


Jeepster
Commando

OWNER'S  MANUAL

4-WHEEL-DRIVE SERIES

OM-1053-R3

IMPORTANT

- *1. TO VALIDATE PROVISIONS OF THE MANUFACTURER'S WARRANTY, YOUR PRE-ADDRESSED "WARRANTY CERTIFICATE" (PROVIDED BY SELLING DEALER) MUST BE COMPLETED AND MAILED IMMEDIATELY.

As recording of certain information from the "Warranty Certificate" to factory records validates you as the individual entitled to warranty consideration in conjunction with the vehicle identified on the certificate, it is extremely important for the certificate to be mailed immediately to prevent any question of ownership or delay in handling if a warranty situation should arise.

2. BE SURE YOUR DEALER HAS FILLED IN THE INSIDE BACK COVER OF YOUR "WARRANTY SERVICE AND 'JEEP' QUALITY MAINTENANCE PLAN" BOOKLET.

NOTE --- KAISER Jeep CORPORATION reserves the right at any time or times to revise, modify, discontinue or change any models of its vehicles, or any part or parts thereof, without notice; and, without it or the Seller, incurring any liability or obligation to the Purchaser.

*APPLIES TO U.S. DOMESTIC SALES ONLY



Owner's Manual

4-WHEEL DRIVE

Copyright 1968
KAISER 'Jeep' CORPORATION
Printed in U.S.A.

KAISER Jeep CORPORATION

TOLEDO, OHIO 43601, U.S.A.

Form **QM-1053-R3**

'Jeep' is a Trademark of KAISER 'Jeep' CORPORATION, registered in
the United States and throughout the world.

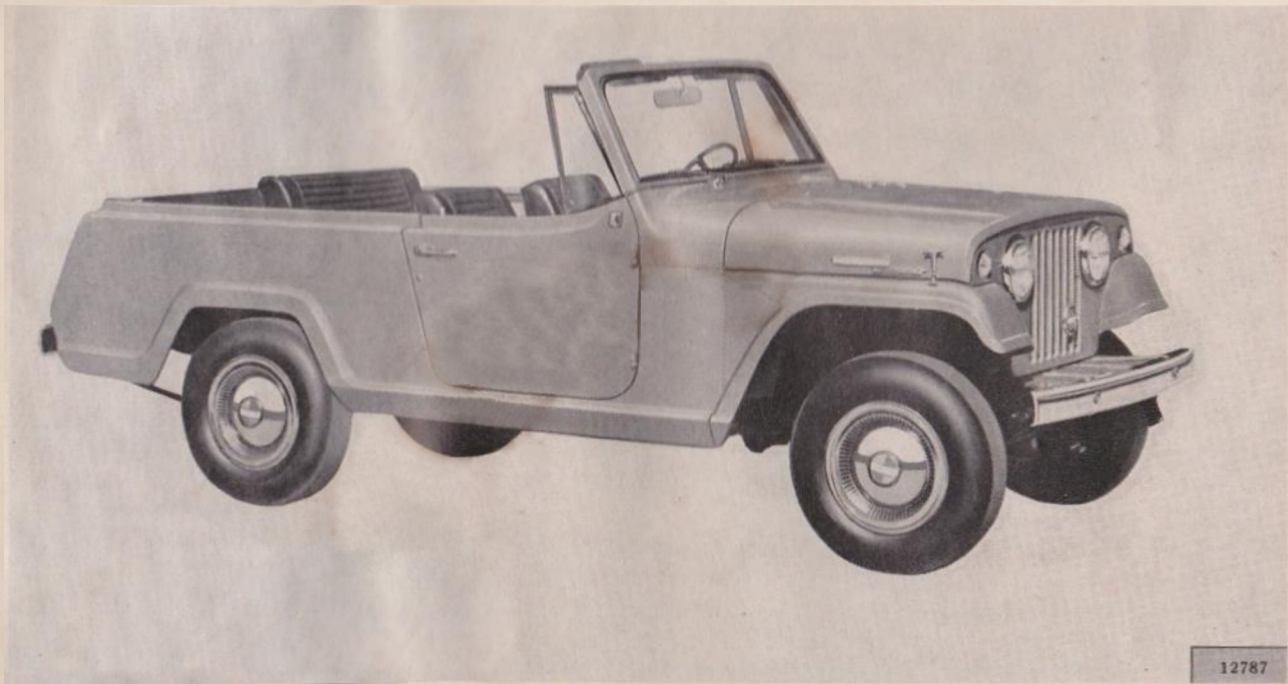


FIG. 1—JEEPSTER COMMANDO — OPEN BODY

Dear Owner

Welcome to family of **satisfied** 'Jeep' vehicle owners. We pledge ourselves to serve you to your **satisfaction**.

Your 'Jeep' vehicle has been **thoroughly** tested and inspected to ensure that properly maintained it will **give** you **many** miles of satisfactory service. Your 'Jeep' dealer is interested in your **continued** satisfaction and will be glad to cooperate with you in providing the **proper** maintenance for your 'Jeep' vehicle.

Our first gesture of service is this "**Owner's Manual**" and the accompanying "**Warranty Service and 'Jeep' Quality Maintenance Plan**" booklet. Read the "**Owner's Manual**" carefully so that you will be **familiar with** the instruments, controls, and correct operation of your 'Jeep' vehicle. Next, **familiarize** yourself with the information in the "**Warranty Service and 'Jeep' Quality Maintenance Plan**" booklet. Proper attention to the information in these **two** publications is your best assurance for realizing complete satisfaction with **your** 'Jeep' vehicle during your tenure of ownership.

GENERAL INFORMATION

This Owner's Manual is divided into two sections containing information about your 'Jeep' vehicle.

The first section will acquaint you with model designations, serial numbers, instruments and controls.

The second section describes operating procedures and techniques.

It is most important for you to read and utilize the information in this "Owner's Manual" if you are to operate your new 'Jeep' vehicle in a manner that will enable you to appreciate its capabilities to the fullest extent whether it is subjected to work or used for pleasure.

TABLE OF CONTENTS

	Page		Page
Getting Acquainted With Your 'Jeep' Vehicle	7	Automatic Transmission.....	25
Serial Numbers.....	7	4-Wheel Drive.....	26
Instruments.....	8	Shift Lever Positions.....	27
Switches and Controls.....	11	Important General Information.....	27
Operating Your 'Jeep' Vehicle	22	Transfer Case Shift Techniques.....	28
Proper Break-in.....	22	Driving Techniques in 4-wheel Drive.....	32
Starting the Engine.....	23	Cold Weather Operation.....	35
Driving the Vehicle.....	24	Hot Weather Operation.....	36
Manual Transmission.....	24	Emergency Chart.....	37
		Towing.....	39

MANUFACTURER'S WARRANTY

FOR COMPLETE INFORMATION ON THE "MANUFACTURER'S WARRANTY" PROTECTION YOU RECEIVE WITH THE **PURCHASE OF YOUR 'JEEP' VEHICLE**, SEE YOUR "WARRANTY SERVICE — 'Jeep' QUALITY MAINTENANCE PLAN" BOOKLET.

SALE OF VEHICLE—When the time comes that you trade or sell this vehicle, it is important you leave the "Owners Manual and "Warranty Service and Jeep Quality Maintenance Plan" booklet in the vehicle (glove box or console). This will provide the new owner with instructions for the operation and maintenance of his vehicle, as well as enabling him to verify eligibility for any **unexpired warranty protection**.

SUBSEQUENT OWNERS—A special "Owner's Service Policy" which would entitle you to any remaining portion of the manufacturer's warranty, issued to the original owner, is available through an authorized 'Jeep' dealer who will be pleased to acquire it from the factory for you.

GETTING ACQUAINTED WITH YOUR 'JEEP' VEHICLE

Vehicle Serial Number

The vehicle serial number is stamped on a metal plate. This plate is located on the dash under the hood on the left side of the vehicle. The vehicle serial number will consist of a vehicle code prefix followed by a five-digit serial number. For example: 8705016-10,001.

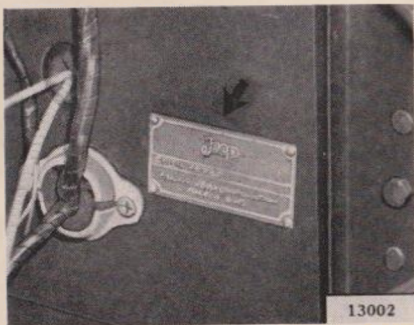


FIG. 2—VEHICLE SERIAL NUMBER

Engine Number

The engine serial number for the F-4 engine is

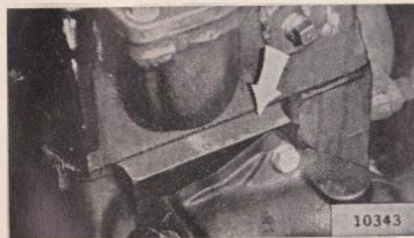


FIG. 3—ENGINE SERIAL NUMBER — F-4

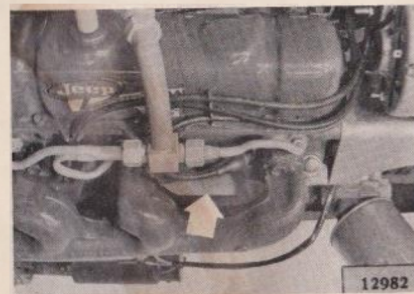


FIG. 4—ENGINE CODE NUMBER — V-6

stamped on the water pump boss at the front of the engine. The V-6 engine code number is stamped on the right side of the cylinder block, just below the rocker arm cover, between exhaust manifold ports.

Keys and Locks

When you receive the keys to your new 'Jeep' vehicle, record the key number, and put it in a safe, convenient place. If your keys should become lost, your 'Jeep' dealer or any competent locksmith can replace the keys from this number.



FIG. 5—KEYS

INSTRUMENTS

The operational instruments are conveniently grouped where they can be easily seen on the instrument panel. Each of the gauges and warning lights indicates a critical function of the vehicle and warns of impending trouble in advance. Knowing the function of these gauges and warning lights and observing them occasionally while driving or while the engine is running can enable you to

prevent service problems that could result in expensive repairs.

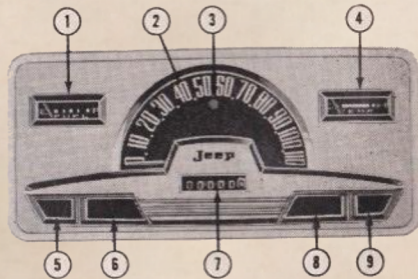
Speedometer

The speedometer sweep hand indicates vehicle speed in miles per hour. The odometer registers accumulated mileage traveled. The right-hand

numeral of the odometer indicates tenths of a mile.

"Oil" Warning Light

A ruby-red lamp will light to indicate when the engine oil is not being pumped at sufficient pres-



12403

FIG. 6—INSTRUMENT CLUSTER

- 1—Fuel Gauge
- 2—Speedometer
- 3—Headlight Beam Indicator
- 4—Temperature Gauge
- 5—Turn Signal Indicator — Left
- 6—Oil Pressure Indicator
- 7—Odometer
- 8—Battery Charge Indicator
- 9—Turn Signal Indicator — Right

sure to reach the places that need lubrication. When the ignition key is turned on but the engine is not running, or when the engine is running at idle speed, this light will show red; however it does not indicate a malfunction. If it lights when the engine is running above idle speed, shut the engine off immediately and investigate for the cause of low oil pressure. Add oil if required.

"Amp" Warning Light

A ruby-red lamp will light to indicate that for some reason the alternator is not properly recharging the battery. When the ignition key is turned on but the engine is not running, this light will show red without meaning anything is wrong. If it lights when the engine is running, have the charging circuit checked as soon as possible or the battery will soon go dead. If this light comes on and stays on while driving, promptly determine and correct the difficulty.

"Fuel" Gauge

This gauge indicates how much fuel is in the main fuel tank. The pointer will drop back to the E (empty) mark when the ignition switch is turned off. It may take a moment for the gauge to record

when the ignition switch is again turned on. It is normal for the pointer to fluctuate at times as the vehicle is driven over rough terrain.

"Temp" Gauge

The temperature gauge registers the temperature of the solution in the cooling system. If the needle of the gauge swings far into the H (hot) zone, it means the engine is running dangerously hot. Stop and investigate.

CAUTION: Always unlock the radiator cap and allow pressure to escape before attempting to remove. Even then, use caution when actually removing the cap to avoid possible injury from escaping steam or hot water. Never add water when the engine is overheated; allow the engine to cool first.

Headlight Beam Indicator

A ruby-red light glows when the headlights are

on high beam and warns that your lights may be shining into the eyes of oncoming drivers. When the dimmer switch is pushed once, the headlights will switch back to low beam and the indicator light will go off.

Turn Signal Indicator

The turn signal lever is located on the steering column. The up position of the lever signals a right turn, and the green turn signal indicator light located on the right-hand side of the instrument cluster will flash; the down position of the lever signals a left turn, and the green turn signal indicator light located on the left-hand side of the instrument cluster will flash. When the turn is completed and the vehicle is again going straight ahead, the self-cancelling switch will turn off the lights as the lever automatically snaps back to centered position.

SWITCHES AND CONTROLS

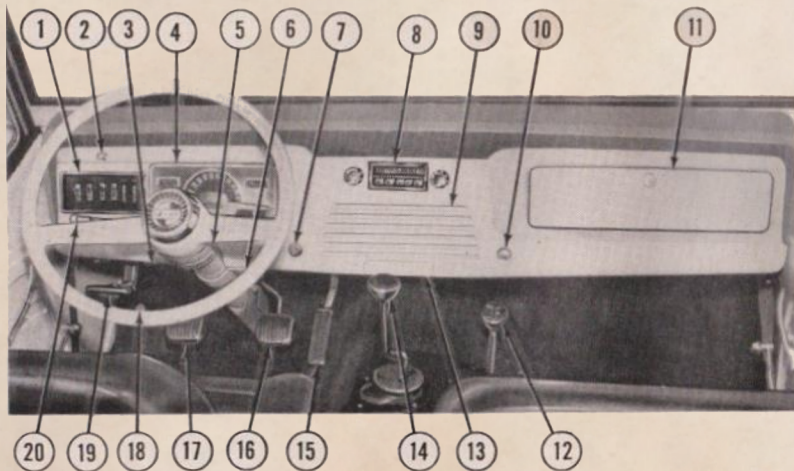


FIG. 7—INSTRUMENT PANEL

- 1—Switch Control Panel
- 2—Instrument Panel Light
- 3—Instrument Dimmer Switch
- 4—Instrument Cluster
- 5—Hazard Warning Light Switch
- 6—Fresh Air Control
- 7—Ignition and Starter Switch
- 8—Radio*
- 9—Radio Speaker*
- 10—Cigar Lighter*
- 11—Glove Box
- 12—4-Wheel-Drive Control
- 13—Ash Tray
- 14—Gear Shift Control (Standard)
- 15—Accelerator Pedal
- 16—Brake Pedal
- 17—Clutch Pedal*
- 18—Headlight Dimmer Switch
- 19—Parking Brake Control
- 20—Turn Signal Lever

*On applicable models only

12976

Ignition and Starter Switch

The ignition and starting motor switch are integral. Turn the key to the extreme right (clockwise) to connect the ignition and crank the engine. When the engine starts, immediately release the key as it is spring loaded to automatically return to the "on" position. Avoid turning the key to the "start" position when the engine is running.

To supply electric current from the battery to

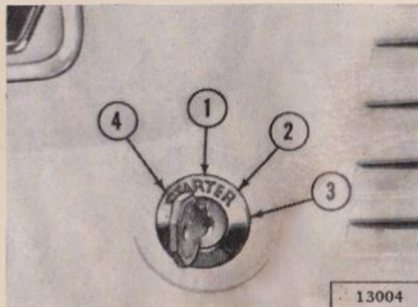


FIG. 8—IGNITION SWITCH POSITIONS

- 1—Ignition Off
- 2—Ignition On
- 3—Start Position
- 4—Accessories On

operate the heater and other accessories when the engine is not running, turn the key to the extreme left (counterclockwise) position.

Switch Control Panel

The switch control panel, located on the extreme left of the instrument panel, houses the light switch, windshield wiper and washer switches, heater fan switch, and heater temperature and defroster con-

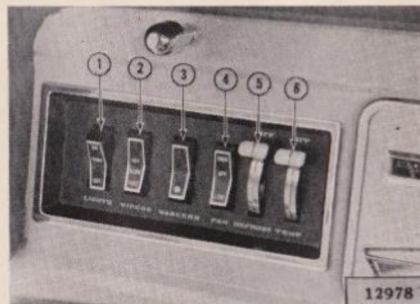


FIG. 9—SWITCH CONTROL PANEL

- 1—Light Switch
- 2—Windshield Wiper Switch
- 3—Windshield Washer Switch
- 4—Heater Fan Switch*
- 5—Defroster Control Lever*
- 6—Temperature Control Lever*

trol levers. These switches and levers are all labeled for ease and convenience of operation.

Light Switch

The vehicle lights are regulated by the three-position rocker switch located on the left of the switch control panel. The vehicle lights are off when the switch is in the lower position. The parking lights are operated by pressing the upper end of the switch until a light click is heard. Fully depressing upper end of the switch will operate the headlights. Both of these positions also operate the tail lights and instrument cluster light.

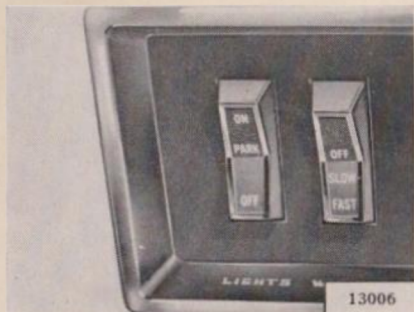


FIG. 10—LIGHT SWITCH OPERATION

Windshield Wiper and Washer Controls

The two center rocker switches on the switch control panel regulate the two-speed electric windshield wipers and washer. On the two-speed wiper control switch, the first stop position as you depress the rocker switch will operate the wipers at low speed; then second position at high speed. To operate the washer, depress the washer switch located to the right of the wiper switch. If the washer switch is depressed when the wipers are not in operation, the wipers will automatically turn



FIG. 11—WINDSHIELD WIPER AND WASHER CONTROLS

on to the low speed in conjunction with the washer operation.

The windshield washer solution container is located under the hood. This container must be refilled periodically with water and, if desired, a washer solvent. If the temperature is expected to be below the freezing point, washer solution must be used to prevent freezing and damaging the container.

Heater Controls

The heater controls occupy the right portion of the switch control panel. These controls are composed of a blower fan switch and temperature and defroster control levers. A fresh air control knob, located to the right of the steering column, directs outside air over the heated coils. *This knob must be pulled out whenever the heater is to be operated.*

The temperature of the heated air is controlled by the temperature control lever. The temperature is raised as the lever is moved downward. The defroster lever directs the heated air to the outlets at the top of the instrument panel to defrost the windshield.

The blower fan switch may be utilized to in-

crease the volume of air emitted at the outlets. This switch can be set in three positions, OFF (center position), LOW (lower) and HIGH (upper).



FIG. 12—HEATER CONTROLS

Ventilation

Your 'Jeep' vehicle is ventilated for comfort and safety through a cowl ventilator, adjustable ventilating windows in the doors, standard windows, and sliding quarter windows (optional equipment) on full metal enclosure models.

The cowl ventilator is operated by a control knob located on the lower edge of the instrument panel to the right of the steering column, which controls fresh air flow to the passenger compartment. Pull the control out to open the ventilator.

Radio

The optional push-button radio is located in the center of the dash, with the speaker directly below. The on-off, volume control knob for the radio is located to the right of the radio dial, and the manual tuner for station selection is located to the left of the dial. Immediately below the dial are the push buttons that enable the selection of five radio stations. To set the desired radio stations to work in conjunction with the push buttons, first warm up the radio for ten minutes. Then pull out the left-hand push button, and tune in the desired radio station nearest the left of the dial with the



FIG. 13—RADIO CONTROLS

manual tuner. Then push the button all the way in. The first button will now select that station. Repeat this procedure with the remaining four buttons.

Cigar Lighter

An optional cigar lighter is conveniently located on the instrument panel. When the lighter is pushed in, the lighter element is heated. When properly heated for use, it automatically clicks out.

Electric Clock

The optional electric clock is mounted in the console. The minute and hour hands of the clock are set by turning the reset knob located on the face of the clock.

Hazard Warning Lights

Your 'Jeep' vehicle is equipped with a four-way flasher warning system. The control is located on the right side of the steering column. With the control pushed in, the two front and two rear turn signal lights flash on and off simultaneously, as do both turn signal indicator lights on the instrument cluster. To turn off the hazard warning lights, pull out the control knob or turn the steering wheel.

Back-Up Lights

Your 'Jeep' vehicle is equipped with back-up lights mounted on the rear of the vehicle. The lights come on whenever the transmission selector lever or shift lever is in the reverse position and the ignition switch is in the on or accessory position.

Parking Brake Controls

The parking control is of the T-handle type

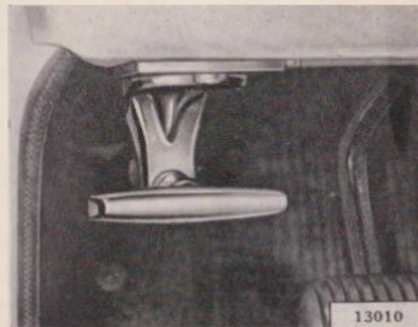


FIG. 14—PARKING BRAKE CONTROLS

located beneath the left end of the instrument panel. To apply the braking brake, first depress the foot brake, then pull out on the T-handle until it stops. To release the brake, turn the handle slightly and push it in all the way.

Driver's Seat Adjustment

The driver's seat may be quickly adjusted to the most comfortable driving position by moving to the left the lever located at the lower left front edge of the seat, allowing the seat to be moved

forward or rearward. Releasing the lever will lock the seat in the desired position.

Passenger Seat Safety Catch

The front passenger seat is provided with a safety catch, located at the left rear base of the seat. To tilt the seat forward, first release the catch by pulling upwards on the catch lever.

Seat Belt Use

Seat belts are provided for your protection. It is strongly recommended you and your passengers snap them in place whenever you drive.

- Make sure belts are not twisted.
- Make sure webbing has full width contact with the wearer.
- Push the tongue all the way into the buckle.
- Wear belts low around the hips.
- Adjust belt as tightly as comfort will allow, to obtain maximum protection.
- Belts equipped with retractors should be fully extended when in use.
- Unfasten the belt simply by pulling up on the front edge of the buckle.

- NEVER USE A SINGLE SEAT BELT FOR MORE THAN ONE PERSON AT A TIME.

Seat Belt Adjustment

- To lengthen the webbing, turn the buckle perpendicular to the webbing and pull to desired length.
- To tighten, buckle the belt and then pull the loose end away from the buckle.

Tailgate and Lift Gate

The tailgate on open body models, and the combination tailgate liftgate, on full metal enclosures,

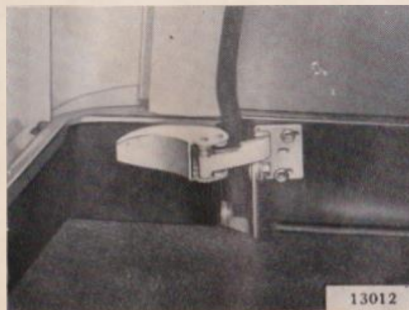


FIG. 15—TAILGATE CONTROLS

can be fully opened for ease in loading. To open the liftgate (if so equipped) unlock the liftgate handle, turn the handle clockwise, and raise the liftgate until it locks in the open position. Release the tailgate latches located at each side of the tailgate. With the latches released the tailgate can be opened downward to form an extension to the floor.



FIG. 16—HOOD RELEASE LATCH



FIG. 17—HOOD SUPPORT BAR

Opening the Hood

The hood is secured to the front fenders by two hood release latches. To release, pull the latches straight up and turn slightly. The hood may now be raised. To secure the hood in the raised position, remove the support bar from its retaining clip and insert the free end into the support bar bracket.

Air Conditioner

The controls of the optional air conditioner are located at the center of the instrument panel. The left-hand center "AIR" knob turns the air conditioner on and off, and controls the blower speed. Turn the knob clockwise to the first clicking position to turn on the air conditioner. Continue to turn the knob clockwise to select the blower speed desired. Blower speed reduces as the knob is turned clockwise. To turn the air conditioner completely off, turn the knob to the extreme counterclockwise position.

The right-hand center "TEMP" knob controls the air temperature. Turn the knob clockwise to lower the temperature. The extreme clockwise position will give the coldest possible setting. It is recommended that the extreme clockwise position be used for average city driving; an intermediate position for highway driving.

The air outlets on either side of the center knobs may be adjusted to obtain the desired air distribution within the vehicle. The air outlets are adjusted with the four levers on the louvres. The levers may be moved left and right, and up and down.

For maximum efficiency, purge the vehicle of extremely hot air by driving the equivalent of two or three city blocks with at least one vehicle window open, the AIR knob at the first clicking position, and the TEMP knob at the desired setting. Then close the window and operate the blower with the AIR knob.

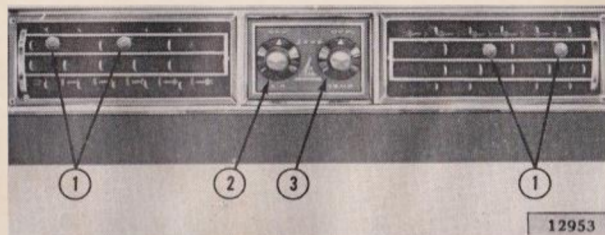


FIG. 18—AIR CONDITIONER CONTROLS

- 1—Air Outlets
- 2—Blower
- 3—Temperature

When driving at a relatively high speed for an extended period of time, the cooling coil may possibly frost over resulting in a temporary loss of cooling. If this condition occurs, turn the TEMP knob to the extreme counterclockwise (OFF)

position and allow the blower to operate for a few minutes until the cooling coil has been completely defrosted. Then turn the TEMP knob clockwise to a setting which is not as far open as the setting at which frosting occurred.

Convertible Top Operation

CAUTION: Do not lower or raise top when vehicle is moving.

Manually Operated Top

TO LOWER TOP

1. Tailgate must be closed before lowering top. Rear window may be rolled open, or unzipped and laying on tire cover, or closed. If closed, it should be fully zipped and snapped.

2. Open right and left top clamps, located at the front corners, by pulling them down. Make sure the clamp bolts drop free of their slots.

3. Push top to the rear until it is in the lowered position. If top boot is to be installed, tuck the fabric in thoroughly before the top is fully lowered. This will ease boot installation.

4. On vehicles equipped with hold-down straps, route both the left-hand and right-hand straps through the loops provided on the top frame and snap to the outside of the vehicle.

TO RAISE TOP

1. Partially lower all side windows, place sun visor in down position, and raise and latch tailgate.

2. Pull the top up to the raised position by grasping at center of header.

3. Slip the left and right clamp bolts in to the slots, and close the clamps by pushing them up into position.

Power Operated Top

Some vehicles are equipped with a power operated top. The operating switch is located on the lower flange of the instrument panel, below the switch control panel. Raise or lower the power operated top in the same manner as the manually operated top (see page 20) except control movement of the top with the operating switch.

REAR WINDOW

The rear window is secured in the closed posi-

tion with snaps at the top edge of the tailgate, and with an inside zipper along the top edge.

The window may be unsnapped from the tailgate, rolled up and secured with the straps provided on the rear top bow. Snap the ends of the straps to the studs provided externally just above the zipper.

When not in use, the holding straps should be fastened to the stud provided near the center of the forward side of the rear roof bow. Snap the right strap to the stud first. The short strap at the right end of the zipper will hold the rear window in position while operating the zipper.

The rear window may also be unzipped and laid on the spare tire cover. Do not lay the window on the tire without its cover, or the window may become stained.

Door Locks

- To lock and unlock the front doors from the outside: use the ignition key.
- To lock the doors from the inside: first make sure the doors are securely closed, then press down the locking button.
- To unlock the front doors from the inside: pull back on the conventional-type release handles.

OPERATING YOUR 'JEEP' VEHICLE

Proper Break-In

By taking a few reasonable precautions during the first few miles of driving and by giving your vehicle an opportunity to properly "break-in," operation and life of the working parts of your 'Jeep' vehicle will be greatly improved.

The parts of your new 'Jeep' vehicles are precision fitted. Close limits are maintained throughout. Therefore certain speed limits should be observed to "break-in" the engine.

HURRICANE F4 ENGINE

After engine warm-up, do not exceed:

- 40 mph. [65 kph.] 0 to 300 miles [500 km.]
- 50 mph. [80 kph.] . . . 300 to 800 miles [1,300 km.]
- 60 mph. [95 kph.] . . . 800 to 1200 miles [2,000 km.]

DAUNTLESS V-6 ENGINE

- For the first 100 miles [160 km.] do not exceed 65 miles per hour, with moderate starting and stopping.
- After the first 100 miles, speeds may be in-

creased gradually as mileage accumulates.

- Up to 500 miles [800 km.] avoid driving for extended periods at any one speed. Varying the speed and including some higher speeds within the limits of the law promotes longer life of parts and better economy of oil and gasoline.
- Never subject your vehicle to full throttle acceleration of high speed until the engine is thoroughly warm.

The crankcase has been filled at the factory with oil of the proper viscosity for the break-in period. This special oil should be drained from V-6 engines at 6,000 miles [9,600 km.] and from F-4 engines at 1,000 miles [1,600 km.], or a maximum of 60 days whichever occurs first, and replaced with engine oil of the viscosity recommended in the Lubrication Section of the "Warranty Service and 'Jeep' Quality Maintenance Plan" booklet.

During the first 2000 miles of operation be alert for any indication of overheating or loss of lubricant in any component of the vehicle.

Carbon Monoxide

Carbon monoxide is a deadly gas. It has no odor, no taste, no color. It is in the exhaust fumes of all gasoline engines. Never start an engine in a closed garage. Always open the doors wide before starting the engine. Keep them open wide as long as the engine is running.

Check the Vehicle

Be sure —

- The radiator is full.
- There is gasoline in the tank.
- The engine oil in the crankcase is at proper level on indicator stick.
- Tires are properly inflated. See "Warranty Service — 'Jeep' Quality Maintenance Plan" booklet for correct inflation pressures.

Starting the Engine

Two types of transmissions are available, manual and automatic. With manual transmissions, fully depress the clutch pedal and move the shift lever to the neutral position. With automatic transmis-

sion, move the selector lever to either the neutral "N" or the park "P" position. Insert the ignition key in the ignition and starter switch.

If the engine is cold and equipped with automatic choke, depress the accelerator pedal to the floor and release it. If equipped with manual choke, depress the accelerator and pull the choke control all the way out. If the engine is warm, depress the accelerator pedal slightly and hold it in this position. Turn the ignition key clockwise to the extreme right. Hold it there until the engine starts; then release the key. If the engine is cold, allow it to run freely for a few seconds; then depress the accelerator pedal slightly and release it, releasing the automatic choke or if applicable set the manual choke control at the best running position. This will lower the idle speed. Special instructions for starting the engine in cold or hot weather are given on pages 35 and 36.

If the engine fails to start in 30 seconds, release the key and wait about one minute before again attempting to start the engine. If the engine fails to start in two or three attempts, consult the Emergency Chart at the end of this manual.

OPERATION — MANUAL TRANSMISSION

Driving the Vehicle

Start the vehicle in motion in the conventional manner by depressing the clutch pedal, shifting into low gear, releasing the clutch pedal and depressing the accelerator pedal. Shift into second and high gears in the same manner.

Never attempt to shift to a lower gear with the vehicle traveling at a high rate of speed. Always

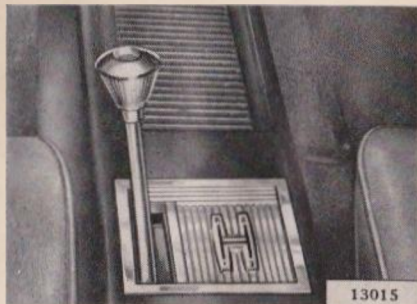


FIG. 19--THREE-SPEED TRANSMISSION —
CONSOLE

have the vehicle at a standstill when shifting into reverse.

Avoid the practice of resting the foot on the clutch pedal while driving and do not slip the clutch. If conditions are such that the clutch starts to slip, shift to a lower gear and/or lighten the vehicle load as required to prevent any clutch slippage. Slipping the clutch causes excessive heat, with the result that the clutch is finally rendered inoperative. The above information is extremely important when operating a snow plow on vehicles so equipped.

Powr-Lok Rear Axle

The optional Powr-Lok rear axle gives a constant driving force to both rear wheels. This is especially helpful during slippery driving conditions. With both rear wheels on a slippery surface, a light application of the accelerator pedal will supply maximum traction. When starting with only one rear wheel on an excessively slippery surface, slight application of the parking brake may be necessary to gain maximum traction.

OPERATION—AUTOMATIC TRANSMISSION

The operating ranges for the automatic transmissions are shown on the console housing alongside the shift lever.

Start the vehicle in motion by moving the selector lever to the operating range desired, and then depress the accelerator.

Operating Ranges

- **P**—Parking and Starting. Never move the selector lever to the “P” position with the vehicle in motion. Always move the selector lever to the “P” position and engage the parking brake when parking the vehicle.
- **R**—Reverse. For backing the vehicle. Before moving the selector lever to “R”, always stop the vehicle.
- **N**—Neutral. For starting the engine (with brakes applied). Do not coast in neutral at any time—leave the selector lever in one of the drive positions.
- **D**—Drive. For all normal open road driving. The shift into “D” from “D1 or D2” can be

made at any time.

- **D2**—Drive 2. For moderate grades and to assist braking on clear dry pavement or in mud or snow. Transmission will automatically shift only into low or second gear—not into high gear.

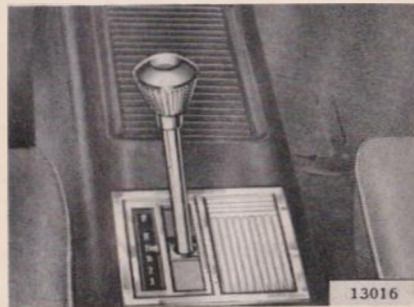


FIG. 20—AUTOMATIC TRANSMISSION—CONSOLE

- **D1**—Drive 1. For hard pulling at low speeds such as when traveling in deep mud, sand, snow, going up or down steep grades, and when traffic signs call for the use of low gear. Before

attempting to go down steep grades, stop the vehicle and shift into D1. This will assure that the downshift has been accomplished.

Passing Speed

To provide power and acceleration for passing with the selector lever in the "D" position depress the accelerator pedal to the floor.

Rocking the Vehicle

To rock the vehicle to get free from sand, mud or snow, you can repeatedly move selector lever between "D" and "R", maintaining a very slight

amount of pressure on the accelerator pedal. Do not race the engine. Avoid spinning wheels. As a general practice, never shift gears so as to change the direction of movement while the vehicle is in motion.

Emergency Starting

Your 'Jeep' vehicle equipped with automatic transmission cannot be started by pushing or towing due to the design of the transmission. In the event of battery failure, use jumper cables from another battery to start the engine.

4-WHEEL DRIVE

Your new 'Jeep' vehicle, equipped with 4-wheel drive, has the ability to go through conditions of adverse weather and difficult terrain. It will do its job faithfully and well if you know how to handle the controls properly. Follow these recommended practices and you will enjoy safe and economical operation.

What is 4-Wheel Drive?

All four wheels of your 'Jeep' vehicle can exert driving force to the ground. A conventional vehicle is driven by the two rear wheels alone. The front wheels are merely pushed along by the rear wheels.

Your 'Jeep' vehicle, when in 4-wheel drive, is propelled by all four wheels; the rear wheels are

pushing and the front wheels are pulling. This gives you four points of power and traction.

How 4-Wheel Drive Works

Engine power is transmitted to all four wheels of your 'Jeep' vehicle by using "live" front and rear axles. The front axle is driven by a drive shaft and differential in the same manner as the rear axle. Power from the engine is delivered to the transmission, which is coupled to the transfer case. The transfer case drives either the rear wheels only, or all four wheels, as selected by the driver.

Transfer Case

The transfer case operates like a second transmission. The transfer case shift lever provides a choice of 2-wheel drive or 4-wheel drive. The shift lever also provides a 4-wheel drive low gear, and a power-takeoff position (neutral) for use when stationary power is required. The gearshift lever positions are identified by markings on the shift lever knob. The standard synchromesh transmission shift pattern, or automatic transmission selector lever positions, are used in the normal fashion in either 2-wheel or 4-wheel drive operation.

Transfer Case Shift Lever Positions

The transfer case shift lever has four positions: 2WD, 4WD HIGH, NEUTRAL, 4WD LOW. The left-hand forward position of the lever (2WD) allows the rear wheels only to drive for regular highway and city road travel. The left-hand rear position (4WD HIGH) provides high range 4-wheel drive. The right-hand center position (NEUTRAL) disengages all power to the wheels and is used for stationary power-takeoff operations or when towing the vehicle. The right-hand forward position (4WD LOW) provides low range 4-wheel drive for the toughest going.

The shift lever can be moved only in the above sequence. It is not possible, for example, to shift from 2WD to 4WD LOW without passing through the 4WD HIGH and NEUTRAL positions.

Important General Information

1. On vehicles equipped with manual type selective drive hubs, place the hubs in the locked position before shifting to 4WD. On vehicles equipped with automatic type selective drive hubs, if hubs are in free position, bring the vehicle to a stop before shifting from 2WD to 4WD.

2. It is recommended that transfer case shifts not be performed with the vehicle in a turn.
3. Make all shifts with a steady force exerted on the transfer case shift lever when shifting into a 4WD position.
4. In the Transfer Case Shifting instructions, note there are certain differences in technique involved, depending on whether the vehicle is equipped with a standard or automatic transmission.

Transfer Case Shift Techniques

2WD to 4WD HIGH —

(For Standard or Automatic Transmission)



This shift may be made at any vehicle speed. Maintaining vehicle speed, pull the transfer case

shift lever from 2WD straight back toward the 4WD-HIGH position.

4WD-HIGH to 2WD

(For Standard or Automatic Transmission)

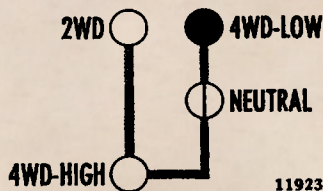


This shift may be made at any vehicle speed. Maintaining vehicle speed, push the transfer case shift lever straight forward from the 4WD-HIGH position to the 2WD position.

4WD-HIGH to 4WD-LOW

A—For Standard Transmission

1—With vehicle just moving (1 or 2 m.p.h) move shift lever from 4WD-HIGH position to the right as far as possible, then apply forward



pressure to the lever, pushing straight toward NEUTRAL position.

- 2—Apply power by depressing accelerator slightly.
- 3—As lever starts to move forward, let up on accelerator, depress clutch (brake vehicle to less than 5 m.p.h. if moving faster) and push shift on thru NEUTRAL toward 4WD-LOW.

B—For Automatic Transmission

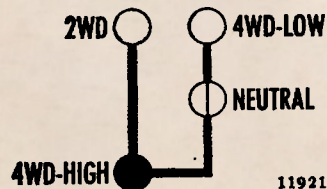
- 1—Stop the vehicle, leaving the transmission in D (drive range) and apply the brake.
- 2—Move transfer case shift lever from 4WD-HIGH position to the right as far as possible, then apply forward pressure to the lever pushing straight toward NEUTRAL.
- 3—Keeping constant pressure on the transfer case shift lever, move the transmission selector with the left hand, from D (drive range) thru N (neutral) to R (reverse) and back to D (drive)

in a constant slow movement. It may be necessary to move the vehicle forward slightly and/or repeat the transmission selector lever action a few times before the shift is completed.

4WD-LOW to 4WD-HIGH

A—For Standard Transmission

- 1—With vehicle just moving (1 to 2 m.p.h.) pull straight back on transfer case shift lever toward the NEUTRAL position.



- 2—Apply power by depressing accelerator slightly.
- 3—As lever starts to move, let up on accelerator, depress clutch (brake vehicle to less than 5 m.p.h. if moving faster) and pull shift lever straight back thru NEUTRAL as far as it will go, then pull the lever to the left.

B—For Automatic Transmission

- 1—Stop the vehicle, leaving the transmission in D

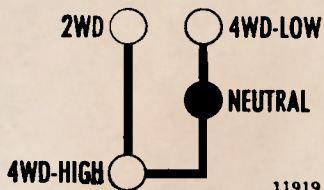
(drive range) and apply the brake.

- 2—Pull straight back on transfer case shift lever toward the **NEUTRAL** position.
- 3—Keeping constant pressure on the transfer case shift lever, move the transmission selector, with the left hand, from **D** (drive range) thru **N** (neutral) to **R** (reverse) and back to **D** (drive) in a constant slow movement. It may be necessary to move the vehicle forward slightly and/or repeat the transmission selector lever action a few times before the shift is completed.

SHIFT INTO NEUTRAL

(For Standard or Automatic Transmission)

- 1—The shift into **NEUTRAL** can be started from **4WD-HIGH** or **4WD-LOW** and is made by using the **4WD-HIGH** to **4WD-LOW** or **4WD-LOW** to **4WD-HIGH** shift procedure.



SHIFT OUT OF NEUTRAL

A—For Standard Transmission

- 1—If moving, stop vehicle.
- 2—Depress clutch and push transfer case shift lever forward if **4WD-LOW** is desired or pull straight back if **4WD-HIGH** is desired.
- 3—When shifting to **4WD-HIGH**; after lever leaves **NEUTRAL** pull back as far as it will go, then to the left.

B—For Automatic Transmission

- 1—Apply forward pressure to transfer case shift lever if **4WD-LOW** position is desired, or lever pressure straight back if shifting to **4WD-HIGH**.
- 2—Keeping constant pressure on the transfer case shift lever, move the transmission selector, with the left hand, from **D** (drive range) thru **N** (neutral) to **R** (reverse) and back to **D** (drive) in a constant slow movement. It may be necessary to repeat the transmission selector lever action a few times before the shift is completed.
- 3—When shifting to **4WD-HIGH**, after lever leaves **NEUTRAL**, pull back as far as it will go, then to the left.

When to Use 4-Wheel-Drive

Four-wheel-drive should be used to provide additional traction and lower gearing for use on difficult terrain, and to provide low-speed pulling power for industrial and agricultural use. Four-wheel-drive should only be used when greater traction and power are required than that provided by the standard transmission low gear. Use it off the road. Use it to pull agricultural implements. Use it on the road in snow, mud, sand, on ice, etc. Use it on the road to get heavy loads rolling, or whenever normal 2-wheel-drive traction will not do the job. However, do not use it more than is necessary (in terms of distance) on dry, hard surfaced roads.

When Not to Use 4-Wheel-Drive

Four-wheel-drive should not be used for normal driving on hard-surfaced roads. The additional tractive effort it provides is not needed under such conditions. Prolonged use of 4-wheel-drive on hard-surfaced roads may occasionally cause temporary difficulty in shifting out of 4-wheel-drive.

This is due to buildup of torsional stress in the drive train and is caused by the normal variations in tire diameters under different load conditions.

To relieve this buildup, simply drive the vehicle in reverse for several feet or drive off the hard surface momentarily to allow tire slippage.

DRIVING TECHNIQUES IN 4-WHEEL DRIVE

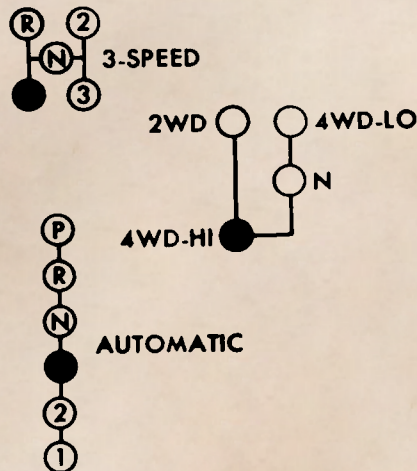


FIG. 21—MUD, SNOW AND SAND

13017

Through Mud, Snow and Sand

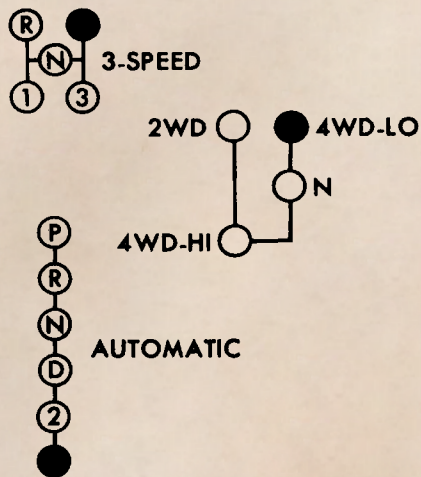
When going through mud, snow and sand without a load, shift the transfer case into 4-wheel-drive high range, and the standard transmission into first gear or automatic transmission into drive "D". 4-wheel-drive low range is not necessary in such conditions unless a load is being pulled by the vehicle or unless it is desired to proceed more slowly due to changing road conditions. Don't shift into any lower gear than is necessary to maintain headway. Try to keep a constant engine speed. Over-revving the engine will cause the wheels to start spinning and traction will be lost. Tire pressure may be reduced to about 10 psi. [0,7 kg-cm²] if additional flotation is required.

CAUTION — Through Sand, Mud, or Water

A 'Jeep' vehicle may on occasion be driven up to the hubs in sand, mud, or water. As soon as

possible thereafter, clean the brake drums to prevent any abrasive material that may have entered from wearing the brake linings.

Up Hill



13018

FIG. 22—UP HILL

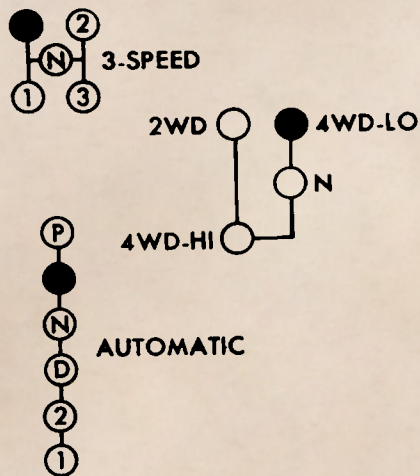
When climbing a steep hill, shift the transfer case into 4-wheel-drive low range, and the standard transmission into a second gear or the automatic transmission into low "D1". Drop down to first gear only when it is apparent that the steepness of the ascent requires the lowest gear to maintain headway.

Getting Over the Hump

"Walk" the vehicle up the last few feet. If the wheels start to slip with only a few feet of the ascent remaining, headway may be maintained by swinging the front wheels sharply left and right. This will provide fresh "bite" into the surface and will usually result in enough traction to complete the climb.

If you Stall

If the vehicle stalls or loses headway when climbing a steep hill, make a fast shift to reverse or first gear. Don't leave clutch pedal depressed after shift has been completed. Engine compression usually will hold the vehicle on the hill. Don't try to back down with the clutch released and only the brakes holding the vehicle. By shifting into reverse you can

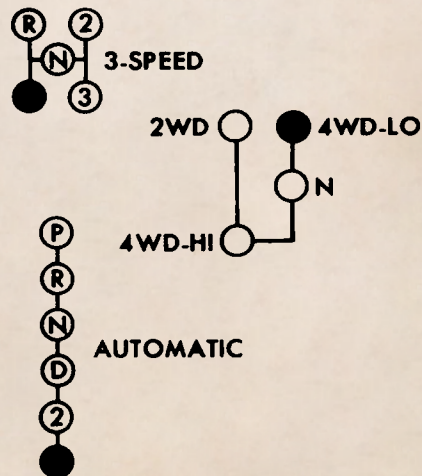


13019

FIG. 23—IF YOU STALL

start the engine without depressing the clutch. The vehicle will move backward as the starter is engaged. When the engine starts, control your downward speed with the accelerator and brake.

Down Hill



13020

FIG. 24—DOWN HILL

Your 4-wheel-drive vehicle can proceed in safety down a grade which could not be negotiated safely by a conventional 2-wheel-drive vehicle. Shift the

transfer case to 4-wheel-drive low range and first gear (standard transmission) or "D1" (automatic transmission). Let the vehicle go slowly down the hill with all four wheels turning against engine compression. This will permit you to control the vehicle's speed and direction.

WARNING — Across Slopes

Avoid this situation! Your 'Jeep' vehicle will seldom encounter a hill which it cannot negotiate directly. However, natural obstacles may make it necessary to travel diagonally up or down the hill. The danger lies in losing traction and slipping sideways with the possibility of tipping.

When necessary, choose as mild an angle as possible, keep moving, and make your turns quickly.

WE REPEAT — DON'T TRAVEL DIAGONALLY ACROSS A HILL UNLESS ABSOLUTELY NECESSARY.

Safety and 4-Wheel-Drive

Your 'Jeep' vehicle has sufficient power and traction to take you safely through conditions which would be hazardous or impossible for conventional vehicles. 'Jeep' 4-wheel drive is a powerful, useful tool that will perform many difficult tasks, but it must be used with common sense and caution. Don't take unnecessary risks and don't attempt the impossible.

Knowledge of your vehicle and its abilities is your best insurance. Know your vehicle; use it wisely; and you will enjoy safe, economical, and faithful service.

COLD WEATHER OPERATION

Cold Weather Cautions

Cold weather can present many problems if a vehicle is not properly maintained; however, your 'Jeep' vehicle will be dependable in cold weather if given a minimum amount of attention.

- The cooling system must be protected against freezing by the use of antifreeze solutions or drained when not in use.
- The proper viscosity light oil should be used in the engine crankcase.

- The battery should be kept fully charged to provide the additional power necessary to crank a cold engine and furnish a good spark. A discharged battery will freeze in extremely cold weather which will make battery replacement necessary.
- The carburetor, fuel pump and fuel tank should be kept free from water which will freeze and restrict fuel flow.
- The ignition system should be kept in good condition.

Cold Weather Starting

Assuming that the above items have been given

normal attention, the engine should start promptly, even in extremely cold weather, if the following procedure is used.

- Shut off lights, heater, radio, and other electrical accessories before starting. This will assure maximum voltage available for both the starting motor and the ignition system.
- If equipped with manual transmission, to lessen the load on the starter, release the transmission by depressing the clutch pedal.
- If equipped with manual hand choke, first, depress the accelerator, then pull the choke control all the way out before starting. After the engine has started, push the choke control part or all the way in.

HOT WEATHER OPERATION

Hot Weather Cautions

Hot weather does not generally present as many problems as cold weather; however, a little special attention will pay dividends in the form of economy and convenience.

- Check the radiator regularly for sufficient coolant as the rate of evaporation is higher in hot weather.
- Make sure the fan belt is in good condition and properly adjusted.

- Keep the radiator area free of bugs and other things that restrict air circulation.
- Have the water level in the battery checked at 10-day intervals, or oftener if necessary.
- Starting a cool engine in hot weather does not present a problem and the procedure outlined under "Starting the Engine" should be followed.

Starting Flooded Engine

A hot engine is easily flooded and may start hard. If the carburetor is flooded, proceed as

follows:

- Turn on the ignition.
- Depress accelerator pedal to the floor and hold in this position until engine starts. (Do not pump the pedal).
- Do not pull hand choke control out (if so equipped).
- Engage starter.
- When engine starts, release starter and accelerator pedal.

EMERGENCY CHART

No adjustment should be made, or any parts tampered with, until the cause of the trouble is ascertained, otherwise adjustments which are properly made may be destroyed. The trouble should first be analyzed.

Starting Motor Will Not Turn Engine

Battery discharged
 Battery connections dirty or loose
 Battery cables defective

Battery cable connections loose at ground or starting motor solenoid
 Solenoid wire connections loose at solenoid, starting motor, voltage regulator, or ignition switch
 Solenoid wires broken
 Starting motor inoperative

Engine Fails to Start

No fuel

No fuel to carburetor
Cylinder or manifold flooded
Moisture and dirt on ignition system
Engine needs choking
Plugged exhaust system

Engine Stops

Lack of fuel
Lack of oil
Disconnected ignition wire
Carburetor flooding
Engine overheated
Distributor breaker points dirty or pitted
Vapor lock

Engine Misses at All Speeds

Faulty ignition wiring
Fouled spark plug
Spark plug points improperly set
Spark plug porcelains dirty
Distributor faulty
Water in fuel
Engine overheated

Popping Back Through Carburetor

Dirt in carburetor

Water in fuel
Incorrect ignition timing
Spark plug wires connected to incorrect plugs
Inlet valves holding open

Engine Overheating

Low engine oil level
Low coolant level
Fan belt slipping
Clogged radiator core
Faulty thermostat
Improper ignition timing

Engine Misses at Low Speeds

Intermittent flow of fuel
Poor ignition
Distributor point improperly adjusted
or making poor contact
Incorrect timing
Spark plug point improperly set
Poor compression
Air leak at carburetor gasket
Manifold heat control valve inoperative

Loss of Power

Ignition improperly timed
Lack of fuel
Carburetor flooding
Dragging brakes
Engine overheated
Poor compression
Improper valve timing

Clutch slipping

Exhaust system obstructed

Manifold heat control valve inoperative

For such information as fuse data, proper tire pressures, vehicle weights, general vehicle specifications, general vehicle care information, etc., see your "Warranty Service and 'Jeep' Quality Maintenance Plan" booklet.

TOWING

Towing The Vehicle

To tow your 4-wheel-drive 'Jeep' vehicle, first shift the transfer case and transmission into neutral. The vehicle can then be towed forward or backward at reasonable safe speeds (such as specified by state law) for any distance.

Should it be necessary, however, to lift the rear wheels and tow the vehicle in reverse, be sure to remove the front axle shaft driving flanges to prevent the front differential from rotating.

Should the driving flanges be removed, a cover should be improvised that will prevent dirt from entering the wheel bearings.



