

# SOMNI EPS-3

## EXPOSURE PREVENTION SYSTEM



SOMNI PRODUCT MANUAL



*3 Station Flowmeter Controlled Vacuum System for  
Actively Scavenging Waste Anaesthetic Gas  
Model #WG-15001 & WG-15002 (non pump version)*

# TABLE OF CONTENTS

Intended Use	3
Introduction	4
Warnings, Definitions, About this Manual	
Description of Controls/Features	5
Product Operation	6
Routine Maintenance	9
Daily Testing	
Cleaning	
Troubleshooting	9
Warranty and Service Information	10
Supplies and Accessories	11
Specifications	11



## UNPACKING / INCLUDED ITEMS

- SOMNI EPS-3 System
- 4 -Six Foot Vacuum lines w/patient elbows:
  - 1 with 15mm x 15mm
  - 2 with Stopcocks and 15mm x Male/Female connectors
  - 1 with Stopcock and 15mm x 15mm ends
- Power Cord (not included with EPS-3 WG-15002 non pump version)
- 1 - 6 ft. 19mm corrugated waste gas tubing

## INTENDED USE




The SOMNI EPS-3 Exposure Prevention System was designed to effectively remove waste anaesthetic gases from the anesthesia work area and prevent exposure to the operator.

The SOMNI EPS-3 Exposure Prevention System is a self-contained, 3 Station Flowmeter Controlled Vacuum System for actively scavenging Waste Anaesthetic Gas (WAG). Designed with a linear vacuum pump that produces up to 45 LPM of negative flow, it can be used where active vacuums are not available to safely remove anaesthetic waste gas. The SOMNI EPS-3 (non pump version WG-15002) can be used as a portable scavenging system in conjunction with an in-house active vacuum system. The EPS-3 also includes an automatic off feature (WG-15001 model only) that shuts the unit down after a selectable time period to save power and prolong the life of the pump. Each of the three scavenging ports include a stopcock to allow independent scavenging flow and can be turned off when not in use, without the need to change the flowmeter setting. Evacuate EPS-3 to SOMNI W.A.G filter (WG-15003) or any non-recirculating hood or vent appropriate for high volume.



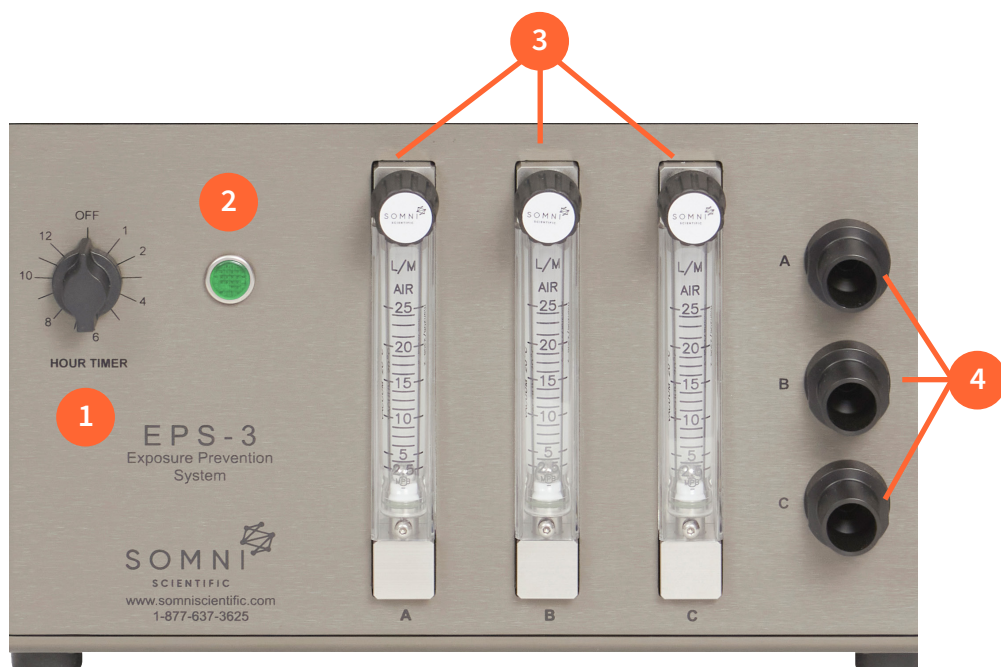
# INTRODUCTION

## WARNINGS, NOTES AND DEFINITIONS

-  Warning! Only use accessories appropriate for use with active scavenging systems. Failure to use appropriate accessories can result in animal injury, poor anaesthetic delivery and waste gas exposure.
-  Note: Only use hooded style induction chambers, non-sealing nosecones and other devices specifically designed for use with active scavenging systems.
-  Note: The waste anaesthetic gas that is discharged from the SOMNI EPS-3 can only be captured using a high capacity (200+ grams absorbed) passive waste gas filter. Smaller capacity canisters may allow waste gas to pass through into the environment.



# DESCRIPTION OF CONTROLS/FEATURES



**1** Main Power / Timer Switch\*

**2** LED, illuminated when Main Power/Timer Switch is ON\*

**3** Scavenging Flow Control Knobs

**4** Vacuum Ports "A" "B" "C"

**5** Waste Gas Evacuation Port\*

**6** Power Supply Receptacle and Fuses\*



# PRODUCT OPERATION

Place the SOMNI EPS-3 on a flat, stable surface and ensure the Main Power/Timer Switch and flowmeter controls are in the “OFF” position.

Setup for use with a passive scavenging filter or non-recirculating fume hood:



*EPS-3 shown here with 3 anaesthetic supply accessories connected (1 Chamber, 2 nosecones)*

**If discharging the waste from the SOMNI EPS-3 into a passive scavenging filter (W.A.G. Activated Charcoal Canister):** connect the 19mm or ¼” ID tubing with 15mm end to the W.A.G. canister inlet (located at the top of the canister) and connect the other end to the EPS-3 waste gas outlet located on the back. Keep filter upright at all times!

**If discharging the waste from the SOMNI EPS-3 into a non-recirculating vent, downdraft or other installed waste gas removal:** place tubing connected to waste gas evacuation port, at least 6 inches into waste gas vent.

Plug SOMNI EPS-3 into appropriately grounded electrical outlet.

# PRODUCT OPERATION CONT.

1. Turn main power/timer switch to desired time setting. This will turn on the negative flow, generating pump power inside the SOMNI EPS-3. You should hear the pump operating. Set each of the flowmeters to the appropriate vacuum levels. This setting can be selected for each flowmeter and left in place. It is not necessary to turn the flowmeter off when not in use. The stopcocks located on each scavenging line allow for individual open and closed scavenging.

2. Connect each of the anaesthetic supply accessories' scavenging line to the ports on the right-hand side, labelled A, B or C. Open the stopcock at each of the scavenging lines desired. Verify vacuum is occurring at each of the scavenging lines.

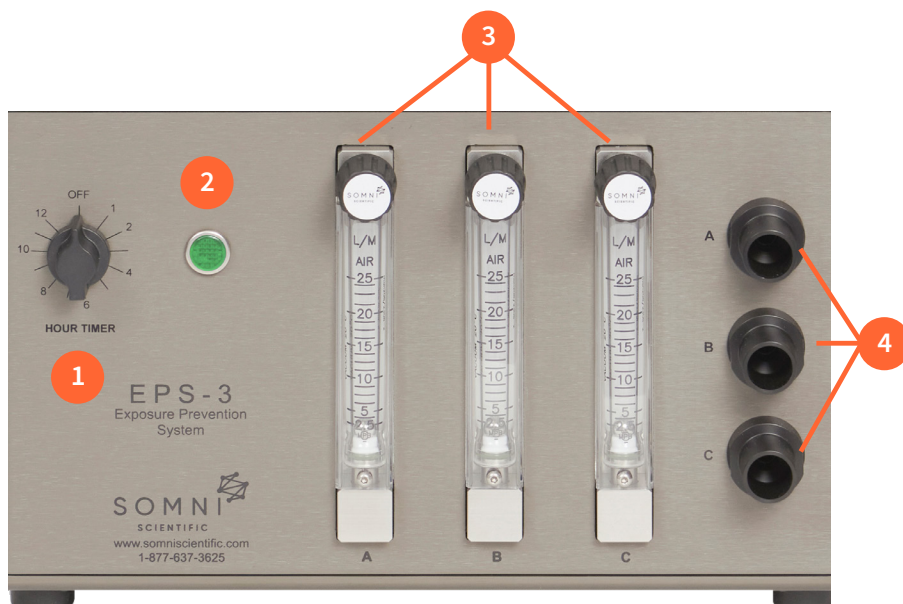
To begin procedure, place animal(s) into induction chamber and provide oxygen or other carrier gas flow. Verify the chamber is closed and then turn on the vaporiser to the desired anaesthetic percentage. Follow established guidelines regarding flowrates and percent anaesthetic concentration. Suggested fresh gas flow to any accessory (except hooded style induction chamber) SHOULD NOT EXCEED 1.5 LPM. Recommended maximum fresh gas flow rate for induction chamber is 2 LPM. At procedure completion, either let the timer expire or turn the switch off if enough time has passed to allow all anaesthetic to be removed.

1 Main Power / Timer Switch\*

3 Scavenging Flow Control Knobs

2 LED, illuminated when Main Power/Timer Switch is ON\*

4 Vacuum Ports "A" "B" "C"



Suggested Fresh Gas Flow Rates and Scavenging Vacuum with EPS-3:

Manifolds	Fresh Gas	Scavenge
Uniflow	1 LPM	5-7 LPM
Equaflow/Rat	1 LPM	5-7 LPM
3 Mouse Manifold	1-1.5 LPM	7-10 LPM
5 Mouse Manifold	1-1.5 LPM	7-10 LPM
10 Mouse Manifold	1.5-2 LPM	7-10 LPM

Scavenging may vary by setup\*

## PRODUCT OPERATION CONT.

Setup for use with an in-house vacuum system, EPS-3 Non Pump Version (WG-15002):

1. Connect Vacuum line from in-house vacuum system to the waste gas evacuation port in the back of the EPS-3. Verify In-house vacuum system is in “On” position (pictured above left)
2. Set each of the flowmeters to the appropriate vacuum levels. This setting can be selected for each flowmeter and left in place, it is not necessary to turn the flowmeter off when not in use. Stopcocks located on each scavenging line allow for individual open and closed scavenging.
3. Connect hose/tubing from anaesthetic supply accessories (induction chamber, nosecone) to the evacuation ports labeled “A”, “B”, and/or “C”. Open stopcock on each scavenging line intended for use.
4. To begin procedure, place animal(s) into induction chamber and provide oxygen or other carrier gas flow. Verify the chamber is closed and then turn on the vaporiser to the desired anaesthetic percentage. Recommended Maximum fresh gas flow rate for induction chamber is 2 LPM. Verify the stopcock for each scavenging line is open when in use. Suggested fresh gas flow to any accessory (except hooded style induction chamber) SHOULD NOT EXCEED 1.5 LPM.



*Waste Gas Evacuation Port*

*For more information [www.somniscientific.co.uk](http://www.somniscientific.co.uk) or call to speak with one of our Clinical Technicians at 877-637-3625*



## ROUTINE MAINTENANCE

### Daily Testing

- Verify the LED illuminates when unit is plugged in to a grounded receptacle when the Main Power/Timer Switch is turned on.
- Turn each flowmeter on and verify there is vacuum at each scavenging port, A, B and C.
- Open and close each stopcock, checking for vacuum when open and verify loss of vacuum when closed.

### Cleaning

- Use a damp cloth to clean, do not spray cleaning agent directly onto EPS-3. Dilute Chlorhexidine or similar cleaning and disinfecting agent can be used. Do not use alcohol.

## TROUBLESHOOTING

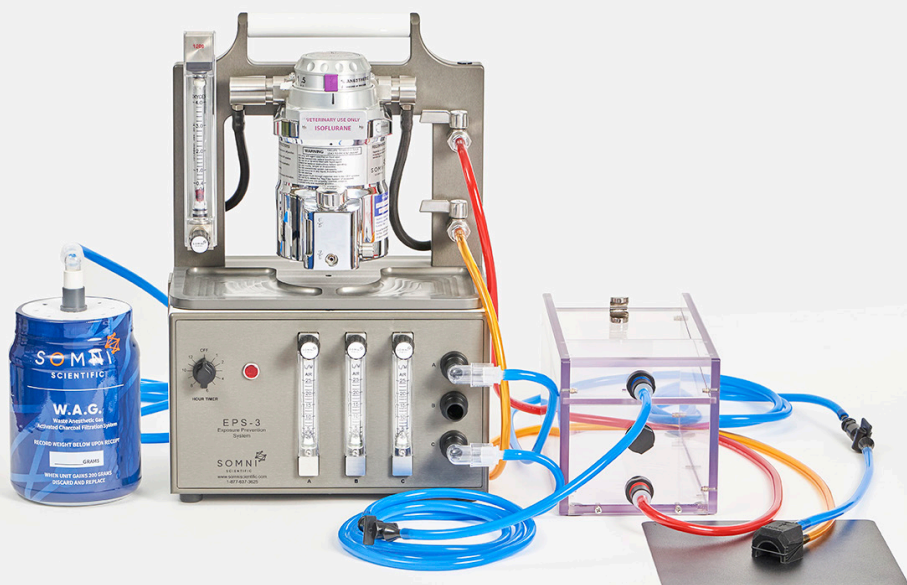
### No Power

- Verify cord is plugged in to a grounded, non-switch controlled receptacle
- Check fuse

### No Vacuum

- Verify flowmeter control knob is turned on and Stopcock is Open
- Verify accessories are connected and leak free (no cracks, secure)
- Verify all tubing is free of blockage and not crimped or pinched.
- If using “in-house” vacuum system, make sure it is in “on” position”

*Call 877-637-3625 for assistance*



# WARRANTY AND SERVICE INFORMATION

## Limited Warranty

SOMNI Scientific (SOMNI) warrants to the original purchaser that the products, not including accessories, shall be free from defects in materials and workmanship under normal use, if maintained in accordance with SOMNI's guidelines and used according to its labeling, for the period specified in the manual.

Warranty period is 3 years from the invoiced date of purchase.

THIS LIMITED WARRANTY, IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This warranty is void if the product has been altered, misused, damaged by neglect or accident, tampered with, not properly maintained, not installed in strict compliance with applicable codes and ordinances, or repaired by persons not authorised by SOMNI. This warranty does not cover normal wear and tear and maintenance items and specifically excludes accessory items and any other equipment used with the product.

## Limitation of Remedies

SOMNI Scientific's only obligation under this limited warranty is the repair or replacement of the product. THIS IS THE EXCLUSIVE REMEDY. SOMNI shall not be liable for and hereby disclaims any direct, incidental, consequential or special damages or delays, including but not limited to loss of use, downtime, lost business, revenues and profits.

## Warranty Procedure

To obtain warranty service, contact SOMNI Scientific 877-637-3625 or [info@somniscientific.com](mailto:info@somniscientific.com).

SOMNI Scientific  
1900 Sleepy Hollow Road,  
South Park, PA 15129

## SUPPLIES AND ACCESSORIES

- 19mm Corrugated Tubing PN: TB-2008
- Blue ¼” EVAC Tubing PN: TB-2004
- 6mm Male X 15mm Male Adapter PN: AE-8007
- Male/Female quick disconnect set PN: AN-8007
- Patient elbow adapter PN: AE-8011
- Stopcock Assembly PN: AS-8002
- Large Induction Chamber, Clear, Indicate: Active or Passive PN: IC-3012
- Medium Induction Chamber, Clear, Indicate: Active or Passive PN: IC-3014
- Equaflo Manifolds – multiple options available see [sommiscientific.com](http://sommiscientific.com)
- SOMNI CATCH Stereotoxic Waste Gas Collection PN: WG-15005

## SPECIFICATIONS

Weight	14 lbs. / 6.5 kg
Dimensions	12 in W x 8 in. D x 7 in. H (30 cm W x 20 cm D x 18 cm H)
Power Specification:	EPS-3 (WG-15001) 110V power Fuse 10A (1 extra included in receptacle)