

HONDA

Emergency Response Guide

Honda Natural Gas Vehicles

CIVIC

**This publication covers these
Civic Natural Gas Models:**

- 1998-2000
- 2001-2005
- 2006-2011
- 2012



Introduction

This booklet has been prepared to help emergency response professionals identify Honda CNG (compressed natural gas) vehicles and respond safely to incidents involving these vehicles.

Part 1 presents general information and recommendations that apply to all Honda CNG vehicles produced through the 2012 model year. Part 2 contains model-specific information for each of the four models: the 1998-2000 Civic CNG, the 2001-2005 Civic CNG, the 2006-2011 Civic CNG, and the 2012 Civic CNG. This guide will be updated or replaced as Honda continues to introduce new CNG vehicles.

We hope this publication provides the kind of information you need. This booklet is available for reference or downloading at <https://techninfo.honda.com>. If you have any questions or wish to order additional printed copies please contact your local Honda dealer or Honda Automobile Customer Service at 1-800-999-1009.

American Honda wants to thank you for your concern and efforts in protecting Honda customers and the general public.

Contents

Part 1: Information for all Honda Natural Gas Vehicles

Vehicle Description

Type, Size, and Appearance	2
Fuel Tank	3
High-pressure CNG Line	3
Engine	3
Battery	3

Built-In Safety Features

Occupant Protection Features	4
CNG Safety Features	4
CNG Manual Shutoff Valve	5

Potential Hazards

Compressed Natural Gas	6
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Emergency Procedures

Incidents Involving Fire	7
Damaged Vehicle	7
Best Method for Stopping Fuel Flow and Turning Off the Engine	8
Second-Best Method for Stopping Fuel Flow and Turning Off the Engine	8
Least-Desirable Method for Stopping Fuel Flow and Turning Off the Engine	10
Extricating Occupants	11

Towing	12
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Part 2: Model Specific Information

1998-2000 Civic CNG	13
2001-2005 Civic CNG	15
2006-2011 Civic CNG	17
2012 Civic CNG	19

Type, Size, and Appearance

The Civic GX (Natural Gas) is a four-door, four-passenger car with a conventional internal combustion engine fueled by compressed natural gas (CNG). All four models are nearly identical in appearance to their gasoline-powered counterparts except for labels identifying them as powered by CNG.

All 1998-2012 Civic CNG vehicles have a diamond label on the right rear of the vehicle that identifies it as being powered by compressed natural gas.

Along with the distinctive diamond CNG label, 1998-2011 Civic GX vehicles have a NGV (Natural Gas Vehicle) label on the lower left and right rear doors.

The 2012 model has an emblem on the right rear of the vehicle, just above the diamond CNG label.



CNG Label

1998-2011 Models



NGV Label

2012 Model



CNG Label



Fuel Tank Removable Divider

Fuel Tank

The fuel tank is in the trunk, behind a removable divider that separates it from the cargo area. The 36.6-inch-long (927 mm) and 18-inch-diameter (460 mm) tank is securely mounted between two frames attached to the trunk floor. The tank is made of flame-resistant materials and certified to have passed rigid dropping, bullet-impact, and crash tests.

The natural gas in the tank is compressed up to 3,600 psi. Fuel capacity is equivalent to 8 gallons of gasoline.



High-pressure CNG Line

High-pressure CNG Line

Compressed natural gas (CNG) flows from the fuel tank to the engine through a stainless-steel, high-pressure CNG line that is visible under the driver's side of the car. The high-pressure CNG line is certified to an internal pressure of 10,000 psi.



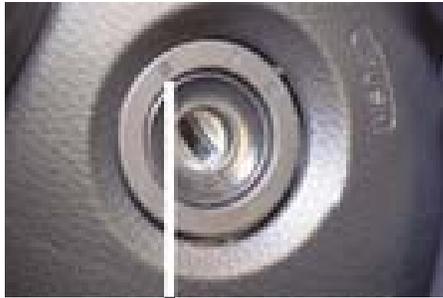
Engine

In the engine compartment, CNG pressure is reduced to about 40 psi. At this pressure, the CNG flows into the engine through the four fuel injectors.



Battery

A conventional 12-volt battery is located under the hood. This battery powers the lights, audio system, airbags, seat-belt tensioners, and other standard electronics. It also powers a solenoid valve inside the fuel tank (see [page 4](#)).

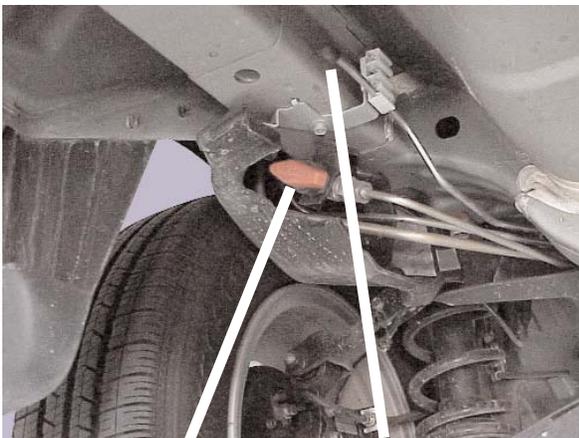


OFF

Occupant Protection Features

All Civic GX's have lap/shoulder belts and dual front airbags. The 2001 and later models add pyrotechnic seat belt tensioners and side airbags for the driver and front passenger. The 2006 and later models add side-curtain airbags. To disable the airbags and tensioners, the ignition switch must be in the LOCK (0) position for at least 3 minutes, or the engine must be stopped and the 12 volt battery must be disconnected for at least 3 minutes.

2001-2005 Model



CNG Manual
Shutoff Valve

Pressure
Relief Outlet

CNG Safety Features

The fuel tank has an internal solenoid valve that automatically shuts off the flow of CNG whenever the ignition switch is in the LOCK (0) or ACCESSORY (I) position, or when one of several sensors in the fuel system detects a significant fuel leak.

The fuel tank also has an internal pressure relief device to release all CNG if the temperature in the tank exceeds 216°F (102°C). When this device is activated, the CNG is routed out of the car through a pressure relief outlet under the left rear corner of the vehicle.

2001-2005 Model



CNG Manual Shutoff Valve

CNG Manual Shutoff Valve

The Civic GX has a CNG manual shutoff valve to stop the flow of CNG from the fuel tank. The red handle of the valve is located near the left rear tire and the splash guard on 1998-2005 models and in front of the left rear tire on 2006 and later models.

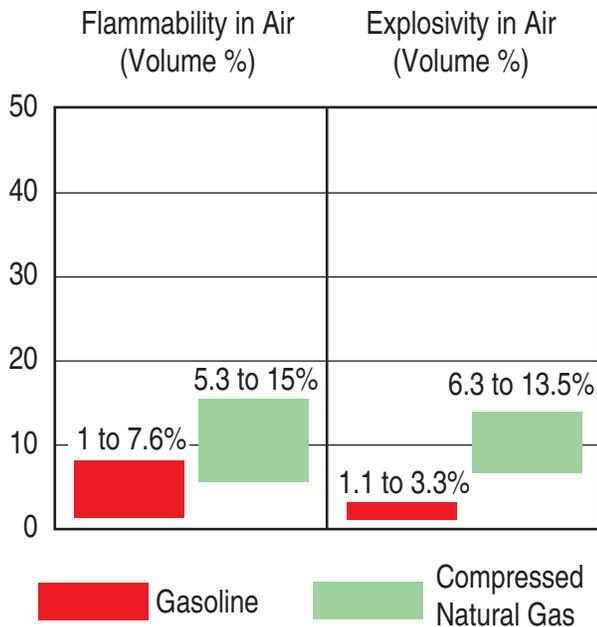
To access the handle, reach around the front or rear of the left rear wheel, depending on the model. To stop the flow of CNG, turn the handle one-quarter turn clockwise.

The Civic GX (Natural Gas) does not present any greater hazards than a conventional gasoline powered vehicle. Each of the four models have performed very well in crash tests performed according to the National Highway Traffic Safety Administration standards. As a fuel, CNG also has a long record of safe use in private, corporate, and government vehicles.

2006-2011 Model



CNG Manual Shutoff Valve



Compressed Natural Gas

The CNG used in the Civic GX is a nontoxic gas that cannot spill and cannot contaminate the ground water.

Like other fuels, however, CNG is both flammable and explosive. As illustrated in the graph, when mixed with air, CNG has much higher flammability and explosivity limits than gasoline. Its ignition temperature is also very high (1,200°F), twice as high as gasoline.

To reduce the chance of CNG leakage, the Civic GX has many built-in safety features to help contain the fuel, detect a leak, and automatically shut off fuel flow if a leak is detected (see pages 4-5). As with the natural gas used in homes and industry, an odor is added to the CNG that helps you detect a leak before it can become a problem.

Since CNG is much lighter than air, a leak occurring in an open area would quickly rise and dissipate into the atmosphere. In an enclosed space, CNG would collect in the uppermost areas.

Based on discussions with rescue professionals, we recommend that emergency response personnel follow standard procedures developed by their own organization for assessing situations and dealing with potential hazards. Given our knowledge of the Civic GX, we also recommend the procedures outlined in this section.



Incidents Involving Fire

If a Civic GX is involved in a fire, follow standard fire-fighting procedures, but *keep away from the rear of the car until the fire is completely out*. Remember that high temperatures can cause all CNG in the fuel tank to be released through the pressure relief outlet at the left rear of the car (see [page 4](#)).

Damaged Vehicle

Before attempting to rescue occupants from a damaged Civic GX, or before moving it, you must stop the flow of CNG and turn off the engine.

You have three ways to do this, ranging from the best method to the least desirable which are detailed on the following pages.



OFF

Best Method for Stopping CNG Flow and Turning Off the Engine

Turn off the ignition switch, and remove the key.

Turning off the ignition switch automatically shuts off the flow of CNG from the fuel tank. It also turns off power to the airbags and the seat belt tensioners within 3 minutes.

To use this method, turn the ignition switch to the LOCK (0) position, and remove the key. (Removing the key prevents the vehicle from being inadvertently restarted.)

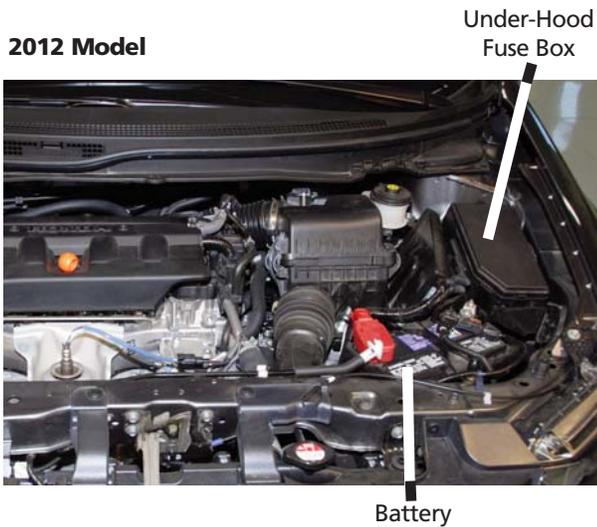
Second-Best Method for Stopping CNG Flow and Turning Off the Engine

Remove the main fuse, and disconnect or cut the battery negative cable.

This method should be used if the ignition switch is in the ON (II) position, and you cannot reach the key, but you can reach under the hood.

Removing the main fuse shuts off the flow of CNG from the fuel tank and turns off the engine. Disconnecting the battery negative cable cuts power to the airbags and the seat belt tensioners within 3 minutes. It also prevents the engine from being restarted.

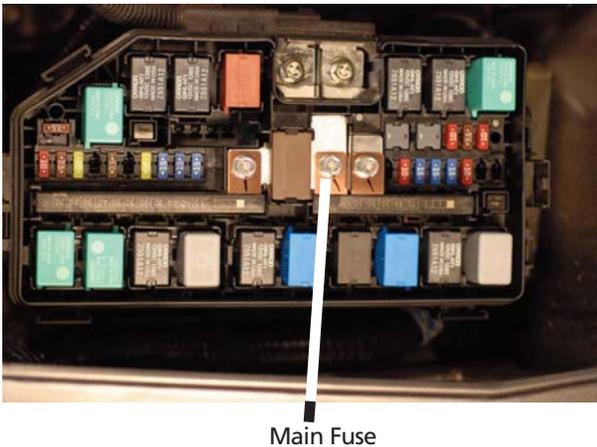
2012 Model



To use this method, do this:

1. Open the hood and locate the under-hood fuse box and the battery.

2012 Model



2. Remove the fuse box cover, and locate the main fuse.
3. Remove the screws from the main fuse with a Phillips screwdriver, then remove the main fuse.

2012 Model

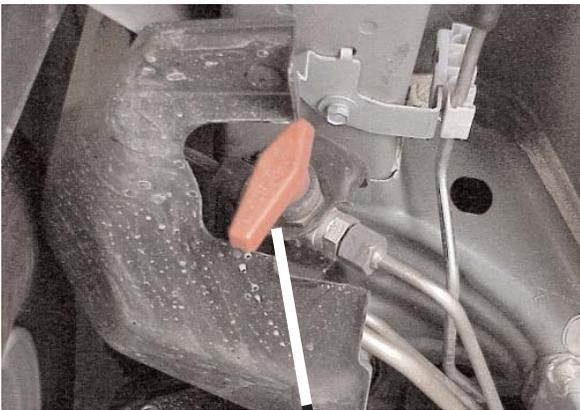


4. Disconnect or cut the negative battery cable.

2001-2005 Model



CNG Manual Shutoff Valve



CNG Manual Shutoff Valve
in Off Position

Least-Desirable Method for Stopping CNG Flow and Turning Off the Engine

Turn off the CNG manual shutoff valve.

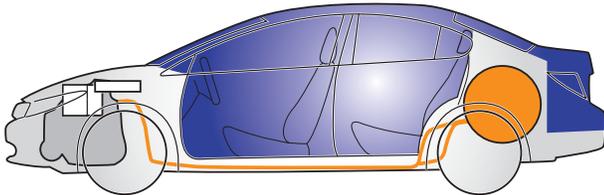
This method does not disable the airbags or the seat belt tensioners. It should be used only if the engine is running, you cannot reach the key, and you cannot reach under the hood.

Turning off the CNG manual shutoff valve immediately stops the flow of CNG from the fuel tank. The engine will stop within 1 minute of turning off the valve.

To use this method, do this:

1. Locate the red handle of the CNG manual shutoff valve. Depending on the model, it is either in front of or behind the left rear tire. [See page 5.](#)
2. Turn the handle one-quarter turn clockwise to stop the flow of CNG.

Example: Cut Zone



Extricating Occupants

If you need to break windows, cut into the body, or use "Jaws of Life"-type equipment to remove occupants from a damaged car, be sure to stay within the cut zone as indicated in **Part 2**.

If you need to move the Civic GX only a short distance, such as to the side of the road, and it can still roll on the ground, the easiest way is to shift the transmission to neutral, then push the car manually.



The preferred method for transporting the Civic GX away from an emergency location is on a flatbed truck.

If a flatbed is not available, wheel-lift equipment may be used, preferably with the front wheels lifted. If the rear wheels must be raised, set the parking brake, and shift the transmission to neutral before towing.

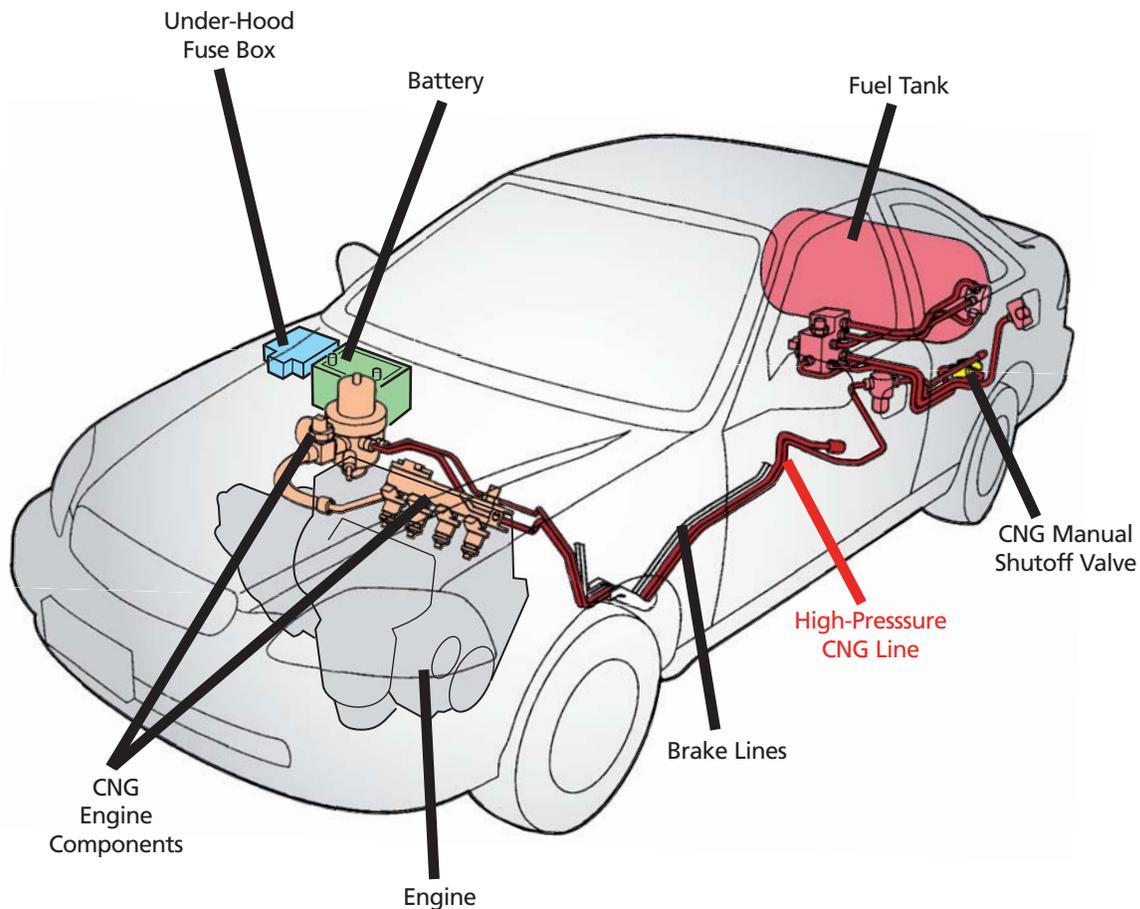
Identifying the Civic CNG



1998-2000 Civic CNG models are 4-door, 4-passenger cars that appear the same as the gasoline powered models except for the distinctive NGV labels on the rear doors.

A blue, diamond-shaped label on the right rear of the 1998-2000 Civic CNG vehicles. Also, identifies it as being passed by CNG.

Key Components



Flammable Fluids



CNG: 100 liters (8 gas gallons equivalent)

Engine Oil: 3.8 quarts (3.6 liters)

Transmission Fluid: 6.2 quarts (5.9 liters)

Airbags

Front Airbags: Driver and Front Passenger

Underhood Components



Fuse Box

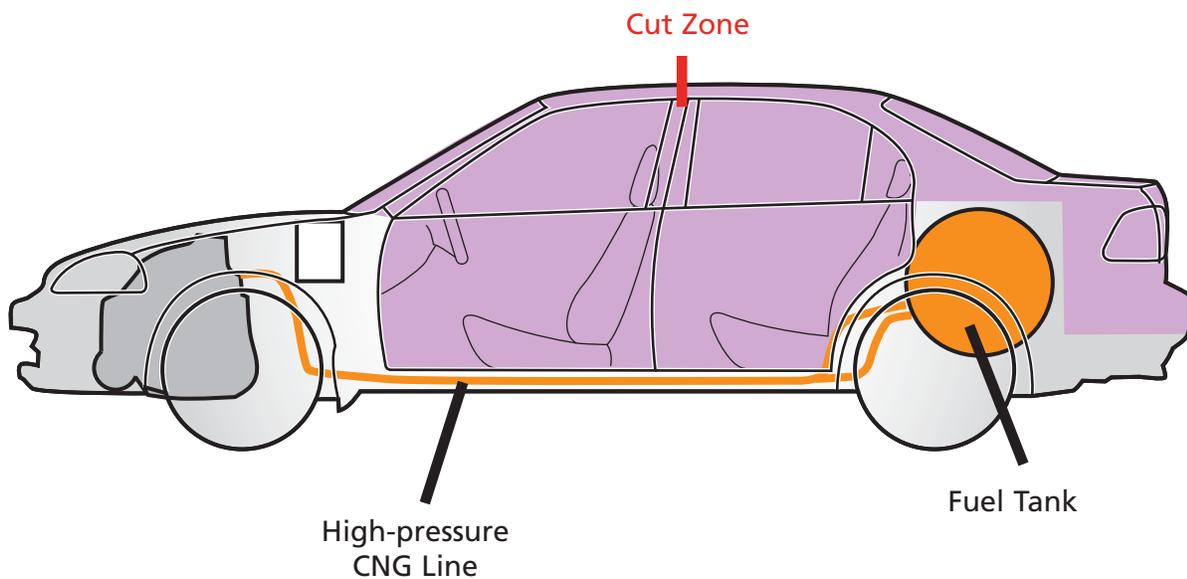
12V Battery

Main Fuse Location



Main Fuse Screws

Cut Zone



Cut Zone

High-pressure
CNG Line

Fuel Tank

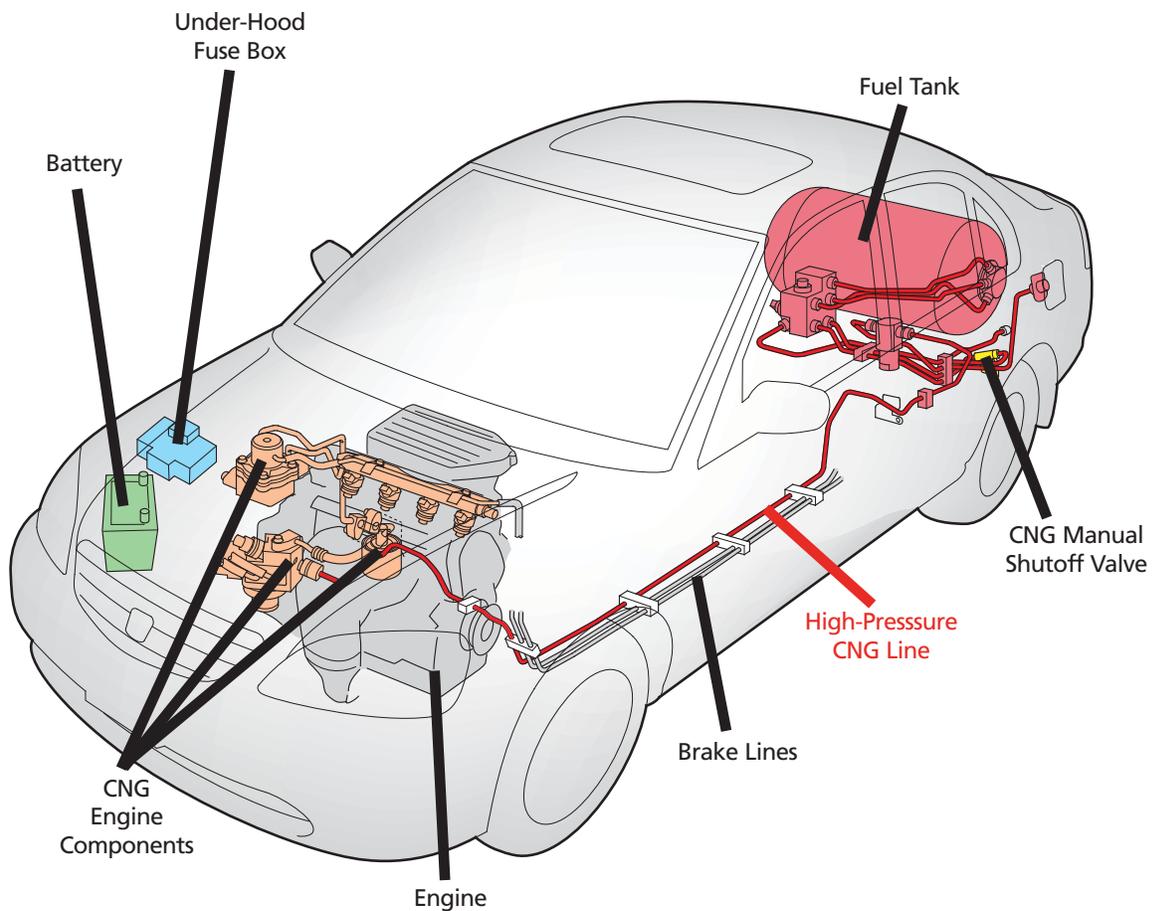
Identifying the Civic CNG



2001-2005 Civic CNG models are 4-door, 4-passenger cars that appear the same as the gasoline powered models except for the distinctive NGV labels on the rear doors.

A blue, diamond-shaped label on the right rear of the 2001-2005 Civic CNG vehicle also identifies it as being powered by CNG.

Key Components



Flammable Fluids



CNG: 100 liters (8 gas gallons equivalent)

Engine Oil: 3.4 quarts (3.2 liters)

Transmission Fluid: 6.0 quarts (5.7 liters)

Airbags

Front Airbags: Driver and Front Passenger

Tensioners: Driver and Front Passenger

Side Airbags: Driver and Front Passenger

Underhood Components



Fuse Box

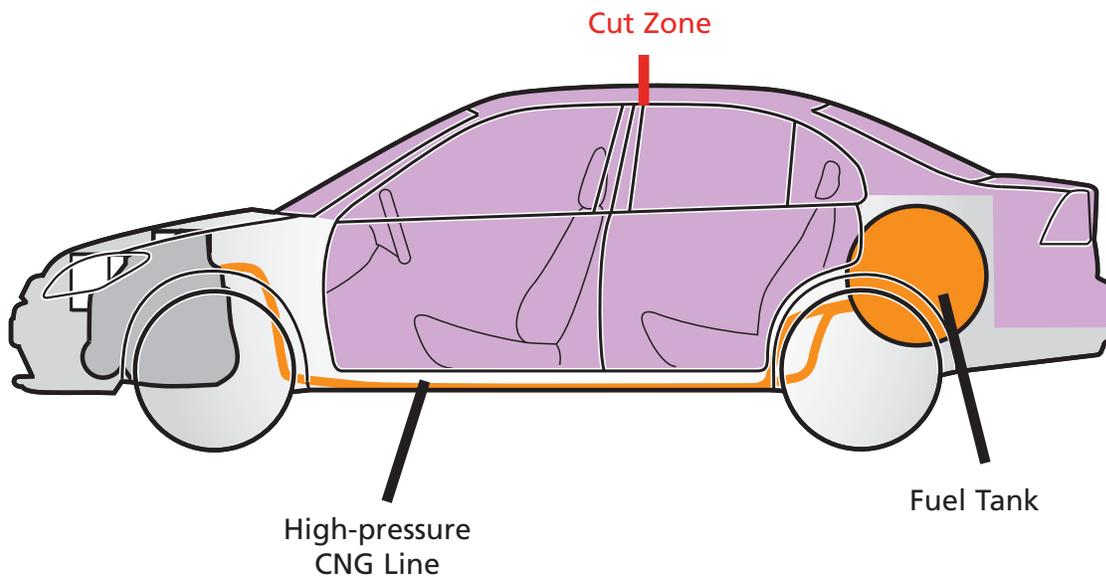
12V Battery

Main Fuse Location



Main Fuse Screws

Cut Zone



Cut Zone

High-pressure
CNG Line

Fuel Tank

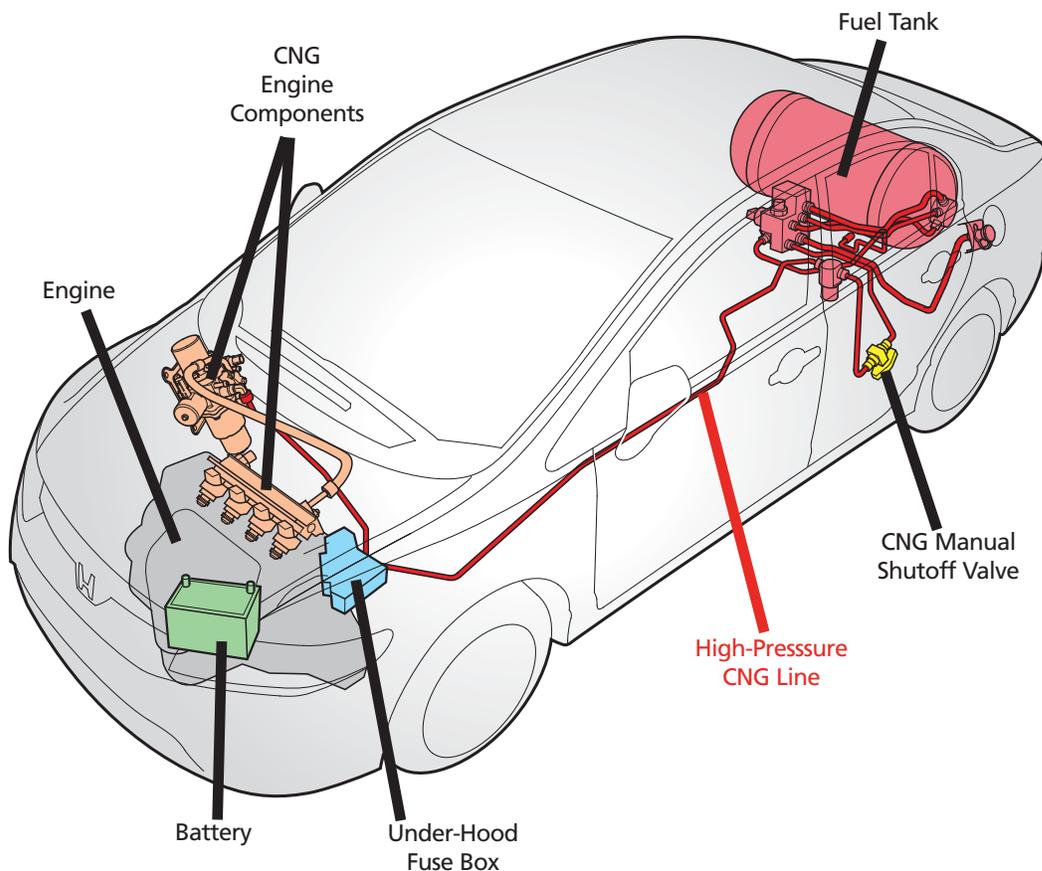
Identifying the Civic CNG



2006-2011 Civic CNG models are 4-door, 5-passenger cars that appear the same as the gasoline powered models except for the distinctive NGV labels on their rear doors.

A blue, diamond-shaped label on the right rear of the 2006-2011 Civic CNG vehicle also identifies it as being powered by CNG.

Key Components



Flammable Fluids



CNG: 100 liters (8 gas gallons equivalent)

Engine Oil: 3.9 quarts (3.7 liters)

Transmission Fluid: 6.2 quarts (5.9 liters)

Underhood Components



12V Battery

Fuse Box



Main Fuse Screws

Airbags

Front Airbags: Driver and Front Passenger

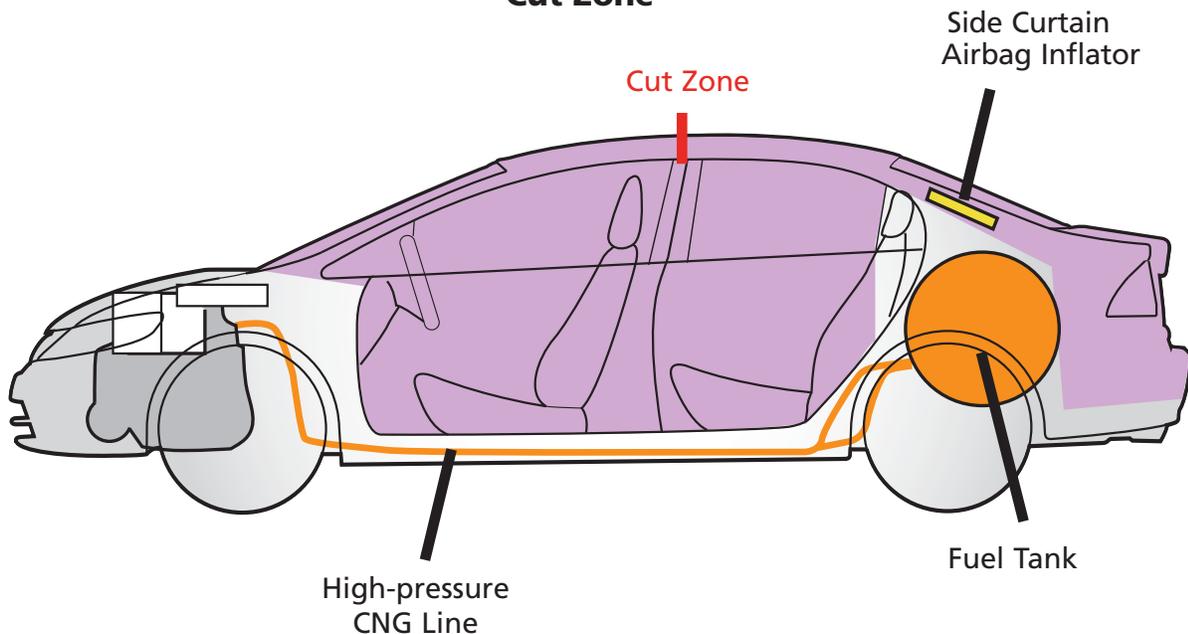
Tensioners: Driver and Front Passenger

Side Airbags: Driver and Front Passenger

Side Curtain Airbags: Driver, Front Passenger, Outer Rear Passengers

Main Fuse Location

Cut Zone



Identifying the Civic CNG

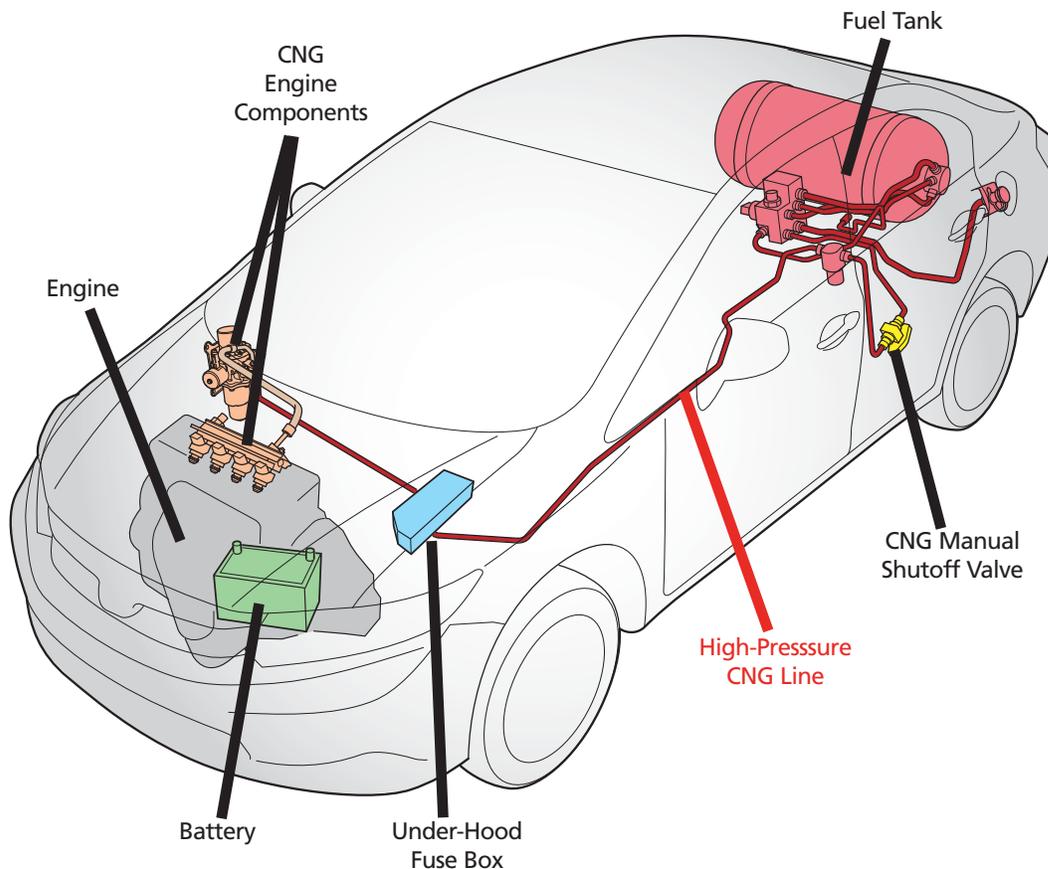


2012 Civic CNG models are 4-door, 5-passenger cars that appear the same as the gasoline powered models.



A blue, diamond-shaped label on the right rear of the 2012 Civic CNG vehicles, and the words "Natural Gas" identify them as being powered by CNG.

Key Components



Flammable Fluids



CNG: 100 liters (8 gas gallons equivalent)

Engine Oil: 3.9 quarts (3.7 liters)

Transmission Fluid: 6.0 quarts (5.7 liters)

Underhood Components



12V Battery

Fuse Box

Airbags



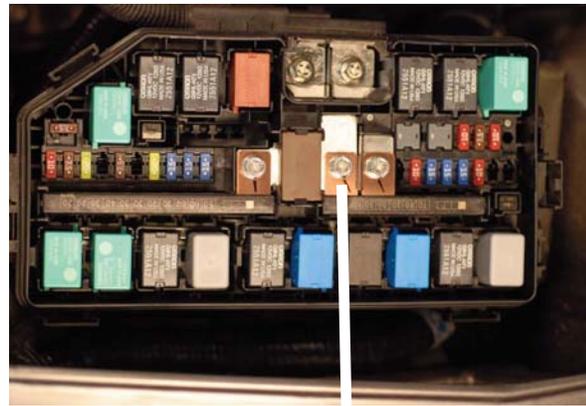
Front Airbags: Driver and Front Passenger

Tensioners: Driver and Front Passenger

Side Airbags: Driver and Front Passenger

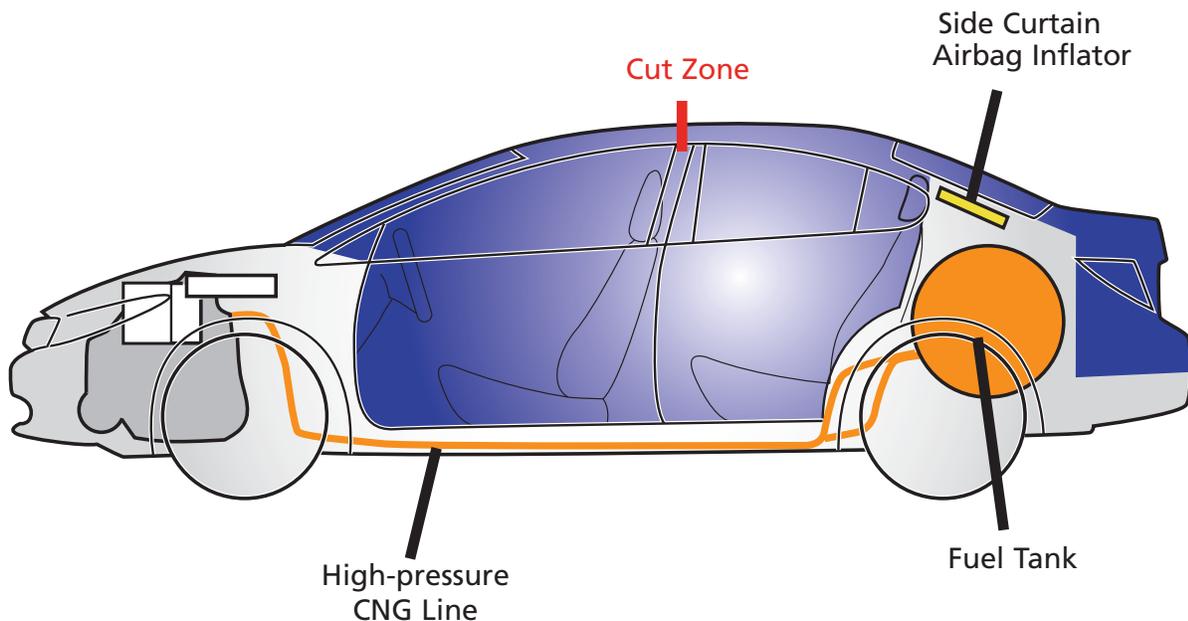
Side Curtain Airbags: Driver, Front Passenger, Outer Rear Passengers

Main Fuse Location



Main Fuse

Cut Zone



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