

Lexus Safety Experience Activity Stations

September 23, 2010

Smart Stop Technology

Welcome to the Smart Stop Technology Activity Area. While you're here, you'll experience how Lexus' brakes will stop the car, even if the accelerator is fully depressed.

For added customer confidence, Lexus has added a brake override system called Smart Stop Technology to all its new cars. Smart Stop Technology automatically reduces engine power when the brake pedal and accelerator pedal are applied simultaneously. This happens under certain driving conditions:

- The throttle opening is greater than 1/3
- Vehicle speed is above 5 mph
- Brakes are applied firmly

Vehicle Stability Control (VSC) and Traction Control (TRAC)

Welcome to the Vehicle Stability Control (VSC) and Traction Control (TRAC) Activity Area. While you're testing this Lexus vehicle, watch for these VSC and TRAC features:

- How VSC helps the driver maintain control in curves and turns, particularly in wet or slippery conditions.
- VSC sensors detect when the vehicle begins to slip laterally in a turn and the system responds to help maintain vehicle control.
- The VSC system reduces the throttle and applies the brakes to individual wheels to help correct the vehicle orientation.
- TRAC helps prevent the drive wheels from spinning while accelerating under slippery conditions
- When the wheel speed sensors determine that one or both of the drive wheels are starting to slip, TRAC starts reducing the throttle and may even apply the brake in a pulsing manner to the offending wheel(s) until wheel slippage is brought under control.

Anti-Lock Braking System (ABS)

Welcome to the Anti-Lock Braking System (ABS) Activity Area. ABS helps the driver maintain control in emergency braking situations so they are better able to steer around obstacles.

While testing this Lexus vehicle, notice:

- How during ABS operation, the vehicle responds by "pulsing" the brakes to the individual wheels to help maintain maximum tire traction with road surface.

- During braking, sensors monitor the rotational speed of each wheel and a computer compares the individual wheel speeds to prevent wheel lock up.
- When ABS is activated, you may feel the brake pedal gently pulsate, which is normal.