

SERVICE C

PACKARD MOTOR CAR COMPANY



Counselor

VOL. 27, NO. 10

OCTOBER, 1953

Windshield Pillar Post—Water Leaks

Caribbean—Mayfair—Convertible

Beginning with July 10th production, all Caribbeans, Mayfairs and Convertibles have a new type weatherstrip attached to the forward edge of the vent window frame and which extends downward on the front post of the door.

The weatherstrips and attaching parts are available at the parts warehouse and may be ordered under Part No. 436607 Windshield Pillar Post Water Seal Kit.

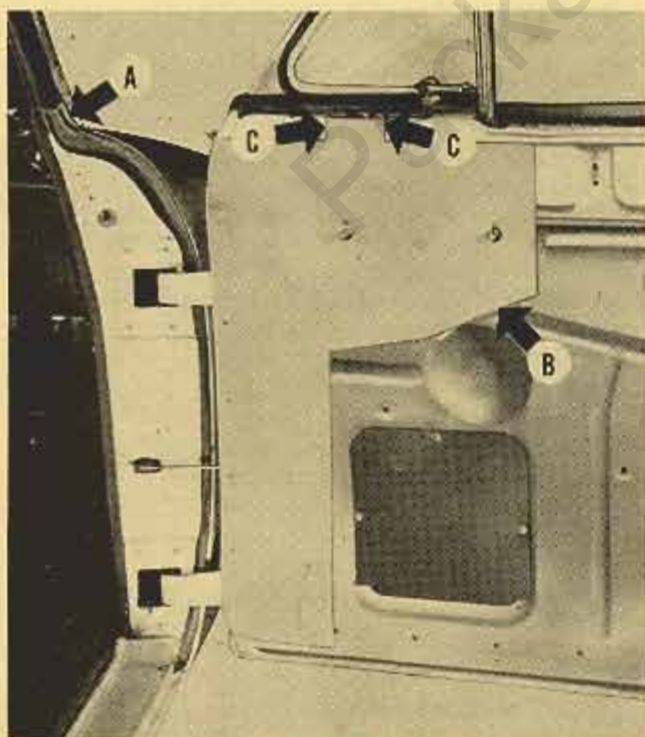


Fig. 1

Installation instructions are as follows:

1. If the upper end of the pillar post weatherstrip is out of place "A" Fig. 1, it should be pulled loose down about 4" and recemented. Apply 3M special weatherstrip cement to both the pillar and the back of the weatherstrip; when the cement becomes tacky, align the upper end of the weatherstrip so it will be in line with the lower end of the velvet covered weatherstrip and also the ends butted together. Press the weatherstrip firmly in place.
2. Remove the door trim panel. Pack dum-dum around the three forward belt moulding clips on the inner side of the door outer panel. Place the water-proof paper in its proper location Fig. 1, on the front section of the door and mark its outline. Remove the paper and coat this section of the door inner panel with 3M special weatherstrip cement; when the cement becomes tacky, install the waterproof paper "B" Fig. 1, and be sure to cement the corners of the small top section to the door panel "C" Fig. 1. The small top section must remain upright to deflect any water that might drain through the vent window weatherstrip drain holes.
3. Place the new window wing frame weatherstrip retainer with its vee directly over the forward edge of the wing frame. The flanged side of retainer is outward and the angled end should be in line and flush with the top edge of the vent window frame "A" Fig. 2. Hold the retainer in place and center punch the wing frame through the five holes in the retainer. Be sure the center punch marks are in the center of the wing frame. Drill five $\frac{3}{32}$ " holes in the forward edge of the vent window frame. Fill the retainer vee with dum-dum and attach the retainer to the wing frame

with five thread-cutting screws "A" Fig. 2. Tap the retainer lightly to squeeze out the excess dum-dum and then clean off the edges.

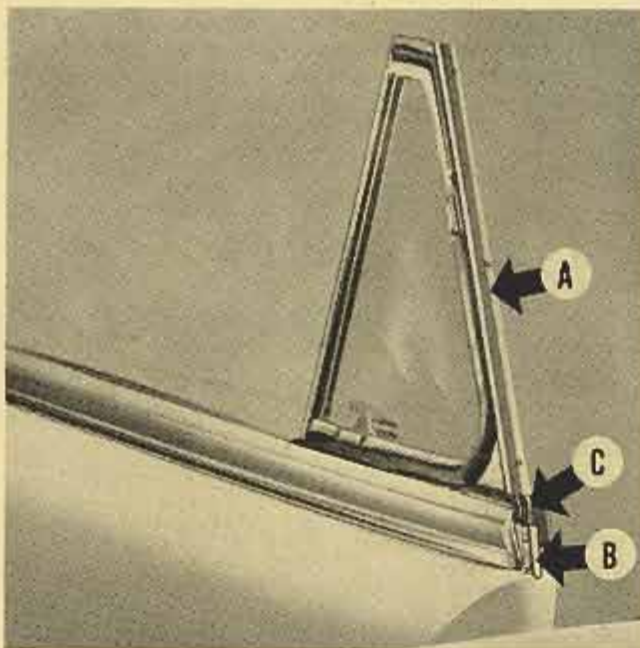


Fig. 2

4. Install the short weatherstrip retainer "B", Fig. 2. The upper end laps over the end of the wing frame front weatherstrip, the lower end is in line with the door outer panel where it curves outward. Place the weatherstrip in position to align the short retainer sideways. Using the retainer as a guide, drill two $\frac{3}{16}$ " holes through the door. Pack dum-dum in back of the retainer and attach it to the door with two thread-cutting screws. Do not tighten the screws too tight so as to bend the retainer. Clean off excess dum-dum.
5. Cut a groove in the window wing front weatherstrip as shown by "C" Fig. 2. The groove can

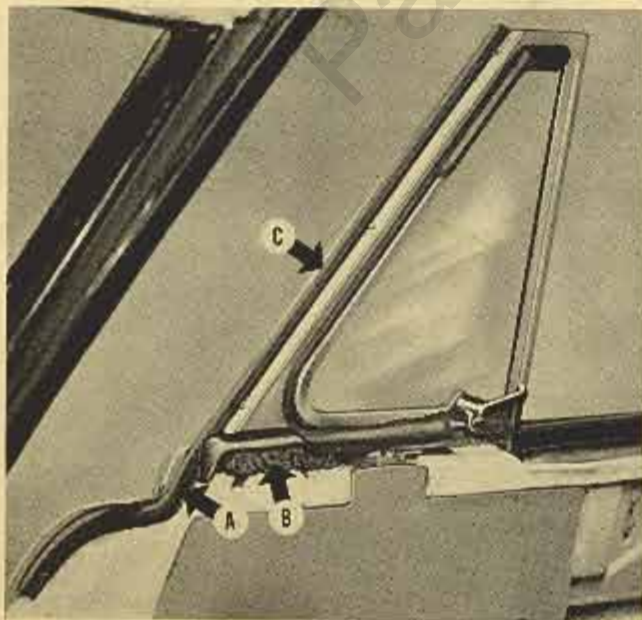


Fig. 3

be cut with a small grinder or heat a rear axle shaft key and burn the groove in the rubber. Make the groove just wide enough and deep enough so that the new weatherstrip will fit in it and will be aligned correctly.

6. NOTE: The flange of the upper section of the weatherstrip should be toward the outside or next to the flange of the retainer.

Install the wide section (just above the corner of the curved section) of the weatherstrip into the lower retainer "A" Fig. 3. Flow some 3M weatherstrip cement between the weatherstrip and retainer. Coat the back of the weatherstrip, the new window wing weatherstrip retainer, and the corner of the door pillar with 3M weatherstrip cement. When the cement becomes tacky, press the weatherstrip firmly in place as shown in "C" Fig. 3.

7. Pack some dum-dum as shown at "B" Fig. 3 to close off and seal the opening between the upper door panel edge and the window wing frame front weatherstrip.
8. Perform the preceding operations on both doors. Install the door trim panels and garnish mouldings. Clean off any excess dum-dum and cement. When correcting water leaks at the doors and windows on the Caribbeans, Mayfairs, and Convertibles, it is very important that the window frames and window weatherstrip alignment is correct. Please refer to Service Counselor, Vol. 25, No. 14, December 1, 1951 on this subject.

Indicator and Gauge Testing

24th-25th-26th Series

The battery discharge, oil pressure indicators, water temperature and gasoline gauges on all 24th, 25th and 26th Series models are electrically operated.

The battery discharge indicator is a telltale light which lights up when more electrical energy is being used than is being delivered to the battery.

The oil pressure indicator also is a telltale light which operates in conjunction with a sending unit in the cylinder block. This indicator sometimes will light up or flicker when the engine is idling even though the idle oil pressure is adequate; however, the light should go out when the engine is speeded up.

The water temperature and gasoline gauges operate in conjunction with a constant voltage regulator, attached to the back of the instrument cluster, and sending units in the cylinder head and gasoline tank.

If the battery discharge indicator shows a constant discharge when it normally should show a charge, the battery, regulator, generator, wiring, etc., should be checked to determine the cause.

If the indicator does not light at any time, the bulb should be replaced. The indicator should always light up when the ignition switch is turned on before starting the engine and also when the ignition key is turned to the left.

The oil pressure indicator should light up when the ignition key is turned. If it does not light, disconnect the wire from the sending unit and ground

the wire to the frame or cylinder block. If the indicator still does not light up with the ignition switch on, replace the bulb.

If the indicator lights up when the wire is grounded to the frame or block, the sending unit should be checked for being loose and poorly grounded. If the unit is found to be tight and properly grounded, it should be removed and a new unit installed.

If the indicator remains lit when it normally should be out, replace the sending unit before proceeding further to determine the cause for a low pressure indication.

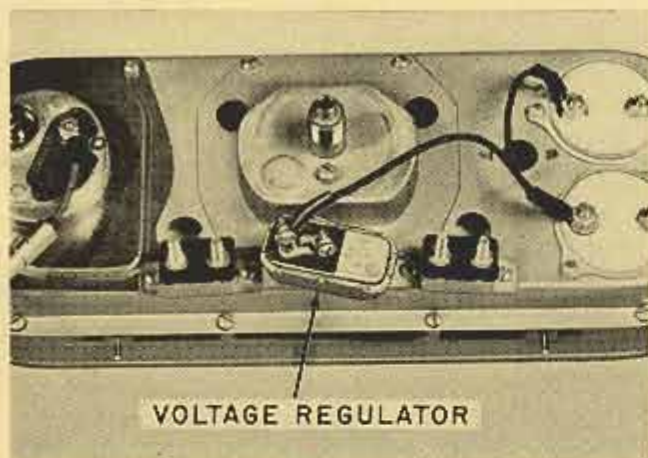


Fig. 1

The voltage regulator (figure 1) is common to both the temperature and the fuel level systems. The regulator operates at a constant average value of 5.0 volts.

If both the temperature gauge and the fuel gauge read considerably too high at the same time—that is, if the temperature gauge reads up scale with a cold engine and the gas gauge reads up scale with an empty tank, the voltage regulator is not working properly and should be replaced.

Note—Before replacing a regulator, check the regulator retaining screws for tightness so that the regulator is properly grounded. The grounding is essential to the proper functioning of the unit.

If the temperature gauge and the fuel gauge both read too low at the same time, either the input voltage to the regulator is below 5.0 volts or the regulator is not operating properly and should be replaced. Check the battery output voltage before replacing the regulator.

A definite check to determine if the regulator is defective is to disconnect the wires from the regulator terminals and attach them to a new unit out of stock. Ground the new unit against the instrument cluster case at which time the gauges should operate properly.

A new fuel tank sending unit out of stock and two test leads with clip terminals at each end may be used to determine whether a temperature or a fuel gauge and their respective sending units are operating properly. Test leads approximately 10 feet long will permit the individual making the check to sit in the seat of the car and observe the gauge being checked.

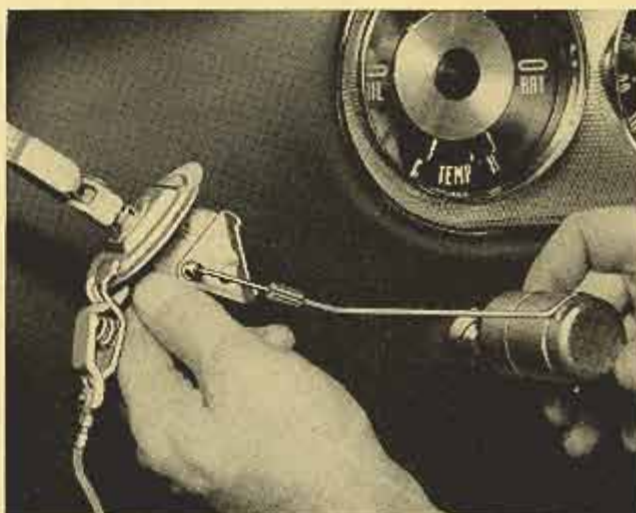


Fig. 2

To check the water temperature gauge, disconnect the wire from the terminal on the sending unit in the cylinder head and clip one end of a test lead to the disconnected wire. Clip the other end of the test lead to the terminal on the new tank unit. Clip one end of the second test lead to the flange on the tank unit and ground the other end of the lead. Turn on the ignition switch and operate the float arm of the new tank unit.

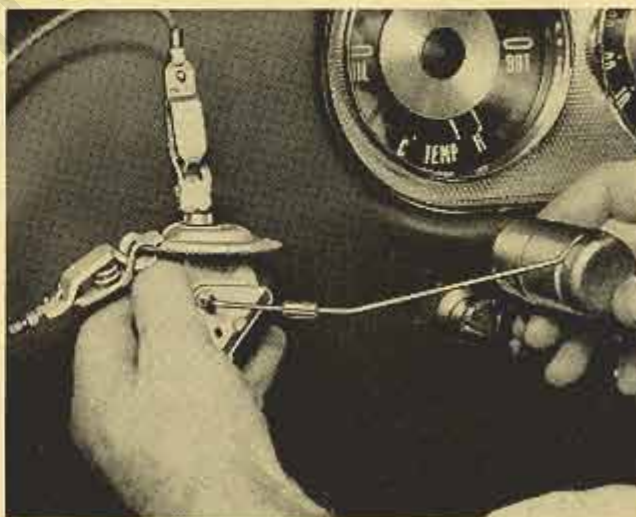


Fig. 3

When the float is at the bottom or empty position, the temperature gauge should register at the "C" marking on the dial (figure 2). When the float is moved upward to its top or full position, the gauge pointer should come to rest at the "H" marking on the dial (figure 3).

If the gauge checks as indicated above, the sending unit to gauge wire is alright. If the gauge does not check properly, disconnect the sending unit to gauge wire at the gauge and hook up the new tank unit to the terminal on the gauge. Repeat the empty and full checks. If the gauge operates properly, the sending unit to gauge wire should be replaced.

If the gauge operated properly with the new tank unit and the original wire, the sending unit in the cylinder head should be replaced.

The fuel gauge and the tank sending unit also may be checked following this procedure. Be sure that the tank unit is tight and properly grounded in the tank and that the tank is grounded to the frame.

Pre-Delivery Inspections, Seasonal Preparation and Corrections

AIR CONDITIONING SYSTEMS

A. Corrections for Checking A New Air Conditioned Car

Upon receiving a new car having air conditioning equipment, the following checks are important and should be followed:

1. Check to see that the low pressure and high pressure hand shut-off valves are open.
2. Check to see that compressor belts are installed properly; check for proper belt tension.
3. Operate unit for ten minutes at a comparable road speed of 35 to 40 miles per hour with solenoid valve closed. (It may be necessary to use a jumper wire to hot side of battery to accomplish this.)
4. Check sight glass to see if unit has sufficient "Freon-12" charge.
5. Leak test complete installation if there is evidence of "Freon-12" leaks. Determine leak and make necessary repairs.
6. If there is evidence of oil leak, check compressor to see if unit has proper oil charge. Otherwise, do not open system.
7. Check solenoid valve to see if it will open and close by operating the "On and Off" switch. Temperature at the return grille should be higher than 78°F. for thermostat to operate.
8. Check conditioning unit blower fans to see whether they are operating and running in correct directions.

B. Preparation for Off-Cooling Season

During the season that car air conditioning is not needed, the following procedure should be followed:

1. Remove compressor belts.
2. Close outside air intake ducts.

C. Corrections for Preparation for Cooling Season

To start air conditioning unit when season calls for more cooling, proceed as follows:

1. Check all parts of unit for trace of oil, which might indicate a leak.
2. Install compressor belts and check for proper belt tension.

3. Operate unit for ten minutes at a comparable road speed of 35 to 40 miles per hour with solenoid valve closed. (It may be necessary to use a jumper wire to hot side of battery to accomplish this.)
4. Check sight glass to see if unit has sufficient "Freon-12" charge.
5. Leak test complete installation.
6. If leak is found, check compressor to see if unit has proper oil charge.
7. Check solenoid valve to see if it will open and close by operating the "On" and "Off" switch. Temperature at the return grille should be higher than 78°F. for thermostat to operate.
8. Open outside air intake ducts.
9. Check conditioning unit blower fans for correct operation.
10. Check the conditioning unit outlet air temperature differential with the ambient temperature.

D. Corrections for 1,000 and 3,000 Mile Inspections

The car dealer should make the following checks at 1,000 and 3,000 mile car inspections:

1. Check unit for any indication of leak.
2. Check sight glass for proper charge of "Freon-12". This should only be done after running unit at a speed approximately 35 to 40 miles per hour for ten minutes. The solenoid valve must be closed. (It may be necessary to use a jumper wire to the hot side of the battery to accomplish this.) The control switch should be in "On" position and the blowers operating full speed.
3. If there is an indication of an oil leak, check compressor for proper oil charge.
4. Tighten compressor bracket and check belt tension.

Switch Control Relay

Air Conditioned Cars

A few reports have been received of switch control relay failures on air conditioned cars. This is the relay that incorporates the 30 amp fuse and is located in back of the air conditioning switch control panel.

In most cases of relay failure, it has been found that the fuse or fuse holders have become loose, thereby causing a break in the electrical circuit.

Whenever electrical failure is encountered in the air conditioning, it is suggested that a jumper wire be placed across the fuse holder to determine if the fuse holder is faulty.

A faulty fuse holder can generally be repaired by removing the relay, and tightening the fuse holder rivets with a center punch.