

JC CARTER LLC

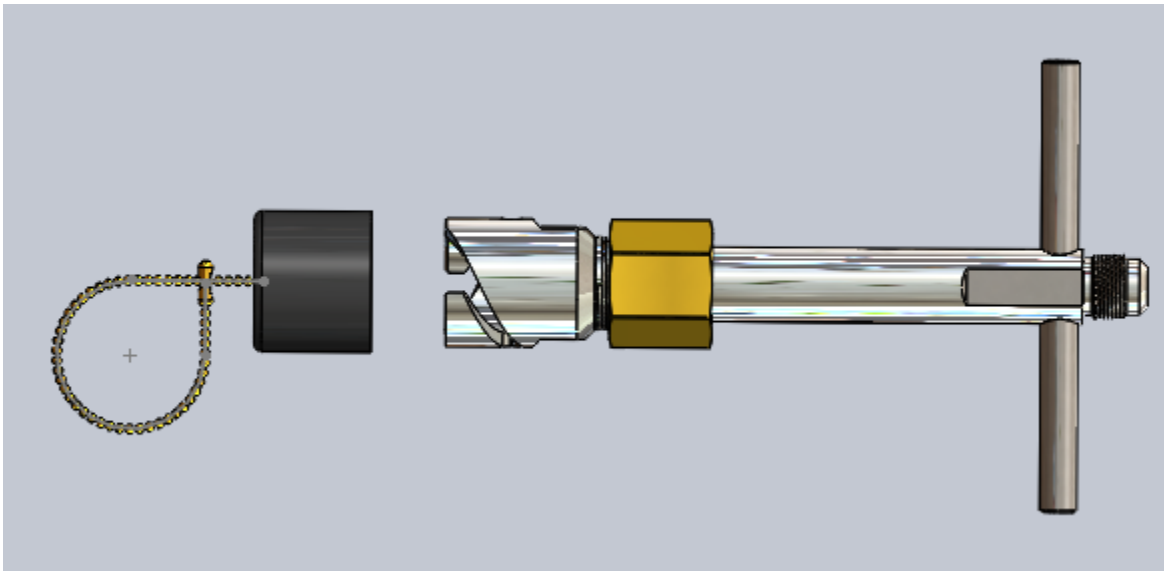
# VENT LINE NOZZLE OPERATION AND SERVICE MANUAL

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MODEL 661900

C01344 MANUAL

REV -





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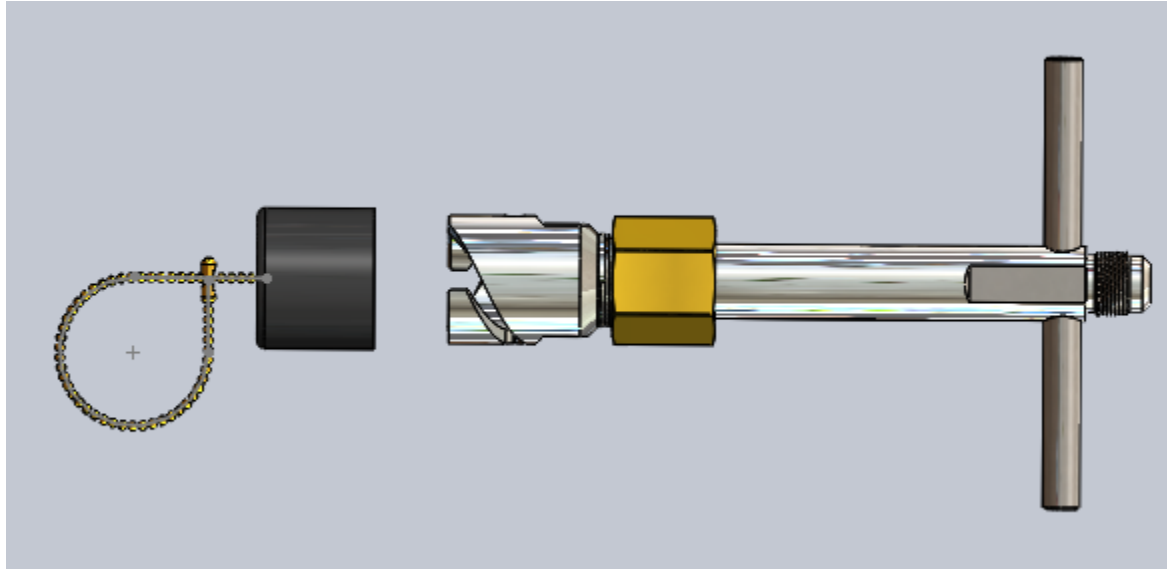
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## MODEL 661900

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**LNG FUELING OPERATOR MUST BE FULLY TRAINED IN THE SAFE OPERATION OF THIS PRODUCT IN ACCORDANCE WITH REGULATIONS DETERMINED BY AUTHORITIES HAVING JURISDICTION AND ALL SERVICE WORK MUST BE CARRIED OUT BY TRAINED TECHNICIANS IN ACCORDANCE WITH REGULATIONS DETERMINED BY AUTHORITIES HAVING JURISDICTION.**

**JC CARTER LLC PROVIDES THIS DATA AS A GUIDELINE ONLY. COMPLIANCE WITH REGULATIONS AND REQUIREMENTS IS THE RESPONSIBILITY OF THOSE PERFORMING THE WORK DESCRIBED HEREIN.**

### **WARNING**

**READ THE LNG NOZZLE OPERATION AND SERVICE MANUAL. FOLLOW ALL WARNING AND SAFETY INSTRUCTIONS. FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY.**

## Key Labels

<b>DANGER</b>	MEANING, IF THE DANGER IS NOT AVOIDED, IT WILL CAUSE DEATH OR SERIOUS INJURY
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<b>WARNING</b>	MEANING, IF PREVENTIVE MEASURE IS NOT TAKEN, SERIOUS INJURY OR DEATH MAY OCCUR
----------------	--------------------------------------------------------------------------------

<b>CAUTION</b>	MEANING, IF THE PRECAUTION IS NOT TAKEN, MINOR OR MODERATE INJURY MAY OCCUR
----------------	-----------------------------------------------------------------------------



FULL FACE SHIELD



CRYOGENIC THERMAL GLOVES



CRYOGENIC SMOCK



SOLID SHOES THAT WITHSTAND CRYOGENIC LIQUIDS



## Introduction

Thank you for allowing JC Carter LLC to be a part of your business. JC Carter offers many different products for LNG. Come visit us on the web at <http://www.jccarternozzles.com>

**For the safety of yourself and other people, read this manual before using the products.**

Notice the **WARNING** labels and observe recommended safety guidelines of this manual and/or other authorities. You should understand the requirements and agree to the safety guidelines of using the product. Keep this manual as a reference guide.

This user manual explains how to install, use, and troubleshoot the LNG Nozzles. This manual contains essential information regarding safety, proper fueling, and maintenance/repair, with a troubleshooting/help guide included.



## JC Carter Model 661900 Vent line Features & Specifications

### FEATURES

- Safe, secure positive shut off preventing unintended discharge before, during and after venting.
- Designed for time saving, reliable connection/disconnection.
- Durable design protects against damage in the field.

### SPECIFICATION

- Fluid compatibility: LNG, LN2.
- Max Working Pressure: 300 PSI at Fueling (2 MPa)  
550 PSI at Static System (3.79 MPa)
- Burst pressure: 2000 PSI (13.79 MPa)
- Leakage during venting: None
- Operating temperature: -320°F to +185°F (-195.56°C to +85°C)
- Storage temperature: -60°F to +120°F (-51.1°C to 48.89°C)
- Dimensions:
  - Length: 9 ½ " (241 mm)  
12" with swivel (305 mm)
  - Width (including operating handles): 6" (152 mm)
  - Weight: 2 lbs. (0.91 kg)
  - Process connection: CGA 440

**CAUTION**

FAILURE TO ADHERE TO THE SPECIFICATION MAY RESULT IN INJURY



# OPERATING INSTRUCTIONS

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JC Carter

Cleveland, OH 44143, USA

[www.jccarternozzles.com](http://www.jccarternozzles.com)

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### Safety Precautions:

- Always wear protective clothing as required by authorities having jurisdiction.



**FULL FACE SHIELD**



**CRYOGENIC SMOCK**



**CRYOGENIC THERMAL GLOVES**



**SOLID SHOES THAT WITHSTAND CRYOGENIC LIQUIDS**

- Follow all regulations as specified by authorities having jurisdiction.
- Read the Operation/Service Manual completely before operating.
- Keep area of operation clear of all persons other than operator.
- Use this nozzle only as described in this manual.
- Do not operate nozzle if it is damaged.
- Do not operate nozzle if any leakage occurs.

## **WARNING**

**THE OPERATOR MUST WEAR THE PROTECTIVE CLOTHING OUTLINED IN THE WARNINGS AND FOLLOW THE SAFETY INSTRUCTIONS OF THIS MANUAL. FAILURE TO DO SO MAY RESULT IN INJURY. NEVER POINT THE NOZZLE DIRECTLY AT YOURSELF OR OTHERS AT ANY TIME.**



# CAUTION

FAILURE TO CLEAN NOZZLE AND RECEPTACLE PRIOR TO OR AFTER FUELING IS HAZARDOUS

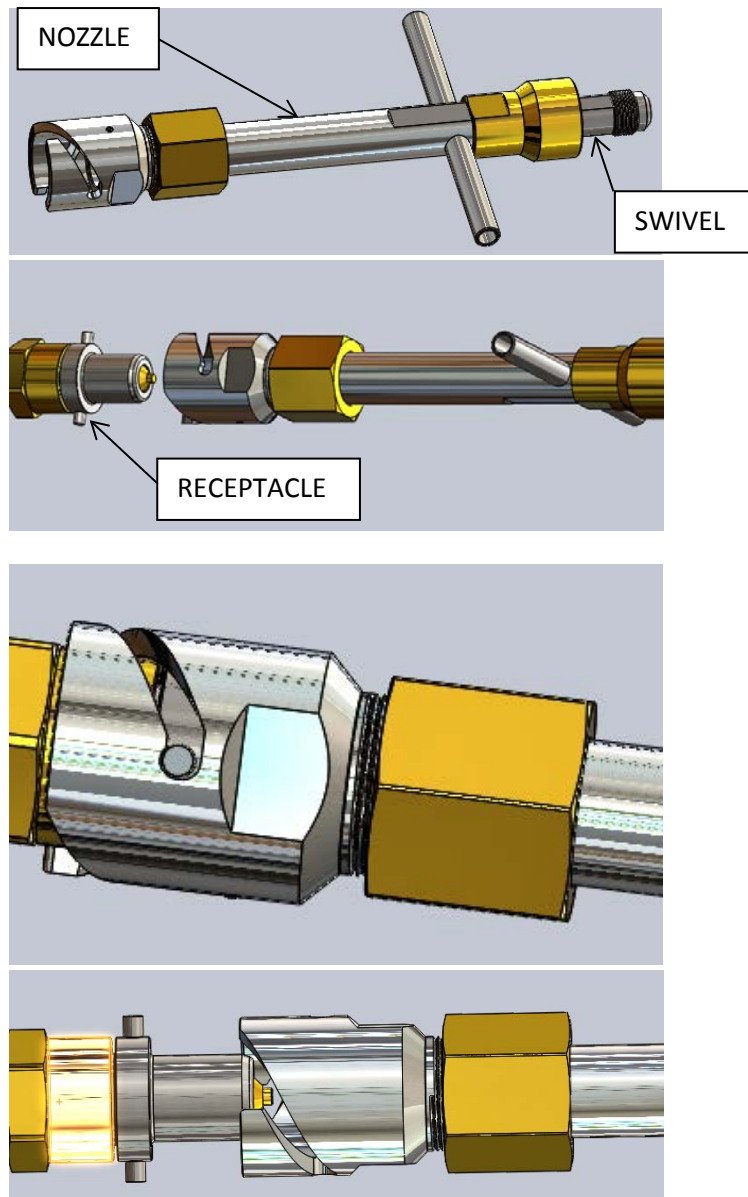
## Overview

The Vent Nozzle is designed to safely vent out excess pressure from a vehicles fuel tank.

The operator mates the nozzle 661900 (recommend to have the Vent Line Swivel, 662000 on the end of the nozzle to keep hoses from becoming twisted) to the receptacle by lining up the center of the nozzle and the center of the receptacle. The two locking pins on the side of the receptacle are used for securing the nozzle to the receptacle. Once initial connection is lined up, have the pins lined up with the spiral slots on the nozzle, push forward with a clockwise rotation until the nozzle and receptacle are locked in place.

Venting the excess pressure can begin.

Once venting is complete, rotate the nozzle counterclockwise to disconnect the nozzle from the receptacle.





# MAINTENANCE

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Please note that JC Carter recommends the following maintenance schedule be followed to ensure trouble free operation and maximum life. Failure to follow the schedule may result in less than optimal performance or reduced operating life.

### Each Venting:

Before and after each venting:

- Clean out the cup of the receptacle with dry, clean compressed air or nitrogen.
- Clean out the mating end of the nozzle.

### Preventive Actions:

- Clean nozzle before and after every use with dry compressed air or nitrogen.
- Do not insert nozzle into receptacle if ice accumulation is noted on internal receptacle surface or on the nozzle outlet area. Defrost ice with dry compressed air or nitrogen. If heated dry compressed air is available, it will reduce the defrosting time.
- Check inlet of the receptacle before engaging the nozzle. If dirt is noted, wipe it clean with a soft, lint-free cloth.
- Do not leave connecting lines and nozzle orifices open to atmosphere when removed.
- Periodic maintenance and cleaning of the nozzle.



# INSTALLATION

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## Nozzle Installation:

### CAUTION

OPEN NOZZLE PACKAGE ONLY IN A DRY, PROTECTED AREA. DO NOT ALLOW WATER OR OTHER CONTAMINANTS TO ENTER THE INTERNAL MECHANISM OF THE COUPLING.

## Connecting Nozzle to adaptor/hose

- Use appropriate wrenches to tighten the adaptor/hose.
- Ensure hoses are clean and dry before connection.
- **DO NOT** put nozzle into service if any connections are found to be leaking.
- Recommend to use **Vent Line Swivel, 662000**, to allow the hose and nozzle to rotate independently.



# TROUBLESHOOTING REFERENCE GUIDE

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**CAUTION**

Follow all safety requirements when operating the nozzle.

*Proper storage of the nozzle must be followed. Do not leave nozzle on the ground. Following these steps will help ensure water will not collect inside the nozzle and then refreeze forming ice crystals and causing the poppet to lock-up.*

*SYMPTOM:*

## Nozzle Will Not Engage with Receptacle

- Make sure nozzle is seated on receptacle.
- Make sure no objects are in between nozzle and receptacle when engaging.
- Unit may have been damaged. DO NOT USE. Contact station/distributor/facility.

## No Venting

- Make sure nozzle is connected to receptacle and engaged.
- Check gauges.
- Check with station or facility.

## Nozzle Will Not Rotate

- Check surroundings; ensure hose can rotate independently without inference.
- If hose cannot rotate independently, use the Vent Line Swivel, 662000, if already installed and suggestion above does not work, contact station/distributor/facility.

**CAUTION**

**DO NOT FORCE NOZZLE ONTO RECEPTACLE.**

## Ice Buildup

- Remove ice buildup with dry air.



## NEED REPAIR?

Contact your local authorized repair service center for:

- Service & Maintenance
- Warranty service
- Purchasing products, parts and accessories
- Product information

To find an Authorized JC Carter Parts and Repair Service Center, please visit us at:

**[WWW.JCCARTERNOZZLES.COM](http://WWW.JCCARTERNOZZLES.COM)**