

MICROBIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Microbiology	SOP No.:
Title: Operation and Calibration of Colony Counter	Effective Date:
Supersedes: Nil	Review Date:
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1.0 **OBJECTIVE**

1.1 To lay down the Procedure for operation and calibration of Colony Counter.

2.0 SCOPE

2.1 This procedure is applicable for Microbiology Laboratory.

3.0 **RESPONSIBILITY**

3.1 Microbiologist is responsible for operation of colony counter.

4.0 ACCOUNTABILITY

4.1 Head Microbiology

5.0 EHS CONSIDERATIONS

- 5.1 Use 70% IPA to disinfect your hands.
- 5.1.1 Do not open the lid of petriplate while counting on colony counter.

6.0 **PROCEDURE**

6.1 **Instrument Details:**

- 6.1.1 Make: Decibel Instruments
- 6.1.2 Instrument ID:

6.2 **Operation:**

- 6.2.1 Switch "ON" the mains switch of the instrument.
- 6.2.2 Digital display will show "000000", if the digital display is not showing "000000" then press the reset button, digital display will show "000000".



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- 6.2.3 Place a Petriplate on illuminating surface.
- 6.2.4 Adjust the magnifying glass to view a clear colony present on the petriplate.
- 6.2.5 Open the lid of marker pen and gently press the tip of the pen on the colony present in the petriplate.
- 6.2.6 A beep sound will confirm the recording and digital display will displays the number.
- 6.2.7 In this way, count all the colonies present in the petriplate.
- 6.2.8 Record the total number of colonies in the respective report and remove the plate from the platform.
- 6.2.9 Press the reset button and repeat the above procedure for all the petriplates.
- 6.2.10 After completion of work, press the reset button, switch "OFF" the mains.
- 6.2.11 Make an entry in the Annexure I.

6.3 Calibration

- 6.3.1 Frequency of calibration quarterly.
- 6.3.2 Place an empty Petriplate on the illuminating surface; adjust the magnifying glass to view the clear Petriplate.
- 6.3.3 Press the tip of marker pen 5 times and then check the number displayed on screen, it should be 000005.



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- 6.3.4 Press the RESET button, the digital display will show "000000" again press the marker pen 10 times on surface of Petriplate.
- 6.3.5 Repeat the same procedure by pressing the marker pen 15 times, 20 times, 25 times and 50 times and 100 times.
- 6.3.6 Calibration of colony counter is valid if the number displayed on screen is equal to the number of time of marker pen pressed.
- 6.3.7 After completion of calibration, press the reset button, switch "OFF" the mains.
- 6.3.8 Put the "CALIBRATION" tag duly filled with necessary information.
- 6.3.9 Limits/ Acceptance Criteria: Calibration of colony counter is valid if the number displayed on screen is equal to the number of time of marker pen pressed.
- 6.4 **Cleaning:** Daily
- 6.4.1 Wipe the outer surface of the instrument with 0.2µ filtered 70% IPA solution.

12.0 DEFINITIONS AND ABBREVIATIONS

12.1 IPA - Isopropyl alcohol

13.0 REFERENCE

13.1 NA

14.0 ANNEXURES

- 14.1 Annexure I: Colony counter usage record.
- 14.2 Annexure II: Colony counter calibration record

15.0 DISTRIBUTION DETAILS

15.1 Controlled copy of this SOP shall be distributed to Quality Assurance and Microbiology department.



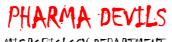
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16.0 REVISION HISTORY

Supersedes SOP No.	Change Control No.	Reason for revision

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ANNEXURE I COLONY COUNTER USAGE RECORD

S.No.	Date	Details of Petriplate counted	Counting started time	Counting end time	Done By	Reviewed By	Remarks
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ANNEXURE II COLONY COUNTER CALIBRATION RECORD

Instrument ID	:	Date of calibration	:	
Frequency	:	Next Due Date of calibration	:	

S.No.	Numbers selected for calibration	Number of beep sound	Display Reading	Done by	Checked by
1.	05				
2.	10				
3.	15				
4.	20				
5.	25				
6.	50				
7.	100				

REMARKS: The above mentioned Colony Counter is calibrated / not calibrated as per specification.

Done By:

Date:

Reviewed By:

Date: