



# COLONY COUNTER

*USER'S GUIDE*

DOC. No. 733R02

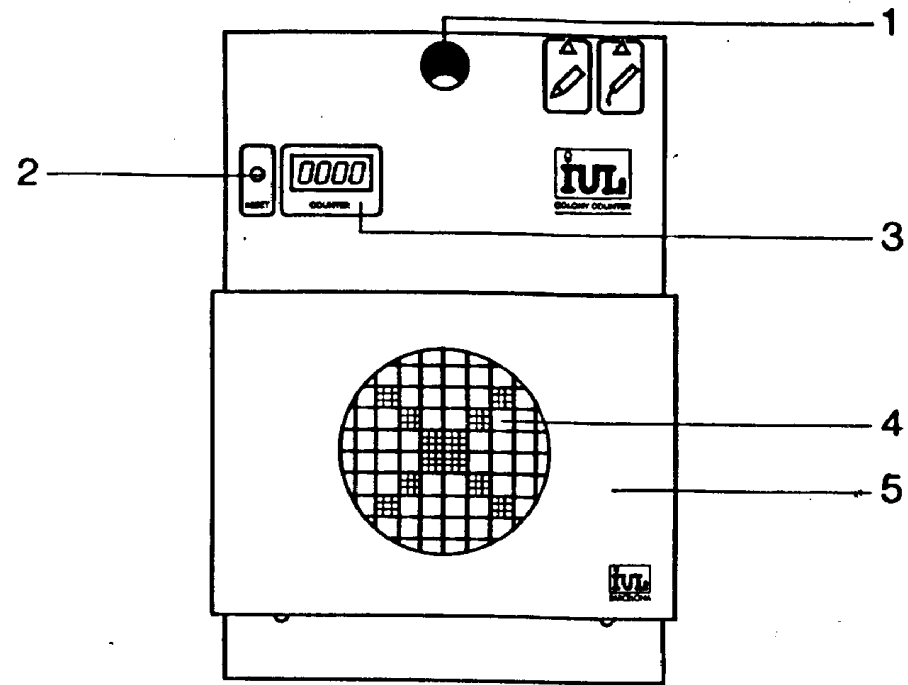


# COLONY COUNTER

# INSTRUCTION MANUAL

**Cat. No.733**  
Doc. No. 733R02

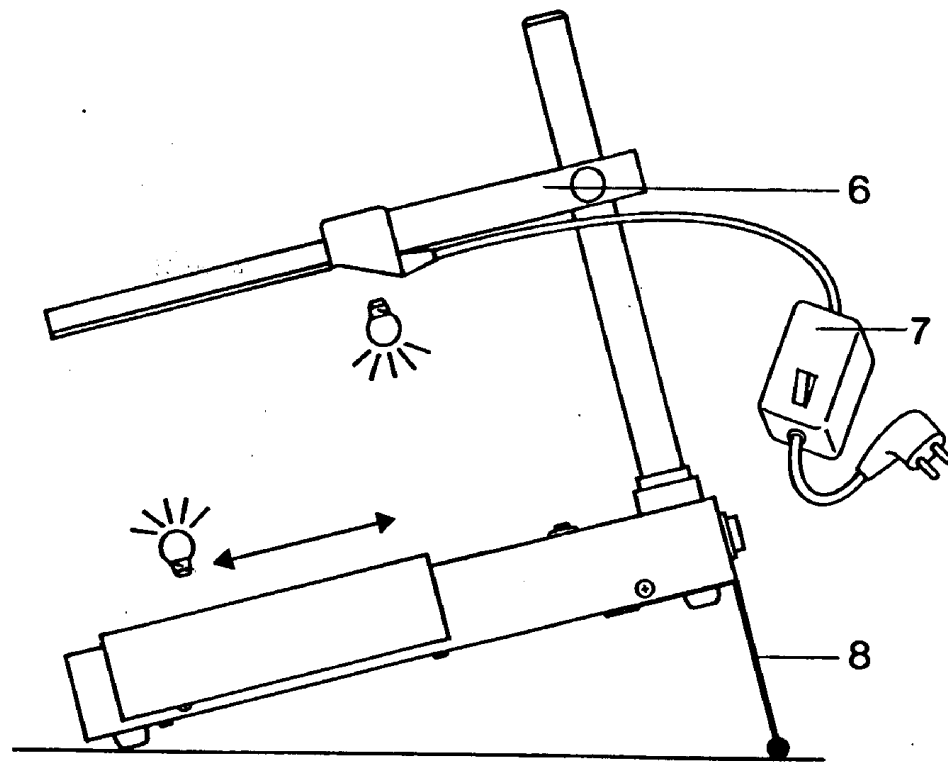




FRONT PART

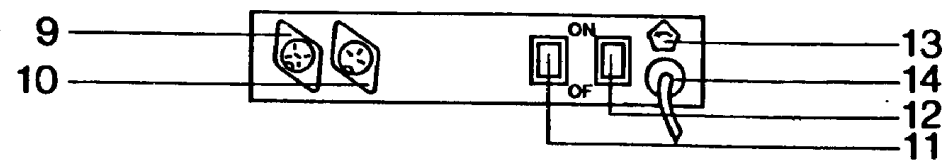
- 1. Threaded hole for holder rod
- 2. Reset push-button
- 3. Digital counter
- 4. Illuminated screen holder for reticule
- 5. Centering device

SIDE PART



- 6. Magnifying glass holder
- 7. Feeder for top light
- 8. Bracket

REAR PART



- 9. Socket for contact pointer
- 10. Socket for fiber marker
- 11. Light switch
- 12. ON/OFF switch
- 13. Fuse
- 14. Mains cable



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## USE OF THE MANUAL

All the letters which are circled; (A) (B) (C), etc. refer to the stages which must be carried out by the operator. All the numbers; (no. 1), (no. 2), (no. 3), etc. refer to the main illustration on the back cover.

## IMPORTANT

Read this little manual carefully before starting the apparatus. It will not take you very long and it will allow you to get to it more quickly and more conveniently.



# 1. INTRODUCTION

The last operation in any microbiological analysis consists of counting the bacteriological colonies which have been developed in the Petri dishes. They must contain the ideal medium for the best bacterial growth.

The microbiologist has to solve the tedious problem of counting the colonies, which, sometimes, are too small and can be masked by the specific color of the culture medium.

## **WHAT IS THE COLONY COUNTER?**

The colony counter helps the operator to perform the manual counting of the bacteriological colonies in two ways:

- By making use of a good illumination (transmitted or reflected). The image of the Petri- dishes are shown perfectly.
- Using an electronic counter which is activated with a soft touch of the pointer, without rebounds, the analyst does not have to memorize the number of colonies already counted .

# 2. TECHNICAL SPECIFICATIONS

- Power supply: 220 V, 0.2 A, 50/60 Hz.
- Counter: Four digits of 9 mm of height, up to 9999
- Magnifier: Glass, biconvex, 100 or 120 mm diameter, 4 diopters DIN 2x.
- Inputs: Pressure marker, normally open. Contact pointer.
- Dimensions: (large x deep x high)
  - WITHOUT MAGNIFIER: 200 x 300 x 120 mm.
  - WITH MAGNIFIER: 200 x 300 x 400 mm.
- Weight: 2.5 Kg. (without magnifier)

# 3. INSTALLING AND STARTING THE INSTRUMENT

The colony counter does not need special conditions in order to be installed. Its small size allows its installation anywhere in the laboratory. Only needs a mains socket near it.

The instrument will be received in perfect condition, as it has been extensively tested in the factory and its package has protected it against the worst treatments.

If the colony counter has a magnifying glass, follow the next steps:

(A) Take the bracket (no. 8) and put its unprotected edge into the rim in the rear part. Check that the gum foot groove fits perfectly with them. Put the bracket carefully flat to the rear part of the instrument.

(B) Place the magnifying glass holder rod into the bottom and thread it into the female of the bracket.

(C) Pass the magnifying glass holder through its rod and adjust the height.

(D) Connect the fiber pointer (no. 10) to the terminal.

(E) Connect the mains lead (no. 14) to its base and switch ON the instrument by means of the switch (no. 12).

(F) To use transmitted light, turn ON the correspondent switch (no.11) better light connect the feeder terminal too (no. 7).

(G) To contrast the Petri dishes media with the black screen provided, proceed as follows:

Take out the centering device (no. 5) and the protector glass.

Place the black screen, the protector glass and the Petri dishes centering device on the base of the instrument.

Switch OFF the transmitted light by means of the switch (no. 11).

(H) Push "reset" button (no. 2), and the instrument is ready to work.

**N.B. IF THE COLONY COUNTER HAS NO MAGNIFYING GLASS, FOLLOW THE OPERATIONS AFTER THE LETTER D.**

**N.B. IF THE METALLIC POINTER IS USED, CONNECT IT AT THE SOCKET, (NO. 9). IN ORDER TO OBTAIN A COUNT, THE POINTER MUST TOUCH THE MEDIA DIRECTLY.**

# 4. OPERATION AND USE THE CONTROLS

- (A) Once you have decided the type of light and screen to be used, place the Petri dish on the hole of the centering device.
  
- (B) Slide the centering device up and down until it reaches the desired position.
  
- (C) Touch the Petri dish with the marker on the point where a colony lies. Once a count is made, the instrument gives a slight acoustic signal. The intensity of this signal can be adjusted by means of the red turn button in the back side of the counter.
  
- (D) Once the counting is finished, write the number that appears on the digital display, (no. 3) , and push the "RESET " button , (no. 2). The instrument is ready to start again .

***N.B. IUL OFFERS A COMPLETE SET OF CENTERING DEVICES FOR ANY KIND OF APPLICATIONS (SEE PART 6).***

# **5. BEFORE NOTIFYING THE TECHNICAL SERVICE**

If the counter stops counting and the acoustic signal can not be heard when the edge of the marker is pushed, try to check if the upper part of the marker makes a "CLICK" when pushed .If this noise can be heard and the signal does not arrive to the counter, check the socket (no. 10). If the counting does not start again, change the body of the marker, body and connector. If the "CLICK" can not be heard, take out the ink cartridge and see if there is some dirt that will not allow it to move freely. The replacement of the upper light is easy to do but it is better for the bottom light to be changed by the official service. In order to reduce time and expenses and due to the small dimensions of the instrument, we recommend to send it to the Technical Service in your country or to:

**IUL S.A.**

Torrent de l´Estadella 22  
08030 BARCELONA - SPAIN  
Phone: +34 -932740232  
Fax: +34 - 932740144

# 6. ACCESSORIES AND OTHER RELATED INSTRUMENTS

## **STANDARD ACCESSORIES**

<u>CAT. No.</u>	<u>DESCRIPTION</u>
0609	Centering device for Petri dishes of a diameter of 90 mm .
0617	Wolffhügel reticule
0638	Dark contrast screen
0639	fiber marker spare parts
0680	Glass protector of 139x139 mm.

## **MAGNIFYING GLASSES WITH STAND**

<u>CAT. No.</u>	<u>DESCRIPTION</u>
670	High quality magnifying glass, diameter 120mm, 4 diopters , DIN 2x, with incorporated light; rack lifting stand. Directly adaptable to the Colony Counter Cat. No. 0600/0 0600/3.
0671	High quality magnifying glass diameter 120 mm, 4 diopters, DIN 2x , with incorporated light; lifting and blocking system. Directly adaptable to the Colony Counter Cat. No. 0600/0 0600/3.
0672	High quality magnifying glass, diameter 100 mm, 4 diopters , DIN 2x, with lifting and blocking system. Directly adaptable to the Colony Counter Cat. No.0600/0 0600/3.

## **ACCESSORIES AND SPARE PARTS**

<u>CAT. No.</u>	<u>DESCRIPTION</u>
0606	Centering device for Petri dishes of a diameter of 60 mm.
0608	Centering device for Petri dishes of diameter of 80 mm.
0610	Centering device for Petri dishes of a diameter of 100 mm.
0612	Centering device for Petri dishes of a diameter of 120 mm.
0613	Mixed reticule 1/16 cm <sup>2</sup>
0615	Centering device for Petri dishes of a diameter of 150 mm.
0616	Mixed reticule 1/9 cm <sup>2</sup>
0618	Inox contact points for Colony Counter

0646 Complete indelible fiber marker with spare part (Staedler, lumocolor normal point <F>, fine point <S>).

***IUL OFFERS A FULLY AUTOMATIC INSTRUMENT FOR COUNTING COLONIES IN PETRI DISHES: THE COUNTERMAT FLASH®.(ASK FOR SPECIFIC BROCHURE).***



# 7. WARRANTY CONDITIONS

## **LIMITED WARRANTY**

IUL S.A. warrants the Instrument, disposables and replacement items, to the original "Purchaser" for a period of one (1) year after date of receipt by the end user, against defects in material and workmanship. IUL S.A. agrees to correct either by repair or, at its election, by replacement, any such defect found on examination to have occurred, under normal use and service, during such one (1) year period provided IUL is promptly notified in writing upon discovery of such defect to the address of one of its workshops noted in the User's Guide.

Upon discovery of such defect, the instrument should be sent to an IUL workshop noted in this User's Guide, postage prepaid.

## **EXCLUSIONS**

IUL S.A. shall not be liable as to any defect arising from abuse of the Instrument, failure to operate and maintain the Instrument in accordance with the User's Guide supplied with the Instrument, repair, service, alteration or modification of the Instrument by any person other than the authorized service personnel of IUL, modification, change or reuse of the disposables

supplied by IUL for use in the Instruments, operation outside of the environmental specifications for the product listed in the User's Guide or accidental damage to the Instrument.

## **NO OTHER WARRANTIES**

The warranty set forth above is exclusive and no other warranty, whether written or oral, is expressed or implied. IUL and its suppliers specifically disclaim any implied warranties including merchantability and fitness for a particular purpose.

## **NO LIABILITY FOR CONSEQUENTIAL DAMAGES**

IUL or its suppliers shall not be liable as to any damage whatsoever (including without limitation, special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss) or defect arising from abuse of the Instruments, failure to operate and maintain the Instruments in accordance with the User's Guide, repair, service, alteration or modification of the Instruments by any person other than authorized service personnel of IUL, or modification, change or reuse of the disposables supplied by IUL for use in the Instruments.

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