



Automated Media Dispensing System

LMADS-A102

Index

Sr. No	Title	Page no
1.	Safety Measures	2
2.	Introduction	3
3.	Features	3
4.	Specifications	4
5.	Applications	4
6.	Installation	5
7.	Operations	6
8.	Troubleshooting	10
9.	Accessories	11

1. Safety Measures

- Kindly read this manual carefully before using this instrument. Operation can only be used after the functions and precautions of each component are made clear.
- This instrument is a precision instrument, so it must be handled and placed with care. Make sure that the instrument is placed horizontally before use.
- The 220V AC power used in the instrument should be between 180V and 240V, and the grounding wire of the power supply must be grounded to prevent static electricity. Before turning on the power supply, the host power switch is in the "O" state.
- During the operation of the instrument, it is forbidden to touch the moving mechanism of the instrument to avoid unnecessary injury.
- Non-certified staff maintenance is forbidden to avoid unnecessary damage to the instrument.

2. Introduction

Automated Media Dispensing System LMADS-A102 offers an adjustable volume range from 5 to 50 ml, integrated with high productivity, processes up to 300 dishes per hour for quick results. It features a 4.3-inch color touch screen, simplifying the operation and monitoring process. Equipped with a UV lamp to effectively sterilize the environment, ensuring contamination-free handling. Our Automated Media Dispensing System incorporates a leak-proof unscrew sucker design, preventing liquid spillage during workflows.

3. Features

- Multi-Dish Compatibility
- High-Performance peristaltic pump
- Space-efficient construction
- Flow Control Calibration
- Low Power Consumption

4. Specifications

Model No	LMADS-A102
Dispensing Range	5 to 50 ml
Dispensing Tolerance (30ml)	±2%
Dispensing Speed	300 dishes per hour
Single Dispensing Quantity	378 Petri dishes (90 mm), 396 Petri dishes (60 mm)
Dish Size	Φ90mm, Φ60mm
Display	4.3-inch color screen
Flow Calibration	Yes
Pump	High-precision peristaltic pump
Sucker Design	Unscrew
Sanitized Zone	Ultraviolet lamp
Power Consumption	500W
Power Supply	AC 220V 50Hz
Dimensions (L × W)	650 mm × 510 mm
Dispensing Range	5 to 50 ml
Dispensing Tolerance (30ml)	±2%
Dispensing Speed	300 dishes per hour
Single Dispensing Quantity	378 Petri dishes (90 mm), 396 Petri dishes (60 mm)
Dish Size	Φ90mm, Φ60mm
Display	4.3-inch color screen
Flow Calibration	Yes
Pump	High-precision peristaltic pump
Sucker Design	Unscrew
Sanitized Zone	Ultraviolet lamp
Power Consumption	500W
Power Supply	AC 220V 50Hz
Dimensions (L × W)	650 mm × 510 mm

5. Applications

Automated Media Dispensing System LMADS-A102 is designed for efficiently filling Petri dishes with culture media for microbiological testing as well as reliable media preparation for clinical diagnostics and scientific research.

6. Installation

Placement and installation of instruments

The instrument should stand on a solid laboratory bench or an optional special ultra-clean bench. The bench should bear at least 50kg of weight, and vibration interference is not allowed on the bench.

Note: The instrument can only be placed horizontally, and it is not allowed to tilt or place other objects at any position on it.

Plug the instrument power cord into the power socket of the laboratory, and the socket shall meet the power supply requirements of 220V10A.

7. Operations

7.1 Start-up of Instrument

Turn on the instrument.

After the instrument is powered on, the "I/O" power switch on the left side of the instrument can be turned on (as shown in Figure 1 below). At this time, the screen of the instrument will light up and directly enter the control interface.



Figure-1 Power Switch

7.2 Emptying of Peristaltic Pump Tube

As shown in **Figure 2**, the peristaltic pump tube is correctly installed on the peristaltic pump, with the left tube connected to the filling head and the right tube connected to the autoclave



Figure-2

As shown in **Figure 3**, remove the stainless-steel filler head and put it into the waste liquid container.



Figure-3 Stainless Steel Filler Head

As shown in **Figure 4**, click the "Empty" button in the control interface. At this time, the peristaltic pump tube will gradually fill the culture medium, and the empty procedure will automatically stop. If the tube is not full when stopping, Kindly perform the empty procedure several times.



Figure-4 Control Interface

7.3 Flow Calibration

Make sure the peristaltic pump tube has been emptied before flow calibration. As shown in **Figure 4**, click the calibration button on the screen to enter the flow calibration interface, as shown in **Figure 5**.

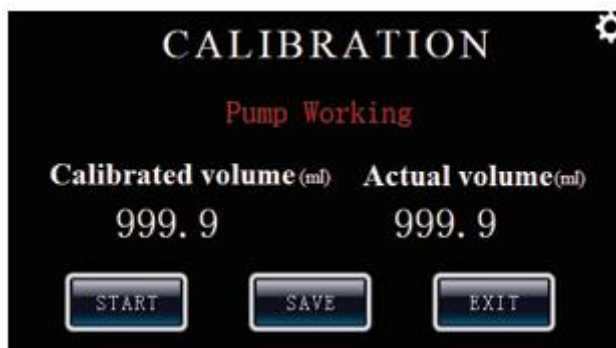


Figure-5

- Click "**Calibrated volume**" to enter the target capacity (it is recommended to enter the capacity to be repackaged for each dish). Click "Start" at this time, the filling head will discharge the solution, which can be taken directly into the measuring cup to measure the actual discharged capacity. You can also use the weighing method to convert the capacity.
- Click "**Actual volume**", fill in the measured data, and click "**save**", then the calibration step is completed.

Note: It is not necessary to calibrate the flow rate every time it is used. It is recommended to carry out calibration when changing the packaging volume, and calibration is required every 2 months.

7.4 Start Auto Subpackaging

Ensure that the empty process has been carried out, and the peristaltic pump tube and stainless-steel filling head are installed correctly.

Click the "**Reset**" button on the main interface, and the instrument will reset automatically.

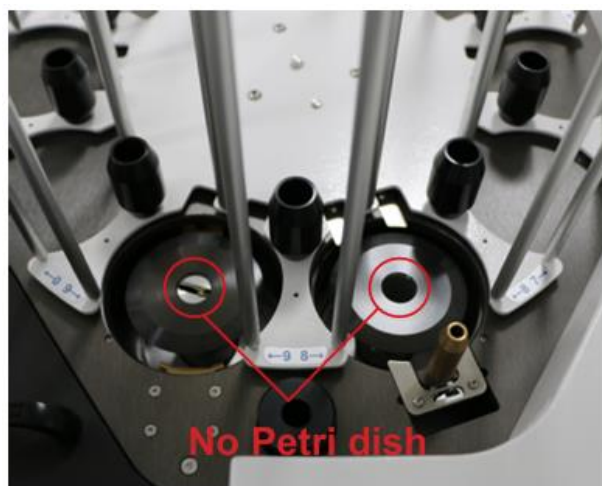


Figure-6 Confirmation before reset

As shown in **Figure 7**, put empty Petri dishes into the Petri dish rack. No Petri dishes can be placed in position 0-0, and Petri dishes can be placed in other positions. After placing, turn the petri dish rack to the position shown in **figure 7** (position 1-1 faces the concave dish taking position)

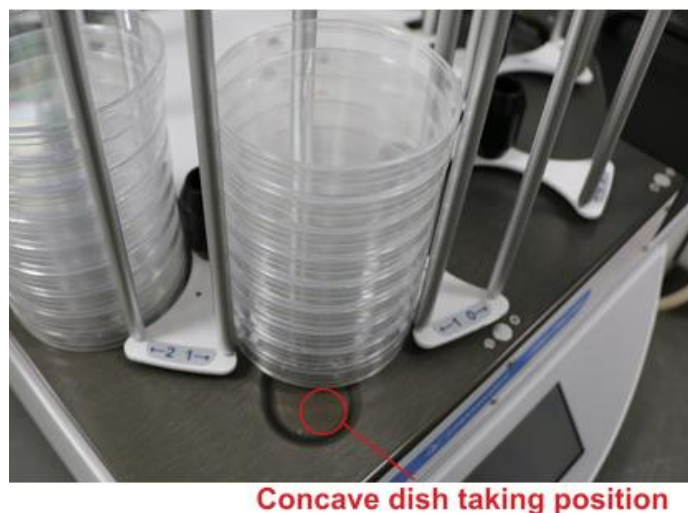


Figure-7 Petri dish rack

After loading the empty dish, press the "**UV lamp**" button on the panel for irradiation, click the "volume" on the control interface to input the target capacity to be subpackaged, and click the "**Start**" button, and the instrument will automatically complete the subpackaging.

Note: During the automatic operation of the instrument, it is forbidden to touch the moving mechanism of the instrument by hand to avoid injury.

7.5 Cleaning and shutdown of instruments

- Click the "**Stop**" button on the main interface after the automatic subpackaging of the culture medium is completed. At this time, the Petri dish rack can be rotated manually, and the Petri dishes at different positions can be rotated to the "concave take-out position" in Figure 7 to remove the subpackaged Petri dishes.
- After packaging, the peristaltic pump tube should be cleaned. Change the culture medium to hot water above 50°C and drain it more than three times. After cleaning, remove the peristaltic pump tube and keep it properly for next time.
- After all operations are completed, turn off the UV lamp and the power switch on the left side in turn, and finally turn off the power cord.

8. Troubleshooting

Emergency stop: If the instrument needs to stop urgently in case of any accident during operation, Kindly power off the instrument.

- **Troubleshooting of power failure:** After power-on, the "I/O" button light on the left side does not light up. First, check whether the power supply is normal and whether the voltage is between 180 V~ 240 V. If it is normal, check whether the power cord of the instrument is connected well.
- **Troubleshooting of clamping dish:** Press the left power switch to power off, as shown in Figure 8. After taking out all the petri dishes on the small turntable, turn on the left power switch again, and click the "reset" to continue.



Figure-8

9. Accessories

Standard Accessories

Accessory	Unit	Quantity
Petri Dishes (90 mm)	1	Pack
Petri Dishes (60 mm)	1	Pack
Power Cable	1	Each
UV Lamp	1	Each
Calibration Device	1	Each
Suction Tube	1	Each
Cleaning Brush	1	Each



Labmate Scientific Inc

Email: info@labmate.com | Website: www.labmate.com