EV OWNERSHIP BASICS

An Easy-to-Understand Guide to Electric Vehicle Maintenance

Welcome to stress-free maintenance. Electric vehicles (EVs) require significantly less upkeep than traditional gas cars—there are no spark plugs, timing belts, or oil changes to worry about. This guide breaks down the simple, real-world habits that will keep your EV running perfectly through New Brunswick's seasons, explained in plain language for everyone.

1. Battery Care & Cold Weather Tips

- **Know Your Battery Type:** Most long-range EVs prefer a daily charge limit of **80% or 90%** to keep the battery happy, reserving a 100% full charge for road trips. However, some standard-range models use a chemistry called *LFP*, which is perfectly happy being charged to 100% regularly. Always look up your vehicle's specific manual recommendation!
- **Pre-Warming in the Winter:** On freezing New Brunswick mornings, use your vehicle's phone app to turn on the heat while the car is still plugged into your home charger. This warms up both the cabin and the battery using power from the electrical grid, saving your battery's energy to give you maximum driving range on the highway.
- **The Fast-Charging Safeguard:** Modern EVs have built-in thermal protection loops—essentially an automated climate control system for the battery cells. Real-world fleet data shows that because of this active protection, using public DC Fast Chargers does not cause noticeable battery damage or rapid wear compared to regular home charging. You can use fast chargers guilt-free on trips, as your car will request the fastest speed from the charger that ensures the long term health of your battery.

> **In simple terms:** Think of the battery like a smartphone. Don't leave it completely dead or sitting pinned at 100% in extreme summer heat for days on end, and warm it up before you drive in the winter!

2. Tires, Instant Power, and Invisible Wear

- **The Torque Factor:** Modern EVs weigh roughly the same as similar gas-powered cars and share the exact same amount of grip with the road. The reason EV tires sometimes wear out quicker isn't their weight—it's how the power is delivered. Electric motors give you 100% of their power instantly the moment you step on the pedal.
- **Invisible "Micro-Slip":** Because an EV accelerates so smoothly and instantly, pressing hard on the accelerator causes the tire to experience tiny, microscopic slippage against the pavement before fully biting. You won't hear a squeal or feel the car spinning its wheels, but this silent friction acts like fine sandpaper, gently wearing down tread over time.
- **Stick to a Rotation Schedule:** To balance out this torque wear evenly across all four tires and get the longest life out of them, have your tires rotated every **8,000 to 12,000 km**.

- **Shopping for EV Tires:** When it’s time to buy new tires, look for options explicitly marked as "EV-Rated." These are built with tougher rubber compounds meant to handle instant electric power without wearing out early, while also featuring quiet tread designs.

> **In simple terms:** EVs deliver power instantly and silently. Gentle acceleration from intersections will save your tires and extend their lifespan significantly.

3. Brakes & The Maritime "Salt Factor"

- **The Regenerative Braking Bonus:** When you lift your foot off the gas pedal in an EV, the electric motor reverses itself to slow the car down, converting that motion back into clean electricity for your battery. Because the motor does 90% of the stopping, your physical brake pads and metal rotors are rarely used and can last for years longer than a gas car's.
- **The Rust Risk:** Because the physical brakes are rarely pressed hard during daily trips, New Brunswick’s damp maritime air and winter road salt can sit on the brake components. Over time, this causes the moving parts to rust, stiffen, or get stuck.
- **An Annual Brake Clean is Vital:** To prevent rust build-up, it is highly recommended to get an annual brake service (cleaning and lubricating the moving parts). The perfect time to do this is in the spring when you switch from winter tires back to summer tires.

> **In simple terms:** Your brakes last a long time because the motor stops the car. But because they sit idle, road salt can make them rust. A quick yearly clean keeps them safe and working perfectly.

4. Fluids, Filters, and Tech Updates

- **Cabin Air Filters:** Dust from rural roads and seasonal pollen will slowly plug up your car's ventilation system. Replacing the cabin air filter every **24,000 to 36,000 km** ensures your heating and air conditioning run efficiently and keep your cabin air clean.
- **Coolant and Brake Fluids:** While EVs don't have engine oil, they do use fluid loops to regulate the battery's temperature. This battery fluid lasts a very long time and usually only needs to be checked or flushed every 100,000 to 150,000 km. Your physical brake fluid should still be tested for moisture every 2 to 3 years.
- **Over-the-Air (OTA) Updates:** IF your car supports OTA updates, remember that modern EVs constantly improve through software. Connect your car to your home Wi-Fi network every now and then. Manufacturers regularly send out free software updates that can improve your winter driving range, optimize battery charging speeds, or unlock new dashboard features.

EASY PUBLIC RESOURCES & REFERENCE LINKS

NB Power - Electric Vehicles Page
Official local resource tracking public charging networks across New Brunswick, program initiatives, and tips for winter EV driving.

https://www.nbpower.com/en/products-services/electric-vehicles/

Natural Resources Canada (NRCan) Electric Vehicle Transport Guide
Official government data breaking down true vehicle maintenance costs, real-world range testing results, and available purchasing incentives.

https://natural-resources.canada.ca/energy-efficiency/transportation-alternative-fuels/electric-vehicles/21920