



IPA470

# Hose and Spray Handle Assembly



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# Warranty

All Pacific Ozone products are covered by the following one year limited warranty, which is included in the Seller's Standard conditions of Sale:

## Warranty and Claims; Exclusions

- 1.1 Seller warrants to the original user only that its products to be free from defects in material or workmanship for a period of 12 months from shipment, but only when said products are operated at all times under normal operating conditions and procedures, in accordance with Seller's written instructions and the owner/operator manual supplied with each product. This warranty does not apply to replaceable parts or components normally subject to wear and replacement. Any misuse, improper operation or installation of any product, parts or equipment, as determined by Seller will void any and all warranty claims to the primary component as well as all supporting components. Any repair, modifications, or service performed by someone other than Seller or Seller's authorized technician will void any and all warranty claims to the primary component as well as all supporting components. Specific examples of voided warranty action include but are not limited to:
  - Allowing water to enter the ozone generator.
  - Supplying feed gas that is not clean and free from contaminants.
  - Supplying feed gas that is not dry to a -60° F (-51° C) minimum dew point (excluding generators that have onboard oxygen concentrators).
  - Supplying feed water above 30 psig (207 kPa) without utilizing a pressure reducing valve.
  - Connecting an improper power source to the unit that does not match the incoming power requirements as outlined in the owner operator manual.
  - Locating any product in an environment that is not well ventilated and protected and that does not remain between 32° F (0° C) and 100° F (38° C), or as otherwise outlined in the product documentation.
  - Any other use or condition which is contrary to specifications provided by Seller in product documentation, including the product manual and instructions.
- 1.2 Unless stated specifically on a formal, official "Performance Warranty Document" signed by an officer or director level employee of the Seller and an employee of the Buyer who is authorized to make such representations, there is no performance warranty on products or warranty on process results. Buyer acknowledges that the production of ozone is a process that is affected by a number of factors and conditions, and that no specific level of ozone production other than in the Performance Warranty Document, if applicable.

- 1.3 **WARRANTY DISCLAIMER** THE LIMITED WARRANTY DESCRIBED HEREIN IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. BUYER ASSUMES ALL LIABILITIES FOR USE AND MISUSE BY BUYER, ITS AGENTS OR ASSIGNEES.
- 1.4 Buyer shall give immediate notice in writing to Seller if products or components thereof or performance (where applicable) appear defective, and shall provide Seller with reasonable opportunity to make inspections, tests and repairs using the most efficient and cost effective methods available for such products or components. If Seller is not responsible under the terms of this document and/or any formal performance warranty, Buyer shall pay Seller the costs and expenses of such inspection, tests and repairs.
- 1.5 **SELLER'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT AT SELLER'S BENICIA FACTORY FOR THE ORIGINAL USER OF ANY PRODUCT OR COMPONENT PART THEREOF WHICH SHALL PROVE TO HAVE BEEN DEFECTIVE AND DOES NOT INCLUDE SHIPPING OR HANDLING CHARGES INCURRED DURING WARRANTY CLAIM PROCESS. NO ALLOWANCE WILL BE MADE FOR REPAIRS OR ALTERATIONS MADE BY BUYER WITHOUT SELLER'S WRITTEN CONSENT OR APPROVAL. IN LIEU OF REPLACING OR REPAIRING THE PRODUCTS, SELLER MAY, AT ITS SOLE OPTION, RETURN TO BUYER THE PURCHASE PRICE FOR THE PRODUCTS.**
- 1.6 **LIMITATION OF REMEDIES.** IN NO EVENT SHALL SELLER BE LIABLE TO BUYER FOR ANY AMOUNT, INCLUDING COSTS INCURRED OR EXPENDED BY BUYER IN ATTEMPTING TO CORRECT ANY PRODUCT DEFICIENCY, RELATING TO ANY CLAIM BY BUYER AGAINST SELLER IN EXCESS OF THE AGGREGATE TOTAL PURCHASE PRICE UNDER THIS CONTRACT. NO CHARGES OR EXPENSES INCIDENT TO ANY CLAIM WILL BE ALLOWED. THE REMEDIES PROVIDED HEREIN ARE EXCLUSIVE, AND SELLER SHALL INCUR NO LIABILITY OTHER THAN THAT STATED HEREIN. SELLER WILL NOT BE LIABLE FOR BUYER'S LOST PROFIT, LOSS OF USE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF SELLER'S ATTEMPT TO REPAIR THE DEFECT FAILS. BUYER HAS ACCEPTED THIS RESTRICTION ON ITS RIGHT TO RECOVER DAMAGES AS PART OF ITS BARGAIN IN THIS TRANSACTION, AND ACKNOWLEDGES THAT THE PRICE OF THE PRODUCT WOULD BE HIGHER BUT FOR THIS LIMITATION ON LIABILITY.
- 1.7 Goods may not be returned to Seller without Seller's written permission. Seller will provide Buyer with a "Return Material Authorization" number to use for returned goods. All returns shall have freight and related costs prepaid by Buyer from point of origin.

- 1.8 Seller is not responsible for meeting state and local codes or ordinances, or other special codes not specifically stated in writing on the purchase document or contract.
- 1.9 TECHNICAL ADVICE -Seller may, at Buyer's request, furnish technical assistance, advice and information with respect to the products supplied under this contract, if and to the extent that such advice, assistance and information is conveniently available, Seller has no obligation to provide such information, which is provided without charge at the Buyer's risk, and which is provided subject to the limited warranty of Paragraphs 1.1 and 1.2 above.
- 1.10 Warranty of equipment or accessories from outside sources, purchased by Seller and incorporated in the Seller products, is subject to that manufacturers standard warranty, to the exclusion of the limited warranty described herein. A copy of the aforementioned warranty is available on request.

# Safety

Carefully review and familiarize yourself with the following important safety information statements concerning Pacific Ozone generators.

**WARNING:** Oxygen is a fire hazard. It is very dangerous and vigorously accelerates the burning of combustible materials. To avoid fire and/or explosion, never use oil, grease, cotton fibers or any other combustible material on or near the ozone or oxygen generators. Smoking, heat, and open flame should be kept at a distance of no less than 5 feet from any part of the system. It is **STRONGLY** recommended that only individuals experienced in the safe handling of oxygen be allowed to operate this equipment.



**WARNING:** OSHA exposure limit to ozone is 0.1 ppm for a period of 8 hours. (Ref. OSHA Air Contaminants Standard, 29 CFR 1910.1000) (EU Directives - 96/62/EC, 92/72/EC, 99/30/EC.)



**WARNING:** Ozone is a highly toxic oxidizer. Ozone has a distinctive odor, which is easily recognized at very low concentrations. If this odor presents itself at any level, disconnect the generator and contact your installer.



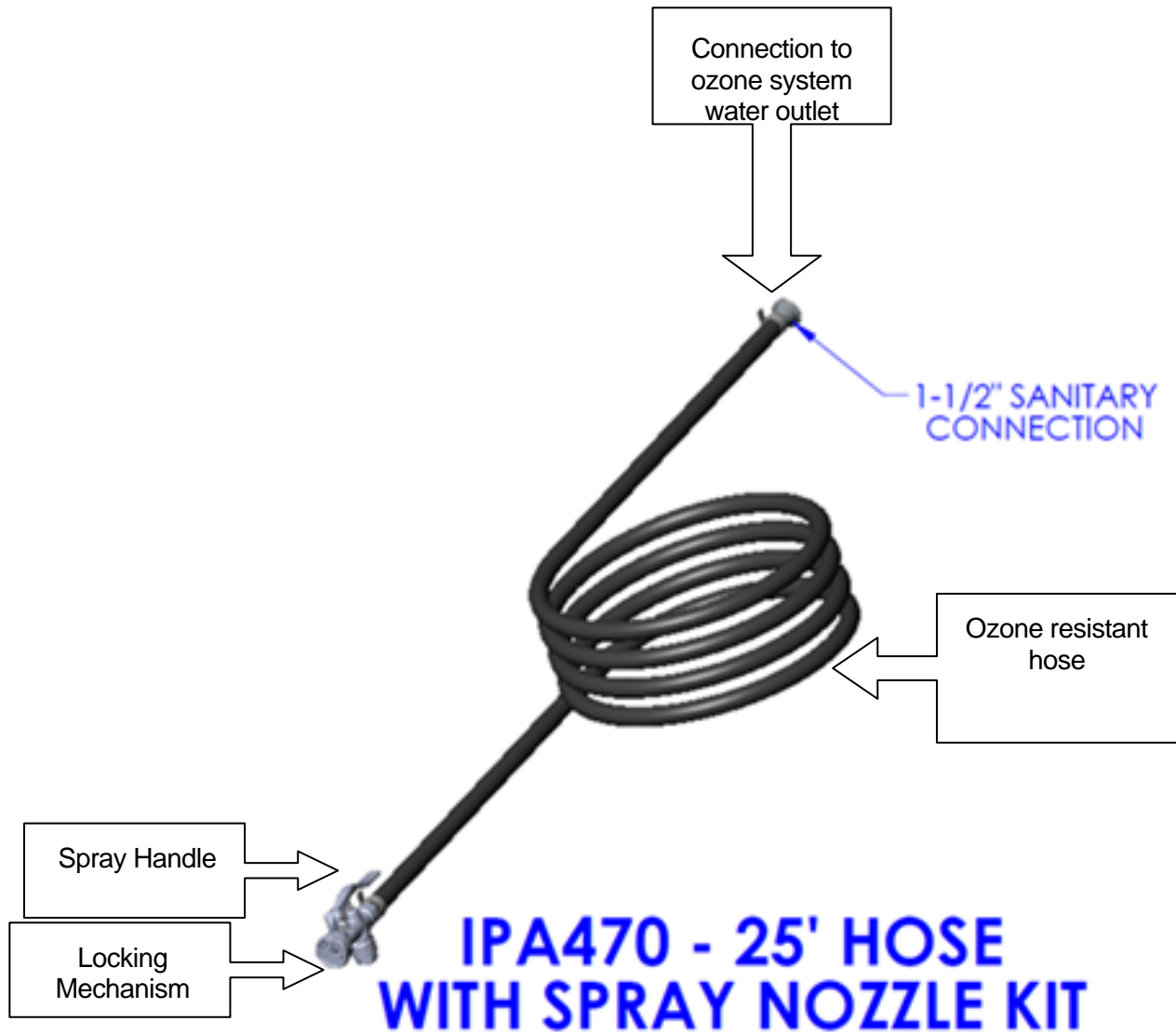
**WARNING:** High voltage and high capacitance is present in ozone generators. Only qualified electricians should work on this equipment.



**WARNING:** **DO NOT 'WASH DOWN' THE OZONE GENERATOR! Damage can occur that will void the warranty.**



# IPA470 Layout

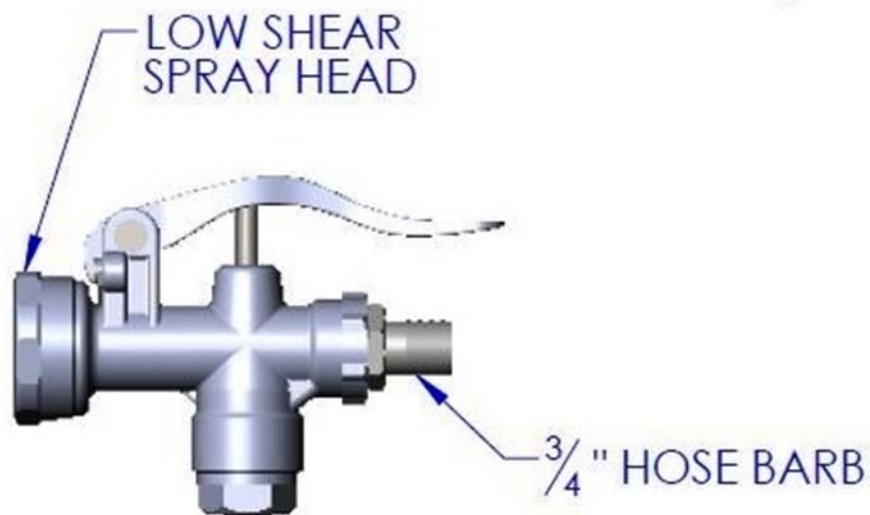


# Typical Installation





# Spray Handle Performance



## ASR165 NOZZLE

Recommend pressure for max flow 20-25psi  
*GPM 6.6 at 14.5psi*  
*GPM 9.0 at 22psi*

Note: most ozone systems use flow switches to protect water pumps. Check minimim water flow requirement of ozone system and operate at a pressure that provides enough water flow.

# Installation Requirements

## Requirements

- This assembly is intended for use with ozonated water only
- Water connections are 1-1/2" sanitary Tri-Clamp type
- Only ozone resistant Teflon tri-clamp gaskets should be used

## Technical Support

### Telephone Technical Support

Technical support is available by telephone directly from Pacific Ozone at **(707) 747-9600**. When calling, please have the following information available:

- Model number
- Serial number

Help is also available by faxing **(707) 747-9209** or by email at **service@pacificozone.com**.

### Field Services

Complete field services are also available. Please contact Pacific Ozone Services for fees and scheduling. Pacific Ozone will confirm all field service requests in writing prior to scheduling.

# Service

## Upon Delivery

- If the exterior of a unit's crate is damaged, have the driver make a signed notation on the freight bill.
- Unpack the unit at once.
- Inspect the cabinet exterior and chassis thoroughly for damage.
- Open unit and inspect the interior of the generator enclosure for loose or damaged parts.
- Inspect the wire harness to be sure that none of the push-on connectors have become disconnected.
- If a wire has come loose, check first for any clearly identifiable reconnections.

**Note:** If concealed damage is found, do not discard the damaged shipping carton. Call the freight company that made the delivery and file a concealed damage claim *within 24 hours of delivery*. Only the consignee can file a damage claim.

## Returning a Unit for Service

If a unit needs repair, prior approval must be obtained. Pacific Ozone will not accept returned equipment unless a Return Materials Authorization (RMA) number has been issued. No RMA will be issued without the unit's serial number.

### *Return Procedure*

- Obtain Return Materials Authorization (RMA) number from Pacific Ozone.
- Clearly write the RMA number on the outside of the shipping carton.
- Carefully repack the unit with original packaging material, using additional cushioning material if necessary. Customer is responsible for any damage that occurs in transit.
- Prepay the shipping charges and insure the item for its full value.

**Note:** Pacific Ozone will not accept returns without an RMA number, or returns that are sent COD or freight collect. Pacific Ozone will not advance customs clearance fees. All international shipments must be shipped door-to-door.

# Spare Parts List

Part number	Description	Model	Preventive Maintenance part	Emergency Spare part	General Replacement part
ASR165	Spray Handle	all		•	
IPA476	Hose assembly with fittings	all		•	
PPC217	Stainless Tri-Clamp	all			
PPC222	Teflon gasket for Tri-Clamp connection	all			
FBM211	Hose clamp	all			
FBM210	Hose	all			
PPC798	Adapter, 1.5" sani x 3/4" barb for 3/4" ID hose	all			



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