

SOP: M Air T Millipore Air Tester

Approvals:

Preparer: Dr. Maggie Bryans

Date: 09JAN14

Reviewer: Jason McMillan

Date: 10JAN14

1. Purpose:

1.1. The purpose of this SOP is to describe the procedure in using the M Air T Millipore Air Tester in conducting airborne microbial testing.

2. Scope:

2.1. The scope of this SOP is limited to performing airborne microbial testing using the M Air T Millipore Air Tester.

3. Responsibilities:

3.1. It is the responsibility of the course instructor /lab assistant to ensure that this SOP is performed as directed and to update the procedure when necessary.

3.2. It is the responsibility of the students/technicians to follow the SOP as described and to inform the instructor about any deviations or problems that may occur while performing the procedure.

4. References:

4.1. M Air T Millipore Air Tester Operation and Maintenance Instruction

4.2. autoclave SOP

4.3. incubator SOP

5. Definitions: N/A

6. Precautions:

6.1. Always wear the appropriate personnel protective equipment (safety eye glasses and gloves).

7. Materials:

7.1. M Air T Millipore Air Tester and accessories.

7.2. M Air T Cassette pre-filled with TSA media

7.3. autoclave

7.4. incubator

7.5. 70% isopropyl alcohol (IPA)

7.6. lab towels

8. Procedure:

8.1. Using the air tester in vertical, horizontal or inclined position

8.1.1. When using the air tester in a vertical position, the tripod is not used.

8.1.2. When using the air tester in a horizontal position or 30° from the horizontal position, the tripod is needed. Fix the tripod onto the air tester by screwing it into the tester fixing hole.

8.2. Powering up the equipment

8.2.1. If the equipment is used to collect samples inaccessible to power outlets, the equipment has internal rechargeable batteries ready for use. Press the ON/OFF button. LCD display will be turned on.

Note: Make sure the battery is fully charged. The LCD will display the battery symbol if it is fully charged.

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- 8.2.2. If the equipment is used to collect samples accessible to power outlets, plug the power adapter into an empty and convenient power outlet. LCD display will be turned on.
- 8.3. Adjusting the volume to be processed**
Note: Refer to Figure 2.
- 8.3.1. The recommended volume is 1000 Liters (1m³).
- 8.3.2. Setting up volume other than the recommended volume
- 8.3.2.1. To access other preset volumes, press the LITERS button multiple times until you find your desired volume.
- 8.3.2.2. To change the volume setting, select the volume that is just below the preset volume you want to process. Then hold the LITERS button until the tester display indicates the desired sampling volume.
- 8.4. Adjusting the timer**
Note: Refer to Figure 2.
- 8.4.1 The recommended set time is 5 minutes.
- 8.4.2 Setting up the time other than the recommended set time.
- 8.4.2.1 Hold down the START/DELAY button. The display shows preset times in increments of 5 minutes up to one hour. Select the desired time by simply releasing the START/DELAY button.
- 8.5 Installing the cassette and running the tester**
Note: Refer to Figures 2 and 3 as needed.
- 8.5.1 Define the location of the tester according to cGMP requirements
- 8.5.2 Ensure that pre-filled cassettes with TSA media are at room temperature before starting the test.
- 8.5.3 Spray down gloved hands with 70% IPA.
- 8.5.4 Sanitize the external surfaces of the tester with 70% IPA.
- 8.5.5 Position the wings of the cassette into the recessed area of the tester head.
- 8.5.6 Retain the cassette in position by holding on to its wings. Remove the lid and place it on the bench, internal face down.
- 8.5.7 Lock the micro-perforated sieve into position and remove cover
- 8.5.8 Press the ON/OFF button. Set the default volume and time, and then quickly press the START/DELAY button twice.
Note: The first 500 liters of volume of air collected is a slow flow rate producing a mild sound while the remaining 500 liters is a faster flow rate producing a noisy sound.
- 8.5.9 When the display indicates end of cycle (EOC) which is related to the set time, unlock the sieve, remove it, and put the lid back on the cassette.
- 8.5.10 To remove the cassette from the tester head, lift the cassette while firmly holding the edge.
- 8.5.11 Label (includes relevant sample data, date, initial and testing location) and incubate the cassette (37°C for 1-3 days) in the upside down position.
- 8.5.12 Remove the cover from the sieve. Autoclave the sieve (without the cover) for 30 minute at 121°C.
- 8.5.13 Sanitize the external surfaces of the tester with alcohol.

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8.5.14 Record use in the usage log.

8.6 Evaluation of results.

8.6.1 When incubation is complete, count the colonies on the plate.

8.6.1.1 The microbial count (CFUs) is to be stated with reference to the sample volume (i.e. CFUs/Sample Volume)

8.6.1.2 Record results in the log book.

9. Attachments:

9.1. Figure 1: Diagram of the M Air T Millipore Air Tester with Components

9.2. Figure 2: Diagram of the M Air T Millipore Air Tester with Display Buttons

9.3. Figure 3: Diagram of the M Air T Millipore Air Tester with Installed Cassette

9.4. Table 1: Environmental Monitoring Testing Sheet

10. History:

Name	Date	Amendment
Marlo Austria	01APR06	Initial Release
Bob O'Brien	11SEP06	Updated procedure. Changed usage log. Added Environmental Monitoring Testing Sheet.
Bob O'Brien	14MAR07	Updated date format. Updated Figures 3 and 4.
Jason McMillan	10JAN14	Changed College Name, Added Testing Sheet

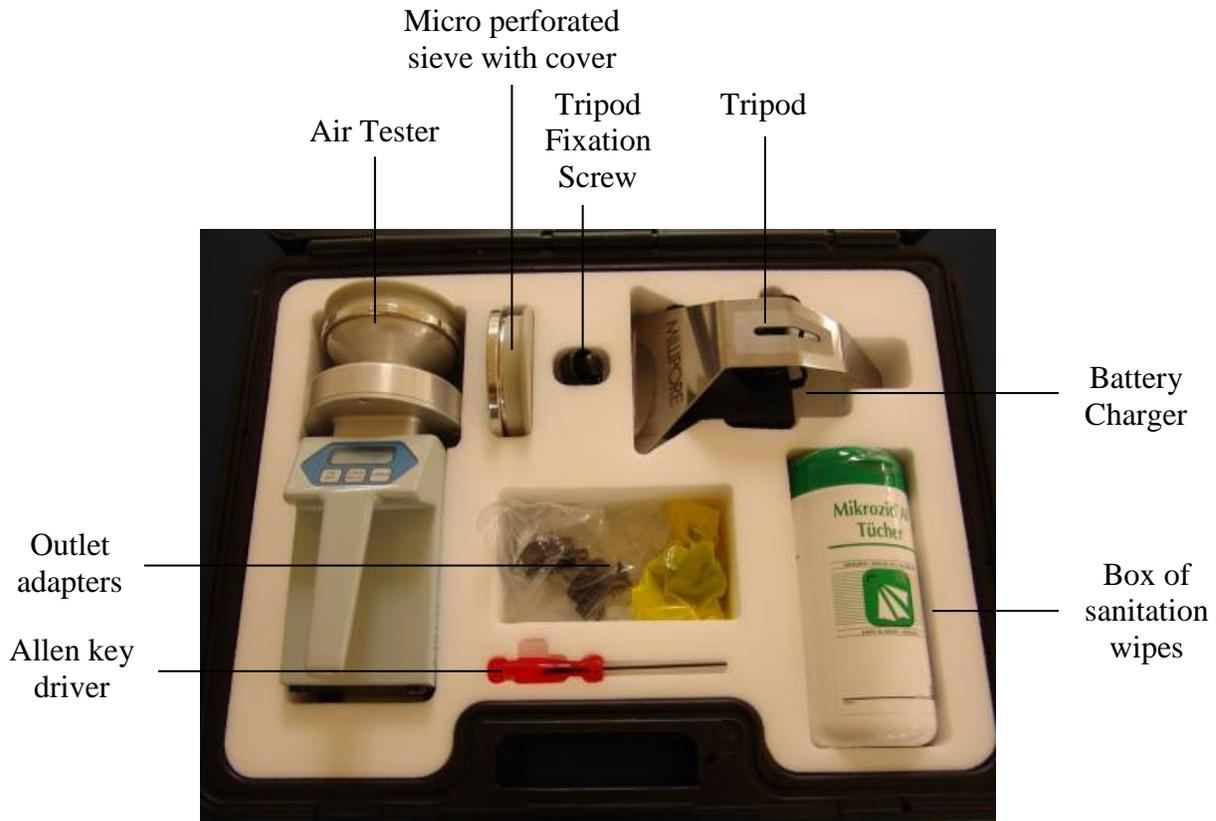


Figure 1: Diagram of the M Air T Millipore Air Tester with Components

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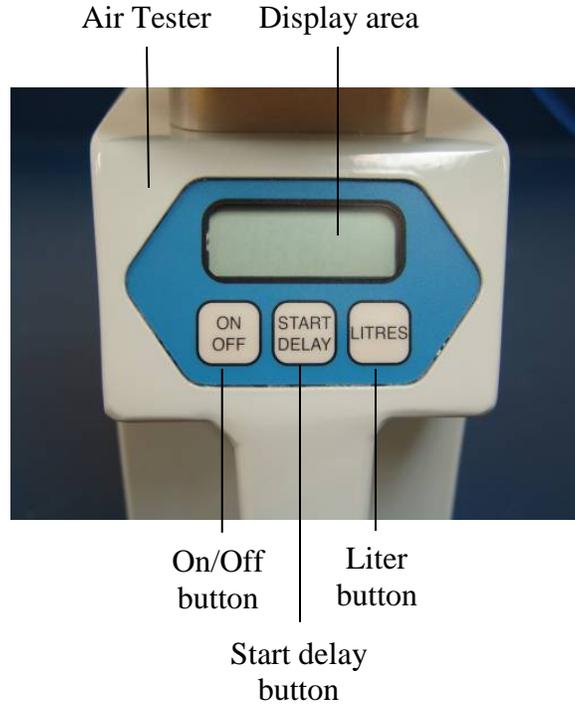


Figure 2: Diagram of the M Air T Millipore Air Tester with Display Buttons



Figure 3: Diagram of the M Air T Millipore Air Tester with Installed Cassette, Micro Perforated Sieve and Cap

