

## Towing

### General Towing Information

Only use towing equipment that has been designed for the vehicle. Contact your dealer or trailering dealer for assistance with preparing the vehicle for towing a trailer.

See the following trailer towing information in this section:

- For information on driving while towing a trailer, see “Driving Characteristics and Towing Tips.”
- For maximum vehicle and trailer weights, see “Trailer Towing.”
- For information on equipment to tow a trailer, see “Towing Equipment.”

For information on towing a disabled vehicle, see *Towing the Vehicle on page 10-97*. For information on towing the vehicle behind another vehicle such as a motor home, see *Recreational Vehicle Towing on page 10-97*.

### Driving Characteristics and Towing Tips

#### Pulling a Trailer

Important points for pulling a trailer:

- 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” under *Towing Equipment on page 9-102*.

- Do not tow a trailer at all during the first 800 km (500 miles) the new vehicle is driven. The engine, axle, or other parts could be damaged.
- During the first 800 km (500 miles) that a trailer is towed, do not drive over 80 km/h (50 mph) 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.

Important considerations that have to do with weight:

- Weight of the trailer
- Weight of the trailer tongue
- Weight on the vehicle's tires
- Weight of the trailering combination

## Driving with a Trailer

### WARNING

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.

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### WARNING (Continued)

- 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 9-36.

Towing a trailer requires a certain amount of experience. The combination you are driving is longer and not as responsive as the vehicle itself. Get acquainted with the handling and braking of the rig before setting out for the open road.

Before starting, check all trailer hitch parts and attachments, safety chains, electrical connectors, lamps, tires, and mirrors.

If the trailer has electric brakes, start the combination moving and then apply the trailer brake controller by hand to be sure the brakes work.

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

### 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 heavy braking and sudden turns.

### Passing

More passing distance is needed when towing a trailer. The combination will not accelerate as quickly and is longer so 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. 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.

If the trailer turn signal bulbs burn out, the arrows on the instrument panel will still flash for turns. 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 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* on page 9-43.

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 10-23.

### Parking on Hills

#### WARNING

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.

 **WARNING**

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.

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.
2. Start the engine.
3. Shift into a gear.
4. Release the parking brake.
5. Let up on the brake pedal.
6. Drive slowly until the trailer is clear of the chocks.
7. 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 *Maintenance Schedule on page 11-3*. 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 Towing

If the vehicle has a diesel engine, see the Duramax diesel supplement for more information.

If the vehicle is a hybrid, see the hybrid supplement for more information.

Do not tow a trailer during break-in. See *New Vehicle Break-In* on page 9-26 for more information.

### WARNING

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

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### WARNING (Continued)

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 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 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" 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.

## Weight of the Trailer

How heavy can a trailer safely be?

It depends on how the rig is used. 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.

Trailer weight rating (TWR) is calculated assuming the tow vehicle has only the driver but all required trailering equipment. Weight of additional optional equipment,

passengers, and cargo in the tow vehicle must be subtracted from the trailer weight rating.

For kingpin weight and trailer tongue weight information, see “Weight of the Trailer Tongue” later in this section.

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			
4.3L V6 (b)	3.23	2 177 kg (4,800 lbs)	4 309 kg (9,500 lbs)
4.3L V6 — With Automatic Transmission (b)	3.73	2 449 kg (5,400 lbs)	4 536 kg (10,000 lbs)
4.3L V6 — With Manual Transmission (b)	3.73	1 860 kg (4,100 lbs)	3 938 kg (8,683 lbs)
4.8L V8 (b)	3.23	2 132 kg (4,700 lbs)	4 309 kg (9,500 lbs)
4.8L V8 (b)	3.73	3 266 kg (7,200 lbs)	5 443 kg (12,000 lbs)
5.3L LMG V8 (b)	3.08	2 994 kg (6,600 lbs)	5 216 kg (11,500 lbs)
5.3L LMG V8, K5L HD Cooling Pkg	3.08	3 357 kg (7,400 lbs)	5 534 kg (12,200 lbs)
5.3L LMG V8 K5L HD Cooling Pkg	3.42	4 128 kg (9,100 lbs)	6 350 kg (14,000 lbs)

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<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
1500 Series 2WD Extended Cab Standard Box			
4.3LV6 (b)	3.23	1 996 kg (4,400 lbs)	4 309 kg (9,500 lbs)
4.8LV8 (b)	3.23	2 132 kg (4,700 lbs)	4 536 kg (10,000 lbs)
4.8LV8 (b)	3.73	3 039 kg (6,700 lbs)	5 443 kg (12,000 lbs)
5.3LV8 (b)	3.08	2 812 kg (6,200 lbs)	5 216 kg (11,500 lbs)
5.3LV8 K5L HD Cooling Pkg (b)	3.08	3 130 kg (6,900 lbs)	5 534 kg (12,200 lbs)
5.3LV8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 400 kg (9,700 lbs)	6 804 kg (15,000 lbs)
5.3LV8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 264 kg (9,400 lbs)	6 804 kg (15,000 lbs)
6.2LV8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 400 kg (9,700 lbs)	6 804 kg (15,000 lbs)
6.2LV8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 264 kg (9,400 lbs)	6 804 kg (15,000 lbs)
6.2LV8 NHT Max Trailering Pkg — Conventional Trailer	3.73	4 853 kg (10,700 lbs)	7 257 kg (16,000 lbs)
6.2LV8 NHT Max Trailering Pkg — Fifth-Wheel Trailer	3.73	4 808 kg (10,600 lbs)	7 257 kg (16,000 lbs)

<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
<b>1500 Series 2WD Crew Cab Short Box (b)</b>			
4.8LV8	3.23	2 132 kg (4,700 lbs)	4 536 kg (10,000 lbs)
4.8LV8	3.73	3 039 kg (6,700 lbs)	5 443 kg (12,000 lbs)
5.3LV8 (LMG)	3.08	2 812 kg (6,200 lbs)	5 216 kg (11,500 lbs)
5.3LV8 (LMG) K5L HD Cooling Pkg	3.08	3 130 kg (6,900 lbs)	5 534 kg (12,200 lbs)
5.3LV8 (LC9) XFE	3.08	3 175 kg (7,000 lbs)	5 534 kg (12,200 lbs)
5.3LV8 (LMG) K5L HD Cooling Pkg	3.42	4 355 kg (9,600 lbs)	6 804 kg (15,000 lbs)
6.2LV8 K5L HD Cooling Pkg	3.42	4 400 kg (9,700 lbs)	6 804 kg (15,000 lbs)
6.2LV8 NHT Max Trailering Pkg	3.73	4 808 kg (10,600 lbs)	7 257 kg (16,000 lbs)
<b>1500 Series 2WD Regular Cab Long Box</b>			
4.3LV6 (b)	3.23	2 132 kg (4,700 lbs)	4 309 kg (9,500 lbs)
4.3LV6 (b)	3.73	2 359 kg (5,200 lbs)	4 536 kg (10,000 lbs)
4.8LV8 (b)	3.23	2 313 kg (5,100 lbs)	4 536 kg (10,000 lbs)
4.8LV8 (b)	3.73	3 221 kg (7,100 lbs)	5 443 kg (12,000 lbs)
5.3LV8	3.08	2 948 kg (6,500 lbs)	5 216 kg (11,500 lbs)



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<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
5.3L V8 K5L HD Cooling Pkg	3.08	3 266 kg (7,200 lbs)	5 534 kg (12,200 lbs)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 536 kg (10,000 lbs)	6 804 kg (15,000 lbs)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 037 kg (8,900 lbs)	6 804 kg (15,000 lbs)
<b>1500 Series 2WD Extended Cab Long Box</b>			
5.3L V8 (b)	3.08	2 722 kg (6,000 lbs)	5 216 kg (11,500 lbs)
5.3L V8 K5L HD Cooling Pkg (b)	3.08	3 039 kg (6,700 lbs)	5 534 kg (12,200 lbs)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 309 kg (9,500 lbs)	6 804 kg (15,000 lbs)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 082 kg (9,000 lbs)	6 804 kg (15,000 lbs)
<b>1500 Series 4WD Regular Cab Standard Box</b>			
4.3L V6 (b)	3.73	2 313 kg (5,100 lbs)	4 536 kg (10,000 lbs)
4.8L V8 (b)	3.42	2 722 kg (6,000 lbs)	4 990 kg (11,000 lbs)
5.3L V8 (b)	3.08	2 903 kg (6,400 lbs)	5 216 kg (11,500 lbs)
5.3L V8 K5L HD Cooling Pkg	3.08	3 221 kg (7,100 lbs)	5 534 kg (12,200 lbs)

<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 037 kg (8,900 lbs)	6 350 kg (14,000 lbs)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	3 719 kg (8,200 lbs)	6 350 kg (14,000 lbs)
<b>1500 Series 4WD Extended Cab Standard Box</b>			
4.8L V8 (b)	3.42	2 495 kg (5,500 lbs)	4 990 kg (11,000 lbs)
5.3L V8 (b)	3.08	2 767 kg (6,100 lbs)	5 216 kg (11,500 lbs)
5.3L V8 K5L HD Cooling Pkg (b)	3.08	3 084 kg (6,800 lbs)	5 534 kg (12,200 lbs)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 354 kg (9,600 lbs)	6 804 kg (15,000 lbs)
5.3L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 354 kg (9,600 lbs)	6 804 kg (15,000 lbs)
6.2L V8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 264 kg (9,400 lbs)	6 804 kg (15,000 lbs)
6.2L V8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 128 kg (9,100 lbs)	6 804 kg (15,000 lbs)

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Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
6.2L V8 NHT Max Trailering Pkg — Conventional Trailer	3.73	4 717 kg (10,400 lbs)	7 257 kg (16,000 lbs)
6.2L V8 NHT Max Trailering Pkg — Fifth-Wheel Trailer	3.73	4 672 kg (10,300 lbs)	7 257 kg (16,000 lbs)
1500 Series 4WD Crew Cab Short Box (b)			
4.8L V8	3.42	2 495 kg (5,500 lbs)	4 990 kg (11,000 lbs)
5.3L V8	3.08	2 722 kg (6,000 lbs)	5 216 kg (11,500 lbs)
5.3L V8 K5L HD Cooling Pkg	3.08	3 039 kg (6,700 lbs)	5 534 kg (12,200 lbs)
5.3L V8 K5L HD Cooling Pkg	3.42	4 309 kg (9,500 lbs)	6 804 kg (15,000 lbs)
6.2L V8 K5L HD Cooling Pkg	3.42	4 264 kg (9,400 lbs)	6 804 kg (15,000 lbs)
6.2L V8 NHT Max Trailering Pkg	3.73	4 717 kg (10,400 lbs)	7 257 kg (16,000 lbs)
1500 Series 4WD Regular Cab Long Box			
4.3L V6 (b)	3.73	2 223 kg (4,900 lbs)	4 536 kg (10,000 lbs)
4.8L V8 (b)	3.42	2 631 kg (5,800 lbs)	4 990 kg (11,000 lbs)
5.3L V8 (b)	3.08	2 858 kg (6,300 lbs)	5 216 kg (11,500 lbs)
5.3L V8 K5L HD Cooling Pkg — Conventional Trailer	3.08	3 175 kg (7,000 lbs)	5 534 kg (12,200 lbs)

<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
5.3LV8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.08	3 175 kg (7,000 lbs)	5 534 kg (12,200 lbs)
5.3LV8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 445 kg (9,800 lbs)	6 804 kg (15,000 lbs)
5.3LV8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	4 400 kg (9,700 lbs)	6 804 kg (15,000 lbs)
<b>1500 Series 4WD Extended Cab Long Box</b>			
5.3LV8 (b)	3.08	2 631 kg (5,800 lbs)	5 216 kg (11,500 lbs)
5.3LV8 K5L HD Cooling Pkg (b)	3.08	2 948 kg (6,500 lbs)	5 534 kg (12,200 lbs)
5.3LV8 K5L HD Cooling Pkg — Conventional Trailer	3.42	4 218 kg (9,300 lbs)	6 804 kg (15,000 lbs)
5.3LV8 K5L HD Cooling Pkg — Fifth-Wheel Trailer	3.42	3 674 kg (8,100 lbs)	6 804 kg (15,000 lbs)
<b>2500 Series 2WD Extended Cab Standard Box HD</b>			
6.0LV8	3.73	4 445 kg (9,800 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 486 kg (14,300 lbs)	9 299 kg (20,500 lbs)

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Vehicle	Axle Ratio	Maximum Trailer Weight	GCWR (a)
2500 Series 2WD Crew Cab Standard Box HD			
6.0LV8	3.73	4 400 kg (9,700 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 441 kg (14,200 lbs)	9 299 kg (20,500 lbs)
2500 Series 2WD Regular Cab Long Box HD			
6.0LV8	3.73	4 627 kg (10,200 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Payload Performance Pkg (UB7)	3.73	4 536 kg (10,000 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 668 kg (14,700 lbs)	9 299 kg (20,500 lbs)
2500 Series 2WD Extended Cab Long Box HD			
6.0LV8	3.73	4 400 kg (9,700 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 441 kg (14,200 lbs)	9 299 kg (20,500 lbs)

<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
<b>2500 Series 2WD Crew Cab Long Box HD</b>			
6.0LV8	3.73	4 354 kg (9,600 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 396 kg (14,100 lbs)	9 299 kg (20,500 lbs)
<b>2500 Series 4WD Extended Cab Standard Box HD</b>			
6.0LV8	3.73	4 309 kg (9,500 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 350 kg (14,000 lbs)	9 299 kg (20,500 lbs)
<b>2500 Series 4WD Crew Cab Standard Box HD</b>			
6.0LV8	3.73	4 264 kg (9,400 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 305 kg (13,900 lbs)	9 299 kg (20,500 lbs)
<b>2500 Series 4WD Regular Cab Long Box HD</b>			
6.0LV8	3.73	4 491 kg (9,900 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 532 kg (14,400 lbs)	9 299 kg (20,500 lbs)

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<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
<b>2500 Series 4WD Extended Cab Long Box HD</b>			
6.0LV8	3.73	4 264 kg (9,400 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 305 kg (13,900 lbs)	9 299 kg (20,500 lbs)
<b>2500 Series 4WD Crew Cab Long Box HD</b>			
6.0LV8	3.73	4 218 kg (9,300 lbs)	7 257 kg (16,000 lbs)
6.0LV8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 — Fifth-Wheel Trailer	4.10	6 260 kg (13,800 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 2WD Regular Cab Long Box</b>			
6.0LV8 (Single Rear Wheels) Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0LV8 (Single Rear Wheels) Fifth-Wheel Trailer	4.10	6 577 kg (14,500 lbs)	9 299 kg (20,500 lbs)
6.0LV8 (Dual Rear Wheels)	3.73	4 354 kg (9,600 lbs)	7 257 kg (16,000 lbs)
6.0LV8 (Dual Rear Wheels)	4.10	6 396 kg (14,100 lbs)	9 299 kg (20,500 lbs)

<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
<b>3500 Series 2WD Extended Cab Long Box</b>			
6.0L V8 (Single Rear Wheels)	3.73	4 309 kg (9,500 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Single Rear Wheels) Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Single Rear Wheels) Fifth-Wheel Trailer	4.10	6 350 kg (14,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Dual Rear Wheels)	3.73	4 128kg (9,100 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Dual Rear Wheels)	4.10	6 169 kg (13,600 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 2WD Crew Cab Standard Box</b>			
6.0L V8	3.73	4 309kg (9,500 lbs)	7 257 kg (16,000 lbs)
6.0L V8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 Fifth-Wheel Trailer	4.10	6 350 kg (14,000 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 2WD Crew Cab Long Box</b>			
6.0L V8 (Single Rear Wheels)	3.73	4 264 kg (9,400 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Single Rear Wheels) Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Single Rear Wheels) Fifth-Wheel Trailer	4.10	6 305 kg (13,900 lbs)	9 299 kg (20,500 lbs)



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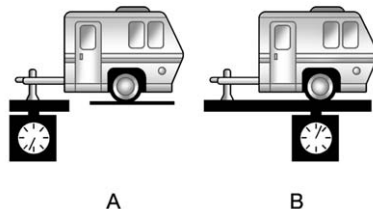
<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
6.0L V8 (Dual Rear Wheels)	3.73	4 082 kg (9,000 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Dual Rear Wheels)	4.10	6 123 kg (13,500 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 4WD Regular Cab Long Box</b>			
6.0L V8 (Single Rear Wheels)	3.73	4 400 kg (9,700 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Single Rear Wheels) Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Single Rear Wheels) Fifth-Wheel Trailer	4.10	6 441 kg (14,200 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Dual Rear Wheels)	3.73	4 218 kg (9,300 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Dual Rear Wheels)	4.10	6 260 kg (13,800 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 4WD Extended Cab Long Box</b>			
6.0L V8 (Single Rear Wheels)	3.73	4 173 kg (9,200 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Single Rear Wheels) Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Single Rear Wheels) Fifth-Wheel Trailer	4.10	6 214 kg (13,700 lbs)	9 299 kg (20,500 lbs)

<b>Vehicle</b>	<b>Axle Ratio</b>	<b>Maximum Trailer Weight</b>	<b>GCWR (a)</b>
6.0L V8 (Dual Rear Wheels)	3.73	4 037 kg (8,900 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Dual Rear Wheels)	4.10	6 078 kg (13,400 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 4WD Crew Cab Standard Box</b>			
6.0L V8	3.73	4 173 kg (9,200 lbs)	7 257 kg (16,000 lbs)
6.0L V8 — Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 — Fifth-Wheel Trailer	4.10	6 214 kg (13,700 lbs)	9 299 kg (20,500 lbs)
<b>3500 Series 4WD Crew Cab Long Box</b>			
6.0L V8 (Single Rear Wheels)	3.73	4 128 kg (9,100 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Single Rear Wheels) Conventional Trailer	4.10	5 897 kg (13,000 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Single Rear Wheels) Fifth-Wheel Trailer	4.10	6 169 kg (13,600 lbs)	9 299 kg (20,500 lbs)
6.0L V8 (Dual Rear Wheels)	3.73	3 946 kg (8,700 lbs)	7 257 kg (16,000 lbs)
6.0L V8 (Dual Rear Wheels)	4.10	5 987 kg (13,200 lbs)	9 299 kg (20,500 lbs)
<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) This model is neither designed nor intended to tow fifth-wheel or gooseneck trailers.</p>			

Ask your dealer for trailering information or advice, or write us at our Customer Assistance Offices. See *Customer Assistance Offices (U.S. and Canada)* on page 13-4 or *Customer Assistance Offices (Mexico)* on page 13-5 for more information.

### Weight of the Trailer Tongue

The tongue load (A) of any trailer is very important because it is also part of the vehicle weight. 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 as well as trailer tongue weight. Vehicle options, equipment, passengers and cargo in the vehicle reduce the amount of tongue weight the vehicle can carry, which will also reduce the trailer weight the vehicle can tow. See "Vehicle Load Limits" for more information about the vehicle's maximum load capacity.



Trailer tongue weight (A) should be 10 to 15 percent and fifth-wheel or gooseneck kingpin weight should be 15 to 25 percent of the loaded trailer weight up to the maximums for vehicle series and hitch type.

Vehicle Series	Hitch Type	Maximum Tongue Weight
1500	Weight Carrying	272 kg (600 lbs)
1500	Weight Distributing	499 kg (1,100 lbs)
1500	Fifth-Wheel Gooseneck	680 kg (1,500 lbs)
2500/3500 Standard Box	Weight Carrying or Weight Distributing	680 kg (1,500 lbs)
2500/3500 Long Box	Weight Carrying or Weight Distributing	907 (2,000 lbs)
2500	Fifth-Wheel Gooseneck	1 361 kg (3,000 lbs)
3500 Single Rear Wheels	Fifth-Wheel Gooseneck	1 814 kg (4,000 lbs)
3500 Dual Rear Wheels	Fifth-Wheel Gooseneck	2 495 kg (5,500 lbs)
*816 kg (41,800 lbs) for vehicles built before October, 2011. Check the hitch rating label for correct maximum for the vehicle.		

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.

Trailing may be limited by the vehicle's ability to carry tongue weight. Tongue or kingpin weight cannot cause the vehicle to exceed the GVWR (Gross Vehicle Weight Rating) or the RGAWR (Rear Gross Axle Weight Rating). See "Total Weight on the Vehicle's Tires" later in this section for more information.

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.

### **Total Weight on the Vehicle's Tires**

Be sure the vehicle's tires are inflated to the inflation pressures found on the Certification Tire label on the drivers door or see *Vehicle Load Limits on page 9-17* for more information. Make sure not to exceed the GVWR limit for the vehicle, or the RGAWR, with the tow vehicle and trailer fully loaded for the trip including the weight of the trailer tongue. If using a weight-distributing hitch, make sure not to exceed the RGAWR before applying the weight distribution spring bars.

### **Weight of the Trailering Combination**

It is important that the combination of the tow vehicle and trailer does not exceed any of its weight ratings — GCWR, GVWR, RGAWR,

Trailer Weight Rating, or Tongue Weight. The only way to be sure it is not exceeding any of these ratings is to weigh the tow vehicle and trailer combination, fully loaded for the trip, getting individual weights for each of these items.

## **Towing Equipment**

### **Hitches**

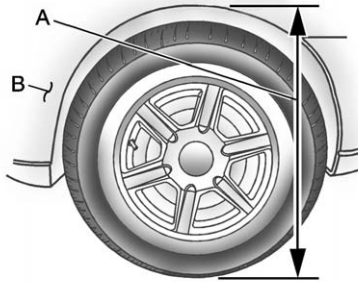
The correct hitch equipment helps maintain combination control. Many trailers can be towed with a weight-carrying hitch which simply features a coupler latched to the hitch ball, or a tow eye latched to a pintle hook. Other trailers may require a weight-distributing hitch that uses spring bars to distribute the trailer tongue weight among the two vehicle and trailer axles.

Fifth-wheel and gooseneck hitches may also be used. See “Weight of the Trailer Tongue” under *Trailer Towing on page 9-86* for rating limits with various hitch types.

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.

Consider using sway controls with any trailer. Ask a trailering professional about sway controls or refer to the trailer manufacturer's recommendations and instructions.

## Weight-Distributing Hitch Adjustment



- A. Body to Ground Distance
- B. Front of Vehicle

When using a weight-distributing hitch, the spring bars should be adjusted so the distance (A) is the same after coupling the trailer to the tow vehicle and adjusting the hitch.

## 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" under *Trailer Towing on page 9-86* 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 2 271 kg (5,000 lbs) with a factory-installed step bumper, safety chains may be attached to the attaching points on the bumper; otherwise, safety chains should be attached to holes on the trailer hitch platform. Always leave just enough slack so the combination can turn. Never allow safety chains to drag on the ground.

### Trailer Brakes

A loaded trailer that weighs more than 900 kg (2,000 lbs) 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.

Do not tap into the vehicle's hydraulic brake system.

### 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 driver side of the vehicle, next to the underhood electrical center.

Be sure to follow the proper installation instructions 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 Wiring Harness

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

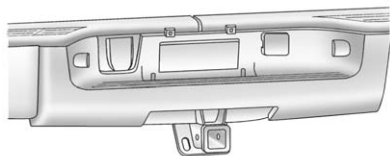
#### Basic Trailer Wiring

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.

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

### Heavy-Duty Trailer Wiring Harness Package



For vehicles equipped with heavy duty trailering, the harness connector is mounted in the bumper.

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 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 or authorized service center install the required fuse.

If charging a remote (non-vehicle) battery, press the Tow/Haul Mode button, if equipped, 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, or the vehicle is not equipped with Tow/Haul, turn on the headlamps as a second way to boost the vehicle system and charge the battery.



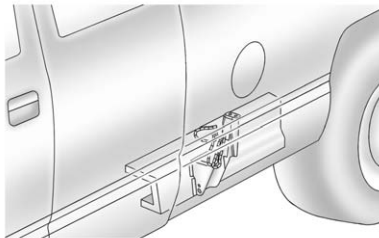
## 9-106 Driving and Operating

### Camper/Fifth-Wheel Trailer Wiring Package

The seven-wire camper harness is located under the front edge of the pickup box on the driver 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, a seven-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:

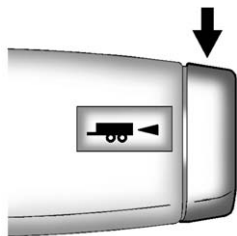
- Dark Blue: Brake Signal to Trailer Connector
- Red/Black: Battery
- Light Blue/White: Brake Switch
- White: Ground

The harness should be installed by your dealer or a qualified service center.

If the vehicle is equipped with an Integrated Trailer Brake Control (ITBC) System, 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.

### 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 9-43* 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" under *Trailer Towing on page 9-86*.

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.

### 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, antilock brake, and StabiliTrak (if equipped) systems. In trailering conditions that cause the vehicle's antilock 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 StabiliTrak.

Non-hybrid vehicles with StabiliTrak have a Trailer Sway Control (TSC) feature. See *Trailer Sway Control (TSC)* on page 9-114.

Non-hybrid vehicles with StabiliTrak have a Hill Start Assist (HSA) feature. See *Hill Start Assist (HSA)* on page 9-62.

If the vehicle's brake, antilock 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.

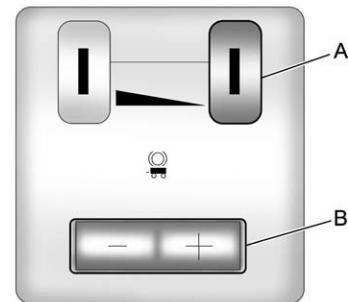
**⚠ WARNING**

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.

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 (Base/Uplevel Version)* on page 1-2 or *Instrument Panel (Premium Version)* on page 1-6 for more information.

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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 on the vehicle's Driver Information Center (DIC). See *Driver Information Center (DIC) on page 5-32* for more information.

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

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 any time 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 “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.

Non-hybrid vehicles with Trailer Sway Control (TSC) or Hill Start Assist (HSA), output to the electric trailer brakes may be displayed when the systems are active. See *Trailer Sway Control (TSC) on page 9-114* and *Hill Start Assist (HSA) on page 9-62*.

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

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### 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 *Vehicle Load Limits* on page 9-17 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.
  - 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 32 to 40 km/h (20 to 25 mph) and fully apply the Manual Trailer Brake Apply Lever.

Adjusting trailer gain at speeds lower than 32 to 40 km/h (20 to 25 mph) 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 are displayed on 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 10 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 30 seconds. This message will also turn off if the driver acknowledges this message 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 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.

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 10 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.

### **Trailer Sway Control (TSC)**

Non-hybrid vehicles with StabiliTrak have a Trailer Sway Control (TSC) feature. If the vehicle is towing a trailer and the system detects that the trailer is swaying, the vehicle brakes are applied without the driver pressing the brake pedal.

If the vehicle is equipped with the Integrated Trailer Brake Control (ITBC) system, StabiliTrak may also apply the trailer brakes. The TCS/StabiliTrak warning light will flash on the instrument panel cluster to notify the driver to reduce speed. If the trailer continues to sway, StabiliTrak will reduce engine torque to help slow the vehicle. See *StabiliTrak® System* on page 9-62 for more information.

Adding non-dealer accessories can affect the vehicle performance. See *Accessories and Modifications* on page 10-3 for more information.

## Conversions and Add-Ons

### Add-On Electrical Equipment

**Notice:** Do not add anything electrical to the vehicle unless you check with your dealer first. Some electrical equipment can damage the vehicle and the damage would not be covered by the vehicle's warranty. Some add-on electrical equipment can keep other components from working as they should.

Add-on equipment can drain the vehicle's 12-volt battery, even if the vehicle is not operating.

The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see *Servicing the Airbag-Equipped Vehicle* on page 3-38 and *Adding Equipment to the Airbag-Equipped Vehicle* on page 3-39.

### Adding a Snow Plow or Similar Equipment

Before installing a snow plow on the vehicle, here are some things you need to know:

**Notice:** If the vehicle does not have the snow plow prep package, adding a plow can damage the vehicle, and the repairs would not be covered by warranty. Unless the vehicle was built to carry a snow plow, do not add one to the vehicle. If the vehicle has the snow plow prep package, called RPO VYU, then the payload the vehicle can carry will be reduced when a snow plow is installed. The vehicle can be damaged if either the front or rear axle ratings or the Gross Vehicle Weight (GVW) are exceeded.

Some vehicles are built with a special snow plow prep package, called RPO VYU. If the vehicle has this option, you can add a plow to it, provided certain weights, such as the weights on the vehicle's axles and the Gross Vehicle Weight (GVW), are not exceeded.

The plow the vehicle can carry depends on many things, such as:

- The options the vehicle came with, and the weight of those options.
- The weight and number of passengers intended to be carried.
- The weight of items added to the vehicle, like a tool box or truck cap.
- The total weight of any additional cargo intended to be carried.

## 9-116 Driving and Operating

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Say, for example, you have a 318 kg (700 lb) snow plow. The total weight of all occupants and cargo inside the cab should not exceed 135 kg (300 lb). This means that you may only be able to carry one passenger. But, even this may be too much if there is other equipment already adding to the weight of the vehicle.

Here are some guidelines for safely carrying a snow plow on the vehicle:

- Make sure the weight on the front and rear axles does not exceed the axle rating for each.
- For the front axle, if more cargo or passengers must be carried, appropriate counter ballast must be installed rear of the rear axle. Counter ballast must be properly secured so it will not move during driving.

- Follow the snow plow manufacturer's recommendations regarding rear ballast. Rear ballast may be required to ensure a proper front and rear weight distribution ratio, even though the actual weight at the front axle may be less than the front axle rating.
- The snow plow manufacturer or installer can assist you in determining the amount of rear ballast required, to help make sure the snowplow/vehicle combination does not exceed the GVW rating, the front and rear axle ratings, and the front and rear weight distribution ratio.
- The total vehicle must not exceed the GVW rating.

Front axle reserve capacity is the difference between the Gross Axle Weight Rating (GAWR) and the front axle weight of the vehicle with full fuel and passengers. Basically, it is the amount of weight that can be added to the front axle before reaching the front GAWR.


The front axle reserve capacity for the vehicle can be found in the lower right corner of the Certification/Tire label, as shown.

: TRUCK

COLD TIRE PRESSURE  
 XXXKPA(XXPSI)  
 XXXKPA(XXPSI)

E INFORMATION → F XXX LB  
 T XXXX LB

United States



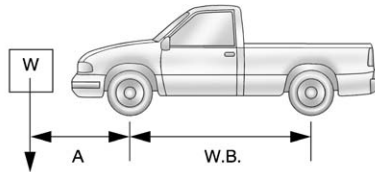
COLD TIRE PRESSURE  
 PRESSION A FROID

XXXXXXXXXX(XXPSI)  
 XXXXXXXXXXX(XXPSI)

→ AV / F XXX LB T XXX LB

Canada

In order to calculate the amount of weight any front accessory, such as a snow plow, is adding to the front axle, use the following formula:



$(W \times (A + W.B.)) / W.B. =$  Weight the accessory is adding to the front axle.

Where:

- W = Weight of added accessory
- A = Distance that the accessory is in front of the front axle
- W.B. = Vehicle Wheelbase

For example, adding a 318 kg (700 lb) snow plow actually adds more than 318 kg (700 lb) to the front axle. Using the formula, if the snow plow is 122 cm (4 ft) in front of the front axle and the wheel base is 305 cm (10 ft), then:

$$W = 318 \text{ kg (700 lb)}$$

$$A = 122 \text{ cm (4 ft)}$$

$$W.B. = 305 \text{ cm (10 ft)}$$

$$(W \times (A + W.B.)) / W.B. =$$

$$(318 \times (122 + 305)) / 305 = 445 \text{ kg (980 lbs)}$$

So, if the front axle reserve capacity is more than 445 kg (980 lbs), the snow plow could be added without exceeding the front GAWR.

## 9-118 Driving and Operating

Heavier equipment can be added on the front of the vehicle if it is compensated for by carrying fewer passengers, less cargo, or by positioning cargo toward the rear. This has the effect of reducing the load on the front. However, the front GAWR, rear GAWR, and the Gross Vehicle Weight Rating (GVWR) must never be exceeded.

### **WARNING**

On some vehicles that have certain front mounted equipment, such as a snow plow, it may be possible to load the front axle to the front gross axle weight rating (GAWR) but not have enough weight on the rear axle to have proper braking performance. If the brakes cannot work properly, you could have a crash.

(Continued)

### **WARNING (Continued)**

To help the brakes work properly when a snow plow is installed, always follow the snow plow manufacturer or installer's recommendation for rear ballast to ensure a proper front and rear weight distribution ratio, even though the actual front weight may be less than the front GAWR, and the total vehicle weight is less than the gross vehicle weight rating (GVWR). Maintaining a proper front and rear weight distribution ratio is necessary to provide proper braking performance.

Total vehicle reserve capacity is the difference between the GVWR and the weight of the truck with full fuel and passengers. It is the amount of weight that can be added to the vehicle before reaching the GVWR.

Keep in mind that reserve capacity numbers are intended as a guide when selecting the amount of equipment or cargo the truck can carry. If unsure of the vehicle's front, rear, or total weight, go to a weigh station and weigh the vehicle. Your dealer can also help with this.

The total vehicle reserve capacity for the vehicle can be found in the lower right corner of the Certification/Tire label as shown previously.

See your dealer for additional advice and information about using a snow plow on the vehicle. Also, see *Vehicle Load Limits* on page 9-17.

### **Emergency Roof Lamp Provisions**

Vehicles with the RPO VYU snow plow prep package also have an emergency roof lamp provision package, RPO TRW. Wiring for the emergency roof lamp is provided above the overhead console. See *Auxiliary Roof-Mounted Lamp* on page 6-7 for switch location.

### **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.