

ORVR Primary Hose, Breakaway and Whip Hose

Installation and Maintenance Manual

**THIS MANUAL MUST BE GIVEN TO THE OPERATIONS MANAGER
AND KEPT ON THE PREMISES.**

WARNINGS AND INSTRUCTIONS

IMPORTANT SAFETY INFORMATION

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury, if these safe service procedures are not followed.

PRELIMINARY PRECAUTIONS

You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage or pressures. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call (800) 323-1719 to locate a qualified technician. It is imperative to your safety and the safety of others to understand the procedures before beginning work. **Make sure your employees and any service contractors read and follow the instructions.**

Follow the Regulations

Applicable information is available in National Fire Protection Association (NFPA) 30A; *Code for Motor Field Dispensing Facilities and Repair Garages*, NFPA 70; *National Electrical Code* (NEC), Occupational Safety and Hazard Association (OSHA) regulations and federal, state, and local codes. All these regulations must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties or affect the safe use and operation of the equipment.

Prevent Explosions and Fires

Fuels and their vapors will explode or burn, if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause potentially dangerous vapors in the vicinity of the dispenser or island.

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Familiarize yourself with Cardiopulmonary Resuscitation (CPR) methods, if you work with or around high voltages. This information is available from the American Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA Lockout/Tagout procedures. If you are not familiar with this requirement, refer to OSHA documentation.

Working With Electricity Safely

Ensure that you use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Ensure that grounding connections are properly made. Ensure that you do not pinch wires when replacing covers. Follow OSHA Lockout/Tagout requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down. Before you start work, know the location of the Emergency Power Cutoff Switch (the E-STOP). This switch cuts off power to all fueling equipment and submerged turbine pumps and is to be used in the event of an emergency. The buttons on the console at the cashier's station WILL NOT shut off electrical power to the pump/dispenser. This means that even if you press a button on the console labeled EMERGENCY STOP, ALL STOP, PUMP STOP, or something similar, fuel may continue to flow uncontrolled.

Hazardous Materials

Some materials may present a health hazard if not handled correctly. Ensure that you clean hands after handling equipment. Do not place any equipment in the mouth.

WARNING! FAILURE TO COMPLY WITH THE FOLLOWING WARNINGS AND SAFETY PRECAUTIONS COULD RESULT IN PROPERTY DAMAGE, INJURY OR DEATH.

FIRE HAZARD! Do **NOT** use **power tools** (Class I Division I and Class I Division II) during the installation or maintenance of equipment. Sparking could ignite fuel or vapors, resulting in fire.

CHEMICAL EXPOSURE HAZARD! Wear appropriate **safety equipment** during installation or maintenance of equipment. Avoid exposure to fuel and vapors.

FUEL SPILL! Do **NOT** install unlisted ads/billboards, and do **NOT** install any other unlisted after-market device on any automatic nozzle. Doing so may change the sensitivity of the shut-off mechanism, which may cause the nozzle not to shut off, resulting in a fuel spill. Please see sensitivity test in Underwriters Laboratory Specification UL842.

REQUIREMENTS FOR USE

- The ORVR Hose is designed for use only at facilities dispensing motor fuels.
- Application of hoses must be consistent with NFPA Code 30A, OSHA regulations, and federal, state and local fire codes, and other applicable local regulations.
- The selection of any Veeder-Root product must be based upon physical specifications and limitations and the product's compatibility with the materials to be handled. Veeder-Root makes no warranty of fitness for a particular purpose. See Warranty below.
- All Veeder-Root products should be used in accordance with applicable federal, state and local laws, ordinances and regulations.

OPERATING PRECAUTIONS

Post the warning signs required by the current edition of NFPA 30-A, Section 9.2.5.4 in a conspicuous location. We recommend that you post the following warnings in a conspicuous location visible to those using the equipment. Contact authorities having local jurisdiction for additional required warnings.



- **TURN OFF** your engine before refueling, and **DO NOT RESTART** your engine until fueling is completed.
- **DISCHARGE YOUR STATIC ELECTRICITY** before fueling by touching with your bare hand grounded metal on your car or on dispenser away from nozzle
 - Failure to discharge static electricity could cause a spark which could ignite fuel vapors.
 - **DO NOT** reenter your vehicle during fueling, because this could recharge your body with static electricity. If you must re-enter your vehicle, be sure to discharge your static electricity again before you touch the nozzle.
- **NO SMOKING.** Extinguish all open flames and pilot lights, such as on RV appliances.
- **TURN OFF** cell phones and other electronic devices to avoid distractions while fueling.

- **DO NOT** leave nozzle unattended. Nozzle performance and the automatic shut-off are influenced by many factors. **STOP THE PUMP IMMEDIATELY** if the nozzle does not shut off after refueling.
- **WARNING! DO NOT REMOVE NOZZLE FROM FUEL PIPE IF FIRE STARTS.** Move back from dispenser and inform the attendant. Use the emergency shut-off button to stop the pump if the attendant is not available at the site.
- **DO NOT ALLOW CHILDREN** to pump gasoline. The equipment should be used only by persons of legal driving age.
- **GASOLINE CAN BE HARMFUL OR FATAL IF SWALLOWED.** Long-term exposure may cause cancer. Keep eyes and skin away from liquid gasoline and gasoline vapors. Avoid prolonged breathing of gasoline vapors
- **USE ONLY APPROVED PORTABLE CONTAINERS.** Dispense gasoline into approved portable containers placed on the ground. **NEVER FILL PORTABLE CONTAINERS IN OR ON THE VEHICLE.** If you do, static electricity generated in dispensing fuel can create a spark that ignites fuel vapors causing a fire.
 - **WHILE FILLING AN APPROVED PORTABLE CONTAINER,** manually hold the trigger on the nozzle for a low flow rate, and **DO NOT** engage the nozzle's hold-open clip in high position.
 - **KEEP THE NOZZLE TOUCHING THE PORTABLE CONTAINER WHEN FILLING THE PORTABLE CONTAINER** to discharge any static electricity generated in filling the container. If you do not do so, static electricity generated in dispensing fuel can create a spark that ignites fuel vapors causing a fire.

Notice

Veeder-Root makes no warranty of any kind with regard to this publication, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Veeder-Root shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this publication.

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DAMAGE CLAIMS / LOST EQUIPMENT

Thoroughly examine all components and units as soon as they are received. If any cartons are damaged or missing, write a complete and detailed description of the damage or shortage on the face of the freight bill. The carrier's agent must verify the inspection and sign the description. Refuse only the damaged product, not the entire shipment.

VEEDER-ROOT'S PREFERRED CARRIER

1. Contact VR Customer Service at 800-873-3313 with the specific part numbers and quantities that were missing or received damaged.
2. Fax signed Bill of Lading (BOL) to VR Customer Service at 800-234-5350.
3. VR will file the claim with the carrier and replace the damaged/missing product at no charge to the customer. Customer Service will work with production facility to have the replacement product shipped as soon as possible.

CUSTOMER'S PREFERRED CARRIER

1. It is the customer's responsibility to file a claim with their carrier.
2. Customer may submit a replacement purchase order. Customer is responsible for all charges and freight associated with replacement order. Customer Service will work with production facility to have the replacement product shipped as soon as possible.
3. If "lost" equipment is delivered at a later date and is not needed, VR will allow a Return to Stock without a restocking fee.
4. VR will NOT be responsible for any compensation when a customer chooses their own carrier.

RETURN SHIPPING

For the parts return procedure, please follow the appropriate instructions in the "General Returned Goods Policy" and "Parts Return" pages in the "Policies and Literature" section of the Veeder-Root **North American Environmental Products** price list.

WARRANTY

Please see page v.

Warranty

For Veeder-Root ORVR compliance hanging hardware components, the following warranty applies:

We warrant that this product shall be free from defects in material and workmanship for a period of fifteen (15) months from the date of invoice thereof. We will repair or replace at our option the product if the product is returned to us transportation charges prepaid by user within the warranty period, and is determined by us to be defective. This warranty will not apply: (1) to any product which has been subject to misuse, abuse, negligence, accident, or drive-offs; (2) to systems that are misapplied or are not installed per Veeder-Root's specifications, or which have been modified, rebuilt or repaired by unauthorized persons; or (3) to damage resulting from acts of God. Repair or replacement of the defective part or component under the terms of this warranty is the EXCLUSIVE REMEDY. Veeder-Root is not liable for incidental, consequential, or indirect damages or loss, including, without limitation, personal injury, death, property damage, environmental damages, cost of labor, clean-up, downtime, installation and removal, product damages, loss of product, or loss of revenue or profits. THE WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND THERE ARE NO OTHER EXPRESS, IMPLIED, OR STATUTORY WARRANTIES. WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

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Introduction

This manual describes how to identify and assemble the components of the Veeder-Root ORVR hose assembly and attach the assembly to the dispenser.

This work should only be done by a knowledgeable and experienced individual. If further assistance for technical support is required, please visit www.veeder.com or call (800) 323-1719 to locate a qualified technician.

Certification

Veeder-Root requires that technicians satisfactorily complete the Veeder-Root ORVR certification course before performing installation, maintenance, servicing, testing or troubleshooting of Veeder-Root ORVR Hanging Hardware Systems.




Warranty claims may only be submitted by authorized V-R Distributors and Contractors.

Related Manuals

- 577013-888 ORVR Nozzle Installation and Maintenance Manual
- 577013-889 ORVR Hanging Hardware System Troubleshooting Manual

Safety Precautions

The following safety symbols may be used throughout this manual to alert you to important safety hazards and precautions.

 <p>EXPLOSIVE Fuels and their vapors are extremely explosive if ignited.</p>	 <p>ELECTRICITY High voltage exists in, and is supplied to, the device. A potential shock hazard exists.</p>	 <p>TURN OFF CELL PHONE Turn off cell phone or other device until fueling is complete and nozzle is returned to cradle.</p>
 <p>TURN ELECTRICAL POWER OFF Live power to a device creates a potential shock hazard. Turn Off electrical power to the device and associated accessories when servicing the unit.</p>	 <p>WARNING Heed the adjacent instructions to avoid damage to equipment, property, environment or personal injury.</p>	 <p>DISCHARGE STATIC ELECTRICITY Failure to discharge static electricity before fueling may ignite gasoline vapors.</p>
 <p>FLAMMABLE Fuels and their vapors are extremely flammable.</p>	 <p>INJURY TO EYES AND SKIN Careless or improper handling of gasoline can result in bodily injury. If in eyes, irrigate with water for at least 15 minutes. On skin wash area thoroughly with clear water. Seek medical advice immediately.</p>	 <p>FILL CONTAINERS ON GROUND DO NOT fill containers in or on the vehicle. Put approved container on ground to fill.</p>
 <p>CLEAN WORK AREA Dispose of fuel soaked materials properly and not into trash barrels that may be used by customers.</p>	 <p>READ ALL RELATED MANUALS Knowledge of all related procedures before you begin work is important. Read and understand all manuals thoroughly. If you do not understand a procedure, ask someone who does.</p>	 <p>DO NOT REENTER VEHICLE WHILE FUELING If you reentered your vehicle while fueling, touch grounded metal on dispenser before touching nozzle.</p>
 <p>APPROVED CONTAINERS Use nonbreakable, clearly marked containers, suitable for collecting and transporting hazardous fuels during service.</p>	 <p>USE SAFETY BARRICADES Unauthorized people or vehicles in the work area are dangerous. Always use safety cones or barricades, safety tape, and your vehicle to block the work area.</p>	 <p>UNATTENDED VEHICLE Do not leave nozzle unattended while dispensing fuel.</p>
 <p>NO POWER TOOLS Sparks from power tools (such as drills) can ignite fuels and their vapors.</p>	 <p>NO VEHICLES Moving vehicles in the area during service can create a potential for personal injury to you or others. Sparks from starting vehicles can ignite fuels and their vapors.</p>	 <p>DO NOT ALLOW CHILDREN TO DISPENSE FUEL Keep kids away from fueling area. Only licensed operators should refuel vehicles.</p>
 <p>LUBRICATE Lubricate o-rings using mineral oil or other suitable lubricant.</p>	 <p>DIRECTION OF FLOW An arrow on a component of the ORVR hose assembly indicates direction of flow through the device. Install component with arrow pointing in direction of nozzle.</p>	 <p>AVOID BREATHING GASOLINE VAPORS Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs. Keep airway open. Seek medical advice immediately.</p>
 <p>NO SMOKING Sparks and embers from burning cigarettes or pipes can ignite fuels and their vapors.</p>	 <p>NO OPEN FLAMES Open flames from matches, lighters, welding torches, etc. can ignite fuels and their vapors.</p>	 <p>DO NOT SWALLOW GASOLINE Gasoline ingested may cause unconsciousness and burns to internal organs. Do not induce vomiting. Keep airway open. Oxygen may be needed at scene. Seek medical advice immediately.</p>

Installation

Figure 1 illustrates the three components of the ORVR hose assembly:

1. Vacuum Assist Whip Hose
2. Vacuum Assist Safety Breakaway
3. Primary Hose Assembly with ORVR Sensor (nozzle end)

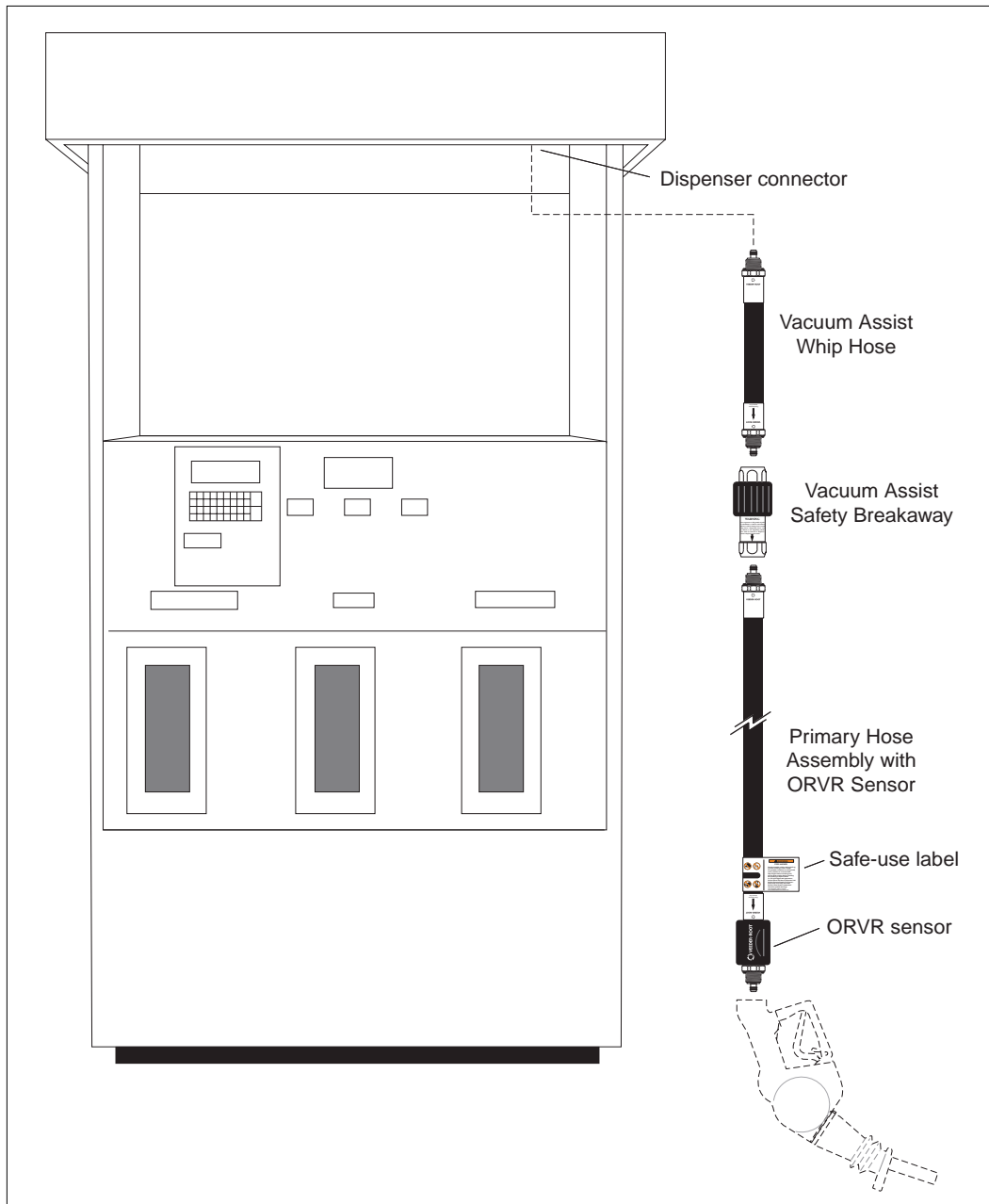


Figure 1. ORVR Hose Assembly

Readying Dispenser for ORVR Hose Installation

Before installing the ORVR Hose you must:


1. **Turn off electricity, tag and lockout the electrical power to the dispenser. Open the panel/cover to the base of the dispenser and close the dispenser's shear valves.**

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Subpart S of 29 CFR Part 1910 – Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

WARNING! Electricity must be turned off to the dispenser and shear valves closed prior to service to avoid personal injury, damage to equipment, property, or the environment!

Total Electrical Shut-Off For Unit Where Hose To Be Installed

The first and most important information you must know is how to stop all fuel flow to the pump/dispenser. Locate the switch or circuit breakers that shut off all power to all fueling equipment and submerged turbine pumps (STPs) affecting the fuel dispenser on which you are installing hose.

⚠ WARNING	
	<p>The buttons on the console at the cashier's station WILL NOT shut off electrical power to the pump/dispenser. This means that even if you press a button on the console labeled EMERGENCY STOP, ALL STOP, PUMP STOP, or something similar, fuel may continue to flow uncontrolled.</p> <p>IN AN EMERGENCY, you must use the TOTAL ELECTRICAL SHUT-OFF for all of the fueling equipment, dispensing devices, and submerged turbine pumps (STPs) at the site, either by using the Emergency Power Cutoff Switch (the E-STOP) or the circuit breakers for all the fueling equipment, dispensing devices and submerged turbine pumps and not the console's buttons.</p>

Total Electrical Shut-Off Before Access

Installing a hose requires total electrical shut off of the fuel dispenser and the STP's affecting that dispenser. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Veeder-Root equipment.

2. **Evacuating, Barricading and Shutting Off.** Any procedure that requires access to the pump/dispenser requires the following actions:



- An evacuation of all unauthorized persons and vehicles from the work area
 - Use of safety tape, cones or barricades at the affected unit(s)
 - A total electrical shut-off of the affected unit(s)
3. Open the panel/cover to the base of the dispenser and close the dispenser's shear valves.
 4. Before replacing or servicing dispensing components, such as the ORVR nozzle, hose, whip or breakaway, relieve the system pressure. (NFPA 30A 6.3.6) (2003 Revision)



5. If necessary, drain any product from the hose being replaced into an approved container and remove the hanging hardware.

Verifying Dispenser Is Securely Mounted

The Veeder Root Vacuum Assist Safety Breakaway is designed to prevent damage to the dispenser and hose in the event of a vehicle drive-off. This device separates at a pull force not to exceed 350 pounds (150 kg). To determine if the dispensing unit will withstand the maximum potential pull of 350 pounds, do the following:

1. Remove the lower panel/cover from the dispenser and verify that the dispenser is securely bolted to the island.
2. Connect a length of rope to the dispenser outlet casting (you may require a threaded bushing with a hole for attaching the rope). Attach a spring scale (capable of reading in excess of 350 pounds) to the rope and pull the rope until 350 pounds is measured on the scale.
3. Repeat in several different directions away from the dispenser. Take care to avoid damaging the dispenser and/or outlet casting.



WARNING! Veeder Root ORVR hoses are designed to withstand a 350 pound pull without damage. If another brand of hose is present at the dispenser, it must be replaced with Veeder-Root brand ORVR compatible hanging hardware.

Readying Dispenser For Vacuum Assist Whip Hose Installation

Before installing the Vacuum Assist Whip Hose you must:



1. Turn off electricity, tag and lockout the electrical power to the dispenser. Open the panel/cover to the base of the dispenser and close the dispenser's shear valves.



WARNING! Electricity must be turned off to the dispenser and shear valves closed prior to service to avoid damage to equipment, property, environment or personal injury!



WARNING! The Vacuum Assist Whip hose **ALWAYS** attaches to the dispenser. If a retractor is being used, the retractor clamp **MUST** be between the Vacuum Assist Safety Breakaway and dispenser. Do not use pipe dope or thread sealant.

2. Before installing, inspect the threads of the fittings on each end of the hose.
3. Inspect and lubricate the three o-rings on both fittings of the hose using mineral oil or other suitable lubricant (Figure 2).
4. Notice the short rubber sleeves covering the fitting ferrules at each end of the hose. One has an embossed arrow indicating flow direction (to the nozzle) and the other one does not.
5. Attach the hose end without the arrow to the dispenser outlet and tighten it to 50 foot-pounds (68 Nm) with a torque wrench having an open-end attachment.

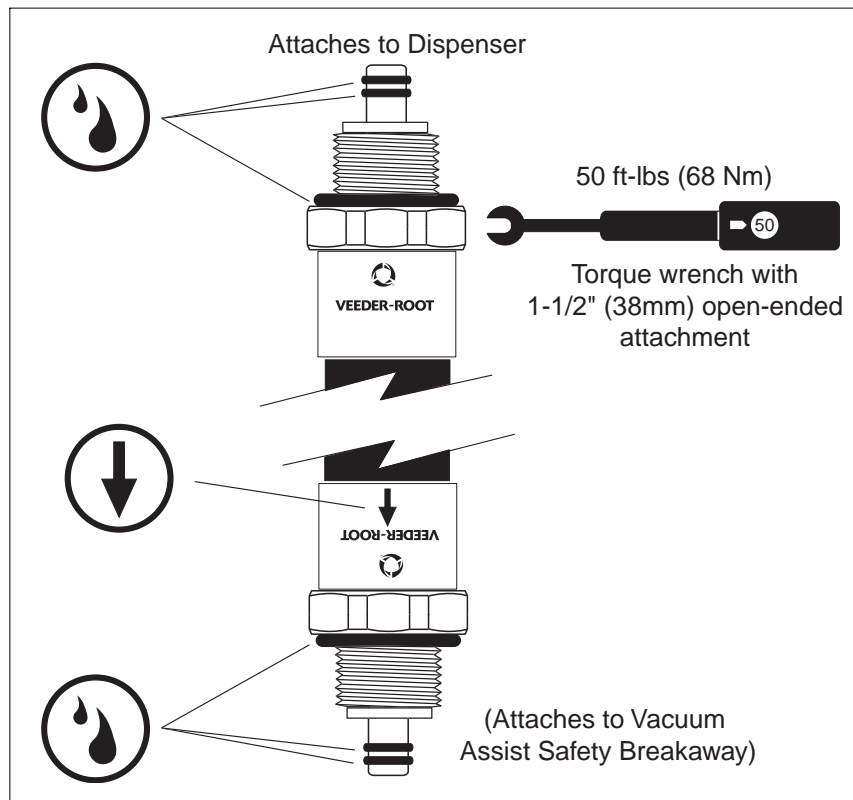


Figure 2. Connecting Vacuum Assist Whip Hose

Vacuum Assist Safety Breakaway Installation

Before installing the Vacuum Assist Safety Breakaway you must:



1. Turn off electricity, tag and lockout the electrical power to the dispenser. Open the panel/cover to the base of the dispenser and close the dispenser's shear valves.



WARNING! Electricity must be turned off to the dispenser and shear valves closed prior to service to avoid damage to equipment, property, environment or personal injury!

2. The Veeder Root Vacuum Assist Safety Breakaway is for vapor recovery applications and has o-ring seals.



WARNING! Do not use pipe dope or thread sealant.

3. Inspect the threads of the fitting on the end of the Vacuum Assist Whip Hose.
4. Inspect and lubricate the three o-rings (Figure 3) on the fitting using mineral oil or other suitable lubricant.
5. Notice the arrow on the Vacuum Assist Safety Breakaway label which indicates direction of flow (to nozzle).
6. Orient the Vacuum Assist Safety Breakaway so that the arrow on the label is pointing down (to the nozzle) and screw it onto the end of the Vacuum Assist Whip Hose. Use an 1-3/4" open ended wrench to hold the breakaway while you torque the fitting on the Vacuum Assist Whip Hose to 50 foot-pounds. DO NOT use the breakaway body to tighten the unit. Do not use channel-lock or "water-pump" pliers.

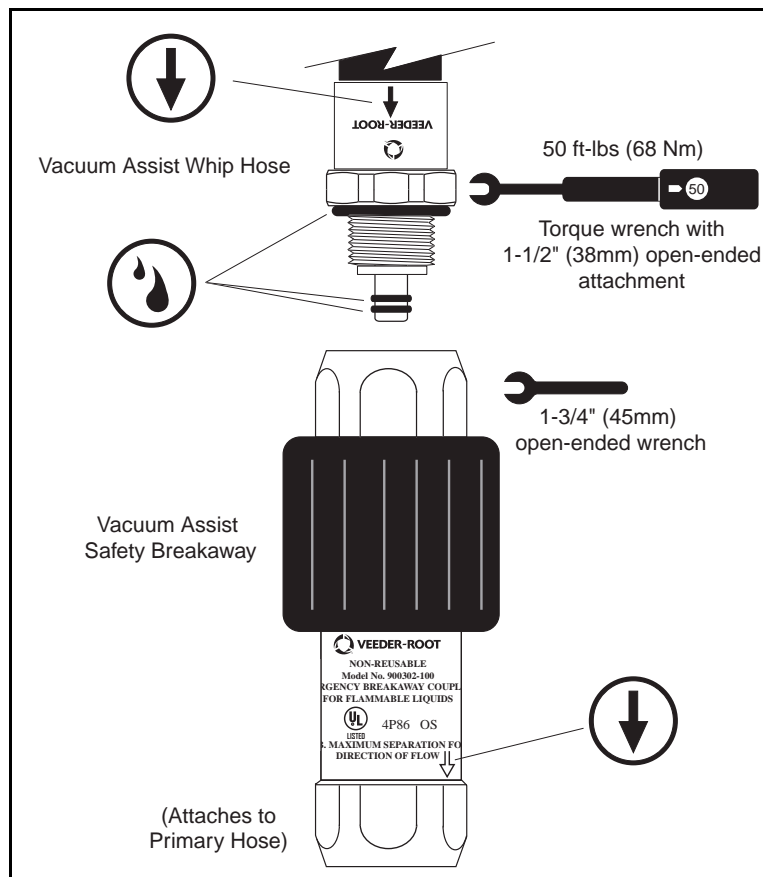


Figure 3. Connecting Vacuum Assist Safety Breakaway

Primary Hose Assembly with ORVR Sensor Installation

Before installing the Primary Hose Assembly you must:



1. Turn off electricity, tag and lockout the electrical power to the dispenser. Open the panel/cover to the base of the dispenser and close the dispenser's shear valves.



WARNING! Electricity must be turned off to the dispenser and shear valves closed prior to service to avoid damage to equipment, property, environment or personal injury!

2. Inspect the threads on each end of the Primary Hose Assembly with ORVR Sensor.



WARNING! Do not use pipe dope or thread sealants.

3. Inspect and lubricate the three o-rings (see Figure 4) on each fitting of the hose using mineral oil or other suitable lubricant.
4. Notice the ORVR sensor end of the Primary Hose assembly (see Figure 4). This end of the hose will attach to the nozzle.
5. Screw the non-ORVR sensor end of the Primary Hose assembly into the bottom of the Vacuum Assist Safety Breakaway and tighten it by hand (see Figure 4).
6. Use an 1-3/4" open-ended wrench to hold the breakaway while you torque the fitting on the Primary Hose Assembly to 50 foot-pounds. DO NOT use the breakaway body to tighten the joint. Do not use channel-lock or "water-pump" pliers.
7. Attach the ORVR nozzle to the downstream end (ORVR sensor end) of the Primary Hose Assembly and tighten it by hand (see Figure 4). Torque the fitting on the Primary Hose Assembly at the nozzle end to 50 foot-pounds. Do not use channel-lock or "water-pump" pliers.

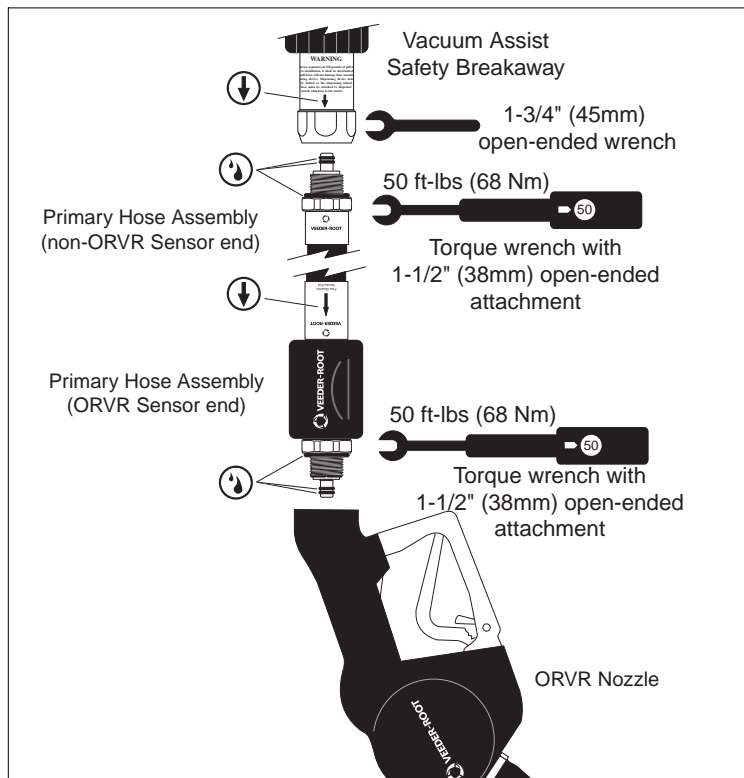


Figure 4. Connecting Primary Hose Assembly with ORVR Sensor

Apply Safe-Use Label to ORVR Primary Hose Assembly

1. Using a suitable cleaning solution, remove any dirt or contaminant from the circumference of the hose starting just above the rubber sleeve at the nozzle end of the hose and up about 3 inches (75mm) (Item 1, Figure 5). Wipe dry.
2. Remove the backing from the hose safe-use label.
3. With the adhesive side of the label facing the hose, hold one end in each hand as you carefully bring the ends of the label together (Item 2, Figure 5).
4. With the ends of the label aligned, pull the label against the hose as you slide your fingers down the label towards the hose, sticking the label together and to the hose (Item 3, Figure 5).

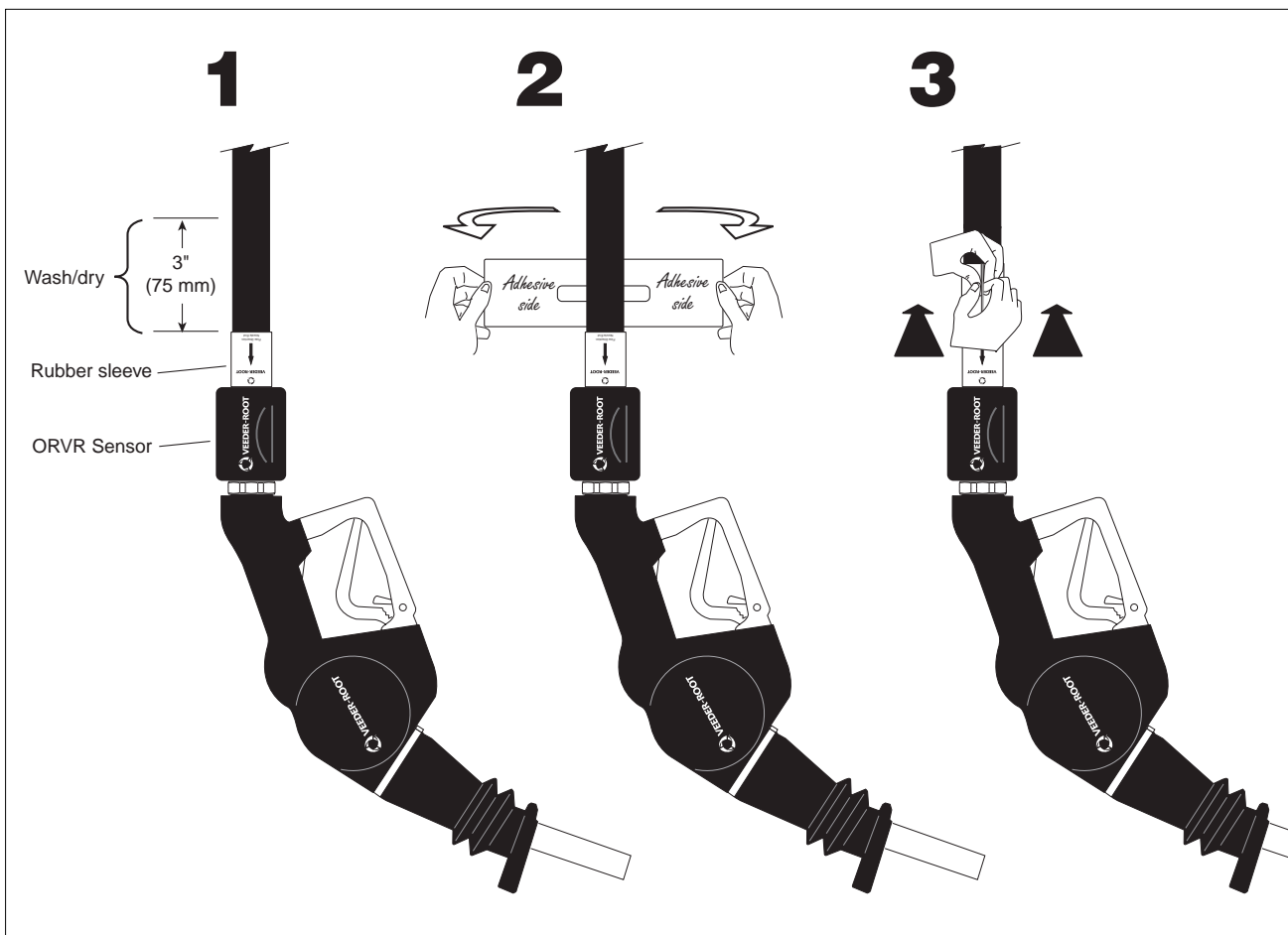


Figure 5. Attaching ORVR Hose Assembly Safe-Use Label

Checking for Leaks

1. Pressurize the dispensing system and check all threaded joints for leaks.



WARNING! Container must be on ground and nozzle must be in contact with container while purging air from system to discharge any static electricity during the purging.



2. Pump between one-half and one gallon of fuel into an approved container to purge the air out of the system, and then inspect each hose joint for liquid leaks.
3. Check the nozzle shut-off action by dispensing fuel into an approved container to assure proper automatic operation. Refer to Shut-Off Test procedure contained in Veeder Root ORVR Nozzle Installation and Maintenance manual (P/N 577013-888).
4. Check the resistance between the dispenser outlet casting and the tip of the nozzle spout. Refer to the Electrical Continuity Test procedure contained in Veeder Root ORVR Nozzle Installation and Maintenance manual (P/N 577013-888).



Maintenance

Recommended Periodic Visual Inspections

We recommend that you inspect the hanging hardware hoses weekly for cuts or abrasions and all joints for loose or leaking connections. Replace components as required.

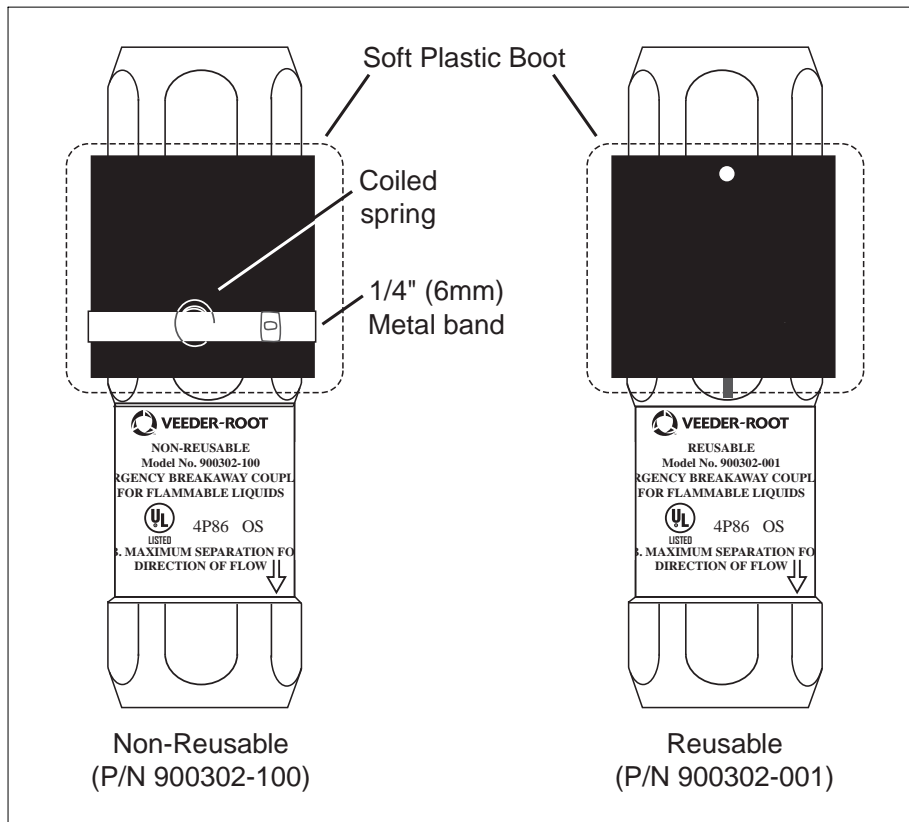
Reattaching a Breakaway

Following accidental separation, the V-R reusable breakaway (P/N 900302-001) can be reconnected in the ORVR hose assembly if it is not damaged.



WARNING! The V-R non-reusable breakaway (P/N 900300-100) can not be reassembled and must be replaced.

Refer to Figure 6 to identify each breakaway type.



REATTACHING BREAKAWAY

This work should only be done by a knowledgeable and experienced individual.



1. Turn off, tag, and lockout electrical power to the pump, ATG Console, and dispenser.

WARNING! Electricity must be turned off to the dispenser and shear valves closed prior to service to avoid damage to equipment, property, environment or personal injury!

2. Inspect both halves of the breakaway for damage that may have occurred during the separation.
3. Prior to reassembling, ensure that the mating parts are clean. Lubricate the two o-rings on the upper half of the breakaway (the end connecting to the whip hose) with mineral oil or a suitable lubricant (see Figure 7).
4. Notice on the upper (dispenser) half, that an end has been removed at the base of one of the slots of the slotted collar.
5. Notice on the lower (nozzle) half, that the anti-rotation pin at the top edge of the solid collar protrudes beneath the collar.
6. As you slide the nozzle half of the breakaway up onto the dispenser half, align the protruding pin so that it passes through the open-ended slot in the slotted collar.
7. Continue to push the two halves together concentrically until they snap into place. If the parts become cocked or otherwise do not snap together easily, pull them apart and repeat steps 6 and 7.
8. After it snaps together, give the reassembled breakaway a strong pull to verify that it is properly connected.
9. Check for leaks as instructed in "Checking for Leaks" on page 10.

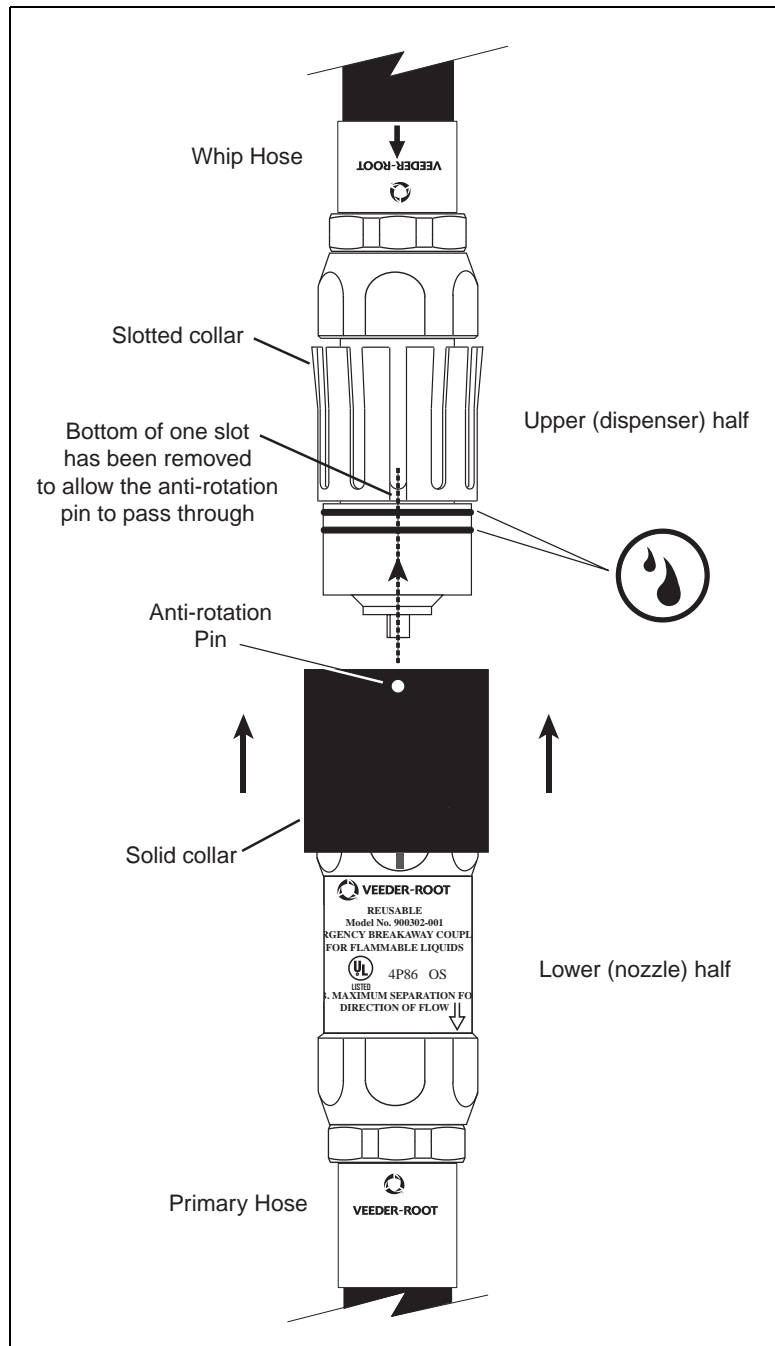


Figure 7. Connecting the Reusable Breakaway (P/N 900302-001)

If further information is needed for technical support and assistance, please visit www.veeder.com or call (800) 323-1799.

