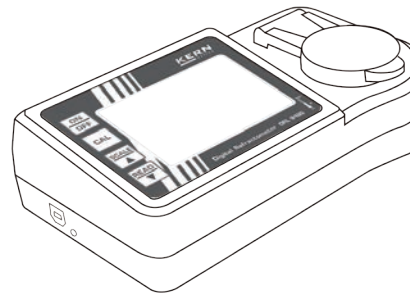




# Digital Refractometer



# Operational Manual

## Catalogue

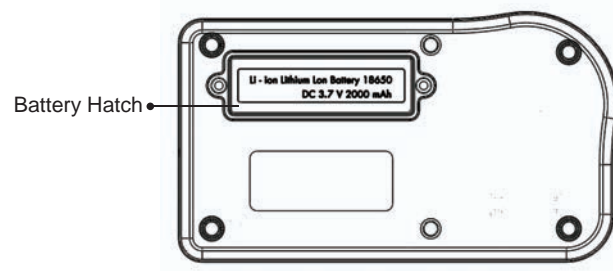
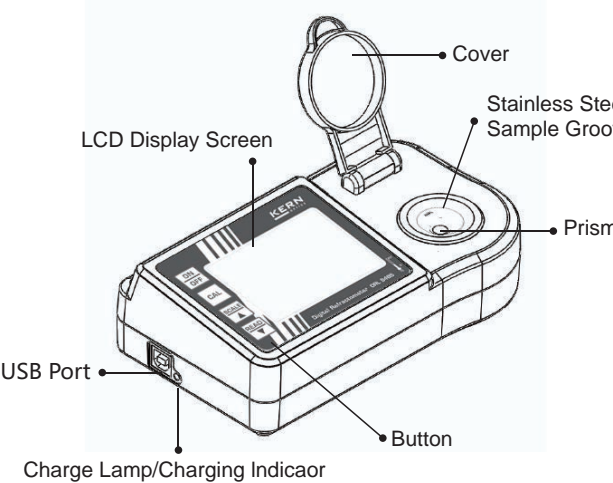
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⚠ Before operating your instrument, please read this manual properly.

⚠ This digital refractometer cannot measure any liquid that is highly corrosive to metal or glass. When measuring liquids that are corrosive to plastics or react chemically with plastics, be careful not to drop the measured liquid onto the shell. Otherwise it will corrode the shell.

## 1.Introduction

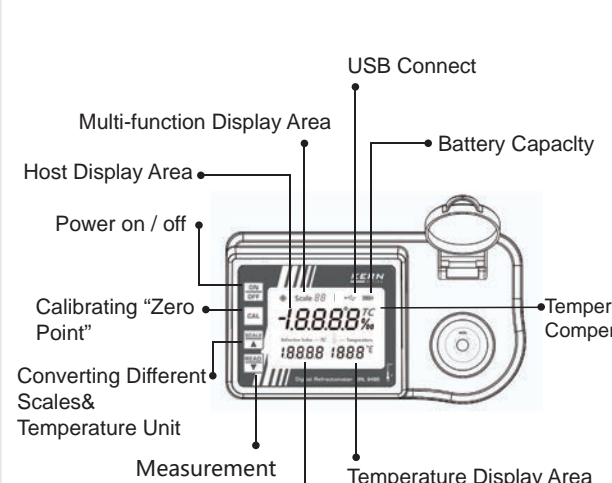
### Panel Descriptions



The Packing Accessories:  
Packaging x1 The instructions x1 Dropper x1  
Screwdriver x1 USB Line x1 Charger x1

## 2.Display and Buttons

### Display Areas and Buttons



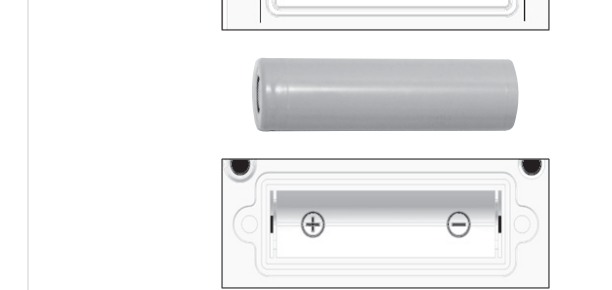
⚠ If is displayed, please charge it.

### 3.Preparations before Operating

3.1 Install the Battery  
Use the screwdriver to open the battery hatch.

## 3.2 USB Connection

### Connect to USB for charging/connecting to the computer.

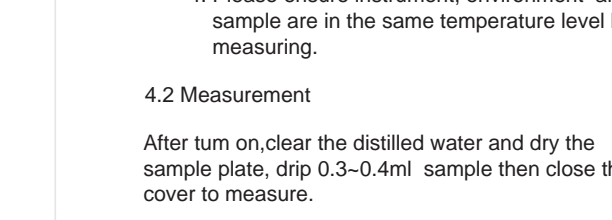
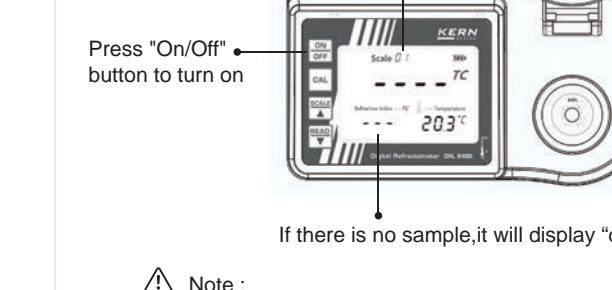


## 4.Bootng and Measurement

### 4.1 Booting

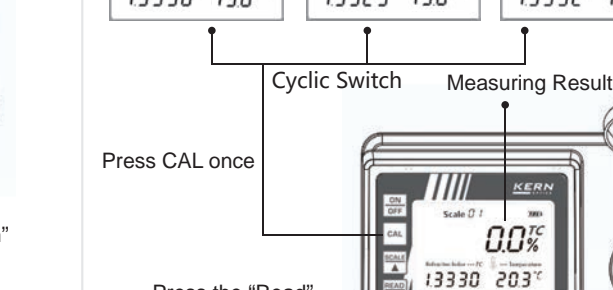
## 4.2 Measurement

### After tum on,clear the distilled water and dry the sample plate, drip 0.3~0.4ml sample then close the cover to measure.



## 5.The Calibration

### The multi-function display area would show the current scale number.



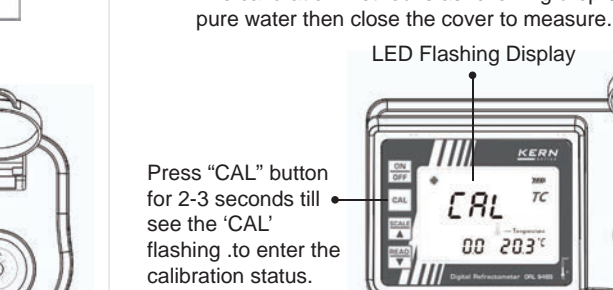
Press "On/Off" button to turn on  
If there is no sample,it will display "dash"

⚠ Note :  
1. When used outdoors,please avoid strong light so as not to affect the measurement accuracy.  
2. Before dripping into the sample liquid, please clean the sample plate and Prism with soft clean cloth or soft paper.  
3. Please keep the instrument in a stable status to measure.  
4. Please ensure instrument, environment and sample are in the same temperature level before measuring.

4.2 Measurement  
After tum on,clear the distilled water and dry the sample plate, drip 0.3~0.4ml sample then close the cover to measure.

## 5.1 Calibration

### Press CAL once



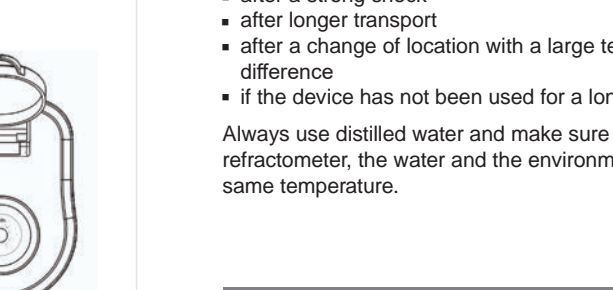
Press the "Read" one time the meter will measure one time.

Press "CAL" button once again during the 'CAL' flashing to start to calibrate. When the calibration is completed showing as following. If no any operations for 10seconds the instrument would return back to booting status.

The multifunctional area displays the number of remaining automatic measurements.For each automatic measurement, this number is reduced by 1.

## 5.2 Calibration

### Press "CAL" button for 2-3 seconds till see the 'CAL' flashing .to enter the calibration status.



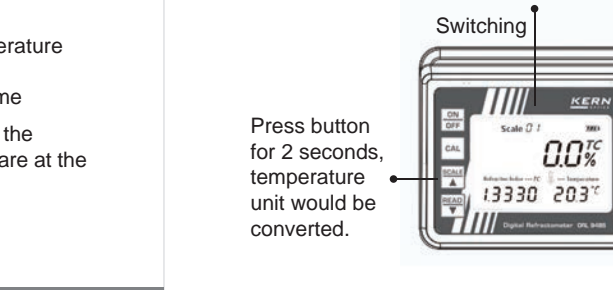
Press "CAL" button once again during the 'CAL' flashing to start to calibrate. When the calibration is completed showing as following. If no any operations for 10seconds the instrument would return back to booting status.

If fail to complete the calibration, multi-function display area would show an error code.

Display error code A03,indicating error of sensor measurement.See the appendix for other error codes .

## 6.Scales converting and temperature systems converting

### 6.1 Scales Converting



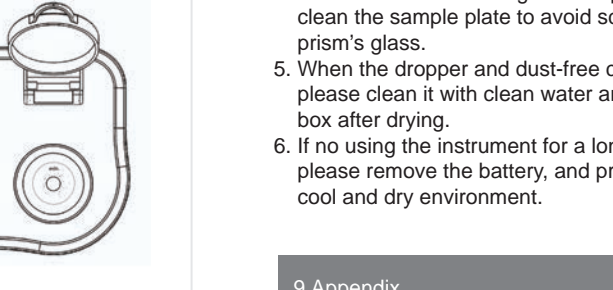
Current Scale Number

Press 'Scale'once to convert the scales and the values.

6.2 Temperature System Converting

## 6.3 Temperature System Converting

### If exceed the temperature limitations, the signs "HHH" or "LLL" would show.



7. Turn Off

1. After turn on if without any operations for 3 minutes, the instrument would be automatically turned off.  
2. Press "on/ off " button for 2-3 seconds, the instrument would be turned off.

## 8.Maintenance and Preservation

1. Please clean and wash the sample plate with distilled water and dry it with soft cleaning cloth or paper towel after finishing the measuring one kind sample.  
2. Never left the remains and residuals of samples in the sample plate for long time.

## 9.Appendix

### Performance:

	Range	Accuracy	Resolution
Brix	0.0%~94.0%	±0.1%	0.1%
R.I.	1.3330~1.5290	±0.0002	0.0001
Temperature	0.0~40.0°C	±0.3°C	0.1°C
	32.0~104.0°F	±0.6°F	0.1°F
Dimension	180*100*55mm		
Net weight	365g (excluding battery)		

### The Error Codes Table:

Code	Instructions
A01	Beyond the scope of calibration temperature. (1.0°C~40.0°C)
A02	During calibration, no solution or non-pure water
A03	This instrument has a hardware failure.

## Description of Scales Numbering:

