



OWNER'S MANUAL

1982



Checker Motors Corporation
KALAMAZOO, MICHIGAN 49007

**TAXICAB
MARATHON**

Know

Your

Checker



You'll enjoy driving your new Checker much more after you have acquainted yourself with its many features and advantages. This manual gives you valuable information about the operation and maintenance of your new vehicle and important safety information. It is supplemented by three convenient folders which provide additional consumer information, vehicle maintenance, emission controls and warranties. We urge you to read these publications carefully and follow the recommendations recorded to assist in the efficient operation of your Checker vehicle. The serial number of your Checker is affixed in five separate locations. (1) On a reference plate attached to firewall in the engine compartment, (2) at left upper corner of dash panel, (3) on the rear surface of left front door post, (4) on boss located on left side of transmission, and (5) at front of cylinder block top surface on right hand bank.

CONTENTS

Owner Service Certificate	3	Service and Maintenance	15, 16, 17, 18, 19
Doors and Locks.....	3	Guide To Minor Trouble Shooting	19
Instruments and Controls.....	4, 5, 6, 7, 8, 9, 10	Electrical System Service.....	20, 21, 22
Automatic Transmission.....	10, 11	Trac-Lok Rear Axle (Optional).....	22
Getting Underway	11, 12	Lubrication Chart—Marathon and Taxicab	22, 23
New Car Break-In	12	Specifications—Marathon and Taxicab	23
Fuel Requirements (Gasoline Engines)	12	Fuel Economy	24
Tips for Driving on Sand, Snow or Ice.....	12	Gas Station Information	24
Wheel and Tire Care	13, 14	Parts and Service Information.....	25
Appearance.....	15	Index	26

OWNER SERVICE CERTIFICATE

When you accepted delivery of your Checker vehicle, you received an Owner Service Certificate issued by your dealer. The Warranty on your Checker is a part of your Service Certificate and is printed in full therein. Parts replaced under the agreement are done so without charge for materials or labor by any authorized Checker dealer in the United States and Canada. Be sure that your dealer has issued your Service Certificate: it will identify your vehicle to any Checker dealer.

All information, illustrations and specifications contained in this manual are based on latest product information available at the time of publication. The right is reserved to make changes at any time without notice.

DOORS AND LOCKS

FOR YOUR CONVENIENCE you received two sets of keys. The square-shaped key operates the ignition, while the doors, glove compartment and trunk are operated by the round-headed key. As a safety precaution, we suggest that you remove the knock-out portion of each key which contains the identifying key number and place them in a safe place for future reference. This can be accomplished by using a small hammer and punch.

To lock doors from the outside: All doors may be locked without the key by depressing the in. side locking button and then closing the door.

To lock doors from the inside: Any door may be locked from the inside by merely pushing down on the lock button.

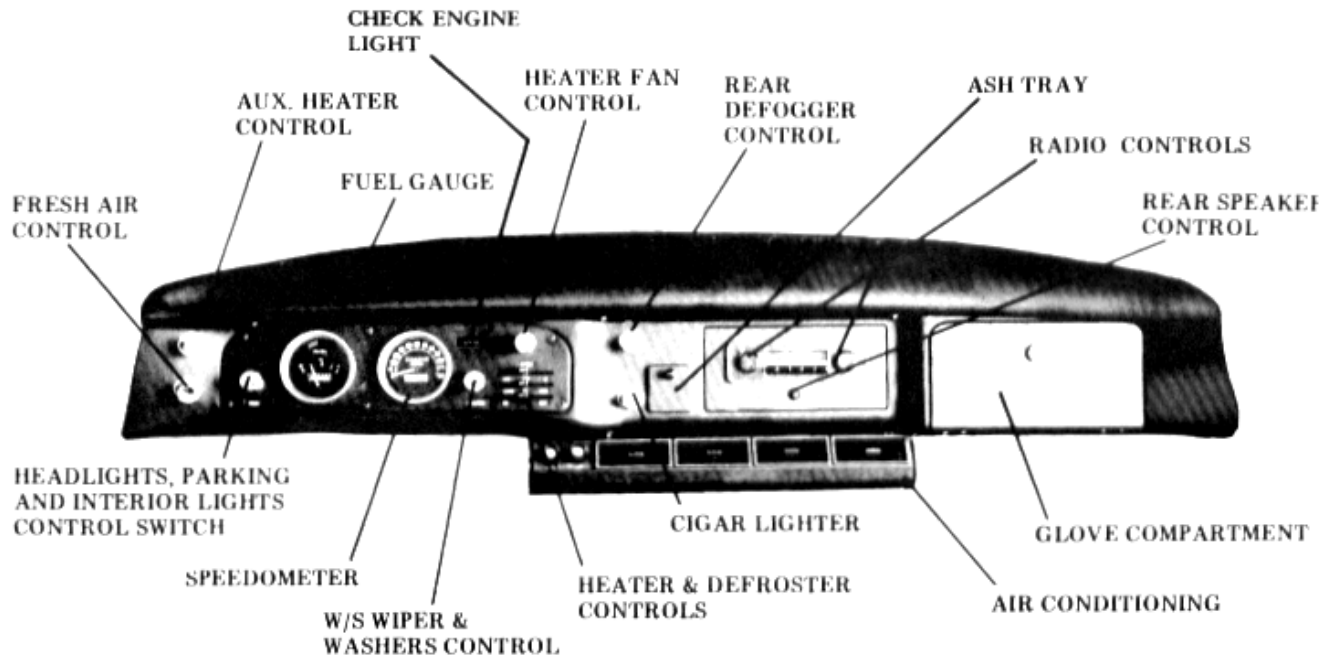
To unlock front doors from the outside: Turn your key forward, then return to vertical position. Now push-in the button on the door handle and open door.

To unlock doors from the inside: If the door is locked, you must pull the door lock button upward before the door handle can be raised.

TRUNK LOCK. You can unlock the trunk by turning the round-headed key ¼ turn to the right until the latch snips open. Return the key to the vertical position for removal.

IF A LOCK FREEZES. If your trunk or door locks freeze in cold weather, heat the end of the key for a few seconds with a match or cigarette lighter--- then place the key in the lock and open. It may be necessary to repeat the procedure several times. Do not force a key that will not turn, as this may result in the key breaking in the lock .

INSTRUMENTS AND CONTROLS



INSTRUMENTS AND CONTROLS for operating your new Checker are conveniently positioned so that you can see and use them with ease. As you drive, you will become familiar with their operation and location.

INSTRUMENTS, gauges and warning lights will show at a glance many important things about your car's performance. Familiarize yourself with their purpose and location. Make it a habit to scan the instruments after you start the motor and frequently while driving.

AUXILIARY HEATER CONTROL. Optional auxiliary underseat heater is controlled by a push-pull switch with two (2) stops. The first is SLOW fan speed and the second is FAST.

FRESH AIR CONTROL KNOB. Use it to increase ventilation and to control the amount of fresh air entering your car. This knob operates the left-hand vent. Pull out to increase air flow. Push in to decrease air flow.

HEADLIGHT, PARKING LIGHTS & INTERIOR LIGHTS are operated by a single switch. Pull knob outward to the first of two positions, the switch turns on the parking lights, tail-lights, license light, and side marker lights. At the second position, all the lights, plus the headlights, are on. Both positions illuminate the instrument panel lights, which can be dimmed or turned off by turning the switch knob clock-wise. Turn switch counter clock-wise to turn on interior lights (switch must be in first or second position).

FUEL GAUGE shows you the approximate level of gasoline in the fuel tank when the ignition is on. The position of the pointer will vary slightly during acceleration, braking, and when you are going up or down a hill.

SPEEDOMETER. Your car's forward speed, in kilometers per hour (k.p.h.) and miles per hour (m.p.h.), is shown on 1 Speedometer. The Odometer (mileage gauge), located beneath the Speedometer, records the total mileage that your Checker has been driven and is useful for keeping track of maintenance and gas mileage.

WINDSHIELD WIPERS are electric operated and turned on by rotating the wiper knob to the right. The first position is slow: the second position is fast.

WINDSHIELD WASHERS are operated by first turning the windshield wiper knob to the right to either the slow (fast position), and then pressing the wiper control knob. Pressing and holding the knob in will send water or cleaning fluid agent onto the windshield. Keep the container and the hood filled at all times. A cleaning solvent aids in the cutting of road film and grease from the windshield, and recommended for constant use when temperature is above freezing. The solvent will not prevent the spray from freezing on the glass, so do not attempt to clean the windshield in freezing weather unless cold weather precautions have been taken.

When temperatures of freezing or below can be expected you should use windshield washer anti-freeze and pre-warming the windshield with your defrosters before using the washers. Fill reservoir only 3/4 full in winter to allow for expansion if the solution should freeze. NOTE: To assure yourself of proper operation of your windshield washers, the washer reservoir should be cleaned and refilled at least twice annually to remove any deposits that may plug-up the system.

INSTRUMENTS AND CONTROLS

HEATER FAN CONTROL. Both heating and defrosting are accomplished with a single three-speed fan by rotating control knob to the right. First position is slow—second position is medium—third position is fast.

HEATER AND DEFROSTER CONTROLS. Your Checker's heater-defroster unit is a fresh-air type unit that provides effective year-round control of temperature. Both heating and defrosting are accomplished with a single blower. The amount of air and the direction of its flow are controlled by the sliding levers on the heater-defroster combination.

For maximum heating: Set the bottom lever marked "DEF at HEAT the center lever marked "AIR" at OPEN and the top lever marked "TEMP" at HIGH — then turn the heater's fan switch in a clockwise direction for the desired fan speed. For fast defrosting or to remove very heavy frost: Set the bottom lever at DEFROST, the center lever at OPEN and the top lever at HIGH — then turn fan control knob to desired speed.

For normal winter driving: Keep the bottom lever at HEAT and the center lever at OPEN. The top lever may then be positioned anywhere between LOW and HIGH to attain the desired temperature. The fan may be turned on at any time to speed circulation of air.

CIGAR LIGHTER. To use, merely depress the lighter knob, The lighter will stay-in until heated and automatically snap-out when it has reached the proper temperature.

REAR WINDOW DEFOGGER is an optional equipment item. It is controlled by a single pull-knob control. Switch has two blower speed positions, slow and fast. To operate, simply pull knob outward to position desired. Defogger is turned off by pushing knob forward.

ASH TRAYS. Your Checker has an ash tray in the center of the dashboard and two in the passenger compartment, on each door. To remove front ash trays, merely press down on the snuffer plate and pull out. Rear ash trays must be lifted out of ash tray

RADIO (Optional) Stations are selected with five pushbuttons, A manual station selector knob is on the right of the console, while the knob on the left acts as the on-off switch, volume control and tune control. To reset any selector button on your console radio or to tune in another station within range, turn on the radio and let it play for about ten seconds to warm it up. Next, pull the button to be reset straight out until it stops. Then turn the tuning knob to the station setting you want for the button. When the sound is clearest and loudest, push the selector button all the way in to lock it to the station setting.

REAR SPEAKER CONTROL Optional equipment This control enables you to blend or modulate the volume of the front and rear

seat speakers. As the control knob is turned counterclockwise the volume from the rear speaker is increased, Turning the knob clockwise increases the front speaker volume. The center position of the knob gives approximately equal volume from front and rear speakers.

GLOVE COMPARTMENT. It has been furnished with a lock and may be locked or unlocked with the round-headed key that is used to operate the door and trunk locks.

AIR CONDITIONING. (Optional) The Checker air conditioner selectively controls cool, dry air which circulates within the car. The air conditioning controls are located on the L.H. front face of the evaporator housing, which is mounted under the dash in the center of the vehicle. The R.H. control knob is the on-and-off switch as well as regulating the fan speed from low to medium to high in three stages by turning control knob to right. The L.H. control regulates air conditioning unit air temperature. Coldest setting is obtained by turning knob to extreme right.

Individually selective air flow is possible by adjusting the swivel louvers, mounted across the face of the evaporator. The louvers can be aimed to circulate air in various directions.

Fresh outside air may be mixed with circulating air in the car at any time by opening the vent window or the fresh air intake. The fresh air intake is the push-pull chrome plated knob located at the far left of the instrument panel. If the car has been parked in the sun with the windows closed, maximum cooling rate can be had in a short time by opening the windows for a brief period when starting to drive. This will exhaust the accumulated warm air. After driving a short distance, simply close the windows for maximum cooling. In winter it is advisable to operate the air conditioner at short intervals to assure protective lubrication of working parts. Annual air conditioning system inspection by an authorized Checker dealer is recommended.

NOTE: It is advisable to start the engine before operating the air conditioner to reduce the battery load and provide easier starting.

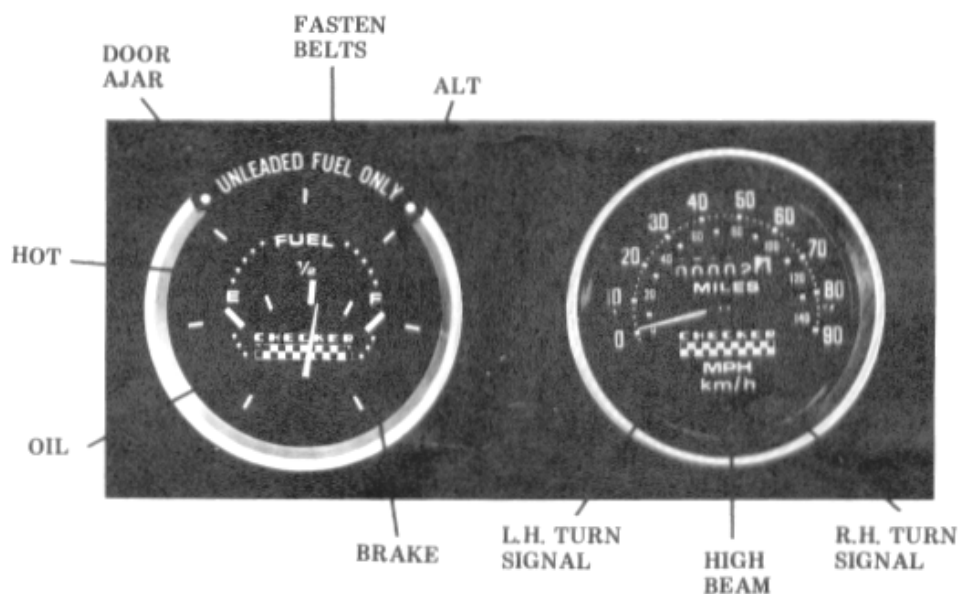
"CHECK ENGINE" LIGHT.

A "CHECK ENGINE" light on the instrument panel is designed to come on during engine starting to let you know the bulb is working. (The light will stay on a short time after the engine starts.) If the light comes on while driving, service to the Computer Command Control system may be required. Although the vehicle may be drivable, see your Checker dealer as soon as possible for an inspection of the system.

Continued driving without having the Computer Command Control system serviced could eventually cause damage to the emission control system

See also "Computer Command Control system" in the "Service and Maintenance," Section of this manual.

INSTRUMENTS AND CONTROLS



FUEL GAUGE

SPEEDOMETER

DOOR AJAR WARNING LIGHT is operational with ignition on or off when any door or doors are not completely closed.

SEAT BELT WARNING LIGHT. The front seat belts are linked to a buzzer and light which remind occupants to fasten seat belts. (See Page 9)

HOT-ENGINE TEMPERATURE LIGHT. A red signal light "HOT" will appear momentarily when starting the car to let you know that it is operating. The only other time the "HOT" light should appear is when the engine reaches an abnormally high temperature. If the light comes on during extreme driving conditions, such as an extended idle, turn off the air conditioner (if used) and run the engine slightly faster than idle speed with the transmission in neutral. If the light does not go off within a short period of time (1-2 minutes) then turn off the engine until the cause of overheating is corrected.

ALTERNATOR WARNING LIGHT. A red light "ALT" will appear with the ignition key in the "on" position and the engine not running. This light indicates the warning signal is operational. When the engine is started, the warning light should go out. If the red light comes on with the ignition key in the "off" position or with the engine running, have the charging system checked for malfunction.

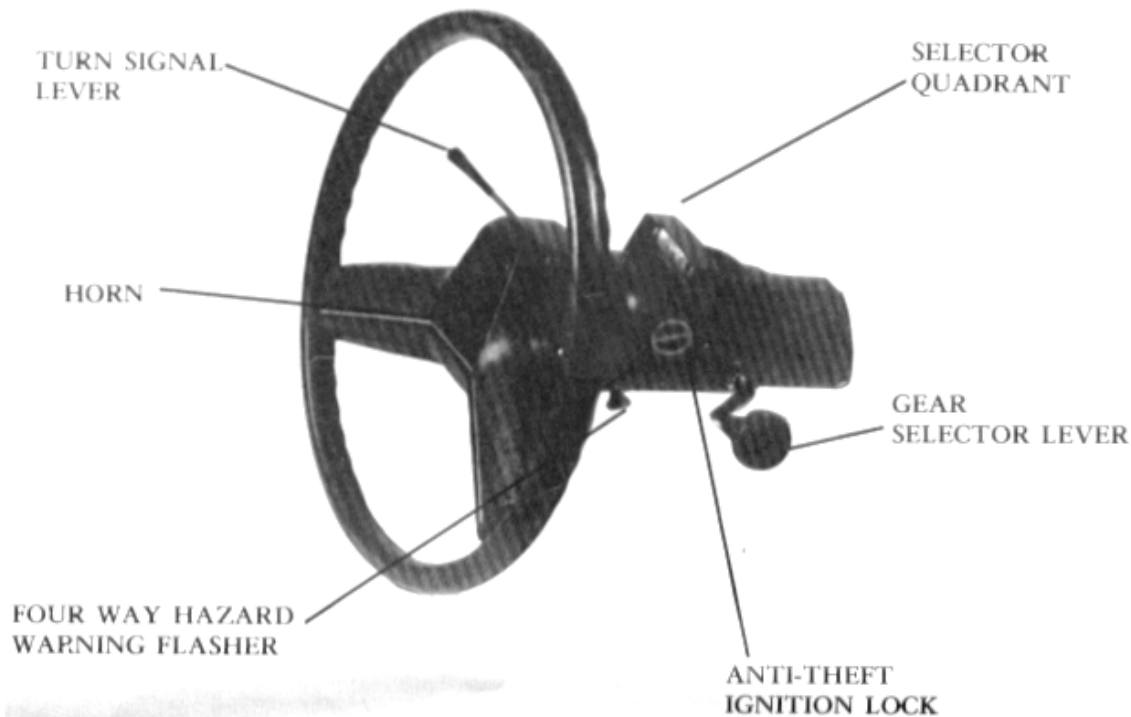
OIL – ENGINE OIL PRESSURE LIGHT. A red light "OIL" will appear when the ignition is turned "on" informing you that the warning light is operational. When the engine starts and oil pressure builds up, the light will go out. Should the light go on while driving, stop the engine immediately and check the cause for the low oil pressure. This could be the result of dangerously low oil level in the crankcase. Driving the car with low oil pressure can cause extensive engine damage.

BRAKE SYSTEM WARNING LIGHT. If low pressure has developed in either the front or rear brake systems, this light will come on when the brake pedal is depressed. Have your Checker dealer locate and correct the trouble immediately. To assure you of proper operation, the Brake System Warning Light will operate each time the ignition switch is placed in start position. This same warning light indicates that the parking brake is applied.

TURN SIGNAL ARROWS indicate operation of the left and right turn signal.

HIGH BEAM INDICATOR will light up whenever the head light high beams are being used.

INSTRUMENTS AND CONTROLS



TURN SIGNAL LEVER, located on the left side of the steering column, is operated by moving the lever in the direction of the desired turn — upward for a right turn — down to turn left. The signal lever automatically returns to a neutral position after the turn has been completed. Lane change feature is also included — a slight pressure in either direction will operate turn signal, which will return to normal when pressure is released.

SELECTOR QUADRANT. Located on top of steering column. Refer to page 11.

HORN. The horn on your Checker is actuated by firmly pressing on the pad in the center of the steering wheel. As a good motorist, use of the horn should be kept at a minimum. However, acquaint yourself as soon as possible with this function of your car in order to be able to give a warning to a pedestrian or another motorist if necessary.

GEAR SELECTOR LEVER is positioned on the right side of the steering column. Refer to page 11.

FOUR WAY HAZARD WARNING FLASHER. In an emergency the switch is activated by simply pushing it in causing all four turn signals to flash simultaneously. It is cancelled by pulling outward.

The turn signals do not work when the hazard flashers are on. If the brake pedal is depressed, the lights will not flash; they will stay on until the brake is released.

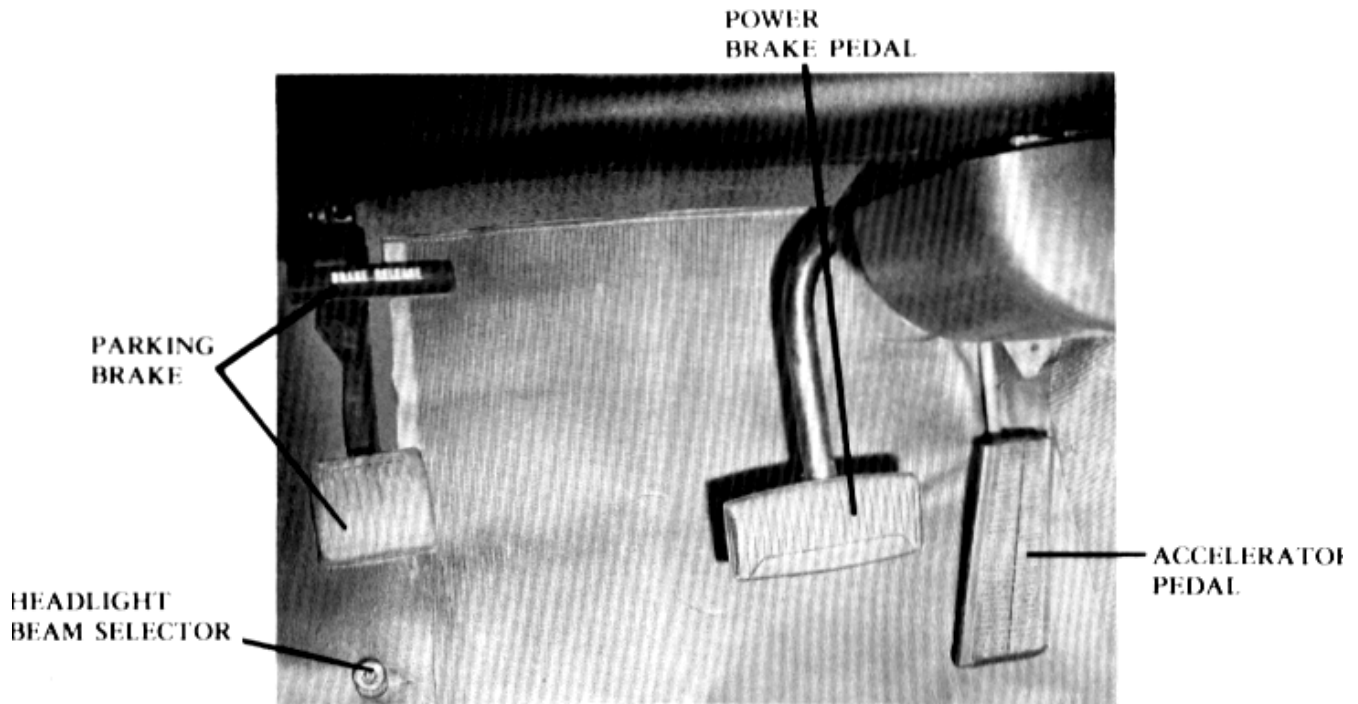
ANTI-THEFT IGNITION, STEERING AND TRANS.

MISSION LOCK. The anti-theft lock, located on the right side of the steering column, has five positions. Starting from the full counterclockwise position, they are accessory, lock, off, run and start. In “lock” position, the steering and shift mechanisms are automatically locked along with the ignition system to provide added theft protection for your car. The transmission selector lever must be in “park” position before the key can be turned to the “lock” position. The ignition switch “accessory” position permits operation of electrical accessories when the engine is not running. The “off” position is provided so that the ignition can be turned off without locking the steering column or transmission linkage.

To start engine, as well as operate other electrical circuits, insert key and turn clockwise. Release pressure on key as soon as engine starts. The ignition key can be inserted or withdrawn only when the switch is in “lock” position.

BACK-UP LIGHTS turn on automatically when the ignition is on and when the transmission is in reverse. They illuminate the rear area, behind your car and warn drivers and pedestrians that you are operating in reverse.

INSTRUMENTS AND CONTROLS



PARKING BRAKE PEDAL must be firmly pushed down to apply the parking brake. To release the brake, pull the brake release lever, located to the left and below the dash. The "Brake" warning light operates when the brake is applied and ignition is on.

POWER BRAKE PEDAL on your Checker is designed to allow you to retain "pedal feel" even though the effort needed to apply the brakes is greatly reduced. This system uses a built-in protection that provides 2 to 3 power-assisted applications after the engine is shut off. When parking on steep grades, set the parking brake. Do not release the parking brake until you have started the engine. Check the power brake fluid reservoir at mileage intervals shown in maintenance schedule.

Try to avoid sudden stops during the break-in period of your car. Slow, gradual stops will enable the brake linings to wear-in uniformly for longer life.

ACCELERATOR. Your foot on this pedal determines how your car will react under all driving conditions. A heavy foot on the gas pedal will cause your car to accelerate faster than if you had used light pressure - but fast acceleration is seldom a necessity, and often dangerous. While your Checker's economy of operation is greatly affected by traffic conditions and the load in your car it is chiefly determined by your rate of acceleration. Real gas economy can only be attained through intelligent use of your gas pedal.

HEADLIGHT BEAM SELECTOR enables you to use two beams for varying night driving conditions. The low beams provide the necessary light on lighted roads and streets.

The high beams give you better long-range visibility on dark roads. To change from one set of beams to the other, simply press the beam selector, located on the left end of the floor board, with your left foot. A small green indicator light, located at lower center of the speedometer, will light up whenever the high beams are in use.

SEAT ADJUSTMENT is accomplished by moving the control knob (located at the left side of the front seat) to the rear and sliding the seat forward or backward to the desired position.
NOTE: Adjust the seat only when the car is at a standstill.

REAR VIEW MIRROR. The center location of the rear view mirror allows you to see traffic conditions behind, with only a slight eye movement necessary. Get in the habit of glancing in your rear view mirror as you drive.

SUN VISORS control the sun's glare through the windshield and windows by tilting in both a downward and outward direction.

HEAD RESTRAINTS. Head restraints are provided to reduce whiplash injuries. Do not remove.

SEAT BELT RESTRAINT SYSTEM.

Lap and shoulder belts provide added security and comfort for you and your passengers. Proper use and care of these belts will assure continuance of this security.

INSTRUMENTS AND CONTROLS

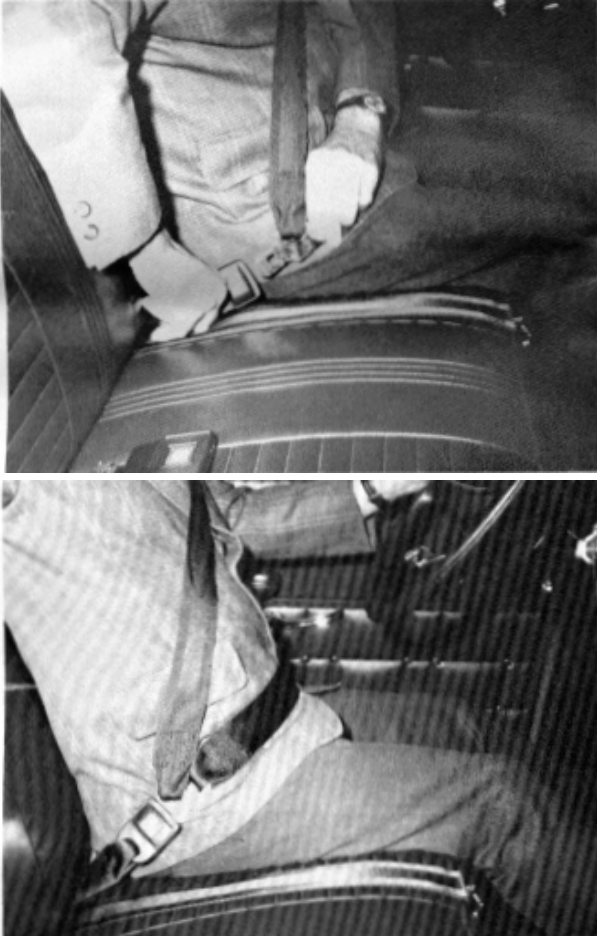
FRONT SEAT LAP-SHOULDER BELT COMBINATION

Adjust front seat to satisfaction of driver and sit erect and well back in seat.

In a single motion, pull the lap-shoulder belt webbing across lap far enough to permit inserting metal latch plate end of belt into the buckle, until a snap is heard. If webbing is not pulled out far enough to reach buckle, let lap belt rewind into its retractor to release lock mechanism, so belt can be pulled out to the proper length.

Position “lap” portion of belt across lap as LOW ON HIPS as possible. To reduce the risk of sliding under belt during an accident, adjust to SNUG FIT by pulling belt firmly across lap in direction of lap belt retractor so it can take up slack. The belt retractors are designed to automatically take up excess webbing.

The front seat shoulder belts in this vehicle are equipped with a “web sensitive retractor” which is designed to grip the belt *only* during a sudden stop or impact. At other times it is designed to move freely with the occupant.



CAUTION: A snug fit in a low lap belt position are essential to lessen the chance of injury in the event of an accident because this spreads the force exerted by the lap belt in a collision over the strong hip bone structure rather than across the soft abdominal area. To help lessen the chance of injury in the event of an accident—never use the belts in a twisted condition; and do not allow belts or hardware to become pinched between the seat structural (metallic) members or in the door.

For best restraint the slight tension on the shoulder caused by the shoulder belt retractor is desirable.

To unfasten belts, depress push button in center of buckle.

When no longer in use, front seat lap-shoulder belts can be stowed by allowing them to rewind into their retractors.

NOTE: Take care not to let the “lap” portion of the belt twist while it is being rewound into the retractor. The bulk of the twisted belt may cause the retractor to jam so it will not rewind further, while at the same time the retractor locking mechanism may prevent the belt from being withdrawn, If your retractor becomes jammed, or other parts of the restraint system do not operate properly take the vehicle to your dealer for service.

BELT RESTRAINT BUZZER/LIGHT REMINDER

When the ignition key is turned to On or Start, a reminder light is designed to come on for four to eight seconds, to remind occupants to fasten their belt restraints.

If the driver has not buckled his belt restraint prior to turning the key to On or Start, a buzzer is designed to sound for four to eight seconds to remind him to do so.

If the belt restraint system or reminder system does not work as described, see your Checker dealer for information and assistance.

LAP BELTS FOR REAR SEAT AND CENTER FRONT SEAT PASSENGERS

Seating positions next to side windows have retractors which are designed to automatically take up excess webbing. These belts should be positioned, secured and released as described above under “Lap-Shoulder Belt Combination.”

Lap belts at center seating positions also should be positioned, secured and released as described above, and adjusted to a SNUG FIT by pulling on the end of the belt extending from the adjustable latch plate.

To lengthen lap belt at center seating positions place adjustable latch plate at right angles to the belt webbing and pull on latch plate; belt should then slide easily through the adjustment feature.

BELT RESTRAINT INSPECTION

Periodically inspect belts, buckles, adjustable latch plates, retractors, reminder systems, and anchors for damage that could lessen the effectiveness of the restraint system.

Keep sharp edges and damaging objects away from belts, and other parts of restraint system.

Replace belts if cut, weakened, frayed, or subjected to collision loads.

Check that anchor mounting bolts are tight. Have questionable parts replaced.

Keep belts clean and dry.

Clean only with mild soap solution and lukewarm water.

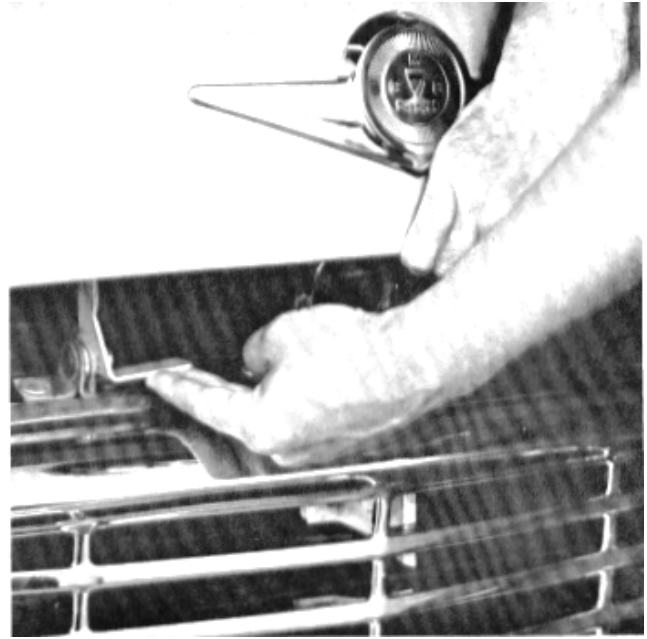
Do not bleach or dye belts since this may severely weaken belts.



HOOD RELEASE LEVER

HOOD RELEASE LEVER is located just behind the upper center opening in the grille. To operate, move lever to your left to release the hood lock, as demonstrated above.

HOOD SAFETY CATCH is located left of center between



HOOD SAFETY CATCH

To operate, lift hood slightly and reach between grille and hood to release safety catch. The spring-balanced hood will remain up without assistance. Do not hold the release lever while closing hood.

AUTOMATIC TRANSMISSION

The Checker Marathon and Taxicab are equipped with a Turbo Hydra-Matic 400 Automatic Transmission as standard equipment. The selector quadrant used with this transmission has six positions: (P) Parking (Lock and starting), (R) Reverse, (N) Neutral and starting, (D) Complete driving range, (S) Limited driving range and (L) Low. The selector lever should slide smoothly between “N” and “D” but for safety, it must be raised slightly to engage “P”, “R”, “S”, and “L” positions.

P - Park. A positive transmission lock when parking or while starting the engine. The selector lever must be raised slightly to move in or out of the Park position. Do not move the lever to the Park position while vehicle is in motion.

R - Reverse. Enables vehicle to be operated in a reverse direction. Always bring vehicle to a complete stop before moving the selector lever into reverse.

N - Neutral. The out of gear position. It is provided for starting a stalled engine while the vehicle is in motion and for running the engine while standing with the brakes applied. Do not coast in neutral.

D - Drive Range. The driving range is for normal city and highway driving. This position permits the transmission to operate automatically through its complete range of gear ratios; low, intermediate and high and to select the proper ratio for load and road conditions.

S - Super Range. Used when super performance is needed, such as: for increased acceleration in traffic, hill climbing, or “engine braking” downhill. The selector lever may be moved from “D” to “S” and visa versa, at any vehicle speed. It is suggested this range be used sparingly as its continued use will result in increased gasoline consumption.

L - Low. For use in deep sand, mud or snow, ascending or descending steep grades. The selector lever may be moved to “L” position at any speed, but the transmission will only shift automatically into low range when car speed is under approximately 48 km/hr (30 m.p.h.). The transmission will not upshift from low range as long as the selector lever is in “L” Position.

CAUTION: Before descending a steep or long grade, down mountain or hillside, reduce speed and shift into a low gear. Under such conditions, use the brakes sparingly to prevent them from overheating and reducing brake effectiveness.

WHILE VEHICLE IS IN MOTION, DO NOT SHIFT INTO “L” WHEN TRAVELING ON SLIPPERY ROADS

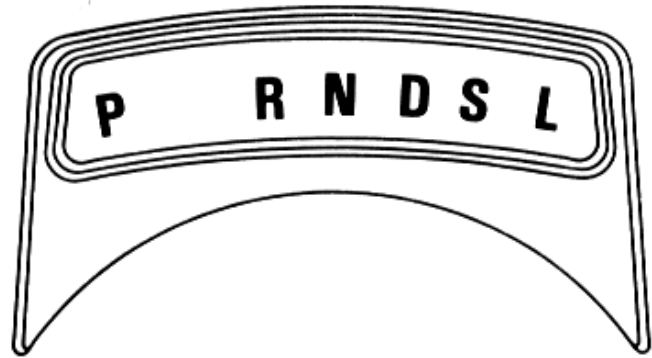
TOWING. Your Checker Vehicle may be towed on all four wheels, at speeds of less than 56 km/hr (35 m.p.h.), for distances up to 80 kilometers (50 miles), provided driveline axle and transmission are otherwise normally operable. For such towing, parking brake must be released, transmission must be in neutral and ignition lock turned to “OFF” position. Attachments must be to main structural members of the vehicle, not to bumpers or bracketing. Safety chains or cables should be used. Remember that power brake and steering assists will not be available when engine is inoperative.

AUTOMATIC TRANSMISSION

If vehicle must be towed beyond the 80 kilometers (50 mile) limit then it will be necessary to lift the rear wheels off the ground or remove the driveshaft. When towing your vehicle on its front wheels, the steering wheel should be secured to maintain a straight forward position. Never tow your vehicle, in this manner, at speeds exceeding 32 km/hr (20 m.p.h.).

FORCED 1)OWNSHIFT. When quick power or acceleration is desired to pass moving vehicles or to climb steep grades at speeds between approximately 56 and 88 km/hr (35 and 55 m.p.h.), the transmission can be downshifted by depressing the accelerator pedal completely to the floor. It is also possible to obtain a forced downshift in "Drive" range at speeds under 48 km/hr (30 m.p.h.) by depressing the accelerator pedal part way down.

FREEING VEHICLE FROM SAND, ETC. If it becomes necessary to rock the vehicle to free it from sand, mud or snow, move the selector lever from "D" to "R" in a repeat pattern while simultaneously applying moderate pressure to the accelerator. Do not race the engine. Time the shift between gears to take advantage of the rocking motion of vehicle. If you are unable to free vehicle with this procedure, have it pulled out to prevent overheating and possible damage to the transmission.



AUTOMATIC TRANSMISSION DRIVING CAUTIONS

1. Do not accelerate in L, D or R with the brakes engaged - as this can cause damage to the transmission.
 2. Do not use Low except for hard pulls at low speeds or for downhill braking.
 3. Do not shift into Reverse without first coming to a complete stop.
1. Always engage the parking brake when parking your car.

GETTING UNDERWAY

ALWAYS FASTEN YOUR SEAT BELTS AND ADJUST BOTH INSIDE AND OUTSIDE REARVIEW MIRRORS.

STAR TING THE GASOLINE ENGINE

To start an optional diesel engine, see "Diesel Engine Supplement"

1. Apply the parking brake.
2. Move the transmission shift lever to "P" (Park) or "N" (Neutral) ("P" preferred). A starter safety device is designed to keep the starter from operating if the shift lever is in any drive position. (If you need to re-start the engine while the vehicle is moving, move the shift lever to "N.")

NOTICE: Do not crank the engine for more than about 15 seconds at a time. Wait 10 to 15 seconds before trying again. This will help prevent damage to the starter.

• COLD ENGINE

Press the accelerator pedal to the floor and slowly release it. With your foot off the pedal, crank the engine by turning the ignition key to "Start." Release the key when the engine starts. If the engine starts, but fails to run, repeat this procedure. When the engine is running smoothly (about 30 seconds), you can reduce the engine idle speed by pressing down on the accelerator pedal, then slowly releasing it.

NOTICE: If the engine runs a long time (5 minutes or more) without pressing down the accelerator pedal, overheating could cause damage to the engine and exhaust system. Do not leave your vehicle unattended with the engine running. If the engine should overheat, you would not be there to react to the temperature warning light. This could result in costly damage to your vehicle and its contents.

• Warm Engine

Do not press down the accelerator pedal. With your foot off the pedal, crank the engine by turning the ignition key to "Start." If the engine does not start after 3 seconds of cranking, press down the accelerator pedal to 1/3 of its travel while cranking. Release the key (and accelerator pedal) when the engine starts.

- Very Cold Weather (Below -18°C Or 0°F Or After Vehicle Has Been Standing Idle Several Days) - Before cranking the engine, fully depress and release the accelerator pedal one or two times more than stated for your engine under "Cold Engine" starting. Then, with your foot off the accelerator pedal, crank the engine by turning the ignition key to "Start." Release the key when the engine starts.
3. Apply the regular brakes and shift into the proper gear. Release the parking brake and drive off.

If Engine Fails To Start After Normal Starting Procedure:

1. If you tried the cold engine starting procedure and the engine did not start, then fully depress and release the accelerator pedal several times. Take your foot off the pedal and crank the engine by turning the key to "Start."
2. If you tried the warm engine starting procedure (or the cold engine procedure and Step 1 above), and the engine still does not start, press the accelerator pedal to the floor and hold it there while cranking the engine. This should clear the engine if it is flooded.
3. If the engine has been flooded with too much fuel, it may start to run but not have enough power to keep running. In that case, continue cranking with the accelerator pedal all the way to the floor until the engine clears itself of excess gasoline and runs smoothly. (But, do not crank more than 15 seconds at a time or you could damage the starter.)

Parking

When leaving your car unattended:

- Set parking brake.
- Place automatic transmission selector in Park.
- Turn key to LOCK position.
- Remove key (the buzzer is designed to remind you).
- Lock all doors.

IMPORTANT: Do not park your car over combustible materials, such as grass or leaves, which can come into con-

tact with the hot exhaust system and cause such materials ignite under certain wind and weather conditions.

NOTICE: Do not leave your car unattended with the engine running. If the engine should overheat while your car is unattended, the temperature warning light or gauge would go unheeded, which could result in extensive damage your car.

CAUTION: Never start or run your engine in a closed garage. Carbon Monoxide gas, produced by the engine in every car, is poisonous and odorless. You cannot detect its presence.

NEW CAR BREAK-IN

You can operate your new car from its very first mile without adhering to a formal “break-in” schedule. However, during the first few hundred miles of driving you can, by observing a few simple precautions, add to the future performance and economy of your car.

It is recommended that your speed during the first 800 kilometers (500 miles) be confined to a maximum of 88 km/h (55 M.P.H.), but do not drive for extended periods at any one

constant speed, either fast or slow. During this period, avoid full throttle starts and, if possible, avoid hard stops especially during the first 320 kilometers (200 miles) of operation since brake misuse during this period will destroy much future brake efficiency.

Always drive at moderate speed until the engine has completely warmed up.

FUEL REQUIREMENTS (GASOLINE ENGINES)

Your gasoline engine is designed to use only unleaded gasoline. Unleaded gasoline must be used for the emission control system to operate properly. Its use will also reduce spark plug fouling, exhaust system corrosion and engine oil deterioration.

Using leaded gasoline can damage the emission control system and could result in loss of emission warranty coverage. The effectiveness of the catalyst in the catalytic converter decreases after use of as little as one tank of leaded gasoline. Also, your vehicle has the “Computer Command Control” system, which includes an oxygen sensor. Leaded gasoline will damage the sensor, and deteriorate emission control. (For more information, see “Computer Command Control System” in the “Service and Maintenance,” section of this manual. Federal regulations require that pumps delivering unleaded gasoline be labeled with the word UNLEADED. Only these pumps have nozzles which fit the filler neck of your vehicle’s gasoline tank.

In the United States, Federal law also requires that gasoline octane ratings be posted on the pumps. The octane rating shown is an average of Research octane (R) and Motor octane (M). In most parts of the United States, you should use unleaded gasoline with an octane rating of at least 87. However, you may use unleaded gasoline with an octane rating as low as 85 in these high-altitude areas: Colorado, Montana, New Mexico, Utah, Wyoming, northeastern Nevada, southern Idaho, western South Dakota, and that part of Texas which is directly south of New Mexico.

Using unleaded gasoline with an octane rating lower than stated above can cause persistent, heavy “spark knock”

(Spark knock” is a metallic rapping noise.) If severe, this can lead to engine damage. If you detect heavy spark knock even when using gasoline of the stated octane rating, or if you he steady spark knock while holding a steady speed on level roads, have your dealer correct the problem. Failure to take steps to stop such knocking is misuse of the vehicle, for which Checker Motors is not responsible. However, now and then you may notice light spark knock for a short time while a accelerating or driving up hills. This is no cause for concern because you get the greatest fuel economy benefit from the gasoline’s octane rating when there is occasional light spark knock. Using gasoline with a higher octane rating than that which allows occasional spark knock is an unnecessary expense.

Gasohol

Gasohol, a mixture of unleaded gasoline and ethanol (grain alcohol), is available in some areas. You may use gasohol your vehicle, provided it is no more than 10% ethanol. Insure the gasohol has octane ratings no lower than that recommended above for unleaded gasoline. Some cars using gasohol could run leaner (this means that the engine is acting as if it is not getting enough fuel). Most drivers will not notice a difference, but some may. In that case, your authorize dealer can make certain adjustments, provided they do not violate the Federal Clean Air Act (or the Canada Motor Vehicle Safety Act). If you are still not satisfied with gasohol performance, you may prefer to use unleaded gasoline

NOTICE: Take care to not spill gasohol on painted Surface Gasohol can cause paint damage, which may not be covered under the new vehicle warranty.

TIPS FOR DRIVING ON SAND, SNOW OR ICE

If you should have to drive your Checker through loose sand or deep snow, shift the transmission to L position to keep moving at a steady pace. Avoid spinning the wheels ——— this will only cause them to dig deeper into the sand or snow. It is advisable to keep snow tires and chains at your disposal for when traction is extremely poor.

Should your rear wheels get stuck, keep a light, steady pressure on the accelerator Do not race the engine. Shift back and forth between Rand I) positions. Time the shift between gears to take advantage of the rocking motion of your car. If you are still stuck after rocking the car, have it

pulled out to prevent overheating and possible damage to the transmission.

To move your car on smooth ice, accelerate slowly to avoid spinning the wheels and skidding. All driving maneuvers made on ice should be slower than usual in order to maintain control To stop, pump your brake pedal lightly to avoid sliding. If your car should skid, turn the steering wheel (not sharply) in the direction that the rear end is skidding—then slowly accelerate to straighten out.

WHEEL AND TIRE CARE

TIRES

The tires installed on your car are engineered to provide a proper balance of these performance characteristics under normal driving conditions:

- Endurance
- Handling
- Noise
- Ride
- Road Hazard Resistance
- Rolling Resistance
- Traction
- Tread Mileage

This section contains some tips on how you can obtain the most benefit from these tires.

INFLATION PRESSURE. The cold inflation pressures listed on the Tire Placard provide for the best balance of tire life, riding comfort, and car handling under normal driving conditions.

Incorrect tire inflation pressures can have adverse effects on tire life and car performance. Too low an air pressure causes increased tire flexing and heat build-up. This weakens the tire and increases the chance of damage or failure. It can result in tire overloading, abnormal tire wear, adverse car handling, and reduced fuel mileage. Too high an air pressure can result in abnormal wear, harsh ride, and also increase the chance of damage from road hazards.

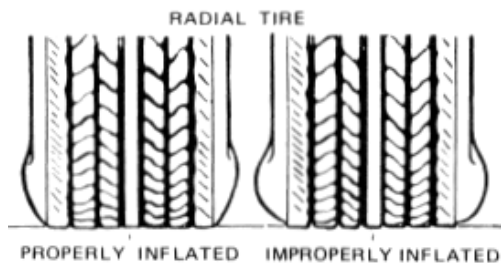
Tire inflation pressures should be checked (this includes the spare tire) at least monthly and when significantly changing the load you plan to carry in your car. Always check tire inflation pressures when tires are “cold”.

The “cold” tire inflation pressure applies to the tire pressure when a car has not been driven more than one mile (1.6 kilometres) after sitting for three hours or more.

Always use a tire pressure gage (a pocket type gage is advised) when checking inflation pressures. Visual inspection of tires for inflation pressures is not enough, especially in the case of radial tires. Underinflated radial tires may look similar to correctly inflated radial tires. If the inflation pressure on a tire quite often is found to be low, have your dealer correct the cause.

Be sure to reinstall the tire inflation valve caps, to prevent dirt and moisture from getting into the valve core which could cause air leakage.

If an air loss occurs while driving, do not drive on the deflated tire more than is needed to stop safely. Driving even a short distance on a deflated tire can damage a tire and wheel beyond repair.

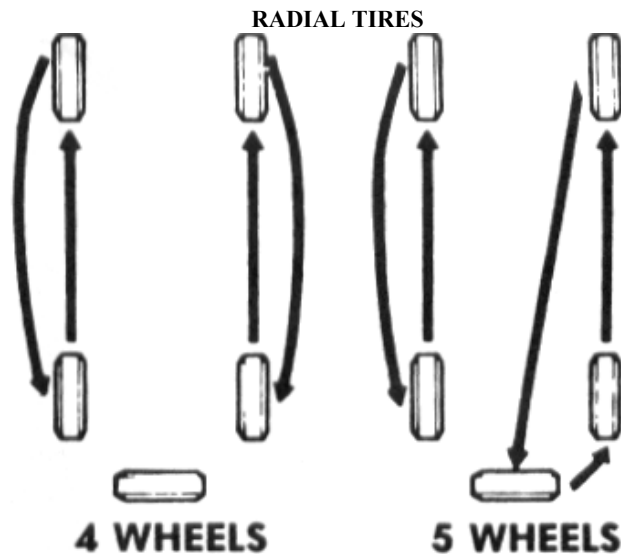


TIRE WEAR INDICATOR. The original equipment tires incorporate built-in tread wear indicators to assist you in determining when your tires have been worn to the point of needing replacement. These indicators appear as 12.7mm (1/2 inch) wide bands when tire tread depth is 1.6 mm (1/16) inch or less. When the indicators appear in two or more adjacent grooves, tire replacement due to tread wear is recommended.

INSPECTION AND ROTATION. Front and rear tires perform different jobs and can wear differently depending on the types of roads driven, your driving habits, etc. To obtain maximum tire life, you should inspect and rotate your tires regularly. (See the Maintenance Schedule folder for recommended rotation intervals.) Many car and tire dealers will perform a free tire inspection to look for uneven or abnormal tire wear (usually the result of wrong inflation pressures, lack of regular rotation, improper wheel alignment, tires out of balance, or poor driving habits).

After rotation, adjust the front and rear tire pressures (see • ‘Tire Placard’ and be sure to check wheel nut tightness.

CAUTION: Before installing wheels, remove any build-up of corrosion on the wheel mounting surface and brake drum or disc mounting surface by scraping and wire brushing. Installing wheels without good metal-to-metal contact at the mounting surfaces can cause wheel nuts to loosen, which can later allow a wheel to come off while the car is moving, possibly causing loss of control.



TIRE REPLACEMENT

CAUTION: Do not mix different construction types of tires on your car such as radial, bias, and bias-belted except in emergencies, because the car’s handling could be affected and may result in loss of control.

On most vehicles originally equipped with radial tires, you will find a TPC Spec No. (Tire Performance Criteria Specification Number) molded into the tire sidewall near the

WHEEL AND TIRE CARE

tire size marking. This shows that the tire meets rigid size and performance standards which were developed for your vehicle. The TPC Spec. No. assures a proper combination of endurance, handling, load capacity, ride and traction on wet, dry, and snow-covered surfaces. When you replace your tires with tires having the same TPC Spec. No., your new tires will be compatible with your vehicle.

When replacing tires with those not having a TPC Spec. No., you should use the same size, load range, and construction type (bias, bias-belted, or radial) as the original tires on your vehicle. Although it is not generally recommended, some alpha-size and metric-size tires can be interchanged. (For size equivalency, contact your Checker dealer or a tire dealer). A different size or type of tire may affect ride, handling, speedometer/odometer calibration, vehicle ground clearance, and tire or tire chain clearance to the body or chassis. If replacing only a single tire, it should be paired on the same axle with the least worn tire of the other three.

UNIFORM TIRE QUALITY GRADING

The following information relates to the tire grading system developed by the National Highway Traffic Safety Administration which will grade tires by treadwear, traction and temperature performance.

TREADWEAR

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, the tire graded 150 would wear one and a half (1-1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

TRACTION: A, B, C

The traction grades, from highest to lowest are: A, B, and C. They represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

WARNING: The traction grade assigned to this tire is based on braking (straight-ahead) traction tests and does not include cornering (turning) traction.

TEMPERATURE - A, B, C

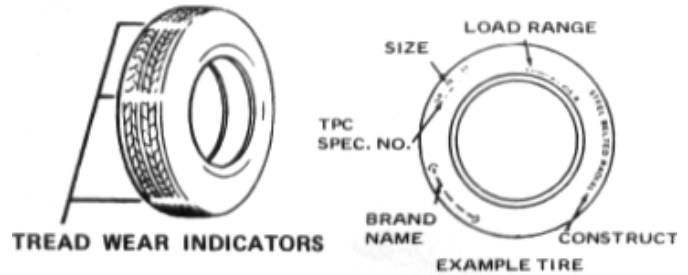
The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

WARNING: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

You should replace your tires when

1. Your tires are worn to a point where 2/32 inch (1.6 millimetres) or less tread remains, or cord or fabric is exposed.

To help you detect this, your tires have built-in tread wear indicators that appear between the tread groove when the tread is 2/32 inch (1.6 millimetres) or less. When the



indicators appear in two or more adjacent grooves at three spots around the tire, the tire should be replaced.

2. Your tire tread or sidewall is cracked, cut, or snagged deep enough to expose the cord or fabric.
3. Your tire has a bump, bulge, or split.
4. Your tire sustains a puncture, cut, or other injury that can't be correctly repaired because of the size or location of the injury.

When replacing tires, you should use the same size, load range, and construction type (radial) as the original tires on your car. A different size or type of tire may affect ride, handling, speedometer/odometer calibration, vehicle ground clearance, and clearance to the body and chassis. If replacing only a single tire, it should be paired on the same axle with the least worn tire of the other three.

ALIGNMENT AND BALANCE. Proper wheel alignment improves tire tread mileage. Your car's suspension parts should be inspected often and aligned when needed. (See the Maintenance Schedule Folder for more information.) Improper alignment will not cause the car to vibrate. However, improper toe alignment will cause front tires to roll at an angle which will result in faster tire wear. Incorrect caster or camber alignment will cause your tires to wear unevenly, and can cause the car to "pull" to the left or right. Proper tire balancing provides the best riding comfort and helps to reduce tire tread wear. Out-of-balance tire can cause annoying car vibration and uneven tire wear such as cupping and flat spots.

MARATHON- TAXICAB

Caster	2° ± 1/2° POSITIVE
Camber	1/2° ± 1/4° POSITIVE
Toe-in	3/32 ± 1/3

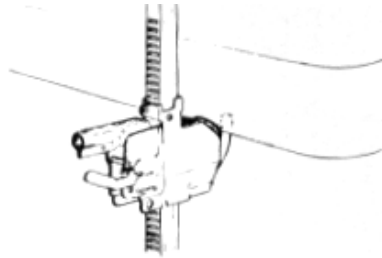
NOTE: All tire warranties and adjustments are handled by the tire manufacturer.

CHANGING A TIRE—MARATHON OR TAXICAB.

Before the car is jacked up, apply the parking brakes and, as an added precaution against the car moving, place a large stone or block under the front and rear of one

wheel. After you have loosened the wheel nuts, place the jack under the front or rear bumper, as shown in the illustrations, being careful to insure that the hook on the jack is inserted into the slot provided in the bottom of the bumper bar. Then jack up the car and change the wheel. Tighten the wheel nuts on the replacement wheel and lower the car slowly to the ground. Check all the wheel nuts again to be sure that they are tight. We suggest that you have the damaged tire repaired immediately so that you do not drive for an extended period of time without a spare tire. Also have wheel nuts torqued to 85-110 foot-pounds.

TAXICAB AND MARATHON



FRONT OR REAR

CAUTION: *Never work under a vehicle supported only by the jack—use safety stands if it becomes necessary to be under vehicle.*

TRAC-LOK EQUIPPED VEHICLES—DO NOT operate engine for any reason with one rear wheel off the ground as vehicle will move when power is transferred to the one wheel remaining on the ground

FRONT WHEEL BEARINGS should be repacked at mileage shown in Maintenance Schedule. When you have reached this mileage, the bearings must be thoroughly cleaned and inspected before repacking. Use a “Hi-Temp” wheel bearing lubricant Sunplex No, 992EP, or equivalent, in the Marathon and Taxicab.

REAR WHEEL BEARINGS should be repacked at mileage shown in Maintenance Schedule. When you have reached this mileage, the bearings must be thoroughly cleaned and inspected before repacking. A lithium-base or sodium-base grease may be used — but it is inadvisable to mix the two bases when repacking the bearings. (See pages 23 and 24.)

SPARE WHEEL AND JACK STOWAGE. The spare wheel and tire, jack, and jack handle are stored in the trunk.

APPEARANCE

It is not necessary to wax or polish the exterior of your Checker for at least 60 days. When polishing your car, remember that the fastest or easiest products to use are not always the best. Maintain your Checker’s finish with frequent washings with water and small amount of mild detergent followed by a thorough rinsing. Dry to a high polish with a clean, damp chamois. (Never use hot water and do not wash the car in the hot sun.)

BRIGHT METAL TRIM. The metal trim on your Checker should be washed and cleaned frequently, especially during the winter, to avoid corrosion by materials used to clear roads. To prolong the appearance of chromed parts, wash and clean frequently and apply a protective coating of paste wax on all bright metal finishes.

INTERIOR. Your Checker’s interior should be cleaned periodically to keep it in good condition. Most loose dirt and dust can be removed with a whisk broom. When washing is necessary, wash the fabric and vinyl coverings with a good frothy suds of neutral soap and warm water using a clean cloth or sponge. Wipe the surface several times with a clean, dry cloth and let air circulate freely over the wet upholstery.

STAINS. Here are some common stains and the best way to cope with them.

1. *Dirt and Mud.* Allow the stains to dry. Pick off the dried mud and clean with a vacuum cleaner. Go over the area lightly with cleaning fluid if the stains persist.
2. *Grease and Oil.* Sprinkle the area liberally with absorbent powder—then remove with a vacuum cleaner. Use cleaning fluid and absorbent cloths, while working from the outside toward the center. Soak up extremely fresh grease with cloths.
3. *Tar.* Pick off as much tar as possible with a dull knife then rub the area with cleaning fluid and absorbent cloths. Repeat if necessary.
4. *Chewing Gum.* Cleaning fluid or absorbent rug cleaning powder should loosen the gum.
5. *Candy, Chocolate or Cocoa.* Pick off the crusted, dried particles with a dull knife and sponge from outside the spot toward the center, using clear, lukewarm water. Soak dry with rags - then sponge again with detergent suds and dry.

WHITEWALL CARE can usually be accomplished satisfactorily with a cloth dipped in water, with a mild soap added. Clean very dirty or scuffed tires with a good whitewall cleaner, following the directions on the container. Rinse the tires and wheels with clean cold water. Do not use strong caustics, as they may stain the bright metal wheel covers.

SERVICE AND MAINTENANCE

COMPUTER COMMAND CONTROL SYSTEM

Your new gasoline engine vehicle has a special emission control system, called the Computer Command Control system.

The Computer Command Control system monitors the exhaust stream with an oxygen sensor. Based on sensor signals, the electronic control module adjusts the carburetor air-fuel ratio as needed. It is very important to use only unleaded

gasoline in vehicles equipped with the Computer Command Control system. Leaded gasoline will damage the oxygen sensor, and may affect emission control.

On all vehicles with the Computer Command Control system, a “CHECK ENGINE” light on the instrument panel is designed to come on during engine starting, to let you know the bulb is working. (The light will stay on a short time

SERVICE AND MAINTENANCE

after the engine starts.) If the light comes on while driving, service to the Computer Command Control system may be required. See your dealer as soon as possible for an inspection of the system. Continued driving without having the Computer Command Control system serviced could eventually cause damage to the emission control system.

BATTERY CARE. Check the water level in each battery cell at mileage intervals shown in Maintenance Schedule. If water is needed, add distilled water only and be careful not to overfill. The terminals should be cleaned with a baking soda and water solution and coated with a lubricant to prevent corrosion.

If your new car has a Delco FREEDOM battery. You will never have to add water. The hydrometer (test indicator) in the cover provides information for testing purposes only.

CAUTION: *Keep lighted cigarettes and flame away from the open battery cells, as combustible hydrogen gas is always present.*

NOTE: All battery warranties and adjustments are handled by the battery manufacturer.

ENGINE COOLING SYSTEM

The coolant recovery system is standard. The coolant in the radiator expands with heat, and the overflow is collected in the recovery tank. When the system cools down, the coolant is drawn back into the radiator.

The cooling system has been filled at the factory with a quality coolant that meets GM Specification 1899-M. Because the cooling system has been designed to use coolant rather than plain water, the coolant solution should be used year round. It has many advantages, such as:

- provides freezing protection down to -34°F (-37°C),
- provides boiling protection up to 262°F (128°C),
- protects against rust and corrosion in the cooling system,
- maintains the proper engine temperature for efficient operation and emission control, and
- allows proper operation of the coolant hot light or gage.

See the Maintenance Schedule folder to find out when the coolant must be replaced.

COOLING SYSTEM CARE. It is not usually to remove the radiator cap to check the coolant level. Lift the hood and look at the “see through” coolant recovery tank. This should be done at regular intervals, such as during fuel stops. The coolant level should be above “add” mark but not above “full” mark. If the coolant level is low, remove the cap on the coolant recovery tank. Add enough of a 50/50 mixture of a good quality ethylene glycol (antifreeze) and water to the tank to bring the level up to the proper mark. Reinstall the cap on the tank.

There are conditions which can happen, such as air being trapped in the system, that may affect the coolant level in the radiator. It is recommended that the coolant level in the radiator be checked at periodic intervals such as at the time of engine oil changes when the engine is cold. Follow steps 1, 8, 9, and 10 of the following section “Coolant Replacement” for radiator cap removal and coolant addition method.

If coolant has to be added more than four times a year either to the

recovery tank or to the radiator, see your dealer for a cooling system check.

NOTICE: If the proper quality antifreeze is used, there is no need to add extra inhibitors or additives that claim to improve the system. They may be harmful to the proper operation of the system.

COOLANT SYSTEM SERVICE. The cooling system should be serviced at the time/mileage specified in the Maintenance Schedule folder as follows:

1. Wash the radiator cap and filler neck with clean water. See step 1 of “Coolant Replacement” to remove radiator cap.
2. Check the coolant level in the radiator and have it tested for freeze protection. Add ethylene glycol antifreeze, if needed, to maintain the specified freeze protection.
3. Have the cooling system and radiator cap tested for a pressure capacity of 15 psi (105 kPa). If a replacement cap is needed, use an AC-Delco cap, or an equivalent cap, designed for coolant recovery systems and specified for your model.
4. Tighten all radiator and heater hose clamps and inspect all hoses. Replace the hoses if they are swollen, “checked,” or otherwise worn.
5. Clean the front of the radiator core and air conditioning condenser to remove dirt and other objects.

COOLANT REPLACEMENT. At the time/mileage specified in the Maintenance Schedule folder, the cooling system should be flushed and refilled as follows:

1. Remove the radiator cap when the engine is cool:
 - Turn the cap slowly to the left until it reaches a “stop”. (Do not press down while turning the cap.)
 - Wait until the pressure is relieved (indicated by a hissing sound), then press down on the cap and continue to turn it to the left.

CAUTION: To help avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if the cap is taken off too soon.
2. Open radiator drain valve and remove block drain plugs.

NOTE: The block drain plugs are located on both sides of the engine block near the oil pan on both six and eight cylinder engines.
3. When the system is completely drained, close radiator drain valve and install block drain plugs.
4. Refill system with water, install radiator cap and run the engine until the upper radiator hose is hot.

NOTE: To prevent air pockets in cooling system when refilling, add water slowly.
5. Stop the engine and allow to cool.
6. Drain the cooling system as previously outlined. Repeat the previous steps 3 or 4 times to assure a clean cooling system.

NOTE: Fast flushing preparations are available which will aid in cleaning the cooling system. Be sure to follow manufacturers instructions on the container.
7. Disconnect all hoses from the coolant recovery tank. Remove the tank and pour out any fluid. Scrub and clean

SERVICE AND MAINTENANCE

the inside of the tank with soap and water. Flush it well with clean water and drain. Reinstall the tank and hoses.

8. Add enough ethylene glycol coolant (meeting GM Specification 1899-M) and water to provide the required cooling, freezing, and corrosion protection. Use at least a 50 percent solution, -34° F (-37°C), but no more than a 70 percent solution. Fill the radiator to the base of the filler neck and install radiator cap.
9. Run engine until the upper radiator hose is hot.
10. Allow engine to cool.
11. Remove radiator cap and again fill radiator to the base of the filler neck, if needed, and install radiator cap.
12. Fill the coolant recovery tank to half way between the “ADD” and “FULL” mark.

It is the owner’s responsibility to:

- Maintain cooling system freeze protection at -34°F (-37°C) to ensure protection against corrosion and loss of coolant from boiling. This should be done even if freezing temperatures are not expected.
- Add ethylene glycol base coolant that meets GM Specification 1899-M when coolant has to be added because of coolant loss or to provide added protection against freezing at temperatures lower than -34°F (-37°C).

NOTICE: Alcohol or methanol base coolants or plain water alone should not be used in your car at any time. They will boil at a lower point than that at which the hot light indicator (or temperature gauge) works, and they do not provide proper protection against corrosion.

RADIATOR PRESSURE CAP. The radiator cap, a 15 psi (105 kPa) pressure type, must be installed tightly, otherwise coolant may be lost and damage to engine may result from overheating. Radiator pressure caps should be checked periodically for proper operation. If replacement is required an AC-Delco cap is recommended.

THERMOSTAT. The cooling system is protected and controlled by a thermostat installed in the engine coolant outlet to maintain a satisfactory operating temperature of the engine. This thermostat is designed for continuous use through both winter and summer and need not be changed seasonally. When replacement is necessary, use 195’ Thermostat.

ENGINE OIL AND FILTER RECOMMENDATIONS

(Gasoline Engines)

CHECKING OIL LEVEL. The engine oil must be kept at the right level to help assure proper lubrication of your vehicle’s engine. It is the owner’s responsibility to check the oil level at regular intervals (such as every fuel stop), according to the following instructions. It is normal for an engine to use some oil, and engines may use more oil when they are new.

- The best time to check the engine oil level is when the oil is warm, such as during a fuel stop. After stopping the engine, wait about 5 minutes for the oil to drain back to the oil pan. Then, pull out the dipstick on the side of the engine. Wipe it clean, and push the dipstick back down all the way. Now, pull out the dipstick and look at the oil level on it.

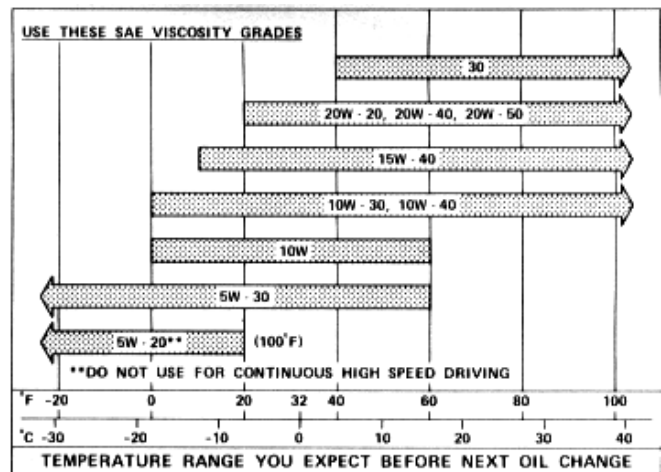
Some dipsticks have “Add” and “Full” lines. Others are marked

“ADD 1 QT.” and “OPERATING RANGE. “In all cases, keep the oil level above the “ADD” line. Avoid overfilling the engine since this can cause possible engine damage. Push the dipstick back down all the way after taking the reading. Add oil, if needed.

- If you check the oil level when the oil is cold, do not run the engine first. The cold oil will not drain back to the pan fast enough to give a true oil level.

CHOOSING THE RIGHT QUALITY OIL. Engine oils are labeled on the containers with various API (American Petroleum Institute) designations of quality. Be sure the oil you use has the API designation “SF,” either alone or shown with other designations such as SF/CC or SF/CD. Oils which are not labeled “SF” should not be used. For example, do not use oils labeled ONLY SA, SB, SC, SD, SE, CA, CB, CC, or CD; or oils with a combination of any of these letters—such as “SE/CD” as they could cause engine damage. **CHOOSING OIL VISCOSITY.** Engine oil viscosity (thickness) has an effect on fuel economy. Lower viscosity engine oils can provide better fuel economy; however, higher temperature weather conditions require higher viscosity engine oil for satisfactory lubrication. Using any viscosity oils other than those recommended could cause engine damage.

When choosing an oil, consider the range of temperature your vehicle will be operated in before the next oil change. Then, select the recommended oil viscosity from the following chart. For temperatures above -18°C (0°F), SAE10W-30 is the preferred viscosity grade.



ENERGY CONSERVING OILS. It is recommended that you select an oil not only of the proper quality and viscosity, but also a fuel-saving product. These oils can be found in dealer service departments, service stations and other retail stores. They are identified bywords such as: “Energy Conserving” “Energy Saving,” “Conserves Gasoline,” “Gas Saving,” “Gasoline Saving,” “Friction Reducing,” “Improved Gasoline Mileage,” “Improved Fuel Economy” or “Fuel Saving.”

OIL IDENTIFICATION LOGO. A logo (symbol) has been developed to help you select the oil you should use, and it probably will be included on oil cans sometime during 1981. The top portion of the logo shows the oil quality API designation SF/CC is shown in the example, but SF by itself

SERVICE AND MAINTENANCE

or in combination with any other designations is satisfactory. The center portion of the logo will probably show the SAE viscosity grade, such as SAE10W-30. "Energy Conserving," shown in the lower portion, has fuel-saving capabilities.



CHANGE INTERVALS. The oil and oil filter change intervals for your engine are based on the use of SF-quality oils and high-quality filters such as AC oil filters. Using oil other than SF-quality, or oil and filter change intervals longer than recommended could reduce engine life. Damage to engines due to improper maintenance or use of incorrect oil quality and/or viscosity is not covered by the Checker new car warranties.

Your engine was filled with a high-quality engine oil when it was built. You do not have to change this oil before the first recommended change interval.

Oil and filter change intervals depend upon how you use your vehicle. The following should assist in determining the proper oil

TYPE OF USE	CHANGE INTERVAL
<ul style="list-style-type: none"> Operating in dusty areas. Towing a trailer. Idling for extended periods and/or low speed operation such as found in police, taxi or door-to-door delivery service. Operating when outside temperatures remain below freezing and when most trips are less than 4 miles (6 kilometers). 	<ul style="list-style-type: none"> Change engine oil and filter every 3,000 miles (4,800 kilometers) or 3 months, whichever comes first.
<ul style="list-style-type: none"> Operating on a daily basis, as a general rule, for several miles and when none of the above conditions apply. 	<ul style="list-style-type: none"> Change engine oil every 7,500 miles (12,000 km) or 12 months, whichever comes first. Change engine oil filter at first oil change, then every other oil change if mileage determines when you change oil. If time determines change intervals, change the filter with each oil change.

and filter change intervals.

ENGINE OIL ADDITIVES. Engine oils contain a variety of additives. Your engine should not need any extra additives if you use the recommended oil quality and change intervals. However, if you think your engine has an oil-related problem, a supplemental additive ("GM Engine Oil Supplement") is available that may solve your problem without causing other difficulties. Consult your dealer who can provide you with this tested and approved additive.

USED OIL DISPOSAL. Do not dispose of used engine oil (or any other oil) in a careless manner such as pouring it on the ground, into sewers, or into streams or bodies of water. Instead, recycle it by taking it to a used oil collection facility which may be found in your area. If you have a problem disposing of your used oil, it is suggested that you contact your dealer or a service station.

AUTOMATIC TRANSMISSION FLUID RECOMMENDATIONS

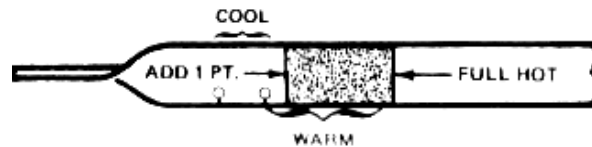
USE THE PROPER FLUID. Use only automatic transmission fluid labeled DEXTRON® II. You can buy this fluid from your dealer or other service outlets.

CHECK THE FLUID LEVEL WITH CARE. Check the automatic transmission fluid level at each engine oil change. Before checking the fluid level, set the parking brake and

then, start the engine. Apply the regular brakes and then move the shift lever through all of the gear ranges, ending in "Park". You must check the fluid level with the engine running at slow idle and the car level.

NOTICE. You cannot read the correct fluid level if you have just driven the car for a long time at high speed, in city traffic in hot weather, or if the car has been pulling a trailer. Wait until the fluid has cooled down (about 30 minutes). Remove the dipstick. Carefully touch the wet end of the dipstick to find out if the fluid is cool, warm, or hot. Wipe it clean and push it back in until the cap seats. Pull out the dipstick and read the fluid level.

- If it felt cool (about room temperature), the level should be 1/8 to 3/8 inch (3 to 10 millimetres) below the "Add" mark to show this range.
- If it felt warm, the level should be close to the "Add" mark (either above or below).
- If it was too hot to hold, the level should be at the "Full" mark.



Add just enough DEXTRON® II fluid to fill the transmission. It takes only one pint (0.5 litre) to raise the level from "Add" to "Full" with a hot transmission.

Do not overfill the transmission. Overfilling can cause foaming and loss of fluid, which could result in transmission damage. Automatic transmissions are often overfilled because the fluid level is checked when the fluid is cold. When cold, the dipstick shows that fluid should be added. However, the cold low reading is normal; the fluid level will rise about 3/4 inch (19 millimetres) as the fluid warms up from 60°F to 180°F (16°C to 82°C).

AUTOMATIC TRANSMISSION DRAIN INTERVALS.

Change the transmission fluid and change the filter as outlined in the Maintenance Schedule folder.

SUMP FILTER. During every fluid change the transmission sump filter should be replaced.

AIR CLEANER ELEMENT. When replacement of air cleaner filter element is necessary, an AC air filter element is recommended.

Operation of car in dusty areas will necessitate more frequent replacement. Your dealer can be of assistance in determining the proper replacement frequency for the conditions under which you operate your car.

CAUTION: If the air cleaner is removed during repair or maintenance, be sure to put it back on correctly. If the air cleaner is not correctly installed, there could be a fire in the engine compartment (if there should happen to be a backfire), or other engine malfunction.

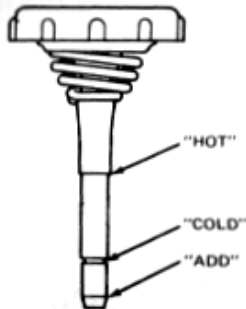
SERVICE AND MAINTENANCE

CHASSIS LUBRICATION. The chassis should be lubricated as shown on the chart on pages 23 and 24. If your car is operated in dusty, wet, slushy or muddy conditions, you should lubricate the running gear more often. Lubricate immediately under the above conditions to flush out water and foreign matter.

SPARK PLUGS. The spark plug should be replaced with AC type (R45TS for V-8) and (R45TS for V-6) at intervals shown in Maintenance Schedule. Install plugs with 15 ft. lbs. torque and gap adjusted to 1.14 mm (.045") for both V-8 and V-6.

DISTRIBUTOR AND IGNITION TIMING. Your Checker vehicle is equipped with a distributor referred to as High Energy Ignition (HEI) which requires no contact points or condenser. The V-8 & V-6 engines incorporate the ignition coil integral with the distributor. The HEI provides 35,000 volts output for better performance and improved fuel economy. Also less maintenance is required because there are no contact points to replace.

ADJUST FAN BELT by loosening the alternator adjusting arm lockbolt and the lower support bolt. Pry the alternator outward. When the correct belt tension is obtained, tighten the lower support bolt and the adjusting arm lockbolt and recheck the tension. The belt is tensioned correctly if it can be deflected inward, by hand, approximately 9.5-12.7 mm (3/8 to 1/2 in.) between the fan pulley and the alternator. Keep the belt tension within given limits, as too tight a belt will put undue strain on driving units. If too loose, inefficient alternator and overheating will result. After preliminary run-in, the belt tension should be 75 lbs., minimum.



POWER STEERING SYSTEM. Check the fluid level in the power steering pump at each engine oil change. Add GM Power Steering Fluid (GM-1050017) as needed:

- If fluid is warmed up (about 150°F or 66°C -- hot to the touch), it should be between "Hot" and "Cold" marks on the filler cap indicator.
- If cool (about 70°F or 21°C), fluid should be between "Add" and "Cold" marks.

This fluid does not need periodic changing.

BRAKE ADJUSTMENT to compensate for normal lining wear is done automatically in all Checker vehicles. The Marathon and taxicab are equipped with front disc brakes which

automatically adjust as brake lining wears. Rear brake lining wear is automatically compensated by self-adjusters which are actuated when the brakes are applied and the vehicle is moving in the reverse direction.

REMINDER: The front disc brakes have a built-in wear indicator that is designed to make a high frequency squealing or cricket-like warning sound when the linings are worn to where replacement is required. The sound will occur intermittently or continuously when wheels are rolling, but will disappear when the brake pedal is applied firmly. See also the various brake checks listed in the Checker maintenance schedule folder.

Your Checker vehicle has a 12-volt system protected by circuit breakers, fuses, and three fusible links. Circuit breakers are located as follows:

PARKING BRAKE ADJUSTMENT. To adjust parking brake cable depress the parking brake pedal about 1/2 in. and remove all slack from the cable at the clevis (located near the center of the vehicle, frame). Apply the parking brake after the cable adjustment, then release to make sure that sufficient slack remains in the cable so that the brake will not drag.

BUMPER ENERGY ABSORBING DEVICES:

Taxicab and Marathon front and rear bumpers are equipped with energy absorbing devices located between the bumper and frame. They are designed to absorb impact energy and restore the bumper to its original position after a low-speed collision (0-5 mph).

Recommendations for handling Energy Absorbing Devices. Units are under gas pressure.

- Do not attempt to repair.
- Do not weld.
- Do not apply heat.
- Relieve the gas pressure if unit is to be scrapped. With a heavy metal punch and hammer, break the weld at the sealing ball in the end of the piston tube.

Recommendations for handling a unit, when as a result of collision the Energy Absorbing Device cannot extend.

- Stand clear of the bumper.
- Provide positive restraint such as a chain or cable.
- Relieve the gas pressure by drilling a small hole in the piston tube near the bracket attached to the bumper.
- Remove the unit from vehicle only after the gas pressure has been relieved.

Recommendations to avoid damaging Energy Absorbing Devices.

- Do not test the units by driving the vehicle into posts, walls, or barriers.
- When removing a unit from a vehicle, support the end of the bumper from which the unit is being removed; this will prevent rotation of the other unit.
- Do not rotate a unit unless it is necessary for alignment of the unit with the bumper bracket.
- Do not immerse unit in solvents.

GUIDE TO MINOR TROUBLE SHOOTING

No matter how well the modern automobile is designed and maintained, it is prey to minor troubles caused by worn or damaged parts, maladjustments, dirt, moisture, etc. Difficulty might occur at a time when it is inconvenient for you to obtain prompt professional service for your Checker. This guide will aid you in finding minor abnormal conditions that may cause any of the symptoms listed below -- but be sure to see your Checker dealer when precise adjustments or special tools or equipment are required.

Engine won't turn over...

1. Automatic transmission: Selector lever must be in N (Neutral) or P (Park) position.
2. Lights and Horn: If they do not work, the battery may be discharged or a cable loose or disconnected.
3. Ignition switch: Contacts may not be closing properly. Turning the switch on and off several times may eliminate the trouble until you have time to replace the switch.
4. Solenoid and starter: The solenoid or starter can be made in-operative by loose, disconnected or broken wires. If all the wires appear to be in good condition and properly connected, the trouble may actually be a faulty solenoid or starter.

Engine turns over but won't start...

1. Fuel gauge: You may be out of gas. If the gauge indicates fuel in the tank, the trouble may be in either the ignition or fuel system.
2. Spark plugs. Check for trouble in the ignition system by pulling off a plug wire and inserting a short piece of bare wire or other metal object into the wire terminal. Hold the wire about 3/16 in from the exhaust manifold and turn the engine over. No spark or a weak spark between the wire and the manifold may mean that the trouble is in the distributor. If the spark is good and hot, check the fuel system.

ELECTRICAL SYSTEM SERVICE

Your Checker vehicle has a 12-volt system protected by circuit breakers, fuses, and three fusible links. Circuit breakers are located as follows:

1. Headlight-tailight breaker — on the headlight switch under the dashboard.
2. Horn breaker in holder under dash panel.
3. All accessory breakers and fuses in holder under dash panel.
4. Windshield wiper breaker in holder under dash panel.
5. One 3-amp fuse protects the instrument panel light cluster.
6. Fusible link. Your Checker has two fusible links installed to separately protect the ignition and lighting circuits ahead of the circuit breaker block. Links are located in the main engine electrical harness at the starter solenoid battery terminal. An excessive overload will melt the fusible link and separate the link before other wiring is damaged. Determine the cause of the overload and then have the fusible link that has been damaged replaced.
7. Tail lamp fuse - 15 AMP in-line fuse in instrument panel harness at light switch.

BULB REPLACEMENT. In case of bulb failure, consult the replacement table below and refer to the appropriate information below for the changing procedure. Replace-

If the engine runs hot these reasons can cause the overheating...

1. Insufficient coolant supply.
2. Loose fan belt,
3. Dirty cooling system.
4. Prolonged idling period,
5. Frozen cooling system.
6. Defective thermostat.
7. Overloading car, or pulling a heavy trailer in hot weather.
8. Tires underinflated during hot weather.
9. Dirt and bugs caught in radiator core.

If car steers hard...

Low air pressure in the tires, wheels out of line, a lack of fluid in power steering system, loose or broken belt or a combination of any of these may be the cause.

If brakes do not hold.

1. After driving through deep water, apply the brakes gently several times as the car is moving slowly.
2. If brakes have been subjected to abnormal use, as in mountain driving or after making a fast stop from high speeds —allow the brakes to cool.

If car rides poorly...

If your car is driven with less than the recommended tire pressure, an unpleasant and dangerous swaying or leaning may occur. Have your Checker dealer inspect and investigate any sudden abnormality in your car's ride.

If steering wanders or pulls at high speeds...

Various conditions can bring about this problem.

1. Soft tires
2. Out-of-line
3. Worn shock absorbers
4. An overloaded car
5. High cross-winds
6. A high crown in the center of the road

ment bulbs may be purchased from your Checker dealer, any automotive garage and most service stations.

HEADLIGHTS are sealed-beam units that can be replaced without disturbing the aim of the beam. Remove the screws from the trim ring door and from the inner retaining ring on the unit to be replaced. Remove the ring and the old unit — then plug in the replacement. Replace the retaining ring and the door. Headlight aim may be adjusted without removing trim ring door by inserting Phillip head screwdriver through access holes provided.

FRONT PARKING AND BACK-UP bulbs are easily replaced by first removing the lens screws. Then depress bulb in and twist half turn left and pull out. Reverse the procedure to install a new bulb. Use caution to position the gasket in place before tightening all the screws.

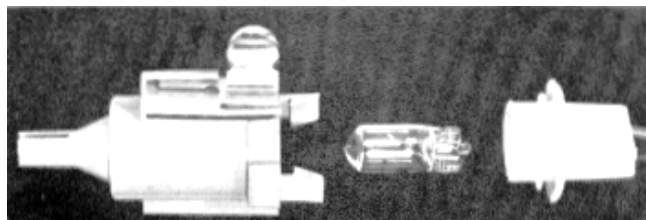
TAIL AND STOPLIGHT bulbs are replaced from within the luggage compartment by snapping out the bulb and socket from the rear of the taillamp assembly. Then depress bulb and twist half turn left and pull out. Reverse procedure to install new bulb.

LICENSE LAMP bulb is easily replaced by first removing the cover screws. Then depress bulb in and twist half turn left and pull out. Reverse the procedure to install a new bulb. Use caution to position the gasket in place before tightening all the screws.

ELECTRICAL SYSTEM SERVICE

FENDER MARKER LIGHTS. All models are equipped with amber side marker lights on front fenders and red side marker lights on rear fenders.

To replace bulbs on all four lamps, reach under the fender and turn bulb socket clockwise 1/8 turn and pull out. Bulbs are a snap fit, to remove — pull outward from socket. Install replacement bulb by snapping into socket. Install socket in lamp and turn counterclockwise 1/8 turn.



FIBER OPTIC LIGHT SOURCE is a bulb contained in a holder shown in the above illustration and is located in wiring harness under dash. To replace bulb, apply outward pressure to locking prongs and separate holder. Bulb is a snap fit, to remove pull outward from socket. Install replacement bulb by snapping into socket. Holder recesses must be lined up to reassemble. *Caution* -do not attempt to separate holder by pulling on kid wires.

FLASHERS are located in circuit breaker holder that is positioned under dash panel.

BULB REPLACEMENT TABLE

Bulb Location	Bulb Manufacturer's No.
Headlight	
Inner	4001
Outer	4002
High Beam Indicator (in rear of speedometer)	158
Parking Light	1157
Taillight	1157
Stop Light	1157
Directional Signal	
Front	1157
Rear	1157
Indicator (in rear of speedometer)	158
License Plate Lamp	97
Fuel Gauge and Warning Lights (in rear of fuel gauge)	158
Back-Up Light	1295
Dome Light	551
Radio Light	57*
Parking Brake Light	158
Side Marker Lamps	194
Fiber Optic Light Source	558
Speedometer Light	158
Transmission Indicator Lamp	1893
Seatbelt Reminder Lamp (rear of fuel gauge)	1893
Optional	

EMERGENCY STARTING

NOTICE: Do not push or tow this vehicle to start it. Under some conditions this may damage the catalytic converter or other parts of the car.

If your car has a discharged battery, it can be started by using

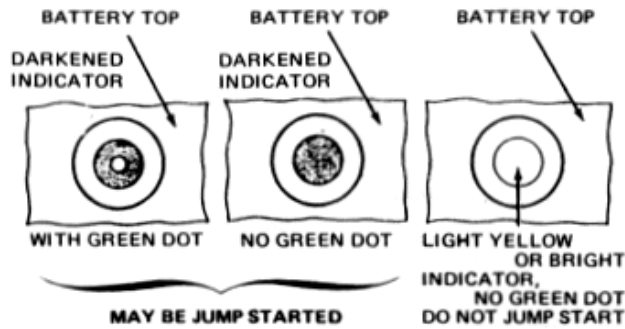
energy from another battery--a procedure called "jump starting".
JUMP STARTING

CAUTION: *The instructions below must be followed exactly or personal injury (particularly to eyes) or property damaged may result from battery explosion, battery acid, or electrical (short circuit) burns.*

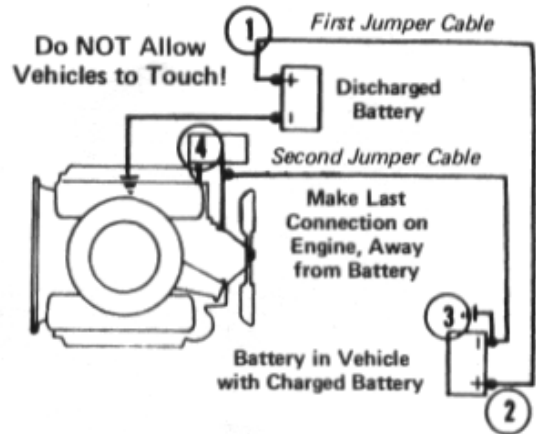
- THE MAJOR SAFETY PRECAUTION IS TO MAKE THE FINAL CONNECTION TO GROUND (a solid, stationary metallic object) ON THE ENGINE AT SOME DISTANCE FROM THE BATTERY. THIS HELPS REDUCE THE CHANCE OF AN EXPLOSION DUE TO SPARKS.
 - To lessen the chance of an explosion, never expose the battery to open flames or electric sparks. Also do not smoke near the battery. Batteries give off a gas which is flammable and explosive.
 - To lessen the risk of injury in case an explosion does occur, wear eye protection or shield your eyes when working near any battery. Do not lean over a battery.
 - Do not allow battery fluid to contact eyes, skin, fabrics, or painted surfaces because battery fluid is a corrosive acid. **Flush any contacted area with water immediately and thoroughly. Also get medical help if eyes are affected.**
 - To lessen the risk of a short circuit, remove rings, metal watch bands and other metal jewelry. Also do not allow metal tools to contact at the same time the positive battery terminal (or any metal connected to this terminal) and any other metal on either vehicle. Make certain when attaching the jumper cable clamps to the positive terminals of the batteries that neither clamp contact any other metal.
1. This car has a 12 volt battery and a negative ground electrical system. Make sure that the other vehicle also has a 12 volt battery and that the negative terminal is grounded (attached to a metal part of the vehicle). Its owner's manual may give you that information. If unsure of the other vehicle's voltage (or if the voltage and ground on the other vehicle are different from your car), do not try to jump start as a personal injury or severe damage to electrical and electronic parts may result.
 2. Position the car with the good (charged) battery so that the jump starting cables will reach. Do not allow the cars to touch.
 3. Turn off all electric motors and accessories in both cars. Turn off all lights except those needed to protect the vehicle or light up the work area. Turn off the ignition, apply the parking brake firmly, and put the automatic transmission in "Park" in both cars.
 4. If the discharged battery has filler caps, check the fluid level. (Do not check with an open flame and do not smoke.) Add clear drinking water to the proper level if low, and replace caps before jump starting. If the battery is a Delco sealed type, do not try to jump start the vehicle, or charge, or test the battery if the test indicator in the battery is bright or light yellow (See illustration). Instead, install a new battery.
 5. Jumper Cable Connection Instructions (See illustration).

ELECTRICAL SYSTEM SERVICE

- Connect the first jumper cable from the positive “+” (red) terminal on one battery to the positive “+” (red) terminal on the other battery. Never connect “+” (red) to “-“ (black), or “-“ to “+”
- Next, connect one end of the second cable to the grounded negative “-“(black) terminal of the good (charged) battery.
- Lastly, connect the other end of the second jumper cable to a solid, stationary, metallic point on the engine of the car with the discharged battery but at a point away from the battery --18 inches (450 millimetres) or more from the battery if possible. Do



not connect it to pulleys, fans, or other parts that move. Don't touch hot manifolds which can cause severe burns. (The MOUNTING BRACKETS for the Delcotron generator, or the air conditioning compressor, generally make a good point for this final ground attachment. Take care that the jumper cable does not contact moving parts on or near the generator or compressor.)



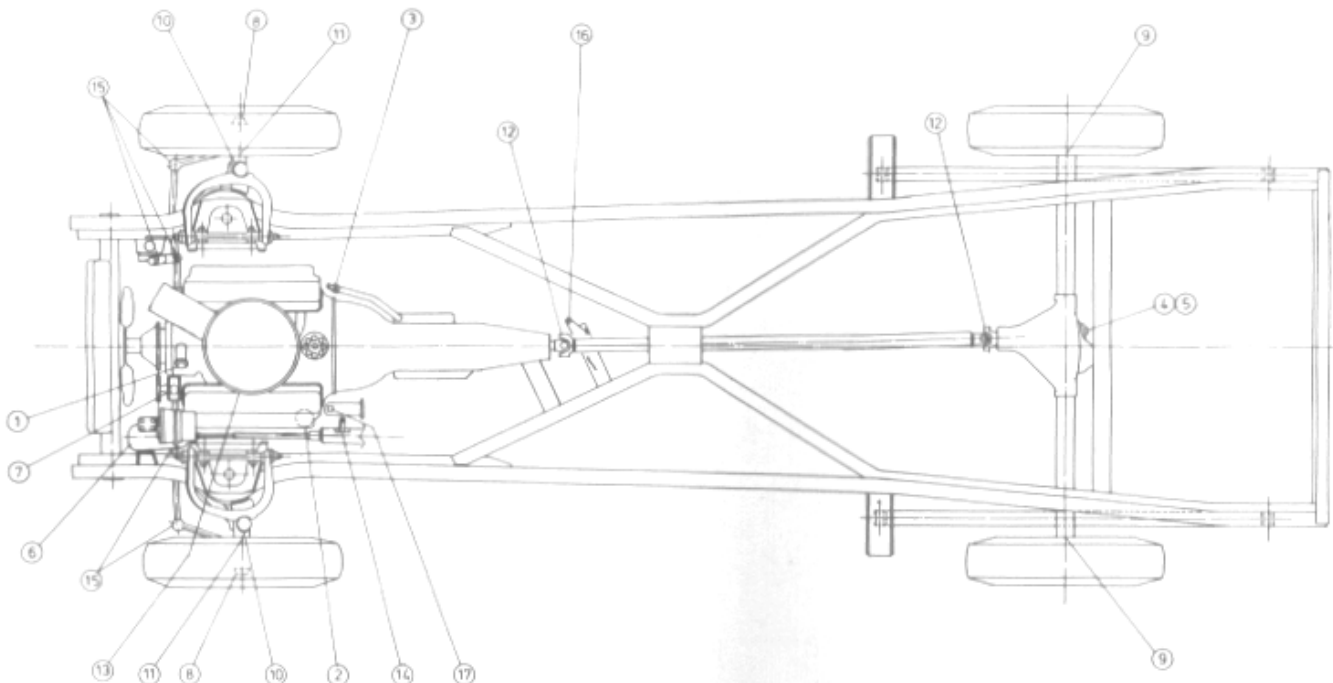
Make Connections in Numerical Order

6. Start the engine on the car with the good (charged) battery and run the engine at a moderate speed.
7. Start the engine of the car that has the discharged battery.
8. Remove the battery cables by reversing the above sequence exactly. Start by removing the last clamp first; that is, remove the jumper cable from the engine of the car with the discharged battery as the first step.

DELCO TRON BRACKET



MARATHON TAXICAB LUBRICATION CHART



LUBRICATION CHART – Marathon and Taxicab

NO.	UNIT	NO. PLACES	LUBRICANT	CAPACITY	REMARKS
1	ENGINE	1	SF,SF/CC OR SF/CD	4½QTS.w/FILTER	DRAIN AND REFILL
2	OIL FILTER	1			REPLACE
3	TRANSMISSION-AUTOMATIC	1	DEXRON OR DEXRON 11 FLUID OR EQUIV.	9½ QTS. DRY 7½ PTS. REFILL	DRAIN AND REFILL
4	DIFFERENTIAL-TRAC LOC	1	TEXACO #3450 OR EQUIV.	3 LBS.	
5	DIFFERENTIAL-STANDARD	1	TEXACO #3450 OR EQUIV.	3 LBS.	
6	STEERING GEAR				NOTE: LUBRICATED THRU NO. 7
7	POWER STEERING PUMP	1	GM POWER STEERING FLUID #1050017	1½ QTS.	ADD AS REQUIRED
8	WHEEL BEARING-FRONT-DISC	2	LUBRICATE WHEEL BEARING HI-TEMP SUNAPLEX	¼ LB. EACH	OR WHEN BRAKES ARE RELINED REMOVE, CLEAN, INSPECT AND REPACK
9	BRAKES WHEEL BEARING REAR DRUM BRAKES	2	992EP MARFAK #2 HD OR EQUIV.	1 OZ. EACH	
10	STEERING KNUCKLE UPPER BALL JOINT	2	RUST INHIBITED LITHIUM BASE ALL PURPOSE GREASE	AS REQUIRED	RELIEVE LOAD. SWING WHEELS WHILE LUBRICATING
11	STEERING KNUCKLE LOWER BALL JOINT	2	RUST INHIBITED LITHIUM BASE ALL PURPOSE GREASE	AS REQUIRED	ADD FITTING ON LOWER JOINT IF REQUIRED
12	UNIVERSAL	2	RUST INHIBITED LITHIUM BASE ALL PURPOSE GREASE	AS REQUIRED	PRESSURE FITTING (ALL 4 BEARINGS TO BE PURGED)
13	AIR CLEANER	1	DRY TYPE		REPLACE
14	GEAR SHIFTER	1	LUBRIPLATE 630 AA	AS REQUIRED	APPLY TO SHIFTER TABS ON STEERING COLUMN
15	STEERING LINKAGE	1	RUST INHIBITED LITHIUM BASE ALL PURPOSE GREASE	AS REQUIRED	PRESSURE FITTINGS
16	PARKING BRAKE LEVER	2	RUST INHIBITED LITHIUM BASE ALL PURPOSE GREASE	AS REQUIRED	SPREAD ON SLIDE PLATE
17	MASTER CYLINDER BRAKE	1	BRAKE FLUID FMVSS #116 GRADE DOT-3 (WAGNER #21B)	KEEP FILLED	UNDER HOOD WITH OIL CAN

TRAC-LOK REAR AXLE (OPTIONAL)

TRAC-LOK REAR AXLE gives constant driving force at both rear wheels, especially in slippery driving conditions. This positive drive feature shifts driving torque from one wheel to another automatically. Driving straight ahead, Trac-lok keeps the car more stable by preventing one wheel from spinning if poor traction is encountered. CAUTION: Since torque is shifted to the stationary wheel in the Trac-lok axle never jack-up one rear wheel if the engine is to be run with the car in gear. Cars with Trac-lok axle feature should have the rear wheels removed for balancing.

LUBRICATION. Refer to Lubrication Chart.

**SPECIFICATIONS AND TECHNICAL DATA
Marathon and Taxicab**

Overall length	5121 mm (201.6')	Tappet Clearance		
A11E and A12E	5349mm (210.6')	Intake	Hydraulic—No Adjustment Needed	
Height	1594 mm (62-3/4')	Exhaust	Hydraulic—No Adjustment Needed	
Width	1930 mm (76')	Electrical System	12 Volt	
Wheelbase	3048 mm (120')	Tire Information	See Tire Placard Affixed to the Left Hand Front Door Pillar.	
A11EandA12E	3277 mm(129')	Engine Idle Speeds	See Sticker Affixed Under Hood of Vehicle.	
Tread—Front	1626 mm (64')	LICENSE DATA		
Rear	1600 mm (63')	Engine Type	229	267
Capacities		Piston	V-6	V-8
Fuel tank	81.4 l (21.5 gal.)	Displacement	229 cu. in.	267 cu. in.
Crankcase	3.79 l (4 qts.)	No. of Cylinders	6	8
With oil filter	4.26 l (4½ qts.)	Cylinder Bore	3.736	3.50
Automatic Transmission	8.99 l (19 pts.)	Stroke	3.48	3.48
Rear Axle	1.36 kg (3 lbs.)	Compression Ratio	8.6:1	8.3:1
Cooling System		Taxable		
With Heater	V6 - 11.36 l (12 qts.) V8 - 16.09 l (17qts.)	Horsepower	33.5	39.2
Thermostat	195°	Filling Order	1-6-5	1-8-4-3
Radiator Cap Pressure	See Page 16	Gasoline Grade	Use only an unleaded fuel of at least 91 research Octane-symbol number 2.	
Power Steering	Integral Type			
Spark Plug Gap	V8 - 1.14mm (.045") V6 - 1.14mm (.045")			
Spark Plugs	V8 AC Type R-45TS V6 AC Type R-45TS			
Ignition Timing	See sticker affixed under vehicle hood			

CATALYTIC CONVERTER (Gasoline Engines Only)

The catalytic converter is an emission control device added to the exhaust system to reduce exhaust gas pollutants. The converter contains a ceramic material coated with noble metal catalysts. To prevent contamination of the catalysts, unleaded gasoline must be used. Unleaded gasoline also reduces spark plug fouling, exhaust system corrosion and engine oil deterioration.

The catalytic converter requires the use of unleaded gasoline. Using leaded gasoline will cause the converter to lose its effectiveness as an emission control. Leaded gasoline will also damage the Computer Command Control system oxygen sensor.

To help prevent damage:

1. Keep your engine properly maintained. Engine malfunctions involving the electrical, carburetion or ignition systems may result in unusually high catalytic converter and exhaust system temperatures which, under extreme malfunctioning conditions, may ignite interior floor-covering materials above the converter. Do not keep driving your vehicle if you detect engine misfire, noticeable loss of performance, or other unusual operating conditions. Instead, have it serviced promptly.

A properly maintained engine will help avoid malfunctions that could damage the converter. It will also help provide good emission control and fuel economy. See the Maintenance Schedule folder for information on inspecting and maintaining the engine, exhaust system, and other components.

2. Do not drive through or idle or park your vehicle over combustible materials, such as grass or leaves. They could touch the hot exhaust system and ignite.
3. Do not push or tow this vehicle to start it. This may result in unusually high catalytic converter and exhaust system temperatures which under extreme conditions may ignite interior floor-covering material above the converter. Pushing or towing to start can also damage the catalytic converter itself.

Disregarding these instructions could damage the catalytic converter, the vehicle, or nearby property.

IMPORTANT FACTS YOU SHOULD KNOW' ABOUT FUEL ECONOMY AND HOW TO IMPROVE IT

How you drive, where you drive, and when you drive all affect how many miles/kilometres you can get from a gallon/litre of fuel. The careful attention you give your car as far as maintenance and repairs are concerned will also help fuel economy.

FUEL SELECTION. Use only unleaded gasoline meeting Federal Government regulations. The Federal Government specifies the minimum octane number of unleaded gasoline. Unleaded gasoline must be used for proper emission control

system operation. It will also minimize spark plug fouling and extend engine oil life. The use of leaded gasoline can damage the emission control system, and could result in loss of warranty coverage.

“JACKRABBIT” STARTS. Fuel can be saved (and engine and tire life prolonged) by avoiding fast starts away from lights and stop signs.

STOP-AND-START DRIVING. Frequent stops and starts while driving cut down on your miles per gallon (kilometres per litre). Plan even your short shopping trips to take advantage of through streets to avoid traffic lights. Pace your driving like the expert drivers to avoid unneeded stops.

EXCESSIVE IDLING. An idling engine uses fuel, too. If you're faced with more than a minute wait, and you're not in traffic, it may be better to “turn off” and start again later.

SUDDEN STOPS. Sudden stops can also waste fuel; instead of moving the car, the energy of fuel is wasted as heat in braking. Energy in the form of fuel is also needed to accelerate back to driving speed.

LUBRICANTS. A well lubricated car means less friction between moving parts. Consult the Maintenance Schedule folder for the proper lubrication intervals.

AIR CLEANER. Your car receives its power from a mixture of fuel and air. The air enters the engine through the air cleaner. So it's important to replace the air cleaner element at required intervals. (See your Maintenance Schedule folder.) A dirty air cleaner element reduces engine performance and can waste fuel.

TUNED ENGINE. Proper tuning (a check on timing, spark plugs, emission control devices, etc.) can improve your car's fuel mileage. You just can't expect an “out-of-tune” engine to give you good fuel mileage and cleaner air.

EXCESS WEIGHT. Fuel economy is related to the work the engine must do. The heavier the load, the more gasoline it takes to run your car. Keep weight to a minimum by taking out any luggage or cargo when it is not needed.

TIRE INFLATION. Under-inflation not only causes needless wear of the tires, but can also waste fuel. It's a good idea to check tire pressures often and, for the best fuel economy, keep your tires inflated to the highest pressures shown on the Tire Placard (located on the left front door of your car).

WHEEL ALIGNMENT. Improper toe alignment will cause the front tires to roll at an angle which will result in faster tire wear. It takes power to overcome this improper alignment which, in turn, wastes gasoline.

PARTS AND SERVICE INFORMATION:

Parts and service manuals are available from the following general offices and service warehouses as well as your local Checker dealer.

EASTERN DIVISION

CAB SERVICE AND PARTS CORPORATION
35-30 38th Street
Long Island City, New York 11101
Telephone: (212) 937-9400

CAB SERVICE AND PARTS CORPORATION
75 Washington Street
Brookline, Massachusetts 02147
Telephone: (617) 277-8100

CAB SERVICE AND PARTS CORPORATION
765 South Cobb Dr.
Marietta, Georgia 30060

Telephone: (404) 422-7601

WESTERN DIVISION

CAB SERVICE AND PARTS CORPORATION
1157 West Monroe Street
Chicago, Illinois 60607
Telephone: (312) 421-1122

CAB SERVICE AND PARTS CORPORATION
2142 North Pitcher Street
Kalamazoo, Michigan 49007
Telephone: (616) 343-6121

CAB SERVICE AND PARTS CORPORATION
120 East Valley Blvd.
Alhambra, California 91801
Telephone: (213) 289-5321

INDEX

Air Cleaner	18	Radiator Cap	17	Distributor	19	Radio	5
Air Conditioner	5	Thermostat	17	Timing	19	Rear Radio Speaker	
Appearance Care	15	E.E.C. Filter	19	Keys	3	Control	5
Ash Trays	5	Electrical System	20, 21, 22	License Data		Seat Adjustment	8
Backup Lights	7	Emergency Warning		(Marathon and Taxicab) ..	23	Seat Belts	8, 9
Battery	16, 21, 22	Switch (four-way		Lights	4	Specifications	
Brakes	19	flasher)	7	Locks	3	(Marathon and Taxicab) ..	23
Adjustments	19	Engine Dipstick	17	Doors	3	Speedometer	4
Brake System		Flashers	21	Glove Compartment	5	Starting	11, 12
Warning Light	6	Fresh Air Control	4	Ignition	7	Sun Visors	8
Power Brakes	8	Fuel	12, 24	Trunk	3	Tips for Driving	
Break-In Period	12	Fuel Economy	24	Lubrication (Marathon		On Sand, Snow or Ice . .	12
Bulbs	20	Fuel Gauge	4	and Taxicab)	22, 23	Towing	10, 11
Backup	20	Fuses	20	Chart		Transmission	10, 11
Bulb Chart	21	Fusible Link	20	(Marathon and		Gear Selector Lever. 7, 10, 11	
Fender Markers	21	Gas Station Information ..	25	Taxicab)	22, 23	Trac-Lok Rear Axle	23
Fiber Optic Light	21	Getting Underway	11, 12	Chassis	22	Trouble Shooting	20
Headlight	20	Glove Compartment	5	Engine Oil	17, 18	Turn Signal	6, 7
License	20	Headlight Beam		Oil Filter	17	Warning Lights	6
Parking	20	Selector Switch	8	Trac-Loc Axle	23	Wheel & Tire Care	13, 14
Stoplight	20	Head Restraints	8	Trans., Auto	10, 11	Front Wheel Bearings	15
Taillight	20	Heater and Defroster	5	Maintenance		Rear Wheel Bearings	15
Bumper-Front Energy		Controls	5	(General) .15, 16, 17, 18, 19		Stowage	15
Absorbing Device	19	Defogger	5	Mirror	8	Tire Pressure	13
Catalytic Converter	24	Heater-Auxiliary		Owner Service		Tire Replacement	13, 14
Check Engine Light	5	Control	4	Certificate	3	Wheel Alignment	14
Cigar Lighter	5	High Beam Indicator	6	Pedals	8	Tire Wear Indicator	13
Circuit Breakers	20	Hood Release	10	Accelerator	8	Windshield Washer	4
Cooling System	16, 17	Horn	7	Brake Pedal	8	Windshield Wipers	4
Fan Belt Adjustment	18	Ignition	19	Parking Brake	8		

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Kalamazoo, Michigan 49007

SPECIFICATIONS SUBJECT TO CHANGE

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