

# INSTRUCTION MANUAL CAT. 70309-01 eCount



**Electron Microscopy Sciences**

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## Safety precautions

The eCount is used specifically in bioscience, medical, and chemistry laboratories. It may come in contact with biohazardous and/or hazardous materials. This instruction manual cannot address all safety hazards. It is the responsibility of the user to consult and observe all health and safety precautions and to assess the instrument's effectiveness with application of choice.

### Warning

Improper use of the eCount or the battery, such as short-circuiting, mechanical damage, or overheating, may cause explosion and/or injury.

1. Before operating, it is important that you read this instruction manual.
2. Observe general laboratory safety precautions and regulations.
3. Do not immerse eCount in water. Injury due to shock or fire may result.
4. For use with 11-12mm diameter permanent markers (Sharpie® fine and extra fine point pens recommended). Do not insert larger than 12mm diameter pen.
5. Follow all precautions from the Material Safety Data Sheet (MSDS) for any reagent you use with the eCount.
6. Do not use solvent or flammable liquids near this or other electrical equipment.
7. Do not operate in a hazardous or flammable environment.
8. Do not use any solvent on the unit that may attack plastic.
9. Ensure the eCount is protected from corrosion and mechanical damage. The eCount must be cleaned with a pH-neutral cleaning liquid.
10. Always work in a manner which endangers neither the user nor any other person.
11. Use the eCount only for counting, and within the recommended limits of its chemical resistance and mechanical properties.
12. Never use force when using this eCount.
13. When not in use, store the eCount on stand or in box.
14. eCount must only be used with a 3V CR1225 battery.
15. Follow safety procedures for Sharpie® pen use.
16. Batteries must be completely discharged before disposal.
17. Disposal should be performed in accordance with all governmental regulations.
18. Should the instrument fail to work to specification, immediately stop use. Clean and troubleshoot the instrument according to the instructions under "Maintenance" before any further use.
19. Repairs are to be performed by trained and authorized service personnel only. Contact Customer Service at Electron Microscopy Sciences at 1-800-523-5874.

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20. Opening the instrument housing or improper use of the instrument voids the warranty. If there is a failure during the warranty period, contact Electron Microscopy Sciences.
21. Do not use units that have not been correctly repaired.
22. Do not attempt to disassemble or modify.
23. Store at room temperature in a dry area. Do not expose to sunlight, moisture, or extreme temperatures for prolonged periods of time.

## Technical Data

Pen:	Sharpie® fine and extra fine point pens recommended; accepts up to 12mm diameter permanent marker pens.
Working temp.:	82 to 122°F (0 to 50°C).
Battery:	One (1) 3V CR1225 lithium battery
Housing material:	ABS

### Warning

This eCount must not be used in an explosive atmosphere.

## Disposal responsibilities

The equipment you purchased may contain hazardous substances that could impact the environment. The disposal systems will reuse or recycle hazardous materials from your equipment responsibly.



The crossed-out wheeled bin symbol invites you to use those systems. If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration. You can also contact us for more information on the environmental performance of our products.

## Operation

Remove the contents from box, examining them carefully for breakage, defects, or shortages.

### Getting Started

1. Slide off battery housing at the back end of the eCount.
2. Insert a 3V CR1225 battery (included) with positive side facing up.
3. Slide on battery housing making sure it snaps into place.
4. Insert Sharpie® pen. Choose extra-fine or fine (included) tip pens based on preference. Change pen colors to confirm counts.

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### Counting up/down



1. Press power on/off button.
2. Up arrow will be displayed.
3. Press count up/down button to toggle between count directions. Select mode.
4. Mark each colony with Sharpie® pen. Make sure eCount beeps each time a colony is marked. If colony is marked but no beep is heard, the count was not registered; press more firmly.
5. To reset counter, press on/off button.

**NOTE:** eCount will automatically turn off after 10 minutes of nonuse. Last counts will be stored in memory.

### Select alert function



1. Unit automatically counts with an audible beep for verification.
2. Press alert button to toggle between audible beep or visual flash options. Select option.

**NOTE:** When on/off button is pushed, eCount will again be in the audible beep mode.

### Lock counting function



1. Press lock button; lock icon will be shown on display.
2. Write with Sharpie® pen without continuing to count.

**NOTE:** No other counter features will work when in the lock mode. eCount will automatically turn off after 10 minutes of nonuse. Last counts will be stored in memory.

3. Press lock button to count again; lock icon will disappear from display.
4. To reset eCount, press on/off button.

### Select part count zone



1. Press part count zone button; zone number in upper left hand corner of display will increase by one and eCount will be zero.
2. Mark each colony within zone, section of grid, different petri dishes, etc.
3. Press part count zone button to start new count.
4. Count all zones.

**NOTE:** eCount will count up to 32 different zones.

## Select sum function



1. Press sum button; sum icon ( $\Sigma$ ) will be shown on display.

**NOTE:** The sum will be of all part zones. No other counter features will work when in the sum mode. eCount will automatically turn off after 10 minutes of nonuse. Last counts will be stored in memory.

2. Write with Sharpie® pen without continuing to count.
3. Press sum button to count again; sum icon ( $\Sigma$ ) will disappear from display.
4. To reset eCount, press on/off button.

## Hand tally adapter

The hand tally adapter is supplied with this product to permit counting without a pen.

1. Remove the pen from the eCount and insert the Hand tally adapter into the pen opening.
2. Rotate the adapter to align the angled surfaces until it seats fully.
3. Grasp the product with the hand tally pointing upward so it can be pressed with the thumb.
4. Use the counting features as described elsewhere in this manual.

## Storage

For benchtop storage, insert the eCount and pen with cap onto stand. Do not place near edge of benchtop.

## Maintenance

The eCount is normally maintenance-free. Clean unit only when necessary. The housing can be wiped using a damp cloth and a mild, non-corrosive detergent. Ensure all parts are thoroughly dry prior to operation.

Check Sharpie® pen prior to counting. If it does not mark, replace with new pen.

## Replacing battery

1. Slide off battery housing at the back end of the eCount.
2. Insert a 3V CR1225 battery with positive side facing up.
3. Slide on battery housing making sure it snaps into place.

## Return for repair

### **Important**

Transporting hazardous materials without a permit is a violation of federal law.

Electron Microscopy Sciences will not accept any counter that is not appropriately cleaned and decontaminated.

In the unlikely event of repair, or when damage to the eCount occurs, contact Electron Microscopy Sciences at 1-800-523-5874.

## Limited warranty

Electron Microscopy Sciences warrants that the eCount will be free from defects for 1 year from the date of purchase.

If you believe that there is a defect in the product, you must, during the warranty period, notify Electron Microscopy Sciences, provide proof of purchase, and return the product to Electron Microscopy Sciences with a Return Authorization form. To obtain a Return Authorization form, please call 1-800-523-5874. If Electron Microscopy Sciences is properly notified and, after inspection, confirms that there is a defect and the warranty period has not expired, Electron Microscopy Sciences will begin the repair/replacement process.

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