English Label on the device:

ASEPT.2X

UV Device



REGISTRATION NO. 35300 PEST CONTROL PRODUCTS ACT

READ LABEL AND OPERATING MANUAL BEFORE USING KEEP OUT OF REACH OF CHILDREN

When used as a supplement to regular cleaning practices, kills 99.99% of bacteria (including *Staphyloccocus aureus* and *Escherichia coli*) on hard, non-porous surfaces within a 1 metre distance of the device and between 0.5 to 2.0 metres above the ground, in 15 minutes.:

Sanuvox Technologies Inc. 146 rue Barr Saint-Laurent, QC, H4T 1Y4 1-888-726-8869

PRECAUTIONS:

WARNING - UV radiation emitted from this device.

Unintended use of the device, or damage to the housing, may result in exposure to ultraviolet radiation.

Ultraviolet radiation may cause eye and skin irritation. Avoid exposing eyes and skin to ultraviolet radiation.

FIRST AID INSTRUCTIONS: Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

UV Lamp Disposal

UV lamps contain a small quantity of mercury: if a lamp breaks, contact and follow your local and national authorities' specific instructions.

DIRECTIONS OF USE:

Only trained and qualified service personnel such as certified electricians should install, repair or service equipment. Untrained personnel can perform basic maintenance functions such as replacing UVC lamps when the device is off. While the device is turned off during installation or maintenance on the UV unit or system, it is recommended to wear safety glasses and gloves.

Place the unit so that it is closest to the surfaces which are most likely to be contaminated, such as frequently touched surfaces of patient room. The closer a surface is to the lamp, the greater the UV dose for a given exposure time. Prior to the start of the disinfection cycle, ensure that the room is clear of people. Close off entry points and prevent access to treatment area. Mark entrance(s) with "UV disinfection in Progress" and "Do Not Enter" signs. Prevent escape of ultraviolet radiation from rooms or treatment areas with shielding or blackout curtains.

The use of ASEPT.2X is a supplement to, and not a substitute for, standard infection control practices. Users must continue to follow all current infection control practices, including those practices related to cleaning and disinfection of environmental surfaces

When used as a supplement to regular cleaning practices, ASEPT.2X can disinfect up to 99.99% of bacteria such as such as *Staphylococcus aureus* and *Escherichia coli*.

ASEPT.2X includes safety features which allows the unit to only operate when no one is in the patient room, for a minimum of 15-minute disinfection cycle. Objects to be treated must be within a 1 metre distance of the device and 0.5 to 2.0 metres above the ground.

See operating manual for additional precautions and warnings.



ASEPT.2X **MOBILE UV DISINFECTION SYSTEM**



IMPORTANT SAFETY INSTRUCTIONS READ AND SAVE THESE SAFETY INSTRUCTIONS BEFORE USING THIS PRODUCT.



Read and follow all instructions contained in

requirements prevail on those of this document

touch lamp glass without gloves.

this manual before using the product, Failure to comply with these instructions may result in personal injuries or damage to the unit or 5.

- 1. Installation and servicing of this equipment 6. can be hazardous due to electrical components. Only trained and qualified service personnel such as certified electricians should install, repair or service equipment.
- 2 Untrained personnel can perform basic maintenance functions such as replacing UVC lamps. All other operations should be performed by trained service personnel such as certified electricians.
- 3. When working on the unit or system, observe precautions in the literature, tags and labels attached to the unit or system, and all other safety precautions considered as best practices in the industry.
- When applicable, local regulation may comprise more restrictive installation and/or certification requirements. The afore mentioned

and the installer agrees to conform to these at 9. his own expense.

- Follow all the safety instructions outlined in this document and respect all local and national codes applicable.
- Never expose eyes or skin to ultraviolet light from any source. Never start the disinfection cycle with someone in the room: the ASEPT.2X is designed to be used in unoccupied spaces. Therefore, before installing or performing maintenance on the unit or system, TURN OFF AND DISCONNECT the unit or system from all power sources (there may be more than one switch to disconnect).
- CAUTION: Electrical shock may cause personal injuries or possibly death.
- UV rays may overtime damage or discolour certain types of polymer or plastic.
- When the device is off and the UV lamps are off during installation or while performing maintenance on the UV unit or system, it is recommended to wear safety glasses and gloves. In order to avoid reduced performance of lamp(s), do not

- Just like conventional fluorescent lamps. UV lamps contain a small quantity of mercury: if a lamp breaks, contact and follow your local and national authorities' specific instructions.
- 10 Use only specified SANUVOX branded replacement UV lamps with your unit or system. Use of any other lamps will void your warranty and can result in damage to the unit, system and/or lamp(s).
- 11. Most UV units or systems are not waterproof. DO NOT INSTALL OUTDOORS OR IN WET **LOCATION** unless specified otherwise.
- 12 ASEPT.2X units are heavy: to lift an ASPET.2X unit, make sure there is a minimum of 2 people at all times, and lift the unit by the handles with your hands at an equal distance.

SAVE THESE INSTRUCTIONS

Installation Date:	Installed by:
Installer Contact Info.:	

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TABLE OF CONTENTS

△ IMPORTANT SAFETY INSTRUCTIONS △	1
TABLE OF CONTENTS	2
ABOUT THE PRODUCT	3
COMPONENTS	3
How it Works	3
ACCESSORIES & KITS	3
USAGE SCENARIOS	4
SETUP & INSTALLATION	5
What you will need	5
What's included	5
Step by Step Installation	5
OPERATION	8
How to Operate your Product	8
Manual Operation – How to Read Web interface	8
Remote operation - How to read the LED Indicators	9
Use of Dosimeters	10
MAINTENANCE	11
How to Clean your Product	11
STORAGE	11
ULTRAVIOLETS: UVC	11
ELECTRICAL RATINGS, POWER CONSUMPTION & AVAILABLE VOLTAGE	11
WARRANTY	12
CUSTOMER SERVICE	12



ABOUT THE PRODUCT

The ASEPT.2X is a UV disinfection system that will treat a standard patient room in less than 15 minutes when using two units, thus minimizing the shadow area problem. If using single unit, you may have to reposition the unit to perform a second cycle.

For information or recommendations on how to size your specific application, please call SANUVOX at 1-888-726-8869.

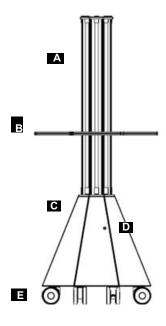
COMPONENTS

How it Works

The ASEPT.2X system uses one or two units to disinfect a room, thus minimizing shadow areas left by conventional sterilizers. If using single unit, you may have to reposition the unit to perform a second cycle.

These units perform the disinfection task in 15 minutes.

More details are available in the product specification sheet and in the 'Medical' section of our website: www.sanuvox.com



- A. UV lamps
- B. Handles with motion detector
- C. Base
- D. Controls
- E. Wheels

ACCESSORIES & KITS

The following optional accessories and/or kits work great with your product (sold separately).

Dosimeters



Dosimeter stickers to test UV disinfection level on specific installations.

Stick the dosimeters to critical targeted surfaces to assess if adequate UV dose is delivered.

For instruction manuals or information about your optional accessories and/or kits, please call SANUVOX at 1-888-726-8869 or visit www.sanuvox.com.



USAGE SCENARIOS

Objective: To maximize the unit effectiveness with the adequate dose of UV, it is necessary to identify which surfaces are most likely to be contaminated. Move furniture closer together, place frequently touched items in sight, and position units to eliminate shadow areas from the room as much as possible. The closer a surface is to the lamp, the greater the UV dose for a given exposure time.

Surfaces must be directly exposed to UV light to be disinfected.

In order to **optimize the location**, the important thing is to position one or two ASEPT.2X units in such a way that there are no shadow areas, so that UV light reaches all surfaces during the disinfection cycle.



SETUP & INSTALLATION

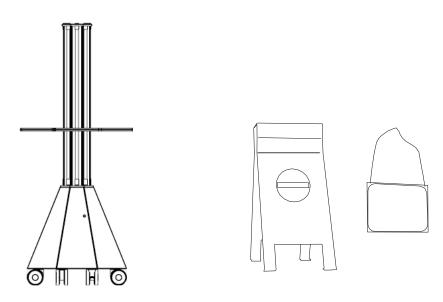
What you will need

A utility knife to unpack all components.

⚠ **CAUTION:** Handle your product with care to avoid breaking parts. Make sure you have a free and safe space to unpack, install and setup your product. Confirm you have access to the necessary power source for the product requirements (see unit or system label). If you have any questions regarding the installation instructions, call SANUVOX at 1-888-726-8869.

What's included

The ASEPT.2X with its (8) UV lamps and a basic installation kit.



The installation kit includes: a 'UV Disinfection in Progress' sign and a 'Do Not Enter' sign.

Step by Step Installation

Sanuvox recommends the use of two ASEPT.2X units to minimize shadow areas during a disinfection cycle. However, it is possible to use a single unit to carry out a first disinfection cycle (15 minutes), move the unit to a different location in the same room, and redo a second cycle (15 minutes). Nobody can be in the room during the 15 minutes UV disinfection process. Should someone enter the room during a disinfection cycle, the infra-red motion detectors will automatically turn OFF the ASEPT.2X unit(s). This interrupted cycle will be displayed as an error code on the computer or smart device and on the LED push buttons located on the unit (flashing RED LED and GREEN LED OFF).





- 1. UV disinfection is a technology that works thanks to the light range of UV lamps: anything that is touched by the light of the ASEPT.2X units will be disinfected. Move furniture closer together and place frequently touched items in sight. Prepare the room for disinfection: remove bed linen, raise hand-rails, place any frequently touched items in reach of the ASEPT.2X light, make sure items such as tubes, monitors, remote controls and tables are placed near the unit(s).
- 2 If desired, place dosimeter stickers on the target surfaces to check the UV dosage.



3. Place the ASEPT.2X units in the selected room so as to have as few shadow areas as possible.

⚠ **CAUTION:** To move an ASEPT.2X unit, first ensure that it is unplugged and that the power cord is fully retracted. Then, simply unlock the wheels and push/pull the unit by its handles. Once the unit has been rolled in place, it is recommended to lock down the wheels.



6

- Once the ASEPT.2X units are in place, extend their power cables 4.6 m (15 feet) and plug them into a wall outlet.
- 5. Ensure room is clear of people. : before starting the disinfection process, be sure the room is vacant of patient and staff. NOTE: When using two ASEPT.2X units (one "MAIN" unit and one "SECONDARY" unit), error codes will only appear on the "MAIN" unit.
- 6. Turn on the units by pressing their "ON" buttons located on the base of the units at the bottom.
- 7. Close off entry points.
- 8. Prevent access to treatment area.
- 9. Prevent escape of ultraviolet radiation from rooms or treatment areas with shielding or blackout curtains.

Initiate remote control of the device using a computer or smart device (Wi-Fi enabled);

Select the following wireless network: ASEPTIX###

Enter the case sensitive password: AseptixUV

Open your browser and in the address bar, type the following address: http://192.168.0.1

Press "ENTER".

When using two ASEPT.2X units, both devices are to be controlled by the same computer or smart device.

NOTE: The computer or smart device must be within range of the ASEPT.2X to work. You may want to enter the web address to your favorites / bookmarks.







10. The ASEPT.2X webpage will allow you to remotely control your units.

Admin Mode: This allows the user to perform troubleshooting and access the "Data Log" function.

FAQ's: Documents available online.

Language: Options include English, French, Spanish and German.

Enter Room Identification: The disinfection cycle log.

Start / Stop button.

Countdown Timer: This window will have both the 30-second pre-timer

and 15-minute disinfection cycle timer.

Error: Any error will be displayed in this window.

11. Upon pressing "START" on the computer, smart device or manually, the ASEPT.2X units will begin its countdown operation. On the computer or smart device, you will see a countdown from 30 seconds. There will also be a series of audible beeps from the ASEPT.2X units that will progressively get faster until it reaches zero (0) second at which time the units lamps will turn ON illuminating the room with UVC light.

⚠ CAUTION: The room must be clear of people for the disinfection cycle to initiate. If motion is detected in the treatment room, the infra-red motion detectors will automatically turn the units OFF and the corresponding error code will be displayed on the computer or smart device and on the LED display.

12. After the 30-second countdown operation, the disinfection cycle will begin. A disinfection cycle will last 15 minutes.







13. At the end of the cycle, the UV lamps automatically turn off. The computer, smart device and/or LED display will notify the user of completion.—The user can enter the room, press the "POWER" button on the units to turn them OFF, unplug the units, retract the power cords and roll the units to the next room. Signage and shielding can be removed.



OPERATION

How to Operate your Product

Once placed in one room and plugged in, ASEPT.2X units are ready to use, then unplugged, moved and re-used in another room. The ASEPT.2X is controlled remotely with a smart device such as a tablet or computer.

⚠ **CAUTION:** The suggested operating temperature range is 10 to 50°C (50 to 122°F). Operating the ASEPT.2X outside this range will result in decreased performance.

Remote operation - How to read the WEB interface

The ASEPT.2X webpage will allow you to remotely control your units.

- A. Admin Mode: This allows the user to perform troubleshooting and access the "Data Log" function.
- B. FAQ's: Documents available online.
- C. **Language:** Options include English, French, Spanish and German.
- D. **Enter Room Identification:** The disinfection cycle log.
- E. Start / Stop button.
- F. **Countdown Timer:** This window will have both the 30-second pre-timer and 15-minute disinfection cycle timer.
- G. **Error:** Any error will be displayed in this window.



Upon pressing "START" on the computer, smart device or manually, the ASEPT.2X units will begin its countdown operation. On the computer or smart device, you will see a countdown from 30 seconds. There will also be a series of audible beeps from the ASEPT.2X units that will progressively get faster until it reaches zero (0) second at which time the units lamps will turn ON illuminating the room with UVC light.

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The pre-timer "countdown operation" gives the user 30 seconds to leave the room prior to the ASEPT.2X activating.



Once the "countdown timer" elapses, the ASEPT.2X begins the disinfection cycle which will last 15 minutes.

Manual Operation - How to Read LED Indicators

The ASEPT.2X may be manually operated by the push buttons (GREEN 'ON') on the main unit. If the unit will be used manually, the data log function will record the disinfection process but the room will be designated as "Room + Date + Hour" by default. A manual start can only be used if the operator can ensure that they are outside of the treatment area before the treatment starts.

To begin manual operation, press the GREEN LED push button. The disinfection process starts with a 30 second delay accompanied by an auditory signal which progressively quickens with the countdown before the lamps turn on. Ensure that the room is clear of people before the UV lamps turn on. Prevent escape of ultraviolet radiation from rooms or treatment areas with shielding or blackout curtains. Close off entry points, prevent access to treatment area and mark entrances with the "UV Disinfection Progress" and "Do Not Enter" signs.

Understanding the LED push button display: regardless if the ASEPT.2X is being used in manual mode or via a smart device, status information will be provided via the LED push buttons.

STAND-BY

Both main and secondary units are plugged in and paired to each other. Both buttons will stay ON solid RED & GREEN. Ready for disinfection process.



CYCLE-STARTED

An uninterrupted cycle lasts for 15 minutes. During this 15 minutes cycle only the RED buttons will stay ON solid RED.



CYCLE-COMPLETED

After an uninterrupted 15 minutes disinfection cycle the GREEN button will flash and the RED button will stay ON solid RED



ERROR

In the event of an error (i.e. Motion, Sync, Communication) the GREEN button will be OFF and the RED button will flash.
*Refer to a smart device for the specific error code.







Use of Dosimeters



- 1. If dosimeters are used, place dosimeter stickers on the surfaces on which you want to check the UV dosage, before a disinfection cycle is initiated.
- 2. Follow all steps required to complete a disinfection cycle.

3. After a cycle is complete and it is possible to enter the treatment area again, inspect the dosimeter stickers. To interpret their

colours and corresponding UV dose, use the included reference label.



NOTE: The dosimeters are sold separately and directly to customers. It is their responsibility to verify their installation and validate the results with a Sanuvox representative.



MAINTENANCE

How to Clean your Product

For optimal performance, the lamp(s) should be kept free of dust and residue deposit. Clean when necessary with isopropyl alcohol. Always spot test the cleaner to make sure it does not damage the surface.

⚠ CAUTION: Under no circumstance should water be sprayed or splashed onto the product.

STORAGE

ASEPT.2X units are mobile units that must be stored in a safe place, unplugged, when not in use.

ULTRAVIOLETS: UVC

The UVC (254 nm) light produced by Sanuvox UV units and systems is the same UV wavelength produced by the Sun..

ELECTRICAL RATINGS, POWER CONSUMPTION & AVAILABLE VOLTAGE

The product is rated at 120V or 240V, and 50 Hz or 60 Hz, 193W. See product label to confirm power consumption of your specific unit or system.

NOTE: IF YOU EXPERIENCE A PROBLEM, PLEASE CONTACT CUSTOMER SERVICE FIRST OR SEE YOUR WARRANTY. DO NOT RETURN THE PRODUCT TO THE ORIGINAL PLACE OF PURCHASE. DO NOT ATTEMPT TO OPEN THE PRODUCT OR TAMPER WITH ITS COMPONENTS WITHOUT CONTACTING CUSTOMER SERVICE FIRST. DOING SO MAY VOID YOUR WARRANTY AND CAUSE PERSONAL INJURY OR DAMAGE TO THE PRODUCT.



WARRANTY

You should first read all instructions before attempting to use this product. For this warranty to be valid, keep a copy of the proof of purchase.



UV lamp	1 year	
Ballast	5 years	
Electronics	1 year	

A. This limited warranty applies to repair or replacement of product found to be defective in material or workmanship. This warranty does not apply to damage resulting from abusive, unreasonable use or supplemental damage. Defects that are the result of normal wear and tear will not be considered manufacturing defects under this warranty.

manufacturing defects under this warranty.

SANUVOX IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some jurisdictions **do not** allow the exclusion or limitation of incidential or consequential damages or limitation on how long an implied warranty last, so the above limitations or exclusions may not apply to you. This warranty gives specific legal rights, and you also may have other rights which vary from jurisdiction. This warranty applies only to the original purchaser of this product from the original date of purchase.

- B. At its option, SANUVOX will repair or replace this product if it is found to be defective in material or workmanship.
- C. This warranty does not cover damage resulting from any unauthorized attempts to repair or from any use not in accordance with the instruction manual.
- D. This warranty does not cover the filters, pre-filters or other accessories (if included), except for material or workmanship defects.

Call us toll-free at 1-888-726-8869 or email: info@sanuvox.com

Please be sure to specify product name.

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CUSTOMER SERVICE

FOR ASSISTANCE WITH INSTALLATION AND/OR TROUBLESHOOTING

PLEASE CONTACT YOUR CONTRACTOR OR SANUVOX TECHNICAL SUPPORT

Toll-Free Phone #: 1-888-726-8869 Email: techsupport@sanuvox.com Website: www.sanuvox.com

Please be sure to specify product name.

TO ORDER REPLACEMENT PARTS

PLEASE CONTACT YOUR CONTRACTOR OR SANUVOX PURCHASING DEPARTMENT

Toll-Free Phone #: 1-888-726-8869

Email: po@sanuvox.com
Website: www.sanuvox.com

Please be sure to specify product name.

Replacement parts for this product

LMPHGS400TF	40" Straight UV Teflon Coated Lamp	
BST120/277SHS	Ballast with multi-voltage input of 120V to 277V	
MSCELC34	Redundant passive infrared motion sensors (02PIR)	
MSCSWC22	Magnetic door detection set	

⚠ WARNING: Use only specified SANUVOX branded replacement UV lamps with your unit or system. Use of any other lamps will void your warranty and can result in damage to the unit, system and/or lamp(s

ASEPT.2X

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