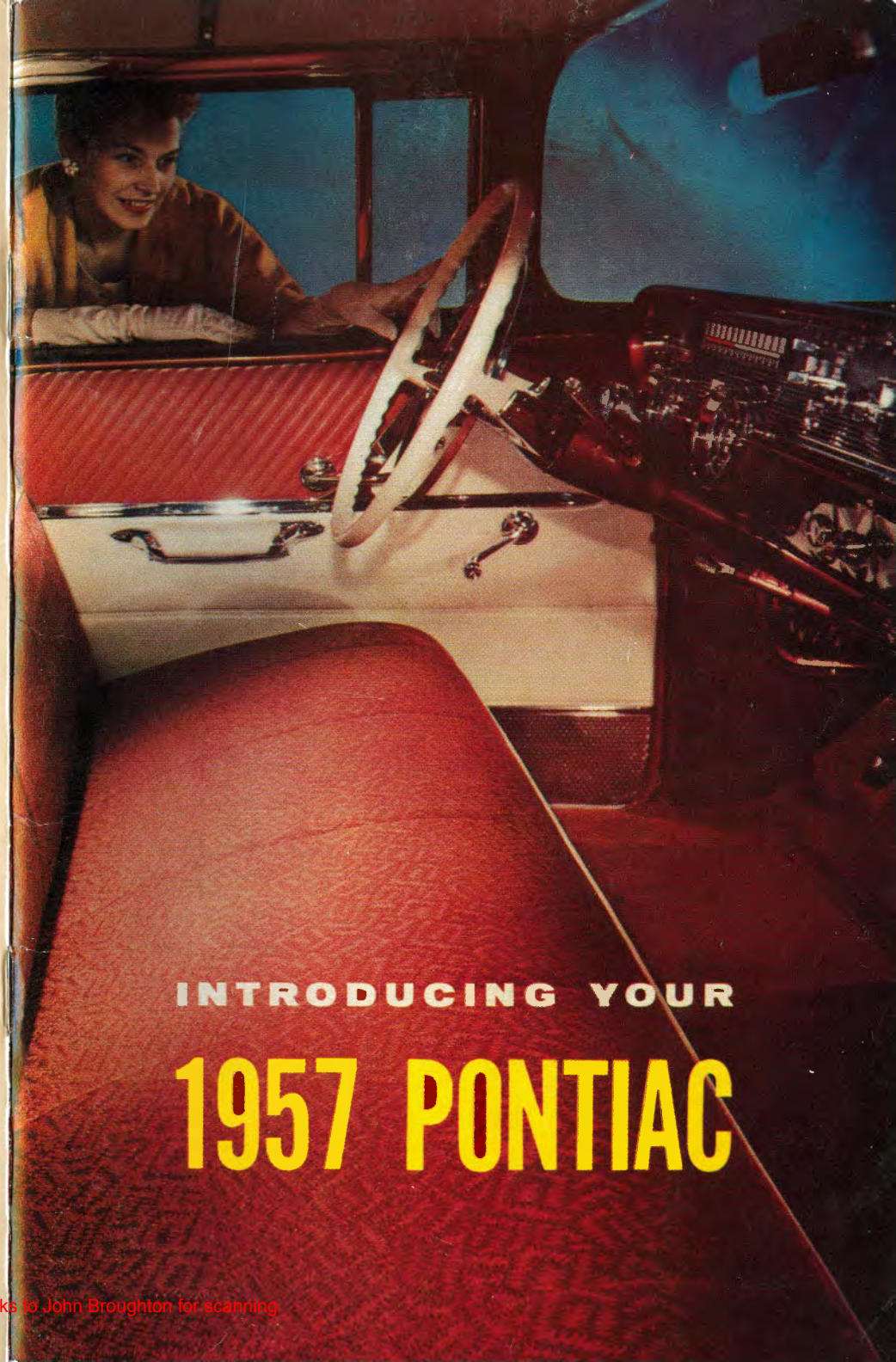


**PROTECT
YOUR
PONTIAC
WITH**



anywhere U.S.A.



INTRODUCING YOUR

1957 PONTIAC



PONTIAC 1957 OWNER'S GUIDE

Pontiac's engineers strive continually to give you greater value in each new model Pontiac. This year we are especially proud of the advanced design and precision construction which combines comfort, economy, performance, and endurance to make your new Pontiac an even greater car than ever before. In order that you may be able to take full advantage of the many new features which are in this new Pontiac, we have added this Owner's Guide, to give you the "know-how" for safe and economical operation.

Your knowledge and care of the operating parts of the car will give you greater enjoyment in driving the 1957 Pontiac.

Owner's Service Department
PONTIAC MOTOR DIVISION
Pontiac, Michigan

FORM S-5701 LITHO IN U.S.A. 2-57

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Manufacturer's Warranty

It is expressly agreed that there are no warranties, expressed or implied, made by either the dealer or the manufacturer on the Pontiac Motor vehicles, chassis or parts furnished hereunder, except the Manufacturer's warranty against defective materials or workmanship as follows:

☆ ☆ ☆

"The Manufacturer warrants each new motor vehicle, including all equipment or accessories except tires supplied by the Manufacturer, chassis or part manufactured by it to be free from defects in material and workmanship under normal use and service, its obligation under this warranty being limited to making good at its factory any part or parts thereof which shall, within ninety (90) days after delivery of such vehicle to the original purchaser or before such vehicle has been driven 4000 miles, whichever event shall first occur, be returned to it with transportation charges prepaid and which its examination shall disclose to its satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties, expressed or implied, and all other obligations or liabilities on its part, and it neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of its vehicles.

"This warranty shall not apply to any vehicle which shall have been repaired or altered outside of an authorized Pontiac Service Station in any way so as in the judgment of the Manufacturer to affect its stability and reliability, nor which has been subject to misuse, negligence or accident."

☆ ☆ ☆

The Manufacturer has reserved the right to make changes in design or add any improvements on motor vehicles at any time without incurring any obligations to install same on motor vehicles and chassis previously purchased.

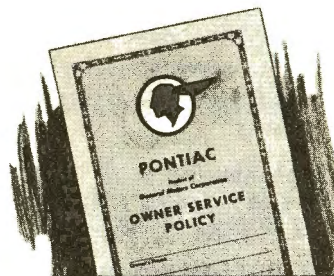
TIRE WARRANTY

Tires are warranted by the tire manufacturer against defects in material and workmanship. If, during the life of the tire, tire failure should occur due to this cause, the tire manufacturers will either repair the tire or make a reasonable allowance on it towards the purchase of a new tire.

BATTERY WARRANTY

Your Pontiac Delco battery is guaranteed for 90 days. Be sure your Pontiac dealer has filled in the Delco Battery Service Policy which gives you protection for 36 months in accordance with the terms of the policy.

Owner Service Policy



Along with this Owner's Guide, you received an Owner Service Policy, which was filled out by the dealer upon delivery of your car. Read this Service Policy carefully. It is recommended that you keep it in the glove compartment.

The coupon attached to your Owner Service Policy entitles you to an inspection and certain other services on your car at the end of 2,000 miles, *provided the coupon is presented within 2500 miles of car operation.* This inspection is to make any changes or corrections which may become necessary during the break-in period. These services will be performed for you without charge (except for chassis lubrication, engine oil and other lubricants) by the dealer from whom you purchased your car. (In case you are touring or have changed your residence, any authorized Pontiac dealer in the United States or Canada will perform this inspection upon presentation of the Owner Service Policy and Coupon.) By making an appointment ahead of time, you can avoid rush periods and get the inspection the day you want it.

Pontiac dealers everywhere stand ready to provide you with the best possible service at all times. It is their responsibility to assure your continued satisfaction with your car. But you, too, have a responsibility as an owner—the responsibility of giving your Pontiac the reasonable care and attention which it deserves.



Car Break-In and Serial Numbers

New Car Break-In—When starting out with your new car, you should drive moderately for 10 to 15 minutes to allow time for the engine, transmission, and rear axle to warm up. Speeds can then be increased as shown below:

CAR SPEED—First 200 miles not to exceed 50 miles per hour.
Second 200 miles not to exceed 60 miles per hour.
Third 200 miles not to exceed 70 miles per hour.

After your car has warmed up, speed should be increased gradually to the maximums in the above schedule, held there for a short distance, then gradually decreased to a slower speed for a short distance.

Driving at speeds up to 50 miles per hour, even for distances greater than the 200-mile period, will not "break-in" your car for sustained high speed driving. Sustained high speed driving should not be undertaken until the above schedule of maximum speeds (or its equivalent) is completed.

NOTE: Brakes, too, need "breaking-in". Avoid fast stops during the first few hundred miles.

ENGINE AND CAR SERIAL NUMBER—The car serial number is located on a plate which is attached to the left front pillar post. The engine serial number is stamped on the right hand front face of the block. The engine number is the same as the car serial number. (Serial number.....).

STYLE, PAINT, AND TRIM NUMBERS—The style, paint and trim numbers are stamped on the plate attached to the right side of the cowl just under the rear edge of the hood.

Style number.....Paint number.....Trim number.....

KEY NUMBERS—The octagonal handled keys fit the front door and ignition locks on all models, and the rear door on station wagons. The oval handled keys fit the glove compartment lock on all models, and the rear deck compartment lock on passenger car models. Octagonal key number.....Oval key number.....Refer to page 8 for removal of key number from key.

STARTING THE ENGINE—Hydra-Matic equipped cars, see page 12. Synchro-Mesh equipped cars, see page 16.

WHERE TO PUT YOUR OWNER'S GUIDE—Slip this Owner's Guide into the glove compartment for ready reference.

If it becomes necessary for you to order any part or correspond with your dealer or the factory about your car, you can avoid any possible misunderstanding by giving the **SERIAL, STYLE and PAINT** numbers of your car.



Car Data

GENERAL				
OVER-ALL LENGTH			WHEELBASE	
	All Except Safari	Safari	All Except Safari	Safari
Star Chief.....	213.8"	206.8"	124"	122"
Super Chief.....	206.8"	207.7"	122"	122"
Chieftain.....	206.8"	207.7"	122"	122"
GAS TANK CAPACITY				
Passenger Car.....				20 gal.
Safari—3-Seat Models.....				16 gal.
Safari—2-Seat Models.....				17 gal.
ENGINE AND COOLING SYSTEM				
Taxable Horsepower.....				49.6
Bore.....				3.94"
Stroke.....				3.56"
Piston Displacement.....				347 cu. in.
Electrical System.....				12 volt
Spark Plug Gap.....				.033"-.038"
Breaker Point Gap (Distributor).....				.016"
Crankcase Refill.....				5 qts.
Crankcase Refill with Filter Element Replacement.....				6 qts.
Cooling System Capacity.....				See Page 25

COMPRESSION RATIO AND FUEL

Hydra-Matic equipped cars have a standard compression ratio of 10.0 to 1 which requires the use of premium fuel. Synchro-Mesh equipped cars have a standard compression ratio of 8.5 to 1 and do not require the use of premium fuel.

Before driving your car in any foreign country check availability of premium fuel. The use of fuels with low octane ratings can result in severe engine knock and possible damage to engine parts.*

FUSES—Refer to page 10.

LAMP SPECIFICATIONS (12 VOLT)

Standard Equipment			Special Equipment		
	Bulb Number	Nominal Candle Power		Bulb Number	Nominal Candle Power
Bright Lights Indicator..	57	2	Air Conditioning Control..	57	2
Direction Signal.....			Ash Tray.....	53	1
Front.....	1034	32	Back Up.....	1073	32
Indicator.....	57	2	Clock.....	57	2
Dome—Convertible.....	90	6	Compass.....	53	1
Dome—Exc. Convertible..	1004	15	Courtesy (Entrance).....	89	6
Headlamp Unit.....	Sealed 40W		Glove Compartment.....	57	2
	Beam 50W		Parking Brake Warning..	57	2
Ignition Lock.....	53	1	Heater Control.....	57	2
Instruments.....	57	2	Front Fender Ornament..	53	1
License.....	67	4	Hydra-Matic Indicator... 57	2	
Parking.....	1034	4	Luggage Compartment... 1003	15	
Rear Quarter (Cust. Cat.)	90	6	Portable Spot Lamp..... 4416	30W	
Tail and Stop.....	1034	4-32	Radio Dial.....	57	2
			Safety Lamp (Spotlamp)..	Sealed 30W	
				Beam	
			Underhood.....	93	15

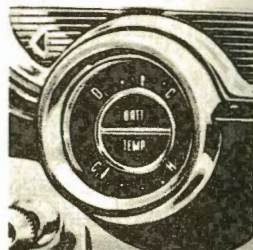
*See page 64 for additional information.



Instruments and Controls

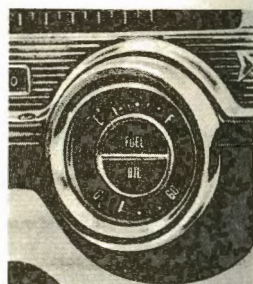
The location of the controls and instruments on your Pontiac has been planned with the idea of comfort and convenience for the driver, which also contributes to greater safety.

BATTERY INDICATOR—The battery indicator shows the current flow to and from the battery. Electrical current going from the generator to the battery indicates on the "C" (charge) side of the center marking. The needle will indicate on the "D" (discharge) side of the center marking when more current is being consumed than is being received from the generator. (See Note below.)



WATER TEMPERATURE INDICATOR—The temperature of the coolant in your engine is shown by the water temperature indicator. When the engine first warms up the temperature will register slightly higher than when engine reaches operating temperature. The water temperature indicator should normally not read above the bar to the right of the center dot. If the indicator needle stays at or above the right hand bar the cause should be located immediately. (For details on the care of the Pontiac cooling system, see page 25.)

FUEL GAUGE—The fuel gauge indicates the quantity of gasoline in the tank only when the ignition is turned on. When the ignition is turned off the pointer drops back beyond the empty mark. The letters "E" and "F" on the fuel gauge are used to point out direction of indicator travel only. Gauge readings are made from the five markings on the gauge face. The left-hand dot indicates empty, the center dot half-full and the right-hand dot full.

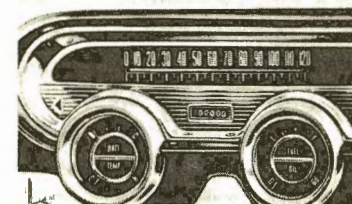


OIL PRESSURE GAUGE—The oil pressure gauge indicates the pressure in the engine's full pressure lubrication system. The gauge is read in the same manner as the fuel gauge (see NOTE) with the dots indicating "20", "40" and "60" respectively. The gauge shows the oil pump is working, but does not indicate how much oil there is in the crankcase.

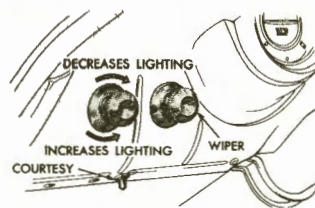
NOTE: The letters on the instrument panel gauges are used to point out direction of needle travel only. Gauge readings are made from the markings on the gauge face.

At average driving speeds the gauge should read approximately "40". When oil gauge reads approximately "40" at average driving speed, it may read near "0" at hot idle. If indicator does not move above zero at average driving speed or fluctuates greatly, you should check the oil level immediately; and, if low, add oil to bring to the proper level. (The oil level indicator reads "DO NOT OVER FILL," this is important!) If the oil level is not low and fluctuation continues, you should contact a Pontiac dealer immediately.

SPEEDOMETER—The speedometer indicates the forward speed of the car in miles per hour. As the speed increases a continuous luminescent fire orange line advances ending at the speed being traveled, to subtly warn against speeding.



HEADLAMP AND INSTRUMENT PANEL LIGHT SWITCH—The combination headlamp and instrument panel light switch is located at the extreme left hand side of the instrument panel. When the light switch knob is pulled out to the first position, the parking lamps are turned on. When pulled to the second position the sealed beam headlamps are turned on and the parking lamps off. The instrument panel lights, tail lamps and license plate lamp are turned on in both positions. In conjunction with the headlamp switch there is a convenient foot switch located to the left of the brake pedal near the edge of the floor mat. This switch enables you to lower the headlamp beams when driving in the city or meeting approaching traffic in the country. The "BRIGHT LIGHTS" red indicator light located in the center of the speedometer face will be on when the upper beams are on, and off when the lower beams are on.



INSTRUMENT PANEL LIGHTS—As explained above, the instrument panel lights come on when the light switch control knob is pulled out. For your convenience, turning the knob clockwise decreases the brightness of the instrument panel lights and counter-

clockwise increases the brightness. When turned as far as possible in a clockwise direction the lights will go off.

COURTESY LIGHTS—(Standard on Convertible, Star Chief Custom and Super Chief Catalina models only)—Installed on both sides of the car beneath the instrument panel, these handy lights flash on when the front doors are opened, throwing a strong light to assist the driver and passengers in and out of the car at night. They may

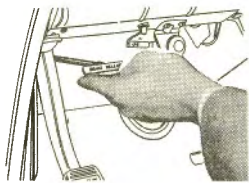
be operated manually by flicking a switch located on the lower edge of the instrument panel below the headlamp switch.

WINDSHIELD WIPER CONTROL KNOB—The windshield wiper control knob is located to the right of the headlamp switch. Turning the knob clockwise starts wiper; the amount that knob is turned determines wiper speed. To operate windshield washer (ACCESSORY) depress button located in center of wiper control.

IGNITION AND STARTER SWITCH—As a convenience to you the ignition switch is illuminated when the combination headlamp and instrument panel light switch control knob is pulled out. The ignition switch has four positions, OFF when the key is vertical, ON when key is turned right to first position, START when key is turned to full right position against stop and ACCESSORY when key is turned to the left. The ACCESSORY position enables you to operate accessories connected through this position without having the engine running or the ignition switch ON.

For instructions in starting Hydra-Matic equipped cars see page 12; for starting Synchro-Mesh transmission equipped cars see page 16.

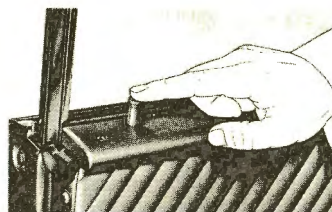
PARKING BRAKE—The parking brake is applied by depressing the parking brake foot pedal located under the left hand end of the dash. The pedal is imprinted "PARK". A slight upward pressure on the cane handle inscribed "RELEASE", located above the parking brake pedal, will release the brake.



KEYS AND KEY NUMBERS—Two sets of keys are furnished with your car. Each set contains a key with an octagonal handle and a key with an oval handle. The octagonal key operates the front door and ignition locks on all models and the tail gate on station wagon models. The oval key operates the glove compartment lock on all models and the luggage compartment lock on passenger car models.



To prevent unauthorized persons from securing duplications of your keys, mark the key numbers, which appear on small metal slugs fastened in the keys, in the space provided on page 4 of this manual and on the Owner's Service Policy as soon as you take delivery of the car, then knock out the slugs and destroy them. If you ever require duplicate keys, they should be ordered from your local Pontiac dealer rather than from the factory. In the event that you lose your keys and key numbers, the proper numbers can be secured by wiring or writing the Owner's Service Department, Pontiac Motor Division, Pontiac, Michigan, giving the serial number of your car.



DOOR LOCKS—If you want to lock the doors from the inside, push down the small button on the window moulding of each door. Both front doors can be locked from the outside with a key in the usual way, but you don't have to use the key to lock your car. Simply

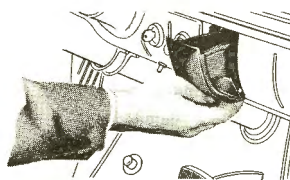
open the door, press the button down and then close the door while pushing the outside door handle plunger in. When the door is closed, release the plunger, and the door is locked.

IMPORTANT: ALWAYS LOCK YOUR CAR WHENEVER YOU LEAVE IT UNATTENDED

SAFETY FEATURE—On all 1957 model four-door sedans the rear door lock is designed and set so that when the door locking button is depressed the inside door handle is inoperative. This is a very important safety feature, especially when children are riding in the car, as it minimizes the chance of a child accidentally opening the door and falling from the car.

Riding with the door lock buttons depressed also minimizes chances of doors opening in a collision.

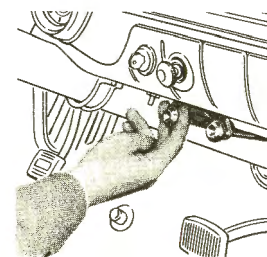
DIRECTION SIGNAL—The direction signal is a safe and convenient means of signifying intention to turn. The lever, mounted under the steering wheel to the left of the steering column, can be moved downward to signify a left turn and upward for a right turn. Moving the lever to the turn position causes the stop lamp and the parking lamp on the selected side to flash. The lever will remain in the selected position until the turn is completed and will then automatically (providing a turn of a sufficient degree is made) return to the neutral position. While the signal is in operation a green arrowhead on the instrument panel corresponding to the direction of turn indicated, will also flash.



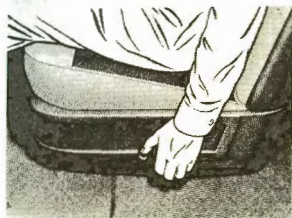
ASH TRAY—The ash trays (a second ash tray is standard on Super Chief and Star Chief models and is available as optional equipment on Chieftain models), may be removed by pulling the tray out against the stop and pushing downward on upper forward end of

ash tray while withdrawing. To replace, merely place the ash tray in the grooves provided and push into place.

VENTILATOR CONTROLS—Two control knobs, located on the instrument panel below the ignition switch, are used to control the amount of outside air entering the car through the two duct type ventilators in the side kick pads. The amount that either the left or right knob is pulled out will regulate the amount of air entering the car from that particular duct.

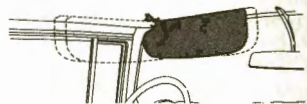


CIGAR LIGHTER—The cigar lighter, located at the right of the ignition switch, is operated by pushing inward on the lighter. The lighter will stay in this position until the element heats and will then snap out ready for use.

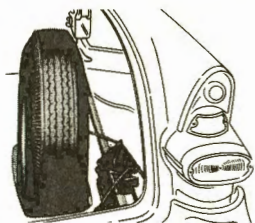


SEAT ADJUSTMENT—Seat adjustment is made by pushing down the small lever on the left side of the front seat and sliding the seat back or forward to the position that suits you best. On long trips, changing the adjustment occasionally will be found helpful in avoiding fatigue.

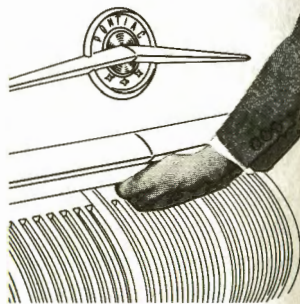
SUN VISORS—Folded up against the top directly in front of the driver and front passenger are two sun visors. The visors may be slid toward the center of the car (except for the Convertible), as well as swung around to either right or left to protect your eyes when sun is at either side.



REAR VIEW MIRROR—The rear view mirror can be adjusted to accommodate the driver's height and seat position for greater driving convenience. Rotating the mirror 180° on its pivot will provide still further height adjustment to the desired position. Adjustment of the accessory "Non Glare" mirror is covered on page 49.



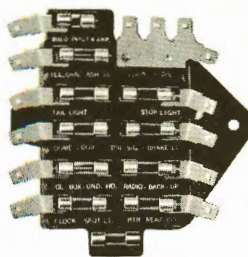
RATTLE-PROOF TOOL STORAGE—The annoying rattles often caused by loose car tools in the trunk, are eliminated by proper use of the tool anti-rattle spring. When removing tools it is only necessary to remove the connecting ring on the right side from the hook on the floor.



HOOD LATCH—For your convenience the hood latch and safety hook can be completely released from the front of the hood. To open the hood it is only necessary to pull the release rod towards you to the end of its travel. Near the end of its travel the release rod will automatically disengage the safety hook, which is provided to prevent opening of the hood should the latch become accidentally unlatched.

FUSES—The headlight and parking lamp wiring system on your Pontiac is protected from damage in case of short circuits by a thermostatic circuit breaker mounted on the light control switch. During

short circuits the circuit breaker opens and closes intermittently, thereby reducing the current load sufficiently to protect the wiring from damage. This action will continue until the cause is eliminated and is usually noticed due to a snapping sound at approximately 3 to 5 second intervals. If you are driving at night, the action of the Thermo Circuit Breaker will be noticed by the headlamps burning intermittently. When this happens, it is an indication of trouble which should be corrected immediately.



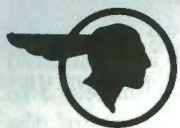
The fuses that protect the main wiring and the accessories are mounted in a fuse block on the passenger side of the dash above and to the left of the steering column. The fuse identification is printed on the fuse block which facilitates location and replacement of a blown fuse.

All fuses on the fuse block are 7½ ampere with the exception of the fuse marked Rheo Input which is 4 ampere and protects the headlight switch rheostat and instrument panel light circuit. A spare 7½ ampere fuse is located in a clip at the bottom of the fuse block.

With the following exceptions all accessories are protected by a 7½ ampere fuse.

The electric antenna uses a 14-ampere fuse mounted in a line holder above the fuse block. Some electric clocks have a 1½-ampere fuse mounted on the back of the clock. The air conditioning unit has a 30-ampere fuse mounted in a line holder in front of the dash above the steering gear. The electric windshield wiper motor has a 30-ampere fuse in a line holder on the passenger side of the dash above the fuse block. The cigar lighter has a special replaceable fuse or a reset type circuit breaker attached to the rear of the lighter socket.

Power windows and power seats are protected by a 40-ampere circuit breaker located on the left side of the cowl above the kick pad.



Stato-Flight Hydra-Matic Drive

The Stato-Flight Hydra-Matic drive consists of a fluid coupling, which replaces the conventional clutch, combined with a hydraulically controlled automatic transmission having four speeds forward and one reverse. Gear changing is accomplished automatically by the transmission in accordance with the performance demands of the road conditions encountered and the wishes of the driver.

HOW TO OPERATE THE STATO-FLIGHT HYDRA-MATIC DRIVE—The Stato-Flight Hydra-Matic drive is convenient to operate in that the driver need only select, by use of the control lever and indicator segment, the speed range in which he wishes the car to operate. The speed ranges are clearly shown on the indicator segment, and are illuminated when the instrument panel lights are turned on. The speed ranges are designated as follows:

- P—Parking and starting
- N—Neutral and starting
- ▲DR—For all normal forward driving and maximum fuel economy.
- DR▲—For faster acceleration and driving in congested traffic.
- LO—For controlled power.
- R—Reverse.

TO START ENGINE—

1. Place control lever in "P" or "N" position. Starter is inoperative in any other position.
2. Engine Cold—Depress accelerator pedal to floor once and release (this presets automatic choke and throttle). Engine Warm—Hold accelerator pedal about half open.
3. Turn ignition key to right to engage starter, release as soon as engine starts.

NOTE: At temperatures below 0° F. it may be necessary to hold the accelerator pedal down slightly while starting.

Should the engine flood, hold the accelerator pedal to the floor forcibly while starting the engine. Do not pump the accelerator at any time. Avoid racing the engine during the warm up period.



Cold Weather—In cold weather (0°F. and colder) the engine must idle with the control lever in P (park) or N (neutral) position until engine and transmission are warmed up. This can more safely be done in the P (park) position as the transmission will then keep the car from rolling on a grade or incline. When engine is cold and running at fast idle, the car will tend to creep when the control lever is moved to a driving position. As light application of the foot brake or parking brake will hold the car until motion is desired.

OPERATING IN DR RANGE—DR range has two driving positions, each marked by an arrow. The control lever can be moved at will from one arrow position to the other when traveling at any car speed on dry roads where traction is good.

The left hand arrow position in DR range is provided for all normal forward driving; it reduces engine speed, provides better driving comfort and improves fuel economy. When driving in this range at a car speed of less than 65 MPH extra performance can be obtained by depressing the accelerator pedal. This will cause the transmission to shift down into third speed. The car speed determines the amount the accelerator pedal must be depressed to cause this shift. At a speed of about 35 MPH or less the accelerator pedal need only be partially depressed to cause the shift and at speeds of 35 MPH to 65 MPH it is necessary to completely depress the pedal. The transmission will automatically return to fourth speed as car speed increases or the accelerator pedal is released.



The right hand arrow position in DR range is provided for better acceleration and is very useful when driving in congested traffic. It is also effective when ascending or descending long mountain grades. When driving in either DR range at a car speed of less than 24 MPH an extra burst of speed can be obtained by completely depressing the accelerator pedal. This will cause the transmission to shift down to second speed. The transmission will automatically return to third or fourth speed, depending on the DR range being used, as the car speed increases or pedal is released.

The right hand arrow position in DR range is also recommended when starting out with a hot engine after parking or idling for an extended period during extremely hot weather. Under these conditions the transmission assists in eliminating vapor in the fuel system. After a short distance the control lever can be placed in the left hand arrow position if desired.

Acceleration in DR Range—The shift events from first speed to second, second speed to third, and third speed to fourth (direct drive) will occur at progressively higher car speeds depending on the amount the accelerator pedal is depressed.

Caution Against Coasting in Neutral—Do not coast with the control lever in the N (neutral) position. It is unlawful in some states and sometimes is harmful to the transmission.

Stopping the Car—Leave the control lever in the driving position selected and release the accelerator pedal. The engine is then left “in gear” which helps to slow down the car. For further stopping effort apply the brakes in the conventional manner.

CAUTION: When the driver leaves the car with the engine running the control lever should always be in the P (park) position. This precaution prevents movement of the car, should the accelerator pedal be accidentally depressed by a passenger and also will keep the car from rolling on a grade or incline.

OPERATING IN LO RANGE—The LO range is provided for pulling through deep sand or snow and ascending or descending steep grades where traffic signs call for placing the transmission in first or second gears (keep below 35 MPH to avoid an upshift).

The control lever can be moved from either DR position to LO at any car speed. The shift into low will not occur at a car speed above 43 MPH.

CAUTION: Do not shift into LO range on slippery roads as a skid may be induced. Slippery roads demand judicious use of the brakes to reduce car speed.



REVERSE—To engage reverse, simply move the control lever to the R position. Moving lever between LO and R while applying light accelerator pedal pressure permits rocking the car when required to get out of deep snow, mud or sand. Avoid engaging reverse at speeds above 5 MPH.

PARKING—For additional safety when parked leave the selector lever in the P (park) position. Mechanical engagement within the transmission will then keep the car from rolling.

The selector lever must be raised in order to move it to the P (park) position. This feature reduces the possibility of unintentionally engaging the park mechanism in the transmission.

CAUTION: Never place the selector lever in the P (park position) with the car moving.

TO START ENGINE BY PUSHING CAR—If it is necessary to start the engine by pushing the car for a short distance due to a low battery, move control lever to N position. When a speed of approximately 30-35 MPH is attained, turn ignition switch on and move control lever to either DR position.

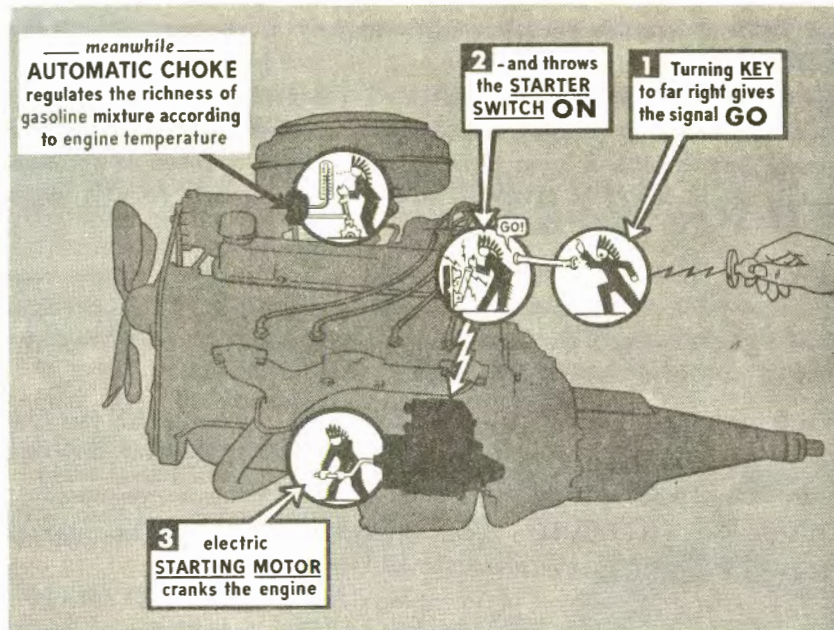
TOWING THE CAR—Disconnect the propeller shaft at the rear universal joint and remove from the car by sliding the front universal joint and shaft assembly backwards, or raise the rear wheels off the ground to prevent possible damage to the transmission.

When towing the car with the propeller shaft disconnected, the tow car operator should be cautioned to make certain that oil does not leak from the rear bearing retainer.

HYDRA-MATIC FLUID—Refer to page 31 for information on fluid recommendations, change intervals, and level checking.



Synchro-Mesh Drive



TO START ENGINE—

1. Place gear shift control lever in Neutral and depress clutch pedal to floor.
2. Engine Cold—Depress accelerator pedal to floor once and release (this presets automatic choke and throttle).
Engine Warm—Hold accelerator pedal about half open.
3. Turn ignition key to right to engage starter, release as soon as engine starts.

NOTE: At temperatures below 0° F. it may be necessary to hold the accelerator pedal down slightly while starting.

Should the engine flood, hold the accelerator pedal to the floor forcibly while starting the engine. Do not pump the accelerator at any time. Avoid racing the engine during the warm up period.

Cold Weather—In cold weather (0°F. and colder) the engine must idle with the gearshift lever in neutral and parking brakes applied or foot brakes applied until engine and transmission are warmed up.

CLUTCH

PROLONGING CLUTCH LIFE—The clutch in your Pontiac will not require much attention due to the use of clutch throwout ball bearing which is lubricated for life at the factory. However, normal wear in the clutch facings will result in a gradual change in the “pedal lash”.

Excessive wear may be caused by “riding” the clutch, the habit some drivers have of resting the left foot on the clutch, thus keeping the releasing parts in contact but not disengaging. Excessive wear can also be caused by rough usage. Letting the clutch up “with a bang” is not only hard on the clutch itself but also on tires and the entire car. Another practice which puts needless wear on the clutch is “holding” your car on a hill by partially engaging the clutch instead of using the brake.



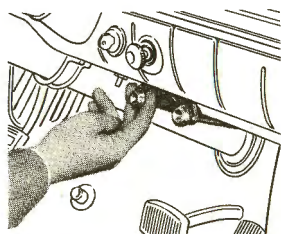
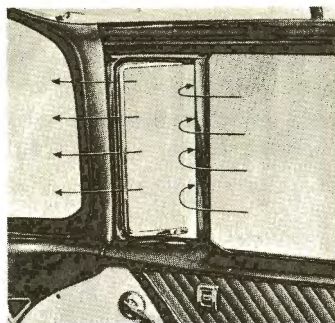
CLUTCH PEDAL ADJUSTMENT—The clutch pedal should be adjusted from time to time so that it has some free travel before the clutch actually begins to disengage. The pressure of one finger should be enough to push the pedal in about an inch before the resistance of the clutch spring is felt. If there is little or no “pedal lash” the clutch may be slipping, which will cause it to wear out faster. If there is too much “pedal lash”, the clutch may not disengage completely and cause gear shifting trouble. When “pedal lash” is less than $\frac{3}{4}$ inch or more than $1\frac{1}{8}$ inches, an adjustment should be made.



All Weather Comfort Control

VENTILATION SYSTEM—The ventilating panes in the door windows, the duct type ventilators and the underseat heater are all part of a controlled ventilation system.

Vent Panes—The ventilating panes can be adjusted, by means of a crank control, to any position to suit weather conditions and provide circulation of outside air in the car. They are also useful in preventing fogging of the windows, especially the windshield, in cold weather.



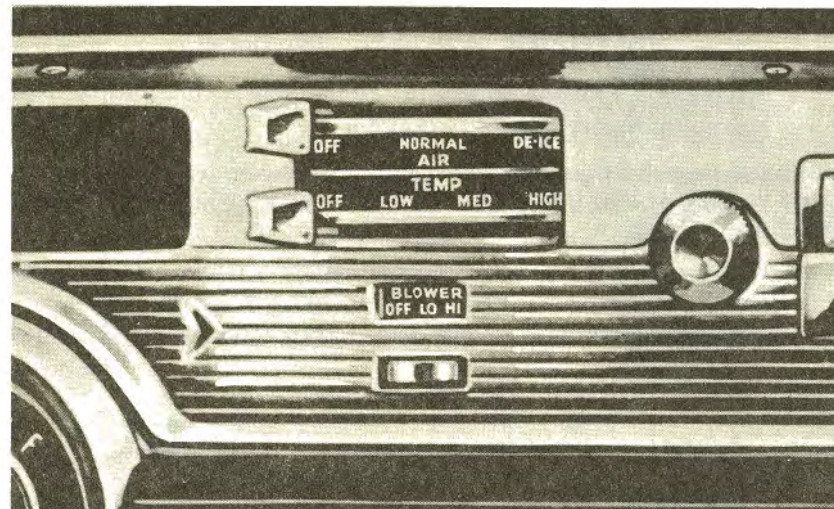
Vent Ducts—Two "VENT" control knobs, located on the instrument panel below the ignition switch are used to control the amount of outside air entering the car through the duct type ventilators in the side kick pads. The amount that either the right or left knob is pulled out will regulate the amount

of air entering the car from that particular duct.

HEATER AND DEFROSTER—Even distribution of heated air is accomplished through the use of a heater distribution manifold running crosswise of the body under the front seat. Hood high air is taken in through the intake directly below the windshield, heated and discharged through the manifold toward the front and rear of the car for equalized distribution by openings in the manifold under the driver and front seat passenger.

Temperature Control—The "TEMP" control is a thermostatic control similar in operation to the thermostatic controls found on automatic oil or gas hot air furnaces. To maintain the desired temperature inside the car the "TEMP" control automatically regulates the flow of hot water to the heater. This makes it unnecessary to change the setting of the "TEMP" lever once it is adjusted to produce a com-

fortable temperature in the car. Even though the car has been standing in the cold it is not necessary to move the "TEMP" lever, because this setting will produce as much heat as "HIGH" while bringing the air temperature up to the setting.



Air Control—The air that is heated and circulated through the car is outside air drawn into the car; the Venti-Heat System does not recirculate stale air. The "AIR" control regulates the entry of outside air through the underseat unit and defroster unit. Moving the lever to the "OFF" position closes the air valve. Moving the lever to either the "NORMAL" or "DE-ICE" position opens the air valve.

The "AIR" control lever when moved from the "OFF" position towards "NORMAL" allows an increasing amount of unheated air to be discharged through the defroster nozzles until the "NORMAL" position is reached. As the control lever is moved from "NORMAL" toward "DE-ICE", heated air is mixed with the cool air in increasing amounts until at the "DE-ICE" position all air discharged by the defroster nozzles is heated. As the "AIR" control is moved from the "OFF" position, the valve controlling the air flow through the heater is opened fully and remains this way even when the control is in the "DE-ICE" position.

De-Icing Windshield—Moving the "AIR" control lever to the "DE-ICE" position forces heated outside air through the windshield defroster and defroster ducts to clear the windshield of ice. After de-icing is completed the lever can be moved toward the "NORMAL" position if desired.

Using the Fan—The “BLOWER” switch (located directly below the “AIR” and “TEMP” levers) when moved to the “LO” or “HI” position will aid in circulating air for both the heater and defroster.

The “BLOWER” should be used when the car is driven slowly or is stopped, to speed up de-icing of the windshield, to prevent fogging of the windows when carrying several passengers, or to provide forced air ventilation when it is necessary to keep the car windows closed while driving in a summer rainstorm. The blower should also be used when maximum heater output is desired.

NOTE: Under very adverse weather conditions, window defogging or windshield de-icing may be improved by opening a door window approximately $\frac{1}{8}$ inch.

The following are examples of heater control panel settings for various types of driving conditions.

NORMAL DRIVING—WINTER OR SUMMER

“AIR”Set lever between “NORMAL” and
“DE-ICE” as desired
“TEMP”Set lever at temperature desired in car
“BLOWER”Switch “OFF”

MAXIMUM HEAT INPUT OR DE-ICING WINDSHIELD

“AIR”Set lever at “DE-ICE”
“TEMP”Set lever at “HIGH”
“BLOWER”Switch “HI”

SUMMER RAINS OR SLOW CITY TRAFFIC

“AIR”Set lever at “NORMAL”
“TEMP”Set lever at “OFF”
“BLOWER”Switch “LO”

The “AIR” lever should be left at “NORMAL” to help prevent that moist, sticky feeling usually experienced in such weather. The “BLOWER” switch can be turned “OFF” after leaving the slow city traffic. This will conserve electric current and motor life.

TO KEEP OUT UNPLEASANT OUTSIDE ODORS

“AIR”Set lever at “OFF”
“BLOWER”Switch “OFF”

WARNING: CARBON MONOXIDE

Avoid inhaling exhaust gases when any concentration of these are present in the air, i.e., in a garage, in congested traffic, or when stopped closely behind a vehicle with its motor running. Exhaust gases may have strong odors which normally should give warning of their presence. However, the exhaust gases from some vehicles may not be so noticeable under certain conditions and the senses of people react differently. Exhaust gases contain a percentage of carbon monoxide which is a poisonous gas that, by itself, is tasteless, colorless, and odorless.

MAKE SAFE DRIVING A HABIT

Safe driving requires a car that is in safe condition. To be sure your car is still safe, have your Pontiac dealer make a SAFE-T-CHECK at least every Spring and Fall.



It is recommended that a periodic safety inspection be made on the following units:

Brakes	Steering
Exhaust System	Front Lights
Rear Lights	Horn
Tires	Windshield Wipers
Rear View Mirrors	Glass

Your Pontiac dealer cooperates with the National Safety Council.



General Service

TIRES



OVER INFLATION
Fabric Breaks—Bruises
Poor Traction—Hard Ride



UNDER INFLATION
Blowouts—Loosens Cords
Uneven Wear—Runs Hot

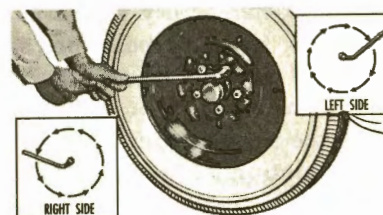


PROPER INFLATION
More Mileage—Even Wear
Good Traction—Good Ride

GET MAXIMUM SERVICE FROM TIRES BY KEEPING THEM PROPERLY INFLATED

TIRE SIZE	Starting Pressure (after car has been standing for three hours)	City Pressure (after driving car three miles or more below 40 MPH)	Highway Pressure (after driving car three miles or more above 40 MPH)
7.50 x 14—4 ply S.M. Trans.	22 lbs.	25 lbs.	27 lbs.
7.50 x 14—4 ply H.M. Trans.			
Front	24 lbs.	27 lbs.	29 lbs.
Rear	22 lbs.	25 lbs.	27 lbs.
8.00 x 14—4-ply (Except Air Conditioned Cars)	22 lbs.	25 lbs.	27 lbs.
8.00 x 14—4 ply (Air Conditioned Cars)			
Front	24 lbs.	27 lbs.	29 lbs.
Rear	22 lbs.	25 lbs.	27 lbs.
8.50 x 14—4 ply (Except Safari & Air Conditioned Cars)	20 lbs.	23 lbs.	25 lbs.
8.50 x 14—4 ply (Star Chief Safari)	22 lbs.	25 lbs.	27 lbs.
8.50 x 14—4 ply (Chieftain and Super Chief Safari)	24 lbs.	27 lbs.	29 lbs.
8.50 x 14—4 ply (Air Conditioned Cars)			
Front	22 lbs.	25 lbs.	27 lbs.
Rear	20 lbs.	23 lbs.	25 lbs.

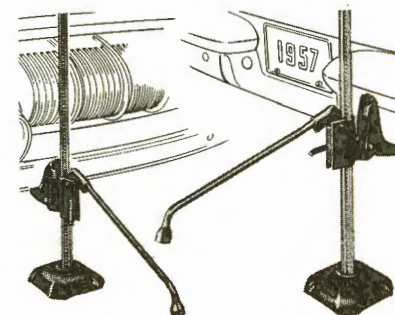
You can get the most from your tires by keeping them inflated to the recommended pressures when cold. Under-inflation or over-inflation reduces tire life and safety; over-inflation also reduces comfort. However, do not bleed air from tires when they are warm or hot even though the gauge reading is higher than the recommendation, since this could lead to under-inflation when they become cool.



CHANGING TIRES—It is a good idea to remove the spare tire from the trunk compartment when the jack and handle are removed. The jack base is used as the spare tire clamp.

1. Set the parking brake securely (block front wheels if rear end is to be raised) and pry off the hub cap. The end of the jack

handle can be used for this operation. Barely loosen the nuts which hold the wheel in place. The wheel nuts on the left side of the car loosen by turning in a clockwise direction, and those on the right side by turning in a counter-clockwise direction.



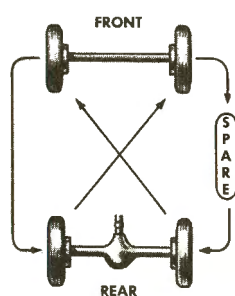
2. Set the small lever on side of jack assembly to "UP" position and place jack, with adapter bracket attached, in a vertical position with adapter bracket hooked under the front bumper as shown. For use under rear bumper, place jack, with adapter bracket in place as shown about 24 inches from center of car. Operate jack handle until tire is clear of road.
3. Remove the nuts which hold the wheel in place. Slide wheel from hub and replace with spare, replacing the nuts. Tighten the hub nuts all around gradually.
4. To lower the car, set the small lever on side of jack to "DOWN" position, lower the jack and retighten the hub nuts with the wheel on the ground. Replace the hub cap.

TO REMOVE OR INSTALL REAR FENDER SHIELD

1. **TO REMOVE SHIELD**—Disengage locking rod from lower flange of shield at rear. Pull rod down as far as possible. Shield will then fall free of rear bracket. Disengage front rod and remove shield.
2. **TO INSTALL SHIELD**—With the rear locking bar in down position as far as possible, insert the front rod into notch in fender bracket and, holding shield in vertical position, push upward to engage tabs on the wheel side of the fender flange. With the shield set on outside of the tabs on the upper brackets, engage the rear locking rod into bracket. Pull up the rod and lock over turned-up flange on bottom of shield.

TIRE BALANCE—Many tires are marked at the factory with a red mark on the sidewall near the bead denoting the light point of the casing. The valve stem is the heavy point of the wheel and the tire should always be mounted with the mark at this point. If no red mark is found on the casing this indicates that the tire has been balanced by the tire manufacturer and no special mounting is needed. Due to irregularities in tread wear caused by sudden brake applications, misalignment, low inflation pressures, tire repairs, etc., a tire assembly can lose its original balance.

If a disturbance is felt in the steering wheel due to the action of the front wheels, or if pounding, tramping, or shimmying is experienced while driving, one of the first items to check is the static balance of tires and wheels.



TIRE SWITCHING—Switching tires from one position to another on the car usually prolongs tire life. If you have four good tires, you might consider switching at regular intervals by cross-changing them from right front to left rear and left front to right rear. With five good tires, however, tire switching as shown in the diagram saves tires by equalizing wear and “exercising” the spare. By having your tires switched every 4,000 miles and using the spare, you can drive

20,000 miles and only put 16,000 miles wear on each of the tires.

SAVING TIRES WHEN YOU DRIVE—Maximum tire life can be secured by careful attention to driving habits and a few essential details of service. We have listed below the most important points to help you secure this maximum.

1. Keep tires properly inflated at all times.
2. Avoid spinning wheels when starting.
3. Avoid sudden stops.
4. Turn corners at moderate speeds.
5. Steer around bumps, ruts, or minor obstructions in the road.
6. Keep out of car tracks.
7. Do not bump or scrape the curb.
8. Keep the front wheels in proper alignment. (See page 28.)
9. Keep brakes adjusted. Uneven brake adjustment causes uneven tire wear.
10. Switch tires every 4,000 miles. (See above.)

COOLING SYSTEM

COOLING SYSTEM CAPACITIES

All Models.....	21½ qts.
W/Underseat Heater.....	23 qts.
W/Air Conditioning.....	22¼ qts.
W/Air Conditioning and Underseat Heater.....	23¾ qts.

THERMOSTAT AND SEALED COOLING RADIATOR CAP—

Water temperature is controlled by a thermostat in the water outlet elbow. When the engine is cold (below operating temperature) the thermostat is closed a large part of the time; preventing the water from circulating through the radiator core thus shortening the warm-up period. This also shortens the length of time required to get heat to your hot water heater. When the engine reaches operating temperature the thermostat opens and allows the water to pass through the radiator as usual.

A 13 lb. per sq. in. pressure cap (15 lb. on air conditioned cars) is used to provide optimum cooling and to help control evaporation when using volatile type anti-freeze. A noticeable hissing or singing noise resulting from the valve in the sealed cooling cap opening and closing may be from engine overheating.

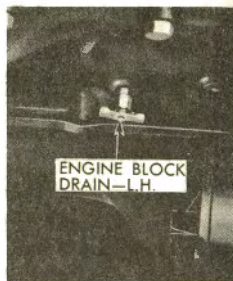
A 170° thermostat is used on all models. Alcohol or methanol based volatile type anti-freeze can be used with this thermostat.

CAUTION: Extreme care must be taken when removing radiator pressure cap while engine is hot because relieving the pressure will cause the cooling system to boil, if volatile type anti-freeze is used, with resultant loss of anti-freeze solution. When removing filler cap, rotate cap toward left very slowly; if hissing of vapor is encountered, tighten cap immediately and wait for system to cool sufficiently to allow removal of cap. After pressure in the system has been relieved, turn cap more forcibly to left and remove. Turn cap all the way to the right when installing. This caution should not be taken lightly since severe injury and fire (if alcohol and other inflammable vapors are present) are possible if the radiator cap is removed while there is pressure in the cooling system.

NOTE: If through some oversight the water in the radiator should get extremely low and the engine very hot, let it cool off for ten or fifteen minutes before adding water, then add it slowly, with the engine running. Cold water on hot surfaces might crack the cylinder head or block.

USING RUST PREVENTIVE—Nearly all the anti-freezes on the market today contain chemicals to inhibit rust formation in the cooling system. When the anti-freeze is removed this protection may be continued by adding a radiator rust preventive to your cooling system solution.

STORING THE CAR—If the car is to be stored during cold weather, both the radiator and engine block must be drained. The drain valve for the radiator is located in the lower right hand corner of the radiator. It is easily reached by opening hood. A drain valve for the engine block is located on both sides of the engine block. The underseat heater should be drained by disconnecting both hoses at the heater.



NOTE: The drain valves on the engine block have no stop on the valve. Open with care. Open only enough to permit coolant to flow.

ANTI-FREEZE

When pouring alcohol or volatile type anti-freeze solution in the radiator, be careful not to get any on the painted finish of your car. If some should be accidentally spilled on a painted surface, rinse it off at once with cold water to prevent any damage.

Using the radiator capacities given on page 25 follow the anti-freeze manufacturers recommendations given on the container as to the quantity of anti-freeze needed to adequately protect your car to the expected low temperature.

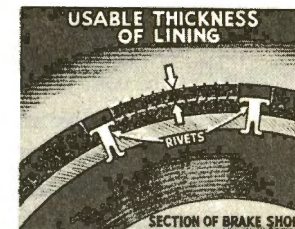
NOTE: Kerosene, calcium chloride, sodium silicate, honey, sugar and like materials are not satisfactory to use in the cooling system.

Anti-freeze mixtures are expensive so it is important not to lose them through loose water connections. Before putting them in your radiator it is a good idea to have the cylinder head gaskets and hose connections inspected and carefully tightened, or, if necessary, replaced.

BRAKES

WHEN TO ADJUST BRAKES—Engineers agree that the brakes on your car need adjustment when the pedal goes within two inches of the floorboard in making an ordinary stop with standard brakes. With power brakes adjustment is needed when the pedal goes within one inch of the floorboard. The reserve on both is needed to allow for expansion of brake drums when making a fast stop.

WHEN TO RELINE BRAKES—New brake linings are usually necessary after three or four adjustments, when the brake lining is worn down to the rivets which fasten the lining to the brake shoe. Exposed rivets will score brake drums and lead to expensive repairs.



Inspection of the lining after a brake drum has been removed is the only way to tell when a brake reline is necessary. You can save by asking your service man to inspect the brake shoes at the third adjustment, so you can see for yourself if relining is necessary.

When it is necessary to reline your brakes, have Pontiac Factory Engineered Brake Shoe sets installed to make sure you get linings engineered for your car and correctly ground and riveted to the shoes.

OTHER BRAKE SERVICE—As a general rule, the only brake service you will need will be brake adjustments and relining at high mileages. However, if you notice anything unusual about your brakes (squeaks, grabbiness, springy pedal, pulling to one side or one tire sliding ahead of the others when brakes are applied), it's a good safety precaution to take your car to a Pontiac service station immediately and locate the cause.

PROLONGING THE LIFE OF YOUR BRAKES—Here are a few suggestions to give you safe brakes at a minimum of expense:

1. When your car is new or when new linings have been installed, apply brakes carefully the first few hundred miles until the lining surfaces have acquired a smooth finish.
2. In mountainous country, use a lower gear going downhill. This allows the engine to do part of the braking and saves on your brakes. On Hydra-Matic equipped cars use the right hand DR position or LO as required.
3. Have your brakes adjusted when you can push the brake pedal within two inches of the floorboard. (One inch with power brakes.)
4. If you want to get the maximum service out of your brake lining, have the wheels removed and all dust and dirt blown out of the drums and the brake shoe mechanisms lubricated every time the brakes are adjusted. It is poor economy to have brakes adjusted without performing this simple extra service. Removing the drums also permits examination of the brake lining.
5. Leave the car in gear in ordinary traffic stops until the car is practically stopped. This lets the engine do a good share of the braking job and adds miles to brake life.

6. Anticipate traffic stops so you can slow down gradually. Sudden stops make your passengers uncomfortable and also wear brakes out faster and decrease gas mileage and tire life.
7. Have the brake master cylinder checked visually for leaks at each chassis lubrication.
8. Don't accept substitute brake fluid for refills. Use type of fluid recommended on page 34. Fluid containing mineral oils will ruin the braking system and result in expensive repairs.
9. Remember that cleanliness is extremely important to proper brake operation. Pontiac service men realize this and are extremely careful to keep brake parts clean.
10. Low tire pressures or unequal tire pressures will sometimes cause brakes to work unevenly. Therefore, check tire pressures regularly.

STEERING GEAR

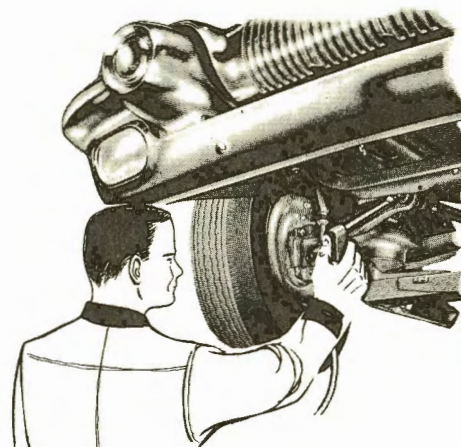
WHEN TO ADJUST THE STEERING GEAR—No specific mileage can be set up for taking the play out of the steering gear. This will vary with the conditions under which your car is operated. An adjustment should be made, however, whenever you have to turn the wheel several inches before the front wheels turn or when the steering seems loose when driving on dirt or gravel roads.

FRONT WHEEL ALIGNMENT—Front suspension, with vertical king pins and airplane type shock absorbers combined with link parallelogram steering give your Pontiac good riding qualities with easy steering and maximum driving comfort.

While natural wear in steering linkage and front suspension parts may cause misalignment at high mileage, you can keep the need for this service at a minimum by having your car lubricated at the recommended intervals. Refer to page 29.

When to Have Front Wheel Alignment Checked—Whenever you find that your car is losing its "roadability" or handling ease, and it does not respond to chassis lubrication, it is advisable to have the front wheel alignment checked. Your Pontiac service men will be glad to do this at any time, using special equipment designed for this purpose.

Chassis and Body Lubrication



The Pontiac owner of today knows that his car should be lubricated periodically to obtain all the value built into it. However, as with changing engine oil, experience has shown that the need for this vital service varies according to the conditions under which the car is driven.

WHEN TO LUBRICATE—For normal driving conditions, lubrication is recommended every 2,000 miles. This applies to all owners

with exception of those driving under the conditions described below:

DRIVING OVER ROUGH AND DUSTY ROADS—When the car is driven over rough and dusty roads, more frequent lubrication might be necessary.

DRIVING IN SLUSH, WATER OR MUDDY ROADS—Cars driven through slush (melting snow), water or on muddy roads should be lubricated at more frequent intervals, due to the washing effect of the water on the lubricant in front suspension parts and the clutch and brake pedal shafts.

LOW MILEAGE DRIVING—Some owners drive their cars very little and accumulate mileage slowly. It is good practice for these owners to have their cars lubricated every 1,000 miles.

HIGH MILEAGE DRIVING—For the person who operates his car over 500 miles per week under favorable conditions, lubrication once a month is suggested.

LUBRICATION INSTRUCTIONS

Your Pontiac should be lubricated in accordance with the lubrication chart on page 32 and 33 and the instructions given in this section.

The car should be lubricated at end of the first 1,000 miles and thereafter at 2,000 mile intervals, except when driven under the conditions outlined above.

CHASSIS LUBRICATION

MANUAL STEERING GEAR—Lubricant change is not necessary unless the unit is disassembled for repair. At each chassis lubrication, unit should be checked for leaks. If there is evidence of leakage from the steering gear, the leak should be corrected and All-Season Steering Gear Lubricant added to bring to proper level. If unit does not leak, it is only necessary to check level once yearly (preferably in the fall).

POWER STEERING—If there are any leaks in the system, they should be corrected. Add fluid recommended for Hydra-Matic (page 31) to bring level up to mark near top of reservoir. (Hydraulic fluid also lubricates gear.) In an emergency, a good grade of S.A.E. 10W oil may be used; replace with specified fluid as soon as possible. It is not necessary to change fluid unless unit is disassembled for repairs.

SYNCHRO-MESH TRANSMISSION—Lubricant change in the Synchro-Mesh transmission is not recommended unless repair work is being done. Check transmission for leaks at each chassis lubrication. If there is evidence of leakage the leak should be corrected and lubricant added if needed. Refill capacity is 2½ pints.

Use Extreme Pressure Gear Lubricant or Multi-Purpose Gear Lubricant S.A.E. 80 or 90 (no special additives to these lubricants are required or recommended).

REAR AXLE—Lubricant change in the rear axle is not recommended, unless repair work is being done. The rear axle should be checked for leaks at each chassis lubrication. If there is evidence of leakage the leak should be corrected and lubricant added if needed. Use S.A.E. 90 Hypoid Lubricant (suitable for passenger car duty) in the rear axle. After the unit is thoroughly broken in (several thousand miles), Multi-Purpose Gear Lubricant may be added on the responsibility of the lubricant supplier (no special additives to these lubricants are required or recommended). Rear axle capacity is 5 pints.

MANIFOLD HEAT CONTROL VALVE—Check for freedom of movement of manifold heat control valve; if sticking, lubricate bushings with graphite in alcohol.

BATTERY—The level of the electrolyte solution in your battery should be kept up to but not over the bottom of the vent well. Check this level at regular lubrication intervals (more frequently in extremely hot weather). Add DISTILLED WATER to bring the solution level to bottom of vent well whenever necessary.

The specific gravity of the battery should be checked regularly. The battery should be kept at or near a full charge at all times (1.240-1.280 hydrometer reading). This is especially important in cold weather when the demands on the battery are high. A battery can freeze in extreme cold if it is not in a fully charged condition.

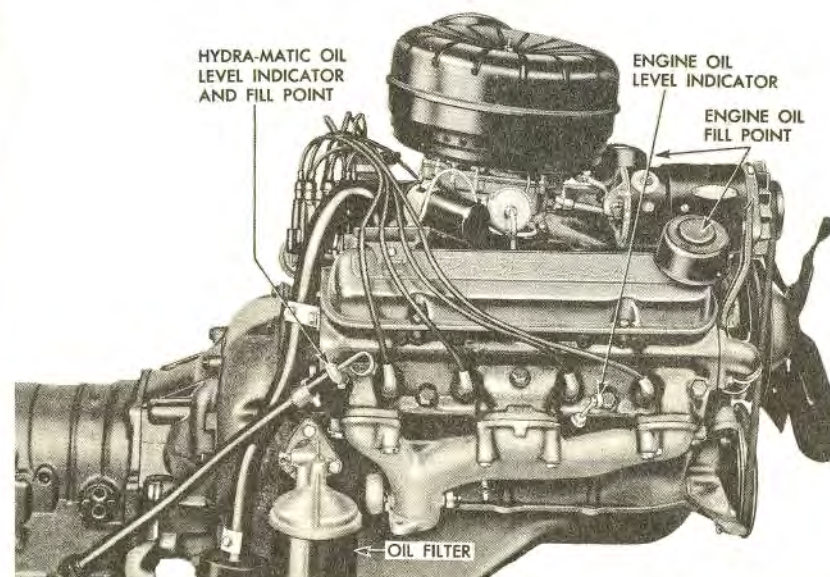
CAUTION: Battery fumes are inflammable and toxic.

To prolong the life of the battery it should be inspected for evidence of corrosion, cleaned, flushed and dried at each lubrication period.

REAR SPRINGS—No lubrication required.

HYDRA-MATIC TRANSMISSION—The Hydra-Matic fluid level should be checked every 2,000 miles by the following procedure:

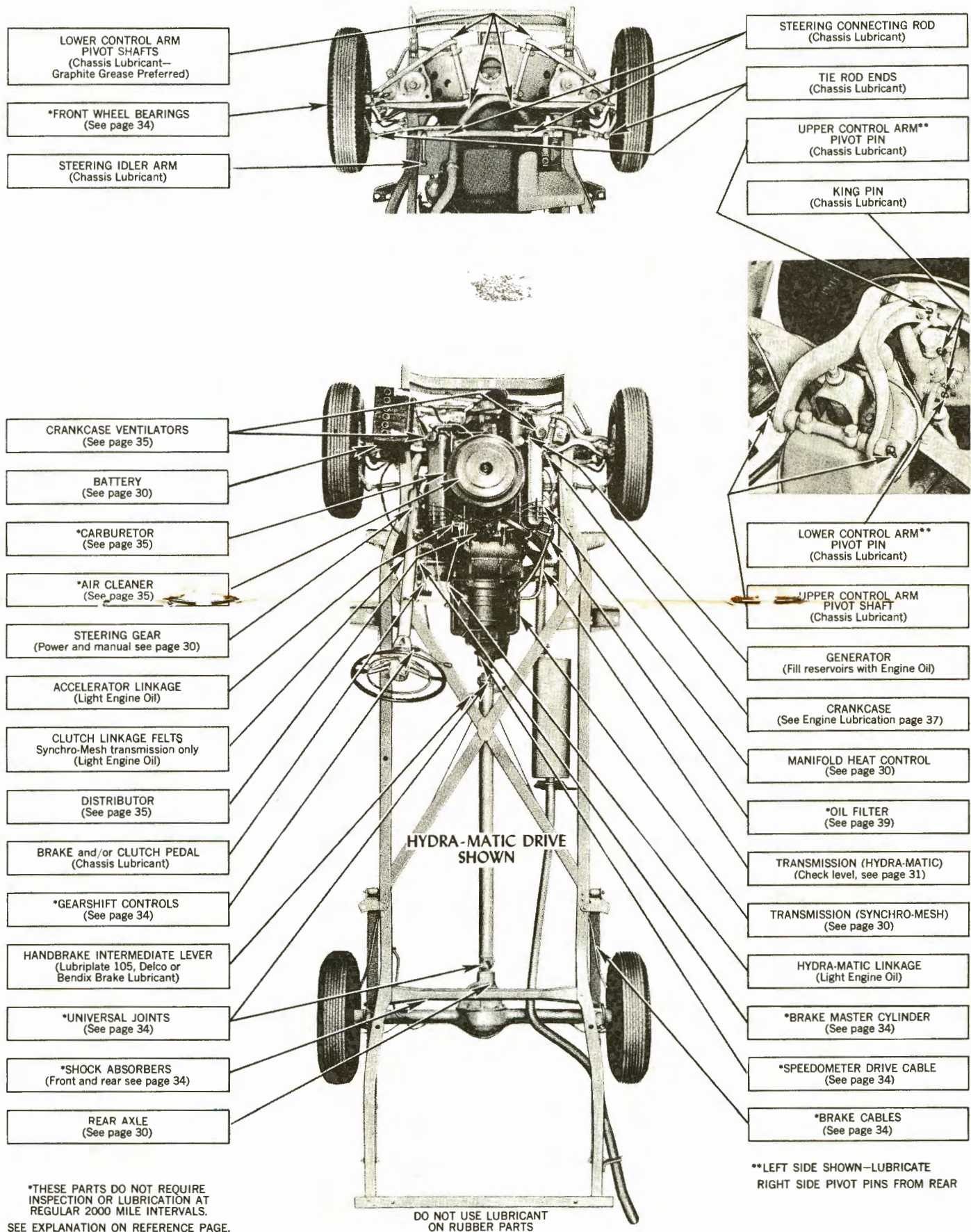
1. Apply hand brake tightly, move control lever to "P" position, and run engine equivalent to 20 MPH for 1-1/2 minutes.
2. Reduce engine speed to slow idle. Remove oil level indicator, wipe clean and reinsert.
3. Remove indicator again and note reading, if level is at lower mark or below, add fluid to bring it to full mark.



DRAIN AND REFILL HYDRA-MATIC EVERY 25,000 MILES

Fluid Recommendations—When adding or refilling, use only GM Hydra-Matic Fluid (available at all authorized Pontiac dealers), or Automatic Transmission Fluid identified by an AQ-ATF qualification number. (No special additives to these fluids are required or recommended.) Total drain and refill capacity is approximately 9 quarts

PONTIAC 2000 MILE LUBRICATION CHART



on the Strato-Flight Hydra-Matic. In case of emergency, it is possible to use any good grade of 20W engine oil. Replace engine oil with specified fluid as soon as possible.

PARKING BRAKE CABLES—Lubricate brake cables yearly (preferably in the fall) or when the rear wheels and brake drums are off to inspect or replace brake lining or to make a major brake adjustment. Lubricate with Lubriplate No. 105, Delco Brake Lubricant or Bendix Brake Lubricant.

BRAKE MASTER CYLINDER—If there is evidence of leakage in the brake hydraulic system, the leak should be corrected and fluid added as required; otherwise, fluid level should be checked only when brakes are adjusted. When adding brake fluid use GM or Delco Super 11 Brake Fluid, or any S.A.E. 70R1 grade brake fluid.

FRONT WHEEL BEARINGS—The front wheel bearings should be lubricated only when it is necessary to remove the wheels and drums for other work such as brake relining. The amount of special quality water resistant and high melting point lubricant used at the time of manufacture is entirely adequate for this period. If the wheel bearings are found to be discolored (turning blue or straw colored) it does not mean that they have been overheated due to lack of lubricant. This discoloration is merely a chemical reaction of substances in the lubricant and does not affect the serviceability of the bearing in any manner. When lubricating, the bearing should be cleaned and High Melting Point Wheel Bearing Grease applied. The importance of properly adjusting wheel bearings after lubrication should not be overlooked.

UNIVERSAL JOINTS—Lubricate universal joints every 25,000 miles with High Melting Point Wheel Bearing Grease.

SPEEDOMETER DRIVE CABLE—Lubricate speedometer drive cable when dry. A dry cable is usually noticeable by a wavering speedometer reading. A very dry cable will of course be noisy. Use a suitable speedometer cable grease that will not become hard and stiff when cold.

GEARSHIFT CONTROLS—The gearshift control linkage is lubricated at assembly and only requires further lubrication with Lubriplate No. 105 when parts become dry and sticky.

SHOCK ABSORBERS—Front and rear shock absorbers should be checked for leaks and their operation tested by jouncing the car at each lubrication. If inoperative, or leaks are found, the unit must be replaced.

GENERATOR—At each lubrication period fill the oil cups with engine oil. If the oil reservoir in the commutator end bearing becomes com-

pletely exhausted through failure to lubricate at regular intervals, it will require more than a single filling to restore the reservoir. In such a case, the oil cup should be filled three times consecutively, allowing time between fillings for the oil to soak down into the wick.

CAUTION: Do not oil with engine running.

CARBURETOR—No lubrication required.

STARTING MOTOR—No lubrication required except on overhaul.

DISTRIBUTOR—The hinge cap oiler should be filled with S.A.E. 20 oil at each lubrication. When replacing contact points add a trace of Delco-Remy Cam and Ball Bearing Lubricant or equivalent to the breaker cam. No other lubrication is required.

CLEANING CARBURETOR AIR CLEANER AND CRANKCASE VENTILATORS—The carburetor air cleaner should be cleaned and re-oiled in the spring and fall, or every 10,000 miles. If the car is operated in areas where dust conditions are bad, service every 2,000 miles or more often if required.

The crankcase ventilator elements, built into the oil filler caps, should be cleaned at 2,000 mile intervals, oftener in dusty areas. If the heavy duty air cleaner is used the crankcase ventilator outlet should also be cleaned.

Heavy duty air cleaners should be filled to the proper level (approximately 1 pint) as indicated on the inside of the oil reservoir. Use S.A.E. 50 oil for temperatures above 32° F. or S.A.E. 20W for temperatures below 32°.

CAUTION: Do Not Fill Over the Indicated Level.

BODY LUBRICATION

DOOR LOCK AND STRIKER—Wipe lock and striker parts clean and apply a light coat of stick-type lubricant on teeth and surface of lock bolt housing. Clean off excess lubricant.

DOOR HINGE HOLD OPEN SPRINGS AND STRAPS—Coat front door hinge hold open springs and friction surface on rear door hold open straps with Lubriplate No. 105.

DOOR HINGE—Apply light engine oil when dry.

DOOR AND REAR DECK LOCKS—Whenever it becomes diffi-

cult to insert the key in the locks, a small amount of powdered graphite should be blown into the lock cylinder.

HOOD LATCH AND SAFETY HOOK—Apply light engine oil to hinge pins and Lubriplate No. 105 to latch and safety hook friction surfaces.

FUEL TANK FENDER DOOR—Apply light engine oil to hinge pin.

HEATER DEFROSTER AIR VALVE LEVER TRUNNION—Lubricate trunnion and defroster air valve lever pivot (mounted on defroster on engine side of dash) and trunnion at blower inlet valve with light engine oil.

REAR DECK LID LOCK BOLT—Spring and fall or every 10,000 miles apply Lubriplate No. 105 to slot in deck lid lock bolt which contacts lock striker.

SAFARI—Apply light engine oil to rear gate hinge.

CONVERTIBLE COUPE HYDROELECTRIC PUMP MOTOR

The hydroelectric pump motor does not require service unless malfunction develops.

Engine Lubrication



The terms "For Service ML", "For Service MM", and "For Service MS or DG" are used by the oil industry to designate the types of engine oils sufficient to meet the requirements of various service conditions.

Petroleum based engine oils of type "MS or DG" as supplied by reputable marketers are recommended for use in your new Pontiac engine.

S.A.E. OIL NUMBER SYSTEM—The numerical designations such as 10W, 20W and 20, etc., adopted by the Society of Automotive Engineers, classify lubricating oil only according to fluidity (viscosity). The oils with the lower numbers are lighter and flow more readily than do the oils with the higher numbers. The letter "W" after the number indicates an oil adapted for cold weather starting. Multi-viscosity type crankcase oils such as 5W-20, 10W-20 and 10W-30 are designed to combine the easy starting characteristics of the lower number with the warm weather operating characteristics of the higher number.

SELECTING OIL OF THE PROPER NUMBER—An oil should be used which provides safe lubrication, satisfactory oil economy under warm climatic conditions, and easy starting at the lowest

atmospheric temperatures expected during the period the oil is to remain in the engine. Based on these considerations, the numbers of engine oil which are recommended for the Pontiac engine under various climatic conditions are as follows:

Atmospheric Temperatures Expected	S.A.E. Number Recommended	Acceptable Multigrade
32°F. to 110°F.	20	10W-30
10°F. 110°F.	20W	10W-20
10°F. below zero to 95° above zero	10W	
10°F. below zero and colder	5W	5W-20

NOTE: Petroleum based oils which are identified as "For Service MS or DG" are recommended for the Pontiac Engine.

OIL CHANGE RECOMMENDATIONS—Engine oil should be changed whenever it becomes contaminated. Contamination is usually due to the accumulation of water, dust or dirt, or the breakdown products of the oil and fuel.

It is always advisable to drain the crankcase only after the engine is thoroughly warmed. The benefit of draining is lost, to a large extent, if the crankcase is drained when the engine is cold as the oil will be thick and will not drain thoroughly.

The crankcase refill capacity is 5 quarts except when the oil filter element is changed. The refill capacity with a filter element change is 6 quarts.

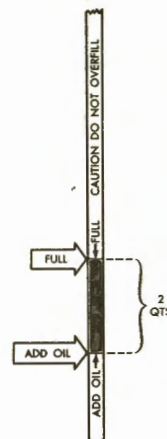
FIRST 1,000 MILES—The oil placed in the crankcase at the factory is a high quality "MS" type, 10W oil with special break in additives and should be left in the engine for the first 1,000 miles. At the end of the first 1,000 miles, the crankcase should be drained and refilled to the proper level with an oil suitable for your individual climatic and driving conditions as recommended in the above chart. Should it be necessary to add or change engine oil during the first 1,000 miles, an oil not heavier than 10W should be used.

Average Driving—For average driving conditions, an oil change is recommended every 3,000 to 4,000 miles. This applies to all owners with the exception of those driving under the conditions described in the following paragraphs.

Driving in Dust—When the car is generally operated in dusty territory, consideration should be given to more frequent oil changes.

Short Drives in Cold Weather—Short drives in cold weather (freezing temperatures or lower) such as city driving do not permit the engine to warm up thoroughly, and water may accumulate in the crankcase from condensation of moisture. Under these conditions it may be advisable to change oil at monthly intervals.

High Mileage Driving—For the exceptional person who is operating his car 500 to 1,000 miles per week consideration may be given to greater mileage between oil changes. Oils have a tendency to thicken on continuous high-speed driving. This should be kept in mind when preparing cars for cold weather driving.



ADDING OIL BETWEEN CHANGES—Since the lubrication system in a Pontiac is a full pressure system, it is not necessary to keep oil level up to the "FULL" mark on the dipstick. It is only necessary to keep oil level above the "ADD OIL" mark. It takes two quarts to bring the oil level from "ADD OIL" to "FULL" mark. Each time the gas tank is filled, the oil level should be checked. However, it is good economy to let the oil level approach the "ADD OIL" mark before having your oil changed.

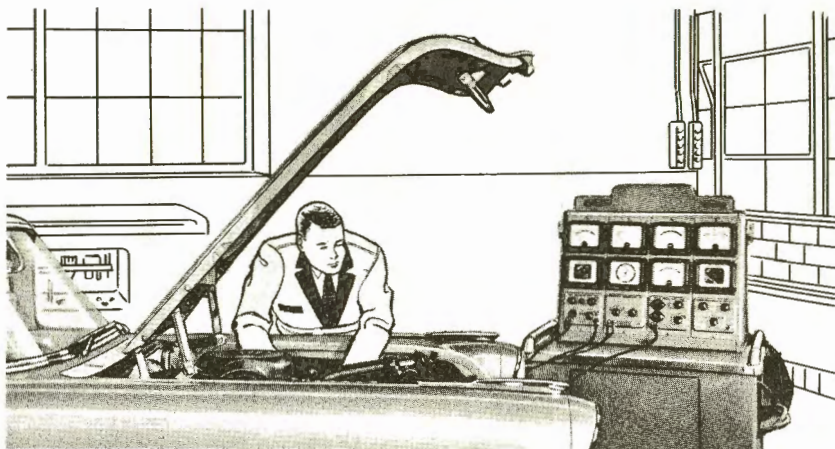
CAUTION: Do not overfill.

FULL FLOW OIL FILTER—The full flow oil filter (optional at extra cost) is highly recommended for use on the Pontiac Engine. This filter removes harmful particles of dirt, grit or other foreign material before they can cause undue engine wear by imbedding themselves in bearing surfaces or otherwise harmfully affect engine performance.

The filter element should be replaced once yearly or every 15,000 miles, whichever occurs first.



Tune-N-Test



To assist owners in getting what they need and avoiding unnecessary expense, most Pontiac dealers offer a specialized Tune-N-Test service. This includes: First, the few minor adjustments to the ignition and carburetion systems needed at regular intervals; second, a group of minor lubrication and maintenance jobs on the electrical system needed spring and fall or every 10,000 miles; and finally, a complete test to tell you the condition of the entire ignition, compression, and carburetion systems.

This service may be obtained at a nominal cost. While it is not intended as a "cure-all", it will help eliminate guesswork in locating potential causes of engine malfunction and prevent future inconvenience.

WHEN TO HAVE A TUNE-N-TEST—Due to the differences in driving habits and driving conditions, it is difficult to set a definite schedule for this service. Generally speaking, it is good practice for the average driver to have a Tune-N-Test in the spring and again in the fall. If you use your car in your work and put on a lot of miles, you may want to have this job performed every 10,000 miles.

Your Pontiac dealer's Tune-N-Test service will help find deficiencies in the ignition, compression, and carburetion systems before malfunctions occur, thus saving you inconvenience and expense.

SERVICES INCLUDED IN THE TUNE-N-TEST—The services of the Tune-N-Test can be segregated into three groups of operations.

The first group includes the adjustments which are recommended as necessary every spring and fall or every 10,000 miles. The second group has the lubrication of those engine units which do not require attention every 2,000 miles. The last part of the Tune-N-Test covers checking and testing the ignition, compression, and carburetion systems for indications of malfunction.

TUNE-UP ADJUSTMENT GROUP

1. Clean and space spark plugs (spark plug gap .033"-.038").
2. Inspect distributor points (breaker contact gap. .016").
3. Set timing.
4. Adjust carburetor idle speed and mixture.

MINOR MAINTENANCE AND LUBRICATION GROUP

1. Add distilled water to battery.
2. Wipe external parts of spark plugs, distributor cap, coil terminal and ignition wires.
3. Clean and re-oil carburetor air cleaner, oil filler and ventilator caps and ventilator outlet.
4. Torque intake manifold nuts and inspect exhaust system.
5. Adjust fan and power steering belts.

DIAGNOSIS GROUP

By purchasing the complete Tune-N-Test rather than having the individual operations performed at separate times, a saving is achieved by eliminating overlapping or duplicating operations.

The Tune-N-Test checks and test eliminate "guesswork" errors in diagnosis. These tests also help avoid starting difficulty in cold weather or trouble on the road by finding indications of impending trouble before it occurs.

Engine Compression—Compression in your engine is the squeezing of the air-fuel mixture in the cylinder.

Keeping compression at its maximum and equalized in all cylinders insures smooth powerful operation. The tests in the compression section check the compression in each cylinder and tell you the condition of the piston rings and valves.

Electrical—The electrical system in your car is like a miniature electrical plant that serves a city. The generator and charging circuit

are like a central power house with the battery as an electrical storage tank. From the generator some of the main feed wires go to the distributor, which can be thought of as the central switchboard of the ignition system because it intermittently and automatically connects each spark plug with the electrical current so that ignition of the charge in the cylinder occurs at exactly the right time. Other feed wires go to the lights, horns, and electrical accessories.

The tests on the electrical system check each of the three electrical circuits; the starting, the ignition, and the charging circuits.

Carburetion—Carburetion is the automatic mixing of gasoline with air in the proper proportions at all engine speeds and temperatures. This is done by the carburetor and the built-in automatic choke.

In the carburetor all the openings through which fuel and air travel are fixed, excepting the idling jets which are controlled by the idling adjusting screws. All other mixtures of gasoline and air are automatically controlled in relation to the needs of the engine.

As you probably know, a fuel-air mixture which contains a large proportion of gasoline is called a "rich" mixture. One that contains relatively little gasoline is called a "lean" mixture. The proper richness or leanness of the mixture depends not only on the speed of the engine, but also on the temperature of the engine. The carburetor takes care of the former—automatic choke takes care of the latter.

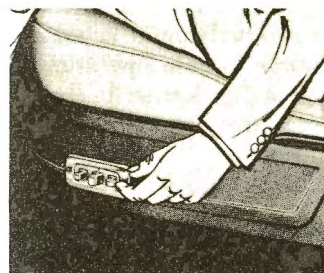
The choke controls the choking of your engine automatically. A thermostatic arrangement lets the temperature of the air under the hood control the richness of the mixture. A linkage is also provided which is connected with the carburetor throttle and causes the engine to operate in "fast idle" during the warm-up period. The fast idle system is designed to enable the engine to start and idle without stalling even at below zero temperatures. Therefore, when the car is started as instructed on pages 12 or 16 during more moderate temperature conditions the initial idle speed may seem high. If this is the case after engine starts open accelerator slightly and then release. This will reposition the throttle setting from the "starting" step of the fast idle cam to the "running" step and give a slower idle speed.

As the engine warms up, richness is decreased. When normal operating temperature is reached, the choking mechanism automatically shuts off and engine slows down to the proper idle speed.

The checks made by your Pontiac dealer on the carburetion system will show what adjustments, if any, are needed.

How to Double Your Pleasure.. With **PONTIAC APPROVED ACCESSORIES**

The accessories and optional equipment available for installation on your new Pontiac are built specifically for Pontiac to Pontiac Engineers' specifications. Some accessories, or options, require little or no maintenance or regulation; while others give you their best performance and ultimate pleasure when you fully understand the working principles behind each one.



8 WAY POWER OPERATED ADJUSTABLE SEAT—Designed to give you greater driving ease and comfort, the 8 Way Power Seat provides for a horizontal adjustment up to 5" forward or backward, a vertical adjustment of 2", and a complete seat angle adjustment up to 15°.

This wide range of seat position selection permits any driver, regardless of physical stature, to choose the exact position that "feels" right.

A single control panel, located on the forward edge of the left hand side of the seat cushion, contains the three switches which activate the seat movement. Raising or lowering of the front of the seat is done by lifting or pushing down the front switch. The position of the rear of the seat is raised and lowered in the same manner using the rear switch. Movement of both switches, up or down, will elevate or lower the entire seat assembly in a vertical plane. Movement of the center switch, forward or back, causes a horizontal adjustment to be made.

6 WAY MANUAL OPERATED ADJUSTABLE SEAT—The movement of the Manual Seat is similar to the power seat. By raising or lowering the front or rear handle, and at the same time shifting the body forward or back, the seat may be positioned in any one of 36 possible positions (six on the forward handle or six on the rear). Horizontal movement of the seat is accomplished using the standard seat regulator knob. This gives a total of 360 positions considering fore and aft travel.



Adjustments in the position of the 6 Way Manual Seat, when occupied by more than the driver, can be easily made if each person will shift his weight in unison with the driver.

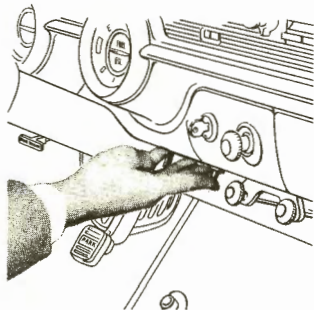
Both the Power and Manual Seat Adjuster will give you more comfort, better visibility, and, through the wide variety of seat positions reduce driving fatigue by improving muscular relaxation.

POWER BRAKES—Pontiac Power Brakes have been improved internally to give you optimum safety and satisfaction. Newly designed, the over 10 square inch brake pedal aids in application. Through the use of both vacuum and atmospheric pressure the finest braking possible is obtained with a minimum of effort being required to operate the foot pedal.

A vacuum reserve tank has been provided which will normally retain sufficient vacuum to allow one or two applications of the Power Brakes after the engine stops. The hydraulic part of your brake system will continue to operate even though the vacuum reserve should become dissipated. Until this vacuum is restored through engine operation, your brakes will operate in the manner of regular hydraulic brakes, but it requires more pedal pressure to assure the complete operation of the brake system. It is advisable to try the brakes with no vacuum to get the feel of the brake pedal under the above condition.

Caution: When starting or parking on a grade with a car with a Synchro-Mesh transmission the parking brake should be used. Cars equipped with Strato-Flight Hydra-Matic transmission should be left in park position under these same circumstances.

THE AUTOMATIC ELECTRIC ANTENNA—The Automatic Electric Antenna, used exclusively in conjunction with the Electramatic Wonder-Bar radio is controlled through the power switch in the radio. With the ignition key in the ACCESSORY or ON position the antenna will automatically rise to a preset height of 30" above fender level when the radio power is turned on. It will also automatically retract to its original position whenever the radio or ignition switch is turned off.



To raise the antenna beyond the 30 inch height you merely push in the button of the override switch located under the instrument panel to the right of the steering column. The antenna will rise as long as the switch is held in, until a maximum height of 60 inches is reached. It will automatically lower itself fully whenever the radio or ignition switch is turned off.

Since all radio reception is dependent on antenna height the automatic raising feature of the Automatic Electric Antenna assures owners of the Electramatic Wonder-Bar radio of more and better station reception and positive operation of tuning mechanism.

The Electric Antenna, used with the Deluxe radio, is manually controlled by a toggle switch located in the same position as the manual override switch on the automatic electric antenna. To raise the antenna sections, pull the switch lever toward the rear of the car. To lower the antenna, push the switch towards the front of the car.

Caution: Do not hold switch in operating position beyond full travel of antenna (up or down). For long trouble free operation mast section should be cleaned once a month with clean water.

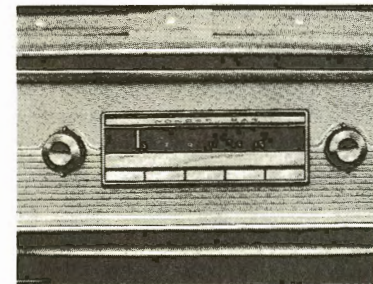
THE DELUXE RADIO—A new transistorized receiver is used for the first time in the 1957 Pontiac. The left hand knob turns the set off and on and controls the volume. The flat spacer behind the knob changes the tone from base to treble when moved in a clockwise motion. The right hand knob, when rotated either clockwise or counter-clockwise, manually selects the radio station.

The push buttons can be adjusted to select five different stations in the following manner.

1. Turn the radio on and let it play for ten to fifteen minutes to allow all metal parts to expand to operating temperature.
2. Select the push button to be adjusted and pull it to the right and out as far as it will go.
3. Tune in the desired station using the manual tuning knob. Tune it back and forth through the station until the point of clearest reception is found.
4. Push the button being adjusted all the way in and release. The push button should now be set up.
5. Try the push button several times. If the station can be tuned more clearly with the manual tuning knob than with the push button, the above procedure should be repeated until the push button tunes the station as accurately as manual tuning.

The Deluxe Radio, using a power transistor at the audio output stage, no longer requires a vibrator, power transformer or rectifier. By eliminating the vibrator, the mechanical hum which accompanied it is no longer present.

THE ELECTRAMATIC WONDER-BAR RADIO—This radio is equipped with a "selector bar" and five push buttons to give you automatic tuning of any available station in any locality by touching either the bar or any of the five pre-set stations.



The three position "sensitivity" control, located behind the manual tuning knob controls signal strength. When control is in position farthest to the left, only the strongest stations are selected. Turning the control one notch to the right permits selection of more stations. With the control rotated to extreme right position the radio will select any listenable station.

To set the push buttons, select a station manually, pull down the door above the push buttons, and line up one of the red tabs with the indicator in the dial glass. Repeat this process for each of the other four buttons. In areas where two desired stations have only slight variance in their broadcasting frequency it may be necessary to offset the tabs slightly to assure selection of the station wanted, if, when the push button is depressed the stronger of the two stations is invariably selected.

Antenna height controls automatic station selection similar to the sensitivity control. If indicator sweeps the dial repeatedly without stopping, the antenna should be raised to help strengthen the broadcasting signal.

Both Pontiac radios carry civil defense CONELRAD markings at 640 and 1240 kilocycles to identify these locations for emergency broadcasts.



HI-FI REAR SEAT SPEAKERS—

Are available for use with either the Deluxe or Electramatic Wonder-Bar Radio. This system combines the conventional front seat speaker with two separate rear seat speakers, both of which have excellent sound reproduction characteristics. The rear seat speaker switch, located on the instrument panel below the radio controls,

has four control positions to provide the following:

1. Front speaker only.
2. Both rear speakers. In this position bass notes are subdued and high frequency notes are accentuated making it particularly suited for voice selection.
3. Both rear speakers. Both speakers are in phase for normal response.
4. Front and both rear speakers for maximum fidelity.

Rotating the dial through the four positions allows you to select to tone quality you prefer for instrumental music, male or female vocal, and speech.

ELECTRIC CLOCK—The electric clock in your car has been carefully checked and regulated by the maker for good time keeping. Obviously, between the time the clock is built and the time the car is placed in your hands, many things have taken place; some of which can conceivably affect the original precise adjustment. This does not mean that the quality of the clock has been impaired in any way, but it does mean that we must ask you to check the adjustment of the clock and make some correction, if necessary, under the conditions that you would normally operate the car.



Set your clock and then check it at the end of every week. If your clock gained time pull the stem out and turn the hands counter-clockwise to the correct time. If your clock lost time, pull the stem out and turn the hands clockwise to the correct time.

It is very important that you follow the above procedure due to the fact that your clock has automatic regulation built into the setting device.

The above procedure should be repeated at weekly intervals if the clock is not keeping accurate time.

WINDSHIELD WASHER—The Windshield Washer is vacuum operated and controlled by the push button in the center of the wiper control knob, located to the left of the steering column. To activate the washer and wiper, simply push in on the plunger button and release. Through the action of a coupler attached to the wiper motor, washer action is coordinated with windshield wiper action—the water being forced from two jets located at the base of the wiper arm supports. The wipers will continue to operate for 8 to 10 cycles after the predetermined amount of water has been pumped from the washer jar. If more water is required simply push the button again.

To insure the best operation of the windshield washer, the jets should be kept cleaned out since dirt, wax and polish can reduce or stop the flow of water.

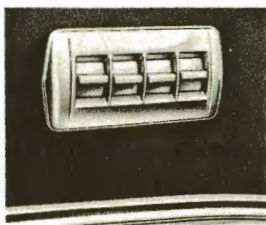
Pontiac Windshield Washer Solvent should be used not only to prevent freezing of the water in the jar in winter, but it is particularly helpful in removing road scum, bugs, and dirt during the warmer months. One two-ounce envelope to a full jar of water is sufficient in the summer and two envelopes to $\frac{3}{4}$ jar of water is recommended for winter. Under severe cold conditions fluid in jar may turn to slush-ice, but should not freeze solid. Heat from the engine will thaw out slushy condition.

Caution: Do not attempt to use windshield washer in freezing weather. Contact of the water on cold glass will cause immediate icing and impair visibility.

PONTIAC AIR CONDITIONING—Pontiac's air conditioning system provides refrigerated air to cool the interior of the car. All air is filtered to remove dust and other foreign materials. This system provides constantly and rapidly changing air inside the car, eliminating a stuffy, smoke-filled atmosphere and thereby keeping the occupants more comfortable. It permits more enjoyable driving by the reduction of dust, pollen, and similar irritants which would otherwise enter the car. It also eliminates the wind noise so objectionable with open windows.

A pamphlet containing complete operating instructions will be found in the glove compartment of each car equipped with Pontiac's Air Conditioning. Please refer to this pamphlet before operating your Air Conditioning Unit.

If your car is not equipped with Air Conditioning your dealer can install a Pontiac unit in your car at his dealership.



POWER WINDOW LIFTS—All vertical moving windows are controlled either from a four position switch located in the left front door panel or by individual switches on each window.

The first and third buttons control the left hand front and rear windows respectively, while the second and fourth buttons control the right hand front and rear windows respectively. The individual buttons on the left rear and right front and rear side control their respective windows individually. Moving the button up raises the window. Moving the button down lowers the window. Pontiac window lifts may be operated with or without the ignition being turned on.

POWER STEERING—As an option available on Pontiac cars, Power Steering is becoming increasingly more popular each year. Pontiac Power Steering is designed so that the driver still retains the feel of the road. Power Steering comes into action only when the effort required to turn the front wheel reaches a predetermined number of pounds pull on the rim of the steering wheel. The effort required of the driver does not increase over a set maximum even under such full load conditions as parking.

Pontiac owners do not have to develop a new "feel" or become "accustomed" to Pontiac Power Steering. Even on snow or ice the "feel" is the same as that of a car equipped with standard steering since the force required to turn the wheels, under these conditions, is well below that which makes the power steering operative.

Power Steering offers these important safety advantages; reduces fatigue on long trips, minimizes chances of losing control of the car from a tire blow out, and almost instantaneously overcomes the wheel drag experienced with standard steering when a car is driven in heavy sand, loose gravel or onto a soft shoulder.

ELECTRIC WINDSHIELD WIPER—The control knob for the electric windshield wiper is located on the instrument panel to the left of the steering column. Rotating the knob clockwise a quarter turn starts the wiper motor on high speed. Low speed operation is attained by turning the knob partially back towards the "off" position. When the wipers are turned off they will complete their cycle before returning to a parked position.

The longer wiper arm and blade gives you 20% more cleaned area than is possible with the standard wiper. The special wiper blade construction permits it to follow the contour of the windshield glass down and around the outer corners which gives you an added safety feature.

Caution: The wiper blades should never be moved through any part of their cycle manually. Such movement can seriously damage the gear train in the motor. The arm and blade may be lifted away from the glass to facilitate cleaning without causing any damage.

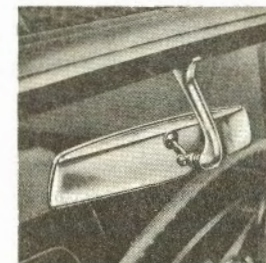
OUTSIDE REAR VIEW MIRROR—The outside mirror may be mounted either on the left or right door or, if preferred, on the right or left front fender.

The mirror is pre-adjusted for installation on the left front door. If the mirror is to be installed on the left front fender the locking nut which secures the mirror base to the mirror hood holding arm should be loosened and the hood rotated left or right to the most suitable location. The lock nut should then be tightened securely before the mirror assembly is attached to the mounting bracket. This same procedure should be followed when installing the mirror on the right front fender or door.

Minor angular adjustment of the mirror itself is done by applying finger pressure on the mirror glass sufficient to cause it to move on the ball-pivot in the back of the mirror.

INSIDE REAR VIEW NON-GLARE TILT MIRROR

The inside tilt mirror basically has two adjustments or positions. A finger tab at the bottom center of the mirror permits easy adjustment to the night time non-glare driving position. The mirror position is indicated by words NIGHT or DAY in white letters on the respective tabs. The adjustment from DAY to NIGHT position is made by pulling the tab towards you. By pushing on the NIGHT tab you switch back to DAY position.



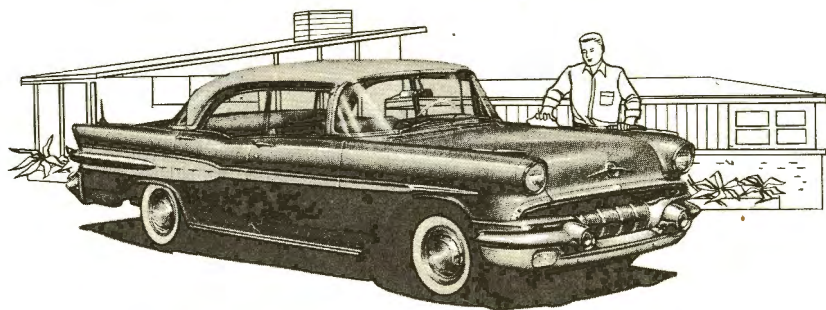
The mirror is attached to the support arm by means of a clevis (tongue and groove joint) which allows the mirror to be raised or lowered. To adjust the mirror height for a short person, loosen the screw in the clevis and remove entire mirror assembly. Turn the mirror 180° so clevis is inserted with a downward angle and tighten the holding screw. The mirror should then be rotated on its ball pivot 180° to place the DAY—NIGHT tabs at the bottom of the mirror.

An additional adjustment of the mirror, to accommodate taller drivers, can be made by simply rotating the entire mirror 180°.

The mirror height can be readjusted to a position anywhere within a range of 2½ inches from the extreme high position to extreme low position.



Housekeeping Your Car



WASHING AND POLISHING—One of the best ways to preserve the original beauty of your Pontiac's finish and to protect the value of your investment, is to keep it as clean as possible. Frequent washing is helpful, especially if you live near the seashore where salt air may come in contact with the finish. Tree sap, road tar, excretion from insects, and smoke from factory chimneys, also contain harmful chemicals and other foreign matter that may permanently damage the finish of your car. (Insects can easily be removed by saturating the area with a mild solution of about two tablespoons of baking soda to a quart of water.) Frequent washing is very important in winter-time if you drive where salt or calcium chloride is used on the streets.

ALWAYS USE COLD WATER IN WASHING A CAR, NEVER WASH IT IN THE DIRECT RAYS OF THE HOT SUN, AND ALWAYS WAIT UNTIL THE SHEET METAL SURFACES ARE COOLED OFF.

Pontiac bodies are carefully and scientifically finished, so as to assure the beautiful appearance of the car and protect its steel.



Extremely long exposure to weather causes the finish to break down. Polishing your car removes spent pigment and restores original luster.



CARE OF ACRYLIC FINISH—All custom models have an acrylic lacquer finish. This is a finish of maximum durability and beauty. The use of waxes or polishes is generally not recommended for 60 days after application of paint.

When removing road oils and tar from acrylic finishes, care must be exercised to use a cleaner that is not harmful to this finish. Ordinary tar removers that were developed for cleaning regular lacquer may be harmful. Instances have been reported where these commercial cleaners have caused spotting and in some cases dissolving of the finish causing extensive paint damage.

Any cleaner is satisfactory if it is recommended for use on regular lacquer, enamel and *acrylic lacquer*. When purchasing, make sure that the instructions on the container specifically state that the contents can safely be used on acrylics and other finishes.

SPECIAL POLISH AND WAX JOBS—If you find that the finish has become slightly dulled by the presence of "spent pigment", you may want to have your Pontiac service man polish it to bring back the original glossy finish. This operation consists of washing the car thoroughly and following up with an application of a mild liquid polish. This will remove the "spent pigment" and restore a high luster without harming the finish.

Properly applied polishes and waxes of known quality will help maintain the good appearance of your car. Many Pontiac dealers offer various types of polishes or waxes; Porcelainize, Lustur Seal, and Blue Coral have proven of real value in maintaining a good paint finish on Pontiac cars.

If you plan on polishing your car yourself, it is well to remember that the polishes and cleaners which do the job fastest and easiest are not necessarily the best. A polish containing a large amount of abrasive will do the job quickly but will also remove the paint and may etch or damage bright metal parts.

If you had a Porcelainize or Lustur Seal polish job performed on your car, then you yourself can maintain continual conditioning of its finish after the original application of Porcelainize with Porcelainize Wash Cream and of Lustur Seal with Lustur Seal Haze Cream.

Bright Metal Parts (Chromium Plated or Stainless Steel)—The destructive forces of salt, calcium chloride, salt air, exhaust gases and corrosive atmosphere can be alleviated if bright metal parts are washed and cleaned frequently. Added protection for these parts can be obtained by periodically coating the surface with wax or Pontiac CLEAR ENAMEL. Surfaces should be clean and rust free before applying coating.

Removing Rust from Chromium Parts—If the above precautions have not been taken and rust spots appear on chromium plated surfaces, steps can be taken to improve the appearance by cleaning the spots with Pontiac Rust Remover as directed. After removing the rust spots in this manner a coating of wax or CLEAR ENAMEL should be applied.

HOUSEKEEPING INSIDE YOUR CAR

Dust and dirt particles that accumulate on the upholstery of your car should be removed every few weeks—and oftener, if your car is given constant, hard use.

Before attempting to remove spots and stains from upholstery fabric, determine as accurately as possible: (1) Type of fabric or trim material. (2) Nature and age of the stain. (3) Effect of stain-removing agents on the color, structure, and general appearance of the fabric.

For best results, stains should be removed from upholstery as soon as possible after they have been made. If they are allowed to stand for some time, they very often become set, and removal becomes more difficult—frequently impossible.

TRIM DESCRIPTION AND CLEANING METHODS

Fabrics—Soap and water may be used in cleaning fabrics. A neutral, nonalkaline soap should be used with lukewarm water. The suds should be frothy, not watery. Suds only should be applied in moderate quantities with a damp cloth, sponge, or soft brush and rubbed gently. Soap suds should be removed with a clean, damp cloth or sponge. Then the surface should be wiped several times with a dry cloth. While still damp it should be brushed lightly with a whisk broom or medium stiff brush. Permit air to circulate freely over the wet upholstery.

In some cases of especially stubborn stains it may be necessary to use either GM Upholstery Cleaner or GM Upholstery Spotter available from your Pontiac dealer. Use as the label directs.

NOTE: The following safety precautions should be observed in cleaning fabrics:

1. Do not use as a cleaning solvent any gasoline which is colored or which contains tetraethyl lead.
2. Do not use as a cleaning solvent, acetone, lacquer thinners, enamel reducers, nail polish remover, etc.

3. Do not use laundry soaps or bleaches and reducing agents, such as the following: Chloride of lime, Javelle water, Hydrogen peroxide, Sodium hydrosulphite, Potassium permanganate, Chlorine or chlorine water, Sulphurous acid (sulphur dioxide), Sodium thiosulphate (Photographers' hypo). The use of these agents tends to weaken fabric and to change its color.
4. Do not use too much cleaning fluid; some interior trim assemblies are padded with rubber, and volatile cleaners are generally solvents for rubber. The application of too much cleaner may destroy these rubber pads.

Genuine Leather—Custom Star Chief models use genuine leather trim in some areas.

Genuine leathers have a natural tendency to wrinkle. Such wrinkles or creases occurring in service do not detract from the wearing qualities of the leather. A cushion in this condition is simply described as having "comfort wrinkles".

The best cuts of leather have certain scars, horn marks, and briar scratches. These likewise do not detract from quality or durability but indicate that the hide carrying these "blemishes" is of the top cut grade with entirely natural markings.

If dirt accumulates on the surface, this develops into a hard grit which under pressure will cut the finish and cause the leather to crack or bleed color. Whenever dirt accumulates, the surface should be cleaned occasionally as follows:

1. Apply a thick suds of lukewarm water and a neutral soap worked up on a piece of gauze or cheesecloth to the surface.
2. Wipe entire surface using only a damp cloth.
3. Wipe leather dry with a soft cloth.

Imitation Leathers—Imitation leather fabrics are used for auxiliary trimming in conjunction with both fabric and genuine leather upholstery.

Recommended cleaning instructions for imitation leather are the same as outlined for genuine leather and as in the case of genuine leather one of the most important factors is the removal of soilage as quickly as possible after it occurs.

NOTE: Polishes and cleaners used for auto body finishes, volatile and other clear cleaners, naphtha, furniture polishes, oils, varnishes, or household cleansing and bleaching agents should never be used, as they may permanently damage the surface finish of either the genuine or imitation leather and mar the beauty of the car interior.

Convertible Top Materials—The top should be washed frequently with neutral type soap suds and luke warm water. A brush with soft bristles should be used. Generous quantities of clear water should be applied over the entire top to remove any trace of soap which might remain.

If the top requires additional cleaning after using soap and water a mild foaming type cleanser can be used. A small hand brush having soft or nylon bristles should be used for scrubbing. Add water to the cleanser until a soapy consistency is obtained and clean approximately two square feet of the top at one time. Remove the cleanser after scrubbing with a sponge. Care must be exercised to keep the cleanser from running down and across the body finish which may cause streaks. After the entire top has been cleaned rinse the top generously with clear water to remove any trace of cleanser which might remain. If desired the top can be supported from the under side during the scrubbing operation.

Volatile and other clear cleaners, naphtha, gasoline, or household cleaners and bleaching agents should not be used.

CARE OF THE CONVERTIBLE BACK WINDOW

The back curtain on the Convertible Coupe is provided with pliable plastic window which is of large size to allow ample visibility at the rear of the Convertible Top. The plastic material at this location makes possible a larger window than can be utilized if glass were used. Due to the texture of the plastic window, it is susceptible to scratches and abrasions; caution must be used in its cleaning and care.

1. When removing road dust, use a soft cotton cloth moistened with water and wipe cross-wise of the window.
2. To clean the back window, use cold or tepid (not hot) water and a mild, neutral soap suds. After washing, rinse with clear water and wipe with a slightly moistened clean soft cloth.

CAUTION: Never use solvents such as alcohol or volatile cleaning agents on the plastic window. These liquids may have a deteriorating effect on the plastic and, if spilled, may spot the painted finish on the rear body panels directly below the rear window.

3. In removing frost, snow, or ice from the plastic back window **DO NOT USE A SCRAPER.** In an emergency, warm water may be used. Use care that this warm water does not contact the actual glass windows or windshield.

CARPET FLOOR COVERINGS

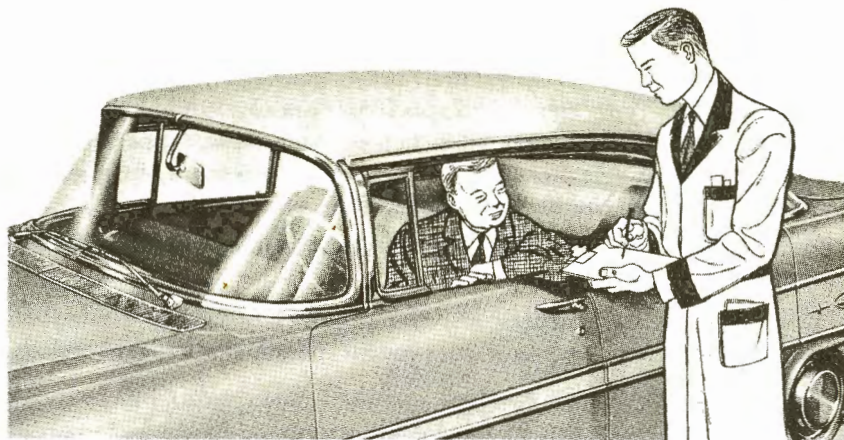
Carpets are either cemented or tacked down securely in place and should not be removed unless it is definitely necessary to do so. If the carpet must be removed, it should not be forcibly pulled loose; this may cause the nap to pull through the warp of the carpet and ruin its appearance. A corner of the carpet should be turned back, and a wide-bladed putty knife or similar tool should be used to separate the carpet from its cemented foundation.

To clean these floor coverings, first, brush thoroughly. If soil remains, use a volatile type cleaner. Repeat for heavily embedded stains. Extreme care should be taken to make certain that carpets are not "soaked" with the cleaner. This may cause deterioration of the rubber compound used in the backing construction of some carpets.

NOTE: Neutral soap and water may also be used, but at the risk of color removal.

Make certain that carpets are thoroughly dry before closing all windows and door openings to prevent possible mildewing of the carpet.

Service Needs of Your Pontiac



The maintenance services that your Pontiac may require are largely dependent on your driving habits plus the road and climatic conditions in which the car is driven.

By learning the type of driving you do, your Pontiac dealer's service manager or service salesman will be better qualified than any one else to recommend what services your car may need. Your Pontiac dealer's mechanics have everything at their disposal to do the best work at the least possible cost. They have a specialized knowledge of the Pontiac car, are supplied with information on latest service methods, and use specifically designed equipment where needed.

With few exceptions, the best way to determine what your car needs is through your own observation of the way it operates, plus visual inspection or testing by mechanics trained on Pontiac diagnosis.

DRIVING HABITS

STARTING AND STOPPING—The driver who beats everyone away from traffic lights and stops by jamming on the brakes at the last minute has to pay for his fun. Rapid starts and stops waste gas and oil and place undue wear on even the best engine parts, brakes, and tires.

CRUISING SPEED—Services needed by your car will also depend to some extent on the speeds at which you drive. The motorist who habitually drives over 60 or 70 MPH on the open road will need different service than one who cruises at 45 or 50 MPH.

USE OF LOW GEARS—At one time or another, you've ridden with drivers who took a couple of blocks to get their cars into high after starting. Low and second gears use far more gas than high gear. The owner who drives in first only long enough to get started and shifts into high at 20 to 25 MPH, saves on both gasoline and service expense.

HANDLING THE CAR—It's easy to see how varying skill in handling a car brings about different service needs. The car owner who bumps into curbs or scrapes fenders when parking, naturally requires more service than the motorist who drives carefully.

WARM-UP—Racing the motor or driving at high speeds before the car is warmed up causes unnecessary wear, since the cold oil needs time to circulate fully and efficiently between moving parts. It's a good idea to let the engine run a moment after starting and to drive at moderate speeds for at least ten minutes. This is particularly true in cold weather.

DRIVING CONDITIONS

ROADS—The type of roads over which you drive can make a surprising difference in the service needs of your car. A car driven on rough or stone-surfaced highways, for instance, will need tire replacement and steering and wheel adjustment more often than under ordinary conditions.

CLIMATE—Owners living in hot climates may need to replace tires somewhat sooner than those who live in the north, since heat is one of the determining factors in tire life. Conversely, those living in cooler areas may find they need more ignition, carburetor, and battery service to maintain good gas mileage and quick, easy starting.

"LAY-OF-THE-LAND"—Lay-of-the-land (scientists call it "topography") also causes variations in service needs. Altitude and the number of hills or mountains your car has to climb make a difference in the up-keep required to keep it in good running order.

CITY vs. COUNTRY—It would be hard to say whether country or city driving is "healthier" for your car. Open highways may lead to engine wear from driving long distances at sustained high speeds, while the restrictions and heavier traffic of city areas cause more stop-and-go driving, with accompanying wear on such items as brakes and tires.

SEASHORE vs. DESERT—A driver whose car is subjected to damp, salt air near the ocean might have to give more than average attention to body and appearance services. On the other hand, motorists driving in desert country have to contend with problems of avoiding engine overheating and excessive wear from dust and sand particles.

MAINTENANCE SCHEDULE

It would be impractical to prepare a schedule that would cover the services required to maintain a car under all types of driving conditions. We, therefore, have prepared a schedule that gives our recommendations for the minimum services required when the car is being driven under average driving conditions. The maintenance intervals given should be reduced or increased according to the information given in the sections on General Service, Chassis and Body Lubrication, Engine Lubrication, and Tune-N-Test.

MILEAGE MAINTENANCE SCHEDULE

<i>Service</i>	<i>Mileage Interval</i>
Lubricate Chassis and Body.....	2,000
Clean Crankcase Ventilators.....	2,000
Check Hydra-Matic Fluid Level.....	2,000
Check Power Steering Hydraulic Fluid Level.....	2,000
Clean and Check Battery.....	2,000
Change Engine Oil.....	3,000 to 4,000
Rotate Tires.....	4,000
Change Oil Filter Element.....	15,000
Change Hydra-Matic Fluid.....	25,000
Lubricate Universal Joints.....	25,000

SEASONAL MAINTENANCE SCHEDULE

<i>Service</i>	<i>Spring</i>	<i>Fall</i>
Tune-N-Test.....	*	*
Clean Air Cleaners.....	*	*
Add Anti-Freeze.....	*	*
Add Rust Preventive.....	*	*
Safe-T-Check.....	*	*

MISCELLANEOUS MAINTENANCE SCHEDULE

<i>Service</i>	<i>Reason</i>
Adjust Brakes.....	Refer to page 26.
Adjust Steering.....	Refer to page 28.
Check Front Wheel Alignment.....	Refer to page 28.
Lubricate Front Wheel Bearings.....	Whenever drums are removed for other service.
Rear Axle.....	Refer to page 30.
Synchro-Mesh Transmission.....	Refer to page 30.

Safety Is Your Business

Accident prevention is the job of every motorist. Do your part in keeping the accident rate down by keeping a close check on the following safety factors:

YOUR CAR—Pontiac engineers, the factory, and your dealer have done everything possible to design, build, and deliver to you a safe, mechanically sound 1957 Pontiac. However, it is your responsibility to keep it in a safe operating condition. Your Pontiac dealer will be glad to cooperate with you in performing regular safety checks each spring and fall as one means of insuring your car's safe mechanical operation.

THE ROAD—Road conditions have an important bearing on safe driving. Holes, ruts, soft shoulders, bumps, loose gravel, etc., can cause accidents. Learn how your Pontiac handles under all types of road conditions and drive so that you have complete control at all times. Remember, road conditions vary with weather conditions. Use extra caution when roads are slippery or visibility is poor. Treat speed limits as maximum speeds under ideal conditions . . . not as a required speed for all conditions.

TRAFFIC—Not only should you keep your car under absolute control at all times, but you must keep an eye on the "other fellow." He may be another driver, a pedestrian, or even a bicycle rider. Try to anticipate the worst thing he might do. The good driver drives as though everyone else on the road is careless. Always leave a margin of safety when passing, with more than enough distance between your car and the car ahead. Avoid weaving in traffic. Never cross the yellow line. Observance of these and other rules marks the good driver from the poor.

YOU—Accidents do not "happen" . . . they are caused. In most cases they are caused by human error. Your car is a mechanically powered motor vehicle and as such responds only to your command. It cannot tell good roads from poor, heavy traffic from light, read traffic signs, or look out for other cars. Up to its own limitation it will go as fast as you wish to drive it. It is up to you as the driver to supply the intelligence that the motor vehicle lacks. Learn and obey local traffic laws. They are written for your protection. Remember, the basis for most traffic rules is simple courtesy and common sense. Only you can protect yourself, your family, and your fellow driver.

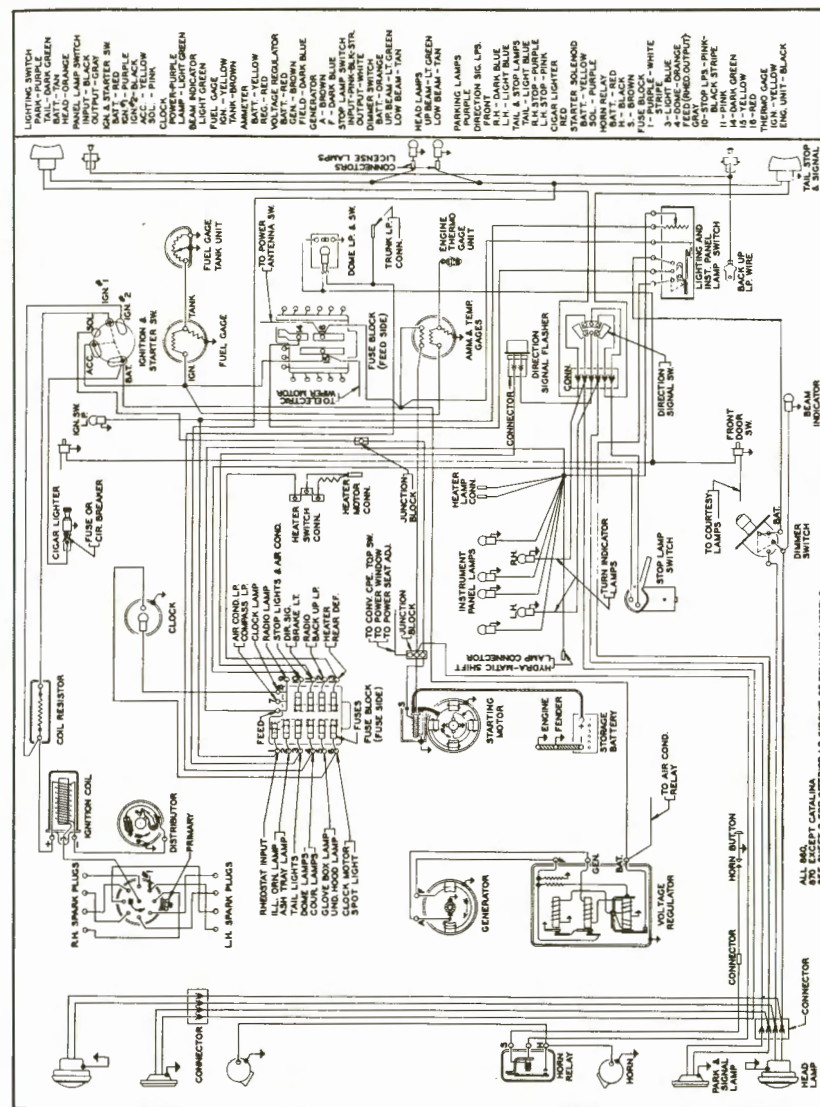
Pontiac Approved Accessories

AVAILABLE THROUGH YOUR PONTIAC DEALERS:

AIR CONDITIONING
 AIR CLEANER—OIL BATH
 ANTI-FREEZE
 ALCOHOL TYPE
 ALL WINTER TYPE
 ANTENNA—RADIO
 MANUAL
 ELECTRIC
 AUTOMATIC ELECTRIC
 "AUTRONIC EYE"—AUTOMATIC
 HEADLAMP CONTROL
 CAR MATS—RUBBER—
 FRONT AND REAR
 CLOCK—ELECTRIC
 COMPASS—ILLUMINATED
 CURB FEELER—WHITE WALL
 PROTECTOR
 CONTINENTAL TIRE CARRIER
 CUSHION, KING SIZE KOOL
 KOOSHION
 DEFROSTER—REAR WINDOW
 DOOR EDGE GUARDS
 DOOR HANDLE SHIELDS
 DUAL EXHAUSTS
 HORN—KLAXON "K-3"
 INSTRUMENT PANEL PAD
 LAMPS
 ASH TRAY
 BACK UP
 COURTESY
 GLOVE COMPARTMENT
 HAND SPOT LAMP
 LUGGAGE COMPARTMENT &
 UTILITY
 PARKING BRAKE
 SPOTLAMP WITH MIRROR, L.H.
 UNDERHOOD
 LICENSE PLATE FRAMES
 LOCKING GAS CAP

MIRRORS
 VISOR VANITY
 OUTSIDE L.H. OR R.H.
 INSIDE NON-GLARE
 OUTSIDE REMOTE CONTROL
 OIL FILTER—FULL-FLOW
 ORNAMENTS—FRONT FENDERS,
 ILLUMINATED
 POWER BRAKES
 POLISH
 BLUE CORAL
 LUSTUR-SEAL
 PORCELAINIZE
 RADIOS
 DELUXE—TRANSITOR
 POWERED
 ELECTRAMATIC WONDER-BAR
 REAR SEAT SPEAKERS—DUAL
 SEAT ADJUSTERS
 6-WAY MANUAL
 8-WAY POWER
 SEAT BELTS
 SEAT COVERS
 SHAVER—REMINGTON ELECTRIC
 (12 VOLT & 110 VOLT)
 STEERING WHEEL—DELUXE
 TIPON PAINT APPLICATOR
 TISSUE DISPENSER
 TRAFFIC LIGHT VIEWER
 UNDERSEAT HEATER &
 DEFROSTER
 VENTSHADES—RAIN
 DEFLECTORS
 UNDERCOATING—GM
 WHEEL DISCS
 STAINLESS STEEL SOLID
 ALUMINUM—WIRE
 WINDSHIELD SUN VISOR
 WINDSHIELD WASHER

Wiring Diagram



WIRING DIAGRAM



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Octane Requirements

Many areas of the world do not supply fuel with octane ratings adequate to meet the requirements of a modern high compression engine. The 10.0 to 1 compression ratio engine, standard on Hydra-Matic equipped Pontiacs, requires premium fuel with a research octane rating no lower than 97. The 8.5 to 1 compression ratio, standard on Synchro-Mesh, requires 90 octane fuel.

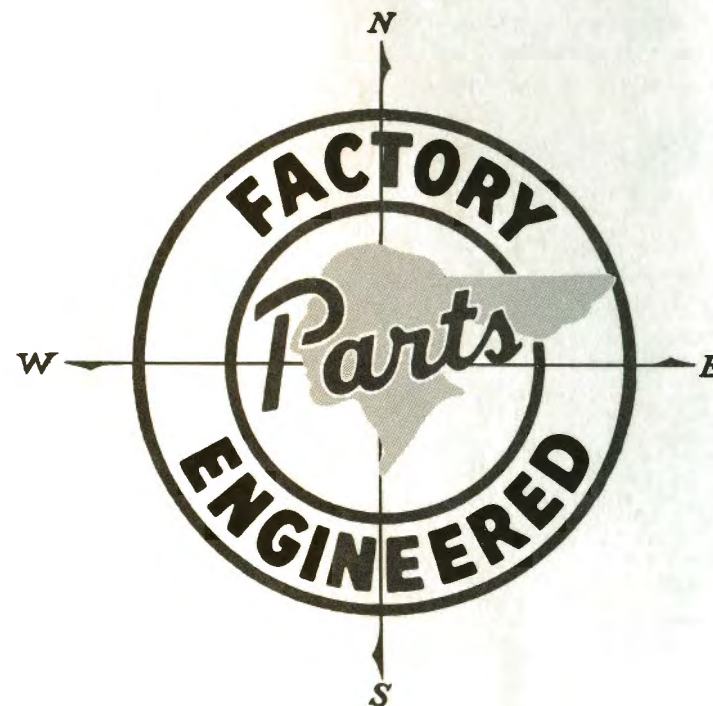
Military personnel, tourists and others planning to drive their car outside of continental United States or Canada should check availability of this grade fuel before leaving. Use of fuels with low octane rating can result in severe engine knock and possible damage to engine parts.

Inquiries regarding availability of premium fuels may be directed to:

General Motors Overseas Operation
G. M. Building
Detroit 2, Michigan

At Home

... or Away!



This is your Symbol
of
HIGHEST QUALITY

When replacements are necessary, always insist on Pontiac Factory-Engineered Parts. They carry the same Warranty as your new Pontiac and they assure maximum

PERFORMANCE • ECONOMY • SAFETY