



## STANDARD OPERATING PROCEDURE

<b>Department:</b> Microbiology	<b>SOP No.:</b>
<b>Title:</b> Operation and Cleaning of CLIMET CI-95 Air Sampler	<b>Effective Date:</b>
<b>Supersedes:</b> Nil	<b>Review Date:</b>
<b>Issue Date:</b>	<b>Page No.:</b>

### 1.0 OBJECTIVE

To lay down a procedure for operation and cleaning of CLIMET CI-95 air sampler.

### 2.0 SCOPE

This SOP is applicable for operation and cleaning of CLIMET CI-95 air sampler.

### 3.0 RESPONSIBILITY

Microbiologist – Quality Control

Head-Quality Control

### 4.0 PROCEDURE

#### 4.1 Equipment Specification

Make –CLIMET

Model: CI-95

Flow rate : 100 liters/min.  $\pm$  5 liters/min

Standard sampling volumes: 50, 100, 250, 500, 1000 liter.

Sampling Lid: Clear Anodized with 333.028 holes. Autoclavable 121.1<sup>0</sup>C for 30 minutes,

Enclosure: 304L stainless Steel

#### 4.2 Operation of CLIMET CI-95 Air Sampler

4.2.1 Place the CLIMET CI-95 on a firm support.

4.2.2 Open the perforated lid (with attached dust cover) by rotating counter clockwise.

4.2.3 Place a closed standard Petri dish filled with agar on top of the dish support.

4.2.4 Take the lid off the Petri dish.


4.2.5 Close the CLIMET CI-95 perforated lid.

4.2.6 Operate the CLIMET CI-95 as follows:



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4.2.7 Press “” power key to switch on the CLIMET CI-95. Main screen appear and check the status, it should be [OK] and green. Display will show

**CI-95**  
**POWERING UP V3.03**

4.2.8 After a few seconds the display will show.

**SITE**  
**DELAY 00.03 VOL.100**  
**USER**  
**START SITE DSPL MORE**

4.2.9 Press the DISPLAY arrow key Repeatedly. The third line of display cycles through:

- Date and time
- Unit ID
- Flow rate
- Battery Life
- User ID

#### 4.3 Change flow Volume:

4.3.1 Press {MORE} then {SET UP} Key : CI-95 Display Set Up screen with “100”

Flashing (Or last Volume set).

4.3.2 Press Left Arrow Key (Navigation diamond to right of display): sample volume decrease by 10 litre, New setting continues to flash.

4.3.3 Press Right arrow key: sample volume increase by 10 litre, new setting continues to flash (return setting to 100 litre).

4.3.4 Press Down arrow key: Display sample delay 00:05 (or last set)with “0”flashing continuously

4.3.5 Press Up arrow key: Display sample volume with “100” (or last set) flashing continuously.

4.3.6 Volume taken: 1000 L

4.3.7 Press [EXIT] key: Return to main screen.



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- 4.3.8 Change date and time.
- 4.3.9 Press [MORE- SET UP] then press DOWN navigation arrow key until the date format.
- 4.3.10 [MM DD YY] is flashing.
- 4.3.11 Press left or right navigation arrow key to toggle date format or down navigation arrow key to accept format.
- 4.3.12 In MM DD YY format the two digit month flash. Press LEFT or RIGHT navigation arrow key to change month, DOWN arrow to accept. Repeat process to change day and month, as needed.
- 4.3.13 Press DOWN arrow again and Hour flashes. Change Hour MINutes, and seconds in the same manner.
- 4.3.14 Press [EXIT] when finish
- 4.3.15 Change setting ( sample Delay , alarm):
- 4.3.16 The minimum sample delay-3 seconds
- 4.3.17 Press : [MORE] and then [SETUP]-the display show

<p><b>SAMPLE VOLUME: 100 L</b> <b>SAMPLE DELAY: 00:25</b> <b>BEEP ON COMPLETE? Y</b> <b>EXIT</b></p>
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- 4.3.18 Press LEFT navigation arrow 8 time to change volume to 20L-"20L"flashes on first line.
- 4.3.19 Press DOWN navigation arrow. "00" flashes on first line.
- 4.3.20 Press DOWN navigation arrow "05" flashes after SAMPLE DELAY (if it was set to 5 seconds)
- 4.3.21 Press LEFT NAVIGATION ARROW- "05" change to "4".
- 4.3.22 Press DOWN navigation arrow. BEEP ON COMPLETE? Move to top line, with "Y" flashing.
- 4.3.23 Press LEFT navigation arrow -N" replaces "Y"
- 4.3.24 Press [ EXIT]- Return to main display screen Delay time is set to "00:04".

#### **4.4 Flow Blockage**



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4.4.1 If the air flow was blocked and the CLIMAT CI-95 could not get 100 Litre/ Min. Display shows

<b>SITE:</b> <b>VOLUME : 0018 OF 1000L</b> <b>FLOW FAILURE AT :</b> <b>02/02/2025                      10:00:19</b>
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4.3.2 Blower speed increase. After few second sample is stopped and alarm LED is turned ON display “FLOW FAILURE” AT date & Time.

4.3.4 If ENABLE FLOW ALARM=“Y”, alarm occurs at 80% flow, if it is set to “N” then the alarm does not trigger unit 70% flow. To check setting, Press [MORE- SITE SAMPLE] and use DOWN navigation arrow to scroll down to ENABLE FLOW ALARM.

### 4.4 Sample analysis

4.4.1 Volume sampled displayed when sample runs:

4.4.2 Press [START]

4.4.3 After initial delay, volume and rate should appear on the display.

4.4.4 Sample LED turns on.

### 4.5 End of the sample

4.5.1 Sample beep after full sample taken.

4.5.2 Blower (vaccum, source) turn off.

4.5.3 SAMPLE COMPLETED screen appears.

4.5.3 Main screen appear after pressing [EXIT].

4.5.4 After sampling open the sampling head cover the petridish with the lid and remove the petridish from the dish support.

4.5.5 The Petridish is now ready for incubation

4.5.6 Calibration will be carried out by approved External agency

4.5.7 Frequency : Yearly

### 4.6 Cleaning



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4.6.1 Clean the outer body of the CLIMET CI-95 with the lint free cloth soaked in 70% IPA before carrying it for the Environmental Monitoring.

4.6.2 Sanitize the sampling head with 70% v/v IPA before using it for the Environmental monitoring.

**5.0 ANNEXURE (S):**

Nil

**6.0 REFERENCE(S):**

Operation Manual of CLIMET CI-95

SOP: Preparation, Approval, Distribution control, revision and Destruction of Standard operating Procedure (SOP).

**7.0 ABBREVIATION (S) /DEFINITION (S) :**

SOP - Standard Operating Procedure

NA - Not Applicable

IPA - Isopropyl Alcohol

**REVISION CARD**

S.No.	REVISION No.	REVISION DATE	DETAILS OF REVISION	REASON (S) FOR REVISION	REFERENCE CHANGE CONTROL No.
1	00	---	---	New SOP	---