RAM

2017

RAM TRUCK 2500
COMPRESSED NATURAL GAS

OWNER'S MANUAL
SUPPLEMENT

VEHICLES SOLD IN CANADA

With respect to any Vehicles Sold in Canada, the name FCA US LLC shall be deemed to be deleted and the name FCA Canada Inc. used in substitution therefore.

DRIVING AND ALCOHOL

Drunken driving is one of the most frequent causes of accidents.

Your driving ability can be seriously impaired with blood alcohol levels far below the legal minimum. If you are drinking, don't drive. Ride with a designated non-drinking driver, call a cab, a friend, or use public transportation.

WARNING!

Driving after drinking can lead to an accident. Your perceptions are less sharp, your reflexes are slower, and your judgment is impaired when you have been drinking. Never drink and then drive.

This manual illustrates and describes the operation of features and equipment that are either standard or optional on this vehicle. This manual may also include a description of features and equipment that are no longer available or were not ordered on this vehicle. Please disregard any features and equipment described in this manual that are not on this vehicle.

FCA US LLC reserves the right to make changes in design and specifications, and/or make additions to or improvements to its products without imposing any obligation upon itself to install them on products previously manufactured.

TABLE OF CONTENTS

INTRODUCTION

CONTENTS

INTRODUCTION

This booklet is a supplement to the Ram 1500/2500/3500 Owner's Manual. It contains information relative to the Compressed Natural Gas equipment installed on this vehicle by the manufacturer. You are urged to read this publication and the Owner's Manual carefully.

Following the instructions and recommendations provided herein will help assure safe and reliable operation of your vehicle. After you have read the booklet it should be stored in the vehicle for convenient reference and remain with the vehicle when sold.

When it comes to service, remember that your authorized dealer knows your vehicle best, has factory-trained technicians and genuine MOPAR® parts, and cares about your satisfaction.

THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

CONTENTS

GENERAL INFORMATION

Your vehicle is designed to operate on gasoline or Compressed Natural Gas (CNG). Compressed Natural Gas is made up primarily of methane and is in a gaseous state at all times.

The manufacturer's built vehicles equipped with compressed natural gas fueled engines are identified by the character T in the eighth (engine) position of the Vehicle Identification Number (V.I.N.).

SAFETY WARNINGS

Natural gas is safe and reliable, when used properly. For safe operation of your vehicle, observe the following precautions:

WARNING!

- **Your vehicle fuel system has a maximum capacity of 3,600 pounds per square inch gauge (24.8 MPa) compensated to a temperature of 70° F (21° C). The vehicle should only be filled from refueling equipment incorporating temperature compensation to 70° F (21° C).**

(Continued)

WARNING! *(Continued)*

Exceeding the fuel system capacity may result in fuel system damage and possibly cause injury.

- **Do not attempt to force open or tamper with the fuel fill receptacle. A sudden release of natural gas may occur, possibly causing injury.**
- **Natural gas contains an odorant additive and persistent natural gas odor may indicate a leak. If a persistent natural odor is detected, the cause should be located and corrected immediately by a qualified technician.**
- **Do not park or service your vehicle near any source of excessive heat or open flame. Never use a paint oven to cure any paint repairs. The natural gas storage containers on this vehicle are equipped with pressure relief devices which vent at 230° F (110° C).**
- **Do not paint or under coat any natural gas fuel system components. Unlike gasoline, a compressed natural gas fuel system is under very high pressure even when the engine is not running. To avoid risk of personal injury, any repair to the fuel system should be performed by a qualified technician.**

(Continued)

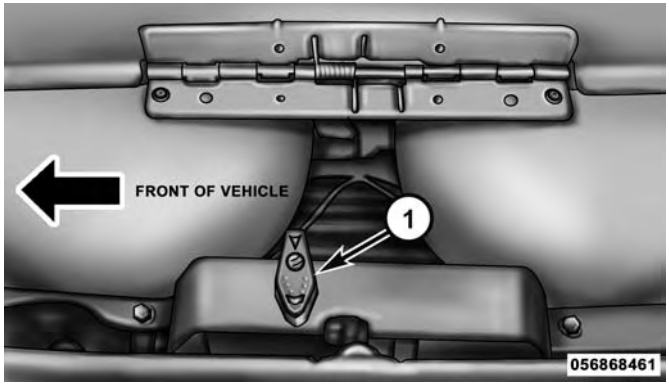
WARNING! ***(Continued)***

- **Natural gas vapors at atmospheric pressure are lighter than air and will rise and disperse in open areas. In enclosed areas, natural gas vapor may collect and form a combustible mixture. If the vehicle is routinely placed in an enclosed area, the area should be provided with adequate ventilation and/or a natural gas detection system. For long term storage, the manual shutoff valve and individual container valves should be closed.**
- **When a vehicle is involved in an accident which has or may have caused damage to the natural gas fuel system, the system must be inspected and pressure tested by a qualified technician before returning the vehicle to service.**
- **Any fuel system component, including the containers, that has been subjected to fire may not be returned to service due to reduced pressure capability.**

MANUAL SHUT OFF VALVE

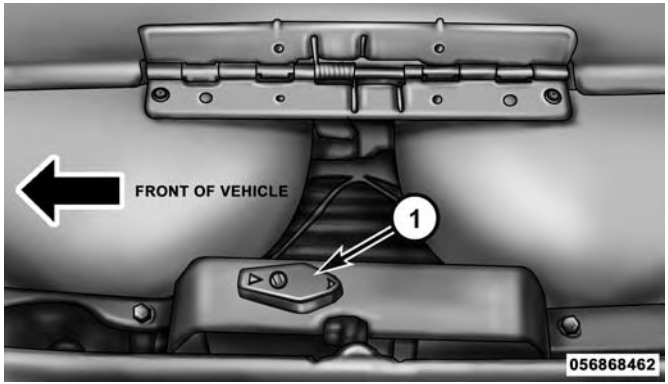
The manual one-quarter turn shut off valve is located inside the protective cover for the tanks. It's location is identified by a label on the top of the cover. This valve isolates the fuel containers from the rest of the fuel system.

Manual Shut Off Valve Access Door



Manual Shut Off Valve

1 — Valve Off



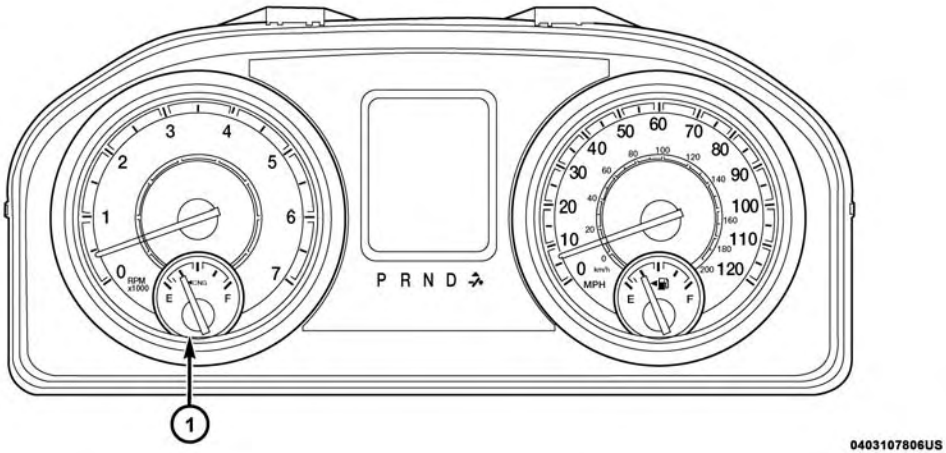
Manual Shut Off Valve

1 — Valve On

UNDERSTANDING YOUR INSTRUMENT PANEL

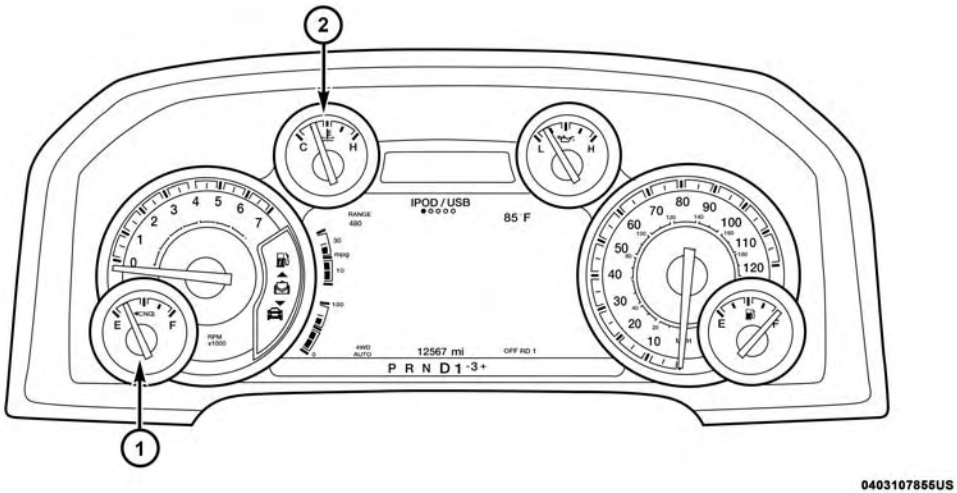
CONTENTS

INSTRUMENT CLUSTER — BASE



Instrument Cluster — Base

INSTRUMENT CLUSTER — PREMIUM



Instrument Cluster — Premium

INSTRUMENT CLUSTER DESCRIPTIONS

1. CNG Gauge

Shows level of CNG (Compressed Natural Gas) in the tanks when ignition switch is in the ON/RUN position.

NOTE: Depending on operating/ambient temperature conditions the CNG gauge may fluctuate.

2. Engine Coolant Temperature

This gauge shows the engine coolant temperature. The gauge pointer will likely show higher temperatures when driving in hot weather, up mountain grades, or in heavy stop and go traffic. If the red Warning Light turns on while driving, safely bring the vehicle to a stop, and turn off the engine. DO NOT operate the vehicle until the cause is corrected.

WARNING!

A hot engine cooling system is dangerous. You or others could be badly burned by steam or boiling coolant. You may want to call an authorized dealer for service if your vehicle overheats. If you decide to look

(Continued)

WARNING! *(Continued)*

under the hood yourself, see "Maintaining Your Vehicle." Follow the warnings under the "Cooling System Pressure Cap" paragraph.

CAUTION!

Driving with a hot engine cooling system could damage your vehicle. If the temperature gauge reads "H" pull over and stop the vehicle. Idle the vehicle with the air conditioner turned off until the pointer drops back into the normal range. If the pointer remains on the "H," turn the engine off immediately and call an authorized dealer for service.

INSTRUMENT CLUSTER DISPLAY

Your vehicle may be equipped with an instrument cluster display, which offers useful information to the driver. With the ignition in the STOP/OFF position, opening/closing of a door will activate the display for viewing, and display the total miles (kilometers) in the odometer. Your instrument cluster display is designed to display important information about your vehicle's systems and features.

Using a driver interactive display located on the instrument panel, your instrument cluster display can show you how systems are working and give you warnings when they aren't. The steering wheel mounted controls allow you to scroll through and enter the main menus and submenus. You can access the specific information you want and make selections and adjustments.

Instrument Cluster Displays

The main display area will normally display the main menu or the screens of a selected feature of the main menu. The main display area also displays "pop up" messages that consist of approximately 60 possible warning or information messages. These pop up messages fall into several categories:

- *Five Second Stored Messages*

When the appropriate conditions occur, this type of message takes control of the main display area for five seconds and then returns to the previous screen. Most of the messages of this type are then stored (as long as the condition that activated it remains active) and can be reviewed from the "Messages" main menu item. As long as there is a stored message, an "i" will be displayed in the instrument cluster display's compass/outside temp line. Examples of this message type are "Right Front Turn Signal Lamp Out" and "Low Tire Pressure."

- *Unstored Messages*

This message type is displayed indefinitely or until the condition that activated the message is cleared. Examples of this message type are "Turn Signal On" (if a turn signal is left on) and "Lights On" (if driver leaves the vehicle).

- *Unstored Messages Until RUN*

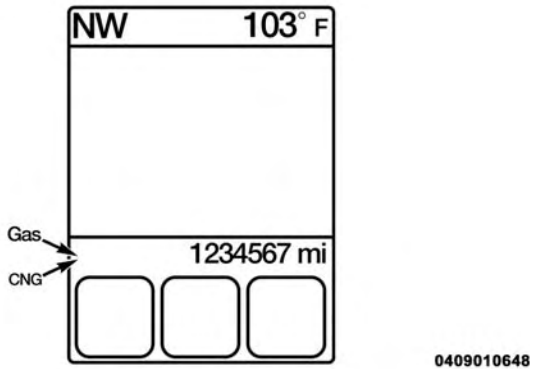
These messages deal primarily with the Remote Start feature. This message type is displayed until the ignition is in the RUN state. Examples of this message type are "Remote Start Aborted - Door Ajar" and "Press Brake Pedal and Push Button to Start."

- *Five Second Unstored Messages*

When the appropriate conditions occur, this type of message takes control of the main display area for five seconds and then returns to the previous screen. An example of this message type is "Automatic High Beams On."

Fuel In Use Display

The odometer line of the instrument cluster display will display the type of fuel in use, this will change between "CNG" and "Gas."



Fuel In Use Display

STARTING AND OPERATING

CONTENTS

STARTING PROCEDURES

Your vehicle uses the same starting procedures as described in the Ram 1500/2500/3500 Owner's Manual. No special starting instructions are required.

NOTE: Periodically the vehicle will automatically switch from operation on CNG to Gasoline for a short duration, depending on conditions. This is done for a number of reasons, including to maintain the freshness and appropriate seasonal blend of gasoline, to ensure maintenance of the gasoline injectors and/or to meet high-load demands.

FUEL REQUIREMENTS

United States

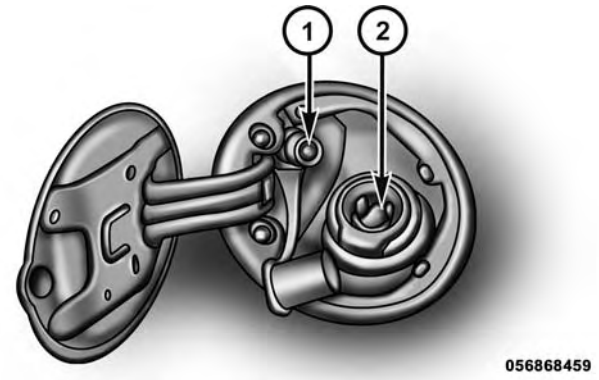
Use only natural gas which meets the requirements for gas quality as specified in National Fire Protection Association NFPA52 and American National Standard ANSI/ AGA NGV2. Use of natural gas that does not meet these requirements may result in starting and driveability problems and damage to critical fuel system components.

Canada

Use only natural gas which meets the requirements for gas quality as specified in Canadian Standards Association (CSA) B51–M1991 G4.1.2 or SAE J1616. Use of natural gas that does not meet these requirements may result in starting and driveability problems and damage to critical fuel system components.

ADDING FUEL

1. Open the fuel filler door.



Fuel Filler Door

1 — NGV 1 Receptacle
2 — Gasoline Fuel Filling Receptacle

NOTE: There is no fuel filler cap. A flapper door inside the filler pipe seals the system.

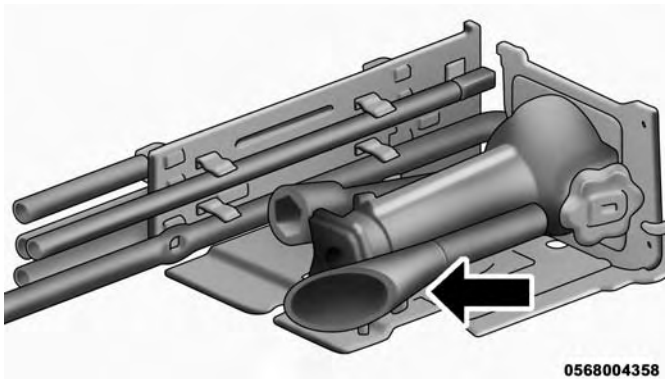
2. Insert the fuel nozzle fully into the filler pipe – the nozzle opens and holds the flapper door while refueling.
3. Fill the vehicle with fuel – when the fuel nozzle "clicks" or shuts off the fuel tank is full.
4. Remove the fuel nozzle and close the fuel door.

Emergency Fuel Can Refueling

Most fuel cans will not open the flapper door.

A funnel is provided to open the flapper door to allow emergency refueling with a fuel can.

1. Retrieve fuel funnel from the jack kit located under the front passenger seat.



Fuel Fill Funnel Location 2500/3500 Models

2. Insert funnel into same filler pipe opening as the fuel nozzle.

NOTE: Ensure funnel is inserted fully to hold flapper door open.

3. Pour fuel into funnel opening.

4. Remove funnel from filler pipe, clean off prior to putting back in the jack kit.

WARNING!

- **Never have any smoking materials lit in or near the vehicle when the fuel door is open or the tank is being filled.**
- **Never add fuel when the engine is running. This is in violation of most state and federal fire regulations and may cause the "Malfunction Indicator Light" to turn on.**
- **A fire may result if fuel is pumped into a portable container that is inside of a vehicle. You could be burned. Always place fuel containers on the ground while filling.**

CAUTION!

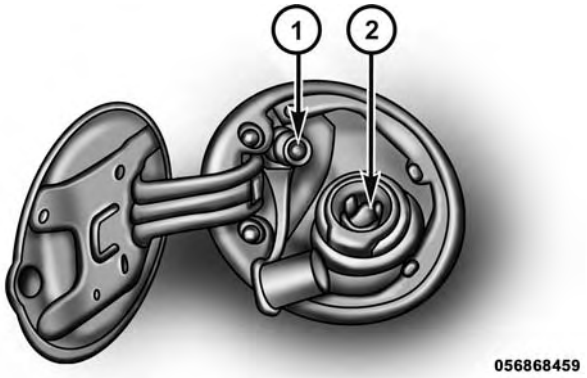
To avoid fuel spillage and overfilling, do not "top off" the fuel tank after filling.

Adding Compressed Natural Gas (CNG)

The NGV 1 fuel fill receptacle is mounted in the standard location behind the fuel filler door. The fill dispenser seals to the receptacle with an O-ring. Replace the O-ring in the fill receptacle before refueling if it is damaged or missing; otherwise natural gas can leak while refueling.

Fueling your natural gas powered vehicle can only be performed at locations specially equipped to refuel natural gas vehicles.

NOTE: There are a number of NGV1 filler nozzles available. It may be necessary to rotate the nozzle to ensure clearance to the fuel filler housing or truck bed.



Fuel Filler Door

1 — NGV 1 Receptacle
2 — Gasoline Fuel Filling Receptacle

WARNING!

- **Do not attempt to force open or tamper with the fuel fill receptacle. A sudden release of natural gas may occur, possibly causing injury.**
- **Your vehicle fuel system has a maximum capacity of 3600 pounds per square inch gauge (24.8 MPa) compensated to a temperature of 70°F (21°C). Exceeding**

(Continued)

WARNING! *(Continued)*

the fuel system capacity may result in fuel system damage and possibly cause injury.
- **Your vehicle should not be fueled if damage to the container has occurred. The damaged container should be retested and inspected as per the Maintenance section prior to be being placed back into service.**

NOTE: The fuel containers must be visually inspected every 36 months or 36,000 miles whichever comes first, for damage and deterioration from the date of manufacture. The fuel containers expire and must be removed from service after fifteen years from the date of manufacture. A label on the CNG tank states the first container inspection and container expiration date. Refer to "Maintaining Your Vehicle" in your Owner's Manual for additional details on retesting.

TRAILER TOWING

NOTE: This vehicle is not compatible with gooseneck/fifth-wheel trailers.

Refer to "Trailer Towing" in "Starting And Operating" in your Owner's Manual for further information.

MAINTAINING YOUR VEHICLE

CONTENTS

MAINTENANCE PROCEDURES

Container Pressure, Inspection, And Testing

Pressure

The vehicle Service Pressure: 24,821 kPa (3,600 psig).

WARNING!

- **Do not attempt to force open or tamper with the fuel fill receptacle. A sudden release of natural gas may occur, possibly causing injury.**
- **Your vehicle fuel system has a maximum capacity of 3600 pounds per square inch gauge (24.8 MPa) compensated to a temperature of 70°F (21°C). Exceeding the fuel system capacity may result in fuel system damage and possibly cause injury.**
- **Your vehicle should not be fueled if damage to the container has occurred. The damaged container should be retested and inspected as per the Maintenance section prior to be being placed back into service.**

See instructions on fuel container for inspection and service life.

Inspection

It is recommended that the fuel system components be inspected periodically for leaks and/or excessive wear.

Container Retest Requirements (United States)

Each CNG fuel container must be visually inspected after a motor vehicle accident or fire and at least every 36 months or 36,000 miles, whichever comes first, for damage and deterioration, in accordance with the Federal Motor Vehicle Safety Standard number 304 compressed natural gas fuel containers.

The inspection shall be performed only by a qualified person in accordance with the container manufacturers established re-inspection criteria and the appropriate Compressed Gas Association, Inc. guideline. Retest dates must be marked on a label securely affixed to the container and over-coated with epoxy near the original test date. Reheat treatment or repair of rejected containers is not authorized.

The fuel containers expire and must be removed from service fifteen years from the date of manufacture. A label on the CNG tank states the first container inspection date and container expiration date.

If there is a question about the proper re-inspection of the CNG fuel container, contact the manufacturer as identified on the container label.

Container Retest Requirements (Canada)

Each container must be re-qualified by inspection or testing after a motor vehicle accident and at least every 36 months or 57,000 km whichever comes first, or at the time of any reinstallation in accordance with Canadian Standards Association B51–97, Part 2.

Retest dates must be marked on a label securely affixed to the container and over-coated with epoxy near the original test date. Reheat treatment or repair of rejected containers is not authorized.

The fuel containers expire and must be removed from service fifteen years from the date of manufacture. A label on the fuel container states the first container inspection date and container expiration date.

If there is a question about the proper re-inspection of the CNG fuel container, contact the manufacturer as identified on the container label.

MAINTENANCE SCHEDULE

CONTENTS

MAINTENANCE SCHEDULE

Required Maintenance Intervals

At Each Stop For Fuel

- Inspect the fuel receptacle O-ring for cracks, tears, and deformation before attaching the fuel station fill line to the fill port.

Every 15,500 Miles (25,000 km)

- Service the fuel receptacle O-ring.

Every 18,000 Miles (30,000 km)

- Replace the CNG high pressure filter element.

Every 36,000 Miles (57,000 km)

- Inspect each CNG fuel container. Each container must be re-qualified and inspected every 36 months or 36,000 miles, whichever comes first.

Refer to "Maintenance Schedules" in your Owner's Manual for the complete maintenance schedule.

NOTE: All Required Maintenance Intervals are to be performed by certified technicians.

INDEX

INSTALLATION OF RADIO TRANSMITTING EQUIPMENT

Special design considerations are incorporated into this vehicle's electronic system to provide immunity to radio frequency signals. Mobile two-way radios and telephone equipment must be installed properly by trained personnel. The following must be observed during installation.

The positive power connection should be made directly to the battery and fused as close to the battery as possible. The negative power connection should be made to body sheet metal adjacent to the negative battery connection. This connection should not be fused.

Antennas for two-way radios should be mounted on the roof or the rear area of the vehicle. Care should be used in mounting antennas with magnet bases. Magnets may affect the accuracy or operation of the compass on vehicles so equipped.

The antenna cable should be as short as practical and routed away from the vehicle wiring when possible. Use only fully shielded coaxial cable.

Carefully match the antenna and cable to the radio to ensure a low Standing Wave Ratio (SWR).

Mobile radio equipment with output power greater than normal may require special precautions.

All installations should be checked for possible interference between the communications equipment and the vehicle's electronic systems.

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