the NEW PACKARD

HIGHWAY PATROL ZE1 2000

1955 OWNER'S MANUAL

4250

How Your NEW PACKARD can serve you best

In your new Packard, you will find all of the features you expect and demand in a fine motorcar. At your command is the finest engine ever produced by the Master Motor Makers, the magnificent and powerful Packard V-8. For your choice, the Twin Ultramatic Transmission offers two distinctive types of drives, the ultra-smooth and the high-acceleration. The distinctive styling and distinguished coachwork are by the master craftsmen of the Industry who honor the finest materials with their best skills. And the Torsion-Level Ride levels the load, smooths the road . . . nothing on earth rides like the new Packard.

To assure you of the finest in fine cars, your Packard was engineered, proved and produced in the most modern and finest facilities in the Automotive Industry. The latest equipment in the mechanical marvel, automation, is combined with the time-honored knowledge and skill of the superb engineers, technicians and craftsmen of Packard. Nothing, in time, money or effort has been spared in the creation of your new Packard.

To assure yourself of the ultimate pleasure and performance from your new Packard, we suggest that you regard it as you do your other fine possessions. When it does need attention, take it to your Packard Dealer for he is most interested in you and your car. Then, when they "ask the man who owns one," you will be able to tell them and show them the wisdom of your choice in fine cars, your new Packard.

PACKARD DIVISION
STUDEBAKER-PACKARD CORPORATION
DETROIT, MICHIGAN, U.S.A.

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SECTION 1

MANUFACTURER'S WARRANTY

Studebaker-Packard Corporation makes this warranty to you, as the original retail purchaser of a new Packard car. The warranty will be effective for a period of ninety (90) days from the purchase date or 4,000 miles of operation, whichever event shall occur first.

Should your new Packard car, during such period, require replacement of any original part (except tires) adjudged by the selling Packard Dealer and acknowledged by us to be defective in material or workmanship, we will pay such Dealer for your account, for the Packard part used and for the labor of replacing the part. Arrangements for the necessary work will be made by you with such Dealer, to whom you will look in respect to the quality of the work performed.

If your car or any functional part thereof becomes inoperative, the provisions of the preceding paragraphs will apply to the arrangements you make with any Packard Dealer for the replacement of the functional part.

This warranty shall not apply if your new Packard car shall have been repaired or altered in any way so as in our judgment to affect its stability or reliability, or has been subjected to misuse, neglect or accident.

Other than the foregoing, no warranty, express or implied, is made by, nor shall any obligation or liability accrue against, Studebaker-Packard Corporation.

The Manufacturer reserves the right to change the design or specifications of any Packard product or part thereof. If Manufacturer shall make such changes of design or specification there will be no obligation to make such changes upon any Packard product or parts previously shipped, or to install or furnish any other or different parts than were thereon when shipment was made.

TIRE WARRANTY

All tires supplied as original equipment carry the following tire manufacturer's warranty:

"Every tire of our manufacture, bearing our name and serial number, is guaranteed by us to be free from defects in workmanship and material, without limit as to time or mileage, and to give satisfactory service under normal operating conditions."

"If our examination shows that any tire has failed under the terms of this guarantee, we will either repair the tire or make an allowance on the purchase of a new tire."

YOUR NEW CAR Warranty

PACKARD OWNER'S SERVICE POLICY AS SUPPLIED BY YOUR DEALER

We issue this "Packard Owner's Service Policy" to furnish you with credentials needed to obtain the benefits of the Manufacturer's Warranty" and to describe the additional services provided by us as an independent business organization.

Delivery Preparation—We have given your new Packard car careful inspection and adjustment before delivery in accordance with the manufacturer's recommendations.

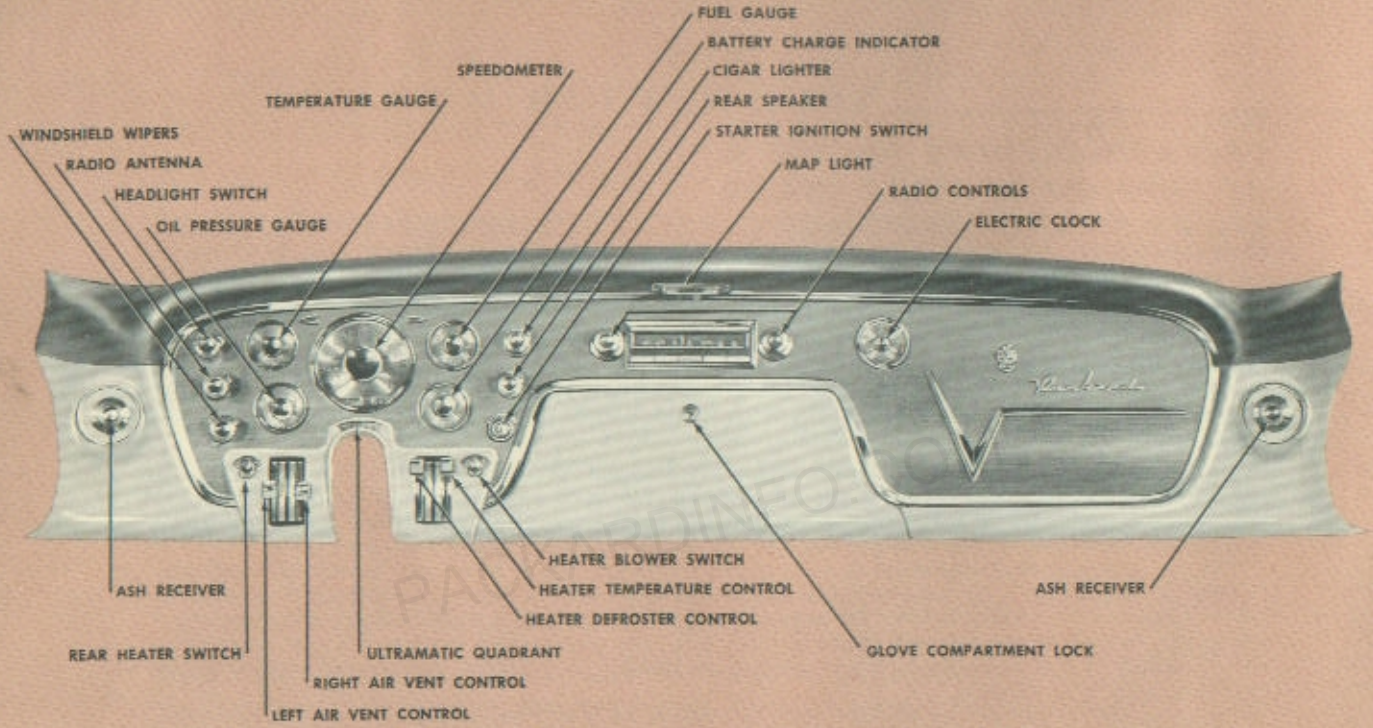
Owner Identification Card—We have also issued to you an "Owner's Identification Card," which is supplemental to the Owner's Service Policy, and provides convenient evidence of the date of original purchase, the vehicle identification, and our name as the selling Packard dealer. It is primarily intended for your use when touring.

Service During the Warranty Period—If your new Packard car does not function to your entire satisfaction during the first 90 days or 4,000 miles of operation, whichever occurs first, and the difficulty can be remedied by adjustment, we will, during such period, furnish this service to you without charge, provided the difficulty is not due to misuse, neglect, or damage due to accident or otherwise.

If in our judgment the replacement of an original part (except tires) is required because of a defect in material or workmanship, we will, during such period, make the replacement, and present your account for this service to the Manufacturer for payment under the terms of the "Manufacturer's Warranty," printed in your "Packard Owner's Manual," provided your new Packard car has not been repaired or altered in any way so as in our judgment to affect its stability or reliability, and has not been subjected to misuse, neglect or accident.

Due to present or prospective material shortages caused by a national emergency, or for other valid reasons, we reserve the right hereunder, in making replacements, to use parts, accessories, or equipment made of such materials and of such specifications as in our or the Manufacturer's absolute discretion shall appear proper, without regard to the composition or specifications of the items replaced, or to refrain from making any such replacement should such course appear advisable to us or to the Manufacturer.

1000 and 3000 Mile Inspection and Adjustment—We will perform the services as listed on the attached coupons without charge. In the event you are 50 miles or more away from our Service Department when these services become due, and if this Service Policy is validated in the manner as indicated on the face thereof, you may obtain the services without charge from any Packard Dealer, who will be reimbursed by us.



INSTRUMENTS AND CONTROLS

The instruments and controls of functional design in your Packard are conveniently grouped for the driver's use. The instruments are located directly in front of the driver, to inform him at a glance if everything is functioning properly. The controls are located near the driver's hands, so they can be reached for safe and easy operation.

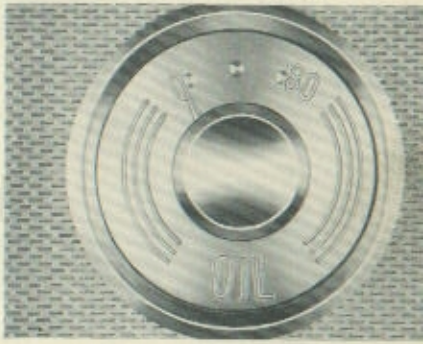
Getting acquainted with your new PACKARD

SECTION 2

OIL PRESSURE GAUGE

The oil pressure gauge is located at the lower left side of the speedometer. This is a pressure gauge and does not show the quantity of oil. When the engine is running this gauge should always show pressure At normal operating temperature and at a speed of 40 miles per hour and higher, the needle should be approximately at the center of the dial. If the gauge shows abnormal oil pressure, the engine should be stopped immediately and the cause of the trouble determined and corrected.

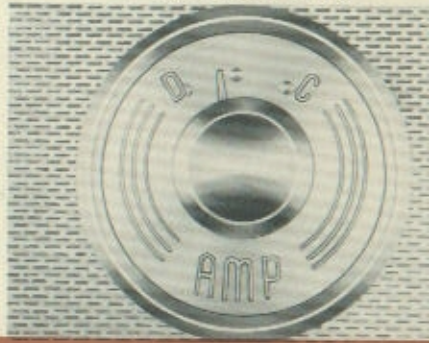
Oil Pressure Gauge



BATTERY CHARGE INDICATOR

The battery charge indicator is located at the lower right side of the speedometer. This indicator shows whether the battery is being charged or discharged. When the ignition and all the accessories are off, the needle should be centered between the "D" and "C" marks. Immediately after the engine is started, the needle should register towards the "C" side. If the battery is fully charged, the needle will be slightly on the charge side of the center mark. When the car is standing, with the lights or accessories on, the needle will register towards the "D" side. With these in operation, and while driving at slow speeds the needle will still register towards the "D" side which indicates that more electrical energy is being consumed, than delivered to the battery; therefore the battery is discharging.

Battery Charge Indicator



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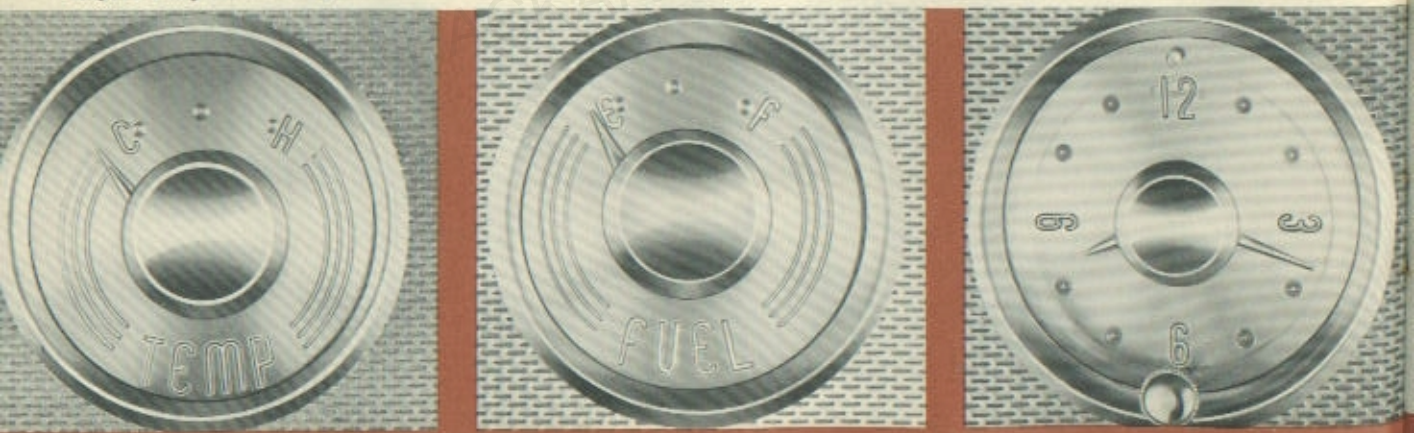
ENGINE TEMPERATURE GAUGE

The temperature indicator, at the upper left side of the speedometer, shows the temperature of the cooling liquid in the engine. At normal operating temperature the pointer should center approximately between the "C" (Cold) and "H" (hot) position, except on long hard drives in summer weather, when it may register nearer to the "Hot" side. This condition need not cause alarm as the pressure type system will normally prevent boiling or fluid losses at temperatures up to 248° F. However, a sudden rise to the "H" mark should be investigated at once.

FUEL GAUGE

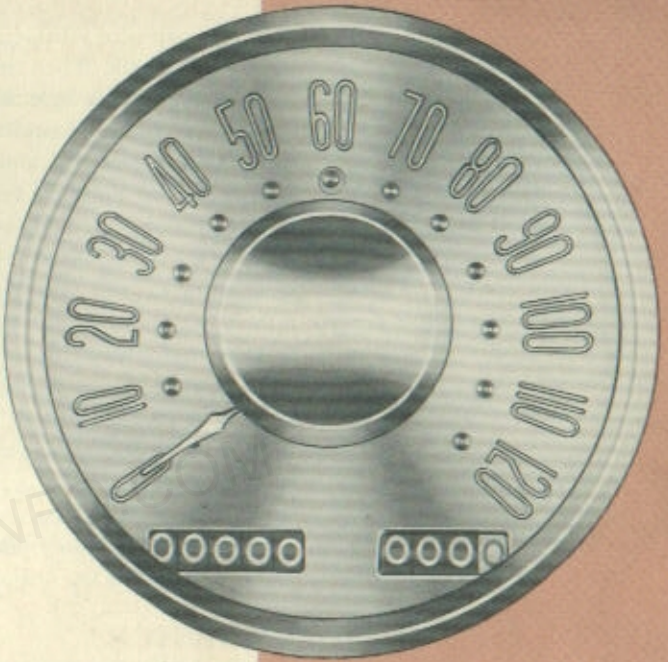
The fuel gauge, at the upper right side of the speedometer, indicates the amount of fuel in the tank. It operates when the ignition key is turned to the left, which is the accessory position, or right, the ignition "on" position.

Engine Temperature Gauge *Fuel Gauge* *Electric Clock*



SPEEDOMETER

The speedometer, directly in front of the driver, indicates the speed, accumulated mileage and trip mileage of car. The trip mileage recorder (or odometer) can be reset by pushing upward on the reset knob (located under the instrument panel at the right of the steering column) and holding it up and turning to the right.



Speedometer

CLOCK

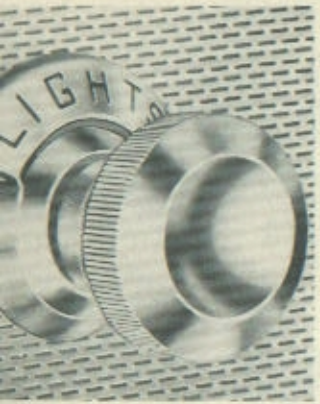
Your new Packard is equipped with an electrically wound clock. The clock may be set by pulling out the reset knob at the "6" position and turning it in either direction. A fast and slow adjustment can be obtained by turning the notched sleeve at the "12" position to the left or right as required, or note the amount of loss or gain per day and have it adjusted the next time you visit your Packard dealer.

LIGHT SWITCH

The light switch is a combination switch which controls the lighting of the parking lights, headlights, instrument cluster lights and map light.

The parking lights are turned "ON" by pulling the switch knob out to the first notch.

The headlights will light by pulling the knob out all the way.



Light Switch

The instrument cluster lights and the map light are controlled by turning the light switch knob. When the knob is turned all the way to the left, the instrument lights and the map light will be out.

The map light is installed for your convenience, and provides front compartment illumination for many purposes. To light the map light, turn the light switch knob to the right far enough to reach the first "notch." This can be done without pulling the knob out to light the parking lights or the headlights. However, when the knob is turned past the first "notch" with the parking lights or headlights on, the map light will go out and the instruments will be brightly lighted as the second "notch" is reached. By continually turning the knob farther to the right the instrument lights will become dimmer.

In conjunction with the headlight switch, a headlamp beam foot switch is located at the left end of the toe board. This switch enables you to lower the headlamp beams when driving in the city or meeting approaching traffic in the country.

When the lights are on the high beam, a red indicator light located below the figure 60 on the speedometer face will light up. For safety's sake, don't use the high beam in the city or when approaching another vehicle on the highway.

STARTER-IGNITION SWITCH

Starter-Ignition Switch

For your convenience, the ignition key (which also is the door key) controls the electrical circuit to the starter, ignition, instruments, and electrically operated accessories.

The starter-ignition switch has four positions: Ignition on, starting, accessory, and off. In the vertical position the switch is "off." To start the engine turn the key to its extreme right-hand (clockwise) position; this turns on the ignition and operates the starting motor. When the engine starts, release the key and it will automatically return to the "Ignition On" or driving position. In this

position the accessories can be turned on. Turning the key to the left (counter-clockwise) "accessory" position allows the use of radio, heater, etc. with the ignition off.

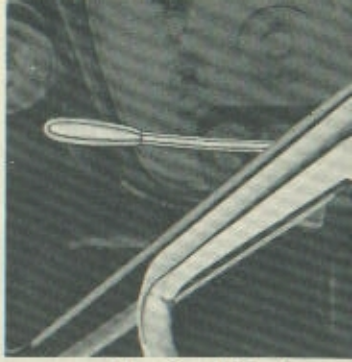
The ignition switch keyhole can be lighted by pulling the light switch knob to the first notch, which also lights the parking lights.

DIRECTIONAL SIGNAL

The directional signal indicates the direction in which you intend to turn. It does this by causing the affected front directional signal filament in the parking light and in the tail light to flash on and off. The signal lever is positioned on the steering column for left-hand finger-tip operation.

To signal a turn, move the lever in the direction in which you are going to turn the steering wheel to make the turn. In other words, move the lever upward to signal a right turn and downward to signal a left turn. The lever automatically returns to the center position and stops the signal when the turn is completed or the steering wheel is returned to the straightforward position.

While the directional signal is in operation a green jewel arrow indicator light at the upper right and left side of the speedometer will flash on and off, indicating the direction of the turn that is intended by the driver.

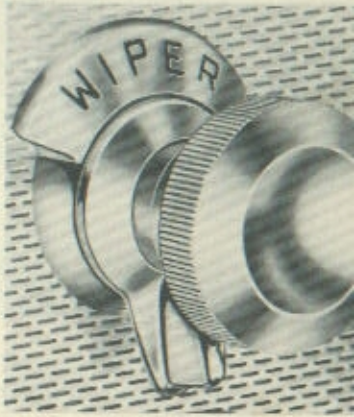


Directional Signal

WINDSHIELD WIPERS

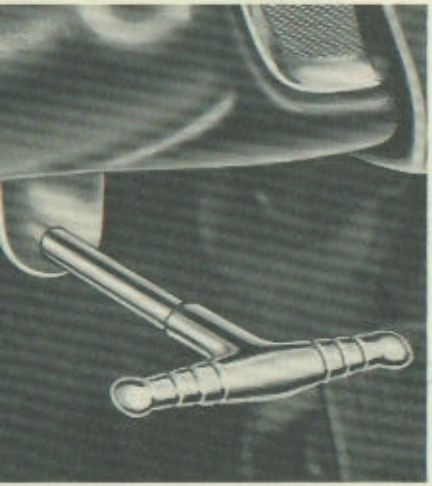
Your windshield wipers control knob (located on the lower left side of the oil gauge) controls the operation of the wiper blades. Turning the knob clockwise starts the blades in motion, by continually turning the knob in the same direction the blades move faster.

There also is a wiping arc range control lever located behind the switch knob which extends downward, this lever controls the wide-arc and super-speed driving range. The super-speed range (lever in vertical position) is used when driving in heavy downpours or at faster travel on superhighways. The wide-arc driving range (lever in left hand diagonal position) is used to meet normal driving conditions.



Windshield Wipers

A Mag-nu-matic windshield washer with co-ordinator is available as an accessory, which supplies water that sprays on the windshield simultaneously while the wipers are in operation; to remove dust, mud, or splash at the moment driving vision is impaired. To operate the washer, simply press the control knob. This operation will immediately spray water on the windshield glass. At the same time, the wipers will operate automatically for several seconds and then stop. Packard "Windshield Washer Solvent," an effective all season solution, is available at your Packard Dealer. This should be used in the winter to prevent breakage of the reservoir glass, and in other seasons serves as a detergent to dissolve dirt, grime, and stains of all nature.



Hand Brake

PARKING BRAKE

Packard's "Safti-set" parking brake, or hand brake, is applied merely by pulling straight back on the handle located to the left of the steering column. Release the brakes by turning the handle to the left, allowing it to return to the release position.

★ Positive Brake Action

Easamatic Power Brake

POWER BRAKE

Packard Easamatic Power Brakes standard on the Caribbean, optional special equipment on other Packard models.

Packard cars when equipped with Easamatic Power Brakes provide an outstanding safety feature by having positive brake action available for the driver the instant the brake foot pedal is depressed.

The Easamatic unit is a combined vacuum and hydraulic unit for power braking, utilizing engine intake manifold vacuum and atmospheric pressure for its operation. It is a self-contained unit having no external rods or levers exposed to dirt and moisture.

Packard Easamatic Power Brakes have a triple safety factor for providing brake action—vacuum from the engine manifold, an emergency vacuum reserve tank that provides vacuum should the engine stall, and conventional brake pedal action.

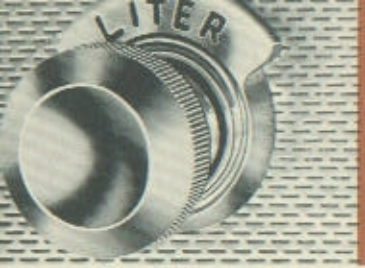
The brake foot pedal used with the Easamatic brake unit is conveniently located by being suspended from a bracket attached to the dash panel. This location permits quicker brake action by the driver, as the brake pedal is three inches nearer to the floor in the released position than a car equipped with conventional brakes. This reduced pedal travel brings the height of the pedal down to the approximate height of the accelerator pedal, permitting the driver to shift his toe from one pedal to the other without lifting his heel from the floor. Lighter pedal pressures are required to apply the brakes.

CAUTION

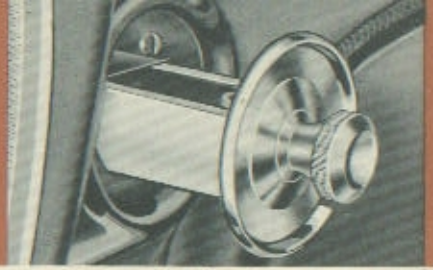
It should be remembered that only gentle pressure of the toe is required to obtain brake action, and care should be exercised when applying the brakes to avoid stopping the car too abruptly.

Another important factor to remember is that the Easamatic power brake is assisted by engine vacuum which will only operate when the engine is running.

Therefore, increased pressure is required on the brake pedal to operate the brake if the engine is not running.



Cigar Lighter

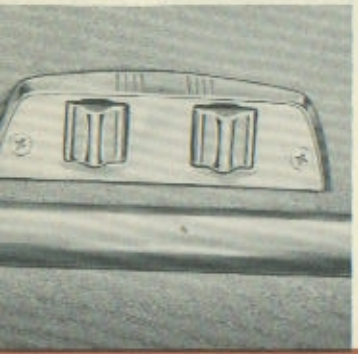


Ash Receiver

Glove Compartment

★ Conveniences at Your Finger-Tips

Front Seat Adjustment



CIGAR LIGHTER—The cigar lighter is operated by pushing inward on the lighter knob. The lighter will return to its normal position when the element is hot enough to light your cigar. Rear compartment lighters operate in the same manner.

ASH RECEIVERS—Both front and rear ash receivers are placed for maximum convenience to driver and passengers. They blend with the interior beauty of the car and are readily removable for easy cleaning.

GLOVE COMPARTMENT—Your glove compartment provides spacious storage for maps and other items. To open, press the lock cylinder inward. Push the door forward to close. The door may be locked with the octagon handled (cornered) key which also operates the trunk lock.

FRONT SEAT ADJUSTMENT—The front seat of your Packard can be adjusted by raising the lever located on the left side of the seat and moving the seat forward or backward to obtain the most comfortable driving position. It will lock in place when the handle is released.

However, if your car is equipped with Packard's electric four-way power seat control (special equipment on all models) you will have the extra convenience of being able to position the front seat by simply touching the electric control buttons. You may drive in comfort, as the seat may be moved either forward or back by merely touching a button. Touching another button the seat will automatically raise or lower you to your most desired driving position.

The front button actuates the forward and backward movements, and the rear button is for the up and down adjustment.

An electric two-way power seat is also available (special equipment on all models) which moves the seat forward and backward automatically.

Enjoy all the comfort that is built into your Packard seat by occasionally changing its position during long drives.

★ The *Caribbean* Top

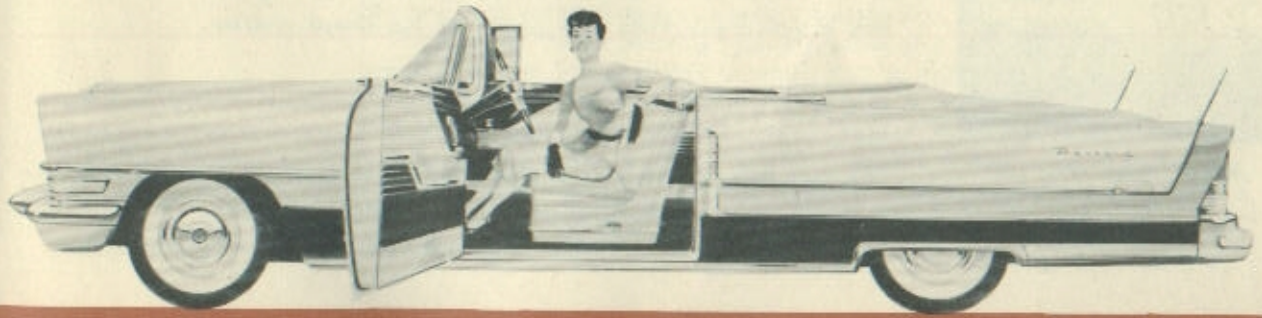
The Caribbean top may be raised or lowered hydraulically. The hydraulic pump is driven by means of an electric motor controlled by the "top" operating knob. This knob is on the instrument panel below the cigar lighter.

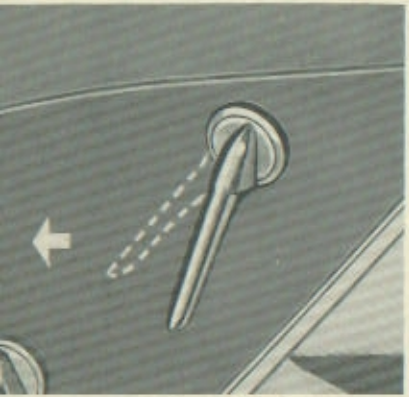
To lower the top, stop the car and unzip the rear curtain assembly and place it carefully into the topwell. Release the hold-down clamp on each side of the car, by pulling down on the handle just above the sun visor bracket. Push the top upward until it is free from the windshield dowels. Pull the control button out and hold in this position until the top is fully lowered into the compartment behind the rear seat.

To raise the top, stop the car and turn both sun visors outward. Press the top control knob in and hold in this position until the top is completely raised. Pull the front of the top down until firmly seated over the dowels in top of the windshield frame. Lock in place by fastening the clamps and pushing the handle upward.

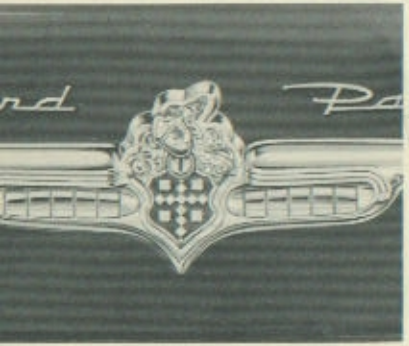
CAUTION:

Do not attempt to raise or lower the top while the car is in motion. Never lower the top when it is wet.





Door Handle and Lock



Trunk Lock

Your Packard Locks

DOOR LOCKS

The front doors may be locked from the inside by pushing the remote control handle toward the front of the car.

To lock the rear doors depress the locking button in the window finish moulding. This button has to be raised before the door can be opened.

The front doors may be locked from the outside with the ignition key.

Rear doors may be locked from the outside by depressing the lock button and then closing the door.

TRUNK LOCK

The luggage compartment is unlocked simply by turning the octagonal handled (cornered) key to the right at which time the lid will automatically raise a short distance. An ornamental lifting handle is provided to fully raise the lid and counterbalance springs will hold it open. The lid will lock automatically when it is pushed to the closed position.

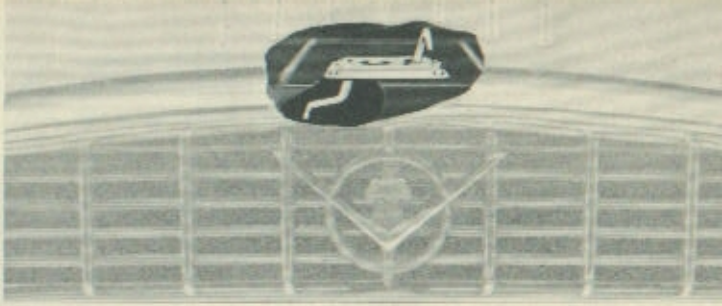
HOOD LOCK

The hood lock release lever is located at the front of the car, under the upper radiator grille bar just to the left of center.

The hood lock can be released by reaching in the opening under the

upper radiator grille bar and pulling the lever toward the center till the hood pops up. This operation releases the primary lock. Further movement of this lever will release the safety catch, and permit hood to be raised.

Spring loaded hinges assist in raising the hood and hold it in its fully open position. The hood will lock automatically when lowered and gently pushed downward.



Hood Lock Opening

POWER STEERING

The new Packard Power Steering (standard on the Caribbean, optional special equipment on other Packard models), which is operated hydraulically, greatly reduces the physical effort of the driver—thereby resulting in more restful driving and greater ease of parking. With Packard Power Steering approximately 80% of the required steering effort is supplied by the hydraulic mechanism.

One of the greatest causes of driving fatigue is road shock, which usually occurs when driving on rough roads. This, of course, is transmitted through the steering linkage, and steering gear, to the steering wheel. The Packard Power Steering unit counteracts road shock automatically.

The Packard Power Steering system consists of a hydraulic pump to supply hydraulic pressure; a reservoir in which fluid is held in reserve for operating the power system; a control valve and linkage in which the valve directs the flow of hydraulic pressure to the power cylinder, which operates the steering linkage in accordance with the driver's intention to turn; and the necessary hoses for transmitting the hydraulic pressure. The system also incorporates a safety factor which permits normal mechanical steering control in the event the power system becomes inoperative.

The Packard Power Steering normally requires no attention except the usual lubrication of steering linkage, the checking of the fluid, and the periodic adjustment of the power steering pump belt.

★

Enjoy Packard Comfort

AIR CONDITIONING

Your Packard air conditioning, available on Packard cars as optional special equipment, is a mechanical refrigeration system which provides cooled, filtered, dehumidified air for passenger comfort.

By simply turning the control switch, conveniently located on the instrument panel, to the right (clockwise) will start the air conditioning unit in operation. Continued turning of the switch in the same direction will lower the temperature of the air entering the car.

For maximum cooling, close all the windows and shut off the fresh air coming in at the right dash grille, by placing the right fresh air inlet lever located on the instrument panel in the off position.

Fresh air can be had by placing the left fresh air ventilating lever in the cold position. This closes off the air supply through the left dash panel grille and directs it through the blower and past the cooling coil and then is distributed into the car.

If the interior of the car is at a high temperature level due to being parked in the sun, it is recommended that the windows be opened for a few minutes to allow the accumulated heated air to be expelled.

When standing with the engine idling, it is suggested that you depress the accelerator pedal slightly so the engine will idle a little faster than normal speed. This results in more efficient engine cooling, a higher generator charge rate, and improves the operation of the air conditioning unit.

If air conditioning is not desired, simply turn the control switch to the extreme left, which is the off position.

Caution: Always turn off the air conditioning switch before attempting to start the engine. It relieves the starter of an additional load on the battery and provides easier starting of the engine.

FRESH AIR VENTILATION SYSTEM

Enjoy the comforts of your Packard built-in all weather fresh air ventilating system, which provides a complete change of air every 45 seconds at 45 mph.

Control your comfort by the simple operation of two levers, located on the instrument panel at the left of the steering column. They will regulate the flow of fresh air to the exact amount that you find comfortable.

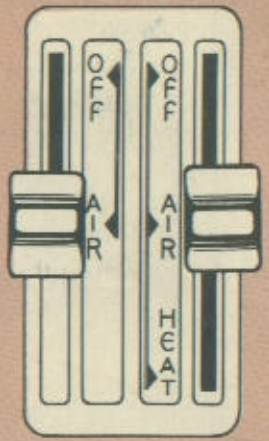
Ventilation is regulated by sliding the left lever down to permit the flow of air through the left dash panel grille at your feet. Operating the right lever in the same way, except that it should not be moved beyond the mark "AIR," will regulate the flow of air through the right side dash panel grille.

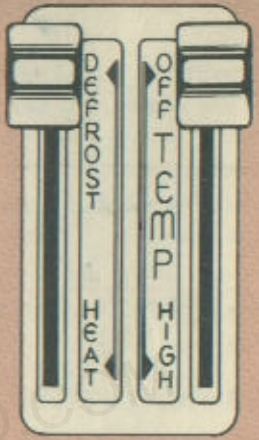
"OFF"—Fresh air supply completely closed off.

"AIR"—Wide open or, in other words, a full flow of fresh air. Positions between "OFF" and "AIR" can be used to reduce or increase the flow of air as desired.

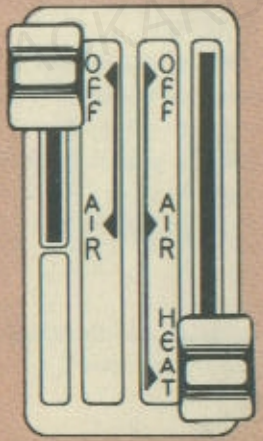
★ OPERATION OF YOUR HEATER

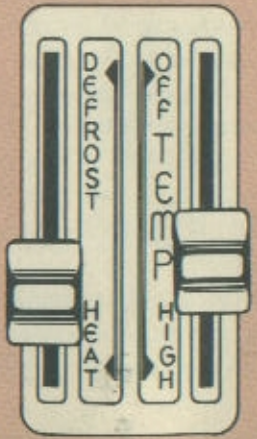
WARM WEATHER





COLD WEATHER





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HEATING SYSTEM

The fresh air heater and defroster equipment is available for all models as an accessory. This system operates along with the built-in ventilation system to provide comfortable, even temperatures inside the car as well as "clear-across" windshield defrosting. The operation of the fresh air heater and defroster is as follows:

1. The fresh air lever on the left side should be placed in the "OFF" position; this closes the valve and shuts out the cold air from the left dash panel grille.
2. Place the ventilating lever that controls the right side at "Heat;" this closes off the air supply through the right dash panel grille and directs it into a compartment where it is heated for distribution either to the inside of the windshield or toward the floor of the front compartment as desired.
3. The "TEMP" lever at the right, controls the temperature of the heat entering the car and can be adjusted to whatever heat is desired.
4. The "DEFROST" lever directs warm air either to the windshield or toward the floor of the front compartment as desired.

With the lever at "Defrost" all the heated air is directed against the windshield. With the lever at "Heat" all the heated air is directed toward the front compartment floor. Lever positions between "Defrost" and "Heat" may be used to divide the air as desired.

A two-speed "Fan" switch, located on the right side of the fresh air heater control levers, controls a blower which draws in outside air for circulation through the heating and defrosting outlets.

An underseat heater which circulates the warm air throughout the car in conjunction with the fresh air heater, also has a two-speed switch located on the left side of the fresh air ventilating levers. A rear window defroster is also available, which operates with the blower switch assuring clear rear vision for safer driving.

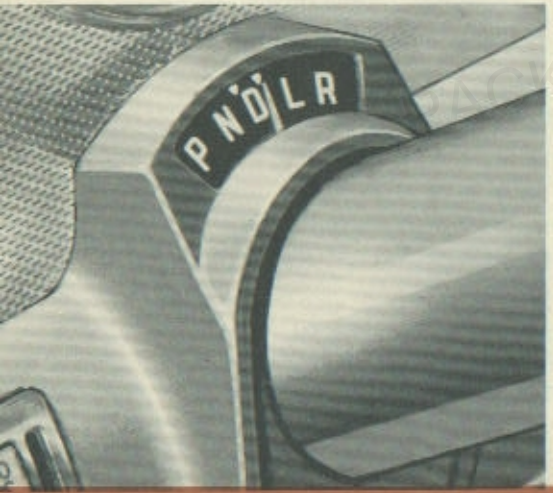
★ THE SMOOTHEST in performance

TWIN ULTRAMATIC TRANSMISSION

The new "Twin Ultramatic Transmission" combines all the superior and desirable features of the Ultramatic Transmission, and in addition gives you new features to provide you with excellent acceleration and performance as well as smooth operation.

One of the more outstanding features of this new automatic transmission is the "dual" forward driving range. This permits the driver to select the range most desirable to satisfy individual driving tastes and driving conditions. You drive automatically, without pushing a clutch pedal or shifting gears, by simply moving the selector lever to the desired position and stepping on the accelerator.

Automatic Transmission Quadrant



The manual selector has six positions:

"P" means *Park*. The rear wheels are not free to turn when the selector lever is in the parking position and this position should always be used when parking on a hill. The selector lever *never* should be placed in the parking position while the car is moving, otherwise damage may result. The lever must be raised before it can be pushed upward into the parking position.

"N" is for *Neutral*. This position is used when the car is standing with the engine running.

"D" means *Drive Range*. Drive Range has two forward driving ranges indicated by a triangle at each side of the letter "D" on the selector quadrant which are as follows:

(1) The left hand triangle position in Drive Range is provided for all normal forward driving; it reduces engine speed,

provides smoother starting from a complete stop. This position normally is used when starting on ice or in snow when gradual rear wheel traction is desired. When driving in this range at a car speed of less than 60 MPH, extra power for passing of another vehicle can be had by pressing the accelerator pedal firmly down against the floor.

(2) The right hand triangle position in Drive Range is provided for faster acceleration and is very useful when driving in traffic. This position normally is used when quick starts are desired. When driving in this range at a car speed of less than 60 MPH, extra power for quick passing of another vehicle can be had by pressing the accelerator pedal firmly down against the floor.

"L" means *Low Range*. Low Range is used in deep sand and on long, hard pulls. It also should be used when going up or down steep grades. Driving down a steep grade in low range lets the engine act as a brake to reduce car speed.

"R" is for *Reverse*. The selector lever must be raised before it can be pulled downward into the reverse position.

STARTING THE ENGINE (with Twin Ultramatic Transmission)

The engine can be started only if the control lever is in the neutral position "N" or the parking position "P." The starting motor will not operate if the lever is in any other position.

Although the engine will start with the selector lever in neutral, it is recommended that the engine be started with the selector lever in the park position, particularly if the car is parked on a hill. In extremely cold climates, especially after the car has been standing for a long time, the engine should be started with the lever in the parking position. This will prevent creeping which is caused by extremely cold fluid in the unit. It also is advisable to start the engine in the parking position when the car is equipped with power brakes.

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SECTION 3

Care and maintenance of your PACKARD

LUBRICATION

Packard Service as rendered by Authorized Packard Dealers specializes in safety service and in preventive service for the protection of your Packard investment and the safe and economical operation of your car for many thousands of miles.

Periodic lubrication and inspection provide smooth operation and long car life. Ask your dealer about the convenient low cost Packard Lubrication-Inspection Plans. Use Authorized Packard Service. It's best for your Packard. It assures the use of Packard Parts, Packard special tools and equipment by factory trained Packard Master Servicemen.

TYPES OF ENGINE OIL

Different types of engine oil are made to meet the various needs of everyday driving. These are defined as follows:

The "Premium" or "MM" type designates engine oil having the oxidation stability and bearing corrosion preventive properties necessary to make it generally suitable for use in internal combustion engines under normal driving conditions, such as low and medium speed driving with only an occasional long trip at high speed.

The "Heavy Duty" or "MS" type designates engine oil having a higher oxidation stability and bearing corrosion preventive properties necessary to make it generally suitable for internal combustion engines under severe driving conditions for a greater percentage of the time such as in mountain climbing and at sustained high speeds.

Both types of oil are available in several grades.

SELECTING ENGINE OIL

During the first 500 miles, use the oil that was in the engine when the car was delivered. If it is necessary to add oil during this period, use nothing heavier than S.A.E. 10-W oil in cold weather and S.A.E. 20 or 20-W in warm weather.

After the first 500 miles the oil should be drained and replaced with a grade of oil suitable for the different driving and climatic conditions.

During warm weather, use S.A.E. 20 engine oil; however, if the car is regularly driven at high speeds or if the average daylight temperature is above 90°F., use S.A.E. 30 oil.

The "OIL GRADE AND TEMPERATURE CHART" lists the oil grades to use during cold weather. If there is any doubt as to which grade of oil to use, consult your Packard Dealer; he will assist you in selecting the proper grade.

ENGINE OIL LEVEL

The engine oil level should be checked every time gasoline is purchased. Two level marks are stamped on the oil stick, one marked "LOW" and the other marked "FULL." The oil level should be maintained between these marks. Never permit the oil level to get below the "LOW" mark and, when necessary, add only enough oil to bring the level up to the "FULL" mark. Always check the oil level before starting on a long drive.

OIL GRADE AND TEMPERATURE CHAR

IF THE ANTICIPATED MINIMUM ATMOSPHERIC TEMPERATURE WILL BE:	USE THE GRADE INDICATED:
Not lower than 32°F. above zero	S.A.E. 20 or 20-W
As low as 10°F. above zero	20-W
As low as 10°F. below zero	10-W
Below 10°F. below zero	5-W

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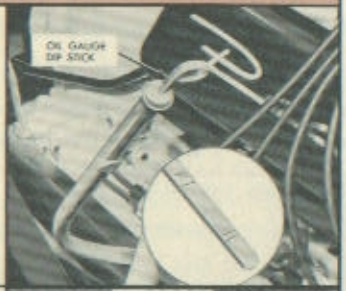
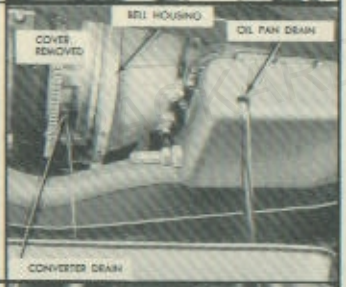
SERVICING THE TWIN ULTRAMATIC TRANSMISSION

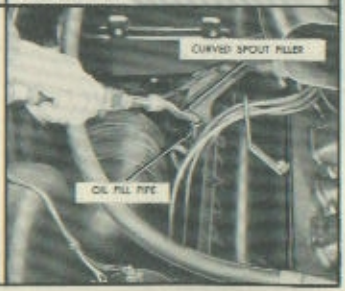
CHECK THE FLUID LEVEL EVERY 1,000 MILES



CHANGE FLUID, REMOVE SCREEN AND CLEAN EVERY 25,000 MILES



REFILL WITH PACKARD ULTRAMATIC DRIVE FLUID

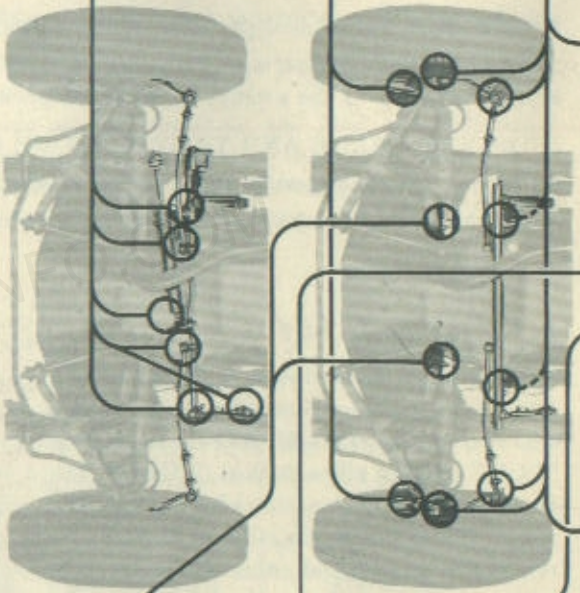


POWER STEERING LINKAGE
6 Connectors
Pressure Gun Grease
Every 1,000 Miles

SUPPORT ARMS (LOWER)
2 Connectors
Pressure Gun Grease
Every 1,000 Miles

STEERING RODS AND KNUCKLES
8 Connectors Conv. Strg.
6 Connectors Power Strg.
Omit Indicated Broken Lines
Pressure Gun Grease
Every 1,000 Miles

SUPPORT (UPPER)
2 Connectors
Pressure Gun Grease
Every 1,000 Miles

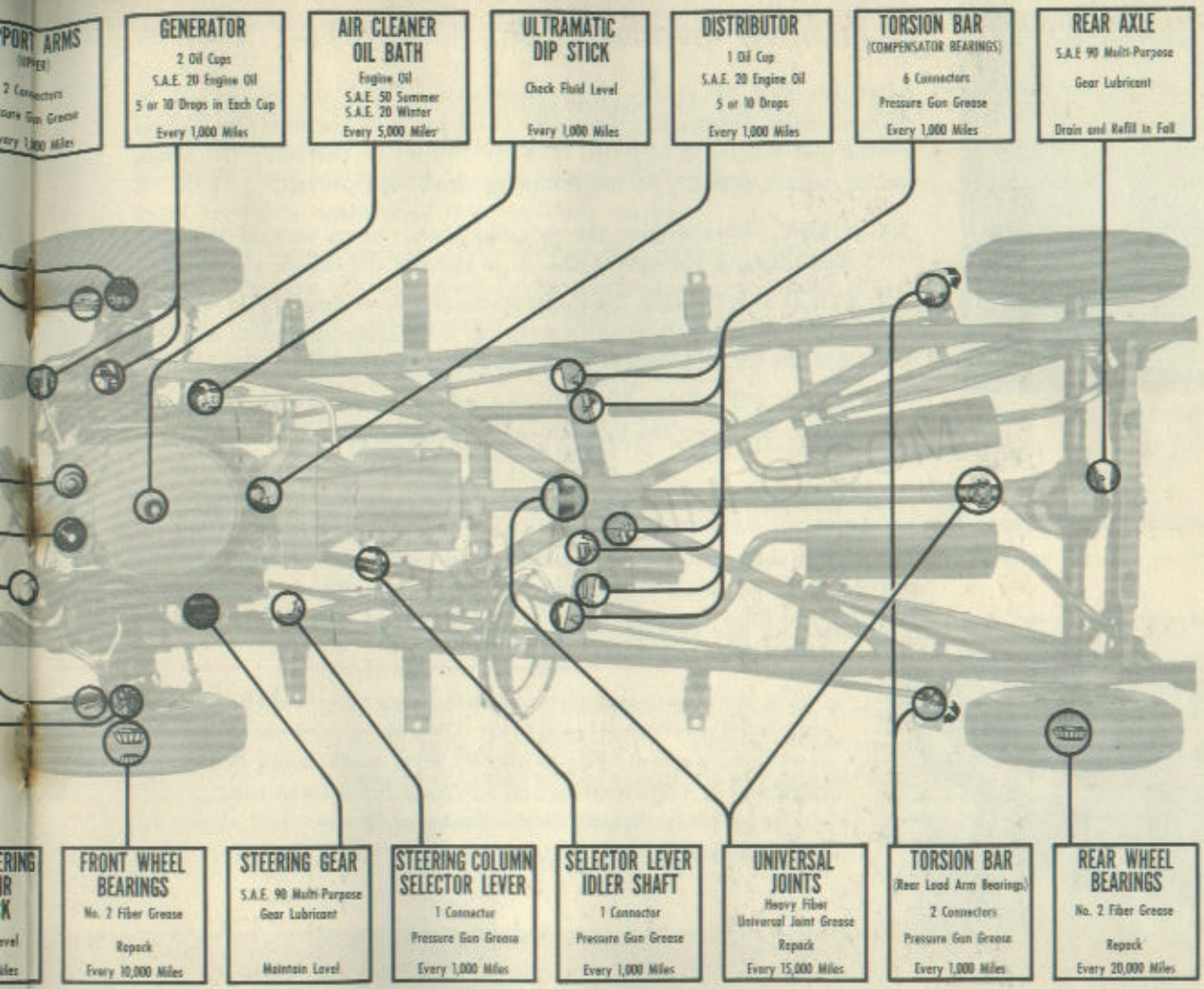


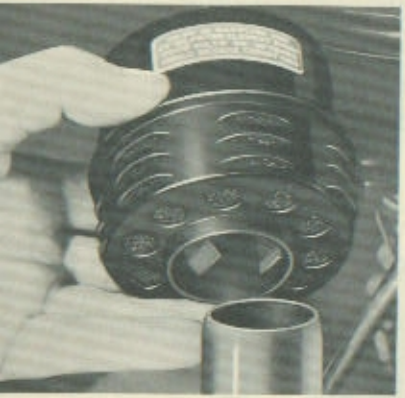
TORSION BAR
(Front Load Arm Bearings)
2 Connectors
Pressure Gun Grease
Every 1,000 Miles

ENGINE OIL
Change
Every 2,000 Miles

OIL FILTER
Replace Element
Every 4,000 Miles

POWER STEERING RESERVOIR DIP STICK
Check Fluid Level
Every 5,000 Miles


GENERATOR
2 Oil Cups
S.A.E. 20 Engine Oil
5 or 10 Drops in Each Cup
Every 1,000 Miles
AIR CLEANER OIL BATH
Engine Oil
S.A.E. 50 Summer
S.A.E. 20 Winter
Every 5,000 Miles
ULTRAMATIC DIP STICK
Check Fluid Level
Every 1,000 Miles
DISTRIBUTOR
1 Oil Cup
S.A.E. 20 Engine Oil
5 or 10 Drops
Every 1,000 Miles
TORSION BAR
(COMPENSATOR BEARINGS)
6 Connectors
Pressure Gun Grease
Every 1,000 Miles
REAR AXLE
S.A.E 90 Multi-Purpose
Gear Lubricant
Drain and Refill in Fall
FRONT WHEEL BEARINGS
No. 2 Fiber Grease
Repack
Every 10,000 Miles
STEERING GEAR
S.A.E. 90 Multi-Purpose
Gear Lubricant
Maintain Level
STEERING COLUMN SELECTOR LEVER
1 Connector
Pressure Gun Grease
Every 1,000 Miles
SELECTOR LEVER IDLER SHAFT
1 Connector
Pressure Gun Grease
Every 1,000 Miles
UNIVERSAL JOINTS
Heavy Fiber
Universal Joint Grease
Repack
Every 15,000 Miles
TORSION BAR
(Rear Load Arm Bearings)
2 Connectors
Pressure Gun Grease
Every 1,000 Miles
REAR WHEEL BEARINGS
No. 2 Fiber Grease
Repack
Every 20,000 Miles



Oil Filler Cap

CHANGING ENGINE OIL

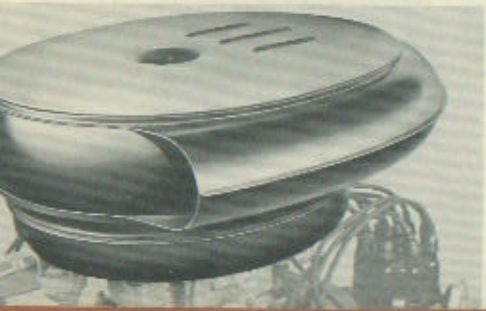
After the first oil change it is recommended that the engine oil be changed every 2,000 miles thereafter if the car is operated under normal driving and climatic conditions. However, it may be necessary to change the oil more frequently if the following conditions prevail:

1. DUST. When driving through dust storms or on very dusty roads dust may get into the engine oil in spite of the engine air cleaners.
2. COLD WEATHER. Frequent starts and short runs in cold weather do not permit the engine to warm up thoroughly and water may get into the oil from condensation of moisture.
3. HARD DRIVING. Hard driving and heat tend to cause oxidation and break down the lubrication qualities of oil.

AIR CLEANERS

The mesh in the combination oil filler cap and air cleaner should be cleaned and re-oiled each time the engine oil is changed. Clean the mesh by swishing the filler cap in gasoline, shake dry, and then dip it in clean engine oil.

Carburetor Air Cleaner



The heavy duty carburetor oil bath cleaner oil should be changed and the oil reservoir cleaned every 5,000 miles or oftener if driving conditions warrant. Fill to the oil level mark using S.A.E. 50 engine oil in warm weather and S.A.E. 20 in cold weather.

The air filter element on the Easamatic Power Unit should be replaced every 10,000 miles.

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POWER STEERING FLUID

The fluid level in the reservoir should be checked after the first 1,000 miles of driving and every 5,000 miles thereafter. Two level marks are stamped on the oil stick, one marked "Low" and the other marked "Full." The oil level should be maintained between these marks.

Packard Twin Ultramatic Transmission fluid, which is available at all Packard Dealers, should be used for the power steering hydraulic system. If this fluid is not available any "A" type automatic transmission fluid may be used which has an AQ-ATF number embossed on the top of the can.

Power Steering Fluid Reservoir

TWIN ULTRAMATIC TRANSMISSION FLUID

The fluid level in the Twin Ultramatic Transmission unit should be checked every 1,000 miles and, if necessary, fluid added to maintain the level at the full mark on the dip stick.

Every 25,000 miles the unit should be drained, oil screen cleaned, and the unit refilled with new fluid.

Packard Twin Ultramatic Transmission fluid, obtainable at Packard Dealers, should be used or any type "A" automatic transmission fluid which has an AQ-ATF number embossed on the top of the can may be used.

It is recommended that the Packard Twin Ultramatic Transmission be serviced only by Authorized Packard Dealers.

REAR AXLE LUBRICANT

The rear axle is to be lubricated with S.A.E. 90 Multi-Purpose Gear Lubricant. S.A.E. 80 Multi-Purpose Gear Lubricant should be used where the temperature drops to 10 degrees or more below zero for long periods of time.

The level should be checked at each chassis lubrication and Multi-Purpose Gear Lubricant added if required. The axle should be drained and refilled with fresh Multi-Purpose Gear Lubricant each fall with the approach of cold weather.

UNIVERSAL JOINTS

The universal joints should be repacked at 15,000 mile intervals. Front universal joint (ball and trunnion type) with a heavy fiber universal grease. Rear universal joint (cross type) with a heavy fiber universal joint grease having extreme pressure characteristics.

TORSION-LEVEL SUSPENSION

The only lubrication required on Torsion-Level suspension is at those points where lubrication fittings are provided. All other points of pivot are packed with lubricant for the life of the car, and should be repacked only on disassembly.

CHASSIS

Detailed instructions for lubrication are listed and illustrated in the "Lubrication Chart." All chassis lubricating points require attention every 1,000 miles.

SEASONAL AND PERIODIC OPERATIONS

Following are several items of lubrication and maintenance regularly required which are emphasized here for your convenience.

COOLING SYSTEM

Your Packard has a sealed, pressure-type cooling system to provide the best cooling possible. This sealed system is made possible by the use of a special pressure-type radiator cap.

Without pressure in the system, water would boil at 212°F.; however, in the Packard pressure-type system, this boiling point is raised to approximately 248°F.

PERIODIC OPERATIONS

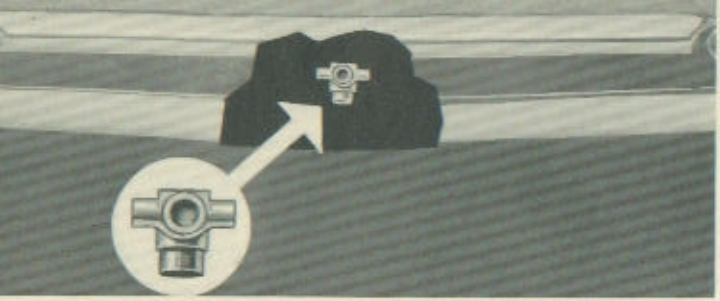
Front wheel bearings	Repack every 10,000 miles
Rear wheel bearings	Repack every 20,000 miles
Oil filter	Renew cartridge every 4,000 miles
Brakes	Check fluid level every 1,000 miles
Brake adjustment	Check every 5,000 miles
Cooling system	Flush twice a year—spring and fall
Gasoline lines and strainers	Clean out twice a year—spring and fall
Engine oil pan	Remove and clean once a year
Ultramatic oil screen	Remove and clean every 25,000 miles

CAUTION When removing the radiator cap while the engine is hot, first loosen the cap to the first notch and allow the pressure in the radiator to escape before completely removing the cap.

COOLANT LEVEL

The system requires regular attention. The coolant level in the radiator should be kept at about one inch below the bottom of the filler neck. If coolant is added above this level, it will flow out of the radiator vent after the engine has warmed up.

NOTE If for some reason the water in the radiator should get very low and the engine very hot, let the engine cool off before adding cold water. After the engine has cooled off, add the water slowly with the engine running. Cold water in a very hot engine might crack the cylinder block or head.



DRAINING THE SYSTEM

The cooling system should be drained and flushed twice a year. To completely drain the system, first remove the radiator cap and then open the radiator drain cock behind the front bumper near the center of the car and remove the plugs on the lower left and right side of the cylinder block.

RUST PREVENTIVE

Packard Rust Preventive, available through your Packard Dealer, is a special solution that cuts down the formation of scale and rust. Packard Rust Preventive should be added at least twice a year or whenever the cooling system is drained for any reason. This inexpensive service can save you dollars in repairs at some later date.

ANTI-FREEZE

Among the anti-freeze solutions that have been found satisfactory are those made from ethylene glycol (permanent type), denatured ethyl alcohol (ethanol) and methyl or wood alcohol (methanol). Your Packard Dealer can supply Packard Permanent Type Anti-Freeze (ethylene glycol), a factory approved product.

Kerosene or other oils, or solutions containing calcium chloride, magnesium chloride, sodium silicate or other inorganic salts, honey, glucose, or sugar are not satisfactory for use in the cooling system, and should not be used.

Before installing anti-freeze solution, the cooling system should be inspected and serviced for winter operation. After the anti-freeze has been installed, the entire system, including the hose connections, cylinder head gasket, and the water pump should be inspected regularly to make sure that no leaks have developed.

ANTI-FREEZE CHART

The cooling system capacity of your Packard is 26 quarts. If the car is equipped with a fresh air and underseat heater, the capacity is 27 quarts.

ANTI-FREEZE CHART

COOLING SYSTEM CAPACITY	FOR PROTECTION DOWN TO	QUARTS ETHYLENE GLYCOL	QUARTS ALCOHOL
26 Quarts	Zero Fahrenheit	8	8
	10° Below Zero Fahrenheit	10	10
	20° Below Zero Fahrenheit	12	11

★ *Electrical System*

BATTERY CARE

The life of your battery depends upon the care it receives. The water level should be checked every 1,000 miles or every two weeks in warm weather and once a month in cold weather and distilled water added when necessary.

When filling the battery, the electrolyte (the fluid in the battery) should not be allowed to overflow because it is very corrosive. Should this happen, however, the battery fluid should be washed away with a solution of bicarbonate of soda and then rinsed.

If the battery requires a considerable amount of water, the electrical system may not be operating properly and you should consult your Packard Dealer for correction.

If your car is to be stored for a period of more than a month, have the battery removed by your Packard Dealer so that it will be properly serviced and kept in a healthy state of charge.

Do not add battery dopes or any chemicals, oils, or other substances to your battery because they reduce battery life. (This also will void the battery warranty.)

CAUTION Never allow a flame or spark near the battery because gas produced within the battery may be ignited and explode.

LIGHT BULB CHART

LOCATION	CANDLE-POWER	MFR. NO.
Courtesy and Map Light	15	1004
Glove Box Light	2	57
Headlights	50-40 Watt	4400
Ignition Switch	1	53
Indicator Light Bulbs:		
Headlight High Beam	2	57
Directional Signal	2	57
Selector Lever	2	57
Instrument Lights	2	57
License Light	3	67
Parking and Directional Signal Light (Front)	32-4	1034
Reading Lights (Dome)	15	1004
Stop and Tail Lights	32-4	1034
Trunk Light	6	89
Back Up Lights	32	1073

FUSE AND CIRCUIT BREAKER CHART

CIRCUIT	LOCATION	CAP. AMPS.	NO.
Clock	Fuse Block under Inst. Panel	2	AGA-2
Direct. Signal Flasher	Fuse Block under Inst. Panel	9	SFE-9
Radio	Fuse Block under Inst. Panel	7½	AGW-7½
Overdrive	On Relay on Dash Panel	15	AGC-15
Heater	Fuse Block	15	AGC-15
Head, Tail and Parking Lights	Circuit Breaker on headlight Switch	20	—
Body Wiring			
Glove Box Light			
Stop Light			
Courtesy Light	Fuse Block under Inst. Panel	20	SFE-20
Tor. Level Susp. — Contr. Cir.			
Tor. Level Susp. Motor Feed	Fuse Container at Starter Terminal	20	SFE-20
Windshield Washer	Fuse Block under Inst. Panel	9	SFE-9
Instruments	Fuse Block under Inst. Panel	7½	AGW-7½

HEADLIGHTS

Your Packard is equipped with the finest "Sealed Beam" headlights built today. The only services required are wiping off the lenses, checking aim periodically, and replacing the unit in case it burns out or becomes damaged.

It is recommended that the car be taken to an Authorized Packard Service Station every six months to have the aim of the headlights checked. Your Packard Dealer has the equipment to do this aiming job properly and quickly.

★ *Wheels and Tires*

TIRE PRESSURE

Having the proper amount of air in the tires at all times is most important if high tire mileage and a satisfactory ride are to be obtained. Too much air will adversely affect the ride, while not enough air will cause tire wear.

Tires should be checked every week or ten days and inflated to the proper pressure. When touring or driving several hundred miles a day, check the tire pressure every day or two. Always reinstall the tire valve caps because they keep out dirt and seal the valve opening.

The recommended cold or starting tire pressure is 24 pounds for both the front and the rear tires.

After the car has been driven at normal speeds in the city, the pressure may be up to 27 pounds (3 pounds over the starting pressure of 24 pounds).

After driving on the highway at moderately high or high speeds, the pressure may be up to 29 pounds (5 pounds over the starting pressure).

Never bleed the tires to reduce the pressure built up by heat. The tires are designed to build up a safe pressure of a few pounds after they are run.

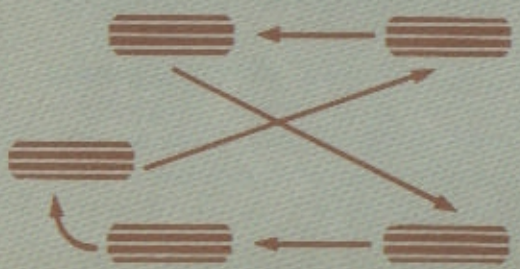
TUBELESS TIRES

Your new Packard is equipped with the new tubeless tires as standard equipment. These tires are very similar to conventional tube tires on the outside, but the inside is completely different.

The tubeless tire has a built-in liner which takes the place of the tube. This eliminates the possibility of pinching, chafing or buckling at the bead seats, which often occurs in tires that are equipped with tubes. Blowouts resulting from these conditions are prevented.

Tubeless tires are not puncture proof, but when a nail or some other pointed object penetrates the inner liner of the tire the liner material clings to the penetrating object forming a seal to prevent the sudden outburst of air. This enables the motorist to drive a few miles to a service station to have the object removed and the tire repaired, instead of being stranded on the road. It also has the advantage of preventing a dangerous blowout because when an impact ruptures the cord body, the inner liner contains the average injury. Unlike a tube, which bursts when the cords pinch through, the inner liner will only develop slow air leakage, giving the driver advance warning. Tubeless tires will give you longer tire life and fewer road delays than conventional tube tires.

Your Packard Dealer and most service stations are equipped with the proper tools to repair tubeless tires. The tire can be repaired in some cases, without removing it from the wheel.



CROSS-SWITCHING TIRES

Cross switching the wheels and tires every 3,000 to 4,000 miles greatly increases tire life. By doing this, all five tires will get the same amount of wear over a given period.

CHANGING WHEELS

Caution: It is important that the Torsion-Level Suspension switch is turned off, before attempting to raise the car. Then proceed as follows:

If a rear wheel is to be changed, the wheel shield is removed by removing the screw at the rear of the shield using the wrench furnished in the tool kit. The shield will then drop down at the rear and can be swung clear of the fender.

Make sure the hand brake is set.

Remove the hub cap, using the flattened end of the combination wheel wrench and jack handle as a pry.

Loosen the wheel mounting bolts not more than a turn or two.

Assemble the jack to its base and place the jack under the bumper bar directly in line with the bumper support bracket, on the side where the wheel is to be changed. Be sure the jack bar is in a vertical position before attempting to lift the car.

Raise the car to a height just sufficient to remove the wheel.

Remove the wheel retaining bolts and lift off the wheel and tire.

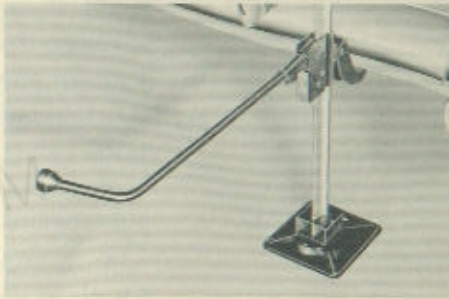
Install the spare wheel by reversing the foregoing operations.

To install the wheel shield, engage the projecting dowel located on the lower front corner of the shield into its respective hole in the fender. Swing the shield upward into place engaging the remaining dowels in their respective holes. Install the retaining screw at the rear of the shield and tighten with the wrench.

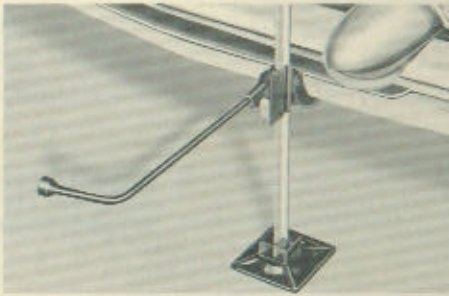
If a front wheel is to be changed, locate the jack under the front bumper support bracket.

Note: After the wheel and tire is installed and the jack is removed, turn on the suspension switch to return the suspension to normal operation.

Removing Rear Fender Shield



Removing Rear Wheel



Removing Front Wheel

SECTION 4

Driving your new PACKARD

STARTING THE ENGINE

Before starting the engine make sure that the selector lever is in the parking "P" position or the neutral "N" position. The starting motor will not operate if the lever is in any other position.

To start the engine, slightly depress the accelerator pedal and turn the ignition-starter switch key all the way to the right. This turns on the ignition and operates the starting motor. When the engine starts, release the key and it will automatically return to the "ignition-on" or driving position.

Do not race the engine during the warm-up period. The engine will warm-up sufficiently at slower speeds and you will avoid damage to working parts before oil can protect them.

If the engine does not start within a reasonable length of time, it may be overchoked or flooded. If so, press the accelerator pedal to the floor and turn ignition switch to the starting position. The engine, then should start in a few seconds.

CAUTION Never start or run an engine in a closed garage. Exhaust gases from gasoline engines contain carbon monoxide gas—a deadly poison gas which gives no warning of its presence . . . It is colorless and odorless.

THE RIGHT GASOLINE

Your Packard has a high compression engine and it is recomended that the engine be operated on high octane fuels.

PUSHING OR TOWING
(with Twin Ultramatic Transmission)

Occasionally Twin Ultramatic Transmission vehicles are pushed to start the engine or, if disabled as the result of a collision, are towed into a Packard Dealer's service station.

If it is necessary to push the car to start the engine, which sometimes is done if the battery is weak, the selector lever should be placed in the neutral position, "N," and the ignition switch turned on. When the car reaches a speed of 25 miles per hour, the selector lever should be moved to the triangle at left of the Drive Range position "D," at which time the engine will turn over.

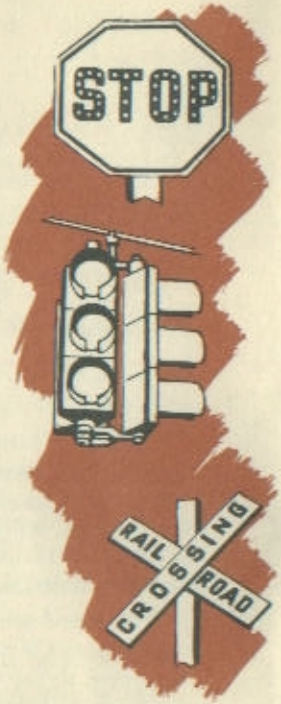
A disabled vehicle may be towed on the rear wheels if the Twin Ultramatic Transmisssion unit is not damaged and no oil has been lost; however, the selector lever must be placed in the neutral "N" position. If the selector lever is in any other position, unnecessary damage may result. Towing speed should be limited to 30 miles per hour and long distance towing (over 300 miles) is not recommended.

Sometimes a collision may damage the shift linkage to the extent that the selector lever cannot be shifted to the neutral, "N", position. In this event, the propeller shaft should be removed or the car should be towed in with the rear wheels raised off the pavement. This procedure also should be followed if the transmission is damaged, the transmission oil pan distorted, or when oil is lost.

BREAK-IN PERIOD

The manner in which your new car is driven for the first 250 miles has much to do with the way it will operate at a later date. This applies to the brakes, gears, rear axle, as well as to the engine and other units.

During this period it is not recommended to open the throttle wide for acceleration or hill climbing and the speed should not exceed 50 miles per hour. In the long run, this will pay off in many additional thousands of miles of trouble free motoring pleasure.



STARTING AFTER A STOP

The driver who makes a fast getaway from traffic lights before getting into direct drive will find this form of driving expensive.

These fast starts waste gasoline and will cause undue wear even on the best of parts. The driver who gets into direct drive at moderate speeds will save on both gasoline and service expense.

DRIVING ON THE HIGHWAY

Maintaining a steady speed on the highway will save gasoline. A steady accelerator pedal will always result in more miles per gallon than one which is continually being operated up and down for passing other cars, for curves, and for intersections.

WARM-UP IN COLD WEATHER

When any car engine is started in cold weather, it needs more gasoline to run smoothly without stopping than it does after it is warmed up. It also is true that the engine will warm up faster while the car is standing than it will while moving. Do not operate a cold engine at excessively high speeds.

The good driver makes it a habit to let the engine warm up for a minute or two before starting to drive in cold weather.

SAFE DRIVING TIPS

Safe driving is careful, not timid but competent driving. It requires concentration and courtesy.

The competent driver is always sure of his car. He knows what it will do when he accelerates. He knows what it will do when he decelerates. He drives so he can stop within a clear distance ahead. He has his car under control at all times.

He keeps his brakes adjusted so he knows what he can expect when he wants to stop. His tires and battery are checked at proper intervals. He always takes traffic, pavement, visibility and weather conditions into consideration.

Never shift from "drive" to "neutral" and coast as the car is then not under the driver's complete control. This practice will both abuse the transmission and cause abnormal wear on the brakes, and actual saving on gasoline will be negligible.

A good driver keeps his windshield and rear view mirror clean and his windshield wipers and lights in good working order and adjusted. He signals his turns and stops, slows down for schools and cross roads, watches railroad crossings, and never passes on hills, curves, or crossings. He also *stops* for all school busses.

A good driver exercises due regard for the rights of others and assumes responsibility for the safety of pedestrians and playing children.

After parking your car always remove the keys from the ignition lock if the car is going to be unattended for only a few moments. By following this practice you will eliminate the possibility of the car being stolen.

MOUNTAIN DRIVING

When descending steep grades in the mountains and hills, the car should be driven in "LOW" range to utilize the braking power of the engine. The shift to low range should not be attemped unless the car speed is below 25 miles per hour.

GASOLINE MILEAGE DEPENDS ON THE DRIVER

Test reports show that cars in normal satisfactory operating condition will give good gas economy at 20, 30, or 40 miles per hour, yet the economy drops off sharply between 40 and 50 miles per hour. In fact, in some cases the gas economy is as much as almost 2 miles per gallon better at 40 mph than at 50 mph. The gas economy drops off approximately another 2 miles per gallon when driving 60 mph and another 2 miles per gallon at 70 mph. Another factor affecting gas economy is frequent stops and starts, which happens mostly when driving in heavy traffic and sudden acceleration. It has been established that one of the causes of poor gas economy is due to poor driving habits of the owner or driving conditions. However, if this is not the cause, the following factors will contribute toward poor fuel economy:

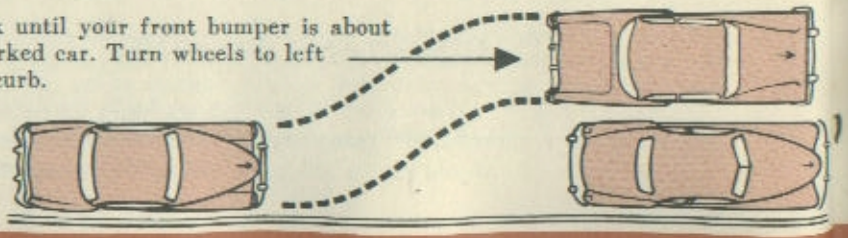
1. Inefficient spark plugs
2. Bad distributor points
3. Gum deposits in carburetor
4. Engine running too cold
5. Dragging brakes
6. Low tire pressure
7. Leaky intake manifold gasket
8. Restricted air cleaner
9. Motor oil too heavy
10. Faulty engine operation

A combustion analysis by your Packard Dealer will determine if the carburetor or fuel system is at fault. Periodic tune-ups in which many important adjustments are made will have a direct bearing on operating economy.

PARKING YOUR CAR

Before you attempt to park make certain that the space you selected is slightly longer than your car. You can then park easily by following these simple steps:

1. Drive your car up even with the car ahead.
2. Turn wheels to right and back car until rear of parked car is about at your windshield.
3. Straighten wheels and back until your front bumper is about opposite rear bumper of parked car. Turn wheels to left and back until parallel to curb.
4. Turn wheels again to right and drive car forward into proper parking position. Set hand brake.



Keeping your PACKARD in spotless condition

SECTION 5

PAINTED SURFACES

Fine dust may be safely removed by dusting with a soft, clean cloth, but "scrubbing" a dirty car with dry cloths is almost certain to scratch it.

Clean the car by washing with plenty of cold or luke-warm water. Soak the dirt off as much as possible and rinse sponges frequently to remove grit and dirt. Packard Lustur-Seal car shampoo quickly and effectively produces desired results. Dry with a clean chamois. Avoid washing the car in the sun or when the lacquered surfaces are hot. Never use hot water.

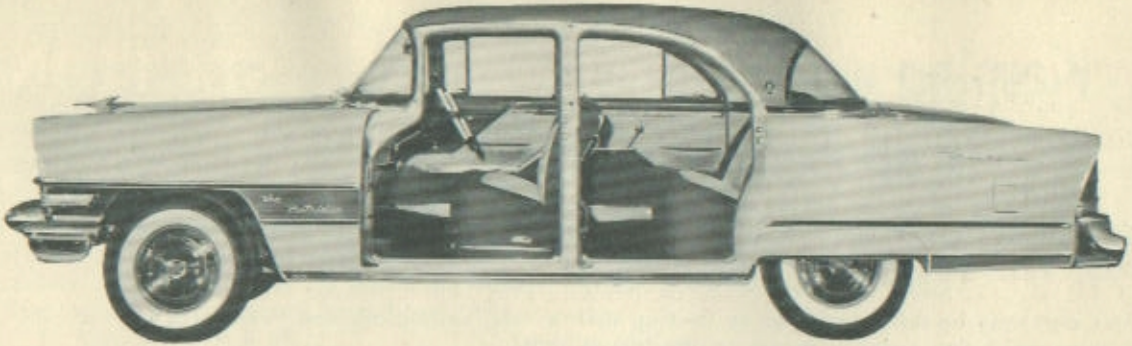
In sections where salt, calcium chloride, or similar chemicals are used on the roads, frequent washing of the car is necessary to preserve the finish. Where cars are to be exposed to freezing temperatures immediately after washing, all water must be removed from the lock cylinders and the edges of the doors and adjustable windows to prevent sticking due to the formation of ice.

A high luster can be restored with a Packard Lustur-Seal Treatment (available at your Packard dealer). A periodic Lustur-Seal Haze Cream application assures durability of finish. The presence of color on the rubbing cloths simply indicates the removal of chalked or dead surface pigment loosened by exposure.

Any lacquered surface upon which alcohol solutions have been spilled should immediately be flushed with water.

GLASS

Plate glass although hard can quite easily be scratched. Cleaning a dirty windshield when dry by operation of the wiper blades or with dry cloths is apt to cause minute surface scratches. Wet glass before cleaning.



Cleaning Your Upholstery

Where the use of cleaning fluid is indicated, use Packard Fabric Cleaner or a cleaning fluid in which carbon tetrachloride is the principal ingredient. To avoid rings, work from the outside toward the center.

BATTERY ACID will destroy upholstery if allowed to remain. Neutralize the acid as soon as possible by pouring household ammonia water directly on the spot to saturate the fabric as far as the acid extends. Give the ammonia water a full minute to neutralize the acid and then sponge the fabric with a wet cloth. Use cold water.

BLOOD STAINS, rub with a clean cloth wet with cold water.

CANDY OR FRUIT stains should be rubbed with a clean cloth wet with very hot water. If chocolate is present in the candy stain, use lukewarm water. After drying, sponge with a clean cloth wet with cleaning fluid.

GUM, moisten with cleaning fluid; remove with a dull knife.

ICE CREAM, rub with a clean cloth wet with very hot water. If this is not satisfactory, use a cloth wet with warm soap suds and rinse with a cloth wet with cold water. After drying, sponge with cleaning fluid.

LIPSTICK, pour cleaning fluid directly on spot and immediately hold a clean blotter on stain. Repeat until clean.

SHOE POLISH, for black or tan polish, use a cloth wet with cleaning fluid. If white polish cannot be brushed off, wet with cold water, allow to dry, and then brush off.

GREASE OR OIL, small spots should be rubbed with a cloth wet with cleaning fluid. Pour cleaning fluid on large spots and blot with clean blotters.

TAR, moisten with cleaning fluid and remove with a dull knife. Sponge with cloth wet with cleaning fluid.

PAINTS AND LACQUER, rub with a cloth wet with turpentine and then sponge with a cloth wet with cold water.

WATER SPOTS, sponge the entire panel with a cloth dampened with cold water; then sponge the spots with a cloth moistened with cleaning fluid.

CHROMIUM PLATING

Among the more common elements that attack chromium plating are: sulphur dioxide present in the air, especially in large industrial centers: calcium chloride used on city streets to melt ice and on dirt roads to prevent dust; also the salt air of coastal territories. When plating is scratched or scuffed to the base metal, ordinary moisture becomes a corrosive agent. Rust, originating at the root of a scratch, will continue to spread underneath the plating unless attended to when it first appears.

CARIBBEAN TOP AND REAR WINDOW

To remove spots from top material, sponge with lukewarm water and mild non-caustic soap only, rinse with clean water. Do not use dry or damp cloth to clean rear window panel. Flush with clean, cold water to remove dust, etc. If further cleaning is required, lather panel with mild soap suds, using palm of hand, and then rinse thoroughly.

CAUTION Before lowering top, unzip rear window panel at the sides and top and drop it into top compartment.

SECTION 6 Specifications

ENGINE

CHASSIS SYMBOL	5580
TYPE	8 CYL. 90°—V
BORE	4"
STROKE	3½"
A.M.A. HORSEPOWER	51.2
OIL CAPACITY	5 QTS.
WATER CAPACITY	26 QTS.
HEATER CAPACITY	1 QT.
THERMOSTAT RATING (STD)	170°
FUEL TANK	20 GALS.
VALVE TAPPETS	HYDRAULIC

COMPRESSION RATIO

COMPRESSION	8.5 TO 1

BRAKE HORSEPOWER

BRAKE HP	260

ELECTRICAL

BATTERY	9 PLATE—60 HR.
GENERATOR	30 AMP. SHUNT
REGULATOR	VOLTAGE AND CURRENT CONTROL
IGNITION POINT GAP	.016
SPARK PLUGS	14 MM
GAP	.033
IGNITION TIMING	6° BTDC
HEADLIGHTS	SEALED BEAM

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TRANSMISSION

CHASSIS SYMBOL	5580
TYPE	TWIN ULTRAMATIC
OIL CAPACITY	11 QTS.

REAR AXLE

TYPE	HYPOID
OIL CAPACITY	4¼ PTS.
ULTRAMATIC DRIVE	3.54 TO 1

SUSPENSION

TYPE	INDEPENDENT PARALLELOGRAM
SPRINGS	
FRONT AND REAR	FULL LENGTH TORSION—LEVEL
SHOCK ABSORBERS	
FRONT AND REAR	DIRECT ACTING

STEERING

GEAR TYPE	WORM AND ROLLER
GEAR OIL	S.A.E. 90
KING PIN ANGLE	5° 50′
CASTER ANGLE	−1° ± ½°
CAMBER ANGLE	0° + ¾° − ¼°
TOE-IN	0° + 1/16″ − 0°
TIRE PRESSURE	
FRONT AND REAR	24 LBS.

DIMENSIONS

OVER-ALL LENGTH	218½″
MAX. WIDTH	78″
WHEELBASE	127″

WEIGHT—Consult the Dealer who sold you the car, or the motor vehicle commissioner in your state.

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★ *The Best for The Finest*

To give the "best" in service for the finest Packard ever built, every Packard Dealer's Service Department is staffed by Factory trained servicemen who are thoroughly familiar with every part of your car and who can best service it in the most efficient manner without lost time. There is a sincere desire of everyone in the Packard organization to be of service to you. This attitude exists with the Factory, Zone, Dealer, and Dealers' Personnel.

The Packard Servicemen are trained by Factory personnel at schools held throughout the world. The Servicemen perform the actual mechanical work under the direct supervision of well-informed instructors.

These schools are held periodically to give the Servicemen first hand information on all the new engineering improvements perfected at the Factory and the Proving Grounds. With this assurance in mind that when you visit your Packard Dealer, you may have complete confidence that the service you receive will be of the finest.

YOUR PACKARD DESERVES THE BEST SERVICE AVAILABLE

The Service Department at the Factory provides educational and training programs for the Dealer Servicemen, Service Managers, Parts Managers, and Partsmen to assure the Packard customer that the service he receives will always be the best.

At the Packard Dealership guesswork is never used to solve your wants or needs of the car, because skilled men and scientific diagnosis equipment is used to seek out and find your needs quickly.

Your Packard Dealer's Servicemen receive a constant flow of technical information from the Factory where the idea or method must be proven before being released.

This data in the form of charts, manuals, books, bulletins, films, and records never ceases in the effort to provide the best for your car in the form of improvements whether they be mechanical or a better way to perform a service operation.

MODERN TOOLS AND EQUIPMENT USED

Your Packard Dealer carries Factory recommended tools and equipment that are specially designed to do the job better, faster, easier, and more economically. They are always of the highest quality and represent safe and effective means of making repairs without damage to the parts.

The Packard Dealer has a well equipped shop with diagnosis equipment to service the owner's car. This equipment quickly seeks out and finds the service needs for your car promptly without lost time and eliminating unnecessary repairs or adjustments.

Visit your Packard Dealer for normal periodic maintenance and adjustments. When you follow this counsel, you may feel confident your Packard car will operate with the utmost efficiency and provide many thousands of miles of carefree driving.

Packard Precision Parts are engineered and manufactured to rigid Factory production standards to provide safety and long life for the owner's car. These parts are precision made, always available, and nationally distributed. Packard Parts are so designed that the fit will always be perfect.

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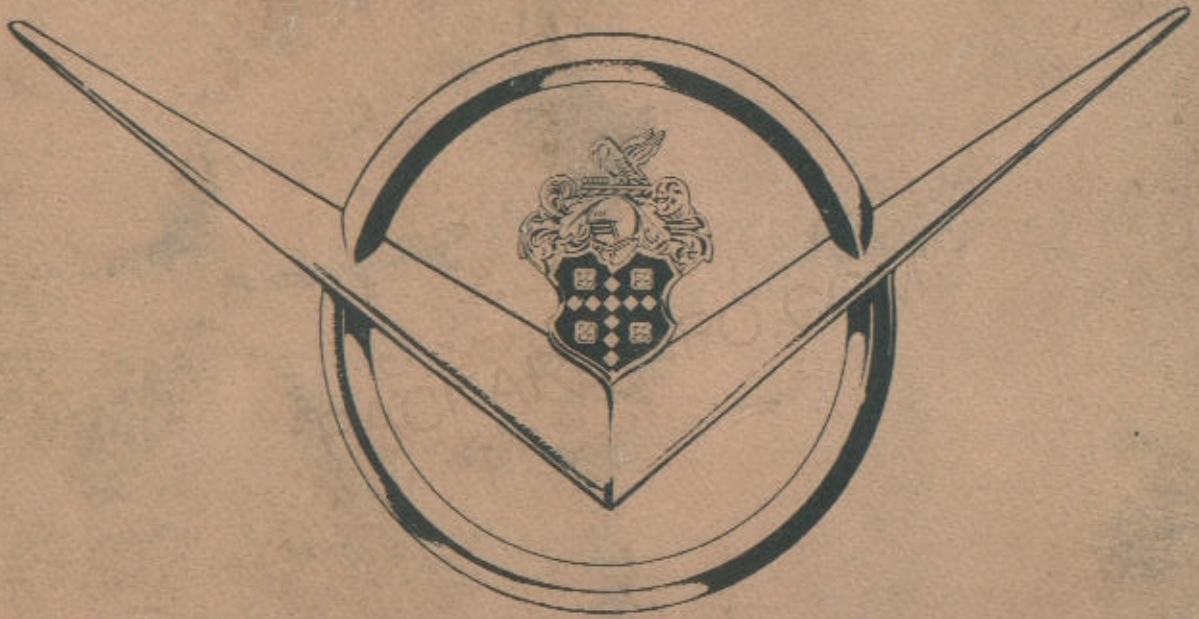
Your Packard Dealer...

personally interested in your car...

best fitted for its care!

R. P. M. Heavy Duty 20W