



Service Bulletin

INFORMATION

Subject: Usage of E85 Fuel in GM Vehicles

Models: 2015 and Prior GM Passenger Cars and Trucks
Vehicles Equipped with E85 Capability

This Bulletin has been revised to add 2015 Model Year vehicles and engines with E85 capability. Please discard Corporate Bulletin Number 05-06-04-035D.

Customer Interest in E85 Fuel

Vehicles manufactured for ethanol use are commonly called flexible fuel vehicles (FFVs) and include a wide range of vehicles, such as compact, midsize, sport utility and pickup trucks.

As the retail price of gasoline increases, some customers at various refueling stations are seeing substantial price differentials between regular unleaded gasoline and E85, where E85 is selling for significantly less than regular unleaded gasoline. The result of this is that some customers have inquired if they are able to use E85 fuel in non-E85 compatible vehicles.

Only FFVs designed for use with E85 should use E85 blended fuel. E85 compatibility is designated for vehicles that are certified to run on a blend of up to 85% ethanol and 15% gasoline. All General Motors Model Year 2011 and older non-FFV gasoline vehicles are designed to run on fuel that contains no more than 10% ethanol. Starting in Model Year 2012, GM non-FFV United States vehicles are capable of using gasoline with up to 15% ethanol. These requirements are explained in the vehicle Owner Manual.

Using fuel containing greater than 10% or 15% ethanol, as indicated in the Owner Manual in non-E85 designated vehicles can cause driveability issues, malfunction indicator lamp (MIL) illumination, engine damage, increased fuel system corrosion and various driver information center (DIC) messages may also display.

Diesel engines are not E85 compatible.

Using E85 Fuels in Non-Compatible Vehicles

Fueling non-E85 designated vehicles with E85, or with fuels where the concentration of ethanol exceeds the Owner Manual indicated maximum of 10% or 15% may result in one or more of the following:

- Lean driveability concerns such as hesitation, sag and/or possible stalling.
 - MIL illumination due to the setting of a diagnostic trouble code (DTC).
 - Fuel Trim DTC P0171 and/or P0174 may set.
 - Misfire DTC P0300 may set.
 - Heated oxygen sensor (HO2S) or oxygen sensor (O2S) DTCs may set.
 - A Traction Control, Stability System or ABS lamp may illuminate or a message may display in the DIC (if equipped).
 - Harsh and/or firm transmission shifts due to the transmission defaulting to maximum line pressure.
 - Fuel system component corrosion and/or engine mechanical component degradation.
- ⇒ If the Service Personnel suspects that a non-E85 designated vehicle brought in for service has been fueled with E85, the fuel in the vehicle's tank should

be checked for alcohol content using Special Tool J-44175-A Fuel Composition Tester, or CH-44175-A Fuel Composition Tester. If the ethanol content exceeds the Owner Manual indicated maximum of 10% or 15%, the fuel should be drained and the vehicle refilled with gasoline, preferably one of the Top Tier brands. A list of marketers providing Top Tier Detergent Gasoline can be found at this website: www.toptiergas.com

E85 Compatible Vehicles



Notice: General Motors started putting yellow gas caps on E85 FlexFuel Vehicles (FFVs) as of Model Year 2006. If the customer is unsure whether their vehicle is E85 capable, advise them to look on their vehicle for a yellow gas cap.

The following is a list of E85 compatible vehicles produced by General Motors:

- 2000–2002 S-Series pickups with 2.2L — RPO L43
- 2002–2005 Fullsize Pickups and Utilities with 5.3L — RPO L59
- 2006 Avalanche, Silverado, Suburban, Tahoe with 5.3L — RPO L59
- 2006 Sierra, Yukon, Yukon XL with 5.3L — RPO L59
- 2006–2007 Impala, Monte Carlo with 3.5L — RPO LZE
- 2007 Avalanche, Suburban, Tahoe with 5.3L — RPO LMG, LC9
- 2007 Express, Savana with 5.3L — RPO L59
- 2007 Yukon, Yukon XL with 5.3L — RPO LMG, LC9
- 2007 Relay, Terraza, Uplander, Montana SV6 (Canada Only) with 3.9L — RPO LGD
- 2008 Impala with 3.5L — RPO LZE, 3.9L — RPO LZG
- 2008 Montana SV6, Uplander with 3.9L — RPO LGD
- 2008 Express, Savana with 5.3L — RPO LMF
- 2008 Avalanche, Suburban, Yukon XL, Silverado, Sierra with 5.3L — RPO LC9
- 2008 Avalanche, Suburban, Tahoe, Yukon, Yukon XL, Silverado Sierra with 5.3L — RPO LMG
- 2009 HHR with 2.2L — RPO LE8, 2.4L — RPO LE9
- 2009 Impala, Malibu, G6 with 3.5L — RPO LZE
- 2009 Impala, Lucerne with 3.9L — RPO LGD
- 2009 Express, Savana with 5.3L — RPO LMF

- 2009 Avalanche, Suburban, Yukon, Yukon XL, Silverado, Sierra, Tahoe with 5.3L — RPO LC9 or 5.3L — RPO LMG
- 2009 Escalade, Escalade ESV, Escalade EXT, Yukon Denali, Yukon XL Denali, Sierra Denali, Sierra SLT, Silverado LTZ, Tahoe LTZ, Hummer H2, H2 SUT with 6.2L — RPO L9H
- 2010 Malibu, HHR with 2.4L — RPO LE9
- 2010 Impala, Malibu with 3.5L — RPO LZE
- 2010 Impala, Lucerne with 3.9L — RPO LGD
- 2010 Express, Savana, Silverado, Sierra with 4.8L — RPO L20
- 2010 Silverado, Suburban, Tahoe, Yukon, Yukon XL with 5.3L — RPO LC9
- 2010 Express, Savana with 5.3L — RPO LMF
- 2010 Express (Passenger), Savana (Passenger) with 6.0L — RPO L96
- 2010 Avalanche, Suburban, Tahoe, Yukon, Yukon XL, Silverado, Sierra with 5.3L — RPO LMG
- 2010 Escalade, Escalade ESV, Escalade EXT, Yukon Denali, Yukon XL Denali with 6.2L — RPO L94
- 2010 Silverado LT, Silverado LTZ, Sierra Denali, Sierra SLE, Sierra SLT, Yukon XL with 6.2L — RPO L9H
- 2011 HHR with 2.2L — RPO LE8
- 2011 HHR, Malibu with 2.4L — RPO LE9
- 2011 Impala with 3.5L — RPO LZE
- 2011 Impala, Lucerne with 3.9L — RPO LGD
- 2011 SRX with 3.0L — RPO LF1
- 2011 Equinox, Terrain with 3.0L — RPO LFW
- 2011 Express, Savana, Silverado, Sierra with 4.8L — RPO L20
- 2011 Escalade, Escalade ESV, Escalade EXT, Yukon Denali, Yukon XL Denali with 6.2L — RPO L94
- 2011 Silverado LT, Silverado LTZ, Sierra SLE, Sierra SLT with 6.2L — RPO L9H
- 2011 Avalanche, Silverado, Suburban, Sierra, Yukon XL with 5.3L — RPO LC9
- 2011 Express, Savana with 5.3L — RPO LMF
- 2011 Avalanche, Silverado, Suburban, Tahoe, Sierra, Yukon, Yukon XL with 5.3L — RPO LMG

Tip: Starting with Model Year 2012 vehicles, FlexFuel vehicles may also be identified by the following Vehicle Fuel RPO Codes:

- **FHO:** Vehicle Fuel — E10 (10% ethanol or less)
- **FHS:** Vehicle Fuel — E85 (85% ethanol max.)
- 2012 Malibu with 2.4L — RPO LE9
- 2012 Regal, Verano with 2.4L — RPO LEA
- 2012 Regal CXL with 2.0L — RPO LHU
- 2012 Caprice PPV, Impala, Impala Police Vehicle, LaCrosse with 3.6L — RPO LFX
- 2012 Caprice PPV with 6.0L — RPO L77
- 2012 Equinox, Terrain with 2.4L — RPO LEA or 3.0L — RPO LFW
- 2012 SRX with 3.6L — RPO LFX
- 2012 Express, Silverado, Savana, Sierra, Sierra SL, Sierra SLE with 4.8L — RPO L20
- 2012 Silverado, Silverado LS, Silverado LT, Suburban, Sierra, Sierra SL, Sierra SLE, Yukon XL with 5.3L — RPO LC9
- 2012 Express, Savana, with 5.3L — RPO LMF
- 2012 Avalanche, Silverado, Silverado LT, Silverado LTZ, Suburban, Tahoe, Sierra, Sierra SLE, Sierra SLT, Yukon, Yukon XL with 5.3L — LMG

- 2012 Express, Silverado HD, Suburban, Savana, Sierra HD, Yukon XL with 6.0L — L96
- 2012 Escalade, Escalade ESV, Escalade EXT, Yukon Denali, Yukon XL Denali with 6.2L — L94
- 2012 Silverado LT, Silverado LTZ, Sierra SLE, Sierra SLT with 6.2L — RPO L9H
- 2013 Regal CXL, Regal GS, Verano with 2.0L — RPO LHU
- 2013 Verano with 2.4L — RPO LEA
- 2013 ATS Sedan, Caprice PPV, Impala, Impala Police Vehicle, LaCrosse with 3.6L — RPO LFX
- 2013 Caprice PPV with 6.0L — RPO L77
- 2013 Captiva Sport (Fleet Only), Equinox, Terrain with 2.4L — RPO LEA
- 2013 Captiva Sport (Fleet Only) with 3.0L — LFW
- 2013 Equinox, SRX, Terrain with 3.6L — RPO LFX
- 2013 Express, Silverado, Savana, Sierra, Sierra SL, Sierra SLE with 4.8L — L20
- 2013 Silverado, Silverado LS, Silverado LT, Suburban, Sierra, Sierra SL, Sierra SLE, Yukon XL with 5.3L — RPO LC9
- 2013 Express, Savana with 5.3L — RPO LMF
- 2013 Avalanche, Silverado, Silverado LT, Silverado LTZ, Suburban, Tahoe, Sierra, Sierra SLE, Sierra SLT, Yukon, Yukon XL with 5.3L — RPO LMG
- 2013 Express, Silverado HD, Suburban, Savana, Sierra HD, Yukon XL with 6.0L — RPO L96
- 2013 Escalade, Escalade ESV, Escalade EXT, Yukon Denali, Yukon XL Denali with 6.2L — RPO L94
- 2013 Silverado LT, Silverado LTZ, Sierra SLE, Sierra SLT with 6.2L — RPO L9H
- 2014 Caprice PPV, Impala, Impala Limited (Fleet Only), Impala Limited PPV, LaCrosse with 3.6L — RPO LFX
- 2014 Caprice PPV with 6.0L — RPO L77
- 2014 Captiva Sport (Fleet Only), Equinox, Terrain with 2.4L — RPO LEA
- 2014 Equinox, Terrain with 3.6L — RPO LFX
- 2014 Express, Savana with 4.8L — RPO L20
- 2014 Suburban, Yukon XL with 5.3L — RPO LC9
- 2014 Express, Savana with 5.3L — RPO LMF
- 2014 Suburban, Tahoe, Yukon, Yukon XL with 5.3L — RPO LMG
- 2014 Express, Silverado HD, Savana, Sierra HD with 6.0L — RPO L96
- 2014 Escalade, Escalade ESV, Yukon Denali, Yukon XL Denali with 6.2L — RPO L94
- 2014 Silverado, Sierra with 4.3L — RPO LV3 or 5.3L — RPO L83
- 2015 Captiva (VIN L) Equinox, Terrain with 2.4L — RPO LEA
- 2015 Captiva (VIN L) with 3.0L — RPO LFW
- 2015 Caprice PPV, Impala, Impala Limited (Fleet Only), Impala Limited PPV, LaCrosse with 3.6L — RPO LFX
- 2015 Caprice PPV with 6.0L — RPO L77
- 2015 Silverado, Sierra with 4.3L — RPO LV3
- 2015 Silverado, Sierra, Suburban, Tahoe, Tahoe PPV, Yukon, Yukon XL with 5.3L — RPO L83
- 2015 Express, Savana, Silverado, Sierra with 6.0L — RPO L96

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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