With the transfer case in Neutral, the vehicle is free to move with either the automatic transmission in P (PARK) or with the manual transmission in any driving gear. Do not leave the vehicle unattended with the transfer case in Neutral. Always set the parking brake and turn off the ignition when leaving the vehicle.

Steering Your Vehicle

Your vehicle comes with power steering. Power steering uses energy from the engine to help steer your vehicle.

Never hold the steering wheel to the extreme right or left for more than five seconds if the engine is running. This can damage the power steering pump.

If the amount of effort needed to steer your vehicle changes, have the power steering system checked. If the power steering system breaks down (or if the engine is turned off), you can steer the vehicle manually but it takes more effort.

NOTE: After any severe impact such as striking large potholes, sliding into curbs on icy roads, or a collision involving the front end, observe the steering wheel alignment. If the spokes of the steering wheel seem to be in a different position while going straight down the road, have the front suspension and steering checked for possible damage.

4-Wheel Drive

Transfer Case Range Selections

The lever-operated transfer case can be placed into four positions. The 2H position is the two-wheel drive position in which power is delivered only to the rear axle at normal road speed. The 4H position provides four-wheel drive with power delivered to front and rear axles at normal road speed. The 4L position provides four-wheel drive with power delivered to front and rear axles at reduced speeds. In Neutral, there is no power delivered to either axle. (The Touch Drive Electric Shift Transfer Case has no neutral position).

Lever Operated Transfer Case

You can change from two-wheel drive to four-wheel drive by putting the transfer case shift lever in either the 4H or the 4L position.

For normal street and highway driving, place the shift lever in the 2H position. This delivers power only to the rear axle.

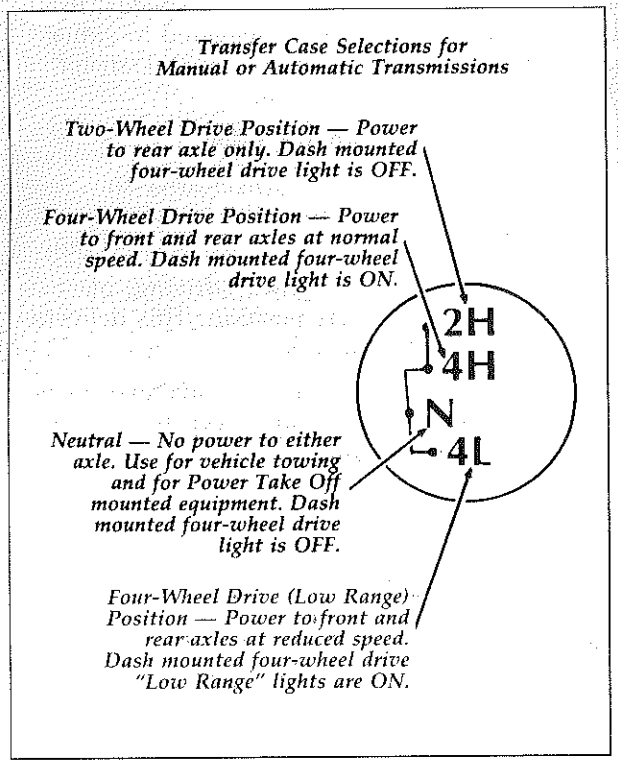
Use the 4L position when above average traction is needed, or when you can't keep the vehicle moving at 4H. Shift into or out of 4L only with the vehicle stopped and the manual clutch disengaged or the automatic transmission in neutral.

Use the Neutral position when the vehicle is to be towed or for Power Take Off mounted equipment.

To shift from 2H to 4H, move the shift lever back to the 4H position. To shift from 4H to 4L, move the shift lever to the left and as far back as it will go. The shift into or out of 4L should be quick and crisp to avoid accidentally selecting the Neutral position.

Never shift from 2H to 4H with manual hub locks in the FREE position or with automatic locking hubs not engaged while the vehicle is in motion. This can damage the transfer case. You can shift from 2H to 4H and from 4H to 2H when driving if the manual hubs are in the locked position or automatic locking hubs have been engaged.

Due to the locking action between front and rear axles in four-wheel drive, do not drive in 4H or 4L on dry, hard surfaced roads.

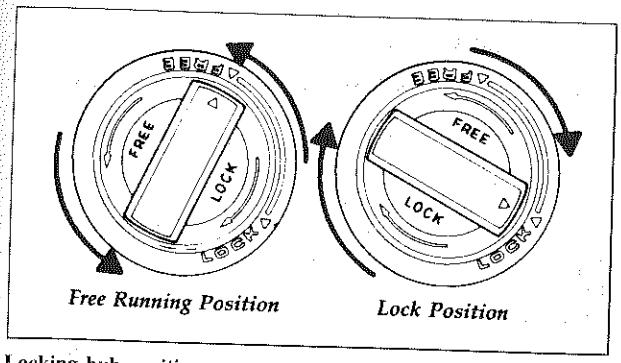


Transfer case selections

Warning: With the transfer case in Neutral, the vehicle is free to move with either the automatic transmission in P (PARK) or with the manual transmission in any driving gear. Do not leave the vehicle unattended with the transfer case in Neutral. Always set the parking brake and turn off the ignition when leaving the vehicle.

Manual Locking Hubs

Some lever operated transfer cases may be equipped with mechanical locking hubs. When operating in two-wheel drive, shift the transfer case to the 2H position and turn both hub lock selector knobs counterclockwise to the FREE position.



Locking hub positions

When you require four-wheel drive operation, turn both hub lock selector knobs clockwise to the LOCK position. If the hub teeth do not engage with the knobs in this position, a slight movement of the wheel in either direction will complete the lock.

Never shift from 2H to 4H with hub locks in the FREE position while the vehicle is in motion.

This can damage the transfer case. You can shift from 2H to 4H and from 4H to 2H when driving if the hubs are in the locked position.

Automatic Locking Hubs (With Lever Operated Transfer Case)

When you want to shift into four-wheel drive, stop the vehicle. Place the transmission in Neutral and the transfer case shift lever in the 4H or 4L position. The hub locks will automatically engage when the vehicle is driven. The hub locks will remain engaged.

With the automatic locking hubs engaged, the transfer case can be shifted from 2H to 4H and from 4H to 2H with the vehicle stopped or while traveling at normal road speed.

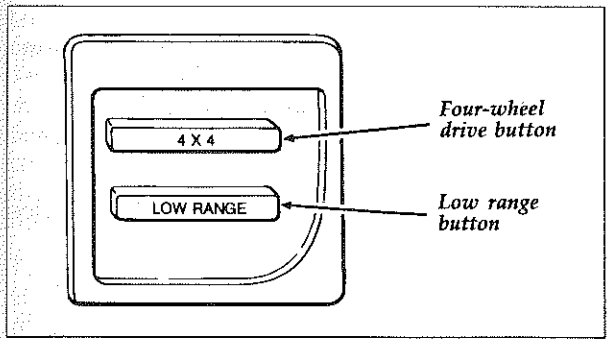
Never shift from 2H to 4H with hub locks disengaged while the vehicle is in motion. This can damage the transfer case.

Your vehicle's front axle automatic locking hubs will automatically disengage after the transfer case is shifted to 2H and the vehicle is driven in the opposite direction for a minimum of 10 feet (3 meters) in a straight line. This disengagement of the automatic locking hubs, which is not required for two-wheel drive operation, stops all movement of front-wheel drive components while operating in two-wheel drive.

Touch Drive Electric Shift Transfer Case with Automatic Locking Hubs (optional)

The transfer case electric shift switch is located on the instrument panel.

The transfer case can be shifted from 2H to 4H and from 4H to 2H with the vehicle stopped or while traveling at normal road speed. Push the 4x4 button in the transfer case electric shift switch. The amber indicator light will light when the transfer case is in four-wheel drive.



Touch drive electric shift switch

Shifts from 2H to 4H with the vehicle moving can at times cause a clicking or ratcheting noise. This is the sound of the front axle automatic locking hubs engaging and is not cause for concern.

Do not shift from 2H to 4H with the rear wheels spinning during extremely low temperatures. This can damage the transfer case.

To operate in two wheel drive only, shift the transfer case to the 2H position by pushing the LOW RANGE and/or 4x4 buttons until both indicator lights are off. If the transfer case is in LOW RANGE, stop the vehicle and shift the automatic transmission to NEUTRAL before pushing the LOW RANGE button.

Your vehicle's front axle automatic locking hubs will automatically disengage after the transfer case is shifted to 2H and the vehicle is driven in the opposite direction for a minimum of 10 feet (3 meters) in a straight line. This disengagement of the automatic locking hubs, which is not required for two-wheel drive operation, stops all movement of front-wheel drive components while operating in two-wheel drive.

To shift to or from low range, you must stop the vehicle and shift an automatic transmission to Neutral before pushing the LOW RANGE button. The amber indicator light will light when the transfer case is in low range and be off when transfer case is in 2H or 4H.

NOTE: To select low range, you must first select 4H then 4L.

During axle break-in or operation in extremely cold temperatures, the automatic hub locks may not release completely. It may be necessary to keep the hub locks engaged for 10 to 15 minutes before they will release.

Driving Off Road with 4-Wheel Drive

Most vehicles with four-wheel drive are especially equipped for driving on sand, snow, mud, or rough terrain and have operating characteristics that are somewhat different from conventional vehicles, both off and on the road. The driving tips below will help you learn to use four-wheel drive.

- ❑ Do not use four-wheel drive on dry, hard-surfaced roads.
- ❑ Special maintenance procedures are necessary after operating with drive components in water.
- ❑ Manual locking hubs must be in LOCK position before shifting into four-wheel drive.

When using four-wheel drive, maintain steering wheel control at all times, especially in rough terrain. Since sudden changes in terrain can result in abrupt steering wheel motion, make sure you grip the steering wheel rim from the outside. Do not grip the spokes.

Drive cautiously to avoid vehicle damage from concealed objects such as rocks and stumps. Know the terrain or examine maps of the area in question before driving. Map out your route before hand. To maintain steering and braking control of your vehicle, you must have all four tires on the ground, and they must be rolling, not sliding or spinning.

Transmission upshift in 4x4 with transfer case in 4L may be quite firm due to large total gear reduction. This condition is normal.

Sand

When driving over sand, try to keep all four wheels of the vehicle on the most solid area of the trail. Do not reduce the tire pressures but shift to a lower gear and drive steadily through the terrain. Apply accelerator slowly and avoid spinning the wheels.

Mud and Water

When driving through water, determine the depth; avoid water higher than the bottom of the hubs (if possible) and proceed slowly. If the ignition system gets wet, the vehicle may stall.

Once through water, always try the brakes. Wet brakes do not stop the vehicle as effectively as dry brakes. Drying can be improved by moving your vehicle slowly, while applying light pressure on the brake pedal.

After driving through mud, clean off residue stuck to rotating driveshafts and tires. Excess mud stuck on tires and rotating driveshafts causes an imbalance which could damage drive components.

NOTE: Refer to the Diesel Engine Owner's Guide Supplement for driving through deep water information.

Additional Special Driving Instructions for 4-Wheel Drive Vehicle Operators

Driving on Hill or Slope Terrain

When driving on a hill, it may be necessary to travel diagonally up or down. Avoid driving crosswise or turning on steep slopes, you could lose traction and slip sideways. Drive straight up, straight down or avoid the hill completely. Know the conditions on the other side of a hill before driving over the crest.

When climbing a steep hill, start in a lower gear, rather than finding it necessary to downshift from a higher gear after the ascent has started. This reduces strain on the engine and the possibility of stalling.

When descending a steep hill avoid sudden braking. Rapid pumping of the brake pedal will help slow the vehicle and still maintain steering control.

Driving on Snow or Ice

A four-wheel drive vehicle has advantages over two-wheel drive vehicles in snow and ice but can skid like any other vehicle. If so equipped, keep the vehicle in four-wheel drive if icy or slippery conditions exist.

Avoid sudden applications of power and quick changes of direction on snow or ice. Apply the accelerator slowly and steadily when starting from a full stop.

Using the Brakes

Front Disc Brakes

The front disc brakes are self-adjusting. They do not require service other than periodic lubrication of the caliper slide rails and inspection for pad wear.

Rear Drum Brakes

The rear drum brakes are self-adjusting. Automatic adjustment occurs when the brakes are applied while "backing up." If normal operation does not include much backing, adjust the brakes when they seem "low," using the procedure under "If Brakes Do Not Grip Well or Pedal is Low."

Rear Disc Brakes (F-Super Duty and F-Series Commercial Stripped Chassis Only)

The rear disc brakes are self-adjusting. They do not require service other than periodic lubrication of the caliper slide rails and inspection for pad wear.

Hydraulic Power Brakes

The hydraulic brake system is made up of two independent hydraulic circuits. One hydraulic circuit supplies fluid to the front disc brakes and the other hydraulic circuit supplies fluid to the rear drum/disc brakes. These two circuits are supplied by a common hydraulic brake fluid reservoir, with a fluid level sensor.

The brake light in the instrument panel will light for low brake fluid in the common brake fluid reservoir.