

# Digital Colony Counter with LED Display and Magnifier

## Operating Manual

Laboratory Equipment

### Intended use

Counting bacterial and fungal colonies on Petri dishes for microbiology plate enumeration. Each touch of the marking pen on the dish adds one to the digital count shown on the LED display.

### Intended users

Trained laboratory personnel in microbiology, quality control, research and teaching laboratories.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email [sales@scimedstore.com](mailto:sales@scimedstore.com).

## 1. Safety

### Safety warnings and cautions

- Connect only to a grounded outlet with the supply voltage marked on the unit.
- Unplug the unit before cleaning, moving or changing any part.
- Do not allow liquids to enter the housing. Do not operate with wet hands.
- Treat all culture plates as potentially infectious. Follow your laboratory's biosafety procedures and wear gloves, lab coat and eye protection.
- Keep Petri dish lids closed where possible and do not open plates of hazardous organisms outside a suitable biosafety cabinet.
- Do not use the unit if the power cord, housing or counting plate is damaged.
- Do not look at the illumination source directly for long periods.

## 2. Package contents

- Colony counter unit
- Marking pen x 1
- Magnifier lens x 1
- User manual

Check contents on receipt. Report missing or damaged items to [sales@scimedstore.com](mailto:sales@scimedstore.com) within 48 hours of delivery.

## 3. Specifications

|                        |                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------|
| Display                | Varies by model: 3-digit LED (Model 043g, up to 999) or 6-digit LED (Model 043-G, up to 999,999) |
| Dish size              | 110 mm standard Petri dish (also fits 100 mm and 90 mm dishes)                                   |
| Magnification          | 1.7x magnifier lens                                                                              |
| Counting mechanism     | Marking pen with pressure trigger; each touch increments the count by 1                          |
| Illumination           | Illuminated counting plate with standard graticule                                               |
| Dimensions (L x B x H) | 274 x 320 x 167 mm                                                                               |
| Weight                 | Approx. 3 kg                                                                                     |
| Power                  | 110-230V AC, 50 Hz, 40 W; supply variant: 110 V or 220V                                          |

## 4. Unpacking and setup

- 1 Unpack the unit and check all items against the package contents list.
- 2 Place the counter on a stable, level, dry bench away from direct sunlight and heat sources.
- 3 Check that the supply voltage marked on the unit matches your local supply.
- 4 Connect the marking pen to its socket on the unit.
- 5 Fit the magnifier lens in its holder and position it over the counting plate.
- 6 Plug the power cord into a grounded outlet and switch the unit on with the power switch.

- 7 Confirm the counting plate lights up and the display reads zero (press the reset control if needed).

## 5. Operation

### Counting colonies

- 1 Reset the display to zero before each new plate.
- 2 Place the Petri dish, lid side down or up per your lab method, centered on the illuminated counting plate.
- 3 Adjust the magnifier so the colonies are in clear focus.
- 4 Using the graticule as a guide, work through the plate one section at a time.
- 5 Touch each colony once with the marking pen. Each touch adds 1 to the count and marks the colony on the dish.
- 6 When all colonies are marked, read the total on the display and record it with the plate identification.
- 7 Remove the plate and reset the display before counting the next plate.

### Multi-plate totals (6-digit model)

- 1 Do not reset the display between plates when a running total is needed.
- 2 Record the reading after each plate so individual plate counts can be calculated.
- 3 Reset the display when the series is complete.

## 6. Cleaning and disinfection

- Switch off and unplug the unit before cleaning.
- Wipe the housing and counting plate with a soft cloth lightly dampened with mild detergent or a laboratory disinfectant compatible with plastics and acrylic.
- Clean the magnifier lens with lens tissue and lens cleaner. Do not use abrasive cleaners.
- Wipe the marking pen tip after use and replace the marker refill when the marks become faint.
- In case of a culture spill, decontaminate per your laboratory's biosafety procedure before further use. Do not autoclave any part of the unit.

## 7. Maintenance and storage

- Store in a clean, dry place, covered to keep dust off the counting plate and lens.
- Check the power cord and pen cable regularly for damage.
- Verify counting performance periodically using a reference plate of known count, per your laboratory's quality procedures.
- Refer repairs to qualified service personnel. Do not open the housing.

## 8. Troubleshooting

| Problem                                        | Likely cause                               | What to do                                                                          |
|------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|
| Unit does not switch on                        | No power, loose cord or blown fuse         | Check the outlet and cord connection; have the fuse checked by qualified personnel. |
| Counting plate does not light                  | Lamp failure or power fault                | Switch off, unplug and contact service for lamp replacement.                        |
| Count does not increase when touching a colony | Pen not connected or insufficient pressure | Check the pen connection and press firmly enough to trigger the pen.                |
| Count increases twice per touch                | Pen bounced or pressed twice               | Use a single firm touch; recount the plate if needed.                               |
| Colonies appear blurred                        | Magnifier not positioned or dirty          | Adjust the magnifier position and clean the lens.                                   |
| Pen does not leave a mark                      | Marker ink exhausted                       | Replace the marker refill.                                                          |

## 9. Disposal

- Decontaminate culture plates and any contaminated materials per your laboratory's biohazard waste procedure before disposal.
- Dispose of the unit as electronic waste in accordance with local regulations. Do not discard in household waste.

## 10. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: [scimedstore.com/pages/warranty](https://scimedstore.com/pages/warranty).

Support, spare parts and additional copies of this manual: [sales@scimedstore.com](mailto:sales@scimedstore.com). Please include your order number and a photo of the product or issue.

SciMed Scientific Equipment LLC · San Jose, California, USA · [scimedstore.com](https://scimedstore.com)