Wave Digital Colorimeter

PARTS AND FUNCTIONS

Wave digital colorimeter is designed for easy and convenient operations and to deliver you accurate results if used with proper care and maintenance.

LED Display ; Readings / Functions will be displayed and also function .

FILTER Adjusting Wheel: To select the filter as per the reaun'ement. 8 filters are provided. Details of the Filters are

Display	Filter	Color
70	700	Red
61	610	Orange
58	580	Yellow
55	550	Yellow Green
52	520	Green
49	490	Blue Green
47	470	Blue
43	430	Violet

Test tube holders: To place the test tube for reading the result

Key Board: Touch buttons are provided for the following function:

➤ Mode: For selecting the reading modes
➤ CAL: To Choose standard in C1&C2 mode
➤ Buttons: For setting the standard conc value
➤ Auto Zero: For setting the instrument to Zero

DESCRIPTION

Wave digital colorimeter is designed to deliver accurate and reliable results through innovative and latest technology. The unit has a specially designed

power supply and display card along with 6.2 V 700 mAH Ni-Cad Battery pack. The unit can be operated continuously for 4 hrs with this battery backup. A beam of light is passed through the filter and the test tube containing the solution. The beam passing out from the test tube is focused to fall on a sensitive photocell and is amplified and measured electronically on display. Wave facilitates you to measure the concentration of different an analytes directly through latest technology. It can provide results in % Transmission, Absorbance and Concentrations modes.

SPECIFICATIONS

Weight	:	1500gms
Power consumption:		230 V 5 amp, 10 watts
Reading Modes	:	%T, OD, Concentration
Filter range	:	430-700 nm
Display Diode (LED)	:	3 Digit Light Emitting
Battery backup	:	6.2V, 7OOAH Ni-Cad
Test tube holder	:	7 5x 12 mm
Min Vol	:	1 ml

HOW TO OPERATE :

A: For %T and OD Modes

➤ Switch on the Wave with on / off switch
➤ Once switched on the display will show count down to 000 then shows CAL
➤ Choose the Filter required for the test
➤ Insert blank / distilled water and press **AUTO ZERO**
➤ The display shows 000 0 Now mode is active and available for selection
➤ Select the mode as per requirement by pressing the mode key
➤ Depending on the selection the LED light indicator next to the selected mode will be displayed and you will observe on the main display as below:

F or % T:----------100

F or OD:----------0.00

- Insert the test tube with test solution and read the %T or CD on the display
- Repeat the test with another sample test solution and read results

    B : for Concentration (CI & C2) Modes

- Switch on the Wave with on / off switch
- Once switched on the display will show count down to 000 then shows **CAL**
- Choose the Filter required for the test 0 Insert test tube with blank / distilled water and press Auto zero
- The display shows 000 .
- Now mode is active and available for selection.
- Select the mode to C1 or C2 by pressing the mode key
- Depending on the selection the LED light indicator next to the selected mode Will be displayed and you will observe on the main display as 000/00.00
- Insert the test tube with standard solution and pres CAL. the relevant C1 or C2 LED will start blinking
- Now UP/DOWN keys are active
- Set the value of the standard conc using the up / down keys. The display will change slowly at first and then Quickly. Eg: for 100 mg / dl STD value the display should read 100, for 50 mg / d1 standard the display should read 50 son on .....).
- Once the desired standard value is reached, press CAL button. The blinking of LED will stop, Which means the STD conc value is retained in the memory.
- Re tube containing the std and insert the test tube containing the patients sample and read the result. This is final value of the sample. 0 Repeat the test with another sample and read results.

Note :

- ✓ Different parameters can be set in C1, C2 independently and these will be retained until the parameters are reprogrammed
- ✓ Once mode is set auto zero facility in not required to press

MAINTENANCE

Wave colorimeter is designed to work with minimal maintenance. Apart from normal daily cleaning the instrument requires no or little maintenance. If all the precautions / points are understood and adopted strictly. In the unlikely vent of any major break down the unit should be returned to our authorised stockist of the area or to our office address at Hyderabad.

IMPORT POINTS

After the use , if the unit is switched off only at the mains, the instrument will still operate on battery. So in order to conserve the battery after the use , switch of the unit from the ON / OF F button.

If the battery is down the unit will stop functioning. Plug into the mains and allow charging for about 8 hrs. During he charging period the unit can function on the mains supply.

Clean the outside the test tube with tissue paper before taking reading to avoid the interferences of finger prints during reading.
Ensure no scratch marks on the test tube as these may affect the results

The Ni Cad battery will last generally for about 18 months to 24 months. If the battery is completely discharged and is not rechargeable, new betray is available at a nominal cost