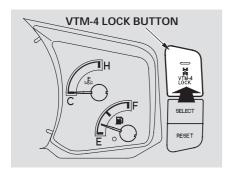
# VTM-4 System



Your vehicle is equipped with a variable torque management 4-wheel-drive system (VTM-4) that distributes engine torque to the appropriate drive axle depending on the available traction conditions. The system is completely automatic, always active, and does not require any driver interaction.

If you become stuck, you can activate the VTM-4 by pressing the VTM-4 LOCK button while in first (1), second (2), or reverse (R) gear below 18 mph (30 km/h). This mode overrides the auto system to send maximum torque to the rear axle. This mode is only intended for intermittent use at low speed to free your vehicle if it becomes stuck or when you encounter a steep grade with one wheel on a slippery surface. Generally, you should first allow the auto mode to operate to adjust for the available traction conditions.

### To Engage the VTM-4 Lock:

- 1. The vehicle speed must be below 18 mph (30 km/h).
- 2. Move the shift lever to first (1), second (2), or reverse (R) gear.

3. Press the VTM-4 LOCK button. The indicator in the button comes on.

To get unstuck, apply light pressure to the accelerator pedal. Do not spin the front tires for more than a few seconds. Because of the amount of torque applied to the rear tires, they should not spin. This is normal. If you are not able to move the vehicle, stop and reverse direction.

#### NOTICE

Do not use the VTM-4 LOCK button on dry, paved roads. Driving on dry, paved roads with VTM-4 Lock ON may damage the rear differential when making a turn. Strange noise and vibration can also result.

# VTM-4 System, Tire Pressure Monitoring System (TPMS)

The VTM-4 Lock will temporarily disengage when the vehicle speed exceeds 18 mph (30 km/h). The indicator in the button will remain on.

# To Disengage the VTM-4 Lock, do any of the following:

- Press the VTM-4 LOCK button.
- Move the shift lever to D.
- Turn the ignition switch to the LOCK (0) position.

#### NOTICE

Do not continuously spin the front tires of your vehicle. Continuously spinning the front tires can cause transmission or rear differential damage.

# Tire Pressure Monitoring System (TPMS)

Your vehicle is equipped with a tire pressure monitoring system (TPMS) that turns on every time you start the engine and monitors the pressure in your tires while driving.

Each tire has its own pressure sensor. If the air pressure of a tire becomes significantly low, the sensor in that tire immediately sends a signal that causes the low tire pressure indicator and the appropriate tire on the tire pressure monitor to come on.



# Low Tire Pressure Indicator

When this indicator is on, one or more of your tires is significantly under inflated. You should stop and check your tires as soon as possible.

If you think you can safely drive a short distance to a service station, proceed slowly, and inflate the tire to the recommended pressure shown on the driver's doorjamb.

If the tire is flat, or if the tire pressure is too low to continue driving, replace the tire with the compact spare tire.

**CONTINUED** 

# **Tire Pressure Monitoring System (TPMS)**

Driving on a significantly underinflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Although your tire pressure is monitored, each tire should be checked monthly, including the spare.

Check the pressure with the tires cold, after the vehicle has been parked for at least 3 hours.

Set to the recommended inflation pressure as specified on the vehicle placard and in this owner's manual (see page 256).



## **Tire Pressure Monitor**

The appropriate tire indicator and low tire pressure indicator comes on if a tire becomes significantly underinflated. See **Low Tire Pressure Indicator** on page 199.



#### Tire Pressure Monitoring System (TPMS) Indicator

This indicator comes on and stays on if there is a problem with the tire pressure monitoring system.

If this happens, the system will shut off and no longer monitor tire pressures. Have the system checked by your dealer as soon as possible.

## Changing a Tire with TPMS

If you have a flat tire, the low tire pressure and tire monitor indicators will come on. Replace the indicated flat tire with the compact spare tire (see page 265).

Each wheel is equipped with a tire pressure sensor mounted inside the tire behind the valve stem. You must use TPMS specific wheels. It is recommended that you always have your tires serviced by your dealer or qualified technician.

After you replace the flat tire with the compact spare tire, the low tire pressure indicator stays on. This is normal; the system is not monitoring the spare tire pressure. Manually check the spare tire pressure to be sure it is correct.

Never use a puncture-repairing agent in a flat tire. If used, you will have to replace the tire pressure sensor. Have the flat tire repaired by your dealer as soon as possible.

# Tire Pressure Monitoring System (TPMS), Parking

As required by the FCC: This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Industry Canada Standard RSS-210.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference that may cause undesired operation of the device.

#### **Parking**

Always use the parking brake when you park your vehicle. Make sure the parking brake is set firmly or your vehicle may roll if it is on an incline.

Set the parking brake before you put the transmission in Park. This keeps the vehicle from moving and putting pressure on the parking mechanism in the transmission.

### **Parking Tips**

- Make sure the moonroof (if equipped) and the windows are closed.
- Turn off the lights.
- Place any packages, valuables, etc. in the cargo area in your vehicle or the In-Bed Trunk, or take them with you.
- Lock the doors.

On vehicles with security system Check the indicator on the driver's door to verify that the security system is set.

 Never park over dry leaves, tall grass, or other flammable materials. The hot three way catalytic converter could cause these materials to catch on fire

**CONTINUED** 

# Parking, Braking System

- If the vehicle is facing uphill, turn the front wheels away from the curb, and set the parking brake.
- If the vehicle is facing downhill, turn the front wheels toward the curb, and set the parking brake.
- Make sure the parking brake is fully released before driving away. Driving with the parking brake partially set can overheat or damage the parking brake.

### **Braking System**

Your vehicle is equipped with disc brakes at all four wheels. A power assist helps reduce the effort needed on the brake pedal. The anti-lock brake system (ABS) helps you retain steering control when braking very hard.

Resting your foot on the pedal keeps the brakes applied lightly, builds up heat, increases wear, and reduces their effectiveness. It also keeps your brake lights on all the time, confusing drivers behind you.

Constant application of the brakes when going down a long hill builds up heat and reduces their effectiveness. Use the engine to assist the brakes by taking your foot off the accelerator and downshifting to a lower gear.

Check the brakes after driving through deep water. Apply the brakes moderately to see if they feel normal. If not, apply them gently and frequently until they do. Be extra cautious in your driving.

#### **Braking System Design**

The hydraulic system that operates the brakes has two separate circuits. Each circuit works diagonally across the vehicle (the left-front brake is connected with the right-rear brake, etc.). If one circuit should develop a problem, you will still have braking at two wheels.

#### **Brake Wear Indicators**

If the brake pads need replacing, you will hear a distinctive, metallic screeching sound when you apply the brake pedal. If you do not have the brake pads replaced, they will screech all the time. It is normal for the brakes to occasionally squeal or squeak when you apply them.

The anti-lock brake system (ABS) helps prevent the brakes from locking up, and helps you retain steering control by pumping the brakes rapidly, much faster than a person can do it.

The ABS also balances the front-torear braking distribution according to vehicle loading.

You should never pump the brake pedal. Let the ABS work for you by always keeping firm, steady pressure on the brake pedal. This is sometimes referred to as "stomp and steer."

You will feel a pulsation in the brake pedal when the ABS activates, and you may hear some noise. This is normal: it is the ABS rapidly pumping the brakes. On dry pavement, you will need to press on the brake pedal very hard before the ABS activates. However, you may feel the ABS activate immediately if you are trying to stop on snow or ice.



## **ABS Indicator**

If the ABS indicator comes on, the anti-lock function of the braking system has shut down. The brakes still work like a conventional system, but without anti-lock. You should have your dealer inspect your vehicle as soon as possible.

If the indicator comes on while driving, test the brakes as instructed on page 280.

**CONTINUED** 

# **Anti-lock Brakes (ABS)**

If the ABS indicator and the brake system indicator come on together and the parking break is fully released, the front-to-rear braking distribution system may also shut down.

Test your brakes as instructed on page 280. If the brakes feel normal, drive slowly and have your vehicle repaired by your dealer as soon as possible. Avoid sudden hard braking which could cause the rear wheels to lock up and possibly lead to a loss of control.

The VSA indicator will come on along with the ABS indicator.

Important Safety Reminders ABS does not reduce the time or distance it takes to stop the vehicle. It only helps with steering control during braking.

ABS will not prevent a skid that results from changing direction abruptly, such as trying to take a corner too fast or making a sudden lane change. Always drive at a safe speed for the road and weather conditions.

ABS cannot prevent a loss of stability. Always steer moderately when you are braking hard. Severe or sharp steering wheel movement can still cause your vehicle to veer into oncoming traffic or off the road.

A vehicle with ABS may require a longer distance to stop on loose or uneven surfaces, such as gravel or snow, than a vehicle without antilock. Slow down, and allow a greater distance between vehicles under those conditions.