

FLEET SERVICE TOOLBOX



Fleet & Commercial
CHEVROLET • BUICK • GMC • CADILLAC

Certified Service from Chevrolet, Buick, GMC, & Cadillac

As one of the largest transportation providers in the industry, General Motors offers Certified Service and maintenance support to commercial users. With over 4,100 Chevrolet, Buick, GMC, and Cadillac dealers, General Motors has the broadest dealer network in the U.S. Customer support is also available from the GM Fleet Action Center at 800-FLEET-OP (800-353-3867).

With an experienced and easy-to-work-with Fleet Sales, Service, and Parts team, GM Fleet & Commercial stands ready to get answers, find solutions, and keep your vehicles on the road.

For more information, go to www.gmfleet.com, or contact your GM Fleet Account Executive.



Certified Service



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Dedicated Customer Support

- ▶ GM Fleet Action Center
- ▶ Provides support for dealers, fleet customers, fleet management companies, and GM wholesale staff to expedite solutions for customers
- ▶ Support includes: Fleet and Commercial incentives, FAN support, order management, service, fleet, and commercial dealer location support
- ▶ Contact **800-FLEET-OP (800-353-3867)**

Chevrolet and GMC Warranty and Courtesy Services

5-YEAR/100,000-MILE TRANSFERABLE POWERTRAIN LIMITED WARRANTY¹

- ▶ Fully transferable/no fees
- ▶ No deductible
- ▶ 3-Year/36,000-Mile Bumper-to-Bumper Limited Warranty¹
- ▶ Roadside Assistance
- ▶ Courtesy Transportation

Buick and Cadillac Warranty and Courtesy Services

6-YEAR/70,000-MILE TRANSFERABLE POWERTRAIN LIMITED WARRANTY¹

- ▶ Fully transferable/no fees
- ▶ No deductible
- ▶ Bumper-to-Bumper Limited Warranty is for 4 years/50,000 miles¹
- ▶ Roadside Assistance
- ▶ Courtesy Transportation

Hybrid Component Coverage

- ▶ Specified Hybrid components for 8 years/100,000 miles¹ with no deductible
- ▶ Towing coverage tied to specified components for 8 years/100,000 miles¹

Largest Dedicated Fleet Sales, Service, and Parts Teams

- ▶ Provides quality service and consultation to fleet and commercial customers
- ▶ Experienced in assisting fleets with:
 - › Maximizing vehicle uptime and efficiency
 - › Driver convenience
- ▶ Contact your Fleet Account Executive — Sales or Service at www.gmfleet.com

World-Class Technical Training

GM WEB-BASED TRAINING

- ▶ Online, product, and nontechnical training
- ▶ Courses are offered to fleets through www.centerlearning.com²
- ▶ GM Training Help Desk: **888-748-2687**, Monday–Friday, 8 a.m. to 9 p.m. EST

ADDITIONAL TRAINING DELIVERY METHODS

- ▶ Virtual classroom training
- ▶ Streaming video
- ▶ DVDs and CDs

GM TECHNICAL HANDS-ON TRAINING [AT CUSTOMER LOCATION]

- ▶ For GM's fleet and commercial customers
- ▶ Contact Jeff Holmes, Program Manager, at jholmes@raytheon.com or **248-837-6665**

ACDelco TECHNICAL TRAINING

- ▶ For GM's fleet and commercial customers, ACDelco Key Fleet Program Qualifiers receive free Web-based or instructor-led training. Requirements:
 - › Maintain/operate 15 or more vehicles or pieces of motorized equipment
 - › Service and maintain your own fleet vehicles in-house
 - › Purchase a minimum of \$1,500 per month in ACDelco parts/products
- ▶ Visit: www.acdelcotechconnect.com

¹Whichever comes first. See dealer for details. ²Password- and ID-protected site. Contact Fleet Tools Help Desk at 877-9FLEET9.

Dealer Network

- ▶ ASE-certified technicians with over 1 million hours of additional GM training annually
- ▶ Advanced diagnostic equipment
- ▶ Access to GM engineers
- ▶ Genuine GM Parts manufactured to meet the exact specifications of your GM vehicle
- ▶ Tires and glass available at many GM dealers
- ▶ Visit www.gmfleet.com to find a dealer near you

Genuine GM Parts

- ▶ Genuine GM Parts deliver OE-quality, long-lasting performance at competitive prices to help keep your GM vehicle on the road
- ▶ Your GM dealer carries a full line of Genuine GM Parts — maintenance/repair, collision, powertrain, and GM accessories

ACDelco Parts

- ▶ ACDelco is a global leader in the independent automotive aftermarket and offers over 90,000 quality parts across 38 product lines
- ▶ Available for GM and non-GM vehicles
- ▶ Parts meet stringent quality standards
- ▶ ACDelco offers Key Fleet Program to commercial fleets
 - › Discounts on tools, equipment, service, and training manuals
 - › Provides no-charge product training and service seminars
 - › Technical assistance hotline
 - › Available through ACDelco distributors
- ▶ Visit: www.acdelcotechconnect.com

GM Tools and Equipment

- ▶ Fleets may purchase tools and equipment available through GM's authorized source
- ▶ Visit: www.gmdesolutions.com or contact 800-GM-TOOLS (800-468-6657)

GM Service Reference Information

- ▶ Valuable service information necessary to successfully diagnose and complete vehicle repairs
- ▶ Service Information Database¹
- ▶ Service Bulletins and Information
- ▶ Service Manuals¹
- ▶ TechLink Bulletins¹
- ▶ Electronic Tech II Updates¹
 - › Current vehicle calibrations
 - › Allows fleets to obtain the latest software for Tech II diagnostic equipment
 - › Provides the means to perform a direct download to a PC
- ▶ Multiple Diagnostic Module (vehicle interface) reprogramming and diagnostics capability
- ▶ Visit: www.gmfleet.com

Scheduled Maintenance Program

Chevrolet, Buick, and GMC

According to your 2015 Chevrolet/Buick/GMC recommended maintenance schedule, for 2 years or 24,000 miles,² whichever occurs first.

- ▶ Oil and oil filter service
- ▶ Four-wheel tire rotation
- ▶ Multi-point inspection

Cadillac

Cadillac Premium Care Maintenance covers select routine maintenance services for the first 4 years or 50,000 miles³:

- ▶ Oil Changes: Based on your Cadillac's Oil Life Monitoring System
- ▶ Tire rotation every 7,500 miles
- ▶ Engine air cleaner filter replacement
- ▶ Passenger compartment air filter replacement

¹Password- and ID-protected site. Contact Fleet Tools Help Desk at 877-9FLEET9. ²On select models starting with 2014. Eligible vehicles include purchased or leased new 2014 or 2015 Chevrolet/Buick/GMC cars, trucks, or crossovers in the U.S. Covers scheduled oil changes with filter, tire rotations, and 27-point inspections, according to your new vehicle's recommended maintenance schedule, for a maximum of four service events within 2 years or 24,000 miles, whichever comes first. Does not include air filters. Extra charge may apply for dual-rear-wheel tire rotations. See participating dealer for other restrictions and complete details. ³Whichever comes first. See dealer for details.

**Chevrolet/GMC
Warranty & Roadside
Assistance Comparison¹**

WARRANTY INFO	CHEVROLET/GMC	TOYOTA	FORD	CHRYSLER	NISSAN
BUMPER-TO-BUMPER LIMITED WARRANTY	3 years/36,000 miles	3 years/36,000 miles	3 years/36,000 miles	3 years/36,000 miles	3 years/36,000 miles
HYBRID	8 years/100,000 miles for certain components of e-Assist vehicles, Malibu Eco, and Volt including select Volt Propulsion Battery and components. Other Chevrolet eAssist components include battery disconnect, energy storage control module, eAssist battery, powerpack assembly, eAssist battery cooling fan, auxiliary transmission pump, high-voltage 3-phase, 12-volt cable assembly, starter generator unit, and starter generator cooling pump.	8 years/100,000 miles for the following hybrid-related components: battery control module (battery voltage sensor), Hybrid battery, Hybrid control module, and inverter with converter.	8 years/100,000 miles for high-voltage battery, hybrid CVT, Inverter System Controller (ISC), DC/DC converter, high-voltage battery connector, battery pack fan assembly, thermistor probe, Hybrid Battery Pack Sensor Module (HBPSM), Battery Energy Control Module (BECM), and PHEV onboard charger.	N/A—No Hybrid vehicles yet for Chrysler.	8 years/100,000 miles for the following Nissan-supplied components: Hybrid Vehicle Control ECU, high-voltage battery pack (hybrid vehicle battery), and inverter unit
TIRES	3 years/36,000 miles for labor and tires pro-rated by mileage: 1-12,000 100%, 12,001-36,000 Sliding scale starting at 67% down to 20%, 36,000+ 0%	Tires are covered by a separate warranty provided by the tire manufacturer.	3 years/36,000 miles for labor and tires pro-rated by mileage: 1-12,000 = 100% 12,001-24,000 = 60% 24,001-36,000 = 30% (Also covered by tire manufacturer warranty)	Tires are covered by a separate warranty provided by the tire manufacturer.	Tires are covered by a separate warranty provided by the tire manufacturer.
TOWING	5 years/100,000 miles, 8 years/100,000 miles for Volt and Hybrid vehicles. (Towing to nearest GM dealership)	3 years/36,000 miles (Towing to nearest authorized Toyota dealership)	5 years/60,000 miles (Towing to nearest authorized dealership or to any within 35 miles)	5 years/100,000 miles (Towing to nearest authorized dealership or any within 10 miles)	3 years/36,000 miles (Towing to nearest authorized dealership)
RUST-THROUGH	6 years/100,000 miles	5 years/unlimited miles	5 years/unlimited miles	3 years/unlimited miles for sheet metal panels 5 years/100,000 miles for outer-body, finish-painted sheet metal panels	5 years/unlimited miles
WHEEL ALIGNMENT AND BALANCE	1 year/7,500 miles	1 year/12,000 miles	1 year/12,000 miles	1 year/12,000 miles	1 year/12,000 miles

¹All figures shown based on whichever comes first. See dealer for details.

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**Chevrolet/GMC
Warranty & Roadside
Assistance Comparison¹**

WARRANTY INFO	CHEVROLET/GMC	TOYOTA	FORD	CHRYSLER	NISSAN
POWERTRAIN	5 years/100,000 miles—all including 6.6L Duramax Diesel	5 years/60,000 miles	5 years/60,000 miles PowerStroke Diesel 5 years/100,000 miles	5 years/100,000 miles	5 years/60,000 miles
COURTESY SERVICES					
COURTESY TRANSPORTATION	5 years/100,000 miles for overnight warranty repairs	3 years/36,000 miles if vehicle must be kept overnight for warranty-covered repairs	Fee-based extended service plan (Ford Extended Service Plan)	Fee-based Maximum Care provides a \$35 First-Day Car Rental Allowance and \$1,000 Trip Interruption Insurance for any dealership mechanical repair or maintenance service.	Fee-based extended service plan
ROADSIDE ASSISTANCE	5 years/100,000 miles	2 years/25,000 miles (Vehicle cannot be part of a rental or commercial fleet, or a livery or taxi vehicle)	5 years/60,000 miles	5 years/100,000 miles	2 years/25,000 miles (Vehicle cannot be part of a rental or commercial fleet, or a livery or taxi vehicle)
LOCKOUT	5 years/100,000 miles	2 years/25,000 miles—Toyota Care	5 years/60,000 miles (Replacement key is customer's responsibility)	5 years/100,000 miles (Replacement key is customer's responsibility)	Fee-based extended service plan
FLAT TIRE	5 years/100,000 miles	2 years/25,000 miles—Toyota Care	5 years/60,000 miles (Spare tire installation only)	5 years/100,000 miles	Fee-based extended service plan
FUEL DELIVERY	5 years/100,000 miles	2 years/25,000 miles—Toyota Care	5 years/60,000 miles (Limited to two occurrences in a 12-month period, up to 2 gal. gas, 5 gal. diesel)	5 years/100,000 miles	Fee-based extended service plan
JUMP-START	5 years/100,000 miles	2 years/25,000 miles—Toyota Care	5 years/60,000 miles	5 years/100,000 miles	Fee-based extended service plan
EMERGENCY TOWING	5 years/100,000 miles (Towing to nearest GM dealership)	2 years/25,000 miles—Toyota Care	5 years/60,000 miles no charge (Towing to nearest authorized dealership or to any within 35 miles)	5 years/100,000 miles (Towing to nearest authorized dealership or any within 10 miles)	3 years/36,000 miles (Towing to nearest authorized dealership)

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**Buick/Cadillac
Warranty & Roadside
Assistance Comparison¹**

WARRANTY INFO	BUICK/CADILLAC	LEXUS	LINCOLN	BMW	MERCEDES-BENZ
BUMPER-TO-BUMPER LIMITED WARRANTY	4 years/50,000 miles (no deductible)	4 years/50,000 miles	4 years/50,000 miles	4 years/50,000 miles	4 years/50,000 miles
HYBRID	8 years/100,000 miles for certain components of Cadillac ELR and Buick LaCrosse and Regal eAssist vehicles, including eAssist battery disconnect, energy storage control module, eAssist battery, powerpack assembly, eAssist battery cooling fan, auxiliary transmission pump, high-voltage 3-phase, 12-volt cable assembly, starter generator unit, and starter generator cooling pump.	8 years/100,000 miles for the following components: Hybrid control module, Hybrid battery control module, Hybrid battery, and inverter with converter.	8 years/100,000 miles for high-voltage battery, Hybrid CVT, Inverter System Controller (ISC), DC/DC converter, high-voltage battery connector, battery pack fan assembly, thermistor probe, Hybrid Battery Pack Sensor Module (HBPSM), Battery Energy Control Module (BECM), and PHEV onboard charger.	8 years/100,000 miles for lithium-ion high-voltage battery, lithium-ion high-voltage battery modules on i3 and i8. 7 years/70,000 miles for ActiveHybrid 3, 5, or 7 for HV battery, Hybrid drive, starter/generator, electric A/C compressor, electric vacuum pump, and Electric Motor Control Unit (EME).	Mercedes does not provide a separate component warranty for hybrid vehicles. Still falls under Mercedes 4-year/50,000-mile Bumper-to-Bumper Warranty for electric motor, electric motor and Hybrid control processor, brake pedal module, high-voltage battery (with control module), and recuperative braking controller.
TIRES	4 years/50,000 miles for labor and tires pro-rated by mileage: 1-12,000 100%, 12,001-36,000 sliding scale starting at 67% down to 20%, 36,001-50,000 20%.	Tires are covered by a separate warranty provided by the tire manufacturer.	4 years/50,000 miles for labor and tires pro-rated by mileage: 1-12,000 = 100% 12,001-24,000 = 60% 24,001-36,000 = 30% 36,001-50,000 = 15% (Also covered by tire manufacturer warranty)	Tires are covered by a separate warranty provided by the tire manufacturer.	1 year/12,000 miles and then whatever is left by the specific tire manufacturer under its warranty.
TOWING	Buick—6 years/70,000 miles Cadillac—6 years/70,000 miles Buick LaCrosse eAssist/Regal eAssist/Cadillac Hybrid/ELR— During the 8-year/100,000-mile Hybrid warranty period, towing is covered to the nearest Cadillac or Buick servicing dealer if your vehicle cannot be driven because of a warranted hybrid-specific defect.	4 years/unlimited miles	For original owner—unlimited years/unlimited miles. Otherwise, maximum 6 years/70,000 miles from warranty start date for subsequent owners. (Towing to nearest authorized dealership or to any of customer's preferred within 100 miles)	4 years/unlimited miles (Towing to nearest authorized BMW center)	Unlimited years/unlimited miles (When under 4-year warranty, or if your vehicle is regularly serviced at an authorized Mercedes-Benz dealership at least once every 18 months)
RUST-THROUGH	6 years/100,000 miles for rust-through	6 years/unlimited miles	5 years/unlimited miles	12 years/unlimited miles	4 years/50,000 miles
WHEEL ALIGNMENT AND BALANCE	1 year/7,500 miles	1 year/20,000 miles	1 year/12,000 miles	Only up to the first 2,000 miles	1 year/12,000 miles

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**Buick/Cadillac
Warranty & Roadside
Assistance Comparison¹**

WARRANTY INFO	BUICK/CADILLAC	LEXUS	LINCOLN	BMW	MERCEDES-BENZ
POWERTRAIN	6 years/70,000 miles	6 years/70,000 miles	6 years/70,000 miles	4 years/50,000 miles	4 years/50,000 miles
COURTESY SERVICES					
COURTESY TRANSPORTATION	6 years/70,000 miles	4 years/unlimited miles	6 years/70,000 miles. Availability subject to dealer participation.	No Courtesy Transportation. Trip Interruption Insurance only through Roadside Assistance for 4 years/unlimited miles.	No Courtesy Transportation. Trip Interruption Insurance only through Roadside Assistance for 4 years/unlimited miles.
ROADSIDE ASSISTANCE	6 years/70,000 miles	4 years/unlimited miles	Unlimited years/unlimited miles (original owner) or 6 years/70,000 miles (subsequent owners)	4 years/unlimited miles	Unlimited years/unlimited miles (When under warranty, or if vehicle is regularly serviced at an authorized Mercedes-Benz dealership)
LOCKOUT	6 years/70,000 miles	4 years/unlimited miles	Unlimited years/unlimited miles (original owner) or 6 years/70,000 miles (subsequent owners)	4 years/unlimited miles (Replacement key is the responsibility of the customer)	Unlimited years/unlimited miles (When under warranty, or if vehicle is regularly serviced at an authorized Mercedes-Benz dealership)
FLAT TIRE	6 years/70,000 miles	4 years/unlimited miles	Unlimited years/unlimited miles (original owner) or 6 years/70,000 miles (subsequent owners)	4 years/unlimited miles	Unlimited years/unlimited miles (When under warranty, or if vehicle is regularly serviced at an authorized Mercedes-Benz dealership)
FUEL DELIVERY	6 years/70,000 miles	4 years/unlimited miles	Unlimited years/unlimited miles (original owner) or 6 years/70,000 miles (subsequent owners)	4 years/unlimited miles	Unlimited years/unlimited miles (When under warranty, or if vehicle is regularly serviced at an authorized Mercedes-Benz dealership)
JUMP-START	6 years/70,000 miles	4 years/unlimited miles	Unlimited years/unlimited miles (original owner) or 6 years/70,000 miles (subsequent owners)	4 years/unlimited miles	Unlimited years/unlimited miles (When under warranty, or if vehicle is regularly serviced at an authorized Mercedes-Benz dealership)
EMERGENCY TOWING	6 years/70,000 miles (Towing to the nearest Buick or Cadillac dealership)	4 years/unlimited miles (Towing to nearest Lexus dealership)	Unlimited years/unlimited miles (original owner) or 6 years/70,000 miles (subsequent owners) (Towing to nearest authorized dealership or to any of customer's preferred within 100 miles)	4 years/unlimited miles (Towing to nearest authorized BMW center)	Unlimited years/unlimited miles (When under warranty, or if vehicle is regularly serviced at an authorized Mercedes-Benz dealership)

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**Chevrolet/GMC
New-Vehicle
Maintenance Comparison¹**

ENGINE-GAS-NORMAL USE	CHEVROLET/GMC	TOYOTA	FORD	CHRYSLER	NISSAN
INCLUDED MAINTENANCE					
SCHEDULED MAINTENANCE PROGRAM	2 years/24,000 miles. Chevrolet Complete Care/GMC Pro Grade Protection Plan.	2 years/25,000 miles—Toyota Care	Paid Premium Plans—Ford Maintenance Plan (FMP)	Paid Premium Plan—Maximum Care	Paid Security + Plus Plan
TIRE ROTATION	Every 7,500 miles	Every 6 months/5,000 miles	Every 1 year/10,000 miles	Every 1 year or 10,000 miles or when Driver Information Display/Electronic Vehicle Information Center indicates to change the oil.	Every 6 months/5,000 miles
INSPECTION/INFLATION	Monthly (customer inspection)	Monthly (customer inspection)	Monthly (customer inspection)	Monthly (customer inspection)	Monthly (customer inspection)
STEERING/SUSPENSION					
ALIGNMENT	Only as needed	Every 15,000 miles	Inspect every 10,000 - 15,000 miles	Every 10,000 miles	Every 10,000 miles
INSPECTION	Every 7,500 miles	Every 15,000 miles	Every 1 year/10,000 miles	Every 2 years/20,000 miles	Every 6 months/5,000 miles
HVAC					
CABIN AIR FILTER	Every 2 years/22,500 miles	Every 3 years/30,000 miles	Inspect 1 year/10,000 miles Replace every 2 years/20,000 miles	2 years/20,000 miles	Every 18 months/15,000 miles
AXLE — RWD AND/OR 4X4					
FLUID LEVEL CHECK	Every Engine Oil Service/1 year	Every 3 years/30,000 miles	Inspect every 1 year/10,000 miles	Inspect every 2 years/20,000 miles	Inspect every 10,000 miles
TRANSFER CASE — AWD AND/OR 4X4 ONLY					
FLUID CHANGE	Every 45,000 miles if used for heavy towing. If not, every 97,500 miles.	Every 60,000 miles if used for towing or heavy-duty loading	Every 60,000 miles if towing. If not, every 150,000 miles.	Every 20,000 miles if used for towing or heavy-duty loading. If not, every 12 years/120,000 miles.	Only as needed

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Chevrolet/GMC
New-Vehicle
Maintenance Comparison¹

ENGINE-GAS-NORMAL USE	CHEVROLET/GMC	TOYOTA	FORD	CHRYSLER	NISSAN
OIL/FILTER SERVICE	When "Change Engine Oil Soon" message appears or within 1 year	Every 6 months/5,000 miles	1 year/10,000 miles maximum or when Oil Life Monitor indicates to do so	1 year/10,000 miles maximum or when Electronic Vehicle Information Center or Driver Display indicates to do so	6 months/5,000 miles
ENGINE AIR CLEANER	Inspect every 7,500 miles. Change every 4 years/60,000 miles or earlier if needed.	Every 3 years/30,000 miles	Inspect 1 year/10,000 miles. Replace every 30,000 miles	3 years/30,000 miles	3 years/30,000 miles
COOLANT — SERVICE	Inspect level every 7,500 miles. Replace 5 years/150,000 miles.	Inspect every 18 months/15,000 miles	Inspect level every 6 months. Initial replacement 6 years/100,000 miles then every 3 years/50,000 miles.	Initial 10 years/150,000 miles then every 50,000 miles	Every 7 years or 105,000 miles
SPARK PLUGS/WIRES	97,500 miles	12 years/120,000 miles	6 years/100,000 miles	100,000 miles	370Z, 6 years/60,000 miles. Others, 10 years/105,000 miles.
ACCESSORY DRIVE BELTS	Replace every 10 years/150,000 miles or sooner if needed due to fraying/cracking	Initially at 6 years/60,000 miles, then inspect every 18 months/15,000 miles	Inspect every 10,000 miles. Replace after 6 years/100,000 miles or replace at 150,000 miles if not needed sooner.	Replace every 120,000 miles or as needed	Inspect every 6 years/60,000 miles
FUEL FILTER SERVICE	Only as needed since in-tank	Only as needed since in-tank	Only as needed since in-tank	Only as needed since in-tank	Only as needed since in-tank
TRANSMISSION — AUTOMATIC					
CHECK FLUID LEVEL	Every Engine Oil Service/1 year	Every 30,000 miles	Inspect every 10,000 miles	Every 10,000 miles	Inspect every 1 year/10,000 miles
CHANGE FLUID/REPLACE FILTER	Every 45,000 miles if used for heavy towing. If not, every 97,500 miles.	Every 60,000 miles if used for towing or heavy-duty loading	Every 30,000 miles if used for towing. If not, every 150,000 miles.	Every 60,000 miles if used for heavy towing. If not, 12 years/120,000 miles.	Manual Transmission — Every 4 years/40,000 miles. Automatic transmission, only as needed.
BRAKES					
INSPECT BRAKE SYSTEM	Every 7,500 miles	Every 6 months/5,000 miles	Every 1 year/10,000 miles	Every 10,000 miles	Every 6 months/5,000 miles

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**Buick/Cadillac
New-Vehicle
Maintenance Comparison¹**

ENGINE-GAS-NORMAL USE	BUICK/CADILLAC	LEXUS	LINCOLN	BMW	MERCEDES-BENZ
INCLUDED MAINTENANCE					
SCHEDULED MAINTENANCE PROGRAM	Buick—2 years/24,000 miles, Experience Buick Protection Cadillac—4 years/50,000 miles, Premium Care Maintenance	Complimentary First and Second Maintenance Service done at 6 months/5,000 miles and 1 year/10,000 miles. Paid Premium Plans after that time.	2 years/24,000 miles	4 years/50,000 miles BMW Ultimate Service	Paid Premium Plan through Mercedes Star Service Prepaid Maintenance Plan
TIRES					
TIRE ROTATION	Every 7,500 miles	Every 6 months/5,000 miles	Every 1 year/10,000 miles	Every 1 year/10,000 miles or as specified by tire manufacturer	As specified by tire manufacturer
INSPECTION/INFLATION	Monthly (customer inspection)	Monthly (customer inspection)	Monthly (customer inspection)	Every 10,000 miles	Monthly (customer inspection)
STEERING/SUSPENSION					
ALIGNMENT	Only as needed	Only as needed	Inspect every 10,000 - 15,000 miles	Inspect every 15,000 miles. Do as needed.	Only as needed
INSPECTION	Every 7,500 miles	Every 18 months/15,000 miles	Every 1 year/10,000 miles	Every 10,000 miles	Every 1 year/10,000 miles
HVAC					
CABIN AIR FILTER	Every 2 years/22,500 miles	Every 1 year/10,000 miles	Inspect 1 year/10,000 miles. Replace every 2 years/20,000 miles.	Replace every 2 years/20,000 miles	Replace every 1 year/10,000 miles for GL and M-Class. All other models, replace every 2 years/20,000 miles.
AXLE — RWD AND/OR 4X4					
FLUID LEVEL CHECK	Every Engine Oil Service/1 year	Every 18 months/15,000 miles	Inspect every 1 year/10,000 miles	Every 10,000 miles	Every 20,000 miles
TRANSFER CASE — AWD AND/OR 4X4 ONLY					
FLUID CHANGE	Buick—Every 45,000 miles (if used for heavy towing), or every 97,500 miles. Cadillac every 45,000 miles (if used for heavy towing), or every 97,500 miles.	Inspect every 3 years/30,000 miles. Replace every 36 months/30,000 miles thereafter.	Every 60,000 miles (if towing), or every 150,000 miles.	Inspect every 10,000 miles	Replace every 3 years/30,000 miles

¹All figures shown based on whichever comes first. See dealer for details.

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**Buick/Cadillac
New-Vehicle
Maintenance Comparison¹**

ENGINE-GAS NORMAL USE	BUICK/CADILLAC	LEXUS	LINCOLN	BMW	MERCEDES-BENZ
OIL/FILTER SERVICE	When "Change Engine Oil Soon" message appears or within 1 year	Every 12 months/10,000 miles	1 year/10,000 miles maximum or when Oil Life Monitor indicates to do so	Every 10,000 miles depending on BMW CBS (Condition Based Service) display	Every 1 year/10,000 miles depending on message from ASSYST PLUS service interval display.
ENGINE AIR CLEANER	Inspect every 7,500 miles. Change every 4 years/45,000 miles or earlier, if needed.	Replace every 3 years/30,000 miles	Inspect 1 year/10,000 miles. Replace every 30,000 miles.	Inspect every 10,000 miles. Replace every 30,000-50,000 miles depending on driving conditions.	Replace every 4 years/46,500 miles
COOLANT — SERVICE	Inspect level every 7,500 miles. Replace 5 years/150,000 miles.	First check at 5,000 miles, then inspect level every 1 year/10,000 miles. Replace at 10 years/100,000 miles and every 5 years/50,000 miles after.	Inspect level every 6 months. Initial replacement 6 years/100,000 miles, then every 3 years/50,000 miles.	Inspect every 10,000 miles. Coolant has a long-term rating and does not need replacing unless the cooling system was repaired.	Check every year/10,000 miles. Replace as needed.
SPARK PLUGS/WIRES	60,000 miles for Buick/Cadillac 2.0L Turbo and Cadillac 3.6L LFX. 97,500 miles for Buick 2.4L/3.6L, Cadillac 3.6L LFX.	Every 6 years/60,000 miles	6 years/100,000 miles	Every 60,000 miles	Every 4 years/46,500 miles (gas engines)
ACCESSORY DRIVE BELTS	Replace every 10 years/150,000 miles or sooner if needed due to fraying/cracking. eAssist/hybrid—inspect at 97,500 miles.	Inspect at 6 years/60,000 miles, then every 15,000 miles after and replace when necessary.	Inspect every 10,000 miles. Replace after 6 years/100,000 miles or replace at 150,000 miles if not needed sooner.	Inspect every 10,000 miles. Replace as necessary.	Inspect every year/10,000 miles. Replace as needed.
FUEL FILTER SERVICE	Only as needed since in-tank	Only as needed since in-tank	Only as needed since in-tank	Only on specific models (See specific Owner's Manual). Replace every 50,000 miles.	Every 4 years/46,500 miles for diesel models only.
TRANSMISSION — AUTOMATIC					
CHECK FLUID LEVEL	Every Engine Oil Service/1 year	Inspect every 3 years/36,000 miles. Sealed unit—no inspection needed.	Inspect every 10,000 miles	Every 10,000 miles	Every 10,000 miles
CHANGE FLUID/REPLACE FILTER	Every 45,000 miles (if used for heavy towing), or every 97,500 miles	Sealed unit—no inspection needed. For SUVs, replace every 6 years/60,000 miles if used for heavy loading or towing.	Every 30,000 miles (if used for towing), or every 150,000 miles	Inspect every 10,000 miles	For C, CLS, GLK, E, S, and SL, replace once at 3 years/31,000 miles, then every 5 years/77,500 miles. Hybrid/Plug-In CLA/GLA, replace every 5 years/62,000 miles. GL/M and SLK, replace every 5 years/77,500 miles.
BRAKES					
INSPECT BRAKE SYSTEM	Every 7,500 miles	Every 6 months/5,000 miles	Every 1 year/10,000 miles	Every 10,000 miles	Every 1 year/10,000 miles
REPLACE BRAKE FLUID	Buick/Cadillac—Every 3 years/45,000 miles for Buick 2.0L/2.4L and Cadillac 2.0L/3.6L LFX/3.6L LFX in CTS/XTS. Every 10 years/150,000 miles for other Buick/Cadillac models.	Every 3 years/30,000 miles	No specific interval mentioned. Do as needed.	Depending on when BMW CBS (Condition Based Service) display says to do so	Every 2 years/20,000 miles

¹All figures shown based on whichever comes first. See dealer for details.

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GM Simplified Maintenance

GM Simplified Maintenance is driven by the Oil Life Monitoring System. When the “Change Oil Soon” light or message appears, perform maintenance according to the Maintenance Schedule.

Maintenance Schedule¹

- ✓ Change oil and filter, then reset Oil Life Monitoring System
- ✓ Visually check for any leaks or damage
- ✓ Inspect engine air cleaner filter, replace if necessary
- ✓ Check tire wear, rotate tires, and check tire pressure at least once a month
- ✓ Inspect brake system
- ✓ Check engine coolant and windshield washer fluid levels and add fluid as needed
- ✓ Perform any needed additional services
- ✓ Inspect suspension and steering components
- ✓ Inspect engine cooling system
- ✓ Inspect wiper blades
- ✓ Inspect restraint system components
- ✓ Lubricate body components
- ✓ Check transmission fluid level and add fluid as needed
- ✓ Replace passenger compartment air filter, if equipped
- ✓ Inspect throttle system

GM Oil Life Monitoring System

- ▶ GM Oil Life Monitoring System is a built-in computer algorithm that evaluates:
 - › Driving conditions
 - › Engine speed – Rotations Per Minute (RPM)
 - › Engine coolant temperature
- ▶ GM Oil Life Monitoring System is not a mileage counter
- ▶ Calibrated for each powertrain configuration and specified oil
- ▶ System informs driver when to change the engine oil
- ▶ Check engine oil level with each fuel fill
- ▶ Change oil:
 - › When “Change Oil Soon” light or message illuminates
 - › Once per year minimum
 - › Reset system with each oil change
- ▶ Oil Life Monitoring System benefits:
 - › Enables fewer oil changes
 - › Saves money
 - › Reduces oil waste
 - › Helps the environment

OnStar Vehicle Diagnostics²

Push the blue OnStar button to enroll your vehicle in OnStar’s monthly diagnostic e-mails at no extra charge if you are a current OnStar subscriber. Information includes:

- ▶ Vehicle odometer reading
- ▶ Tire pressure (if equipped with monitor) – Informs driver of proper tire inflation, which increases fuel economy and helps save money
- ▶ Vehicle maintenance – Informs driver when to change oil and perform Maintenance Schedule
- ▶ Diagnostic checks of key vehicle systems
- ▶ Helps you ensure that vehicle is running at peak performance
- ▶ Open-recall notification

Tire Pressure Monitoring System & Tire Maintenance

TIRE PRESSURE MONITORING SYSTEM³

- ▶ Uses sensor technology to check tire pressure
- ▶ Alerts the driver if a low-tire-pressure condition exists on the vehicle

TIRE FACTS

- ▶ For every 10°F temperature change, tire pressure changes about one psi — higher as temperatures rise, lower as they fall
- ▶ Keep tires properly inflated. Refer to tire placard on vehicle for psi specification.
- ▶ You can improve your gas mileage by keeping your tires inflated to the proper pressure
- ▶ Properly inflated tires are safer and last longer

MAINTENANCE FACTS

- ▶ For unusual tire wear, or if vehicle “pulls” one way or the other, the wheel alignment may need to be checked

- ▶ If vehicle vibration on a smooth road is noticed, your wheels may be out of balance
- ▶ GM recommends tire rotation to be completed in accordance with the GM Maintenance Schedule

ENVIRONMENTAL FACTS

- ▶ Underinflated tires increase fuel consumption
- ▶ Check inflation and rotate tires more often to reduce wear and replacement costs
- ▶ Proper tire maintenance generates fewer scrapped tires

WHEN TO CHECK TIRES

- ▶ At least once a month
- ▶ Before long trips
- ▶ Always when tires are cold

¹See the Owner’s Manual for complete maintenance information. ²Capabilities vary by model. Visit www.onstar.com for details and system limitations. ³Does not monitor spare tire.

GM Fleet Service and Parts www.gmfleet.com

Imagine having access to GM Fleet Service and Parts resources at your fingertips!

Bookmark the Service and Maintenance area on www.gmfleet.com for a wide range of helpful service and warranty tools to help keep your vehicles on the road:

- ▶ Service Bulletins and Manuals
- ▶ Vehicle Warranty Information
- ▶ Service and Technical Training
- ▶ Service Reference and Diagnostics

- ▶ GM Tools and Equipment
- ▶ Maintenance Tips and Savings Technologies

Fleet users can also call the Fleet Action Center at **800-FLEET-OP (800-353-3867)**.

Scheduled Maintenance Program

Chevrolet, Buick, and GMC

According to your 2015 Chevy/Buick/GMC recommended maintenance schedule, for 2 years or 24,000 miles,¹ whichever occurs first.

- ▶ Oil and oil filter service
- ▶ Four-wheel tire rotation
- ▶ Multi-point inspection

Cadillac

Cadillac Premium Care Maintenance covers select routine maintenance services for the first 4 years or 50,000 miles²:

- ▶ Oil changes: Based on your Cadillac's Oil Life Monitoring System
- ▶ Tire rotation every 7,500 miles
- ▶ Engine air cleaner filter replacement
- ▶ Passenger compartment air filter replacement



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¹On select models starting with 2015. Eligible vehicles include purchased or leased new 2015 Chevrolet/Buick/GMC cars, trucks, or crossovers in the U.S. Covers scheduled oil changes with filter, tire rotations, and 27-point inspections, according to your new vehicle's recommended maintenance schedule, for a maximum of four service events within 2 years or 24,000 miles, whichever comes first. Does not include air filters. Extra charge may apply for dual-rear-wheel tire rotations. See participating dealer for other restrictions and complete details. ²Whichever comes first. See dealer for details.



2015 Impala Bi-Fuel

STARTING THE ENGINE

Fuel Selection

Starting the engine in a CNG vehicle is similar to starting a gasoline engine. The vehicle defaults to the fuel used on the last key cycle. A switch to the left of the steering wheel allows you to choose the fuel you would like to use. To protect engine and gasoline fuel-system components, an automatic switch to gasoline may occur at any time. The vehicle will transition back to CNG automatically once the gasoline system has run for a preset time.

Cold Weather Starting

If the outside temperature is below -4°F (-20°C), the engine may start on gasoline when CNG is selected. After starting on gasoline, the vehicle will automatically transition to CNG operation after a set amount of warm-up time. To aid in cold-weather starting and to avoid causing ignition damage, turn off all electrical accessories and do not hold the ignition switch in START for more than 15 seconds.

MALFUNCTION INDICATOR

The malfunction indicator lamp, located in the instrument cluster, comes on to indicate that there is a problem requiring service.

Flashing Indicator

A flashing malfunction indicator suggests that a misfire condition has been detected. A misfire increases vehicle emissions and could damage the emission control system on the vehicle. Diagnosis and service might be required.

Steady Indicator Illumination

An emission control system malfunction has been detected on the vehicle. Diagnosis and service might be required.

FUEL SYSTEM MESSAGES

The fuel system can generate a number of messages to inform drivers about status of the system.

Fuel Mode Unavailable

This message displays when the fuel selector switch is pressed and the fuel selected is empty or unavailable. This message will also appear if the vehicle has initiated a gasoline system maintenance routine or if attempting to start using CNG in cold weather.

Service Fuel System-Park In Open Area

This message displays when the CNG fuel system requires service. Drivers should immediately park their vehicle in an open area and arrange to have the vehicle towed to a dealership for repair.

FUEL GAUGE

The Impala Bi-fuel has a single fuel gauge that indicates the level of fuel currently being used as indicated by the selector switch. The level of the fuel not being used may be seen in the Driver Information Center.

For CNG, the fuel gauge has been calibrated to display full at approximately 3,600 psi (24,800 kPa) and empty at approximately 400 psi (2,758 kPa).

DRIVER INFORMATION CENTER (DIC)

The Driver Information Center, in the instrument cluster, contains additional information for Bi-fuel vehicles. This includes:

Fuel Level

While operating on CNG, the gasoline fuel level can be viewed in the DIC.

Fuel Range

Displays the approximate combined distance the vehicle can be driven for both gasoline and CNG without refueling.

Average Fuel Economy

The value shown is the average for the fuel used since the last Trip A reset while running on the current fuel in operation.



2015 Impala Bi-Fuel (Continued)

MAINTENANCE SCHEDULE

The Chevrolet Impala Bi-fuel is designed for routine maintenance including fluids, filters, and more according to specifications as provided in the Owner's Manual for gasoline-fuel vehicles. Additional services must be performed at the mileage/time intervals listed below.

Every 15,500 Miles

- Drain the high-pressure Compressed Natural Gas (CNG) filter

Every 30,000 Miles

- Replace spark plugs and inspect spark plug wiring

Every 37,500 miles or 36 months

- Visually inspect the CNG fuel tank
- Service the low-pressure oil separator

Every 62,000 miles or 36 months

- Replace high-pressure CNG filter

Every 15 years

- Replace CNG fuel tank

Filling the Tanks

The Bi-fuel system in the Impala consists of two tanks. Gasoline is pumped into the vehicle through the standard gasoline fill pipe, and the CNG fill receptacle is located above the gasoline cap.

During fueling, CNG needs to be delivered to the vehicle at the appropriate pressure in relationship to the ambient temperature. This can be done automatically by a temperature compensation system on the CNG fuel dispenser or manually by stopping the CNG fill at a recommended pressure. Failure to fill the CNG tank to a proper ambient temperature to pressure combination may cause a designed pressure release and, in the presence of an ignition source, may cause a fire or explosion.

Fueling steps:

- Place vehicle in PARK and turn off the engine.
- Remove fill-valve dust cap and clear any debris from vehicle receptacle.
- Follow refueling instructions on the pump.
- Wait for high-pressure fuel to be purged from the hose before disconnecting.
- Remove nozzle from receptacle (a small amount of CNG gas will be released—this is normal).
- Replace the fill-valve dust cap.

Important: If fuel or vapor is heard or seen leaking from the nozzle or fill-receptacle connection, stop refueling immediately. Dirt or other debris may be preventing a positive connection. Turn off the refueling dispenser, disconnect the nozzle, and inspect the fill receptacle for a missing, damaged, dirty, or worn O-ring. Reconnect the refueling dispenser to the fill valve and begin refueling again. If a leak is still present, replace the fill-valve O-ring.

FUEL SYSTEM COMPONENTS

CNG fuel-system components include the fuel tank located in the trunk of the vehicle, a fuel pressure regulator, an in-tank fuel shutoff valve, high-pressure fuel lines, electronically controlled multipoint fuel injectors, and other equipment.

Manual Shutoff Valve

The manual shutoff valve is on the driver side of the vehicle in front of the rear tire. This valve when turned will stop CNG flow to the engine. The label near the manual shutoff valve should remain intact at all times.

To turn off the valve, turn the lever one-quarter turn clockwise. Turn it counterclockwise to turn the valve back on.

Turn off the valve if a fuel leak is suspected or the vehicle has been involved in an accident.

Identifying Label

There is an identifying blue diamond-shaped CNG label on the rear of the vehicle. Do not remove this label. This label is necessary for compliance with NFPA-52 regulations. Driving without this label may violate the laws or regulations in some states.

FUELS

This vehicle can operate and store either gasoline or CNG. It is recommended to use CNG that meets or exceeds SAE J1616 specifications for fuel composition and cleanliness. An odorant has been added to the CNG that produces a rotten egg-like odor. If gas is smelled or a hissing sound is heard at any other time, shut down the vehicle immediately. It may be possible to hear the fuel flowing while the engine is running if standing close to the pipework or various fuel-system components (regulator, filter). This is normal and should not be confused with a hissing sound that may indicate a fuel leak.



2015 Spark EV – Starting and Operating Guide

POWER BUTTON

The vehicle has an electronic push-button start. The Remote Keyless Entry (RKE) transmitter must be in the vehicle for the system to operate. If the vehicle will not start, place the RKE transmitter in the transmitter slot.



ON/RUN

This position is for starting and driving. With the vehicle off and the brake pedal applied, pressing the POWER button once will place the vehicle in ON/RUN. When the vehicle READY light is on in the instrument cluster, the vehicle is ready to be driven. This could take up to 15 seconds in extremely cold temperatures.

STOPPING THE VEHICLE/OFF

To turn the vehicle off, push the POWER button with the vehicle in P (Park). Retained Accessory Power (RAP) will remain active until the driver door is opened. When turning off the vehicle, if the vehicle is not in P (Park), the vehicle will go to ACC/ACCESSORY and display the message SHIFT TO PARK in the Driver Information Center (DIC).

If the vehicle must be shut off in an emergency:

- Brake using a firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.
- Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. After shifting to N (Neutral), firmly apply the brakes and steer the vehicle to a safe location.
- Come to a complete stop, shift to P (Park), and turn the vehicle off by pushing the POWER button.
- Set the parking brake.

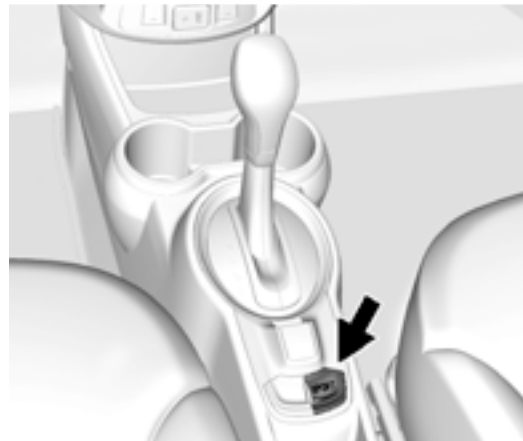
Warning: Turning off the vehicle while moving may disable the air bags. While driving, only shut the propulsion system off in an emergency. If the vehicle cannot be pulled over and must be shut off while driving, press and hold the POWER button for longer than 2 seconds, or press twice in 5 seconds.

DRIVER-SELECTED OPERATING MODES

Sport Mode

Sport Mode provides more responsive acceleration than Normal Mode, but can reduce efficiency. Use Normal Mode whenever possible. When the SPORT light is not on, the vehicle is in Normal Mode.

- Press the SPORT button to select Sport Mode.
- The SPORT light comes on when Sport Mode is selected.
- Press the SPORT button again to return to Normal Mode.
- Each time the vehicle is started, it will return to Normal Mode.
- Sport Mode may be unavailable if the battery charge is too low.





2015 Spark EV – Starting and Operating Guide (Continued)

BATTERY AND CHARGING MESSAGES

Battery Saver Active

This message displays when the vehicle has detected that the 12-volt battery voltage has dropped and vehicle features are being disabled. The 12-volt battery saver system starts reducing certain features trying to save the charge of the 12-volt battery. Turn off unnecessary features to allow the battery to recharge. This message will also display when the high-voltage battery is very low.

Battery Too Cold, Plug In to Warm

This message displays during extremely cold temperatures, when the vehicle will not start until the high-voltage battery is warm enough.

Plug the vehicle in to an AC charging station and make sure the POWER button is off to allow the charging system to warm the high-voltage battery, then the vehicle can be started. DC charging cannot be used to recover a cold high-voltage battery.

Battery Warm, AC Compressor Turning On

This message displays when the high-voltage battery is too warm. The AC compressor will turn on to help cool the battery.

Charge Cord Connected

This message displays when the charge cord is connected to the vehicle. The vehicle cannot be shifted out of P (Park) with the charge cord connected.

Charge Vehicle Soon

This message displays when the high-voltage battery is low and the vehicle needs to be charged.

Low Battery

This message displays when the 12-volt battery voltage is low.

Out of Energy, Charge Vehicle Now

This message displays when the high-voltage battery is out of energy. The vehicle needs to be charged.

Problem Detected with Charging Station

This message displays when there is a problem with the high-voltage charging station.

Service Battery Charging System

This message displays when there is a fault in the 12-volt battery charging system. Take the vehicle to your dealer for service.

Service High-voltage Charging System

This message displays when there is a problem with the high-voltage charging system. See your dealer for service.





2015 Chevrolet Cruze Diesel

FUEL FOR DIESEL ENGINES

Ultra-Low-Sulfur Diesel Fuel

The emission control system requires the use of diesel fuel with ultra-low sulfur content (15 ppm or 0.0015 percent by weight, maximum). Look for the following label on the dispenser to ensure you are filling with Ultra-Low-Sulfur Diesel fuel.

At a minimum, the diesel fuel you use should meet the latest version of ASTM specification D (grades number 2-D or number 1-D S15, commonly known as Ultra-Low-Sulfur Diesel) in the United States. If there are questions about the fuel you are using, contact your fuel supplier.

For best results use number 2-D diesel fuel year-round (above and below freezing conditions) as oil companies blend number 2-D fuel to address climate differences. Number 1-D diesel fuel can be used in very cold temperatures (when it stays below 0°F or -17°C); however, it will produce a power and fuel-economy loss. Avoid the use of number 1-D diesel fuel in warm or hot climates. It can result in stalling, poor starting when the engine is hot, and damage to the fuel-injection system.

BIODIESEL

What is Biodiesel?

Biodiesel is a fuel produced from vegetable oils or animal fats that have been chemically modified to reduce the possibility of damage to the fuel system and engine.

Caution: Do not use homemade biodiesel or home test kits because the quality cannot be verified by approved scientific methods. Do not use raw vegetable oil or other unmodified bio-oils, fats, or blends of vegetable oil with diesel. They could damage the fuel system and engine, and damages would not be covered by the vehicle warranty.

Refueling

Diesel fuel can foam when you fill the tank. This can cause the automatic pump nozzle to shut off, even though the tank is not full. If this happens, wait for the foaming to stop, and then try filling the tank more slowly.

Warning: Heat coming from the engine can cause the fuel to expand and force the fuel out of the tank. If something ignites the fuel, a fire could start. To help avoid this, fill the tank slowly and only until the nozzle shuts off. Do not top it off. Clean up any spilled fuel.

Biodiesel Blends

It is acceptable to use diesel fuel containing up to 20 percent biodiesel (B20). The diesel fuel portion of the blend must meet the same specification as other fuels used in your vehicle (ASTM D975-grades number 2-D or number 1-D S15 commonly known as Ultra-Low-Sulfur Diesel), and the biodiesel used for making this fuel must meet the latest version of ASTM specification D6751.

Accidental Refueling with Gasoline

Caution: If the vehicle is accidentally refueled with gasoline, do not continue driving the vehicle except to get to a location where it can be stopped safely. Driving the vehicle will damage the fuel system. Have the vehicle towed to a qualified technician to have the gasoline removed from the tank, preferably until the fuel gauge reads near E (Empty). Refuel with Ultra-Low-Sulfur Diesel fuel.

RECOMMENDED FLUIDS AND LUBRICANTS

USAGE	FLUID/LUBRICANT
Engine Oil (Diesel)	dexos2 is designed for use with light-duty diesel engines. Use only engine oil licensed to the dexos2 specification of the proper SAE viscosity grade.
Engine Oil Diesel Exhaust Aftertreatment System	Diesel Exhaust Fluid (GM Part No. 19286291, in Canada 88862660) or diesel exhaust fluid that meets ISO 22241-1 or displays the API Diesel Exhaust Fluid Certification Mark
Automatic Transmission (Except 2.0L Diesel)	DEXRON-VI Automatic Transmission Fluid
Automatic Transmission (2.0L Diesel)	AW-1 Automatic Transmission Fluid (GM Part No. 19256039, in Canada 19256040)



2015 Chevrolet Cruze Diesel (Continued)

MAINTENANCE SCHEDULE

Owner Checks and Services

At Each Fuel Stop

- Check the engine oil level.

Once a Month

- Check the tire inflation pressure.
- Inspect the tires for wear.
- Check the windshield washer fluid level.

Engine Oil Change

When the CHANGE ENGINE OIL SOON DIC message displays, have the engine oil and filter changed within the next 600 mi/1,000 km. If driven under the best conditions, the engine Oil Life Monitoring System might not indicate the need for vehicle service for more than a year. The engine oil and filter must be changed at least once a year and the Oil Life Monitoring System must be reset. Your trained dealer technician can perform this work. If the engine Oil Life Monitoring System is reset accidentally, service the vehicle within 3,000 mi/5,000 km since the last service. Reset the Oil Life Monitoring System when the oil is changed.

On vehicles with diesel engines, it is recommended to drain the diesel fuel filter of water when the oil is changed or when the WATER IN FUEL – CONTACT SERVICE message displays.

Tire Rotation and Required Services Every 7,500 mi/12,000 km

Rotate the tires, if recommended for the vehicle, and perform the following services.

- Check engine oil level and oil life percentage. If needed, change engine oil and filter and reset Oil Life Monitoring System.
- Check engine coolant level.
- Check windshield washer fluid level.
- Visually inspect windshield wiper blades for wear, cracking, or contamination.
- Replace worn or damaged wiper blades.
- Check tire inflation pressure. Inspect tire wear.
- Visually check for fluid leaks.
- Inspect engine air cleaner filter.
- Inspect brake system.

- Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear.
- Check restraint system components.
- Visually inspect fuel system for damage or leaks.
- Visually inspect exhaust system and nearby heat shields for loose or damaged parts.
- Lubricate body components.
- Check starter switch.
- Check automatic transmission shift lock control function.
- Check ignition transmission lock.
- Check parking brake and automatic transmission park mechanism.
- Check accelerator pedal for damage, high effort, or binding. Replace if needed.
- Visually inspect gas strut for signs of wear, cracks, or other damage. Check the hold-open ability of the strut. See your dealer if service is required.
- Check tire sealant expiration date, if equipped.
- Inspect sunroof track and seal, if equipped.

Every 30,000 mi/48,000 km

- Replace fuel filter.
- Replace clutch fluid.

Every 45,000 mi/72,000 km

- Inspect evaporative control system.
- Replace engine air cleaner filter.
- Change automatic/manual transmission fluid.

Every 60,000 mi/96,000 km

- Replace fuel filter.

Every 97,500 mi/156,000 km

- Replace timing belt.
- Replace timing belt tensioner.
- Replace idler pulley.
- Replace water pump.



Scheduled Maintenance Program

Chevrolet, Buick, and GMC

The new Scheduled Maintenance Program¹ is designed to keep fleet vehicles running at peak condition. It covers scheduled oil changes with filter, tire rotations, and 27-point inspections, according to your new vehicle's recommended maintenance schedule, for 2 years or 24,000 miles, whichever occurs first.

Some alternative-fuel vehicles do not include oil changes, and some performance vehicles do not include tire rotations when that service is not recommended. The program covers up to four service visits in the 24-month period, and is fully transferable to subsequent owners. Customers who have already purchased or leased a 2014 or 2015 model-year vehicle will receive the scheduled maintenance program.

All vehicles are also covered by the Bumper-to-Bumper Limited Warranty and Powertrain Limited Warranty. See below for details.

2 YEARS/24,000 MILES OF SCHEDULED MAINTENANCE¹

Your Chevrolet/Buick/GMC comes with 2 years/24,000 miles of scheduled maintenance that includes:

- Oil and oil filter service
- Four-wheel tire rotation
- Multi-point inspection

BUMPER-TO-BUMPER LIMITED WARRANTY²

3-year/36,000-mile — Chevrolet and GMC

4-year/50,000-mile — Buick and Cadillac

Backed by the no-deductible Bumper-to-Bumper Limited Warranty²

POWERTRAIN LIMITED WARRANTY²

5-year/100,000-mile — Chevrolet and GMC

6-year/70,000-mile — Buick and Cadillac

All vehicles come with a fully transferable, no-deductible Powertrain Limited Warranty²

Cadillac Premium Care Maintenance

Cadillac has an exceptional program that perfectly aligns with our efforts to address the unique expectations of today's luxury customer. All Cadillac vehicles come standard with Cadillac Premium Care Maintenance.

It's a maintenance program that provides more peace of mind by covering certain required maintenance services during the first 4 years or 50,000 miles² of the vehicle's operation. It aligns with the terms of our 4-Year or 50,000-Mile² Bumper-to-Bumper New-Vehicle Limited Warranty. And, it is fully transferable.

The maintenance program also includes the Cadillac 6-Year/70,000-Mile² Transferable Powertrain Limited Warranty for 2013 and newer models and the 5-Year/100,000-Mile² Transferable Powertrain Limited Warranty for 2012 and older models.

Cadillac Premium Care Maintenance covers routine maintenance services (when scheduled in accordance with the Owner's Manual), including:

- Oil Changes: Based on your Cadillac's Oil Life Monitoring System
- Tire rotation every 7,500 miles
- Engine air cleaner filter replacement
- Passenger compartment air filter replacement



¹On select models starting with 2014. Eligible vehicles include purchased or leased new 2014 or 2015 Chevrolet/Buick/GMC cars, trucks, or crossovers in the U.S. Covers scheduled oil changes with filter, tire rotations, and 27-point inspections, according to your new vehicle's recommended maintenance schedule, for a maximum of four service events within 2 years or 24,000 miles, whichever comes first. Does not include air filters. Extra charge may apply for dual-rear-wheel tire rotations. See participating dealer for other restrictions and complete details. ²Whichever comes first. See dealer for details.



Powertrain Limited Warranty Coverage

THE CHEVROLET/GMC 5-YEAR/100,000-MILE AND BUICK/CADILLAC 6-YEAR/70,000-MILE POWERTRAIN LIMITED WARRANTIES¹ INCLUDE:

Engine Coverage

All internally lubricated parts, engine oil cooling hoses, lines, and radiators. Also included are all actuators and electrical components internal to the engine (Active Fuel Management, Valve Lifter Oil Manifold, etc.), cylinder head, block, timing gears, timing chain, timing cover, oil pump/oil pump housing, OHC carriers, valve covers, oil pan, seals, gaskets, manifolds, flywheel, water pump, harmonic balancer, engine mount, starter motor, turbocharger, and supercharger. Timing belts are covered until the first scheduled maintenance interval.

Exclusions

Excluded from the powertrain coverage are sensors, wiring, connectors, engine radiator, coolant hoses, fans, coolant, and heater core. Coverage on the engine cooling system begins at the inlet to the water pump and ends with the thermostat housing and/or outlet that attaches to the return hose. Also excluded is the entire pressurized fuel system (in-tank fuel pump, pressure lines, fuel rail[s], regulator, injectors, and return line), as well as the Engine/Powertrain Control Module and/or module programming.

Transmission/Transaxle Coverage

All internally lubricated parts, case, torque converter, mounts, seals, and gaskets, as well as any electrical components internal to the transmission/transaxle. Also covered are any actuators directly connected to the transmission (slave cylinder, etc.).

Exclusions

Excluded from the powertrain coverage are transmission cooling lines, hoses, radiator, sensors, wiring, and electrical connectors. Also excluded are the clutch and pressure plate, as well as any Transmission Control Module and/or module programming.

Transfer Case Coverage

All internally lubricated parts, case, mounts, seals, and gaskets, as well as any electrical components internal to the transfer case. Also covered are any actuators directly connected to the transfer case as well as the encoder motor.

Exclusions

Excluded from the powertrain coverage are transfer case cooling lines, hoses, radiator, sensors, wiring, and electrical connectors, as well as the transfer case control module and/or module programming.

Drive Systems Coverage

All internally lubricated parts, final drive housings, axle shafts and bearings, constant velocity joints, propeller shafts, and universal joints. All mounts, supports, seals, and gaskets, as well as any electrical components internal to the drive axle. Also covered are any actuators directly connected to the drive axle (front differential actuator, etc.), as well as any drive system control module and/or module programming.

Exclusions

Excluded from the powertrain coverage are all wheel bearings, drive wheel front and rear hub bearings, locking hubs, drive system cooling, lines, hoses, radiator, sensors, wiring and electrical connectors related to drive systems, as well as any drive system control module and/or module programming.



Certified Service

¹Whichever comes first. See dealer for details.



Powertrain Limited Warranty Coverage (Continued)

WHAT IS NOT COVERED

Damage Due to Contaminated or Poor-Quality Fuel

Poor fuel quality or incorrect fuel may cause drivability problems such as hesitation, lack of power, stall, or no start. It may also render gauges inoperable or degrade functionality for components such as spark plugs, oxygen sensors, and the catalytic converter. Damage from poor fuel quality, water contamination, or incorrect diesel fuel or gasoline may not be covered. Please refer to your Owner's Manual under "Fuel" for additional recommendations, including the use of TOP TIER Detergent Gasoline. Additional information can also be found at: www.toptiergas.com.

Damage Due to Impact, Use, or the Environment

Windshield or glass cracks, chips, or scratches due to impact are not covered. Windshield cracks will be covered for the first 12 months, regardless of mileage, if caused by defects in material or workmanship. Lights, lenses, mirrors, paint, grille, moldings, and trim are not covered for cracks, chips, scratches, dents, dings, punctures, or tears as a result of impact with other objects or road hazards. In addition, cracks, chips, scratches, or other damage to the face of a radio or instrument cluster from impact or foreign objects is not covered.

Maintenance

All vehicles require periodic maintenance. Maintenance services, such as those detailed in the Owner's Manual, are the owner's expense. Vehicle lubrication, cleaning, and polishing are not covered. Failure of or damage to components requiring replacement or repair due to vehicle use, wear, exposure, or lack of maintenance is not covered. The items listed below are covered up to the first maintenance inspection period outlined in the Owner's Manual. Any replacement at the time of or beyond the maintenance inspection period is considered maintenance and is not covered as part of the New-Vehicle Limited Warranty. The New-Vehicle Limited Warranty only covers components when replacement or repair of these components is the result of a defect in material or workmanship.

- Audio System Cleaning
- Brake Pads/Linings
- Clutch Linings
- Coolants and Fluids
- Filters
- Keyless Entry (or other remote transmitter/receiver batteries)¹
- Limited-Slip Rear Axle Service
- Tire Rotation
- Wheel Alignment/Balance²
- Wiper Inserts

¹Consumable battery covered up to 12 months only. ²Maintenance items after 7,500 miles.

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2015 Silverado HD/Sierra HD Bi-Fuel Service Information

FUEL

Bi-fuel vehicles are designed to operate on gasoline or Compressed Natural Gas (CNG) and have a gasoline tank and a CNG fuel storage system. See "Recommended Fuel" under "Fuel" in the Owner's Manual for gasoline information.

The main component of CNG is methane, a highly flammable, colorless gas. An odorant has been added for detection through smell. The smell is similar to that of rotten eggs. The CNG in the vehicle is stored under high pressure (maximum 3,600 psi/24,800 kPa). Gas should never be smelled and a hissing sound should not be heard unless refueling is being done. If gas is smelled or a hissing sound is heard at any other time, shut down the vehicle and have it serviced. It may be possible to hear the fuel flowing while the engine is running if standing close to the pipework or various fuel system components (regulator, filter). This is normal and should not be confused with a hissing sound at fittings that may indicate a fuel leak.

- Whichever mode is selected, the vehicle always starts on gasoline. When CNG mode is selected, the vehicle will automatically transition from gas to CNG. Always keep the gasoline tank at least one-quarter full.
- It is very important not to run the gasoline tank out of fuel. The system will not switch over to CNG operation if the engine stalls while running on gasoline.
- If the vehicle runs out of CNG fuel, it will automatically switch over to gasoline operation. For normal CNG operation, fill the CNG fuel storage system until the fuel indicator lamps indicate at least one-quarter full.
- If it takes unusually long to fill the CNG cylinder, the fuel filter may be clogged. Contact your dealer for inspection and/or replacement.

Refueling Station Information

For up-to-date information on public-access CNG station locations and prices, and to view or add user comments, see:

www.cngprices.com and www.cngchat.com

Public and private CNG stations may also be found at the following federal government Web site:

www.afdc.energy.gov/afdc/locator/stations

FUEL GAUGE

The vehicle has a gasoline/CNG fuel gauge.

Gasoline/CNG Fuel Gauge

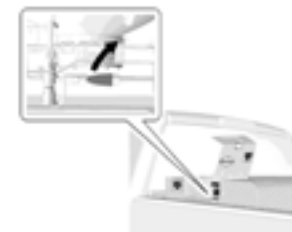


When the ignition is on, the gasoline/CNG fuel gauge indicates about how much fuel is left in the tank. When the engine is running, the fuel gauge displays the level for the type of fuel that is currently being used. The fuel level for the second fuel not being used (gasoline or

CNG) is displayed in the Driver Information Center (DIC). For CNG, the fuel gauge has been calibrated to display full at approximately 24 800 kPa (3,600 psi) and empty at approximately 2 758 kPa (400 psi).

CNG fuel gauge readings are affected by changes in fuel temperature and fuel pressure. See "Fuel Gauge" in the Owner's Manual.

Manual Shutoff Valve



The manual shutoff is near the fuel fill valve on the driver side of the tank shield in the pickup bed. A label is on the outside of the vehicle near the manual shutoff valve. Do not remove this label. Turn the lever one-quarter turn clockwise to turn off.





2015 Silverado HD/Sierra HD Bi-Fuel Service Information (Continued)

Driver Information Center (DIC)

The DIC displays are shown in the center of the instrument cluster in the Info app. A bi-fuel vehicle with the uplevel cluster will have the following additional DIC info pages.

Fuel Level

While operating on CNG, the gasoline fuel level can be viewed in the DIC.

CNG Fuel Level

While operating on gasoline, the CNG fuel level can be viewed on the DIC.

Fuel Selector Switch



The Fuel Selector Switch is on the instrument panel below the climate controls. When the ignition is in ON/RUN, press z to select between gasoline and CNG mode. The operating mode will be maintained between key cycles. The switch also includes the Fuel Operation Indicator Lamp.

The vehicle always starts on gasoline. If the Fuel Selector Switch is in CNG mode when the vehicle is started, the vehicle will start on gasoline and switch to CNG when conditions for CNG operation have been met. While waiting to transition, the Fuel Operation Indicator Lamp will be flashing at a rate of once per second. If the vehicle is turned off in gasoline mode, when started it will remain in gasoline mode until the Fuel Selector Switch is pressed. At temperatures below freezing, it may take 10 to 15 minutes for the vehicle to switch from gasoline to CNG. If the button is pressed to switch to gasoline from CNG while driving, the engine will change to gasoline operation. If operating in CNG mode and the CNG tank is emptied, the vehicle will automatically switch to gasoline operation and the Fuel Operation Indicator Lamp will flash continuously. Press z to stop the Indicator Lamp flashing. If the system transitions more than 20 times in a single key cycle, it will remain in the last mode selected. When the vehicle is heavily loaded, such as when towing a trailer up a grade, it may be prevented from switching to CNG. Once the high loads are no longer present, the system will switch.

Fuel Operation Indicator Lamp

The Fuel Operation Indicator Lamp shows the current fuel mode or indicates a transition between fuels.

- Off: Vehicle is currently operating on gasoline.
- On: Vehicle is currently operating on CNG.
- Flashing slowly (once per second): Vehicle is awaiting changeover to selected fuel or has started the changeover.
- Flashing rapidly (10 times per second): CNG system error. See your dealer.

Malfunction Indicator Lamp



The Malfunction Indicator Lamp is in the instrument cluster.

This vehicle has been specifically designed to illuminate this indicator when emissions exceed acceptable levels while operating on either gasoline or CNG fuel.

The Malfunction Indicator Lamp comes on to indicate that there is a problem and service is required. Malfunctions often will be indicated by the system before any problem is apparent. This system is also designed to assist the service technician in correctly diagnosing any malfunction.

Caution: If the vehicle is continually driven with this light on, the emission controls might not work as well, the vehicle fuel economy might not be as good, and the engine might not run as smoothly. This could lead to costly repairs that might not be covered by the vehicle warranty.

This light should come on as a check to show you it is working when the ignition is on and the engine is not running.

See the Owner's Manual for more information.

CNG Malfunction Indicator

The CNG Indicator Lamp on the Fuel Selector Switch in the center stack will show if the CNG system has an error. If the light is blinking rapidly (10 times per second) and does not stop, an error has occurred. The light will continue to flash rapidly until the problem is corrected. See your dealer for service.

Please contact your local Chevrolet/GMC dealer for more information, or visit www.youtube.com/gmfleetcommercial.

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CNG- & Bi-Fuel-Powered Vehicle Scheduled Maintenance

WHEN THE CHANGE ENGINE OIL SOON MESSAGE DISPLAYS

When the CHANGE ENGINE OIL SOON message displays, service is required for the vehicle as soon as possible, within the next 600 miles. The engine oil and filter must be changed at least once a year and the Oil Life Monitoring System must be reset. Your dealer has trained service technicians who will perform this work and reset the system. If the engine Oil Life Monitoring System is reset accidentally, service the vehicle within 3,000 miles since the last service. Reset the Oil Life Monitoring System whenever the oil is changed.

EVERY ENGINE OIL CHANGE

- Change engine oil and filter. Reset Oil Life Monitoring System. Perform an Emission Control Service.
- Engine coolant level check
- Engine cooling system inspection. Visual inspection of hoses, pipes, fittings, and clamps. Replacement, if needed.
- Windshield washer fluid level check
- Windshield wiper blade inspection for wear, cracking, or contamination. Windshield and wiper blade cleaning, if contaminated.
- Tire inflation pressure check
- Tire wear inspection
- Rotate tires if necessary
- Fluids leak visual check (or every 12 months, whichever occurs first)
- Engine air cleaner filter inspection
- Brake system inspection (or every 12 months, whichever occurs first)
- Steering and suspension inspection. Visual inspection for damaged, loose, or missing parts, or signs of wear.
- Lubricate the front suspension, ball joints, steering linkage, and rear driveline center splines
- Body hinges and latches, key lock cylinders, folding seat hardware, and rear compartment hinges, linkage, and handle pivot points lubrication
- Restraint system component check
- Fuel system inspection for damage or leaks
- Exhaust system and nearby heat shields inspection for loose or damaged components
- Vehicles with diesel engine or GVWR above 10,000 lbs (4,536 kg) only: Heat shields inspection for damage or looseness

ADDITIONAL REQUIRED SERVICES

At the First 100, 1,000, and 6,000 Miles

- For vehicles with dual wheels: Check dual-wheel nut torque

Every 7,500 Miles

- Rotate tires

At Each Fuel Stop

- Engine oil level check
- Engine coolant level check
- Windshield washer fluid level check

Once a Month

- Tire inflation pressure check
- Tire wear inspection

Once a Year

- Accelerator pedal check for damage, high effort, or binding. Replace if needed.
- Underbody flushing service
- Hood/deck lid/liftgate/liftglass support gas strut service: Visually inspect gas strut. Contact your dealer if service is required.

First Engine Oil Change After Every 50,000 Miles

- Engine air cleaner filter replacement
- Automatic transmission fluid change (severe service) for vehicles mainly driven in heavy city traffic in hot weather, in hilly or mountainous terrain, when frequently towing a trailer, or used for taxi, police, or delivery service
- All-wheel drive only: Transfer case fluid change (severe service) for vehicles mainly driven when frequently towing a trailer or used for taxi, police, or delivery service
- Evaporative control system inspection

First Engine Oil Change After Every 100,000 Miles

- Automatic transmission fluid change (normal service)
- All-wheel drive only: Transfer case fluid change (normal service)
- Spark plug replacement and spark plug wires inspection

First Engine Oil Change After Every 150,000 Miles

- Engine cooling system drain, flush, and refill (or every 5 years, whichever occurs first)
- Engine drive belts inspection for fraying, excessive cracks, or obvious damage (or every 10 years, whichever occurs first). Replace if needed.



CNG- & Bi-Fuel-Powered Vehicle Scheduled Maintenance (Continued)

CNG vehicles are designed for routine maintenance (fluids, filters, etc.) according to the original specifications as provided in the Owner's Manual for gasoline fuel vehicles. See the Owner's Manual for maintenance service intervals and fluid specifications.

See your dealer or other qualified repair facility for required service and maintenance. Your dealer has the necessary training and parts to repair the vehicle.

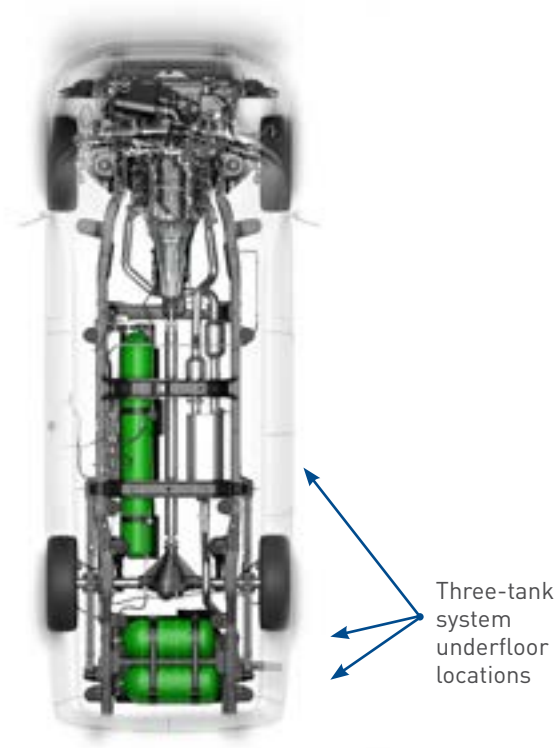
In addition, the CNG system requires the following every 36,000 miles or 36 months, whichever occurs first:

- Visual inspection of the CNG fuel tanks by a CSA International-certified inspector or authorized GM dealer. For more information, see your dealer or visit: www.csa-international.org.
- Have the CNG fuel system and tanks inspected if the vehicle has been involved in a collision or fire. The fuel tanks must be replaced 15 years after manufacture. The expiration date of the fuel tanks is on a label on the fuel tanks and on a warning label on the fuel filler door. Have an authorized GM dealer replace the fuel tanks. Do not reuse old fuel tanks.
- Replacement of the coalescent filter. See your dealer.

Warning: The tank shields protect the CNG tank in a crash and from road hazards. Removal of the shields may result in tank damage that could result in a rupture or possible explosion of the tank. You or others could be injured or even killed. If you must remove a tank shield for any reason, e.g., tank inspection or vehicle repair, always reinstall the shield before operating the vehicle.

Warning: Keeping a CNG fuel tank in service after the tank service expiration date is dangerous and is prohibited by federal law. The tank may no longer withstand the CNG fuel system operating pressure. You could be severely injured or killed. Take the vehicle to an authorized GM dealer to have the tank replaced.

Tank Locations





LPG-Powered Vehicle Scheduled Maintenance

WHEN THE CHANGE ENGINE OIL SOON MESSAGE DISPLAYS

- When the CHANGE ENGINE OIL SOON message displays, service is required for the vehicle as soon as possible, within the next 600 miles. The engine oil and filter must be changed at least once a year and the Oil Life Monitoring System must be reset. Your dealer has trained service technicians who will perform this work and reset the system. If the engine Oil Life Monitoring System is reset accidentally, service the vehicle within 3,000 miles of the last service. Reset the Oil Life Monitoring System whenever the oil is changed.

EVERY ENGINE OIL CHANGE

- Change engine oil and filter. Reset Oil Life Monitoring System. Perform an Emission Control Service.
- Engine coolant level check
- Engine cooling system inspection. Visual inspection of hoses, pipes, fittings, and clamps. Replacement, if needed.
- Windshield washer fluid level check
- Windshield wiper blade inspection for wear, cracking, or contamination. Windshield and wiper blade cleaning, if contaminated.
- Tire inflation pressure check
- Tire wear inspection
- Rotate tires if necessary
- Fluids visual leak check (or every 12 months, whichever occurs first)
- Engine air cleaner filter inspection
- Brake system inspection (or every 12 months, whichever occurs first)
- Steering and suspension inspection. Visual inspection for damaged, loose, or missing parts, or signs of wear.
- Lubricate the front suspension, ball joints, steering linkage, and rear driveline center splines
- Body hinges and latches, key lock cylinders, folding seat hardware, and rear compartment hinges, linkage, and handle pivot points lubrication
- Restraint system component check
- Fuel system inspection for damage or leaks
- Exhaust system and nearby heat shields inspection for loose or damaged components
- Vehicles with diesel engine or GVWR above 10,000 lbs only: Heat shields inspection for damage or looseness

ADDITIONAL REQUIRED SERVICES

At the First 100, 1,000, and 6,000 Miles

- For vehicles with dual wheels: Check dual-wheel nut torque

Every 7,500 Miles

- Rotate tires

Every 30,000 Miles

- Replacement of the fuel filter
- Replacement of the in-line fuel filter (three-tank system only)

At Each Fuel Stop

- Engine oil level check
- Engine coolant level check
- Windshield washer fluid level check

Once a Month

- Tire inflation pressure check
- Tire wear inspection

Once a Year

- Accelerator pedal check for damage, high effort, or binding. Replace if needed.
- Underbody flushing service
- Hood/deck lid/liftgate/liftglass support gas strut service: Visually inspect gas strut. Contact your dealer if service is required.

First Engine Oil Change After Every 50,000 Miles

- Engine air cleaner filter replacement
- Automatic transmission fluid change (severe service) for vehicles mainly driven in heavy city traffic in hot weather, in hilly or mountainous terrain, when frequently towing a trailer, or used for taxi, police, or delivery service
- All-wheel drive only: Transfer case fluid change (severe service) for vehicles mainly driven when frequently towing a trailer or used for taxi, police, or delivery service
- Evaporative control system inspection

First Engine Oil Change After Every 100,000 Miles

- Automatic transmission fluid change (normal service)
- All-wheel drive only: Transfer case fluid change (normal service)
- Spark plug replacement and spark plug wires inspection

First Engine Oil Change After Every 150,000 Miles

- Engine cooling system drain, flush, and refill (or every 5 years, whichever occurs first)
- Engine drive belts inspection for fraying, excessive cracks, or obvious damage (or every 10 years, whichever occurs first). Replace if needed.



LPG-Powered Vehicle Scheduled Maintenance (Continued)

LPG vehicles are designed for routine maintenance (fluids, filters, etc.) according to the original specifications as provided in the Owner's Manual for gasoline-fuel vehicles. See the Owner's Manual for maintenance service intervals and fluid specifications.

See your dealer or other qualified repair facility for required service and maintenance. Your dealer has the necessary training and parts to repair the vehicle.

IN ADDITION, THE LPG SYSTEM REQUIRES THE FOLLOWING EVERY 30,000 MILES:

- Replacement of the fuel filter
- Replacement of the in-line fuel filter (three-tank system only)

Warning: The tank shields protect the LPG tank in a crash and from road hazards. Removal of the shields may result in tank damage that could result in rupture or possible explosion of the tank. You or others could be injured or even killed. If you must remove a tank shield for any reason, e.g., tank inspection or vehicle repair, always reinstall the shield before operating the vehicle.

For more details on GM LPG systems, please refer to your Owner's Manual.

Tank Locations



Three-tank
system
underbody
location



Licensed GM dexos® Products

SPECIFICALLY DESIGNED TO MEET THE NEEDS OF GM GASOLINE ENGINES, dexos1®:

- Has improved viscometric properties, creating less friction in the engine than conventional oil, which contributes to improved fuel economy
- Resists aeration, which enables fuel-saving devices, such as Variable Valve Timing, to work optimally
- Offers improved oxidation and deposit-forming tendencies compared with conventional oil, allowing emission systems to operate longer and optimally
- Resists degradation between oil changes, extending the time and mileage interval between oil changes



LOOK ON THE FRONT LABEL FOR THIS LOGO TO IDENTIFY AN AUTHORIZED, LICENSED dexos1 ENGINE OIL

Please refer to www.gmdexos.com for a current list of dexos1 authorized, licensed suppliers.

BRAND	SUPPLIER	VISCOSITY
ACDelco Synthetic Blend Motor Oil	General Motors	5W-30, 5W-20, 0W-20
Accel® Full Synthetic	Warren Distribution	5W-30
Advance Auto Parts Full Synthetic Motor Oil	Advance Auto Parts	5W-30, 5W-20
Advantage® FULL SYNTHETIC	Advanced Lubrication Specialties	5W-30
Advantage® SYNTHETIC BLEND	Advanced Lubrication Specialties	5W-30
Advantage®	Advanced Lubrication Specialties	5W-20
Altra SHL	Allegheny Petroleum Products Co.	5W-30, 5W-20
Amalie Elixir Full Synthetic	Amalie	5W-30, 5W-20
April Hyper Syn	Verco International	5W-30
AUTO EXTRA® SYNTHETIC	Uni-Select	5W-30, 5W-20, 0W-20
AutoPride® SYNTHETIC	Automotive Distribution Network	5W-30, 5W-20, 0W-20
AutoZone Full Synthetic	AutoZone	5W-30, 5W-20
BestBuy Q.A.P. Synthetic	BestBuy	5W-30
Blue Mountain Professional	Old World Industries	5W-30
BP Visco 5000 DX	BP Plc.	5W-30
CAM2® FULL SYNTHETIC MOTOR OIL	CAM2	5W-30, 5W-20, 0W-20
CAM2® SYNTHETIC BLEND MOTOR OIL	CAM2	5W-30, 5W-20
CARQUEST Full Synthetic	CARQUEST	5W-30, 5W-20, 0W-20
Castrol EDGE US	Castrol Ltd.	5W-30, 5W-20, 0W-20
Castrol EDGE DX	Castrol Ltd.	5W-30
Castrol EDGE Extended Performance	BP Lubricants	5W-30, 5W-20
Castrol EDGE Professional	Castrol Ltd.	5W-30, 0W-20
Castrol EDGE Professional DX	Castrol Ltd.	5W-30
Castrol EDGE with SPT	BP Lubricants	5W-30, 5W-20
Castrol EDGE with Titanium	BP Lubricants	5W-30, 5W-20
Castrol GTX Magnatec	BP Lubricants	5W-30
Castrol GTX Professional DX	Castrol Ltd.	5W-30
Castrol GTX SynBlend	BP Lubricants	5W-30



Licensed GM dexos® Products (Continued)

BRAND	SUPPLIER	VISCOSITY
Castrol Magnatec Professional DX	Castrol Ltd.	5W-30
Certified Performance Full Synthetic	Reliance Fluid Technologies	5W-30, 5W-20, 0W-20
Coastal	Warren Oil Company, Inc.	5W-30
Coastal Synthetic Blend	Warren Oil Company, Inc.	5W-30, 5W-20
DuraMAX® Synthetic Blend	RelaDyne, LLC	5W-30
DuraMAX® Full Synthetic	RelaDyne, LLC	5W-30, 5W-20
ECO ULTRA SYNTHETIC BLEND	Universal Lubricants	5W-30
EcoPower	Safety-Kleen	5W-30, 5W-20
ENVIRO+ Full Synthetic	Penrite Oil Company Pty Ltd.	5W-30
Extreme Max	Lubricating Specialties Company	5W-30
Federated Auto Parts Full Synthetic Motor Oil	Federated Auto Parts	5W-30, 5W-20
FUCHS TITAN EM 530 Dx-L2	Fuchs	5W-30
FUCHS Titan Supersyn D1	Alhamrani-FUCHS Petroleum Saudi Arabia Ltd.	5W-30
FUCHS TITAN Supersyn D1	Fuchs	5W-30
GM Genuine Motor Oil dexos1	General Motors Thailand	5W-30
Golden West SN	Texas Enterprises, Inc.	5W-30
GulfTEC Synthetic	Gulf Oil Limited Partnership	5W-30, 5W-20, 0W-20
Hartland	Hartland Lubricants & Chemicals	5W-30
Havoline ECO 5	Chevron Products	5W-30
Havoline Sintetico	Chevron Products	5W-30
Havoline Synthetic Blend Motor Oil	Chevron Products	5W-30
Havoline Synthetic Motor Oil	Chevron Products	5W-30
HELLA	Raloy Lubricants	5W-30, 5W-20, 0W-20
High Performance Full Synthetic	American Premium Lubricants	5W-30
Idemitsu	Idemitsu	0W-30, 0W-20
Kendall GT-1	Phillips 66	5W-30
Kixx G1	GS Caltex	5W-30
Klondike Full Synthetic	Klondike Lubricants	5W-30
KRÖNEN ENERGY	Raloy Lubricants	5W-30, 5W-20, 0W-20
LubriGold® Full Synthetic	Warren Oil Company, Inc.	5W-30, 5W-20, 0W-20
Lukoil Genesis FE 5W-20	Lukoil	5W-20
Lukoil Genesis FE 5W-30	Lukoil	5W-30
MACH2 Full Synthetic	Reliance Fluid Technologies	5W-30, 5W-20, 0W-20
MAG 1	Warren Distribution	5W-30, 5W-20
Mannheim Full Synthetic	Amalie	5W-30
Master Mechanic	True Value	5W-30, 5W-20
Max 1 Advanced Synthetic	Irving Blending and Packaging	5W-30
Maximum Performance Full Synthetic	Reliance Fluid Technologies	5W-30, 5W-20, 0W-20
Maxtron PCMO	CHS Inc.	5W-30
meijer full synthetic MOTOR OIL	meijer Distribution Inc.	5W-30
MFA Oil Motor Oil	MFA Oil	5W-30
Mighty Engine Guard Full Synthetic	Mighty Auto Parts	5W-30



Licensed GM dexos® Products (Continued)

BRAND	SUPPLIER	VISCOSITY
Mobil 1®	ExxonMobil Oil Corporation	5W-30, 5W-20, 0W-20, 0W-30
Mobil 1® Extended Performance	ExxonMobil Oil Corporation	5W-30, 5W-20
Mobil 1™ x1	ExxonMobil Oil Corporation	5W-30
Mobil Super 3000 Formula D1	ExxonMobil Oil Corporation	5W-30
Mobil Super Synthetic	ExxonMobil Oil Corporation	5W-30
MOTUL Specific	Motul	5W-30
NAPA® SYNTHETIC	NAPA® Auto Parts	5W-30, 5W-20, 0W-20
NATIONAL	Pinnacle Oil	5W-30, 5W-20, 0W-20
Nippon Oil	JX Nippon Oil & Energy USA	5W-30, 5W-20
Parts Master® SYNTHETIC	Aftermarket Auto Parts Alliance, Inc.	5W-30, 5W-20, 0W-20
PARTS PLUS SYNTHETIC	Automotive Distribution Network	5W-30, 0W-20
Peak Performance	Old World Industries	5W-30
Pecas Genuinas GM dexos1	General Motors Brazil	5W-30
Pennzoil Synthetic Blend Motor Oil	Shell Oil Products Co.	5W-30
Pennzoil Platinum	Shell Oil Products Co.	5W-20
Pennzoil Platinum Full Synthetic	Shell Oil Products Co.	5W-30
Pennzoil Synthetic Blend	Shell Oil Products Co.	5W-20, 0W-20
Performance Plus	Safety-Kleen	5W-30, 5W-20
Petro-Canada Supreme Synthetic	Petro-Canada	5W-30
PETRONAS Syntium 5000 GM	PETRONAS Lubricants International Sdn. Bhd.	5W-30
Piston King Full Synthetic	Warren Distribution	5W-30, 5W-20
Prime Guard Full Synthetic	Prime Guard	5W-30, 5W-20
Prista Ultra G	Prista	5W-30
PROLINE Full Synthetic	Pep Boys	5W-30, 5W-20
Pronto Full Synthetic	National Pronto Association	5W-30, 5W-20
Puratech PureSYN	North American Lubricants	5W-30
Q8 Formula Special G/D1 Long Life	Kuwait Petroleum	5W-30
Quaker State Synthetic Blend Motor Oil	Shell Oil Products Co.	5W-20, 0W-20
Quaker State Synthetic Blend	Shell Oil Products Co.	5W-30
Quaker State Ultimate Durability	Shell Oil Products Co.	5W-20
Quaker State Ultimate Durability Full Synthetic	Shell Oil Products Co.	5W-30
Quantum X-5 FullSYN Motor Oil	United Petroleum Company	5W-30
Quartz 9000 Future FGC	TOTAL Lubrificants	5W-30
Rallye 100% Synthetic	Amalie	5W-30, 5W-20
RAVENOL DXG	Ravensberger Schmierstoff	5W-30
Royal Purple High Performance Motor Oil	Royal Purple	5W-30, 5W-20, 0W-20
Service Pro® Full Syn	Association of Independent Oil Distributors (AIOD)	5W-30, 5W-20, 0W-20
Service Pro® Synthetic Blend	Association of Independent Oil Distributors (AIOD)	5W-30, 5W-20
SGM Fullsyn	Shanghai General Motors	5W-30
SGM GO	Shanghai General Motors	0W-20
Shell Helix HX8 AG	Shell Oil Products Co.	5W-30
SILVER STATE Full Synthetic	Colorado Petroleum Products Co.	5W-30, 5W-20, 0W-20
SILVER STATE Synthetic Blend	Colorado Petroleum Products Co.	5W-30, 5W-20



Licensed GM dexos® Products (Continued)

BRAND	SUPPLIER	VISCOSITY
Sinclair ARCTIC FIRE	Sinclair	5W-30
Sonic Lube Full Synthetic	Reliance Fluid Technologies	5W-30, 5W-20
Super XHD Synthetic	Universal Lubricants	5W-30, 0W-20
SuperS® Full Synthetic Motor Oil	Smitty's Supply, Inc.	5W-30, 5W-20, 0W-20
Sureguard	Smitty's Supply, Inc.	5W-30, 5W-20, 0W-20
Synergy Synthetic OE	Northland Products Company	5W-30, 5W-20, 0W-20
Syngard Full Synthetic	Martin Lubricants	5W-30
thrive® Full Synthetic Engine Oil	US Venture, Inc.	5W-30, 5W-20
Triden	Lee Helms Incorporated	5W-30
Triden Triad	Lee Helms Incorporated	5W-30
TRUSYN	Calumet Packaging	5W-30
Tuxton Full Synthetic	Reliance Fluid Technologies	5W-30, 5W-20, 0W-20
Value Tech 100% Synthetic	Amalie	5W-30, 5W-20
Valvoline DuraBlend®	Ashland, Inc.	5W-30, 5W-20
Valvoline MaxLife®	Ashland, Inc.	5W-30, 5W-20
Valvoline MaxLife® Full Synthetic	Ashland, Inc.	5W-30, 5W-20, 0W-20
Valvoline NextGen™ MaxLife®	Ashland, Inc.	5W-30, 5W-20
Valvoline SynPower® Full Synthetic	Ashland, Inc.	5W-30, 5W-20, 0W-20
Veedol SYNTRON Fully Synthetic	Veedol International Ltd.	5W-30
Vextrom Racer Synthetic F1	Amalie	5W-30
Wolf's Head 100% Synthetic	Amalie	5W-30, 5W-20
Xcel 100% Synthetic	Amalie	5W-30, 5W-20
ZIC D1	SK Lubricants	5W-30, 5W-20, 0W-20





eAssist

AUTOMATIC ENGINE START/STOP FEATURE

- Vehicles with eAssist have an automatic engine start/stop feature. After the engine is started and has reached operating temperature, the Auto Stop feature may cause the engine to turn off when the brake pedal is applied and the vehicle comes to a complete stop. When the brake pedal is released, or the accelerator pedal is applied, the engine will restart. The engine will continue to run until the next Auto Stop.
- To restart the engine during the Auto Stop, release the brake pedal or press the accelerator pedal. The engine starts immediately. The vehicle continues to run until the next stop.
- AUTO STOP on the tachometer signifies that the engine is in Auto Stop mode. See Owner's Manual for more information. A chime will sound when the driver door is opened while in Auto Stop mode. Remember to shift to P and turn the ignition to LOCK/OFF before exiting the vehicle.

Warning: Exiting the vehicle without first shifting into P may cause the vehicle to move. You or others may be injured. Because the vehicle has the automatic engine start/stop feature, the vehicle's engine might seem to be shut off; however, once the brake pedal is released, the engine will start up again. Shift to P and turn the ignition to LOCK/OFF before exiting the vehicle.

There are several conditions which may prevent an Auto Stop or cause an Auto Start.

THE ENGINE WILL REMAIN RUNNING WHEN:

- The engine, transmission, or high-voltage battery is not warmed up yet
- The outside temperature is less than -4°F (-20°C)
- The air conditioning or defrost system needs the compressor to maintain vehicle comfort
- The shift lever is in P (Park), N (Neutral), R (Reverse), or M (Manual Mode)
- The high-voltage battery pack charge is low
- The 12-volt vehicle battery charge is low, or loads are high
- The hood is not fully closed
- Brake pedal pressure is high
- If the MIL is on, Auto Stop may be prevented

THE ENGINE WILL RESTART WHEN:

- The brake pedal is released
- The accelerator pedal is applied
- Shifting out of D (Drive) to any other gear
- If eco air conditioning is selected, the duration of the Auto Stop will depend on the outside temperature. This economy mode improves fuel economy by limiting the effects of the air conditioning. The warmer it is outside, the shorter the time before the engine is restarted to provide cabin cooling.
- The climate control system is turned from off to normal air conditioning or defrost
- The engine is required to run for either heater or climate control performance
- The high-voltage battery pack charge is low and requires recharging
- Auto Stop time is greater than 2 minutes
- The hood is opened

HIGH-VOLTAGE SAFETY INFORMATION

- Vehicles with eAssist have a standard 12-volt battery and a high-voltage battery. Only a trained service technician with the proper knowledge and tools should inspect, test, or replace the high-voltage battery. See your dealer if the high-voltage battery needs service.
- The negative 12-volt battery cable and the high-voltage cable in the engine compartment are clearly labeled. In emergency situations, first responders can cut those cables to disable the high-voltage battery system.

BATTERY

- This vehicle has a standard 12-volt battery. Refer to the replacement number on the original battery label when a new standard 12-volt battery is needed.
- Vehicles with eAssist also have a high-voltage battery. Only a trained service technician with the proper knowledge and tools should inspect, test, or replace the high-voltage battery. See your dealer if the high-voltage battery needs service.

REGENERATIVE BRAKING

- Regenerative braking takes some of the energy from the moving vehicle and turns it into electrical energy. This energy is then stored in the vehicle's high-voltage battery system, contributing to increased fuel efficiency.
- The system works whenever the accelerator pedal is released and increases the energy captured as more brake pedal is applied



eAssist (Continued)

NEW-VEHICLE LIMITED WARRANTY BUMPER-TO-BUMPER (INCLUDES TIRES)

- Buick coverage is for the first 4 years or 50,000 miles, whichever comes first. See dealer for details.
- Chevrolet coverage is for the first 3 years or 36,000 miles, whichever comes first. See dealer for details.

Powertrain Limited Warranty

- Chevrolet/GMC coverage is for the first 5 years or 100,000 miles, whichever comes first. See dealer for details.
- Buick/Cadillac coverage is for the first 6 years or 70,000 miles, whichever comes first. See dealer for details.

Sheet metal

- Buick corrosion coverage is for the first 4 years or 50,000 miles, whichever comes first. See dealer for details.
- Rust-through coverage is for the first 6 years or unlimited mileage. See dealer for details.

eAssist Coverage

- For vehicles sold in the United States, in addition to the Bumper-to-Bumper coverage described previously, General Motors will warrant certain eAssist components for 8 years or 100,000 miles, whichever comes first, from the original in-service date of the vehicle, against warrantable repairs to the specific eAssist components of the vehicle
- This limited warranty is for eAssist vehicles registered and normally operated in the United States. In addition to the initial owner of the vehicle, the coverage described in this eAssist limited warranty is transferable at no cost to any subsequent person(s) who assumes ownership of the vehicle within the above-described 8-year or 100,000-mile term. No deductibles are associated with this eAssist limited warranty.
- This eAssist component limited warranty is in addition to the express conditions and warranties described previously. The coverage and benefits described under the "New-Vehicle Limited Warranty" are not extended or altered because of this special eAssist component warranty.

eAssist Components

- The energy storage control module and components including the eAssist battery, eAssist battery disconnect, powerpack assembly, and the eAssist battery cooling fan

Starter Generator Unit

- The starter generator unit, starter generator cooling pump, and high-voltage 3-phase/12-volt cable assembly
- Other eAssist components
- Auxiliary transmission pump

WHAT IS NOT COVERED

Wear Items

- Wear items, such as brake linings, are not covered in this eAssist limited warranty

Maintenance

- As the vehicle owner, you are responsible for the performance of the scheduled maintenance listed in your Owner's Manual. Maintenance intervals, checks, inspections, and recommended fluids and lubricants as prescribed in the Owner's Manual are necessary to keep your vehicle in good working condition. Any damage caused by owner/lessee failure to follow scheduled maintenance may not be covered by warranty. Scheduled maintenance includes such items as:

- › Brake Pads/Linings
- › Coolants and Fluids
- › Filters

Service

- Never try to do your own service on eAssist components. You can be injured and the vehicle can be damaged if you try to do your own service work. Service and repair of these high-voltage components should only be performed by a trained service technician with the proper knowledge and tools.

Roadside Assistance Program

- GM is proud to offer the response, security, and convenience of the 24-Hour Roadside Assistance Program. Roadside Assistance Coverage is for 5 years or 100,000 miles for Chevrolet/GMC and 6 years or 70,000 miles for Buick/Cadillac, whichever comes first. See dealer for details or contact the Roadside Assistance Center:

- › Chevrolet **800-243-8872**
- › Buick **800-252-1112**
- › GMC **888-881-3302**
- › Cadillac **800-224-1400**

- Roadside Assistance is not part of or included in the coverage provided by the New-Vehicle Limited Warranty. General Motors and General Motors of Canada Limited reserve the right to make any changes to or discontinue the Roadside Assistance Program at any time without notification.



2015 Volt Scheduled Maintenance

Every Month

- Engine oil level check
- Engine, power electronics, and high-voltage battery pack coolant level checks
- Fluids leak visual check. A leak in any system must be repaired and the fluid level checked.
- Windshield washer fluid level check
- Tire inflation check
- Tire wear inspection

Every 7,500 Miles

- Rotate tires

Every 15,000 Miles

- Check the engine oil filter for corrosion if driving in a corrosive environment, such as areas of high humidity, along an ocean coast, and/or areas that apply road salt during winter
- Cooling systems inspection
- Windshield wiper blade inspection for wear, cracking, or contamination and windshield and wiper blade cleaning, if contaminated. Worn or damaged wiper blade replacement.
- Engine air cleaner filter inspection
- Brake system inspection
- Steering and suspension inspection. Visual inspection for damaged, loose, or missing parts or signs of wear.
- Body hinges and latches and key lock cylinders lubrication
- Restraint system component check
- Fuel system inspection for damage or leaks
- Exhaust system and nearby heat shields inspection for loose or damaged components

- Cooling systems check — engine, high-voltage systems, and power module
- Accelerator pedal check for damage, high effort, or binding. Replace if needed.
- Check the sealant expiration date printed on the instruction label of the tire sealant and compressor kit. See "Tire Sealant and Compressor Kit" in the Owner's Manual.
- Hood/deck lid/liftgate support gas strut service: visually inspect gas strut. Contact your dealer if service is required.
- Every 24 months or when the CHANGE ENGINE OIL SOON message displays, change the engine oil and filter. The engine oil and filter must be changed at least once every 24 months. After each oil and filter change, the Oil Life Monitoring System must be reset.

Every 50,000 Miles

- Engine air cleaner filter replacement
- Evaporative control system inspection. Check all fuel and vapor lines and hoses for proper hook-up, routing, and condition. Check that the purge valve, if the vehicle has one, works properly. Replace as needed.

Every 100,000 Miles

- Spark plug replacement and spark plug wires inspection

Every 150,000 Miles or 5 Years

- Engine drive belt inspection. Replace if needed.
- Cooling systems — drain, flush, refill

Every 10 Years

- Air conditioning system flush and refill and desiccant replacement





Volt-Specific Warranty

In addition to the **Bumper-to-Bumper** coverage for vehicles sold in the United States, General Motors will warrant certain Voltec components for each Chevrolet Volt for 8 years or 100,000 miles, whichever comes first.

NEW-VEHICLE LIMITED WARRANTY

Bumper-to-Bumper (Includes Tires)

- Coverage is for the first 3 years or 36,000 miles, whichever comes first

Drivetrain

- Coverage is for the first 5 years or 100,000 miles, whichever comes first

Sheet Metal

- Corrosion coverage is for the first 3 years or 36,000 miles, whichever comes first
- Rust-through coverage is for the first 6 years or 100,000 miles, whichever comes first

WHAT IS COVERED

The Voltec limited warranty covers repairs to correct any Voltec component defect related to materials or workmanship occurring during the 8-year or 100,000-mile term, whichever comes first, for the following:

- High-Voltage Wiring
- High-Voltage Propulsion Battery
- Voltec Control Modules
- E-Compressor
- Traction Power Inverter Module (TPIM)
- Accessory Power Module (APM)
- Voltec On-Board Charger
- Brake Modulator Assembly
- Electric drive unit assembly and internal components, including the auxiliary fluid pump, auxiliary pump controller, and 3-phase cables

WHAT IS NOT COVERED

The Voltec limited warranty does not cover the following items:

- Wear items, such as brake linings, are not covered in the Voltec or Hybrid limited warranty
- As the vehicle owner, you are responsible for the performance of the scheduled maintenance listed in your Owner's Manual. Scheduled maintenance includes such items as:
 - › Brake Pads/Linings
 - › Coolants and Fluids
 - › Filters

COURTESY SERVICE: TOWING

During the 8-year or 100,000-mile Voltec limited warranty period, towing is covered to the nearest Chevrolet servicing dealer if your vehicle cannot be driven because of a warranted Voltec-specific defect. Contact the Chevrolet Roadside Assistance Center for towing. Refer to the Owner's Manual for details.

For Roadside Assistance contact Chevrolet: [800-243-8872](tel:800-243-8872).





Cadillac ATS & XTS Refrigerant (R-1234yf)

PRODUCT DESCRIPTION

R-1234yf is an environmentally friendly refrigerant that has a 99.7 percent lower Global Warming Potential (GWP) than R-134a. The refrigerant is considered mildly flammable and has thermodynamic properties similar to R-134a. It is the industry-accepted solution for a low-GWP refrigerant. R-1234yf systems require the use of new, specific A/C compressor oils.

Note: Not all vehicles for the models listed will be produced with this new refrigerant. Please reference the A/C Refrigerant Charge Label on vehicles for proper refrigerant identification.

REVISED SERVICE PROCEDURES FOR R-1234yf

General information for service managers and technicians relating to R-1234yf:

- Vehicles equipped with R-1234yf refrigerant systems have:
 - › Unique low- and high-side service fittings
 - › Internal Heat Exchangers (IHX)
 - › SAE J2842 compliant evaporator cores
- New or revised service procedures for R-1234yf-equipped vehicles (refer to SI for details):
 - › Refrigerant Recovery and Recharge
 - › Leak Test
 - › Evaporator Cores
 - › Internal Heat Exchanger

NEW TOOLS AND EQUIPMENT FOR R-1234yf

New tools and equipment are required to service vehicles equipped with R-1234yf. Refer to the Owner's Manual for information about operation and use of the equipment.

WARRANTY INFORMATION

Warranty Administration Policy Change for R-1234yf-equipped vehicles:

- Printed summary of completed repair from the GE-50300 is required to be attached to each Repair Order
- Warranty Code from printed repair summary is required to be entered in the "comments field" of warranty claim (warranty claims without the warranty code in the comments field will be rejected)
- General Motors will reimburse only the R-1234yf refrigerant that is actually used (figured by the difference from recovered and charged amount on the printed "Vehicle Data" summary)
- Refrigerant R-1234yf must be billed out by the gram in the parts quantity field. The R-1234yf container is 4.5 kg = 4,500 grams



Please contact your local Cadillac dealer for additional information.

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Buick/Cadillac New-Vehicle Limited Warranty

GM will provide for repairs to the vehicle during the warranty period in accordance with the following terms, conditions, and limitations.

WHAT IS COVERED

Warranty Applies

This warranty is for GM vehicles registered in the United States and normally operated in the United States or Canada, and is provided to the original and any subsequent owners of the vehicle during the warranty period.

Repairs Covered

The warranty covers repairs to correct any vehicle defect, not slight noise, vibrations, or other normal characteristics of the vehicle related to materials or workmanship occurring during the warranty period. Needed repairs will be performed using new, remanufactured, or refurbished parts.

No Charge

Warranty repairs, including towing, parts, and labor, will be made at no charge.

Obtaining Repairs

To obtain warranty repairs, take the vehicle to a Buick/Cadillac dealer facility within the warranty period and request the needed repairs. Reasonable time must be allowed for the dealer to perform necessary repairs.

Warranty Period

The warranty period for all coverages begins on the date the vehicle is first delivered or put in use and ends at the expiration of the coverage period.

Bumper-to-Bumper Coverage

The complete vehicle is covered for 4 years or 50,000 miles, whichever comes first, except for other coverages listed here under "What Is Covered" and those items listed under "What Is Not Covered" later in this section. See dealer for details.

Powertrain Coverage

The powertrain is covered for 6 years or 70,000 miles, whichever comes first, except for other coverages listed here under "What Is Covered" and those items listed under "What Is Not Covered" later in this section.

Tire Coverage

The tires supplied with your vehicle are covered by General Motors against defects in material or workmanship under the Bumper-to-Bumper Limited Warranty coverage. Wear-out is not considered a defect, and it may occur before the vehicle warranty expires. In this case, the owner is responsible for purchasing replacement tires or seeking coverage solely from the tire manufacturer.

Sheet Metal Coverage

Sheet metal panels are covered against corrosion and rust-through as follows:

Corrosion: Body sheet metal panels are covered against rust for 4 years or 50,000 miles, whichever comes first.

Rust-Through: Any body sheet metal panel that rusts through, i.e., an actual hole in the sheet metal, is covered for up to 6 years, unlimited mileage.

Important: Cosmetic or surface corrosion resulting from stone chips or scratches in the paint, for example, is not included in sheet metal coverage.

Towing

Towing is covered to the nearest Buick/Cadillac dealer if your vehicle cannot be driven because of a warranted defect.

WHAT IS NOT COVERED

Tire and Wheel Damage or Wear

Normal tire wear or wear-out is not covered. Tire wear is influenced by many variables such as road conditions, driving styles, vehicle weight, and tire construction. Uniform tire wear is a normal condition and is not considered a defect. Road hazard damage such as punctures, cuts, snags, and breaks resulting from pothole impact, curb impact, or from other objects is not covered. Tire wear due to misalignment beyond the warranty period is not covered. Also, damage from improper inflation, overloading, spinning (as when stuck in mud or snow), tire chains, racing, improper mounting or dismounting, misuse, negligence, alteration, improper repair, accident, collision, fire, vandalism, or misapplication is not covered. Damage to wheels or tire sidewalls caused by automatic car washes or cleaning agents is not covered.

Damage Due to Accident, Misuse, or Alteration

The New-Vehicle Limited Warranty does not cover damage caused as the result of any of the following:

- Collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle
- Misuse of the vehicle such as driving over curbs, overloading, racing, or other competition. Proper vehicle use is discussed in the Owner's Manual.
- Alteration or modification of or tampering with the vehicle, including but not limited to the body, chassis, powertrain, driveline, software, or other components after final assembly by GM
- Coverages do not apply if the odometer has been disconnected, its reading has been altered, or mileage cannot be determined



Buick/Cadillac New-Vehicle Limited Warranty (Continued)

- Installation of non-GM parts
- Water or fluid contamination
- Damage resulting from hail, floods, windstorms, lightning, and other environmental conditions
- Alteration of glass parts by application of tinting films

Important: This warranty is void on vehicles currently or previously titled as salvaged, scrapped, junked, or otherwise considered a total loss.

Damage or Corrosion Due to Environment, Chemical Treatments, or Aftermarket Products

Damage caused by airborne fallout, rail dust, salt from sea air, salt or other materials used to control road conditions, chemicals, tree sap, stones, hail, earthquake, water or flood, windstorm, lightning, the application of chemicals or sealants subsequent to manufacture, etc., is not covered.

Damage Due to Impact, Use, or the Environment

Windshield or glass cracks, chips, or scratches due to impact are not covered. Windshield cracks will be covered for the first 12 months, regardless of mileage, if caused by defects in material or workmanship.

Lights, lenses, mirrors, paint, grille, moldings, and trim are not covered for cracks, chips, scratches, dents, dings, and punctures or tears as a result of impact with other objects or road hazards. In addition, cracks, chips, scratches, or other damage to the face of a radio or instrument cluster from impact or foreign objects are not covered.

Damage Due to Contaminated or Poor-Quality Fuel

Poor fuel quality or incorrect fuel may cause drivability problems such as hesitation, lack of power, stalling, or failure to start. It may also render gauges inoperable or degrade functionality for components such as spark plugs, oxygen sensors, and the catalytic converter. Damage from poor fuel quality, water contamination, or incorrect diesel fuel or gasoline may not be covered.

Please refer to your Owner's Manual under "Fuel" for additional recommendations, including the use of TOP TIER Detergent Gasoline. Additional information can also be found at: www.toptiergas.com.

Damage Due to Insufficient or Improper Maintenance

Damage caused by failure to follow the recommended maintenance schedule intervals and/or failure to use or maintain proper fluids, fuel, lubricants, or refrigerants recommended in the Owner's Manual, or to maintain fluids between recommended maintenance intervals, is not covered.

Maintenance

All vehicles require periodic maintenance. Maintenance services, such as those detailed in the Owner's Manual, are the owner's expense. Vehicle lubrication, cleaning, and polishing are not covered. Failure of or damage to components requiring replacement or repair due to vehicle use, wear, exposure, or lack of maintenance is not covered.

The items listed below are covered up to the first maintenance inspection period outlined in the Owner's Manual. Any replacement at the time of or beyond the maintenance inspection period is considered maintenance and is not covered as part of the New-Vehicle Limited Warranty. The New-Vehicle Limited Warranty only covers components when replacement or repair of these components is the result of a defect in material or workmanship.

- Audio System Cleaning
- Brake Pads/Linings
- Clutch Linings
- Coolants and Fluids
- Keyless Entry (or other remote transmitter/receiver batteries)¹
- Limited-Slip Rear Axle Service
- Tire Rotation
- Wheel Alignment/Balance²
- Wiper Inserts

¹Consumable battery covered up to 12 months only. ²Maintenance items after 7,500 miles.

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Cadillac Premium Care Maintenance

Cadillac vehicles come with Cadillac Premium Care Maintenance for the first 4 years or 50,000 miles, whichever comes first. See dealer for complete details.

Cadillac Premium Care Maintenance covers routine maintenance services, when scheduled in accordance with the Owner's Manual, including:

- Oil changes based on the vehicle's Oil Life Monitoring System
- Tire rotation every 7,500 miles
- Engine air cleaner filter replacement
- Passenger compartment air filter replacement
- Multi-Point Vehicle Inspection performed by a qualified technician

Cadillac requires that all Cadillac Premium Care Maintenance services be performed by a Cadillac authorized service dealer.





2014 Silverado HD/Sierra HD Bi-Fuel Service Information

FUEL

Bi-fuel vehicles are designed to operate on gasoline or Compressed Natural Gas (CNG) and have a gasoline tank and a CNG fuel storage system. See "Recommended Fuel" under "Fuel" in the Owner's Manual for gasoline information.

The main component of CNG is methane, a highly flammable, colorless gas. An odorant has been added for detection through smell. The smell is similar to that of rotten eggs. The CNG in the vehicle is stored under high pressure (maximum 3,600 psi/24,800 kPa). Gas should never be smelled and a hissing sound should not be heard unless refueling is being done. If gas is smelled or a hissing sound is heard at any other time, shut down the vehicle and have it serviced. It may be possible to hear the fuel flowing while the engine is running if standing close to the pipework or various fuel system components (regulator, filter). This is normal and should not be confused with a hissing sound at fittings that may indicate a fuel leak.

- Whichever mode is selected, the vehicle always starts on gasoline. When CNG mode is selected, the vehicle will automatically transition from gas to CNG. Always keep the gasoline tank at least one-quarter full.
- It is very important not to run the gasoline tank out of fuel. The system will not switch over to CNG operation if the engine stalls while running on gasoline.
- If the vehicle runs out of CNG fuel, it will automatically switch over to gasoline operation. For normal CNG operation, fill the CNG fuel storage system until the fuel indicator lamps indicate at least one-quarter full.
- If it takes unusually long to fill the CNG cylinder, the fuel filter may be clogged. Contact your dealer for inspection and/or replacement.

Refueling Station Information

For up-to-date information on public-access CNG station locations and prices, and to view or add user comments, see:

www.cngprices.com and cngchat.com

Public and private CNG stations may also be found at the following federal government Web site:

www.afdc.energy.gov/afdc/locator/stations

FUEL GAUGE

The vehicle has a gasoline fuel gauge and a CNG fuel gauge.

Gasoline Fuel Gauge



When the ignition is on, the gasoline fuel gauge indicates about how much gasoline is left in the tank.

See "Fuel Gauge" in the Owner's Manual.

CNG Fuel Gauge



While in CNG mode, the four CNG fuel gauge indicator lamps show how much fuel is in the CNG fuel storage system. The gauge is only accurate while in CNG mode.

Four Lamps On: CNG fuel storage system is full.

Three Lamps On: CNG fuel storage system is three-quarters full.

Two Lamps On: CNG fuel storage system is half full.

One Lamp On: CNG fuel storage system is one-quarter full.

One Lamp Flashing: CNG fuel storage system has approximately 20 miles of range remaining.

One Lamp Flashing and Beeps Sounding: CNG fuel storage system is empty and the system has switched to gasoline operation. To cancel the beep, press the fuel selector switch once. The sound will stop and the fuel operation indicator will be red.

CNG quantity is affected by changes in fuel temperature and fuel pressure.





2014 Silverado HD/Sierra HD Bi-Fuel Service Information (Continued)

Fuel Selector Switch



- A. Fuel Operation Indicator Lamp
- B. Fuel Selector Switch
- C. CNG Fuel Gauge Indicator Lamps

The fuel selector switch (B) is on the instrument panel below the climate controls. Press the center button to select gasoline or CNG with the key in ON/RUN with the engine running or off. The switch also includes the fuel operation indicator lamp (A) and the CNG fuel level indicator lamps (C).

The vehicle always starts on gasoline. If the fuel selector switch is in CNG mode when the vehicle is started, the vehicle will start on gasoline and switch to CNG when conditions for CNG operation have been met. While waiting to transition, the fuel operation indicator lamp will be red and the fuel level lamps will show the approximate CNG fuel level. The gauge will show the accurate fuel level when the vehicle has transitioned to CNG. If the vehicle is turned off in gasoline mode, when started, it will remain in gasoline mode until the fuel selector switch is pressed. At temperatures below freezing, it may take 10 to 15 minutes for the vehicle to switch from gasoline to CNG. If the button is pressed to switch to gasoline from CNG while driving, the engine will change to gasoline operation. If the system transitions more than 20 times in a single key cycle, it will remain in the last mode selected.

Fuel Operation Indicator Lamp

The fuel operation indicator lamp (A) changes color to indicate the current fuel mode or when in transition between fuels.

- Red: Vehicle is currently operating on gasoline
- Green: Vehicle is currently operating on CNG
- Amber: Vehicle is transitioning to the selected fuel

MALFUNCTION INDICATOR LAMP



The malfunction indicator lamp is in the instrument cluster.

The vehicle has been specifically designed to illuminate this indicator when emissions exceed acceptable levels while operating on either gasoline or natural gas fuel.

Notice: If the vehicle is continually driven with this light on, the emission controls might not work as well, the vehicle fuel economy might not be as good, and the engine might not run as smoothly. This could lead to costly repairs that might not be covered by the vehicle warranty.

See the Owner's Manual for more information.

CNG Malfunction Indicator



The fuel operation indicator also functions as a malfunction indicator. If a malfunction occurs, the fuel operation indicator begins flashing red and the vehicle switches over to gasoline operation. The fuel operation indicator will continue to flash red until the

problem is corrected. See your dealer for service.

Manual Shutoff Valve



Locate the manual shutoff valve so that it can be found quickly if it is needed.

The manual shutoff valve is near the fuel fill valve on the driver side of the tank shield in the pickup bed.

A label is on the outside of the vehicle near the manual shutoff valve. Do not remove this label.

To turn off the valve, turn the lever one-quarter turn clockwise. Turn it counterclockwise to turn the valve back on.

Turn off the valve if a fuel leak is suspected or the vehicle is involved in a collision. This valve, when turned, will stop CNG flow to the engine. If the vehicle will not switch over to CNG operation, verify that the valve is turned to the on position.

Please contact your local Chevrolet/GMC dealer for more information, or visit www.youtube.com/gmfleetcommercial.

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Additives: Fact Or Myth?

Increase fuel mileage with those miracle additives.

A STATEMENT ABOUT FUEL ECONOMY

As gasoline prices increase, there has been a growing concern over fuel consumption and how to achieve maximum fuel economy. The information below contains reasonable and prudent advice for your fleet vehicles and how to get the most from every gallon of gas.

WHAT NOT TO DO: FUEL ADDITIVES

Various unproven products to improve vehicle fuel economy have been reported, ranging from magnets that align molecules to chemical combustion improvers. Most products claiming to provide benefits are based on unsubstantiated claims. Those that do present “scientific” results generally have too little supporting data to be conclusive, have not conducted experiments in a controlled fashion, or cannot be substantiated by anyone else but the product’s manufacturer. The U.S. Federal Trade Commission summarizes results for products tested by the federal government at:

www.ftc.gov/bcp/edu/pubs/consumer/alerts/alt095.shtm

A review of the list shows that the majority did not work, and for those that showed some effect, the benefit was too small to be cost effective.

One more recent poor idea to improve fuel economy that should not be attempted is to blend either kerosene or diesel fuel into gasoline. Why? Both kerosene and diesel fuel are distillate fuels meant for use in compression ignition engines, not spark ignition engines. They have very low octane, and since they are heavier (higher density) than gasoline, they will cause heavy engine deposits and degradation of engine oil.

Chemicals that are normally used as solvents also should not be used. These include acetone, ketones, and methanol. These solvents can be incompatible with your vehicle’s rubber or sealing components and may dissolve the vehicle’s paint finish. In the case of methanol, corrosion of metal parts in the fuel system also may occur.

WHAT NOT TO DO: ENGINE OIL ADDITIVES

GM vehicles DO NOT require additional engine oil additives. Some additives may cause harmful effects to the internal seals and additionally void the terms of your vehicle’s New-Vehicle Warranty.

WHAT TO DO: MAXIMIZING FUEL ECONOMY/ MINIMIZING COSTS

The best fuel economy possible is the direct result of proper maintenance and good driving habits. Listed below are GM’s recommendations to achieve the best mileage possible.

TIRE PRESSURE

One of the major contributors to poor fuel economy is underinflated tires. Tires low on pressure create drag that the vehicle’s powertrain must overcome, wasting dollars in fuel. Always keep your tires inflated to the proper pressure as shown on the vehicle placard, mounted on your left front door sill. This not only serves to increase gas mileage, but also cuts down on tire wear, further decreasing your costs per mile.

USE THE RECOMMENDED GRADE (OCTANE) FUEL

Purchasing higher-than-required octane fuel is a waste of money. Using higher-octane fuels in a vehicle that only requires regular unleaded fuel will neither increase performance nor improve gas mileage. In all cases, refer to your Owner’s Manual and use ONLY the octane-rated fuel recommended for your vehicle.

SLOW DOWN, DRIVE SMOOTHLY

Avoid quick/full-throttle acceleration from a standstill in town and high cruising speeds on the interstates. While the optimum mpg for highway cruising speed varies from vehicle to vehicle, faster is almost always worse. If your vehicle is equipped with a Driver Information Center that displays Instant Fuel Economy, select that readout and vary your cruising speed while on the highway. The display will change continuously with uphill and downhill sections, but you should quickly be able to identify on level ground the speed range that your vehicle does the best in.

REDUCE WEIGHT

Avoid leaving unnecessary items in your vehicle. It takes power to move increased weight, and that means more gasoline consumption and reduced performance. While the change may be slight, multiplied by thousands of miles, it all adds up.

AVOID EXTENDED IDLING

There is no need to idle your engine until it reaches operating temperature as in the past. Idling wastes fuel.

COMBINE TRIPS

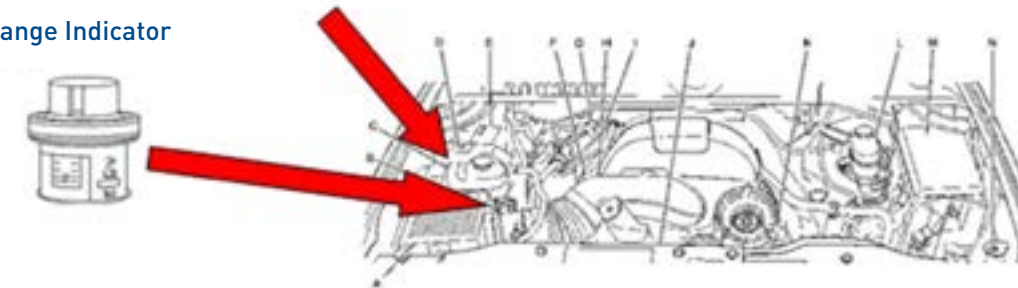
Your vehicle uses much more fuel when the engine is cold. This is especially true in the winter months, when the engine will take the longest to warm up. Combine errands or trips so that the vehicle only needs to warm up once to encompass many different stops.



Air Cleaner/Filter: Does My Engine Air Cleaner/Filter Need To Be Replaced?

Common Location of Engine Air Cleaner/Filter

Change Indicator



WHEN TO INSPECT THE ENGINE AIR CLEANER/FILTER

If your vehicle has an air filter restriction indicator, it lets you know when the engine air cleaner/filter needs to be replaced. On a vehicle with a restriction indicator, you should inspect it at every oil change and replace the engine air cleaner/filter when the indicator tells you to.

On a vehicle without an air filter restriction indicator, inspect the air cleaner/filter at Maintenance II intervals and replace it at the first oil change after each 50,000-mile¹ interval. If you are driving in dusty/dirty conditions, inspect the filter at each engine oil change.

HOW TO INSPECT THE ENGINE AIR CLEANER/FILTER:

Vehicle With An Air Filter Restriction Indicator

Locate the air filter restriction indicator on the engine air cleaner/filter cover. When the indicator turns black or is in the red/orange "change" zone, replace the filter and reset the indicator. See "Air Filter Restriction Indicator" in your Owner's Manual. Reset and follow air cleaner/filter replacement procedures.

Vehicle Without An Air Filter Restriction Indicator

To inspect the air cleaner/filter, remove the engine air cleaner/filter from the vehicle and lightly shake it to release loose dust and dirt. If the engine air cleaner/filter remains caked with dirt, a new filter is required. When a replacement is necessary as indicated above, we recommend GM/ACDelco filters (reference your Owner's Manual for correct replacement), or equivalent dry filter elements. We do not recommend oil-laminated or oil-bathed, extended-life filter replacements.

¹Check your Owner's Manual to verify specific air cleaner maintenance requirements for your vehicle.

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Brakes: What Repairs Are Needed?

Although we recognize that this subject may appear to be technically complex as well as a safety issue, our focus will be to furnish you with “basic street smarts” that will enable you to better understand a presented repair request.

BASIC COMMON COMPONENT DESCRIPTION

Remember your bicycle with hand brakes? Well, the basic technology hasn’t changed all that much. When you squeezed your hand brake, this pulled on a cable at the opposite end that was connected to two levers that squeezed two pads against your bicycle wheel.

LET’S APPLY THAT PRINCIPLE TO YOUR VEHICLE

Your bicycle’s hand brake is your vehicle’s brake pedal. Your bicycle’s brake cable serves the same purpose as your vehicle’s brake fluid, which is stored in a reservoir called a master cylinder. The two levers that squeeze the pads against the bicycle wheel are called calipers. On a vehicle, calipers squeeze two pads against a brake rotor.

QUICK REVIEW

You apply pressure to your brake pedal, which forces brake fluid from the master cylinder to the brake caliper, which squeezes the brake pads against the brake rotor, and your vehicle stops. Now, let’s start with looking at the two items involved in most brake repairs:

Typical Brake Pad



Typical Brake Rotor



PADS: When replacement is needed

- Minimal pad material remaining
- Damaged pad surface, cracks, separation
- Pad material contamination, oil, grease, etc.
- Major uneven wear (side-to-side) on same wheel

PADS: When replacement is not needed

- Noise concerns, such as squeaks
- Just because the rotors were serviced
- Brake pulsation (jumpy pedal)

ROTORS: When servicing or replacement is needed

- Severe scoring — depth in excess of 0.060 inch. (Place a dime in the groove with Roosevelt’s head toward the groove. If the dime goes beyond the top of Roosevelt’s head, groove exceeds 0.060.)
- Heavy corrosion/delamination (see below)

ROTORS: When replacement is not needed

- For noise or squeal
- Light corrosion (see below)
- Routine pad replacement
- Discoloration/hard spots

COMMON TERMS

Light Corrosion

Corrosion is caused by normal oxidation (rust) that is not cleaned off the rotor surface by the brake pad, but is impacted into the rotor. Corrosion may cause complaints of pulsation (jumping brake pedal) or noise. Often referred to as cosmetic rusting, this may be evident when your vehicle is parked for an extended period of time, such as leaving an airport parking area after a business trip or vacation. When you apply the brake, the pedal jumps slightly up and down or the brakes squeak. This condition is generally gone by the time you get home or after several heavy brake applications.

Heavy Corrosion

This is characterized by rust scaling and deep pitting. This type of corrosion may be too deep to machine and may require replacement of the rotor.

Light Delamination

Looks like a layer of paint flaking off the rotor. This layer is composed of rust and pad material, not rotor surface. This light flaking can normally be corrected by refinishing the rotor.

IMPORTANT NOTE

We hope you recognize that our intent was to provide you with street smarts, not technical certification. Therefore, when a safety concern arises, we urge you to yield to the most trusted technical consultant available.



2015 Bumper-to-Bumper Warranty Coverage

FOR 2015 MODEL YEAR VEHICLES, THE CHEVROLET/GMC 3-YEAR/36,000-MILE AND BUICK/CADILLAC 4-YEAR/50,000-MILE BUMPER-TO-BUMPER LIMITED WARRANTIES¹

WHAT IS NOT COVERED

Tire And Wheel Damage Or Wear

Normal tire wear or wear-out is not covered. Road hazard damage such as punctures, cuts, snags, and breaks resulting from pothole impact, curb impact, or other objects, and tire wear due to misalignment beyond the maintenance period is not covered. Also, damage from improper inflation, overloading, spinning, as when stuck in mud or snow, tire chains, racing, improper mounting or dismounting, misuse, negligence, alteration, improper repair, accident, collision or fire, vandalism, or misapplication is not covered. Damage to wheels or tire sidewalls caused by automatic car washes or cleaning agents is not covered.

Damage Due To Bedliners

Owners of trucks with a bedliner, whether aftermarket or factory installed, should expect that with normal operation the bedliner will move. This movement may cause finish damage. Therefore, any damage caused by the bedliner is not covered under the terms of the New-Vehicle Limited Warranty.

Damage Due To Accident, Misuse, Or Alteration

The New-Vehicle Limited Warranty does not cover damage caused as the result of any of the following:

- Collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle
- Misuse of the vehicle such as driving over curbs, overloading, racing, or other competition. Proper vehicle use is discussed in the Owner's Manual.
- Alteration, modification, or tampering with the vehicle, including, but not limited to, the body, chassis, powertrain, driveline, software, and other components after final assembly by GM
- Coverage does not apply if the odometer has been disconnected, its reading has been altered, or mileage cannot be determined
- Installation of non-GM parts
- Water or fluid contamination
- Damage resulting from hail, floods, windstorms, lightning, and other environmental conditions
- Alteration of glass parts by application of tinting films

Important: This warranty is void on vehicles currently or previously titled as salvaged, scrapped, junked, or otherwise considered a total loss.

Damage Or Corrosion Due To Environment, Chemical Treatments, Or Aftermarket Products

Damage caused by airborne fallout, rail dust, salt from sea air, salt or other materials used to control road conditions, chemicals, tree sap, stones, hail, earthquake, water or flood, windstorm, lightning, the application of chemicals or sealants subsequent to manufacture, etc., is not covered.

Damage Due To Insufficient Or Improper Maintenance

Damage caused by failure to follow the recommended maintenance schedule intervals and/or failure to use or maintain proper fluids, fuel, lubricants, or refrigerants recommended in the Owner's Manual, or to maintain fluids between recommended maintenance intervals, is not covered.

¹Whichever comes first. See dealer for details.

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Safe Driving With Cruise Control

The primary purpose of cruise control, when activated, is that it enables you to maintain a minimum speed of approximately 25 mph or greater without keeping your foot on the accelerator. This can help reduce driver fatigue during long trips.

WHEN NOT TO USE CRUISE CONTROL

Cruise control can be dangerous when you cannot drive safely at a steady speed. Also, do not use your cruise control on winding roads or in heavy traffic. Cruise control may also be dangerous on slippery roads. On such roads, fast changes in tire traction can cause excessive wheel slip, and you could lose control.

HOW TO USE CRUISE CONTROL (reference your vehicle Owner's Manual for more details)

On/Off

Press this button to turn the cruise control system on and off.

RES+ (Resume/Accelerate)

Press this button to make the vehicle accelerate or resume a previously set speed.

SET (Set/Coast)

Press this button to set the speed or to decrease the set speed.

Cancel

Press this button to cancel cruise control.

Caution: If you leave your cruise control on when you are not using cruise, you might hit a button and go into cruise when you do not want to. You could be startled and even lose control. Keep the cruise control switch off until you want to use cruise control.

RESUMING A SET SPEED

If you set your cruise control at a desired speed and then apply the brake, this shuts off the cruise control. But you don't need to reset it. Once you are driving at about 25 mph or more, press the RES+ button on your steering wheel. The vehicle will go back to your chosen speed and stay there.

INCREASING SPEED WHILE USING CRUISE CONTROL

There are two ways to go to a higher speed. If the cruise control system is already engaged, press the RES+ symbol. Hold it there until you get up to the speed you want, and then release the button. To increase your speed in very small amounts, press the RES+ symbol briefly and then release it. Each time you do this, your vehicle will go about 1 mph faster.

REDUCING SPEED WHILE USING CRUISE CONTROL

Press and hold the SET button on the steering wheel until you reach the lower speed you want, and then release it. To slow down in very small amounts, press the SET button on the steering wheel briefly. Each time you do this, you'll go about 1 mph slower.

PASSING ANOTHER VEHICLE WHILE USING CRUISE CONTROL

Use the accelerator pedal to increase your speed. When you take your foot off the pedal, your vehicle will slow down to the cruise speed you set earlier.

USING CRUISE CONTROL ON HILLS

How well your cruise control will work on hills depends upon your speed and load and the steepness of the hills. When going up steep hills, you may have to step on the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to keep your speed down. Of course, applying the brake takes you out of cruise control. Many drivers find this to be too much trouble and do not use cruise control on steep hills.

ENDING CRUISE CONTROL

Step lightly on the brake pedal; when cruise control disengages, the cruise symbol in the instrument panel cluster will go out. Press the ON/OFF button; this will turn off the cruise control system. Press the CANCEL button. When cruise control disengages, the cruise symbol in the instrument panel cluster will go out.

ERASING SPEED MEMORY

When you turn off the cruise control or the ignition, your cruise control set speed memory is erased.



Diesel Exhaust Fluid

Warning: Diesel Exhaust Fluid (DEF) is corrosive. Do not allow it to come in contact with your skin, eyes, or the finished surfaces of the vehicle. If exposed, it may cause skin and eye irritation. Wear skin and eye protection when handling. Inhalation may cause irritation to the upper respiratory tract. Store in a cool, well-ventilated area. For more safety information, see the label of the DEF container.

DEF is used with diesel engines to reduce the amount of regulated emissions produced. The fluid level in the DEF tank must be maintained for the vehicle to run correctly. The capacity of the DEF tank is approximately 5 gal. (18.9 L).

LOCATING DIESEL EXHAUST FLUID

DEF can be purchased at a Chevrolet or GMC dealer. It can also be purchased at authorized vehicle and truck dealerships. Additionally, some diesel truck fueling stations or retailers may also have DEF for purchase. For vehicles with an active OnStar subscription, OnStar can help to locate a DEF retailer. For more information on locating DEF, see www.afdc.energy.gov/afdc/vehicles/diesels_fluid.html. See "Customer Assistance Offices" in the Owner's Manual for phone numbers to assist you in contacting a GM dealer. See "Recommended Fluids and Lubricants."

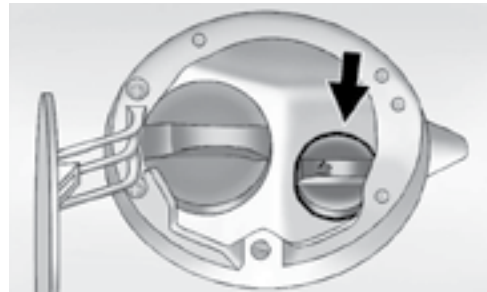
FILLING THE DEF TANK

Warning: Use only exhaust fluid that is GM approved, or fluid containing the API certified or ISO 22241 label. The use of other fluids could damage the system, requiring costly repairs that will not be covered by the vehicle warranty. When adding DEF to an empty or very low tank, always add at least one gallon (3.78 liters) of fluid to release the vehicle from speed limitation.

Do not overfill the DEF tank. When fluid reaches the top of the fill pipe, stop filling. Do not top off the DEF tank. If you spill DEF on the vehicle while filling the tank, wipe the surface with a damp cloth.

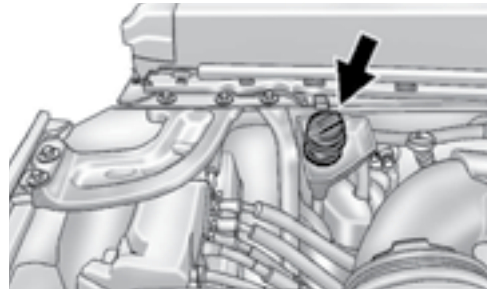
DEF FILL — VANS

For vans, the DEF fill is located behind the fuel fill door. The DEF cap is blue, and the diesel cap is green. Fill tube location for chassis-cab and cutaway vans finished by an upfitter will vary. Check the upfitter's manual.



DEF FILL — PICKUPS

For full-size pickups, the DEF fill is located under the hood, on the passenger side, at the back of the engine compartment. The DEF cap is blue.



DEF FILL — CRUZE

For the Cruze, the DEF fill is stored in a separate tank, under the load floor carpet in the trunk. The DEF cap is blue.





Diesel Exhaust Fluid (Continued)

EXHAUST FLUID LOW WARNINGS

A full DEF tank will last for several thousand miles (kilometers), depending on vehicle usage. As the exhaust fluid level drops, warnings will be displayed in the Driver Information Center (DIC). There will not be any DEF range DIC messages with more than 1,000 miles of DEF range remaining. DIC messages will begin with approximately 1,000 miles of range, and as the tank becomes empty, vehicle speed limitation will result. To avoid vehicle speed limitations, the DEF tank should be refilled at the first opportunity after a low warning indication. If DEF is added before the EXHAUST FLUID EMPTY message appears, it may take several miles for the DIC message to update. If the vehicle speed has been limited and DEF has been added, it may take up to 30 seconds after engine start with the vehicle stopped for the EXHAUST FLUID EMPTY message to clear. If the vehicle is driven prior to the DIC message clearing, the vehicle speed will still be limited. If the DIC message clears while driving, the vehicle must be completely stopped to remove the speed limitation.

If DEF is added under freezing conditions, additional time may be required to remove speed limitations.

A DIC message EXHAUST FLUID RANGE: XXX will be displayed at approximately 1,000 miles of fluid range remaining. This message will appear again at approximately 300 miles of range remaining before the exhaust fluid tank becomes empty.

Below 300 miles of range remaining, these messages will appear every time the vehicle is started.

If these warnings are ignored and the DEF tank becomes empty, a DIC message 55 MPH MAX SPEED UPON RESTART will be displayed. There will also be a warning light and chime. The vehicle will be speed-limited to 55 mph at the next restart.

When adding DEF to an empty or very low tank, always add at least one gallon (3.78 liters) of fluid to release the vehicle from speed limitation. The capacity of the DEF tank is approximately 5 gal. (18.9 L).

If the vehicle continues to be driven without filling the DEF tank, it will be limited to 4 mph after the second fuel fill.

See "Vehicle Messages," "Diesel Exhaust Fluid (DEF) Warning Light," and "Recommended Fluids and Lubricants" for more information.

EXHAUST FLUID QUALITY POOR

Use only exhaust fluid that is GM approved, or fluid containing the API certified or ISO 22241 label.

All DEF has an expiration date. If the system detects poor-quality, contaminated, or diluted DEF, the DIC will display EXHAUST FLUID QUALITY POOR. SEE OWNER'S MANUAL NOW. Adding fresh DEF to the system may resolve the problem, depending on several factors. If the DIC message persists, see your dealer.

After 200 miles of driving without correcting the problem, a DIC message 55 MPH MAX SPEED UPON RESTART will be displayed. There will also be a warning light and chime. The vehicle will be speed-limited to 55 mph at the next restart.

If the problem is not resolved after 500 miles of operation, speed will be limited to 4 mph after the next fuel fill.

SERVICE EXHAUST FLUID SYSTEM

If a problem occurs with the DEF system, the DIC will display SERVICE EXHAUST FLUID SYSTEM. SEE OWNER'S MANUAL NOW. In some cases this message will clear itself, indicating that the DEF system was able to correct the condition. If the DIC message persists, see your dealer.

After 200 miles of driving without correcting the problem, a DIC message 55 MPH MAX SPEED UPON RESTART will be displayed. There will also be a warning light and chime. The vehicle will be speed-limited to 55 mph at the next restart.

If the problem is not resolved after 500 miles of operation, speed will be limited to 4 mph after the next fuel fill.



E85 Fuel (85% Ethanol)¹

Vehicles that have a FlexFuel badge and a yellow fuel cap can use either unleaded gasoline or ethanol fuel containing up to 85 percent ethanol (E85). For all other vehicles, use only the unleaded gasoline described under “Recommended Fuel.”

We encourage the use of E85 in vehicles that are designed to use it. The ethanol in E85 is a “renewable” fuel, meaning it is made from renewable sources such as corn and other crops.

Many service stations will not have an E85 fuel pump available. The U.S. Department of Energy has an alternative fuels Web site (www.afdc.energy.gov/afdc/locator/stations/) that can help you find E85 fuel. Those stations that do have E85 should have a label indicating ethanol content. Do not use the fuel if the ethanol content is greater than 85 percent.

At a minimum, E85 should meet ASTM Specification D 5798. By definition, this means that fuel labeled E85 will have an ethanol content between 70 percent and 85 percent. Filling the fuel tank with fuel mixtures that do not meet ASTM specifications can affect drivability and could cause the malfunction indicator lamp to come on.

To ensure quick starts in the wintertime, the E85 fuel must be formulated properly for your climate according to ASTM Specification D 5798. If you have trouble starting on E85, it could be because the E85 fuel is not properly formulated for

your climate. If this happens, switching to gasoline or adding gasoline to the fuel tank can improve starting. For good starting and heater efficiency below 32°F (0°C), the fuel mix in the fuel tank should contain no more than 70 percent ethanol. It is best not to alternate repeatedly between gasoline and E85. If you do switch fuels, it is recommended that you add as much fuel as possible — do not add less than 3 gal. (11 L) when refueling. You should drive the vehicle immediately after refueling for at least 7 miles to allow the vehicle to adapt to the change in ethanol concentration.

E85 has less energy per gallon (liter) than gasoline, so you will need to refill the fuel tank more often when using E85 than when you are using gasoline. See “Filling the Tank.”

Warning: Some additives are not compatible with E85 fuel and can harm the vehicle’s fuel system. Do not add anything to E85. Damage caused by additives would not be covered by the vehicle warranty.

Warning: This vehicle was not designed for fuel that contains methanol. Do not use fuel containing methanol. It can corrode metal parts in the fuel system and also damage plastic and rubber parts. That damage would not be covered under the vehicle warranty.



Certified Service

¹E85 FlexFuel capability is not available in AZ, CA, CT, DE, MA, MD, ME, NJ, NY, OR, PA, RI, VT, and WA. E85 is a combination of 85 percent ethanol and 15 percent gasoline. Go to www.afdc.energy.gov/afdc/fuels/ to see if there is an E85 fuel station near you.



Your Engine Cooling System: When To Flush, When Not To

The cooling system in your GM vehicle is filled with DEX-COOL engine coolant (exceptions listed below). This coolant is designed to remain in your vehicle for 5 years or 150,000 miles, whichever comes first.

DEX-COOL is orange in color to distinguish it from other coolants. However, due to some inconsistencies in the mixing of dyes used with DEX-COOL, some batches may appear pink after time. The color shift from orange to pink does not affect the integrity of the coolant and still maintains the 5-year/150,000-mile service interval.

Mixing conventional green (ethylene glycol-based) coolant with orange DEX-COOL during routine servicing will degrade the service interval from the 5 years/150,000 miles to 2 years/30,000 miles.

If contamination occurs, the cooling system must be flushed twice immediately and refilled with a 50/50 mixture of DEX-COOL and clean water to preserve the enhanced properties and extended service interval. If you use the proper coolant (DEX-COOL), you do not have to add inhibitors or other popular additives, which claim to improve the system. These can be harmful.

ADDING COOLANT

If you need more coolant, add the proper DEX-COOL mixture (50 percent DEX-COOL & 50 percent drinkable water) at the recovery tank, which indicates the appropriate fill level. If the coolant recovery tank is completely empty, coolant must be added directly to the radiator with caution.

Turning the radiator pressure cap when the engine and radiator are hot can allow steam liquids to blow out and burn you badly. With the coolant recovery tank, you will almost never have to add coolant to the radiator. See your professional service technician or refer to your Owner's Manual.





Why Is It More Important To Frequently Check Your Engine Oil On Today's Vehicles?

Did you know that it is not uncommon for your engine oil temperature to be hotter than your engine coolant?

Typically, your engine coolant will average 190–210°F, while your engine oil temperature may average 220°–240°F.

Therefore, aside from the normal oil vaporization that takes place, let's talk about the essential purpose of the engine oil.

All engines require oil to lubricate and protect the load bearings and internal moving parts from wear, including cylinder walls, pistons, and piston rings. When a piston moves down in its cylinder, a thin film of oil is left on the cylinder wall. During the power stroke, part of this oil is consumed in the combustion process. As a result, varying rates of oil consumption are accepted as normal in all engines.

The often accepted rate of oil consumption for today's engines (passenger cars and light-duty trucks under 8,500 GVW) can be in the range of 1 quart within 2,000 miles on a properly driven and maintained vehicle.

However, there are many other variables, such as driving habits and load conditions. So don't think you need to check your oil every 2,000 miles. In fact, every fuel fill is recommended. (And only add oil with the starburst symbol.)

Why today, but not in the recent past? Oil change intervals have changed as a result of GM's technological leadership and encouragement to reduce hazardous waste. Nearly all GM vehicles produced today are equipped with the GM-patented Oil Life Monitoring System. This GM technology allows the vehicle to alert the driver when an oil service is needed within two fuel tank fills. This range, which is based upon driving habits and vehicle usage as well as temperatures, can be from 2,000 miles to 12,000 or more miles (max. annually).

Therefore, in the past you may have had your vehicle serviced at 3,000 or 4,000 miles, and if your vehicle consumed 1 quart at 2,000 miles, chances are you remedied the low oil level by the scheduled oil change service. Do the math! Today, with extended intervals, you could be down 3 quarts of oil in a 5-quart capacity in 6,000 miles or even more.

Protect your employers' investment. Have the engine oil checked at every fuel fill to avoid possible costly major engine repairs, as well as to help reduce unnecessary hazardous waste.





Is There Anything We Can Do Regarding Escalating Fuel Costs?

It seems like a long time and many millions of miles ago when gasoline had an octane rating of 80, and about the only thing a driver needed to know about fuel was how much was in the tank. Now the choices are bewildering: regular, midrange, or premium? What about detergents? Fuel additives, such as injector cleaners, dry gas, octane enhancers, national or local brands — and the list goes on.

WHAT IS GASOLINE, ANYWAY?

Freshly pumped from the ground, petroleum is a dark, smelly, thick stew of hydrocarbon compounds. It's the task of the refiner to separate crude oil into its compound parts, then to remix them in various combinations to make useful products. This recipe for blending gasoline also calls for additives not found in crude oil.

THE OCTANE MYTH

Does regular or premium mean the same thing in all states?

Answer: NO.

WHAT IS THAT YELLOW LABEL ON THE PUMP?

"RON + MON = AKI" or 87 octane, 89, or 90 and higher?

During a combustion cycle, when the fuel and oxygen mixture ignites all at once, it literally explodes in your engine. This produces an audible shock wave we often refer to as engine knock, or ping. Gasoline has additives that are formulated to resist this knock or ping, and the result is expressed as the fuel's octane number, such as 87, 89, etc. Also, your GM vehicles have computer-controlled sensors that correct this temporary condition without your knowing about it. By law, U.S. gas pumps are labeled with that yellow sticker containing an anti-knock index (AKI) number, which is actually an average of "RON + MON" (Research Octane Number + Motor Octane Number).

SHOULD YOU PURCHASE FUEL BY BRAND POPULARITY OR BY PRICE?

Answer: Octane rating & lowest price.

Using an octane higher than required will bring no added benefits. The vehicle will not have better performance or better fuel economy — it will simply cost more. Every GM engine family has been carefully tested to determine its octane requirements under normal conditions. This requirement is listed in your Owner's Manual. The most common octane rating required for GM vehicles is 87.

GASOLINES CONTAINING ENGINE CLEANERS

Some refiners tout the detergent qualities of their fuels. Consumers need to know that it's not necessary to purchase high octane to obtain cleaning benefits. The Environmental Protection Agency (EPA) requires all grades of gasoline, regardless of octane rating, to contain engine cleaning detergents to guard against harmful deposit buildup during the life of the engine.

FUEL ADDITIVES & INJECTOR CLEANERS

Simply stated, properly formulated fuel, stored in clean tanks, should not need supplemental additives. In general, GM does not recommend additives.

WHAT ELSE CAN BE DONE OTHER THAN SELECTING FUEL BY OCTANE RATING?

Drive Sensibly

Aggressive driving (speeding, rapid acceleration, and braking) wastes gas. It can lower your gas mileage by 33 percent at highway speeds and by 5 percent around town. Sensible driving is also safer for you and others, so you may save more than gas money.

Speed Control

Gas mileage decreases rapidly at speeds above 60 mph. Each 5 mph you drive over 60 mph is like paying an additional \$0.10 per gallon for gas. Observing the speed limit is also safer.

Keep Tires Properly Inflated

Tires can lose one pound of pressure per month under normal conditions. Additionally, tires can lose one pound for every 10-degree temperature drop. You can improve your gas mileage by around 3.3 percent by keeping your tires inflated to the proper pressure. The recommended tire inflation for your GM vehicle is located on the label inside the edge of your driver's door. Do not use the pressure indicated on the tire.

Avoid Excess Weight

A loaded roof rack, for example, can decrease your fuel economy by 5 percent. Reduce aerodynamic drag and improve your fuel economy by placing items inside the vehicle whenever possible.

Avoid Excessive Idling

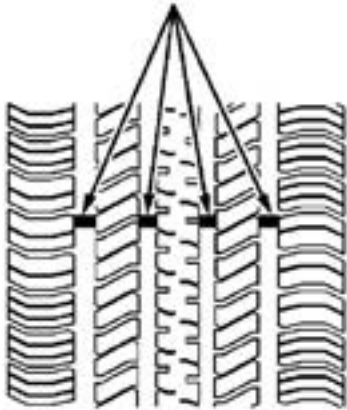
Idling gets 0 miles per gallon. Today's vehicles do not require extensive warm-up periods.

SHOP FOR THE LOWEST PRICE IN YOUR AREA

Search your area at www.fueleconomy.gov.



When Is It Time For New Tires?



1/16" = .0625" Recommendation

3/32" = .09375" Common FMC Recommendation

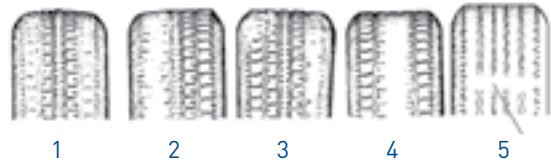
4/32" = .125" Selective FMC Recommendation

One way to tell when it is time for new tires is to check the tread wear indicators, which will appear when your tires have only 1/16 inch (1.6 mm) or less of tread remaining.

YOU NEED A NEW TIRE IF ANY OF THE FOLLOWING STATEMENTS ARE TRUE:

- You can see the indicators at three or more places around the tire
- You can see cord or fabric showing through the tire's rubber
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric
- The tire has a bump, bulge, or split, excluding normal sidewall seam
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage
- Tire has visible wear

TIRE WEAR PATTERNS



- 1 Underinflation, Hard Cornering, Lack of Regular Rotation
- 2 Incorrect Wheel Alignment, Hard Cornering, Lack of Regular Rotation
- 3 Incorrect Wheel Alignment
- 4 Overinflation, Heavy Acceleration, Lack of Regular Rotation
- 5 Normal Wear to the Wear Indicator

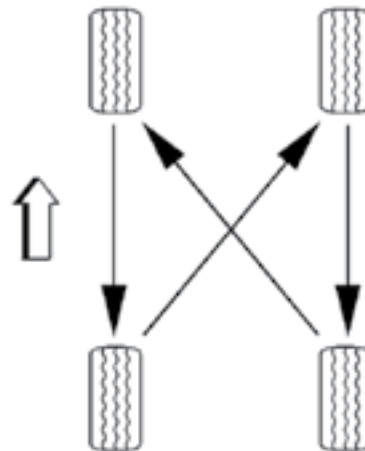
TIRE ROTATION AND INSPECTION

Rotate the tires and wheels at frequent intervals to equalize wear. Refer to tire rotation in "Maintenance and Lubrication." In addition to scheduled rotation, rotate the tires and wheels whenever uneven tire wear is noticed.

Radial tires tend to wear faster in the shoulder area, particularly in front positions. Radial tires in non-drive locations may develop an irregular wear pattern that may increase tire noise. This makes regular rotation especially necessary.

Refer to "Tire and Wheel Removal and Installation" for tire removal.

Always use a four-wheel rotation as shown below. After rotation, check the wheel nuts for specified torque, then set the tire pressure.





Nitrogen Gas (Inflating Tires)

Recently, nitrogen gas (for use in inflating tires) has become available to the general consumer through many retailers. Some have promoted this with reasonable results, while others have a tendency to oversell the benefit.

FIRST, GM'S POSITION ON THE USE OF NITROGEN GAS IN TIRES

General Motors does not oppose the use of purified nitrogen as an inflation gas for tires. We expect the theoretical benefits to be reduced in practical use due to the lack of an existing infrastructure (few locations) to facilitate continuously inflating tires with nearly pure nitrogen.

Even occasional inflation with compressed atmospheric air will negate many of the theoretical benefits of nitrogen. Given those theoretical benefits, practical limitations, and the robust design of GM original equipment TPC (Tire Performance Criteria) tires, the realized benefits to our customer of inflating tires with purified nitrogen are **expected to be minimal**.

THE PROMISE OF NITROGEN: REAL-WORLD USE

Nitrogen inflation can provide some benefit by reducing gas migration (pressure loss) at the molecular level through the tire structure. The National Highway Traffic Safety Administration has stated that the inflation pressure loss of tires can be up to 5 percent a month.

Nitrogen molecules are larger than oxygen molecules and, therefore, are less prone to seeping through the tire casing.

Another potential benefit of nitrogen is the reduced oxidation of tire components. Research has demonstrated that oxygen consumed in the oxidation process of the tire primarily comes from the inflation media. Therefore, it is reasonable to assume that oxidation of tire components can be reduced if the tire is inflated with pure nitrogen. However, only very small amounts of oxygen are required to begin the normal oxidation process. Even slight contamination of the tire inflation gas with compressed atmospheric air during normal inflation pressure maintenance may negate the benefits of using nitrogen.

Regardless of the inflation media for tires (atmospheric air or nitrogen), inflation pressure maintenance of tires is critical for overall tire and, ultimately, vehicle performance.

Maintaining the correct inflation pressure allows the tire to perform as intended by the vehicle manufacturer in many areas, including comfort, fuel economy, stopping distance, cornering, traction, tread wear, and noise.





Serpentine Belt Wear

All current GM vehicles designed and manufactured in North America are assembled with serpentine belts that are made with an EPDM (Ethylene Propylene Diene Monomer) material and should last the life of the vehicle. It is extremely rare to observe any cracks in EPDM belts, and it is not expected that they will require maintenance before 10 years or 150,000 miles of use.

Older-style belts, which were manufactured with a chloroprene compound, may exhibit cracks depending on age. However, the onset of cracking typically signals that the belt is only about halfway through its usable life.

A good rule of thumb for chloroprene-based belts is that if cracks are observed 1/8 inch (3 mm) apart, all around the belt, the belt may be reaching the end of its serviceable life and should be considered a candidate for changing. Small cracks spaced at greater intervals should not be considered as indicative that the belt needs changing.

Any belt that exhibits chunking should be replaced.





TOP TIER Detergent Gasoline

A new class of fuel called TOP TIER Detergent Gasoline is appearing at the retail stations of some fuel marketers. This gasoline meets detergency standards developed by six automotive companies: Audi, BMW, General Motors, Honda, Toyota, and Volkswagen. All vehicles will benefit from using TOP TIER Detergent Gasoline over gasoline containing the "Lowest Additive Concentration" set by the EPA. Those vehicles that have experienced deposit-related concerns may especially benefit from the use of TOP TIER Detergent Gasoline.



1 Intake valve: 10,000 miles with TOP TIER Detergent Gasoline

2 Intake valve: 10,000 miles with Legal Minimum additive

WHY WAS TOP TIER DETERGENT GASOLINE DEVELOPED?

TOP TIER Detergent Gasoline was developed to increase the level of detergent additive in gasoline. The EPA requires that all gasoline sold in the U.S. contain a detergent additive. However, the requirement is minimal and, in many cases, not sufficient to keep engines clean. In order to meet TOP TIER Detergent Gasoline standards, a higher level of detergent is needed than what is required by the EPA. Also, TOP TIER was developed to give fuel marketers the opportunity to differentiate their product.

WHY DID THE SIX AUTOMOTIVE COMPANIES JOIN TOGETHER TO DEVELOP TOP TIER?

All six corporations recognized the benefits to both the vehicle and the consumer. Also, joining together emphasized that low detergency is an issue of concern to automotive companies.

GASOLINE BRANDS THAT CURRENTLY MEET TOP TIER DETERGENT GASOLINE STANDARDS

The TOP TIER program began on May 3, 2004, and many fuel marketers have joined the program and have introduced TOP TIER Detergent Gasoline. This is a voluntary program and not all fuel marketers will offer this product.

As of August 1, 2013, all grades of the following gasoline brands meet the TOP TIER Detergent Gasoline Standards:

USA

- 76 Stations
- Aloha Petroleum
- BP
- Conoco
- CountryMark
- Entec Stations
- Exxon
- Hawaii Fueling Network (I-IFN)
- Holiday Stationstores, Inc.
- Kwik Trip/Kwik Star
- MFA Oil Co.
- Mileage Stations
- Mobil
- Ohana Fuels
- Phillips 66
- Quik Trip
- Road Ranger
- Scheirl Oil
- Shell
- Texaco
- Tri-Par Oil Co.
- U.S. Oil

CANADA

- Chevron Canada
- Esso
- Petro-Canada
- Chevron Shell Canada

Visit www.toptiergas.com for additional information and updated retailer lists.



Engine Tune-Up: When Should Spark Plugs Be Replaced?

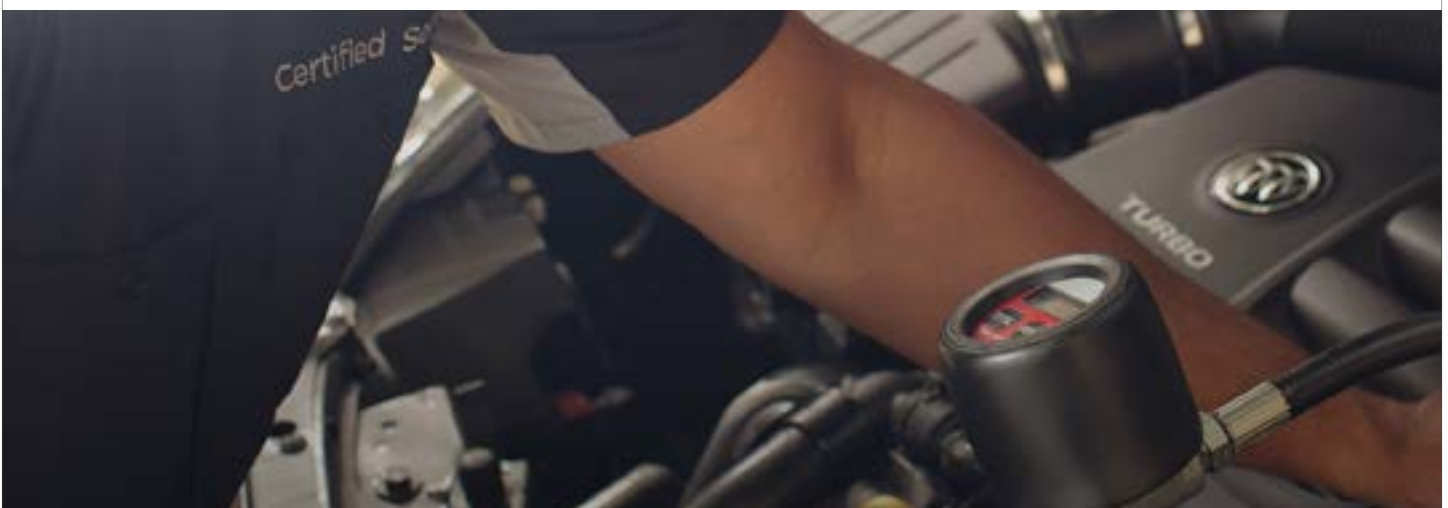
Your General Motors vehicle is equipped with Iridium- or Platinum-tipped spark plugs that are designed to operate under normal vehicle operating conditions for up to 100,000 miles without periodic maintenance.

When no engine performance concerns are present, Iridium- and Platinum-tipped spark plugs should not be removed for periodic inspection and cleaning of threads. Doing so may compromise the spark plugs' ability to withstand their corrosive environment. The threaded area, although not sealed, serves as a protective environment against most harmful elements.

Removing and cleaning spark plugs will introduce metallic debris and brush scrapings into the thread area, which may further the corrosion process.

Chromate-coated spark plugs should not be wire brushed or handled in any way once they are put in service. Chromium topcoats form a protective oxide on spark plugs that is not effective if scratched. Both coated and uncoated spark plugs will have the best chance of surviving a corrosive environment if they are left in position. Attempts to maintain spark plugs by removing them and cleaning the threads can actually create the corrosive condition that the procedure was intended to prevent.

Please encourage your service technicians to follow a specific symptom diagnostic approach, not a wide-encompassing "tune-up" approach. Routine replacement (less than 100,000 miles) of spark plug sets is considered an unnecessary expense.





Unnecessary Maintenance Expenses

In normal usage, GM vehicles do not require additional procedures or additives beyond what is presented in your vehicle's maintenance schedule.

Maintenance schedules do not call for flushing of the engine crankcase, fuel injectors, air conditioning systems, radiators, transmission coolers, brake systems, or power steering systems as part of routine maintenance.

Fluid flushing equipment for the above is specifically designed to aid and accelerate fluid changing when required, as part of a specific repair. For example, if your air-conditioning system suffered a catastrophic failure or extreme corrosion, then, and only then, system evacuation is needed.

Under normal circumstances, fuel injector cleaning is not part of required routine maintenance. If your SERVICE ENGINE SOON light comes on, and through qualified diagnosis a repair that necessitates injector cleaning is called for, then it is appropriate.

Crankcase (engine oil pan) flushing is not endorsed or recommended for any GM gasoline or diesel engines. In fact, some chemicals used in this process may be incompatible with internal engine components and may damage engine seals and bearings. This damage would not be covered by the vehicle's warranty.

In years past, one of the leading causes for engine oil degradation or escalation of sludge deposits was condensation, largely caused by open-air engine breather systems. Today's breather systems are computer-controlled and are highly effective. In addition, engine oil detergents as well as fuel additives have made remarkable technological advancements. Therefore, we recommend that your vehicle be maintained in accordance with the provided GM maintenance manual, which does not require the above service.

Haven't we all heard "Your vehicle has 40,000–50,000 miles now and you are due for a transmission service?" Or how about "To get your vehicle ready for the harsh upcoming winter or hot summer, you'll need to get your transmission oil serviced?"

A GM Owner's Manual will guide you to what is needed and when. Although the selected sample applies to most GM vehicles, please refer to your specific vehicle Owner's Manual for any exceptions.

- Under normal conditions, change the fluid and filter at 100,000 miles
- Change automatic transaxle fluid and filter at 50,000 miles if the vehicle is mainly driven under one or more of the conditions below:
 - › When doing frequent trailer towing
 - › Uses such as found in taxi, police, or delivery service
 - › In heavy city traffic where the outside temperature regularly reaches 90°F (32°C) or higher
 - › In hilly or mountainous terrain





What Diesel Fuel To Use In The U.S.

Warning: Use of diesel fuel other than Ultra-Low-Sulfur Diesel (15 ppm sulfur maximum) will cause permanent damage to the exhaust aftertreatment system. This damage would not be covered by the vehicle warranty.

The emission control system requires the use of diesel fuel with ultra-low-sulfur content (15 ppm or 0.0015 percent by weight, maximum). Look for the following label on the dispenser to ensure you are filling with Ultra-Low-Sulfur Diesel fuel.



At a minimum, the diesel fuel you use should meet the latest version of ASTM Specification D975 (Grades No. 2-D or No. 1-D S15, commonly known as Ultra-Low-Sulfur Diesel) in the United States.

If there are questions about the fuel you are using, contact your fuel supplier.

DIESEL FUEL GRADES

For best results, use No. 2-D diesel fuel year-round (above and below freezing conditions), as oil companies blend No. 2-D fuel to address climate differences. No. 1-D diesel fuel can be used in very cold temperatures (when it stays below 0°F or -18°C); however, it will produce a power and fuel-economy loss. Avoid the use of No. 1-D diesel fuel in warm or hot climates. It can result in stalling, poor starting when the engine is hot, and damage to the fuel injection system.

PREMIUM DIESEL FUEL

Diesel fuel corresponding to the Engine Manufacturers Association (EMA) Recommended Guideline on Premium Diesel Fuel (FQP-1A) could provide better starting, less noise, and better vehicle performance, but its use is not required.

BIODIESEL

What is biodiesel?

Biodiesel is a fuel produced from vegetable oils or animal fats that have been chemically modified to reduce the possibility of damage to the fuel system and engine.

Warning: Raw vegetable oil or other unmodified bio-oils or fats are not biodiesel and must not be used in your vehicle, as they could damage the fuel system and engine.

WHAT NOT TO USE

Do not use homemade biodiesel in your vehicle, since its quality cannot be verified by approved scientific methods. Home test kits are not approved scientific methods.

Warning: Any damage caused by raw, unmodified, or homemade biodiesel would not be covered by the vehicle warranty.

BIODIESEL BLENDS

It is acceptable to use diesel fuel containing up to 20 percent biodiesel (B20). The diesel fuel portion of the blend must meet the same specification as other fuels used in your vehicle (ASTM D975-grades number 2-D or number 1-D S15, commonly known as Ultra-Low-Sulfur Diesel), and the biodiesel used for making this fuel must meet the latest version of ASTM Specification D6751.

Warning: Do not use blends containing more than 20 percent biodiesel. Any engine, fuel system, or exhaust aftertreatment system damage caused by the use of such blends would not be covered by the vehicle warranty.

Biodiesel quality — Blends containing more than 5 percent and up to 20 percent biodiesel must meet the latest version of ASTM Specification D7467 (biodiesel blend, B6–B20). Biodiesel is an emerging product, and its quality can vary widely. To reduce the risk of poor-quality fuel, we recommend that biodiesel users purchase biodiesel blends from a BQ-9000 certified marketer. A listing of certified marketers can be found at www.bq-9000.org. If there are questions about the biodiesel-containing fuels you are using, contact your fuel supplier.

PUMP LABELING

Retail pumps dispensing blends containing up to 5 percent biodiesel (B5) are not required to be labeled with the concentration of biodiesel. Blends up to B5 must meet ASTM D975 (Grades No. 2-D or No. 1-D S15, commonly known as Ultra-Low-Sulfur Diesel).

· Pumps dispensing more than 5 percent and up to 20 percent biodiesel are required to be labeled with the concentration of biodiesel.



What Diesel Fuel To Use In The U.S. (Continued)

Warning: Certain driving patterns are not compatible with biodiesel use. It is the operator's responsibility to ensure that biodiesel in the vehicle's tank does not lead to engine, fuel system, or exhaust aftertreatment system damage.

We neither encourage nor discourage the use of biodiesel blends for vehicles. As a renewable fuel, biodiesel provides some environmental benefits. However, biodiesel has unique properties and needs to be handled differently from diesel fuel. Its use presents additional risks and may not be appropriate in all situations. Certain vehicle operating modes increase these risks and should be avoided. Read further to determine if your driving habits are compatible with the use of biodiesel.

- Biodiesel fuel quality degrades with time and exposure to high temperatures much more quickly than conventional diesel fuel; more frequent refueling provides the best opportunity to ensure a supply of fresh fuel

Owners who have very low fuel usage or who have vehicles stored for extended periods of time should avoid the use of biodiesel. Storage at hot ambient temperatures will accelerate biodiesel degradation.

- Biodiesel gels sooner than conventional diesel fuel at cold temperatures, and biodiesel fuel requires proper blending for wintertime operation

Fuels improperly blended for cold-temperature operation may result in restricted fuel filters and degraded vehicle performance. Your vehicle is equipped with a fuel heating system to provide a level of protection against filter plugging from gelling (waxing) of conventional diesel fuel and biodiesel blends. However, the system will not prevent all cases of plugged filters if the operating temperature is far below the temperature at which gelling or waxing of the fuel occurs (cloud point).

- Vehicles operated for extended periods of time on conventional diesel fuel and then switched to biodiesel blends may experience premature fuel filter clogging and require more frequent fuel filter service

- With long-term use of conventional diesel fuel, gum and varnish may be deposited within the tank and fuel system; these deposits, while not problematic with the use of conventional diesel fuel, may become loosened with a sudden switch to biodiesel blends and cause fuel filter plugging

Vehicles equipped with a fuel filter restriction monitoring system will alert you if the fuel filter requires service, but it will not prevent damage caused by poor-quality biodiesel.

- Use of biodiesel blends will degrade the performance of your vehicle's water separator and, in the event of water contamination of the fuel, will increase the risk of damage to the fuel system

REFUELING

Diesel fuel can foam when you fill the tank. This can cause the automatic pump nozzle to shut off, even though the tank is not full. If this happens, wait for the foaming to stop, and then try filling the tank more slowly. See "Filling the Tank."

Warning: Heat coming from the engine can cause the fuel to expand and force the fuel out of the tank. If something ignites the fuel, a fire could start and people could be burned. To help avoid this, try filling the tank more slowly and fill the fuel tank only until the automatic nozzle shuts off. Do not try to top it off.



When Should I Have My Engine Oil Changed?

It doesn't sound like a complicated question, but some have made it out to be. Your maintenance service provider may say every 3,000 miles, and your fleet management literature might say every 5,000. Advertisement campaigns by major oil companies are promoting 7,500, or even 15,000. Yes, it can become complicated.

Upwards of 95 percent of GM vehicles manufactured in the last 5 to 7 years are equipped with an onboard computer system that lets you know when to change the engine oil and filter. This patented technology is based on a complex algorithm, including key factors such as engine revolutions, engine temperatures, driving conditions, vehicle specifications, and high-quality motor oils (starburst symbol designations).

Mileage is not part of the equation. Therefore, when the system has calculated that oil life has been diminished, it will indicate that an oil change is necessary. The actual accumulated mileage on your vehicle can vary considerably. This can occur at 3,000 miles or less, or as high as 10,000 or more.

When change is necessary, a CHANGE ENGINE OIL SOON message will appear on the instrument cluster. Change your oil as soon as possible, within the next 600 miles. It is possible that if you are driving under the best conditions, the Oil Life Monitoring System may not indicate that an oil change is necessary for over a year. However, your engine oil and filter must be changed at least once annually.

Also, please note that for the Oil Life Monitoring System to work properly, you must reset the system every time the oil is changed. Refer to your Owner's Manual to determine the correct procedure for your vehicle.

If the system is ever reset accidentally, you must change your oil at 3,000 miles since your last oil change.

Because of potential extended oil change intervals, it is very important to check your oil regularly and keep it at the proper level.





Is There A Way To Effectively Maintain My Windshield Wiper Blades?

WINDSHIELD WIPER PERFORMANCE, CLEANING INSTRUCTIONS, AND MAINTENANCE

Most concerns about windshield wiper performance are the result of dirty wiper blades, damaged wiper blades, or worn-out blades that are continuing to be used beyond their useful life. Depending on environmental conditions, wiper blades can have dramatic differences in life span. Here are some tips and guidelines to maximize wiper performance, to avoid damage to the blades, and to avoid unnecessary replacements.

Many wiper blades are being replaced under warranty with inspection showing there is nothing wrong with the returned blades other than a buildup of dirt. Additionally, review the information in your Owner's Manual.

INSPECTION AND CLEANING

Scheduled Maintenance

Inspect your wipers' rubber blades every 4–6 months or 7,500 miles for wear, cracking, or contamination. Clean the windshield and the rubber wiper blades (using the procedure below) if the blades are not clearing the glass satisfactorily. If this does not correct the problem, then replace the rubber elements.

CLEANING PROCEDURE

Warning: Avoid getting windshield washer fluid on your hands. Wear rubber gloves or avoid direct contact with washer fluid. Do not use gasoline, kerosene, or petroleum-based products to clean wiper blades.

- Clean the rubber blades using a lint-free cloth or paper towel soaked with windshield washer fluid or a mild detergent. You should see significant amounts of dirt being removed on the cloth.
- Be sure to wash the windshield thoroughly when you clean the blades. Bugs, road grime, sap, and a buildup of car wash/wax treatments may additionally cause wiper streaking.
- For a larger-scale buildup on the windshield, apply a nonabrasive cleanser such as Bon Ami¹ (www.faultless.com) with a wet sponge, being sure to use plenty of water to avoid scratching the glass. Flush the surface and body panels completely.

- For day-to-day exterior glass cleaning and to maintain a streak-free appearance, we suggest Vehicle Care Glass Cleaner, P/N 89021822 (in Canada, 992727). This product is an easy-to-use foaming cleanser that quickly removes dirt and grime from glass surfaces.
- Interior glass should be cleaned with plain, clean water to eliminate any film or haze on the window and to help prevent fogging, a major customer dissatisfier. Refer to Corporate Bulletin Number 03-00-89-006D for more information. The New-Vehicle Pre-Delivery Inspection form also recommends using plain water to clean interior glass.

AVOIDING WIPER DAMAGE

The following are major contributors to wiper damage. Some of these you can control, while others are environmental concerns.

- Extremely dusty areas (such as driving on dirt roads) may cause the wipers' rubber edges to wear quickly and unevenly.
- Sand and salt used on roads for increasing winter traction and ice control will cause the wiper blades to wear more quickly. Areas with significant snowfall require more frequent blade replacements. Heat and time may cause the rubber blades to take a "permanent set," resulting in the rubber not flexing and turning over uniformly. This condition may result in streaking and/or unwiped areas. Rubber blades are easily cut or torn when using ice scrapers. Likewise, pulling blades up off a frozen windshield can tear the rubber. Exercise caution when clearing ice and snow.
- Using your wipers to "wear through" frost and ice, instead of allowing the defrosters to melt the ice, can dull, nick, or tear the rubber blades. Banging wipers on the glass to remove ice and snow may cause the blade to bend, dislodging the rubber and causing potential scratching of the windshield.
- Ice can form in the pin joints of the wipers, which can cause streaking and unwiped areas. To remove ice from pin joints, compress the blade and rubber edge with your hand to loosen the frozen joints. Consider using winter blades that have a rubber cover to avoid this condition.

¹We believe this material to be reliable. There may be additional manufacturers of such material. General Motors does not endorse, indicate any preference for, or assume any responsibility for the products or equipment from these firms or any such items which may be available from other sources.



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