



Roving Blue® OZO-Pod® 50, 1000

Operations Manual

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These units are not intended for retail sale to the general public. They are for use by professional engineers or laboratory personnel with knowledge of ozone and electrical connections.

BEFORE YOU USE THE OZO-POD®, READ, FOLLOW AND SAVE THESE INSTRUCTIONS. THERE ARE NO USER-SERVICABLE PARTS. EXPOSING PARTS IN THE OZO-POD® WILL VOID YOUR WARRANTY.

INTERNAL PARTS SHOULD NOT BE TAMPERED WITH.

Roving Blue®, Inc.

5220 St. Patricks Road

Lena, Wisconsin USA 54139

Tel: (855)4-WATER-5, that is (855)492-8375

Email: info@rovingblue.com

Web: www.rovingblue.com

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Introduction

This manual was written to assist in the operation and maintenance of your unit. Please read this manual carefully and in its entirety before operating.

Caution: The Roving Blue® OZO-Pods® are designed for use with clear tap water of unknown safety. It may be used with fresh surface waters or collected rain water, however, it is quite important that you make sure the water is clear. DO NOT USE WITH CLOUDY WATER. Examine the water carefully. If there is any cloudiness present, this is an indicator of high bacteria levels. While ozone is highly effective at killing bacteria, the OZO-Pods® may not generate enough ozone to kill very high levels of bacteria.



Operate it until there is a strong smell of ozone. It is not possible to “over-ozonate” water, however, you can under dose it. If you cannot smell the ozone, it is probably being used up by whatever is in the water. You may need to operate it many times to be sure you can smell the ozone. As an alternative, purchase an ozone test kit to verify ozone levels. They are available on our website.

Be Aware: Infectious microbes can be encountered in many ways. Some other ways that infectious diseases can be spread are through:

- Foods washed in unsafe water
- Contact with infected people, animals or objects
- Unintentional water consumption, such as when brushing teeth, showering or swimming

Opportunities for infection are abundant and virtually everywhere, so it is important to realize that the use of a Roving Blue® OZO-Pod® device does not guarantee that the user will avoid illness. To avoid microbial infection, one must take advantage of a wide range of precautions. The use of a Roving Blue® OZO-Pod® is an important precaution, but not the only precaution that one should take.

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Before Use

Roving Blue® OZO-Pods® are designed to ensure safe drinking water from tap or other clear water sources such as rainwater or clear streams.

Do not use for any other purpose.

NOTE: If the water is very dirty or contains silt, it should be collected in a receptacle (such as a jerry can or barrel) and allowed to settle prior to use, preferably overnight. In addition, use a pre-filter to ensure clear, clean water. Also, water containing tannins (a “tea” coloring) will be rendered safe to drink; however, the tea color may not be removed.



Overview

Roving Blue® OZO-Pods® make water safe to drink by using dissolved ozone as a sanitation agent.

Ozone, or "O3", is the most powerful oxidizer available that can be safely used in water treatment.ⁱ

Ozone is a strong oxidant that is widely recognized as a biocide and has the ability to achieve more than 99.9% pathogen kill rates.

Treatment with ozone is a proven and long-accepted method for disinfecting drinking water. Users of ozone technology include municipal water treatment plants, water bottling companies, hospitals and hotels.

In 1997, the FDA approved the use of ozone as an anti-microbial agent with indirect contact with foods.

In 2002, the FDA approved ozone for use on food contact areas and directly on food with its "Generally Regarded as Safe" (GRAS) designation.

Today, the Organic Foods Production Act (OFPA) identifies aqueous ozone (ozone dissolved in water) as a substance that is allowed for use in organic crop and livestock production.

Ozone has been shown to be effective in a variety of drinking water applications including:

Disinfection, iron (Fe) and manganese (Mn) reduction, hydrogen sulfide removal, and taste and odor reduction.

Ozone can also reduce formation of disinfection by-products such as trihalomethanes (THMs) and haloacetic acids (HAAs). Ozonation is effective for removal of difficult to treat pathogens such as giardia and cryptosporidium.

The amount of O3 generated by the OZO-Pod® will vary depending on water temperature, chemistry, conductivity and pH.

According to the EPA, this is a Partial List of Micro-organisms that Ozone Can Destroy:

- Bacillus anthracis (Anthrax)
- Cryptosporidium
- Giardia
- Influenza
- Poliovirus (Poliomyelitis)
- Salmonella paratyphi (Enteric Fever)



- Streptococcus faecalis Bacteriophage (E. Coli)
- Dysentery bacilli (Diarrhea)
- Hepatitis
- Legionella pneumophilia (Legionnaires' Disease) Salmonella (food poisoning)
- Salmonella typhosa (Typhoid Fever)
- Tuberculosis

Failure to follow these instructions could result in personal injury, damage to the equipment or reduced product performance.

In our ongoing efforts to improve reliability and operating efficiency, Roving Blue®, Inc. may find it necessary to make changes to its products. The information contained in this guide may not conform in every respect to earlier versions.

Product Registration & Warranty Information

For product registration and warranty information, please visit www.RovingBlue.com/warranty or contact your local reseller.

Operating Instructions

For OZO-Pod® 50:

Note the “on/off” switch and make sure the unit is off.

Plug the cord into a GFCI protected (kitchen or bath) protected outlet.

Fill a sink or bowl or tank with the desired amount of water you want to treat.

Place the OZO-Pod® so that it is positioned at the bottom of the tank. How quickly the OZO-Pod® will bring the of water to your desired level of ozone will depend on many factors, they are:

- Tank size
- Tank shape
- pH of water
- Temperature of water
- Conductivity of the water (the unit will not work well with ultra-pure water)

1PPM (part per million) +, is lethal to most microorganisms. A good “rule of thumb” for the water to



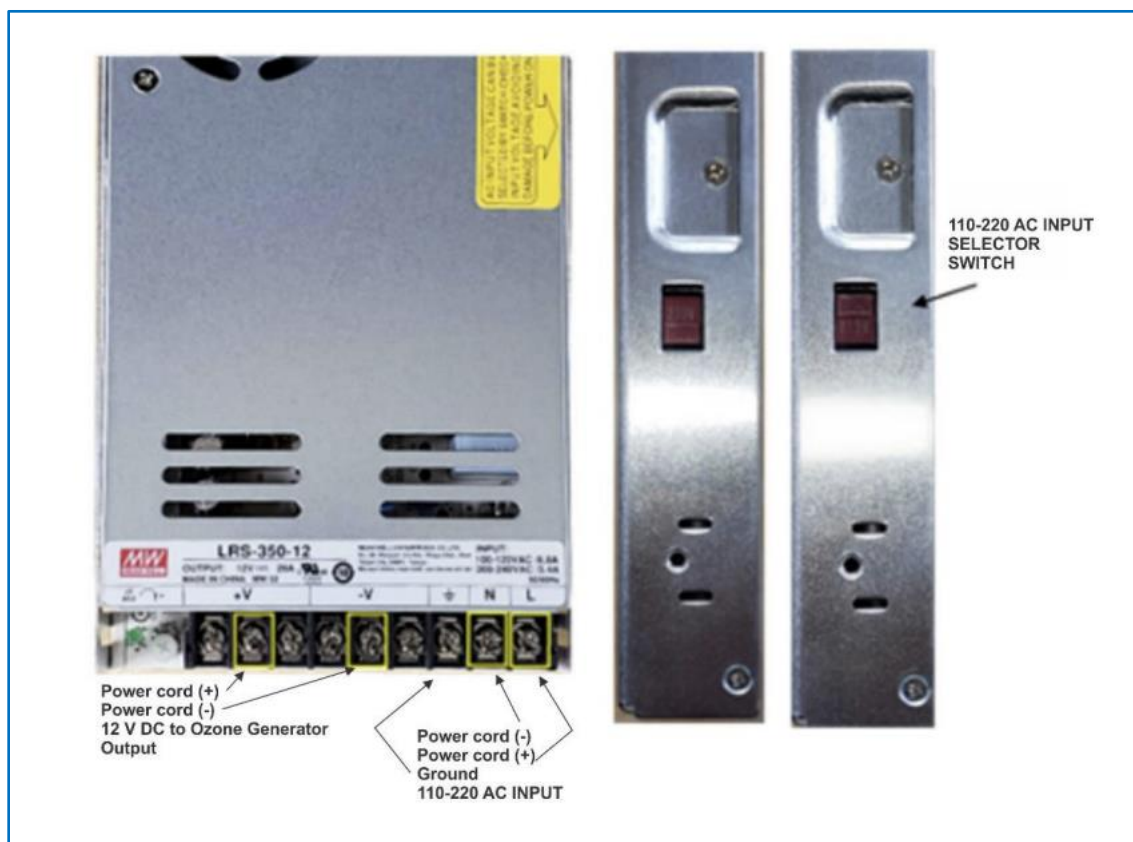
reach this level is “one liter, one minute, one part per million”. You may purchase ozone test kits to verify levels of ozone (not provided), however the “smell test” works well. Ozone has a sharp smell not unlike chlorine. You will definitely smell the ozone once it has saturated the water.

Once powered up, the OZO-Pod® will begin emitting a cloud of ozone gas in tiny bubbles in the water. You will notice the sharp, clean smell of ozone, which many people compare to the smell in the air after a thunderstorm. Run as long as necessary to reach desired ozone levels. Wait 5 minutes as ozone needs “contact time” to kill undesired microorganisms.

For the OZO-Pod® 1000

The OZO-Pod® 1000 has a separate power converter which has a switch to choose between 115V AC and 230V AC on the side of the box. Use a screwdriver to move the switch to the desired setting.

You must attach the power supply lines as shown:





NOTE on Water Tanks:

Water tanks should incorporate the use of a pump to circulate and agitate the water so that the ozone is mixed well from bottom to top. This will evenly distribute the ozone throughout the water to ensure maximum disinfection.

After 5 minutes contact time at the desired level of ozone, you may utilize the water.

Lifetime of unit:

The OZO-Pods® have a lifetime of between 1,000 and 3,000 hours. Use of a timer to run the unit once or twice a day will make it last considerably longer than utilizing it continuously.

Once it is powered off, the ozone dissolved into the water will immediately begin to revert back to oxygen, and the smell is diminished. Once you can no longer smell the ozone, you can assume the water is safe to use.

Shut Down Procedures:

Once you are done, simply remove the OZO-Pod® from the water and allow to air dry. Store in a clean dry place.

For further information, you should contact your nearest Roving Blue® re-seller (see Map on our website) or contact us directly at www.RovingBlue.com.

Care & Caution:

The Roving Blue® OZO-Pods® should be operated according to the guidelines described in this manual.

The guidelines are not a substitute for determining additional safety procedures.

This unit is designed for safe operation when used as directed. This device is not intended for use by children.

This is an electrical device. There are no user-replaceable or user-repairable parts. Please return the device to your local sales representative/reseller or distributor with any repair issues.

Never disassemble a Roving Blue® OZO-Pod® unit. Removal of, or tampering with any components may cause injury or damage to your unit and will void your warranty. Do not open, expose, modify, dismantle or touch internal circuitry; this can lead to an electrical shock or damage.



Ongoing Care & Cleaning:

When not in use, the OZO-Pod® should be kept in a clean, dry, non-abrasive area or container. The units should not be exposed to ambient temperatures above 140F or 60 C or below -4F or 20C.

Maintenance of the Electrodes: Tap water often contains minerals such as calcium carbonate. These minerals will accumulate on the electrodes and will cause the electrolysis process to slow down. When the generation of ozone water appears weak, clean the electrodes with a dilute acid solution such as citric acid, vinegar, or a commercial preparation such as CLR as follows:

1. Prepare a solution of tap water and regular white kitchen vinegar at a ratio of 5:1 water to vinegar or 10:1 water to citric acid. Or 10:1 with CLR
2. Dip the ozone electrode into this solution for 10 minutes. Do NOT apply power. 3. Rinse the ozone water generator with tap water. After cleaning the electrodes, normal production volume will resume.

ⁱ 1 1 Water Quality Association, "Ozone for POU, POE and Small Water System Water Treatment Applications," Lisle, IL 1999