83046-1 05/07/2008 1/46

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7510C)
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

NOTICE OF PESTICIDE:
x Registration
__ Reregistration

(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
83046-1	MAY 7 2008

Term of Issuance: Expires on May 7, 2011

Name of Pesticide Product: Binary Ionization Technology Hydrogen Peroxide 7.5 % Ready-to-Use

Name and Address of Registrant (include ZIP Code):

L3 Communications
3394 Carmel Mountain Road
San Diego, CA 92121-1002

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA section 4.

2. Make the labeling changes listed below before you release the product for shipment:

a. Add the phrase "EPA Registration Number 83046-1."

Signature of Approving Official:

M Swindell

Marshall Swindell
Product Manager-33
Regulatory Management Branch I
Antimicrobials Division (7510P)

Date: MAY 7 2008

EPA Form 8570-6

3. Within six months (11/07/08) from day of registration, submit a testing protocol for a simulated field study using the product to control mold in building.

4. Within nine months (02/07/09) after acceptance of the testing protocol, submit a simulated field study using the approved protocol to control mold in buildings to the Agency for our review.

5. The Confidential Statement of Formula dated January 26th, 2006, is acceptable.

This registration will expire on May 7, 2011, unless the conditions of the registration notice have been satisfied.

6. Submit three (3) copies of the final printed label prior to releasing this product for sale.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,

M Swindell

Marshall Swindell
Product Manager 33
Regulatory Branch I
Antimicrobials Division (7510P)

Enclosure: (Stamped Labeling)

ACCEPTED
With Comments
In EPA Letter Dated:

MAY 7 2008

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No

83046-1

BIT™ Binary Ionization technology

For use in mold control and remediation

Active Ingredient:

Hydrogen peroxide	7.5%
Inert Ingredients	92.5%
Total	100%

EPA Reg. No. 83046-R EPA Est. No. _____

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

OXIDIZER CORROSIVE

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	• Move person to fresh air • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	

DANGER: Corrosive. Causes irreversible eye damage or skin burns. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing.Do not breath spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. User should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. User should remove contaminated clothing and wash before reuse.

Personal Protective Equipment PPE

Applicators and all other handlers must wear: long-sleeved shirt and long pants; socks and chemical resistant footwear; goggles or face shield; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton; a self-contained breathing apparatus if concentrations exceed 1 ppm during handling and/or application of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use. Do not use oxidizable sorbants such as activated carbon.

Physical or Chemical Hazards Liquid hydrogen peroxide is a strong oxidant and poses a FIRE EXPLOSION OR CONTAINER RUPTURE HAZARD. Avoid excessive heat, contamination, or contact with combustible materials. Clothing, shoes, or other combustible materials that have come in contact with hydrogen peroxide must be immediately and thoroughly washed with water. If allowed to dry in the materials, a fire may result. Discard shoes in a fireproof container. IN CASE OF FIRE, use water only. CONTAIN SPILLS and dilute with 20 parts of water.After diluting the spill, sodium metabisulfide or sodium sulfite (1.9 lbs. of SO^2 equivalent per 500 ml of peroxide) may be used to destroy the peroxide.

SEE EQUIPMENT MANUAL AND MATERIAL SAFETY DATA SHEET FOR ADDITIONAL INFORMATION.

Environmental Hazards Do not discharge effluent containing these products into lakes, streams, ponds, ocean or public waters unless these products are specifically identified and addressed in a NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage authority. For guidance contact your State Water Board or Regional Office U.S. Environmental Protection Agency.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. For use as a mold control and mold inhibitor during remediation of sealed, dry pre-cleaned enclosures located in industrial, commercial and institutional settings (including production operations in pharmaceutical manufacturing including clean rooms,, laboratories, animal research facilities,, hotel rooms, offices, cruise ships, and recreation facilities). This product is not intended for use on or to control mold on textiles or hard porous surfaces. Use only with BIT™ Hydrogen Peroxide 7.5% Ready-To-Use application equipment. This product is used to treat wood, wallboard, concrete, and masonry(cinder) block building materials to inhibit or prevent the growth of mold organisms when the materials are subjected to moist or wet environments. Before applying this product, visible mold growth must be removed, and conditions favorable to mold growth must be identified and corrected.

DO NOT use on food-contact surfaces, or on the interior of buildings engaged in food processing or food handlin

REMEDIAL TREATMENT This product must be used as part of a comprehensive mold remediation or water damage restoration program,including:

- Periodic monitoring and inspection of conditions favorable to mold growth such as moisture ingress and high relative humidity
- Effecting repairs as necessary to eliminate conditions favorable to mold growth
- Drying of affected areas to below 20% moisture content

The following associations and Internet sites should be consulted for information on standards and guidelines for remedial treatment of mold and mildew:

- IAQA-Indoor Air Quality Association (www.iapa.org)
- EPA-Environmental Protection Agency (www.epa.gov)
- DOH-New York City Department of Health (www.ci.nyc.ny.us\html/doh\html/eoilmoldrpft%ml)
- IICRC-Institute of Inspection, Cleaning and Restoration Certification

For use in precleaned enclosures up to 4,000 ft^3. The use rate to achieve a minimum 600 ppm hydrogen peroxi is approximately 0.4 ML of product per ft^3 of enclosure volume to achieve a dose of 600 PPM hydrogen peroxide of enclosure, which should be maintained for a 20 minute contact time. The product is to be used as packaged and is not to be diluted in any way. Use an appropriate volume of the product in the fogger to ensure that the hydrogen peroxide concentration in the room remains at 600 ppm for at least 20 minutes. The quanitity of produ required to achieve 600 PPM hydrogen peroxide may vary according to the enclosure being treated. Prior to us of the product for a particular enclosure test the fogger and product to determine the volume of product needed t maintain the atmospheric hydrogen peroxide concentration of 600 ppm at the current room temperature and humidity. Appropriate dose application can be verified using exposure time and PPM hydrogen peroxide.Chemic Indicators (CIs) may also be used as an adjunct to exposure time and PPM. See package insert for details on dose application verification. Shade from radiant heat and direct sunlight. Stow away from powdered metals an permanganates. This product is for use in BIT™ Hydrogen Peroxide 7.5% Ready-To-Use application equipment only, and by trained personnel trained by BINARY IONIZATION, INC. Read and follow package insert for complete directions on cleaning, sealing and use of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use in monitored and non-monitored applications. See Equipment User Manual for operating procedures of the BIT™ Hydrogen Peroxide 7.5% Ready-To-Use application equipment. Do not use this product without development of an appropriate fumigation plan (see package insert). Not for use asa terminal sterilant or high-level disinfectant for reprocessing of critical or semi-critical medical devices.

STORAGE AND DISPOSAL Store containers upright at or below 77° F. Do not freeze. Do not expose to cyanide, hexavalent chromium compounds, other oxidizers, reducers, combustible materials, or flammable vapo

PESTICIDE DISPOSAL Rinse containers with 20 parts water and then empty into sink with running water. Hydrogen peroxide is classified as a DOT oxidizer and a hazardous waste under U.S. EPA hazardous waste regulations and it is a violation of federal law to improperly dispose of pesticides.

CONTAINER DISPOSAL: Rinse container with running water and dispose of with normal non-incinerated waste

Product Made in U.S.A.

R08-0015

See back panel for additional precautionary statements.

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BIT™ binary Ionization technology

Package Insert for Binary Ionization Technology™ (BIT™)
Hydrogen Peroxide 7.5% Ready-To-Use
EPA Registration No. 83046-R

Index

1. GENERAL INFORMATION AND RESTRICTIONS

BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is for use in mold control and remediation, and is not intended for use on or to control mold on textiles or hard porous surfaces. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is for use in enclosures that do not exceed 4000 ft^3. This product has been registered by Binary Ionization, Inc. in accordance with Federal Regulations for the specific uses described in this package insert. Uses other than as specified and described are not permitted and may not be effective in remediating exposed surfaces in pre-cleaned sealed enclosures.

This product is used to treat wood, wallboard, concrete, and masonry (cinder) block building materials to inhibit or prevent the growth of mold organisms when the materials are subjected to moist or wet environments. Before applying this product, visible mold growth must be removed, and conditions favorable to mold growth must be identified and corrected.

DO NOT use on food-contact surfaces, or on the interior of buildings engaged in food processing or food handling.

REMEDIAL TREATMENT
This product must be used as part of a comprehensive mold remediation or water damage restoration program, including:

- Periodic monitoring and inspection of conditions favorable to mold growth such as moisture ingress and high relative humidity
- Effecting repairs as necessary to eliminate conditions favorable to mold growth
- Drying of affected areas to below 20% moisture content -

The following associations and Internet sites should be consulted for information on standards and guidelines for remedial treatment of mold and mildew:

- IAQA-Indoor Air Quality Association (www.iapa.org)
- EPA-Environmental Protection Agency (www.epa.gov)
- DOH-New York City Department of Health (www.ci.nvc.nv.uslhtml/dohlhtml/eoilmoldrpft%rnl)
- IICRC-Institute of Inspection, Cleaning and Restoration Certification

Review the Binary Ionization Technology™ (BIT™) User's Equipment Manual for proper instructions on how to operate the BIT™ Fogger prior to utilizing the equipment for treating contaminated areas. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use should be applied only by properly trained and certified personnel who are thoroughly trained in the use and operation of the BIT™ Fogger and BIT Hydrogen Peroxide 7.5% Ready-To-Use Application Process.

Effective application of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use requires adequate hydrogen peroxide concentration and exposure time. The BIT™ Fogger is utilized to achieve the concentration and contact time of hydrogen peroxide in the enclosed area. The process parameters are controlled through the use of appropriate monitoring instruments. See the BIT™ Fogger Equipment User's Manual prior to initiating the application process to determine the appropriate steps to take in development and application of the process.

The BIT™ Fogger uses air as a carrier to deliver hydrogen peroxide aerosol to exposed surfaces inside a sealed enclosure. This allows the process to take place at atmospheric pressure. Since the BIT™ process relies only on the contact of the BIT™ Hydrogen Peroxide 7.5% Ready-To-Use solution with exposed surfaces, the transfer of heat and moisture required by steam or chemical processes is not necessary.

The BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is injected for the required time to maintain the desired concentration of hydrogen peroxide. Once the BIT™ Hydrogen Peroxide 7.5% Ready-To-Use leaves the enclosure, it is typically broken down into water vapor and oxygen.

The BIT™ process consists of three phases:

- EXPOSURE – The BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is injected into the air stream. The EXPOSURE phase facilitates reaching the desired hydrogen peroxide concentration in the sealed enclosure. EXPOSURE time is affected by hydrogen peroxide target concentration, injection rate, enclosure materials, environmental conditions and enclosure volume.

- DWELL – The PPM of hydrogen peroxide is monitored. Usually, a sufficient EXPOSURE time will provide adequate hydrogen peroxide levels during DWELL without adding more BIT™ Hydrogen Peroxide 7.5% Ready-To-Use. In some instances additional injections of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use may be required to maintain the target hydrogen peroxide concentration in the sealed enclosure required to achieve the required level of remediation.

- AERATION – The BIT™ Hydrogen Peroxide 7.5% Ready-To-Use injection is stopped and the enclosure is aerated and/or scrubbed to reduce the Hydrogen Peroxide concentration within the enclosure to a 1 PPM level (≤1.0 PPM TWA 8 hr.) prior to reentry into the enclosure by trained applicators. Treated enclosures may not be released for general public use until 1 hour after a 1 PPM level of hydrogen peroxide is achieved in the enclosure.

2. USER SAFETY REQUIREMENTS

a) RESPIRATOR REQUIREMENTS – When a respirator is required for use with this product, the trained applicator supervising the fumigation must make sure that:

i. Respirators must be fit tested and fit checked using a program that conforms with OSHA's requirements (described in 29 CFR Part 1910.134).

ii. Respirator users must be trained using a program that conforms with OSHA's requirements (described in 29 CFR Part 1910.134).

iii. Respirator users must be examined by a qualified medical practitioner to ensure the physical ability to safely wear the style of respirator to be worn.

iv. Respirators must be maintained according to a program that conforms with OSHA's requirements (described in 29 CFR Part 1910.134).

b) CONTACT PRECAUTIONS - Liquid hydrogen peroxide is corrosive and will cause irreversible eye damage or skin burns and may be fatal if inhaled at higher concentrations. It is also harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Do not breathe spray mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. User should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. User should remove contaminated clothing and wash before reuse. Discard clothing and or absorbent material that has been heavily drenched or contaminated with liquid hydrogen peroxide.

c) CLEANING PROTECTIVE EQUIPMENT - Follow manufacturer's instructions for cleaning/maintaining protective eyewear and respirators.

d) USER SAFETY RECOMMENDATIONS

i. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

ii. Users should remove clothing/PPE immediately if hydrogen peroxide gets inside. Then wash thoroughly and put on clean clothing.

iii. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as practical, wash thoroughly and change into clean clothing.

3. USE OF PRODUCT

BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is effective in controlling and inhibiting mold as remediation on exposed, pre-cleaned, dry, porous and non-porous surfaces in sealed enclosures in industrial, commercial and institutional settings (including production operations in pharmaceutical manufacturing, manufacturing clean rooms, laboratories, animal research facilities, hotel rooms, offices, cruise ships, and recreational facilities) when used with BIT™ application equipment. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is for use in mold control and remediation, and is not intended for use on or to control mold on textiles or hard porous surfaces. See Section 7 for instructions on developing parameters for application.

BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is for use in enclosures that do not exceed 4,000 ft^3. The dose application for the enclosure being treated can be verified using exposure time and PPM hydrogen peroxide. Optional conformation of applied dose can be verified using exposure Chemical Indicators (CIs) as an adjunct to exposure time and PPM. See Section 8 for instructions on verifying dose application with CI's.

This product is not to be used as a terminal high level disinfectant or sterilant for reprocessing of any critical/semi-critical medical device in a healthcare setting.

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FUMIGATION MANAGEMENT PLAN

The Binary Ionization, Inc. trained applicator is responsible for working with the owner and/or responsible employees of the site to be fumigated to develop a site-specific Fumigation Management Plan (FMP) for each site that will be treated with BIT™ Hydrogen Peroxide 7.5% Ready-To-Use. The applicator is responsible for all tasks of the fumigation process unless otherwise noted in the FMP and must be on site for the entire fumigation treatment process. The FMP must address characterization of the site, and include appropriate monitoring and notification requirements, consistent with, but not limited to, the following:

a) Inspect the structure and or area to determine its suitability for fumigation.

b) When sealing is required, consult previous records for any changes to the structure, seal leaks, and monitor any occupied adjacent rooms and/or buildings to ensure safety.

c) Prior to each fumigation, review any existing FMP, MSDS, Equipment Manual and other relevant safety procedures with company officials and appropriate employees.

d) Consult with company officials in the development of procedures and appropriate safety measures for nearby workers who will be in and around the area during application and aeration.

e) Consult with company officials to develop an appropriate monitoring plan that will confirm that nearby workers and bystanders are not exposed to levels above the allowed limits during application, fumigation and aeration. This plan must also demonstrate that nearby residents will not be exposed to concentrations above the allowable limits.

f) Consult with owners and or responsible employees at the site who will be responsible for development of procedures for local authorities to notify nearby residents in the event of an emergency.

g) Confirm the placement of placards to secure entrance into any area under fumigation.

h) Confirm the required safety equipment is in place and the necessary manpower is available to complete fumigation.

These factors must be considered in putting a FMP together. It is important to note that some plans will be more comprehensive than others. All plans should reflect the experience and expertise of the applicator and circumstances at and around the structure and/or area.

In addition to the plan, the applicator must read the entire label and equipment manual and follow all directions carefully. If the applicator has any questions about the development of an FMP, contact Binary Ionization, Inc. for further assistance. An FMP must be developed for each treated site. In the event of an emergency application, a generic FMP which can be updated may be used and updated after fumigation. The Binary Ionization, Inc. trained applicator must sign the plan indicating it was followed. The signed FMP and related documentation, including

monitoring records, must be maintained by the applicator for a minimum of 2 years and a copy provided to the owner of the treated site.

- GUIDANCE FOR PREPARATION OF A FUMIGATION MANAGEMENT PLAN

  A Fumigation management Plan (FMP) is an organized, written description of the required steps involved to help ensure a legal and effective fumigation. It will also assist you and others in complying with pesticide product label requirements. The guidance that follows is designed to help assist you in addressing all the necessary factors involved in preparing for and fumigating a structure and/or area.

  This guidance is intended to help you plan any fumigation that you might perform PRIOR TO ACTUAL TREATMENT. It is meant to be somewhat prescriptive, yet flexible enough to allow the experience and expertise of the fumigator to make changes based on circumstances that may exist in the field. By following a step-by-step procedure, yet allowing for flexibility, an effective fumigation can be performed.

  Before any fumigation begins, carefully read and review the label and the Equipment Manual. This information must also be given to the appropriate company officials (supervisors, foreman, safety officer, etc.) in charge of the structure and/or area. Preparation is the key to any successful fumigation. If the type of fumigation that you are to perform is not listed in this Guidance Document you will want to construct a similar set of procedures. Finally, before any fumigation begins you must be familiar with and comply with all application state and local laws. The success of the fumigation is not only dependent on your ability to do your job but also upon carefully following all rules, regulations, and procedures required by governmental agencies.

  See ATTACHMENT A for a checklist guide for a Fumigation Management Plan

5. TRAINING AND CERTIFICATION OF APPLICATORS

Prior to use, applicators must be adequately trained and certified by Binary Ionization, Inc. on hazards and label directions for BIT™ Hydrogen Peroxide 7.5% Ready-To-Use, on the use and operation of the BIT™ application equipment, hydrogen peroxide monitoring procedures and when appropriate, process monitoring procedures.

6. PREPARATION OF ENCLOSURES

a) Cleaning: Remove gross filth and visible soil prior to application. Wash soiled surfaces with a compatible detergent using a cloth, sponge or appropriate cleaning device to ensure visible soils are removed. Rinse with potable water and allow to air dry. All the surfaces in the treatment area must be completely dry to the touch or visibly dry prior to BIT™ Hydrogen Peroxide 7.5% Ready-To-Use application.

b) Prepare the BIT™ Application Equipment: Position or connect the BIT™ application equipment for optimum BIT™ Hydrogen Peroxide 7.5% Ready-To-Use distribution into the treatment enclosure. See Equipment User's manual for proper equipment preparation and set-up.

c) Sealing: Seal the treatment enclosure adequately to assure that hydrogen peroxide levels outside the enclosure are kept at acceptable levels {≤ 1 PPM time weighted average for 8 hours [TWA]) and ensure sufficient concentration of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use in the treatment enclosure.

   i. Close and seal windows and doors. Sealing techniques can vary, but most often includes polyethylene sheeting and adhesive tape. Verify effectiveness of the sealing process by conducting an air draft potential analysis using a smoke stick test to ensure there are no leaks where openings have been sealed in the enclosure.

   ii. Turn off all ventilation systems including HVAC and seal any supply or return vents/ductwork.

   iii. Monitor areas immediately adjacent to the fumigated space to ensure levels are below TWA for hydrogen peroxide.

d) Securing Enclosure:

   i. Assure all personnel have vacated the treatment enclosure prior to BIT™ Hydrogen Peroxide 7.5% Ready-To-Use application. Remove all plants, animals, beverages and food.

   ii. Applicators must not re-enter the treated enclosure until exposure levels of hydrogen peroxide are at/or below 1 PPM. Do not release the treated enclosure to the general public until 1 hour after a level of 1 PPM hydrogen peroxide is achieved in the enclosure.

e) Placarding of Treatment Enclosure: The applicator must placard or post all entrances to the treatment enclosure and designated buffer zones with signs in English bearing:

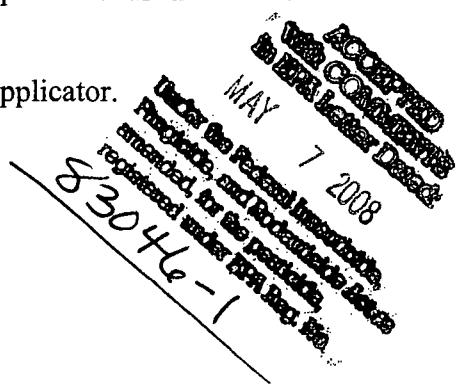
   i. The signal word "DANGER/PELIGRO" in red.

   ii. "Area under treatment, "DO NOT ENTER/NO ENTER."

   iii. The statement "This sign may only be removed 1 hour after the treatment enclosure has been aerated to hydrogen peroxide levels less than or equal to 1 PPM".

   iv. Identification of hydrogen peroxide as hazard associated with the treatment process.

   v. Contact information for the applicator.



All entrances to the treatment enclosure must be placarded. Placards must be placed in advance of the treatment in order to keep unauthorized persons from entering the treated enclosure. Placards are removed 1 hour after the treatment enclosure contains concentrations of hydrogen peroxide at/or below 1 PPM.

7. DEVELOPING THE BIT™ HYDROGEN PEROXIDE 7.5% READY-TO-USE APPLICATION CYCLE

BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is for use in mold control and remediation, and is not intended for use on or to control mold on textiles or hard porous surfaces. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use has been registered by Binary Ionization, Inc. in accordance with Federal Regulations for the specific uses described in this package insert. Uses other than as specified and described are not permitted. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use may not be effective in remediation of molds without careful, thorough development and monitoring. In addition, the ability of the BIT™ Hydrogen Peroxide 7.5% Ready-to-use to decontaminate obstructed or covered surfaces is limited. The instructions that follow explain how to define appropriate use conditions and validate these conditions for use in a dry, pre-cleaned sealed enclosure of a fixed size, location and materials of composition. This includes sealed enclosures in industrial, commercial and institutional setting (including production operations in pharmaceutical manufacturing, manufacturing clean rooms, laboratories, animal research facilities, hotel rooms, offices, cruise ships and recreational facilities). Process conditions must be properly developed prior to use to achieve applied dose to the treated enclosure. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is only for use in applications where the enclosure does not exceed 4000 ft^3. See instructions for use in applying BIT™ Hydrogen Peroxide 7.5% Ready-To-Use at a prescribed concentration and contact time using a pre-developed cycle. For additional guidance, in-service, and training on how to develop and monitor custom cycles, contact Binary Ionization, Inc.

USE OF PRE-DEVELOPED CYCLES

BIT™ Hydrogen Peroxide 7.5% Ready-To-Use may be used in pre-developed cycles for treatment of pre-cleaned, dry sealed enclosures when the enclosure to be treated is of a fixed volume configuration and contains materials of composition that remain consistent in comparison to a BIT™ Hydrogen Peroxide 7.5% Ready-To-Use development run. The cycle developed for the treatment enclosure must be capable of consistently achieving the desired applied dose requirements as specified by the use of the enclosure. Several factors need to be considered when developing the cycle. The volumetric size, materials of construction, the physical nature of the contents and the temperature range of the treatment enclosure will affect application time and concentration. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is not to be diluted in any way and is to be used as packaged. In general, 0.4 ML BIT™ Hydrogen Peroxide 7.5% Ready-To-Use per ft^3 of enclosure will achieve a dose of 600 PPM hydrogen peroxide. Large enclosures will take longer to reach the target hydrogen peroxide concentration due to a longer exposure phase. Absorptive materials present in the construction of an enclosure or in the contents will also increase the exposure time and the time required for aeration of the enclosure. BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is a surface mold control treatment, therefore the enclosure and its contents should be prepared to maximize BIT™ Hydrogen Peroxide 7.5%

Ready-To-Use exposure. Working temperature ranges must be established to ensure that the BIT™ Hydrogen Peroxide 7.5% Ready-To-Use does not excessively condense on exposed surfaces in the treated enclosure. Excessive condensation can result in damage to enclosure surfaces and result in reduced cycle effectiveness. Placement of fans or other devices to assist Hydrogen Peroxide distribution must be documented. Standard Operating Procedures (SOPs) must be written to describe the physical preparation of an enclosure and its contents required to achieve reproducible results.

The initial step in developing the BIT™ cycle is to determine the EXPOSURE time and DWELL parameters required to achieve a minimum average applied dose of 600 PPM hydrogen peroxide over a dwell time of 20 minutes. Additionally, an AERATION method, time and monitoring SOP must be established before entry is allowed.

In addition to the exposure time and PPM hydrogen peroxide, Chemical Indicators (CIs) can be used during monitoring to provide qualitative information about Hydrogen Peroxide exposure. See Section 8 for more information on the use of CI's.

The fumigation cycle is developed by application of the BIT™ Hydrogen Peroxide 7.5% Ready-To-Use at varying EXPOSURE times and concentrations while keeping constant other BIT™ cycle parameters in order to determine the level PPM hydrogen peroxide retained during the DWELL period. One approach to establishing effective applied dose is the characterization of the PPM hydrogen peroxide decay during the DWELL period. This information can be utilized to extrapolate cycle parameters to achieve the desired level of applied dose.

The fumigation cycle should be considered effective if the applied dose meets the criteria of an average minimum exposure or 600 PPM hydrogen peroxide left to dwell for 20 minutes. Additionally, if CI's are used they should exhibit consistent exposure colorimetric characteristics.

The following steps are required in developing a fumigation cycle:

- EXPOSURE – The BIT™ Hydrogen Peroxide 7.5% Ready-To-Use is injected into the sealed enclosure. The injection rate is adjusted and controlled based on guidelines established for the BIT™ equipment (refer to BIT™ Fogger Equipment User's manual). The EXPOSURE phase facilitates reaching the desired hydrogen peroxide concentration in the sealed enclosure. EXPOSURE time is affected by hydrogen peroxide target concentration, injection rate, enclosure materials, environmental conditions and enclosure volume.

- DWELL – The PPM of hydrogen peroxide is monitored. Usually, a sufficient EXPOSURE time will provide adequate hydrogen peroxide levels during DWELL without adding more BIT™ Hydrogen Peroxide 7.5% Ready-To-Use. In some instances additional injections of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use may be required to maintain the target hydrogen peroxide concentration in the sealed enclosure required to achieve the required level of remediation.

- AERATION – The BIT™ Hydrogen Peroxide 7.5% Ready-To-Use injection is stopped and the enclosure is aerated and/or scrubbed to reduce the Hydrogen Peroxide concentration within the enclosure to a 1 PPM level (≤1.0 PPM TWA 8 hr.) prior to reentry into the enclosure by trained applicators. Treated enclosures may not be released for general public use until 1 hour after a 1 PPM level of hydrogen peroxide is achieved in the enclosure.

In all cases, prepare the treatment enclosure as defined above (Preparation of Enclosures Section) including pre-cleaning and preparation of BIT™ Fogger (refer to User's Manual for BIT™ Fogger), sealing the enclosure and placarding of the enclosure to be treated. Place the hydrogen peroxide monitor in a location most difficult for hydrogen peroxide target concentration to be reached in the treatment enclosure. This is typically in a corner in the enclosure farthest away from the BIT™ Fogging unit. All drawers, closets & cabinet doors, etc. must be opened to permit exposure to BIT™ Hydrogen Peroxide 7.5% Ready-To-Use. Oscillating fans may be placed throughout the enclosure to facilitate effective distribution of the BIT™ Hydrogen Peroxide 7.5% Ready-To-Use. Activate the BIT™ Fogger to initiate an EXPOSURE phase until the desired hydrogen peroxide concentration is achieved in the sealed enclosure. When the desired hydrogen peroxide concentration is achieved initiate the DWELL phase and maintain this concentration for the desired time. During the DWELL phase, monitor areas adjacent to the sealed enclosure with devices such as Dräger tubes to assure hydrogen peroxide levels do not exceed 1 PPM. If this level is exceeded outside the treatment enclosure, the applicator should immediately abort the treatment process and ensure the enclosure is properly sealed. Upon completion of the remediation phase, begin the AERATION phase to reduce levels of hydrogen peroxide at or below 1 PPM (TWA).

After successful development of the fumigation cycle, the applicator must monitor cycle conditions and contact time for each BIT™ Hydrogen Peroxide 7.5% Ready-To-Use application to insure that they correspond to the pre-developed fumigation cycle conditions. Significant changes to the enclosure such as major modifications to room dimensions and materials of composition will require additional development or modification of application parameters

MONITORING OF HYDROGEN PEROXIDE CONCENTRATIONS IN THE SEALED ENCLOSURE AND REENTRY INSTRUCTIONS FOLLOWING AERATION

Dräger tubes or other hydrogen peroxide monitoring devices are utilized by means of a minimally invasive technique for Hydrogen Peroxide sampling to determine the hydrogen peroxide concentration in the sealed enclosure during and after the aeration phase. One hour after the hydrogen peroxide concentration within the treated enclosure is at or below the OSHA Permissible Exposure Limit (PEL) of 1 PPM, the enclosure may be released to normal operations and general public use.

Early reentry in the case of an emergency requires wearing a Self Contained Breathing Apparatus (SCBA) operated in pressure-demand mode, full hydrogen peroxide resistant body suit, gloves and boots to protect from the inhalation hazard as well as the corrosive action of hydrogen peroxide to tissues. When entering into the area under fumigation always work with two or more people under direct supervision of a trained applicator wearing appropriate respirators.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
MAY 7 2008
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 83046-1

Reentry to the sealed enclosure by a trained and certified applicator is allowed with a SCBA at hydrogen peroxide concentrations up to 5 PPM to allow for windows to be opened and to augment the aeration process if deemed appropriate at the specific location by the trained and certified applicator. Otherwise, do not reenter the treated enclosure until exposure levels of hydrogen peroxide are at or below 1 PPM.

Once hydrogen peroxide levels are determined to be at or below 1 PPM, applicators may reenter the treated enclosure and remove any sealing materials and disconnect/remove the BIT Fogger from the treated sealed enclosure. The applicator may also turn on ventilation systems including the HVAC system. One hour after the levels of hydrogen peroxide are determined to be at or below 1 PPM the applicator should remove placards and release the treated enclosure for normal operation and use.

The criteria for successful fumigation is that all BIT™ fumigation process conditions established during the fumigation cycle development (vapor concentration, exposure and dwell time and temperature) are achieved throughout the fumigation cycle. If Chemical Indicators (CIs) are used they are properly recovered and exhibit a visible color change following exposure to BIT™ Hydrogen Peroxide 7.5% Ready-To-Use.

8. OPTIONAL USE OF CHEMICAL INDICATORS (CI's) FOR CONFIRMING APPLIED DOSE

Hydrogen peroxide Chemical Indicators (CI's) may be used as a secondary confirmation of hydrogen peroxide exposure. Typically, CI's are potassium iodide and starch based filter paper strips that change color upon exposure to hydrogen peroxide. The color change is usually from white to a dark purple.

If CI's are used during the fumigation cycle a minimum of one (1) CI per 100 ft^2 of floor space should be equally spaced within the enclosure. The number of CIs used during cycle development can vary depending on the size, material construction and complexity of the application. For more information regarding CI sources and applications contact Binary Ionization Inc.

ATTACHMENT A - A CHECKLIST GUIDE FOR A FUMIGATION MANAGEMENT PLAN

This checklist is provided to help you take into account factors that must be addressed prior to performing all fumigations. It emphasizes safety steps to protect people and property. The checklist is general in nature and cannot be expected to apply to all types of fumigation situations. It is to be used as a guide to prepare the required plan. Each item must be considered, however, it is understood that each fumigation is different and not all items will be necessary for each fumigation structure and/or area.

A. PLANNING AND PREPARATION

1) Determine the purpose of the fumigation

   a) Remediation of molds and fungi in room enclosures.

   b) Remediation of molds and fungi in emergency vehicles.

2) Determine the type of fumigation, for example:

   a) Pharmaceutical Operations, clean rooms, medical device manufacturing

   b) Laboratories, animal research facilities

   c) Patient rooms, hotel rooms, offices, recreational facilities

   d) Cruise ship rooms (in addition to the Equipment Manual, read the US Coast Guard Regulations 46CFR 147A)

3) Evaluate the structure or area to be fumigated, and develop a site-specific plan that includes the following points, as applicable:

   a) The general structure layout, construction (materials, design, age, maintenance of the structure, fire or combustibility hazards, connecting structures and escape routes, above and below ground, and other unique hazards or structure characteristics. Meet with the owner/operator/person in charge. Draw or have a drawing or sketch of structure to be fumigated, delineating features, hazards, and other structural issues.

   b) The need for buffer zones in rooms adjacent to the treated enclosure to limit access to only trained applicators. This would include adjacent rooms that could be occupied when using BIT™ Hydrogen Peroxide 7.5% Ready-To-Use in areas such as hotel rooms, patient rooms or offices. Additional consideration should also be given to adjacent rooms above or below the enclosure if the structure does not consist of solid construction (i.e. floors/walls adjacent to the enclosure) that would preclude exposure if the treated enclosure was not properly sealed.

   c) The number and identification of persons who routinely enter the area to be fumigated (i.e., Employees, visitors, customers, etc.).

   d) Accessibility of utility service connections.

   e) Nearest telephone or other means of communication, and mark the location of these items on the drawing/sketch.

f) Emergency shut-off stations for electricity water and gas. Mark the location of these items on the drawing/sketch.

g) Current emergency telephone numbers of local health, Fire, Police, Hospital and Physician responders.

h) Name and phone number (both day and night) of appropriate company officials.

i) Checkmark and prepare the points of fumigation application.

j) Review labeling and Equipment Manual.

k) Exposure time considerations:

   i. Fumigant to be used

   ii. Minimum fumigation period, as defined and described by the label use directions

   iii. Down time required to be available

   iv. Aeration requirements

l) Determination of dosage

   i. Cubic footage or other appropriate space/location calculations

   ii. Structure sealing capability and methods

   iii. Label directions

   iv. Past history of fumigation of structure

   v. Exposure time

B. PERSONNEL

1) Confirm in writing that all personnel in and around the area to be fumigated have been notified prior to application of the fumigant. Consider using a checklist that each employee initials indicating they have been notified.

2) Instruct all fumigation personnel about the hazards that may be encountered, and about the selection of personal protection devices, including detection equipment.

3) Confirm that all personnel are aware of and know how to proceed in case of an emergency situation.

4) Instruct all personnel on how to report any accident and/or incidents related to fumigant exposure. Provide a telephone number for emergency response reporting.

5) Instruct all personnel to report to proper authorities any theft of fumigant and/or equipment related to Fumigation.

6) Establish a meeting area for all personnel in case of emergency.

7) Confirm that all applicators have been trained in the use of BIT™ Hydrogen Peroxide 7.5% Ready-To-Use and are in good standing including the required refresher training.

8) Develop a worker Health and Safety Plan as required by OSHA for applicators. The owner/operators of the facility being treated should have a Worker Health and Safety Plan as required by OSHA developed for their employees located within close proximity of the application process.

C. MONITORING

1) Perimeter Safety

a) Monitoring of hydrogen peroxide concentrations must be conducted immediately adjacent to the fumigated space to prevent excessive exposure and to determine where exposure may occur. Document where monitoring will occur.

b) Keep a log or manual of monitoring records for each fumigation site. This log must at a minimum contain the timing, number of readings taken and level of concentrations found in each location.

c) When monitoring for leaks, document there is no hydrogen peroxide present above the 1 PPM levels. Subsequent leak monitoring is not routinely required. However spot checks must be made, especially if conditions significantly change.

d) Monitoring must be conducted during aeration and corrective action taken if gas levels exceed the allowed levels in an area where bystanders and/or nearby residents may be exposed.

2) Efficacy

a) Hydrogen peroxide readings should be taken from within the fumigated structure to ensure proper vapor concentrations. This can be safely achieved outside the structure through the use of a remote sensor reading.

b) All reading of hydrogen peroxide concentration and temperature must be documented.

D. NOTIFICATION

1) Confirm that all appropriate local authorities (fire departments, police departments, etc) have been notified as per label instructions, local ordinances if applicable, or instructions of the client.

2) Prepare written procedure ("Emergency Response Plan") which contains explicit instructions, names, and telephone numbers so as to be able to notify local authorities if hydrogen peroxide levels are exceeded in an area that could be dangerous to bystanders and/or domestic animals.

3) In the event of a breach or leak of the enclosure where levels of hydrogen peroxide are above 1 PPM in adjacent areas to the enclosure, abort the application process and initiate the aeration process in the sealed enclosure. Ensure that the adjacent areas where levels have exceeded 1 PPM are evacuated by general personnel and that proper respiratory protection is utilized by applicators that enter the area. Continue monitoring the area until levels are below 1 PPM hydrogen peroxide. The treated enclosure and adjacent areas must remain unoccupied until one hour after hydrogen peroxide levels are at or below 1 PPM. Early re-entry into the sealed treated enclosure at use concentration levels in the case of an emergency requires wearing a Self Contained Breathing Apparatus (SCBA) operated in pressure-demand mode, full hydrogen peroxide resistant body suit, gloves and boots to protect from the inhalation hazard as well as the corrosive action of hydrogen peroxide to tissues.

E. SEALING PROCEDURES

1) Sealing must be adequate to prevent any leaks. Care should be taken to ensure that sealing materials will remain intact until the fumigation is complete. Verify effectiveness of the sealing process by conducting a smoke stick test to ensure there are no leaks where openings have been sealed in the enclosure.

2) If the structure and/or area has been fumigated before, review the previous FMP for previous sealing information.

3) Make sure that construction/remodeling has not changed the building in a manner that will affect the fumigation.

4) Warning placards must be placed on every possible entrance to the fumigation site.

F. APPLICATION PROCEDURES & FUMIGATION PERIOD

1) Plan carefully and apply all fumigants in accordance with the label requirements.

2) When entering into the area under fumigation always work with two or more people under the direct supervision of a trained applicator wearing appropriate respirators.

3) Apply fumigant from outside the fumigation space.

4) Provide watchmen when a fumigation site cannot otherwise be made secure from entry by unauthorized persons.

5) When entering structures always follow OSHA rules for confined spaces.

G. POST-APPLICATION OPERATIONS

1) Provide watchmen when you cannot secure the fumigation site from entry by unauthorized persons during the aeration process.

2) Ventilate and aerate in accordance with structural limitations.

3) Turn on ventilating or aerating fans where appropriate.

4) Use a suitable Hydrogen Peroxide detector before reentry to determine fumigant concentration.

5) Keep written records of monitoring to document completion of aeration.

6) Consider temperature when aerating.

7) Ensure aeration is complete before moving vehicle into public roads.

8) Remove warning placards when aeration is complete.

9) Inform business/client that employees/other persons may return to work or otherwise be allowed to reenter the aerated structure.

H. CRITERIA FOR SUCCESSFUL FUMIGATION

The criteria for successful fumigation is that all BIT™ fumigation process conditions established during the fumigation cycle development (vapor concentration, exposure and dwell time and temperature) are achieved throughout the fumigation cycle.

BIT™ binary ionization technology

Decontamination System

BIT™ Fogger

USER'S MANUAL

Model: 3000-C-00001

CAUTION: ***Read and follow all Safety Rules and Operating Instructions before operating this Machine***

Rev "B" 5/08

TABLE OF CONTENTS

1.0 LIMITED COMMERCIAL WARRANTY:

L-3 Communications (hereinafter "L-3") warrants to the original end-user commercial purchaser ("Purchaser") that for a period of one (1) year from the date of original commercial purchase from L-3 or an approved seller that products from the Binary Ionization Technology group ("BIT") shall be free from material defects in workmanship and materials. If a defect occurs within this limited warranty period, Purchaser shall notify the BIT group in writing. Upon confirmation by an authorized BIT representative of the defect, BIT's sole responsibility shall be, at BIT's option, to replace the defective merchandise, repair the defective merchandise at BIT in-house facilities, or refund the purchase price of the defective merchandise.

The implied warranties of merchantability and fitness for a particular purpose are specifically limited to the one year duration of the express warranty provided above.

For purposes of this limited warranty, "commercial" refers to an application which BIT or an authorized reseller of BIT equipment has deemed permissible for use.

This limited warranty may not be transferred to subsequent buyers of BIT equipment under any circumstances unless approved by an authorized BIT representative.

This limited warranty is void in the event that the BIT goods are transferred outside the country of sale without express written authorization from L-3 Communications.

***

To make a claim under this limited warranty, Purchaser, or any transferee, shall send to L-3 a description of the claimed defect and proof of purchase within the limited warranty period stated above to:

L-3 Communications
Binary Ionization Technology
10770 Wateridge Circle, Suite 200
San Diego, CA 92121

L-3 does not warrant against and is not responsible for any condition attributable to: (1) improper installation of BIT products; (2) failure to abide by BIT usage guidelines; (3) misuse of BIT products beyond the scope of the applications for which any equipment is intended; (4) unauthorized modification or repair of the product; (5) any act of God (e.g. flooding, hurricane, lightning, etc); or (6) abuse of BIT products (unintentional or otherwise) by Purchaser.

No 3rd party person or entity is authorized by L-3 to make any statement or representation as to the quality or performance of L-3 products other than those representations contained in this warranty. Furthermore, L3 shall not be bound by any such third party statements. This warranty may not be altered or amended except in a written instrument signed by L-3 and Purchaser.

2.0 SAFETY INSTRUCTIONS:

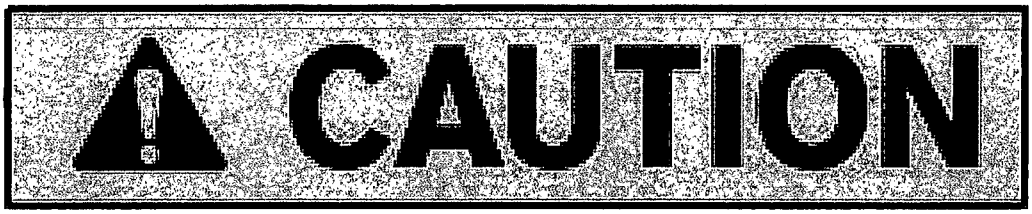
Warning: To avoid electrical hazards or damage to your machine, connect GFI power cord to 120V, 15-amp power receptacle.

- Before using the equipment read and understand the equipment manual.
- Prior to use make sure all power requirements are met.
- Review and follow all labels and warnings marked on this product.
- Before plugging in power cord, make sure the Power Switch is in the "OFF" position, located on the BIT™ Fogger connection panel.
- Only properly trained personnel are to operate the Mobile BIT™ Fogger.
- **Do Not** modify the plug provided. This unit is equipped with a 3-wire grounding type plug that will only fit into a grounding outlet. This machine must be properly grounded to ensure safety for technicians and machine users. Improper connection of the equipment can result in electrical shock.
- If maintenance, cleaning, or repair is necessary, completely disconnect the machine from the power source.
- **Do not** put fingers, tools, or other foreign objects into Spray area or electrode area. Improper use may result in injury.
- **Do not** open *access door* while in operation. This area contains a *High Voltage Transformer* and other electrical components. Only a qualified electrician or service technician may repair or maintain this equipment.
- Risk of injury including shock, or burn may occur if improperly handled.
- Keep fingers and foreign objects away from any moving parts at all times.
- Make sure power is disconnected when adding Solution to tank.
- Only use BIT solutions in BIT™ Fogger.
- *Note:* Use of other solutions poses risk of injury and/or unintended results.

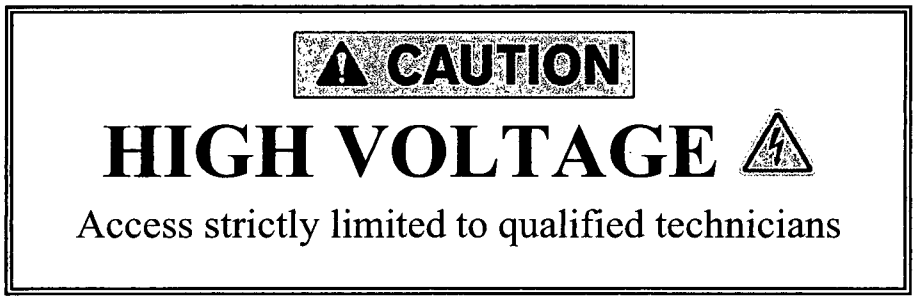
Wear Proper Safety Apparel:

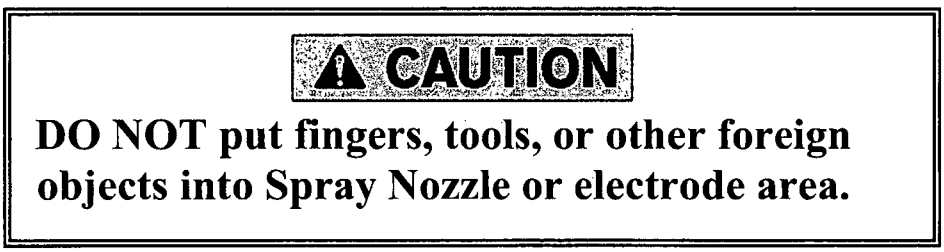
- **Always wear rubber or synthetic rubber gloves, safety glasses and/or facemask.**
- **When in a confined space, wear an approved air purifying respirator.**

BIT™ Fogger



Read and understand all safety rules and operating instructions before operating this equipment.





Wear Proper Apparel. Always wear rubber or synthetic rubber gloves, safety glasses and/or facemask. When in a confined space, wear an approved air purifying respirator.

Failure to comply with instructions could result in personal injury and/or equipment damage.

3.0 PRODUCT DESCRIPTION / TECHNICAL SPECIFICATIONS:

- Non-Corrosive Spray System. Solution recombines into water and oxygen.
- Affordable system decontaminate within seconds to save you valuable time and money.

3.1 Broad Spectrum Chemical and Biological Decontamination:

- Lab Tests* show that when specialized Military Decontamination Solutions used in BIT™ equipment can produce > 5 log neutralization against airborne chemical agents (VX, HD and GD) and > 6 log neutralization against airborne weaponized biological agents.

3.2 Immediate Neutralization:

- BIT™ aqueous mist supercharged particles neutralize in seconds

3.3 Safe to Use:

- BIT™ neutralizing solution does not harm common materials
- BIT™ decomposes into oxygen and water

3.4 Product Features:

- Uses 120V, 15A electrical power
- Easily stored and stacked; Light weight
- Connects to external fluid supply for long duration orientation
- Ruggedized for remote operation
- Remote control port and 25 feet trigger remote on/off switch
- On board solution tank (2.65 liter capacity)
- External air supply port and on board ON/OFF switch for quiet operation

3.5 TECHNICAL SPECIFICATIONS:

	Model# 1000-C-00001 BIT™ Fogger
Width	33.5" (88.1 cm)
Depth	15" (38.1 cm)
Height	34" (86.36 cm)
Total Weight	Approx. 146 lbs. (66.22 kg)
Power Requirements	120 VAC (15 Amp)

Warning: To avoid electrical hazards or damage to your machine, connect GFI power cord to 120V, 15-amp power receptacle.

4.0 Component Location & Identification:

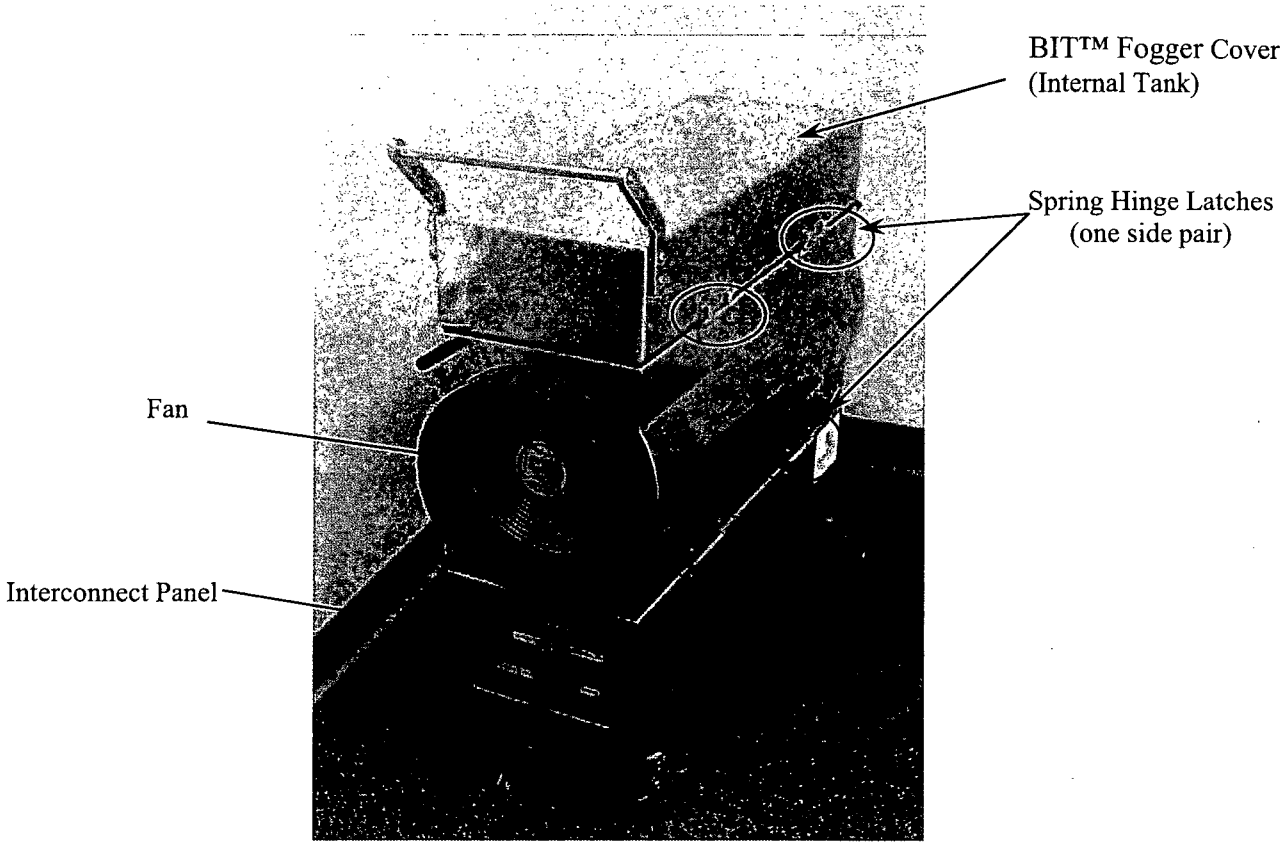


Figure 1: BIT™ Fogger

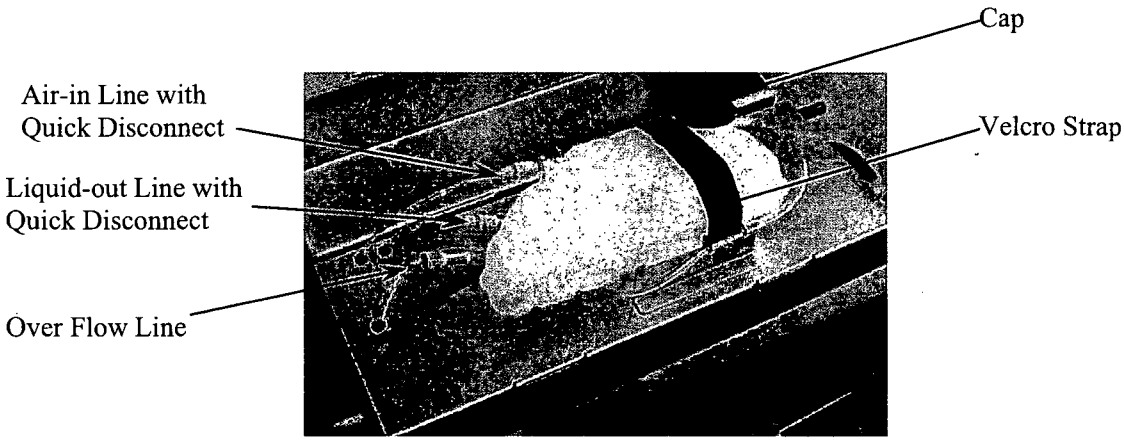


Figure 2: Internal Tank with Cover Opened

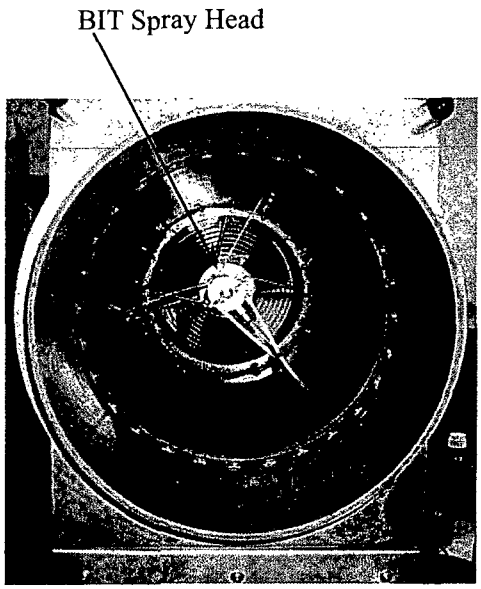


Figure 3: Inside Chamber Barrel

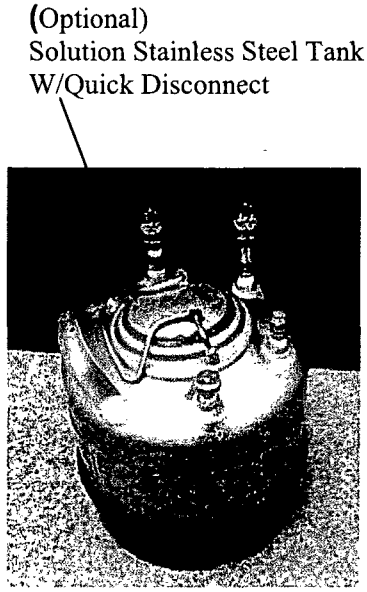


Figure 4: Solution Tank (2 GAL.)

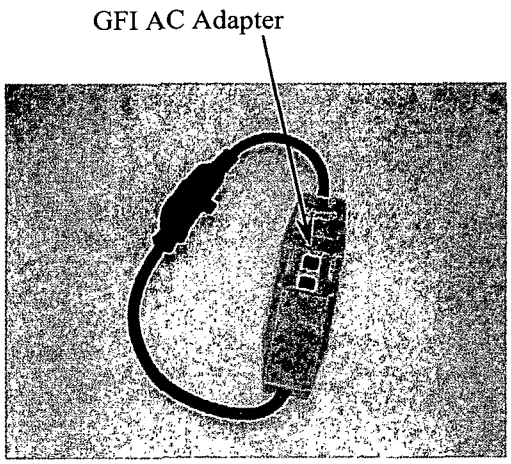


Figure 5: GFI Adapter

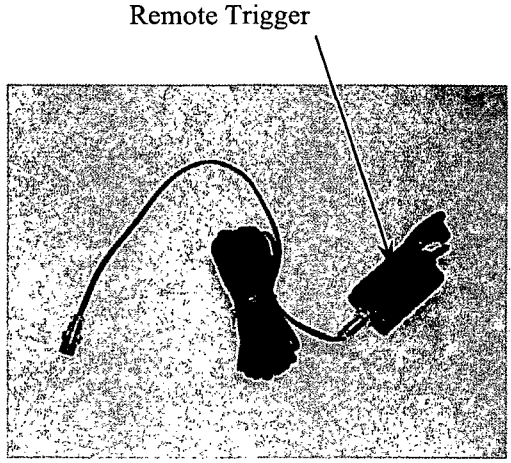


Figure 6: Included Remote Trigger

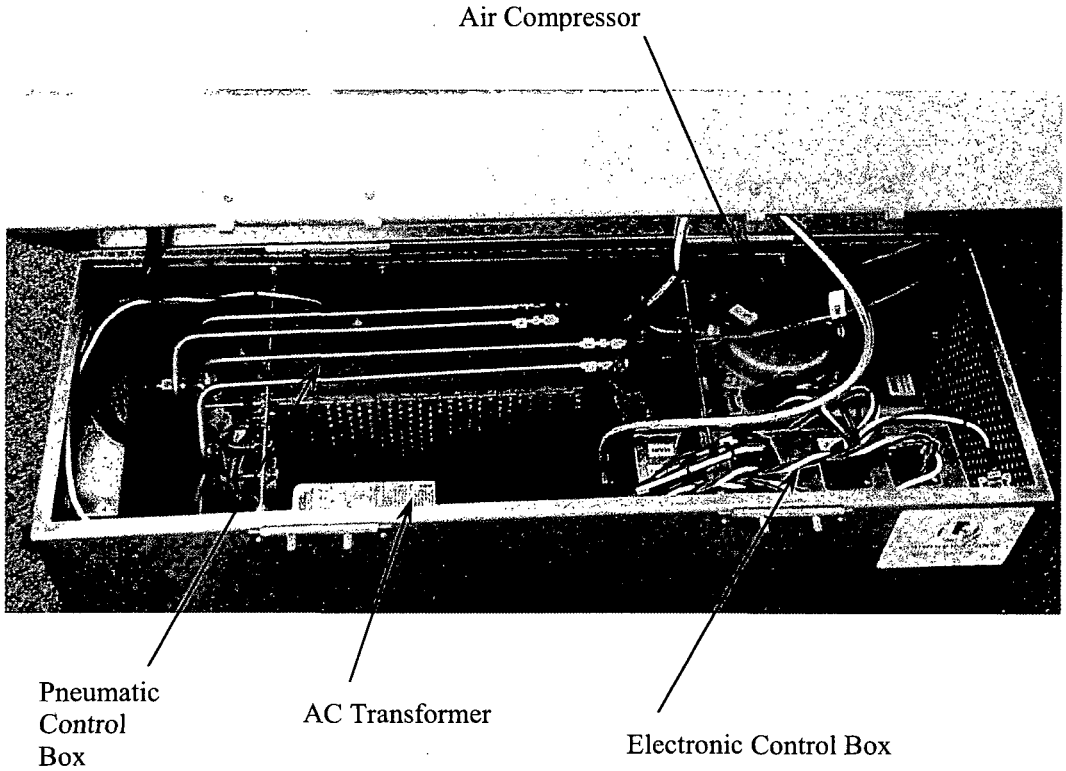


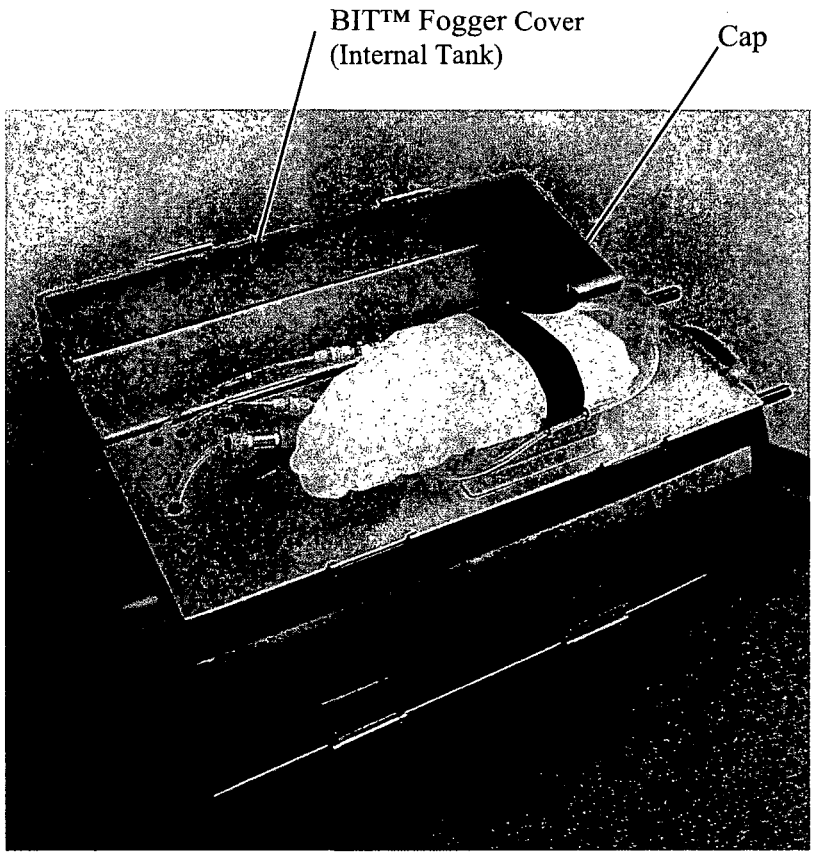
Figure 7: BIT™ Fogger Internal Main Components, Inside BIT™ Fogger Unit

5.0 Preparation and set-up:

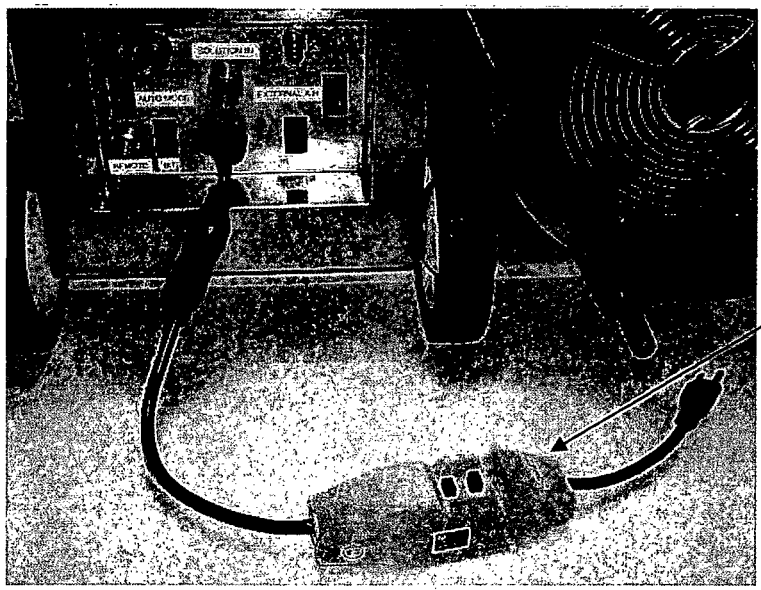
NOTE: Make sure BIT™ Fogger to solution tank hoses are firmly connected, match proper color coded connectors.

5.1 Inspection and Solution Fill to On-Board Tank:

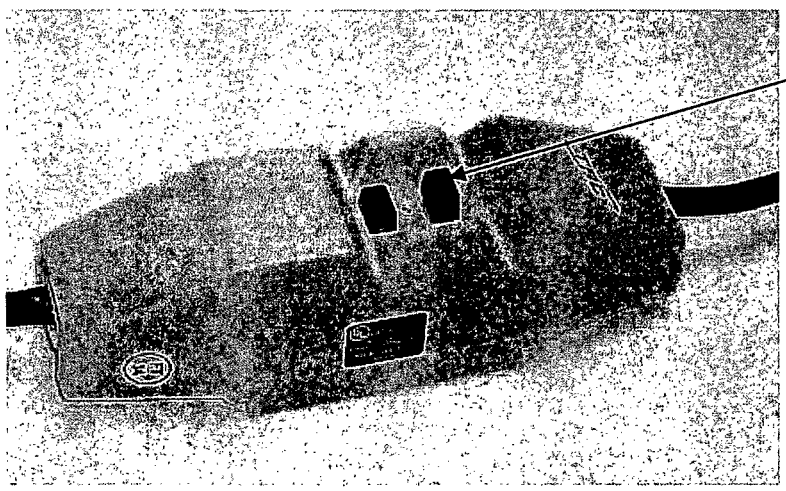
1. Make sure main power is OFF (power cord unplugged)
2. Locate and open on board tank cover by squeeze the spring hinge latches inward and rotate upward to release, see section 5.2 for details.
3. Inspect tank strap and all connections to ensure all hoses are firmly connected prior to operation.
4. Open the cap by turning counter clockwise (caution: tank pressure may be released).
5. Place the cap back on the tank after adding solution and close BIT™ Fogger cover allow spring latches to snap in place.



6. Plug GFI AC Adapter to BIT™ Fogger plug.



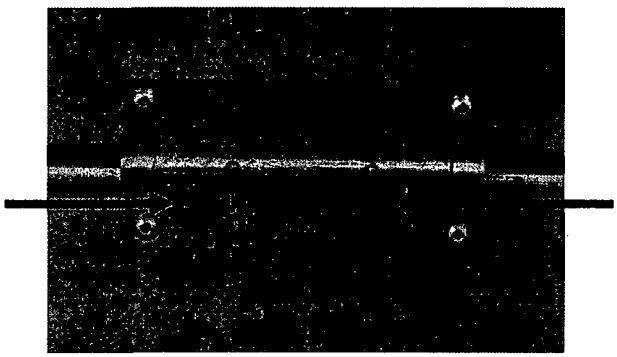
7. Plug GFI AC Adapter to 120VAC, 20 Amp receptacle and press the GFI "Reset" button to connect AC to the BIT™ Fogger unit. WARNING: The GFI "Reset" button must be reset every time the GFI is disconnected from the AC source to power the BIT™ Fogger unit.



5.2 Opening & Closing the BIT™ Fogger Unit:

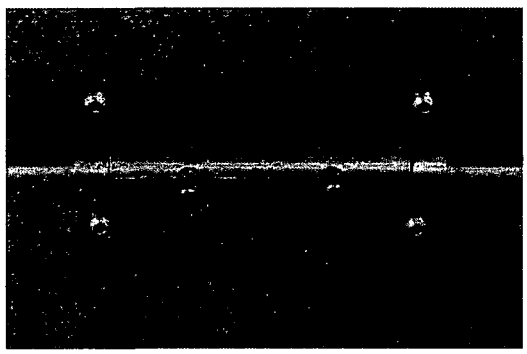
1. To open the BIT™ Fogger shell and cover, squeeze the spring hinge latches inward and rotate upward to release and lock pins. Only release on side pair at a time to avoid instability, as shown below.

2. Rotate the BIT™ Fogger top over until it is securely resting on a solid surface.



Squeeze inward

Rotate up



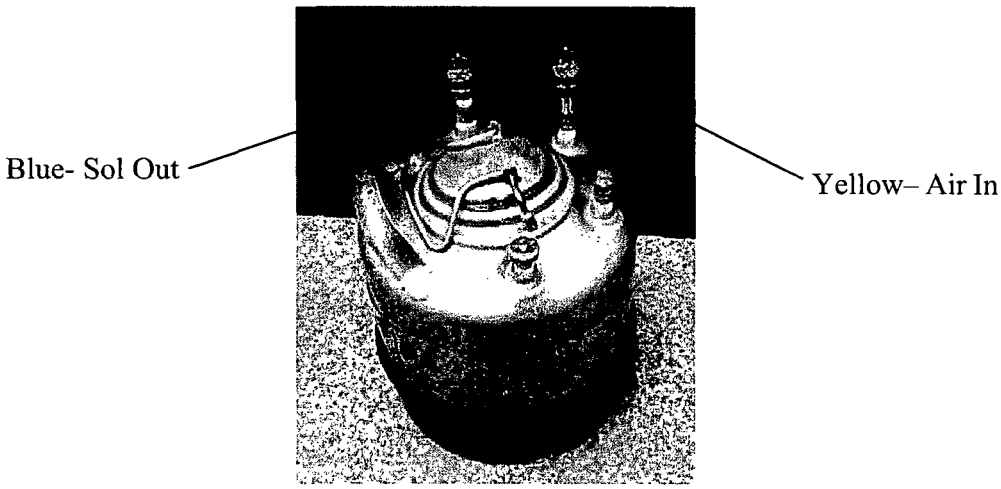
Locked

3. To close the BIT™ Fogger shell (make sure the spring hinge pins are fully retracted and locked to avoid damage), rotate the BIT™ Fogger top over until it stops and rotate the spring hinge latch pins downward and outward to securely latch.

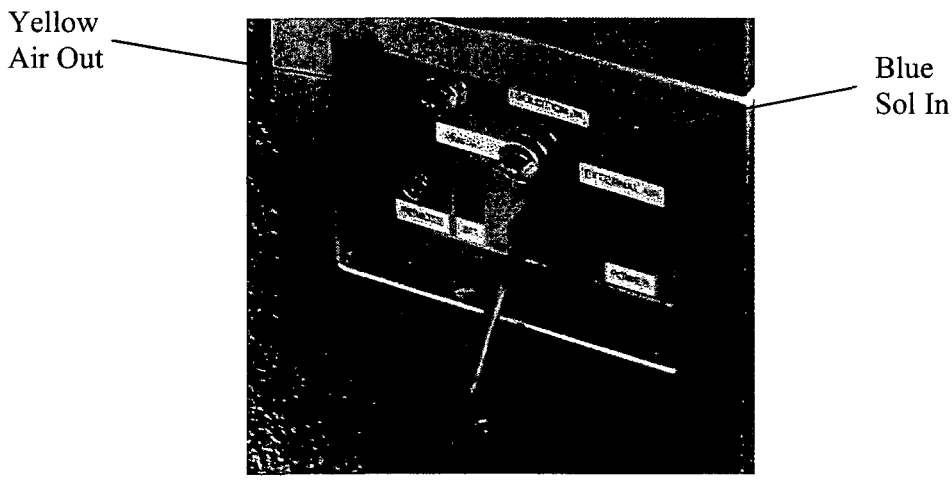
5.3 Setup and Adding Solution to (Optional) External Tank:

1. Make sure main power is OFF (power cord unplugged)

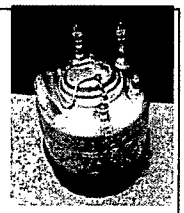
2. Attach the Solution Quick Disconnect Hose Assembly to the Solution tank per the color code bands on the hose Assembly and the corresponding color code bands on the tank.



3. Attach the Quick Disconnect Hose Assembly to the BIT™ Fogger interface panel per the color code bands on the Quick Disconnect Hose Assembly and the corresponding color code receptacles on the BIT™ Fogger interface.



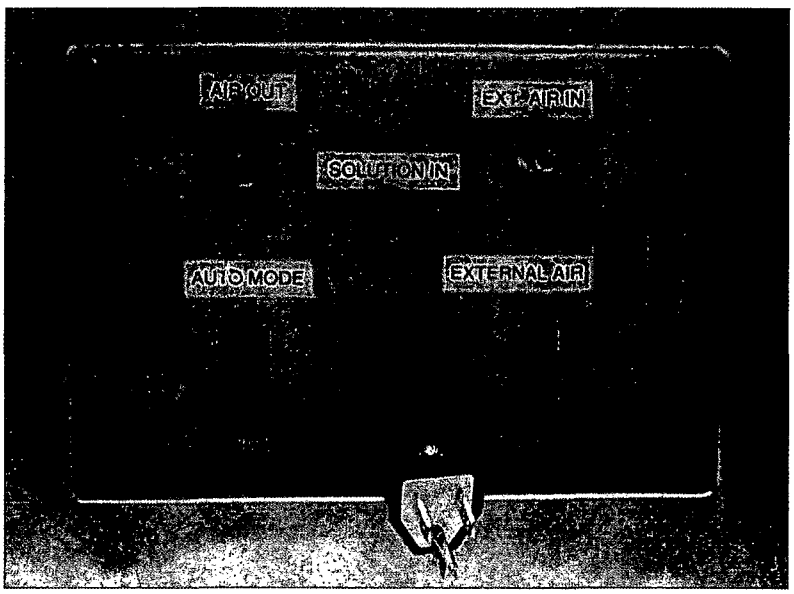
4. Locate "BIT"™ Solution and follow instructions below.

Locate Solution Tank	
Release Air Pressure from the tank, by opening Bleed Valve	
Lift handle up and let the cover drop down	
Turn cover 90° and pull out	
Fill tank with solution, place cover in at an angle, turn the cover and pull up	
Press firmly down on the handle; make sure that is properly sealed. Close Bleed Valve.	

6.0 STANDARD OPERATION:

Warning: To avoid electrical hazards or damage to your machine, connect GFI power cord to 120V, 15-amp power receptacle.

6.1 Interconnect Panel Layout:



"AIR OUT"	Yellow Quick Disconnect to Solution Bottle
"SOLUTION IN"	Blue Quick Disconnect to Solution Bottle
"EXT. AIR IN"	Quick Disconnect to Standard Type C Pressurized Air Line (60 psi max)
"AUTO MODE"	Amber Rocker Switch to Place the BIT™ Fogger Unit in Auto Trigger Mode
"REMOTE"	Remote Trigger Connector Connection to Activate BIT Remotely
"BIT"	Green Rocker Switch to Activates BIT
"POWER"	Main Power Rocket Switch to Turn On the Fan and the BIT™ Fogger Unit
"EXTERNAL AIR"	Red Rocker Switch to Allow External Pressurized Air Source

NOTE: Before turning power ON, make sure the Electrodes are properly lined up in front of the spray orifice. The Spray must pass through the center of the Arc.

1. Turn on Main Power Switch (BIT™ Fogger Fan will activate)
2. Turn on the Green BIT Switch to activates the BIT™ Fogger BIT controls (it illuminates green)
3. Turn off the Green BIT Switch prior to the Main Power Switch

6.2 Remote Operation:

1. Turn on Main Power Switch (BIT™ Fogger Fan will activate)
2. Connect the Remote Trigger Switch to the BIT™ Fogger
3. Turn on the Amber Auto Mode Switch (it illuminates amber)
4. Lift the red protective cover on the Remote Trigger and flip the toggle switch to activates the BIT™ Fogger BIT controls
5. Either flip the Remote Trigger toggle switch down or close the protective cover to deactivate BIT controls
6. Turn off the Amber Auto Mode Switch prior to the Main Power Switch

6.3 External Air Operation:

1. Turn on Main Power Switch (BIT™ Fogger Fan will activate)
2. Connect a Type C Quick Disconnect airline to the EXT. AIR In port. (60 psi max)
3. Turn on the Red External Air Switch (it illuminates red)
4. Turn on the Green BIT Switch to activates the BIT™ Fogger BIT controls (it illuminates green)
5. Turn off the Green BIT Switch
6. Turn off the Red External Air Switch prior to the Main Power Switch

Note: The External Air can be used in conjunction with Auto Mode as well.

7.0 CLEANING AND MAINTENANCE:

Before performing any maintenance or cleaning, turn off power by pressing the "POWER OFF" red switch and unplug it from power source.

7.1 Cleaning:

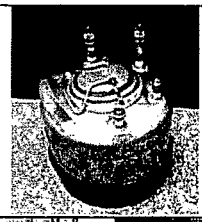
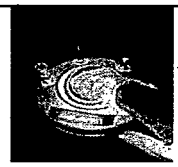
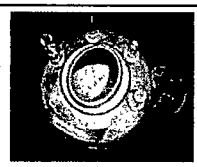
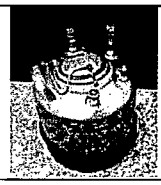
Use IPA to clean the unit a minimum of every 2 weeks or per your regularly scheduled cleaning procedures. Wipe all easily accessible surfaces inside and out.

Note: Do not clean or stick fingers or other foreign objects inside the sprayer cavities. The "Electrodes" are extremely sharp and damage to the electrodes or injuries may occur.

7.2 Cleaning the On Board Solution Tank: Follow instructions below.

1. Turn Power OFF by unplugging the main Power Cord and locate the Solution Tank inside housing cover.
2. Slowly open the cap from the solution tank.
3. With rubber gloved hands, rinse the tank entirely using DI Water and/or IPA.
4. Add solution to the tank and close the cap.
5. Connect Air and Liquid quick disconnect hoses as required and purge lines.

7.3 Cleaning the (Optional) Solution Tank: Follow instructions below.

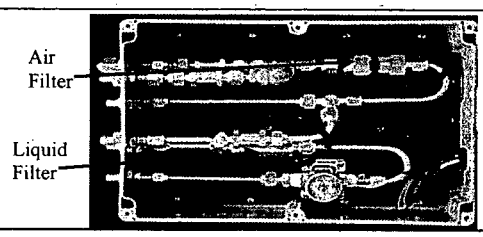
* Turn Power OFF by unplugging the main Power Cord, Locate the Solution Tank.	
* Disconnect Air and Liquid hoses from tank. * Release Air Pressure from the tank by opening the Bleed Valve.	 
* Once out of the cart, to open the tank, Pull the cover handle upwards and let it drop down into the opening. * Turn the cover 90° and pull it out.	 
* While wearing rubber gloves, rinse the tank using DI Water and/or IPA. If possible use a lint free wipe.	 
* Add solution to the tank. To close the cover press firmly on the cover handle; make sure it is properly sealed. Close the bleed valve.	
* Connect Air and Liquid hoses. Tighten Bleed Valve.	

7.4 Fluid and Air Filter Maintenance: Replace Filters once a year or per scheduled maintenance.

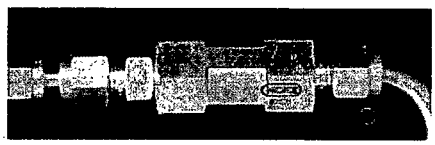
NOTE: Only a qualified technician should perform maintenance. Follow instructions to remove and replace consumable parts.

DEPRESSURIZE SYSTEM BEFORE PERFORMING MAINTENENCE.

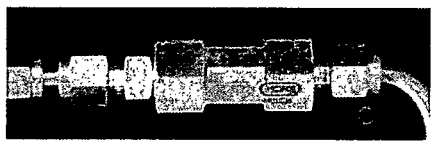
Locate Filters inside the BIT™ Fogger unit:
* LIQUID FILTER – inside pneumatic control box
* AIR FILTER-- inside pneumatic control box
*Compressor Filter-- inside the BIT™ Fogger unit



LIQUID FILTER INSIDE PNEUMATIC CONTROL BOX:
Replace once a year with part # 80410-5
* Release air pressure from tank & fluid lines by opening solution tank cap.
* Unplug the hose from tank remove filter from valve.
* Loosen nuts at both ends of solution filter and remove.
* Separate filter into two parts and remove filter stone.
* Replace with HOKE 40-55 micron filter stone.
* Reassemble from left to right and reinstall into the solution line.
* Replace filter onto valve (ensuring that is properly tightened)
* Connect the hose to the tank.



AIR FILTER INSIDE PNEUMATIC CONTROL BOX:
Replace once a year with part # 80410-5
* Release air pressure from tank & fluid lines by opening solution tank cap.
* Unplug the hose from tank remove filter from valve.
* Loosen nuts at both ends of solution filter and remove.
* Separate filter into two parts and remove filter stone.
* Replace with HOKE 40-55 micron filter stone.
* Reassemble from left to right and reinstall into the solution line.
* Replace filter onto valve (ensuring that is properly tightened)
* Connect the hose to the tank.



COMPRESSOR FILTER:
Replace once a year with part # 4369K37
* Unscrew wing nut and remove filter cover
* Replace filter element
* Place cover back onto compressor (ensuring that is properly tightened)

7.5 Electrodes service and Replacement Procedure:

Make sure Main Power is off and machine is unplugged.

We recommend that a service representative or a qualified technician perform the replacement of electrodes.

Note: Electrodes are located inside the chamber barrel where the spray head assembly is attached.

1. Locate spray head assembly as shown below.

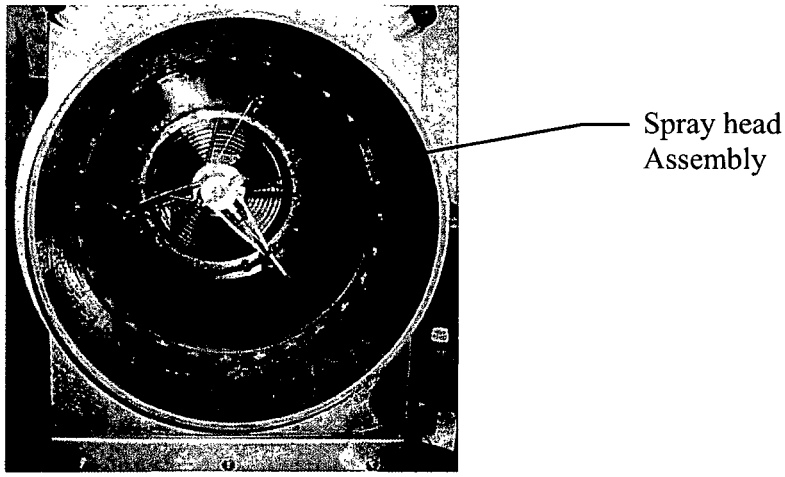


Figure 8: Spray Head Location

2. Loosen (1) #3-56 slotted pan head screws one at the each side of spray head end terminal block As shown below, using small flat screw driver tool to remove and re-insert new electrodes.
3. Remove and replace with new electrodes and align to center of spray nozzle.
4. Set and check the arc gap @ .385" ± .010", adjust and secure as necessary.

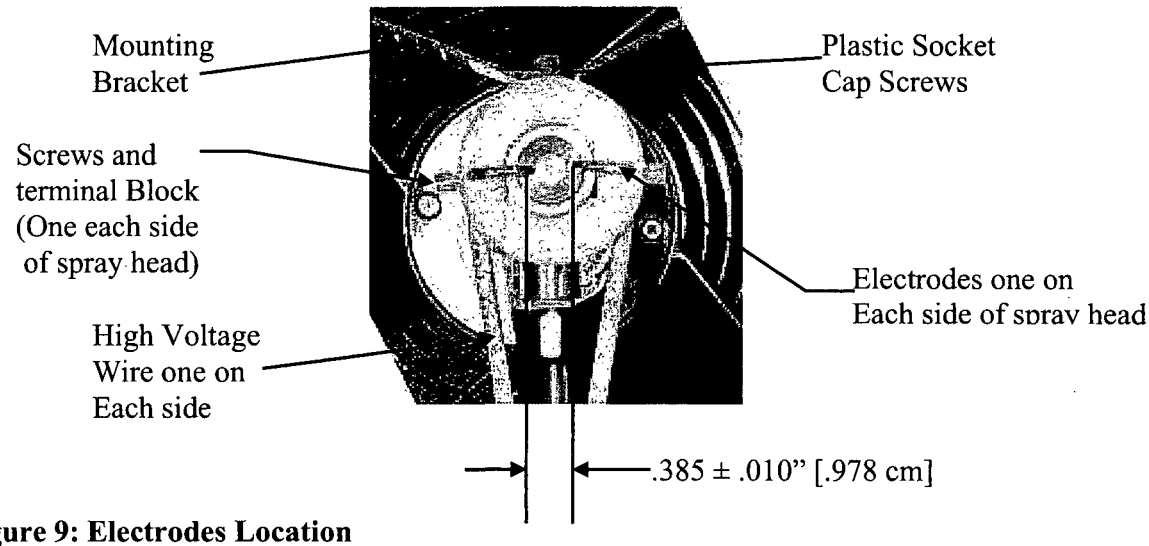


Figure 9: Electrodes Location

7.6 Changing Nozzle Assembly:

Make sure Main Power is off and machine is unplugged.

We recommend that a service representative or a qualified technician perform the replacement of electrodes.

1. Carefully remove spray head assembly by unscrewing 2 plastic socket cap screws from mounting bracket, see figure 9.
2. Remove 2 white high voltage wires, air and liquid tubing from spray head assembly, see Fig. 9 above.
3. Remove nozzle assembly for housing assembly by unscrewing 2 plastic socket cap screws from housing mounting bracket, see figure 11.
4. Using a 7/8 deep-socket remove retaining ring from nozzle assembly.
5. Remove Air Cap, see figure 10.
6. Using a 13/16 deep-socket remove nozzle from nozzle assembly.
7. Ensure nozzle base is properly Cleaned before placing the new nozzle.
8. As shown below, place Gasket onto Nozzle, replace Air Cap, replace and finger-tight retaining ring.
9. Using the deep-socket 1/8 turn to seat gasket. DO NOT OVER TIGHTEN.

Figure 10: Nozzle Assembly

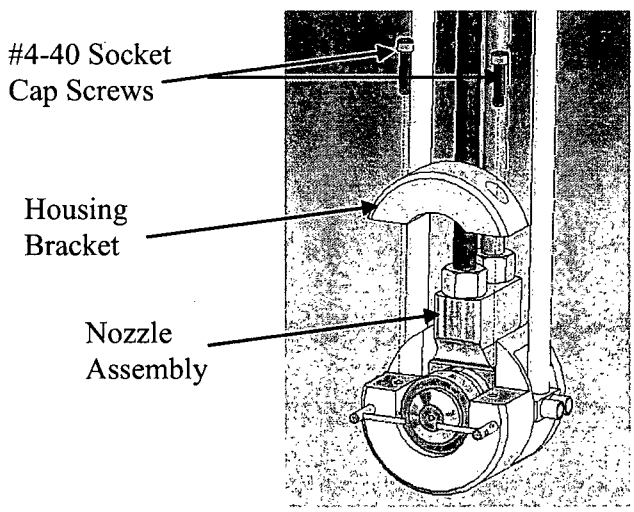
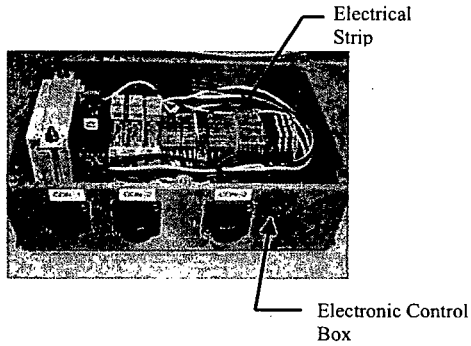


Figure 11: Spray Head Assembly

7.7 Changing Fuses:

Note: Fuses are located on the Electrical Strip inside the "Electronic Control Box" of machine. Follow instructions for removal and replacement.



1. Turn off the machine power by pressing the Power Off Button, located on the *Front Interconnect Panel.*
2. Unplug power cord from the power source.
3. Open the middle chamber of the BIT™ Fogger to access Electronic Control Box and remove by unscrewing 2 screws from mounting bracket.
4. Disconnect 3 wire harness assembly connectors from box.
5. Open the Electronic Control Box and locate fuses, as show below.

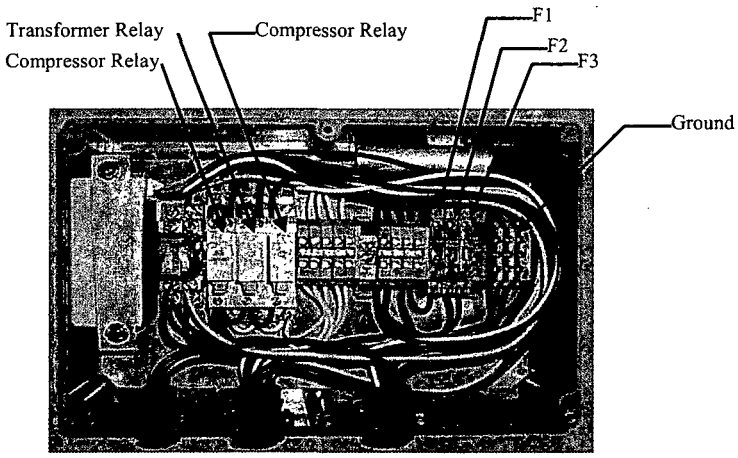


Figure 12: Electrical Control Box Assembly

FUSES NUMBERED FROM LEFT TO RIGHT:

F1 - Amperage, 10A- Compressor
F2 - Amperage, 5A - Liquid Valves and Plasma Transformer
F3 - Amperage, 5A - Exhaust Blower

6. Lift the top portion of fused terminal block.
7. Remove fuse and replace it, with a fuse of the proper amperage.
8. Close the Electronic Control Box and reconnect 3 wire harness assembly connectors back on the box.
9. Mount the Electronic Control Box back into the BIT™ Fogger unit.
10. Plug in the main cord and press "Power On" button.

8.0 TROUBLESHOOTING:

Warning: To avoid injury from an accidental start, turn off the Main Power and remove plug from power source.

Problem	Probable Cause	Corrective Action
Machine Will Not Start	1. No Power	1. Check Plug 2. Selector Power Switch in OFF Position 3. Check Fuses, see section 7.6 for details. (Qualified Technician)
No Arc	1. Arc Not Enabled 2. Transformer GFI	1. Press "BIT" Rocker Switch 2. Reset GFI on the transformer
Low or No Spray	1. Liquid Pressure 2. Out of Solution 3. Clogged Nozzle (uneven or no Spray)	1. Check Liquid Pressure and filter, see section 7.4 for details. 2. Check Solution Tank, Add if necessary 3. Clean with solvent or replace nozzle, see section 7.5 for details.
Low or No Air Pressure	1. Air Pressure	1. Check airline for proper connection and Air Pressure 2. Check filter for clogging, see section 7.4 for details.

Repair Authorization and Return:
Products that need to be repaired must have a Return Material Authorization (RMA) number assigned. To obtain an RMA number, please contact L3 Communications Technical Support: Tel: (858) 404-7800 or Fax: (858) 404-7899. Once it has been determined that a product needs to be returned for repair, an RMA number will be assigned and the address of BIT Group's RMA facility will be provided to the customer. Information required to process an RMA includes the serial number, and a description of the problem. All returned items must have a valid RMA number clearly marked on the box and must be shipped prepaid. L3 Communications BIT Group will pay for return shipment.
Note: Products received without RMA numbers will be returned to sender.

9.0 Consumable Parts List and Order sheet:

L3 Communications

To order specify part number and quantity below.

Quantity	*Part Number*	*Item Description*
	14111	Solution (4 gal. Case)
	14426	Electrodes (sold by pair only)
	4369K37	Compressor Air Filter
	80410-5	Filter Stone 40-55 micron
	F1	10A – (Fuse Pack of 5 ea.)
	F2-F3	5A – (Fuse Pack of 5 ea.)

Recommended replacement schedule for consumable items:

A. Filters – Once a years
B. Electrodes - 2,000 uses or three months

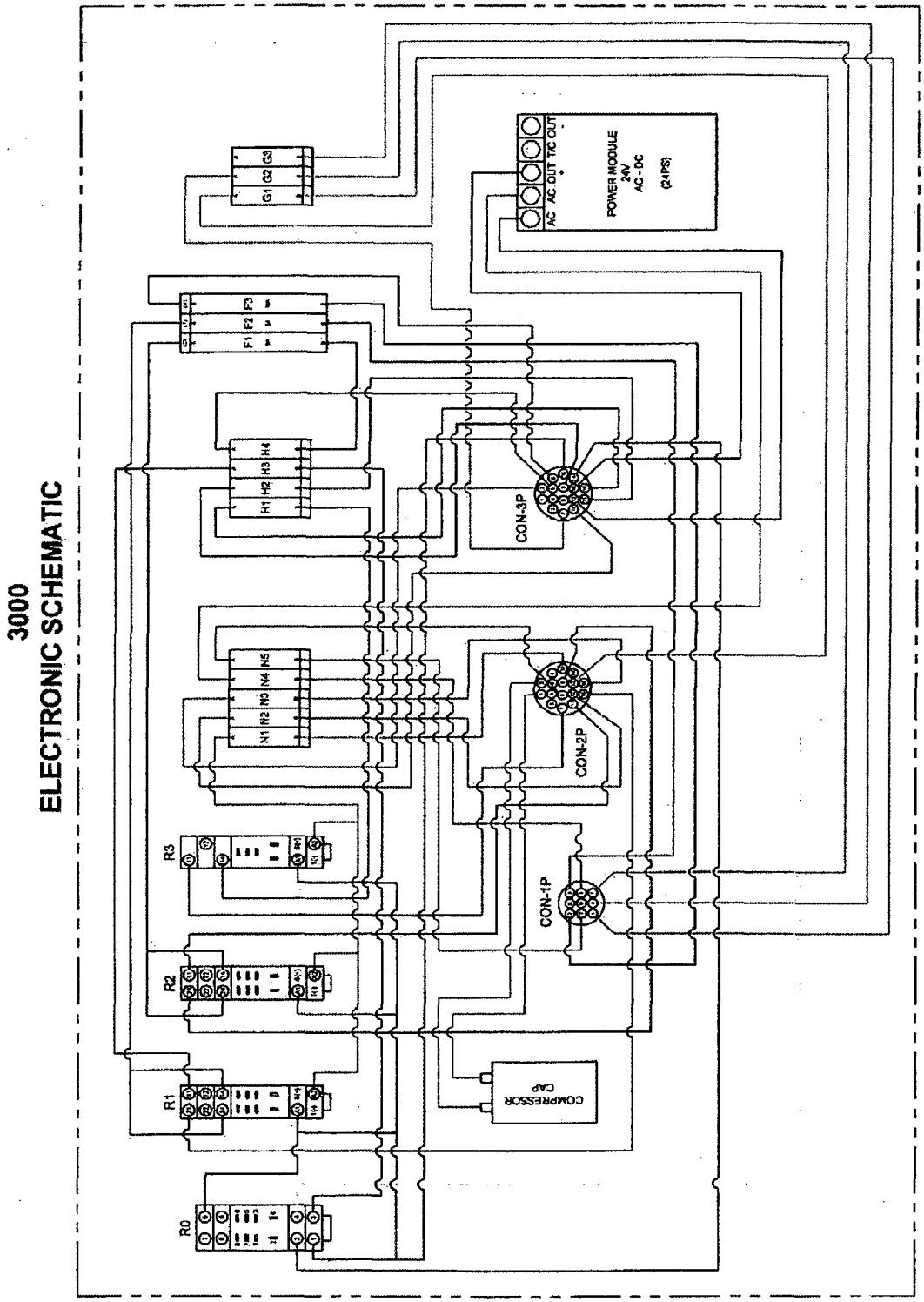
10.0 Contact Information:

Binary Ionization Technology Group
For Sales, Replacement Parts, Consumables and **Technical Help**

Ralph Sias	**Stan Calder**
10770 Wateridge Circle,	10770 Wateridge Circle,
Suite 200	Suite 200
San Diego, Ca 92121	San Diego, Ca 92121
Main (858) 404-7800	Main (858) 404-7800
Fax (858) 404-7899	Fax (858) 404-7899
ralph.sias@l-3com.com	stan.calder@l-3com.com

Authorized Reseller

APPENDIX B


3000
ELECTRONIC SCHEMATIC
ELECTRICAL CONTROL BOX
POWER MODULE
24V
AC - DC
(24PS)
AC AC OUT TIC OUT
G1 G2 G3
F1 F2 F3
H1 H2 H3 H4
N1 N2 N3 N4 N5
CON-3P
CON-2P
CON-1P
COMPRESSOR
CAP
R3
R2
R1
R0

APPENDIX C
Pneumatic Diagram