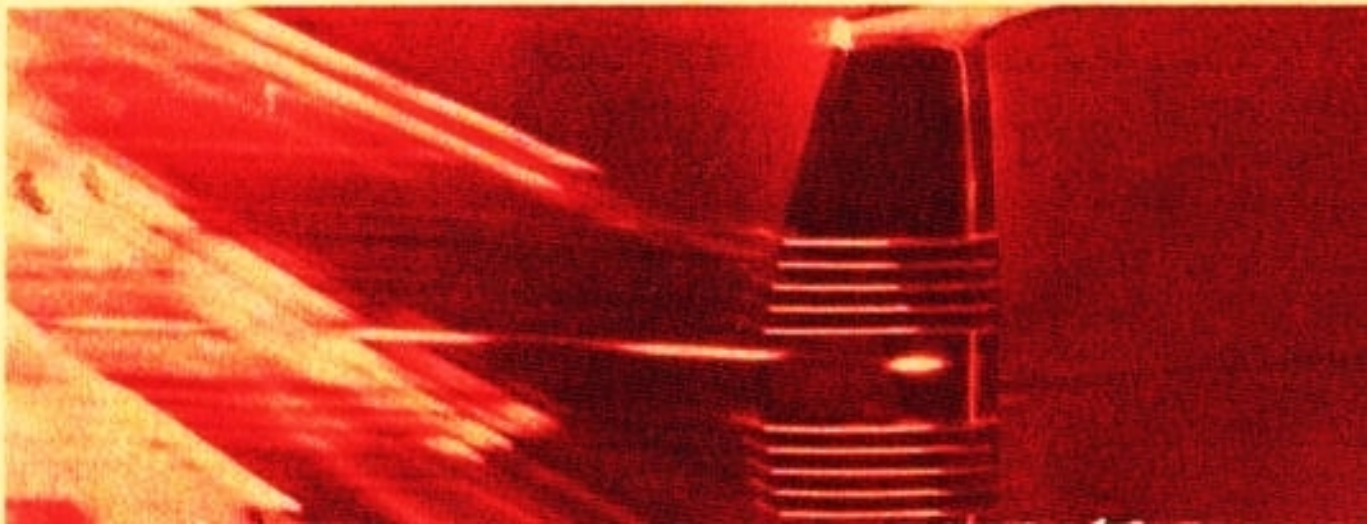



OWNER'S MANUAL

# 1966 AMBASSADOR

BY AMERICAN MOTORS





# Welcome to the American Motors family of owners

We are pleased that you have selected one of our 1966 models as your new car. We are certain that you will enjoy your new car and the motoring experiences ahead.

Your new car deserves the care and consideration that you would give to any valuable possession. There are many unique and convenient features engineered into your quality-built car.

This Owner's Manual will acquaint you with necessary information on operation, driving, and maintenance that will aid in extending economical and efficient operation.

The separate Protective Maintenance Booklet covers the warranty, plus a detailed maintenance schedule based on an easy-to-follow coupon system.

We suggest you read the Owner's Manual and the Protective Maintenance Booklet to fully acquaint yourself with all phases of operation and car care.

Your dealer is part of the team that is vitally interested in you and your new car. He knows our product best and his interest is in you and your new car. On his team are factory-trained personnel, factory-approved equipment, parts and accessories to assure the finest possible service.

**AMERICAN MOTORS CORP. • 14250 Plymouth Road • Detroit, Michigan 48232**

*"GREAT CARS SINCE 1902"*



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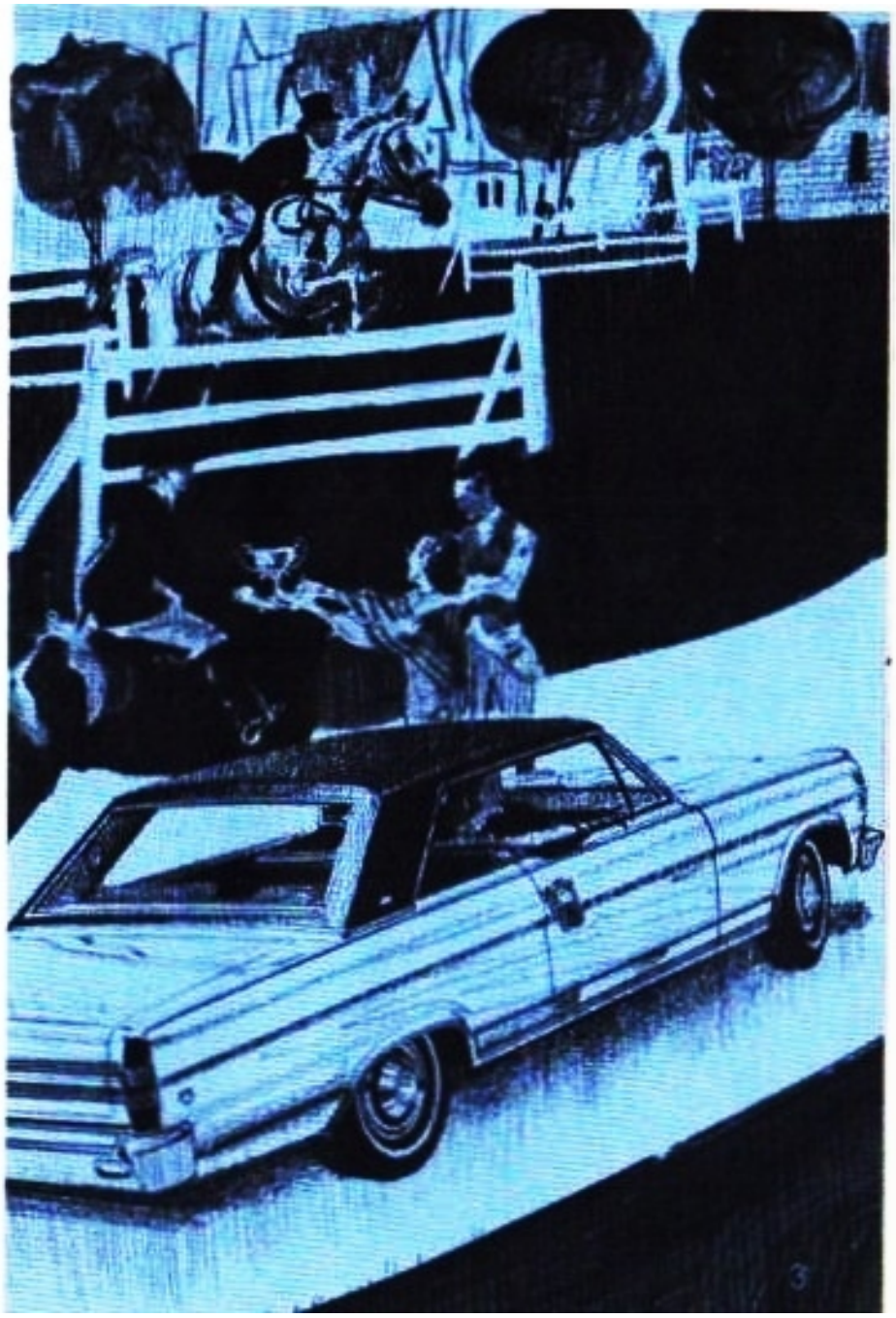
**ALPHABETICAL INDEX** ..... **PAGE 52**


***Please Read "Break-In" Instructions on Page 34.**

You will soon receive by *mail* an *owner identification card*. Keep the card handy in the special pocket located on the first page of the *protective maintenance booklet*. The card will assure quick, positive identification for warranty or other service work at your American Motors Dealer. Thank you.

# OPERATING INFORMATION


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# OPERATING INFORMATION

## IDENTIFICATION

Serial and model numbers are provided for documentary and identification purposes.

The 13-digit vehicle identification number plate is located on the right-hand wheelhouse panel (lift hood).

The body, model, trim, paint, and vehicle identification plate is located on the rear edge of the left front door.

The engine code number is located at the upper right-side center of the six-cylinder engine block, and on the alternator bracket for V-8 engines.





## KNOW YOUR NEW CAR

We suggest that you get well acquainted with your new car. So, be seated behind the wheel, and with the aid of this manual, familiarize yourself with the instruments and controls.

For safety's sake and for your own satisfaction in knowing more about your new car, you will be glad you did!

## KEYS

Two sets of keys are furnished with your new car. Keep a record of the key code numbers with you at all times. If you lose or break a key, or if you need an extra key, any American Motors Dealer and most locksmiths can quickly make another key for you by using the code number as a guide.



## LOCKS AND HANDLES

**Door Locks.** You cannot lock yourself out of your car. The octagonal shaped key, also used for the ignition and starting, is used to lock the car doors. When leaving the car, push the inside door handle down on the opposite door. The handle will return to the normal position.

Push the rear door lock button down to lock the rear doors. Rear seat passengers are protected by the rear door lock which, once locked, may be opened only by lifting the lock buttons to the unlocked position.

Front doors may be released simply by pulling the inside door handle upward to open.

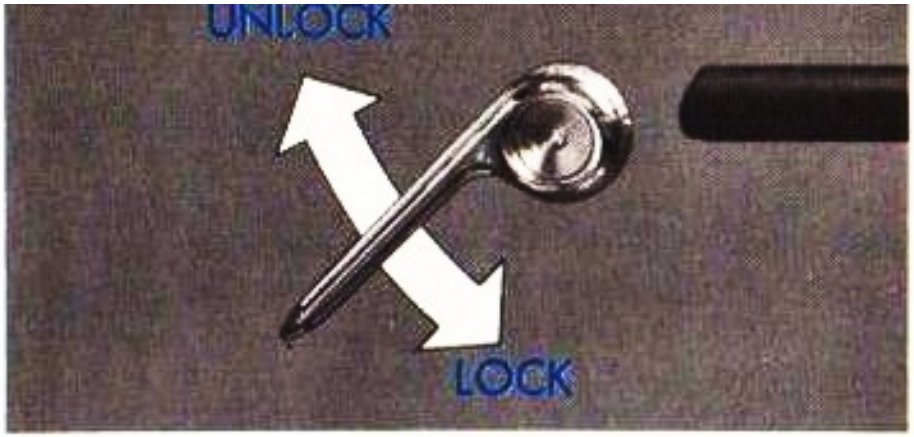
After leaving the car, lock the front door from the outside by inserting key in lock and turning toward rear of the car.

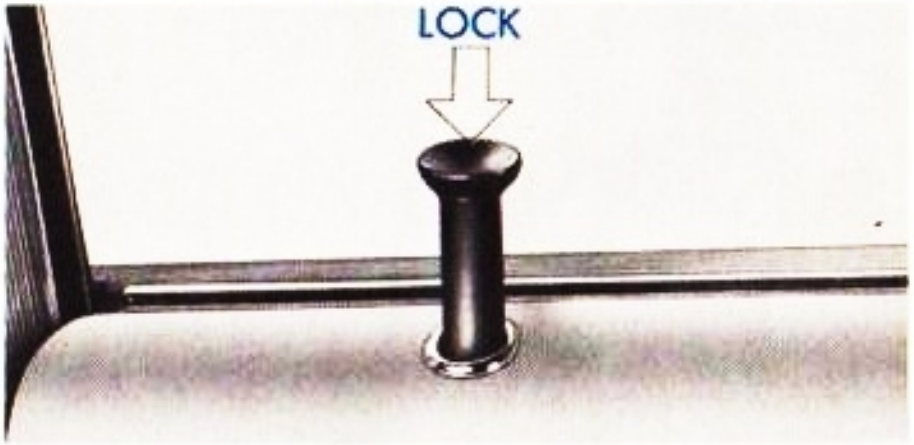
The rear doors may also be locked from the outside by pushing the lock button down when the door is open and then closing the door.

For greater safety while driving, lock doors from inside.

If a door lock freezes in cold weather, heat the end of the key for a few seconds with a lighted match or cigarette lighter before you place it in a lock. Do not force the key to turn in the lock as the key may break off in the lock.

**Glove Compartment Lock.** Press the combination release button and lock to open the glove compartment door. To lock the door, insert the round-head key and turn key one-quarter turn counterclockwise in the lock

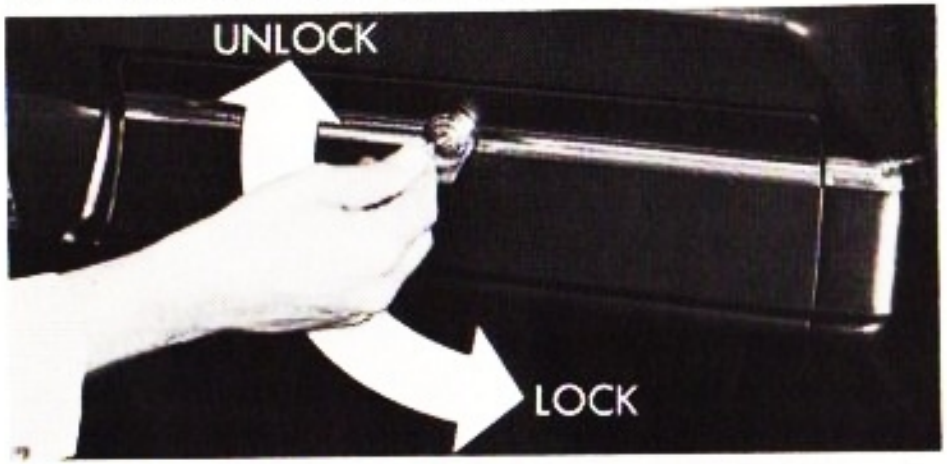




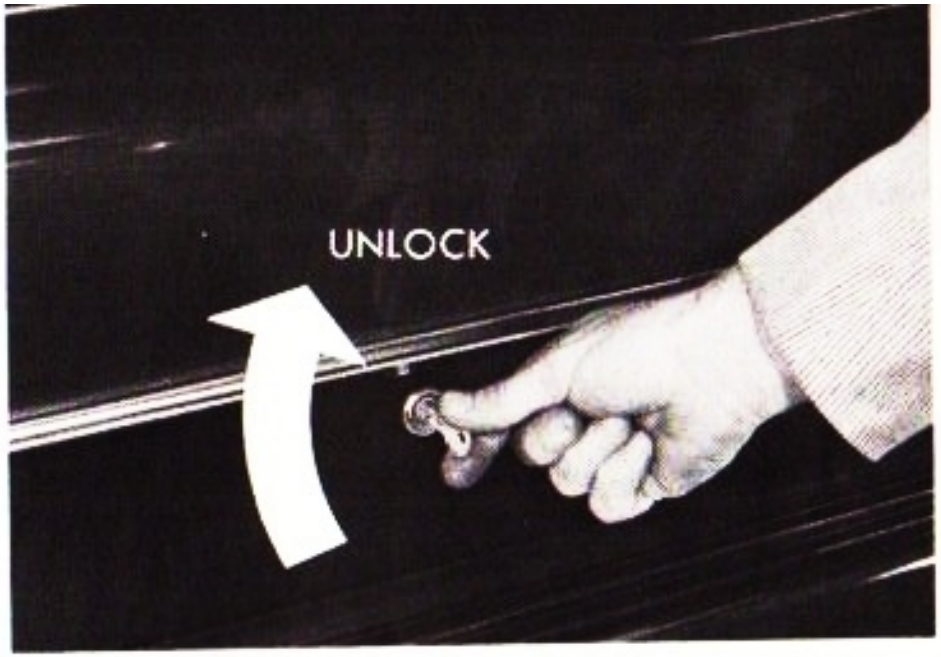

and remove the key. Some models use a push-button release (less key lock).

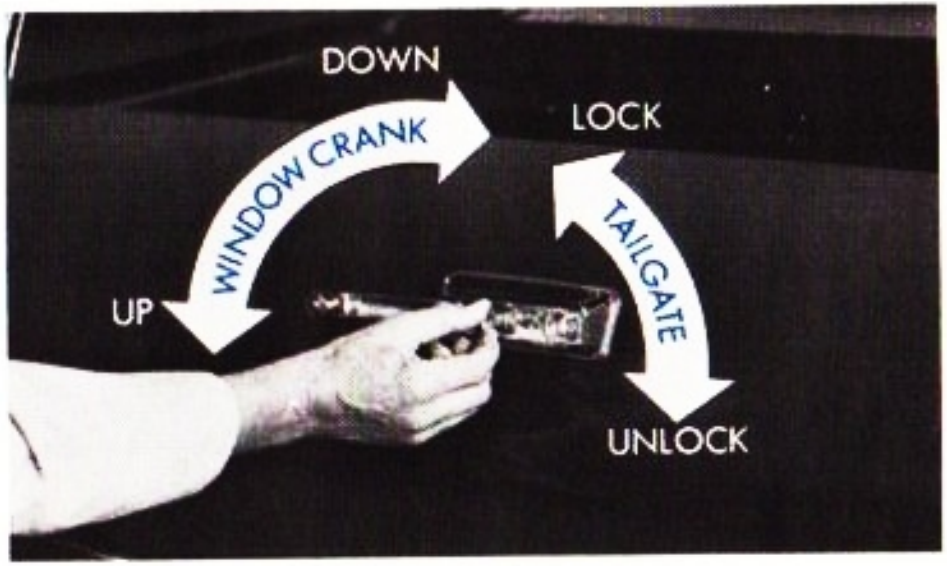
There is an additional key locked compartment on console equipped models (use glove box key). See page 28 for hidden compartment on station wagons.




**Trunk Compartment Lock.** The round-head key is also used to lock the trunk compartment. To open, insert and turn key to right—the deck lid will "pop" open; then you can easily raise the lid. To close the deck lid, push down at the center until the lock clicks.

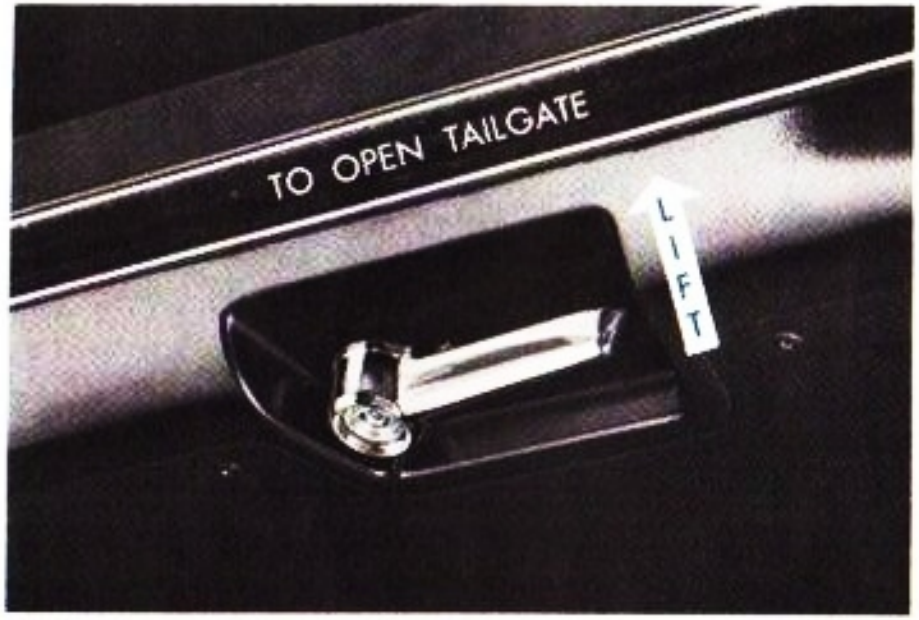
**Tailgate Lock.** Unfold the window handle on two-seat models to permit unlocking of the tailgate with the ignition key, which then permits lowering of the window. It is necessary to lower the window completely to open the tailgate.



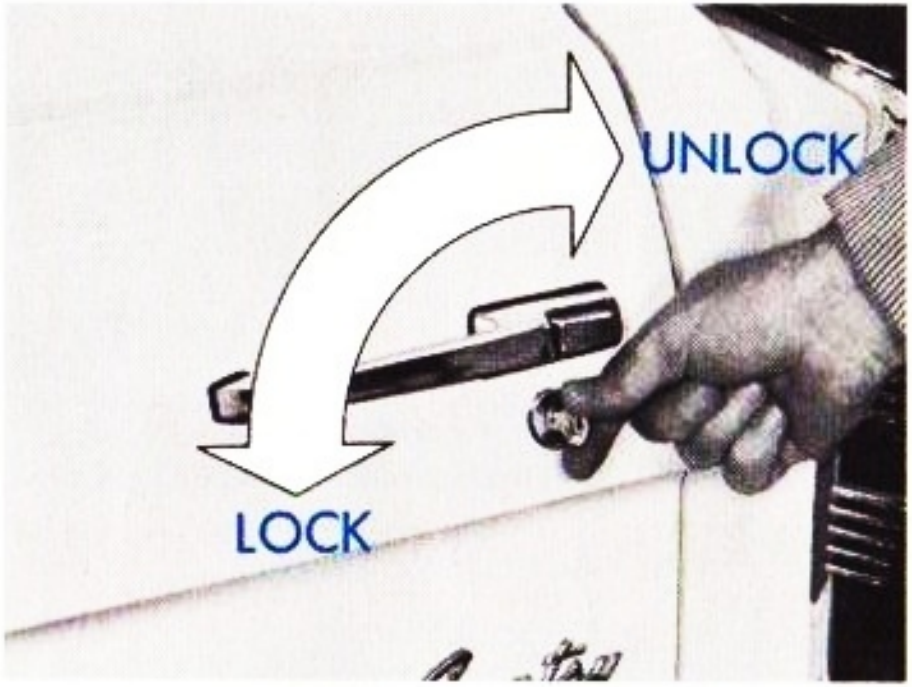



The window may be locked with the ignition key at any lowered position when crank handle is in a horizontal position with the crank knob to the left. Lock with the key and fold handle back into recess whenever it is desired to lock the tailgate.

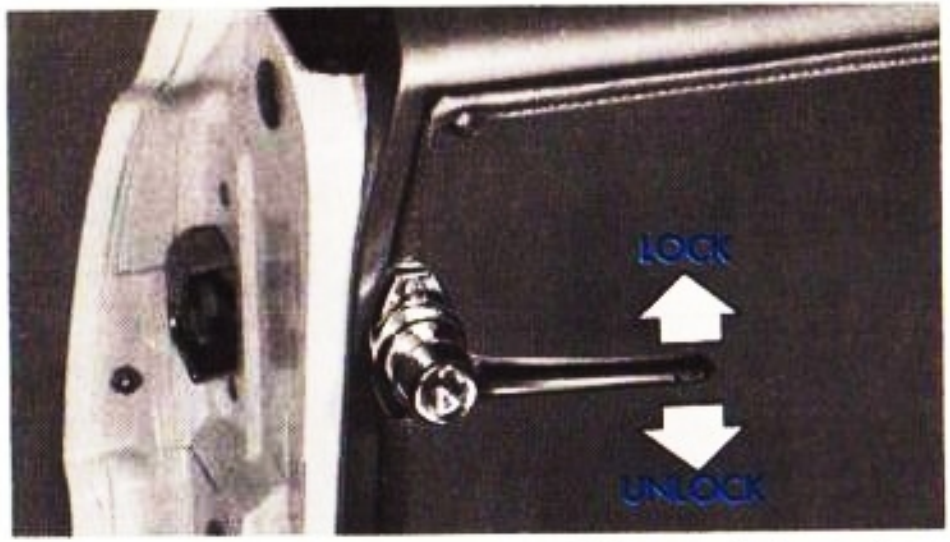
Lift the inside tailgate handle to lower the tailgate.




**Side-hinged tailgate door** on three-seat station wagons is locked with the ignition key. The door opens to the left to permit access to the third seat. Door cannot be opened from the inside when locked with the key from the outside or if the inside handle is moved up to the lock position. The window is lowered from the inside by means of the regulator handle located at the inside center of the door.



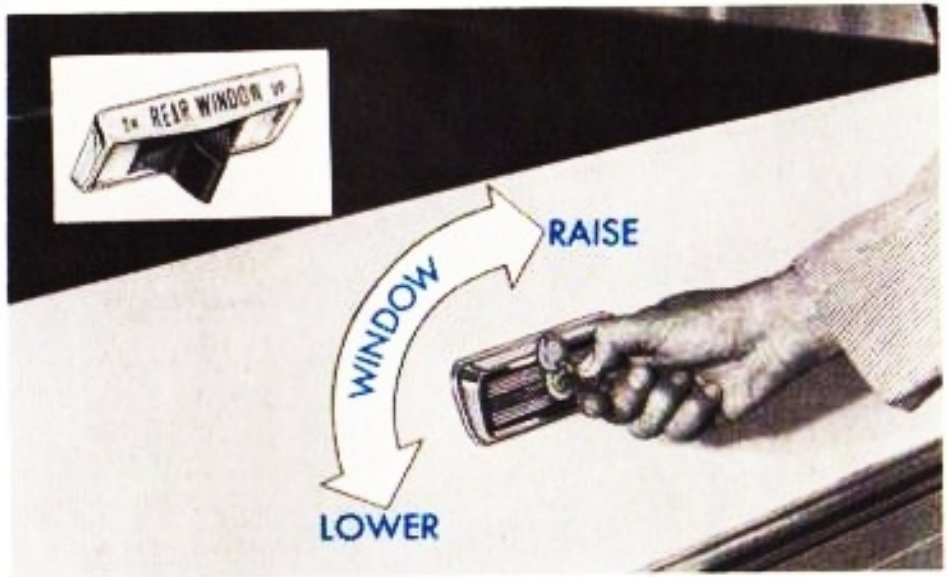

The door is equipped with a safety-lock feature for protection of the third seat passengers to prevent the door from being inadvertently opened from the inside. When locked from the outside with the ignition key, the safety-lock is automatically engaged and can be opened only with the key from outside. Also, when the inside handle is pushed up to the lock position, the door can be opened only from the outside after unlocking with the key (read decal attached to door).




The window may be lowered with the crank located on the center of the inside panel.

CAUTION: When driving with tailgate window in any opened position, both fresh air vents should be fully open (pull control out). Front vent windows should be fully closed or fully turned open to scoop in fresh air.

**Power-Lift Tailgate Window.** This optional equipment feature for station wagons, permits tailgate window operation from inside the car. The remote control switch located on the instrument panel above the parking brake release is marked DN—REAR WINDOW—UP. Push to left to lower, and to right to raise. The ignition switch must be on, or in accessory position, handy only to the driver as a safety feature. The lower-hinged tailgate must be fully closed on two seat models before the window can be raised.




Direct control, independent of ignition switch, is possible outside the car for the lower-hinged tailgate by inserting ignition key in the tailgate key switch, turning clockwise (to the right) to raise or counterclockwise (to the left) to lower.

Direct control is not used on the side-hinged tailgate door since the door is equipped with an outside handle and lock.

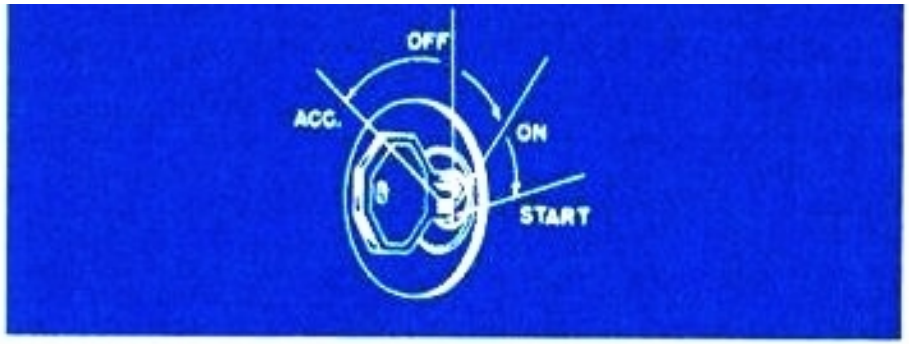
**Hood Lock.** The hood lock release lever is located in the opening below the center of the grille. To release hood, reach in and pull the release lever forward.

The hood will snap partly open due to the spring loaded hood catch being released. Pull the release lever all the way forward which will release the safety catch and enable the hood to be raised. Counterbalance springs will hold the hood in the full-raised position.



When closing, lower hood and push down firmly until hood lock "clicks." Pull up hood to assure that it is completely locked.

**Ignition Switch.** The octagonal head ignition switch key is used to start the engine. NOTE : Place the gear selector lever in neutral (Park or neutral on automatic transmission equipped cars) before starting engine. Turn key to extreme right to start engine. Spring tension will



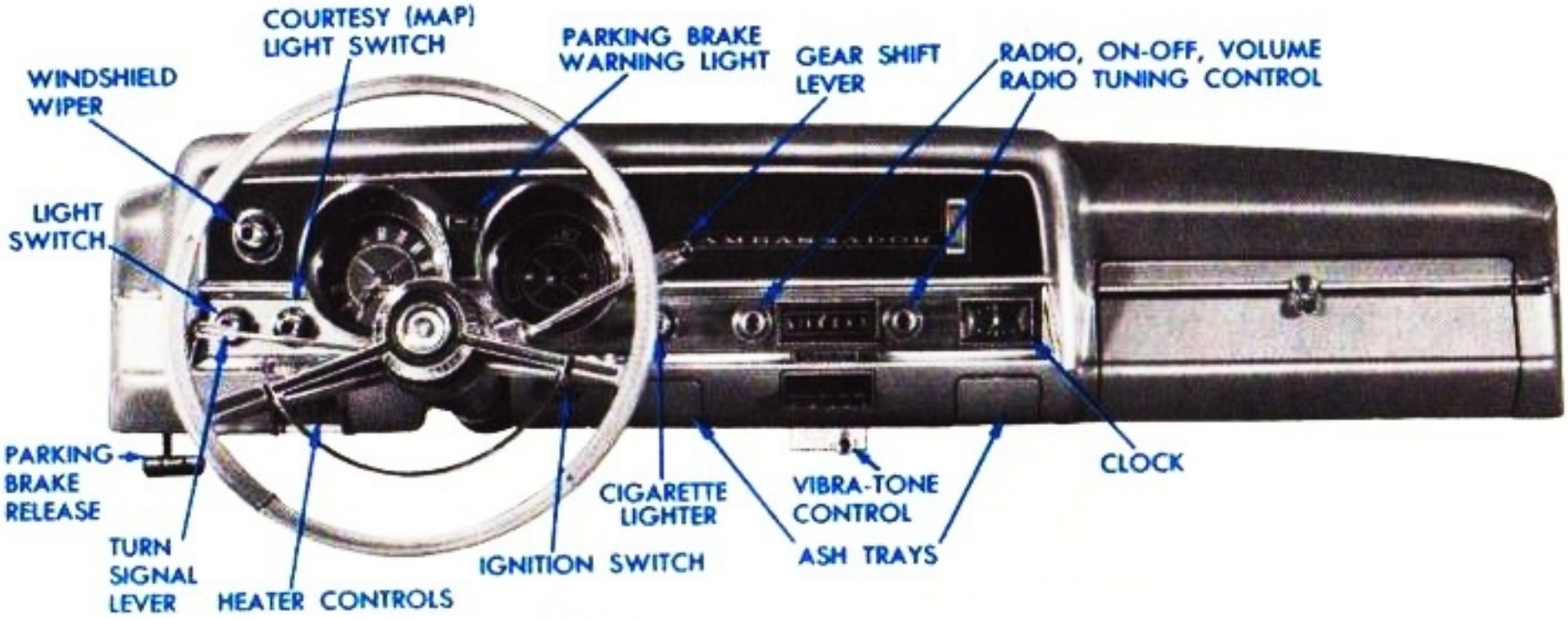

return key to normal position. Turn key to left to allow accessory operation without running engine. See "Starting" on page 35 for choke setting.

## INSTRUMENTS AND CONTROLS

**"Cluster" group** contains speedometer, fuel, and temperature gauges. The water temperature gauge indicator will normally indicate within the operating arc. The green indicator light flashes on when the turn



# OPERATING INFORMATION




signal is being used to indicate right- or left-hand turn. The red indicator light stays on when headlight Hi-Beams are used.

**Warning Lights.** The OIL pressure warning light glows red if the engine oil pressure is too low. The ALT warning light glows red indicating alternator no-charge or battery discharge. Under all conditions, both warning lights should glow red when ignition is turned on. Both lights should go out after the engine is started. There is no cause for concern if the lights glow or flicker at low idle speeds or sudden stops.

If either light remains on when driving, immediate service attention is required. If either light remains off when ignition switch is turned on (before starting), have the burned-out bulb replaced.

## DRIVER CONTROLS

**Headlight Switch.** Pull control knob out to first position for parking lights; to second for headlights. Rotate the knob clockwise to vary instrument light brilliance. Rotate counterclockwise to turn on domelight. The dimmer switch on the left side of the toe-board (page 13) controls high- or low-beam headlights.

**Turn Signal Lever.** Move lever down to indicate left turn; left turn indicator will flash on instrument cluster. Move lever up to indicate right turn; right turn indicator will flash. Lever returns automatically after turning. Return lever manually on gradual turns. See page 33 for 4-Way Hazard Warning Signal.

**Windshield Wiper.** Vacuum . . . Pull knob out for speed desired. Electric (optional) . . . Rotate knob clockwise for speed desired. See page 43 regarding blades.

If equipped with manual windshield washers, a foot-operated pump control is located near the headlight dimmer switch on the left side of the toe-board. See page 33 for electric washers.

A.M. All-Seasons Washer Solvent mixed with water aids cleaning and assures against solution freezing in the system. In freezing weather, warm the windshield with defroster before using washers. Prior to driving, spray on A.M. Windshield De-Icer to ease removal of ice. Use scraper with plastic or hard rubber blade, and carefully free frozen wiper blades.

**Mirror.** The inside rear view mirror can be adjusted to one of two heights by revolving it 180°.

**Gear Shift Selector Lever.** See pages 18 to 25.

**Cigarette Lighter.** To operate, the ignition key must be in either the accessory or operating positions. Push in, release, and it will automatically pop out when ready.

**AM Radio.** The fully-transistorized push-button radio, is designed to make your driving more pleasant. The speaker is located at the top center of the instrument panel. Provisions have been made to allow the installation of an additional speaker on the rear package shelf. A rear-seat speaker is optional on sedans and hardtops. The outer right control knob is the speaker "mixer" control when equipped with the Duo-Coustic rear seat speaker. Five push buttons are used for station selection. The manual station selector is located on the right of the console. On the left, a dual knob provides an on-off and volume control on the inner knob with tone control on the outer knob.

**Setting the Push Buttons.** Set the push buttons in daytime because interference from weak stations is stronger at night. Set tone control on center position, extend antenna to limit, and push the first left selector button up as far as it will go. Tune in the first station desired (at left of dial) with manual tuning knob. Press button firmly downward to lock it in place on the station tuned. Continue setting push buttons in sequence to the right until all are adjusted to your favorite stations.

# OPERATING INFORMATION

**Antenna Trimmer.** To properly trim the antenna to the radio, extend the antenna full length and park the car in an open area way from buildings, power lines, street car tracks, and anything that might create interference. Select a weak signal station near the high end of the frequencies between 1400 and 1600 kilocycles. Adjust the antenna trimmer knob on the back of radio chassis for maximum reception (recessed screw for AM/FM radio).

**Vibra-Tone Sound System.** This optional sound system for the rear seat speaker, designed to produce a unique vibrating-tone effect, is powered by an amplifier located in the trunk. The operating control is located under the center of the instrument panel. To operate the front speaker only, push knob in and rotate to extreme counterclockwise position; with the control rotated to the extreme clockwise position, only the rear speaker will operate; with the control set at various mid-positions, both speakers will operate with variable volume.

To operate as a VIBRA-TONE control, pull knob out and rotate until the desired effect is reached. Adjustment of this control will vary with personal taste and the type of program. For instance, when listening to voice, you would want a small amount of VIBRA-TONE effect; when listening to music, you would want a greater amount. The amplifier is wired through the ignition switch, therefore, when radio is not in use, push speaker control in.

**AM-FM Radio.** Select AM stations of your choice with the two right hand push buttons, the three left hand push buttons are for the FM stations of your choice. The push buttons may be set in the same manner described previously for the AM radio.

On the left, a dual knob provides on-off and volume control on the inner knob and tone control on the outer knob. The manual station selector knob is located on the right. To manually select an FM station, first push any FM button and select station desired with manual control. To manually select an AM station, first push either of the two buttons on the right and manually select the station desired.

FM range, is limited, therelore, reception may deteriorate in "fringe" areas while driving. Re-tuning the station may improve reception, if not, select a stronger station. For best FM reception, adjust the antenna height to about 30 inches from base to top.

**Electric Wound Clock.** (if so equipped) To reset hands, pull out knob and turn. After hands are set, release knob. Should the clock run fast or slow, reset to correct time. The self-regulating mechanism will automatically change the clock speed proportionately.

**Courtesy Light Switch.** (if so equipped) A light is located on each side of lower instrument panel. With doors closed, one position of switch turns on both courtesy lights. With switch in other position, courtesy lights operate automatically as doors are opened, along with domelight. The switch is on the face of the instrument panel, above the ignition key.

**Parking Brake.** With left foot, step on pedal firmly and all the way down to apply parking brake—maintain applied pressure and push further if necessary until brakes hold. To assist setting parking brakes, depress regular brake pedal at the same time with right foot. Pull "Brake Release" knob out to release brakes. An optional red warning light glows to indicate parking brake is set, when ignition key is turned on.




**Double Safety Brake System.** This brake system provides safety in that the hydraulic system for the front brakes is completely separate from the rear brakes. In the event of hydraulic brake failure in the front, the rear hydraulic brakes still operate and conversely, with a failure in the rear brakes, the front brakes are still operable. In either event, the braking ability is reduced to a point that the driver would be readily aware of a malfunction by a marked increase in pedal travel. CAUTION: In this event, the brake system should be serviced at the earliest possible opportunity.

**Self-Adjusting Brakes.** This feature maintains correct operating clearance between the linings by adjusting the brakes in small increments in direct proportion to lining wear. Periodic brake adjustments are not necessary. See your AM dealer if brakes require servicing.

During first hundred miles, avoid sudden stops since brake linings can set-in more uniformly with slow, gradual stops. (See pages 36, 42).

**See Page 31 for Power Disc Brakes.**

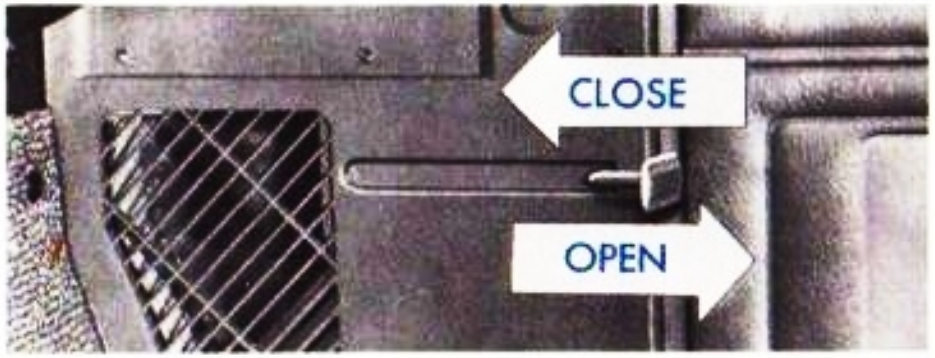
# OPERATING INFORMATION

## WEATHER-EYE VENT & HEAT SYSTEMS

**Fresh-Air Ventilation.** Fresh-Air vents are located on each side of the cowl near the floor. To open, pull back; to close, push forward. Each direct-control sliding door can be moved to vary the amount of air-flow into the passenger compartment.

Move TEMP lever on left side of control console up to full OFF position.

For additional fresh air, move AIR lever in center of control console to partial-down positions, as desired. To increase air-flow, move AIR lever to 80% down or full down to engage low- or high-blower speeds respectively. If you prefer ventilation from above the instrument panel, move the DEF lever to the full down position.




**Fresh-Air Heating.** Both Fresh-Air vent controls must be pushed forward (near floor on each side).

Move AIR lever in center of control console to partial-down positions, as desired (no blower). For most efficient heating, move AIR lever to 80% down or full down to engage low- or high-blower speeds respectively. During engine warm-up (until temperature pointer moves), keep this lever in the up position to reduce cold drafts.

Move TEMP lever on left side of control console down to the degree desired for thermostatically-controlled heat.

For windshield defrosting, move DEF lever full down, and move AIR lever down to engage low- or high-blower speeds.

DEF lever may be moved to intermediate positions for combined defrosting and heating.

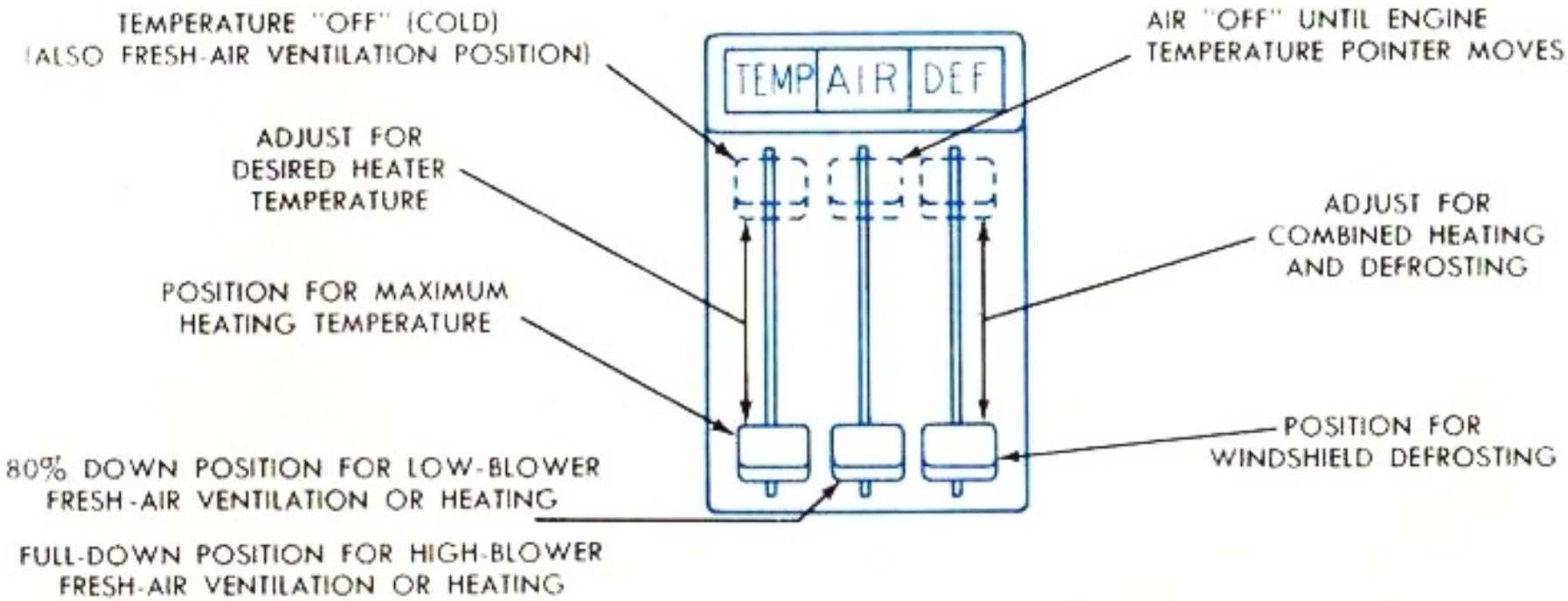
To direct more heat to rear seat passengers, the warm-up door on the heater-duct should be lifted open manually (at center, under the instrument panel, near floor).

On cars with air conditioning, the three round grilles can also be used to direct warm air as desired. The controls on the center-lower console should be set in the position for heater operation. The slide-control lever must be all the way to the left and the air conditioning THERMOSTAT control knob must be turned to the OFF position.

NOTE: During heavy snow conditions, accumulated snow must be brushed away from air-inlet grille in front of windshield before driving.

# WEATHER-EYE OPERATION

For most efficient performance and to assure your comfort, the controls should be placed in the positions illustrated.




FOR IMPROVED FRONT AND REAR SEAT HEATING, OPEN WARM-UP DOOR ON HEATER DUCT (AT CENTER, UNDER INSTRUMENT PANEL, NEAR FLOOR). FOR INDIVIDUAL COMFORT, THIS DOOR CAN BE MANUALLY ADJUSTED TO DIFFERENT POSITIONS.

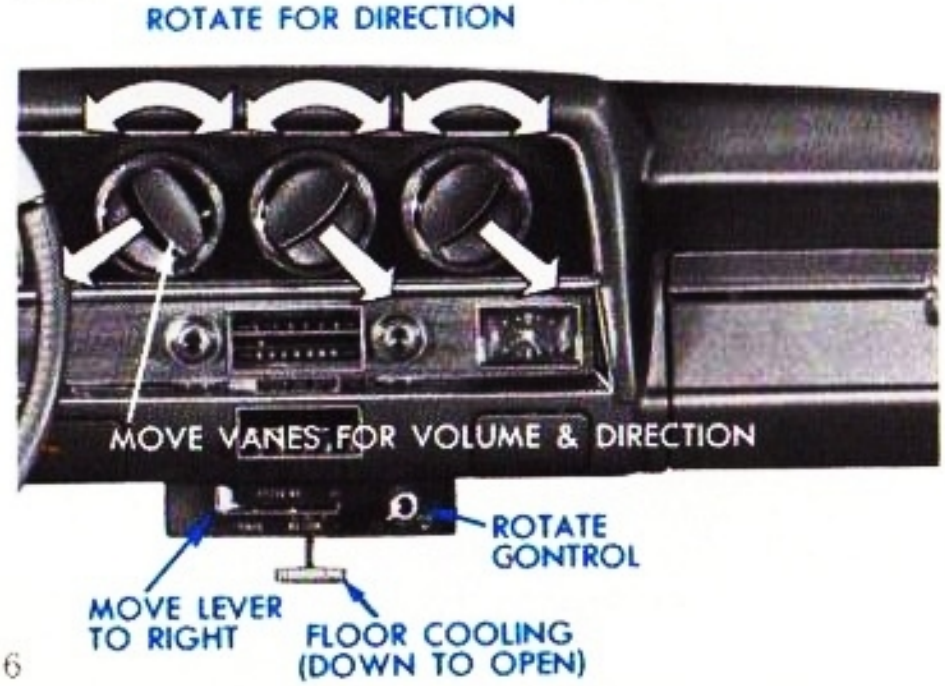
## ALL-SEASON AIR CONDITIONING

All basic controls are in the lower, center console.

Start engine *before* engaging air conditioning system. Slide the outside AIR control to the OFF position. Turn the THERMOSTAT control to the OFF position.

Both Fresh-Air vent controls must be pushed forward (near floor on each side).

Expel accumulated warm air by opening front windows a few moments while driving, then close.




Move all three levers (TEMP, AIR and DEF) in the control console to the full up position (on far left of panel).

Slide the OUTSIDE AIR control to the right, to LO, MED or HI blower-speed positions as desired for most efficient air conditioning. Use Hi blower speed to accelerate initial cooling.

Turn air conditioning THERMOSTAT control clockwise to *start air-conditioning* (engages low-speed blower) and turn to desired temperature range for cooling.

a. Turn progressively clockwise (COLDER) for desired thermostatically-controlled cool air.

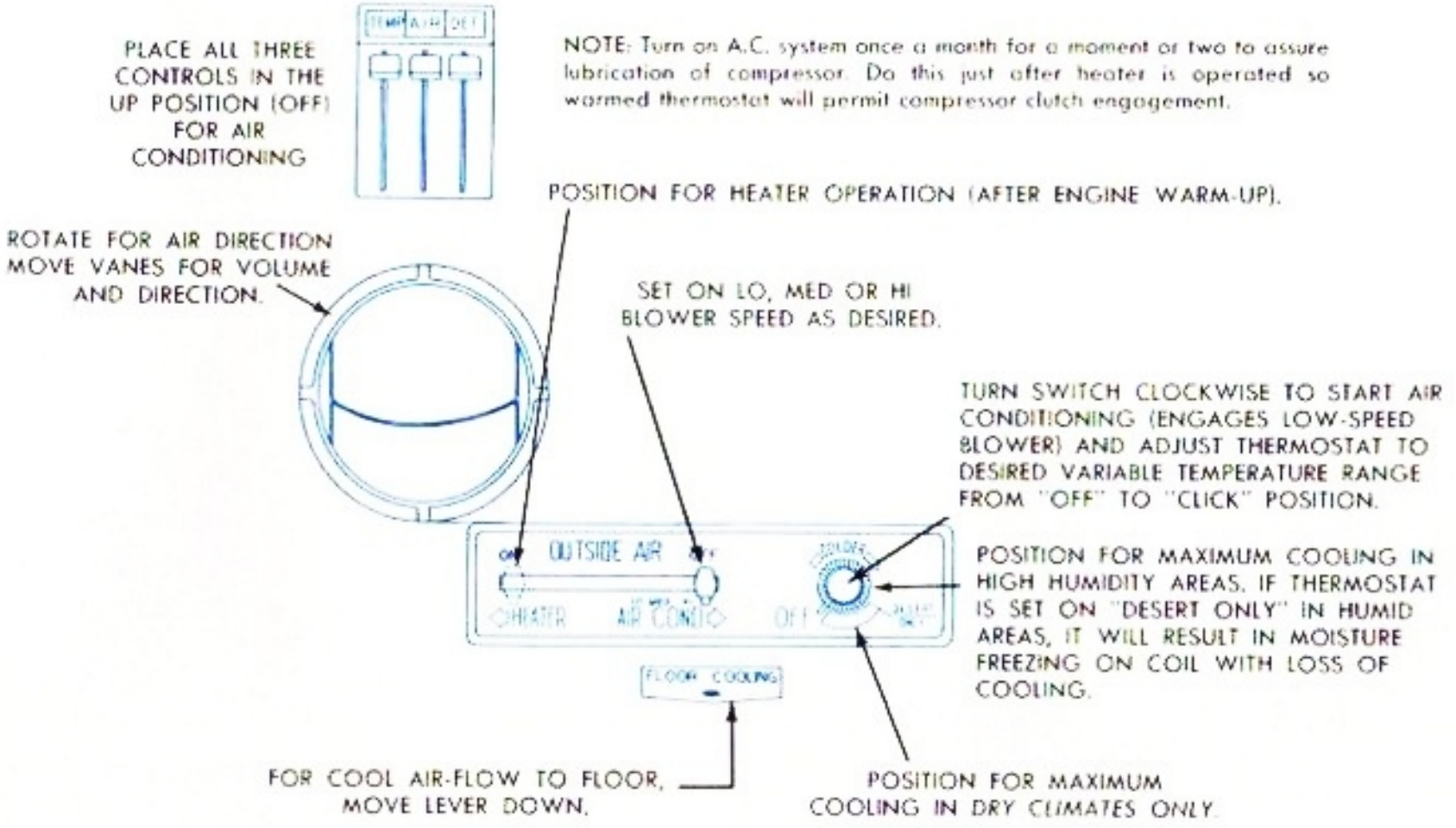
b. In very low humidity, high temperature climates, such as in desert areas, turn further clockwise past click position to DESERT ONLY for continuous cooler air. Do not use this position in higher humidity conditions; coil freeze-up will result with loss of cooling.

Open the three air-outlet grille ports and adjust air-flow for spot or area cooling as desired.

To direct cool air on the floor, the FLOOR COOLING lever should be moved down (at center under A.C. console). This feature can also be utilized when using the heater.

# ALL-SEASON AIR CONDITIONING SYSTEM

For most efficient performance and to assure your comfort, the controls should be placed in the positions illustrated.



# OPERATING INFORMATION

## FLASH-O-MATIC TRANSMISSION

The Flash-O-Matic transmission is offered as optional equipment. The following information describes in detail the operation of this 3-speed automatic transmission.

**Starting the Engine.** Place the gear selector lever in "P" (Park) or "N" (Neutral), and then turn the ignition key. When you are ready to drive, move the selector lever from "P" or "N" to the desired drive position. See "Starting" on page 35 for choke setting.

P—Park . . . Internal Transmission Lock for Parking

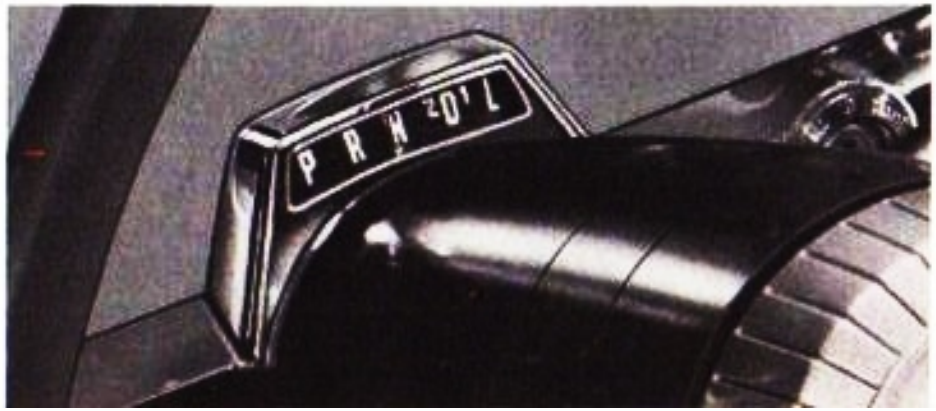
R—Reverse (use only when stopped)

N—Neutral

D2—2nd-Gear Start with Automatic Upshift to 3rd-Gear

D1—Complete Driving Range, 1st-Gear Start with Automatic Upshift to 2nd- and 3rd-Gear

L—Low-Range Drive, 1st-Gear Start with No Upshift




**Parking.** The "P" (Park) position provides an internal transmission lock for parking. The car should be brought to a complete stop before moving the gear selector lever to this position. The gear selector lever must be lifted up slightly to place in "P" (Park) position.

CAUTION: At no time should "P" (Park) be engaged when car is moving. When parked, and a possibility of being pushed by another car exists, do not use "Park." Internal damage to transmission would result from either condition.

This position is also used when starting the car. Place the gear selector lever in "P" (Park) and start the car with key start. A safety switch is incorporated that is placed in circuit with the key start when the gear selector is placed in "P" or "N". This feature prevents accidentally starting the engine when the lever is in any of the driving ranges.

**Operating in Reverse.** The gear selector lever must be lifted up slightly to place in "R" (Reverse) gear.

The vehicle must come to a complete stop before moving the gear selector lever into "R" (Reverse) gear.

**Operating in the Driving Ranges.** "D1" is recommended for best fuel economy and for all normal driving since it provides a complete driving range with a 1st

gear start. "D2" is the same in every respect except that it provides a 2nd gear start (eliminating 1st gear) and therefore is helpful for starting on poor traction conditions. Since starting in 2nd gear (D2) requires greater throttle opening for the same acceleration, more fuel would be used on starts in "D2".

While selection of "D1" and "D2" can be made from one position to the other when traveling at any car speed, there is no reason to do so except to pre-select the other starting gear for your next start.

**Forced Downshift.** To obtain extra acceleration power when driving from about 25 MPH up to about 58 MPH in either of the two "D" ranges, depress accelerator pedal completely, beyond the added resistance which automatically downshifts the transmission from 3rd-to-2nd gear. Also, a forced downshift from 3rd-to-1st gear can be made in the same manner when driving in "D1" below speeds of about 24 MPH.

**Part-Throttle Downshift.** A 3rd-to-2nd gear downshift can be made when driving in either of the two "D" ranges at speeds up to about 25 MPH. This can be done by depressing the accelerator pedal to the point where the actuating resistance of the downshift control is felt.

**Operating in "L" (Low) Range.** The "L" (Low) range is provided for use in deep sand or snow, ascending or descending steep grades, or where traffic conditions require low range gear. When descending long, steep mountain grades, the use of "L" range will aid in holding the car to a safe speed, and will also avoid the excessive use of brakes.

It is possible to change from either "D2" or "D1" selector positions to "L" position at any car speed. The gear selector lever must be lifted up slightly to place it in "L" (Low Range). When the gear selector lever is moved to "L" range above about 20 MPH, an immediate downshift from high range to intermediate range will occur. A further downshift to low range will follow when speed is reduced below about 20 MPH with closed throttle.

CAUTION: The changes from either "D2" or "D1" positions to "L" should only be made on dry roads when traction is good. It is not recommended to change to "L" on slippery roads since this could induce a skid. On slippery roads, safety demands that the car speed be reduced by judicious use of the car brakes.

**Holding Car on Hill.** It is possible to hold the car stationary, for limited periods of time only, on slight up grades by depressing accelerator pedal slightly with "D1" or "L" ranges. For longer periods or on steep hills, this practice is not recommended.

When parked on a hill start engine with transmission in "Park" position to prevent rolling when parking brakes are released.

# OPERATING INFORMATION

**Pushing to Start Engine.** Push car with gear selector in "N" (Neutral) until about 20 MPH or more is reached, turn on ignition, then move gear selector lever to "L" (Low) position. Under these conditions, the engine will be engaged in gear and ordinarily will start.

**Towing.** If the transmission has been operating satisfactorily, the car may be towed with the gear selector lever in the N (Neutral) position at a reasonable speed.

The transmission fluid must be at the proper level.

If the transmission has not been operating properly, the car should be towed ONLY with the rear wheels lifted off the ground.

**Care and Maintenance.** Check transmission fluid level every 4,000 miles. See pages 42 and 50.

**Idling and Creeping.** As the engine breaks in and friction decreases, the idle speed tends to increase. At these higher idle speeds, the car will tend to "creep" more because of the increased power transmitted by the torque converter. See idle speed on page 51.

It may be necessary to have your dealer adjust the idle speed to minimize creeping tendencies until engine friction stabilizes. Some drivers find it convenient to keep their foot on the brake pedal at stop lights to avoid creeping, in the interest of safety.

**Coasting.** A Caution—Do not coast with the transmission in Neutral (N). Safer driving results from always having the engine "in gear."

## SHIFT-COMMAND FLASH-O-MATIC (V-8)

This option offers the convenience of automatic shifting coupled with the added feature of manually selecting the drive range desired for added performance.

Generally, the function of the floor-shift transmission compares with the column-shift Flash-O-Matic.

P—Park . . . Internal Transmission Lock for Parking

R—Reverse (use only when stopped)

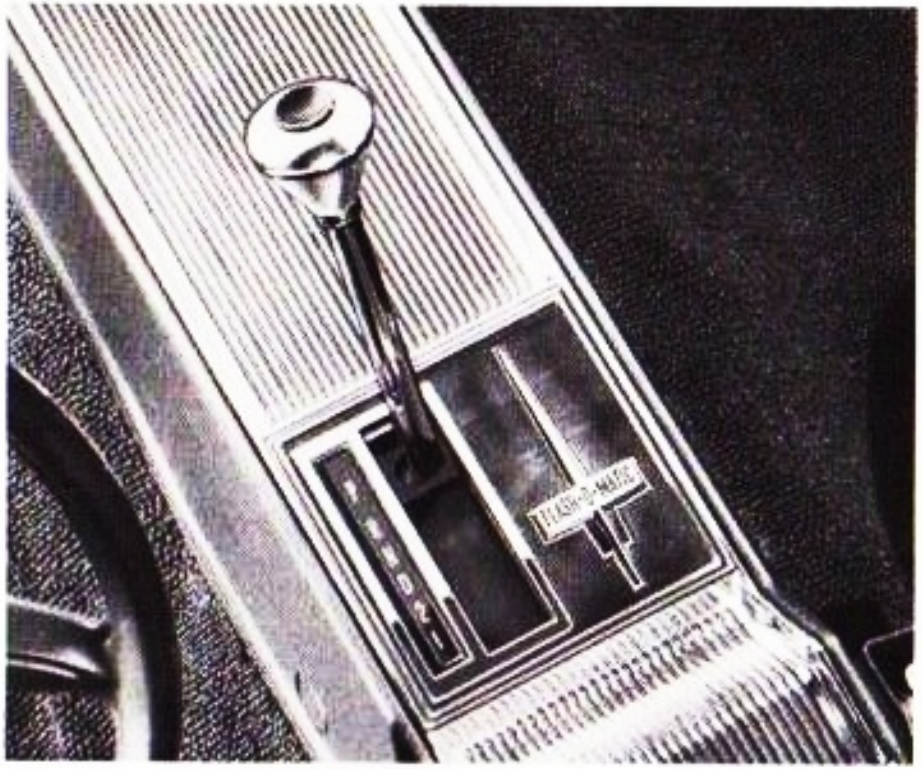
N—Neutral

D—Normal Driving Range, 2nd Gear Start with Automatic Upshift to 3rd-Gear.

2—2nd-Gear Start with No Upshift

1—1st-Gear Start with No Upshift

Push the button on top of the shift lever to permit movement between certain desired positions.



**Starting the Engine.** Place the gear selector lever in "P" (Park) or "N" (Neutral), and then turn the ignition key. When you are ready to drive, move the selector lever from "P" or "N" to the desired position. See "Starting" on page 35 for choke setting.

**Parking.** The "P" (Park) position provides an internal transmission lock for parking. The car should be brought to a complete stop before moving the gear selector lever to this position.

CAUTION: At no time should "P" (Park) be engaged when car is moving. When parked, and a possibility of being pushed by another car exists, do not use "Park." Internal damage to transmission would result from either condition.

This position is also used for starting the car. Place the gear selector lever in "P" (Park) and start the car with key start. A safety switch is incorporated that is placed in circuit with the key start when the gear selector is placed in "P" or "N". This feature prevents accidentally starting the engine when the lever is in any of the driving ranges.

**Operating in Reverse.** The vehicle must come to a complete stop before moving the gear selector lever into "R" (Reverse) Gear.

**"D"—Driving Range.** Place the lever in "D" position after engine is started. This position provides a 2nd gear start followed by an upshift to high (3rd-gear), plus downshift to 2nd gear automatically. To obtain extra acceleration power from about 35 MPH up to about 65 MPH, depress accelerator pedal completely, beyond the added resistance, which actuates the downshift control from 3rd-to-2nd gear. The transmission will stay in

second until a speed of 63-72 MPH is reached or until the accelerator is momentarily released, upshift to third will occur automatically.

**"2"—2nd Gear Driving Range.** When the selector lever is placed in "2" the car will start and remain in 2nd gear.

To obtain extra acceleration power at any speed below 63-72 MPH with the selector lever in "D" range the transmission may be manually downshifted into 2nd gear by moving the lever to the "2" position and depressing the accelerator for the performance desired.

The transmission will remain in 2nd gear until the selector lever is returned to "D" position at which time the transmission will upshift to 3rd gear, unless speed is below the automatic shift-point, which in this case when reached, the upshift will be automatic.

**"1"—1st Gear Driving Range.** When the selector lever is placed in "1" the car will start and remain in 1st gear.

To obtain extra acceleration power with transmission in 2nd or 3rd gear, the transmission may be manually downshifted at any speed below 35-39 MPH by placing the selector lever in the "1" position and depressing the accelerator for the performance desired. The transmission will remain in 1st gear until the selector lever is returned to the position desired "2" or "D".

**Manual Shifting.** Start with selector lever in "1" and manually upshift to "2" and then to "D" while accelerating for the desired speed and performance. If selector lever is moved to "D" below speed at which automatic upshift would normally occur, the transmission will remain in 2nd gear until that speed is reached.

Downshifting is controlled by the transmission. If lever is moved from "D" to "2" above speed of 63-72 MPH with the accelerator released, the transmission will remain in 3rd gear until 65-69 MPH is reached, at which time it will shift into 2nd gear. If lever is in "2" and is moved to "1" above 20-24 MPH, it will stay in 2nd gear until deceleration reaches 24-20 MPH, then it will shift into 1st gear.

If selector lever is moved to "1" from "D" at speed above 63-72 MPH with accelerator released the transmission will progressively downshift to 2nd gear and then to 1st gear.

Manual shifting to utilize engine braking on mountainous grades is possible by slowing car speed to below 65-69 MPH, and shifting from "D" to "2." The transmission will downshift automatically into 2nd gear and remain in until selector lever is returned to "D."

If the grade is unusually steep and slower descent is required, slow speed to below 24-20 MPH, move the gear selector lever to "1." The transmission will automatically downshift into 1st gear and remain until selector lever position is changed to "2" or "D."

CAUTION: Do not drive car in "1" or "2" driving ranges for sustained periods at high speeds resulting in excessively high engine RPM's.

For other information, refer to Flash-O-Matic pages.

## STANDARD TRANSMISSION

Three forward speeds plus reverse are easily controlled by standard "H" pattern movement of the gearshift lever. To operate, depress clutch pedal fully, place gearshift lever in first (low) position, then slowly release the clutch pedal fully as you step on the accelerator. Shift to second and third in the same manner. Engage first or reverse gears only when the car is not moving.

To stop, release accelerator, depress brakes and as the car slows down, depress clutch pedal and move gearshift lever to neutral. To prevent excessive clutch wear, do not rest your foot on the clutch pedal except when shifting.

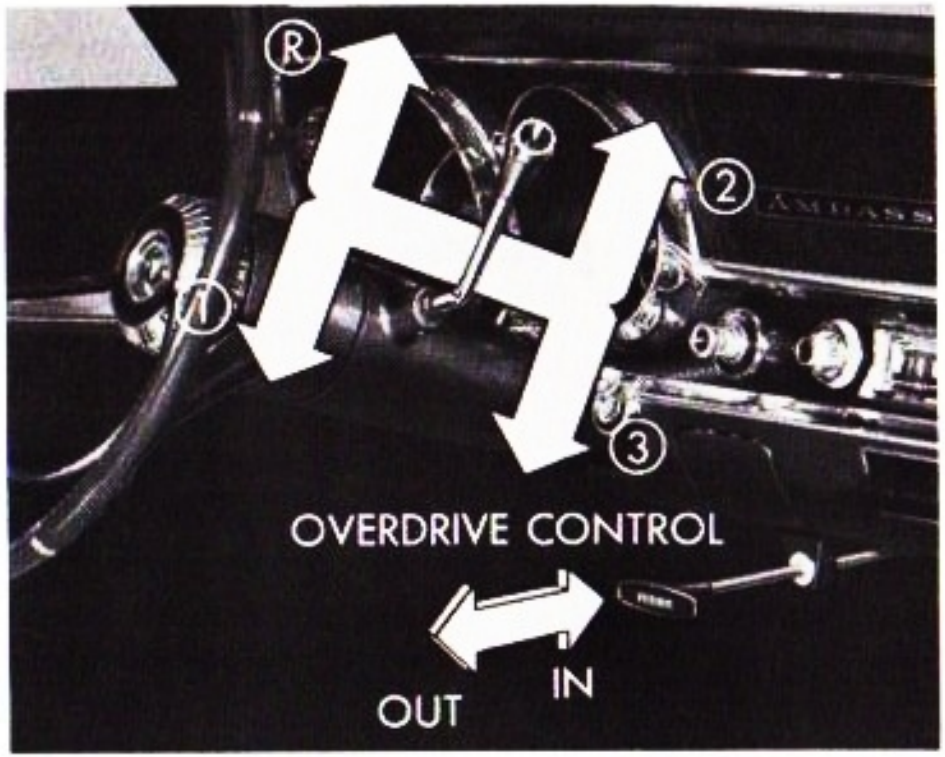
At slow speeds and in stop-and-go traffic, responsiveness is gained by using second gear. When climbing or descending steep grades, use second gear (or first if necessary).

## OVERDRIVE TRANSMISSION

Gear shifting procedure for overdrive is basically the same as standard transmission. To place the overdrive in operation, push the control (at right of steering column) to the "in" position. This can be done at any speed without releasing the clutch. To lock out the overdrive, however, the car should preferably be standing still. It is possible to make this change with the car in motion. Depress accelerator pedal fully (to shift into conventional third if above 25-30 MPH) and pull out the control knob. Below 20-25 MPH, the engine must be driving car—NOT coasting—when this shift is made.

With the overdrive control "in" and car moving at 25-30 MPH or more, the shift to overdrive (in 2nd or 3rd gear) is made by momentarily releasing the accelerator.

# OPERATING INFORMATION




On slowing down, when the accelerator is released, at about 25-20 MPH, the drive changes automatically from overdrive to standard drive.

With overdrive control "in", and at speeds from 25-30 MPH (before overdrive engagement), it is possible to shift from 1st to 2nd gear and between 2nd and 3rd gears without using the clutch.

When descending steep hills, the overdrive should be locked out—pull the control "out" as described. Then in normal third gear, the resulting engine braking when accelerator pedal is released saves wear and overheating of brakes. Some prefer to drive in traffic with overdrive locked out, to provide engine braking on normal decelerations.

If your car must be pushed or towed to start the engine, first pull overdrive control "out".

To park car in-gear with the overdrive control pushed in, move gear shift lever to reverse.

NOTE: When parked, and a possibility of being pushed exists, do not leave transmission in gear to prevent internal damage. Use Neutral and engage "Park" brake.

**Automatic Overtake.** When operating in overdrive, one simple operation permits return to conventional third speed with added power. This is accomplished by depressing the accelerator to the full limit of its travel which operates electrical controls to effect the shift to third. When pedal is released, the shift to overdrive is made automatically if car speed is above 25-30 MPH.

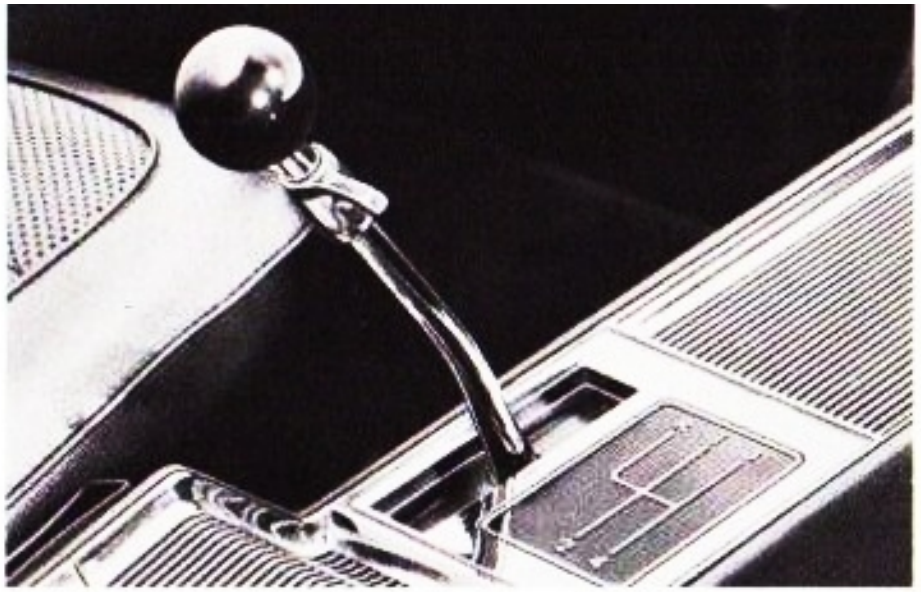
## 4-SPEED TRANSMISSION

The fully-synchronized 4-speed transmission (V-8 option) permits smooth, quick, synchronized shifting, up and down through all forward speeds without clashing gears. This includes initial shifting into 1st gear and downshifting into 1st even when the car is moving at low speeds (see chart).

To operate, depress clutch pedal fully, shift to 1st gear, then slowly release clutch pedal as you step on the accelerator (repeat for other gears). Shift pattern is marked on the console plate.

Inadvertent reverse-gear engagement is prevented by means of a spring-loaded safety "T" release lever (located below the shift knob) which must be pulled up to permit shifting *into* reverse. *Do not* attempt to engage reverse while car is moving. To park securely, shift to reverse and set parking brake.

Downshifting can be used to help reduce car speed by utilizing "engine braking" (prolongs brake life). Downshifting is also good practice to gain pulling power (before engine "labors" in high gear) in climbing steep hills or at low speeds. When downshifting, progressively shift from 4th to 3rd to 2nd and then to 1st gear (do not skip gears). Overall flexibility is apparent when using 3rd as a powerful cruising gear to cope with hilly roads or heavily-congested traffic.



To minimize engine overspeed with resultant possible damage, observe the *maximum* safe speed limits while downshifting. Also, downshift before reaching the *minimum* low speeds to prevent engine laboring. The recommended downshift sequence at maximum and minimum car speeds is listed as follows:

| Downshift Sequence | MPH (with 3.15 axle)* |
|---|---|
| 4th to 3rd gear | 60 max. to 30 min. |
| 3rd to 2nd gear | 45 max. to 20 min. |
| 2nd to 1st gear | 30 max. to 0 |

*reduce max. figures 5 MPH with 3.54:1 axle

For your information, transmission ratios are as follows:

| | | |
|---|---|---|
| 1st—2.43:1 | 3rd—1.47:1 | |
| 2nd—1.76:1 | 4th—1.00:1 | Reverse—2.49:1 |

# AM OPERATING INFORMATION

## CONVERTIBLE TOP OPERATION

**Lowering the Top.** Stop the car and lower the side windows before you lower the top. Be sure the top-storage well is clear. To release the top from the windshield header, pull back each of the two latch-handles and check hook release. Unsnap the rear window retainer strap and *fully* open the zipper. Carefully place the *glass* rear window into the well behind the seat. Note: The top can also be lowered with the window *fully* zippered in place.




Turn ignition key to operating or accessory position. Operate TOP control switch, located on far left of instrument panel, until the top is nearly down. Pull top material and padding rearward from between the folding linkage. Then, lower top to full-down position. Slide front edge of boot (top cover) into channel on rear seat-back. Center the boot over the top and secure with snap fasteners.



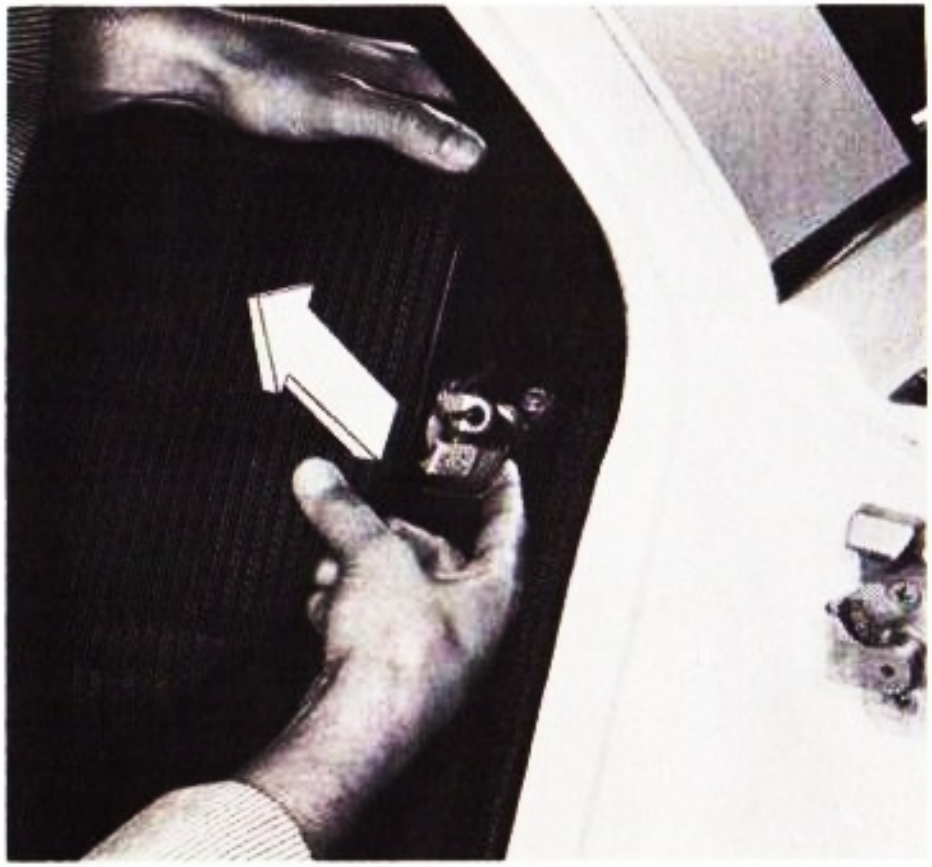
**Raising the Top.** Stop the car and remove the boot. Lower side windows to prevent interference. Turn the ignition key to operating or accessory position. Operate the TOP control switch and the top will automatically raise and settle on the windshield frame. Before fastening the top latches above the windshield, lift rear window, snap the retainer strap, and close the zipper. Push top down while lining-up the guide-studs with mating holes in the windshield frame. Press down on each of the two latch-handles making certain the hook is first engaged in the catch.

**Convertible Top Care (& Vinyl-Covered Hardtop).** Wash vinyl top with clean water and mild soap. Rinse thoroughly with clean water. Wipe off excess water with absorbent cloth or sponge. Use AM Plastic and Leather Cleaner for hard-to-remove stains. Never lower a damp top. When the top is lowered, keep it covered with the protective vinyl boot.

The flexible-glass rear window can be washed and cleaned just like any other window in the car.

## STATION WAGON

To increase the cargo compartment space, the rear seat-back folds forward and lies flat on the rear seat cushion. Release manual latch behind each side of rear seat. Fold the seat-back down on the seat cushion.



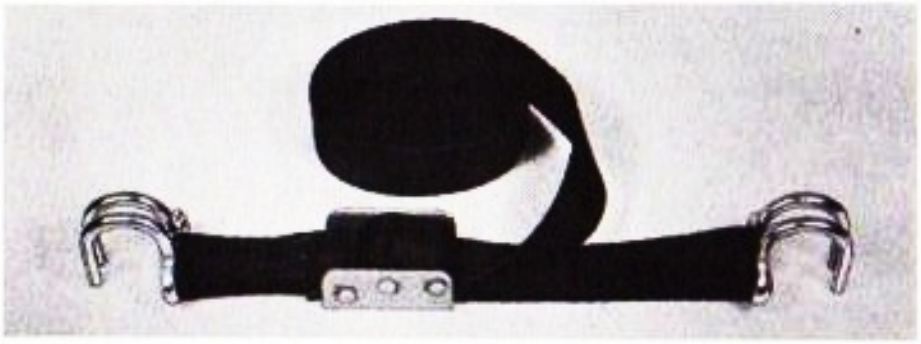
**Three-Seat Station Wagon.** This model provides a rear-facing seating arrangement for additional passenger accommodations. When the rear and third seats are lowered to the flat position, full cargo space is provided.

To place the third seat in cargo position, first pull the seat-cushion up with the assist strap and then rearward to rest on the rear panel lip. To fold the seat back down, manually start the folding-action of the support arms located on both sides of the seat.

Additional hidden cargo space can be utilized under the third seat when folded down.



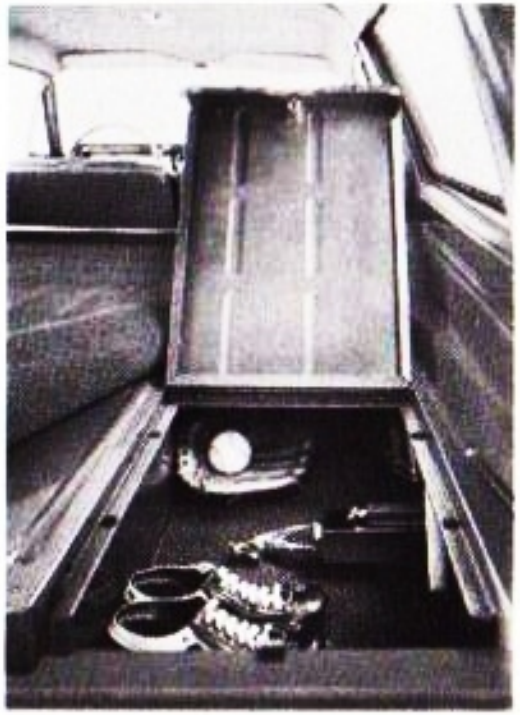




Aircraft-type nylon tie-down straps (shown), and luggage carriers, for the roof rack, are modest-cost accessories available at A.M. Dealers. See page 46 for load-carrying capacity.

An additional hidden storage compartment for valuables, tools, chains, etc. is concealed adjacent to the spare tire well, on the conventional station wagon model. It is next to the left side of the third seat in three seat models. On models with key lock, open in same manner as glove box with round-head key; models without key, push button for release.

**Hidden Compartment for 2-Seat Models**

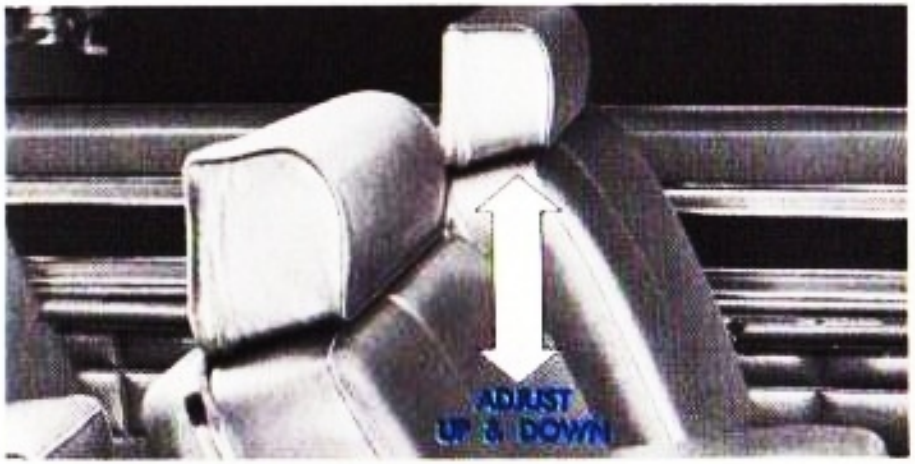


**Hidden Compartment for 3-Seat Models**

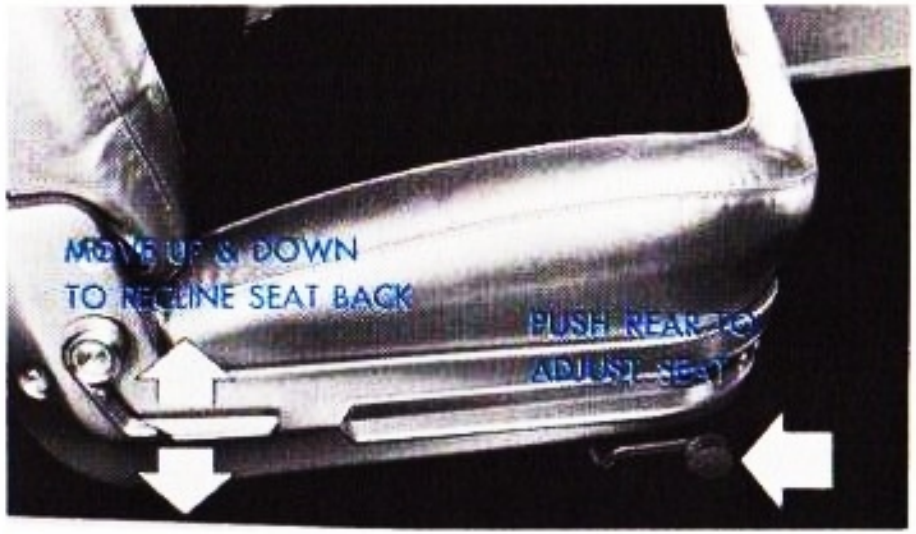


## SEATING

**Adjustable Headrests.** Individual positions provide added comfort by supporting the head when relaxing. If desired, headrests can be removed completely and carefully inserted (in pairs, back-to-back) between the individual front seat cushions (except slim bucket seats). This provides a handy storing position plus a comfortable armrest for driver and passenger.




**Airliner Reclining Seat.** Each front-seat back is independently adjustable to reclining positions. The seat-back may be lowered one position at a time by moving the control lever *up and down*, progressively to the desired position. The mechanism is designed to make it impossible to move the lever to lower the seat-back when the weight of the occupant is against the




seat-back. The seat-back is easily raised without use of the lever by simply pulling the seat-back up to the desired position.

**Front Seat Adjustment.** The adjusting lever is located at the front left corner of the seat base, and at each outer front corner of the divided seats. Push knob to rear to adjust seat as desired.

**Individual Front Seats.** Individually adjustable separate seats (regular or bucket) are fitted with separate sets of tracks which provide individual fore and aft adjustment for the driver and front seat passenger. In addition, each seat-back provides reclining adjustments.

# AM OPERATING INFORMATION

**Reclining Seats** for use as travel beds. A pair of seat-back supports will be furnished by your dealer at no additional charge upon request if bed conversion is desired. Place the front seat or seats in the full forward position. Lift rear seat cushion, pull back floor cover and install front seat back supports in floor brackets.



Lower the reclining front seat-back to the bed position. The use of pillows and bedding will help smooth out the seat contours. A special air mattress with built-in head-rest is available at modest cost from your dealer for greater comfort. Window screens are also available for insect protection. NOTE: The seat-back *cannot* be lowered to the full-down bed position on hardtops or convertibles (except convertible with bucket seats).





## OTHER OPTIONS

**Power-Lift Side Windows.** This power-assist equipment enables each side window to be operated by its own electric motor. An individual control button is provided for each side window, while a complete set of buttons on the driver's door enables remote control of all side windows including a fifth lock-out control which allows only the driver to operate the windows as a safety feature. Pressing a button up raises the window—pressing down lowers it. To operate windows, ignition must be "on" or in the accessory position.




**Console.** The console compartment is locked with the glove box key. The hinged door can be utilized as a tray for the rear seat passengers with three round depressions for cups (similar to the glove box door).

**Powr-Saver V-8 Fan.** The unit limits or reduces fan speed in relation to engine speed automatically with a viscous-flow coupling on the fan hub, which requires no driver or service attention. The reduction in fan speed reduces noise and horsepower losses, thereby offering efficiency gains in performance and fuel economy.

**Parking Brake Warning Light.** A "BRAKE" red light, located between the instrument clusters, remains on until park brake is released. Light operates only when ignition key is on.

**Power Brakes.** Power Brakes require less pedal effort and permit quicker application. The system employs a booster operating on engine vacuum. In event of engine stalling, about two brake applications remain before vacuum reserve is exhausted—added pedal effort is then required. To park on steep grades, set park brake with foot brake assistance prior to stopping engine. Do not release park brake until engine is started. Check fluid reservoirs every 4,000 miles.

**Disc Brakes.** The front disc brakes offer greater stopping ability plus anti-fade characteristics over a wide variety of conditions involving speeds, terrain and weather. Stopping ability is *directly* proportional to pedal effort, due to the unique characteristics of disc brakes which differ from regular drum brakes. Disc brakes provide maximum stopping ability and greater car control with less tendency of sliding tires. You will soon become familiarized with the capabilities and characteristics of the power disc brakes. Like regular brakes, disc brakes are self-adjusting and can be relined when required.

# OPERATING INFORMATION

**Road-Control Power Steering.** Far less effort is required to park and steer with American Motors power steering. With the engine off, or if the power system fails, positive control can be maintained with increased steering effort. Check fluid reservoir every 4,000 miles.

**Adjust-O-Tilt Steering Wheel.** The adjustable steering wheel can be placed in one of seven different positions by lifting the small lever located below the turn signal on the left side of the steering column. Move the steering wheel to the desired position and release the adjustment lever to lock the wheel in position.

The wheel position may be changed while driving. The Adjust-O-Tilt Steering Wheel permits selection of the most comfortable position to suit individual taste and provide ease of entry and exit. The steering wheel is spring loaded, lifting the lever automatically raises the wheel to its uppermost position.




**"Twin-Grip" Differential.** The "Twin-Grip" differential is designed to give positive tractive drive to both rear wheels at all times, whereas one wheel would spin in a conventional type differential whenever snow, ice, mud, or rough gravel roads are encountered.

The tractive drive from the wheel that is spinning is equalized and transferred to the wheel that is not spinning, virtually locking both axles in positive drive.

If additional lubricant is required, use AM approved type available at American Motors dealers. Other brand lubricants, formulated for limited-slip differentials, can be used if refined and sold by a reputable concern.

CAUTION: Cars equipped with "Twin-Grip" should not have the rear wheels balanced with an "on the car" type balancer. "Off the car" type balancers are recommended. The locking feature will cause the car to drive-off or throw the "chocks" used with this type balancer causing damage to the car or injury to the operator.

**Seat Belts.** Before fastening buckles, make sure belts are not twisted. Adjust belt length to hold you comfortably yet firmly in place, and wear belts low around hips. With optional retractable belts, the belt drum should be fully exposed to eliminate slack thus assuring tightness and safety. If your car is not equipped with seat belts, they can be easily installed by using *genuine* American Motors seat belts available at your dealer. Front seat belt attaching plates and rear seat location indentations are in your car to facilitate installation.

**Cruise-Command (Automatic Speed Control).** This electro-mechanical speed control system uses engine intake-manifold vacuum and the transmission to maintain a pre-set cruising speed by automatically regulating the accelerator. The system senses car speed to permit constant-speed cruising with your foot off the accelerator.

Cruise-Command control button is on the far left side of instrument panel. Any cruising speed can be set between 30 and 85 MPH. To engage speed control, lightly depress the control button while holding the accelerator at the desired speed, indicated by speedometer. Once set, the system will accurately maintain desired speed on level roads, plus up and down hills. The system will automatically disengage the instant the brake pedal is lightly depressed.

Cruise-Command can be set at a higher speed than initially selected by simply accelerating up to the new desired speed, and then completely depressing the control button and releasing same while maintaining car speed. A lower controlled speed can be achieved by completely depressing the control button (and holding it in) until the lower speed is reached, at which time, the control button should then be released.

**4-Way Hazard Warning Signal.** With this system, front and rear turn signal lights (all four) flash on-and-off






simultaneously to warn other drivers that you are parked on the highway or shoulder. To operate, pull switch knob (with red indicator light), mounted under instrument panel on left side. The normal turn signal lever on steering column must be in neutral while operating this 4-way system.

**Electric Washers (& Wipers).** To actuate the electric windshield washers, simply push the electric *wiper* control knob on the panel face (left of steering column). This single control knob does both jobs . . . push for washers . . . rotate for wipers. Page 11 covers cleaning solutions.

**Tachometer.** The electric tach is mounted on top of the panel to the right of the steering wheel. The lighted dial has a 250° arc registering engine speed (0 to 6,000 RPM) with distributor-ignition impulses. The tach helps achieve optimum performance in shifting gears without overspeeding engine (indicated red beyond 5,000 RPM). The tachometer is available from A.M. Dealers.

# AM TIPS ON DRIVING


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## BREAK-IN PERIOD

Your new car was built and serviced to be "ready for the road" upon delivery to you. Thanks to advanced engineering and manufacturing methods, your new car does not require a prolonged, low-speed break-in.

Naturally, the way you drive during initial mileage will have an effect on future operation. The engine and running gear, including transmission and brakes, will operate more efficiently if you follow a few simple rules.

For the first 100 miles, keep under 50 MPH. For the next 150 miles, keep under 60 MPH. During these short periods, avoid all full-throttle accelerations, and avoid cruising at any steady speed. After starting a cold engine, drive at moderate speeds until engine warms up. Try to avoid sudden stops so brake linings can seat-in more uniformly. After 250 miles, short periods at increasingly higher speeds are permissible. Step up speeds gradually as mileage accumulates to any reasonable speed within legal limits.

Engine noise, fuel, and oil consumption can be expected to reduce as break-in mileage progresses and internal friction decreases. The original engine oil and filter should be changed at 4,000 miles. Correct viscosity and quality engine oil should then be used with a new filter (see page 39).

Your dealer has American Motors approved engine "additives" which are compatible with all engine parts, and can be used if desired. Consult your dealer for correct usage of the approved additives. The factory cannot assume responsibility if other brands are used.

## FUELS

The six-cylinder and two-barrel carburetor V-8 engines are designed to operate efficiently on "regular" grade gasoline. Detonation or "fuel knock" normally absent, is influenced by a number of factors such as amount of combustion chamber deposits, ignition timing, engine temperatures, atmospheric variables and other conditions.

Where necessary, retarding ignition timing slightly from initial recommended settings will usually eliminate "fuel-knock". Retarding timing as much as 5° will reduce fuel economy and performance, therefore this change should be made only after a good quality regular grade fuel has been tried.

For owners who elect to use premium grade fuel, an advance in ignition timing is suggested (see page 51).

On the high compression ratio V-8 engine with four-barrel carburetor (270 HP), premium fuel is required.

## STARTING

FOR ALL WEATHER CONDITIONS: Place manual transmission in neutral, and automatic transmission in neutral or park. Depress accelerator at least halfway and release to pre-set automatic choke. Next, turn ignition key to extreme right to start engine.

ABOVE FREEZING: After warm-up, reduce engine speed by a sharp tap of the accelerator (before shifting).

BELOW FREEZING AND EXTREME COLD: After warm-up, it is not necessary to reduce engine speed prior to shifting unless speed is excessively high. If excessive, reduce engine speed by a sharp tap of the accelerator (before shifting). In extreme cold, it may be necessary to raise engine speed with accelerator after starting to keep engine running during warm-up.

NOTE: If engine does not start in a reasonable length of time and you suspect flooding, wait a few moments. Then, hold the accelerator fully open and continue starter engagement. To help prevent flooding, do not "pump" the accelerator.

## IDLING

Avoid excessively long idling periods since this is not an ideal way to warm-up an engine, and it wastes gasoline.

# TIPS ON DRIVING

Water condensation in the cylinders and engine wear both are accelerated under these conditions. Warm-up is accomplished more quickly and efficiently by driving at low-to-moderate speeds. Shut off the engine during a prolonged stop at either a railroad crossing or in a traffic jam—restarting takes a negligible amount of gasoline.

See page 51 for correct engine idle speed.

*Do not run the engine with garage doors closed since the exhaust gases contain large quantities of deadly carbon monoxide.*

## CITY DRIVING

The frequent starting and stopping, prolonged idling periods and perhaps a tendency to demonstrate fast accelerating ability all combine to waste gasoline and reduce overall operating economy.

Remember that your engine does considerable work in overcoming inertia in starting and in building up momentum. Use this developed momentum to drive your car—do not dissipate it in unnecessary braking.

Accommodate your driving to established traffic flow and drive at an even speed to coincide with the timing of traffic lights. Avoid street car tracks and chuck holes; turn corners slowly and do not scuff tires against the curb when parking.

## COUNTRY DRIVING

High speed driving—50 to 70 MPH when road and traffic conditions permit—is not harmful to a warmed-up engine. Fuel consumption, however, will be much greater than at lower speeds. After long, fast driving in extremely hot weather, let engine idle about ½ minute before shutting off to reduce coolant boiling tendency in block.

Severe application of brakes at high speed is hard on the linings. For example, a brake stop at 60 is four times as severe on the brakes as at 30 MPH.

## HOT WEATHER DRIVING

Hot weather driving places a heavy load on the cooling and engine lubricating systems. Make sure there is sufficient coolant in the system—that there is no accumulation of insects or other debris at the radiator core. Use a good grade of engine oil. Modern premium oils, drained at regular intervals keep your engine clean inside and prolong its life.

## COLD WEATHER DRIVING

Cold weather driving probably imposes greater hardship on the engine and vehicle than any other natural operating condition. Fuel economy will be adversely affected during winter operation. Frequent starting and

short trips in cold weather are particularly conducive to reducing fuel economy, and to the accumulation of condensation and sludge, and to the dilution of engine oil.

An occasional driving period of sufficient duration and speed to thoroughly heat the engine to summer operating temperature will "boil off" condensation and contaminants.

Drive at moderate speeds until the engine reaches normal operating temperature, to avoid wear on engine parts slow to receive lubrication because of relatively high oil viscosity in cold weather. Use a low-viscosity, free-flowing engine oil as specified to assure lubrication during the critical warm-up period in cold.

Keeping the gas tank full in cold weather will reduce the tendency toward water condensation in the tank and possible resultant fuel line freezing. Fill tank at end of each day's driving rather than at the start. Addition of American Motors Fuel System Antifreeze prevents fuel line freeze in severe weather.

Wash car frequently to reduce accelerated corrosion underneath caused by ice-removal agents.

## ECONOMY DRIVING

Fuel economy is dependent on many important factors including driving technique, weather, car care, equipment, and car design. Moderation in driving is probably the greatest single-factor affecting maximum economy. In addition to the mechanical strain and the accelerated wear produced by intemperate driving, gasoline consumption is materially increased. Miles per gallon decrease rapidly as speeds increase above 30 MPH. At 60, for example, only two-thirds as many miles per gallon can be obtained than at 30 MPH. Unnecessary acceleration, braking, and idling waste gas. Knowledge of all interrelated and variable factors will improve operating economy. This "Tips on Driving" section explains fuel economy in general. For a free copy of our "Fuel Economy" booklet, which contains more information, check item desired on the coupon-page in the Protective Maintenance Booklet.

## TRAILERS

If you plan to tow a utility or house trailer, it is advisable that you follow our instructions covering rear axle tire load limits, springs, hitch specifications, etc. To obtain this free information, check item desired on the coupon-page in the Protective Maintenance Booklet.

## SERVICE MANUAL

Although this Owner's Manual (and the Protective Maintenance Booklet) thoroughly covers the operation and lubrication recommendations for your car, more detailed technical information is available in the Technical Service Manual. To obtain a manual, please check correct block on the coupon-page in the Protective Maintenance Booklet, and enclose your check.

# PROTECTIVE MAINTENANCE


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Your new car is designed to be easily serviced and maintained in like-new condition. The Protective Maintenance recommendations outlined in this section will assist in keeping your car operating at peak performance, at lower cost and with greater satisfaction, when performed at 4,000 mile intervals. American Motors Dealers are staffed with experienced mechanics who know your car thoroughly, and are equipped with the special tools and approved parts to make repairs and adjustments properly.

The separate Protective Maintenance Booklet, which also covers the Warranty, provides a detailed maintenance schedule based on an easy-to-follow coupon system.

## ENGINE OIL CHANGES

The initial change of oil and oil filter should be made at the first 4000 miles. This mileage and mileages for subsequent drains are affected by a variety of conditions. No single mileage figure can apply to all types of driving (see Mileage Chart on next page). Under normally favorable conditions, draining at 4,000 mile intervals is a good practice. When changing oil, drain crankcase after engine has reached normal operating temperature to insure complete removal of used oil.

## ENGINE OIL CHANGE MILEAGE CHART

| | AT FIRST 4000 MILES, drain break-in oil and change oil filter . . . then follow these recommendations for subsequent servicing: | EVERY 4000 MILES | EVERY 2000 MILES | EVERY 1000 MILES |
|---|---|---|---|---|
| ENGINE OIL DRAIN | Favorable Conditions— (Over 10 miles average per trip) | X | | |
| | Summer (Over 32°F. average.) Less than 10 miles average per trip. | | X | |
| | Winter (Below 32°F. average) Less than 10 miles average per trip. | | | X |
| | Predominantly Dusty Driving Conditions. | | | X |
| Change Oil Filter (every 2000 miles in Predominantly Dusty Driving Conditions.) | | X | | |

## ENGINE OIL QUALITY

For maximum engine protection under all driving conditions encountered during the recommended oil change intervals shown above, it is necessary to use only "MS" certified sequence-tested oils. The term "MS" must appear on the oil container singly or in conjunction with other designations. "MS" designated oils are heavy-duty detergent oils that are formulated to withstand all service conditions in modern powerplants. Engine oils designated only as "ML" and/or "MM" are not recommended and should not be used except in an emergency when "MS" oil is not available. Certified sequence-tested engine oils are described on their containers by such phrases as: meets, exceeds, excels, or has proven superior in the test requirements, test sequences, MS Service tests, standards, and service requirements, of automotive manufacturers, automakers, or car manufacturers for MS service or Service MS.

## ENGINE OIL VISCOSITY

Single viscosity or multi-viscosity types of oil are equally acceptable if refined and sold by a reputable marketer. Refer to the following chart for oil viscosity number.

## ENGINE OIL CHART

Oil Viscosity Number used should be determined by the lowest anticipated temperature before the next oil change period.

| Lowest Temperature Anticipated | Recommended Single-Viscosity | Recommended Multi-Viscosity |
|---|---|---|
| Above + 32° F. | SAE 20W-20 | SAE 10W-30 |
| Above 0° F. | SAE 10W | SAE 10W-30 |
| Below 0° F. | SAE 5W* | SAE 5W-20 |

*Sustained high speeds (above 65 MPH) should be avoided when using SAE 5W engine oil since oil consumption may be greater under this condition.

# PROTECTIVE MAINTENANCE

## ENGINE OIL LEVEL

Form the habit of having the oil level checked whenever fuel is purchased. Allow a few minutes for oil level to stabilize to assure an accurate check. This is especially true on a cold engine. If the oil level is down to the ADD oil mark on the oil level gauge, add one quart of oil to bring it up to the FULL mark. DO NOT OVERFILL past FULL mark to help prevent high consumption. It is not unusual to expect oil additions between oil changes due to varying conditions of car usage (one quart per 1000 miles is not excessive). Crankcase capacity is 5 quarts (4.2 Imperial quarts) with the recommended filter change.

## ENGINE OIL FILTER

The filter should be changed at the initial drain period and every subsequent drain thereafter. To assure maximum efficiency and protection, insist on a genuine American Motors Oil Filter.

The throw-away filter can be removed by hand or strap-wrench. To insure proper installation, follow instructions printed on the filter.

The full-flow oil filter is mounted at the lower rear left side of the cylinder block on V-8 engines, and at the lower center right side on six-cylinder engines.

## RAMBLER MOTOR OIL

Certified sequence-tested MS oil of highest quality, in multi-viscosity SAE 10W-30 and SAE 5W-20, is available at your American Motors Dealer.




## LUBRICATION

The front suspension system and steering linkage are designed to be lubricated normally every 32,000 miles or 3 years, whichever occurs first, (under severe dust or wet driving conditions, lubricate as often as 12,000 miles or 1 year). Your American Motors dealer has factory trained personnel and is equipped to properly lubricate the required points of lubrication at the recommended interval.

## LUBRICATION RECOMMENDATIONS

| | |
|---|---|
| Engine Crankcase | MS Certified Sequence-Tested Engine Oil (See page 39). |
| *Standard and Overdrive Transmission | SAE 80 Gear Lubricant, SAE 20W-20, or SAE 10W-30 Engine Oil, Automatic Transmission Fluid, Type "A", "AQ-ATF", Suffix "A". |
| *4-Speed Transmission | SAE 80 Gear Lubricant. |
| *Flash-O-Matic Transmission | Automatic Transmission Fluid—Type "A", "AQ-ATF", Suffix "A". |
| *Rear Axle | SAE 90 Hypoid or Multi-Purpose to maintain level. "TWIN GRIP"—A. M. approved lube available at American Motors dealers. |
| *Power Steering Pump Reservoir | Automatic Transmission Fluid Type "A", "AQ-ATF", Suffix "A". Fill reservoir until oil level is half-way up filler neck on 6 cyl. models, 1" below top of reservoir on V-8 models. |
| *Manual Steering Gear | Chassis Grease. |
| *Brake Master Cylinder | Drum: SAE 70-R-3 Heavy-Duty Fluid. Disc: AM 8991860 (Dow Chemical Co. HD 50-4), High Boiling Point (550° F. min.) |
| Front Wheel Bearings | Wheel Bearing Lubricant. |
| Exhaust Control Valve | Graphite in kerosene or penetrating oil. |
| Parking Brake and Gear Shift Linkage | Apply "Lubriplate". |
| Accelerator Linkage | Apply engine oil. |
| Distributor Cam | Distributor Cam Grease (overhaul or point set replacement). |
| Front Suspension Ball Joints, Upper Trunnion Bearing, Steering Linkage Ball Joints, Clutch Linkage, and Steering Column and Gear Shift Linkage | Special chassis lubricant required normally every 32,000 miles or 3 years, whichever occurs first (under severe dust or wet driving conditions, lubricate as often as 12,000 miles or 1 year). See your American Motors dealer. |
| Door and Window Weather Strips | Clean sealer rubbers and apply silicone oil. |
| Door Lock Striker Plates | Apply stick wax to pin, "Lubriplate" to slide. |
| Door Lock Cylinder | Apply silicone oil to key and insert in lock cylinder, repeat several times. |
| Door Lock Claw | Apply stick wax to claw throat, engine oil to pivot |
| Door, Hood & Hinge Pivots | Apply engine oil |
| Trunk Lid Latch & Hinges | Apply "Lubriplate" |
| Station Wagon Tailgate Latch, Support & Hinges | Apply engine oil |
| Glove Compartment Door Latch and Hinge | Apply "Lubriplate" |

*No drain or refill recommended—except when overhauled or serviced. Specifications apply to types to be used when adding to maintain recommended levels.

NOTE: Universal joints and rear wheel bearings require no periodic lubrication except in case of major service.

# PROTECTIVE MAINTENANCE

## FLASH-O-MATIC TRANSMISSION

Fluid level should be checked every 4,000 miles. Changing fluid is normally not required, except for major service or tune-up (see below). Maintain level with Automatic Transmission Fluid Type "A", "AQ-ATF", Suffix "A".

Check fluid level with engine running at normal temperature, as follows: Set parking brake. Shift through all ranges to circulate oil, then place in neutral (N). Check level with dip stick (located on right rear of engine compartment). If necessary, add fluid via dip-stick tube to raise level to "F" mark on dip stick. Caution, do not overfill.

If questionable automatic transmission performance is evident by your driving experience or by dealers road test, transmission tune-up service is suggested, as follows:

1. Adjust oil pressure.
2. Adjust linkage.
3. Adjust front and rear bands.
4. Replace transmission fluid and filter.
5. Perform road test to verify results.

## BRAKES

Check master cylinder fluid level every 4,000 miles. Maintain level ¼" from top (both reservoirs) using *only* hydraulic brake fluids as specified on page 41. Other fluids must *not* be used. (See "Washing" on page 49.)

## POSITIVE CRANKCASE VENTILATION (PCV)

Your new car has a positive crankcase ventilation system which removes fumes from the crankcase and prevents dilution of the engine lubricating oil. In addition, it is designed to prevent the discharge of crankcase fumes into the atmosphere.

The PCV valve should be changed every 12,000 miles. For the "232" engine *closed-system* PCV the polyurethane pad (inside the carburetor air cleaner) should be cleaned every 12,000 miles.

Your American Motors Dealer is experienced in the proper servicing of this PCV system and the following Air-Guard System. Proper maintenance is required in order to obtain the advantages for which each system was designed.

## AIR-GUARD SYSTEM (Exhaust Emission Control)

Cars built for use in California are equipped with the Air-Guard System for exhaust emission control. This system has an air pump directing compressed air to an air-distribution manifold, and then to injection tubes in the exhaust port at each exhaust valve. This directed air pressure (with normal oxygen content) reacts with incompletely burned hot exhaust gases and permits further combustion, thus reducing exhaust emissions into the atmosphere.

The air filter for the Air-Guard System should be changed every 12,000 miles. The correct filter is available at American Motors Dealers.

## CAPACITIES

| MEASURE SYSTEM | ENGINE OIL (includes 1 quart for filter change) | | TRANSMISSION | | | | | | DIFFERENTIAL | COOLING SYSTEM | | | | GAS TANK | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Std. 3-Speed | | Overdrive | 4-Speed | Flash-O-Matic | | | Without Heater | | With Heater | | | |
| | Quarts | | Pints | | Pints | Pints | Quarts | | Pints | Quarts | | Quarts | | Gallons (approx.) | |
| | Six | V-8 | Six 287 V-8 | 327 V-8 | Six 287 V-8 | 287 327 V-8 | Six | V-8 | Six & V-8 | Six | V-8 | Six | V-8 | All exc.3 Seat Wag. | 3 Seat Sta. Wag |
| U.S.A. | 5 | 5 | 2.25 | 4 | 3.5 | 3.5 | 9 | 11 | 4 | 9.5 | 18 | 10.5 | 19 | 19 | 17 |
| British Imperial | 4.2 | 4.2 | 1.9 | 3.3 | 2.9 | 2.9 | 7.5 | 9.2 | 3.3 | 7.9 | 15 | 8.7 | 15.8 | 15.8 | 14.2 |

### FUEL FILTER & AIR CLEANER

Replace fuel filter element (at fuel pump) first at 12,000 miles, then every 12,000 miles thereafter. Clean carburetor air cleaner element first at 4,000 miles, then every 4,000 miles thereafter, and replace at 24,000 miles, or sooner depending on driving conditions (read instructions on air cleaner).

### WIPER BLADES

Wipers feature replaceable blades with neoprene rubber elements, easily changed. Correct blades are available at American Motors dealers.

### "POWR-GUARD 24" BATTERY (12 VOLTS)

Check battery level every 3 months or 4,000 miles. In extremely hot weather, check more frequently. Maintain electrolyte level just above the plates with distilled water —do not overfill. Distilled water is preferred, however, drinking water free of high mineral content can be used. In freezing weather, water addition should be made just before driving to insure mixing with acid thus avoiding freezing. To prevent corrosion, clean terminals with a baking soda water solution, and coat with lubricant occasionally. Caution: Keep lighted cigarettes or flame away from vent caps since combustible gas is present.

# PROTECTIVE MAINTENANCE

## FUSES & CIRCUIT BREAKERS

Electrical circuits are protected with fuses that are mounted on a fuse panel which is located to the left of the steering column under the instrument panel. Also, some circuit breakers are used on individual circuits.

| Circuit | Fuse Protection |
|---|---|
| Dome, Courtesy, Cargo, Trunk, and Glove Box Lights | 9 Amps |
| Park, Tail, Instrument, Controls, License, Clock, Auto. Trans. Quadrant Lights | 9 Amps |
| Instrument Gauges, Alternator and Oil Pressure Warning Lights, Park Brake Lights | 4 Amps |
| Heater or Air Conditioning Blower Motor, A/C Clutch, Overdrive Circuit | 20 Amps (30 with Air Cond.) |
| Stop-Turn Signal, Back-Up, Turn-Signal Indicator Lights | 9 Amps |

Headlights and beam indicator are protected by a 20-ampere circuit breaker located on the light switch.

Power-lift side windows are protected by a 30-ampere circuit breaker located on the steering column bracket, and a 15-ampere circuit breaker located in front windows and a 20-ampere circuit breaker located in rear windows.

Power-lift tailgate window is protected by one 25-ampere circuit breaker for the side-hinged tailgate door, two 25-ampere circuit breakers for the lower-hinged tailgate, located on the steering column bracket.



Electric wipers are protected by a 5-ampere circuit breaker located on the control switch.

The radio has a 5-ampere fuse in the radio power line. Vibra-Tone speaker has a 5-ampere fuse in the feed wire.

The convertible top motor is protected by a 30-ampere circuit breaker located on the steering column bracket.

Hazard warning light switch has a 14-ampere fuse.

## BULB CHART

| Trade No. and Candle Power | Amer. Mtrs. Part Number | Location |
|---|---|---|
| 158, 2 C.P. | G-9415969 | Instrument Illumination, High Beam, Turn Signal, Alternator Charge Indicator, Oil Pressure, Auto. Trans. Quad. for Adj. Steering Wheel |
| 1445, 1.5 C.P. | G-274004 | Instrument Panel Switches, Auto. Trans. Quadrant, Hazard Warning |
| 1816, 3 C.P. | G-454626 | Auto. Trans. Quad. for Floor Shift |
| 1893, 2 C.P. | G-9416927 | Radio, Glove Box |
| 256, 1.6 C.P. | G-9420536 | Parking Brake Warning |
| 57, 2 C.P. | G-127934 | Clock |
| 89, 6 C.P. | G-142452 | Trunk, Convertible Courtesy |
| 1004, 15 C.P. | G-455136 | Dome, Cargo, Courtesy |
| 211, 12 C.P. | G-9414045 | Rear Pillar, Courtesy |
| 1156, 32 C.P. | G-9417866 | Back-Up |
| 67, 3 C.P. | G-142450 | License |
| 1157, 32 & 4 C.P. | G-9417867 | Parking, Front Turn Signal, Stop, Tail, Rear Turn Signal |
| 4001, Lower Lamp | 3200160 | Headlight Sealed Unit |
| 4002, Upper Lamp | 3200159 | Headlight Sealed Unit |

## TIRES

**Tire Changes.** When changing tires and wheels or installing tire chains, set parking brake securely, and block the wheel diagonally opposite the one to be removed against both forward and rearward movement. Proper location of the bumper jack is about 2" outboard of bumper support-bracket bolts (or optional bumper guards). Engage the jack claw firmly in place under edge of bumper to prevent slipping out of place. Place small control lever on jack body in desired "up" or "down" position. Operate jack with combined handle and wheel-nut wrench. Assemble jack as illustrated.

Before raising car, loosen wheel nuts just slightly. Before lowering car, snug-up wheel nuts lightly but firmly. After lowering, tighten wheel nuts securely. Replace hubcap or disc—be sure it is snapped into place.

**CAUTION:** Never work under a car supported only with bumper jack. Always use safety stands.

The spare tire is held in place in the trunk by the bumper jack base (and jack claw on sedans and hardtops). The jack and handle are located under the tire. On convertibles, the jack, jack claw and handle are located under the tire. Two-seat station wagon spare tire and all jack parts are located under the cargo floor cover (under mat). On three-seat models, the jack and handle are attached under the 2nd-seat cushion, while the jack base and claw are stored in the hidden compartment.






An illustrated tire-jack instruction sticker is attached under the trunk or cargo lid (in 3-seat models, stickers are on the floor under 2nd seat and on jack parts box in hidden compartment).









# AM PROTECTIVE MAINTENANCE

**Tire Pressure.** The recommended tire inflation pressures are listed as follows:

**Recommended Tire Inflation Pressures:**

| **Pounds (P.S.I.), Cold, Before Running.** | **Average-Owner Service Up to 5 Passengers** | | **Full-Load Service** | |
|---|---|---|---|---|
| **Do not reduce tire pressure if tires are warm.** | **(Normal Inflation)** | | | |
| | **Front** | **Rear** | **Front** | **Rear** |
| All Ambassador 6 Models Except Station Wagons | 24 | 24 | 26 | 30 |
| All Ambassador 6 Station Wagons | 24 | 24 | 26 | 32 |
| All Ambassador V-8 Models Except Station Wagons | 24 | 24 | 26* | 28 |
| All Ambassador V-8 Station Wagons | 24 | 24 | 26 | 32 |

*With air conditioning, increase front tire pressure by 2 psi.

The front tire loads increase only slightly with passenger and cargo loading; therefore, the above is recommended for best steering characteristics.

## Tire Loading, Selection and Pressure.

The original equipment 4-ply rated 2-ply tires are designed and thoroughly tested to meet all normal operating requirements within the vehicle capacity (including full-load service) when inflated to pressures listed in the above table.

The inflation table (at left) shows the recommended tire pressures for average service up to five-passenger load and also the tire pressures for use at full-load service conditions. When properly inflated, the original equipment, standard-size tires will give satisfactory service for full-load conditions with passengers and luggage, which is listed (below) for each model for your guidance.

Optional oversize tires are available for extra service life. Also, optional 8-ply rated 4-ply tires are offered when space does not permit the use of oversize tires. When continued full-load service is anticipated, these optional tires provide increased tread life to cope with the more

## Full-Load Service of the car is:

(each passenger is considered 150 lbs.)

| | | |
|---|---|---|
| All Models Except Station Wagons: | 1100 lbs. | 3 passengers front seat<br>3 passengers rear seat<br>200 lbs. luggage |
| 2-Seat Station Wagons: | 1200 lbs. | 3 passengers front seat<br>3 passengers rear seat<br>300 lbs. of luggage |
| 3-Seat Station Wagons: | 1200 lbs. | 3 passengers front seat<br>3 passengers second seat<br>2 passengers third seat<br>or 300 lbs. luggage. |

NOTE: Station wagon roof rack luggage should be limited to 150 lbs. evenly distributed included in above capacity.

When towing trailers, the allowable passenger and cargo load must be reduced by an amount equivalent to the trailer tongue load.

*Continued*

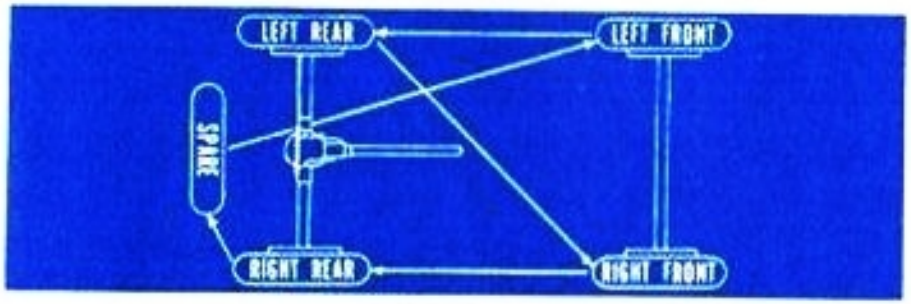
severe operating conditions. For these special conditions, the tires should be inflated to the same pressures as shown in the inflation table (at left) for full-load service. The stated full-load service capacity of the vehicle should *not* be exceeded.

For cars driven at sustained high speeds, as on a trip, tire pressures should be increased to values listed for "full-load service." These higher pressures, incidentally, will improve fuel economy and stability under all driving conditions with some sacrifice in riding quality.

Check tires often for visible under-inflation and for signs of uneven wear, which may indicate need for front-end alignment.

In accordance with the diagram, rotating tires every 8,000 miles is recommended to assure longer overall tire life by equalizing wear.

If no spare tire is used, move right to left front and follow balance of diagram.




**LifeGuard Safety Tires.** This special tire is standard equipment in sets of 4 tires on 3-seat station wagons, and optional on other models in sets of 4 or 5 tires. The single air valve automatically fills both the outer and inner air chambers at the same time. The inner chamber automatically receives a higher pressure of 40 psi, as the outer chamber is normally filled to 24 psi (see table).

A normal tire-pressure check indicates *outer* chamber pressure. To check *inner* safety tire, use the special adapter furnished in the LifeGuard tire kit (in glove-box envelope).

Each tire has a built-in spare tire. The outer tire is of premium-quality construction. The inner tire, which acts as a safety air chamber, has a honeycomb-patterned tread, plus a tube chamber. In the event of outer tire injury, causing pressure loss in the outer air chamber, the inner tire carries the load. In such event, the unique "Safety Signal", a built-in flat spot on the tread of the inner tire, will produce a thump or vibration warning the driver that repair service is required and to proceed at speeds under 40 MPH.

## COOLING SYSTEM

Do not remove radiator cap while engine is hot. After a long hard drive or after driving during extremely hot weather, allow engine to cool a few moments by idling. When removing cap, turn slowly to the first notch to reduce pressure safely, then turn cap all the way off.

Maintain coolant level about one inch below bottom of filler neck. Do not overfill when radiator is cold since normal expansion when hot will waste coolant.

Dowgard Full-Fill* coolant is installed in new cars at the factory to offer maximum protection against freezing and corrosion. If the coolant level is low, add Dowgard or a mixture of equal parts of American Motors All-Season Coolant or another quality-brand permanent anti-freeze (ethylene-glycol) and pure water. In an emergency, just water may be used, but have the freeze protection checked at an early opportunity as the addition of water will decrease the anti-freeze protection afforded by the coolant. The cooling system should be drained every 24 months and fresh American Motor All-Season Coolant (permanent anti-freeze) and water installed. For maximum protection at that time, the cooling system should be checked and serviced by your dealer for leaks using a radiator pressure-tester, and the cylinder head bolts properly tightened if needed.

Dowgard Full-Fill coolant or A.M. All-Season Coolant are formulated to protect the engine against overheating during hot summer months as well as against freezing in winter. Original factory-fill solution has freeze protection down to about —40°F. With the proper coolant in the system, rust and corrosion will not form and peak engine performance is assured.

Continued use of the proper coolant is recommended. However, if water is used as a *complete* refill, American Motors Cooling System Inhibitor is recommended to properly protect the cooling system. The water should be free of harmful impurities and should be replaced once each year, together with the inhibitor. At that time, the system should be checked as outlined above.

A 195°F. thermostat provides efficient engine performance, quicker warm-up and better heater operation. The engine and cooling system are designed to operate with this thermostat, both summer and winter. With the 195°F. thermostat, *do not* use alcohol or methanol anti-freeze.

The radiator drain is located at the bottom on either the right or left side. Six-cylinder engine-block drain is located on the left side. The V-8 engine has two drains, one on each side of the block at lower center.

Minor leaks in the engine cooling system can be eliminated by the use of American Motors Sealer-Lubricant following directions as outlined on the container.

## CAR CARE

**Washing.** The baked-enamel finish should be maintained by frequent washing with water, and a mild soap or detergent can be used if desired. After a thorough rinsing, the surface may be dried to a high polish with a clean, damp chamois skin.

Never use hot water and avoid washing the car under a hot sun or when enamel surfaces are hot.

Check door drain holes periodically (located at bottom of door), keep open to allow ample drainage of water.

CAUTION: After washing or driving through water, dry out brakes by gentle, intermittent application.

**Polishing.** The baked-enamel finish attains final hardness upon leaving the factory. Stains and road film may be removed with American Motors Polish and Cleaner or Haze Cream. Avoid the use of abrasive liquids, waxes, and power buffing, which tends to shorten the life of the factory finish by promoting premature film failure.

**Touch-Up Paint.** "Americolor" Touch-Up Paint, in handy spray cans or brush applicators to match car colors, will cover up nicks and scratches.

**Care of Chrome Parts.** Chrome parts and bright work should be washed frequently. For discoloration and blemishes that washing will not remove, AM Chrome Cleaner or Rust Remover is recommended. A paste wax should be used as a protective coating on all chrome and bright work finishes which are subject to severe exposure.

**Care of Upholstery.** Clean the interior often using a whisk broom or vacuum cleaner. Use American Motors Fabric Cleaner to remove grease, oil, lipstick, and other stains from cloth.

For cleaning vinyl upholstery, AM Plastic and Leather Cleaner is recommended. It is excellent for cleaning leather, vinyl, nylon, and other miracle-fabric materials.

WARNING: Never use gasoline, furniture polishes, oils, varnishes, or other prepared cleaners as many of these may be harmful to this type of upholstery.

**Care of Headlining.** Use only the approved American Motors Fabric Cleaner (#6990968) to clean the fiber glass headlining. Follow the instructions on the container.

**Convertible Top & Vinyl Roof Hardtop.** See page 26.

# AMERICAN MOTORS PROTECTIVE MAINTENANCE GUIDE

| OPERATION (R = Required Service, O = Optional Service) | Mileage Intervals | 4,000 | 8,000 | 12,000 | 16,000 | 20,000 | 24,000 | 28,000 | 32,000 |
|---|---|---|---|---|---|---|---|---|---|
| Change engine oil and install new A.M. Oil Filter. Suggest Rambler Motor Oil, 10W-30 or 5W-20 (refer to text). | | R | R | R | R | R | R | R | R |
| Clean oil filler cap (filtered type). | | R | R | R | R | R | R | R | R |
| Check all fluid and lubricant levels. Add if required. | | R | R | R | R | R | R | R | R |
| Replace fuel filter element at fuel pump. | | | | R | | | R | | |
| Inspect engine-driven belts for condition and tension. | | | | R | | | R | | |
| Replace positive crankcase ventilation valve (PCV). | | | | R | | | R | | |
| Clean polyurethane pad (inside carb. air cleaner) for "232" closed-system PCV. | | | | R | | | R | | |
| Replace filter on exhaust emission control system (Air-Guard System). | | | | R | | | R | | |
| Inspect, repack, and adjust front wheel bearings. | | | | | | | R | | |
| Replace carburetor air cleaner element. | | | | | | | R | | |
| Complete chassis lubrication (or every 3 years, whichever occurs first). Under severe dust or wet driving conditions, lubricate as often as 12,000 miles or 1 year. | | | | | | | | | R |
| Drain cooling system. Refill with American Motors All-Season Coolant. | | Every 24 Months | | | | | | | |
| Check for free operation of exhaust manifold heat control valve. | | O | O | O | O | O | O | O | O |
| Clean carburetor air cleaner. | | O | O | O | O | O | | O | O |
| Wheel alignment (front). | | | O | | O | | O | | O |
| Balance wheels. | | | O | | O | | O | | O |
| Rotate tires. | | | O | | O | | O | | O |
| Adjust clutch (except self-adjusting on 6-Cyl.) | | | O | | O | | O | | O |
| Engine tune-up. | | | | O | | | O | | |
| Rotate distributor cam lubricator (Air-Guard System). Replace every 24,000 miles. | | | | O | | | O | | |
| Check ignition timing. | | O | O | | O | O | | O | O |
| Adjust carburetor idle speed and mixture. | | O | O | | O | O | | O | O |
| Lubricate all body pivot points: door hinges, locks, etc. | | | O | | O | | O | | O |
| Apply A.M. Silicone Lubricant Spray to rubber body parts. | | | O | | O | | O | | O |
| Inspect brake lining condition and parts. | | | | | O | | | | O |
| Perform factory-recommended road test for evaluation of overall performance and handling. | | O | O | O | O | O | O | O | O |
| Automatic transmission tune-up (refer to text). | | AS REQUIRED | | | | | | | |
| Inspect and test air conditioning system. | | | | | | | | | |
| Add solvent to windshield washer. | | | | | | | | | |

# '66 AMBASSADOR SPECIFICATIONS

| | 232 SIX 155 HP | 287 V-8 198 HP | 327 V-8 250 HP | 327 V-8 270 HP |
|---|---|---|---|---|
| Starting Vehicle Ident. No. (last 7 digits of 13 digit no.) | M-100001 | N-100001 | P-100001 | Q-100001 |
| Wheelbase | 116.0" | 116.0" | 116.0" | 116.0" |
| Length, Sedan, Hardtop, Conv. | 200.0" | 200.0" | 200.0" | 200.0" |
| Station Wagon | 199.0" | 199.0" | 199.0" | 199.0" |
| Width | 74.5" | 74.5" | 74.5" | 74.5" |
| Height, Sedan | 55.0" | 55.5" | 55.5" | 55.5" |
| Station Wagon | 54.9" | 55.4" | 55.4" | 55.4" |
| Hardtop | 54.0" | 54.5" | 54.5" | 54.5" |
| Convertible | 54.6" | 55.1" | 55.1" | 55.1" |
| Tread, Front | 58.2" | 58.6" | 58.6" | 58.6" |
| Rear | 57.4" | 57.5" | 57.5" | 57.5" |
| Tire Size, Standard | 7.35 x 14 | 7.75 x 14 | 7.75 x 14 | 7.75 x 14 |
| Optional | 7.75 x 14 | — | — | — |
| 3-Seat Wagon | 7.75 x 14 | 7.75 x 14 | 7.75 x 14 | 7.75 x 14 |
| Tire Pressure Lbs., Cold | See Page 46 | | | |
| Horsepower, Taxable | 33.75 | 45.00 | 51.20 | 51.20 |
| Horsepower, Brake | | | | |
| Two-Barrel Carburetor | 155 @ 4400 | 198 @ 4700 | 250 @ 4700 | — |
| Four-Barrel Carburetor | — | — | — | 270 @ 4700 |
| Torque, Lb. Ft. | | | | |
| Two-Barrel Carburetor | 222 @ 1600 | 280 @ 2600 | 340 @ 2600 | — |
| Four-Barrel Carburetor | — | — | — | 360 @ 2600 |
| Bore and Stroke | 3⅞" x 3⅛" | 3¾" x 3¼" | 4" x 3¼" | 4" x 3¼" |
| Displacement, Cu. In. | 232 | 287 | 327 | 327 |
| Compression Ratio | 8.5:1 | 8.7:1 | 8.7:1 | 9.7:1 |
| Gasoline Grade | Regular | Regular | Regular | Premium |
| Radiator Cap Pressure, P.S.I. | 14 | 14 | 14 | 14 |
| Capacities—See Page 43 | | | | |
| Electrical System | 12 Volt | 12 Volt | 12 Volt | 12 Volt |
| Spark Plugs, Champion | N-14Y | H-14Y | H-14Y | H-14Y |
| Spark Plug Gap | .033"-.037" | .033"-.037" | .033"-.037" | .033"-.037" |
| Distributor Gap | .016" | .016" | .016" | .016" |
| Cam Dwell Angle | 31° to 34° | 28° to 32° | 28° to 32° | 28° to 32° |
| Breaker Arm Tension | 17 to 21 Oz. | 17 to 21 Oz. | 17 to 21 Oz. | 17 to 21 Oz. |
| Ignition Timing (See Page 35) | | | | |
| Regular Fuel | 5° B.T.D.C. | 5° B.T.D.C. | 5° B.T.D.C. | — |
| Premium Fuel | 8° B.T.D.C. | 8° B.T.D.C. | 8° B.T.D.C. | 5° B.T.D.C. |
| T.D.C., all with Air-Guard System, all fuels (Calif. exhaust emission control) | | | | |
| Engine Idle Speed (RPM) | 550 (500, Air Cond. running) | | | |
| Valve Clearance | Hydraulic Lifters | | | |
| Caster, Manual Steering | 0° to +½° | | | |
| Power Steering | +¼° to +1½°, +1½° desired | | | |
| Camber | +¼° to −¼°, 0° desired | | | |
| Toe-In | 1/16" to 3/16", ⅛" desired | | | |

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Part Number 3180660

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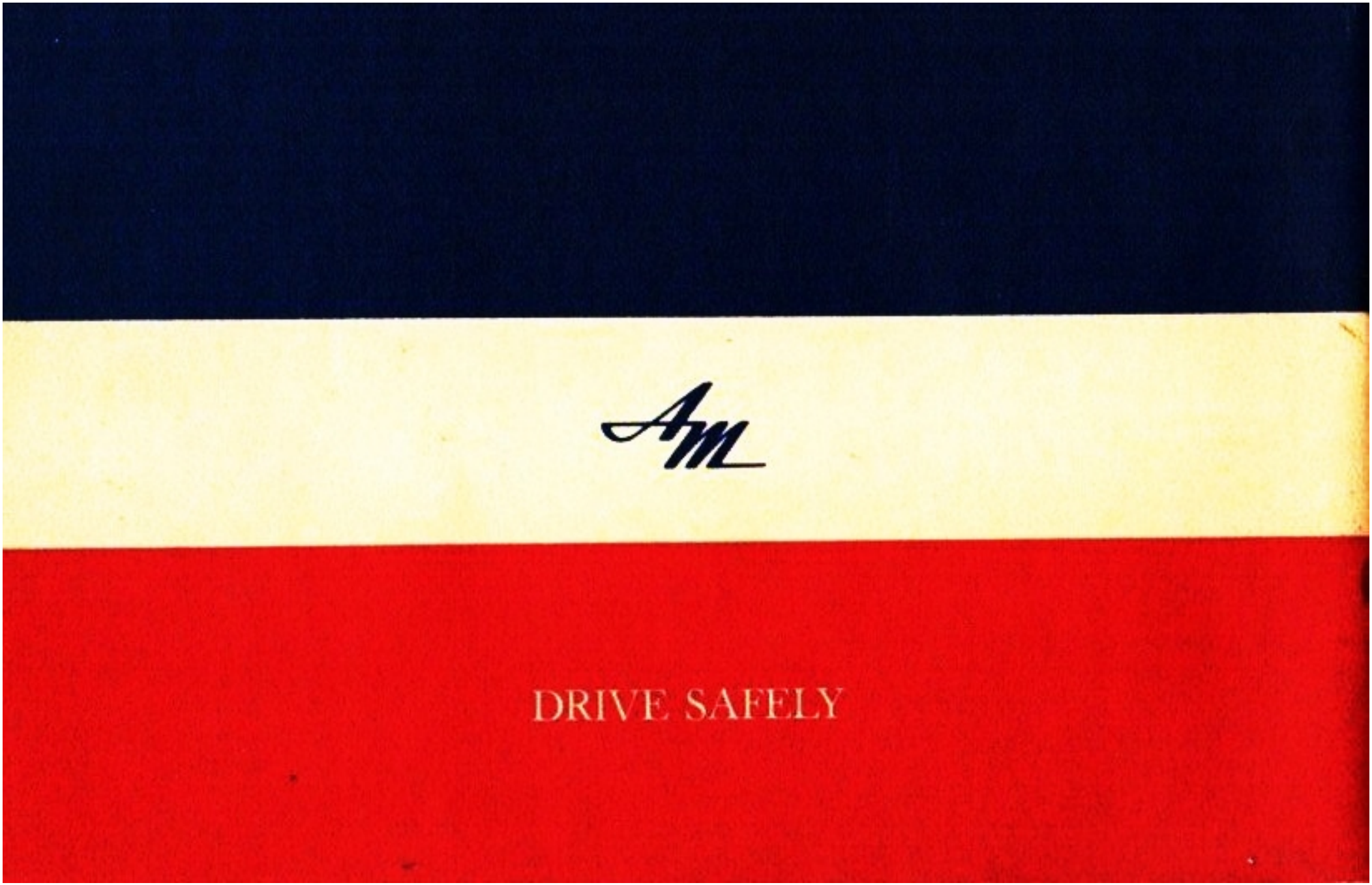
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