



Model #731004, 731088 and 731091  
Recommended Installation, Maintenance  
and Inspection Instructions

## Diesel Exhaust Fluid Nozzles

DEF  
NOZZLE



**WARNING!** Designed for use at diesel exhaust fluid dispensing facilities only.

### INSTALLATION INSTRUCTIONS

1. Turn off dispenser and relieve line pressure.
2. Remove old nozzle and drain into approved container.
3. Inspect o-ring for damage. Replace if necessary.
4. Install new nozzle - do not use thread sealant (Teflon tape, anti-seize or any other kind of sealant).
5. Tighten firmly, approximately 15 - 20 lbf·ft / 20.3 - 27.1 N·m, but do not overtighten.
6. Pressurize system and visually inspect for leaks.
7. Test nozzle for proper automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.

**DO NOT OVERTIGHTEN. USE WRENCH ON HOSE NUT ONLY.**

### IF DRIVE OFF OCCURS

- Turn off dispenser and relieve line pressure.
- Check for loose or damaged spout.
- Check spout tip - should be in round and sensing port should be clear of debris.
- Perform flow test of nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.
- Check for leaks.

### TESTING / MAINTENANCE / INSPECTION



Daily

- Check for leaks / stains.
- Check for loose spouts.
- Check for damage.
- Check for bent lever.
- Check for broken clip / trigger spring.



- Check nozzle for crystallization.

Monthly

- Check nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.



Annually

- Check "remove after" date.

- To remove crystallization, clean / rinse DEF products by flushing all internal passages and external parts with deionized water.
- All drive aways, maintenance and inspection activities must be logged using the serial number of the individual product.
- Apply city, state, or federal testing regulations as appropriate.

**ANY TEST / INSPECTION FAILURE  
REQUIRES IMMEDIATE EQUIPMENT  
REPLACEMENT OR REMOVAL FROM  
SERVICE.**

**MADE IN THE USA**



## ALWAYS ADHERE TO INSTALLATION / USAGE INSTRUCTIONS AND WARNINGS.

Improper use may result in injury, damage, or hazardous spill.



### GENERAL WARNINGS / INSTRUCTIONS



- Use of equipment is at individuals' own risk.
- Always abide and adhere to city, state, and federal regulations regarding use and installation of dispensing equipment.
- Always follow the product manufacturer's installation and maintenance instructions.
- Always turn off all power to dispenser during maintenance and inspection activities.
- Always close the shear valves during maintenance and inspection activities.
- Always relieve pressure from system prior to performing maintenance activities.



- Always check continuity after installation using a megohmmeter (Refer to PEI RP 400 for details).
- Always replace or remove from service damaged or leaking dispensing equipment immediately.
- Always report leaks / spills / accidents to appropriate authorities.



- Always wear appropriate safety equipment during maintenance activities.



- Always have appropriate fire extinguishing equipment within 5 ft / 1.5 m of dispensers.
- Never use thread sealant (Teflon tape, anti-seize or any other kind of sealant).
- Always clean / rinse DEF products with deionized water.



- Always place containers on the ground before filling.



- Always discharge static electricity before using or servicing equipment by touching a metal part of the dispenser before and after fueling vehicle.



- Never smoke within 20 ft / 6.1 m of dispensers.



- Never keep in service past recommended life.



- Never leave the nozzle unattended while dispensing fuel.



- Never use sparking or flaming devices within 20 ft / 6.1 m of dispensers.



- Never use power tools near dispensers or to aid in the installation process.



- Never use cell phone within 20 ft / 6.1 m of dispensers.



- Never reenter car when fueling vehicle.



- Never allow gasoline to touch eyes or skin.

- Never use at flow rates in excess of regulatory guidelines.

- Never use at flow rates less than 5 gpm / 18.9 Lpm.

- Never dispense flammable material into unapproved containers.

- Never dispense fuel without a valid driver's license.

**CAUTION: DO NOT TOP OFF!**  
Topping off can lead to spills and splashes.

## WARRANTY

**VAPOR PRODUCTS** – Husky Corporation will, at its option, repair, replace, or credit the purchase price of any Husky manufactured product which proves upon examination by Husky, to be defective in material and/or workmanship for a period of one (1) year of installation or fifteen (15) months from the manufacture date of shipment by Husky, whichever occurs first. The warranty period on repaired or replacement vapor recovery products is only for the remainder of the warranty period of the defective product.

**CONVENTIONAL PRODUCTS** – Husky Corporation will, at its option, repair, replace, or credit the purchase price of any Husky manufactured product which proves upon examination by Husky, to be defective in material and/or workmanship for a period of one (1) year from the manufacture date of shipment by Husky.

Buyer must return the products to Husky, transportation charges prepaid. This Warranty excludes the replaceable bellows, bellows spring assembly, spout assembly and scuff guard, unless (i) damage is obvious when the product is removed from shipping carton and (ii) the defective product is returned to Husky prior to use. This warranty does not apply to equipment or parts which have been installed improperly, damaged by misuse, improper operation or maintenance, or which are altered or repaired in any way.

The warranty provisions contained herein apply only to original purchasers who use the equipment for commercial or industrial purposes. There are no other warranties of merchantability, fitness for a particular purpose, or otherwise, and any other such warranties are hereby specifically disclaimed.

Husky assumes no liability for labor charges or other costs incurred by Buyer incidental to the service, adjustment, repair, return, removal or replacement of products. Husky assumes no liability for any incidental, consequential, or other damages under any warranty, express or implied, and all such liability is hereby expressly excluded.

Husky reserves the right to change or improve the design of any Husky fuel dispensing equipment without assuming any obligations to modify any fuel dispensing equipment previously manufactured.

## OPERATION INSTRUCTIONS

1. Activate dispenser.
2. Insert spout into fill pipe opening.
3. Lower hose end of nozzle so the spout spring catches the inside of the fill pipe.
4. Raise the lever and begin dispensing.
5. Nozzle will shut off automatically when the tank is full.
6. Wait 15 seconds to allow any fluid remaining in the spout to drain.
7. Remove nozzle from fill pipe by raising hose end of the nozzle.
8. Return nozzle to nozzle boot.

NOTE: Nozzle is equipped with a unique Flo-Stop™ device that shuts off the nozzle if it falls from fill pipe or raises above horizontal.

## HOLD OPEN CLIP INSTRUCTIONS

Model #3593 Hold Open Clip Kit

### INSTALLATION

1. Remove nozzle from hose and drain.
2. Position latch spring under latch clip and hose them in place. The latch clip should straddle the mating holes in the trigger lever.
3. Insert latch rivet through latch clip and lever, making sure latch spring is secured in position by the rivet.
4. Install push nut on rivet - DO NOT hammer in place.
5. Squeeze lever several times to check operation.
6. Verify clip and lever are parallel.

NOTE: Field installation of the hold open clip is NOT UL approved because improper installation may cause the nozzle to fail.

### REMOVAL

1. Remove nozzle from hose and drain.
2. Place nozzle on a flat surface in safe location.
3. Hold up on the latch clip to prevent rivet from rotating.
4. Drill off the riveted end using a 1/4 in / 6.4 mm bit.
5. Remove clip, rivet and torsion clip spring.
6. Do not remove latch plate.

NOTE: Nozzles can be ordered without clips.

## TROUBLESHOOTING GUIDE

Nozzle keeps shutting off or won't dispense...

1. Make sure dispenser is on and activated.
2. Slow down flow rate - use lower notch on clip.
3. Clean spout tip end.
4. Clean or replace filter.
5. Inspect Safe-T-Break®.
6. Replace spout assembly.
7. Clean loss motion diaphragm cartridge assembly.

Nozzle won't shut off...

1. Check flow rate - minimum of 3 gpm / 11.4 Lpm required.
2. Remove nozzle and drain hose.
3. Check vacuum cap screws are tightened securely.
4. Clean loss motion diaphragm cartridge assembly.
5. Clean poppet valve / venturi cartridge assembly.

Nozzle leaks...

1. Check for loose spout.
2. Check hose connection.
3. Check for cracks in nozzle and hose threads.
4. Replace poppet valve / venturi cartridge assembly.

Low flow rate...

1. Verify dispenser is not in slow flow rate mode.
2. Check for system leaks.

## CLEANING INSTRUCTIONS

1. Remove nozzle from hose and drain.
2. Remove nozzle guard and waffle splash guard (if applicable).
3. Remove spout assembly, poppet valve / venturi cartridge, plunger cartridge, and loss motion diaphragm cartridge according to the manufacturers instructions included on page 4 of this document.
4. Clean the spout assembly - pour deionized water into end of the vent tube to flush both the vent tube and *StreamShaper*™.
5. Clean the poppet valve / venturi cartridge - flush all internal passages and external parts with deionized water.
6. Clean the plunger cartridge - flush all internal passages and external parts with deionized water.
7. Clean the loss motion diaphragm cartridge - flush vacuum passages and external parts with deionized water.
8. Inspect spout assembly and all cartridges for damage.
9. Replace any damaged or cracked o-rings.
10. Reinstall spout assembly and all cartridges according to the manufacturers installation instructions included on page 4 of this document.
11. Reinstall nozzle to hose according to the manufacturers installation instructions included on page 1 of this document.

***Only clean DEF products with deionized water.  
Do not reinstall damaged spout assemblies or cartridges.***

## GENERAL TECHNICAL DATA

<b>Fuel Type</b>	Test and warranty for Diesel Exhaust Fluid dispensing only	<b>Lever</b>	One piece contoured steel
<b>Flow Rate</b>	10 gpm / 37.9 Lpm	<b>Shipping Weight</b>	4.6 lbs / 2.1 kg
<b>Body</b>	Stainless steel	<b>Threads</b>	1" / 25.4 mm BSPP
<b>Disc</b>	Fluorocarbon	<b>Spout</b>	¾" / 19 mm O.D.
<b>Packing</b>	Double O-ring seal protected by fiber reinforced Teflon	<b>Case Quantity</b>	15
		<b>Patents</b>	Pending

## SPOUT REPLACEMENT INSTRUCTIONS

Model #7360 Spout with Spout Ring, without Magnetic Steel Ball;  
#7364 Spout with Spout Ring and Magnetic Steel Ball;  
#7362 Spout without Spout Ring and Magnetic Steel Ball

1. Remove spout lock nut and spout.
2. Remove and discard spout seal.

3. Place new spout seal in groove.
4. Insert new spout into body making sure the vent tube is in the port.
5. While holding the spout in proper alignment, tighten the spout lock nut firmly, approximately 35 - 60 lbf-ft / 47 - 81 N•m. Do not overtighten.

## POPPET VALVE / VENTURI CARTRIDGE INSTRUCTIONS

Model #7150 Poppet Valve / Venturi Cartridge Assembly

1. Remove nozzle from hose and drain.
2. Place nozzle on flat surface.
3. Remove body cap - CAUTION: Body cap will be under spring pressure.
4. Remove poppet spring.
5. Remove Poppet Valve / Venturi Cartridge Assembly by pulling on the tab.
6. Insert new Poppet Valve / Venturi Cartridge Assembly.
7. Verify top of the cartridge is flush with the bottom of the body cap threads in nozzle casting.

8. Reinstall poppet spring.
9. Reinstall body cap - tighten firmly, approximately 15 - 20 lbf-ft / 20.3 - 27.1 N•m. Do not overtighten.
10. Reinstall nozzle to hose.
11. Perform flow test of nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.
12. Check for leaks.

## PLUNGER CARTRIDGE INSTRUCTIONS

Model #7160 Plunger Cartridge Assembly

1. Remove nozzle from hose and drain.
2. Place nozzle upside down on flat surface.
3. Remove nozzle hand guard and screws.
4. Remove lever pin from Plunger Cartridge Assembly.
5. Remove lever assembly and latch plate.
6. Turn nozzle right-side up.
7. Remove vacuum cap, screws and washers - CAUTION: Vacuum cap will be under spring pressure.
8. Remove Loss Motion Diaphragm Cartridge Assembly.
9. Remove Plunger Cartridge Assembly.
10. Insert new Plunger Cartridge Assembly.
11. Reinstall Loss Motion Diaphragm Cartridge Assembly.
12. Verify holes in cartridge align with the holes in the nozzle casting.

13. Reinstall vacuum cap.
14. Tighten screws firmly - approximately 10 lbf-in / 13 N•m. Do not overtighten.
15. Align lever assembly and latch plate to Plunger Cartridge lever pin hole.
16. Reinstall lever pin.
17. Reinstall nozzle hand guard.
18. Tighten screws one half (½) turn past hand tight - do not overtighten.
19. Reinstall nozzle to hose.
20. Perform flow test of nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.
21. Check for leaks.

## LOSS MOTION DIAPHRAGM CARTRIDGE INSTRUCTIONS

Model #7163 Loss Motion Diaphragm Cartridge Assembly

1. Remove nozzle from hose and drain.
2. Place nozzle on flat surface.
3. Remove vacuum cap, screws and washers - CAUTION: Vacuum cap will be under spring pressure.
4. Remove Loss Motion Diaphragm Cartridge Assembly.
5. Insert new Loss Motion Diaphragm Cartridge Assembly.
6. Verify holes in cartridge align with the holes in the nozzle casting.

7. Reinstall vacuum cap.
8. Tighten screws firmly - approximately 10 lbf-in / 13 N•m. Do not overtighten.
9. Reinstall nozzle to hose.
10. Perform flow test of nozzle automatic shut off between 5 - 10 gpm / 18.9 - 37.9 Lpm.
11. Check for leaks.

## GUARD REPLACEMENT INSTRUCTIONS

### EASY-ON MATE GUARD

Model #0226

1. Turn off dispenser and relieve line pressure.
2. Remove waffle splash guard (if applicable).
3. Remove old nozzle guard.
4. Install new easy-on mate guard over spout and pull back.
5. Re-install waffle splash guard (if applicable) *over spout lock nut*.

### HANDLE COVER

Model #7376

1. Remove old handle cover.
2. Snap new handle cover in place.

### LEVER COVER

Model #5494

1. Remove old lever cover.
2. Snap new lever cover into place.

### WAFFLE SPLASH GUARD

Model #1808

1. Remove old waffle splash guard.
2. Install new waffle splash guard *over spout lock nut*.

### POPD™ MATE GUARD

Model #8169, #8170

1. Turn off dispenser and relieve line pressure.
2. Remove waffle splash guard (if applicable).
3. Remove old nozzle guard.
4. Install new POPD™ mate guard over spout and pull back.
5. Re-install waffle splash guard (if applicable) *over spout lock nut*.
6. Install desired advertisement and clear cover.

### POPD™ CLEAR COVER

Model #6628, #8181

1. Trim advertisement to appropriate size.
2. Turn clear cover "inside out".
3. Center advertisement on POPD™ guard.
4. Lay clear cover over advertisement, making sure the advertisement stays centered, and turn it "right side out".
5. Confirm the cover is securely in place.