

MICRORIOLOGY DEPARTMENT

STANDARD OPERATING PROCEDURE	
Department: Microbiology	SOP No.:
Title: Procedure for Operation and Calibration of Colony Counter	Effective Date:
Supersedes: Nil	Review Date:
Issue Date:	Page No.:

1.0 OBJECTIVE:

To lay down a Procedure for Operation and Calibration of Colony Counter.

2.0 SCOPE:

This SOP is applicable for Operation and Calibration of Colony Counter in Microbiology Section of Quality Control Laboratory.

3.0 RESPONSIBILITY:

Officer / Executive - Microbiologist

4.0 ACCOUNTABILITY:

Head – QC

5.0 PROCEDURE:

5.1 OPERATION PROCEDURE

- **5.1.1** Connect the power cord to mains and switch "ON" the mains.
- **5.1.2** Connect the marker to input socket on right side of the instrument and fix the rod, tight it and fix the lens on it.
- **5.1.3** Switch "**ON**" the Power Button. The internal light will be flashed "**ON**" and the digital screen will show "**000**" or "**0000**" figures in red.
- **5.1.4** For setting zero press the "RESET" button & display will show "000" or "0000". Now place the plate with colonies to be counted on the graphed scale.
- **5.1.5** Open the lid of the marker and start counting by pressing the marker on petriplate, illuminated from beneath, with a large magnifying lens.
- **5.1.6** Mark each and every colony one after another by pressing the tip of the marker.
- **5.1.7** The number of colonies will automatically get displayed on the screen. Record the number of colonies and remove the plates from platform.
- **5.1.8** Switch "OFF" the Instrument.
- **5.1.9** Record the Colony Counter operation details as per Format, Titled "Operation Log Book"

5.2 CALIBRATION OF COLONY COUNTER

5.2.1 Ensure that the Magnifying Lens is fixed on its appropriate place.

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- 5.2.2 Switch "ON" the main switch of Instrument, the Screen will glow & Digital Screen will show "000" or "0000".
- **5.2.3** Place an empty Petri plate on the Illuminating Surface; adjust the Magnifying Glass to view the clear Petri plate.
- 5.2.4 Press the tip of the marker on plate 5 times, then check the no. displayed on screen, it should be "005" or "0005".
- **5.2.5** Press the "RESET" button, the Digital Display will show "000" or "0000".
- **5.2.6** Repeat the same procedure by pressing the marker pen 5 times, 10 times, 25 times, 50 times, 100 times.
- **5.2.7** Calibration of Colony Counter is valid if the number displayed on the screen is equal to the number of time the marker pressed.
- **5.2.8** Switch "OFF" the Instrument and cover properly when not in use.
- 5.2.9 Record the observations in Annexure-I, Titled "Calibration Report of Colony Counter".
- **5.2.10 Frequency:** Once in a 3 Months.

6.0 REFERENCES:

Instruction Manual

7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure – I	Calibration Report of Colony Counter	

ENCLOSURES: SOP Training Record

8.0 DISTRIBUTION:

Controlled Copy No. 01
Controlled Copy No. 02
Master Copy
Quality Assurance Department
Quality Assurance Department

9.0 ABBREVIATIONS:

ID No. Identification Number

Ltd. Limited No. Number

QA Quality Assurance QC Quality Control



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Sr. No. Serial Number

SOP Standard Operating Procedure

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Details of Changes	Reason for Change	Effective Date	Updated By



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ANNEXURE – I

CALIBRATION REPORT OF COLONY COUNTER

Calibration Date		Instrument ID	
Calibration Due on		Make	Multi-tech
Frequency	Once in 3 Months		

OBSERVATION TABLE:

S.No.	Marker Pressed	Number Displayed on Screen
1.	5 times	
2.	10 times	
3.	25 times	
4.	50 times	
5.	100 times	

Remarks: The Calibration of Colony Counter Complies / Doesn't Comply as per requirement.

Microbiologist:	Checked By:
Date:	Date: