

The BRAKE warning lamp will illuminate and will remain illuminated until the parking brake is released.



To release, press and hold the button (2), pull the handle up slightly, then push the handle down.

**WARNING:** Always set the parking brake fully and make sure that the gearshift is securely latched in P (Park) (automatic transmission) or in 1 (First) (manual transmission).

**WARNING:** If the parking brake is fully released, but the brake warning lamp remains illuminated, the brakes may not be working properly. See your authorized dealer as soon as possible.

### **ADVANCETRAC® STABILITY ENHANCEMENT SYSTEM**

Your vehicle is equipped with the AdvanceTrac<sup>®</sup> system. The AdvanceTrac<sup>®</sup> system provides the following stability enhancement features for certain driving situations:

- Traction control system (TCS), which functions to help avoid drive-wheel spin and loss of traction.
- Electronic stability control (ESC), which functions to help avoid skids or lateral slides

**WARNING:** Vehicle modifications involving braking system, aftermarket roof racks, suspension, steering system, tire construction and/or wheel/tire size may change the handling characteristics of the vehicle and may adversely affect the performance of the AdvanceTrac<sup>®</sup> system. In addition, installing any stereo loudspeakers may interfere with and adversely affect the AdvanceTrac<sup>®</sup> system. Install any aftermarket stereo loudspeaker as far as possible from the front center console, the tunnel, and the front seats in order to minimize the risk of interfering with the AdvanceTrac<sup>®</sup> sensors. Reducing the effectiveness of the AdvanceTrac<sup>®</sup> system could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

209

## Driving

**WARNING:** Remember that even advanced technology cannot defy the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions. Aggressive driving on any road condition can cause you to lose control of your vehicle increasing the risk of personal injury or property damage. Activation of the AdvanceTrac<sup>®</sup> system is an indication that at least some of the tires have exceeded their ability to grip the road; this could reduce the operator's ability to control the vehicle potentially resulting in a loss of vehicle control, vehicle rollover, personal injury and death. If your AdvanceTrac<sup>®</sup> system activates, SLOW DOWN.

**WARNING:** If a failure has been detected within the AdvanceTrac<sup>®</sup> system, the stability control light and the stability control off light will illuminate steadily. If the stability control light and the stability control off light illuminate steadily, contact your authorized dealer as soon as possible to have the system serviced immediately. Operating your vehicle with AdvanceTrac<sup>®</sup> disabled could lead to an increased risk of loss of vehicle control, vehicle rollover, personal injury and death.

The AdvanceTrac<sup>®</sup> system automatically enables each time the engine is started. All features of the AdvanceTrac<sup>®</sup> system (TCS and ESC) are active and monitor the vehicle from start-up. However, the system will only intervene if the driving situation requires it.

The AdvanceTrac<sup>®</sup> system includes a stability control button on the center console, a stability control light and a stability control off light in the instrument cluster. Both the stability control light and the stability control off light in the instrument cluster will illuminate



temporarily during start-up as part of a normal system self-check. The stability control light may illuminate (flash) during certain driving situations which cause the AdvanceTrac<sup>®</sup> system to operate. If the stability control light and the stability control off light illuminate steadily, contact your authorized dealer as soon as possible to have the system serviced immediately. If equipped with a message center, the vehicle will also indicate a failure with the AdvanceTrac<sup>®</sup> system.

210



When AdvanceTrac<sup>®</sup> performs a normal system self-check, some drivers may notice a slight movement of the brake, and/or a rumble, grunting, or grinding noise after startup and when driving off.

When an event occurs that activates AdvanceTrac<sup>®</sup> you may experience the following:

- A slight deceleration of the vehicle
- The stability control light will flash.
- A vibration in the pedal when your foot is on the brake pedal
- If the driving condition is severe and your foot is not on the brake, the brake pedal may move as the systems applies higher brake forces. You may also hear a whoosh of air from under the instrument panel during this severe condition.
- The brake pedal may feel stiffer than usual.

#### **Traction control system (TCS)**

Traction control is a driver aid feature that helps your vehicle maintain traction of the wheels, typically when driving on slippery and/or hilly road surfaces, by detecting and controlling wheel spin.

Excessive wheel spin is controlled in two ways, which may work separately or in tandem, engine traction control and brake traction control. Engine traction control works to limit drive-wheel spin by momentarily reducing engine power. Brake traction control works to limit wheel spin by momentarily applying the brakes to the wheel that is slipping. Traction control is most active at low speeds.

During TCS events, the stability control light in the instrument cluster will flash.

If the TCS is activated excessively in a short period of time, the braking portion of the system may become temporarily disabled to allow the brakes to cool down. In this situation, the TCS will use only engine power reduction or transfer to help control the wheels from over-spinning. When the brakes have cooled down, the system will regain all features. Anti-lock braking, and ESC are not affected by this condition and will continue to function during the cool-down period.

The engine traction control and brake traction control system may be deactivated in certain situations. See the *Switching off AdvanceTrac*<sup>®</sup> section below.

If you should become stuck in snow or ice or on a very slippery road surface, try switching the TCS off. This may allow excess wheel spin to "dig" the vehicle out and enable a successful "rocking" maneuver.

211

# Driving

### **Electronic stability control (ESC)**

Electronic stability control (ESC) may enhance your vehicle's directional stability during adverse maneuvers, for example when cornering severely or avoiding objects in the roadway. ESC operates by applying brakes to one or more of the wheels individually and, if necessary, reducing engine power if the system detects that the vehicle is about to skid or slide laterally.

During ESC events, the stability control light in the instrument cluster will flash.

Certain adverse driving maneuvers may activate the ESC system, which include but are not limited to:

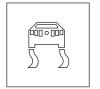
- Taking a turn too fast
- Maneuvering quickly to avoid an accident, pedestrian or obstacle
- Driving over a patch of ice or other slippery surfaces
- Changing lanes on a snow-rutted road
- Entering a snow-free road from a snow-covered side street, or vice versa
- Entering a paved road from a gravel road, or vice versa
- Cornering while towing a heavily loaded trailer (refer to *Trailer* towing in the *Tires, Wheels and Loading* chapter).

#### Switching off AdvanceTrac®

If the vehicle is stuck in snow, mud or sand, and seems to lose engine power, switching off certain features of the AdvanceTrac<sup>®</sup> system may be beneficial because the wheels are allowed to spin. This will restore full engine power and will enhance momentum through the obstacle.

The stability control button can be used to enable unique AdvanceTrac<sup>®</sup> modes.

Full features of the AdvanceTrac<sup>®</sup> system can be restored by pressing the stability control button again or by turning off and restarting the engine.



212

# Driving

When features of the AdvanceTrac<sup>®</sup> system are off, the stability control off light will illuminate steadily. Pressing the stability control button again will turn off the stability control off light.



In R (Reverse), ABS and the engine traction control and brake traction control features will continue to function; however, ESC is disabled.

AdvanceTrac <sup>®</sup> Features				
Button functions	Mode	∏ icon status	ESC	TCS
Default at start-up		On during bulb check	Enabled	Enabled
Button pressed momentarily	Traction control off	On	Enabled	Disabled
Button pressed twice; brakes applied	Sport mode (if equipped)	On	Enabled	Enabled
Button pressed and held more than 5 seconds; brakes applied; no throttle	AdvanceTrac® Disabled	On	Disabled	Disabled
Button pressed again after deactivation	AdvanceTrac® fully enabled	Off	Enabled	Enabled

### AdvanceTrac<sup>®</sup> Sport Mode (if equipped)

The AdvanceTrac<sup>®</sup> system provides an available sport mode on some models. This can be selected utilizing the stability off button as shown in the table above.

Sport mode is not intended for use on public roadways as this mode provides less AdvanceTrac<sup>®</sup> system intervention than when the default ESC and traction control systems are on. Sport mode will allow more spirited driving while the AdvanceTrac<sup>®</sup> system is still enabled.

213