

Pickup Conversion to Chassis Cab

We are aware that some vehicle owners might consider having the pickup box removed and a commercial or recreational body installed. Owners should be aware that, as manufactured, there are differences between a chassis cab and a pickup with the box removed which could affect vehicle safety. The components necessary to adapt a pickup to permit its safe use with a specialized body should be installed by the body builder.

Towing

Towing Your Vehicle

To avoid damage, the disabled vehicle should be towed with all four wheels off the ground. Consult your dealer/retailer or a professional towing service if the disabled vehicle must be towed. See *Roadside Assistance Program on page 7-7*.

To tow the vehicle behind another vehicle for recreational purposes, such as behind a motorhome, see “Recreational Vehicle Towing” following.

Recreational Vehicle Towing

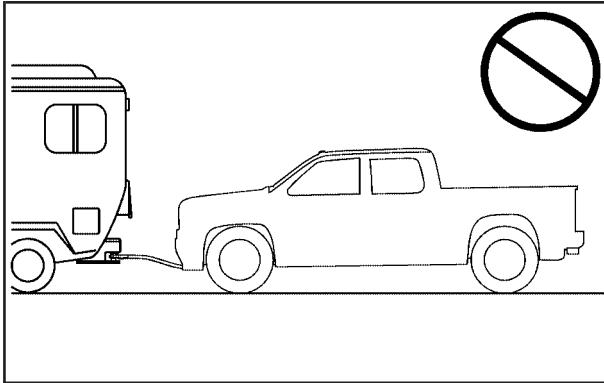
Recreational vehicle towing means towing the vehicle behind another vehicle – such as behind a motorhome. The two most common types of recreational vehicle towing are known as dinghy towing and dolly towing. Dinghy towing is towing the vehicle with all four wheels on the ground. Dolly towing is towing the vehicle with two wheels on the ground and two wheels up on a device known as a dolly.

Here are some important things to consider before recreational vehicle towing:

- What is the towing capacity of the towing vehicle? Be sure to read the tow vehicle manufacturer’s recommendations.
- What is the distance that will be travelled? Some vehicles have restrictions on how far and how long they can tow.
- Is the proper towing equipment going to be used? See your dealer/retailer or trailering professional for additional advice and equipment recommendations.
- Is the vehicle ready to be towed? Just as preparing the vehicle for a long trip, make sure the vehicle is prepared to be towed. See *Before Leaving on a Long Trip on page 4-28*.

Dinghy Towing

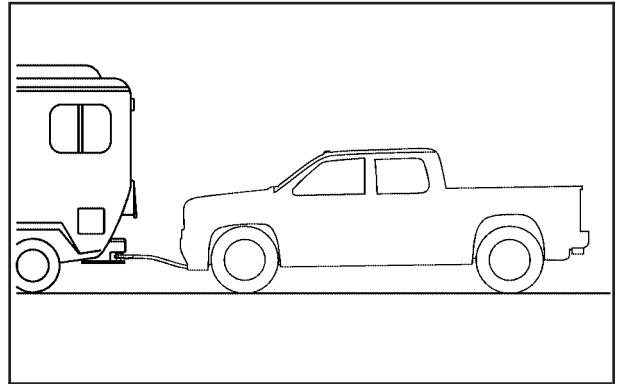
Two-Wheel-Drive Vehicles



Notice: If the vehicle is towed with all four wheels on the ground, the drivetrain components could be damaged. The repairs would not be covered by the vehicle warranty. Do not tow the vehicle with all four wheels on the ground.

Two-wheel-drive vehicles should not be towed with all four wheels on the ground. Two-wheel-drive transmissions have no provisions for internal lubrication while being towed.

Four-Wheel-Drive Vehicles



Use the following procedure to dinghy tow a four-wheel-drive vehicle:

1. Position the vehicle being towed behind the tow vehicle and shift the transmission to P (Park).
2. Turn the engine off and firmly set the parking brake.
3. Securely attach the vehicle being towed to the tow vehicle.

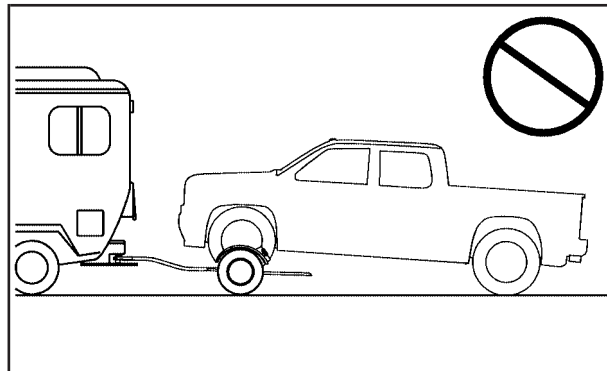
CAUTION:

Shifting a four-wheel-drive vehicle's transfer case into N (Neutral) can cause the vehicle to roll even if the transmission is in P (Park). The driver or others could be injured. Make sure the parking brake is firmly set before the transfer case is shifted to N (Neutral).

4. Shift the transfer case to N (Neutral). See "Shifting into Neutral" under *Four-Wheel Drive on page 2-37* for the proper procedure to select the Neutral position for the vehicle.
5. Release the parking brake only after the vehicle being towed is firmly attached to the towing vehicle.
6. Turn the ignition to LOCK/OFF and remove the key — the steering wheel will still turn.

After towing, see "Shifting Out of Neutral" under *Four-Wheel Drive on page 2-37* for the proper procedure to take the vehicle out of the Neutral position.

Dolly Towing Front Towing (Front Wheels Off the Ground) Two-Wheel-Drive Vehicles

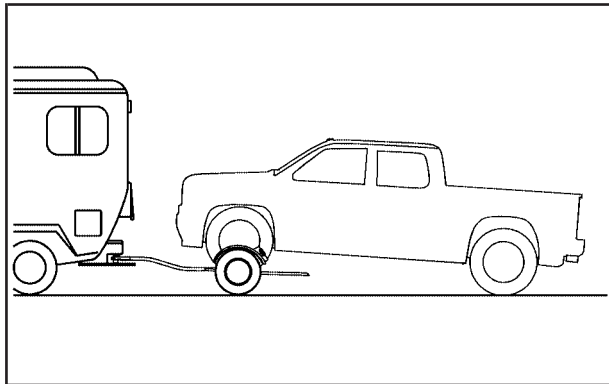


Notice: If a two-wheel-drive vehicle is towed with the rear wheels on the ground, the transmission could be damaged. The repairs would not be covered by the vehicle warranty. Never tow the vehicle with the rear wheels on the ground.

Two-wheel-drive vehicles should not be towed with the rear wheels on the ground. Two-wheel-drive transmissions have no provisions for internal lubrication while being towed.

To dolly tow a two-wheel-drive vehicle, the vehicle must be towed with the rear wheels on the dolly. See “Rear Towing (Rear Wheels Off the Ground)” later in this section for more information.

Four-Wheel-Drive Vehicles



Use the following procedure to dolly tow a four-wheel-drive vehicle from the front:

1. Attach the dolly to the tow vehicle following the dolly manufacturer's instructions.
2. Drive the front wheels onto the dolly.
3. Shift the transmission to P (Park).

4. Firmly set the parking brake.

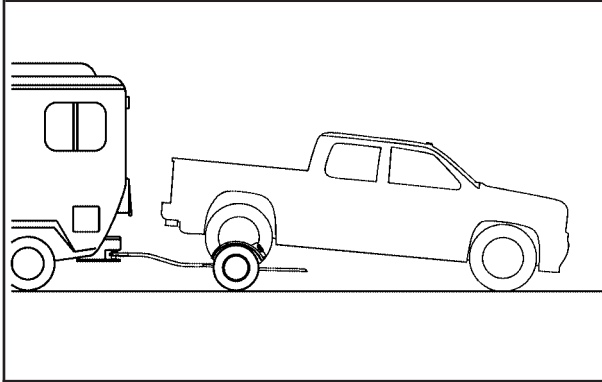
CAUTION:

Shifting a four-wheel-drive vehicle's transfer case into N (Neutral) can cause the vehicle to roll even if the transmission is in P (Park). The driver or others could be injured. Make sure the parking brake is firmly set before the transfer case is shifted to N (Neutral).

5. Use an adequate clamping device designed for towing to ensure that the front wheels are locked into the straight position.
6. Secure the vehicle to the dolly following the manufacturer's instructions.
7. Shift the transfer case to N (Neutral). See “Shifting into Neutral” under *Four-Wheel Drive on page 2-37* for the proper procedure to select the neutral position for the vehicle.
8. Release the parking brake only after the vehicle being towed is firmly attached to the towing vehicle.
9. Turn the ignition to LOCK/OFF.

After towing, see “Shifting Out of Neutral” under *Four-Wheel Drive on page 2-37*.

Rear Towing (Rear Wheels Off the Ground)



Two-Wheel-Drive Vehicles

Use the following procedure to dolly tow a two-wheel-drive vehicle from the rear:

1. Attach the dolly to the tow vehicle following the dolly manufacturer's instructions.
2. Drive the rear wheels onto the dolly.
3. Firmly set the parking brake. See *Parking Brake* on page 2-50.
4. Put the transmission in P (Park).
5. Secure the vehicle to the dolly following the manufacturer's instructions.
6. Use an adequate clamping device designed for towing to ensure that the front wheels are locked into the straight position.
7. Turn the ignition to LOCK/OFF.

Four-Wheel-Drive Vehicles

Use the following procedure to dolly tow a four-wheel-drive vehicle from the rear:

1. Attach the dolly to the tow vehicle following the dolly manufacturer's instructions.
2. Drive the rear wheels onto the dolly.
3. Firmly set the parking brake. See *Parking Brake on page 2-50*.
4. Put the transmission in P (Park).
5. Secure the vehicle to the dolly following the manufacturer's instructions.
6. Use an adequate clamping device designed for towing to ensure that the front wheels are locked into the straight position.

CAUTION:

Shifting a four-wheel-drive vehicle's transfer case into N (Neutral) can cause the vehicle to roll even if the transmission is in P (Park). The driver or others could be injured. Make sure the parking brake is firmly set before the transfer case is shifted to N (Neutral).

7. Shift the transfer case to N (Neutral). See "Shifting into Neutral" under *Four-Wheel Drive on page 2-37* for the proper procedure to select the neutral position for the vehicle.
8. Turn the ignition to LOCK/OFF.

After towing, see "Shifting Out of Neutral" under *Four-Wheel Drive on page 2-37*.

Towing a Trailer

If the vehicle has a diesel engine, see the DURAMAX[®] Diesel manual for more information.

Do not tow a trailer during break-in. See *New Vehicle Break-In* on page 2-22 for more information.

CAUTION:

The driver can lose control when pulling a trailer if the correct equipment is not used or the vehicle is not driven properly. For example, if the trailer is too heavy, the brakes may not work well or even at all. The driver and passengers could be seriously injured. The vehicle may also be damaged; the resulting repairs would not be covered by the vehicle warranty. Pull a trailer only if all the steps in this section have been followed. Ask your dealer/retailer for advice and information about towing a trailer with the vehicle.

Notice: Pulling a trailer improperly can damage the vehicle and result in costly repairs not covered by the vehicle warranty. To pull a trailer correctly, follow the advice in this section and see your dealer/retailer for important information about towing a trailer with the vehicle.

To identify the trailering capacity of the vehicle, read the information in “Weight of the Trailer” that appears later in this section.

Trailering is different than just driving the vehicle by itself. Trailering means changes in handling, acceleration, braking, durability and fuel economy. Successful, safe trailering takes correct equipment, and it has to be used properly.

The following information has many time-tested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. So please read this section carefully before pulling a trailer.

Pulling A Trailer

Here are some important points:

- There are many different laws, including speed limit restrictions, having to do with trailering. Make sure the rig will be legal, not only where you live but also where you will be driving. A good source for this information can be state or provincial police.
- Consider using a sway control. See “Hitches” later in this section.
- Do not tow a trailer at all during the first 500 miles (800 km) the new vehicle is driven. The engine, axle or other parts could be damaged.
- Then, during the first 500 miles (800 km) that a trailer is towed, do not drive over 50 mph (80 km/h) and do not make starts at full throttle. This helps the engine and other parts of the vehicle wear in at the heavier loads.
- Vehicles can tow in D (Drive). Shift the transmission to a lower gear if the transmission shifts too often under heavy loads and/or hilly conditions.

Three important considerations have to do with weight:

- The weight of the trailer
- The weight of the trailer tongue
- And the weight on the vehicle’s tires

Weight of the Trailer

How heavy can a trailer safely be?

It depends on how the rig is used. For example, speed, altitude, road grades, outside temperature and how much the vehicle is used to pull a trailer are all important. It can depend on any special equipment on the vehicle, and the amount of tongue weight the vehicle can carry. See “Weight of the Trailer Tongue” later in this section for more information.

Maximum trailer weight is calculated assuming only the driver is in the tow vehicle and it has all the required trailering equipment. The weight of additional optional equipment, passengers and cargo in the tow vehicle must be subtracted from the maximum trailer weight.

Use the following chart to determine how much the vehicle can weigh, based upon the vehicle model and options.

Weights listed apply for conventional trailers and fifth-wheel trailers unless otherwise noted.

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
1500 Series 2WD Regular Cab Standard Box (b)			
4.3L V6 (c)	3.23	4,800 lbs (2 177 kg)	9,500 lbs (4 309 kg)
4.3L V6 (c)	3.73	5,300 lbs (2 404 kg)	10,000 lbs (4 536 kg)
4.8L V8 (c)	3.23	5,200 lbs (2 359 kg)	10,000 lbs (4 536 kg)
4.8L V8	3.73	7,200 lbs (3 266 kg)	12,000 lbs (5 443 kg)
5.3L V8 4 Speed Automatic	3.42	7,200 lbs (3 266 kg)	12,000 lbs (5 443 kg)
5.3L V8 4 Speed Automatic	3.73	8,200 lbs (3 720 kg)	13,000 lbs (5 897 kg)
5.3L LMG V8 6 Speed Automatic	3.42	6,600 lbs (2 994 kg)	11,500 lbs (5 216 kg)
5.3L LY5 V8 6 Speed Automatic	3.42	6,700 lbs (3 039 kg)	11,500 lbs (5 216 kg)
5.3L LMG V8 6 Speed Automatic, K5L HD Cooling Pkg	3.42	9,100 lbs (4 128 kg)	14,000 lbs (6 350 kg)
5.3L LY5 V8 6 Speed Automatic, K5L HD Cooling Pkg	3.42	9,200 lbs (4 173 kg)	14,000 lbs (6 350 kg)
1500 Series 2WD Extended Cab Standard Box (b)			
4.3L V6 (c)	3.23	4,400 lbs (1 996 kg)	9,500 lbs (4 309 kg)
4.3L V6 (c)	3.73	4,900 lbs (2 223 kg)	10,000 lbs (4 536 kg)
4.8L V8 (c)	3.23	4,700 lbs (2 132 kg)	10,000 lbs (4 536 kg)
4.8L V8	3.73	6,700 lbs (3 039 kg)	12,000 lbs (5 443 kg)
5.3L V8 4 Speed Automatic	3.42	6,700 lbs (3 039 kg)	12,000 lbs (5 443 kg)
5.3L V8 4 Speed Automatic	3.73	7,700 lbs (3 493 kg)	13,000 lbs (5 897 kg)
5.3L V8 6 Speed Automatic	3.42	6,200 lbs (2 812 kg)	11,500 lbs (5 216 kg)
5.3L V8 6 Speed Automatic, K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	9,100 lbs (4 128 kg)	15,000 lbs (6 804 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
5.3L V8 6 Speed Automatic, K5L HD Cooling Pkg — Conventional Trailer	3.42	9,700 lbs (4 400 kg)	15,000 lbs (6 804 kg)
6.0L V8	3.42	6,700 lbs (3 039 kg)	12,000 lbs (5 443 kg)
6.0L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	8,700 lbs (3 946 kg)	15,000 lbs (6 804 kg)
6.0L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	9,700 lbs (4 400 kg)	15,000 lbs (6 804 kg)
6.0L V8 NHT Max Trailering Pkg — Fifth-Wheel Trailer	3.73	10,000 lbs (4 536 kg)	16,000 lbs (7 257 kg)
6.0L V8 NHT Max Trailering Pkg — Conventional Trailer	3.73	10,700 lbs (4 853 kg)	16,000 lbs (7 257 kg)
1500 Series 2WD Extended Cab Short Box (c)			
4.3L V6	3.23	4,400 lbs (1 996 kg)	9,500 lbs (4 309 kg)
4.3L V6	3.73	4,900 lbs (2 223 kg)	10,000 lbs (4 536 kg)
4.8L V8	3.42	5,800 lbs (2 631 kg)	12,000 lbs (5 443 kg)
4.8L V8	3.73	6,800 lbs (3 084 kg)	12,000 lbs (5 443 kg)
5.3L V8	3.42	6,800 lbs (3 084 kg)	12,000 lbs (5 443 kg)
5.3L V8	3.73	7,800 lbs (3 538 kg)	13,000 lbs (5 897 kg)
6.0L V8	3.42	6,700 lbs (3 039 kg)	12,000 lbs (5 443 kg)
6.0L V8 K5L HD Cooling Pkg	3.42	9,700 lbs (4 400 kg)	15,000 lbs (6 804 kg)
1500 Series 2WD Crew Cab Short Box (c)			
4.8L V8	3.23	4,700 lbs (2 132 kg)	10,000 lbs (4 536 kg)
4.8L V8	3.73	6,700 lbs (3 039 kg)	12,000 lbs (5 443 kg)
5.3L V8	3.42	6,100 lbs (2 767 kg)	11,500 lbs (5 216 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
5.3L V8 K5L HD Cooling Pkg	3.42	9,600 lbs (4 355 kg)	15,000 lbs (6 804 kg)
6.0L, 6.2L V8	3.42	6,600 lbs (2 994 kg)	12,000 lbs (5 443 kg)
6.0L, 6.2L V8 K5L HD Cooling Pkg	3.42	9,600 lbs (4 355 kg)	15,000 lbs (6 804 kg)
6.0L, 6.2L V8 NHT Max Trailer Pkg	3.73	10,600 lbs (4 808 kg)	16,000 lbs (7 257 kg)
1500 Series 2WD Regular Cab Long Box (b)			
4.3L V6 (c)	3.23	4,700 lbs (2 132 kg)	9,500 lbs (4 309 kg)
4.3L V6 (c)	3.73	5,200 lbs (2 359 kg)	10,000 lbs (4 536 kg)
4.8L V8 (c)	3.23	5,100 lbs (2 313 kg)	10,000 lbs (4 536 kg)
4.8L V8	3.73	7,100 lbs (3 221 kg)	12,000 lbs (5 443 kg)
5.3L V8 4 Speed Automatic	3.42	7,000 lbs (3 175 kg)	12,000 lbs (5 443 kg)
5.3L V8 4 Speed Automatic	3.73	8,000 lbs (3 629 kg)	13,000 lbs (5 897 kg)
5.3L V8 6 Speed Automatic	3.42	6,500 lbs (2 948 kg)	11,500 lbs (5 216 kg)
5.3L V8 6 Speed Automatic, K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	8,700 lbs (3 946 kg)	15,000 lbs (6 804 kg)
5.3L V8 6 Speed Automatic, K5L HD Cooling Pkg — Conventional Trailer	3.42	10,000 lbs (4 536 kg)	15,000 lbs (6 804 kg)
1500 Series 2WD Extended Cab Long Box (b)			
5.3L V8 4 Speed Automatic — Fifth-Wheel Trailer	3.73	7,500 lbs (3 402 kg)	13,000 lbs (5 897 kg)
5.3L V8 4 Speed Automatic — Conventional Trailer	3.73	7,600 lbs (3 447 kg)	13,000 lbs (5 897 kg)
5.3L V8 6 Speed Automatic	3.42	6,000 lbs (2 722 kg)	11,500 lbs (5 216 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
5.3L V8 6 Speed Automatic, K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	8,700 lbs (3 946 kg)	15,000 lbs (6 804 kg)
5.3L V8 6 Speed Automatic, K5L HD Cooling Pkg — Conventional Trailer	3.42	9,500 lbs (4 309 kg)	15,000 lbs (6 804 kg)
1500 Series 4WD Regular Cab Standard Box (b)			
4.3L V6 (c)	3.73	5,100 lbs (2 313 kg)	10,000 lbs (4 536 kg)
4.8L V8 (c)	3.42	6,000 lbs (2 722 kg)	11,000 lbs (4 990 kg)
5.3L V8	3.42	6,400 lbs (2 903 kg)	11,500 lbs (5 216 kg)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	8,100 lbs (3 674 kg)	14,000 lbs (6 350 kg)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	8,900 lbs (4 037 kg)	14,000 lbs (6 350 kg)
5.3L V8	3.73	7,900 lbs (3 583 kg)	13,000 lbs (5 897 kg)
5.3L V8 — Fifth-Wheel Trailer	4.10	8,300 lbs (3 765 kg)	14,000 lbs (6 350 kg)
5.3L V8 — Conventional Trailer	4.10	8,900 lbs (4 037 kg)	14,000 lbs (6 350 kg)
1500 Series 4WD Extended Cab Standard Box (b)			
4.8L V8 (c)	3.42	5,500 lbs (2 495 kg)	11,000 lbs (4 990 kg)
5.3L V8 (c)	3.42	5,900 lbs (2 676 kg)	11,500 lbs (5 216 kg)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	8,900 lbs (4 037 kg)	15,000 lbs (6 804 kg)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	9,400 lbs (4 264 kg)	15,000 lbs (6 804 kg)
5.3L V8	3.73	7,500 lbs (3 402 kg)	13,000 lbs (5 897 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
5.3L V8	4.10	8,500 lbs (3 856 kg)	14,000 lbs (6 350 kg)
6.0L V8 (c)	3.42	6,400 lbs (2 903 kg)	12,000 lbs (5 443 kg)
6.0L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	8,400 lbs (3 810 kg)	15,000 lbs (6 804 kg)
6.0L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	9,400 lbs (4 264 kg)	15,000 lbs (6 804 kg)
6.0L V8 NHT Max Trailering Pkg — Fifth-Wheel Trailer	3.73	9,700 lbs (4 400 kg)	16,000 lbs (7 257 kg)
6.0L V8 NHT Max Trailering Pkg — Conventional Trailer	3.73	10,400 lbs (4 717 kg)	16,000 lbs (7 257 kg)
1500 Series 4WD Extended Cab Short Box (c)			
4.8L V8	3.42	5,500 lbs (2 495 kg)	11,000 lbs (4 990 kg)
4.8L V8	4.10	8,500 lbs (3 856 kg)	14,000 lbs (6 350 kg)
5.3L V8	3.73	7,500 lbs (3 402 kg)	13,000 lbs (5 897 kg)
5.3L V8	4.10	8,500 lbs (3 856 kg)	14,000 lbs (6 350 kg)
6.0L V8	3.42	6,400 lbs (2 903 kg)	12,000 lbs (5 443 kg)
6.0L V8 K5L HD Cooling Pkg	3.42	9,400 lbs (4 264 kg)	15,000 lbs (6 804 kg)
1500 Series 4WD Crew Cab Short Box (c)			
4.8L V8	3.42	5,400 lbs (2 449 kg)	11,000 lbs (4 990 kg)
5.3L V8	3.42	6,000 lbs (2 722 kg)	11,500 lbs (5 216 kg)
5.3L V8 K5L HD Cooling Pkg	3.42	9,500 lbs (4 309 kg)	15,000 lbs (6 804 kg)
6.0L, 6.2L V8	3.42	6,300 lbs (2 858 kg)	12,000 lbs (5 443 kg)
6.0L, 6.2L V8 K5L HD Cooling Pkg	3.42	9,300 lbs (4 218 kg)	15,000 lbs (6 804 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
6.0L V8 NHT Max Trailering Pkg — Fifth-Wheel Trailer	3.73	9,900 lbs (4 491 kg)	16,000 lbs (7 257 kg)
6.0L, 6.2L V8 NHT Max Trailering Pkg — Conventional Trailer	3.73	10,400 lbs (4 717 kg)	16,000 lbs (7 257 kg)
1500 Series 4WD Regular Cab Long Box (b)			
4.3L V6 (c)	3.73	4,900 lbs (2 223 kg)	10,000 lbs (4 536 kg)
4.8L V8 (c)	3.42	5,800 lbs (2 631 kg)	11,000 lbs (4 990 kg)
5.3L V8	3.42	6,300 lbs (2 858 kg)	11,500 lbs (5 216 kg)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	9,500 lbs (4 309 kg)	15,000 lbs (6 804 kg)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	9,800 lbs (4 445 kg)	15,000 lbs (6 804 kg)
5.3L V8 — Fifth-Wheel Trailer	3.73	7,800 lbs (3 538 kg)	13,000 lbs (5 897 kg)
5.3L V8 — Conventional Trailer	3.73	7,900 lbs (3 583 kg)	13,000 lbs (5 897 kg)
5.3L V8 — Fifth-Wheel Trailer	4.10	8,800 lbs (3 992 kg)	14,000 lbs (6 350 kg)
5.3L V8 — Conventional Trailer	4.10	8,900 lbs (4 037 kg)	14,000 lbs (6 350 kg)
1500 Series 4WD Extended Cab Long Box (b)			
5.3L V8 (c)	3.42	5,700 lbs (2 586 kg)	11,500 lbs (5 216 kg)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	7,700 lbs (3 493 kg)	15,000 lbs (6 804 kg)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	9,200 lbs (4 173 kg)	15,000 lbs (6 804 kg)
5.3L LMG V8	3.73	7,600 lbs (3 447 kg)	13,000 lbs (5 897 kg)
5.3L LY5 V8	3.73	7,300 lbs (3 311 kg)	13,000 lbs (5 897 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
2500 Series 2WD Extended Cab Standard Box HD (d)			
6.0L V8	3.73	10,200 lbs (4 627 kg)	16,000 lbs (7 257 kg)
	4.10	12,700 lbs (5 761 kg)	18,500 lbs (8 391 kg)
2500 Series 2WD Crew Cab Standard Box HD (d)			
6.0L V8	3.73	10,000 lbs (4 536 kg)	16,000 lbs (7 257 kg)
	4.10	12,500 lbs (5 670 kg)	18,500 lbs (8 391 kg)
2500 Series 2WD Regular Cab Long Box HD (d)			
6.0L V8	3.73	10,500 lbs (4 763 kg)	16,000 lbs (7 257 kg)
	4.10	13,000 lbs (5 897 kg)	18,500 lbs (8 391 kg)
2500 Series 2WD Extended Cab Long Box HD (d)			
6.0L V8	3.73	10,000 lbs (4 536 kg)	16,000 lbs (7 257 kg)
	4.10	12,500 lbs (5 670 kg)	18,500 lbs (8 391 kg)
2500 Series 2WD Crew Cab Long Box HD (d)			
6.0L V8	3.73	9,900 lbs (4 491 kg)	16,000 lbs (7 257 kg)
	4.10	12,400 lbs (5 625 kg)	18,500 lbs (8 391 kg)
2500 Series 4WD Extended Cab Standard Box HD (d)			
6.0L V8	3.73	9,900 lbs (4 491 kg)	16,000 lbs (7 257 kg)
	4.10	12,400 lbs (5 625 kg)	18,500 lbs (8 391 kg)
2500 Series 4WD Crew Cab Standard Box HD (d)			
6.0L V8	3.73	9,800 lbs (4 445 kg)	16,000 lbs (7 257 kg)
	4.10	12,300 lbs (5 579 kg)	18,500 lbs (8 391 kg)
2500 Series 4WD Regular Cab Long Box HD (d)			
6.0L V8	3.73	10,200 lbs (4 627 kg)	16,000 lbs (7 257 kg)
	4.10	12,700 lbs (5 761 kg)	18,500 lbs (8 391 kg)

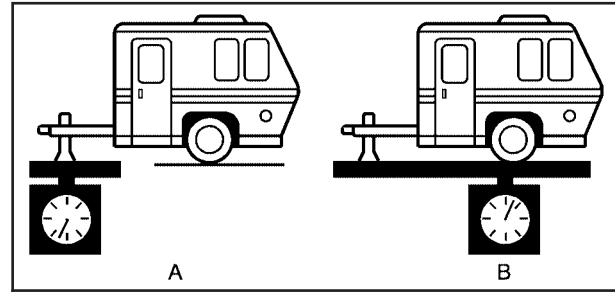
Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
2500 Series 4WD Extended Cab Long Box HD (d)			
6.0L V8	3.73	9,800 lbs (4 445 kg)	16,000 lbs (7 257 kg)
	4.10	12,300 lbs (5 579 kg)	18,500 lbs (8 391 kg)
2500 Series 4WD Crew Cab Long Box HD (d)			
6.0L V8	3.73	9,600 lbs (4 355 kg)	16,000 lbs (7 257 kg)
	4.10	12,100 lbs (5 489 kg)	18,500 lbs (8 391 kg)
3500 Series 2WD Extended Cab (e)			
6.0L V8 (Single Rear Wheels)	3.73	9,900 lbs (4 491 kg)	16,000 lbs (7 257 kg)
	4.10	12,400 lbs (5 625 kg)	18,500 lbs (8 391 kg)
6.0L V8 (Dual Rear Wheels)	3.73	9,500 lbs (4 309 kg)	16,000 lbs (7 257 kg)
	4.10	12,000 lbs (5 443 kg)	18,500 lbs (8 391 kg)
3500 Series 2WD Crew Cab (e)			
6.0L V8 (Single Rear Wheels)	3.73	9,700 lbs (4 400 kg)	16,000 lbs (7 257 kg)
	4.10	12,200 lbs (5 534 kg)	18,500 lbs (8 391 kg)
6.0L V8 (Dual Rear Wheels)	3.73	9,300 lbs (4 218 kg)	16,000 lbs (7 257 kg)
	4.10	11,800 lbs (5 352 kg)	18,500 lbs (8 391 kg)
3500 Series 4WD Regular Cab (e)			
6.0L V8 (Single Rear Wheels)	3.73	10,000 lbs (4 536 kg)	16,000 lbs (7 257 kg)
	4.10	12,500 lbs (5 670 kg)	18,500 lbs (8 391 kg)
6.0L V8 (Dual Rear Wheels)	3.73	9,700 lbs (4 400 kg)	16,000 lbs (7 257 kg)
	4.10	12,200 lbs (5 534 kg)	18,500 lbs (8 391 kg)

Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
3500 Series 4WD Extended Cab (e)			
6.0L V8 (Single Rear Wheels)	3.73	9,600 lbs (4 355 kg)	16,000 lbs (7 257 kg)
	4.10	12,100 lbs (5 489 kg)	18,500 lbs (8 391 kg)
6.0L V8 (Dual Rear Wheels)	3.73	9,200 lbs (4 173 kg)	16,000 lbs (7 257 kg)
	4.10	11,700 lbs (5 307 kg)	18,500 lbs (8 391 kg)
3500 Series 4WD Crew Cab (e)			
6.0L V8 (Single Rear Wheels)	3.73	9,400 lbs (4 264 kg)	16,000 lbs (7 257 kg)
	4.10	11,900 lbs (5 398 kg)	18,500 lbs (8 391 kg)
6.0L V8 (Dual Rear Wheels)	3.73	9,100 lbs (4 128 kg)	16,000 lbs (7 257 kg)
	4.10	11,600 lbs (5 262 kg)	18,500 lbs (8 391 kg)
<p>(a) The Gross Combination Weight Rating (GCWR) is the total allowable weight of the completely loaded vehicle and trailer including any passengers, cargo, equipment and conversions. The GCWR for the vehicle should not be exceeded.</p> <p>(b) Fifth-wheel or gooseneck kingpin weight 15 percent to 25 percent of trailer weight up to 1,500 lbs (680 kg) maximum.</p> <p>(c) This model is neither designed nor intended to tow fifth-wheel or gooseneck trailers.</p> <p>(d) Fifth-wheel or gooseneck kingpin weight should be 15 percent to 25 percent of trailer weight up to 3,000 lbs (1 361 kg) maximum.</p> <p>(e) Fifth-wheel or gooseneck kingpin weight should be 15 percent to 25 percent of trailer weight up to 3,500 lbs (1 587 kg) maximum.</p>			

Ask your dealer/retailer for our trailering information or advice, or write us at our Customer Assistance Offices. See *Customer Assistance Offices* on page 7-6 for more information.

Weight of the Trailer Tongue

The tongue load (A) of any trailer is an important weight to measure because it affects the total gross weight of the vehicle. The Gross Vehicle Weight (GVW) includes the curb weight of the vehicle, any cargo carried in it, and the people who will be riding in the vehicle. If there are a lot of options, equipment, passengers or cargo in the vehicle, it will reduce the tongue weight the vehicle can carry, which will also reduce the trailer weight the vehicle can tow. If towing a trailer, the tongue load must be added to the GVW because the vehicle will be carrying that weight, too. See for more information about the vehicle's maximum load capacity.



The trailer tongue weight (A) should be 10 percent to 15 percent of the total loaded trailer weight, up to a maximum of 600 lbs (272 kg) for the 1500 or 2500 series, and up to a maximum of 750 lbs (340 kg) for the 2500 HD or 3500 series with a weight carrying hitch. The trailer tongue weight (A) should be 10 percent to 15 percent of the total loaded trailer weight, up to a maximum of 1,000 lbs (453 kg) for the 1500 series and up to a maximum of 1,500 lbs (680 kg) for the 2500, 2500 HD or 3500 series with a weight distributing hitch.

Fifth wheel or gooseneck kingpin weight should be 15 to 25 percent of the trailer weight up to the maximum amount specified in the trailering chart for the vehicle. See "Weight of the Trailer", and "Fifth-Wheel and Gooseneck Trailering" in this section.

Do not exceed the maximum allowable tongue weight for the vehicle. Choose the shortest hitch extension that will position the hitch ball closest to the vehicle. This will help reduce the effect of trailer tongue weight on the rear axle.

After loading the trailer, weigh the trailer and then the tongue, separately, to see if the weights are proper. If they are not, adjustments might be made by moving some items around in the trailer.

Trailer may be limited by the vehicle's ability to carry tongue weight. Tongue weight cannot cause the vehicle to exceed the GVWR (Gross Vehicle Weight Rating) or the RGAWR (Rear Gross Axle Weight Rating). The effect of additional weight may reduce the trailering capacity more than the total of the additional weight.

Consider the following example:

A vehicle model base weight is 5,500 lbs (2 495 kg); 2,800 lbs (1 270 kg) at the front axle and 2,700 lbs (1 225 kg) at the rear axle. It has a GVWR of 7,200 lbs (3 266 kg), a RGAWR of 4,000 lbs (1 814 kg) and a GCWR (Gross Combination Weight Rating) of 14,000 lbs (6 350 kg). The trailer rating should be:

14,000 lbs (6350 kg)	GCWR
<u>-5,500 lbs (2495 kg)</u>	Vehicle Weight
8,500 lbs (3855 kg)	Trailer Rating

Expect tongue weight to be at least 10 percent of trailer weight (850 lbs (386 kg)) and because the weight is applied well behind the rear axle, the effect on the rear axle is greater than just the weight itself, as much as 1.5 times as much. The weight at the rear axle could be 850 lbs (386 kg) X 1.5 = 1,275 lbs (578 kg). Since the rear axle already weighs 2,700 lbs (1 225 kg), adding 1,275 lbs (578 kg) brings the total to 3,975 lbs (1 803 kg). This is very close to, but within the limit for RGAWR as well. The vehicle is set to trailer up to 8,500 lbs (3 856 kg).

If the vehicle has many options and there is a front seat passenger and two rear seat passengers with some luggage and gear in the vehicle as well. 300 lbs (136 kg) could be added to the front axle weight and 400 lbs (181 kg) to the rear axle weight. The vehicle now weighs:

2,800 lbs (1270 kg)	+	300 lbs (136 kg)	Front
2,700 lbs (1225 kg)	+	400 lbs (181 kg)	Rear
<hr/>			
6,200 lbs (2812 kg)			Total

Weight is still below 7,200 lbs (3 266 kg) and you might think 700 additional pounds (318 kg) should be subtracted from the trailering capacity to stay within GCWR limits. The maximum trailer would only be 7,800 lbs (3 538 kg). You may go further and think the tongue weight should be limited to less than 1,000 lbs (454 kg) to avoid exceeding GVWR. But the effect on the rear axle must still be considered. Because the rear axle now weighs 3,100 lbs (1 406 kg), 900 lbs (408 kg) can be put on the rear axle without exceeding RGAWR. The effect of tongue weight is about 1.5 times the actual weight. Dividing the 900 lbs (408 kg) by 1.5 leaves only 600 lbs (272 kg) of tongue weight that can be handled.

Since tongue weight is usually at least 10 percent of total loaded trailer weight, expect that the largest trailer the vehicle can properly handle is 6,000 lbs (2 721 kg).

It is important that the vehicle does not exceed any of its ratings — GCWR, GVWR, RGAWR, Maximum Trailer Rating or Tongue Weight. The only way to be sure it is not exceeding any of these ratings is to weigh the vehicle and trailer.

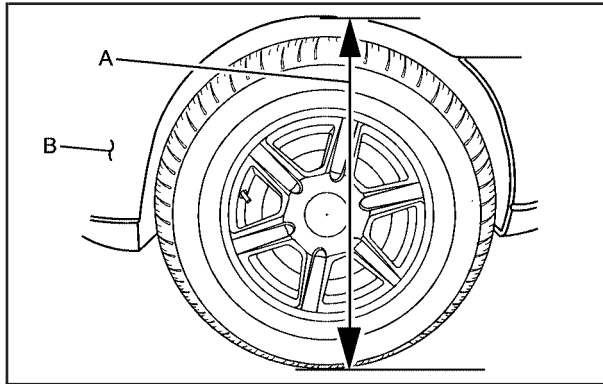
Total Weight on the Vehicle's Tires

Be sure the vehicle's tires are inflated to the upper limit for cold tires. These numbers can be found on the Certification label at the rear edge of the drivers door or see *Loading the Vehicle on page 4-34* for more information. Make sure not to go over the GVW limit for the vehicle, or the GAWR, including the weight of the trailer tongue. If using a weight distributing hitch, make sure not to go over the rear axle limit before applying the weight distribution spring bars.

Hitches

It is important to have the correct hitch equipment. Crosswinds, large trucks going by and rough roads are a few reasons why the right hitch is needed.

Weight-Distributing Hitches and Weight Carrying Hitches



A: Body to Ground Distance

B: Front of Vehicle

When using a weight-distributing hitch, the hitch must be adjusted so the distance (A) remains the same both before and after coupling the trailer to the tow vehicle.

If a step-bumper hitch will be used, the bumper could be damaged in sharp turns. Make sure there is ample room when turning to avoid contact between the trailer and the bumper.

If the loaded trailer being pulled will weigh more than 5,000 lbs (2 270 kg), be sure to use a properly mounted weight-distributing hitch and sway control of the proper size. This equipment is very important for proper vehicle loading and good handling when driving. Always use a sway control if the trailer will weigh more than these limits. Ask a hitch dealer about sway controls.

Fifth Wheel and Gooseneck Trailering

Fifth wheel and gooseneck trailers can be used with many pickup models. These trailers place a larger percentage of the weight (kingpin weight) on the tow vehicle than conventional trailers. Make sure this weight does not cause the vehicle to exceed GAWR or GVWR.

Fifth wheel or gooseneck kingpin weight should be 15 to 25 percent of the trailer weight up to the maximum amount specified in the trailering chart for the vehicle. See “Weight of the Trailer” in this section for more information.

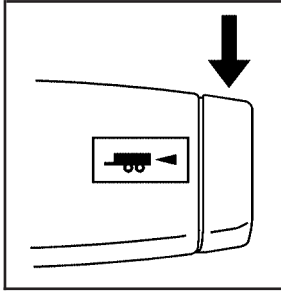
The hitch should be located in the pickup bed so that its centerline is over or slightly in front of the rear axle. Take care that it is not so far forward that it will contact the back of the cab in sharp turns. This is especially important for short box pickups. Trailer pin box extensions and sliding fifth wheel hitch assemblies can help this condition. There should be at least six inches of clearance between the top of the pickup box and the bottom of the trailer shelf that extends over the box.

Make sure the hitch is attached to the tow vehicle frame rails. Do not use the pickup box for support.

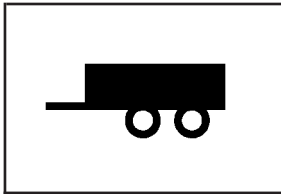
Safety Chains

Always attach chains between the vehicle and the trailer. Cross the safety chains under the tongue of the trailer to help prevent the tongue from contacting the road if it becomes separated from the hitch. Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer. If the trailer being towed weighs up to 5,000 lbs (2 271 kg) with a factory-installed step bumper, safety chains may be attached to the attaching points on the bumper. If the trailer being towed weighs up to the vehicle's trailer rating limit, safety chains may be attached to the attaching point on the hitch platform. Always leave just enough slack so the rig can turn. Never allow safety chains to drag on the ground.

Tow/Haul Mode



Pressing this button at the end of the shift lever turns on and off the tow/haul mode.



This indicator light on the instrument panel cluster comes on when the tow/haul mode is on.

Tow/Haul is a feature that assists when pulling a heavy trailer or a large or heavy load. See *Tow/Haul Mode* on page 2-34 for more information.

Tow/Haul is designed to be most effective when the vehicle and trailer combined weight is at least 75 percent of the vehicle's Gross Combined Weight Rating (GCWR). See "Weight of the Trailer" later in the section. Tow/Haul is most useful under the following driving conditions:

- When pulling a heavy trailer or a large or heavy load through rolling terrain.
- When pulling a heavy trailer or a large or heavy load in stop and go traffic.
- When pulling a heavy trailer or a large or heavy load in busy parking lots where improved low speed control of the vehicle is desired.

Operating the vehicle in Tow/Haul when lightly loaded or with no trailer at all will not cause damage. However, there is no benefit to the selection of Tow/Haul when the vehicle is unloaded. Such a selection when unloaded may result in unpleasant engine and transmission driving characteristics and reduced fuel economy. Tow/Haul is recommended only when pulling a heavy trailer or a large or heavy load.

Trailer Brakes

A loaded trailer that weighs more than 2,000 lbs (900 kg) needs to have its own brake system that is adequate for the weight of the trailer. Be sure to read and follow the instructions for the trailer brakes so they are installed, adjusted and maintained properly.

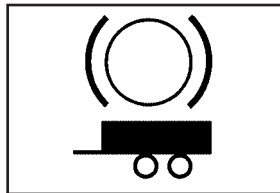
If the vehicle is equipped with StabiliTrak®, the trailer cannot tap into the vehicle's hydraulic brake system.

The trailer brake system can tap into the vehicle's hydraulic brake system only if:

- The trailer parts can withstand 3,000 psi (20 650 kPa) of pressure.
- The trailer's brake system will use less than 0.02 cubic inch (0.3 cc) of fluid from the vehicle's master cylinder. Otherwise, both braking systems will not work well or at all.

If everything checks out this far, make the brake tap at the port on the master cylinder that sends the fluid to the rear brakes. Use only steel brake tubing to make the tap.

Integrated Trailer Brake Control System



The vehicle may have an Integrated Trailer Brake Control (ITBC) system for electric trailer brakes.

This symbol is located on the Trailer Brake Control Panel on vehicles with an Integrated Trailer Brake Control System. The power output to the trailer brakes is based on the amount of brake pressure being applied by the vehicle's brake system. This available power output to the trailer brakes can be adjusted to a wide range of trailering situations.

The ITBC system is integrated with the vehicle's brake, anti-lock brake and StabiliTrak (if equipped) systems. In trailering conditions that cause the vehicle's anti-lock brake or StabiliTrak systems to activate, power sent to the trailer's brakes will be automatically adjusted to minimize trailer wheel lock-up. This does not imply that the trailer has the StabiliTrak system.

If the vehicle's brake, anti-lock brake or StabiliTrak systems are not functioning properly, the ITBC system may not be fully functional or may not function at all. Make sure all of these systems are fully operational to ensure full functionality of the ITBC system.

The ITBC system is powered through the vehicle's electrical system. Turning the ignition off will also turn off the ITBC system. The ITBC system is fully functional only when the ignition is in ON or in RUN.

The ITBC system can only be used with trailers with electric brakes.

 **CAUTION:**

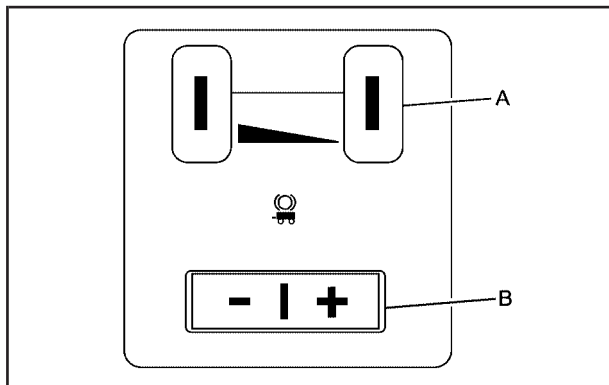
Connecting a trailer that is not compatible with the ITBC system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer, or other property. An aftermarket controller may be available for use with trailers with surge, air or electric-over-hydraulic trailer brake systems. To determine the type of brakes on the trailer and the availability of controllers, check with your trailer manufacturer or dealer/retailer.

When trailering, make sure of the following:

- The ITBC system is used only with trailers that are equipped with electric brakes.
- All applicable local and federal laws and regulations are followed.
- All electrical and mechanical connections to the trailer are made correctly.
- The trailer's brakes are in proper working condition.
- The trailer and vehicle are properly loaded for the towing condition.

The ITBC system is a factory installed item. Out-of-factory installation of this system should not be attempted. GM is not responsible for warranty or performance of the system resulting from out-of-factory installation.

Trailer Brake Control Panel



- A. Manual Trailer Brake Apply Lever
- B. Trailer Gain Adjustment Buttons

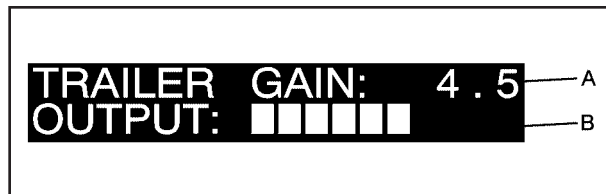
The ITBC system has a control panel located on the instrument panel to the left of the steering column. See *Instrument Panel Overview (Base/Uplevel version)* on page 3-4 or *Instrument Panel Overview (Premium version)* on page 3-6 for more information on location.

The control panel allows adjustment to the amount of output, referred to as trailer gain, available to the electric trailer brakes and allows manual application of the trailer brakes. The Trailer Brake Control Panel is used along with the Trailer Brake Display Page on the DIC to adjust and display power output to the trailer brakes.

Trailer Brake DIC Display Page

The ITBC system displays messages into the vehicle's Driver Information Center (DIC). See *DIC Warnings and Messages* on page 3-66 for more information.

The display page indicates Trailer Gain setting, power output to the electric trailer brakes, trailer connection and system operational status.





- A. Trailer Gain Setting
- B. Power Output to Trailer Brakes
- C. No trailer with electric brakes connected or fault present

The Trailer Brake Display Page can be displayed by performing any of the following actions:

- Scrolling through the DIC menu pages using the odometer trip stem or the DIC Vehicle Information button (if equipped).
- Pressing a Trailer Gain button – If the Trailer Brake Display Page is not currently displayed, pressing a Trailer Gain button will first recall the current Trailer Gain setting. After the Trailer Brake Display Page is displayed, each press and release of the gain buttons will then cause the Trailer Gain setting to change.

- Activating the Manual Trailer Brake Apply lever
- Connecting a trailer equipped with electric trailer brakes

All DIC warning and service messages must first be acknowledged by the driver by pressing the odometer trip stem or the DIC Vehicle Information button (if equipped) before the Trailer Brake Display Page can be displayed and Trailer Gain can be adjusted.

TRAILER GAIN – This setting is displayed anytime the Trailer Brake Display Page is active. This setting can be adjusted from 0.0 to 10.0 with either a trailer connected or disconnected. To adjust the Trailer Gain, press one of the Trailer Gain adjustment buttons located on the Trailer Brake Control Panel. Press and hold a gain button to cause the Trailer Gain to continuously adjust. To turn the output to the trailer off, adjust the Trailer Gain setting to 0.0 (zero).

0.0 (zero) gain is the factory default setting. To properly adjust trailer gain, see the Trailer Gain Adjustment Procedure later in this section.

TRAILER OUTPUT – This is displayed any time a trailer with electric brakes is connected. Output to the electric brakes is based on the amount of vehicle braking present and relative to the Trailer Gain setting. Output is displayed from 0 to 10 bars for each gain setting.

The Trailer Output will indicate “- - - - -” on the Trailer Brake Display Page whenever the following occur:

- No trailer is connected.
- A trailer without electric brakes is connected (no DIC message is displayed).
- A trailer with electric brakes has become disconnected (a CHECK TRAILER WIRING message will also be displayed on the DIC).
- There is a fault present in the wiring to the electric trailer brakes (a CHECK TRAILER WIRING message will also be displayed on the DIC).
- There is a fault in the ITBC system (a SERVICE TRAILER BRAKE SYSTEM message will also be displayed in the DIC).

Manual Trailer Brake Apply

The Manual Trailer Brake Apply Lever is located on the Trailer Brake Control Panel and is used to apply the trailer's electric brakes independent of the vehicle's brakes. This lever is used in the Trailer Gain Adjustment Procedure to properly adjust the power output to the trailer brakes. Sliding the lever to the left will apply only the trailer brakes. The power output to the trailer is indicated in the Trailer Brake Display Page in the DIC.

If the vehicle's service brakes are applied while using the Manual Trailer Brake Apply Lever, the trailer output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either vehicle braking or manual trailer brakes are applied.

Trailer Gain Adjustment Procedure

Trailer Gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change.

Setting the Trailer Gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poorer stopping and stability of the vehicle and trailer.

Use the following procedure to correctly adjust Trailer Gain for each towing condition:

1. Make sure the trailer brakes are in proper working condition.
2. Connect a properly loaded trailer to the vehicle and make all necessary mechanical and electrical connections. See *Loading the Vehicle on page 4-34* for more information.

3. After the electrical connection is made to a trailer equipped with electric brakes:
 - A TRAILER CONNECTED message will be briefly displayed on the DIC display.
 - The Trailer Brake Display Page will appear on the DIC showing TRAILER GAIN and TRAILER OUTPUT.
 - In the Trailer Output display on the DIC, “- - - - -” will disappear if there is no error present. Connecting a trailer without electric brakes will not clear the six dashed lines.
4. Adjust the Trailer Gain by using the gain adjustment (+ / -) buttons on the Trailer Brake Control Panel.
5. Drive the vehicle with the trailer attached on a level road surface representative of the towing condition and free of traffic at about 20 to 25 mph (32 to 40 km/h) and fully apply the Manual Trailer Brake Apply lever.

Adjusting trailer gain at speeds lower than 20 to 25 mph (32 to 40 km/h) may result in an incorrect gain setting.

6. Adjust the Trailer Gain to just below the point of trailer wheel lock-up, indicated by trailer wheel squeal or tire smoke when a trailer wheel locks.
Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the Trailer Gain to the highest allowable setting for the towing condition.
7. Re-adjust Trailer Gain any time vehicle loading, trailer loading or road surface conditions change or if trailer wheel lock-up is noticed at any time while towing.

Other ITBC Related DIC Messages

In addition to displaying TRAILER GAIN and TRAILER OUTPUT through the DIC, trailer connection and ITBC system status is displayed in the DIC.

TRAILER CONNECTED – This message will be briefly displayed when a trailer with electric brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

CHECK TRAILER WIRING – This message will be displayed if:

1. The ITBC system first determines connection to a trailer with electric brakes and then the trailer harness becomes disconnected from the vehicle.

If the disconnect occurs while the vehicle is stationary, this message will automatically turn off in about thirty seconds. This message will also turn off if the driver acknowledges this message off or if the trailer harness is re-connected.

If the disconnect occurs while the vehicle is moving, this message will continue until the ignition is turned off. This message will also turn off if the driver acknowledges this message off or if the trailer harness is re-connected.

2. There is an electrical fault in the wiring to the electric trailer brakes. This message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.

To determine if the electrical fault is on the vehicle side or trailer side of the trailer wiring harness connection, do the following:

1. Disconnect the trailer wiring harness from the vehicle.
2. Turn the ignition OFF.

3. Wait ten seconds, then turn the ignition back to RUN.
4. If the CHECK TRAILER WIRING message re-appears, the electrical fault is on the vehicle side. If the CHECK TRAILER WIRING message only re-appears when connecting the trailer wiring harness to the vehicle, the electrical fault is on the trailer side.

SERVICE TRAILER BRAKE SYSTEM – This message will be displayed when there is a problem with the ITBC system. If this message persists over multiple ignition cycles there is a problem with the ITBC system. Take the vehicle to an authorized GM dealer to have the ITBC system diagnosed and repaired.

If either the CHECK TRAILER WIRING or SERVICE TRAILER BRAKE SYSTEM message is displayed while driving the vehicle, power is no longer available to the trailer brakes. When traffic conditions allow, carefully pull the vehicle over to the side of the road and turn the ignition off. Check the wiring connection to the trailer and turn the ignition back on. If either of these messages continues, either the vehicle or trailer needs service.

An authorized GM dealer may be able to diagnose and repair problems with the trailer. However, any diagnosis and repair of the trailer is not covered under the vehicle warranty. Please contact your trailer dealer for assistance with trailer repairs and trailer warranty information.

Driving with a Trailer

CAUTION:

When towing a trailer, exhaust gases may collect at the rear of the vehicle and enter if the liftgate, trunk/hatch, or rear-most window is open.

Engine exhaust contains carbon monoxide (CO) which cannot be seen or smelled. It can cause unconsciousness and even death.

To maximize safety when towing a trailer:

- Have the exhaust system inspected for leaks and make necessary repairs before starting a trip.
- Never drive with the liftgate, trunk/hatch, or rear-most window open.
- Fully open the air outlets on or under the instrument panel.
- Adjust the Climate Control system to a setting that brings in only outside air and set the fan speed to the highest setting. See Climate Control System in the Index.

For more information about carbon monoxide, see *Engine Exhaust* on page 2-55.

Towing a trailer requires a certain amount of experience. Get to know the rig before setting out for the open road. Get acquainted with the feel of handling and braking with the added weight of the trailer. And always keep in mind that the vehicle you are driving is now longer and not as responsive as the vehicle is by itself.

Before starting, check all trailer hitch parts and attachments, safety chains, electrical connectors, lamps, tires and mirror adjustments. If the trailer has electric brakes, start the vehicle and trailer moving and then apply the trailer brake controller by hand to be sure the brakes are working. This checks the electrical connection at the same time.

During the trip, check occasionally to be sure that the load is secure, and that the lamps and any trailer brakes are still working.

While towing a trailer or when exposed to long periods of sunshine, the floor of the truck bed may become very warm. Avoid putting items in the truck bed that might be affected by high ambient temperatures.

Following Distance

Stay at least twice as far behind the vehicle ahead as you would when driving the vehicle without a trailer. This can help to avoid situations that require heavy braking and sudden turns.

Passing

More passing distance is needed when towing a trailer. Because the rig is longer, it is necessary to go much farther beyond the passed vehicle before returning to the lane.

Backing Up

Hold the bottom of the steering wheel with one hand. Then, to move the trailer to the left, move that hand to the left. To move the trailer to the right, move your hand to the right. Always back up slowly and, if possible, have someone guide you.

Making Turns

Notice: Making very sharp turns while trailering could cause the trailer to come in contact with the vehicle. The vehicle could be damaged. Avoid making very sharp turns while trailering.

When turning with a trailer, make wider turns than normal. Do this so the trailer will not strike soft shoulders, curbs, road signs, trees or other objects. Avoid jerky or sudden maneuvers. Signal well in advance.

Turn Signals When Towing a Trailer

The arrows on the instrument panel flash whenever signaling a turn or lane change. Properly hooked up, the trailer lamps also flash, telling other drivers the vehicle is turning, changing lanes or stopping.

When towing a trailer, the arrows on the instrument panel flash for turns even if the bulbs on the trailer are burned out. For this reason you may think other drivers are seeing the signal when they are not. It is important to check occasionally to be sure the trailer bulbs are still working.

Driving On Grades

Reduce speed and shift to a lower gear *before* starting down a long or steep downgrade. If the transmission is not shifted down, the brakes might have to be used so much that they would get hot and no longer work well.

Vehicles can tow in D (Drive). Shift the transmission to a lower gear if the transmission shifts too often under heavy loads and/or hilly conditions.

The tow/haul mode may be used if the transmission shifts too often. See *Tow/Haul Mode Light on page 3-51*.

When towing at high altitude on steep uphill grades, consider the following: Engine coolant will boil at a lower temperature than at normal altitudes. If the engine is turned off immediately after towing at high altitude on steep uphill grades, the vehicle may show signs similar to engine overheating. To avoid this, let the engine run while parked, preferably on level ground, with the automatic transmission in P (Park) for a few minutes before turning the engine off. If the overheat warning comes on, see *Engine Overheating on page 5-36*.

Parking on Hills

CAUTION:

Parking the vehicle on a hill with the trailer attached can be dangerous. If something goes wrong, the rig could start to move. People can be injured, and both the vehicle and the trailer can be damaged. When possible, always park the rig on a flat surface.

If parking the rig on a hill:

1. Press the brake pedal, but do not shift into P (Park) yet. Turn the wheels into the curb if facing downhill or into traffic if facing uphill.
2. Have someone place chocks under the trailer wheels.
3. When the wheel chocks are in place, release the regular brakes until the chocks absorb the load.

4. Reapply the brake pedal. Then apply the parking brake and shift into P (Park).
5. If the vehicle is four-wheel-drive, be sure the transfer case is in a drive gear and not in N (Neutral).
6. Release the brake pedal.

CAUTION:

It can be dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly set. The vehicle can roll.

If the engine has been left running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when on fairly level ground, use the steps that follow.

CAUTION: (Continued)

CAUTION: (Continued)

Always put the shift lever fully in P (Park) with the parking brake firmly set.

If the transfer case on a four-wheel-drive vehicle is in N (Neutral), the vehicle will be free to roll, even if the shift lever is in P (Park). Be sure the transfer case is in a drive gear — not in N (Neutral).

Leaving After Parking on a Hill

1. Apply and hold the brake pedal while you:
 - Start the engine
 - Shift into a gear
 - Release the parking brake
2. Let up on the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

Maintenance When Trailer Towing

The vehicle needs service more often when pulling a trailer. See this manual's Maintenance Schedule or Index for more information. Things that are especially important in trailer operation are automatic transmission fluid, engine oil, axle lubricant, belts, cooling system and brake system. It is a good idea to inspect these before and during the trip.

Check periodically to see that all hitch nuts and bolts are tight.

Trailer Wiring Harness

The vehicle is equipped with one of the following wiring harnesses for towing a trailer or hauling a slide-in camper.

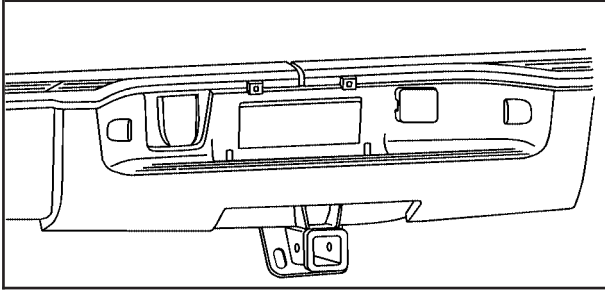
Basic Trailer Wiring

All regular, extended cab and crew cab pickups have a seven-wire trailer towing harness.

For vehicles not equipped with heavy duty trailering, the harness is secured to the vehicle's frame behind the spare tire mount. The harness requires the installation of a trailer connector, which is available through your dealer/retailer.

If towing a light-duty trailer with a standard four-way round pin connector, an adapter is available from your dealer/retailer.

Heavy-Duty Trailer Wiring Harness Package



For vehicles equipped with heavy duty trailering, the harness is connected to a bracket on the hitch platform. The seven-wire harness contains the following trailer circuits:

- Yellow: Left Stop/Turn Signal
- Dark Green: Right Stop/Turn Signal
- Brown: Taillamps
- White: Ground
- Light Green: Back-up Lamps
- Red: Battery Feed*
- Dark Blue: Trailer Brake*

*The fuses for these two circuits are installed in the underhood electrical center, but the wires are not connected. They should be connected by your dealer/retailer or a qualified service center. The fuse and wire for the ITBC is factory installed and connected if the vehicle is equipped with an ITBC. The fuse for the battery feed is not required if the vehicle has an auxiliary battery. If the vehicle does not have an auxiliary battery, have your dealer/retailer or authorized service center install the required fuse.

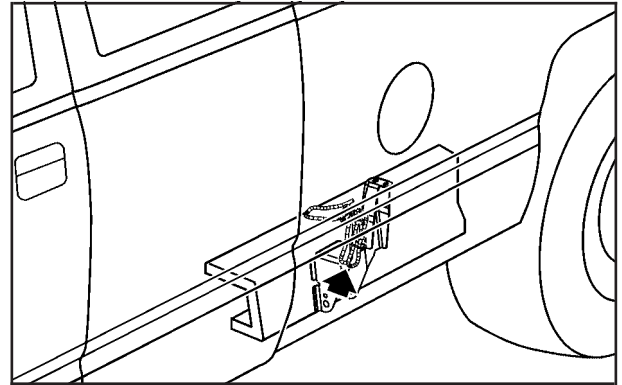
If charging a remote (non-vehicle) battery, press the tow/haul mode button located at the end of the shift lever. This will boost the vehicle system voltage and properly charge the battery. If the trailer is too light for tow/haul mode, turn on the headlamps as a second way to boost the vehicle system and charge the battery.

Camper/Fifth-Wheel Trailer Wiring Package

The seven-wire camper harness is located under the front edge of the pickup box on the drivers side of the vehicle, attached to the frame bracket. A connector must be added to the wiring harness which connects to the camper.

The harness contains the following camper/trailer circuits:

- Yellow: Left Stop/Turn Signal
- Dark Green: Right Stop/Turn Signal
- Brown: Taillamps
- White: Ground
- Light Green: Back-up Lamps
- Red: Battery Feed
- Dark Blue: Trailer Brake



If the vehicle is equipped with the “Heavy-Duty Trailering” option, please refer to “Heavy-Duty Trailer Wiring Package” earlier in this section.

When the camper-wiring harness is ordered without the heavy-duty trailering package, an eight-wire harness with a seven-pin connector is located at the rear of the vehicle and is tied to the vehicle's frame.

Electric Brake Control Wiring Provisions

These wiring provisions are included with the vehicle as part of the trailer wiring package. These provisions are for an electric brake controller. The instrument panel contains blunt cut wires behind the steering column for the trailer brake controller. The harness contains the following wires:

- Dark Blue: Brake Signal to Trailer Connector
- Red/Black: Battery
- Light Blue/White: Brake Switch
- White: Ground

It should be installed by your dealer/retailer or a qualified service center.

If the vehicle is equipped with an ITBC, the blunt cuts exist, but are not connected further in the harness. If an aftermarket trailer brake controller is installed, the ITBC must be disconnected. Do not power both ITBC and aftermarket controllers to control the trailer brakes at the same time.

Auxiliary Battery

The auxiliary battery provision can be used to supply electrical power to additional equipment that may be added, such as a slide-in camper. If the vehicle has this provision, this relay will be located on the drivers side of the vehicle, next to the underhood electrical center.

Be sure to follow the proper installation instructions that are included with any electrical equipment that is installed.

Notice: Leaving electrical equipment on for extended periods will drain the battery. Always turn off electrical equipment when not in use and do not use equipment that exceeds the maximum amperage rating for the auxiliary battery provision.

Trailer Recommendations

Subtract the hitch loads from the Cargo Weight Rating (CWR). CWR is the maximum weight of the load the vehicle can carry. It does not include the weight of the people inside, but you can figure about 150 lbs. (68 kg) for each passenger. The total cargo load must not be more than the vehicles CWR.

Weigh the vehicle with the trailer attached, so the GVWR or GAWR are not exceeded. If using a weight-distributing hitch, weigh the vehicle without the spring bars in place.

The best performance is obtained by correctly spreading out the weight of the load and choosing the correct hitch and trailer brakes.

For more information see *Towing a Trailer on page 4-53*.