "up" position.
2. Disconnect the positive battery cable.
3. Place protective covering over the rear seat back and cushion.
4. Working inside the body, detach the front edge of the

- folding top compartment bag from rear seatback panel.
5. Working on the inside of the body over the rear seat back, remove the pump and motor shield attaching screws and remove shield.

(Continued)

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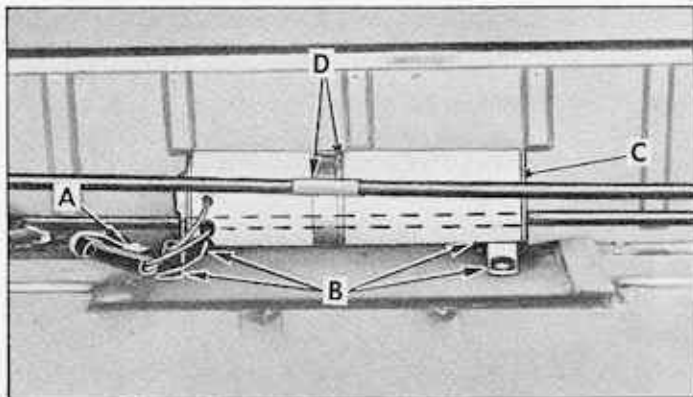
6. Remove the clip "A" securing the wire harness.
7. Disconnect the motor leads from the wire harness, and remove the clips securing the hydraulic hose to the rear seat back panel.

8. To facilitate removal apply a rubber lubricant to pump attaching grommets "B", then carefully disengage grommets from floor pan.

9. Place absorbent rags below hose connections and end of reservoir.

10. With a straight-bladed screw driver, vent the reservoir by removing the filler plug indicated at "C", then reinstall plug.

NOTE: Venting the reservoir is necessary in this "sealed-in" unit to equalize the air pressure in the reservoir to that of the atmosphere. This operation prevents the possibility of the hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.



11. Disconnect hydraulic lines at "D" and cap open fittings to prevent leakage of fluid. Use a cloth to absorb any leaking fluid, then remove the unit from the rear compartment.

INSTALLATION

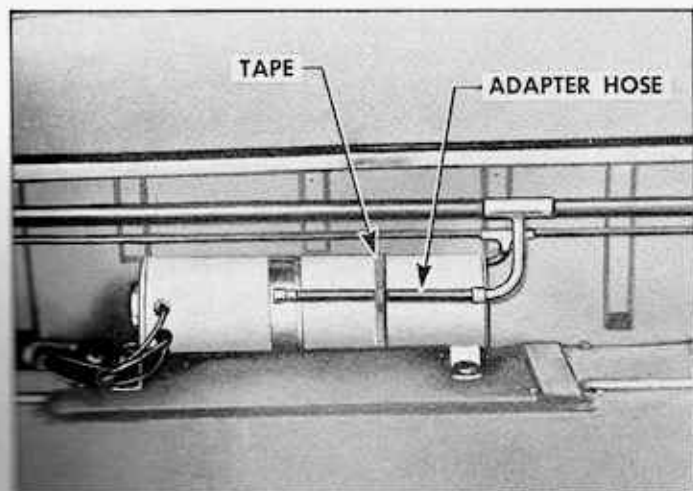
1. If a replacement unit is being installed, fill reservoir unit with specified Delco #11 hydraulic fluid (G. M. Hydraulic Brake Fluid Super #11). See "Checking Fluid in Reservoir" for proper fluid level.
2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.
3. Connect battery and operate top through its up and down cycle.
4. Check connections for leaks and check fluid level in reservoir. See "Checking Fluid in Reservoir" for proper level.
5. Reinstall previously removed parts.

MOTOR AND PUMP ASSEMBLY

REMOVAL AND INSTALLATION

(WHEN REPLACING GEAR-TYPE PUMP WITH ROTOR-TYPE PUMP)

NOTE: Component parts of the gear-type unit are available for service as they have been in the past; however, the complete gear-type motor and pump assembly is not available for service. Therefore, if a complete gear-type motor and pump assembly is being replaced, it is necessary to install the new rotor-type motor and pump assembly with special service adapter hoses.



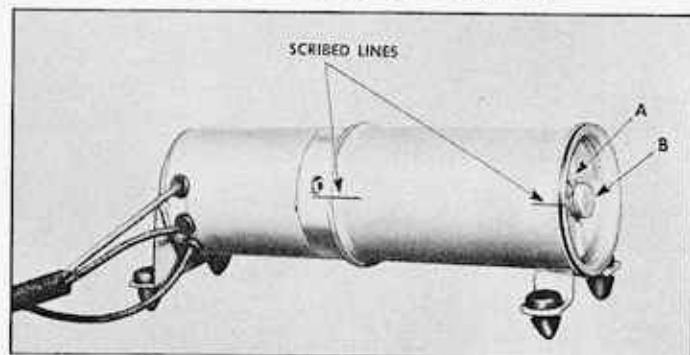
1. Place protective covering over the rear seat cushion and seat back, then detach the front edge of the folding top compartment bag from the rear seat back.
2. Working inside the body over the rear seat back, remove the motor and pump assembly following the procedure outlined in Fisher Body Service News No. 1.
3. Fill replacement unit reservoir with Delco #11 hydraulic fluid (G. M. Hydraulic Brake Fluid Super #11). See "Checking Fluid in Reservoir" for proper level.
4. Obtain two (2) special service adapter hoses and install male fittings to new rotor-type pump. One of the adapter hoses is shown in opposite illustration.
5. Connect female fitting of each adapter hose to hydraulic hose tee as shown in opposite illustration, then tape hoses to reservoir tube.
6. With suitable tool engage rubber grommets in holes in panel and connect wiring.
7. Operate top through its up and down cycle and inspect hose connections for leaks.
8. Check fluid level. See "Checking Hydraulic Fluid in Reservoir" for proper level.

9. Install the pump and motor shield and secure the folding top compartment bag to the rear seat back panel.



DISASSEMBLY OF RESERVOIR TUBE FROM MOTOR AND PUMP ASSEMBLY

1. Remove motor and pump assembly from body, as outlined on page 2.
2. SCRIBE A LINE across the pump end plate, reservoir tube and reservoir tube end plate as shown in illustration at right to ensure correct assembly of parts.
3. With a straight-bladed screw driver, remove filler plug indicated at "A". Note sealing ring around plug.
4. Drain fluid from reservoir into a clean container.
5. With suitable tool remove bolt indicated at "B". Note the sealing rings around bolt, reservoir end plate, and between end of reservoir tube and pump assembly.



ASSEMBLY OF RESERVOIR TUBE TO MOTOR AND PUMP ASSEMBLY

1. Position sealing ring on pump and assemble reservoir tube to pump according to scribe marks. NOTE: Bracket assembly on tube should be located at outer end when tube is assembled to pump.
2. Position sealing ring on tube end plate and place end plate on reservoir tube, lining up the scribe marks. Install and tighten attaching bolt.
3. Place unit in a horizontal position and fill with fluid until level of fluid is even with bottom of filler plug hole.
4. Make sure that sealing ring is on the filler plug, and install filler plug.

OPERATION OF THE FOLDING TOP

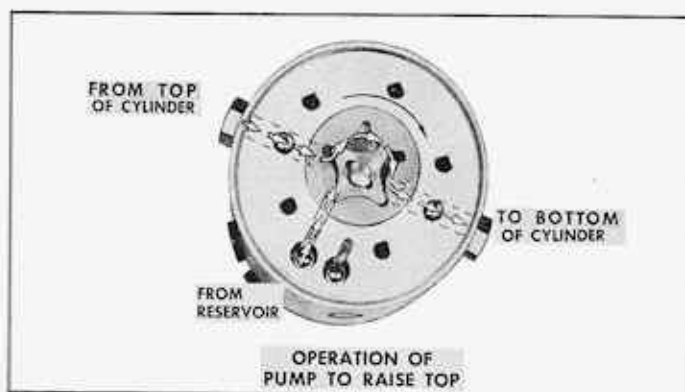
The principles of top operation with the rotor-type pump are the same as those of the unit with the gear-type pump. When the control knob is pushed forward, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control knob is pulled rearward, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

PUMP ASSEMBLY

The rotor-type pump assembly is designed to deliver a maximum pressure in the range of 240 psi. to 280 psi. The pressure relief valve opens when the fluid pressure reaches the range of 240 psi. to 280 psi. The information below outlines in detail the pump action when the motor is actuated. The operation of the pressure relief valve is outlined on page 5.

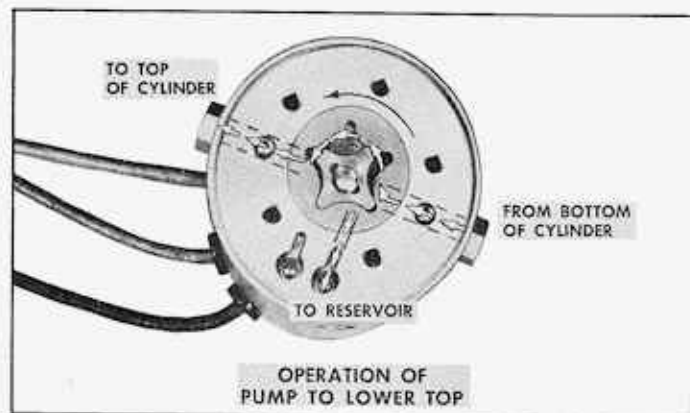
RAISING THE TOP

When the red motor lead is energized, the motor drive shaft turns the rotors clockwise as indicated by the large arrow. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston upward. This action causes the fluid above the piston in each cylinder to be forced into the pump, which recirculates the fluid to the bottom of the cylinders. The additional fluid required to fill the cylinder due to piston rod displacement is drawn from the reservoir as indicated. For the operation of the pressure relief valve and fluid control valve see page 5.



LOWERING THE TOP

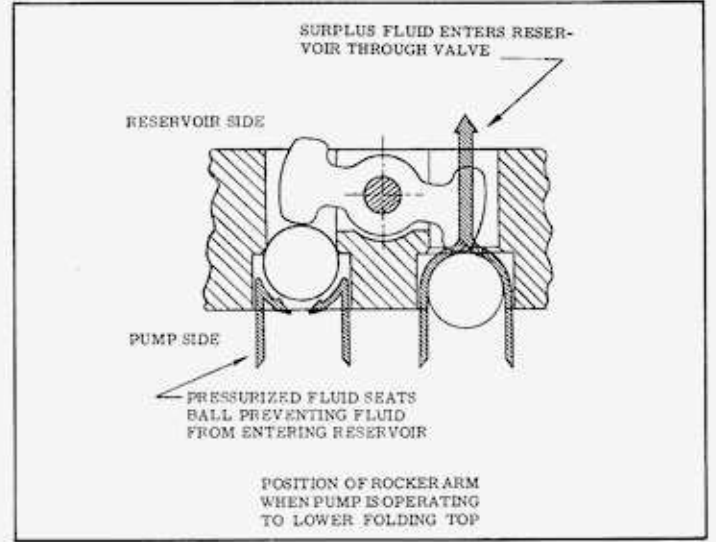
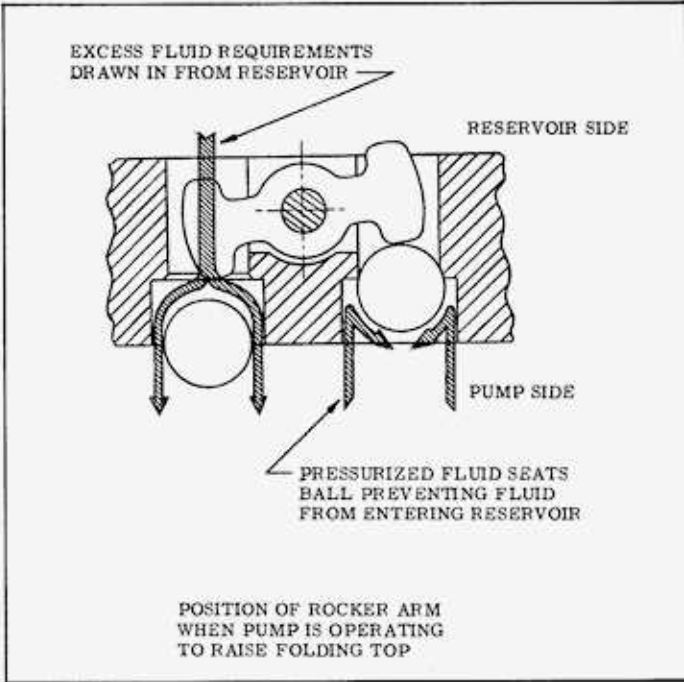
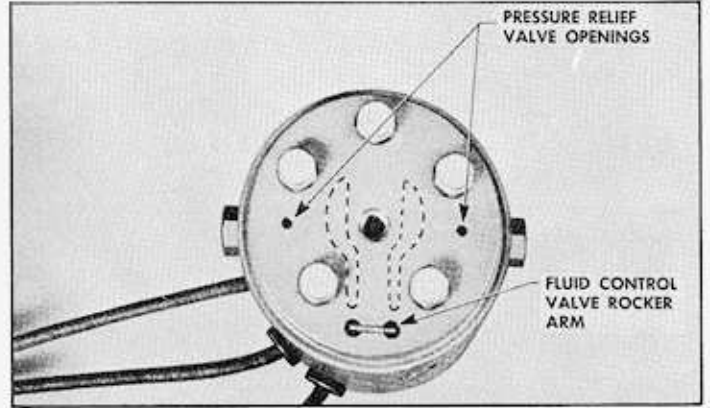
When the green motor lead is energized, the motor drive shaft turns the rotors counter-clockwise as indicated by the large arrow. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid due to piston rod displacement flows into the reservoir as shown. For the operation of the pressure relief valve and fluid control valve see page 5.



FLUID CONTROL VALVE

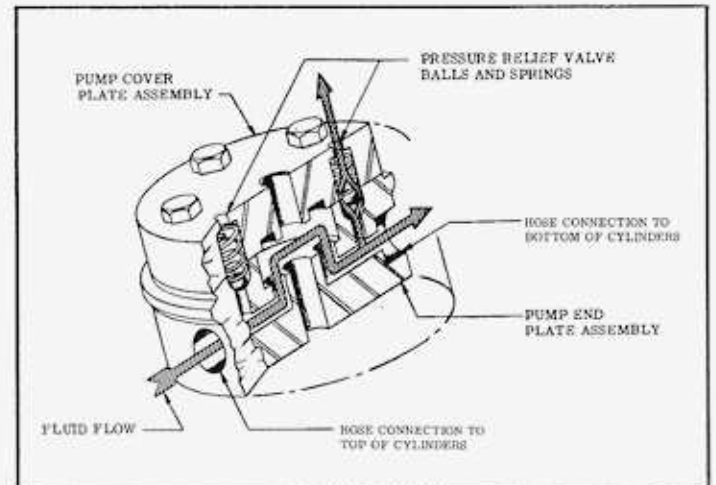
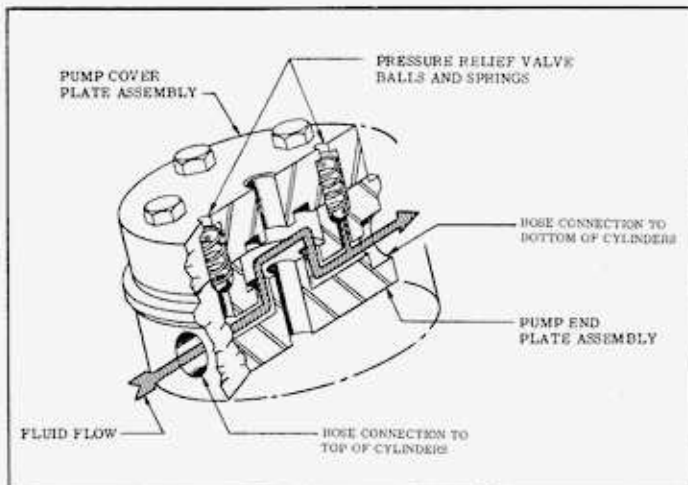
The fluid control valve consists of a rocker arm installed in the pump cover plate, and two (2) steel balls. The opposite illustration shows the top surface of the pump cover plate. The dotted lines indicate the cavities on the bottom side of the cover plate. The cavities are designed to permit fluid flow between pump rotors and the reservoir.

The illustrations below illustrate the operation of the fluid control valve.



PRESSURE RELIEF VALVE

The pressure relief valve consists of two (2) springs and steel balls assembled in the pump end plate assembly. The illustration at top of page shows the location of the pressure relief valve openings in the cover plate. The illustrations below show the pressure relief valve balls and springs. The pressure relief valve operates as follows: When the pump is not operating or is operating and is delivering a pressure below the range of 240 psi. to 280 psi., the relief valve balls are seated as shown below at left. When the pump is operating to raise the top and the fluid pressure reaches the range of 240 psi. to 280 psi., the relief valve ball at the pressure side of the pump unseats, as shown at right, and the hydraulic fluid flows into the reservoir thereby preventing the pump from delivering a pressure of more than the range between 240 psi. to 280 psi. The same action takes place at the opposite side of the pump when the pump is operating to lower the top.



CHECKING PROCEDURES

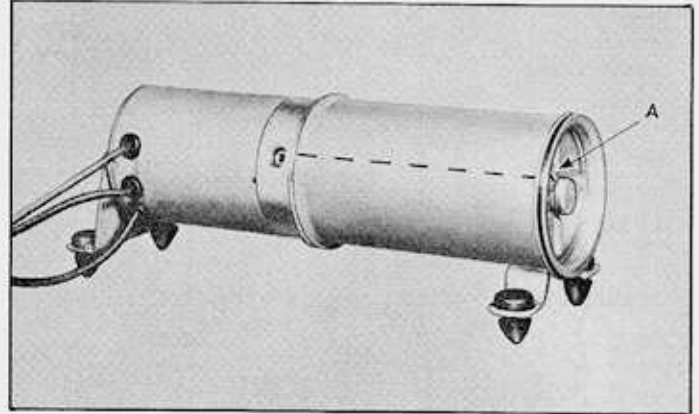
The mechanical and electrical checking procedures for checking the Hydro-Lectric System, which incorporates the rotor-type pump assembly, are the same as outlined in Fisher Service News No. 1. The hydraulic checking procedure is outlined below.

HYDRAULIC CHECKING PROCEDURE

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in hydraulic system, obstructions or kinks in hydraulic hoses or faulty operation of a cylinder or pump. A pressure gauge can be used to check the pressure of the pump. See "Checking the Pressure of the Pump".

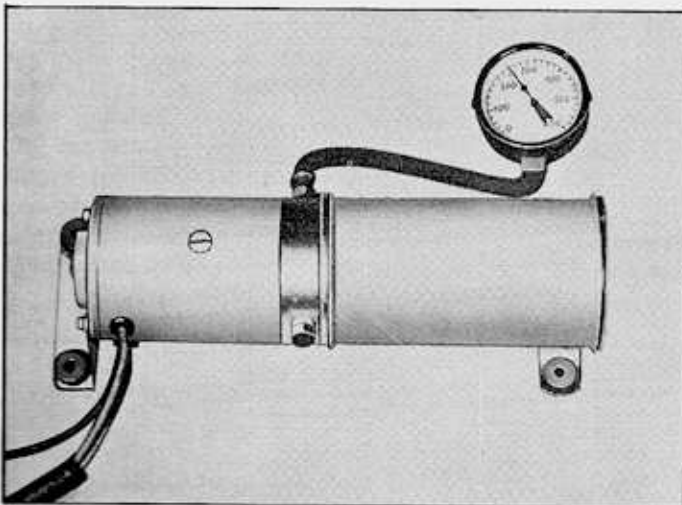
CHECKING HYDRAULIC FLUID LEVEL IN RESERVOIR

1. Operate top to raised position.
2. Disconnect positive cable from battery.
3. At the rear compartment, remove pump and motor shield.
4. Place absorbent rags below reservoir at filler plug.
5. With a straight-bladed screw driver, remove filler plug indicated at "A". Fluid level should be at the lower edge of filler plug hole as indicated by the dotted line.
6. If fluid is low, add Delco #11 hydraulic fluid (G. M. Hydraulic Brake Fluid Super #11) to bring to specified level.
7. Reinstall filler plug and pump and motor shield. Connect positive cable to battery.



CHECKING OPERATION OF LIFT CYLINDERS

1. Remove the rear seat cushion and folding top compartment side panel assembly.
2. Operate the folding top control switch and observe the lift cylinders during the "up" and "down" cycles for these conditions:
 - a. If the movement of the cylinder rods is not coordinated or sluggish when the motor is actuated, check the hydraulic hoses from the motor and pump to the cylinder for kinks.
 - b. If one cylinder rod moves slower than the other, the cylinder having the slower moving rod is defective and should be replaced.
 - c. If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See "Checking the Pressure of the Pump".



CHECKING THE PRESSURE OF THE PUMP

1. Remove the motor and pump assembly from the rear compartment.
2. Install plug in one port, and pressure gauge in port to be checked, as indicated in the illustration.
3. Actuate motor with an applied terminal voltage within the range of 9.5 volts to 11.0 volts. Pressure gauge should show a pressure between 240 psi. and 280 psi.
4. Check pressure in other port. NOTE: A difference in pressure readings may exist between the pressure port for the top of the cylinders and the pressure port for the bottom of the cylinders. This condition is acceptable if both readings are within the limit of 240 psi. and 280 psi.
5. If the pressure is not within the specified limits, the unit is defective and should be repaired or replaced, as required.

Notes

SUPPLEMENTARY INFORMATION FOR SERVICE NEWS NO. 1

PAGE 4

**WINDSHIELD REVEAL MOLDINGS
REMOVAL**

Paragraphs 4 and 6 have been changed as follows:

4. With suitable tool, carefully snap off escutcheon from the junction of the lower reveal moldings to expose clip attaching screw.

6. On the inside of the body beneath the instrument panel, check for a nut and washer securing the windshield lower reveal molding clip located between the transmission and side reveal molding and remove if present. The nut and washer attachment is optional. Then, carefully slide lower reveal molding approximately 1-1/2" toward center line of the body.

NOTE: At this location, the reveal molding lower flange is cut out to permit disengagement of the lower edge of the molding from the clip located between transmission and center line of the body.

PAGE 8

**WINDSHIELD WIPER MOTOR AND
AUXILIARY DRIVE ASSEMBLY
INSTALLATION**

It has been determined that the lubrication of the auxiliary drive pulleys is no longer required; therefore, the lubrication operation referenced in step 1 should be omitted.

PAGE 9

**WINDSHIELD WIPER TRANSMISSION
INSTALLATION**

Paragraph 2 changed as follows:

2. Install gasket to each transmission. Apply medium-bodied sealer around transmission shaft to gasket surface contacting body metal.

PAGE 10

INSTRUMENT PANEL COVER

This new item should be added.

An instrument panel cover assembly which consists of a fiber glass foundation and plastic cover is available as an option for all styles. The cover is cemented in place along the rear edge; the front edge of the cover is secured in place by a two-piece metal retainer located beneath the lower garnish moldings.

REMOVAL

1. On Convertible styles, remove the upper, side and lower garnish molding. On Special Coupe and Sedan styles, remove the side and lower garnish moldings.
2. Along the front edge of the instrument panel cover, remove the screws securing the cover retainers and remove the retainers.
3. At each end of the instrument panel, remove the instrument panel cover retaining clip.
4. Along rear edge of cover, remove or loosen instrument panel parts, as required, to remove cover.
5. Carefully detach cover from rear edge of instrument panel and remove from body.

INSTALLATION

1. Clean up and thoroughly dry cementing surfaces on instrument panel.
2. Apply trim cement to edge of cover and corresponding surface on instrument panel. Allow cement to become tacky.
3. Carefully position cover assembly on instrument panel, then carefully press cemented edge to instrument panel. Reinstall cover retainers.
4. Reinstall instruments and moldings, and clean up excess trim cement.

PAGE 6

**WINDSHIELD GLASS
REMOVAL**

Add NOTE following step 7 of Windshield Glass Removal.

NOTE: On some bodies, the lower reveal molding clip located between the transmission and side reveal molding, is secured with a nut and sealing washer from inside the body.

PAGE 8

**WINDSHIELD WIPER MOTOR
REMOVAL AND INSTALLATION**

The wiper motor control cable attaching screw "C" is now installed with the screw head located at the opposite end of the tapped hole. This change allows the removal of the control cable without loosening the wiper motor to gain access to the cable attaching screw; therefore, the wiper motor removal and installation sequence is revised as follows:

1. Detach vacuum line from connector at "A".
2. Loosen screw "C" and detach control cable from wiper motor.
3. Remove screws indicated at "B" and remove motor from auxiliary drive.
4. To install, reverse the removal procedure. Make sure control cable is correctly positioned at "C" for proper valve operation.

PAGE 9

**WINDSHIELD WIPER CONTROL
REMOVAL AND INSTALLATION**

Paragraph 1 revised due to change in cable screw (p. 8)

1. At the wiper motor, loosen control cable attaching screw and remove control cable from motor.

PAGE 12

**FRONT BODY HINGE PILLAR WEATHERSTRIP
SPECIAL AND CONVERTIBLE COUPE STYLES**

This new item should be added.

The weatherstrip is located along the upper portion of the front body hinge pillar and is secured in place by four (4) snap-in clips which are formed from a wire insert.

REMOVAL AND INSTALLATION

Carefully position tip of mechanically retained weatherstrip inserting tool or other suitable tool under weatherstrip at each clip location and snap clip out of the hole. To install weatherstrip, reverse the removal procedure. NOTE: An illustration showing the use of the mechanically-retained weatherstrip inserting tool is shown on page 32 in Service News No. 1.

PAGE 22

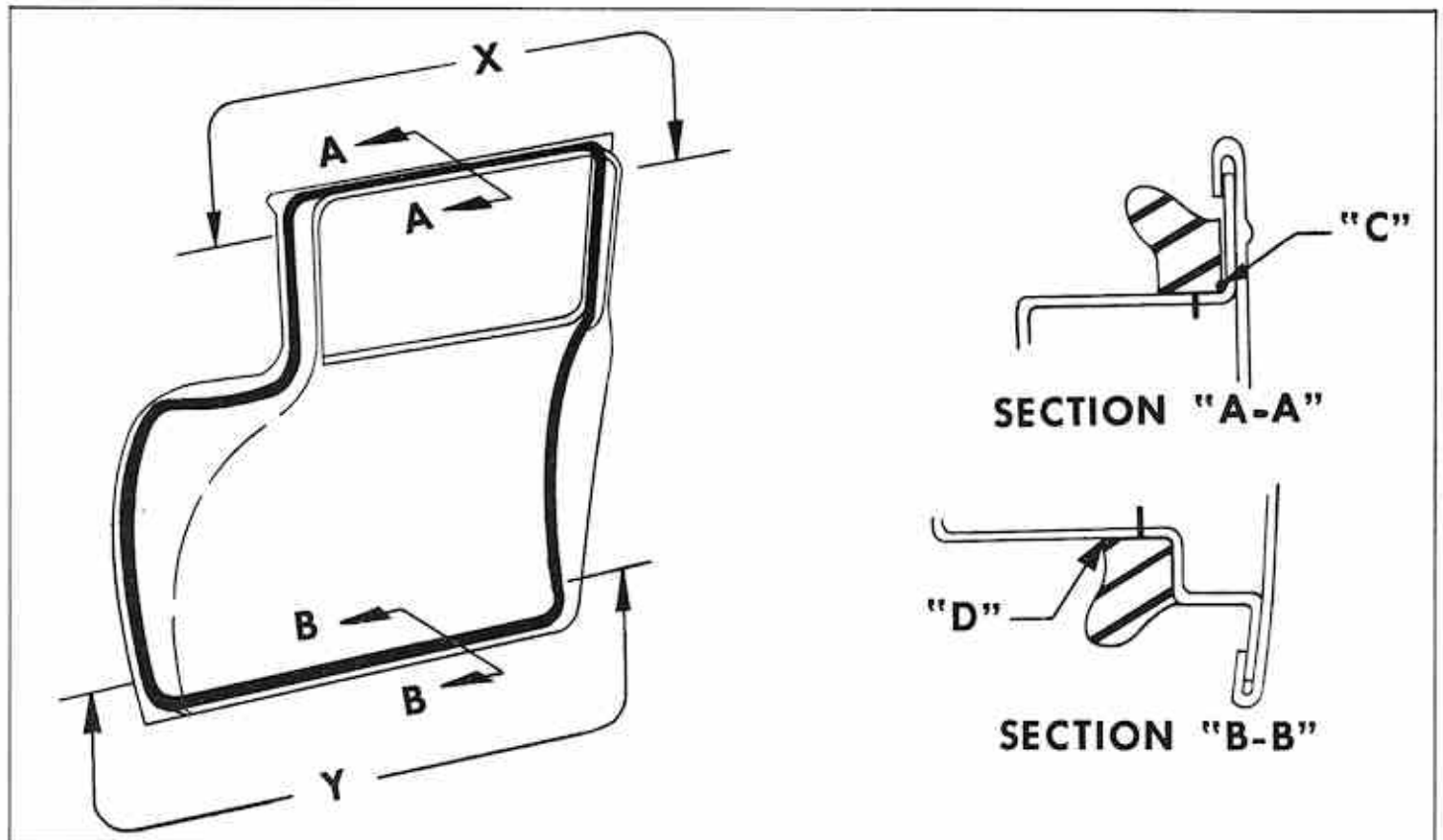
DOOR LOCK STRIKER

The serrations on the back surface of the door lock striker have been eliminated from the striker; therefore, disregard all references to striker serrations.

PAGE 24

MECHANICALLY-RETAINED DOOR WEATHERSTRIP

These new sealing operations should be added:

**APPLICATION OF ADDITIONAL SEAL
ALONG DOOR HEADER**

"37" AND "67" STYLES

1955 PONTIAC ALL STYLES EXCEPT

Apply a 1/8 inch bead of weatherstrip cement in location "C" shown in Section "A-A" of illustration above along distance "X" on drawing. Cement may be applied by inserting a pressure type gun behind the weatherstrip.

**APPLICATION OF ADDITIONAL SEAL
ALONG DOOR BOTTOM**

1955 PONTIAC ALL STYLES

Remove the weatherstrip along distance "Y" on above illustration and cement to door bottom as follows: Cement the inboard edge of the weatherstrip to the door facing at "D" shown in Section "B-B" of illustration above along distance "Y" on drawing, using weatherstrip cement. NOTE: Follow instructions of manufacturer when applying weatherstrip cement.

PAGE 23

**FRONT DOOR LOWER MOLDING
(SECOND TYPE)**

2819D AND 2819SD

A first and second type front door lower molding will be used on the 2819D and 2819SD. The removal and installation procedure for the first type molding is outlined in Service News No. 1. The procedure for the second type molding is outlined below.

The upper end of the molding is secured to the door outer panel by two (2) screws located under the window reveal molding. The molding is also secured by tee bolt clips with nuts and cup washers located on the inside of the outer panel, and a screw clip at the door hemming flange. To remove molding, remove window lower reveal molding, as previously described. Remove door trim pad and both access hole covers, then through access holes remove nuts and cup washers retaining molding. Remove attaching screws at upper and rear end of molding and remove molding from door. To install, reverse removal procedure.

PAGE 37

**DOOR LOWER MOLDING
(SECOND TYPE)**

2837SD AND 2867DTX

A first and second type door lower molding will be used on the 2837SD and 2867DTX. The removal and installation procedure for the first type molding is outlined in Service News No. 1. The procedure for the second type molding is outlined below.

The upper end of the molding is secured to the door outer panel by two (2) screws located under the window front reveal molding. The molding is also secured by tee bolt clips with nuts and cup washers located on the inside of the outer panel and a screw clip at the door hemming flange. To remove molding, remove the window front reveal molding, as previously described. Remove door trim pad and both access hole covers, then through access holes remove nuts and cup washers retaining molding. Remove attaching screws at upper and rear end of molding and remove molding from door. To install, reverse removal procedure.

PAGE 45

REAR QUARTER WINDOW LOWER REVEAL MOLDING

2511D

The following change should be made.

The molding is attached to the rear quarter outer panel with snap-on clips. To remove molding, apply masking tape above and below molding, and with a flat-bladed tool, carefully pry off molding. To install molding, apply medium-bodied sealer around clip attaching holes and reverse removal procedure.

PAGE 51

REAR QUARTER PINCHWELD FINISHING MOLDING

Change to read as follows:

It has been determined that the finishing molding can be removed without detaching the folding top compartment bag. To remove molding, follow the procedure indicated below.

The moldings are snapped over the pinchweld flange and retaining clips along the folding top compartment. The right rear quarter molding overlaps the left rear quarter molding. In addition, a screw secures the front and rear ends of the moldings.

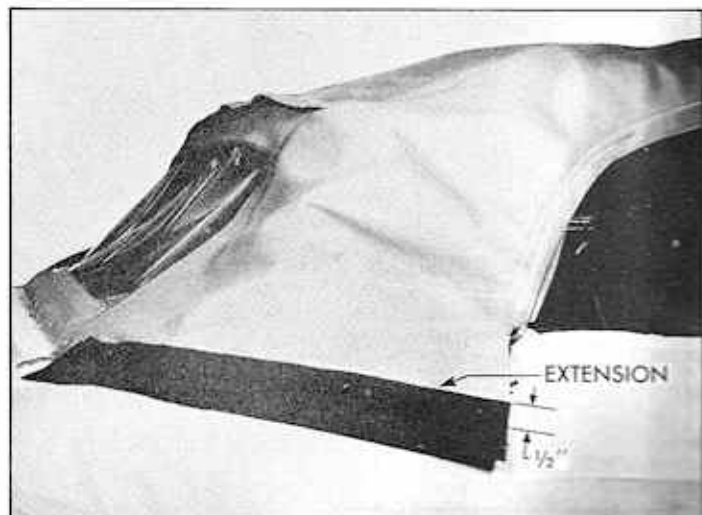
To remove moldings, lower the top and remove the rear quarter belt finishing molding. Remove screws securing front end of each molding, also the screw securing the moldings at the center-line of the body. Apply tape on panel below moldings to protect finish and with a cushioned wood block and hammer, carefully detach molding from flange. To install molding, replace waterproof tape covering pinchweld flange, replace clips as required and reverse removal procedure.

PAGE 75

INSTALLATION OF FOLDING TOP

Add note after step 14

NOTE: It may be necessary to cement an extension on the rear quarter area of the top cover as shown in the illustration. The extension should overlap the top material on the outer surface by not more than 1/2 inch, and is used temporarily to obtain proper "draw-down" of the top material at the rear quarter area. The extension should be removed after properly fitting and marking the top material.

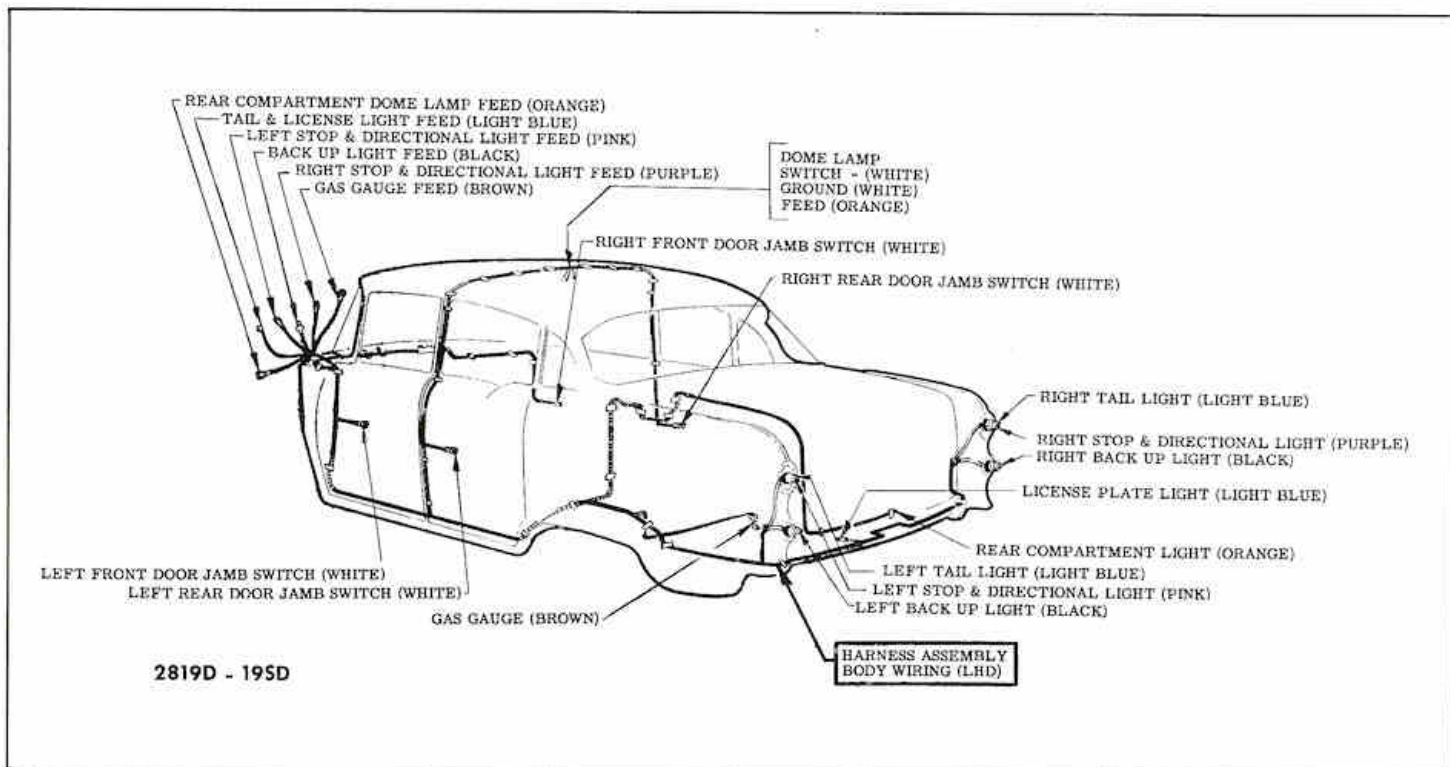
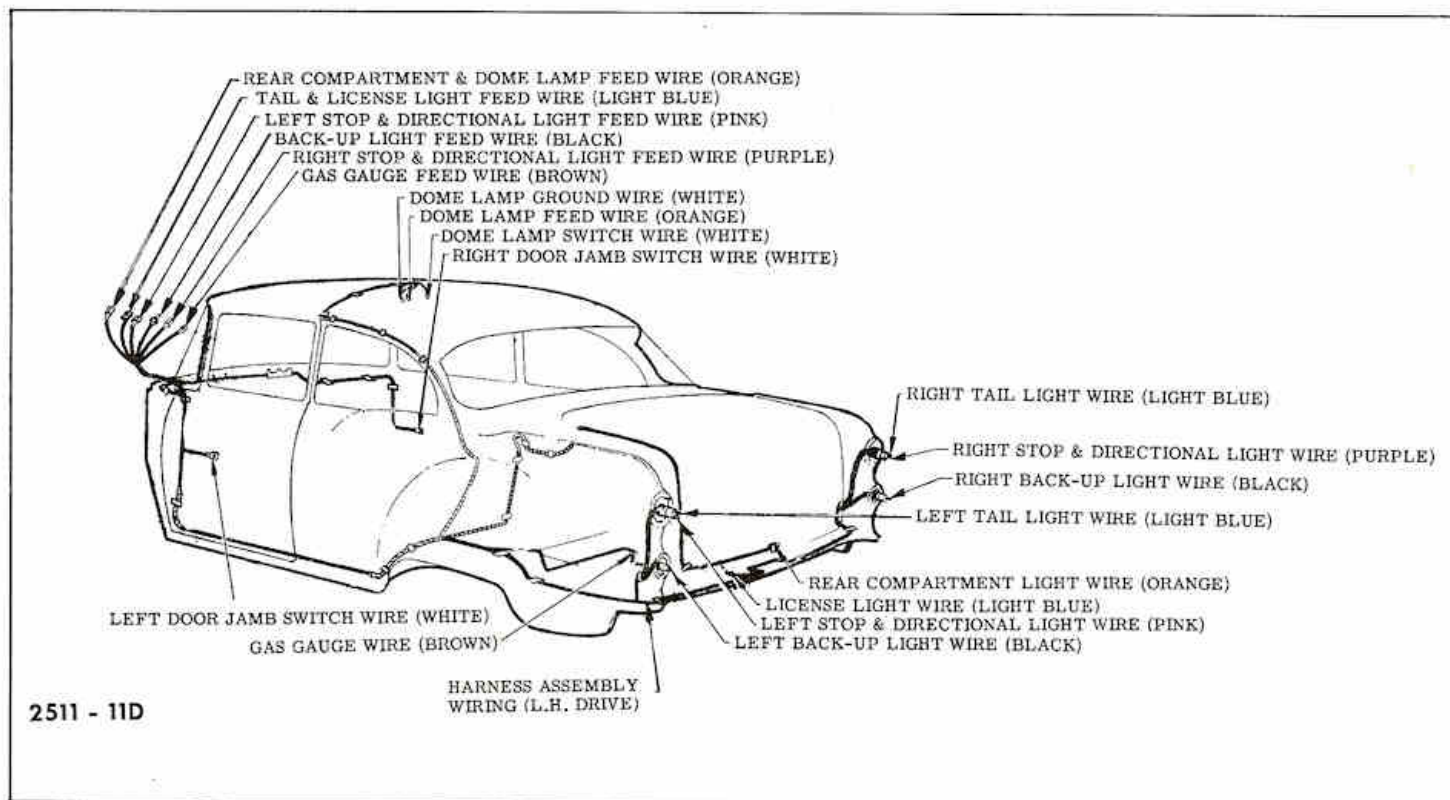


PAGE 89
WINDSHIELD WIPER MOTOR AND TRANSMISSION

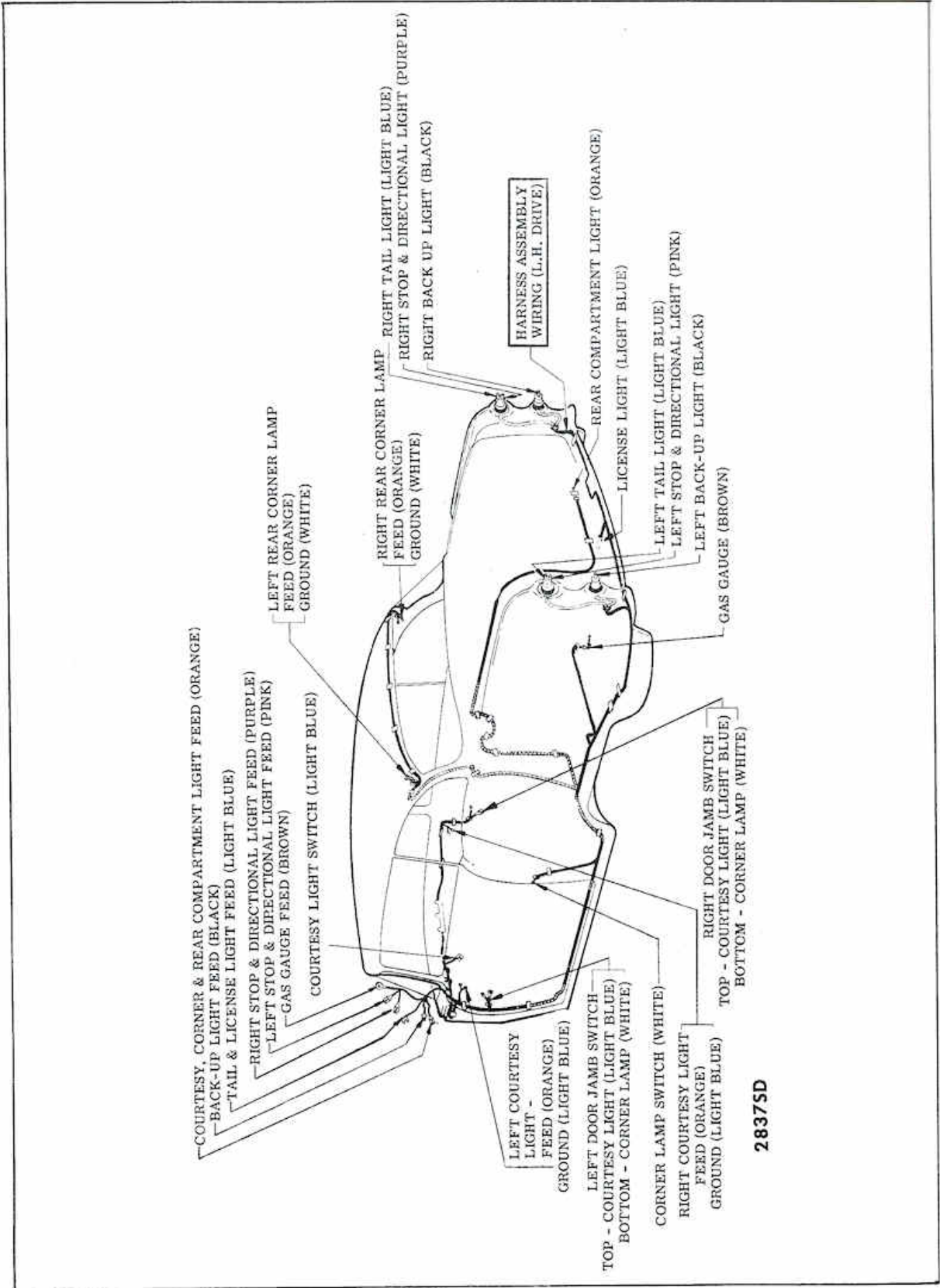
It has been determined that lubrication of the auxiliary drive pulleys is no longer required; therefore, the drawing of the auxiliary drive pulleys should be omitted from the illustration on page 89 and the title change to "Windshield Wiper Transmission."

BODY WIRING DIAGRAM

The drawings on this and the following page are typical of the body wiring installations for all Pontiac body styles.

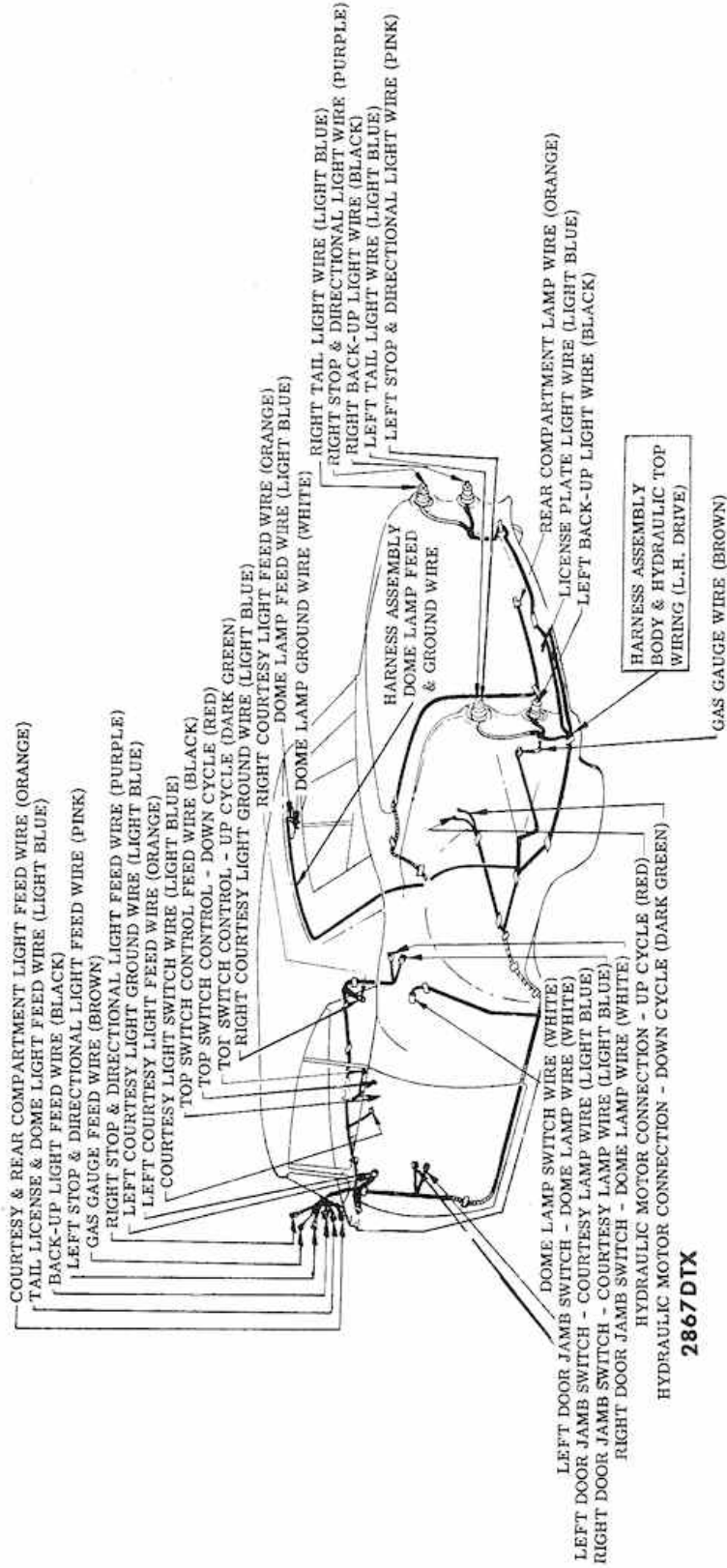


ELECTRICAL EQUIPMENT AND WIRING INSTALLATIONS



2837SD SPECIAL COUPE

ELECTRICAL EQUIPMENT AND WIRING INSTALLATIONS



2867DTX CONVERTIBLE COUPE