lbx
instruments

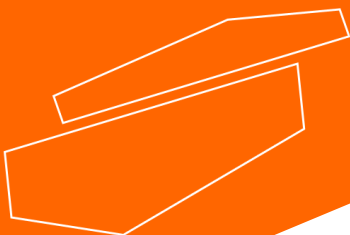# COLONY COUNTER, CC10/CC10E

Please read the User Manual carefully before use, and follow all operating and safety instructions!

user manual
english

User Manual

EN

COLONY COUNTER, CC10/CC10E

Preface

Users should read this Manual carefully, follow the instructions and procedures, and beware of all the cautions when using this instrument.

Service

In order to guarantee this equipment works safely and efficiently, it must receive regular maintenance. In case of any faults, do not try to repair it yourself. If help is needed, you can always contact your supplier or Labbox via www.labbox.com.

Please provide the customer care representative with the following information:

· Serial number

· Description of problem

· Your contact information

Warranty

This instrument is warranted to be free from defects in materials and workmanship under normal use and service, for a period of 12 months from the date of invoice. The warranty is extended only to the original purchaser. It shall not apply to any product or parts which have been damaged on account of improper installation, improper connections, misuse, accident, or abnormal conditions of operation.

For claim under the warranty please contact your supplier.

Inspection

Users receive the product, open the instrument box, check the instrument and accessories, if the instrument or accessories packaging error, quantity error, packaging or product damage, etc., please contact the seller or manufacturer within 7 days, more than this, time will not be handled in accordance with the principle of non-product quality problems.

Safety Warnings and Guidelines

1. Important operation information of the security

Before operation, please have a perfect conception of how to use the Instrument. Read this manual carefully before using it.

2. Matters needing attention

- The instrument should be placed on a flat and firm table for use.
- When counting colonies, do not tilt the probe too much. When you tap it gently until you feel a bounce, the number will be entered.
- The instrument should be protected from moisture, severe vibration, direct sunlight, acid and alkali corrosion, and a dust cover should be added after use.
- Be careful to prevent bacterial culture from contaminating the counting pool.
- The instrument and the probe should not be disassembled at will. If a fault is found, an experienced technician should be asked to repair it.
- This instrument can only be used in the ground circuit.

If there is any violation of the above matters, the consequences shall be borne by themselves.

3. The maintenance of Instrument

The frequent use of instruments will inevitably cause different degrees of wear and abnormality. Therefore, the regular maintenance and troubleshooting of the instrument plays a decisive role in guaranteeing the instrument in normal working and extend the

service life of it. Please read the entire safety instructions before starting to maintain or clean the equipment.

Make sure that the power supply is disconnected before maintaining and cleaning the instrument.

a. When the instrument is not used for a long time, it should be placed in the original packaging box to prevent dust or moisture from affecting the normal use of the instrument.

b. When the instrument is not in use for a long time, remove the battery (battery model) and store it in the original packaging box to prevent dust or moisture from entering and affecting the normal use of the instrument.

c. When cleaning, please use a sponge or towel to wipe the paint surface and the transparent area. Rough or too wet cleaning cloth will damage the equipment.

d. The instrument shall be cleaned regularly with ethanol in a concentration of more than 70% and shall not be cleaned with corrosive liquid or detergent.

4. After Sale Service Commitment

A) Instructions of warranty

The company will replace the instrument within 1 month from the date of delivery of the product itself.

During the 2 years warranty period of the instrument, the company will provide warranty for non-human damage or faults caused by defects of the product itself. The warranty products shall be sent to the designated maintenance department by the company, and the user bears the cost of shipping back. The company will bear the freight of the instrument returning to the user.

For out of the warranty period and not covered by warranty scope, the company will charge the corresponding cost.

B) Scope of Warranty

Damage and normal use loss caused by accidental disasters, improper user use, wrong application, unauthorized maintenance or modification, do not fall within the above warranty scope.

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01 Introduction

The colony counter is a digital display bacterial testing instrument. It is composed of counter, probe pen, counting pool and Magnifier. CMOS integrated circuits design, LED display is clear and bright. Sensitive and accurate counting with the special probe pen. The counting pool has a built-in circular fluorescent lamp, which provides uniform and non-glaring side-illuminating, clear contrast of colonies and easy observation. It can help experimenters to accurately count colonies, reduce their labour intensity, improve work efficiency, and improve work quality. It is one of the necessary instruments for environmental monitoring, biological industry, food hygiene, water quality testing, bacteria testing, grain testing, clinical specimen testing, etc.
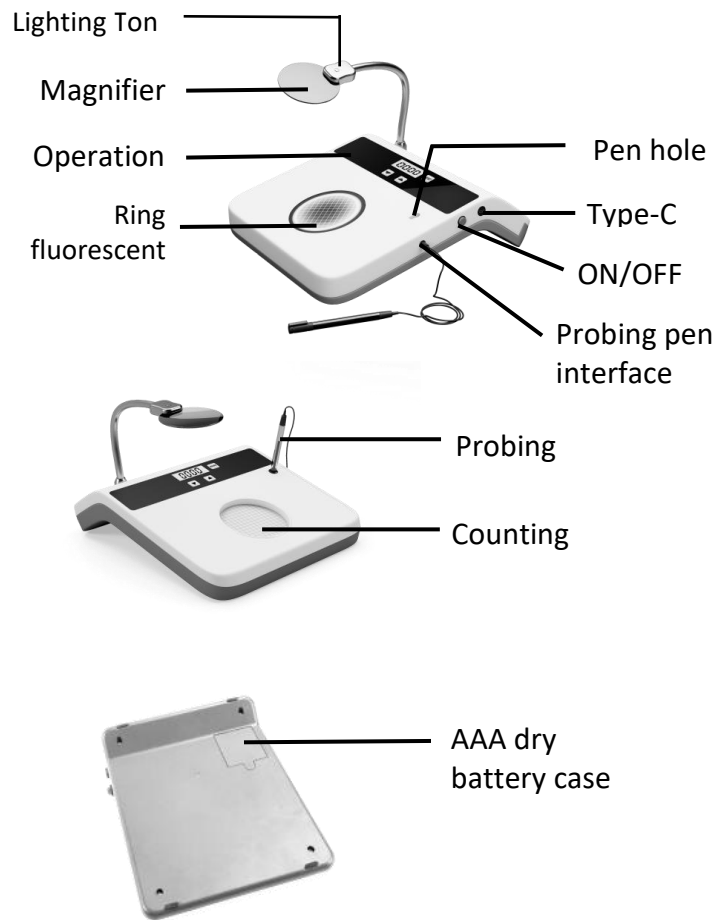
1. Features

- Compact and light-weight design.
- Counting correction function, modifiable in repeated or other misoperation counting.
- Brightness adjustable side-illuminating lighting with energy-saving circular fluorescent lamp, clear colony contrast.
- Counting pen in high sensitivity, point-press counting, easy to operate.
- LED digital screen displays 4 digits, clear showing.
- Using CMOS integrated circuit design counter.
- Grid-shaped counting plate is easy to observe, and with a leak-proof sealing ring for good sealing performance.
- 2 power supply options: Type-C, dry battery, wide application in working environment.
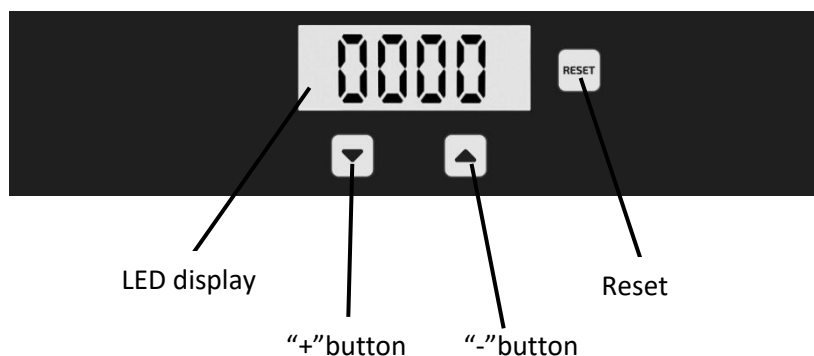
2. The basic parameters and function

Model	CC10
Counting capacity	0~9999
Power	7W
LED digital display	4 digits
Counting pool size	Φ118mm
Max diameter of petri dish	Φ115mm
Magnifying glass diameter	Φ90mm
Magnifying magnification	3/6 times
Counting correction	Add or remove colony quantity
Power supply options	Type-C/AAA dry battery
Dimension	L250xW210xH60mm
Weight	1kg
Power supply	100~240V;50/60Hz

3. Product Structure

Lighting Ton

Magnifier

Operation

Ring
fluorescent

Pen hole

Type-C

ON/OFF

Probing pen
interface

Probing

Counting

AAA dry
battery case

02 Operation Guide

1. Operation panel description

LED display

"+"button   "-"button

Reset

LED display: counting display, maximum counting capacity 9999.

⬤: "+" button, used to increase the brightness of the ring light of the counting pool. Each time the "⬤" button is pressed, the light brightness increases by one level; it is also used to correct the counting. When there is a missed count or an incorrect count in the counting, each time the "⬤" button is pressed, the count amount increases by 1.

⬤: "-" button, used to reduce the brightness of the ring light of the counting pool. Each time the "⬤" button is pressed, the light brightness decreases by one level; it is also used to correct the counting. When there is a repeated count or an incorrect count in the counting, each time the "⬤" button is pressed, the count amount decreases by 1.
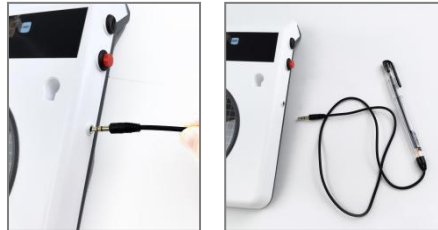
RESET: reset button. When counting starts, press the "RESET" button to clear "0" so that the display screen enters the initial counting state.

2. Preparation

1) Open the outer package and carefully take out the colony counter.

2) Place the colony counter steadily in the area to be operated. Make sure the instrument is placed horizontally. The environment where the instrument is placed should be clean, dry, ventilated, non-corrosive and avoid direct sunlight.

3) First connect the magnifying glass to the magnifying glass handle, then connect the handle to the main unit of the counter and tighten the thread to fix the magnifying glass.

4) Connect the probing pen to the probing pen interface on the host.

5) Use the standard simple screwdriver to open the battery case lid on the back of the instrument, put in 4 AAA dry battery, and then install the battery case lid.

(Note: Do not install the battery with the positive and negative poles reversed)

3. Operation Instruction

1) Power connection and power supply method

Normal power supply operation:

Please connect the power cord of the device to the power interface and start the device power supply system after connecting the external power adapter.

Backup power supply description:

When in an outdoor working environment or without external power supply conditions, the device will automatically switch to the built-in battery power supply mode to maintain normal operation.

Compound power supply mechanism:

When the backup dry battery is installed:

It is recommended to use the Type-C interface to connect the external power adapter for continuous power supply.

The built-in battery and the Type-C external power supply have intelligent parallel power supply function, and the system will automatically optimize energy distribution.

The dual power supply mode does not affect the power supply function of the Type-C interface.

(**Note:** It is recommended to use the Type-C external power supply mode in an environment with a stable main supply to extend the service life of the backup battery.)

2) When using for the first time, turn on the power switch button to enter the initial state, and the display screen will show "0000"; if it is not the first time, turn on the power ON/OFF button, and the display screen will show the number that has not been cleared from the last count. At this time, press the "RESET" button to clear it to 0 and put the instrument into working state.

3) Place in the culture dish which it to be tested, adjust the position of the magnifier.

4) Adjust the brightness of the ring light in the counting pool according to the needs of the experiment.

Steps of light brightness adjustment:

Press "Reset" button for 5 seconds. When the screen displays the letter "L--5", release the Reset button and adjust the brightness of the ring light of the counting pool. Adjust " ▲ "/" ▼ " buttons, the screen will display the brightness level "0", "1", "2", "3", "4", "5" accordingly.)

*(**Note:** There are 6 levels of brightness adjustment. When the screen displays "0", the light is off, and when the screen displays "5", the light brightness reaches the maximum value)*

5) If the working environment is poorly lit, you can turn on the magnifying glass's built-in fill light to achieve the best observation effect.

6) Count all the colonies on the bottom of the culture dish by using the probing pen. A "beep" sound should be heard each time you click on a number, indicating that the count is valid. Otherwise, it is invalid and you need to click again. Currently, the touched colonies are marked with colours, and the numbers on the display are automatically accumulated one by one.

(Note: If repeated counting or wrong counting occurs during counting, you can use "▲"/"▼" button to delete or increase the counting to reach the corrected one)

7) Use the magnifier to check carefully, to make sure that no points are missed. The

counting is now completed.

8) The number on the display screen is the number of colonies in the culture dish.

9) After recording the numbers, take out the culture dish. Press "Reset" button and the display will return to the initial state.

03 Failure Analysis and Handling

No.	Problem	Possible cause	Solution
1	Display not working	1. The battery is dead 2. The power supply is in poor contact 3. The power cord is broken	1. Replace the battery or charge it 2. Check the power supply 3. Contact the manufacturer or supplier
2	The probing pen does not work	1. The probing pen connection is bad 2. The probing pen is broken	1. Check the connection and reconnect 2. Contact the manufacturer or supplier
3	Inaccurate counting	1. The display screen is broken 2. The counting pen is broken 3. Other	Contact manufacturer or supplier
4	The counting pool light is off	1. The battery is dead 2. The power supply is not in good contact 3. The power cord is broken 4. The light is broken	1. Replace the battery or charge it 2. Check the power supply 3. Contact the manufacturer or supplier

04 Packing list

No.	Item	Unit	Qty
1	Colony Counter	unit	1
2	Power cord	pcs	1
3	Power adapter	pcs	1
4	AAA dry battery	pcs	4
5	Probing pen	pcs	2
6	Magnifier	pcs	1
7	Magnifying glass handle	pcs	1
8	Phillips screwdriver	pcs	1

Nota importante para los aparatos electrónicos vendidos en España
Instrucciones sobre la protección del medio ambiente y la eliminación de aparatos electrónicos:

Los aparatos eléctricos y electrónicos marcados con este símbolo no pueden ser eliminados en forma de residuos urbanos.

De conformidad con la Directiva 2012/19/UE, los usuarios de la Unión Europea de aparatos eléctricos y electrónicos, tienen la posibilidad de devolver sus RAEE para su eliminación al distribuidor o fabricante del equipo después de la compra de uno nuevo. La eliminación ilegal de aparatos eléctricos y electrónicos es castigada con multa administrativa.

Remarque importante pour les appareils électroniques vendus en France
Informations sur la protection du milieu environnemental et élimination des déchets électroniques :

Les appareils électriques et électroniques portant ce symbole ne peuvent pas être jetés dans les décharges.
En réponse à la règlementation, Labbox remplit ses obligations relatives à la fin de vie des équipements électriques de laboratoire qu'il met sur le marché en finançant la filière de recyclage de ecosystem dédiée aux DEEE Pro qui les reprend gratuitement (plus d'informations sur www.ecosystem.eco).
L'élimination illégale d'appareils électriques et électroniques est punie d'amende administrative.
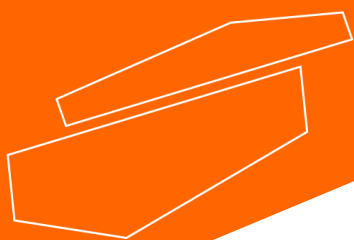
Nota importante per le apparecchiature elettroniche vendute in Italia
Istruzioni sulla protezione ambientale e sullo smaltimento dei dispositivi elettronici:

Le apparecchiature elettriche ed elettroniche contrassegnate con questo simbolo non possono essere smaltite come rifiuti urbani.
In conformità con la Direttiva 2012/19 / UE, gli utenti dell'Unione Europea di apparecchiature elettriche ed elettroniche hanno la possibilità di restituire i propri RAEE per lo smaltimento al distributore o al produttore di apparecchiature dopo averne acquistato uno nuovo. La rimozione illegale di apparecchiature elettriche ed elettroniche è punibile con una sanzione amministrativa.

www.labbox.com