



BIOGENIX

## OPERATION AND MAINTAINANCE OF MEDIBIOS

NAME		DESIGNATION	SIGNATURE	DATE
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CODE: BG/PP/INF/011

**BIOGENIX**

VERSION: 1.0

DATE OF EFFECTIVITY: 01/07/2020

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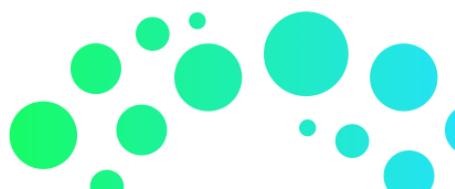
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## 2 REVISION HISTORY

#	Version	Date	Changes Made by	Reason for Changes	Clause Changed
1	1.0				





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## 4 POLICY STATEMENT:

- 4.1 Medibios is used to fumigate testing area in molecular laboratory.
- 4.2 It is used to for killing microorganisms and prevention of microbial growth in air, surface of wall and floor.
- 4.3 Fumigation is performed 3 times in a week and scheduled at 7 am on every Saturday, Monday and Wednesday.

## 5 PURPOSE

- 5.1 To instruct the staff about operation and maintenance of Medibios system.
- 5.2 To provide clear guidelines about the fumigation procedure.

## 6 SCOPE

- 6.1 The scope of this policy extends to all the staffs in the Biogenix laboratory who are authorized to use Medibios.

## 7 DEFINITIONS

- 7.1 FUMIGATION: to apply smoke, vapor, or gas to especially for the purpose of disinfecting or of destroying pests
- 7.2 CONTAMINATION: inadvertent transfer of bacteria or other contaminants from one surface, substance,
- 7.3 DISINFECTION: the process of cleaning something, especially with a chemical, in order to destroy bacteria.
- 7.4 HYDROGEN PEROXIDE 12% It is a colorless liquid and is used in aqueous solution for safety reasons. It acts as a bleaching agent and is also used as a disinfectant

## 8 ACRONYMS





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- 8.1 PPE – Personal Protective Equipment
- 8.2 HP - Hydrogen peroxide
- 8.3 RT-PCR - Reverse transcription-polymerase chain reaction
- 8.4 DNA - Deoxyribonucleic acid
- 8.5 BSC - Biosafety cabinet

## 9 RESPONSIBILITIES

- 9.1 Laboratory Staff
- 9.2 Biomedical Staff
- 9.3 Infection control officer
- 9.4 Laboratory director

## 10 PROCEDURE

### 10.1 Fumigation with Hydrogen Peroxide 12%

#### 10.1.1 Prerequisite

10.1.1.1 Remove all personnel from area to be contaminated as well as any equipment and materials that are not compatible with Hydrogen peroxide and high levels of moisture.

10.1.1.2 Trash/waste receptacle contents must be bagged, sealed and left in place for surface decontamination prior to being removed from the room.

10.1.1.3 Minimize and covered surfaces to facilitate penetration of vapors hydrogen peroxide.

10.1.1.4 Shut off HVAC, Air-conditioning, Negative & Positive Pressure and Biosafety cabinets of area for decontamination.





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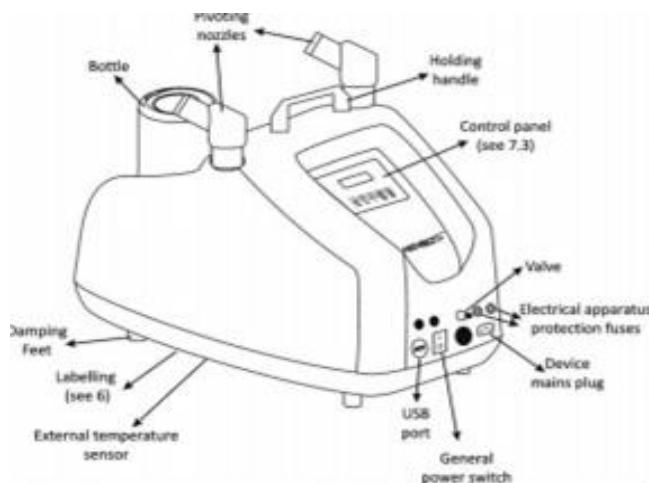
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**Important:** Hydrogen peroxide (HP) is a strong oxidizer and is irritating to the eyes, skin, and mucous membranes. It is imperative that all personnel performing the fumigation wear the appropriate personal protection equipment described in the PPE Policy.



**Figure 1.. MEDIBIOS is the instrument used for fumigation.**

### 10.1.2 Operation of Fumigation Instrument

10.1.2.1 Using the MEDIBIOS instrument (Figure 2), connect the mains cable to the device and to the electrical wall plug.



**Figure 2. Display of the MEDIBIOS instrument.**

10.1.2.2 During the startup of the electronic unit, affected by external general switch, the display shortly shows the name of the producer and of the instrument (Figure 3).





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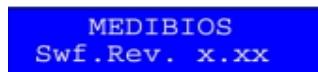
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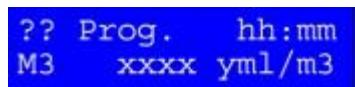
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10.1.2.3 Press Stand by button.



10.1.2.4 The display shows the parameters relative to the last cycle effected before disconnection from mains.



Where, ?? Prog. = Selected program (1,2,3,4,5.....18)

hh:mm = Duration of the cycle depends on the protocol

xxxx = Dimension of the area

yml/m3 = Selected protocol with respect to the concentration of liquid

10.1.2.5 Press program button and select a protocol, press again to enter dimensions of fumigation area and press again to save.

10.1.2.6 Press play button to start a cycle.

### 10.1.3 Decontamination Procedure

10.1.3.1 Full fill the perquisite sec 9.3.1.

10.1.3.2 Carefully set the device on a perfectly flat surface inside the room to be treated, ensuring a distance of approximately 1 meter is left free of obstacles in the emission direction, in order to ensure proper emission.

10.1.3.3 Turn the bottle of 12% Hydrogen peroxide upside-down and insert it in the recess provided applying light pressure downwards until its bottom becomes locked.

10.1.3.4 Orientate the nozzles of the device according to need, while avoiding directing them in converging directions, so as not to cross its flows and avoiding directing them towards the control panel.





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- 10.1.3.5 Press the main start switch.
- 10.1.3.6 Select the settings on the control panel for operation sec 9.3.2.
- 10.1.3.7 Select protocol of 1ml/m<sup>3</sup> due to the available concentration of hydrogen peroxide.
- 10.1.3.8 Enter dimensions of the fumigated room and save.
- 10.1.3.9 Press play button, during the countdown exit the room and make sure that there are no people left inside the place to be treated.
- 10.1.3.10 At the end of the cycle the device automatically stops the program.
- 10.1.3.11 After removing the machine don't open the room till 45 minutes.
- 10.1.3.12 After 45 minutes of contact time, switch on HAVC, negative & positive pressure and allow for 20 – 30 mins before enter the room.
- 10.1.3.13 Frequency of the fumigation three times per week scheduled on Saturday, Monday & Wednesday in the Morning.
- 10.1.3.14 Fill in the checklist.

## 11 CROSS REFERENCE:

- 11.1 User manual MEDIBIOS

## 12 RELEVANT DOCUMENTS & RECORDS:

- 12.1 BG-REC-INF-003 Fumigation Checklist

