



# HALOES-CALIPER

## USER'S GUIDE

DOC. No. 997R02



# HALOES-CALIPER

## INSTRUCTION MANUAL

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**Cat. No 997**



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## USE OF THE MANUAL

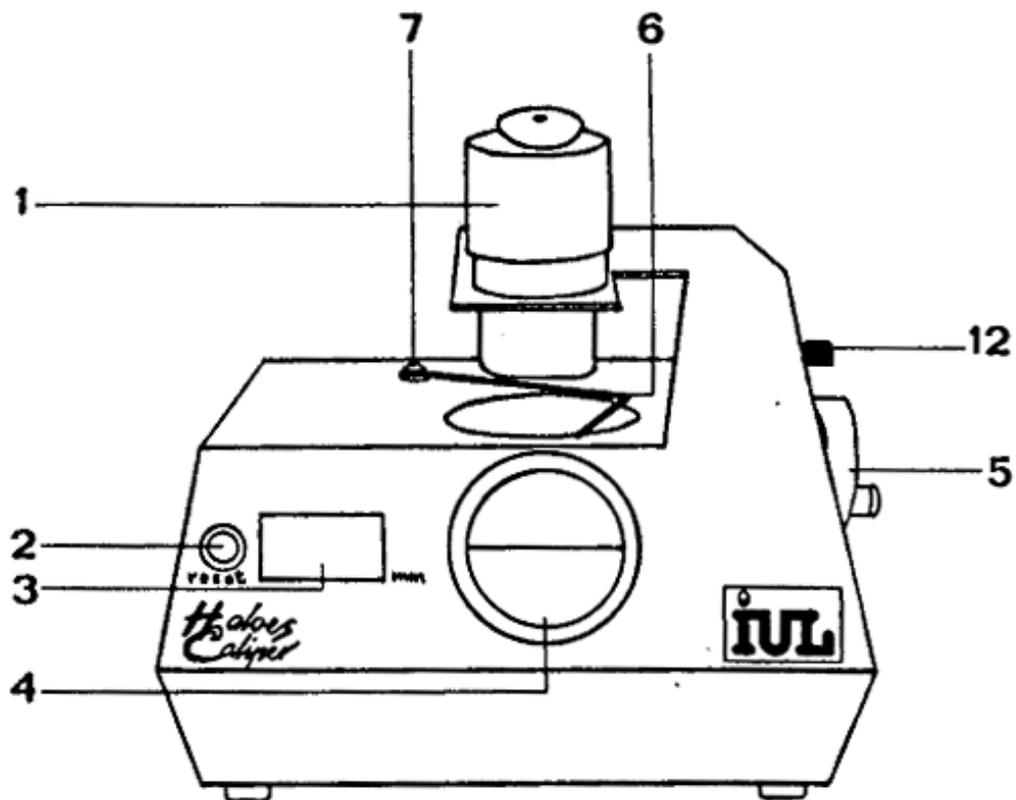
All the letters which are circled: (A), (B), (C), etc. refers to the stages which must be carried out by the operator. All the numbers: (1), (2), (3), etc. refers to the main illustration on the back cover. The numbers or letters in boxes indicates the keys that should be pressed.

## IMPORTANT

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

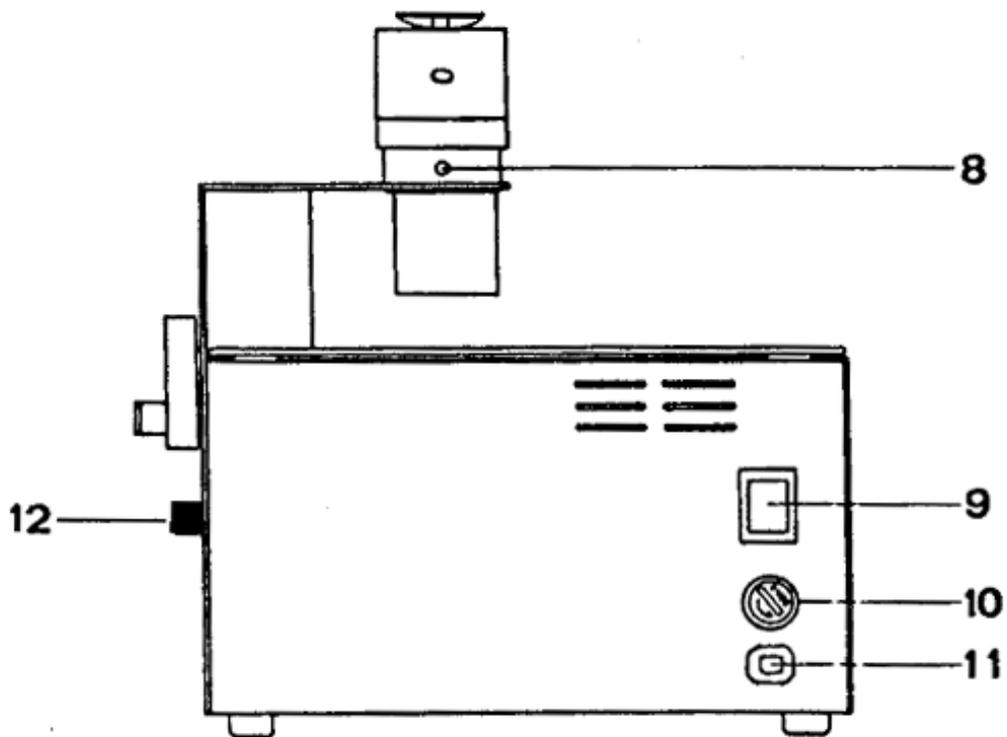
## FRONT PART

- 1 - Lamp tube
- 2 - Reset push button
- 3 - Display of length
- 4 - Screen for sampling
- 5 - Handle wheel
- 6 - Dish spring
- 7 - Spring screw



## REAR PART

- 8 - Fixing lamp screw
- 9 - Main power switch ON/OFF
- 10 - Fuse
- 11 - Cable for mains
- 12 - Light adjustment



# 1 . INTRODUCTION

The last step of the correct analysis of antibiotics activity consist in the measurement of the halo created in its inhibition zone.

## **WHAT IS THE HALOES CALIPER ?**

The IUL Haloes Caliper works as a real caliper measuring distances with a readability of .1 mm but without touching the object to be calibrated.

The operator must only center the Petri dish containing the samples in the illuminated field, rotating the handle wheel the size appears on the display. It is easy to change the sample only by angular movement of the Petri dish.

## 2. TECHNICAL SPECIFICATIONS

Range of measurement: 35 mm  
Readability: 1 mm  
Screen diameter: 55 mm  
Magnifying factor: 2.25  
Zero position: Any point  
Counting direction: Up / Down  
Maximum turns rot. wheel: 10  
Working temperature: 5°to 40°C  
Power supply:  
    Cat. 900 220/230V 50 Hz  
    Cat. 901 110/120V 50 Hz  
    Cat. 902 100 V 50 Hz  
Dimensions: 270 x 230 x270 mm  
Weight: 4 Kg

# 3. INSTALLING AND STARTING UP THE INSTRUMENT

The Haloes Caliper should be received in perfect conditions. It has been fully tested at the factory and the packaging prevents possible troubles even if it has suffered roughest treatment.

The instrument requires no special conditions for its installation. Its reduced size allow it to be located in any part of the laboratory.

Once the instrument has been placed upon the work table, plug the mains cable to the socket and plug the light cable to its base on the right hand side of the instrument. Place the lamp tube in its hole as indicated in the drawing, and fix it with the screw, (8). The light should illuminate the screen.

Check if the handle wheel cause the changing of the readout on the display. Clean the glass if it is necessary and place the type of Petri dish that you will use.

At that point the operator must decide in which place the readout should be done ( how far from the edge of the plate the spot lies).

Adjust the position and the angle of the spring with the screw, (7), in such a way that the plate remains fixed during the reading. The spring is thin enough to hold the body of the Petri dish without touching the cover.

As additional accessory for checking a standard set of disks (Cat. 919) could be supplied..

NB: The light adjustment can be done turning the potentiometer (2) Move it until the most comfortable situation has been reached.

# 4. OPERATION AND USE OF THE CONTROLS

(A) Turn the handle wheel, (5), counterclockwise, the top plate now is in the back position

.

WARNING: Never force the edges when you turn the handle wheel.

(B) Place the Petri dish touching the positioning spring in such a way that the spot to be measured just appears in the down part of the screen.

(C) Start to turn the wheel, 5, clockwise until the spot is tangent to the horizontal fine line in the central part of the screen.

(D) Push RESET button, (2), to obtain 00.0 on the display.

(E) Continue to turn the rotation wheel until the other edge of the spot is tangent to the central line of the screen.

(G) You can now proceed in the opposite way placing the next spot in the upper part of the screen and counting counterclockwise.

(H) Periodically check the adjustment by using the standard disk.

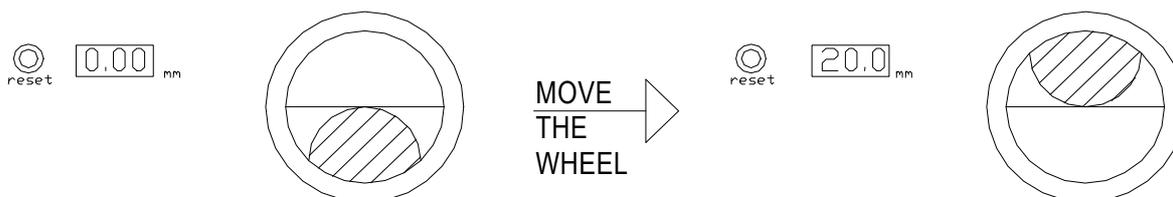


Fig. 1

Fig. 2

# 5. BEFORE NOTIFYING THE TECHNICAL SERVICE

If the Haloes Caliper does not has light with all the connections made, check the fuse, ⑩, and later if is still necessary the lamp.

To change the lamp disconnect it unscrew the tube cover and replace the old one.

All the other mechanical and electonical parts must be served by the IUL official service in your country or to:

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