QUIGLEY MOTOR CO., INC / GM VEHICLES / OPERATING INSTRUCTIONS / IFS 2002

QUADRA-VERSION FOUR-WHEEL DRIVE

Made possible by the TWO-SPEED TRANSFER CASE, provides maximum traction for the wheels of your van by transmitting engine torque to all four wheels instead of just the two rear.

CAUTION: When transfer case is in "N" (neutral position), the transmission "PARK" feature is disabled. Parking brake must be applied or vehicle may move unexpectedly causing serious injury or death.

TRANSFER CASE RANGE SELECTIONS (See Operating Instructions)

4-WHEEL DRIVE (LOW RANGE) POSITION

Power to front and rear axles at reduced speed.

NOTE: Speedometer will read much faster than vehicle is traveling.

Do not exceed 80 MPH indicated (30 MPH actual) speed.

NEUTRAL

No power to either axle. Use for vehicle towing.

2-WHEEL DRIVE POSITION Power to rear axle only.

4-WHEEL DRIVE POSITION Power to front and rear axles at normal speed.



OPERATION:

CAUTION: The vehicle should only be engaged in 4 Wheel Drive for off road operation or when road or weather conditions create poor traction. When you are operating the VAN on DRY roads keep the transfer case in 2H to prevent excessive tire wear and drive train damage.

ENGAGE FOUR WHEEL DRIVE WITH - MANUAL LOCK-OUT HUBS

Lock both front wheel hubs, by turning the selector knobs clockwise to the "LOCK" position. A slight movement of the vehicle in either direction will complete the lock. Shift transfer case to 4H when conditions require increased traction. CAUTION: To guard against vehicle moving while unattended, vehicle should be on a level surface and parking brake should be set firmly prior to changing lock-out hub setting.

- 1. **4WD High Range for Normal Highway Speed (4H):** The TRANSFER CASE may be shifted between 2H and 4H while the vehicle is in motion up to speeds of 55 mph, provided that both the manual hub locks are in the "LOCK" position. Never shift from 2H to 4H with the hub locks in the FREE position while the vehicle is in motion.
- 2. **4-Wheel Low (4L):** This setting also engages your front axle for increased traction and the lower gear increases power. It should be used only for off-road driving, there are 2 options for engaging 4L. **NOTE:** Speedometer will read nearly 3 times faster than vehicle is traveling. It is not recommended to exceed 80 MPH indicated (30 MPH actual) speed in 4WD Low Range.
- <u>Engine Off:</u> Apply brakes, shift TRANSMISSION in N (Neutral). Take foot off brakes to allow a slight movement and shift TRANSFER CASE lever into 4L. Restart engine. If vehicle will not move or there is gear clashing then the lever was not fully engaged in 4L position, repeat procedure. Use same procedure to disengage 4L into either 4H or 2H.
- Engine On: Slow the vehicle to about 1 to 3mph (2to 5 km/h) and shift TRANSMISSION into NEUTRAL (N). Shift the transfer case shift lever in one continuous motion. Do not pause in NEUTRAL (N) as you shift the transfer case into 4-WHEEL LOW (4L), or your gears could clash. If vehicle will not move or there is gear clashing then the 4L position was not fully engaged. Turn your engine off, then proceed to shift into 4L. Use same procedure to return to 4H or 2H.
- CAUTION: If the transfer case has been placed in Neutral, it will be necessary to SHUT THE ENGINE OFF before attempting to select any other position or clashing of gears and resulting transfer case and or transmission damage will occur.
- 4. CAUTION: To avoid damaging the rear axle and drive shaft, never operate the vehicle with transfer case in low range and hub locks in "FREE" position.
- 5. Both hub lock selector knobs must be set in the same position to avoid excessive front differential wear and undesirable vehicle handling characteristics.

RETURN TO TWO-WHEEL DRIVE

For best fuel economy, less tire wear and quietest operation shift the transfer case to the two-wheel drive position (2H). When the need for 4- wheel drive is no longer anticipated turn both hub lock selector knobs counterclockwise to the FREE position.

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