Flat in the Cold

A Winter Tire Pressure Infographic

Are Canadian drivers maintaining safe tire pressure in winter?
The Kal Tire Winter Tire Maintenance Survey[1] showed:

Only 5% of motorists check pressure monthly

24% of drivers hadn't checked their pressure in the past year

Only 51% know their tire pressure needs adjusting in winter because of colder temperatures

Drivers are relying on **two potentially unsafe** methods of monitoring tire pressure:

- tire pressure monitoring system (TPMS) **(40%)**
- tire appearing flat **(25%)**

Why is checking tire pressure so important in winter?

As temperatures drop, air contracts as air molecules get closer together.

Less air volume = less pressure.
A temperature decrease of 10C can mean a loss of 1 to 2 pounds per square inch (PSI)[2], the unit used to measure tire pressure.

In colder temperatures, rubber hardens, sometimes causing additional air loss from the seal where the tire meets the rim.

Underinflated tires can cause:

Poor stability and traction, even risk of failure
A tire begins to lose its ability to manage a vehicle's weight when pressure drops as little as 5%. As a result, steering, braking and suspension all suffer. If the pressure drops too low, the tire can fail, resulting in a complete loss of control.

Poor fuel efficiency
The engine has to work harder to get tires to roll.

Poor tire wear and tire life
Uneven contact with the road leads to irregular and/or faster wear.

1 *A total of 3,149 Canadian motorists from coast to coast who are responsible for maintaining and servicing their own vehicles were surveyed from October 19-November 2, 2022. The results are considered accurate within ±2%, 19 times out of 20.

2 Inflating your tires (canada.ca)

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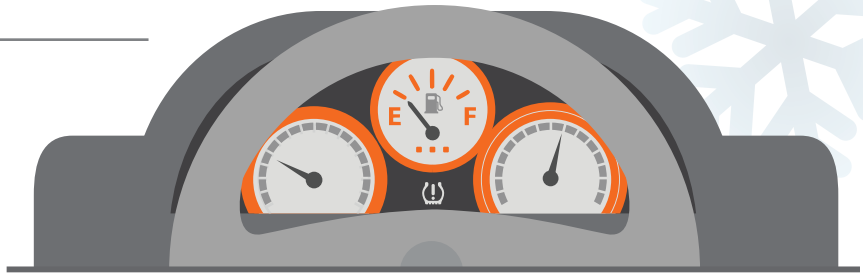
How do you know your tire's recommended pressure?

Find the vehicle manufacturers recommended PSI in the owner's manual or on a sticker along the driver's door jamb. **35 PSI is common**.

How often should you check your tire pressure?

Check your tire pressure manually **once a month**, even if your vehicle has TPMS. Circle the same date on your calendar to help you remember.

Stay safe and pay attention to TPMS symbols!

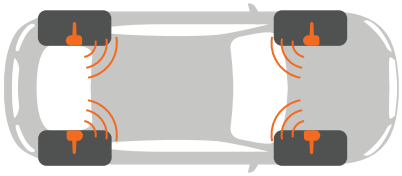


Flashing light means there could be a problem with the system.

Solid light means at least one tire is dangerously underinflated.

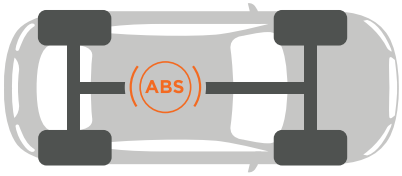
What to do if you see either TPMS light:

1. Pull over safely
2. Check pressure manually, and if it's low...
3. ...Visit a service centre right away



Direct TPMS

- Uses an electronic sensor inside the tire (usually part of the valve stem).
- Continuously monitors inflation pressure and relays this data to the dashboard.



Indirect TPMS

- Uses the car's ABS system to calculate the difference in tire circumference and gauge inflation pressure.
- Illuminates when pressure is dangerously low.

Did you know...

Elevation affects tire pressure. As altitude increases, the amount of air over a unit area decreases.

Rubber is porous and air naturally passes through the tires over time.

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